



Full Power Mode

GSM850 Ant 0	Burst Average Power (dBm)			Tune-up Limit	Frame-Average Power (dBm)			Tune-up Limit
	TX Channel	128	189		251	128	189	
Frequency (MHz)	824.2	836.4	848.8	(dBm)	824.2	836.4	848.8	(dBm)
GSM 1 Tx slot	32.42	32.10	32.28	33.50	23.42	23.10	23.28	24.50
GPRS 1 Tx slot	32.41	32.08	32.25	33.50	23.41	23.08	23.25	24.50
GPRS 2 Tx slots	28.36	28.47	28.56	31.00	23.33	23.47	23.56	25.00
GPRS 3 Tx slots	28.61	28.51	28.59	29.50	24.35	24.25	24.73	25.24
GPRS 4 Tx slots	26.75	26.72	27.05	28.00	23.75	23.72	24.05	25.00
EDGE 1 Tx slot	26.15	26.70	26.09	27.50	17.15	16.70	17.09	18.50
EDGE 2 Tx slots	25.02	24.54	25.02	26.50	18.02	18.54	19.02	20.50
EDGE 3 Tx slots	23.71	23.22	23.46	24.50	19.45	18.96	19.20	20.24
EDGE 4 Tx slots	21.77	21.45	21.36	22.50	18.77	18.45	18.36	19.50

GSM1900 Ant 0	Burst Average Power (dBm)			Tune-up Limit	Frame-Average Power (dBm)			Tune-up Limit
	TX Channel	512	810		512	810	810	
Frequency (MHz)	1850.2	1880	1909.8	(dBm)	1850.2	1880	1909.8	(dBm)
GSM 1 Tx slot	28.68	28.75	30.00	31.50	20.68	20.75	21.00	22.50
GPRS 1 Tx slot	28.66	28.74	29.99	31.50	20.66	20.74	20.99	22.50
GPRS 2 Tx slots	25.76	25.83	26.75	28.50	20.76	20.83	20.75	22.50
GPRS 3 Tx slots	25.11	25.32	25.31	27.00	20.85	21.06	21.05	22.74
GPRS 4 Tx slots	23.71	24.03	23.84	25.50	20.71	21.03	20.84	22.50
EDGE 1 Tx slot	24.76	25.07	25.05	26.50	15.76	16.07	16.05	17.50
EDGE 2 Tx slots	23.72	23.95	23.36	23.50	17.72	17.95	17.36	19.50
EDGE 3 Tx slots	22.26	22.65	22.45	24.00	18.00	18.39	18.19	19.74
EDGE 4 Tx slots	20.54	20.89	20.78	22.50	17.54	17.89	17.78	19.50

Band	TX Channel	WCDMA II Ant 0			Tune-up Limit	WCDMA IV Ant 0			Tune-up Limit	WCDMA V Ant 0			Tune-up Limit
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Frequency (MHz)	9662	9800	9938	(dBm)	1557	1638	1738	(dBm)	4357	4407	4458	(dBm)	
3GPP Rel 99	AMR 12.2Kbps	23.25	23.62	23.38	24.00	23.25	23.60	23.66	24.00	23.03	23.07	22.89	24.00
3GPP Rel 99	RMC 12.2Kbps	23.27	23.64	23.41	24.00	23.27	23.82	23.67	24.00	23.05	23.08	22.91	24.00
3GPP Rel 6	HSDPA Subtest-1	22.38	22.75	22.45	23.00	22.34	22.88	22.72	23.00	22.10	22.19	22.00	23.00
3GPP Rel 6	HSDPA Subtest-2	22.36	22.72	22.45	23.00	22.31	22.93	22.70	23.00	22.10	22.16	21.98	23.00
3GPP Rel 6	HSDPA Subtest-3	21.88	22.23	21.95	22.50	21.85	22.41	22.18	22.50	21.62	21.65	21.60	22.50
3GPP Rel 6	HSDPA Subtest-4	21.88	22.24	21.98	22.50	21.85	22.34	22.15	22.50	21.66	21.67	21.62	22.50
3GPP Rel 6	DC-HSDPA Subtest-1	22.11	22.53	22.22	23.00	22.11	22.65	22.44	23.00	21.85	21.96	21.80	23.00
3GPP Rel 6	DC-HSDPA Subtest-2	22.10	22.50	22.16	23.00	22.11	22.70	22.46	23.00	21.81	21.98	21.70	23.00
3GPP Rel 6	DC-HSDPA Subtest-3	21.68	21.95	21.67	22.50	21.64	22.20	21.91	22.50	21.42	21.44	21.37	22.50
3GPP Rel 6	DC-HSDPA Subtest-4	21.64	21.98	21.69	22.50	21.64	22.08	21.94	22.50	21.40	21.46	21.40	22.50
3GPP Rel 6	HSUPA Subtest-1	22.44	22.75	22.55	23.00	22.78	22.86	22.69	23.00	22.15	22.16	22.00	23.00
3GPP Rel 6	HSUPA Subtest-2	20.42	20.78	20.48	21.00	20.79	20.87	20.71	21.00	20.15	20.16	20.01	21.00
3GPP Rel 6	HSUPA Subtest-3	21.38	21.71	21.47	22.00	21.63	21.91	21.75	22.00	21.03	21.05	21.00	22.00
3GPP Rel 6	HSUPA Subtest-4	20.44	20.75	20.50	21.00	20.79	20.89	20.68	21.00	20.10	20.05	20.00	21.00
3GPP Rel 6	HSUPA Subtest-5	22.40	22.80	22.50	23.00	22.80	22.90	22.70	23.00	22.10	22.20	22.00	23.00

Band	TX Channel	WCDMA II Ant 1			Tune-up Limit	WCDMA IV Ant 1			Tune-up Limit	WCDMA V Ant 1			Tune-up Limit
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Frequency (MHz)	9662	9800	9938	(dBm)	1557	1638	1738	(dBm)	4357	4407	4458	(dBm)	
3GPP Rel 99	AMR 12.2Kbps	22.91	23.19	22.75	24.00	22.62	23.11	22.73	24.00	23.13	23.37	23.24	24.00
3GPP Rel 99	RMC 12.2Kbps	22.94	23.20	22.78	24.00	22.64	23.14	22.74	24.00	23.19	23.41	23.25	24.00
3GPP Rel 6	HSDPA Subtest-1	21.94	22.16	21.72	23.00	21.90	22.11	21.68	23.00	22.22	22.35	22.24	23.00
3GPP Rel 6	HSDPA Subtest-2	21.93	22.13	21.73	23.00	21.91	22.10	21.71	23.00	22.24	22.40	22.23	23.00
3GPP Rel 6	HSDPA Subtest-3	21.72	21.68	21.78	22.50	21.41	21.58	21.26	22.50	21.41	21.52	21.77	22.50
3GPP Rel 6	HSDPA Subtest-4	21.70	21.68	21.70	22.50	21.37	21.55	21.18	22.50	21.72	21.88	21.73	22.50
3GPP Rel 6	DC-HSDPA Subtest-1	21.67	21.95	21.50	23.00	21.61	21.82	21.43	23.00	22.02	22.09	21.95	23.00
3GPP Rel 6	DC-HSDPA Subtest-2	21.70	21.88	21.50	23.00	21.63	21.85	21.43	23.00	21.97	22.15	21.97	23.00
3GPP Rel 6	DC-HSDPA Subtest-3	21.44	21.49	21.52	22.50	21.20	21.32	21.00	22.50	21.40	21.67	21.48	22.50
3GPP Rel 6	DC-HSDPA Subtest-4	21.46	21.43	21.47	22.50	21.09	21.34	20.90	22.50	21.44	21.68	21.44	22.50
3GPP Rel 6	HSUPA Subtest-1	21.92	22.19	21.72	23.00	21.89	22.09	21.69	23.00	22.22	22.36	22.29	23.00
3GPP Rel 6	HSUPA Subtest-2	19.95	20.17	19.77	21.00	19.89	20.08	19.69	21.00	20.25	20.35	20.22	21.00
3GPP Rel 6	HSUPA Subtest-3	20.92	21.17	20.75	22.00	20.93	21.12	20.74	22.00	21.29	21.38	21.24	22.00
3GPP Rel 6	HSUPA Subtest-4	19.96	20.18	19.69	21.00	19.92	20.12	19.71	21.00	20.22	20.38	20.25	21.00
3GPP Rel 6	HSUPA Subtest-5	21.90	22.20	21.80	23.00	21.30	22.10	21.70	23.00	22.20	22.40	22.20	23.00



Band 2 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
20	QPSK	1	0	23.10	23.11	23.18	24	0
20	QPSK	1	49	23.10	23.20	23.11		
20	QPSK	50	0	23.09	23.17	23.04	24	0
20	QPSK	50	24	23.09	23.16	23.01		
20	QPSK	100	0	23.09	23.07	23.02	24	0
20	QPSK	100	0	23.09	23.09	23.15		
20	16QAM	1	49	23.00	23.17	23.09	24	0
20	16QAM	1	99	23.01	23.14	23.16		
20	16QAM	36	0	22.45	22.51	22.58	23.5	0.5
20	16QAM	50	24	22.46	22.67	22.56		
20	16QAM	100	0	22.48	22.56	22.55	23.5	0.5
20	16QAM	100	0	22.71	22.61	22.50		
20	64QAM	1	49	22.50	22.62	22.76	23.5	0.5
20	64QAM	1	99	22.79	22.69	22.54		
20	64QAM	36	0	21.47	21.52	21.53	22.5	1.5
20	64QAM	50	24	21.53	21.56	21.61		
20	64QAM	100	0	21.46	21.62	21.49	20.5	3.5
20	64QAM	100	0	21.55	21.62	21.58		
20	256QAM	1	0	19.43	19.45	19.41	20.5	3.5
20	256QAM	1	49	19.39	19.54	19.51		
20	256QAM	1	99	19.34	19.37	19.37	20.5	3.5
20	256QAM	1	0	19.42	19.45	19.46		
20	256QAM	36	0	19.48	19.46	19.48	20.5	3.5
20	256QAM	50	24	19.48	19.53	19.48		
20	256QAM	100	0	19.39	19.43	19.44	20.5	3.5
20	256QAM	100	0	19.47	19.43	19.44		
Channel								
Frequency (MHz)								
15	QPSK	1	0	23.06	23.15	23.15	24	0
15	QPSK	1	37	23.01	23.10	23.07		
15	QPSK	36	0	22.98	22.96	22.96	24	0
15	QPSK	36	0	23.00	23.14	22.98		
15	QPSK	36	20	22.98	23.05	22.94	24	0
15	QPSK	36	20	22.98	23.05	22.93		
15	QPSK	75	0	22.98	23.03	22.91	24	0
15	QPSK	75	0	22.99	23.02	23.08		
15	16QAM	1	37	22.92	23.11	23.02	24	0
15	16QAM	1	49	22.95	23.06	23.06		
15	16QAM	36	0	22.38	22.46	22.54	23.5	0.5
15	16QAM	36	20	22.41	22.56	22.46		
15	16QAM	36	39	22.39	22.52	22.42	23.5	0.5
15	16QAM	75	0	22.39	22.52	22.52		
15	64QAM	1	0	21.49	21.49	21.49	23.5	0.5
15	64QAM	1	37	22.38	22.53	22.64		
15	64QAM	1	74	22.72	22.59	22.42	22.5	1.5
15	64QAM	36	0	21.49	21.41	21.46		
15	64QAM	36	20	21.51	21.55	21.54	22.5	1.5
15	64QAM	36	20	21.51	21.54	21.51		
15	256QAM	1	0	19.40	19.40	19.39	20.5	3.5
15	256QAM	1	37	19.40	19.52	19.53		
15	256QAM	1	74	19.29	19.27	19.28	20.5	3.5
15	256QAM	1	0	19.40	19.40	19.41		
15	256QAM	36	20	19.40	19.43	19.39	20.5	3.5
15	256QAM	36	39	19.42	19.51	19.39		
15	256QAM	75	0	19.31	19.40	19.32	20.5	3.5
15	256QAM	75	0	19.40	19.40	19.32		
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.05	23.16	23.09	24	0
10	QPSK	1	25	22.98	23.18	23.09		
10	QPSK	25	0	22.99	22.91	22.91	24	0
10	QPSK	25	0	22.98	23.15	22.96		
10	QPSK	25	12	22.98	23.03	22.89	24	0
10	QPSK	25	12	22.98	23.03	22.89		
10	QPSK	50	0	22.91	23.02	22.95	24	0
10	QPSK	50	0	22.99	23.03	23.05		
10	16QAM	1	25	22.95	23.10	23.02	24	0
10	16QAM	1	49	22.98	23.08	23.07		
10	16QAM	25	0	22.38	22.42	22.48	23.5	0.5
10	16QAM	25	12	22.38	22.61	22.50		
10	16QAM	25	12	22.41	22.54	22.50	23.5	0.5
10	16QAM	50	0	22.38	22.44	22.50		
10	64QAM	1	0	21.49	21.49	21.49	23.5	0.5
10	64QAM	1	25	22.38	22.38	22.65		
10	64QAM	1	49	22.73	22.52	22.52	22.5	1.5
10	64QAM	25	12	21.39	21.42	21.47		
10	64QAM	25	12	21.47	21.60	21.43	22.5	1.5
10	64QAM	25	12	21.48	21.48	21.37		
10	64QAM	50	0	21.43	21.56	21.52	20.5	3.5
10	256QAM	1	0	19.34	19.38	19.39		
10	256QAM	1	25	19.31	19.52	19.59	20.5	3.5
10	256QAM	1	49	19.29	19.30	19.30		
10	256QAM	1	0	19.36	19.36	19.44	20.5	3.5
10	256QAM	25	12	19.42	19.41	19.46		
10	256QAM	25	25	19.40	19.47	19.46	20.5	3.5
10	256QAM	50	0	19.29	19.40	19.32		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.02	23.10	23.15	24	0
5	QPSK	1	12	23.02	23.09	23.05		
5	QPSK	12	0	22.99	22.91	22.92	24	0
5	QPSK	12	0	23.01	23.07	22.97		
5	QPSK	12	13	22.94	23.05	22.95	24	0
5	QPSK	12	13	22.94	23.06	22.85		
5	QPSK	25	0	22.95	23.09	23.02	24	0
5	QPSK	25	0	23.00	23.09	23.04		
5	16QAM	1	12	22.93	23.15	23.02	24	0
5	16QAM	1	14	22.96	23.04	23.14		
5	16QAM	12	0	22.29	22.45	22.55	23.5	0.5
5	16QAM	12	7	22.29	22.64	22.52		
5	16QAM	13	7	22.41	22.57	22.42	23.5	0.5
5	16QAM	25	0	22.40	22.47	22.45		
5	64QAM	1	0	21.49	21.49	21.49	23.5	0.5
5	64QAM	1	12	22.35	22.30	22.70		
5	64QAM	1	24	22.70	22.65	22.49	22.5	1.5
5	64QAM	12	7	21.49	21.40	21.47		
5	64QAM	12	7	21.48	21.52	21.42	22.5	1.5
5	64QAM	12	7	21.49	21.52	21.42		
5	64QAM	25	0	21.48	21.50	21.45	20.5	3.5
5	256QAM	1	0	19.39	19.37	19.35		
5	256QAM	1	12	19.36	19.54	19.50	20.5	3.5
5	256QAM	1	24	19.28	19.32	19.31		
5	256QAM	1	0	19.33	19.35	19.35	20.5	3.5
5	256QAM	12	7	19.40	19.36	19.46		
5	256QAM	12	13	19.37	19.41	19.44	20.5	3.5
5	256QAM	25	0	19.27	19.39	19.32		
Channel								
Frequency (MHz)								
3	QPSK	1	0	23.09	23.18	23.07	24	0
3	QPSK	1	8	23.08	23.12	23.02		
3	QPSK	8	0	22.99	23.00	22.97	24	0
3	QPSK	8	0	22.99	23.06	23.00		
3	QPSK	8	4	22.91	23.13	22.93	24	0
3	QPSK	8	7	22.91	23.05	22.89		
3	QPSK	15	0	22.96	23.05	23.07	24	0
3	QPSK	15	0	22.98	23.03	23.09		
3	16QAM	1	8	22.95	23.06	22.90	24	0
3	16QAM	1	14	22.98	23.12	23.05		
3	16QAM	8	0	22.30	22.41	22.47	23.5	0.5
3	16QAM	8	4	22.37	22.58	22.47		
3	16QAM	8	7	22.33	22.53	22.43	23.5	0.5
3	16QAM	15	0	22.45	22.46	22.45		
3	64QAM	1	0	22.01	22.25	22.48	23.5	0.5
3	64QAM	1	8	22.30	22.38	22.72		
3	64QAM	1	14	22.85	22.49	22.52	22.5	1.5
3	64QAM	8	0	21.49	21.42	21.51		
3	64QAM	8	4	21.44	21.59	21.58	22.5	1.5
3	64QAM	8	7	21.48	21.53	21.47		
3	64QAM	15	0	21.50	21.51	21.48	22.5	1.5
3	256QAM	1	0	19.38	19.42	19.34		
3	256QAM	1	8	19.34	19.54	19.52	20.5	3.5
3	256QAM	1	14	19.31	19.35	19.29		
3	256QAM	8	0	19.33	19.40	19.35	20.5	3.5
3	256QAM	8	4	19.47	19.38	19.45		
3	256QAM	15	7	19.35	19.43	19.44	20.5	3.5
3	256QAM	15	7	19.33	19.33	19.33		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	23.09	23.18	23.06	24	0
1.4	QPSK	1	3	22.99	23.10	23.04		
1.4	QPSK	1	14	22.96	22.90	22.92	24	0
1.4								



Band 4 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				20050	20175	20300		
Frequency (MHz)				17.2	17.5	17.8		
20	QPSK	1	0	23.35	23.55	23.75	24	0
20	QPSK	1	49	23.45	23.65	23.85		
20	QPSK	1	99	23.55	23.75	23.95		
20	QPSK	50	0	23.32	23.52	23.72		
20	QPSK	50	24	23.44	23.64	23.84		
20	QPSK	50	49	23.51	23.71	23.91		
20	QPSK	100	0	23.41	23.61	23.81		
20	16QAM	1	0	23.48	23.68	23.88		
20	16QAM	1	49	23.49	23.69	23.89		
20	16QAM	1	99	23.51	23.71	23.91		
20	16QAM	50	0	22.92	23.12	23.32		
20	16QAM	50	24	22.79	22.99	23.19		
20	16QAM	50	49	22.82	23.02	23.22		
20	16QAM	100	0	22.58	22.78	22.98		
20	16QAM	1	0	22.51	22.71	22.91		
20	16QAM	1	49	22.52	22.72	22.92		
20	16QAM	1	99	22.51	22.71	22.91		
20	16QAM	50	0	21.54	21.74	21.94		
20	16QAM	50	24	21.52	21.72	21.92		
20	16QAM	50	49	21.79	21.99	22.19		
20	16QAM	100	0	21.73	21.93	22.13		
20	256QAM	1	0	19.66	19.76	19.73		
20	256QAM	1	49	19.85	19.95	19.87		
20	256QAM	1	99	19.89	19.95	19.92		
20	256QAM	50	0	19.70	19.80	19.71		
20	256QAM	50	24	19.75	19.87	19.76		
20	256QAM	50	49	19.89	19.91	19.85		
20	256QAM	100	0	19.74	19.85	19.75		
Channel				20025	20175	20325		
Frequency (MHz)				17.2	17.5	17.8		
15	QPSK	1	0	23.43	23.63	23.84	24	0
15	QPSK	1	37	23.41	23.61	23.81		
15	QPSK	1	74	23.38	23.58	23.78		
15	QPSK	36	0	23.47	23.67	23.87		
15	QPSK	36	20	23.39	23.59	23.79		
15	QPSK	36	39	23.49	23.69	23.89		
15	QPSK	75	0	23.32	23.54	23.73		
15	16QAM	1	0	23.39	23.69	23.99		
15	16QAM	1	37	23.40	23.69	23.98		
15	16QAM	1	74	23.41	23.70	24.00		
15	16QAM	36	0	22.54	22.80	23.07		
15	16QAM	36	20	22.28	22.58	22.89		
15	16QAM	36	39	22.82	23.12	23.43		
15	16QAM	75	0	22.54	22.87	23.20		
15	16QAM	1	0	22.49	22.82	23.15		
15	16QAM	1	37	22.47	22.80	23.13		
15	16QAM	1	74	22.87	23.20	23.53		
15	16QAM	36	0	21.49	21.73	21.98		
15	16QAM	36	20	21.76	21.89	22.04		
15	16QAM	36	39	21.80	21.93	22.07		
15	16QAM	75	0	21.53	21.85	22.17		
15	256QAM	1	0	19.59	19.66	19.67		
15	256QAM	1	37	19.80	19.81	19.81		
15	256QAM	1	74	19.85	19.87	19.87		
15	256QAM	36	0	19.70	19.80	19.80		
15	256QAM	36	20	19.72	19.82	19.80		
15	256QAM	36	39	19.77	19.83	19.80		
15	256QAM	75	0	19.63	19.81	19.89		
Channel				20000	20175	20350		
Frequency (MHz)				17.2	17.5	17.8		
10	QPSK	1	0	23.47	23.67	23.87	24	0
10	QPSK	1	25	23.37	23.57	23.77		
10	QPSK	1	49	23.37	23.57	23.77		
10	QPSK	25	0	23.50	23.61	23.73		
10	QPSK	25	12	23.41	23.52	23.63		
10	QPSK	25	25	23.48	23.57	23.66		
10	QPSK	50	0	23.38	23.58	23.78		
10	16QAM	1	0	23.44	23.67	23.90		
10	16QAM	1	25	23.41	23.69	23.99		
10	16QAM	1	49	23.49	23.77	24.05		
10	16QAM	25	0	22.54	22.81	23.07		
10	16QAM	25	12	22.62	22.87	23.11		
10	16QAM	25	25	22.73	22.92	23.11		
10	16QAM	50	0	22.58	22.91	23.24		
10	16QAM	1	0	22.47	22.80	23.13		
10	16QAM	1	25	22.45	22.78	23.11		
10	16QAM	1	49	22.87	23.20	23.53		
10	16QAM	25	0	21.43	21.72	22.01		
10	16QAM	25	12	21.71	21.96	22.21		
10	16QAM	25	25	21.80	22.05	22.30		
10	16QAM	50	0	21.70	21.97	22.24		
10	256QAM	1	0	19.62	19.67	19.70		
10	256QAM	1	25	19.80	19.89	19.80		
10	256QAM	1	49	19.80	19.89	19.84		
10	256QAM	25	0	19.70	19.76	19.76		
10	256QAM	25	12	19.71	19.78	19.70		
10	256QAM	25	25	19.74	19.84	19.81		
10	256QAM	50	0	19.64	19.76	19.66		
Channel				19975	20175	20375		
Frequency (MHz)				17.2	17.5	17.8		
5	QPSK	1	0	23.50	23.60	23.70	24	0
5	QPSK	1	12	23.34	23.59	23.53		
5	QPSK	1	24	23.34	23.56	23.29		
5	QPSK	12	0	23.47	23.59	23.57		
5	QPSK	12	7	23.38	23.64	23.57		
5	QPSK	12	13	23.41	23.59	23.56		
5	QPSK	25	0	23.35	23.57	23.59		
5	16QAM	1	0	23.39	23.63	23.87		
5	16QAM	1	12	23.40	23.63	23.87		
5	16QAM	1	24	23.43	23.67	23.91		
5	16QAM	12	0	22.50	22.81	23.11		
5	16QAM	12	7	22.61	22.85	23.09		
5	16QAM	12	13	22.75	22.88	23.07		
5	16QAM	25	0	22.54	22.89	23.24		
5	16QAM	1	0	22.43	22.80	23.17		
5	16QAM	1	12	22.43	22.80	23.17		
5	16QAM	1	24	22.86	23.27	23.68		
5	16QAM	12	0	21.48	21.73	21.98		
5	16QAM	12	7	21.74	21.94	22.14		
5	16QAM	12	13	21.83	22.02	22.21		
5	16QAM	25	0	21.70	21.87	22.05		
5	256QAM	1	0	19.56	19.73	19.64		
5	256QAM	1	12	19.70	19.87	19.79		
5	256QAM	1	24	19.80	19.86	19.85		
5	256QAM	12	0	19.67	19.73	19.81		
5	256QAM	12	7	19.75	19.77	19.69		
5	256QAM	12	13	19.74	19.84	19.82		
5	256QAM	25	0	19.61	19.80	19.75		
Channel				19950	20175	20390		
Frequency (MHz)				17.2	17.5	17.8		
3	QPSK	1	0	23.46	23.61	23.51	24	0
3	QPSK	1	8	23.35	23.53	23.49		
3	QPSK	1	16	23.35	23.57	23.39		
3	QPSK	8	0	23.44	23.57	23.53		
3	QPSK	8	4	23.35	23.53	23.48		
3	QPSK	8	7	23.46	23.54	23.45		
3	QPSK	15	0	23.38	23.61	23.53		
3	16QAM	1	0	23.40	23.69	23.98		
3	16QAM	1	8	23.40	23.63	23.86		
3	16QAM	1	14	23.43	23.66	23.90		
3	16QAM	8	0	22.50	22.86	23.22		
3	16QAM	8	4	22.58	22.82	23.06		
3	16QAM	8	7	22.75	22.88	23.07		
3	16QAM	15	0	22.62	22.86	23.10		
3	16QAM	1	0	22.43	22.80	23.17		
3	16QAM	1	8	22.51	22.89	23.24		
3	16QAM	1	16	22.80	23.29	23.69		
3	16QAM	8	0	21.42	21.73	22.04		
3	16QAM	8	4	21.79	21.89	22.04		
3	16QAM	8	7	21.83	21.93	22.04		
3	16QAM	15	0	21.68	21.95	22.24		
3	256QAM	1	0	19.57	19.69	19.68		
3	256QAM	1	8	19.80	19.87	19.85		
3	256QAM	1	14	19.79	19.89	19.80		
3	256QAM	8	0	19.68	19.76	19.80		
3	256QAM	8	4	19.68	19.83	19.74		
3	256QAM	8	7	19.70	19.86	19.76		
3	256QAM	15	0	19.71	19.79	19.69		
Channel				19925	20175	20395		
Frequency (MHz)				17.2	17.5	17.8		
1.4	QPSK	1	0	23.53	23.58	23.49	24	0
1.4	QPSK	1	3	23.37	23.58	23.31		
1.4	QPSK	1	6	23.40	23.60	23.50		
1.4	QPSK	3	0	23.34	23.52	23.53		
1.4	QPSK	3	3	23.39	23.52	23.36		
1.4	QPSK	6	0	23.30	23.47	23.57		
1.4	16QAM	1	0	23.35	23.63	23.91		
1.4	16QAM	1	3	23.38	23.67	23.94		
1.4	16QAM	1	6	23.45	23.68	23.97		
1.4	16QAM	3	0	22.52	22.82	23.14		
1.4	16QAM	3	1	22.63	22.94	23.24		
1.4	16QAM	3	3	22.71	22.97	23.23		
1.4	16QAM	6	0	22.57	22.93	23.29		
1.4	16QAM	1	0	22.43	22.80	23.17		
1.4	16QAM	1	3	22.42	22.85	23.20		
1.4	16QAM	1	6	22.87	23.34	23.84		
1.4	16QAM	3	0	21.43	21.81	22.19		
1.4	16QAM	3	1	21.73	21.94	22.15		
1.4	16QAM	3	3	21.82	22.02	22.21		
1.4	16QAM	6	0	21.63	21.91	22.21		
1.4	256QAM	1	0	19.61	19.64	19.60		
1.4	256QAM	1	3	19.81	19.81	19.80		
1.4	256QAM	1	6	19.82	19.83	19.87		
1.4	256QAM	3	0	19.73	19.75	19.75		
1.4	256QAM	3	1	19.76	19.77	19.71		
1.4	256QAM	3	3	19.80	19.75	19.76		

Band 4 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				20050	20175	20300		
Frequency (MHz)				17.2	17.5	17.8		
20	QPSK	1	0	22.74	22.94	23.14	24	0
20	QPSK	1	49	22.82	23.02	23.22		
20	QPSK	1	99	22.88	23.08	23.28		
20	QPSK	50	0	21.80	21.87	21.74		
20	QPSK	50	24	21.70	21.80	21.61		
20	QPSK	50	49	21.75	21.81	21.49		
20	QPSK	100						



Band 5 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)		
				Low Ch. Freq. 20450	Middle Ch. Freq. 20625	High Ch. Freq. 20800				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.86	23.05	22.95	24	0		
10	QPSK	1	25	22.93	23.02	22.80				
10	QPSK	1	49	22.84	22.80	22.91				
10	QPSK	25	0	22.97	23.00	22.94				
10	QPSK	25	12	22.95	22.96	22.83				
10	QPSK	25	12	22.83	22.84	22.89				
10	QPSK	50	0	22.96	22.97	22.83				
10	16QAM	1	0	22.92	22.93	22.92				
10	16QAM	1	25	22.83	22.88	22.92				
10	16QAM	1	49	22.96	22.96	22.88				
10	16QAM	0	25	22.81	22.84	22.95				
10	16QAM	25	12	22.77	22.71	22.49	23.5	0.5		
10	16QAM	25	12	22.60	22.62	22.53				
10	16QAM	50	0	22.89	22.87	22.82				
10	16QAM	1	0	22.72	22.52	22.58				
10	16QAM	1	25	22.51	22.50	22.73				
10	16QAM	1	49	22.61	22.47	22.80				
10	16QAM	1	25	21.58	21.55	21.63				
10	16QAM	25	12	21.72	21.89	21.85				
10	16QAM	25	25	21.64	21.64	21.55				
10	16QAM	50	0	21.69	21.54	21.63				
10	256QAM	1	0	19.76	19.78	19.87	20.5	3.5		
10	256QAM	1	25	19.81	19.87	19.80				
10	256QAM	1	49	19.74	19.77	19.75				
10	256QAM	25	0	19.71	19.75	19.73				
10	256QAM	25	12	19.70	19.71	19.70				
10	256QAM	25	12	19.75	19.78	19.86				
10	256QAM	50	0	19.73	19.82	19.80				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.82	22.97	22.89			24	0
5	QPSK	1	12	22.87	22.90	22.76				
5	QPSK	1	24	22.92	22.72	22.83				
5	QPSK	12	0	22.88	22.86	22.92				
5	QPSK	12	7	22.89	22.87	22.81				
5	QPSK	12	13	22.89	22.84	22.83				
5	QPSK	25	0	22.87	22.95	22.81				
5	16QAM	1	0	22.85	22.81	22.81				
5	16QAM	1	12	22.90	22.86	22.90				
5	16QAM	1	24	22.86	22.84	22.84				
5	16QAM	12	0	22.78	22.69	22.40	23.5	0.5		
5	16QAM	12	7	22.69	22.69	22.40				
5	16QAM	12	13	22.65	22.56	22.44				
5	16QAM	25	0	22.68	22.55	22.41				
5	16QAM	1	0	22.59	22.55	22.55				
5	16QAM	1	12	22.75	22.57	22.55				
5	16QAM	1	24	22.56	22.59	22.53				
5	16QAM	12	0	21.45	21.55	21.52				
5	16QAM	12	7	21.61	21.63	21.56				
5	16QAM	12	13	21.62	21.49	21.49				
5	256QAM	1	0	19.73	19.69	19.80	20.5	3.5		
5	256QAM	1	12	19.67	19.73	19.69				
5	256QAM	1	24	19.69	19.65	19.65				
5	256QAM	12	0	19.64	19.62	19.62				
5	256QAM	12	7	19.65	19.75	19.58				
5	256QAM	12	13	19.73	19.75	19.55				
5	256QAM	25	0	19.71	19.75	19.71				
Channel										
Frequency (MHz)										
3	QPSK	1	0	22.90	22.94	22.89			24	0
3	QPSK	1	8	22.89	22.99	22.73				
3	QPSK	1	14	22.82	22.71	22.85				
3	QPSK	8	0	22.82	22.89	22.84				
3	QPSK	8	4	22.86	22.87	22.86				
3	QPSK	8	7	22.88	22.83	22.81				
3	QPSK	15	0	22.85	22.92	22.80				
3	16QAM	1	0	22.83	22.90	22.86				
3	16QAM	1	8	22.86	22.89	22.87				
3	16QAM	1	14	22.84	22.83	22.85				
3	16QAM	8	0	22.58	22.44	22.43	23.5	0.5		
3	16QAM	8	4	22.73	22.63	22.46				
3	16QAM	8	7	22.61	22.60	22.44				
3	16QAM	15	0	22.59	22.65	22.49				
3	16QAM	1	0	22.62	22.48	22.47				
3	16QAM	1	8	22.39	22.35	22.81				
3	16QAM	1	14	22.50	22.44	22.51				
3	16QAM	8	0	21.46	21.54	21.50				
3	16QAM	8	4	21.70	21.57	21.56				
3	16QAM	8	7	21.62	21.53	21.46				
3	256QAM	1	0	19.60	19.64	19.64	20.5	3.5		
3	256QAM	1	8	19.74	19.71	19.56				
3	256QAM	1	14	19.75	19.78	19.69				
3	256QAM	8	0	19.68	19.67	19.64				
3	256QAM	8	4	19.68	19.69	19.68				
3	256QAM	8	7	19.71	19.71	19.55				
3	256QAM	15	0	19.71	19.70	19.77				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	22.89	22.97	22.92			24	0
1.4	QPSK	1	3	22.91	22.93	22.71				
1.4	QPSK	1	5	22.82	22.71	22.80				
1.4	QPSK	3	0	22.89	22.92	22.82				
1.4	QPSK	3	1	22.92	22.88	22.81				
1.4	QPSK	3	3	22.91	22.88	22.84				
1.4	QPSK	6	0	22.82	22.92	22.77				
1.4	16QAM	1	0	22.80	22.81	22.86				
1.4	16QAM	1	3	22.84	22.86	22.86				
1.4	16QAM	1	5	22.85	22.83	22.86				
1.4	16QAM	3	0	22.55	22.45	22.50	24	0		
1.4	16QAM	3	1	22.69	22.59	22.40				
1.4	16QAM	3	3	22.51	22.44	22.45				
1.4	16QAM	6	0	22.57	22.58	22.42				
1.4	16QAM	1	0	22.70	22.40	22.54				
1.4	16QAM	1	3	22.43	22.49	22.68				
1.4	16QAM	1	5	22.44	22.42	22.67				
1.4	16QAM	3	0	22.67	22.45	22.50				
1.4	16QAM	3	1	22.41	22.47	22.84				
1.4	16QAM	3	3	22.58	22.44	22.50				
1.4	256QAM	1	0	19.67	19.70	19.59	22.5	1.5		
1.4	256QAM	1	3	19.75	19.82	19.71				
1.4	256QAM	1	5	19.62	19.74	19.73				
1.4	256QAM	3	0	19.67	19.65	19.67				
1.4	256QAM	3	1	19.67	19.65	19.64				
1.4	256QAM	3	3	19.72	19.70	19.64				
1.4	256QAM	6	0	19.74	19.76	19.76				

Band 5 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)		
				Low Ch. Freq. 20450	Middle Ch. Freq. 20625	High Ch. Freq. 20800				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.84	23.04	22.94	24	0		
10	QPSK	1	25	22.84	22.89	22.84				
10	QPSK	1	49	22.81	22.83	23.05				
10	QPSK	25	0	23.07	23.08	23.14				
10	QPSK	25	12	23.05	23.06	23.12				
10	QPSK	25	12	22.96	22.96	23.11				
10	QPSK	50	0	22.96	23.05	23.10				
10	16QAM	1	0	22.92	22.92	23.09				
10	16QAM	1	25	22.89	22.97	23.07				
10	16QAM	1	49	22.84	22.94	23.06				
10	16QAM	25	12	22.87	22.88	22.83	23.5	0.5		
10	16QAM	25	25	22.83	22.83	22.78				
10	16QAM	50	0	22.98	22.98	22.84				
10	16QAM	1	0	22.68	22.68	22.80				
10	16QAM	1	25	22.47	22.65	22.65				
10	16QAM	1	49	22.88	22.78	22.59				
10	16QAM	1	25	21.95	21.44	21.57				
10	16QAM	25	12	21.83	21.87	21.52				
10	16QAM	25	25	21.90	21.84	21.46				
10	16QAM	50	0	21.83	21.84	21.51				
10	256QAM	1	0	19.76	19.81	19.88	20.5	3.5		
10	256QAM	1	25	19.76	19.76	19.84				
10	256QAM	1	49	19.75	19.84	19.84				
10	256QAM	25	0	19.64	19.67	19.86				
10	256QAM	25	12	19.73	19.75	19.82				
10	256QAM	25	12	19.70	19.77	19.80				
10	256QAM	50	0	19.70	19.77	19.80				
10	256QAM	50	0	19.74	19.74	19.74				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.92	22.91	23.04	24	0		
5	QPSK	1	12	22.80	22.80	23.08				
5	QPSK	1	24	22.84	22.86	23.03				
5	QPSK	12	0	23.04	23.03	23.03				
5	QPSK	12	7	23.00	22.99	23.04				
5	QPSK	12	13	23.00	23.04	23.07				
5	QPSK	25	0	22.93	23.00	23.00				
5	16QAM	1	0	22.85	22.89	22.89				
5	16QAM	1	12	22.78	22.81	23.00				
5	16QAM	1	24	22.73	22.85	22.89				
5	16QAM	12	0	22.50	22.51	22.59	23.5	0.5		
5	16QAM	12	7	22.51	22.48	22.45				
5	16QAM	12	13	22.51	22.48	22.45				
5	16QAM	25	0	22.54	22.50	22.47				
5	16QAM	1	0	22.55	22.55	22.55				
5	16QAM	1	12	22.43	22.25	22.23				
5	16QAM	1	24	22.65	22.67	22.49				
5	16QAM	12	0	21.						



Band 7 Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				2060	2100	2160		
Frequency (MHz)								
20	QPSK	1	0	22.25	22.25	22.25	24	0
20	QPSK	1	49	22.35	22.62	22.88		
20	QPSK	1	99	22.45	22.68	22.84		
20	QPSK	50	0	22.59	22.81	22.85		
20	QPSK	50	24	22.25	22.55	22.59	24	0
20	QPSK	50	49	22.57	22.53	22.58		
20	QPSK	100	0	22.59	22.59	22.58		
20	16QAM	50	0	22.43	22.54	22.55		
20	16QAM	1	49	22.47	22.81	22.82	24	0
20	16QAM	1	99	22.44	22.80	22.48		
20	16QAM	50	0	21.88	21.89	22.02		
20	16QAM	50	24	22.08	22.04	22.15	23.5	0.5
20	16QAM	50	49	22.15	22.18	22.15		
20	16QAM	100	0	22.08	22.12	22.14		
20	16QAM	1	0	22.11	22.18	21.88		
20	16QAM	1	49	22.32	22.32	22.05	23.5	0.5
20	16QAM	1	99	22.17	22.03	22.04		
20	16QAM	1	49	20.93	21.01	21.14		
20	16QAM	50	24	21.07	21.15	21.18	22.5	1.5
20	16QAM	50	49	20.97	21.21	21.17		
20	16QAM	100	0	21.32	21.07	21.07		
20	256QAM	1	0	19.01	19.09	19.02	20.5	3.5
20	256QAM	1	49	18.93	18.97	18.94		
20	256QAM	1	99	18.88	18.95	18.84		
20	256QAM	50	0	18.76	18.83	18.79		
20	256QAM	50	24	18.71	18.81	18.78	20.5	3.5
20	256QAM	50	49	18.89	18.86	18.83		
20	256QAM	100	0	18.69	18.80	18.77		
Channel				2075	2100	2175		
Frequency (MHz)								
15	QPSK	1	0	22.53	22.54	22.49	24	0
15	QPSK	1	37	22.27	22.58	22.49		
15	QPSK	1	74	22.43	22.47	22.41		
15	QPSK	36	0	22.59	22.57	22.58		
15	QPSK	36	20	22.47	22.48	22.49	24	0
15	QPSK	36	39	22.55	22.49	22.47		
15	QPSK	75	0	22.45	22.50	22.52		
15	16QAM	1	15	22.38	22.48	22.48		
15	16QAM	1	37	22.43	22.45	22.49	24	0
15	16QAM	1	74	22.45	22.45	22.44		
15	16QAM	36	0	21.78	21.52	21.54		
15	16QAM	36	20	21.88	21.93	22.04	23.5	0.5
15	16QAM	36	39	22.05	22.13	22.15		
15	16QAM	75	0	22.01	22.05	22.10		
15	16QAM	1	0	22.02	22.04	21.96	23.5	0.5
15	16QAM	1	74	20.32	21.09	21.92		
15	16QAM	36	20	20.90	20.94	21.06		
15	16QAM	36	39	20.97	21.03	21.10	22.5	1.5
15	16QAM	75	0	21.07	21.04	21.01		
15	256QAM	1	0	18.95	18.91	18.97	20.5	3.5
15	256QAM	1	37	18.87	18.90	18.84		
15	256QAM	1	74	18.83	18.92	18.80		
15	256QAM	36	0	18.86	18.97	18.76		
15	256QAM	36	20	18.55	18.77	18.66	20.5	3.5
15	256QAM	36	39	18.71	18.78	18.73		
15	256QAM	75	0	18.81	18.77	18.65		
Channel				2090	2100	2160		
Frequency (MHz)								
10	QPSK	1	0	22.53	22.51	22.50	24	0
10	QPSK	1	25	22.29	22.50	22.49		
10	QPSK	1	49	22.43	22.53	22.40		
10	QPSK	25	0	22.49	22.57	22.51	24	0
10	QPSK	25	12	22.45	22.41	22.56		
10	QPSK	25	25	22.47	22.41	22.56		
10	QPSK	50	0	22.43	22.48	22.55		
10	16QAM	1	0	22.36	22.47	22.45		
10	16QAM	1	25	22.35	22.41	22.41	24	0
10	16QAM	1	49	22.38	22.52	22.43		
10	16QAM	25	0	21.84	21.89	21.98		
10	16QAM	25	12	21.86	21.96	22.03	23.5	0.5
10	16QAM	25	25	22.09	22.13	22.07		
10	16QAM	50	0	22.01	22.03	22.07		
10	16QAM	1	0	22.08	22.18	21.86		
10	16QAM	1	25	22.04	22.08	22.02	23.5	0.5
10	16QAM	1	49	22.11	21.99	22.02		
10	16QAM	25	0	20.85	20.92	21.00		
10	16QAM	25	12	21.02	21.09	21.08	22.5	1.5
10	16QAM	25	25	20.90	21.06	21.07		
10	16QAM	50	0	21.07	21.05	20.98		
10	256QAM	1	0	18.93	18.97	18.99	20.5	3.5
10	256QAM	1	25	18.86	18.85	18.83		
10	256QAM	1	49	18.78	18.86	18.73		
10	256QAM	25	0	18.86	18.77	18.76		
10	256QAM	25	12	18.55	18.71	18.69	20.5	3.5
10	256QAM	25	25	18.73	18.82	18.73		
10	256QAM	50	0	18.66	18.68	18.71		
Channel				2075	2100	2160		
Frequency (MHz)								
5	QPSK	1	0	22.47	22.57	22.55	24	0
5	QPSK	1	12	22.25	22.50	22.49		
5	QPSK	1	24	22.43	22.50	22.42		
5	QPSK	12	0	22.48	22.59	22.54	24	0
5	QPSK	12	7	22.48	22.47	22.54		
5	QPSK	12	13	22.45	22.49	22.58		
5	QPSK	25	0	22.45	22.48	22.51		
5	16QAM	1	0	22.35	22.51	22.49		
5	16QAM	1	12	22.37	22.44	22.50	24	0
5	16QAM	1	24	22.33	22.56	22.45		
5	16QAM	12	0	21.85	21.94	21.98		
5	16QAM	12	7	22.04	21.87	22.06	23.5	0.5
5	16QAM	12	13	22.11	22.13	22.09		
5	16QAM	25	0	22.01	22.10	22.04		
5	16QAM	1	0	22.02	22.13	21.76		
5	16QAM	1	12	22.06	22.09	22.01	23.5	0.5
5	16QAM	1	24	22.14	22.01	21.93		
5	16QAM	12	0	20.82	20.92	21.06		
5	16QAM	12	7	21.02	21.04	21.07	22.5	1.5
5	16QAM	12	13	20.94	21.11	21.11		
5	16QAM	25	0	21.04	20.96	20.99		
5	256QAM	1	0	18.84	18.90	18.98	20.5	3.5
5	256QAM	1	12	18.88	18.91	18.90		
5	256QAM	1	24	18.78	18.83	18.77		
5	256QAM	12	0	18.70	18.80	18.67		
5	256QAM	12	7	18.63	18.75	18.73	20.5	3.5
5	256QAM	12	13	18.69	18.80	18.74		
5	256QAM	25	0	18.65	18.74	18.69		

Band 7 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				2060	2100	2160		
Frequency (MHz)								
20	QPSK	1	0	22.59	22.59	22.59	24	0
20	QPSK	1	49	22.85	22.85	22.81		
20	QPSK	1	99	22.81	22.81	22.77		
20	QPSK	50	0	21.92	22.03	22.00		
20	QPSK	50	24	21.90	22.00	21.96	23	1
20	QPSK	50	49	21.83	21.88	21.85		
20	QPSK	100	0	21.90	21.94	21.92		
20	16QAM	50	0	21.88	21.90	22.02		
20	16QAM	1	49	22.01	22.00	21.98	23	1
20	16QAM	1	99	21.89	22.05	22.11		
20	16QAM	50	0	20.93	21.01	20.99		
20	16QAM	50	24	21.02	20.93	21.04	22	2
20	16QAM	50	49	20.96	20.96	21.13		
20	16QAM	100	0	20.97	21.00	21.09		
20	16QAM	1	0	21.25	21.01	21.21		
20	16QAM	1	49	21.35	21.35	21.21	22	2
20	16QAM	1	99	21.28	21.03	21.05		
20	16QAM	50	24	19.97	20.95	19.99		
20	16QAM	50	49	19.94	20.21	19.94		
20	16QAM	100	0	19.95	19.93	20.38		
20	256QAM	1	0	17.89	17.94	17.91	19	5
20	256QAM	1	49	17.86	17.96	17.86		
20	256QAM	1	99	17.90	18.02	17.98		
20	256QAM	50	0	17.90	17.96	17.85		
20	256QAM	50	24	17.78	17.89	17.83	19	5
20	256QAM	50	49	17.89	17.96	17.85		
20	256QAM	100	0	17.78	17.91	17.85		
Channel				2060	2100	2160		
Frequency (MHz)								
15	QPSK	1	0	22.62	22.93	22.88	24	0
15	QPSK	1	37	22.54	22.75	22.50		
15	QPSK	1	74	22.53	22.78	22.50		
15	QPSK	36	0	21.83	22.00	21.97		
15	QPSK	36	20	21.87	21.96	21.85	23	1
15	QPSK	36	39	21.78	21.87	21.85		
15	QPSK	75	0	21.81	21.87	21.87		
15	16QAM	1	15	21.83	21.88	22.08		
15	16QAM	1	37	21.93	21.89	21.88	23	1
15	16QAM	1	74	21.87	21.94	21.94		
15	16QAM	36	0	21.27	21.54	20.95		
15	16QAM	36	20	20.92	20.90	20.94	22	2
15	16QAM	36	39	20.86	20.99	20.86		
15	16QAM	75	0	20.85	20.95	21.03		
15	16QAM	1	0	21.22	20.98	21.15		
15	16QAM	1	37	21.32	20.95	21.15	2	



Band 12 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.83	22.85	22.84	24	0
10	QPSK	1	25	22.89	22.94	22.77		
10	QPSK	1	49	22.91	22.71	22.70		
10	QPSK	25	0	22.89	22.81	22.82		
10	QPSK	25	12	22.87	22.86	22.80		
10	QPSK	25	25	22.85	22.80	22.80		
10	QPSK	50	0	22.78	22.82	22.80		
10	16QAM	1	0	22.83	22.80	22.83		
10	16QAM	1	25	22.85	22.83	22.80		
10	16QAM	1	49	22.85	22.87	22.80		
10	16QAM	0	25	22.46	22.55	22.89		
10	16QAM	25	12	22.64	22.54	22.88		
10	16QAM	25	25	22.63	22.63	22.80		
10	16QAM	50	0	22.52	22.80	22.48		
10	16QAM	1	0	22.26	22.87	22.80		
10	16QAM	1	25	22.52	22.81	22.82		
10	16QAM	1	49	22.51	22.48	22.81		
10	16QAM	1	25	21.51	21.48	21.47		
10	16QAM	25	12	21.48	21.34	21.33		
10	16QAM	25	25	21.45	21.47	21.49		
10	16QAM	50	0	21.53	21.53	21.45		
10	256QAM	1	0	19.67	19.72	19.70		
10	256QAM	1	25	19.76	19.82	19.70		
10	256QAM	1	49	19.71	19.74	19.88		
10	256QAM	25	0	19.80	19.80	19.84		
10	256QAM	25	12	19.84	19.82	19.80		
10	256QAM	25	25	19.69	19.88	19.86		
10	256QAM	50	0	19.83	19.86	19.85		
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.83	22.85	22.83	24	0
5	QPSK	1	12	22.87	22.87	22.85		
5	QPSK	1	24	22.83	22.81	22.75		
5	QPSK	12	0	22.81	22.84	22.73		
5	QPSK	12	7	22.78	22.84	22.72		
5	QPSK	12	13	22.83	22.84	22.74		
5	QPSK	15	0	22.78	22.75	22.71		
5	16QAM	1	0	22.87	22.85	22.80		
5	16QAM	1	12	22.80	22.72	22.78		
5	16QAM	1	24	22.86	22.86	22.78		
5	16QAM	12	0	22.37	22.50	22.41		
5	16QAM	12	7	22.29	22.46	22.46		
5	16QAM	12	13	22.60	22.39	22.53		
5	16QAM	25	0	22.43	22.44	22.42		
5	16QAM	1	0	22.43	22.45	22.44		
5	16QAM	1	12	22.50	22.45	22.80		
5	16QAM	1	24	22.45	22.39	22.86		
5	16QAM	12	7	21.41	21.31	21.41		
5	16QAM	12	13	21.45	21.41	21.40		
5	16QAM	25	0	21.35	21.41	21.38		
5	256QAM	1	0	19.65	19.63	19.82		
5	256QAM	1	12	19.65	19.78	19.82		
5	256QAM	1	24	19.65	19.71	19.83		
5	256QAM	12	0	19.67	19.67	19.47		
5	256QAM	12	7	19.52	19.53	19.55		
5	256QAM	12	13	19.48	19.62	19.83		
5	256QAM	25	0	19.63	19.63	19.83		
Channel								
Frequency (MHz)								
3	QPSK	1	0	22.89	22.89	22.74	24	0
3	QPSK	1	8	22.87	22.80	22.74		
3	QPSK	1	14	22.83	22.85	22.73		
3	QPSK	8	0	22.85	22.87	22.70		
3	QPSK	8	4	22.83	22.77	22.71		
3	QPSK	8	7	22.79	22.85	22.89		
3	QPSK	15	0	22.75	22.77	22.75		
3	16QAM	1	0	22.83	22.85	22.78		
3	16QAM	1	8	22.79	22.73	22.68		
3	16QAM	1	14	22.81	22.80	22.77		
3	16QAM	8	0	22.41	22.30	22.82		
3	16QAM	8	4	22.53	22.51	22.50		
3	16QAM	8	7	22.52	22.40	22.87		
3	16QAM	15	0	22.43	22.47	22.41		
3	16QAM	1	0	22.44	22.86	22.40		
3	16QAM	1	8	22.57	22.41	22.80		
3	16QAM	1	14	22.42	22.40	22.52		
3	16QAM	8	0	21.48	21.40	21.41		
3	16QAM	8	4	21.33	21.45	21.43		
3	16QAM	8	7	21.32	21.36	21.41		
3	16QAM	15	0	21.48	21.41	21.31		
3	256QAM	1	0	19.58	19.67	19.64		
3	256QAM	1	8	19.70	19.78	19.65		
3	256QAM	1	14	19.60	19.63	19.83		
3	256QAM	8	0	19.48	19.61	19.47		
3	256QAM	8	4	19.52	19.50	19.58		
3	256QAM	8	7	19.52	19.66	19.54		
3	256QAM	15	0	19.49	19.61	19.47		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	22.82	22.88	22.75	24	0
1.4	QPSK	1	5	22.85	22.86	22.85		
1.4	QPSK	1	14	22.83	22.82	22.72		
1.4	QPSK	3	0	22.85	22.84	22.70		
1.4	QPSK	3	1	22.85	22.74	22.65		
1.4	QPSK	3	3	22.83	22.80	22.73		
1.4	QPSK	6	0	22.74	22.76	22.68		
1.4	16QAM	1	0	22.87	22.86	22.72		
1.4	16QAM	1	3	22.79	22.75	22.78		
1.4	16QAM	1	5	22.83	22.77	22.72		
1.4	16QAM	3	0	22.38	22.47	22.41		
1.4	16QAM	3	1	22.62	22.45	22.51		
1.4	16QAM	3	3	22.60	22.34	22.52		
1.4	16QAM	6	0	22.42	22.39	22.40		
1.4	16QAM	1	0	22.44	22.56	22.41		
1.4	16QAM	1	3	22.52	22.43	22.58		
1.4	16QAM	1	5	22.46	22.39	22.87		
1.4	16QAM	3	0	22.43	22.48	22.36		
1.4	16QAM	3	1	22.50	22.48	22.52		
1.4	16QAM	3	3	22.48	22.40	22.50		
1.4	16QAM	6	0	21.51	21.32	21.31		
1.4	256QAM	1	0	19.58	19.70	19.60		
1.4	256QAM	1	3	19.74	19.79	19.61		
1.4	256QAM	1	5	19.64	19.62	19.82		
1.4	256QAM	3	0	19.64	19.63	19.42		
1.4	256QAM	3	1	19.44	19.54	19.53		
1.4	256QAM	3	3	19.58	19.56	19.58		
1.4	256QAM	6	0	19.60	19.66	19.48		

Band 12 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.42	23.45	23.45	24	0
10	QPSK	1	25	23.34	23.41	23.47		
10	QPSK	1	49	23.30	23.63	23.37		
10	QPSK	25	0	23.40	23.45	23.41		
10	QPSK	25	12	23.36	23.40	23.40		
10	QPSK	25	25	23.35	23.36	23.38		
10	QPSK	50	0	23.35	23.43	23.38		
10	16QAM	1	0	23.47	23.62	23.45		
10	16QAM	1	25	23.50	23.50	23.40		
10	16QAM	1	49	23.58	23.81	23.81		
10	16QAM	25	0	23.47	23.60	23.88		
10	16QAM	25	12	23.16	23.13	23.12		
10	16QAM	25	25	23.04	23.22	23.25		
10	16QAM	50	0	23.13	23.11	23.12		
10	16QAM	1	0	23.05	23.08	23.01		
10	16QAM	1	25	23.04	23.05	23.04		
10	16QAM	1	49	23.00	23.85	23.86		
10	16QAM	1	25	22.91	23.02	23.02		
10	16QAM	25	12	22.97	22.98	22.23		
10	16QAM	25	25	22.10	22.08	22.08		
10	16QAM	50	0	22.10	22.20	22.05		
10	256QAM	1	0	19.87	19.89	19.99		
10	256QAM	1	25	20.18	20.26	20.35		
10	256QAM	1	49	20.17	20.23	20.35		
10	256QAM	25	0	20.18	20.22	20.35		
10	256QAM	25	12	20.18	20.25	20.35		
10	256QAM	25	25	20.08	20.14	20.11		
10	256QAM	50	0	20.17	20.26	20.35		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.40	23.45	23.41	24	0
5	QPSK	1	12	23.29	23.30	23.35		
5	QPSK	1	24	23.27	23.44	23.38		
5	QPSK	12	0	23.30	23.43	23.30		
5	QPSK	12	7	23.27	23.28	23.29		
5	QPSK	12	13	23.24	23.24	23.38		
5	QPSK	15	0	23.32	23.39	23.28		
5	16QAM	1	0	23.37	23.48	23.43		
5	16QAM	1	12	23.32	23.32	23.49		
5	16QAM	1	24	23.28	23.49	23.49		
5	16QAM	12	7	23.14	23.03	23.05		
5	16QAM	12	13	23.09	23.17	23.05		
5	16QAM	25	0	23.11	23.09	23.07		
5	16QAM	25	12	22.95	23.05	23.05		
5	16QAM	25	25	22.91	22.95	22.95		
5	16QAM	50	0	22.93	22.98	23.00		
5	16QAM	12	7	21.85	22.02	22.11		
5	16QAM	12	13	21.89	21.89	22.04		
5	16QAM	25	0	22.08	22.13	21.95		
5	256QAM	1	0	19.92	19.98	19.88		
5	256QAM	1						



Band 13 Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
10	QPSK	1	0	22.71	22.77	22.76	24	0	
10	QPSK	1	25	22.67	22.69	22.72			
10	QPSK	1	49	22.65	22.64	22.61			
10	QPSK	25	0	22.69	22.74	22.72			
10	QPSK	25	12	22.61	22.69	22.64			
10	QPSK	25	25	22.58	22.59	22.60			
10	QPSK	50	0	22.65	22.62	22.59			
10	ISQAM	1	0	22.72	22.65	22.73			
10	ISQAM	1	25	22.74	22.67	22.65			
10	ISQAM	1	49	22.76	22.76	22.74			
10	ISQAM	25	0	21.85	21.85	21.81			
10	ISQAM	25	12	21.92	21.92	21.87			
10	ISQAM	25	25	21.76	21.76	21.81			
10	ISQAM	50	0	21.78	21.79	21.86			
10	ISQAM	1	0	22.56	22.56	22.59			
10	ISQAM	1	25	22.59	22.59	22.54			
10	ISQAM	1	49	22.11	22.11	21.89			
10	ISQAM	25	0	20.84	20.84	20.84			
10	ISQAM	25	12	20.88	20.88	20.88			
10	ISQAM	25	25	20.90	20.90	20.84			
10	ISQAM	50	0	20.73	20.73	20.73			
10	25SQAM	1	0	18.88	18.88	18.84			
10	25SQAM	1	25	18.92	18.92	18.84			
10	25SQAM	1	49	18.75	18.75	18.84			
10	25SQAM	25	0	18.86	18.86	18.41			
10	25SQAM	25	12	18.80	18.80	18.44			
10	25SQAM	25	25	18.75	18.75	18.59			
10	25SQAM	50	0	18.85	18.85	18.51			
Channel									
Frequency [MHz]									
5	QPSK	1	0	22.73	22.77	22.76	24	0	
5	QPSK	1	12	22.67	22.69	22.72			
5	QPSK	1	24	22.65	22.64	22.61			
5	QPSK	12	0	22.69	22.74	22.72			
5	QPSK	12	7	22.61	22.69	22.64			
5	QPSK	12	13	22.58	22.59	22.60			
5	QPSK	25	0	22.65	22.62	22.59			
5	ISQAM	1	0	22.72	22.65	22.73			
5	ISQAM	1	12	22.63	22.67	22.65			
5	ISQAM	1	24	22.66	22.76	22.74			
5	ISQAM	12	0	21.83	21.80	21.81			
5	ISQAM	12	7	21.86	21.88	21.81			
5	ISQAM	12	13	21.68	21.68	21.87			
5	ISQAM	25	0	21.75	21.79	21.86			
5	ISQAM	1	0	22.22	22.21	22.19			
5	ISQAM	1	12	22.04	22.07	22.04			
5	ISQAM	1	24	22.04	22.08	22.07			
5	ISQAM	12	0	20.77	20.74	20.79			
5	ISQAM	12	7	20.83	20.79	20.82			
5	ISQAM	12	13	20.79	20.84	20.84			
5	ISQAM	25	0	20.82	20.85	20.88			
5	25SQAM	1	0	18.85	18.83	18.76			
5	25SQAM	1	12	18.90	18.87	18.83			
5	25SQAM	1	24	18.73	18.73	18.88			
5	25SQAM	12	0	18.78	18.81	18.74			
5	25SQAM	12	7	18.77	18.80	18.80			
5	25SQAM	12	13	18.69	18.69	18.83			
5	25SQAM	25	0	18.84	18.83	18.87			

Band 13 Ant 1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
10	QPSK	1	0	22.70	22.70	22.70	24	0	
10	QPSK	1	25	22.73	22.73	22.73			
10	QPSK	1	49	22.78	22.78	22.78			
10	QPSK	25	0	22.41	22.41	22.41			
10	QPSK	25	12	22.24	22.24	22.24			
10	QPSK	25	25	22.37	22.37	22.37			
10	QPSK	50	0	22.35	22.35	22.35			
10	ISQAM	1	0	22.49	22.49	22.49			
10	ISQAM	1	25	22.48	22.48	22.48			
10	ISQAM	1	49	22.44	22.44	22.44			
10	ISQAM	25	0	21.25	21.25	21.25			
10	ISQAM	25	12	21.33	21.33	21.33			
10	ISQAM	25	25	21.42	21.42	21.42			
10	ISQAM	50	0	21.30	21.30	21.30			
10	ISQAM	1	0	21.52	21.52	21.52			
10	ISQAM	1	25	21.48	21.48	21.48			
10	ISQAM	1	49	21.49	21.49	21.49			
10	ISQAM	25	0	20.28	20.28	20.28			
10	ISQAM	25	12	20.42	20.42	20.42			
10	ISQAM	25	25	20.44	20.44	20.44			
10	ISQAM	50	0	20.31	20.31	20.31			
10	25SQAM	1	0	18.44	18.44	18.44			
10	25SQAM	1	25	18.54	18.54	18.54			
10	25SQAM	1	49	18.54	18.54	18.54			
10	25SQAM	25	0	18.41	18.41	18.41			
10	25SQAM	25	12	18.44	18.44	18.44			
10	25SQAM	25	25	18.59	18.59	18.59			
10	25SQAM	50	0	18.51	18.51	18.51			
Channel									
Frequency [MHz]									
5	QPSK	1	0	22.70	22.71	22.70	24	0	
5	QPSK	1	12	22.77	22.70	22.72			
5	QPSK	1	24	22.67	22.73	22.72			
5	QPSK	12	0	22.36	22.38	22.31			
5	QPSK	12	7	22.22	22.21	22.12			
5	QPSK	12	13	22.31	22.33	22.34			
5	QPSK	25	0	22.28	22.30	22.27			
5	ISQAM	1	0	22.39	22.37	22.46			
5	ISQAM	1	12	22.44	22.47	22.40			
5	ISQAM	1	24	22.37	22.39	22.39			
5	ISQAM	12	0	21.24	21.21	21.17			
5	ISQAM	12	7	21.31	21.21	21.25			
5	ISQAM	12	13	21.33	21.37	21.30			
5	ISQAM	25	0	21.20	21.22	21.28			
5	ISQAM	1	0	21.49	21.47	21.40			
5	ISQAM	1	12	21.46	21.46	21.53			
5	ISQAM	1	24	21.44	21.43	21.46			
5	ISQAM	12	0	20.21	20.14	20.15			
5	ISQAM	12	7	20.39	20.31	20.32			
5	ISQAM	12	13	20.37	20.46	20.38			
5	ISQAM	25	0	20.23	20.25	20.27			
5	25SQAM	1	0	18.36	18.42	18.35			
5	25SQAM	1	12	18.41	18.33	18.42			
5	25SQAM	1	24	18.52	18.52	18.46			
5	25SQAM	12	0	18.35	18.32	18.34			
5	25SQAM	12	7	18.35	18.34	18.33			
5	25SQAM	12	13	18.49	18.47	18.47			
5	25SQAM	25	0	18.45	18.42	18.45			



Band 14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency [MHz]								
10	QPSK	1	0	22.71	22.71	22.71	24	0
10	QPSK	1	25	22.75	22.75	22.75		
10	QPSK	1	49	22.80	22.80	22.80		
10	QPSK	25	0	22.75	22.75	22.75	24	0
10	QPSK	25	12	22.80	22.80	22.80		
10	QPSK	25	25	22.87	22.87	22.87		
10	QPSK	50	0	22.73	22.73	22.73	24	0
10	16QAM	1	0	22.73	22.73	22.73		
10	16QAM	1	25	22.75	22.75	22.75		
10	16QAM	1	49	22.70	22.70	22.70	23.5	0.5
10	16QAM	25	0	22.31	22.31	22.31		
10	16QAM	25	12	22.36	22.36	22.36		
10	16QAM	25	25	22.33	22.33	22.33	23.5	0.5
10	16QAM	50	0	22.28	22.28	22.28		
10	16QAM	50	0	22.30	22.30	22.30		
10	16QAM	1	0	22.30	22.30	22.30	22.5	1.5
10	16QAM	1	25	21.35	21.35	21.35		
10	16QAM	1	49	22.41	22.41	22.41		
10	16QAM	25	0	21.30	21.30	21.30	20.5	3.5
10	16QAM	25	12	19.48	19.48	19.48		
10	16QAM	25	25	19.55	19.55	19.55		
10	256QAM	1	0	19.45	19.45	19.45	20.5	3.5
10	256QAM	1	25	19.42	19.42	19.42		
10	256QAM	1	49	19.45	19.45	19.45		
10	256QAM	25	0	19.42	19.42	19.42	20.5	3.5
10	256QAM	25	12	19.43	19.43	19.43		
10	256QAM	25	25	19.45	19.45	19.45		
10	256QAM	50	0	19.41	19.41	19.41		
Channel								
Frequency [MHz]								
5	QPSK	1	0	22.70	22.69	22.67	24	0
5	QPSK	1	12	22.71	22.71	22.68		
5	QPSK	1	24	22.47	22.45	22.42		
5	QPSK	12	0	22.64	22.67	22.72	24	0
5	QPSK	12	7	22.53	22.59	22.61		
5	QPSK	12	13	22.51	22.55	22.55		
5	QPSK	25	0	22.64	22.67	22.66	24	0
5	16QAM	1	0	22.64	22.66	22.61		
5	16QAM	1	12	22.71	22.66	22.71		
5	16QAM	1	24	22.69	22.61	22.66	23.5	0.5
5	16QAM	12	0	22.71	22.19	22.19		
5	16QAM	12	7	22.25	22.31	22.25		
5	16QAM	12	13	22.20	22.14	22.14	23.5	0.5
5	16QAM	25	0	22.22	22.21	22.18		
5	16QAM	25	0	22.24	22.21	22.20		
5	16QAM	1	12	22.21	22.25	22.30	22.5	1.5
5	16QAM	1	24	22.26	22.37	22.35		
5	16QAM	12	7	21.31	21.23	21.33		
5	16QAM	12	13	21.40	21.45	21.45	20.5	3.5
5	16QAM	25	0	21.25	21.26	21.34		
5	256QAM	1	0	19.29	19.40	19.41		
5	256QAM	1	12	19.43	19.32	19.47	20.5	3.5
5	256QAM	1	24	19.42	19.43	19.34		
5	256QAM	12	0	19.30	19.37	19.35		
5	256QAM	12	7	19.40	19.34	19.38	20.5	3.5
5	256QAM	12	13	19.24	19.40	19.36		
5	256QAM	25	0	19.29	19.42	19.46		

Band 14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency [MHz]								
10	QPSK	1	0	22.81	22.81	22.81	24	0
10	QPSK	1	25	22.86	22.86	22.86		
10	QPSK	1	49	22.91	22.91	22.91		
10	QPSK	25	0	22.81	22.81	22.81	24	0
10	QPSK	25	12	22.87	22.87	22.87		
10	QPSK	25	25	22.85	22.85	22.85		
10	QPSK	50	0	22.82	22.82	22.82	24	0
10	16QAM	1	0	22.85	22.85	22.85		
10	16QAM	1	25	22.86	22.86	22.86		
10	16QAM	1	49	22.91	22.91	22.91	24	0
10	16QAM	25	0	22.87	22.87	22.87		
10	16QAM	25	12	22.85	22.85	22.85		
10	16QAM	25	25	22.75	22.75	22.75	24	0
10	16QAM	50	0	22.87	22.87	22.87		
10	16QAM	50	0	22.89	22.89	22.89		
10	16QAM	1	0	22.92	22.92	22.92	24	0
10	16QAM	1	25	22.85	22.85	22.85		
10	16QAM	1	49	22.79	22.79	22.79		
10	16QAM	25	0	21.74	21.74	21.74	23	1
10	16QAM	25	12	21.70	21.70	21.70		
10	16QAM	25	25	21.70	21.70	21.70		
10	256QAM	1	0	19.84	19.84	19.84	21	3
10	256QAM	1	25	19.82	19.82	19.82		
10	256QAM	1	49	19.89	19.89	19.89		
10	256QAM	25	0	19.80	19.80	19.80	21	3
10	256QAM	25	12	19.84	19.84	19.84		
10	256QAM	25	25	19.80	19.80	19.80		
10	256QAM	50	0	19.82	19.82	19.82		
Channel								
Frequency [MHz]								
5	QPSK	1	0	22.80	22.80	22.80	24	0
5	QPSK	1	12	22.90	22.89	22.89		
5	QPSK	1	24	22.86	22.86	22.87		
5	QPSK	12	0	22.81	22.89	22.94	24	0
5	QPSK	12	7	22.82	22.89	22.90		
5	QPSK	12	13	22.85	22.87	22.86		
5	QPSK	25	0	22.89	22.85	22.82	24	0
5	16QAM	1	0	22.85	22.83	22.85		
5	16QAM	1	12	22.88	22.82	22.80		
5	16QAM	1	24	22.93	22.95	22.92	24	0
5	16QAM	12	0	22.80	22.82	22.82		
5	16QAM	12	7	22.79	22.82	22.82		
5	16QAM	12	13	22.68	22.76	22.76	24	0
5	16QAM	25	0	22.48	22.54	22.58		
5	16QAM	25	0	22.50	22.50	22.50		
5	16QAM	1	12	22.94	22.94	22.90	24	0
5	16QAM	1	24	22.92	22.93	22.95		
5	16QAM	12	7	21.88	21.86	21.82		
5	16QAM	12	13	21.75	21.72	21.75	23	1
5	16QAM	25	0	21.59	21.65	21.57		
5	256QAM	1	0	19.74	19.72	19.73		
5	256QAM	1	12	19.81	19.89	19.82	21	3
5	256QAM	1	24	19.86	19.86	19.79		
5	256QAM	12	0	19.75	19.75	19.77		
5	256QAM	12	7	19.72	19.73	19.71	21	3
5	256QAM	12	13	19.69	19.77	19.76		
5	256QAM	25	0	19.72	19.69	19.72		



Band 17 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				23790	23790	23800		
Frequency [MHz]				23790	23790	23800		
10	QPSK	1	0	22.74	22.81	22.85	24	0
10	QPSK	1	25	22.78	22.80	22.82		
10	QPSK	1	49	22.82	22.83	22.83		
10	QPSK	25	0	22.87	22.88	22.88		
10	QPSK	25	12	22.83	22.86	22.86		
10	QPSK	25	25	22.86	22.85	22.83		
10	QPSK	50	0	22.78	22.85	22.79		
10	16QAM	1	0	22.82	22.86	22.82		
10	16QAM	1	25	22.78	22.85	22.75		
10	16QAM	1	49	22.76	22.82	22.82		
10	16QAM	25	0	22.85	22.82	22.87		
10	16QAM	25	12	22.58	22.59	22.59		
10	16QAM	25	25	22.65	22.54	22.65		
10	16QAM	50	0	22.49	22.50	22.53		
10	16QAM	1	0	22.24	22.43	22.38		
10	16QAM	1	25	22.35	22.41	22.41		
10	16QAM	1	49	22.34	22.49	22.34		
10	16QAM	25	0	21.44	21.50	21.50		
10	16QAM	25	12	21.52	21.55	21.53		
10	16QAM	25	25	21.94	21.58	21.67		
10	16QAM	50	0	21.55	21.45	21.35		
10	256QAM	1	0	19.58	19.68	19.62		
10	256QAM	1	25	19.73	19.52	19.73		
10	256QAM	1	49	19.64	19.73	19.64		
10	256QAM	25	0	19.67	19.69	19.59		
10	256QAM	25	12	19.55	19.55	19.63		
10	256QAM	25	25	19.65	19.68	19.58		
10	256QAM	50	0	19.65	19.71	19.55		
Channel				23795	23795	23805		
Frequency [MHz]				23795	23795	23805		
5	QPSK	1	0	22.72	22.81	22.74	24	0
5	QPSK	1	12	22.69	22.72	22.71		
5	QPSK	1	24	22.72	22.83	22.68		
5	QPSK	12	0	22.78	22.77	22.73		
5	QPSK	12	7	22.81	22.83	22.89		
5	QPSK	12	13	22.81	22.81	22.75		
5	QPSK	25	0	22.65	22.85	22.68		
5	16QAM	1	0	22.78	22.85	22.80		
5	16QAM	1	12	22.65	22.73	22.84		
5	16QAM	1	24	22.74	22.75	22.77		
5	16QAM	12	0	22.75	22.50	22.44		
5	16QAM	12	7	22.49	22.49	22.48		
5	16QAM	12	13	22.62	22.42	22.61		
5	16QAM	25	0	22.48	22.44	22.43		
5	16QAM	1	0	22.27	22.30	22.30		
5	16QAM	1	12	22.33	22.33	22.30		
5	16QAM	1	24	22.25	22.38	22.30		
5	16QAM	12	0	21.24	21.44	21.45		
5	16QAM	12	7	21.45	21.47	21.45		
5	16QAM	12	13	21.46	21.45	21.50		
5	16QAM	25	0	21.55	21.40	21.29		
5	256QAM	1	0	19.55	19.55	19.50		
5	256QAM	1	12	19.69	19.75	19.62		
5	256QAM	1	24	19.57	19.56	19.55		
5	256QAM	12	0	19.63	19.55	19.51		
5	256QAM	12	7	19.52	19.50	19.51		
5	256QAM	12	13	19.57	19.63	19.51		
5	256QAM	25	0	19.54	19.50	19.47		

Band 17 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				23790	23790	23800		
Frequency [MHz]				23790	23790	23800		
10	QPSK	1	0	23.50	23.51	23.42	24	0
10	QPSK	1	25	23.47	23.34	23.38		
10	QPSK	1	49	23.47	23.45	23.27		
10	QPSK	25	0	23.47	23.45	23.45		
10	QPSK	25	12	23.46	23.43	23.26		
10	QPSK	25	25	23.41	23.41	23.41		
10	QPSK	50	0	23.30	23.41	23.33		
10	16QAM	1	0	23.47	23.49	23.35		
10	16QAM	1	25	23.39	23.48	23.38		
10	16QAM	1	49	23.46	23.45	23.26		
10	16QAM	25	0	23.51	23.05	23.14		
10	16QAM	25	12	23.18	23.18	23.14		
10	16QAM	25	25	23.15	23.23	23.17		
10	16QAM	50	0	23.08	23.08	23.10		
10	16QAM	1	0	22.98	23.07	22.98		
10	16QAM	1	25	23.05	23.07	22.98		
10	16QAM	1	49	23.07	23.04	22.95		
10	16QAM	25	0	22.90	22.90	22.85		
10	16QAM	25	12	22.14	22.11	22.19		
10	16QAM	25	25	22.16	22.12	22.06		
10	16QAM	50	0	20.32	20.35	20.15		
10	256QAM	1	0	20.20	20.22	20.20		
10	256QAM	1	25	20.22	20.31	20.21		
10	256QAM	1	49	20.20	20.28	20.19		
10	256QAM	25	0	20.14	20.29	20.21		
10	256QAM	25	12	20.17	20.24	20.18		
10	256QAM	25	25	20.19	20.25	20.16		
10	256QAM	50	0	20.13	20.22	20.17		
Channel				23795	23795	23805		
Frequency [MHz]				23795	23795	23805		
5	QPSK	1	0	23.48	23.43	23.32	24	0
5	QPSK	1	12	23.30	23.31	23.30		
5	QPSK	1	24	23.43	23.34	23.15		
5	QPSK	12	0	23.36	23.42	23.33		
5	QPSK	12	7	23.37	23.37	23.27		
5	QPSK	12	13	23.38	23.35	23.32		
5	QPSK	25	0	23.21	23.39	23.22		
5	16QAM	1	0	23.37	23.37	23.27		
5	16QAM	1	12	23.37	23.44	23.38		
5	16QAM	1	24	23.35	23.37	23.29		
5	16QAM	12	0	23.05	23.05	23.05		
5	16QAM	12	7	23.09	23.15	23.09		
5	16QAM	12	13	23.13	23.18	23.10		
5	16QAM	25	0	23.02	23.04	23.00		
5	16QAM	1	0	22.85	23.09	22.84		
5	16QAM	1	12	23.05	23.05	22.90		
5	16QAM	1	24	22.96	22.94	22.89		
5	16QAM	12	0	21.95	21.92	21.98		
5	16QAM	12	7	22.10	22.06	22.07		
5	16QAM	12	13	22.05	22.05	21.99		
5	16QAM	25	0	21.95	21.95	22.11		
5	256QAM	1	0	20.12	20.20	20.08		
5	256QAM	1	12	20.17	20.27	20.15		
5	256QAM	1	24	20.15	20.23	20.07		
5	256QAM	12	0	20.02	20.13	20.05		
5	256QAM	12	7	20.09	20.15	20.15		
5	256QAM	12	13	20.12	20.16	20.05		
5	256QAM	25	0	20.03	20.11	20.15		



Band 25 Ant 0

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low, Power Mids, Power High, Tune-up limit, MPR. Contains multiple channel frequency lists for various modulation types like QPSK, 16QAM, 64QAM, 256QAM.

Band 25 Ant 1

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low, Power Mids, Power High, Tune-up limit, MPR. Contains multiple channel frequency lists for various modulation types like QPSK, 16QAM, 64QAM, 256QAM.



Band 26 FCC Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Mid Ch. Freq.	High Ch. Freq.		
Channel				26765	26865	26965		
Frequency (MHz)				26765	26865	26965		
15	QPSK	1	0	22.95	23.05	22.95	24	0
15	QPSK	1	37	22.92	23.04	22.87		
15	QPSK	1	74	22.92	23.04	22.87		
15	QPSK	36	0	22.93	23.01	22.97		
15	QPSK	36	20	22.96	23.00	22.90	24	0
15	QPSK	36	39	22.99	22.97	22.95		
15	QPSK	75	0	22.94	23.02	22.91		
15	16QAM	1	0	22.94	23.02	22.95		
15	16QAM	1	37	22.93	22.98	22.81	24	0
15	16QAM	1	74	22.90	23.03	22.88		
15	16QAM	36	0	22.41	22.46	22.45		
15	16QAM	36	20	22.50	22.48	22.56	23.5	0.5
15	16QAM	36	39	22.43	22.60	22.38		
15	16QAM	75	0	22.93	22.93	22.44		
15	64QAM	1	0	22.92	22.92	22.98		
15	64QAM	1	37	22.94	22.97	22.45	23.5	0.5
15	64QAM	1	74	22.92	22.81	22.55		
15	64QAM	36	0	21.43	21.45	21.38		
15	64QAM	36	20	21.49	21.47	21.45	22.5	1.5
15	64QAM	36	39	21.46	21.49	21.41		
15	64QAM	75	0	21.55	21.55	21.51		
15	256QAM	1	0	19.69	19.86	19.56		
15	256QAM	1	37	19.71	19.73	19.66	20.5	3.5
15	256QAM	1	74	19.75	19.81	19.77		
15	256QAM	36	0	19.60	19.62	19.58		
15	256QAM	36	20	19.59	19.63	19.57	20.5	3.5
15	256QAM	36	39	19.59	19.64	19.55		
15	256QAM	75	0	19.64	19.65	19.62		
Channel				26740	26865	26990		
Frequency (MHz)				26740	26865	26990		
10	QPSK	1	0	22.92	22.95	22.85	24	0
10	QPSK	1	25	22.88	22.93	22.79		
10	QPSK	1	49	22.86	22.82	22.85		
10	QPSK	25	0	22.87	22.94	22.88		
10	QPSK	25	14	22.90	22.92	22.83	24	0
10	QPSK	25	28	22.94	22.94	22.83		
10	QPSK	50	0	22.84	22.80	22.87		
10	16QAM	1	0	22.82	22.90	22.75		
10	16QAM	1	25	22.78	22.91	22.89	24	0
10	16QAM	1	49	22.79	22.97	22.92		
10	16QAM	25	0	22.34	22.42	22.42		
10	16QAM	25	12	22.44	22.42	22.47	23.5	0.5
10	16QAM	25	25	22.38	22.58	22.34		
10	16QAM	50	0	22.56	22.45	22.42		
10	64QAM	1	0	22.46	22.50	22.45		
10	64QAM	1	25	22.58	22.66	22.43	23.5	0.5
10	64QAM	1	49	22.50	22.54	22.49		
10	64QAM	25	0	21.32	21.37	21.30		
10	64QAM	25	12	21.37	21.35	21.37	22.5	1.5
10	64QAM	25	25	21.40	21.40	21.38		
10	64QAM	50	0	21.44	21.51	21.45		
10	256QAM	1	0	19.50	19.57	19.52		
10	256QAM	1	25	19.62	19.64	19.64	20.5	3.5
10	256QAM	1	49	19.67	19.69	19.70		
10	256QAM	25	0	19.54	19.57	19.48		
10	256QAM	25	12	19.49	19.56	19.52	20.5	3.5
10	256QAM	25	25	19.48	19.61	19.48		
10	256QAM	50	0	19.60	19.60	19.62		
Channel				26715	26865	27015		
Frequency (MHz)				26715	26865	27015		
5	QPSK	1	0	22.93	23.04	22.84	24	0
5	QPSK	1	12	22.88	22.95	22.79		
5	QPSK	1	24	22.86	22.84	22.87		
5	QPSK	12	0	22.81	22.97	22.84		
5	QPSK	12	7	22.84	22.90	22.85	24	0
5	QPSK	12	13	22.89	22.86	22.90		
5	QPSK	25	0	22.90	22.97	22.80		
5	16QAM	1	0	22.79	22.94	22.73		
5	16QAM	1	12	22.82	22.87	22.78	24	0
5	16QAM	1	24	22.86	22.93	22.78		
5	16QAM	12	0	22.39	22.35	22.37		
5	16QAM	12	7	22.40	22.38	22.49	23.5	0.5
5	16QAM	12	13	22.38	22.56	22.33		
5	16QAM	25	0	22.47	22.39	22.37		
5	64QAM	1	0	22.44	22.49	22.37		
5	64QAM	1	12	22.80	22.87	22.34	23.5	0.5
5	64QAM	1	24	22.80	22.51	22.51		
5	64QAM	12	0	21.35	21.41	21.35		
5	64QAM	12	7	21.47	21.36	21.36	22.5	1.5
5	64QAM	12	13	21.38	21.46	21.28		
5	64QAM	25	0	21.49	21.48	21.39		
5	256QAM	1	0	19.57	19.63	19.50		
5	256QAM	1	12	19.69	19.69	19.64	20.5	3.5
5	256QAM	1	24	19.71	19.73	19.74		
5	256QAM	12	0	19.66	19.52	19.48		
5	256QAM	12	7	19.49	19.52	19.51	20.5	3.5
5	256QAM	12	13	19.50	19.57	19.48		
5	256QAM	25	0	19.58	19.60	19.55		
Channel				26765	26865	27020		
Frequency (MHz)				26765	26865	27020		
3	QPSK	1	0	22.86	23.04	22.80	24	0
3	QPSK	1	8	22.86	22.96	22.85		
3	QPSK	1	14	22.86	22.82	22.88		
3	QPSK	8	0	22.89	22.96	22.90		
3	QPSK	8	4	22.94	22.94	22.84	24	0
3	QPSK	8	7	22.93	22.89	22.90		
3	QPSK	15	0	22.88	22.93	22.80		
3	16QAM	1	0	22.79	22.96	22.73		
3	16QAM	1	8	22.82	22.96	22.78	24	0
3	16QAM	1	14	22.83	22.94	22.78		
3	16QAM	8	0	22.38	22.37	22.35		
3	16QAM	8	4	22.42	22.43	22.52	23.5	0.5
3	16QAM	8	7	22.40	22.49	22.38		
3	16QAM	15	0	22.67	22.42	22.38		
3	64QAM	1	0	22.46	22.50	22.39		
3	64QAM	1	8	22.58	22.87	22.34	23.5	0.5
3	64QAM	1	14	22.68	22.55	22.51		
3	64QAM	8	0	21.41	21.38	21.26		
3	64QAM	8	4	21.46	21.40	21.34	22.5	1.5
3	64QAM	8	7	21.46	21.38	21.27		
3	64QAM	15	0	21.46	21.48	21.47		
3	256QAM	1	0	19.49	19.54	19.47		
3	256QAM	1	8	19.68	19.62	19.56	20.5	3.5
3	256QAM	1	14	19.65	19.71	19.71		
3	256QAM	8	0	19.49	19.51	19.51		
3	256QAM	8	4	19.52	19.57	19.51	20.5	3.5
3	256QAM	8	7	19.56	19.53	19.43		
3	256QAM	15	0	19.63	19.64	19.63		
Channel				26697	26865	27033		
Frequency (MHz)				26697	26865	27033		
1.4	QPSK	1	0	22.83	23.03	22.89	24	0
1.4	QPSK	1	3	22.83	22.96	22.75		
1.4	QPSK	1	5	22.89	22.86	22.87		
1.4	QPSK	3	0	22.82	22.97	22.85		
1.4	QPSK	3	1	22.85	22.85	22.88		
1.4	QPSK	3	3	22.85	22.88	22.80		
1.4	QPSK	6	0	22.89	22.97	22.85	24	0
1.4	16QAM	1	0	22.77	22.97	22.76		
1.4	16QAM	1	3	22.84	22.94	22.79		
1.4	16QAM	1	5	22.82	22.95	22.81	24	0
1.4	16QAM	3	0	22.34	22.43	22.40		
1.4	16QAM	3	1	22.43	22.45	22.50	23.5	0.5
1.4	16QAM	3	3	22.37	22.52	22.35		
1.4	16QAM	6	0	22.49	22.45	22.41		
1.4	64QAM	1	0	22.42	22.51	22.47		
1.4	64QAM	1	3	22.82	22.83	22.38		
1.4	64QAM	1	5	22.80	22.55	22.51	23.5	0.5
1.4	64QAM	3	0	22.39	22.48	22.45		
1.4	64QAM	3	1	22.47	22.82	22.37		
1.4	64QAM	3	3	22.55	22.92	22.51		
1.4	64QAM	6	0	21.47	21.48	21.48	22.5	1.5
1.4	256QAM	1	0	19.55	19.61	19.53		
1.4	256QAM	1	3	19.69	19.62	19.62	20.5	3.5
1.4	256QAM	1	5	19.67	19.74	19.67		
1.4	256QAM	3	0	19.52	19.54	19.50		
1.4	256QAM	3	1	19.47	19.56	19.47		
1.4	256QAM	3	3	19.55	19.52	19.50	20.5	3.5
1.4	256QAM	6	0	19.63	19.61	19.67		



Band 26 FCC Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MRR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel 26765								
Frequency (MHz)				26765	26765	26765		
15	QPSK	1	0	23.02	23.08	23.15	24	0
15	QPSK	1	37	23.04	23.04	23.11		
15	QPSK	1	74	22.97	22.93	23.08		
15	QPSK	36	0	22.98	23.05	23.04	24	0
15	QPSK	36	20	22.97	23.03	23.02		
15	QPSK	36	39	22.95	23.09	23.05		
15	QPSK	75	0	23.02	23.03	23.00	24	0
15	16QAM	1	0	22.98	23.06	23.03		
15	16QAM	1	37	22.97	23.08	23.04		
15	16QAM	1	74	22.92	23.09	23.03	23.5	0.5
15	16QAM	36	0	22.92	22.99	22.95		
15	16QAM	36	20	22.93	22.93	22.93		
15	16QAM	36	39	22.90	22.98	22.90	22.5	1.5
15	16QAM	75	0	22.95	22.90	22.95		
15	16QAM	1	0	22.44	22.96	22.91		
15	64QAM	1	37	22.97	22.71	22.71	23.5	0.5
15	64QAM	1	74	22.30	22.65	22.65		
15	64QAM	36	0	21.48	21.41	21.53		
15	64QAM	36	20	21.51	21.50	21.56	22.5	1.5
15	64QAM	36	39	21.53	21.54	21.68		
15	64QAM	75	0	21.57	21.45	21.65		
15	256QAM	1	0	19.65	19.67	19.65	20.5	3.5
15	256QAM	1	37	19.57	19.66	19.63		
15	256QAM	1	74	19.71	19.83	19.71		
15	256QAM	36	0	19.50	19.61	19.58	20.5	3.5
15	256QAM	36	20	19.58	19.63	19.52		
15	256QAM	36	39	19.63	19.72	19.64		
15	256QAM	75	0	19.62	19.65	19.68		
Channel 26766								
Frequency (MHz)				26766	26766	26766		
10	QPSK	1	0	23.00	23.06	23.03	24	0
10	QPSK	1	25	22.92	22.94	23.00		
10	QPSK	1	49	22.93	22.94	22.97		
10	QPSK	25	0	22.92	22.94	23.02	24	0
10	QPSK	25	12	22.95	22.96	22.95		
10	QPSK	25	24	22.94	22.96	22.91		
10	QPSK	50	0	22.91	22.95	22.95	24	0
10	16QAM	1	0	22.94	22.96	22.96		
10	16QAM	1	25	22.88	22.98	22.92		
10	16QAM	1	49	22.97	23.01	23.01	23.5	0.5
10	16QAM	25	12	22.41	22.49	22.59		
10	16QAM	25	25	22.93	22.45	22.56		
10	16QAM	50	0	22.47	22.44	22.48	23.5	0.5
10	64QAM	1	0	22.98	22.48	22.48		
10	64QAM	1	25	22.40	22.67	22.95		
10	64QAM	1	49	22.19	22.54	22.61	22.5	1.5
10	64QAM	25	12	21.39	21.38	21.47		
10	64QAM	25	25	21.40	21.49	21.60		
10	64QAM	50	0	21.41	21.39	21.63	20.5	3.5
10	256QAM	1	0	19.69	19.57	19.63		
10	256QAM	1	25	19.65	19.58	19.53		
10	256QAM	1	49	19.63	19.77	19.62	20.5	3.5
10	256QAM	25	0	19.50	19.51	19.42		
10	256QAM	25	12	19.50	19.51	19.42		
10	256QAM	25	25	19.54	19.64	19.53		
10	256QAM	50	0	19.47	19.52	19.51		
Channel 26767								
Frequency (MHz)				26767	26767	26767		
5	QPSK	1	0	23.03	23.04	23.05	24	0
5	QPSK	1	12	22.97	23.01	23.05		
5	QPSK	1	24	22.79	22.91	23.06		
5	QPSK	12	0	22.96	23.03	22.96	24	0
5	QPSK	12	7	22.96	23.00	22.94		
5	QPSK	12	13	22.93	22.96	22.95		
5	QPSK	25	0	22.97	23.01	22.96	24	0
5	16QAM	1	0	22.94	23.02	22.92		
5	16QAM	1	12	22.85	22.97	22.87		
5	16QAM	1	24	22.91	22.97	23.01	23.5	0.5
5	16QAM	12	0	22.33	22.34	22.30		
5	16QAM	12	7	22.45	22.43	22.59		
5	16QAM	12	13	22.60	22.46	22.57	22.5	1.5
5	16QAM	25	0	22.49	22.45	22.44		
5	64QAM	1	0	22.98	22.47	22.43		
5	64QAM	1	12	22.43	22.63	22.67	22.5	0.5
5	64QAM	1	24	22.23	22.53	22.61		
5	64QAM	12	0	21.43	21.29	21.41		
5	64QAM	12	7	21.48	21.47	21.49	22.5	1.5
5	64QAM	12	13	21.49	21.45	21.56		
5	64QAM	25	0	21.45	21.41	21.56		
5	256QAM	1	0	19.50	19.61	19.58	20.5	3.5
5	256QAM	1	12	19.60	19.56	19.52		
5	256QAM	1	24	19.65	19.79	19.67		
5	256QAM	12	0	19.41	19.55	19.47	20.5	3.5
5	256QAM	12	7	19.47	19.55	19.43		
5	256QAM	12	13	19.54	19.70	19.54		
5	256QAM	25	0	19.41	19.55	19.53		
Channel 26768								
Frequency (MHz)				26768	26768	26768		
3	QPSK	1	0	22.98	23.05	23.13	24	0
3	QPSK	1	9	22.94	23.01	23.08		
3	QPSK	1	14	22.93	22.93	22.99		
3	QPSK	8	0	22.96	22.96	22.95	24	0
3	QPSK	8	4	22.91	22.96	22.96		
3	QPSK	8	7	22.93	22.90	22.98		
3	QPSK	15	0	22.97	22.94	22.98	24	0
3	16QAM	1	0	22.95	23.04	22.98		
3	16QAM	1	8	22.95	23.05	22.97		
3	16QAM	1	14	22.93	22.97	22.95	23.5	0.5
3	16QAM	8	0	22.29	22.36	22.40		
3	16QAM	8	4	22.44	22.44	22.52		
3	16QAM	8	7	22.51	22.40	22.52	23.5	0.5
3	16QAM	15	0	22.48	22.45	22.50		
3	64QAM	1	0	22.33	22.46	22.44		
3	64QAM	1	8	22.35	22.69	22.61	22.5	0.5
3	64QAM	1	14	22.22	22.60	22.68		
3	64QAM	8	0	21.38	21.39	21.42		
3	64QAM	8	4	21.43	21.38	21.51	22.5	1.5
3	64QAM	8	7	21.44	21.44	21.56		
3	64QAM	15	0	21.35	21.41	21.60		
3	256QAM	1	0	19.63	19.57	19.63	20.5	3.5
3	256QAM	1	8	19.66	19.57	19.56		
3	256QAM	1	14	19.60	19.78	19.69		
3	256QAM	8	0	19.62	19.52	19.47	20.5	3.5
3	256QAM	8	4	19.60	19.56	19.46		
3	256QAM	8	7	19.65	19.65	19.55		
3	256QAM	15	0	19.42	19.55	19.52		
Channel 26769								
Frequency (MHz)				26769	26769	26769		
1.4	QPSK	1	0	23.02	23.08	23.04	24	0
1.4	QPSK	1	3	22.99	22.95	23.05		
1.4	QPSK	1	5	22.79	22.82	23.04		
1.4	QPSK	3	0	22.95	22.98	23.00	24	0
1.4	QPSK	3	1	22.95	23.01	22.96		
1.4	QPSK	3	3	22.92	22.93	22.88		
1.4	QPSK	6	0	22.91	22.99	22.89	24	0
1.4	16QAM	1	0	22.94	23.03	22.93		
1.4	16QAM	1	3	22.88	23.05	22.94		
1.4	16QAM	1	5	23.00	23.03	23.00	24	0
1.4	16QAM	3	0	22.38	22.32	22.44		
1.4	16QAM	3	1	22.50	22.43	22.53		
1.4	16QAM	3	3	22.58	22.48	22.49	23.5	0.5
1.4	16QAM	6	0	22.49	22.45	22.47		
1.4	64QAM	1	0	22.39	22.50	22.46		
1.4	64QAM	1	3	22.44	22.82	22.85	23.5	0.5
1.4	64QAM	1	5	22.20	22.88	22.82		
1.4	64QAM	3	0	22.36	22.54	22.45		
1.4	64QAM	3	1	22.47	22.63	22.63	22.5	1.5
1.4	64QAM	3	3	22.21	22.54	22.61		
1.4	64QAM	6	0	21.36	21.35	21.56		
1.4	256QAM	1	0	19.53	19.56	19.57	20.5	3.5
1.4	256QAM	1	3	19.65	19.64	19.61		
1.4	256QAM	1	5	19.68	19.79	19.65		
1.4	256QAM	3	0	19.64	19.51	19.53	20.5	3.5
1.4	256QAM	3	1	19.66	19.87	19.40		
1.4	256QAM	3	3	19.52	19.62	19.56		
1.4	256QAM	6	0	19.44	19.50	19.49		



Band 30 Ant 7

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					
Frequency (MHz)					
10	21.07	21.07	21.07	24	0
10	23.06	23.06	23.06		
10	22.85	22.85	22.85		
10	22.95	22.95	22.95		
10	22.91	22.91	22.91		
10	22.87	22.87	22.87		
10	22.90	22.90	22.90		
10	23.01	23.01	23.01		
10	23.02	23.02	23.02		
10	23.05	23.05	23.05		
10	22.53	22.53	22.53	23.5	0.5
10	22.48	22.48	22.48		
10	22.38	22.38	22.38		
10	22.92	22.92	22.92		
10	22.51	22.51	22.51		
10	22.45	22.45	22.45		
10	22.55	22.55	22.55		
10	21.52	21.52	21.52		
10	21.57	21.57	21.57		
10	21.55	21.55	21.55		
10	21.53	21.53	21.53	20.5	3.5
10	19.53	19.53	19.53		
10	19.32	19.32	19.32		
10	19.36	19.36	19.36		
10	19.42	19.42	19.42		
10	19.38	19.38	19.38		
10	19.28	19.28	19.28		
10	19.31	19.31	19.31		
10	19.31	19.31	19.31		
10	19.31	19.31	19.31		
Channel					
Frequency (MHz)					
5	22.95	22.95	22.95	24	0
5	23.09	23.09	23.09		
5	22.81	22.78	22.83		
5	22.88	22.89	22.89		
5	22.87	22.86	22.79		
5	22.83	22.81	22.85		
5	22.84	22.79	22.88		
5	22.83	22.85	22.84		
5	22.82	22.86	22.90		
5	22.82	22.88	22.90		
5	22.89	22.86	22.87	23.5	0.5
5	22.35	22.32	22.29		
5	22.42	22.40	22.42		
5	22.44	22.46	22.44		
5	22.37	22.41	22.36		
5	22.44	22.53	22.53		
5	21.53	21.50	21.54		
5	21.59	21.45	21.49		
5	21.44	21.44	21.52		
5	21.51	21.59	21.61		
5	19.44	19.48	19.49	20.5	3.5
5	19.45	19.50	19.45		
5	19.28	19.29	19.26		
5	19.30	19.31	19.25		
5	19.30	19.40	19.30		
5	19.24	19.22	19.18		
5	19.23	19.26	19.27		
5	19.23	19.26	19.27		
5	19.23	19.26	19.27		
5	19.23	19.26	19.27		

Band 30 Ant 1

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					
Frequency (MHz)					
10	22.95	22.95	22.95	24	0
10	22.90	22.90	22.90		
10	22.78	22.78	22.78		
10	22.93	22.93	22.93		
10	22.91	22.91	22.91		
10	22.86	22.86	22.86		
10	22.80	22.80	22.80		
10	22.92	22.92	22.92		
10	22.91	22.91	22.91		
10	22.75	22.75	22.75		
10	22.25	22.25	22.25	23	1
10	22.88	22.88	22.88		
10	21.90	21.90	21.90		
10	21.96	21.96	21.96		
10	21.91	21.91	21.91		
10	21.93	21.93	21.93		
10	21.90	21.90	21.90		
10	21.92	21.92	21.92		
10	21.94	21.94	21.94		
10	21.95	21.95	21.95		
10	18.18	18.18	18.18	20	4
10	18.18	18.18	18.18		
10	18.84	18.84	18.84		
10	18.19	18.19	18.19		
10	18.11	18.11	18.11		
10	18.86	18.86	18.86		
10	18.86	18.86	18.86		
10	18.86	18.86	18.86		
10	18.86	18.86	18.86		
10	18.86	18.86	18.86		
Channel					
Frequency (MHz)					
5	22.89	22.89	22.89	24	0
5	22.83	22.83	22.86		
5	22.69	22.76	22.72		
5	22.83	22.81	22.81		
5	22.81	22.80	22.86		
5	22.76	22.88	22.78		
5	22.84	22.81	22.85		
5	22.85	22.81	22.80		
5	22.88	22.89	22.88		
5	22.70	22.65	22.73		
5	22.70	21.99	22.71	23	1
5	21.96	21.90	21.96		
5	21.88	21.89	21.94		
5	21.81	21.86	21.82		
5	21.96	21.95	21.96		
5	21.88	21.81	21.85		
5	21.98	21.93	21.93		
5	21.88	21.83	21.86		
5	21.84	21.84	21.82		
5	21.84	21.82	21.83		
5	19.07	19.10	19.16	20	4
5	19.12	19.14	19.07		
5	18.79	18.77	18.72		
5	19.05	19.07	19.06		
5	19.05	19.05	19.07		
5	18.91	18.90	18.93		
5	18.96	18.94	18.96		
5	18.96	18.96	18.96		
5	18.96	18.96	18.96		
5	18.96	18.96	18.96		



Band 30 Ant 6

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					
Frequency (MHz)					
10	24.10	24.10	24.10	24.5	0
10	24.08	24.08	24.08		
10	24.11	24.11	24.11		
10	23.10	23.10	23.10	23.5	1
10	23.02	23.02	23.02		
10	23.05	23.05	23.05		
10	22.10	22.10	22.10	23.5	1
10	22.02	22.02	22.02		
10	22.05	22.05	22.05		
10	21.10	21.10	21.10	22.5	2
10	21.02	21.02	21.02		
10	21.05	21.05	21.05		
10	20.10	20.10	20.10	21.5	3
10	20.02	20.02	20.02		
10	20.05	20.05	20.05		
10	19.10	19.10	19.10	19.5	5
10	18.83	18.83	18.83		
10	18.75	18.75	18.75		
10	18.10	18.10	18.10	19.5	5
10	18.02	18.02	18.02		
10	18.05	18.05	18.05		
Channel					
Frequency (MHz)					
5	24.05	24.05	24.05	24.5	0
5	23.99	23.99	24.05		
5	24.11	24.11	24.05		
5	23.02	23.03	23.09	23.5	1
5	23.01	23.04	23.00		
5	22.95	22.97	22.90		
5	22.04	22.06	22.03	23.5	1
5	22.03	22.08	22.09		
5	22.05	22.07	22.04		
5	21.10	21.10	21.10	22.5	2
5	21.02	21.01	21.00		
5	21.03	21.02	21.00		
5	20.02	20.00	20.00	21.5	3
5	20.09	21.07	20.99		
5	20.99	21.01	20.94		
5	18.75	18.75	18.75	19.5	5
5	18.72	18.78	18.78		
5	18.75	18.71	18.75		
5	18.02	18.00	18.00	19.5	5
5	18.05	18.05	18.02		
5	18.05	18.05	18.02		

Band 30 Ant 9

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					
Frequency (MHz)					
10	22.20	22.20	22.20	24	0
10	22.28	22.28	22.28		
10	22.37	22.37	22.37		
10	22.20	22.20	22.20	23	1
10	22.24	22.24	22.24		
10	22.22	22.22	22.22		
10	22.82	22.82	22.82	23	1
10	22.88	22.88	22.88		
10	22.95	22.95	22.95		
10	21.25	21.25	21.25	22	2
10	21.25	21.25	21.25		
10	21.22	21.22	21.22		
10	21.46	21.46	21.46	22	2
10	21.53	21.53	21.53		
10	21.33	21.33	21.33		
10	20.30	20.30	20.30	21	3
10	20.27	20.27	20.27		
10	20.25	20.25	20.25		
10	18.87	18.87	18.87	19	5
10	18.84	18.84	18.84		
10	18.76	18.76	18.76		
10	17.94	17.94	17.94	19	5
10	17.91	17.91	17.91		
10	17.73	17.73	17.73		
Channel					
Frequency (MHz)					
5	23.24	23.24	23.24	24	0
5	23.21	23.21	23.24		
5	23.26	23.26	23.24		
5	22.24	22.18	22.28	23	1
5	22.19	22.19	22.19		
5	22.14	22.14	22.14		
5	22.16	22.16	22.18	23	1
5	22.06	22.06	22.06		
5	22.82	22.82	22.84		
5	22.34	22.34	22.37	22	2
5	21.34	21.34	21.30		
5	21.13	21.13	21.21		
5	21.10	21.10	21.10	22	2
5	21.11	21.10	21.19		
5	21.43	21.42	21.44		
5	21.44	21.44	21.42	21	3
5	20.23	20.24	20.17		
5	20.12	20.12	20.14		
5	20.16	20.22	20.20	19	5
5	18.03	18.02	18.05		
5	18.08	18.08	18.09		
5	17.73	17.72	17.70	19	5
5	17.64	17.64	17.66		
5	17.83	17.85	17.87		
5	17.73	17.74	17.75	19	5
5	17.84	17.78	17.85		
5	17.84	17.78	17.85		



Band 66 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel 130072								
Frequency (MHz)								
20	QPSK	1	0	23.32	23.33	23.34	24	0
20	QPSK	1	49	23.47	23.59	23.81		
20	QPSK	1	99	23.63	23.83	24.13		
20	QPSK	50	0	23.81	23.98	24.33		
20	QPSK	50	24	23.69	23.86	24.46	24	0
20	QPSK	50	49	23.54	23.83	24.09		
20	QPSK	100	0	23.59	23.59	23.54		
20	16QAM	1	0	23.58	23.58	23.65		
20	16QAM	1	49	23.59	23.58	23.84	24	0
20	16QAM	1	99	23.66	23.58	23.88		
20	16QAM	50	0	22.55	22.83	23.05		
20	16QAM	50	24	22.65	22.79	22.94	23	1
20	16QAM	50	49	22.58	22.84	22.94		
20	16QAM	100	0	22.59	22.71	22.88		
20	16QAM	1	0	22.74	22.78	22.88		
20	16QAM	1	49	22.71	22.79	22.85	23	1
20	16QAM	1	99	22.71	22.49	22.81		
20	16QAM	50	0	21.55	21.63	21.65		
20	16QAM	50	24	21.59	21.56	21.57	22	2
20	16QAM	50	49	21.59	21.56	21.55		
20	16QAM	100	0	21.58	21.56	21.55		
20	16QAM	1	0	19.54	19.65	19.55		
20	16QAM	1	49	19.57	19.66	19.93	20	4
20	16QAM	1	99	19.78	19.82	19.78		
20	16QAM	50	0	19.86	19.81	19.81		
20	16QAM	50	24	19.55	19.54	19.60	20	4
20	16QAM	50	49	19.66	19.77	19.87		
20	16QAM	100	0	19.61	19.63	19.52		
Channel 130077								
Frequency (MHz)								
15	QPSK	1	0	23.46	23.49	23.52	24	0
15	QPSK	1	37	23.77	23.91	23.50		
15	QPSK	1	74	23.33	23.59	23.44		
15	QPSK	36	0	23.58	23.58	23.52		
15	QPSK	36	20	23.41	23.41	23.35	24	0
15	QPSK	36	49	23.45	23.51	23.49		
15	QPSK	75	0	23.49	23.49	23.42		
15	16QAM	1	0	23.62	23.62	23.58		
15	16QAM	1	37	23.52	23.59	23.56	24	0
15	16QAM	1	74	23.56	23.49	23.59		
15	16QAM	36	0	22.52	22.54	22.58		
15	16QAM	36	20	22.58	22.58	22.49	23	1
15	16QAM	36	49	22.48	22.58	22.52		
15	16QAM	75	0	22.57	22.58	22.55		
15	16QAM	1	0	22.59	22.59	22.79		
15	16QAM	1	37	22.54	22.55	22.51	23	1
15	16QAM	1	74	22.64	22.28	22.59		
15	16QAM	36	0	21.44	21.63	21.60		
15	16QAM	36	20	21.57	21.48	21.53	22	2
15	16QAM	36	49	21.55	21.53	21.61		
15	16QAM	75	0	21.55	21.53	21.61		
15	256QAM	1	0	19.59	19.57	19.45		
15	256QAM	1	37	19.45	19.59	19.48	20	4
15	256QAM	1	74	19.72	19.78	19.87		
15	256QAM	36	0	19.43	19.43	19.43		
15	256QAM	36	20	19.45	19.35	19.38	20	4
15	256QAM	36	49	19.55	19.67	19.85		
15	256QAM	75	0	19.55	19.54	19.48		
Channel 130082								
Frequency (MHz)								
10	QPSK	1	0	23.44	23.51	23.60	24	0
10	QPSK	1	25	23.38	23.49	23.52		
10	QPSK	1	50	23.29	23.47	23.50		
10	QPSK	25	0	23.59	23.59	23.56		
10	QPSK	25	12	23.48	23.48	23.41	24	0
10	QPSK	25	25	23.52	23.60	23.52		
10	QPSK	50	0	23.38	23.46	23.51		
10	16QAM	1	0	23.63	23.64	23.56		
10	16QAM	1	25	23.56	23.48	23.54	24	0
10	16QAM	1	50	23.49	23.49	23.52		
10	16QAM	25	0	22.51	22.55	22.43		
10	16QAM	25	12	22.53	22.58	22.48	23	1
10	16QAM	25	25	22.47	22.53	22.60		
10	16QAM	50	0	22.53	22.63	22.52		
10	16QAM	1	0	22.57	22.57	22.76		
10	16QAM	1	25	22.65	22.60	22.54	23	1
10	16QAM	1	50	22.62	22.30	22.54		
10	16QAM	25	0	21.52	21.51	21.66		
10	16QAM	25	12	21.69	21.59	21.51	22	2
10	16QAM	25	25	21.67	21.61	21.57		
10	16QAM	50	0	21.52	21.52	21.57		
10	256QAM	1	0	19.59	19.53	19.46		
10	256QAM	1	25	19.51	19.62	19.55	20	4
10	256QAM	1	50	19.72	19.80	19.88		
10	256QAM	25	0	19.52	19.52	19.46		
10	256QAM	25	12	19.49	19.54	19.53	20	4
10	256QAM	25	25	19.56	19.71	19.63		
10	256QAM	50	0	19.55	19.61	19.49		
Channel 130087								
Frequency (MHz)								
5	QPSK	1	0	23.45	23.59	23.61	24	0
5	QPSK	1	12	23.41	23.47	23.58		
5	QPSK	1	24	23.29	23.59	23.48		
5	QPSK	12	0	23.58	23.59	23.57		
5	QPSK	12	6	23.48	23.44	23.41	24	0
5	QPSK	12	13	23.52	23.55	23.48		
5	QPSK	25	0	23.43	23.44	23.44		
5	16QAM	1	0	23.55	23.59	23.63		
5	16QAM	1	12	23.54	23.49	23.57	24	0
5	16QAM	1	24	23.48	23.47	23.56		
5	16QAM	12	0	22.48	22.54	22.52		
5	16QAM	12	6	22.57	22.61	22.49	23	1
5	16QAM	12	13	22.56	22.59	22.55		
5	16QAM	25	0	22.47	22.62	22.59		
5	16QAM	25	6	22.64	22.67	22.77		
5	16QAM	1	12	22.63	22.59	22.58	23	1
5	16QAM	1	24	22.64	22.31	22.49		
5	16QAM	12	0	21.53	21.59	21.58		
5	16QAM	12	7	21.65	21.59	21.56	22	2
5	16QAM	12	13	21.63	21.44	21.52		
5	16QAM	25	0	21.54	21.58	21.54		
5	256QAM	1	0	19.45	19.56	19.48		
5	256QAM	1	12	19.52	19.60	19.56	20	4
5	256QAM	1	24	19.74	19.72	19.88		
5	256QAM	12	0	19.52	19.52	19.48		
5	256QAM	12	7	19.50	19.50	19.53	20	4
5	256QAM	12	13	19.59	19.72	19.55		
5	256QAM	25	0	19.55	19.63	19.47		
Channel 130092								
Frequency (MHz)								
3	QPSK	1	0	23.42	23.66	23.62	24	0
3	QPSK	1	8	23.37	23.59	23.53		
3	QPSK	1	14	23.34	23.41	23.45		
3	QPSK	8	0	23.57	23.59	23.51		
3	QPSK	4	0	23.55	23.58	23.43		
3	QPSK	8	7	23.49	23.67	23.56	24	0
3	16QAM	1	0	23.41	23.44	23.48		
3	16QAM	1	8	23.55	23.59	23.58		
3	16QAM	1	14	23.64	23.56	23.62	24	0
3	16QAM	8	0	22.50	22.54	22.62		
3	16QAM	8	4	22.60	22.65	22.59	23	1
3	16QAM	8	7	22.55	22.67	22.62		
3	16QAM	15	0	22.47	22.63	22.55		
3	16QAM	1	0	22.68	22.66	22.82		
3	16QAM	1	8	22.66	22.66	22.83	23	1
3	16QAM	1	14	22.69	22.33	22.54		
3	16QAM	8	0	21.44	21.63	21.63		
3	16QAM	8	4	21.66	21.44	21.50	22	2
3	16QAM	8	7	21.67	21.60	21.50		
3	16QAM	15	0	21.55	21.67	21.54		
3	256QAM	1	0	19.44	19.61	19.53		
3	256QAM	1	8	19.48	19.54	19.47	20	4
3	256QAM	1	14	19.74	19.70	19.89		
3	256QAM	8	0	19.45	19.58	19.43		
3	256QAM	8	4	19.61	19.58	19.55	20	4
3	256QAM	8	7	19.55	19.67	19.63		
3	256QAM	15	0	19.57	19.56	19.49		
Channel 130097								
Frequency (MHz)								
1.4	QPSK	1	0	23.48	23.64	23.59	24	0
1.4	QPSK	1	3	23.44	23.57	23.53		
1.4	QPSK	1						



Band 71 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)		
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.				
Channel 13322										
Frequency (MHz)										
20	QPSK	1	0	23.02	23.12	23.02	24	0		
20	QPSK	1	40	22.95	22.90	22.95				
20	QPSK	1	80	22.82	22.78	22.80				
20	QPSK	50	0	22.99	22.92	22.91				
20	QPSK	50	24	22.97	22.96	22.91				
20	QPSK	50	48	22.89	22.84	22.91				
20	QPSK	100	0	22.96	23.02	23.00				
20	16QAM	50	0	22.91	22.86	22.86				
20	16QAM	1	40	22.98	22.94	22.98				
20	16QAM	1	80	22.94	22.96	22.98				
20	16QAM	50	24	22.72	22.74	22.71	23.5	0.5		
20	16QAM	50	48	22.64	22.68	22.62				
20	16QAM	100	0	22.68	22.71	22.75				
20	16QAM	1	0	22.94	22.92	22.91				
20	16QAM	1	40	23.02	22.91	23.03				
20	16QAM	1	80	23.00	22.92	22.88				
20	16QAM	50	24	21.70	21.72	21.80				
20	16QAM	50	48	21.68	21.78	21.78				
20	16QAM	100	0	21.84	21.86	21.88				
20	16QAM	100	24	21.50	21.53	21.81				
20	256QAM	1	0	19.84	19.83	19.78	20.5	3.5		
20	256QAM	1	40	19.78	19.87	19.88				
20	256QAM	1	80	19.83	19.85	19.77				
20	256QAM	50	0	19.70	19.72	19.73				
20	256QAM	50	24	19.70	19.69	19.69				
20	256QAM	50	48	19.69	19.64	19.65				
20	256QAM	100	0	19.73	19.69	19.76				
Channel 13327										
Frequency (MHz)										
15	QPSK	1	0	23.10	22.97	22.96			24	0
15	QPSK	1	37	22.81	22.89	22.84				
15	QPSK	1	74	22.65	22.71	22.80				
15	QPSK	36	0	22.99	22.90	22.96				
15	QPSK	36	20	22.93	22.98	22.80				
15	QPSK	36	40	22.86	22.96	22.80				
15	QPSK	75	0	22.95	22.93	22.89				
15	16QAM	1	0	22.83	22.83	22.89				
15	16QAM	1	37	22.82	22.83	22.90				
15	16QAM	1	74	22.69	22.67	22.87				
15	16QAM	36	0	22.70	22.73	22.82				
15	16QAM	36	20	22.70	22.67	22.85	23.5	0.5		
15	16QAM	36	40	22.62	22.69	22.76				
15	16QAM	75	0	22.81	22.80	22.73				
15	16QAM	1	0	22.94	22.87	22.97				
15	16QAM	1	37	22.92	22.96	22.98				
15	16QAM	1	74	22.81	22.87	22.79				
15	16QAM	36	20	21.74	21.63	21.74				
15	16QAM	36	40	21.62	21.68	21.74				
15	16QAM	75	0	21.54	21.51	21.70				
15	16QAM	100	0	19.82	19.73	19.73				
15	256QAM	1	0	19.75	19.84	19.84	20.5	3.5		
15	256QAM	1	37	19.89	19.86	19.84				
15	256QAM	1	74	19.89	19.79	19.89				
15	256QAM	36	0	19.82	19.86	19.84				
15	256QAM	36	20	19.57	19.54	19.50				
15	256QAM	36	40	19.67	19.54	19.50				
15	256QAM	75	0	19.65	19.53	19.57				
15	256QAM	75	20	19.70	19.67	19.84				
Channel 13372										
Frequency (MHz)										
10	QPSK	1	0	23.07	22.91	22.89	24	0		
10	QPSK	1	25	22.79	22.88	22.85				
10	QPSK	1	49	22.75	22.73	22.80				
10	QPSK	25	0	22.87	22.81	22.81				
10	QPSK	25	12	22.85	22.87	22.79				
10	QPSK	50	0	22.87	22.88	22.88				
10	16QAM	1	0	22.84	22.86	22.80				
10	16QAM	1	25	22.86	22.83	22.83				
10	16QAM	1	49	22.80	22.82	22.81				
10	16QAM	25	0	22.82	22.89	22.82				
10	16QAM	25	12	22.63	22.60	22.60	23.5	0.5		
10	16QAM	25	25	22.64	22.64	22.62				
10	16QAM	50	0	22.65	22.63	22.63				
10	16QAM	1	0	22.84	22.84	22.86				
10	16QAM	1	25	22.83	23.00	22.98				
10	16QAM	1	49	22.84	22.88	22.78				
10	16QAM	25	12	21.66	21.59	21.75				
10	16QAM	25	25	21.72	21.55	21.69				
10	16QAM	50	0	21.68	21.60	21.62				
10	16QAM	50	0	21.81	21.59	21.71				
10	256QAM	1	0	19.74	19.76	19.68	20.5	3.5		
10	256QAM	1	25	19.73	19.82	19.82				
10	256QAM	1	49	19.78	19.81	19.73				
10	256QAM	25	0	19.69	19.66	19.64				
10	256QAM	25	12	19.63	19.58	19.53				
10	256QAM	25	25	19.57	19.57	19.62				
10	256QAM	50	0	19.70	19.67	19.72				
Channel 13347										
Frequency (MHz)										
5	QPSK	1	0	23.07	22.90	22.90			24	0
5	QPSK	1	12	22.80	22.88	22.85				
5	QPSK	1	24	22.75	22.75	22.83				
5	QPSK	12	0	22.89	22.81	22.87				
5	QPSK	12	7	22.81	22.84	22.84				
5	QPSK	12	13	22.88	22.82	22.88				
5	QPSK	25	0	22.87	22.86	22.86				
5	16QAM	1	0	22.80	22.86	22.80				
5	16QAM	1	12	22.88	22.89	22.90				
5	16QAM	1	24	22.84	22.85	22.85				
5	16QAM	12	0	22.65	22.72	22.70	23.5	0.5		
5	16QAM	12	7	22.65	22.68	22.68				
5	16QAM	12	13	22.62	22.68	22.66				
5	16QAM	25	0	22.64	22.60	22.72				
5	16QAM	1	0	22.84	22.86	22.87				
5	16QAM	1	12	22.81	23.02	22.94				
5	16QAM	1	24	22.82	22.84	22.79				
5	16QAM	12	7	21.68	21.59	21.71				
5	16QAM	12	13	21.61	21.60	21.61				
5	16QAM	25	0	21.68	21.61	21.70				
5	256QAM	1	0	19.80	19.80	19.69	20.5	3.5		
5	256QAM	1	12	19.76	19.79	19.66				
5	256QAM	1	24	19.75	19.77	19.72				
5	256QAM	12	0	19.60	19.68	19.60				
5	256QAM	12	7	19.63	19.62	19.67				
5	256QAM	12	13	19.60	19.61	19.61				
5	256QAM	25	0	19.67	19.66	19.71				

Band 71 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)		
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.				
Channel 13322										
Frequency (MHz)										
20	QPSK	1	0	23.12	23.13	23.22	24	0		
20	QPSK	1	40	22.99	23.17	23.21				
20	QPSK	1	80	23.05	23.11	23.15				
20	QPSK	50	0	23.17	23.20	23.19				
20	QPSK	50	24	23.15	23.18	23.16				
20	QPSK	50	48	23.16	23.15	23.15				
20	QPSK	100	0	23.15	23.19	23.15				
20	16QAM	50	0	23.17	23.17	23.13				
20	16QAM	1	40	23.18	23.18	23.14				
20	16QAM	1	80	23.14	23.20	23.17				
20	16QAM	50	24	22.80	22.82	22.88	24	0		
20	16QAM	50	48	22.85	22.98	23.03				
20	16QAM	100	0	22.88	22.90	22.88				
20	16QAM	1	0	23.01	23.17	23.10				
20	16QAM	1	40	23.17	23.17	23.13				
20	16QAM	1	80	23.22	23.13	23.21				
20	16QAM	50	24	21.72	21.72	21.84				
20	16QAM	50	48	21.80	21.80	21.86				
20	16QAM	100	0	19.84	19.82	19.82				
20	16QAM	100	24	19.85	19.82	19.87				
20	256QAM	1	0	19.82	19.82	19.80	21	3		
20	256QAM	1	40	19.82	19.82	19.80				
20	256QAM	1	80	19.84	19.81	19.81				
20	256QAM	50	0	19.77	19.84	19.84				
20	256QAM	50	24	19.80	19.80	19.86				
20	256QAM	50	48	19.83	19.89	20.08				
20	256QAM	100	0	19.84	19.82	19.81				
Channel 13327										
Frequency (MHz)										
15	QPSK	1	0	23.10	23.13	23.18			24	0
15	QPSK	1	37	22.80	23.08	23.16				
15	QPSK	1	74	22.62	23.04	23.06				
15	QPSK	36	0	23.13	23.12	23.15				
15	QPSK	36	20	23.04	23.13	23.14				
15	QPSK	36	40	23.08	23.08	23.10				
15	QPSK	75	0	23.10	23.08	23.12				
15	16QAM	1	0	23.13	23.13	23.11				
15	16QAM	1	37	23.13	23.12	23.08				
15	16QAM	1	74	23.12	23.08	23.06				
15	16QAM	36	0	22.72	22.76	22.80	24	0		
15	16QAM	36	20	22.71	22.80	22.84				
15	16QAM	36	40	22.76	22.82	22.82				
15	16QAM	75	0	22.83	22.84	22.87				
15	16QAM	1	0	22.94	22.87	22.97				
15	16QAM	1	37	22.92	23.03	23.11				
15	16QAM	1	74	22.81	22.87					



Band 38 Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power			Turn-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.		
Channel Frequency (MHz)								
20	QPSK	1	0	22.87	22.84	22.81	24	0
20	QPSK	1	49	22.88	22.77	22.71		
20	QPSK	1	99	22.87	22.77	22.60	24	0
20	QPSK	50	0	22.71	22.76	22.66		
20	QPSK	50	24	22.59	22.65	22.65	24	0
20	QPSK	50	50	22.86	22.72	22.71		
20	QPSK	100	0	22.83	22.70	22.67	24	0
20	16QAM	1	0	22.50	22.43	22.48		
20	16QAM	1	49	22.63	22.52	22.73	24	0
20	16QAM	50	0	22.43	22.44	22.80		
20	16QAM	50	24	22.42	22.52	22.34	24	0
20	16QAM	50	50	22.42	22.47	22.41		
20	16QAM	100	0	22.43	22.45	22.45	24	0
20	64QAM	1	0	22.21	22.73	22.53		
20	64QAM	1	49	22.17	22.10	22.37	23	1
20	64QAM	50	0	21.35	21.34	21.33		
20	64QAM	50	24	21.37	21.44	21.34	23	1
20	64QAM	50	50	21.45	21.45	21.46		
20	256QAM	1	0	21.45	21.37	21.34	20	4
20	256QAM	1	49	18.92	18.95	18.93		
20	256QAM	1	99	19.02	19.05	19.09	20	4
20	256QAM	50	0	19.01	19.13	19.08		
20	256QAM	50	24	19.18	19.22	19.13	20	4
20	256QAM	50	50	19.09	19.18	19.08		
20	256QAM	100	0	19.19	19.22	19.17	20	4
20	256QAM	100	50	19.19	19.22	19.17		
Channel Frequency (MHz)								
15	QPSK	1	0	22.77	22.83	22.76	24	0
15	QPSK	1	49	22.78	22.79	22.72		
15	QPSK	1	99	22.65	22.78	22.61	24	0
15	QPSK	36	0	22.75	22.87	22.82		
15	QPSK	36	24	22.84	22.82	22.88	24	0
15	QPSK	36	49	22.54	22.82	22.59		
15	QPSK	75	0	22.59	22.74	22.67	24	0
15	16QAM	1	0	22.47	22.43	22.37		
15	16QAM	1	37	22.54	22.85	22.65	24	0
15	16QAM	1	74	22.48	22.67	22.78		
15	16QAM	36	0	22.37	22.31	22.33	24	0
15	16QAM	36	20	22.39	22.61	22.32		
15	16QAM	36	38	22.42	22.47	22.44	24	0
15	16QAM	75	0	22.47	22.31	22.53		
15	64QAM	1	0	22.11	22.78	22.23	24	0
15	64QAM	1	37	22.39	22.41	22.79		
15	64QAM	1	74	22.07	22.17	22.34	23	1
15	64QAM	36	0	21.40	21.43	21.26		
15	64QAM	36	20	21.51	21.53	21.36	23	1
15	64QAM	36	38	21.41	21.43	21.52		
15	64QAM	75	0	21.49	21.36	21.41	20	4
15	256QAM	1	0	18.82	18.87	18.88		
15	256QAM	1	37	18.84	18.91	18.91	20	4
15	256QAM	1	74	18.93	18.94	18.95		
15	256QAM	36	0	18.99	19.00	18.98	20	4
15	256QAM	36	20	19.13	19.10	19.09		
15	256QAM	36	38	19.07	19.12	18.98	20	4
15	256QAM	36	50	19.15	19.14	19.14		
Channel Frequency (MHz)								
10	QPSK	1	0	22.79	22.89	22.77	24	0
10	QPSK	1	25	22.72	22.87	22.67		
10	QPSK	1	49	22.64	22.82	22.64	24	0
10	QPSK	25	0	22.73	22.81	22.72		
10	QPSK	25	12	22.57	22.65	22.57	24	0
10	QPSK	25	25	22.68	22.74	22.76		
10	QPSK	50	0	22.55	22.70	22.87	24	0
10	16QAM	1	0	22.21	22.33	22.48		
10	16QAM	1	25	22.05	22.31	22.63	24	0
10	16QAM	1	49	22.48	22.56	22.70		
10	16QAM	25	0	22.21	22.26	22.38	24	0
10	16QAM	25	12	22.50	22.42	22.34		
10	16QAM	25	25	22.47	22.53	22.51	24	0
10	16QAM	50	0	22.33	22.59	22.63		
10	64QAM	1	0	22.15	22.70	22.38	24	0
10	64QAM	1	25	22.29	22.37	22.69		
10	64QAM	1	49	22.18	22.18	22.47	23	1
10	64QAM	25	0	21.44	21.25	21.41		
10	64QAM	25	12	21.63	21.50	21.36	23	1
10	64QAM	25	25	21.69	21.48	21.63		
10	64QAM	50	0	21.50	21.34	21.35	20	4
10	256QAM	1	0	18.88	18.87	18.88		
10	256QAM	1	25	18.97	19.00	18.91	20	4
10	256QAM	1	49	18.99	18.98	18.91		
10	256QAM	25	0	18.95	19.01	18.96	20	4
10	256QAM	25	12	19.13	19.10	19.09		
10	256QAM	25	25	19.07	19.11	19.02	20	4
10	256QAM	50	0	19.16	19.13	19.09		
Channel Frequency (MHz)								
5	QPSK	1	0	22.73	22.82	22.77	24	0
5	QPSK	1	12	22.76	22.87	22.79		
5	QPSK	1	24	22.69	22.69	22.66	24	0
5	QPSK	12	0	22.71	22.76	22.59		
5	QPSK	12	7	22.49	22.60	22.72	24	0
5	QPSK	12	13	22.75	22.68	22.61		
5	QPSK	25	0	22.58	22.68	22.76	24	0
5	16QAM	1	0	22.57	22.39	22.56		
5	16QAM	1	12	22.06	22.87	22.66	24	0
5	16QAM	1	24	22.39	22.63	22.89		
5	16QAM	12	0	22.32	22.39	22.32	24	0
5	16QAM	12	7	22.45	22.45	22.27		
5	16QAM	12	13	22.50	22.47	22.48	24	0
5	16QAM	25	0	22.46	22.43	22.37		
5	64QAM	1	0	22.21	22.75	22.33	24	0
5	64QAM	1	12	22.32	22.36	22.75		
5	64QAM	1	24	22.35	21.79	22.45	23	1
5	64QAM	12	0	21.44	21.38	21.40		
5	64QAM	12	7	21.56	21.54	21.36	23	1
5	64QAM	12	13	21.45	21.35	21.36		
5	64QAM	25	0	21.38	21.32	21.40	20	4
5	256QAM	1	0	18.88	18.89	18.85		
5	256QAM	1	12	18.96	19.04	18.97	20	4
5	256QAM	1	24	18.93	19.03	18.90		
5	256QAM	12	0	18.90	19.03	19.03	20	4
5	256QAM	12	7	19.10	19.16	19.07		
5	256QAM	12	13	19.04	19.15	19.09	20	4
5	256QAM	25	0	19.11	19.13	19.05		

Band 38 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Turn-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Mid Ch. / Freq.	High Ch. / Freq.		
Channel Frequency (MHz)								
20	QPSK	1	0	22.99	23.44	23.14	24	0
20	QPSK	1	49	23.06	23.36	23.06		
20	QPSK	1	99	23.01	23.34	23.09	24	0
20	QPSK	50	0	23.03	23.22	23.09		
20	QPSK	50	24	23.16	23.13	23.17	24	0
20	QPSK	50	50	23.16	23.12	23.16		
20	QPSK	100	0	23.18	23.24	23.21	24	0
20	16QAM	1	0	22.98	23.19	23.20		
20	16QAM	1	49	23.16	23.31	23.16	23.5	0.5
20	16QAM	50	0	22.77	22.83	22.68		
20	16QAM	50	24	22.89	22.84	22.92	23.5	0.5
20	16QAM	50	50	22.90	22.96	22.94		
20	16QAM	100	0	22.87	22.85	22.90	23.5	0.5
20	64QAM	1	0	22.58	22.74	22.54		
20	64QAM	1	49	22.07	22.91	22.37	22.5	1.5
20	64QAM	50	0	21.72	21.85	21.82		
20	64QAM	50	24	21.75	21.86	21.84	22.5	1.5
20	64QAM	50	50	21.98	22.02	21.92		
20	64QAM	100	0	21.82	21.84	21.88	20.5	3.5
20	256QAM	1	0	19.09	19.64	19.66		
20	256QAM	1	49	19.62	19.77	19.68	20.5	3.5
20	256QAM	1	99	19.64	19.65	19.65		
20	256QAM	50	0	19.55	19.78	19.58	20.5	3.5
20	256QAM	50	24	19.74	19.77	19.77		
20	256QAM	50	50	19.75	19.78	19.73	20.5	3.5
20	256QAM	100	0	19.70	19.78	19.73		
Channel Frequency (MHz)								
15	QPSK	1	0	22.87	23.37	23.05	24	0
15	QPSK	1	47	22.87	23.00	23.02		
15	QPSK	1	97	22.92	23.11	23.00	24	0
15	QPSK	36	0	22.84	23.18	23.02		
15	QPSK	36	24	23.12	23.05			



Band 41 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq	Power Low Middle Ch./Freq	Power Middle Ch./Freq	Power High Middle Ch./Freq	Power High Ch./Freq	Tune-up limit (dBm)	MPR (dB)
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.54	23.60	23.69	23.54	23.52	24	0
20	QPSK	1	49	23.53	23.59	23.61	23.51	23.49		
20	QPSK	1	98	23.50	23.56	23.66	23.53	23.51	23	1
20	QPSK	50	0	22.64	22.69	22.66	22.60	22.60		
20	QPSK	50	24	22.63	22.68	22.62	22.58	22.57	23	1
20	QPSK	50	50	22.63	22.61	22.60	22.56	22.59		
20	QPSK	100	0	22.62	22.61	22.63	22.59	22.56	23	1
20	16QAM	1	49	22.48	22.53	22.62	22.47	22.56		
20	16QAM	1	98	22.61	22.53	22.61	22.60	22.61	22	2
20	16QAM	50	24	21.52	21.55	21.60	21.49	21.43		
20	16QAM	50	24	21.50	21.66	21.68	21.57	21.56	22	2
20	16QAM	100	0	21.60	21.61	21.64	21.54	21.57		
20	64QAM	1	0	21.43	21.48	21.48	21.59	21.47	22	2
20	64QAM	1	49	21.48	21.63	21.48	21.45	21.46		
20	64QAM	1	98	21.43	21.51	21.69	21.57	21.54	21	3
20	64QAM	50	0	20.47	20.56	20.60	20.48	20.42		
20	64QAM	50	24	20.51	20.63	20.66	20.61	20.62	21	3
20	64QAM	100	0	20.63	20.59	20.61	20.62	20.53		
20	256QAM	1	0	18.41	18.48	18.60	18.36	18.37	19	5
20	256QAM	1	49	18.34	18.31	18.57	18.40	18.36		
20	256QAM	1	98	18.36	18.28	18.32	18.32	18.32	19	5
20	256QAM	50	0	18.41	18.40	18.60	18.33	18.30		
20	256QAM	50	24	18.37	18.43	18.61	18.44	18.36	19	5
20	256QAM	100	0	18.43	18.43	18.63	18.45	18.45		
20	256QAM	100	0	18.31	18.31	18.55	18.28	18.32		
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.25	23.43	23.58	23.36	23.31	24	0
15	QPSK	1	37	23.48	23.34	23.56	23.39	23.42		
15	QPSK	1	74	23.42	23.47	23.60	23.49	23.42	23	1
15	QPSK	36	0	22.61	22.57	22.57	22.57	22.52		
15	QPSK	36	20	22.59	22.56	22.58	22.49	22.49	23	1
15	QPSK	36	49	22.55	22.51	22.51	22.47	22.54		
15	QPSK	75	0	22.50	22.54	22.56	22.55	22.45	23	1
15	16QAM	1	0	22.43	22.46	22.66	22.46	22.46		
15	16QAM	1	37	22.51	22.42	22.52	22.35	22.47	23	1
15	16QAM	1	74	22.47	22.44	22.51	22.51	22.48		
15	16QAM	36	0	21.45	21.48	21.50	21.49	21.32	22	2
15	16QAM	36	20	21.51	21.63	21.64	21.49	21.51		
15	16QAM	36	39	21.52	21.54	21.69	21.47	21.52	22	2
15	16QAM	75	0	21.62	21.67	21.60	21.46	21.55		
15	64QAM	1	0	21.33	21.36	21.38	21.54	21.36	22	2
15	64QAM	1	37	21.46	21.44	21.46	21.46	21.46		
15	64QAM	1	74	21.34	21.43	21.57	21.43	21.48	21	3
15	64QAM	36	0	20.44	20.45	20.56	20.38	20.35		
15	64QAM	36	20	20.53	20.53	20.60	20.60	20.56	21	3
15	64QAM	36	39	20.52	20.55	20.58	20.42	20.44		
15	64QAM	75	0	20.59	20.51	20.53	20.58	20.51	19	5
15	256QAM	1	0	18.38	18.38	18.53	18.33	18.33		
15	256QAM	1	37	18.30	18.26	18.47	18.31	18.26	19	5
15	256QAM	1	74	18.15	18.16	18.49	18.23	18.26		
15	256QAM	36	0	18.30	18.26	18.56	18.29	18.34	19	5
15	256QAM	36	20	18.30	18.37	18.51	18.41	18.34		
15	256QAM	36	39	18.41	18.37	18.53	18.38	18.40	19	5
15	256QAM	75	0	18.37	18.41	18.48	18.48	18.40		
15	256QAM	75	0	18.28	18.28	18.44	18.24	18.24		
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.40	23.39	23.57	23.45	23.37	24	0
10	QPSK	1	25	23.44	23.51	23.61	23.39	23.39		
10	QPSK	1	50	23.42	23.44	23.64	23.44	23.44	23	1
10	QPSK	25	0	22.65	22.60	22.59	22.61	22.57		
10	QPSK	25	12	22.61	22.61	22.59	22.49	22.49	23	1
10	QPSK	50	0	22.64	22.56	22.53	22.49	22.49		
10	QPSK	50	0	22.51	22.55	22.56	22.47	22.51	23	1
10	16QAM	1	0	22.38	22.42	22.57	22.43	22.48		
10	16QAM	1	25	22.50	22.49	22.52	22.42	22.42	22	2
10	16QAM	1	49	22.46	22.49	22.58	22.49	22.46		
10	16QAM	25	0	21.60	21.49	21.48	21.37	21.37	22	2
10	16QAM	25	12	21.57	21.54	21.62	21.55	21.45		
10	16QAM	25	25	21.57	21.64	21.67	21.53	21.55	22	2
10	16QAM	50	0	21.09	21.58	21.53	21.46	21.54		
10	64QAM	1	0	21.36	21.40	21.40	21.52	21.41	22	2
10	64QAM	1	25	21.46	21.56	21.46	21.34	21.39		
10	64QAM	1	49	21.34	21.48	21.52	21.47	21.47	21	3
10	64QAM	25	0	20.42	20.49	20.57	20.39	20.38		
10	64QAM	25	12	20.54	20.54	20.59	20.50	20.57	21	3
10	64QAM	25	25	20.55	20.51	20.61	20.51	20.50		
10	64QAM	50	0	20.56	20.51	20.53	20.52	20.51	19	5
10	256QAM	1	0	18.26	18.29	18.50	18.23	18.31		
10	256QAM	1	25	18.24	18.23	18.50	18.26	18.30	19	5
10	256QAM	1	49	18.19	18.17	18.47	18.30	18.30		
10	256QAM	25	0	18.30	18.30	18.57	18.28	18.32	19	5
10	256QAM	25	12	18.30	18.35	18.49	18.33	18.30		
10	256QAM	25	25	18.33	18.29	18.54	18.33	18.35		
10	256QAM	50	0	18.28	18.28	18.44	18.24	18.28		
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.33	23.40	23.57	23.41	23.39	24	0
5	QPSK	1	12	23.46	23.56	23.57	23.46	23.42		
5	QPSK	1	24	23.44	23.46	23.57	23.31	23.42	23	1
5	QPSK	12	0	22.58	22.54	22.58	22.49	22.48		
5	QPSK	12	7	22.57	22.56	22.52	22.47	22.49	23	1
5	QPSK	12	13	22.63	22.50	22.56	22.46	22.49		
5	QPSK	25	0	22.51	22.55	22.52	22.53	22.53	23	1
5	16QAM	1	0	22.41	22.43	22.55	22.38	22.28		
5	16QAM	1	12	22.48	22.47	22.51	22.42	22.43	23	1
5	16QAM	1	24	22.42	22.46	22.50	22.52	22.41		
5	16QAM	12	0	21.44	21.46	21.54	21.46	21.41	22	2
5	16QAM	12	7	21.07	21.59	21.61	21.47	21.46		
5	16QAM	12	13	21.53	21.59	21.71	21.51	21.45	22	2
5	64QAM	20	0	21.62	21.30	21.57	21.49	21.50		
5	64QAM	1	0	21.09	21.41	21.42	21.47	21.37	22	2
5	64QAM	1	12	21.40	21.53	21.40	21.39	21.42		
5	64QAM	1	24	21.38	21.48	21.57	21.40	21.40	21	3
5	64QAM	12	0	20.37	20.47	20.48	20.38	20.36		
5	64QAM	12	7	20.51	20.57	20.63	20.59	20.52	21	3
5	64QAM	12	13	20.59	20.58	20.60	20.48	20.45		
5	64QAM	25	0	20.63	20.47	20.54	20.51	20.43	19	5
5	256QAM	1	0	18.34	18.35	18.56	18.23	18.35		
5	256QAM	1	12	18.24	18.20	18.48	18.34	18.24	19	5
5	256QAM	1	24	18.24	18.24	18.42	18.28	18.21		
5	256QAM	12	0	18.37	18.33	18.58	18.26	18.32	19	5
5	256QAM	12	7	18.28	18.28	18.54	18.38	18.25		
5	256QAM	12	13	18.29	18.29	18.61	18.32	18.36	19	5
5	256QAM	25	0	18.29	18.22	18.51	18.23	18.29		

Band 41 HPUE Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq	Power Low Middle Ch./Freq	Power Middle Ch./Freq	Power High Middle Ch./Freq	Power High Ch./Freq	Tune-up limit (dBm)	MPR (dB)
Channel										
Frequency (MHz)										
20	QPSK	1	0	25.76	25.85	25.96	25.78	25.73	27	0
20	QPSK	1	4							



Band 41 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel Frequency (MHz)												
20	QPSK	1	0	23.89	24.18	24.31	24.28	24.25	24.5	0		
20	QPSK	1	49	23.88	24.15	24.27	24.27	24.21				
20	QPSK	1	99	23.84	24.03	24.18	24.26	23.85				
20	QPSK	50	0	23.06	23.20	23.28	23.23	23.02				
20	QPSK	50	24	22.98	23.15	23.25	23.19	22.97				
20	QPSK	50	50	23.05	23.17	23.18	23.12	22.92	23.5	1		
20	QPSK	100	0	23.02	23.14	23.20	23.21	23.02				
20	16QAM	1	49	23.01	23.31	23.20	23.50	23.22				
20	16QAM	1	99	23.03	23.21	23.09	23.26	22.87				
20	16QAM	50	24	21.99	21.97	22.24	22.16	21.90				
20	16QAM	50	24	22.10	22.21	22.29	22.21	22.06	22.5	2		
20	16QAM	100	0	21.97	22.07	22.28	22.18	22.04				
20	64QAM	1	0	21.72	22.14	22.12	22.42	21.73				
20	64QAM	1	49	21.93	21.93	22.30	21.89	21.90				
20	64QAM	50	0	20.99	21.13	21.20	21.09	20.92				
20	64QAM	50	24	21.09	21.09	21.29	21.21	21.08	21.5	3		
20	64QAM	100	0	21.07	21.03	21.31	21.13	20.98				
20	256QAM	1	0	20.97	21.15	21.18	21.12	21.00				
20	256QAM	1	49	18.17	18.25	18.04	18.95	18.95				
20	256QAM	1	49	18.80	18.87	19.07	18.99	18.95				
20	256QAM	1	99	18.74	18.74	18.96	18.98	18.95	19.5	5		
20	256QAM	50	0	18.89	18.97	19.13	19.11	19.01				
20	256QAM	50	24	18.88	18.91	19.11	19.09	19.00				
20	256QAM	100	0	18.80	18.82	19.03	18.91	18.82				
20	256QAM	100	0	18.82	18.89	19.07	18.98	19.04				
Channel Frequency (MHz)												
15	QPSK	1	0	23.87	24.10	24.24	24.17	24.16	24.50	0		
15	QPSK	1	37	23.80	24.04	24.23	24.16	23.79				
15	QPSK	1	74	23.72	23.99	24.15	24.10	23.71				
15	QPSK	36	0	22.99	23.18	23.24	23.20	22.99				
15	QPSK	36	20	22.87	23.10	23.16	23.10	22.87				
15	QPSK	36	39	22.98	23.16	23.16	23.02	22.85	23.5	1		
15	QPSK	75	0	22.94	23.03	23.16	23.10	22.91				
15	16QAM	1	37	22.83	23.00	23.15	23.08	22.83				
15	16QAM	1	37	22.88	23.21	23.18	23.23	22.72				
15	16QAM	1	74	22.92	22.77	23.31	23.19	22.79				
15	16QAM	36	0	21.91	21.91	22.20	21.98	21.78	22.5	2		
15	16QAM	36	20	22.08	22.16	22.23	22.09	22.04				
15	16QAM	36	39	21.97	21.91	22.23	22.13	21.89				
15	16QAM	75	0	21.91	21.91	22.14	21.92	21.89				
15	64QAM	1	0	21.90	22.03	22.09	22.34	21.81				
15	64QAM	1	37	21.85	21.93	22.06	21.89	21.86	22.5	2		
15	64QAM	1	74	22.01	21.99	22.11	22.40	22.29				
15	64QAM	36	0	20.93	21.07	21.16	20.97	20.86				
15	64QAM	36	20	21.03	21.06	21.16	21.01	21.04				
15	64QAM	36	39	20.99	20.93	21.20	21.05	20.87				
15	256QAM	1	0	20.97	21.13	21.06	21.09	20.97	21.5	3		
15	256QAM	1	37	18.74	18.87	18.95	18.95	18.95				
15	256QAM	1	37	18.76	18.78	18.97	18.88	18.86				
15	256QAM	1	74	18.85	18.74	18.96	18.85	18.86				
15	256QAM	36	0	18.97	18.93	19.09	19.01	18.96				
15	256QAM	36	20	18.84	18.82	19.04	18.99	18.97	19.5	5		
15	256QAM	36	39	18.70	18.76	18.93	18.84	18.93				
15	256QAM	75	0	18.79	18.79	19.03	18.94	19.04				
Channel Frequency (MHz)												
10	QPSK	1	0	23.80	24.11	24.28	24.23	24.19			24.50	0
10	QPSK	1	25	23.78	24.02	24.15	24.15	23.69				
10	QPSK	1	25	23.93	24.13	24.13	24.13	23.73				
10	QPSK	25	0	22.84	23.13	23.17	23.17	23.00				
10	QPSK	25	12	22.87	23.06	23.23	23.16	22.86				
10	QPSK	25	12	22.94	23.10	23.16	23.02	22.89	23.5	1		
10	QPSK	50	0	22.93	23.04	23.16	23.18	22.98				
10	16QAM	1	0	22.78	22.78	23.12	23.16	23.19				
10	16QAM	25	0	22.98	22.98	23.16	23.07	22.77				
10	16QAM	1	49	22.92	22.76	23.36	23.19	22.80				
10	16QAM	25	0	21.81	21.89	22.16	22.07	21.84	22.5	1		
10	16QAM	25	12	22.00	22.10	22.21	22.13	21.96				
10	16QAM	25	25	21.95	21.91	22.25	22.19	21.91				
10	16QAM	50	0	21.88	22.01	22.18	22.11	21.84				
10	64QAM	1	0	21.84	22.04	22.07	22.31	21.69				
10	64QAM	1	25	21.86	21.82	22.28	21.79	21.87	22.5	2		
10	64QAM	1	49	22.01	22.01	22.11	22.38	22.34				
10	64QAM	25	0	20.88	21.09	21.13	21.02	20.87				
10	64QAM	25	12	21.07	21.02	21.24	21.10	21.06				
10	64QAM	25	25	20.96	20.97	21.24	21.07	20.96				
10	64QAM	50	0	21.00	21.07	21.08	21.10	20.94	21.5	3		
10	256QAM	1	0	18.67	18.82	18.96	18.97	18.95				
10	256QAM	1	49	18.75	18.76	18.91	18.89	18.85				
10	256QAM	25	0	18.86	18.93	19.03	18.93	18.90				
10	256QAM	25	12	18.78	18.75	19.07	18.93	18.94				
10	256QAM	25	25	18.68	18.72	18.93	18.85	18.91	19.5	5		
10	256QAM	50	0	18.70	18.79	18.96	18.86	19.00				
Channel Frequency (MHz)												
5	QPSK	1	0	23.80	24.14	24.30	24.27	24.17			24.50	0
5	QPSK	1	12	23.76	24.09	24.19	24.20	23.71				
5	QPSK	1	24	23.78	23.99	24.08	24.20	23.71				
5	QPSK	12	0	23.03	23.11	23.26	23.12	23.01				
5	QPSK	12	7	22.89	23.06	23.21	23.13	22.88				
5	QPSK	12	13	22.98	23.09	23.16	23.07	22.87	23.5	1		
5	QPSK	25	0	22.90	23.03	23.22	23.18	22.94				
5	16QAM	1	0	22.72	22.76	23.05	23.07	23.19				
5	16QAM	1	12	22.80	23.20	23.11	23.29	22.77				
5	16QAM	1	24	23.00	22.79	23.36	23.14	23.75				
5	16QAM	12	0	21.88	21.94	22.17	22.11	21.86	22.5	2		
5	16QAM	12	7	22.03	22.17	22.22	22.17	21.99				
5	16QAM	12	13	21.98	21.87	22.28	22.15	21.93				
5	16QAM	25	0	21.94	21.97	22.16	22.12	21.96				
5	64QAM	1	0	21.68	22.06	22.03	22.36	21.71				
5	64QAM	1	12	21.82	21.85	22.20	21.85	21.90	22.5	2		
5	64QAM	1	24	22.02	22.09	22.18	22.40	22.27				
5	64QAM	12	0	20.92	21.04	21.09	20.98	20.90				
5	64QAM	12	7	21.06	21.02	21.21	21.13	21.06				
5	64QAM	12	13	20.99	20.99	21.25	21.03	20.93				
5	64QAM	25	0	21.01	21.03	21.11	21.10	20.95	21.5	3		
5	256QAM	1	0	18.68	18.79	18.97	18.93	18.91				
5	256QAM	1	12	18.74	18.79	18.96	18.88	18.88				
5	256QAM	1	24	18.72	18.78	18.95	18.84	18.90				
5	256QAM	12	0	18.90	18.87	19.03	18.96	18.90				
5	256QAM	12	7	18.77	18.87	19.08	18.88	18.97	19.5	5		
5	256QAM	12	13	18.76	18.79	18.95	18.84	18.87				
5	256QAM	25	0	18.72	18.82	18.98	18.89	19.01				

Band 41 HPUE Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel Frequency (MHz)										
20	QPSK	1	0	23.75	23.39	23.44	23.02	23.78	27	0
20	QPSK	1	49	23.25	23.10	23.14	23.16	23.75		
20	QPSK	1	99	23.71	23.95	23.39	23.05	23.61		
20	QPSK	50	0	23.91	23.67	23.20	23.12	23.84		
20	QPSK	50	24	23.83	23.12	23.12	23.08	23.93		
20	QPSK	50	50	23.04	23.15	23.10	23.04	23.90	27	0
20	QPSK	100	0	23.01	23.12	23.14	23.07	23.90		
20	16QAM	1	49	23.02	23.22	23.29	23.19	23.36		
20	16QAM	1	49	23.02	23.06	23.29	23.11	23.14		
20	16QAM	50	24	23.09	23.21	23.29	23.34	23.08		
20	16QAM	50	24	2						



Band 41 Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.85	22.79	22.50	22.83	22.82	24	0
20	QPSK	1	49	22.84	22.78	22.81	22.82	22.81	23	1
20	QPSK	50	0	22.76	22.74	22.69	22.81	22.80	23	1
20	QPSK	50	24	21.87	21.87	21.84	21.84	21.84	23	1
20	QPSK	50	50	21.87	21.84	21.83	21.84	21.80	23	1
20	QPSK	100	0	21.84	21.86	21.89	21.88	21.85	22	2
20	16QAM	1	0	21.89	21.89	21.84	21.84	21.84	22	2
20	16QAM	1	49	21.73	21.84	21.97	22.06	21.89	21	3
20	16QAM	1	99	21.84	21.73	21.83	21.86	22.00	21	3
20	16QAM	50	0	20.90	20.78	20.84	20.77	20.78	22	2
20	16QAM	50	24	20.90	20.87	20.85	20.80	20.80	22	2
20	16QAM	50	50	20.87	20.84	20.83	20.87	20.84	22	2
20	16QAM	100	0	20.85	20.87	20.80	20.87	20.88	22	2
20	64QAM	1	0	20.70	20.60	20.80	20.87	20.69	21	3
20	64QAM	1	49	20.82	20.78	20.76	20.77	20.76	21	3
20	64QAM	1	99	20.71	20.63	20.86	20.89	20.70	21	3
20	64QAM	50	0	19.80	19.77	19.84	19.77	19.79	20	2
20	64QAM	50	24	19.87	19.89	19.85	19.89	19.84	20	2
20	64QAM	50	50	19.84	19.83	19.80	19.87	19.83	20	2
20	64QAM	100	0	19.87	19.86	19.81	19.86	19.89	20	2
20	256QAM	1	0	17.60	17.66	17.66	17.65	17.47	19	5
20	256QAM	1	49	17.38	17.41	17.45	17.38	17.38	19	5
20	256QAM	1	99	17.61	17.61	17.62	17.58	17.52	19	5
20	256QAM	50	0	17.45	17.44	17.40	17.39	17.43	19	5
20	256QAM	50	24	17.39	17.49	17.48	17.36	17.33	19	5
20	256QAM	50	49	17.41	17.41	17.43	17.38	17.43	19	5
20	256QAM	100	0	17.38	17.36	17.51	17.31	17.32	19	5
Channel										
Frequency (MHz)										
15	QPSK	1	0	39.75	40.173	40.620	41.098	41.515	24	0
15	QPSK	1	37	22.79	22.73	22.78	22.79	22.79	24	0
15	QPSK	1	74	22.66	22.63	22.63	22.63	22.74	23	1
15	QPSK	36	0	21.86	21.80	21.80	21.84	21.81	23	1
15	QPSK	36	24	21.89	21.77	21.79	21.86	21.84	23	1
15	QPSK	36	49	21.84	21.75	21.81	21.86	21.72	23	1
15	QPSK	75	0	21.75	21.74	21.86	21.79	21.74	23	1
15	16QAM	1	0	21.83	21.83	21.76	21.76	21.76	23	1
15	16QAM	1	37	21.67	21.80	21.84	21.88	21.79	22	2
15	16QAM	1	74	21.62	21.70	21.71	21.74	21.98	22	2
15	16QAM	36	0	20.73	20.73	20.80	20.80	20.80	22	2
15	16QAM	36	20	20.79	20.85	20.73	20.79	20.79	22	2
15	16QAM	36	38	20.82	20.78	20.86	20.78	20.83	22	2
15	16QAM	75	0	20.78	20.80	20.86	20.77	20.80	22	2
15	64QAM	1	0	20.58	20.50	20.73	20.79	20.57	21	3
15	64QAM	1	37	20.70	20.67	20.76	20.69	20.79	21	3
15	64QAM	1	74	20.62	20.61	20.77	20.86	20.58	21	3
15	64QAM	36	0	19.71	19.68	19.76	19.68	19.67	20	2
15	64QAM	36	20	19.80	19.80	19.80	19.80	19.73	20	2
15	64QAM	36	38	19.73	19.80	19.79	19.80	19.85	20	2
15	64QAM	75	0	19.77	19.74	19.72	19.81	19.84	20	2
15	256QAM	1	0	17.42	17.48	17.48	17.48	17.48	19	5
15	256QAM	1	37	17.47	17.38	17.39	17.31	17.28	19	5
15	256QAM	1	74	17.40	17.47	17.48	17.53	17.46	19	5
15	256QAM	36	0	17.35	17.36	17.31	17.29	17.37	19	5
15	256QAM	36	20	17.40	17.38	17.40	17.38	17.40	19	5
15	256QAM	36	38	17.40	17.44	17.45	17.38	17.36	19	5
15	256QAM	75	0	17.53	17.48	17.48	17.25	17.26	19	5
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.73	22.77	22.68	22.75	22.76	24	0
10	QPSK	1	25	22.80	22.72	22.80	22.74	22.75	23	1
10	QPSK	25	0	21.84	21.84	21.86	21.86	21.74	23	1
10	QPSK	25	12	21.81	21.85	21.78	21.78	21.74	23	1
10	QPSK	25	24	21.78	21.82	21.71	21.80	21.70	23	1
10	QPSK	50	0	21.76	21.74	21.86	21.76	21.79	23	1
10	16QAM	1	0	21.49	21.58	21.78	21.76	21.92	22	2
10	16QAM	1	24	21.63	21.76	21.86	21.86	21.77	22	2
10	16QAM	1	49	21.60	21.64	21.81	21.82	21.95	22	2
10	16QAM	25	0	20.74	20.72	20.82	20.79	20.69	21	3
10	16QAM	25	12	20.78	20.80	20.79	20.84	20.81	21	3
10	16QAM	25	25	20.85	20.77	20.84	20.85	20.82	21	3
10	16QAM	50	0	20.79	20.80	20.74	20.78	20.87	21	3
10	64QAM	1	0	20.65	20.49	20.73	20.81	20.60	20	2
10	64QAM	1	25	20.74	20.67	20.69	20.66	20.70	20	2
10	64QAM	1	49	20.68	20.63	20.76	20.81	20.67	20	2
10	64QAM	25	0	19.88	19.85	19.74	19.74	19.70	20	2
10	64QAM	25	12	19.83	19.82	19.78	19.84	19.77	20	2
10	64QAM	25	25	19.76	19.79	19.81	19.83	19.83	20	2
10	64QAM	50	0	19.77	19.84	19.74	19.77	19.83	20	2
10	256QAM	1	0	17.38	17.34	17.42	17.38	17.36	19	5
10	256QAM	1	49	17.45	17.39	17.48	17.48	17.40	19	5
10	256QAM	25	0	17.40	17.40	17.38	17.33	17.41	19	5
10	256QAM	25	12	17.30	17.44	17.42	17.34	17.25	19	5
10	256QAM	25	25	17.32	17.51	17.46	17.43	17.31	19	5
10	256QAM	50	0	17.38	17.26	17.47	17.24	17.21	19	5
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.79	22.73	22.79	22.71	22.71	24	0
5	QPSK	1	12	22.78	22.74	22.75	22.72	22.75	24	0
5	QPSK	1	24	22.67	22.68	22.63	22.76	22.76	23	1
5	QPSK	12	0	21.84	21.83	21.87	21.83	21.78	23	1
5	QPSK	12	7	21.82	21.78	21.80	21.80	21.78	23	1
5	QPSK	12	13	21.82	21.76	21.75	21.78	21.76	23	1
5	QPSK	25	0	21.79	21.79	21.87	21.79	21.73	23	1
5	16QAM	1	0	21.51	21.62	21.76	21.79	21.79	23	1
5	16QAM	1	12	21.66	21.72	21.83	22.01	21.87	22	2
5	16QAM	1	24	21.62	21.69	21.73	21.77	21.97	22	2
5	16QAM	12	0	20.88	20.67	20.81	20.71	20.76	22	2
5	16QAM	12	7	20.83	20.79	20.82	20.80	20.79	22	2
5	16QAM	12	13	20.84	20.79	20.86	20.79	20.88	22	2
5	16QAM	25	0	20.75	20.80	20.69	20.75	20.86	22	2
5	64QAM	1	0	20.65	20.50	20.75	20.77	20.66	21	3
5	64QAM	1	12	20.72	20.66	20.69	20.71	20.77	21	3
5	64QAM	1	24	20.66	20.56	20.80	20.77	20.67	21	3
5	64QAM	12	0	19.70	19.68	19.80	19.71	19.69	20	2
5	64QAM	12	7	19.84	19.86	19.82	19.83	19.79	21	3
5	64QAM	12	13	19.78	19.73	19.81	19.76	19.81	21	3
5	64QAM	25	0	19.79	19.80	19.78	19.82	19.83	20	2
5	256QAM	1	0	17.40	17.35	17.47	17.45	17.33	19	5
5	256QAM	1	12	17.31	17.39	17.41	17.29	17.31	19	5
5	256QAM	1	24	17.43	17.39	17.40	17.49	17.40	19	5
5	256QAM	12	0	17.43	17.38	17.37	17.31	17.30	19	5
5	256QAM	12	7	17.34	17.38	17.37	17.30	17.21	19	5
5	256QAM	12	13	17.30	17.51	17.43	17.41	17.38	19	5
5	256QAM	25	0	17.27	17.51	17.47	17.25	17.25	19	5



Band 41 Ant 9

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel										
Frequency (MHz)										
20	QPSK	1	0	21.57	21.84	21.99	21.86	21.88	23	0
20	QPSK	1	49	21.58	21.85	21.97	21.88	21.85		
20	QPSK	1	99	21.59	21.84	21.98	21.85	21.87	22	1
20	QPSK	50	0	20.95	20.98	21.01	21.00	20.97		
20	QPSK	100	0	20.78	20.97	20.97	20.99	20.91	22	1
20	QPSK	50	49	20.83	20.97	21.00	20.99	20.96		
20	QPSK	100	0	20.99	20.97	21.00	20.97	20.96	22	1
20	16QAM	1	49	20.98	20.91	21.06	20.86	20.92		
20	16QAM	1	99	20.98	20.91	20.97	20.96	20.97	21	2
20	16QAM	50	24	19.94	19.98	19.91	19.88	19.86		
20	16QAM	50	24	20.08	19.99	19.95	19.89	19.88	21	2
20	16QAM	100	0	20.02	19.97	19.93	19.88	19.92		
20	64QAM	1	0	19.81	19.84	19.84	19.87	19.90	21	2
20	64QAM	1	49	19.82	19.80	19.83	19.85	19.84		
20	64QAM	1	99	19.88	19.86	19.87	19.88	19.82	20	3
20	64QAM	50	0	18.93	18.89	18.92	18.90	18.86		
20	64QAM	50	24	19.06	19.01	19.06	19.03	19.01	20	3
20	64QAM	100	0	19.08	18.97	19.03	18.99	18.94		
20	256QAM	1	0	16.85	16.88	16.81	16.99	16.87	18	5
20	256QAM	1	49	16.78	16.91	16.95	16.77	16.76		
20	256QAM	1	99	16.80	16.85	16.87	16.87	16.88	18	5
20	256QAM	50	0	16.84	16.78	16.95	16.78	16.87		
20	256QAM	50	24	16.87	16.88	16.87	16.79	16.85	18	5
20	256QAM	100	0	16.86	16.86	16.86	16.86	16.86		
20	256QAM	100	0	16.77	16.73	16.84	16.80	16.85	Tune-up limit (dBm) MPR (dB)	
Channel										
Frequency (MHz)										
15	QPSK	1	0	21.86	21.85	21.88	21.90	21.81	23	0
15	QPSK	1	37	21.84	21.90	21.83	21.80	21.82		
15	QPSK	1	74	21.82	21.82	21.90	21.82	21.81	22	1
15	QPSK	36	0	20.92	20.95	20.95	20.91	20.85		
15	QPSK	36	20	20.88	20.92	20.86	20.88	20.82	22	1
15	QPSK	36	49	20.91	20.90	20.90	20.87	20.85		
15	QPSK	75	0	20.93	20.95	20.93	20.87	20.93	22	1
15	16QAM	1	0	20.76	20.74	20.74	20.76	20.74		
15	16QAM	1	37	20.81	20.80	21.01	20.80	20.85	22	1
15	16QAM	1	74	20.79	20.79	20.82	20.79	20.86		
15	16QAM	36	0	19.87	19.86	19.86	19.83	19.83	21	2
15	16QAM	36	20	20.05	19.97	19.83	19.88	19.77		
15	16QAM	36	38	20.00	19.96	19.98	19.98	19.84	21	2
15	16QAM	75	0	19.89	19.93	19.89	19.90	19.86		
15	64QAM	1	0	19.76	19.72	19.82	19.78	19.79	21	2
15	64QAM	1	37	19.85	19.84	19.84	19.84	19.77		
15	64QAM	1	74	19.76	19.93	19.76	19.76	19.76	20	3
15	64QAM	36	0	18.83	18.81	18.85	18.84	18.83		
15	64QAM	36	20	18.92	18.80	18.84	18.85	18.82	20	3
15	64QAM	36	38	18.80	18.94	19.01	18.88	18.98		
15	64QAM	75	0	19.02	18.87	18.86	18.93	18.85	18	5
15	256QAM	1	0	16.81	16.85	16.81	16.85	16.81		
15	256QAM	1	37	16.71	16.85	16.80	16.85	16.82	18	5
15	256QAM	1	74	16.80	16.82	16.90	16.82	16.80		
15	256QAM	36	0	16.78	16.89	16.85	16.71	16.79	18	5
15	256QAM	36	20	16.84	16.82	16.89	16.81	16.82		
15	256QAM	36	38	16.84	16.77	16.89	16.79	16.82	18	5
15	256QAM	75	0	16.70	16.85	16.77	16.80	16.84		
Channel										
Frequency (MHz)										
10	QPSK	1	0	21.50	21.80	21.90	21.50	21.70	23	0
10	QPSK	1	25	21.87	21.89	21.89	21.79	21.81		
10	QPSK	1	50	21.81	21.82	21.84	21.82	21.77	22	1
10	QPSK	25	0	20.83	20.86	20.88	20.85	20.85		
10	QPSK	25	12	20.92	20.92	20.83	20.87	20.78	22	1
10	QPSK	25	25	20.81	20.86	20.89	20.85	20.91		
10	QPSK	50	0	20.87	20.95	20.92	20.84	20.84	22	1
10	16QAM	1	0	20.74	20.91	20.93	20.83	20.74		
10	16QAM	1	25	20.84	20.81	20.90	20.80	20.90	22	1
10	16QAM	1	49	20.76	20.79	20.78	20.85	20.87		
10	16QAM	25	0	19.81	19.82	19.83	19.78	19.80	21	2
10	16QAM	25	12	20.04	19.97	19.84	19.91	19.81		
10	16QAM	25	25	20.00	19.88	19.94	19.95	19.93	21	2
10	16QAM	50	0	19.95	19.88	19.87	19.82	19.85		
10	64QAM	1	0	19.74	19.77	19.77	19.81	19.87	21	2
10	64QAM	1	25	19.80	19.85	19.85	19.83	19.77		
10	64QAM	1	49	19.85	19.81	19.77	19.81	19.76	20	3
10	64QAM	25	0	18.89	18.83	18.90	18.88	18.75		
10	64QAM	25	12	19.96	19.94	19.84	19.91	19.83	20	3
10	64QAM	25	25	18.96	18.89	18.93	18.92	18.86		
10	64QAM	50	0	19.01	18.86	18.89	18.82	18.87	18	5
10	256QAM	1	0	16.80	16.85	16.85	16.87	16.82		
10	256QAM	1	49	16.84	16.88	16.84	16.83	16.86	18	5
10	256QAM	25	0	16.78	16.71	16.87	16.88	16.84		
10	256QAM	25	12	16.77	16.82	16.82	16.88	16.78	18	5
10	256QAM	25	25	16.75	16.78	16.87	16.79	16.77		
10	256QAM	50	0	16.74	16.61	16.76	16.60	16.62	Tune-up limit (dBm) MPR (dB)	
Channel										
Frequency (MHz)										
5	QPSK	1	0	21.84	21.89	21.87	21.82	21.81	23	0
5	QPSK	1	12	21.85	21.86	21.81	21.82	21.81		
5	QPSK	1	24	21.84	21.82	21.86	21.86	21.78	22	1
5	QPSK	12	0	20.93	20.94	20.90	20.86	20.91		
5	QPSK	12	7	20.92	20.87	20.86	20.85	20.85	22	1
5	QPSK	12	13	20.87	20.88	20.90	20.93	20.94		
5	QPSK	25	0	20.87	20.94	20.92	20.88	20.86	22	1
5	16QAM	1	0	20.66	20.86	20.94	20.87	20.78		
5	16QAM	1	12	20.98	20.83	21.02	20.76	20.84	22	1
5	16QAM	1	24	20.85	20.78	20.77	20.82	20.89		
5	16QAM	12	0	19.84	19.82	19.83	19.86	19.82	21	2
5	16QAM	12	7	19.97	19.91	19.83	19.80	19.76		
5	16QAM	12	13	20.02	19.86	19.91	19.88	19.94	21	2
5	16QAM	25	0	19.95	19.93	19.85	19.80	19.84		
5	64QAM	1	0	19.78	19.73	19.72	19.80	19.88	21	2
5	64QAM	1	12	19.84	19.85	19.81	19.75	19.78		
5	64QAM	1	24	19.82	19.90	19.80	19.83	19.76	20	3
5	64QAM	12	0	18.91	18.83	18.80	18.85	18.84		
5	64QAM	12	7	19.00	18.96	18.84	18.95	18.81	20	3
5	64QAM	12	13	18.89	18.88	18.84	18.84	18.84		
5	64QAM	25	0	19.02	18.88	18.91	18.88	18.85	18	5
5	256QAM	1	0	16.76	16.83	16.85	16.81	16.85		
5	256QAM	1	12	16.68	16.84	16.88	16.85	16.71	18	5
5	256QAM	1	24	16.78	16.80	16.81	16.78	16.82		
5	256QAM	12	0	16.82	16.88	16.91	16.89	16.78	18	5
5	256QAM	12	7	16.81	16.82	16.83	16.71	16.70		
5	256QAM	12	13	16.81	16.82	16.82	16.83	16.79	18	5
5	256QAM	25	0	16.74	16.60	16.74	16.60	16.81		

Band 41 HPUE Ant 9

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel										
Frequency (MHz)										
20	QPSK	1	0	24.81	24.70	24.82	24.79	24.72	26	0
20	QPSK	1	49	24.73	24.72	24.68	24.68	24.62		
20	QPSK	1	99	24.69	24.64	24.78	24.73	24.68	25	1



Band 48 FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel									
Frequency (MHz)									
20	QPSK	1	0	22.60	22.63	22.81	22.81	24	0
20	QPSK	1	49	22.60	22.66	22.74	22.48	24	0
20	QPSK	1	99	22.66	22.78	22.85	22.90	24	0
20	QPSK	50	0	22.70	22.80	22.89	22.36	24	0
20	QPSK	50	24	22.62	22.83	22.87	22.38	24	0
20	QPSK	50	50	22.68	22.79	22.83	22.30	24	0
20	QPSK	100	0	22.68	22.71	22.83	22.37	24	0
20	16QAM	1	0	22.68	22.67	22.87	22.38	24	0
20	16QAM	1	49	22.67	22.67	22.34	22.13	24	0
20	16QAM	30	0	22.33	22.65	22.28	22.02	23	1
20	16QAM	50	24	22.34	22.33	22.20	21.90	23	1
20	16QAM	50	50	22.18	22.38	22.11	21.84	23	1
20	16QAM	100	0	22.12	22.34	22.17	21.97	23	1
20	64QAM	1	0	22.21	22.48	22.31	21.89	23	1
20	64QAM	1	49	22.20	22.37	22.23	21.98	23	1
20	64QAM	1	99	22.23	22.37	22.08	22.05	23	1
20	64QAM	50	0	21.95	21.25	21.14	20.81	22	2
20	64QAM	50	24	21.98	21.43	21.23	20.85	22	2
20	64QAM	50	50	21.12	21.42	21.04	20.79	22	2
20	64QAM	100	0	21.16	21.36	21.29	20.94	22	2
20	256QAM	1	0	19.24	19.25	19.25	19.04	20	4
20	256QAM	1	49	19.24	19.44	19.31	19.00	20	4
20	256QAM	1	99	19.45	19.22	19.22	19.03	20	4
20	256QAM	50	0	19.08	19.28	19.23	19.02	20	4
20	256QAM	50	24	19.15	19.43	19.18	18.97	20	4
20	256QAM	50	50	19.20	19.40	19.01	18.81	20	4
20	256QAM	100	0	19.20	19.33	19.19	18.97	20	4
Channel									
Frequency (MHz)									
15	QPSK	1	0	22.66	22.85	22.71	22.53	24	0
15	QPSK	1	37	22.66	22.84	22.71	22.57	24	0
15	QPSK	1	74	22.64	22.83	22.64	22.41	24	0
15	QPSK	36	0	22.63	22.84	22.69	22.38	24	0
15	QPSK	36	20	22.60	22.83	22.61	22.33	24	0
15	QPSK	36	39	22.59	22.83	22.61	22.33	24	0
15	QPSK	75	0	22.62	22.79	22.66	22.40	24	0
15	16QAM	1	0	22.62	22.72	22.73	22.37	24	0
15	16QAM	1	37	22.67	22.70	22.39	22.23	24	0
15	16QAM	1	74	22.33	22.69	22.23	22.08	23	1
15	16QAM	36	0	22.15	22.15	21.86	21.66	23	1
15	16QAM	36	20	22.18	22.21	22.18	21.84	23	1
15	16QAM	36	39	22.14	22.36	22.09	21.80	23	1
15	16QAM	75	0	22.60	22.62	22.11	21.89	23	1
15	64QAM	1	0	22.18	22.39	22.29	21.83	23	1
15	64QAM	1	37	22.17	22.35	22.01	21.69	23	1
15	64QAM	1	74	22.15	22.35	22.01	21.99	23	1
15	64QAM	36	0	21.91	21.13	21.07	20.84	22	2
15	64QAM	36	20	21.13	21.11	20.76	20.76	22	2
15	64QAM	36	39	21.08	21.40	20.94	20.74	22	2
15	64QAM	75	0	21.06	21.26	21.16	20.81	22	2
15	256QAM	1	0	19.13	19.13	19.13	18.92	20	4
15	256QAM	1	37	19.13	19.40	19.19	18.97	20	4
15	256QAM	1	74	19.33	19.42	19.20	18.93	20	4
15	256QAM	36	0	19.17	19.17	19.17	18.92	20	4
15	256QAM	36	20	19.09	19.41	19.05	18.88	20	4
15	256QAM	36	39	19.08	19.35	18.96	18.84	20	4
15	256QAM	75	0	19.08	19.08	19.08	18.81	20	4
Channel									
Frequency (MHz)									
10	QPSK	1	0	22.60	22.62	22.77	22.60	24	0
10	QPSK	1	25	22.62	22.80	22.80	22.36	24	0
10	QPSK	1	49	22.60	22.81	22.64	22.41	24	0
10	QPSK	25	0	22.62	22.85	22.74	22.37	24	0
10	QPSK	25	12	22.59	22.86	22.67	22.34	24	0
10	QPSK	25	25	22.60	22.82	22.61	22.33	24	0
10	QPSK	50	0	22.60	22.72	22.64	22.37	24	0
10	16QAM	1	0	22.60	22.74	22.70	22.36	24	0
10	16QAM	1	25	22.18	22.61	22.36	22.16	24	0
10	16QAM	1	49	22.41	22.64	22.25	22.05	23	1
10	16QAM	25	0	22.18	22.18	22.11	21.91	23	1
10	16QAM	25	12	22.19	22.25	22.17	21.79	23	1
10	16QAM	25	25	22.09	22.32	22.01	21.74	23	1
10	64QAM	1	0	22.15	22.43	22.21	21.86	23	1
10	64QAM	1	25	22.08	22.34	22.20	21.94	23	1
10	64QAM	1	49	22.17	22.33	22.04	21.98	23	1
10	64QAM	25	0	21.03	21.20	21.05	20.89	22	2
10	64QAM	25	12	21.12	21.41	21.16	20.83	22	2
10	64QAM	25	25	21.07	21.35	20.97	20.70	22	2
10	64QAM	50	0	21.14	21.30	21.13	20.85	22	2
10	256QAM	1	0	19.08	19.08	19.08	18.90	20	4
10	256QAM	1	25	19.15	19.41	19.25	18.99	20	4
10	256QAM	1	49	19.31	19.42	19.11	18.91	20	4
10	256QAM	25	0	19.07	19.15	19.12	18.86	20	4
10	256QAM	25	12	19.08	19.35	19.07	18.92	20	4
10	256QAM	25	25	19.15	19.33	18.92	18.84	20	4
10	256QAM	50	0	19.13	19.31	19.10	18.91	20	4
Channel									
Frequency (MHz)									
5	QPSK	1	0	22.62	22.87	22.73	22.52	24	0
5	QPSK	1	12	22.69	22.82	22.75	22.56	24	0
5	QPSK	1	24	22.67	22.87	22.64	22.41	24	0
5	QPSK	12	0	22.60	22.86	22.66	22.38	24	0
5	QPSK	12	7	22.65	22.88	22.67	22.31	24	0
5	QPSK	12	13	22.67	22.79	22.68	22.36	24	0
5	QPSK	25	0	22.59	22.68	22.64	22.39	24	0
5	16QAM	1	0	22.61	22.76	22.67	22.36	24	0
5	16QAM	1	12	22.63	22.64	22.36	22.15	24	0
5	16QAM	1	24	22.38	22.64	22.32	22.11	24	0
5	16QAM	12	0	21.96	22.21	22.10	21.89	23	1
5	16QAM	12	7	22.21	22.23	22.04	21.98	23	1
5	16QAM	12	13	22.08	22.36	22.00	21.81	23	1
5	16QAM	25	0	22.10	22.27	22.15	21.90	23	1
5	16QAM	25	7	22.09	22.36	22.22	21.93	23	1
5	64QAM	1	0	22.12	22.34	22.14	21.86	23	1
5	64QAM	1	24	22.13	22.34	22.04	21.97	23	1
5	64QAM	12	0	20.98	21.21	21.07	20.80	22	2
5	64QAM	12	7	21.12	21.31	21.18	20.77	22	2
5	64QAM	12	13	21.02	21.38	20.92	20.77	22	2
5	64QAM	25	0	21.07	21.33	21.15	20.84	22	2
5	256QAM	1	0	19.12	19.32	19.37	18.95	20	4
5	256QAM	1	12	19.16	19.34	19.24	18.89	20	4
5	256QAM	1	24	19.20	19.39	19.20	18.90	20	4
5	256QAM	12	0	19.06	19.17	19.13	18.83	20	4
5	256QAM	12	7	19.06	19.33	19.07	18.93	20	4
5	256QAM	12	13	19.10	19.36	18.97	18.78	20	4
5	256QAM	25	0	19.17	19.22	19.12	18.91	20	4

Band 48 FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel									
Frequency (MHz)									
20	QPSK	1	0	22.44	22.34	22.50	22.07	24	0
20	QPSK	1	49	22.36	22.33	22.49	22.11	24	0
20	QPSK	1	99	22.38	22.30	22.45	22.02	24	0
20	QPSK	50	0	22.19	22.11	22.26	22.07	24	0
20	QPSK	50	24	22.32	22.34	22.40	22.40	24	0
20	QPSK	50	50	22.45	22.11	22.49	22.49	24	0
20	16QAM	100	0	22.49	22.27	22.49	22.02	24	0
20	16QAM	1	0	22.37	22.28	22.27	22.51	24	0
20	16QAM	1	49	22.31	22.06	22.20	22.54	24	



Reduced Power Mode for DSI2

GSM850 Ant 0		Burst Average Power (dBm)			Tune-up	Frame-Average Power (dBm)			Tune-up
TX Channel		128	180	251	Limit	128	180	251	Limit
Frequency (MHz)		824.2	836.4	848.8	(dBm)	824.2	836.4	848.8	(dBm)
GSM 1 Tx slot		32.42	32.10	32.28	33.50	23.42	23.10	23.28	24.50
GPRS 1 Tx slot		32.41	32.08	32.25	33.50	23.41	23.08	23.25	24.50
GPRS 2 Tx slots		28.33	28.47	28.56	31.00	23.33	23.47	23.56	25.00
GPRS 3 Tx slots		28.61	28.91	28.99	29.50	24.35	24.25	24.73	25.24
GPRS 4 Tx slots		26.75	26.72	27.05	28.00	23.75	23.72	24.05	25.00
EDGE 1 Tx slot		26.15	26.70	26.09	27.50	17.15	16.70	17.09	18.50
EDGE 2 Tx slots		25.02	24.54	25.02	26.50	18.02	18.54	19.02	20.50
EDGE 3 Tx slots		23.71	23.22	23.46	24.50	16.45	16.96	17.20	20.24
EDGE 4 Tx slots		21.71	21.45	21.36	22.50	18.77	18.45	18.36	19.50

GSM1900 Ant 0		Burst Average Power (dBm)			Tune-up	Frame-Average Power (dBm)			Tune-up
TX Channel		512	891	810	Limit	512	891	810	Limit
Frequency (MHz)		1850.2	1880	1909.8	(dBm)	1850.2	1880	1909.8	(dBm)
GSM 1 Tx slot		28.68	28.75	30.00	31.50	20.68	20.75	21.00	22.50
GPRS 1 Tx slot		28.66	28.74	28.99	31.50	20.66	20.74	20.99	22.50
GPRS 2 Tx slots		26.76	26.83	28.75	28.50	20.76	20.83	20.75	22.50
GPRS 3 Tx slots		25.11	25.32	25.31	27.00	20.85	21.06	21.05	22.74
GPRS 4 Tx slots		23.71	24.03	23.84	25.50	20.71	21.03	20.84	22.50
EDGE 1 Tx slot		24.76	25.07	25.05	26.50	15.76	16.07	16.05	17.50
EDGE 2 Tx slots		22.26	22.65	23.36	23.50	17.72	17.85	17.86	19.50
EDGE 3 Tx slots		22.26	22.65	22.45	24.00	18.00	18.39	18.19	19.74
EDGE 4 Tx slots		20.54	20.89	20.78	22.50	17.54	17.89	17.78	19.50

Band	WCDMA II Ant 0			Tune-up	WCDMA IV Ant 0			Tune-up	WCDMA V Ant 0			Tune-up	
TX Channel	9262	9400	9538	Limit	1312	1413	1513	Limit	4132	4182	4233	Limit	
Rx Channel	9662	9800	9938	(dBm)	1537	1638	1738	(dBm)	4357	4407	4458	(dBm)	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		326.4	336.4	346.6		
3GPP Rel 99	AMR 12.2Kbps	23.23	23.62	23.38	24.00	23.25	23.80	23.66	24.00	23.03	23.07	22.89	24.00
3GPP Rel 99	RMC 12.2Kbps	23.27	23.64	23.41	24.00	23.27	23.82	23.67	24.00	23.05	23.08	22.91	24.00
3GPP Rel 6	HSDPA Subtest-1	22.38	22.75	22.45	23.00	22.34	22.88	22.72	23.00	22.10	22.19	22.00	23.00
3GPP Rel 6	HSDPA Subtest-2	22.36	22.72	22.45	23.00	22.31	22.93	22.70	23.00	22.10	22.18	21.98	23.00
3GPP Rel 6	HSDPA Subtest-3	21.88	22.23	21.95	22.50	21.85	22.41	22.18	22.50	21.62	21.65	21.60	22.50
3GPP Rel 6	HSDPA Subtest-4	21.88	22.24	21.98	22.50	21.85	22.34	22.15	22.50	21.66	21.67	21.62	22.50
3GPP Rel 6	DC-HSDPA Subtest-1	22.11	22.53	22.22	23.00	22.11	22.65	22.44	23.00	21.85	21.96	21.80	23.00
3GPP Rel 6	DC-HSDPA Subtest-2	22.10	22.50	22.15	23.00	22.11	22.70	22.46	23.00	21.81	21.98	21.70	23.00
3GPP Rel 6	DC-HSDPA Subtest-3	21.68	21.95	21.67	22.50	21.64	22.69	21.91	22.50	21.42	21.44	21.37	22.50
3GPP Rel 6	DC-HSDPA Subtest-4	21.64	21.98	21.69	22.50	21.64	22.08	21.84	22.50	21.40	21.45	21.40	22.50
3GPP Rel 6	HSUPA Subtest-1	22.44	22.75	22.55	23.00	22.78	22.86	22.69	23.00	22.15	22.16	22.00	23.00
3GPP Rel 6	HSUPA Subtest-2	20.42	20.78	20.48	21.00	20.79	20.87	20.71	21.00	20.15	20.16	20.01	21.00
3GPP Rel 6	HSUPA Subtest-3	21.38	21.71	21.47	22.00	21.83	21.91	21.75	22.00	21.03	21.05	21.00	22.00
3GPP Rel 6	HSUPA Subtest-4	20.44	20.75	20.50	21.00	20.79	20.89	20.88	21.00	20.10	20.05	20.00	21.00
3GPP Rel 6	HSUPA Subtest-6	22.40	22.80	22.50	23.00	22.80	22.90	22.70	23.00	22.10	22.20	22.00	23.00

Band	WCDMA II Ant 1			Tune-up	WCDMA IV Ant 1			Tune-up	WCDMA V Ant 1			Tune-up	
TX Channel	9262	9400	9538	Limit	1312	1413	1513	Limit	4132	4182	4233	Limit	
Rx Channel	9662	9800	9938	(dBm)	1537	1638	1738	(dBm)	4357	4407	4458	(dBm)	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		326.4	336.4	346.6		
3GPP Rel 99	AMR 12.2Kbps	15.92	16.16	15.75	17.00	14.08	14.60	14.27	15.50	20.79	21.11	20.96	21.70
3GPP Rel 99	RMC 12.2Kbps	15.98	16.21	15.79	17.00	14.14	14.69	14.28	15.50	20.85	21.14	20.97	21.70
3GPP Rel 6	HSDPA Subtest-1	14.92	15.17	14.75	16.00	13.44	13.65	13.14	14.50	19.93	20.04	19.91	20.70
3GPP Rel 6	HSDPA Subtest-2	14.98	15.17	14.74	16.00	13.45	13.62	13.26	14.50	19.89	20.15	19.91	20.70
3GPP Rel 6	HSDPA Subtest-3	14.77	14.64	14.81	15.50	12.96	13.08	12.72	14.00	19.12	19.59	19.46	20.20
3GPP Rel 6	HSDPA Subtest-4	14.73	14.71	14.88	15.50	12.84	13.07	12.84	14.00	19.45	19.56	19.45	20.20
3GPP Rel 6	DC-HSDPA Subtest-1	14.66	14.91	14.47	16.00	13.12	13.35	12.88	14.50	19.70	19.84	19.68	20.70
3GPP Rel 6	DC-HSDPA Subtest-2	14.66	14.89	14.45	16.00	13.15	13.32	12.92	14.50	19.69	19.86	19.66	20.70
3GPP Rel 6	DC-HSDPA Subtest-3	14.46	14.47	14.51	15.50	12.72	12.80	12.48	14.00	19.05	19.33	19.16	20.20
3GPP Rel 6	DC-HSDPA Subtest-4	14.47	14.46	14.50	15.50	12.60	12.81	12.38	14.00	19.11	19.34	19.11	20.20
3GPP Rel 6	HSUPA Subtest-1	14.95	15.17	14.77	16.00	13.41	13.57	13.21	14.50	19.90	20.06	19.98	20.70
3GPP Rel 6	HSUPA Subtest-2	13.00	13.16	12.72	14.00	11.37	11.53	11.22	12.50	17.98	18.04	17.93	18.70
3GPP Rel 6	HSUPA Subtest-3	13.89	14.18	13.77	15.00	12.41	12.57	12.19	13.50	19.02	19.07	18.96	19.70
3GPP Rel 6	HSUPA Subtest-4	12.98	13.18	12.66	14.00	11.44	11.67	11.19	12.50	17.97	18.09	17.93	18.70
3GPP Rel 6	HSUPA Subtest-6	14.92	15.15	14.76	16.00	12.81	13.63	13.16	14.50	19.90	20.07	19.91	20.70



Band 2 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq. 1800	Middle Ch. Freq. 1800	High Ch. Freq. 1900		
20	QPSK	1	0	23.2	23.2	23.2	24	0
20	QPSK	1	49	23.10	23.20	23.11		
20	QPSK	1	99	23.02	22.97	22.99		
20	QPSK	50	0	23.02	23.11	23.04	24	0
20	QPSK	50	24	23.03	23.16	23.01		
20	QPSK	50	50	22.96	23.08	22.96		
20	QPSK	100	0	23.03	23.07	23.07	24	0
20	16QAM	1	0	23.05	23.09	23.15		
20	16QAM	1	49	23.09	23.17	23.09	24	0
20	16QAM	1	99	23.01	23.14	23.16		
20	16QAM	50	0	22.41	22.51	22.28		
20	16QAM	50	24	22.46	22.57	22.56		
20	16QAM	50	50	22.45	22.64	22.53	23.5	0.5
20	16QAM	100	0	22.48	22.56	22.55		
20	64QAM	1	0	22.11	22.81	22.52		
20	64QAM	1	49	22.40	22.42	22.76	23.5	0.5
20	64QAM	1	99	22.78	22.60	22.54		
20	64QAM	50	0	21.47	21.52	21.53		
20	64QAM	50	24	21.53	21.86	21.61	22.5	1.5
20	64QAM	50	50	21.46	21.63	21.49		
20	64QAM	100	0	21.55	21.82	21.56		
20	256QAM	1	0	19.43	19.45	19.41	20.5	3.5
20	256QAM	1	49	19.39	19.54	19.47		
20	256QAM	1	99	19.34	19.37	19.37		
20	256QAM	50	0	19.42	19.45	19.46		
20	256QAM	50	24	19.49	19.46	19.48	20.5	3.5
20	256QAM	50	50	19.48	19.53	19.48		
20	256QAM	100	0	19.38	19.43	19.44		
Channel								
15	QPSK	1	0	1897.4	1897.4	1897.4	24	0
15	QPSK	1	49	23.09	23.15	23.15		
15	QPSK	1	99	23.01	23.10	23.07		
15	QPSK	1	74	22.92	22.89	22.90	24	0
15	QPSK	36	0	23.04	23.14	22.98		
15	QPSK	36	20	22.98	23.11	22.98	24	0
15	QPSK	36	39	22.94	23.05	22.83		
15	QPSK	75	0	22.98	23.03	23.03		
15	16QAM	1	0	22.93	23.02	23.08		
15	16QAM	1	37	22.92	23.11	23.02	24	0
15	16QAM	1	74	22.95	23.12	23.08		
15	16QAM	36	0	22.35	22.49	22.54		
15	16QAM	36	20	22.41	22.56	22.46	23.5	0.5
15	16QAM	36	39	22.35	22.55	22.42		
15	16QAM	75	0	22.39	22.52	22.52		
15	64QAM	1	0	22.09	22.72	22.39		
15	64QAM	1	37	22.35	22.53	22.64	23.5	0.5
15	64QAM	1	74	22.72	22.55	22.42		
15	64QAM	36	0	21.40	21.41	21.46		
15	64QAM	36	20	21.51	21.59	21.54	22.5	1.5
15	64QAM	36	39	21.35	21.54	21.38		
15	64QAM	75	0	21.51	21.54	21.51		
15	256QAM	1	0	19.40	19.40	19.39	20.5	3.5
15	256QAM	1	37	19.49	19.62	19.53		
15	256QAM	1	74	19.29	19.27	19.28		
15	256QAM	36	0	19.37	19.40	19.41		
15	256QAM	36	20	19.40	19.43	19.39	20.5	3.5
15	256QAM	36	39	19.42	19.51	19.39		
15	256QAM	75	0	19.31	19.40	19.32		
Channel								
10	QPSK	1	0	1805	1805	1805	24	0
10	QPSK	1	49	23.05	23.16	23.09		
10	QPSK	1	99	23.08	23.18	23.08		
10	QPSK	25	0	22.95	22.91	22.91	24	0
10	QPSK	25	10	22.98	23.15	22.95		
10	QPSK	25	25	22.99	23.13	22.99		
10	QPSK	25	26	22.89	23.03	22.89		
10	QPSK	50	0	22.91	23.02	22.95		
10	16QAM	1	0	22.99	23.03	23.03	24	0
10	16QAM	1	26	22.95	23.10	23.01		
10	16QAM	1	49	22.94	23.06	23.07		
10	16QAM	25	0	22.33	22.42	22.45		
10	16QAM	25	12	22.38	22.61	22.50	23.5	0.5
10	16QAM	25	25	22.43	22.54	22.54		
10	16QAM	50	0	22.35	22.44	22.50		
10	64QAM	1	0	21.99	22.78	22.44		
10	64QAM	1	26	22.38	22.36	22.62	23.5	0.5
10	64QAM	1	49	22.73	22.52	22.44		
10	64QAM	25	0	21.39	21.42	21.47		
10	64QAM	25	12	21.47	21.60	21.53	22.5	1.5
10	64QAM	25	25	21.35	21.37	21.37		
10	64QAM	50	0	21.43	21.56	21.52		
10	256QAM	1	0	19.34	19.35	19.35	20.5	3.5
10	256QAM	1	25	19.51	19.62	19.59		
10	256QAM	1	49	19.28	19.30	19.30		
10	256QAM	25	0	19.30	19.33	19.44		
10	256QAM	25	12	19.42	19.41	19.46	20.5	3.5
10	256QAM	25	25	19.40	19.47	19.46		
10	256QAM	50	0	19.29	19.40	19.32		
Channel								
5	QPSK	1	0	1802	1800	1817	24	0
5	QPSK	1	12	23.02	23.10	23.16		
5	QPSK	1	12	23.03	23.09	23.09		
5	QPSK	12	0	23.01	23.07	22.87	24	0
5	QPSK	12	12	22.91	22.98	22.98		
5	QPSK	12	13	22.94	22.96	22.85		
5	QPSK	25	0	22.93	22.99	22.92		
5	16QAM	1	0	22.90	23.06	23.04	24	0
5	16QAM	1	12	22.93	23.15	23.02		
5	16QAM	1	24	22.91	23.04	23.14		
5	16QAM	12	0	22.29	22.46	22.59		
5	16QAM	12	7	22.39	22.84	22.52	23.5	0.5
5	16QAM	12	10	22.44	22.47	22.42		
5	16QAM	12	13	22.40	22.47	22.45		
5	64QAM	1	0	22.05	22.40	22.47		
5	64QAM	1	12	22.39	22.30	22.70	23.5	0.5
5	64QAM	1	24	22.70	22.55	22.45		
5	64QAM	12	0	21.41	21.40	21.47		
5	64QAM	12	12	21.48	21.57	21.53	22.5	1.5
5	64QAM	12	13	21.35	21.52	21.42		
5	64QAM	25	0	21.48	21.50	21.45		
5	256QAM	1	0	19.39	19.37	19.35	20.5	3.5
5	256QAM	1	12	19.56	19.54	19.50		
5	256QAM	1	24	19.26	19.32	19.31		
5	256QAM	12	0	19.39	19.40	19.40	20.5	3.5
5	256QAM	12	7	19.46	19.39	19.46		
5	256QAM	12	13	19.27	19.41	19.44		
5	256QAM	25	0	19.27	19.35	19.32		
Channel								
3	QPSK	1	0	1881.5	1880	1918	24	0
3	QPSK	1	8	23.08	23.12	23.02		
3	QPSK	1	14	22.95	22.91	22.97		
3	QPSK	8	0	22.93	23.06	23.00	24	0
3	QPSK	8	4	22.92	23.13	22.93		
3	QPSK	8	7	23.01	23.05	22.89		
3	QPSK	15	0	22.96	23.05	23.00		
3	16QAM	1	0	22.96	23.03	23.09	24	0
3	16QAM	1	8	22.95	23.06	22.87		
3	16QAM	1	14	22.89	23.12	23.05		
3	16QAM	8	0	22.39	22.41	22.47		
3	16QAM	8	4	22.37	22.58	22.47	23.5	0.5
3	16QAM	8	7	22.37	22.63	22.43		
3	16QAM	15	0	22.45	22.46	22.45		
3	64QAM	1	0	22.01	22.75	22.48		
3	64QAM	1	8	22.30	22.38	22.72	23.5	0.5
3	64QAM	8	4	21.44	21.53	21.58		
3	64QAM	8	7	21.40	21.53	21.47	22.5	1.5
3	64QAM	15	0	21.50	21.51	21.48		
3	256QAM	1	0	19.38	19.42	19.34	20.5	3.5
3	256QAM	1	8	19.54	19.52	19.52		
3	256QAM	1	14	19.31	19.35	19.29		
3	256QAM	8	0	19.31	19.40	19.32	20.5	3.5
3	256QAM	8	4	19.47	19.38	19.45		
3	256QAM	8	7	19.36	19.48	19.45		
3	256QAM	15	0	19.33	19.33	19.33		
Channel								
1.4	QPSK	1	0	1807	1800	1913	24	0
1.4	QPSK	1	3	23.09	23.13	23.04		</



Band 4 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Ch. Freq. 20175, Power Ch. Freq. 20176, Power Ch. Freq. 20177, Tune-up Inst (dBm), MPR (dB). Contains multiple channel entries for various modulation types and power levels.

Band 4 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Ch. Freq. 20176, Power Ch. Freq. 20177, Power Ch. Freq. 20178, Tune-up Inst (dBm), MPR (dB). Contains multiple channel entries for various modulation types and power levels.



Band 5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 200000	Middle Ch. Freq. 200000	High Ch. Freq. 200000		
Channel				826.3	836.5	846.7		
Frequency (MHz)								
10	QPSK	1	0	22.93	22.93	22.93		
10	QPSK	1	26	22.93	22.93	22.93		
10	QPSK	1	49	22.84	22.80	22.91	24	0
10	QPSK	25	0	22.93	22.93	22.93		
10	QPSK	25	12	22.95	22.86	22.93	24	0
10	QPSK	25	25	22.93	22.94	22.89		
10	QPSK	50	0	22.93	22.97	22.93		
10	16QAM	1	0	22.92	22.93	22.92		
10	16QAM	1	26	22.93	22.96	22.92	24	0
10	16QAM	25	0	22.96	22.96	22.88		
10	16QAM	25	0	22.81	22.54	22.52		
10	16QAM	25	12	22.73	22.71	22.46		
10	16QAM	25	26	22.80	22.62	22.53	23.5	0.5
10	16QAM	50	0	22.89	22.67	22.82		
10	64QAM	12	0	22.72	22.52	22.78		
10	64QAM	1	26	22.51	22.60	22.73	23.5	0.5
10	64QAM	1	49	22.61	22.47	22.60		
10	64QAM	25	0	21.98	21.65	21.63		
10	64QAM	25	12	21.72	21.69	21.60		
10	64QAM	25	26	21.64	21.64	21.58	23.5	1.5
10	64QAM	50	0	21.68	21.74	21.63		
10	256QAM	1	0	19.76	19.78	19.67		
10	256QAM	1	26	19.74	19.87	19.59	20.5	3.5
10	256QAM	1	49	19.74	19.77	19.75		
10	256QAM	25	0	19.71	19.75	19.73		
10	256QAM	25	12	19.70	19.77	19.70	20.5	3.5
10	256QAM	25	26	19.75	19.78	19.65		
10	256QAM	50	0	19.79	19.82	19.80		
Channel				826.3	836.5	846.7		
5	QPSK	1	0	22.87	22.87	22.89		
5	QPSK	1	26	22.87	22.90	22.76	24	0
5	QPSK	1	49	22.72	22.72	22.82		
5	QPSK	12	0	22.85	22.86	22.97		
5	QPSK	12	13	22.87	22.84	22.83	24	0
5	QPSK	25	0	22.89	22.95	22.85		
5	16QAM	1	0	22.85	22.81	22.81		
5	16QAM	1	12	22.90	22.85	22.90	24	0
5	16QAM	1	26	22.85	22.91	22.84		
5	16QAM	12	0	22.58	22.48	22.44		
5	16QAM	12	7	22.69	22.69	22.40	23.5	0.5
5	16QAM	12	13	22.56	22.56	22.42		
5	16QAM	25	0	22.66	22.65	22.41		
5	64QAM	1	0	22.49	22.49	22.65		
5	64QAM	1	12	22.49	22.57	22.65	23.5	0.5
5	64QAM	1	26	22.56	22.39	22.33		
5	64QAM	12	0	21.46	21.46	21.53		
5	64QAM	12	7	21.61	21.63	21.55	22.5	1.5
5	64QAM	12	13	21.81	21.61	21.48		
5	64QAM	25	0	21.60	21.62	21.48		
5	256QAM	1	0	19.73	19.69	19.60		
5	256QAM	1	12	19.69	19.79	19.69	20.5	3.5
5	256QAM	1	26	19.69	19.65	19.60		
5	256QAM	12	0	19.68	19.68	19.70		
5	256QAM	12	7	19.60	19.75	19.68		
5	256QAM	12	13	19.73	19.75	19.65	20.5	3.5
5	256QAM	25	0	19.71	19.75	19.71		
Channel				826.3	836.5	846.7		
3	QPSK	1	0	22.90	22.94	22.89		
3	QPSK	1	14	22.86	22.98	22.73	24	0
3	QPSK	1	14	22.75	22.71	22.85		
3	QPSK	8	0	22.92	22.88	22.84		
3	QPSK	8	7	22.89	22.87	22.86		
3	QPSK	8	7	22.88	22.83	22.81	24	0
3	QPSK	15	0	22.86	22.92	22.80		
3	16QAM	1	0	22.83	22.90	22.86		
3	16QAM	1	8	22.85	22.89	22.87	24	0
3	16QAM	1	14	22.78	22.81	22.85		
3	16QAM	8	0	22.93	22.44	22.43		
3	16QAM	8	4	22.73	22.63	22.46	23.5	0.5
3	16QAM	8	7	22.51	22.60	22.44		
3	16QAM	15	0	22.59	22.65	22.49		
3	64QAM	1	0	22.62	22.48	22.47		
3	64QAM	1	8	22.39	22.55	22.61	23.5	0.5
3	64QAM	1	14	22.50	22.44	22.51		
3	64QAM	8	0	21.46	21.54	21.60		
3	64QAM	8	4	21.70	21.67	21.56	22.5	1.5
3	64QAM	8	7	21.62	21.53	21.46		
3	64QAM	15	0	21.69	21.64	21.46		
3	256QAM	1	0	19.74	19.71	19.65		
3	256QAM	1	8	19.75	19.78	19.69	20.5	3.5
3	256QAM	1	14	19.67	19.67	19.68		
3	256QAM	8	0	19.68	19.67	19.64		
3	256QAM	8	4	19.68	19.69	19.66	20.5	3.5
3	256QAM	8	7	19.71	19.71	19.65		
3	256QAM	15	0	19.71	19.70	19.77		
Channel				2047	20025	20643		
1.4	QPSK	1	0	22.89	22.87	22.92		
1.4	QPSK	1	8	22.91	22.93	22.71		
1.4	QPSK	1	8	22.82	22.71	22.80	24	0
1.4	QPSK	3	0	22.93	22.92	22.82		
1.4	QPSK	3	1	22.92	22.88	22.81		
1.4	QPSK	3	1	22.91	22.88	22.84		
1.4	QPSK	6	0	22.92	22.92	22.77	24	0
1.4	16QAM	1	0	22.90	22.91	22.96		
1.4	16QAM	1	3	22.84	22.86	22.86		
1.4	16QAM	1	5	22.85	22.83	22.80	24	0
1.4	16QAM	3	0	22.95	22.45	22.50		
1.4	16QAM	3	1	22.69	22.59	22.40		
1.4	16QAM	3	3	22.91	22.64	22.49		
1.4	16QAM	6	0	22.97	22.58	22.42	23.5	0.5
1.4	64QAM	1	0	22.70	22.40	22.34		
1.4	64QAM	1	3	22.43	22.46	22.56		
1.4	64QAM	1	5	22.54	22.42	22.57	23.5	0.5
1.4	64QAM	3	0	22.67	22.45	22.50		
1.4	64QAM	3	1	22.41	22.47	22.64		
1.4	64QAM	3	1	22.56	22.44	22.60		
1.4	64QAM	6	0	21.67	21.70	21.41	22.5	1.5
1.4	256QAM	1	0	19.84	19.70	19.59		
1.4	256QAM	1	3	19.75	19.82	19.71		
1.4	256QAM	1	5	19.62	19.74	19.73	20.5	3.5
1.4	256QAM	3	0	19.67	19.65	19.67		
1.4	256QAM	3	1	19.67	19.65	19.64		
1.4	256QAM	3	1	19.72	19.70	19.64		
1.4	256QAM	6	0	19.74	19.76	19.75	20.5	3.5

Band 5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 200000	Middle Ch. Freq. 200000	High Ch. Freq. 200000		
Channel				826.3	836.5	846.7		
Frequency (MHz)								
10	QPSK	1	0	20.74	20.78	20.75		
10	QPSK	1	26	20.74	20.76	20.75	22	0
10	QPSK	1	49	20.78	20.91	20.83		
10	QPSK	25	0	20.63	20.69	20.64		
10	QPSK	25	12	20.85	20.88	20.85	22	0
10	QPSK	25	25	20.62	20.70	20.81		
10	QPSK	50	0	20.71	20.69	20.69		
10	16QAM	1	0	20.84	20.88	20.86		
10	16QAM	1	26	20.77	20.81	20.78	22	0
10	16QAM	25	0	20.63	20.77	20.74		
10	16QAM	25	12	20.78	20.79	20.76		
10	16QAM	25	26	20.71	20.82	20.73	22	0
10	16QAM	50	0	20.82	20.89	20.88		
10	64QAM	12	0	20.81	20.80	20.82		
10	64QAM	1	26	20.71	20.76	20.63	22	0
10	64QAM	1	49	20.84	20.90	20.79		
10	64QAM	25	0	20.71	20.80	20.74		
10	64QAM	25	12	20.68	20.83	20.75	22	0
10	64QAM	25	26	20.89	20.90	20.79		
10	64QAM	50	0	20.76	20.86	20.85		
10	256QAM	1	0	19.76	19.81	19.88		
10	256QAM	1	26	19.75	19.84	19.69	20.5	1.5
10	256QAM	1	49	19.75	19.84	19.84		
10	256QAM	25	0	19.64	19.67	19.66		
10	256QAM	25	12	19.73	19.76	19.62	20.5	1.5
10	256QAM	25	26	19.70	19.77	19.80		
10	256QAM	50	0	19.68	19.73	19.74		
Channel				826.3	836.5	846.7		
5	QPSK	1	0	20.80	20.84	20.78		
5	QPSK	1	26	20.81	20.87	20.73	22	0
5	QPSK	1	49	20.72	20.78	20.78		
5	QPSK	12	0	20.35	20.67	20.46		
5	QPSK	12	13	20.55	20.67	20.53	22	0
5	QPSK	25	0	20.66	20.70	20.69		
5	16QAM	1	0	20.83	20.81	20.76		
5	16QAM	1	12	20.70	20.81	20.65	22	0
5	16QAM	1	26	20.64	20.77	20.65		
5	16QAM	12	0	20.62	20.73	20.70		
5	16QAM	12	7	20.67	20.73	20.67	22	0
5	16QAM	12	13	20.64	20.74	20.69		
5	16QAM	25	0	20.72	20.75	20.83		
5	16QAM	25	12	20.69	20.69	20.69		
5	16QAM	25	26	20.58	20.64	20.54	22	0
5	16QAM	50	0	20.70	20.79	20.68		
5	64QAM	12	0	20.64	20.75	20.67		
5	64QAM	12	7					



Band 7 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)		
				Low Ch. Freq. -1100	Middle Ch. Freq. -2100	High Ch. Freq. -3100				
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.5	22.3	22.9	24	0		
20	QPSK	1	49	22.3	22.2	22.3				
20	QPSK	1	99	22.45	22.59	22.47				
20	QPSK	50	0	22.59	22.61	22.60	24	0		
20	QPSK	50	24	22.55	22.55	22.59				
20	QPSK	50	50	22.57	22.53	22.58				
20	QPSK	100	0	22.52	22.60	22.52	24	0		
20	16QAM	1	0	22.43	22.58	22.55				
20	16QAM	1	49	22.47	22.61	22.52				
20	16QAM	1	99	22.44	22.60	22.45	24	0		
20	16QAM	50	0	21.88	21.98	22.02				
20	16QAM	50	24	22.08	22.04	22.15				
20	16QAM	50	50	22.15	22.19	22.15	23.5	0.5		
20	16QAM	100	0	22.05	22.12	22.14				
20	16QAM	100	0	22.11	22.18	21.98				
20	64QAM	1	49	22.12	22.12	22.05	23.5	0.5		
20	64QAM	1	99	22.17	22.03	22.04				
20	64QAM	50	0	20.93	21.01	21.14				
20	64QAM	50	24	21.07	21.15	21.15	22.5	1.5		
20	64QAM	50	50	20.97	21.21	21.17				
20	64QAM	100	0	21.11	21.07	21.02				
20	256QAM	1	0	19.01	19.09	19.02	20.5	3.5		
20	256QAM	1	49	18.99	18.97	18.94				
20	256QAM	1	99	18.83	18.95	18.84				
20	256QAM	50	0	18.76	18.83	18.79	20.5	3.5		
20	256QAM	50	24	18.74	18.81	18.78				
20	256QAM	50	50	18.80	18.86	18.83				
20	256QAM	100	0	18.69	18.80	18.77	20.5	3.5		
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.53	22.54	22.49	24	0		
15	QPSK	1	49	22.27	22.58	22.48				
15	QPSK	1	74	22.40	22.47	22.41				
15	QPSK	36	0	22.59	22.67	22.58	24	0		
15	QPSK	36	20	22.47	22.52	22.45				
15	QPSK	36	39	22.50	22.49	22.47				
15	QPSK	75	0	22.45	22.40	22.42	24	0		
15	16QAM	1	0	22.35	22.48	22.45				
15	16QAM	1	37	22.43	22.45	22.49				
15	16QAM	1	74	22.38	22.51	22.40	23.5	0.5		
15	16QAM	36	0	21.78	21.92	21.94				
15	16QAM	36	20	21.98	21.93	22.04				
15	16QAM	36	39	22.09	22.13	22.13	23.5	0.5		
15	16QAM	75	0	22.01	22.05	22.10				
15	16QAM	75	0	22.07	22.08	21.79				
15	64QAM	1	37	22.03	22.04	21.98	23.5	0.5		
15	64QAM	1	74	22.12	21.99	21.92				
15	64QAM	36	0	20.98	21.04	21.08				
15	64QAM	36	20	20.97	21.03	21.10	22.5	1.5		
15	64QAM	75	0	20.88	21.13	21.10				
15	64QAM	75	0	21.04	21.01	21.02				
15	256QAM	1	0	18.95	19.01	18.97	20.5	3.5		
15	256QAM	1	37	18.87	18.90	18.84				
15	256QAM	1	74	18.83	18.92	18.80				
15	256QAM	36	0	18.73	18.79	18.74	20.5	3.5		
15	256QAM	36	20	18.68	18.77	18.66				
15	256QAM	36	39	18.71	18.76	18.73				
15	256QAM	75	0	18.61	18.77	18.65	20.5	3.5		
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.53	22.61	22.55	24	0		
10	QPSK	1	49	22.34	22.53	22.40				
10	QPSK	1	99	22.49	22.57	22.51				
10	QPSK	25	0	22.45	22.51	22.56	24	0		
10	QPSK	25	25	22.47	22.41	22.55				
10	QPSK	50	0	22.43	22.48	22.55				
10	16QAM	1	0	22.38	22.47	22.45	24	0		
10	16QAM	1	26	22.35	22.41	22.41				
10	16QAM	1	49	22.35	22.42	22.43				
10	16QAM	25	0	21.84	21.89	21.95	23.5	0.5		
10	16QAM	25	12	21.98	21.96	22.03				
10	16QAM	25	26	22.08	22.13	22.07				
10	16QAM	50	0	22.01	22.03	22.07	23.5	0.5		
10	64QAM	1	0	22.08	22.15	21.85				
10	64QAM	1	26	22.04	22.08	22.02				
10	64QAM	1	49	22.11	21.99	22.02	22.5	1.5		
10	64QAM	25	0	20.85	20.92	21.03				
10	64QAM	25	12	21.02	21.09	21.08				
10	64QAM	25	26	20.93	21.19	21.07	20.5	3.5		
10	64QAM	50	0	21.07	21.05	20.99				
10	256QAM	1	0	18.93	19.07	18.95				
10	256QAM	1	25	18.86	18.85	18.83	20.5	3.5		
10	256QAM	1	49	18.78	18.86	18.73				
10	256QAM	25	0	18.65	18.77	18.75				
10	256QAM	25	12	18.65	18.71	18.69	20.5	3.5		
10	256QAM	25	26	18.73	18.62	18.73				
10	256QAM	50	0	18.66	18.68	18.71				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.47	22.57	22.55	24	0		
5	QPSK	1	12	22.29	22.50	22.49				
5	QPSK	1	24	22.43	22.50	22.45				
5	QPSK	12	0	22.48	22.56	22.54	24	0		
5	QPSK	12	7	22.45	22.41	22.54				
5	QPSK	12	13	22.45	22.49	22.50				
5	QPSK	25	0	22.45	22.48	22.51	24	0		
5	16QAM	1	0	22.35	22.51	22.48				
5	16QAM	1	12	22.37	22.44	22.50				
5	16QAM	1	24	22.33	22.58	22.45	23.5	0.5		
5	16QAM	12	0	21.93	21.94	21.95				
5	16QAM	12	7	22.04	21.97	22.05				
5	16QAM	12	10	22.11	22.13	22.09	23.5	0.5		
5	16QAM	12	0	22.01	22.10	22.04				
5	64QAM	1	0	22.02	22.13	21.78				
5	64QAM	1	12	22.08	22.08	22.01	22.5	1.5		
5	64QAM	1	24	22.14	22.01	21.93				
5	64QAM	12	0	20.82	20.92	21.06				
5	64QAM	12	7	21.02	21.04	21.07	20.5	3.5		
5	64QAM	12	13	20.94	21.11	21.11				
5	64QAM	25	0	21.04	20.96	20.99				
5	256QAM	1	0	18.94	19.00	18.98	20.5	3.5		
5	256QAM	1	12	18.88	18.91	18.90				
5	256QAM	1	24	18.76	18.93	18.77				
5	256QAM	12	0	18.70	18.80	18.67	20.5	3.5		
5	256QAM	12	7	18.63	18.75	18.73				
5	256QAM	12	13	18.69	18.66	18.74				
5	256QAM	25	0	18.65	18.74	18.65	20.5	3.5		

Band 7 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)		
				Low Ch. Freq. -2100	Middle Ch. Freq. -3100	High Ch. Freq. -4100				
Channel										
Frequency (MHz)										
20	QPSK	1	0	17.0	17.0	17.4	18.1	0		
20	QPSK	1	49	17.13	17.13	17.03				
20	QPSK	1	99	16.94	17.08	17.04				
20	QPSK	50	0	16.99	17.18	17.14	18.1	0		
20	QPSK	50	24	16.99	17.02	17.00				
20	QPSK	50	50	17.00	17.07	16.99				
20	QPSK	100	0	16.92	17.01	16.94	18.1	0		
20	16QAM	1	0	16.95	17.01	16.94				
20	16QAM	1	49	17.13	17.15	17.04				
20	16QAM	1	99	17.06	17.13	17.04	18.1	0		
20	16QAM	50	0	16.98	17.05	17.00				
20	16QAM	50	24	17.00	17.04	17.00				
20	16QAM	50	50	16.99	17.04	17.00	18.1	0		
20	16QAM	100	0	17.00	17.05	16.91				
20	16QAM	100	0	16.95	17.12	17.04				
20	64QAM	1	49	17.00	17.08	17.01	18.1	0		
20	64QAM	1	99	17.15	17.11	17.07				
20	64QAM	50	0	16.99	17.01	17.00				
20	64QAM	50	24	17.05	17.08	17.10	18.1	0		
20	64QAM	50	50	17.06	17.13	17.02				
20	64QAM	100	0	16.96	17.03	16.98				
20	256QAM	1	0	16.87	17.02	16.88	18.1	0		
20	256QAM	1	49	16.99	17.02	17.02				
20	256QAM	1	99	17.05	17.12	17.09				
20	256QAM	50	0	16.90	16.97	16.88	18.1	0		
20	256QAM	50	24	16.93	17.11	17.08				
20	256QAM	50	50	16.99	17.02	16.95				
20	256QAM	100	0	16.87	16.99	16.94	20.5	3.5		
Channel										
Frequency (MHz)										
15	QPSK	1	0	17.05	17.09	17.06	18.1	0		
15	QPSK	1	49	17.03	17.08	16.91				
15	QPSK	1	74	16.92	17.00	17.00				
15	QPSK	36	0	16.90	17.08	17.01	18.1	0		



Band 12 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 20005	Middle Ch. Freq. 20130	High Ch. Freq. 20155		
Channel								
	Frequency [MHz]			707.5	707.5	711		
10	QPSK	1	0	22.90	22.90	22.77	24	0
10	QPSK	1	26	22.90	22.94	22.77		
10	QPSK	1	49	22.91	22.71	22.79		
10	QPSK	25	0	22.89	22.81	22.82		
10	QPSK	25	12	22.87	22.86	22.80	24	0
10	QPSK	25	25	22.85	22.90	22.80		
10	QPSK	50	0	22.82	22.82	22.80		
10	16QAM	1	0	22.90	22.90	22.80	24	0
10	16QAM	1	26	22.89	22.83	22.80		
10	16QAM	1	49	22.85	22.87	22.80		
10	16QAM	25	0	22.46	22.56	22.69		
10	16QAM	25	12	22.54	22.54	22.58		
10	16QAM	25	26	22.83	22.43	22.80	23.5	0.5
10	16QAM	50	0	22.82	22.59	22.48		
10	64QAM	1	0	22.82	22.87	22.80	23.5	0.5
10	64QAM	1	26	22.82	22.81	22.82		
10	64QAM	1	49	22.51	22.48	22.81		
10	64QAM	25	0	21.51	21.48	21.47		
10	64QAM	25	12	21.45	21.54	21.53	22.5	1.5
10	64QAM	25	26	21.61	21.47	21.49		
10	64QAM	50	0	21.53	21.43	21.45		
10	256QAM	1	0	19.67	19.72	19.70	20.5	3.5
10	256QAM	1	26	19.78	19.65	19.70		
10	256QAM	1	49	19.71	19.74	19.69		
10	256QAM	25	0	19.60	19.65	19.54	20.5	3.5
10	256QAM	25	12	19.54	19.62	19.60		
10	256QAM	25	26	19.60	19.68	19.65		
10	256QAM	50	0	19.59	19.66	19.55		
Channel								
	Frequency [MHz]			701.5	701.5	713.5		
5	QPSK	1	0	22.91	22.89	22.73	24	0
5	QPSK	1	26	22.87	22.87	22.82		
5	QPSK	1	49	22.79	22.81	22.75		
5	QPSK	12	0	22.91	22.84	22.73	24	0
5	QPSK	12	12	22.75	22.79	22.71		
5	QPSK	12	13	22.83	22.84	22.74		
5	QPSK	26	0	22.78	22.70	22.71		
5	16QAM	1	0	22.87	22.85	22.89	24	0
5	16QAM	1	12	22.80	22.72	22.78		
5	16QAM	1	26	22.80	22.75	22.78		
5	16QAM	12	0	22.29	22.50	22.61	23.5	0.5
5	16QAM	12	7	22.29	22.46	22.46		
5	16QAM	12	12	22.20	22.39	22.43		
5	16QAM	25	0	22.43	22.44	22.42		
5	64QAM	1	0	22.47	22.49	22.49	23.5	0.5
5	64QAM	1	12	22.60	22.45	22.60		
5	64QAM	1	24	22.45	22.39	22.56		
5	64QAM	12	0	21.56	21.41	21.40	22.5	1.5
5	64QAM	12	7	21.41	21.52	21.41		
5	64QAM	12	13	21.50	21.39	21.43		
5	64QAM	25	0	21.46	21.41	21.38		
5	256QAM	1	0	19.56	19.63	19.62	20.5	3.5
5	256QAM	1	12	19.65	19.79	19.62		
5	256QAM	1	24	19.65	19.71	19.63		
5	256QAM	12	0	19.57	19.57	19.47	20.5	3.5
5	256QAM	12	7	19.52	19.53	19.53		
5	256QAM	12	13	19.48	19.62	19.63		
5	256QAM	25	0	19.51	19.58	19.53		
Channel								
	Frequency [MHz]			700.5	707.5	714.5		
3	QPSK	1	0	22.89	22.92	22.74	24	0
3	QPSK	1	14	22.87	22.83	22.86		
3	QPSK	1	14	22.88	22.86	22.73		
3	QPSK	8	0	22.85	22.87	22.70	24	0
3	QPSK	8	7	22.75	22.77	22.77		
3	QPSK	8	7	22.79	22.86	22.69		
3	QPSK	15	0	22.76	22.77	22.79	24	0
3	16QAM	1	0	22.83	22.89	22.78		
3	16QAM	1	8	22.79	22.73	22.68	24	0
3	16QAM	1	14	22.81	22.80	22.69		
3	16QAM	8	0	22.41	22.50	22.50	23.5	0.5
3	16QAM	8	4	22.53	22.51	22.50		
3	16QAM	8	7	22.52	22.40	22.57		
3	16QAM	15	0	22.43	22.47	22.41		
3	64QAM	1	0	22.44	22.60	22.40	23.5	0.5
3	64QAM	1	8	22.57	22.41	22.60		
3	64QAM	1	14	22.42	22.40	22.52		
3	64QAM	8	0	21.48	21.40	21.41	22.5	1.5
3	64QAM	8	4	21.33	21.45	21.43		
3	64QAM	8	7	21.52	21.35	21.41		
3	64QAM	15	0	21.46	21.41	21.31		
3	256QAM	1	0	19.53	19.57	19.54	20.5	3.5
3	256QAM	1	8	19.70	19.78	19.65		
3	256QAM	1	14	19.68	19.63	19.63		
3	256QAM	8	0	19.48	19.62	19.47	20.5	3.5
3	256QAM	8	4	19.52	19.56	19.58		
3	256QAM	8	7	19.50	19.66	19.54		
3	256QAM	15	0	19.49	19.61	19.47		
Channel								
	Frequency [MHz]			23017	23095	23173		
1.4	QPSK	1	0	22.82	22.88	22.75	24	0
1.4	QPSK	1	8	22.89	22.86	22.69		
1.4	QPSK	1	8	22.83	22.82	22.72		
1.4	QPSK	3	0	22.85	22.84	22.70	23.5	0
1.4	QPSK	3	3	22.86	22.74	22.68		
1.4	QPSK	3	3	22.83	22.73	22.73		
1.4	QPSK	6	0	22.74	22.78	22.68	24	0
1.4	16QAM	1	0	22.87	22.86	22.72		
1.4	16QAM	1	3	22.79	22.75	22.78		
1.4	16QAM	1	5	22.83	22.77	22.72	23.5	0
1.4	16QAM	3	0	22.36	22.47	22.61		
1.4	16QAM	3	1	22.62	22.45	22.53		
1.4	16QAM	3	3	22.60	22.34	22.32	23.5	0.5
1.4	16QAM	6	0	22.42	22.39	22.40		
1.4	64QAM	1	0	22.44	22.59	22.41		
1.4	64QAM	1	3	22.53	22.43	22.56		
1.4	64QAM	1	5	22.45	22.39	22.57	23.5	0.5
1.4	64QAM	3	0	22.43	22.58	22.36		
1.4	64QAM	3	3	22.50	22.48	22.52		
1.4	64QAM	3	3	22.46	22.40	22.59		
1.4	64QAM	6	0	21.51	21.32	21.31	22.5	1.5
1.4	256QAM	1	0	19.58	19.70	19.60	20.5	3.5
1.4	256QAM	1	3	19.74	19.79	19.61		
1.4	256QAM	1	5	19.64	19.62	19.62		
1.4	256QAM	3	0	19.54	19.53	19.45	20.5	3.5
1.4	256QAM	3	1	19.44	19.54	19.53		
1.4	256QAM	3	3	19.58	19.56	19.56		
1.4	256QAM	6	0	19.50	19.56	19.45	20.5	3.5

Band 12 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 20005	Middle Ch. Freq. 20130	High Ch. Freq. 20155		
Channel								
	Frequency [MHz]			707.5	707.5	711		
10	QPSK	1	0	22.89	22.89	22.80	23.5	0
10	QPSK	1	26	22.89	22.95	22.80		
10	QPSK	1	49	22.83	22.90	22.82		
10	QPSK	25	0	22.82	22.84	22.88		
10	QPSK	25	12	22.78	22.80	22.77	23.5	0
10	QPSK	25	25	22.88	22.83	22.89		
10	QPSK	50	0	22.80	22.80	22.74		
10	16QAM	1	0	22.95	22.90	22.91	23.5	0
10	16QAM	1	26	22.76	22.84	22.79		
10	16QAM	1	49	22.85	22.89	22.84		
10	16QAM	25	0	22.88	22.87	22.85		
10	16QAM	25	12	22.68	22.81	22.81	23.5	0
10	16QAM	25	26	22.76	22.80	22.82		
10	16QAM	50	0	22.85	22.87	22.73		
10	64QAM	1	0	22.74	22.78	22.73	23.5	0
10	64QAM	1	26	22.65	22.75	22.66		
10	64QAM	1	49	22.85	22.85	22.79		
10	64QAM	25	0	22.01	22.02	22.09	22.5	1
10	64QAM	25	12	22.07	22.09	22.23		
10	64QAM	25	26	22.10	22.06	22.18		
10	64QAM	50	0	22.05	22.00	22.05		
10	256QAM	1	0	19.87	19.89	19.89	20.5	3
10	256QAM	1	26	19.78	1			



Band 13 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.81	22.77	22.76	24	0
10	QPSK	1	26	22.77	22.66	22.66		
10	QPSK	1	49	22.66	22.76	22.76		
10	QPSK	25	0	22.76	22.66	22.66	24	0
10	QPSK	25	12	22.72	22.66	22.66		
10	QPSK	25	25	22.66	22.76	22.76		
10	QPSK	50	0	22.70	22.66	22.66	24	0
10	16QAM	1	0	22.76	22.74	22.74		
10	16QAM	1	26	22.74	22.78	22.78		
10	16QAM	25	0	21.85	21.85	21.85	23	1
10	16QAM	25	12	21.92	21.85	21.85		
10	16QAM	25	25	21.76	21.76	21.76		
10	16QAM	50	0	21.78	21.78	21.78	23	1
10	64QAM	1	0	22.28	22.28	22.28		
10	64QAM	1	26	22.09	22.09	22.09		
10	64QAM	25	0	20.84	20.84	20.84	22	2
10	64QAM	25	12	20.88	20.88	20.88		
10	64QAM	25	25	20.90	20.90	20.90		
10	64QAM	50	0	20.73	20.73	20.73	20	4
10	256QAM	1	0	18.88	18.88	18.88		
10	256QAM	1	26	18.92	18.92	18.92		
10	256QAM	1	49	18.75	18.75	18.75	20	4
10	256QAM	25	0	18.89	18.89	18.89		
10	256QAM	25	26	18.87	18.87	18.87		
10	256QAM	25	25	18.75	18.75	18.75	20	4
10	256QAM	50	0	18.95	18.95	18.95		
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.73	22.77	22.76	24	0
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	12	0	22.09	22.14	22.12	24	0
5	QPSK	12	0	22.01	22.09	22.04		
5	QPSK	12	13	22.58	22.58	22.60		
5	QPSK	26	0	22.05	22.02	22.08	24	0
5	16QAM	1	0	22.72	22.65	22.73		
5	16QAM	1	12	22.63	22.67	22.65		
5	16QAM	1	24	22.66	22.76	22.74	23	1
5	16QAM	12	0	21.83	21.80	21.81		
5	16QAM	12	7	21.88	21.88	21.81		
5	16QAM	12	13	21.68	21.68	21.67	23	1
5	16QAM	25	0	21.75	21.70	21.69		
5	64QAM	1	0	22.22	22.21	22.19		
5	64QAM	1	12	22.04	22.07	22.04	23	1
5	64QAM	1	24	22.04	22.08	22.07		
5	64QAM	12	0	20.77	20.74	20.79		
5	64QAM	12	7	20.83	20.79	20.82	22	2
5	64QAM	12	13	20.79	20.84	20.84		
5	64QAM	25	0	20.62	20.65	20.65		
5	256QAM	1	0	18.85	18.83	18.76	20	4
5	256QAM	1	12	18.90	18.97	18.93		
5	256QAM	1	24	18.73	18.73	18.69		
5	256QAM	12	0	18.78	18.81	18.74	20	4
5	256QAM	12	7	18.77	18.80	18.80		
5	256QAM	12	13	18.69	18.69	18.63		
5	256QAM	25	0	18.84	18.83	18.87	20	4
5	256QAM	25	0	18.84	18.83	18.87		
Channel								
Frequency (MHz)								
5	QPSK	1	0	20.84	20.81	20.86	22.1	0
5	QPSK	1	24	20.84	20.72	20.71		
5	QPSK	1	24	20.73	20.83	20.82		
5	QPSK	12	0	20.87	20.84	20.89	22.1	0
5	QPSK	12	0	20.65	20.62	20.73		
5	QPSK	12	13	20.73	20.78	20.72		
5	QPSK	26	0	20.71	20.80	20.81	22.1	0
5	16QAM	1	0	20.74	20.67	20.70		
5	16QAM	1	12	20.85	20.88	20.77		
5	16QAM	1	24	20.77	20.71	20.81	22.1	0
5	16QAM	12	0	20.75	20.73	20.68		
5	16QAM	12	7	20.65	20.73	20.73		
5	16QAM	12	13	20.67	20.78	20.75	22.1	0
5	16QAM	25	0	20.72	20.81	20.85		
5	64QAM	1	0	20.65	20.65	20.61		
5	64QAM	1	12	20.68	20.62	20.63	22.1	0
5	64QAM	1	24	20.84	20.85	20.80		
5	64QAM	12	0	20.31	20.34	20.38		
5	64QAM	12	7	20.39	20.31	20.32	21.5	0.6
5	64QAM	12	13	20.37	20.46	20.36		
5	64QAM	25	0	20.23	20.29	20.27		
5	256QAM	1	0	18.36	18.42	18.36	19.5	2.6
5	256QAM	1	12	18.61	18.53	18.62		
5	256QAM	1	24	18.52	18.52	18.46		
5	256QAM	12	0	18.36	18.32	18.34	19.5	2.6
5	256QAM	12	7	18.38	18.34	18.33		
5	256QAM	12	13	18.40	18.47	18.47		
5	256QAM	25	0	18.45	18.42	18.46	19.5	2.6
5	256QAM	25	0	18.45	18.42	18.46		
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.81	22.77	22.76	24	0
5	QPSK	1	26	22.77	22.66	22.66		
5	QPSK	1	49	22.66	22.76	22.76		
5	QPSK	25	0	22.76	22.66	22.66	24	0
5	QPSK	25	12	22.72	22.66	22.66		
5	QPSK	25	25	22.66	22.76	22.76		
5	QPSK	50	0	22.70	22.66	22.66	24	0
5	16QAM	1	0	22.76	22.74	22.74		
5	16QAM	1	26	22.74	22.78	22.78		
5	16QAM	25	0	21.85	21.85	21.85	23	1
5	16QAM	25	12	21.92	21.85	21.85		
5	16QAM	25	25	21.76	21.76	21.76		
5	16QAM	50	0	21.78	21.78	21.78	23	1
5	64QAM	1	0	22.28	22.28	22.28		
5	64QAM	1	26	22.09	22.09	22.09		
5	64QAM	25	0	20.84	20.84	20.84	22	2
5	64QAM	25	12	20.88	20.88	20.88		
5	64QAM	25	25	20.90	20.90	20.90		
5	64QAM	50	0	20.73	20.73	20.73	20	4
5	256QAM	1	0	18.88	18.88	18.88		
5	256QAM	1	26	18.92	18.92	18.92		
5	256QAM	1	49	18.75	18.75	18.75	20	4
5	256QAM	25	0	18.89	18.89	18.89		
5	256QAM	25	26	18.87	18.87	18.87		
5	256QAM	25	25	18.75	18.75	18.75	20	4
5	256QAM	50	0	18.95	18.95	18.95		
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.73	22.77	22.76	24	0
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	12	0	22.09	22.14	22.12	24	0
5	QPSK	12	0	22.01	22.09	22.04		
5	QPSK	12	13	22.58	22.58	22.60		
5	QPSK	26	0	22.05	22.02	22.08	24	0
5	16QAM	1	0	22.72	22.65	22.73		
5	16QAM	1	12	22.63	22.67	22.65		
5	16QAM	1	24	22.66	22.76	22.74	23	1
5	16QAM	12	0	21.83	21.80	21.81		
5	16QAM	12	7	21.88	21.88	21.81		
5	16QAM	12	13	21.68	21.68	21.67	23	1
5	16QAM	25	0	21.75	21.70	21.69		
5	64QAM	1	0	22.22	22.21	22.19		
5	64QAM	1	12	22.04	22.07	22.04	23	1
5	64QAM	1	24	22.04	22.08	22.07		
5	64QAM	12	0	20.77	20.74	20.79		
5	64QAM	12	7	20.83	20.79	20.82	22	2
5	64QAM	12	13	20.79	20.84	20.84		
5	64QAM	25	0	20.62	20.65	20.65		
5	256QAM	1	0	18.85	18.83	18.76	20	4
5	256QAM	1	12	18.90	18.97	18.93		
5	256QAM	1	24	18.73	18.73	18.69		
5	256QAM	12	0	18.78	18.81	18.74	20	4
5	256QAM	12	7	18.77	18.80	18.80		
5	256QAM	12	13	18.69	18.69	18.63		
5	256QAM	25	0	18.84	18.83	18.87	20	4
5	256QAM	25	0	18.84	18.83	18.87		
Channel								
Frequency (MHz)								
5	QPSK	1	0	20.84	20.81	20.86	22.1	0
5	QPSK	1	24	20.84	20.72	20.71		
5	QPSK	1	24	20.73	20.83	20.82		
5	QPSK	12	0	20.87	20.84	20.89	22.1	0
5	QPSK	12	0	20.65	20.62	20.73		
5	QPSK	12	13	20.73	20.78	20.72		
5	QPSK	26	0	20.71	20.80	20.81	22.1	0
5	16QAM	1	0	20.74	20.67	20.70		
5	16QAM	1	12	20.85	20.88	20.77		
5	16QAM	1	24	20.77	20.71	20.81	22.1	0
5	16QAM							



Band 14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.77			24	0
10	QPSK	1	26	22.75				
10	QPSK	1	49	22.52				
10	QPSK	25	0	22.75			24	0
10	QPSK	25	12	22.83				
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.73			24	0
10	16QAM	1	0	22.73				
10	16QAM	1	26	22.75				
10	16QAM	1	49	22.70			23.5	0.5
10	16QAM	25	0	22.31				
10	16QAM	25	12	22.36				
10	16QAM	25	25	22.23			23.5	0.5
10	16QAM	50	0	22.28				
10	16QAM	50	0	22.28				
10	64QAM	1	26	22.33			23.5	0.5
10	64QAM	1	49	22.41				
10	64QAM	25	0	21.30				
10	64QAM	25	12	21.35			22.5	1.5
10	64QAM	25	25	21.47				
10	64QAM	50	0	21.37				
10	256QAM	1	0	19.48			20.5	3.5
10	256QAM	1	26	19.54				
10	256QAM	1	49	19.45				
10	256QAM	25	0	19.42			20.5	3.5
10	256QAM	25	12	19.43				
10	256QAM	25	25	19.45				
10	256QAM	50	0	19.51				
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.70	22.68	22.67	24	0
5	QPSK	1	12	22.71	22.71	22.68		
5	QPSK	1	24	22.47	22.45	22.42		
5	QPSK	12	0	22.64	22.67	22.72	24	0
5	QPSK	12	12	22.51	22.59	22.61		
5	QPSK	12	13	22.61	22.65	22.65		
5	QPSK	25	0	22.64	22.67	22.66	24	0
5	16QAM	1	0	22.64	22.66	22.61		
5	16QAM	1	12	22.71	22.68	22.71		
5	16QAM	1	24	22.65	22.61	22.68	23.5	0.5
5	16QAM	12	0	22.21	22.19	22.19		
5	16QAM	12	7	22.25	22.31	22.25		
5	16QAM	12	13	22.23	22.14	22.14	23.5	0.5
5	16QAM	25	0	22.22	22.21	22.19		
5	16QAM	25	0	22.24	22.31	22.28		
5	64QAM	1	0	22.23	22.26	22.30	22.5	1.5
5	64QAM	1	24	22.38	22.37	22.35		
5	64QAM	12	0	21.24	21.25	21.18		
5	64QAM	12	7	21.31	21.23	21.33	22.5	1.5
5	64QAM	12	13	21.42	21.42	21.45		
5	64QAM	25	0	21.25	21.28	21.34		
5	256QAM	1	0	19.39	19.40	19.41	20.5	3.5
5	256QAM	1	12	19.43	19.52	19.47		
5	256QAM	1	24	19.42	19.43	19.34		
5	256QAM	12	0	19.30	19.37	19.36	20.5	3.5
5	256QAM	12	7	19.40	19.34	19.38		
5	256QAM	12	13	19.34	19.40	19.36		
5	256QAM	25	0	19.39	19.42	19.49		

Band 14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	21.60			22.7	0
10	QPSK	1	26	21.60				
10	QPSK	1	49	21.68				
10	QPSK	25	0	21.68			22.7	0
10	QPSK	25	12	21.68				
10	QPSK	25	25	21.60				
10	QPSK	50	0	21.59			22.7	0
10	16QAM	1	0	21.49				
10	16QAM	1	26	21.60				
10	16QAM	1	49	21.55			22.7	0
10	16QAM	25	0	21.58				
10	16QAM	25	12	21.58				
10	16QAM	25	25	21.54			22.7	0
10	16QAM	50	0	21.54				
10	16QAM	50	0	21.57				
10	64QAM	1	26	21.59			22.7	0
10	64QAM	1	49	21.66				
10	64QAM	25	0	21.58				
10	64QAM	25	12	21.48			22.7	0
10	64QAM	25	25	21.53				
10	64QAM	50	0	21.55				
10	256QAM	1	0	19.84			21	1.7
10	256QAM	1	26	19.92				
10	256QAM	1	49	19.89				
10	256QAM	25	0	19.80			21	1.7
10	256QAM	25	12	19.84				
10	256QAM	25	25	19.80				
10	256QAM	50	0	19.82				
Channel								
Frequency (MHz)								
5	QPSK	1	0	21.66	21.60	21.57	22.7	0
5	QPSK	1	12	21.55	21.53	21.59		
5	QPSK	1	24	21.65	21.55	21.68		
5	QPSK	12	0	21.61	21.61	21.56	22.7	0
5	QPSK	12	12	21.60	21.57	21.65		
5	QPSK	12	13	21.42	21.47	21.48		
5	QPSK	25	0	21.59	21.46	21.58	22.7	0
5	16QAM	1	0	21.48	21.45	21.46		
5	16QAM	1	12	21.45	21.48	21.46		
5	16QAM	1	24	21.45	21.50	21.41	22.7	0
5	16QAM	12	0	21.57	21.44	21.48		
5	16QAM	12	7	21.52	21.47	21.46		
5	16QAM	12	13	21.58	21.56	21.57	22.7	0
5	16QAM	25	0	21.41	21.47	21.43		
5	16QAM	25	0	21.42	21.61	21.59		
5	64QAM	1	0	21.42	21.46	21.45	22.7	0
5	64QAM	1	12	21.52	21.46	21.45		
5	64QAM	1	24	21.43	21.53	21.47		
5	64QAM	12	0	21.44	21.38	21.48	22.7	0
5	64QAM	12	7	21.35	21.33	21.41		
5	64QAM	12	13	21.50	21.43	21.43		
5	64QAM	25	0	21.45	21.41	21.45	21	1.7
5	256QAM	1	0	19.74	19.72	19.73		
5	256QAM	1	12	19.81	19.89	19.82		
5	256QAM	1	24	19.86	19.86	19.79	21	1.7
5	256QAM	12	0	19.75	19.75	19.77		
5	256QAM	12	7	19.72	19.73	19.81		
5	256QAM	12	13	19.69	19.77	19.75	21	1.7
5	256QAM	25	0	19.73	19.80	19.72		



Band 17 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel				709	710	711		
10	QPSK	1	0	22.84	22.81	22.85	24	0
10	QPSK	1	26	22.78	22.80	22.82		
10	QPSK	1	49	22.82	22.88	22.80		
10	QPSK	25	0	22.81	22.88	22.85	24	0
10	QPSK	25	12	22.83	22.86	22.80		
10	QPSK	25	25	22.86	22.85	22.83		
10	QPSK	50	0	22.75	22.85	22.79	24	0
10	16QAM	1	0	22.82	22.88	22.82		
10	16QAM	1	26	22.76	22.85	22.79		
10	16QAM	1	49	22.78	22.82	22.82	23.5	0.5
10	16QAM	25	0	22.48	22.52	22.47		
10	16QAM	25	12	22.58	22.56	22.59		
10	16QAM	25	25	22.85	22.84	22.85	23.5	0.5
10	16QAM	50	0	22.49	22.50	22.53		
10	16QAM	50	0	22.34	22.43	22.38		
10	64QAM	1	26	22.36	22.41	22.41	23.5	0.5
10	64QAM	1	49	22.34	22.49	22.34		
10	64QAM	25	0	21.44	21.50	21.50		
10	64QAM	25	12	21.52	21.55	21.53	22.5	1.5
10	64QAM	25	25	21.54	21.58	21.67		
10	64QAM	50	0	21.59	21.68	21.59		
10	256QAM	1	0	19.58	19.68	19.62	20.5	3.5
10	256QAM	1	26	19.79	19.82	19.73		
10	256QAM	1	49	19.64	19.73	19.64		
10	256QAM	25	0	19.67	19.69	19.69	20.5	3.5
10	256QAM	25	12	19.55	19.65	19.63		
10	256QAM	25	25	19.65	19.68	19.58		
10	256QAM	50	0	19.65	19.71	19.59		
Channel				706.5	710	713.5	Tune-up Inst (dBm)	MPR (dB)
5	QPSK	1	0	22.77	22.81	22.74	24	0
5	QPSK	1	12	22.69	22.72	22.71		
5	QPSK	1	24	22.72	22.83	22.68		
5	QPSK	12	0	22.78	22.77	22.73	24	0
5	QPSK	12	12	22.81	22.83	22.79		
5	QPSK	12	13	22.81	22.81	22.73		
5	QPSK	25	0	22.65	22.80	22.68	24	0
5	16QAM	1	0	22.78	22.85	22.80		
5	16QAM	1	12	22.85	22.73	22.84		
5	16QAM	1	24	22.74	22.75	22.77	23.5	0.5
5	16QAM	12	0	22.38	22.50	22.44		
5	16QAM	12	7	22.49	22.49	22.48		
5	16QAM	12	13	22.52	22.42	22.61	23.5	0.5
5	16QAM	25	0	22.46	22.44	22.43		
5	16QAM	1	0	22.27	22.32	22.30		
5	64QAM	1	12	22.33	22.33	22.30	22.5	1.5
5	64QAM	1	24	22.25	22.38	22.30		
5	64QAM	12	0	21.34	21.44	21.46		
5	64QAM	12	7	21.45	21.47	21.45	20.5	3.5
5	64QAM	12	13	21.45	21.53	21.57		
5	64QAM	25	0	21.56	21.40	21.29		
5	256QAM	1	0	19.55	19.65	19.50	20.5	3.5
5	256QAM	1	12	19.69	19.76	19.62		
5	256QAM	1	24	19.57	19.66	19.55		
5	256QAM	12	0	19.63	19.59	19.51	20.5	3.5
5	256QAM	12	7	19.50	19.60	19.61		
5	256QAM	12	13	19.57	19.53	19.51		
5	256QAM	25	0	19.54	19.60	19.47		

Band 17 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel				709	710	711		
10	QPSK	1	0	22.74	22.86	22.81	23.5	0
10	QPSK	1	26	22.75	22.83	22.74		
10	QPSK	1	49	22.68	22.86	22.69		
10	QPSK	25	0	22.79	22.81	22.88	23.5	0
10	QPSK	25	12	22.69	22.79	22.63		
10	QPSK	25	25	22.81	22.81	22.88		
10	QPSK	50	0	22.75	22.82	22.82	23.5	0
10	16QAM	1	0	22.84	22.87	22.87		
10	16QAM	1	26	22.83	22.71	22.79		
10	16QAM	1	49	22.76	22.79	22.82	22.5	1
10	16QAM	25	0	22.84	22.82	22.78		
10	16QAM	25	12	22.59	22.78	22.56		
10	16QAM	25	25	22.75	22.82	22.85	23.5	0
10	16QAM	50	0	22.79	22.84	22.82		
10	16QAM	50	0	22.63	22.76	22.62		
10	64QAM	1	26	22.58	22.72	22.58	23.5	0
10	64QAM	1	49	22.71	22.80	22.75		
10	64QAM	25	0	22.00	22.00	22.00		
10	64QAM	25	12	22.14	22.11	22.16	22.5	1
10	64QAM	25	25	22.12	22.12	22.09		
10	64QAM	50	0	22.05	22.06	22.16		
10	256QAM	1	0	20.20	20.22	20.20	20.5	3
10	256QAM	1	26	20.22	20.31	20.21		
10	256QAM	1	49	20.20	20.28	20.19		
10	256QAM	25	0	20.14	20.25	20.21	20.5	3
10	256QAM	25	12	20.17	20.34	20.18		
10	256QAM	25	25	20.19	20.26	20.16		
10	256QAM	50	0	20.13	20.22	20.17		
Channel				706.5	710	713.5	Tune-up Inst (dBm)	MPR (dB)
5	QPSK	1	0	22.83	22.85	22.80	23.5	0
5	QPSK	1	12	22.73	22.77	22.66		
5	QPSK	1	24	22.87	22.72	22.84		
5	QPSK	12	0	22.71	22.89	22.80	23.5	0
5	QPSK	12	12	22.80	22.76	22.85		
5	QPSK	12	13	22.49	22.77	22.65		
5	QPSK	25	0	22.62	22.69	22.52	23.5	0
5	16QAM	1	0	22.83	22.87	22.87		
5	16QAM	1	12	22.63	22.63	22.70		
5	16QAM	1	24	22.77	22.77	22.81	23.5	0
5	16QAM	12	0	22.72	22.72	22.72		
5	16QAM	12	7	22.45	22.69	22.56		
5	16QAM	12	13	22.71	22.82	22.73	23.5	0
5	16QAM	25	0	22.69	22.78	22.50		
5	16QAM	1	0	22.55	22.68	22.59		
5	64QAM	1	12	22.67	22.71	22.44	22.5	1
5	64QAM	1	24	22.68	22.68	22.75		
5	64QAM	12	0	21.56	21.62	21.58		
5	64QAM	12	7	22.10	22.06	22.07	20.5	3
5	64QAM	12	13	22.06	22.05	21.99		
5	64QAM	25	0	21.96	21.98	22.11		
5	256QAM	1	0	20.12	20.20	20.08	20.5	3
5	256QAM	1	12	20.17	20.27	20.15		
5	256QAM	1	24	20.15	20.23	20.07		
5	256QAM	12	0	20.02	20.13	20.18	20.5	3
5	256QAM	12	7	20.09	20.16	20.18		
5	256QAM	12	13	20.12	20.16	20.05		
5	256QAM	25	0	20.03	20.11	20.15		



Band 25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq. 26340	Power Middle Ch. Freq. 26390	Power High Ch. Freq. 26440		
Channel								
	Frequency (MHz)			1860	1860	1905		
20	QPSK	1	0	23.1	23.5	23.5	24	0
20	QPSK	1	49	23.15	23.55	23.25		
20	QPSK	1	99	23.19	23.54	23.21		
20	QPSK	50	0	23.20	23.60	23.34		
20	QPSK	50	24	23.15	23.58	23.33	24	0
20	QPSK	50	50	23.11	23.57	23.33		
20	QPSK	100	0	23.20	23.60	23.30		
20	16QAM	1	0	23.52	23.49	23.43		
20	16QAM	1	49	23.49	23.49	23.39	24	0
20	16QAM	50	0	23.37	23.54	23.31		
20	16QAM	50	24	22.48	22.81	22.61		
20	16QAM	50	50	22.95	22.91	22.75	23.5	0.5
20	16QAM	100	0	22.47	22.84	22.74		
20	64QAM	1	0	22.75	22.65	22.70		
20	64QAM	1	49	22.74	23.04	22.71	23.5	0.5
20	64QAM	50	0	22.72	22.79	22.76		
20	64QAM	50	24	21.45	21.84	21.59		
20	64QAM	50	50	21.49	21.85	21.52	22.5	1.5
20	256QAM	1	0	21.45	21.81	21.69		
20	256QAM	1	49	19.33	19.42	19.36	20.5	3.5
20	256QAM	1	99	19.29	19.42	19.27		
20	256QAM	1	149	19.43	19.35	19.33		
20	256QAM	50	0	19.27	19.31	19.19		
20	256QAM	50	24	19.37	19.42	19.32	20.5	3.5
20	256QAM	50	50	19.34	19.43	19.34		
20	256QAM	100	0	19.35	19.38	19.26		
Channel								
	Frequency (MHz)			1867.5	1867.5	1907.5		
15	QPSK	1	0	23.19	23.50	23.23	24	0
15	QPSK	1	27	23.07	23.43	23.17		
15	QPSK	1	74	23.13	23.45	23.18		
15	QPSK	36	0	23.08	23.38	23.11		
15	QPSK	36	20	23.05	23.51	23.25	24	0
15	QPSK	36	39	22.99	23.52	23.31		
15	QPSK	75	0	23.21	23.48	23.22		
15	16QAM	1	0	23.45	23.42	23.41		
15	16QAM	1	37	23.44	23.47	23.26	24	0
15	16QAM	36	0	23.35	23.38	23.20		
15	16QAM	36	0	22.43	22.78	22.51	23.5	0.5
15	16QAM	36	20	22.41	22.89	22.55		
15	16QAM	36	39	22.39	22.93	22.47		
15	16QAM	75	0	22.39	22.81	22.72		
15	64QAM	1	0	22.67	22.84	22.69		
15	64QAM	1	37	22.64	23.01	22.60	23.5	0.5
15	64QAM	1	74	22.69	22.78	22.73		
15	64QAM	36	0	21.37	21.74	21.46		
15	64QAM	36	20	21.45	21.83	21.62	22.5	1.5
15	64QAM	36	39	21.38	21.76	21.43		
15	64QAM	75	0	21.34	21.78	21.67		
15	256QAM	1	0	19.24	19.38	19.34		
15	256QAM	1	37	19.25	19.33	19.16	20.5	3.5
15	256QAM	1	74	19.45	19.50	19.36		
15	256QAM	36	0	19.16	19.27	19.07		
15	256QAM	36	20	19.38	19.35	19.28	20.5	3.5
15	256QAM	36	39	19.24	19.36	19.26		
15	256QAM	75	0	19.33	19.29	19.21		
Channel								
	Frequency (MHz)			1865	1865	1910		
10	QPSK	1	0	23.11	23.52	23.31	24	0
10	QPSK	1	12	23.06	23.47	23.22		
10	QPSK	1	49	23.11	23.42	23.13		
10	QPSK	25	0	23.11	23.53	23.26		
10	QPSK	25	25	23.13	23.48	23.25	24	0
10	QPSK	25	26	23.06	23.47	23.21		
10	QPSK	50	0	23.22	23.42	23.26		
10	16QAM	1	0	23.42	23.42	23.36		
10	16QAM	1	26	23.40	23.55	23.23	24	0
10	16QAM	1	49	23.33	23.55	23.21		
10	16QAM	25	0	22.33	22.78	22.54	23.5	0.5
10	16QAM	25	12	22.43	22.84	22.50		
10	16QAM	25	26	22.41	22.88	22.72		
10	16QAM	50	0	22.45	22.79	22.72		
10	64QAM	1	0	22.64	22.89	22.67		
10	64QAM	1	26	22.61	22.97	22.61	23.5	0.5
10	64QAM	1	49	22.61	22.72	22.66		
10	64QAM	25	0	21.39	21.75	21.51		
10	64QAM	25	12	21.41	21.88	21.61	22.5	1.5
10	64QAM	25	26	21.40	21.77	21.48		
10	256QAM	1	0	19.25	19.29	19.09		
10	256QAM	1	26	19.23	19.50	19.33	20.5	3.5
10	256QAM	1	49	19.18	19.32	19.20		
10	256QAM	36	0	19.45	19.46	19.41		
10	256QAM	36	0	19.15	19.26	19.15		
10	256QAM	25	12	19.25	19.38	19.30	20.5	3.5
10	256QAM	25	26	19.30	19.33	19.30		
10	256QAM	50	0	19.26	19.32	19.23		
Channel								
	Frequency (MHz)			26005	26340	26675		
5	QPSK	1	0	23.16	23.58	23.25	24	0
5	QPSK	1	12	23.08	23.52	23.21		
5	QPSK	1	24	23.12	23.47	23.18		
5	QPSK	12	0	23.15	23.49	23.26		
5	QPSK	12	12	23.13	23.48	23.24	24	0
5	QPSK	12	13	23.03	23.49	23.27		
5	QPSK	25	0	23.24	23.51	23.20		
5	16QAM	1	0	23.46	23.45	23.41		
5	16QAM	1	12	23.42	23.57	23.27	24	0
5	16QAM	1	24	23.28	23.42	23.26		
5	16QAM	12	0	22.40	22.69	22.54	23.5	0.5
5	16QAM	12	7	22.45	22.79	22.59		
5	16QAM	12	10	22.41	22.83	22.66		
5	16QAM	12	13	22.41	22.72	22.65		
5	64QAM	1	0	22.69	22.80	22.68		
5	64QAM	1	12	22.66	22.91	22.66	23.5	0.5
5	64QAM	1	24	22.61	22.87	22.73		
5	64QAM	12	0	21.39	21.75	21.45		
5	64QAM	12	7	21.47	21.78	21.66	22.5	1.5
5	64QAM	12	13	21.43	21.83	21.44		
5	64QAM	25	0	21.34	21.70	21.62		
5	256QAM	1	0	19.30	19.30	19.31		
5	256QAM	1	12	19.26	19.23	19.19	20.5	3.5
5	256QAM	1	24	19.45	19.52	19.39		
5	256QAM	12	0	19.18	19.26	19.10		
5	256QAM	12	7	19.25	19.32	19.23	20.5	3.5
5	256QAM	12	13	19.25	19.30	19.29		
5	256QAM	25	0	19.31	19.36	19.23		
Channel								
	Frequency (MHz)			26047	26340	26683		
3	QPSK	1	0	23.12	23.58	23.33	24	0
3	QPSK	1	8	23.03	23.46	23.23		
3	QPSK	1	14	23.15	23.50	23.12		
3	QPSK	6	0	23.15	23.48	23.29		
3	QPSK	6	4	23.12	23.48	23.26	24	0
3	QPSK	6	8	23.08	23.47	23.28		
3	QPSK	15	0	23.23	23.45	23.21		
3	16QAM	1	0	23.30	23.36	23.36		
3	16QAM	1	8	23.45	23.52	23.19	24	0
3	16QAM	1	14	23.32	23.37	23.29		
3	16QAM	6	0	22.44	22.66	22.51	23.5	0.5
3	16QAM	6	4	22.40	22.88	22.70		
3	16QAM	8	7	22.45	22.84	22.72		
3	16QAM	15	0	22.44	22.62	22.64	23.5	0.5
3	64QAM	1	0	22.63	22.82	22.60		
3	64QAM	1	8	22.66	22.99	22.65		
3	64QAM	8	7	22.61	22.69	22.67	23.5	0.5
3	64QAM	8	4	21.39	21.74	21.45		
3	64QAM	8	4	21.40	21.79	21.60	22.5	1.5
3	64QAM	15	0	21.46	21.80	21.42		
3	256QAM	1	0	19.27	19.34	19.28		
3	256QAM	1	8	19.20	19.24	19.22	20.5	3.5
3	256QAM	1	14	19.38	19.49	19.32		
3	256QAM	8	0	19.21	19.18	19.09		
3	256QAM	8	4	19.30	19.30	19.28	20.5	3.5
3	256QAM	8	7	19.41	19.41	19.23		
3	256QAM	15	0	19.31	19.33	19.15		
Channel								
	Frequency (MHz)							



Band 26 FCC Ant 0

BW (MHz)	Modulation	Channel	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
					Low Ch / Freq	Middle Ch / Freq	High Ch / Freq		
Channel					811.5	811.5	811.5		
15	QPSK	1	0	0	22.88	23.04	22.87	24	0
15	QPSK	1	37	0	22.92	23.04	22.87		
15	QPSK	1	74	0	22.92	22.74	22.72		
15	QPSK	36	0	0	22.99	23.01	22.97	24	0
15	QPSK	36	20	0	22.98	23.00	22.90		
15	QPSK	36	39	0	22.96	22.97	22.92		
15	QPSK	75	0	0	22.94	22.99	22.91		
15	16QAM	1	0	0	22.84	23.02	22.85		
15	16QAM	1	37	0	22.89	22.98	22.81	24	0
15	16QAM	1	74	0	22.90	23.03	22.88		
15	16QAM	36	0	0	22.41	22.45	22.48		
15	16QAM	36	20	0	22.50	22.48	22.35		
15	16QAM	36	39	0	22.49	22.85	22.38	23.5	0.5
15	16QAM	75	0	0	22.59	22.59	22.44		
15	64QAM	1	0	0	22.52	22.62	22.55		
15	64QAM	1	37	0	22.64	22.72	22.45	23.5	0.5
15	64QAM	1	74	0	22.62	22.81	22.55		
15	64QAM	36	0	0	21.43	21.48	21.38		
15	64QAM	36	20	0	21.49	21.47	21.40		
15	64QAM	36	39	0	21.48	21.49	21.41	22.5	1.5
15	64QAM	75	0	0	21.56	21.55	21.51		
15	256QAM	1	0	0	19.80	19.86	19.86	20.5	3.5
15	256QAM	1	37	0	19.71	19.81	19.86		
15	256QAM	1	74	0	19.75	19.81	19.77		
15	256QAM	36	0	0	19.60	19.62	19.68		
15	256QAM	36	20	0	19.65	19.62	19.67	20.5	3.5
15	256QAM	36	39	0	19.59	19.64	19.55		
15	256QAM	75	0	0	19.64	19.68	19.65		
Channel					813.0	813.0	813.0		
10	QPSK	1	0	0	22.92	22.95	22.89	24	0
10	QPSK	1	25	0	22.99	23.03	22.79		
10	QPSK	1	49	0	22.99	22.82	22.85		
10	QPSK	25	0	0	22.97	22.94	22.88	24	0
10	QPSK	25	12	0	22.92	22.92	22.83		
10	QPSK	25	25	0	22.94	22.84	22.83		
10	QPSK	50	0	0	22.84	22.98	22.87		
10	16QAM	1	0	0	22.82	22.90	22.75	24	0
10	16QAM	1	25	0	22.78	22.91	22.69		
10	16QAM	1	49	0	22.79	23.07	22.80		
10	16QAM	25	0	0	22.34	22.42	22.42	23.5	0.5
10	16QAM	25	12	0	22.44	22.42	22.47		
10	16QAM	25	25	0	22.38	22.38	22.34		
10	16QAM	50	0	0	22.59	22.45	22.42		
10	64QAM	1	0	0	22.46	22.69	22.45	23.5	0.5
10	64QAM	1	25	0	22.58	22.68	22.43		
10	64QAM	1	49	0	22.50	22.54	22.49		
10	64QAM	25	0	0	21.32	21.37	21.30		
10	64QAM	25	12	0	21.37	21.35	21.37	22.5	1.5
10	64QAM	25	25	0	21.42	21.40	21.30		
10	64QAM	50	0	0	21.44	21.53	21.45		
10	256QAM	1	0	0	19.80	19.87	19.82	20.5	3.5
10	256QAM	1	25	0	19.82	19.84	19.84		
10	256QAM	1	49	0	19.87	19.89	19.70		
10	256QAM	25	0	0	19.54	19.57	19.48		
10	256QAM	25	12	0	19.48	19.56	19.60	20.5	3.5
10	256QAM	25	25	0	19.45	19.61	19.45		
10	256QAM	50	0	0	19.80	19.80	19.82		
Channel					814.5	814.5	814.5		
5	QPSK	1	0	0	22.88	23.04	22.84	24	0
5	QPSK	1	12	0	22.88	22.96	22.79		
5	QPSK	1	24	0	22.86	22.84	22.87		
5	QPSK	12	0	0	22.91	22.97	22.84	24	0
5	QPSK	12	7	0	22.94	22.90	22.80		
5	QPSK	12	13	0	22.89	22.85	22.80		
5	QPSK	25	0	0	22.90	22.97	22.80	24	0
5	16QAM	1	0	0	22.79	22.94	22.73		
5	16QAM	1	12	0	22.82	22.87	22.76	24	0
5	16QAM	1	24	0	22.86	22.83	22.78		
5	16QAM	12	0	0	22.39	22.35	22.37	23.5	0.5
5	16QAM	12	7	0	22.40	22.38	22.49		
5	16QAM	12	13	0	22.38	22.56	22.33		
5	16QAM	25	0	0	22.47	22.39	22.37		
5	64QAM	1	0	0	22.45	22.50	22.51	23.5	0.5
5	64QAM	1	12	0	22.63	22.67	22.34		
5	64QAM	1	24	0	22.60	22.51	22.51		
5	64QAM	12	0	0	21.39	21.41	21.39	22.5	1.5
5	64QAM	12	7	0	21.47	21.36	21.36		
5	64QAM	12	13	0	21.38	21.46	21.29		
5	64QAM	25	0	0	21.46	21.48	21.49		
5	256QAM	1	0	0	19.57	19.63	19.50	20.5	3.5
5	256QAM	1	12	0	19.69	19.69	19.64		
5	256QAM	1	24	0	19.71	19.73	19.74		
5	256QAM	12	0	0	19.50	19.50	19.45		
5	256QAM	12	7	0	19.49	19.52	19.51	20.5	3.5
5	256QAM	12	13	0	19.53	19.57	19.45		
5	256QAM	25	0	0	19.68	19.60	19.65		
Channel					2697.0	2697.0	2703.0		
Frequency (MHz)					815.5	815.5	815.5		
3	QPSK	1	0	0	22.86	23.04	22.80	24	0
3	QPSK	1	8	0	22.86	22.96	22.85		
3	QPSK	1	14	0	22.89	22.82	22.85		
3	QPSK	8	0	0	22.89	22.88	22.80	24	0
3	QPSK	8	4	0	22.83	22.89	22.84		
3	QPSK	8	7	0	22.83	22.89	22.80		
3	QPSK	15	0	0	22.88	22.83	22.80	24	0
3	16QAM	1	0	0	22.79	22.96	22.73		
3	16QAM	1	8	0	22.82	22.96	22.76	24	0
3	16QAM	1	14	0	22.83	22.94	22.78		
3	16QAM	8	0	0	22.38	22.37	22.36	23.5	0.5
3	16QAM	8	4	0	22.42	22.43	22.52		
3	16QAM	8	7	0	22.40	22.49	22.35		
3	16QAM	15	0	0	22.37	22.42	22.36		
3	64QAM	1	0	0	22.46	22.50	22.50	23.5	0.5
3	64QAM	1	8	0	22.38	22.67	22.34		
3	64QAM	1	14	0	22.38	22.55	22.51		
3	64QAM	8	0	0	21.41	21.38	21.26	22.5	1.5
3	64QAM	8	4	0	21.46	21.40	21.34		
3	64QAM	8	7	0	21.46	21.38	21.37		
3	64QAM	15	0	0	21.46	21.48	21.47		
3	256QAM	1	0	0	19.49	19.54	19.47	20.5	3.5
3	256QAM	1	8	0	19.68	19.62	19.56		
3	256QAM	1	14	0	19.65	19.71	19.71		
3	256QAM	8	0	0	19.49	19.51	19.51	20.5	3.5
3	256QAM	8	4	0	19.52	19.67	19.51		
3	256QAM	8	7	0	19.64	19.53	19.63		
3	256QAM	15	0	0	19.53	19.64	19.53		
Channel					2697.0	2697.0	2703.0		
Frequency (MHz)					816.0	816.0	816.0		
1.4	QPSK	1	0	0	22.83	23.03	22.89	24	0
1.4	QPSK	1	3	0	22.83	22.96	22.75		
1.4	QPSK	1	5	0	22.85	22.66	22.67		
1.4	QPSK	3	0	0	22.92	22.97	22.85	24	0
1.4	QPSK	3	1	0	22.89	22.88	22.88		
1.4	QPSK	3	3	0	22.86	22.88	22.80		
1.4	QPSK	6	0	0	22.89	22.97	22.85	24	0
1.4	16QAM	1	0	0	22.81	22.97	22.76		
1.4	16QAM	1	3	0	22.84	22.84	22.79		
1.4	16QAM	1	5	0	22.82	22.85	22.81	24	0
1.4	16QAM	3	0	0	22.34	22.43	22.40		
1.4	16QAM	3	1	0	22.43	22.45	22.50		
1.4	16QAM	3	3	0	22.37	22.52	22.35	23.5	0.5
1.4	16QAM	6	0	0	22.49	22.45	22.41		
1.4	64QAM	1	0	0	22.42	22.51	22.47		



Band 26 FCC Ant 1

Channel	Modulation	RB Size	RB Offset	Power Low Ch. F/Freq. (MHz)	Power Mid Ch. F/Freq. (MHz)	Power High Ch. F/Freq. (MHz)	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	0	21.05	21.07	21.05	22	0
15	QPSK	1	37	20.92	20.93	20.92		
15	QPSK	1	74	20.89	20.88	20.95		
15	QPSK	36	0	20.83	20.88	20.85		
15	QPSK	36	20	20.83	20.85	20.89		
15	QPSK	36	59	20.77	20.92	20.92		
15	QPSK	75	0	20.78	20.92	20.89		
15	16QAM	1	0	20.89	20.93	20.83		
15	16QAM	1	37	20.96	20.99	20.89		
15	16QAM	14	0	20.89	21.02	20.84		
15	16QAM	36	0	20.84	20.92	20.91		
15	16QAM	36	20	20.71	20.83	20.79		
15	16QAM	36	59	20.73	20.83	20.76		
15	16QAM	75	0	20.84	20.83	20.92		
15	64QAM	1	0	20.91	20.93	20.91		
15	64QAM	1	37	20.85	20.90	20.81		
15	64QAM	1	74	20.83	20.92	20.92		
15	64QAM	36	0	20.75	20.85	20.89		
15	64QAM	36	20	20.79	20.81	20.79		
15	64QAM	36	59	20.89	20.95	20.82		
15	64QAM	75	0	20.87	21.00	20.93		
15	256QAM	1	0	19.65	19.67	19.65	20.5	1.5
15	256QAM	1	37	19.67	19.66	19.63		
15	256QAM	1	74	19.71	19.83	19.71		
15	256QAM	36	0	19.60	19.81	19.65		
15	256QAM	36	20	19.68	19.63	19.62		
15	256QAM	36	59	19.61	19.72	19.64		
15	256QAM	75	0	19.62	19.62	19.58		
Channel								
Frequency (MHz)								
10	QPSK	1	0	20.96	21.05	20.96	22	0
10	QPSK	1	37	20.77	20.79	20.89		
10	QPSK	1	49	20.88	20.95	20.95		
10	QPSK	25	0	20.88	20.98	20.79		
10	QPSK	25	12	20.88	20.85	20.83		
10	QPSK	25	25	20.62	20.77	20.92		
10	QPSK	50	0	20.73	20.85	20.75		
10	16QAM	1	0	20.85	20.91	20.76		
10	16QAM	1	25	20.82	20.95	20.75		
10	16QAM	1	49	20.76	20.98	20.79		
10	16QAM	25	0	20.84	20.89	20.85		
10	16QAM	25	12	20.69	20.77	20.74		
10	16QAM	25	25	20.67	20.70	20.76		
10	16QAM	50	0	20.84	20.93	20.88		
10	64QAM	1	0	20.78	20.86	20.89		
10	64QAM	1	25	20.85	20.85	20.68		
10	64QAM	1	49	20.68	20.85	20.92		
10	64QAM	25	0	20.69	20.81	20.78		
10	64QAM	25	12	20.57	20.90	20.74		
10	64QAM	25	25	20.74	20.81	20.77		
10	64QAM	50	0	20.84	21.00	20.92		
10	256QAM	1	0	19.69	19.57	19.63	20.5	1.5
10	256QAM	1	25	19.45	19.58	19.23		
10	256QAM	1	49	19.63	19.77	19.62		
10	256QAM	25	0	19.43	19.50	19.51		
10	256QAM	25	12	19.90	19.81	19.42		
10	256QAM	25	25	19.54	19.64	19.53		
10	256QAM	50	0	19.47	19.62	19.51		
Channel								
Frequency (MHz)								
5	QPSK	1	0	21.01	21.05	21.01	22	0
5	QPSK	1	12	21.03	20.95	20.96		
5	QPSK	1	24	20.83	20.84	20.83		
5	QPSK	12	0	20.78	20.88	20.70		
5	QPSK	12	7	20.69	20.86	20.86		
5	QPSK	12	13	20.63	20.88	20.85		
5	QPSK	25	0	20.64	20.89	20.89		
5	16QAM	1	0	20.78	20.91	20.79		
5	16QAM	1	12	20.83	20.93	20.74		
5	16QAM	1	24	20.89	20.96	20.81		
5	16QAM	12	0	20.77	20.81	20.84		
5	16QAM	12	7	20.63	20.72	20.78		
5	16QAM	12	13	20.65	20.70	20.64		
5	16QAM	25	0	20.70	20.79	20.81		
5	64QAM	1	0	20.79	20.94	20.83		
5	64QAM	1	12	20.78	20.77	20.81		
5	64QAM	1	24	20.74	20.81	20.88		
5	64QAM	12	0	20.64	20.77	20.67		
5	64QAM	12	7	20.76	20.74	20.71		
5	64QAM	12	13	20.89	20.91	20.73		
5	64QAM	25	0	20.77	20.97	20.89		
5	256QAM	1	0	19.52	19.61	19.58	20.5	1.5
5	256QAM	1	12	19.50	19.56	19.62		
5	256QAM	1	24	19.65	19.79	19.67		
5	256QAM	12	0	19.41	19.59	19.47		
5	256QAM	12	7	19.47	19.55	19.43		
5	256QAM	12	13	19.64	19.70	19.64		
5	256QAM	25	0	19.41	19.56	19.63		
Channel								
Frequency (MHz)								
3	QPSK	1	0	20.97	21.03	20.91	22	0
3	QPSK	1	8	20.79	20.90	20.77		
3	QPSK	1	14	20.79	20.95	20.92		
3	QPSK	8	0	20.77	20.91	20.77		
3	QPSK	8	4	20.81	20.94	20.84		
3	QPSK	8	7	20.65	20.79	20.88		
3	QPSK	15	0	20.63	20.79	20.68		
3	16QAM	1	0	20.77	20.92	20.89		
3	16QAM	1	8	20.84	20.93	20.73		
3	16QAM	1	14	20.75	20.88	20.81		
3	16QAM	8	0	20.69	20.79	20.91		
3	16QAM	8	4	20.71	20.81	20.73		
3	16QAM	8	7	20.86	20.73	20.73		
3	16QAM	15	0	20.73	20.86	20.81		
3	64QAM	1	0	20.76	20.89	20.76		
3	64QAM	1	8	20.74	20.90	20.69		
3	64QAM	1	14	20.70	20.88	20.83		
3	64QAM	8	0	20.68	20.83	20.69		
3	64QAM	8	4	20.68	20.76	20.78		
3	64QAM	8	7	20.79	20.82	20.82		
3	64QAM	15	0	20.72	20.93	20.85		
3	256QAM	1	0	19.63	19.67	19.63	20.5	1.5
3	256QAM	1	8	19.48	19.57	19.58		
3	256QAM	1	14	19.60	19.78	19.66		
3	256QAM	8	0	19.42	19.52	19.47		
3	256QAM	8	4	19.50	19.56	19.46		
3	256QAM	8	7	19.65	19.65	19.56		
3	256QAM	15	0	19.42	19.55	19.52		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	20.94	20.98	20.93	22	0
1.4	QPSK	1	3	20.71	20.78	20.84		
1.4	QPSK	1	5	20.81	20.87	20.85		
1.4	QPSK	3	0	20.69	20.96	20.74		
1.4	QPSK	3	1	20.83	20.83	20.88		
1.4	QPSK	3	3	20.75	20.83	20.90		
1.4	QPSK	6	0	20.72	20.91	20.71		
1.4	16QAM	1	0	20.86	20.88	20.76		
1.4	16QAM	1	3	20.82	20.94	20.70		
1.4	16QAM	1	5	20.84	20.97	20.93		
1.4	16QAM	3	0	20.71	20.84	20.85		
1.4	16QAM	3	1	20.67	20.73	20.72		
1.4	16QAM	3	3	20.68	20.75	20.63		
1.4	64QAM	1	0	20.83	20.93	20.81		
1.4	64QAM	1	3	20.72	20.83	20.77		
1.4	64QAM	1	5	20.80	20.90	20.80		
1.4	64QAM	3	0	20.76	20.76	20.79		
1.4	64QAM	3	1	20.86	20.75	20.88		
1.4	64QAM	3	3	20.89	20.96	20.81		
1.4	256QAM	1	0	19.83	19.56	19.67	22	0
1.4	256QAM	1	3	19.45	19.64	19.61		
1.4	256QAM	1	5	19.68	19.79	19.65		
1.4	256QAM	3	0	19.44	19.51	19.53		
1.4	256QAM	3	1	19.58	19.57	19.40		
1.4	256QAM	3	3	19.52	19.62	19.56		
1.4	256QAM	6	0	19.44	19.50	19.49		



Band 30 Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	24.06	24.01	24.00	24.5	0
10	QPSK	1	26	23.99	23.99	24.05		
10	QPSK	1	49	23.79	23.75	23.78		
10	QPSK	25	0	23.02	23.03	23.09	23.5	1
10	QPSK	25	12	23.10	23.10	23.10		
10	QPSK	25	25	23.02	23.02	23.02		
10	QPSK	50	0	22.29	22.29	22.34	22.5	2
10	16QAM	1	0	22.49	22.49	22.49		
10	16QAM	1	26	22.49	22.49	22.49		
10	16QAM	1	49	22.15	22.15	22.15	22.5	2
10	16QAM	1	49	22.15	22.15	22.15		
10	16QAM	25	0	22.15	22.15	22.15		
10	16QAM	25	12	22.12	22.12	22.12	22.5	2
10	16QAM	25	25	22.05	22.05	22.05		
10	16QAM	50	0	22.10	22.10	22.10		
10	64QAM	1	0	22.40	22.40	22.40	22.5	2
10	64QAM	1	26	22.38	22.38	22.38		
10	64QAM	1	49	22.17	22.17	22.17		
10	64QAM	25	0	21.08	21.08	21.08	21.5	3
10	64QAM	25	12	21.09	21.09	21.09		
10	64QAM	25	25	21.04	21.04	21.04		
10	64QAM	50	0	21.05	21.05	21.05	19.5	5
10	256QAM	1	0	18.91	18.91	18.91		
10	256QAM	1	26	18.83	18.83	18.83		
10	256QAM	1	49	18.75	18.75	18.75	19.5	5
10	256QAM	25	0	18.83	18.83	18.83		
10	256QAM	25	12	18.81	18.81	18.81		
10	256QAM	25	25	18.68	18.68	18.68	19.5	5
10	256QAM	25	25	18.75	18.75	18.75		
10	256QAM	50	0	18.75	18.75	18.75		
Channel								
Frequency (MHz)				2765				
5	QPSK	1	0	24.06	24.01	24.00	24.5	0
5	QPSK	1	12	23.99	23.99	24.05		
5	QPSK	1	24	23.79	23.75	23.78		
5	QPSK	12	0	23.02	23.03	23.09	23.5	1
5	QPSK	12	12	23.01	23.04	23.00		
5	QPSK	12	13	22.84	22.87	22.90		
5	QPSK	26	0	22.29	22.29	22.34	23.5	1
5	16QAM	1	0	22.43	22.39	22.39		
5	16QAM	1	12	22.37	22.42	22.39		
5	16QAM	1	24	22.18	22.16	22.08	22.5	2
5	16QAM	12	0	22.11	22.03	22.11		
5	16QAM	12	7	22.02	22.01	22.00		
5	16QAM	12	13	21.93	22.02	22.00	22.5	2
5	16QAM	25	0	22.03	22.00	21.99		
5	16QAM	25	0	22.29	22.27	22.24		
5	64QAM	1	0	22.38	22.27	22.38	22.5	2
5	64QAM	1	12	22.38	22.27	22.38		
5	64QAM	1	24	22.11	22.08	22.14		
5	64QAM	12	0	21.08	21.08	21.08	21.5	3
5	64QAM	12	7	20.95	21.07	20.95		
5	64QAM	12	13	20.88	20.95	20.96		
5	64QAM	25	0	20.95	21.01	20.94	19.5	5
5	256QAM	1	0	18.78	18.84	18.84		
5	256QAM	1	12	18.72	18.78	18.78		
5	256QAM	1	24	18.67	18.63	18.64	19.5	5
5	256QAM	12	0	18.78	18.77	18.73		
5	256QAM	12	7	18.78	18.71	18.78		
5	256QAM	12	13	18.58	18.55	18.60	19.5	5
5	256QAM	12	13	18.58	18.55	18.60		
5	256QAM	25	0	18.65	18.66	18.72		

Band 30 Ant 9

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	23.29	23.29	23.29	24	0
10	QPSK	1	26	23.29	23.29	23.29		
10	QPSK	1	49	22.97	22.97	22.97		
10	QPSK	25	0	22.29	22.29	22.29	23	1
10	QPSK	25	12	22.24	22.24	22.24		
10	QPSK	25	25	22.16	22.16	22.16		
10	QPSK	50	0	22.22	22.22	22.22	23	1
10	16QAM	1	0	22.62	22.62	22.62		
10	16QAM	1	26	22.68	22.68	22.68		
10	16QAM	1	49	22.45	22.45	22.45	23	1
10	16QAM	1	49	22.45	22.45	22.45		
10	16QAM	25	0	21.29	21.29	21.29		
10	16QAM	25	12	21.25	21.25	21.25	22	2
10	16QAM	25	25	21.15	21.15	21.15		
10	16QAM	50	0	21.22	21.22	21.22		
10	64QAM	1	0	21.46	21.46	21.46	22	2
10	64QAM	1	26	21.63	21.63	21.63		
10	64QAM	1	49	21.33	21.33	21.33		
10	64QAM	25	0	20.30	20.30	20.30	21	3
10	64QAM	25	12	20.27	20.27	20.27		
10	64QAM	25	25	20.18	20.18	20.18		
10	64QAM	50	0	20.95	20.95	20.95	19	5
10	256QAM	1	0	18.87	18.87	18.87		
10	256QAM	1	26	18.74	18.74	18.74		
10	256QAM	1	49	17.76	17.76	17.76	19	5
10	256QAM	25	0	17.83	17.83	17.83		
10	256QAM	25	12	17.81	17.81	17.81		
10	256QAM	25	25	17.78	17.78	17.78	19	5
10	256QAM	25	25	17.88	17.88	17.88		
10	256QAM	50	0	17.88	17.88	17.88		
Channel								
Frequency (MHz)				2765				
5	QPSK	1	0	23.27	23.24	23.27	24	0
5	QPSK	1	12	23.22	23.21	23.24		
5	QPSK	1	24	22.88	22.95	22.93		
5	QPSK	12	0	22.24	22.18	22.26	23	1
5	QPSK	12	12	22.20	22.16	22.10		
5	QPSK	12	13	22.05	22.14	22.08		
5	QPSK	26	0	22.16	22.16	22.18	23	1
5	16QAM	1	0	22.56	22.55	22.56		
5	16QAM	1	12	22.61	22.62	22.64		
5	16QAM	1	24	22.34	22.37	22.37	22	2
5	16QAM	12	0	21.24	21.22	21.20		
5	16QAM	12	7	21.22	21.13	21.21		
5	16QAM	12	13	21.10	21.14	21.10	22	2
5	16QAM	25	0	21.11	21.20	21.19		
5	16QAM	25	0	21.43	21.42	21.44		
5	64QAM	1	0	21.43	21.42	21.44	22	2
5	64QAM	1	12	21.44	21.48	21.42		
5	64QAM	1	24	21.21	21.30	21.30		
5	64QAM	12	0	20.23	20.19	20.22	21	3
5	64QAM	12	7	20.23	20.24	20.17		
5	64QAM	12	13	20.12	20.12	20.14		
5	64QAM	25	0	20.16	20.22	20.20	19	5
5	256QAM	1	0	18.03	18.02	18.05		
5	256QAM	1	12	18.08	18.09	18.09		
5	256QAM	1	24	17.72	17.72	17.70	19	5
5	256QAM	12	0	17.91	17.84	17.88		
5	256QAM	12	7	17.93	17.85	17.97		
5	256QAM	12	13	17.73	17.74	17.75	19	5
5	256QAM	12	13	17.73	17.74	17.75		
5	256QAM	25	0	17.84	17.78	17.85		



Band 66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch Freq 150972	Power Middle Ch Freq 150992	Power High Ch Freq 150999	Tune-up Int (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	1720	1745	1770		
20	QPSK	1	49	23.47	23.59	23.61	24	0
20	QPSK	1	99	23.40	23.53	23.52		
20	QPSK	50	0	23.61	23.66	23.63		
20	QPSK	50	24	23.60	23.65	23.64	24	0
20	QPSK	50	50	23.54	23.63	23.60		
20	QPSK	100	0	23.50	23.55	23.54		
20	16QAM	1	0	23.58	23.69	23.65		
20	16QAM	1	49	23.60	23.68	23.64	24	0
20	16QAM	50	0	23.66	23.68	23.65		
20	16QAM	50	24	23.55	23.63	23.65		
20	16QAM	50	50	23.58	23.64	23.64	23	1
20	16QAM	100	0	23.59	23.71	23.58		
20	8QAM	1	0	22.74	22.78	22.98		
20	8QAM	1	49	22.71	22.70	22.85	23	1
20	8QAM	50	0	22.71	22.40	22.61		
20	8QAM	50	24	21.95	21.63	21.68		
20	8QAM	50	24	21.69	21.56	21.57	22	2
20	8QAM	50	50	21.99	21.56	21.58		
20	8QAM	100	0	21.98	21.60	21.63		
20	256QAM	1	0	19.54	19.65	19.55		
20	256QAM	1	49	19.57	19.66	19.59	20	4
20	256QAM	1	99	19.76	19.72	19.78		
20	256QAM	50	0	19.56	19.61	19.61		
20	256QAM	50	24	19.55	19.64	19.60	20	4
20	256QAM	50	50	19.66	19.77	19.67		
20	256QAM	100	0	19.61	19.63	19.52		
Channel								
Frequency (MHz)								
15	QPSK	1	0	1717.5	1745	1772.5		
15	QPSK	1	0	23.40	23.59	23.60	24	0
15	QPSK	1	24	23.37	23.51	23.50		
15	QPSK	1	74	23.33	23.50	23.44		
15	QPSK	25	0	23.51	23.58	23.52	24	0
15	QPSK	25	20	23.51	23.58	23.53		
15	QPSK	36	0	23.45	23.51	23.49		
15	QPSK	36	39	23.45	23.51	23.49		
15	QPSK	75	0	23.40	23.48	23.45		
15	16QAM	1	0	23.50	23.62	23.58		
15	16QAM	1	37	23.52	23.50	23.56	24	0
15	16QAM	1	74	23.63	23.51	23.59		
15	16QAM	36	0	22.52	22.54	22.58	23	1
15	16QAM	36	20	22.56	22.58	22.49		
15	16QAM	36	39	22.46	22.56	22.52		
15	16QAM	75	0	22.57	22.69	22.55		
15	8QAM	1	0	22.70	22.68	22.78		
15	8QAM	1	37	22.64	22.65	22.78	23	1
15	8QAM	1	74	22.64	22.28	22.29		
15	8QAM	36	0	21.44	21.43	21.60		
15	8QAM	36	20	21.57	21.48	21.53	22	2
15	8QAM	36	39	21.47	21.50	21.50		
15	8QAM	75	0	21.50	21.63	21.63		
15	256QAM	1	0	19.50	19.67	19.45		
15	256QAM	1	37	19.45	19.59	19.49	20	4
15	256QAM	1	74	19.72	19.78	19.87		
15	256QAM	36	0	19.47	19.54	19.45		
15	256QAM	36	20	19.49	19.64	19.68		
15	256QAM	36	39	19.55	19.67	19.65	20	4
15	256QAM	75	0	19.55	19.54	19.48		
Channel								
Frequency (MHz)								
10	QPSK	1	0	1717.5	1745	1772.5		
10	QPSK	1	0	23.44	23.61	23.60	24	0
10	QPSK	1	24	23.38	23.49	23.52		
10	QPSK	1	49	23.29	23.47	23.50		
10	QPSK	25	0	23.50	23.58	23.56	24	0
10	QPSK	25	20	23.53	23.57	23.43		
10	QPSK	25	26	23.52	23.60	23.52		
10	QPSK	50	0	23.38	23.48	23.51	24	0
10	16QAM	1	0	23.53	23.64	23.59		
10	16QAM	1	26	23.56	23.48	23.54	24	0
10	16QAM	1	49	23.58	23.49	23.56		
10	16QAM	25	0	22.51	22.55	22.63	23	1
10	16QAM	25	12	22.53	22.58	22.48		
10	16QAM	25	26	22.47	22.53	22.63		
10	16QAM	50	0	22.53	22.63	22.52	23	1
10	8QAM	1	0	22.70	22.70	22.78		
10	8QAM	1	10	22.65	22.60	22.74	23	1
10	8QAM	1	49	22.62	22.30	22.54		
10	8QAM	25	0	21.52	21.51	21.66		
10	8QAM	25	26	21.60	21.50	21.51	22	2
10	8QAM	25	26	21.54	21.51	21.53		
10	8QAM	50	0	21.60	21.67	21.57		
10	8QAM	50	0	19.50	19.53	19.45		
10	256QAM	1	0	19.51	19.62	19.55	20	4
10	256QAM	1	37	19.57	19.68	19.58		
10	256QAM	1	74	19.72	19.78	19.87		
10	256QAM	25	0	19.53	19.58	19.45		
10	256QAM	25	12	19.49	19.54	19.53	20	4
10	256QAM	25	26	19.56	19.71	19.63		
10	256QAM	50	0	19.55	19.61	19.40		
Channel								
Frequency (MHz)								
5	QPSK	1	0	1717.5	1745	1772.5		
5	QPSK	1	0	23.45	23.59	23.61	24	0
5	QPSK	1	12	23.41	23.47	23.58		
5	QPSK	1	24	23.29	23.50	23.45		
5	QPSK	12	0	23.58	23.58	23.57	24	0
5	QPSK	12	12	23.52	23.44	23.41		
5	QPSK	12	13	23.52	23.55	23.48		
5	QPSK	25	0	23.43	23.44	23.44		
5	16QAM	1	0	23.55	23.68	23.63		
5	16QAM	1	12	23.54	23.49	23.57	24	0
5	16QAM	1	24	23.60	23.47	23.65		
5	16QAM	12	0	22.48	22.54	22.62	24	0
5	16QAM	12	7	22.57	22.45	22.45		
5	16QAM	12	10	22.56	22.59	22.55		
5	16QAM	12	10	22.47	22.60	22.56	23	1
5	8QAM	1	0	22.64	22.67	22.77		
5	8QAM	1	24	22.63	22.59	22.59	23	1
5	8QAM	1	24	22.64	22.31	22.29		
5	8QAM	12	0	21.53	21.59	21.58		
5	8QAM	12	7	21.62	21.50	21.47	22	2
5	8QAM	12	13	21.51	21.44	21.53		
5	8QAM	25	0	21.54	21.58	21.54		
5	256QAM	1	0	19.45	19.56	19.48		
5	256QAM	1	12	19.52	19.60	19.55	20	4
5	256QAM	1	24	19.74	19.72	19.68		
5	256QAM	12	0	19.50	19.52	19.48		
5	256QAM	12	7	19.50	19.60	19.53	20	4
5	256QAM	12	13	19.56	19.57	19.55		
5	256QAM	25	0	19.54	19.53	19.47		
Channel								
Frequency (MHz)								
3	QPSK	1	0	1717.5	1745	1772.5		
3	QPSK	1	0	23.42	23.56	23.62	24	0
3	QPSK	1	8	23.37	23.50	23.53		
3	QPSK	1	14	23.34	23.41	23.45		
3	QPSK	6	0	23.57	23.55	23.51	24	0
3	QPSK	6	4	23.35	23.58	23.43		
3	QPSK	6	8	23.49	23.57	23.56		
3	QPSK	15	0	23.41	23.44	23.48		
3	16QAM	1	0	23.50	23.60	23.59		
3	16QAM	1	3	23.55	23.50	23.62	24	0
3	16QAM	1	14	23.64	23.56	23.62		
3	16QAM	6	0	22.50	22.54	22.62	23	1
3	16QAM	6	4	22.60	22.65	22.20		
3	16QAM	8	7	22.35	22.57	22.62		
3	16QAM	15	0	22.47	22.63	22.56	23	1
3	8QAM	1	0	22.68	22.66	22.82		
3	8QAM	1	8	22.66	22.66	22.83	23	1
3	8QAM	1	14	22.69	22.33	22.24		
3	8QAM	6	0	21.44	21.53	21.63		
3	8QAM	6	4	21.69	21.44	21.50	22	2
3	8QAM	6	7	21.47	21.50	21.50		
3	8QAM	15	0	21.55	21.57	21.54		
3	256QAM	1	0	19.44	19.61	19.53		
3	256QAM	1	6	19.48	19.47	19.53	20	4
3	256QAM	1	14	19.74	19.70	19.69		
3	256QAM	6	0	19.65	19.58	19.63		
3	256QAM	6	4	19.51				



Band 38 Ant 7

BW MHz	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	22.87	22.84	22.81	24	0
20	QPSK	1	49	22.88	22.77	22.71		
20	QPSK	1	99	22.87	22.77	22.60		
20	QPSK	50	0	22.71	22.76	22.66		
20	QPSK	50	24	22.59	22.65	22.65		
20	QPSK	50	50	22.86	22.72	22.71	24	0
20	QPSK	100	0	22.63	22.70	22.67		
20	16QAM	1	0	22.50	22.43	22.68		
20	16QAM	1	49	22.63	22.52	22.73	24	0
20	16QAM	1	99	22.43	22.64	22.80		
20	16QAM	50	0	22.30	22.35	22.29		
20	16QAM	50	24	22.42	22.52	22.34	24	0
20	16QAM	50	50	22.42	22.47	22.41		
20	16QAM	100	0	22.43	22.45	22.45		
20	64QAM	1	0	22.21	22.73	22.53	24	0
20	64QAM	1	49	22.38	22.35	22.69		
20	64QAM	1	99	22.17	22.10	22.37		
20	64QAM	50	0	21.35	21.34	21.33		
20	64QAM	50	24	21.37	21.44	21.34		
20	64QAM	50	50	21.45	21.45	21.46	23	1
20	64QAM	100	0	21.45	21.37	21.34		
20	256QAM	1	0	18.92	18.95	18.93		
20	256QAM	1	49	19.02	19.06	19.03	20	4
20	256QAM	1	99	19.02	19.05	19.09		
20	256QAM	50	0	19.01	19.13	19.08		
20	256QAM	50	24	19.18	19.22	19.13	20	4
20	256QAM	50	50	19.09	19.18	19.08		
20	256QAM	100	0	19.19	19.22	19.17		
Channel								
Frequency (MHz)								
15	QPSK	1	0	22.77	22.83	22.76	24	0
15	QPSK	1	49	22.78	22.79	22.72		
15	QPSK	1	99	22.65	22.78	22.61		
15	QPSK	36	0	22.75	22.87	22.82		
15	QPSK	36	24	22.64	22.62	22.68	24	0
15	QPSK	36	49	22.54	22.62	22.65		
15	QPSK	75	0	22.59	22.74	22.67		
15	16QAM	1	0	22.67	22.45	22.67		
15	16QAM	1	37	22.54	22.85	22.65	24	0
15	16QAM	1	74	22.48	22.67	22.78		
15	16QAM	36	0	22.37	22.31	22.33		
15	16QAM	36	20	22.39	22.61	22.32	24	0
15	16QAM	36	38	22.42	22.47	22.44		
15	16QAM	75	0	22.47	22.51	22.53		
15	64QAM	1	0	22.11	22.78	22.23	24	0
15	64QAM	1	37	22.38	22.35	22.79		
15	64QAM	1	74	22.07	22.17	22.34		
15	64QAM	36	0	21.40	21.43	21.26		
15	64QAM	36	20	21.41	21.53	21.36	23	1
15	64QAM	36	38	21.41	21.43	21.42		
15	64QAM	75	0	21.49	21.36	21.41		
15	256QAM	1	0	18.82	18.87	18.88		
15	256QAM	1	37	18.84	18.95	18.91	20	4
15	256QAM	1	74	18.93	18.94	18.95		
15	256QAM	36	0	18.99	19.09	18.98		
15	256QAM	36	20	19.13	19.19	19.09	20	4
15	256QAM	36	38	19.07	19.12	18.98		
15	256QAM	75	0	19.15	19.15	19.14		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.79	22.87	22.77	24	0
10	QPSK	1	25	22.72	22.89	22.67		
10	QPSK	1	49	22.64	22.82	22.64		
10	QPSK	25	0	22.73	22.81	22.72		
10	QPSK	25	12	22.67	22.65	22.67	24	0
10	QPSK	25	25	22.68	22.74	22.76		
10	QPSK	50	0	22.55	22.70	22.67		
10	16QAM	1	0	22.21	22.33	22.48	24	0
10	16QAM	1	25	22.05	22.31	22.63		
10	16QAM	1	49	22.48	22.56	22.70		
10	16QAM	25	0	22.50	22.42	22.34	24	0
10	16QAM	25	12	22.50	22.42	22.34		
10	16QAM	25	25	22.47	22.53	22.51		
10	16QAM	50	0	22.33	22.55	22.63		
10	64QAM	1	0	22.15	22.70	22.38	24	0
10	64QAM	1	25	22.29	22.37	22.69		
10	64QAM	1	49	22.18	22.18	22.47		
10	64QAM	25	0	21.44	21.25	21.41		
10	64QAM	25	12	21.63	21.30	21.36	23	1
10	64QAM	25	25	21.69	21.48	21.63		
10	64QAM	50	0	21.50	21.34	21.35		
10	256QAM	1	0	18.88	18.87	18.88		
10	256QAM	1	25	18.97	19.00	18.91	20	4
10	256QAM	1	49	18.99	18.98	18.91		
10	256QAM	25	0	18.95	19.01	18.96		
10	256QAM	25	12	19.13	19.19	19.09	20	4
10	256QAM	25	25	19.07	19.11	19.02		
10	256QAM	50	0	19.16	19.13	19.09		
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.79	22.82	22.77	24	0
5	QPSK	1	12	22.76	22.87	22.79		
5	QPSK	1	24	22.69	22.69	22.66		
5	QPSK	12	0	22.71	22.76	22.69		
5	QPSK	12	7	22.49	22.60	22.72	24	0
5	QPSK	12	13	22.76	22.68	22.61		
5	QPSK	25	0	22.58	22.68	22.76		
5	16QAM	1	0	22.67	22.39	22.66	24	0
5	16QAM	1	12	22.66	22.87	22.66		
5	16QAM	1	24	22.39	22.63	22.89		
5	16QAM	12	0	22.32	22.39	22.32		
5	16QAM	12	7	22.45	22.45	22.27	24	0
5	16QAM	12	13	22.50	22.47	22.48		
5	16QAM	25	0	22.46	22.43	22.37		
5	64QAM	1	0	22.21	22.75	22.33	24	0
5	64QAM	1	12	22.32	22.36	22.75		
5	64QAM	1	24	22.35	22.19	22.45		
5	64QAM	12	0	21.44	21.38	21.40		
5	64QAM	12	7	21.56	21.54	21.36	23	1
5	64QAM	12	13	21.45	21.35	21.36		
5	64QAM	25	0	21.38	21.45	21.32		
5	256QAM	1	0	18.88	18.89	18.85		
5	256QAM	1	12	18.96	19.04	18.97	20	4
5	256QAM	1	24	18.93	19.03	19.00		
5	256QAM	12	0	19.00	19.03	19.03		
5	256QAM	12	7	19.10	19.16	19.07	20	4
5	256QAM	12	13	19.04	19.15	19.09		
5	256QAM	25	0	19.11	19.13	19.05		

Band 38 Ant 1

BW MHz	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	17.82	17.85	17.87	18.8	0
20	QPSK	1	49	17.76	17.80	17.80		
20	QPSK	1	99	17.72	17.82	17.82		
20	QPSK	50	0	17.73	17.87	17.73		
20	QPSK	50	24	17.65	17.74	17.60	18.8	0
20	QPSK	50	50	17.73	17.79	17.73		
20	QPSK	100	0	17.77	17.80	17.69		
20	16QAM	1	0	17.83	17.87	17.74		
20	16QAM	1	49	17.73	17.80	17.70	18.8	0
20	16QAM	1	99	17.78	17.84	17.72		
20	16QAM	50	0	17.78	17.85	17.77		
20	16QAM	50	24	17.74	17.81	17.77	18.8	0
20	16QAM	50	50	17.63	17.70	17.56		
20	16QAM	100	0	17.80	17.71	17.57		
20	64QAM	1	0	17.83	17.88	17.88	18.8	0
20	64QAM	1	49	17.78	17.85	17.78		
20	64QAM	1	99	17.77	17.84	17.77		
20	64QAM	50	0	17.74	17.87	17.76		
20	64QAM	50	24	17.77	17.84	17.76	18.8	0
20	64QAM	50	50	17.69	17.75	17.62		
20	64QAM	100	0	17.67	17.89	17.79		
20	256QAM	1	0	17.78	17.81	17.81		
20	256QAM	1	49	17.76	17.85	17.78	18.8	0
20	256QAM	1	99	17.68	17.74	17.61		
20	256QAM	50	0	17.83	17.71	17.59		
20	256QAM	50	24	17.75	17.86	17.86	18.8	0
20	256QAM	50	50	17.68	17.74	17.63		
20	256QAM	100	0	17.7				



Band 48 FCC Ant 2

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power (Low, Middle, High Ch / Freq), Tune-up limit (dBm), MPR (dB). Contains multiple channel data for frequencies 15.70 to 15.94 MHz.

Band 48 FCC Ant 5

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power (Low, Middle, High Ch / Freq), Tune-up limit (dBm), MPR (dB). Contains multiple channel data for frequencies 22.24 to 22.45 MHz.



Reduced Power Mode for DSI3

GSM850 Ant 0								
TX Channel	Burst Average Power (dBm)			Tune-up Limit	Frame-Average Power (dBm)			Tune-up Limit
Frequency (MHz)	824.2	836.4	848.8	(dBm)	824.2	836.4	848.8	(dBm)
GSM 1 Tx slot	32.42	32.10	32.28	33.50	23.42	23.10	23.28	24.50
GPRS 1 Tx slot	32.41	32.08	32.25	33.50	23.41	23.08	23.25	24.50
GPRS 2 Tx slots	28.33	28.47	28.56	31.00	23.33	23.47	23.56	25.00
GPRS 3 Tx slots	28.61	28.51	28.59	29.50	24.35	24.25	24.73	25.24
GPRS 4 Tx slots	26.75	26.72	27.05	28.00	23.75	23.72	24.05	25.00
EDGE 1 Tx slot	26.15	25.70	26.09	27.50	17.15	16.70	17.09	18.50
EDGE 2 Tx slots	25.02	24.54	25.02	26.50	18.02	18.54	19.02	20.50
EDGE 3 Tx slots	23.71	23.22	23.46	24.50	19.45	18.96	19.20	20.24
EDGE 4 Tx slots	21.77	21.45	21.36	22.50	18.77	18.45	18.36	19.50

GSM1900 Ant 0								
TX Channel	Burst Average Power (dBm)			Tune-up Limit	Frame-Average Power (dBm)			Tune-up Limit
Frequency (MHz)	1850.2	1880	1909.8	(dBm)	1850.2	1880	1909.8	(dBm)
GSM 1 Tx slot	26.39	26.48	26.66	27.20	16.39	16.48	16.65	18.20
GPRS 1 Tx slot	26.40	26.41	26.67	27.20	16.40	16.41	16.67	18.20
GPRS 2 Tx slots	22.44	22.55	22.49	24.20	16.44	16.58	16.49	18.20
GPRS 3 Tx slots	20.60	20.81	20.80	22.50	16.34	16.55	16.54	18.24
GPRS 4 Tx slots	19.45	19.76	19.50	21.20	16.45	16.76	16.50	18.20
EDGE 1 Tx slot	24.76	25.12	25.09	26.50	15.76	16.12	16.09	17.50
EDGE 2 Tx slots	22.38	22.60	22.59	24.20	16.38	16.60	16.59	18.20
EDGE 3 Tx slots	20.54	20.71	20.78	22.50	16.28	16.45	16.52	18.24
EDGE 4 Tx slots	19.28	19.62	19.52	21.20	16.28	16.62	16.52	18.20

Band	TX Channel	WCDMA II Ant 0			WCDMA IV Ant 0			WCDMA V Ant 0					
		9262	9400	9538	1312	1413	1513	4132	4182	4233			
Frequency (MHz)	9662	9800	9938	1527	1638	1738	4357	4407	4458				
3GPP Rel 99	AMR 12.2Kbps	17.57	17.82	17.66	18.30	16.58	17.02	16.97	17.80	23.03	23.07	22.89	24.00
3GPP Rel 99	RMC 12.2Kbps	17.61	17.89	17.74	18.30	16.59	17.10	17.02	17.80	23.05	23.08	22.91	24.00
3GPP Rel 6	HSDPA Subtest-1	16.67	17.06	16.74	17.30	15.69	16.14	15.97	16.80	22.10	22.19	22.00	23.00
3GPP Rel 6	HSDPA Subtest-2	16.65	17.02	16.71	17.30	15.66	16.19	16.03	16.80	22.10	22.16	21.98	23.00
3GPP Rel 6	HSDPA Subtest-3	16.20	16.53	16.20	16.80	15.11	15.68	15.51	16.20	21.62	21.65	21.60	22.50
3GPP Rel 6	HSDPA Subtest-4	16.14	16.50	16.27	16.80	15.11	15.61	15.41	16.30	21.66	21.67	21.62	22.50
3GPP Rel 6	DC-HSDPA Subtest-1	16.41	16.83	16.57	17.30	15.36	15.99	15.74	16.80	21.85	21.96	21.80	23.00
3GPP Rel 6	DC-HSDPA Subtest-2	16.42	16.79	16.46	17.30	15.37	15.97	15.77	16.80	21.81	21.98	21.70	23.00
3GPP Rel 6	DC-HSDPA Subtest-3	15.93	16.20	16.02	16.80	14.90	15.50	15.18	16.30	21.42	21.44	21.37	22.50
3GPP Rel 6	DC-HSDPA Subtest-4	15.92	16.33	15.94	16.80	14.95	15.34	15.26	16.30	21.40	21.46	21.40	22.50
3GPP Rel 6	HSUPA Subtest-1	16.74	17.02	16.87	17.30	16.04	16.19	16.01	16.80	22.15	22.16	22.00	23.00
3GPP Rel 6	HSUPA Subtest-2	14.76	15.07	14.78	15.30	14.09	14.16	14.06	14.80	20.15	20.16	20.01	21.00
3GPP Rel 6	HSUPA Subtest-3	15.72	16.01	15.75	16.30	15.13	15.25	15.07	15.80	21.03	21.05	21.00	22.00
3GPP Rel 6	HSUPA Subtest-4	14.74	15.03	14.80	15.30	14.10	14.17	13.93	14.80	20.10	20.05	20.00	21.00
3GPP Rel 6	HSUPA Subtest-5	16.75	17.12	16.76	17.30	16.15	16.19	16.05	16.80	22.10	22.20	22.00	23.00

Band	TX Channel	WCDMA II Ant 1			WCDMA IV Ant 1			WCDMA V Ant 1					
		9262	9400	9538	1312	1413	1513	4132	4182	4233			
Frequency (MHz)	9662	9800	9938	1527	1638	1738	4357	4407	4458				
3GPP Rel 99	AMR 12.2Kbps	18.95	19.16	18.74	20.00	17.11	17.53	17.21	18.50	23.13	23.37	23.24	24.00
3GPP Rel 99	RMC 12.2Kbps	18.97	19.21	18.76	20.00	17.12	17.59	17.26	18.50	23.19	23.41	23.26	24.00
3GPP Rel 6	HSDPA Subtest-1	17.97	18.16	17.72	19.00	16.43	16.64	16.22	17.50	22.22	22.35	22.24	23.00
3GPP Rel 6	HSDPA Subtest-2	17.97	18.18	17.68	19.00	16.48	16.56	16.21	17.50	22.24	22.40	22.23	23.00
3GPP Rel 6	HSDPA Subtest-3	17.69	17.70	17.82	18.50	15.82	16.06	15.77	17.00	21.41	21.92	21.77	22.50
3GPP Rel 6	HSDPA Subtest-4	17.71	17.73	17.72	18.50	15.88	16.09	15.72	17.00	21.72	21.88	21.73	22.50
3GPP Rel 6	DC-HSDPA Subtest-1	17.64	17.97	17.49	19.00	16.11	16.28	15.99	17.50	22.02	22.09	21.95	23.00
3GPP Rel 6	DC-HSDPA Subtest-2	17.73	17.92	17.54	19.00	16.06	16.29	15.94	17.50	21.97	22.15	21.97	23.00
3GPP Rel 6	DC-HSDPA Subtest-3	17.42	17.52	17.54	18.50	15.68	15.80	15.51	17.00	21.40	21.67	21.48	22.50
3GPP Rel 6	DC-HSDPA Subtest-4	17.41	17.45	17.52	18.50	15.67	15.86	15.39	17.00	21.44	21.68	21.44	22.50
3GPP Rel 6	HSUPA Subtest-1	17.93	18.24	17.75	19.00	16.32	16.59	16.12	17.50	22.22	22.36	22.29	23.00
3GPP Rel 6	HSUPA Subtest-2	15.99	16.13	15.81	17.00	14.40	14.59	14.27	15.50	20.25	20.35	20.22	21.00
3GPP Rel 6	HSUPA Subtest-3	16.95	17.14	16.74	18.00	15.44	15.60	15.21	16.50	21.29	21.38	21.24	22.00
3GPP Rel 6	HSUPA Subtest-4	15.91	16.20	15.70	17.00	14.45	14.64	14.23	15.50	20.22	20.38	20.25	21.00
3GPP Rel 6	HSUPA Subtest-5	17.94	18.23	17.85	19.00	16.60	16.65	16.23	17.50	22.20	22.40	22.20	23.00



Band 4 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. Freq. 20175, Power Mid Ch. Freq. 20175, Power High Ch. Freq. 20175, Tune-up Inst (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

Band 4 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. Freq. 20175, Power Mid Ch. Freq. 20175, Power High Ch. Freq. 20175, Tune-up Inst (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).



Band 5 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit, MPR. Contains multiple rows for various frequencies and modulation types (QPSK, 16QAM, 64QAM, 256QAM).

Band 5 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit, MPR. Contains multiple rows for various frequencies and modulation types (QPSK, 16QAM, 64QAM, 256QAM).



Band 7 Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Int (dBm)	MPR (dB)	
				Low Ch. Freq 2680	Mid Ch. Freq 2710	High Ch. Freq 2750			
Channel									
Frequency (MHz)									
20	QPSK	1	0	21.52	21.58	21.64	23	0	
20	QPSK	1	49	21.40	21.57	21.58			
20	QPSK	1	99	21.47	21.64	21.44			
20	QPSK	50	0	21.57	21.63	21.60	23	0	
20	QPSK	50	24	21.53	21.51	21.60			
20	QPSK	50	50	21.60	21.50	21.55			
20	QPSK	100	0	21.46	21.63	21.60	23	0	
20	16QAM	1	0	21.44	21.63	21.54			
20	16QAM	1	49	21.47	21.56	21.55			
20	16QAM	1	99	21.46	21.55	21.46	23	0	
20	16QAM	50	0	21.34	21.43	21.53			
20	16QAM	50	24	21.57	21.57	21.58			
20	16QAM	50	50	21.65	21.58	21.65	23	0	
20	16QAM	100	0	21.50	21.68	21.59			
20	16QAM	100	0	21.66	21.64	21.58			
20	64QAM	1	49	21.57	21.61	21.57	23	0	
20	64QAM	1	99	21.67	21.57	21.59			
20	64QAM	50	0	20.91	21.05	21.19			
20	64QAM	50	24	21.11	21.18	21.17	22.5	0.5	
20	64QAM	50	50	20.98	21.17	21.20			
20	64QAM	100	0	21.17	21.06	21.05			
20	256QAM	1	0	18.97	19.04	18.99	20.5	2.5	
20	256QAM	1	49	18.96	18.95	18.95			
20	256QAM	1	99	18.93	18.95	18.97			
20	256QAM	50	0	18.78	18.84	18.83	20.5	2.5	
20	256QAM	50	24	18.68	18.76	18.78			
20	256QAM	50	50	18.76	18.82	18.79			
20	256QAM	100	0	18.74	18.79	18.78	20.5	2.5	
Channel									
Frequency (MHz)									
15	QPSK	1	0	20.07	20.07	20.07	23	0	
15	QPSK	1	74	21.30	21.55	21.34			
15	QPSK	36	0	21.49	21.56	21.57			
15	QPSK	36	20	21.42	21.45	21.45	23	0	
15	QPSK	36	39	21.51	21.46	21.50			
15	QPSK	75	0	21.44	21.61	21.56			
15	16QAM	1	0	21.38	21.57	21.49	23	0	
15	16QAM	1	37	21.44	21.47	21.45			
15	16QAM	1	74	21.35	21.58	21.40			
15	16QAM	36	0	21.29	21.39	21.48	23	0	
15	16QAM	36	20	21.49	21.48	21.51			
15	16QAM	36	39	21.60	21.47	21.50			
15	16QAM	75	0	21.46	21.55	21.49	23	0	
15	64QAM	1	37	21.48	21.53	21.56			
15	64QAM	1	74	21.60	21.54	21.50			
15	64QAM	36	0	20.83	21.02	21.08	22.5	0.5	
15	64QAM	36	20	21.07	21.07	21.14			
15	64QAM	36	39	20.92	21.06	21.14			
15	256QAM	1	0	18.88	18.97	18.89	20.5	2.5	
15	256QAM	1	37	18.81	18.93	18.83			
15	256QAM	1	74	18.80	18.94	18.82			
15	256QAM	36	0	18.76	18.73	18.78	20.5	2.5	
15	256QAM	36	20	18.61	18.70	18.68			
15	256QAM	36	39	18.72	18.80	18.75			
15	256QAM	75	0	18.65	18.74	18.68	20.5	2.5	
Channel									
Frequency (MHz)									
10	QPSK	1	0	21.40	21.40	21.40	23	0	
10	QPSK	1	49	21.36	21.56	21.40			
10	QPSK	1	99	21.34	21.55	21.40			
10	QPSK	25	0	21.54	21.63	21.50	23	0	
10	QPSK	25	12	21.42	21.44	21.49			
10	QPSK	25	25	21.58	21.49	21.43			
10	QPSK	50	0	21.34	21.56	21.50	23	0	
10	16QAM	1	49	21.35	21.62	21.41			
10	16QAM	1	99	21.44	21.38	21.49			
10	16QAM	25	0	21.48	21.48	21.51	23	0	
10	16QAM	25	12	21.58	21.55	21.57			
10	16QAM	25	25	21.58	21.55	21.57			
10	16QAM	50	0	21.38	21.64	21.51	23	0	
10	64QAM	1	0	21.56	21.62	21.36			
10	64QAM	1	25	21.53	21.50	21.47			
10	64QAM	1	49	21.58	21.48	21.57	22.5	0.5	
10	64QAM	25	0	20.89	20.94	21.11			
10	64QAM	25	12	21.04	21.09	21.13			
10	64QAM	25	25	20.96	21.05	21.09	20.5	2.5	
10	64QAM	50	0	21.19	21.64	21.09			
10	64QAM	50	0	18.92	18.93	18.92			
10	256QAM	1	25	18.82	18.90	18.83	20.5	2.5	
10	256QAM	1	49	18.77	18.83	18.81			
10	256QAM	1	74	18.72	18.72	18.77			
10	256QAM	25	0	18.61	18.74	18.69	20.5	2.5	
10	256QAM	25	12	18.72	18.80	18.74			
10	256QAM	25	25	18.72	18.80	18.77			
10	256QAM	50	0	18.68	18.68	18.67	20.5	0.5	
Channel									
Frequency (MHz)									
5	QPSK	1	0	21.46	21.65	21.49	23	0	
5	QPSK	1	12	21.32	21.50	21.48			
5	QPSK	1	24	21.45	21.57	21.42			
5	QPSK	12	0	21.55	21.60	21.52	23	0	
5	QPSK	12	7	21.44	21.48	21.51			
5	QPSK	12	13	21.65	21.45	21.50			
5	QPSK	25	0	21.37	21.62	21.57	23	0	
5	16QAM	1	0	21.32	21.67	21.46			
5	16QAM	1	12	21.37	21.47	21.51			
5	16QAM	1	24	21.36	21.58	21.39	23	0	
5	16QAM	12	0	21.23	21.34	21.45			
5	16QAM	12	7	21.56	21.50	21.51			
5	16QAM	12	10	21.54	21.48	21.61	23	0	
5	16QAM	12	0	21.43	21.64	21.47			
5	16QAM	12	0	21.63	21.59	21.33			
5	64QAM	1	0	21.48	21.48	21.54	23	0	
5	64QAM	1	24	21.60	21.55	21.49			
5	64QAM	12	0	20.80	21.01	21.09			
5	64QAM	12	7	21.01	21.08	21.12	22.5	0.5	
5	64QAM	12	13	20.91	21.08	21.14			
5	64QAM	25	0	21.08	21.03	20.95			
5	256QAM	1	0	18.92	18.96	18.95	20.5	2.5	
5	256QAM	1	12	18.85	18.93	18.90			
5	256QAM	1	24	18.79	18.89	18.79			
5	256QAM	12	0	18.75	18.79	18.80	20.5	2.5	
5	256QAM	12	7	18.60	18.68	18.72			
5	256QAM	12	13	18.69	18.72	18.69			
5	256QAM	25	0	18.67	18.74	18.69	20.5	2.5	

Band 7 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Int (dBm)	MPR (dB)	
				Low Ch. Freq 2680	Mid Ch. Freq 2710	High Ch. Freq 2750			
Channel									
Frequency (MHz)									
20	QPSK	1	0	25.10	25.35	25.60	20.1	0	
20	QPSK	1	49	18.77	18.92	18.83			
20	QPSK	1	99	18.82	18.83	18.76			
20	QPSK	50	0	18.88	18.80	18.86	20.1	0	
20	QPSK	50	24	18.86	18.86	18.78			
20	QPSK	50	50	18.86	18.86	18.79			
20	QPSK	100	0	18.80	18.81	18.81	20.1	0	
20	16QAM	1	0	18.84	18.92	18.82			
20	16QAM	1	49	18.79	18.81	18.68			
20	16QAM	1	99	18.70	18.81	18.73	20.1	0	
20	16QAM	50	0	18.85	18.93	18.92			
20	16QAM	50	24	18.86	18.85	18.76			
20	16QAM	50	50	18.75	18.80	18.85	20.1	0	
20	16QAM	100	0	18.84	18.68	18.59			
20	64QAM	1	49	18.60	18.74	18.72			
20	64QAM	1	99	18.61	18.92	18.89	20.1	0	
20	64QAM	50	0	18.89	18.92	18.83			
20	64QAM	50	24	18.82	18.80	18.68			
20	64QAM	50	50	18.68	18.80	18.79	20.1	0	
20	64QAM	100	0	18.85	18.75	18.87			
20	256QAM	1	0	17.89	17.94	17.91			
20	256QAM	1	49	17.89	17.90	17.88	19	1.1	
20	256QAM	1	99	17.90	17.90	17.90			
20	256QAM	50	0	17.80	17.95	17.85			
20	256QAM	50	24	17.89	17.88	17.88	19	1.1	
20	256QAM	50	50	17.89	17.86	17.84			
20	256QAM	100	0	17.79	17.91	17.85			
Channel									
Frequency (MHz)									
15	QPSK	1	0	20.07	20.07	20.07	20.1	0	
15	QPSK	1	74	18.94	18.92	18.80			
15	QPSK	1	99	18.79	18.92	18.89			
15	QPSK	36	0	18.76	18.76	18.63	20.1	0	
15	QPSK	36	20	18.60	18.83	18.76			
15	QPSK	36	39	18.60	18.84	18.75			
15	QPSK	75	0	18.77	18.86	18.71	20.1	0	
15	QPSK	75	24	18.82	18.72	18.72			
15	16QAM	1	0	18.79	18.84	18.80			
15	16QAM	1	37	18.65	18.79	18.81	20.1	0	
15	16QAM	1	74	18.61	18.70	18.65			
15	16QAM	36	0	18.74	18.97	18.78			
15	16QAM	36	20	18.74	18.70	18.71	20.1	0	
15	16QAM	36	39	18.63	18.89	18.72			
15	16QAM	75	0	18.50	18.67	18.46			
15	64QAM	1	37	18.57	18.66	18.49	20.1	0	
15	64QAM	1	74	18.63	18.70	18.68			
15	64QAM	36	0	18.74	18.82	18.82			
15	64QAM	36	20	18.58	18.65	18.61	20.1	0	
15	64QAM	36	39	18.66	18.80	18.67			
15	64QAM	75	0	18.57	18.65	18.59			
15	256QAM	1	0	17.81	17.85	17.81	19	1.1	
15	256QAM	1	37	17.87	17.91	17.86			
15	256QAM	1	74	17.86	17.88	17.88			
15	256QAM	36	0	17.81	17.88	17.78	19	1.1	
15	256QAM	36	20	17.72	17.85	17.79			
15	256QAM	36	39	17.85	17.86	17.82			
15	256QAM	75	0	17.75	17.87	17.78	19	1.1	
Channel									
Frequency (MHz)									
10	QPSK	1	0	21.40	21.40	21.40	20.1	0	
10	QPSK	1	49	21.36	21.56	21.40			
10	QPSK	1							



Band 12 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit (dBm), MPR (dB). Contains multiple rows for various modulation schemes and power levels.

Band 12 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit (dBm), MPR (dB). Contains multiple rows for various modulation schemes and power levels.



Band 13 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				762				
10	QPSK	1	0	22.81			24	0
10	QPSK	1	26	22.77				
10	QPSK	1	49	22.66				
10	QPSK	25	0	22.76			24	0
10	QPSK	25	12	22.72				
10	QPSK	25	25	22.66				
10	QPSK	50	0	22.70			24	0
10	QPSK	50	0	22.76				
10	QPSK	50	0	22.74				
10	16QAM	1	0	22.78			24	0
10	16QAM	1	26	22.74				
10	16QAM	1	49	22.78				
10	16QAM	25	0	21.85			23	1
10	16QAM	25	12	21.92				
10	16QAM	25	25	21.76				
10	16QAM	50	0	21.78			23	1
10	16QAM	50	0	22.28				
10	16QAM	50	0	22.09				
10	64QAM	1	0	22.11			23	1
10	64QAM	1	49	22.11				
10	64QAM	25	0	20.84				
10	64QAM	25	12	20.88			22	2
10	64QAM	25	25	20.90				
10	64QAM	50	0	20.73				
10	256QAM	1	0	18.88			20	4
10	256QAM	1	26	18.92				
10	256QAM	1	49	18.75				
10	256QAM	25	0	18.89			20	4
10	256QAM	25	12	18.87				
10	256QAM	25	25	18.75				
10	256QAM	50	0	18.95				
Channel								
Frequency (MHz)				2320				
5	QPSK	1	0	22.73	22.77	22.76	24	0
5	QPSK	1	12	22.67	22.69	22.72		
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	12	0	22.69	22.74	22.72	24	0
5	QPSK	12	0	22.61	22.69	22.64		
5	QPSK	12	13	22.58	22.58	22.60		
5	QPSK	25	0	22.65	22.62	22.59	24	0
5	QPSK	25	0	22.72	22.65	22.73		
5	QPSK	25	0	22.63	22.67	22.65		
5	16QAM	1	12	22.66	22.76	22.74	24	0
5	16QAM	12	0	21.83	21.80	21.81		
5	16QAM	12	7	21.86	21.88	21.81		
5	16QAM	12	13	21.69	21.68	21.67	23	1
5	16QAM	25	0	21.75	21.70	21.69		
5	16QAM	25	0	22.22	22.21	22.19		
5	64QAM	1	0	22.04	22.07	22.04	23	1
5	64QAM	1	24	22.04	22.08	22.07		
5	64QAM	12	0	20.77	20.74	20.79		
5	64QAM	12	7	20.83	20.79	20.82	22	2
5	64QAM	12	13	20.79	20.84	20.84		
5	64QAM	25	0	20.62	20.65	20.65		
5	256QAM	1	0	18.85	18.83	18.76	20	4
5	256QAM	1	12	18.90	18.97	18.93		
5	256QAM	1	24	18.73	18.73	18.69		
5	256QAM	12	0	18.78	18.81	18.74	20	4
5	256QAM	12	7	18.77	18.80	18.80		
5	256QAM	12	13	18.69	18.69	18.63		
5	256QAM	25	0	18.84	18.83	18.87		

Band 13 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				762				
10	QPSK	1	0	22.80			24	0
10	QPSK	1	26	22.79				
10	QPSK	1	49	22.78				
10	QPSK	25	0	22.81			23.5	0.5
10	QPSK	25	12	22.84				
10	QPSK	25	25	22.37				
10	QPSK	50	0	22.85			23.5	0.5
10	QPSK	50	0	22.89				
10	QPSK	50	0	22.49				
10	16QAM	1	0	22.49			23.5	0.5
10	16QAM	1	26	22.49				
10	16QAM	1	49	22.44				
10	16QAM	25	0	21.33			22.5	1.5
10	16QAM	25	12	21.33				
10	16QAM	25	25	21.42				
10	16QAM	50	0	21.30			22.5	1.5
10	16QAM	50	0	21.52				
10	16QAM	50	0	21.48				
10	64QAM	1	0	21.49			22.5	1.5
10	64QAM	1	49	21.49				
10	64QAM	25	0	20.26				
10	64QAM	25	12	20.42			21.5	2.5
10	64QAM	25	25	20.48				
10	64QAM	50	0	20.31				
10	256QAM	1	0	18.44			19.5	4.5
10	256QAM	1	26	18.54				
10	256QAM	1	49	18.54				
10	256QAM	25	0	18.41			19.5	4.5
10	256QAM	25	12	18.44				
10	256QAM	25	25	18.59				
10	256QAM	50	0	18.61				
Channel								
Frequency (MHz)				2320				
5	QPSK	1	0	22.79	22.71	22.70	24	0
5	QPSK	1	12	22.77	22.70	22.72		
5	QPSK	1	24	22.67	22.73	22.72		
5	QPSK	12	0	22.36	22.38	22.31	23.5	0.5
5	QPSK	12	0	22.22	22.21	22.12		
5	QPSK	12	13	22.31	22.33	22.34		
5	QPSK	25	0	22.28	22.30	22.27	23.5	0.5
5	QPSK	25	0	22.39	22.37	22.45		
5	QPSK	25	0	22.44	22.47	22.40		
5	16QAM	1	12	22.44	22.47	22.40	23.5	0.5
5	16QAM	1	24	22.37	22.39	22.36		
5	16QAM	12	0	21.24	21.21	21.17		
5	16QAM	12	7	21.31	21.31	21.25	22.5	1.5
5	16QAM	12	13	21.33	21.37	21.30		
5	16QAM	25	0	21.20	21.22	21.25		
5	16QAM	25	0	21.49	21.47	21.43	22.5	1.5
5	16QAM	1	12	21.45	21.36	21.43		
5	16QAM	1	24	21.44	21.43	21.46		
5	64QAM	1	0	20.31	20.34	20.16	21.5	2.5
5	64QAM	12	0	20.37	20.46	20.36		
5	64QAM	12	7	20.39	20.31	20.32		
5	64QAM	12	13	20.37	20.46	20.36	19.5	4.5
5	64QAM	25	0	20.23	20.29	20.27		
5	256QAM	1	0	18.36	18.42	18.36		
5	256QAM	1	12	18.61	18.53	18.62	19.5	4.5
5	256QAM	1	24	18.52	18.52	18.46		
5	256QAM	12	0	18.36	18.32	18.34		
5	256QAM	12	7	18.38	18.34	18.33	19.5	4.5
5	256QAM	12	13	18.45	18.47	18.47		
5	256QAM	25	0	18.45	18.42	18.46		



Band 14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.77			24	0
10	QPSK	1	26	22.75				
10	QPSK	1	49	22.52				
10	QPSK	25	0	22.75			24	0
10	QPSK	25	12	22.83				
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.73			24	0
10	16QAM	1	0	22.73				
10	16QAM	1	26	22.75				
10	16QAM	1	49	22.70			23.5	0.5
10	16QAM	25	0	22.31				
10	16QAM	25	12	22.36				
10	16QAM	25	25	22.23			23.5	0.5
10	16QAM	50	0	22.28				
10	16QAM	50	0	22.28				
10	64QAM	1	26	22.33			22.5	1.5
10	64QAM	1	49	22.41				
10	64QAM	25	0	21.30				
10	64QAM	25	12	21.35			20.5	3.5
10	64QAM	25	25	21.47				
10	64QAM	50	0	21.37				
10	256QAM	1	0	19.48			20.5	3.5
10	256QAM	1	26	19.54				
10	256QAM	1	49	19.45				
10	256QAM	25	0	19.42			20.5	3.5
10	256QAM	25	12	19.43				
10	256QAM	25	25	19.45				
10	256QAM	50	0	19.51				
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.70	22.68	22.67	24	0
5	QPSK	1	12	22.71	22.71	22.68		
5	QPSK	1	24	22.47	22.45	22.42		
5	QPSK	12	0	22.64	22.67	22.72	24	0
5	QPSK	12	6	22.51	22.59	22.51		
5	QPSK	12	13	22.61	22.65	22.65		
5	QPSK	26	0	22.64	22.67	22.66	24	0
5	16QAM	1	0	22.64	22.66	22.61		
5	16QAM	1	12	22.71	22.68	22.71		
5	16QAM	1	24	22.65	22.61	22.68	23.5	0.5
5	16QAM	12	0	22.21	22.19	22.19		
5	16QAM	12	7	22.25	22.31	22.25		
5	16QAM	12	13	22.23	22.14	22.14	23.5	0.5
5	16QAM	25	0	22.22	22.21	22.19		
5	16QAM	25	0	22.24	22.31	22.28		
5	64QAM	1	0	22.23	22.26	22.30	22.5	0.5
5	64QAM	1	12	22.38	22.37	22.35		
5	64QAM	12	0	21.24	21.26	21.18		
5	64QAM	12	7	21.31	21.23	21.33	22.5	1.5
5	64QAM	12	13	21.42	21.42	21.45		
5	64QAM	25	0	21.25	21.28	21.34		
5	256QAM	1	0	19.39	19.40	19.41	20.5	3.5
5	256QAM	1	12	19.43	19.52	19.47		
5	256QAM	1	24	19.42	19.43	19.34		
5	256QAM	12	0	19.30	19.37	19.36	20.5	3.5
5	256QAM	12	7	19.40	19.34	19.38		
5	256QAM	12	13	19.34	19.30	19.36		
5	256QAM	25	0	19.39	19.42	19.49		

Band 14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0				24	0
10	QPSK	1	26					
10	QPSK	1	49					
10	QPSK	25	0				24	0
10	QPSK	25	12					
10	QPSK	25	25					
10	QPSK	50	0				24	0
10	16QAM	1	0					
10	16QAM	1	26					
10	16QAM	1	49				24	0
10	16QAM	25	0					
10	16QAM	25	12					
10	16QAM	25	25				24	0
10	16QAM	50	0					
10	16QAM	50	0					
10	64QAM	1	26				24	0
10	64QAM	1	49					
10	64QAM	25	0					
10	64QAM	25	12				23	1
10	64QAM	25	25					
10	64QAM	50	0					
10	256QAM	1	0				21	3
10	256QAM	1	26					
10	256QAM	1	49					
10	256QAM	25	0				21	3
10	256QAM	25	12					
10	256QAM	25	25					
10	256QAM	50	0					
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.99	22.88	22.98	24	0
5	QPSK	1	12	22.99	22.89	22.93		
5	QPSK	1	24	22.85	22.95	22.87		
5	QPSK	12	0	22.91	22.89	22.94	24	0
5	QPSK	12	6	22.92	22.85	22.93		
5	QPSK	12	13	22.89	22.87	22.88		
5	QPSK	26	0	22.99	22.85	22.92	24	0
5	16QAM	1	0	22.85	22.83	22.85		
5	16QAM	1	12	22.88	22.92	22.90		
5	16QAM	1	24	22.93	22.85	22.92	24	0
5	16QAM	12	0	22.60	22.80	22.63		
5	16QAM	12	7	22.79	22.82	22.82		
5	16QAM	12	13	22.68	22.76	22.76	24	0
5	16QAM	25	0	22.48	22.54	22.55		
5	16QAM	25	0	22.50	22.50	22.60		
5	64QAM	1	0	22.64	22.60	22.60	24	0
5	64QAM	1	12	22.72	22.73	22.75		
5	64QAM	12	0	21.71	21.71	21.68		
5	64QAM	12	7	21.58	21.60	21.62	23	1
5	64QAM	12	13	21.76	21.72	21.75		
5	64QAM	25	0	21.68	21.68	21.67		
5	256QAM	1	0	19.74	19.72	19.73	21	3
5	256QAM	1	12	19.81	19.89	19.82		
5	256QAM	1	24	19.86	19.86	19.79		
5	256QAM	12	0	19.75	19.75	19.77	21	3
5	256QAM	12	7	19.72	19.73	19.81		
5	256QAM	12	13	19.69	19.77	19.75		
5	256QAM	25	0	19.73	19.80	19.72		



Band 17 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel				709	710	711		
10	QPSK	1	0	22.84	22.81	22.85	24	0
10	QPSK	1	26	22.78	22.80	22.82		
10	QPSK	1	49	22.82	22.88	22.80		
10	QPSK	25	0	22.81	22.88	22.85	24	0
10	QPSK	25	12	22.83	22.86	22.80		
10	QPSK	25	25	22.86	22.85	22.83		
10	QPSK	50	0	22.78	22.85	22.78	24	0
10	16QAM	1	0	22.82	22.88	22.82		
10	16QAM	1	26	22.76	22.85	22.79		
10	16QAM	1	49	22.78	22.82	22.82	23.5	0.5
10	16QAM	25	0	22.48	22.52	22.47		
10	16QAM	25	12	22.58	22.56	22.58		
10	16QAM	25	26	22.85	22.84	22.85	23.5	0.5
10	16QAM	50	0	22.49	22.50	22.53		
10	16QAM	50	0	22.34	22.43	22.38		
10	64QAM	1	26	22.36	22.41	22.41	23.5	0.5
10	64QAM	1	49	22.34	22.49	22.34		
10	64QAM	25	0	21.44	21.50	21.50		
10	64QAM	25	12	21.52	21.55	21.53	22.5	1.5
10	64QAM	25	26	21.54	21.58	21.67		
10	64QAM	50	0	21.58	21.68	21.58		
10	256QAM	1	0	19.58	19.68	19.62	20.5	3.5
10	256QAM	1	26	19.78	19.82	19.73		
10	256QAM	1	49	19.64	19.73	19.64		
10	256QAM	25	0	19.67	19.69	19.69	20.5	3.5
10	256QAM	25	12	19.55	19.65	19.63		
10	256QAM	25	26	19.65	19.68	19.58		
10	256QAM	50	0	19.65	19.71	19.59		
Channel				709.5	710	713.5	Tune-up Inst (dBm)	MPR (dB)
5	QPSK	1	0	22.77	22.81	22.74	24	0
5	QPSK	1	12	22.69	22.72	22.71		
5	QPSK	1	24	22.72	22.83	22.68		
5	QPSK	12	0	22.78	22.77	22.73	24	0
5	QPSK	12	12	22.81	22.83	22.69		
5	QPSK	12	13	22.81	22.81	22.73		
5	QPSK	26	0	22.65	22.80	22.68	24	0
5	16QAM	1	0	22.78	22.85	22.80		
5	16QAM	1	12	22.85	22.73	22.84		
5	16QAM	1	24	22.74	22.75	22.77	23.5	0.5
5	16QAM	12	0	22.38	22.50	22.44		
5	16QAM	12	7	22.49	22.49	22.48		
5	16QAM	12	13	22.52	22.42	22.61	23.5	0.5
5	16QAM	25	0	22.46	22.44	22.43		
5	16QAM	25	0	22.27	22.32	22.30		
5	64QAM	1	12	22.33	22.33	22.30	23.5	0.5
5	64QAM	1	24	22.25	22.38	22.30		
5	64QAM	12	0	21.34	21.44	21.46		
5	64QAM	12	7	21.45	21.47	21.45	22.5	1.5
5	64QAM	12	13	21.45	21.53	21.57		
5	64QAM	25	0	21.56	21.40	21.28		
5	256QAM	1	0	19.55	19.65	19.50	20.5	3.5
5	256QAM	1	12	19.69	19.76	19.62		
5	256QAM	1	24	19.57	19.66	19.55		
5	256QAM	12	0	19.63	19.59	19.51	20.5	3.5
5	256QAM	12	7	19.50	19.60	19.61		
5	256QAM	12	13	19.57	19.63	19.51		
5	256QAM	25	0	19.54	19.60	19.47		

Band 17 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel				709	710	711		
10	QPSK	1	0	23.02	23.01	23.02	24	0
10	QPSK	1	26	23.47	23.34	23.38		
10	QPSK	1	49	23.47	23.45	23.27		
10	QPSK	25	0	23.47	23.48	23.42	24	0
10	QPSK	25	12	23.46	23.43	23.36		
10	QPSK	25	25	23.41	23.41	23.41		
10	QPSK	50	0	23.30	23.41	23.33	24	0
10	16QAM	1	0	23.47	23.49	23.35		
10	16QAM	1	26	23.39	23.48	23.38		
10	16QAM	1	49	23.46	23.45	23.38	24	0
10	16QAM	25	0	23.04	23.08	23.14		
10	16QAM	25	12	23.18	23.18	23.14		
10	16QAM	25	26	23.18	23.23	23.17	23.5	0.5
10	16QAM	50	0	23.08	23.08	23.10		
10	16QAM	50	0	22.98	23.07	22.93		
10	64QAM	1	26	23.05	23.07	22.98	23.5	0.5
10	64QAM	1	49	23.07	23.04	22.95		
10	64QAM	25	0	22.00	22.00	22.00		
10	64QAM	25	12	22.14	22.11	22.16	22.5	1.5
10	64QAM	25	26	22.16	22.12	22.09		
10	64QAM	50	0	22.05	22.06	22.16		
10	256QAM	1	0	20.20	20.22	20.20	20.5	3.5
10	256QAM	1	26	20.22	20.31	20.21		
10	256QAM	1	49	20.20	20.28	20.19		
10	256QAM	25	0	20.14	20.25	20.21	20.5	3.5
10	256QAM	25	12	20.17	20.34	20.18		
10	256QAM	25	26	20.19	20.26	20.16		
10	256QAM	50	0	20.13	20.22	20.17		
Channel				709.5	710	713.5	Tune-up Inst (dBm)	MPR (dB)
5	QPSK	1	0	23.48	23.48	23.32	24	0
5	QPSK	1	12	23.36	23.31	23.30		
5	QPSK	1	24	23.43	23.34	23.15		
5	QPSK	12	0	23.36	23.40	23.33	24	0
5	QPSK	12	12	23.37	23.37	23.27		
5	QPSK	12	13	23.38	23.36	23.32		
5	QPSK	26	0	23.21	23.38	23.22	24	0
5	16QAM	1	0	23.37	23.37	23.27		
5	16QAM	1	12	23.37	23.44	23.26		
5	16QAM	1	24	23.38	23.37	23.29	23.5	0.5
5	16QAM	12	0	22.98	22.98	23.03		
5	16QAM	12	7	23.09	23.15	23.09		
5	16QAM	12	13	23.13	23.18	23.10	23.5	0.5
5	16QAM	25	0	23.02	23.04	23.00		
5	16QAM	25	0	22.85	23.03	22.90		
5	64QAM	1	12	22.95	23.03	22.90	23.5	0.5
5	64QAM	1	24	22.96	22.94	22.89		
5	64QAM	12	0	21.96	21.92	21.98		
5	64QAM	12	7	22.10	22.06	22.07	22.5	1.5
5	64QAM	12	13	22.06	22.05	21.99		
5	64QAM	25	0	21.96	21.98	22.11		
5	256QAM	1	0	20.12	20.20	20.08	20.5	3.5
5	256QAM	1	12	20.17	20.27	20.15		
5	256QAM	1	24	20.15	20.23	20.07		
5	256QAM	12	0	20.02	20.13	20.18	20.5	3.5
5	256QAM	12	7	20.09	20.16	20.18		
5	256QAM	12	13	20.12	20.16	20.05		
5	256QAM	25	0	20.03	20.11	20.15		



Band 25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Ch. Freq. 26340	Power Middle Ch. Freq. 26360	Power High Ch. Freq. 26390		
Channel								
Frequency (MHz)								
20	QPSK	1	0	18.90	18.90	19.05		
20	QPSK	1	49	17.28	17.89	17.34	18.3	0
20	QPSK	1	99	17.33	17.67	17.31		
20	QPSK	50	0	17.35	17.73	17.48		
20	QPSK	50	24	17.27	17.89	17.45	18.3	0
20	QPSK	50	50	17.28	17.84	17.46		
20	QPSK	100	0	17.38	17.71	17.43		
20	16QAM	1	0	17.84	17.95	17.51	18.3	0
20	16QAM	1	49	17.81	17.74	17.43		
20	16QAM	50	0	17.45	17.56	17.41		
20	16QAM	50	0	17.05	17.38	17.21		
20	16QAM	50	24	17.34	17.91	17.51	18.3	0
20	16QAM	50	50	17.18	17.58	17.37		
20	16QAM	100	0	17.93	17.45	17.33		
20	16QAM	1	0	17.30	17.54	17.33		
20	16QAM	1	49	17.32	17.67	17.28	18.3	0
20	16QAM	1	99	17.32	17.43	17.41		
20	16QAM	50	0	17.07	17.44	17.33		
20	16QAM	50	24	17.14	17.50	17.25	18.3	0
20	16QAM	50	50	17.09	17.43	17.14		
20	16QAM	100	0	17.06	17.46	17.31		
20	256QAM	1	0	16.84	16.99	16.52		
20	256QAM	1	49	16.89	16.91	16.99	18.3	0
20	256QAM	1	99	17.03	17.16	17.05		
20	256QAM	50	0	16.86	16.87	16.84		
20	256QAM	50	24	16.90	16.98	16.91	18.3	0
20	256QAM	50	50	16.92	16.97	16.92		
20	256QAM	100	0	16.90	17.02	16.89		
Channel								
Frequency (MHz)								
15	QPSK	1	0	19.05	18.90	19.05		
15	QPSK	1	0	17.20	17.74	17.29	18.3	0
15	QPSK	1	74	17.22	17.65	17.32		
15	QPSK	36	0	17.27	17.81	17.41		
15	QPSK	36	20	17.20	17.69	17.41	18.3	0
15	QPSK	36	39	17.19	17.60	17.44		
15	QPSK	75	0	17.35	17.66	17.40		
15	16QAM	1	0	17.56	17.45	17.47		
15	16QAM	1	37	17.50	17.63	17.31	18.3	0
15	16QAM	1	74	17.38	17.50	17.33		
15	16QAM	36	0	17.03	17.34	17.14		
15	16QAM	36	20	17.04	17.48	17.13	18.3	0
15	16QAM	36	29	17.07	17.48	17.28		
15	16QAM	75	0	16.95	17.43	17.26		
15	16QAM	1	0	17.27	17.46	17.28		
15	16QAM	1	37	17.28	17.55	17.23	18.3	0
15	16QAM	1	74	17.25	17.41	17.32		
15	16QAM	36	0	17.03	17.40	17.26		
15	16QAM	36	20	17.02	17.48	17.14	18.3	0
15	16QAM	36	39	16.98	17.37	17.08		
15	16QAM	75	0	17.03	17.35	17.26		
15	256QAM	1	0	16.90	16.90	16.81		
15	256QAM	1	37	16.78	16.80	16.85	18.3	0
15	256QAM	1	74	16.98	17.06	16.95		
15	256QAM	36	0	16.79	16.84	16.78		
15	256QAM	36	20	16.91	16.97	16.88	18.3	0
15	256QAM	36	39	16.86	16.97	16.88		
15	256QAM	75	0	16.88	16.93	16.78		
Channel								
Frequency (MHz)								
10	QPSK	1	0	18.90	18.90	19.05		
10	QPSK	1	0	17.25	17.72	17.28	18.3	0
10	QPSK	1	49	17.22	17.65	17.32		
10	QPSK	1	99	17.29	17.62	17.22		
10	QPSK	25	0	17.32	17.63	17.42		
10	QPSK	25	12	17.17	17.67	17.41	18.3	0
10	QPSK	25	26	17.22	17.60	17.40		
10	QPSK	50	0	17.27	17.62	17.32		
10	16QAM	1	0	17.52	17.47	17.40		
10	16QAM	1	26	17.59	17.66	17.38	18.3	0
10	16QAM	1	49	17.37	17.64	17.35		
10	16QAM	25	0	16.94	17.25	17.17		
10	16QAM	25	12	17.09	17.48	17.15	18.3	0
10	16QAM	25	26	17.05	17.48	17.27		
10	16QAM	50	0	17.00	17.42	17.25		
10	16QAM	1	0	17.23	17.45	17.27		
10	16QAM	1	26	17.23	17.45	17.27	18.3	0
10	16QAM	1	49	17.23	17.38	17.39		
10	16QAM	25	0	16.97	17.38	17.07		
10	16QAM	25	12	17.08	17.47	17.21	18.3	0
10	16QAM	25	26	17.01	17.35	17.05		
10	16QAM	50	0	16.99	17.29	17.29		
10	16QAM	50	0	16.84	16.91	16.90		
10	256QAM	1	0	16.80	16.84	16.77	18.3	0
10	256QAM	1	26	16.91	17.06	16.91		
10	256QAM	1	49	16.81	16.85	16.81		
10	256QAM	25	0	16.88	16.88	16.82	18.3	0
10	256QAM	25	12	16.86	16.96	16.83		
10	256QAM	25	26	16.80	16.99	16.84		
Channel								
Frequency (MHz)								
5	QPSK	1	0	18.90	18.90	19.05		
5	QPSK	1	0	17.26	17.64	17.33	18.3	0
5	QPSK	1	12	17.22	17.61	17.28		
5	QPSK	1	24	17.23	17.55	17.25		
5	QPSK	12	0	17.29	17.63	17.38		
5	QPSK	12	6	17.19	17.63	17.46	18.3	0
5	QPSK	12	13	17.24	17.58	17.37		
5	QPSK	25	0	17.34	17.67	17.32		
5	16QAM	1	0	17.62	17.63	17.40		
5	16QAM	1	12	17.58	17.71	17.34	18.3	0
5	16QAM	1	24	17.36	17.50	17.30		
5	16QAM	12	0	17.05	17.32	17.16		
5	16QAM	12	7	17.05	17.39	17.09	18.3	0
5	16QAM	12	10	17.06	17.52	17.22		
5	16QAM	12	18	16.96	17.40	17.29	18.3	0
5	16QAM	1	0	17.27	17.64	17.22		
5	16QAM	1	12	17.27	17.64	17.22	18.3	0
5	16QAM	1	24	17.21	17.39	17.29		
5	16QAM	12	0	16.97	17.38	17.01		
5	16QAM	12	7	17.07	17.45	17.18	18.3	0
5	16QAM	12	10	17.01	17.38	17.11		
5	16QAM	25	0	17.03	17.35	17.27		
5	256QAM	1	0	16.86	16.94	16.89		
5	256QAM	1	12	16.78	16.86	16.77	18.3	0
5	256QAM	1	24	16.91	17.09	16.91		
5	256QAM	12	0	16.80	16.77	16.75		
5	256QAM	12	7	16.84	16.96	16.89	18.3	0
5	256QAM	12	10	16.81	16.89	16.89		
5	256QAM	25	0	16.82	16.91	16.84		
Channel								
Frequency (MHz)								
3	QPSK	1	0	18.90	18.90	19.05		
3	QPSK	1	0	17.26	17.65	17.34	18.3	0
3	QPSK	1	8	17.18	17.65	17.25		
3	QPSK	1	16	17.23	17.60	17.25		
3	QPSK	8	0	17.23	17.65	17.38		
3	QPSK	8	4	17.22	17.64	17.40	18.3	0
3	QPSK	8	12	17.20	17.61	17.44		
3	QPSK	15	0	17.27	17.67	17.34		
3	16QAM	1	0	17.62	17.48	17.49		
3	16QAM	1	8	17.51	17.62	17.38	18.3	0
3	16QAM	1	16	17.43	17.44	17.31		
3	16QAM	8	0	17.03	17.34	17.13		
3	16QAM	8	4	17.10	17.42	17.20	18.3	0
3	16QAM	8	7	17.08	17.47	17.28		
3	16QAM	15	0	16.99	17.38	17.24		
3	16QAM	1	0	17.27	17.47	17.27	18.3	0
3	16QAM	1	8	17.30	17.57	17.20		
3	16QAM	8	4	17.29	17.31	17.20		
3	16QAM	8	7	17.03	17.41	17.06	18.3	0
3	16QAM	8	15	17.04	17.34	17.03		
3	16QAM	15	0	17.03	17.40	17.20		
3	16QAM	15	0	16.86	16.90	16.90		
3	256QAM	1	0	16.81	16.89	16.84	18.3	0
3	256QAM	1	14	16.91	17.05	16.97		
3	256QAM	8	0	16.81	16.84	16.75		
3	256QAM	8	4	16.93	16.87	16.87	18.3	0
3	256QAM	8	7	16.89	17.04	16.89		
3	256QAM	15	0	16.88	16.99	16.82		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	19.05	18.90	19.05		
1.4	QPSK	1	0	17.27	17.63	17.33	18.3	0
1.4	QPSK	1	3	17.19	17.58	17.31		
1.4	QPSK	1	6	17.20	17.60	17.19		
1.4	QPSK	3	0	17.31	17.61	17.40		
1.4	QPSK	3	1	17.19	17.69	17.39	18.3	0
1.4	QPSK	3	1	17.28	17.64	17.40		
1.4	QPSK	6	0	17.31	17.69	17.36		
1.4	16QAM	1	0	17.53	17.53	17.46	18.3	0
1.4	16QAM	1	3	17.57	17.70	17.35		
1.4	16QAM	1	6	17.47	17.44	17.31		
1.4	16QAM	3	0	17.02	17.32	17.12		
1.4	16QAM	3	1	17.07	17.42	17.14	18.3	0
1.4	16QAM	3	3	17.14	17.47	17.30		
1.4	16QAM	6	0	16.93	17.35	17.28		
1.4	16QAM	6	1	17.19	17.49	17.23	18.3	0
1.4	16QAM	1	0	17.25	17.55	17.24		
1.4	16QAM	1	3	17.24	17.38	17.30		
1.4	16QAM	3	0	17.01	17.35	17.05	18.3	0
1.4	16QAM	3	1	17.08				



Band 26 FCC Ant 0

BW (MHz)	Modulation	Channel	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
					Low Ch / Freq	Middle Ch / Freq	High Ch / Freq		
Channel					811.5	811.5	811.5		
15	QPSK	1	0	0	22.88	23.04	22.88	24	0
15	QPSK	1	37	0	22.92	23.04	22.87		
15	QPSK	1	74	0	22.92	22.74	22.72		
15	QPSK	36	0	0	22.89	23.01	22.87	24	0
15	QPSK	36	20	0	22.88	23.00	22.80		
15	QPSK	36	39	0	22.86	22.97	22.82		
15	QPSK	75	0	0	22.84	22.89	22.81		
15	16QAM	1	0	0	22.84	23.02	22.85		
15	16QAM	1	37	0	22.89	22.98	22.81	24	0
15	16QAM	1	74	0	22.90	23.03	22.88		
15	16QAM	36	0	0	22.41	22.45	22.48		
15	16QAM	36	20	0	22.50	22.48	22.35		
15	16QAM	36	39	0	22.49	22.85	22.38	23.5	0.5
15	16QAM	75	0	0	22.59	22.80	22.44		
15	64QAM	1	0	0	22.82	22.82	22.65		
15	64QAM	1	37	0	22.84	22.72	22.45	23.5	0.5
15	64QAM	1	74	0	22.82	22.81	22.55		
15	64QAM	36	0	0	21.43	21.48	21.38		
15	64QAM	36	20	0	21.49	21.47	21.40		
15	64QAM	36	39	0	21.48	21.49	21.41	22.5	1.5
15	64QAM	75	0	0	21.66	21.65	21.61		
15	256QAM	1	0	0	19.80	19.86	19.86	20.5	3.5
15	256QAM	1	37	0	19.71	19.81	19.86		
15	256QAM	1	74	0	19.75	19.81	19.77		
15	256QAM	36	0	0	19.60	19.62	19.68		
15	256QAM	36	20	0	19.65	19.62	19.67	20.5	3.5
15	256QAM	36	39	0	19.59	19.64	19.55		
15	256QAM	75	0	0	19.64	19.68	19.65		
Channel					813.0	813.0	813.0		
10	QPSK	1	0	0	22.82	22.95	22.85	24	0
10	QPSK	1	25	0	22.89	22.93	22.79		
10	QPSK	1	49	0	22.86	22.82	22.85		
10	QPSK	25	0	0	22.87	22.94	22.88	24	0
10	QPSK	25	12	0	22.82	22.92	22.83		
10	QPSK	25	25	0	22.84	22.84	22.83		
10	QPSK	50	0	0	22.84	22.98	22.87		
10	16QAM	1	0	0	22.82	22.90	22.75	24	0
10	16QAM	1	25	0	22.78	22.91	22.69		
10	16QAM	1	49	0	22.79	22.97	22.80		
10	16QAM	25	0	0	22.34	22.42	22.42	23.5	0.5
10	16QAM	25	12	0	22.44	22.42	22.47		
10	16QAM	25	25	0	22.38	22.38	22.34		
10	16QAM	50	0	0	22.59	22.45	22.42		
10	64QAM	1	0	0	22.46	22.65	22.45	23.5	0.5
10	64QAM	1	25	0	22.58	22.68	22.43		
10	64QAM	1	49	0	22.50	22.54	22.49		
10	64QAM	25	0	0	21.32	21.37	21.30		
10	64QAM	25	12	0	21.37	21.35	21.37	22.5	1.5
10	64QAM	25	25	0	21.42	21.40	21.30		
10	64QAM	50	0	0	21.44	21.53	21.45		
10	256QAM	1	0	0	19.80	19.87	19.82	20.5	3.5
10	256QAM	1	25	0	19.82	19.84	19.84		
10	256QAM	1	49	0	19.87	19.89	19.70		
10	256QAM	25	0	0	19.54	19.57	19.48		
10	256QAM	25	12	0	19.48	19.56	19.60	20.5	3.5
10	256QAM	25	25	0	19.45	19.61	19.45		
10	256QAM	50	0	0	19.80	19.80	19.82		
Channel					814.5	814.5	814.5		
5	QPSK	1	0	0	22.88	23.04	22.84	24	0
5	QPSK	1	12	0	22.88	22.96	22.79		
5	QPSK	1	24	0	22.86	22.84	22.87		
5	QPSK	12	0	0	22.91	22.97	22.84	24	0
5	QPSK	12	7	0	22.84	22.90	22.80		
5	QPSK	12	13	0	22.89	22.85	22.80		
5	QPSK	25	0	0	22.80	22.97	22.80	24	0
5	16QAM	1	0	0	22.79	22.84	22.73		
5	16QAM	1	12	0	22.82	22.87	22.76	24	0
5	16QAM	1	24	0	22.86	22.83	22.78		
5	16QAM	12	0	0	22.39	22.35	22.37	23.5	0.5
5	16QAM	12	7	0	22.40	22.38	22.49		
5	16QAM	12	13	0	22.38	22.56	22.33		
5	16QAM	25	0	0	22.47	22.39	22.37		
5	64QAM	1	0	0	22.45	22.50	22.51	23.5	0.5
5	64QAM	1	12	0	22.53	22.57	22.34		
5	64QAM	1	24	0	22.50	22.51	22.51		
5	64QAM	12	0	0	21.39	21.41	21.39		
5	64QAM	12	7	0	21.47	21.36	21.36	22.5	1.5
5	64QAM	12	13	0	21.38	21.46	21.29		
5	64QAM	25	0	0	21.46	21.48	21.48		
5	256QAM	1	0	0	19.57	19.63	19.50	20.5	3.5
5	256QAM	1	12	0	19.89	19.89	19.84		
5	256QAM	1	24	0	19.71	19.73	19.74		
5	256QAM	12	0	0	19.50	19.50	19.45		
5	256QAM	12	7	0	19.49	19.52	19.51	20.5	3.5
5	256QAM	12	13	0	19.53	19.57	19.45		
5	256QAM	25	0	0	19.68	19.60	19.65		
Channel					2697.0	2697.0	2703.0		
Frequency (MHz)					815.5	815.5	815.5		
3	QPSK	1	0	0	22.86	23.04	22.80	24	0
3	QPSK	1	8	0	22.86	22.96	22.85		
3	QPSK	1	14	0	22.89	22.85	22.85		
3	QPSK	8	0	0	22.89	22.88	22.80	24	0
3	QPSK	8	4	0	22.83	22.89	22.84		
3	QPSK	8	7	0	22.83	22.89	22.80		
3	QPSK	15	0	0	22.88	22.83	22.80	24	0
3	16QAM	1	0	0	22.79	22.96	22.73	24	0
3	16QAM	1	8	0	22.82	22.96	22.76		
3	16QAM	1	14	0	22.83	22.94	22.78		
3	16QAM	8	0	0	22.38	22.37	22.36	23.5	0.5
3	16QAM	8	4	0	22.42	22.43	22.52		
3	16QAM	8	7	0	22.40	22.49	22.35		
3	16QAM	15	0	0	22.37	22.42	22.36		
3	64QAM	1	0	0	22.46	22.50	22.50	23.5	0.5
3	64QAM	1	8	0	22.38	22.67	22.34		
3	64QAM	1	14	0	22.38	22.55	22.51		
3	64QAM	8	0	0	21.41	21.38	21.26	22.5	1.5
3	64QAM	8	4	0	21.46	21.40	21.34		
3	64QAM	8	7	0	21.46	21.38	21.37		
3	64QAM	15	0	0	21.46	21.48	21.47		
3	256QAM	1	0	0	19.49	19.54	19.47	20.5	3.5
3	256QAM	1	8	0	19.88	19.62	19.56		
3	256QAM	1	14	0	19.65	19.71	19.71		
3	256QAM	8	0	0	19.49	19.51	19.51	20.5	3.5
3	256QAM	8	4	0	19.52	19.67	19.51		
3	256QAM	8	7	0	19.64	19.53	19.43		
3	256QAM	15	0	0	19.53	19.64	19.53		
Channel					2697.0	2697.0	2703.0		
Frequency (MHz)					816.0	816.0	816.0		
1.4	QPSK	1	0	0	22.83	23.03	22.89	24	0
1.4	QPSK	1	3	0	22.83	22.96	22.75		
1.4	QPSK	1	5	0	22.85	22.85	22.87		
1.4	QPSK	3	0	0	22.82	22.97	22.85	24	0
1.4	QPSK	3	1	0	22.89	22.88	22.88		
1.4	QPSK	3	3	0	22.86	22.88	22.80		
1.4	QPSK	6	0	0	22.89	22.97	22.85	24	0
1.4	16QAM	1	0	0	22.81	22.97	22.76		
1.4	16QAM	1	3	0	22.84	22.84	22.79		
1.4	16QAM	1	5	0	22.82	22.85	22.81	24	0
1.4	16QAM	3	0	0	22.34	22.43	22.40		
1.4	16QAM	3	1	0	22.43	22.45	22.50		
1.4	16QAM	3	3	0	22.37	22.52	22.35	23.5	0.5
1.4	16QAM	6	0	0	22.49	22.45	22.41		
1.4	64QAM	1	0	0	22.42	22.51	22.47</		



Band 26 FCC Ant 1

Channel	Modulation	RB Size	RB Offset	Power Low Ch. F/Freq. noise	Power Midle Ch. F/Freq. noise	Power High Ch. F/Freq. noise	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	0	23.00	23.04	23.08	24	0
15	QPSK	1	37	23.04	23.04	23.11		
15	QPSK	1	74	22.87	22.93	23.09		
15	QPSK	36	0	22.88	23.05	23.04	24	0
15	QPSK	36	20	22.87	23.03	23.02		
15	QPSK	36	36	22.85	23.00	23.00		
15	QPSK	75	0	23.02	23.03	23.09	23.5	0.5
15	16QAM	1	0	22.98	23.06	23.03		
15	16QAM	1	37	22.97	23.08	23.04		
15	16QAM	14	0	23.02	23.09	23.03	24	0
15	16QAM	36	0	22.40	22.39	22.49		
15	16QAM	36	20	22.83	22.83	22.83		
15	16QAM	36	36	22.80	22.48	22.80	23.5	0.5
15	16QAM	75	0	22.55	22.80	22.56		
15	64QAM	1	0	22.44	22.85	22.50		
15	64QAM	1	37	22.47	22.71	22.71	23.5	0.5
15	64QAM	1	74	22.36	22.65	22.65		
15	64QAM	36	0	21.48	21.41	21.53		
15	64QAM	36	20	21.51	21.50	21.56	22.5	1.5
15	64QAM	36	36	21.39	21.34	21.86		
15	64QAM	75	0	21.47	21.45	21.68		
15	256QAM	1	0	19.65	19.67	19.65	20.5	3.5
15	256QAM	1	37	19.67	19.66	19.63		
15	256QAM	1	74	19.71	19.83	19.71		
15	256QAM	36	0	19.60	19.81	19.65	20.5	3.5
15	256QAM	36	20	19.58	19.63	19.62		
15	256QAM	36	36	19.61	19.72	19.64		
15	256QAM	75	0	19.62	19.62	19.58		
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.00	23.06	23.03	24	0
10	QPSK	1	37	22.92	23.04	23.00		
10	QPSK	1	74	22.83	22.84	22.97		
10	QPSK	25	0	22.80	22.84	22.80	24	0
10	QPSK	25	12	22.75	22.95	22.75		
10	QPSK	25	25	22.84	22.96	22.81		
10	QPSK	50	0	22.81	22.95	22.85	24	0
10	16QAM	1	0	22.94	22.99	22.96		
10	16QAM	1	25	22.86	22.98	22.92		
10	16QAM	1	49	22.90	23.01	22.81	23.5	0.5
10	16QAM	25	0	22.37	22.34	22.43		
10	16QAM	25	12	22.41	22.49	22.59		
10	16QAM	25	25	22.53	22.45	22.56	23.5	0.5
10	16QAM	50	0	22.47	22.44	22.48		
10	64QAM	1	0	22.38	22.48	22.48		
10	64QAM	1	25	22.40	22.67	22.65	23.5	0.5
10	64QAM	1	49	22.19	22.54	22.51		
10	64QAM	25	0	21.40	21.36	21.48		
10	64QAM	25	12	21.39	21.38	21.47	22.5	1.5
10	64QAM	25	25	21.46	21.49	21.69		
10	64QAM	50	0	21.41	21.39	21.63		
10	256QAM	1	0	19.69	19.57	19.63	20.5	3.5
10	256QAM	1	25	19.45	19.58	19.53		
10	256QAM	1	49	19.63	19.77	19.62		
10	256QAM	25	0	19.43	19.50	19.51	20.5	3.5
10	256QAM	25	12	19.50	19.51	19.42		
10	256QAM	25	25	19.54	19.64	19.53		
10	256QAM	50	0	19.47	19.52	19.51		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.03	23.04	23.08	24	0
5	QPSK	1	12	22.97	23.01	23.05		
5	QPSK	1	24	22.79	22.81	23.08		
5	QPSK	12	0	22.96	23.03	22.96	24	0
5	QPSK	12	7	22.86	23.00	22.84		
5	QPSK	12	13	22.83	22.96	22.86		
5	QPSK	25	0	22.97	23.01	22.96	24	0
5	16QAM	1	0	22.84	23.02	22.92		
5	16QAM	1	12	22.85	22.97	22.97		
5	16QAM	1	24	22.81	22.97	23.01	23.5	0.5
5	16QAM	12	0	22.33	22.34	22.39		
5	16QAM	12	7	22.45	22.43	22.55		
5	16QAM	12	13	22.50	22.46	22.57	23.5	0.5
5	16QAM	25	0	22.49	22.45	22.44		
5	64QAM	1	0	22.25	22.47	22.43		
5	64QAM	1	12	22.43	22.63	22.67	23.5	0.5
5	64QAM	1	24	22.23	22.53	22.51		
5	64QAM	12	0	21.49	21.29	21.41		
5	64QAM	12	7	21.48	21.47	21.49	22.5	1.5
5	64QAM	12	13	21.50	21.45	21.61		
5	64QAM	25	0	21.46	21.41	21.58		
5	256QAM	1	0	19.52	19.51	19.52	20.5	3.5
5	256QAM	1	12	19.50	19.46	19.52		
5	256QAM	1	24	19.65	19.70	19.67		
5	256QAM	12	0	19.41	19.59	19.47	20.5	3.5
5	256QAM	12	7	19.47	19.55	19.43		
5	256QAM	12	13	19.64	19.70	19.64		
5	256QAM	25	0	19.41	19.56	19.53		
Channel								
Frequency (MHz)								
3	QPSK	1	0	22.98	23.05	23.13	24	0
3	QPSK	1	8	22.94	23.01	23.06		
3	QPSK	1	14	22.83	22.83	22.89		
3	QPSK	8	0	22.86	22.86	22.85	24	0
3	QPSK	8	4	22.81	22.96	22.88		
3	QPSK	8	7	22.93	22.90	22.98		
3	QPSK	15	0	22.97	22.94	22.98	24	0
3	16QAM	1	0	22.95	23.04	22.98		
3	16QAM	1	8	22.86	23.05	22.97		
3	16QAM	1	14	22.93	22.97	22.95	23.5	0.5
3	16QAM	8	0	22.48	22.45	22.50		
3	16QAM	8	4	22.44	22.44	22.52		
3	16QAM	8	7	22.51	22.49	22.52	23.5	0.5
3	64QAM	1	0	22.33	22.48	22.44		
3	64QAM	1	8	22.38	22.59	22.61		
3	64QAM	1	14	22.22	22.60	22.58	22.5	1.5
3	64QAM	8	0	21.38	21.39	21.42		
3	64QAM	8	4	21.43	21.38	21.51		
3	64QAM	8	7	21.44	21.44	21.56	20.5	3.5
3	64QAM	15	0	21.35	21.41	21.60		
3	256QAM	1	0	19.63	19.57	19.63		
3	256QAM	1	8	19.48	19.57	19.58	20.5	3.5
3	256QAM	1	14	19.60	19.78	19.66		
3	256QAM	8	0	19.42	19.52	19.47		
3	256QAM	8	4	19.50	19.56	19.48	20.5	3.5
3	256QAM	8	7	19.65	19.65	19.59		
3	256QAM	15	0	19.42	19.55	19.52		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	23.02	23.08	23.04	24	0
1.4	QPSK	1	3	22.99	22.95	23.05		
1.4	QPSK	1	5	22.73	22.82	23.04		
1.4	QPSK	3	0	22.86	22.88	23.00	24	0
1.4	QPSK	3	1	22.95	23.01	22.98		
1.4	QPSK	3	3	22.92	22.93	22.88		
1.4	QPSK	6	0	22.91	22.99	22.89	24	0
1.4	16QAM	1	0	22.94	23.03	22.93		
1.4	16QAM	1	3	22.88	23.05	22.84		
1.4	16QAM	1	5	23.00	23.03	23.00	24	0
1.4	16QAM	3	0	22.38	22.32	22.44		
1.4	16QAM	3	1	22.50	22.43	22.53		
1.4	16QAM	3	3	22.58	22.46	22.49	23.5	0.5
1.4	64QAM	1	0	22.39	22.52	22.48		
1.4	64QAM	1	3	22.44	22.62	22.65		
1.4	64QAM	1	5	22.20	22.58	22.62	23.5	0.5
1.4	64QAM	3	0	22.36	22.54	22.46		
1.4	64QAM	3	1	22.47	22.63	22.63		
1.4	256QAM	1	0	19.63	19.56	19.57	22.5	1.5
1.4	256QAM	1	3	19.45	19.64	19.61		
1.4	256QAM	1	5	19.68	19.79	19.65		
1.4	256QAM	3	0	19.44	19.51	19.53	20.5	3.5
1.4	256QAM	3	1	19.58	19.57	19.40		
1.4	256QAM	3	3	19.52	19.62	19.56		
1.4	256QAM	6	0	19.44	19.50	19.49		



Band 30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	23.07			24	0
10	QPSK	1	26	23.08				
10	QPSK	1	49	22.85				
10	QPSK	25	0	22.85			24	0
10	QPSK	25	12	22.81				
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.80			24	0
10	16QAM	1	0	23.01				
10	16QAM	1	26	23.02				
10	16QAM	1	49	23.05			24	0
10	16QAM	25	0	22.53				
10	16QAM	25	12	22.46				
10	16QAM	25	25	22.38			23.5	0.5
10	16QAM	50	0	22.50				
10	16QAM	50	0	22.51				
10	64QAM	1	26	22.46			23.5	0.5
10	64QAM	1	49	22.55				
10	64QAM	25	0	21.62				
10	64QAM	25	12	21.57			22.5	1.5
10	64QAM	25	25	21.55				
10	64QAM	50	0	21.63				
10	256QAM	1	0	19.53			20.5	3.5
10	256QAM	1	26	19.53				
10	256QAM	1	49	19.32				
10	256QAM	25	0	19.35			20.5	3.5
10	256QAM	25	12	19.42				
10	256QAM	25	25	19.26				
10	256QAM	50	0	19.31				
Channel								
Frequency (MHz)				2760.5	2771.0	2773.5		
5	QPSK	1	0	23.03	22.99	22.98	24	0
5	QPSK	1	12	23.00	22.99	22.98		
5	QPSK	1	24	22.81	22.76	22.83		
5	QPSK	12	0	22.85	22.89	22.89	24	0
5	QPSK	12	12	22.87	22.89	22.75		
5	QPSK	12	13	22.83	22.81	22.85		
5	QPSK	26	0	22.94	22.79	22.98	24	0
5	16QAM	1	0	22.93	22.95	22.94		
5	16QAM	1	12	22.92	22.98	22.90		
5	16QAM	1	24	22.99	22.95	22.97	23.5	0.5
5	16QAM	12	0	22.50	22.42	22.44		
5	16QAM	12	7	22.38	22.41	22.34		
5	16QAM	12	13	22.35	22.32	22.29	23.5	0.5
5	16QAM	25	0	22.42	22.40	22.42		
5	16QAM	25	0	22.44	22.40	22.44		
5	64QAM	1	12	22.37	22.41	22.38	22.5	1.5
5	64QAM	1	24	22.44	22.53	22.53		
5	64QAM	12	0	21.53	21.60	21.54		
5	64QAM	12	7	21.50	21.45	21.45	20.5	3.5
5	64QAM	12	13	21.44	21.44	21.52		
5	64QAM	25	0	21.61	21.59	21.61		
5	256QAM	1	0	19.44	19.48	19.48	20.5	3.5
5	256QAM	1	12	19.48	19.50	19.46		
5	256QAM	1	24	19.29	19.28	19.26		
5	256QAM	12	0	19.32	19.31	19.26	20.5	3.5
5	256QAM	12	7	19.20	19.40	19.20		
5	256QAM	12	13	19.24	19.22	19.18		
5	256QAM	25	0	19.23	19.26	19.27		

Band 30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	19.33			20.4	0
10	QPSK	1	26	19.20				
10	QPSK	1	49	19.21				
10	QPSK	25	0	19.28			20.4	0
10	QPSK	25	12	19.21				
10	QPSK	25	25	19.12				
10	QPSK	50	0	19.16			20.4	0
10	16QAM	1	0	19.25				
10	16QAM	1	26	19.22				
10	16QAM	1	49	19.21			20.4	0
10	16QAM	25	0	19.30				
10	16QAM	25	12	19.31				
10	16QAM	25	25	19.30			20.4	0
10	16QAM	50	0	18.84				
10	16QAM	50	0	19.32				
10	64QAM	1	26	19.23			20.4	0
10	64QAM	1	49	19.05				
10	64QAM	25	0	19.27				
10	64QAM	25	12	19.30			20.4	0
10	64QAM	25	25	19.36				
10	64QAM	50	0	19.35				
10	256QAM	1	0	19.18			20	0.4
10	256QAM	1	26	19.18				
10	256QAM	1	49	18.84				
10	256QAM	25	0	19.15			20	0.4
10	256QAM	25	12	19.11				
10	256QAM	25	25	18.96				
10	256QAM	50	0	19.05				
Channel								
Frequency (MHz)				2760.5	2771.0	2773.5		
5	QPSK	1	0	19.33	19.30	19.26	20.4	0
5	QPSK	1	12	19.19	19.07	19.07		
5	QPSK	1	24	19.17	19.13	19.07		
5	QPSK	12	0	19.19	19.21	19.26	20.4	0
5	QPSK	12	12	19.15	19.19	19.10		
5	QPSK	12	13	19.01	19.09	19.01		
5	QPSK	26	0	19.16	19.12	19.13	20.4	0
5	16QAM	1	0	19.15	19.12	19.12		
5	16QAM	1	12	19.10	19.13	19.08		
5	16QAM	1	24	19.25	19.28	19.18	20.4	0
5	16QAM	12	0	19.15	19.15	19.22		
5	16QAM	12	7	19.20	19.26	19.26		
5	16QAM	12	13	19.19	19.15	19.29	20.4	0
5	16QAM	25	0	18.80	18.76	18.75		
5	16QAM	25	0	19.24	19.29	19.28		
5	64QAM	1	12	19.17	19.18	19.22	20.4	0
5	64QAM	1	24	19.05	19.14	19.08		
5	64QAM	12	0	19.19	19.19	19.14		
5	64QAM	12	7	19.19	19.09	19.13	20.4	0
5	64QAM	12	13	18.87	18.92	18.87		
5	64QAM	25	0	19.24	19.17	19.13		
5	256QAM	1	0	18.07	19.10	19.16	20	0.4
5	256QAM	1	12	18.12	19.14	19.07		
5	256QAM	1	24	18.79	18.77	18.72		
5	256QAM	12	0	19.05	19.07	19.05	20	0.4
5	256QAM	12	7	19.08	19.09	19.07		
5	256QAM	12	13	19.01	18.90	19.03		
5	256QAM	25	0	18.95	18.84	18.88		



Band 30 Ant 6

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch / Freq	Middle Ch / Freq	High Ch / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	18.95	19.00	19.05		
10	QPSK	1	26	19.04	19.09	19.14	19.5	0
10	QPSK	1	49	18.83	18.88	18.93		
10	QPSK	25	0	19.03	19.08	19.13		
10	QPSK	25	12	19.02	19.07	19.12	19.5	0
10	QPSK	25	25	18.98	19.03	19.08		
10	QPSK	50	0	18.98	19.03	19.08		
10	16QAM	1	0	19.03	19.08	19.13		
10	16QAM	1	26	19.00	19.05	19.10	19.5	0
10	16QAM	1	49	19.01	19.06	19.11		
10	16QAM	25	0	19.00	19.05	19.10		
10	16QAM	25	12	18.96	19.01	19.06	19.5	0
10	16QAM	25	25	18.97	19.02	19.07		
10	16QAM	50	0	18.96	19.01	19.06		
10	64QAM	1	0	18.95	19.00	19.05		
10	64QAM	1	26	18.95	19.00	19.05	19.5	0
10	64QAM	1	49	19.03	19.08	19.13		
10	64QAM	25	0	18.96	19.01	19.06		
10	64QAM	25	12	18.95	19.00	19.05	19.5	0
10	64QAM	25	25	19.01	19.06	19.11		
10	64QAM	50	0	19.03	19.08	19.13		
10	256QAM	1	0	18.99	19.04	19.09		
10	256QAM	1	26	18.94	18.99	19.04	19.5	0
10	256QAM	1	49	18.75	18.80	18.85		
10	256QAM	25	0	18.80	18.85	18.90		
10	256QAM	25	12	18.78	18.83	18.88	19.5	0
10	256QAM	25	25	18.89	18.94	18.99		
10	256QAM	50	0	18.78	18.83	18.88		
Channel								
Frequency (MHz)				2760.5			2770.5	
5	QPSK	1	0	18.96	19.01	19.06		
5	QPSK	1	12	18.98	19.03	19.08	19.5	0
5	QPSK	1	24	18.79	18.84	18.89		
5	QPSK	12	0	18.98	19.03	19.08		
5	QPSK	12	13	18.93	18.98	19.03	19.5	0
5	QPSK	25	0	18.99	19.04	19.09		
5	16QAM	1	0	18.93	18.98	19.03		
5	16QAM	1	12	18.92	18.97	19.02	19.5	0
5	16QAM	1	24	18.95	19.00	19.05		
5	16QAM	12	0	18.97	19.02	19.07		
5	16QAM	12	7	18.93	18.98	19.03	19.5	0
5	16QAM	12	13	18.89	18.94	18.99		
5	16QAM	25	0	18.86	18.91	18.96		
5	64QAM	1	0	18.85	18.90	18.95		
5	64QAM	1	12	18.91	18.96	19.01	19.5	0
5	64QAM	1	24	18.96	19.01	19.06		
5	64QAM	12	0	18.88	18.93	18.98		
5	64QAM	12	7	18.87	18.92	18.97	19.5	0
5	64QAM	12	13	18.87	18.92	18.97		
5	64QAM	25	0	18.95	19.00	19.05		
5	256QAM	1	0	18.97	19.02	19.07		
5	256QAM	1	12	18.77	18.82	18.87	19.5	0
5	256QAM	1	24	18.64	18.69	18.74		
5	256QAM	12	0	18.75	18.80	18.85		
5	256QAM	12	7	18.72	18.77	18.82	19.5	0
5	256QAM	12	13	18.60	18.65	18.70		
5	256QAM	25	0	18.67	18.72	18.77		

Band 30 Ant 9

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch / Freq	Middle Ch / Freq	High Ch / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	23.29	23.34	23.39		
10	QPSK	1	26	23.29	23.34	23.39	24	0
10	QPSK	1	49	22.97	23.02	23.07		
10	QPSK	25	0	22.99	23.04	23.09		
10	QPSK	25	12	22.24	22.29	22.34	23	1
10	QPSK	25	25	22.16	22.21	22.26		
10	QPSK	50	0	22.22	22.27	22.32		
10	16QAM	1	0	22.62	22.67	22.72		
10	16QAM	1	26	22.68	22.73	22.78	23	1
10	16QAM	1	49	22.45	22.50	22.55		
10	16QAM	25	0	21.29	21.34	21.39		
10	16QAM	25	12	21.25	21.30	21.35	22	2
10	16QAM	25	25	21.15	21.20	21.25		
10	16QAM	50	0	21.22	21.27	21.32		
10	64QAM	1	0	21.46	21.51	21.56		
10	64QAM	1	26	21.63	21.68	21.73	22	2
10	64QAM	1	49	21.33	21.38	21.43		
10	64QAM	25	0	20.30	20.35	20.40		
10	64QAM	25	12	20.27	20.32	20.37	21	3
10	64QAM	25	25	20.18	20.23	20.28		
10	64QAM	50	0	20.35	20.40	20.45		
10	256QAM	1	0	18.87	18.92	18.97		
10	256QAM	1	26	18.14	18.19	18.24	19	5
10	256QAM	1	49	17.75	17.80	17.85		
10	256QAM	25	0	17.83	17.88	17.93		
10	256QAM	25	12	17.81	17.86	17.91	19	5
10	256QAM	25	25	17.78	17.83	17.88		
10	256QAM	50	0	17.88	17.93	17.98		
Channel								
Frequency (MHz)				2760.5			2770.5	
5	QPSK	1	0	23.27	23.32	23.37		
5	QPSK	1	12	23.22	23.27	23.32	24	0
5	QPSK	1	24	22.88	22.93	22.98		
5	QPSK	12	0	22.24	22.29	22.34		
5	QPSK	12	13	22.20	22.25	22.30	23	1
5	QPSK	25	0	22.16	22.21	22.26		
5	16QAM	1	0	22.56	22.61	22.66		
5	16QAM	1	12	22.61	22.66	22.71	23	1
5	16QAM	1	24	22.34	22.39	22.44		
5	16QAM	12	0	21.24	21.29	21.34		
5	16QAM	12	7	21.22	21.27	21.32	22	2
5	16QAM	12	13	21.10	21.15	21.20		
5	16QAM	25	0	21.11	21.16	21.21		
5	64QAM	1	0	21.43	21.48	21.53		
5	64QAM	1	12	21.44	21.49	21.54	22	2
5	64QAM	1	24	21.21	21.26	21.31		
5	64QAM	12	0	20.33	20.38	20.43		
5	64QAM	12	7	20.23	20.28	20.33	21	3
5	64QAM	12	13	20.12	20.17	20.22		
5	64QAM	25	0	20.15	20.20	20.25		
5	256QAM	1	0	18.03	18.08	18.13		
5	256QAM	1	12	18.08	18.13	18.18	19	5
5	256QAM	1	24	17.72	17.77	17.82		
5	256QAM	12	0	17.91	17.96	18.01		
5	256QAM	12	7	17.89	17.94	17.99	19	5
5	256QAM	12	13	17.73	17.78	17.83		
5	256QAM	25	0	17.84	17.89	17.94		

Band 66 Ant 0

Channel	BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch Freq [150075]	Power Middle Ch Freq [150150]	Power High Ch Freq [150225]	Tune-up Int (dBm)	MPR (dB)
0	20	QPSK	1	0	1720	1745	1770	17.7	0
		QPSK	49	0	1710	1735	1760		
	20	QPSK	1	99	1711	1736	1761	17.7	0
		QPSK	50	0	1731	1756	1781		
	20	QPSK	50	24	1730	1755	1780	17.7	0
		QPSK	50	50	1719	1744	1769		
	20	QPSK	100	0	1717	1742	1767	17.7	0
		QPSK	100	50	1733	1758	1783		
	20	16QAM	1	0	1733	1758	1783	17.7	0
		16QAM	49	0	1723	1748	1773		
20	16QAM	50	0	1726	1751	1776	17.7	0	
	16QAM	50	50	1736	1761	1786			
20	16QAM	50	24	1735	1760	1785	17.7	0	
	16QAM	50	50	1725	1750	1775			
20	16QAM	100	0	1730	1755	1780	17.7	0	
	16QAM	100	50	1740	1765	1790			
20	84QAM	1	0	1731	1756	1781	17.7	0	
	84QAM	49	0	1721	1746	1771			
20	84QAM	1	99	1733	1758	1783	17.7	0	
	84QAM	50	0	1724	1749	1774			
20	84QAM	50	24	1732	1757	1782	17.7	0	
	84QAM	50	50	1722	1747	1772			
20	84QAM	100	0	1728	1753	1778	17.7	0	
	84QAM	100	50	1738	1763	1788			
20	256QAM	1	0	1724	1749	1774	17.7	0	
	256QAM	49	0	1714	1739	1764			
20	256QAM	1	99	1726	1751	1776	17.7	0	
	256QAM	50	0	1736	1761	1786			
20	256QAM	50	24	1735	1760	1785	17.7	0	
	256QAM	50	50	1725	1750	1775			
20	256QAM	100	0	1730	1755	1780	17.7	0	
	256QAM	100	50	1740	1765	1790			

Band 66 Ant 1

Channel	BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch Freq [150075]	Power Middle Ch Freq [150150]	Power High Ch Freq [150225]	Tune-up Int (dBm)	MPR (dB)
0	20	QPSK	1	0	1720	1745	1770	18.3	0
		QPSK	49	0	1710	1735	1760		
	20	QPSK	1	99	1711	1736	1761	18.3	0
		QPSK	50	0	1731	1756	1781		
	20	QPSK	50	24	1730	1755	1780	18.3	0
		QPSK	50	50	1719	1744	1769		
	20	QPSK	100	0	1717	1742	1767	18.3	0
		QPSK	100	50	1733	1758	1783		
	20	16QAM	1	0	1733	1758	1783	18.3	0
		16QAM	49	0	1723	1748	1773		
20	16QAM	50	0	1726	1751	1776	18.3	0	
	16QAM	50	50	1736	1761	1786			
20	16QAM	50	24	1735	1760	1785	18.3	0	
	16QAM	50	50	1725	1750	1775			
20	16QAM	100	0	1730	1755	1780	18.3	0	
	16QAM	100	50	1740	1765	1790			
20	84QAM	1	0	1731	1756	1781	18.3	0	
	84QAM	49	0	1721	1746	1771			
20	84QAM	1	99	1733	1758	1783	18.3	0	
	84QAM	50	0	1724	1749	1774			
20	84QAM	50	24	1732	1757	1782	18.3	0	
	84QAM	50	50	1722	1747	1772			
20	84QAM	100	0	1728	1753	1778	18.3	0	
	84QAM	100	50	1738	1763	1788			
20	256QAM	1	0	1724	1749	1774	18.3	0	
	256QAM	49	0	1714	1739	1764			
20	256QAM	1	99	1726	1751	1776	18.3	0	
	256QAM	50	0	1736	1761	1786			
20	256QAM	50	24	1735	1760	1785	18.3	0	
	256QAM	50	50	1725	1750	1775			
20	256QAM	100	0	1730	1755	1780	18.3	0	
	256QAM	100	50	1740	1765	1790			



Band 71 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Limit, MPR. Contains multiple rows for different frequencies and modulation types.

Band 71 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Limit, MPR. Contains multiple rows for different frequencies and modulation types.



Band 38 Ant 7

Table with columns: BW MHz, Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Contains data for various modulation schemes (QPSK, 16QAM, 64QAM, 256QAM) and RB sizes (1, 5, 10, 25, 50) across different frequency offsets.

Band 38 Ant 1

Table with columns: BW MHz, Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Contains data for various modulation schemes (QPSK, 16QAM, 64QAM, 256QAM) and RB sizes (1, 5, 10, 25, 50) across different frequency offsets.



Band 41 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Low Middle Ch./Freq., Power Middle Ch./Freq., Power High Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes channel frequency (MHz) sub-headers and data for various modulation schemes (QPSK, 16QAM, 64QAM, 256QAM) and RB sizes.

Band 41 HPUE Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Low Middle Ch./Freq., Power Middle Ch./Freq., Power High Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes channel frequency (MHz) sub-headers and data for various modulation schemes and RB sizes.



Band 41 Ant 9

Table with 12 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq, Power Low Middle Ch./Freq, Power Middle Ch./Freq, Power High Middle Ch./Freq, Power High Ch./Freq, Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

Band 41 HPUE Ant 9

Table with 12 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq, Power Low Middle Ch./Freq, Power Middle Ch./Freq, Power High Middle Ch./Freq, Power High Ch./Freq, Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).



Reduced Power Mode for DSI4

GSM850 Ant 0		Burst Average Power (dBm)			Tune-up	Frame-Average Power (dBm)			Tune-up
TX Channel		128	189	251	Limit	128	189	251	Limit
Frequency (MHz)		824.2	836.4	848.8	(dBm)	824.2	836.4	848.8	(dBm)
GSM 1 Tx slot		32.42	32.10	32.28	33.50	23.42	23.10	23.28	24.50
GPRS 1 Tx slot		32.41	32.08	32.25	33.50	23.41	23.08	23.25	24.50
GPRS 2 Tx slots		28.36	28.46	28.56	31.00	23.33	23.47	23.56	25.00
GPRS 3 Tx slots		28.61	28.51	28.59	29.50	24.35	24.25	24.73	25.24
GPRS 4 Tx slots		26.75	26.72	27.05	28.00	23.75	23.72	24.05	25.00
EDGE 1 Tx slot		26.15	26.70	26.09	27.50	17.15	16.70	17.09	18.50
EDGE 2 Tx slots		25.02	24.54	25.02	26.50	18.02	18.54	19.02	20.50
EDGE 3 Tx slots		23.71	23.22	23.46	24.50	19.45	18.96	19.20	20.24
EDGE 4 Tx slots		21.77	21.45	21.36	22.50	18.77	18.45	18.36	19.50

GSM1900 Ant 0		Burst Average Power (dBm)			Tune-up	Frame-Average Power (dBm)			Tune-up
TX Channel		512	810	810	Limit	512	810	810	Limit
Frequency (MHz)		1850.2	1880	1909.8	(dBm)	1850.2	1880	1909.8	(dBm)
GSM 1 Tx slot		28.68	28.75	30.00	31.50	20.68	20.75	21.00	22.50
GPRS 1 Tx slot		28.66	28.74	29.99	31.50	20.66	20.74	20.99	22.50
GPRS 2 Tx slots		26.76	26.83	28.75	28.50	20.76	20.83	20.75	22.50
GPRS 3 Tx slots		25.11	25.32	25.31	27.00	20.85	21.06	21.05	22.74
GPRS 4 Tx slots		23.71	24.03	23.84	25.50	20.71	21.03	20.84	22.50
EDGE 1 Tx slot		24.76	25.07	25.05	26.50	15.76	16.07	16.05	17.50
EDGE 2 Tx slots		23.71	23.22	23.46	24.50	17.72	17.85	17.86	19.50
EDGE 3 Tx slots		22.26	22.65	22.45	24.00	18.00	18.39	18.19	19.74
EDGE 4 Tx slots		20.54	20.89	20.78	22.50	17.54	17.89	17.78	19.50

Band	TX Channel	WCDMA II Ant 0			Tune-up Limit (dBm)	WCDMA IV Ant 0			Tune-up Limit (dBm)	WCDMA V Ant 0			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Frequency (MHz)		9662	9800	9938	1557	1638	1738	4357	4407	4458	4507	4558	
3GPP Rel 99	AMR 12.2Kbps	23.25	23.62	23.38	24.00	23.25	23.60	23.66	24.00	23.03	23.07	22.89	24.00
3GPP Rel 99	RMC 12.2Kbps	23.27	23.64	23.41	24.00	23.27	23.62	23.67	24.00	23.05	23.08	22.91	24.00
3GPP Rel 6	HSDPA Subtest-1	22.38	22.75	22.45	23.00	22.34	22.88	22.72	23.00	22.10	22.19	22.00	23.00
3GPP Rel 6	HSDPA Subtest-2	22.36	22.72	22.45	23.00	22.31	22.93	22.70	23.00	22.10	22.16	21.98	23.00
3GPP Rel 6	HSDPA Subtest-3	21.88	22.23	21.95	22.50	21.85	22.41	22.18	22.50	21.62	21.65	21.60	22.50
3GPP Rel 6	HSDPA Subtest-4	21.88	22.24	21.98	22.50	21.85	22.34	22.15	22.50	21.66	21.67	21.62	22.50
3GPP Rel 6	DC-HSDPA Subtest-1	22.11	22.53	22.22	23.00	22.11	22.65	22.44	23.00	21.85	21.96	21.80	23.00
3GPP Rel 6	DC-HSDPA Subtest-2	22.10	22.50	22.16	23.00	22.11	22.70	22.46	23.00	21.81	21.98	21.70	23.00
3GPP Rel 6	DC-HSDPA Subtest-3	21.68	21.95	21.67	22.50	21.64	22.20	21.91	22.50	21.42	21.44	21.37	22.50
3GPP Rel 6	DC-HSDPA Subtest-4	21.64	21.98	21.69	22.50	21.64	22.08	21.94	22.50	21.40	21.46	21.40	22.50
3GPP Rel 6	HSUPA Subtest-1	22.44	22.75	22.55	23.00	22.78	22.86	22.69	23.00	22.15	22.16	22.00	23.00
3GPP Rel 6	HSUPA Subtest-2	20.42	20.78	20.48	21.00	20.79	20.87	20.71	21.00	20.15	20.16	20.01	21.00
3GPP Rel 6	HSUPA Subtest-3	21.38	21.71	21.47	22.00	21.63	21.91	21.75	22.00	21.03	21.05	21.00	22.00
3GPP Rel 6	HSUPA Subtest-4	20.44	20.75	20.50	21.00	20.79	20.89	20.68	21.00	20.10	20.05	20.00	21.00
3GPP Rel 6	HSUPA Subtest-5	22.40	22.80	22.50	23.00	22.80	22.90	22.70	23.00	22.10	22.20	22.00	23.00

Band	TX Channel	WCDMA II Ant 1			Tune-up Limit (dBm)	WCDMA IV Ant 1			Tune-up Limit (dBm)	WCDMA V Ant 1			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Frequency (MHz)		9662	9800	9938	1557	1638	1738	4357	4407	4458	4507	4558	
3GPP Rel 99	AMR 12.2Kbps	22.91	23.19	22.75	24.00	22.62	23.11	22.73	24.00	23.13	23.37	23.24	24.00
3GPP Rel 99	RMC 12.2Kbps	22.94	23.20	22.78	24.00	22.64	23.14	22.74	24.00	23.19	23.41	23.25	24.00
3GPP Rel 6	HSDPA Subtest-1	21.94	22.16	21.72	23.00	21.90	22.11	21.68	23.00	22.22	22.35	22.24	23.00
3GPP Rel 6	HSDPA Subtest-2	21.93	22.13	21.73	23.00	21.91	22.10	21.71	23.00	22.24	22.40	22.23	23.00
3GPP Rel 6	HSDPA Subtest-3	21.72	21.68	21.78	22.50	21.41	21.58	21.26	22.50	21.41	21.52	21.77	22.50
3GPP Rel 6	HSDPA Subtest-4	21.70	21.68	21.70	22.50	21.37	21.55	21.18	22.50	21.72	21.88	21.73	22.50
3GPP Rel 6	DC-HSDPA Subtest-1	21.67	21.95	21.50	23.00	21.61	21.82	21.43	23.00	22.02	22.09	21.95	23.00
3GPP Rel 6	DC-HSDPA Subtest-2	21.70	21.88	21.50	23.00	21.63	21.85	21.43	23.00	21.97	22.15	21.97	23.00
3GPP Rel 6	DC-HSDPA Subtest-3	21.44	21.49	21.52	22.50	21.20	21.32	21.00	22.50	21.40	21.67	21.48	22.50
3GPP Rel 6	DC-HSDPA Subtest-4	21.46	21.43	21.47	22.50	21.09	21.34	20.90	22.50	21.44	21.68	21.44	22.50
3GPP Rel 6	HSUPA Subtest-1	21.92	22.19	21.72	23.00	21.89	22.09	21.69	23.00	22.22	22.36	22.29	23.00
3GPP Rel 6	HSUPA Subtest-2	19.95	20.17	19.77	21.00	19.89	20.08	19.69	21.00	20.25	20.35	20.22	21.00
3GPP Rel 6	HSUPA Subtest-3	20.92	21.17	20.75	22.00	20.93	21.12	20.74	22.00	21.29	21.38	21.24	22.00
3GPP Rel 6	HSUPA Subtest-4	19.96	20.18	19.69	21.00	19.92	20.12	19.71	21.00	20.22	20.38	20.25	21.00
3GPP Rel 6	HSUPA Subtest-5	21.90	22.20	21.80	23.00	21.30	22.10	21.70	23.00	22.20	22.40	22.20	23.00



Band 4 Ant 0

Table with 11 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Init (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

Band 4 Ant 1

Table with 11 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Init (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).



Band 12 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. / Freq, Power Middle Ch. / Freq, Power High Ch. / Freq, Tune-up limit (dBm), MPR (dB). Contains multiple rows for different modulation types and power levels.

Band 12 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. / Freq, Power Middle Ch. / Freq, Power High Ch. / Freq, Tune-up limit (dBm), MPR (dB). Contains multiple rows for different modulation types and power levels.



Band 13 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				762				
10	QPSK	1	0	22.81			24	0
10	QPSK	1	26	22.77				
10	QPSK	1	49	22.66				
10	QPSK	25	0	22.76			24	0
10	QPSK	25	12	22.72				
10	QPSK	25	25	22.66				
10	QPSK	50	0	22.70			24	0
10	QPSK	50	0	22.76				
10	QPSK	50	0	22.74				
10	16QAM	1	0	22.78			23	1
10	16QAM	1	26	22.78				
10	16QAM	1	49	21.85				
10	16QAM	25	0	21.85			23	1
10	16QAM	25	12	21.82				
10	16QAM	25	25	21.76				
10	16QAM	50	0	21.78			23	1
10	16QAM	50	0	22.28				
10	16QAM	50	0	22.09				
10	64QAM	1	0	22.11			22	2
10	64QAM	1	49	20.84				
10	64QAM	1	49	20.88				
10	64QAM	25	0	20.80			20	4
10	64QAM	25	25	20.90				
10	64QAM	50	0	20.73				
10	256QAM	1	0	18.88			20	4
10	256QAM	1	26	18.92				
10	256QAM	1	49	18.75				
10	256QAM	25	0	18.89			20	4
10	256QAM	25	12	18.87				
10	256QAM	25	25	18.75				
10	256QAM	50	0	18.95				
Channel								
Frequency (MHz)				2320				
5	QPSK	1	0	22.73	22.77	22.70	24	0
5	QPSK	1	12	22.67	22.69	22.72		
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	12	0	22.69	22.74	22.72	24	0
5	QPSK	12	0	22.61	22.69	22.64		
5	QPSK	12	13	22.58	22.58	22.60		
5	QPSK	25	0	22.65	22.62	22.59	24	0
5	QPSK	25	0	22.72	22.65	22.73		
5	QPSK	25	0	22.63	22.67	22.65		
5	16QAM	1	12	22.66	22.76	22.74	23	1
5	16QAM	12	0	21.83	21.80	21.81		
5	16QAM	12	7	21.88	21.88	21.81		
5	16QAM	12	13	21.69	21.68	21.67	23	1
5	16QAM	25	0	21.75	21.70	21.69		
5	16QAM	25	0	22.22	22.21	22.19		
5	64QAM	1	0	22.04	22.07	22.04	22	2
5	64QAM	1	24	22.04	22.08	22.07		
5	64QAM	12	0	20.77	20.74	20.79		
5	64QAM	12	7	20.83	20.79	20.82	20	4
5	64QAM	12	13	20.79	20.84	20.84		
5	64QAM	25	0	20.62	20.65	20.65		
5	256QAM	1	0	18.85	18.83	18.76	20	4
5	256QAM	1	12	18.90	18.97	18.93		
5	256QAM	1	24	18.73	18.73	18.69		
5	256QAM	12	0	18.78	18.81	18.74	20	4
5	256QAM	12	7	18.77	18.80	18.80		
5	256QAM	12	13	18.69	18.69	18.63		
5	256QAM	25	0	18.84	18.83	18.87		

Band 13 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				762				
10	QPSK	1	0	22.80			24	0
10	QPSK	1	26	22.79				
10	QPSK	1	49	22.78				
10	QPSK	25	0	22.81			23.5	0.5
10	QPSK	25	12	22.84				
10	QPSK	25	25	22.37				
10	QPSK	50	0	22.85			23.5	0.5
10	QPSK	50	0	22.49				
10	QPSK	50	0	22.49				
10	16QAM	1	0	22.49			22.5	1.5
10	16QAM	1	26	22.49				
10	16QAM	1	49	22.44				
10	16QAM	25	0	21.33			22.5	1.5
10	16QAM	25	12	21.42				
10	16QAM	25	25	21.30				
10	16QAM	50	0	21.52			22.5	1.5
10	16QAM	50	0	21.48				
10	16QAM	50	0	21.49				
10	64QAM	1	0	20.26			21.5	2.5
10	64QAM	1	26	20.42				
10	64QAM	1	49	20.48				
10	64QAM	25	0	20.31			19.5	4.5
10	64QAM	25	12	18.44				
10	64QAM	25	25	18.54				
10	256QAM	1	0	18.41			19.5	4.5
10	256QAM	1	26	18.44				
10	256QAM	1	49	18.54				
10	256QAM	25	0	18.41			19.5	4.5
10	256QAM	25	12	18.44				
10	256QAM	25	25	18.59				
10	256QAM	50	0	18.61				
Channel								
Frequency (MHz)				2320				
5	QPSK	1	0	22.70	22.71	22.70	24	0
5	QPSK	1	12	22.77	22.70	22.72		
5	QPSK	1	24	22.67	22.73	22.72		
5	QPSK	12	0	22.36	22.38	22.31	23.5	0.5
5	QPSK	12	0	22.22	22.21	22.12		
5	QPSK	12	13	22.31	22.33	22.34		
5	QPSK	25	0	22.28	22.30	22.27	23.5	0.5
5	QPSK	25	0	22.39	22.37	22.45		
5	QPSK	25	0	22.44	22.47	22.40		
5	16QAM	1	12	22.37	22.39	22.36	22.5	1.5
5	16QAM	12	0	21.24	21.21	21.17		
5	16QAM	12	7	21.31	21.31	21.25		
5	16QAM	12	13	21.33	21.37	21.30	22.5	1.5
5	16QAM	25	0	21.20	21.22	21.25		
5	16QAM	25	0	21.49	21.47	21.43		
5	64QAM	1	0	21.49	21.47	21.43	21.5	2.5
5	64QAM	1	12	21.45	21.36	21.43		
5	64QAM	1	24	21.44	21.43	21.46		
5	64QAM	12	0	20.31	20.34	20.16	20	4
5	64QAM	12	7	20.37	20.46	20.36		
5	64QAM	12	13	20.37	20.46	20.36		
5	256QAM	1	0	18.38	18.42	18.36	19.5	4.5
5	256QAM	1	12	18.61	18.53	18.62		
5	256QAM	1	24	18.52	18.52	18.46		
5	256QAM	12	0	18.36	18.32	18.34	19.5	4.5
5	256QAM	12	7	18.38	18.34	18.33		
5	256QAM	12	13	18.45	18.47	18.47		
5	256QAM	25	0	18.45	18.42	18.46		



Band 14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.77			24	0
10	QPSK	1	26	22.75				
10	QPSK	1	49	22.52				
10	QPSK	25	0	22.75			24	0
10	QPSK	25	12	22.83				
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.73			24	0
10	16QAM	1	0	22.73				
10	16QAM	1	26	22.75				
10	16QAM	1	49	22.70			23.5	0.5
10	16QAM	25	0	22.31				
10	16QAM	25	12	22.36				
10	16QAM	25	25	22.23			23.5	0.5
10	16QAM	50	0	22.28				
10	16QAM	50	0	22.28				
10	64QAM	1	26	22.33			22.5	1.5
10	64QAM	1	49	22.41				
10	64QAM	25	0	21.30				
10	64QAM	25	12	21.35			20.5	3.5
10	64QAM	25	25	21.47				
10	64QAM	50	0	21.37				
10	256QAM	1	0	19.48			20.5	3.5
10	256QAM	1	26	19.54				
10	256QAM	1	49	19.45				
10	256QAM	25	0	19.42			20.5	3.5
10	256QAM	25	12	19.43				
10	256QAM	25	25	19.45				
10	256QAM	50	0	19.51				
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.70	22.68	22.67	24	0
5	QPSK	1	12	22.71	22.71	22.68		
5	QPSK	1	24	22.47	22.45	22.42		
5	QPSK	12	0	22.64	22.67	22.72	24	0
5	QPSK	12	6	22.51	22.59	22.51		
5	QPSK	12	13	22.61	22.65	22.65		
5	QPSK	26	0	22.64	22.67	22.66	24	0
5	16QAM	1	0	22.64	22.66	22.61		
5	16QAM	1	12	22.71	22.68	22.71		
5	16QAM	1	24	22.65	22.61	22.68	23.5	0.5
5	16QAM	12	0	22.21	22.19	22.19		
5	16QAM	12	7	22.25	22.31	22.25		
5	16QAM	12	13	22.23	22.14	22.14	23.5	0.5
5	16QAM	25	0	22.22	22.21	22.19		
5	16QAM	25	0	22.24	22.31	22.28		
5	64QAM	1	0	22.23	22.26	22.30	22.5	0.5
5	64QAM	1	12	22.38	22.37	22.35		
5	64QAM	12	0	21.24	21.26	21.18		
5	64QAM	12	7	21.31	21.23	21.33	22.5	1.5
5	64QAM	12	13	21.42	21.42	21.45		
5	64QAM	25	0	21.25	21.28	21.34		
5	256QAM	1	0	19.39	19.40	19.41	20.5	3.5
5	256QAM	1	12	19.43	19.52	19.47		
5	256QAM	1	24	19.42	19.43	19.34		
5	256QAM	12	0	19.30	19.37	19.36	20.5	3.5
5	256QAM	12	7	19.40	19.34	19.38		
5	256QAM	12	13	19.34	19.30	19.36		
5	256QAM	25	0	19.39	19.42	19.49		

Band 14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0				24	0
10	QPSK	1	26					
10	QPSK	1	49					
10	QPSK	25	0				24	0
10	QPSK	25	12					
10	QPSK	25	25					
10	QPSK	50	0				24	0
10	16QAM	1	0					
10	16QAM	1	26					
10	16QAM	1	49				24	0
10	16QAM	25	0					
10	16QAM	25	12					
10	16QAM	25	25				24	0
10	16QAM	50	0					
10	16QAM	50	0					
10	64QAM	1	26				24	0
10	64QAM	1	49					
10	64QAM	25	0					
10	64QAM	25	12				23	1
10	64QAM	25	25					
10	64QAM	50	0					
10	256QAM	1	0				21	3
10	256QAM	1	26					
10	256QAM	1	49					
10	256QAM	25	0				21	3
10	256QAM	25	12					
10	256QAM	25	25					
10	256QAM	50	0					
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.99	22.88	22.98	24	0
5	QPSK	1	12	22.99	22.89	22.93		
5	QPSK	1	24	22.85	22.95	22.87		
5	QPSK	12	0	22.91	22.89	22.94	24	0
5	QPSK	12	6	22.92	22.85	22.93		
5	QPSK	12	13	22.89	22.87	22.88		
5	QPSK	26	0	22.99	22.85	22.92	24	0
5	16QAM	1	0	22.85	22.83	22.85		
5	16QAM	1	12	22.88	22.92	22.90		
5	16QAM	1	24	22.93	22.85	22.92	24	0
5	16QAM	12	0	22.60	22.80	22.63		
5	16QAM	12	7	22.79	22.82	22.82		
5	16QAM	12	13	22.68	22.76	22.76	24	0
5	16QAM	25	0	22.48	22.54	22.55		
5	16QAM	25	0	22.50	22.50	22.63		
5	64QAM	1	0	22.64	22.60	22.60	24	0
5	64QAM	1	12	22.72	22.73	22.75		
5	64QAM	12	0	21.71	21.71	21.68		
5	64QAM	12	7	21.58	21.60	21.62	23	1
5	64QAM	12	13	21.76	21.72	21.75		
5	64QAM	25	0	21.68	21.68	21.67		
5	256QAM	1	0	19.74	19.72	19.73	21	3
5	256QAM	1	12	19.81	19.89	19.82		
5	256QAM	1	24	19.86	19.86	19.79		
5	256QAM	12	0	19.75	19.75	19.77	21	3
5	256QAM	12	7	19.72	19.73	19.81		
5	256QAM	12	13	19.69	19.77	19.75		
5	256QAM	25	0	19.73	19.80	19.72		



Band 17 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel								
Frequency (MHz)				709	710	711		
10	QPSK	1	0	22.84	22.81	22.85	24	0
10	QPSK	1	26	22.78	22.80	22.82		
10	QPSK	1	49	22.82	22.88	22.80		
10	QPSK	25	0	22.81	22.88	22.85	24	0
10	QPSK	25	12	22.83	22.86	22.80		
10	QPSK	25	25	22.86	22.85	22.83		
10	QPSK	50	0	22.78	22.85	22.78	24	0
10	16QAM	1	0	22.82	22.88	22.82		
10	16QAM	1	26	22.76	22.85	22.79		
10	16QAM	1	49	22.78	22.82	22.82	23.5	0.5
10	16QAM	25	0	22.48	22.52	22.47		
10	16QAM	25	12	22.58	22.56	22.56		
10	16QAM	25	26	22.85	22.84	22.85	23.5	0.5
10	16QAM	50	0	22.49	22.50	22.53		
10	16QAM	50	0	22.34	22.43	22.38		
10	64QAM	1	26	22.36	22.41	22.41	23.5	0.5
10	64QAM	1	49	22.34	22.49	22.34		
10	64QAM	25	0	21.44	21.50	21.50		
10	64QAM	25	12	21.52	21.55	21.53	22.5	1.5
10	64QAM	25	26	21.54	21.58	21.67		
10	64QAM	50	0	21.58	21.68	21.58		
10	256QAM	1	0	19.58	19.68	19.62	20.5	3.5
10	256QAM	1	26	19.78	19.62	19.73		
10	256QAM	1	49	19.64	19.73	19.64		
10	256QAM	25	0	19.67	19.69	19.69	20.5	3.5
10	256QAM	25	12	19.55	19.65	19.63		
10	256QAM	25	26	19.65	19.68	19.58		
10	256QAM	50	0	19.65	19.71	19.59		
Channel								
Frequency (MHz)				709.5	710	713.5		
5	QPSK	1	0	22.77	22.81	22.74	24	0
5	QPSK	1	24	22.69	22.72	22.71		
5	QPSK	1	24	22.72	22.83	22.68		
5	QPSK	12	0	22.78	22.77	22.73	24	0
5	QPSK	12	0	22.81	22.83	22.69		
5	QPSK	12	13	22.81	22.81	22.73		
5	QPSK	26	0	22.65	22.80	22.68	24	0
5	16QAM	1	0	22.78	22.85	22.80		
5	16QAM	1	12	22.85	22.73	22.84		
5	16QAM	1	24	22.74	22.75	22.77	23.5	0.5
5	16QAM	12	0	22.38	22.50	22.44		
5	16QAM	12	7	22.49	22.49	22.48		
5	16QAM	12	13	22.52	22.42	22.61	23.5	0.5
5	16QAM	25	0	22.46	22.44	22.43		
5	16QAM	25	0	22.27	22.32	22.30		
5	64QAM	1	12	22.33	22.33	22.30	23.5	0.5
5	64QAM	1	24	22.25	22.38	22.30		
5	64QAM	12	0	21.34	21.44	21.46		
5	64QAM	12	7	21.45	21.47	21.45	22.5	1.5
5	64QAM	12	13	21.45	21.53	21.57		
5	64QAM	25	0	21.56	21.40	21.28		
5	256QAM	1	0	19.55	19.65	19.50	20.5	3.5
5	256QAM	1	12	19.69	19.76	19.62		
5	256QAM	1	24	19.57	19.66	19.55		
5	256QAM	12	0	19.63	19.59	19.51	20.5	3.5
5	256QAM	12	7	19.50	19.60	19.61		
5	256QAM	12	13	19.57	19.63	19.51		
5	256QAM	25	0	19.54	19.60	19.47		

Band 17 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel								
Frequency (MHz)				709	710	711		
10	QPSK	1	0	23.02	23.03	23.02	24	0
10	QPSK	1	26	23.47	23.34	23.38		
10	QPSK	1	49	23.47	23.45	23.27		
10	QPSK	25	0	23.47	23.48	23.42	24	0
10	QPSK	25	12	23.46	23.43	23.36		
10	QPSK	25	25	23.41	23.41	23.41		
10	QPSK	50	0	23.30	23.41	23.33	24	0
10	16QAM	1	0	23.47	23.49	23.35		
10	16QAM	1	26	23.39	23.48	23.38		
10	16QAM	1	49	23.46	23.45	23.38	24	0
10	16QAM	25	0	23.04	23.08	23.14		
10	16QAM	25	12	23.18	23.18	23.14		
10	16QAM	25	26	23.18	23.23	23.17	23.5	0.5
10	16QAM	50	0	23.08	23.08	23.10		
10	16QAM	50	0	22.98	23.07	22.93		
10	64QAM	1	26	23.05	23.07	22.98	23.5	0.5
10	64QAM	1	49	23.07	23.04	22.95		
10	64QAM	25	0	22.00	22.00	22.00		
10	64QAM	25	12	22.14	22.11	22.16	22.5	1.5
10	64QAM	25	26	22.16	22.12	22.09		
10	64QAM	50	0	22.05	22.06	22.16		
10	256QAM	1	0	20.20	20.22	20.20	20.5	3.5
10	256QAM	1	26	20.22	20.31	20.21		
10	256QAM	1	49	20.20	20.28	20.19		
10	256QAM	25	0	20.14	20.25	20.21	20.5	3.5
10	256QAM	25	12	20.17	20.34	20.18		
10	256QAM	25	26	20.19	20.26	20.16		
10	256QAM	50	0	20.13	20.22	20.17		
Channel								
Frequency (MHz)				709.5	710	713.5		
5	QPSK	1	0	23.48	23.48	23.32	24	0
5	QPSK	1	24	23.36	23.31	23.30		
5	QPSK	1	24	23.43	23.34	23.15		
5	QPSK	12	0	23.36	23.40	23.33	24	0
5	QPSK	12	0	23.37	23.37	23.27		
5	QPSK	12	13	23.38	23.36	23.32		
5	QPSK	26	0	23.21	23.38	23.22	24	0
5	16QAM	1	0	23.37	23.37	23.27		
5	16QAM	1	12	23.37	23.44	23.26		
5	16QAM	1	24	23.38	23.37	23.29	23.5	0.5
5	16QAM	12	0	22.98	22.98	23.03		
5	16QAM	12	7	23.09	23.15	23.09		
5	16QAM	12	13	23.13	23.18	23.10	23.5	0.5
5	16QAM	25	0	23.02	23.04	23.00		
5	16QAM	25	0	22.85	23.03	22.90		
5	64QAM	1	12	22.95	23.03	22.90	23.5	0.5
5	64QAM	1	24	22.96	22.94	22.89		
5	64QAM	12	0	21.96	21.92	21.98		
5	64QAM	12	7	22.10	22.06	22.07	22.5	1.5
5	64QAM	12	13	22.06	22.05	21.99		
5	64QAM	25	0	21.96	21.98	22.11		
5	256QAM	1	0	20.12	20.20	20.08	20.5	3.5
5	256QAM	1	12	20.17	20.27	20.15		
5	256QAM	1	24	20.15	20.23	20.07		
5	256QAM	12	0	20.02	20.13	20.18	20.5	3.5
5	256QAM	12	7	20.09	20.16	20.18		
5	256QAM	12	13	20.12	20.16	20.05		
5	256QAM	25	0	20.03	20.11	20.15		



Band 25 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Inst (dBm), MPR (dB). Contains multiple channel frequency lists for various modulation types and power levels.

Band 25 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Inst (dBm), MPR (dB). Contains multiple channel frequency lists for various modulation types and power levels.



Band 26 FCC Ant 1

Channel	Modulation	RB Size	RB Offset	Power Low Ch. F/Freq. noise	Power Midle Ch. F/Freq. noise	Power High Ch. F/Freq. noise	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	0	23.00	23.04	23.08	24	0
15	QPSK	1	37	23.04	23.04	23.11		
15	QPSK	1	74	22.87	22.93	23.09		
15	QPSK	36	0	22.88	23.05	23.04	24	0
15	QPSK	36	20	22.87	23.03	23.02		
15	QPSK	36	38	22.85	23.00	23.00		
15	QPSK	75	0	23.02	23.03	23.09	23.5	0.5
15	16QAM	1	0	22.98	23.06	23.03		
15	16QAM	1	37	22.97	23.08	23.04		
15	16QAM	14	0	23.02	23.09	23.03	24	0
15	16QAM	36	0	22.40	22.39	22.49		
15	16QAM	36	20	22.83	22.83	22.83		
15	16QAM	36	38	22.80	22.48	22.80	23.5	0.5
15	16QAM	75	0	22.55	22.80	22.56		
15	64QAM	1	0	22.44	22.85	22.50		
15	64QAM	1	37	22.47	22.71	22.71	23.5	0.5
15	64QAM	1	74	22.26	22.65	22.65		
15	64QAM	36	0	21.48	21.41	21.53		
15	64QAM	36	20	21.51	21.50	21.56	22.5	1.5
15	64QAM	36	38	21.33	21.34	21.86		
15	64QAM	75	0	21.47	21.45	21.68		
15	256QAM	1	0	19.65	19.67	19.65	20.5	3.5
15	256QAM	1	37	19.67	19.66	19.63		
15	256QAM	1	74	19.71	19.83	19.71		
15	256QAM	36	0	19.60	19.81	19.65	20.5	3.5
15	256QAM	36	20	19.58	19.63	19.62		
15	256QAM	36	38	19.61	19.72	19.64		
15	256QAM	75	0	19.62	19.62	19.58		
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.00	23.06	23.03	24	0
10	QPSK	1	37	22.92	23.04	23.00		
10	QPSK	1	74	22.83	22.84	22.97		
10	QPSK	25	0	22.80	22.84	22.80	24	0
10	QPSK	25	12	22.75	22.95	22.75		
10	QPSK	25	25	22.84	22.96	22.91		
10	QPSK	50	0	22.81	22.95	22.85	24	0
10	16QAM	1	0	22.94	22.99	22.96		
10	16QAM	1	25	22.86	22.98	22.92		
10	16QAM	1	49	22.90	23.01	22.91	23.5	0.5
10	16QAM	25	0	22.37	22.34	22.43		
10	16QAM	25	12	22.41	22.49	22.59		
10	16QAM	25	25	22.53	22.45	22.56	23.5	0.5
10	16QAM	50	0	22.47	22.44	22.48		
10	64QAM	1	0	22.38	22.48	22.48		
10	64QAM	1	25	22.40	22.67	22.65	23.5	0.5
10	64QAM	1	49	22.19	22.54	22.51		
10	64QAM	25	0	21.40	21.36	21.48		
10	64QAM	25	12	21.39	21.38	21.47	22.5	1.5
10	64QAM	25	25	21.46	21.49	21.69		
10	64QAM	50	0	21.41	21.38	21.63		
10	256QAM	1	0	19.69	19.57	19.63	20.5	3.5
10	256QAM	1	25	19.45	19.58	19.53		
10	256QAM	1	49	19.63	19.77	19.62		
10	256QAM	25	0	19.43	19.50	19.51	20.5	3.5
10	256QAM	25	12	19.50	19.51	19.42		
10	256QAM	25	25	19.54	19.64	19.53		
10	256QAM	50	0	19.47	19.52	19.51		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.03	23.04	23.08	24	0
5	QPSK	1	12	22.97	23.01	23.05		
5	QPSK	1	24	22.79	22.81	23.08		
5	QPSK	12	0	22.96	23.03	22.96	24	0
5	QPSK	12	7	22.89	23.00	22.84		
5	QPSK	12	13	22.83	22.96	22.86		
5	QPSK	25	0	22.97	23.01	22.96	24	0
5	16QAM	1	0	22.84	23.02	22.92		
5	16QAM	1	12	22.85	22.97	22.97		
5	16QAM	1	24	22.81	22.97	23.01	23.5	0.5
5	16QAM	12	0	22.33	22.34	22.39		
5	16QAM	12	7	22.45	22.43	22.55		
5	16QAM	12	13	22.50	22.46	22.57	23.5	0.5
5	16QAM	25	0	22.49	22.45	22.44		
5	64QAM	1	0	22.25	22.47	22.43		
5	64QAM	1	12	22.43	22.63	22.67	23.5	0.5
5	64QAM	1	24	22.23	22.53	22.51		
5	64QAM	12	0	21.49	21.29	21.41		
5	64QAM	12	7	21.48	21.47	21.49	22.5	1.5
5	64QAM	12	13	21.50	21.45	21.61		
5	64QAM	25	0	21.46	21.41	21.58		
5	256QAM	1	0	19.52	19.51	19.52	20.5	3.5
5	256QAM	1	12	19.50	19.46	19.52		
5	256QAM	1	24	19.65	19.70	19.67		
5	256QAM	12	0	19.41	19.59	19.47	20.5	3.5
5	256QAM	12	7	19.47	19.55	19.43		
5	256QAM	12	13	19.64	19.70	19.64		
5	256QAM	25	0	19.41	19.56	19.53		
Channel								
Frequency (MHz)								
3	QPSK	1	0	22.98	23.05	23.13	24	0
3	QPSK	1	8	22.94	23.01	23.06		
3	QPSK	1	14	22.83	22.83	22.89		
3	QPSK	8	0	22.86	22.86	22.85	24	0
3	QPSK	8	4	22.81	22.96	22.89		
3	QPSK	8	7	22.93	22.90	22.98		
3	QPSK	15	0	22.97	22.94	22.98	24	0
3	16QAM	1	0	22.95	23.04	22.98		
3	16QAM	1	8	22.86	23.05	22.97		
3	16QAM	1	14	22.93	22.97	22.95	23.5	0.5
3	16QAM	8	0	22.48	22.45	22.50		
3	16QAM	8	4	22.44	22.44	22.52		
3	16QAM	8	7	22.51	22.49	22.52	23.5	0.5
3	64QAM	1	0	22.33	22.48	22.44		
3	64QAM	1	8	22.38	22.59	22.61		
3	64QAM	1	14	22.22	22.60	22.58	22.5	1.5
3	64QAM	8	0	21.38	21.39	21.42		
3	64QAM	8	4	21.43	21.38	21.51		
3	64QAM	8	7	21.44	21.44	21.56	20.5	3.5
3	64QAM	15	0	21.35	21.41	21.60		
3	256QAM	1	0	19.63	19.57	19.63		
3	256QAM	1	8	19.48	19.57	19.58	20.5	3.5
3	256QAM	1	14	19.60	19.78	19.66		
3	256QAM	8	0	19.42	19.52	19.47		
3	256QAM	8	4	19.50	19.56	19.48	20.5	3.5
3	256QAM	8	7	19.65	19.65	19.59		
3	256QAM	15	0	19.42	19.55	19.52		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	23.02	23.08	23.04	24	0
1.4	QPSK	1	3	22.99	22.95	23.05		
1.4	QPSK	1	5	22.73	22.82	23.04		
1.4	QPSK	3	0	22.86	22.88	23.00	24	0
1.4	QPSK	3	1	22.95	23.01	22.98		
1.4	QPSK	3	3	22.92	22.93	22.88		
1.4	QPSK	6	0	22.91	22.99	22.89	24	0
1.4	16QAM	1	0	22.94	23.03	22.93		
1.4	16QAM	1	3	22.88	23.05	22.94		
1.4	16QAM	1	5	23.00	23.03	23.00	24	0
1.4	16QAM	3	0	22.38	22.32	22.44		
1.4	16QAM	3	1	22.50	22.43	22.53		
1.4	16QAM	3	3	22.58	22.46	22.49	23.5	0.5
1.4	64QAM	1	0	22.39	22.52	22.48		
1.4	64QAM	1	3	22.44	22.62	22.65		
1.4	64QAM	1	5	22.20	22.58	22.62	23.5	0.5
1.4	64QAM	3	0	22.36	22.54	22.46		
1.4	64QAM	3	1	22.47	22.63	22.63		
1.4	256QAM	1	0	19.63	19.56	19.57	22.5	1.5
1.4	256QAM	1	3	19.45	19.64	19.61		
1.4	256QAM	1	5	19.68	19.79	19.65		
1.4	256QAM	3	0	19.44	19.51	19.53	20.5	3.5
1.4	256QAM	3	1	19.58	19.57	19.40		
1.4	256QAM	3	3	19.52	19.62	19.56		
1.4	256QAM	6	0	19.44	19.50	19.49	20.5	3.5



Band 30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	23.07			24	0
10	QPSK	1	26	23.08				
10	QPSK	1	49	22.85				
10	QPSK	25	0	22.85			24	0
10	QPSK	25	12	22.81				
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.80			24	0
10	QPSK	50	0	22.80				
10	QPSK	50	0	22.80				
10	16QAM	1	0	23.01			24	0
10	16QAM	1	26	23.02				
10	16QAM	1	49	23.05				
10	16QAM	25	0	22.53			23.5	0.5
10	16QAM	25	12	22.46				
10	16QAM	25	25	22.38				
10	16QAM	50	0	22.50			23.5	0.5
10	16QAM	50	0	22.50				
10	16QAM	50	0	22.51				
10	64QAM	1	26	22.46			23.5	0.5
10	64QAM	1	49	22.55				
10	64QAM	1	26	21.62				
10	64QAM	25	12	21.57			22.5	1.5
10	64QAM	25	25	21.55				
10	64QAM	50	0	21.63				
10	256QAM	1	0	19.53			20.5	3.5
10	256QAM	1	26	19.53				
10	256QAM	1	49	19.32				
10	256QAM	25	0	19.35			20.5	3.5
10	256QAM	25	12	19.42				
10	256QAM	25	25	19.26				
10	256QAM	50	0	19.31				
Channel								
Frequency (MHz)				2760, 2907.5, 2310, 2312.5				
5	QPSK	1	0	23.03	22.99	22.98	24	0
5	QPSK	1	12	23.00	22.99	22.98		
5	QPSK	1	24	22.81	22.76	22.83		
5	QPSK	12	0	22.85	22.89	22.89	24	0
5	QPSK	12	0	22.87	22.89	22.75		
5	QPSK	12	13	22.83	22.81	22.85		
5	QPSK	26	0	22.94	22.78	22.98	24	0
5	16QAM	1	0	22.93	22.95	22.94		
5	16QAM	1	12	22.92	22.98	22.90		
5	16QAM	1	24	22.99	22.95	22.97	23.5	0.5
5	16QAM	12	0	22.50	22.42	22.44		
5	16QAM	12	7	22.38	22.41	22.34		
5	16QAM	12	13	22.35	22.32	22.29	23.5	0.5
5	16QAM	25	0	22.42	22.40	22.42		
5	16QAM	25	0	22.44	22.40	22.44		
5	64QAM	1	0	22.37	22.41	22.38	23.5	0.5
5	64QAM	1	24	22.44	22.53	22.53		
5	64QAM	12	0	21.53	21.60	21.54		
5	64QAM	12	7	21.50	21.45	21.45	22.5	1.5
5	64QAM	12	13	21.44	21.44	21.52		
5	64QAM	25	0	21.61	21.59	21.61		
5	256QAM	1	0	19.44	19.48	19.48	20.5	3.5
5	256QAM	1	12	19.48	19.50	19.46		
5	256QAM	1	24	19.29	19.29	19.26		
5	256QAM	12	0	19.32	19.31	19.26	20.5	3.5
5	256QAM	12	7	19.20	19.40	19.20		
5	256QAM	12	13	19.24	19.22	19.18		
5	256QAM	25	0	19.23	19.26	19.27		

Band 30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	22.98			24	0
10	QPSK	1	26	22.90				
10	QPSK	1	49	22.78				
10	QPSK	25	0	22.83			24	0
10	QPSK	25	12	22.81				
10	QPSK	25	25	22.80				
10	QPSK	50	0	22.80			24	0
10	QPSK	50	0	22.80				
10	QPSK	50	0	22.80				
10	16QAM	1	0	22.92			24	0
10	16QAM	1	26	22.91				
10	16QAM	1	49	22.75				
10	16QAM	25	0	22.05			23	1
10	16QAM	25	12	22.08				
10	16QAM	25	25	21.80				
10	16QAM	50	0	21.98			23	1
10	16QAM	50	0	21.98				
10	16QAM	50	0	21.98				
10	64QAM	1	26	22.10			22	2
10	64QAM	1	49	21.90				
10	64QAM	1	26	21.32				
10	64QAM	25	12	21.52			22	2
10	64QAM	25	25	21.54				
10	64QAM	50	0	21.95				
10	256QAM	1	0	19.18			20	4
10	256QAM	1	26	19.18				
10	256QAM	1	49	18.84				
10	256QAM	25	0	19.15			20	4
10	256QAM	25	12	19.11				
10	256QAM	25	25	18.96				
10	256QAM	50	0	19.05				
Channel								
Frequency (MHz)				2760, 2907.5, 2310, 2312.5				
5	QPSK	1	0	22.89	22.83	22.83	24	0
5	QPSK	1	12	22.79	22.83	22.86		
5	QPSK	1	24	22.69	22.75	22.72		
5	QPSK	12	0	22.83	22.81	22.91	24	0
5	QPSK	12	0	22.81	22.80	22.85		
5	QPSK	12	13	22.78	22.88	22.78		
5	QPSK	26	0	22.94	22.81	22.95	24	0
5	16QAM	1	0	22.85	22.81	22.80		
5	16QAM	1	12	22.88	22.89	22.86		
5	16QAM	1	24	22.70	22.85	22.73	23	1
5	16QAM	12	0	21.98	22.92	21.99		
5	16QAM	12	7	22.05	21.99	22.01		
5	16QAM	12	13	21.79	21.81	21.81	23	1
5	16QAM	25	0	21.88	21.89	21.84		
5	16QAM	25	0	21.81	21.86	21.82		
5	64QAM	1	12	21.98	22.06	21.98	23	1
5	64QAM	1	24	21.88	21.81	21.85		
5	64QAM	12	0	21.58	21.21	21.53		
5	64QAM	12	7	21.28	21.23	21.28	22	2
5	64QAM	12	13	21.14	21.22	21.13		
5	64QAM	25	0	21.13	21.23	21.21		
5	256QAM	1	0	19.07	19.10	19.16	20	4
5	256QAM	1	12	19.12	19.14	19.07		
5	256QAM	1	24	19.79	19.77	19.72		
5	256QAM	12	0	19.05	19.07	19.05	20	4
5	256QAM	12	7	19.08	19.09	19.07		
5	256QAM	12	13	19.01	19.00	19.03		
5	256QAM	25	0	18.95	18.84	18.88		



Band 30 Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	24.06	24.01	24.00	24.5	0
10	QPSK	1	26	23.99	23.99	24.05		
10	QPSK	1	49	23.79	23.75	23.78		
10	QPSK	25	0	23.02	23.03	23.09	23.5	1
10	QPSK	25	12	23.01	23.04	23.00		
10	QPSK	25	25	22.84	22.97	22.90		
10	QPSK	50	0	22.94	22.96	23.03	22.5	2
10	16QAM	1	0	23.43	23.39	23.39		
10	16QAM	1	12	23.37	23.42	23.39		
10	16QAM	1	26	23.18	23.16	23.08	21.5	3
10	16QAM	25	12	22.11	22.03	22.11		
10	16QAM	25	0	22.02	22.01	22.00		
10	16QAM	50	0	21.93	22.02	22.00	19.5	5
10	16QAM	25	0	22.03	22.00	21.99		
10	16QAM	50	0	22.29	22.27	22.34		
10	64QAM	1	0	22.38	22.27	22.38	22.5	2
10	64QAM	1	24	22.11	22.08	22.14		
10	64QAM	12	0	21.08	20.98	21.02		
10	64QAM	12	7	20.95	21.07	20.95	21.5	3
10	64QAM	12	13	20.88	20.95	20.96		
10	64QAM	25	0	20.95	21.01	20.94		
10	256QAM	1	0	18.78	18.84	18.84	19.5	5
10	256QAM	1	12	18.72	18.78	18.78		
10	256QAM	1	24	18.67	18.63	18.64		
10	256QAM	12	0	18.78	18.77	18.73	19.5	5
10	256QAM	12	7	18.78	18.71	18.78		
10	256QAM	12	13	18.58	18.55	18.60		
10	256QAM	25	0	18.65	18.66	18.72		
Channel								
Frequency (MHz)				2760.5	2771.0	2773.5		
5	QPSK	1	0	24.06	24.01	24.00	24.5	0
5	QPSK	1	12	23.99	23.99	24.05		
5	QPSK	1	24	23.79	23.75	23.78		
5	QPSK	12	0	23.02	23.03	23.09	23.5	1
5	QPSK	12	12	23.01	23.04	23.00		
5	QPSK	12	13	22.84	22.97	22.90		
5	QPSK	25	0	22.94	22.96	23.03	22.5	1
5	16QAM	1	0	23.43	23.39	23.39		
5	16QAM	1	12	23.37	23.42	23.39		
5	16QAM	1	24	23.18	23.16	23.08	21.5	3
5	16QAM	12	0	22.11	22.03	22.11		
5	16QAM	12	7	22.02	22.01	22.00		
5	16QAM	12	13	21.93	22.02	22.00	19.5	5
5	16QAM	25	0	22.03	22.00	21.99		
5	16QAM	50	0	22.29	22.27	22.34		
5	64QAM	1	0	22.38	22.27	22.38	22.5	2
5	64QAM	1	24	22.11	22.08	22.14		
5	64QAM	12	0	21.08	20.98	21.02		
5	64QAM	12	7	20.95	21.07	20.95	21.5	3
5	64QAM	12	13	20.88	20.95	20.96		
5	64QAM	25	0	20.95	21.01	20.94		
5	256QAM	1	0	18.78	18.84	18.84	19.5	5
5	256QAM	1	12	18.72	18.78	18.78		
5	256QAM	1	24	18.67	18.63	18.64		
5	256QAM	12	0	18.78	18.77	18.73	19.5	5
5	256QAM	12	7	18.78	18.71	18.78		
5	256QAM	12	13	18.58	18.55	18.60		
5	256QAM	25	0	18.65	18.66	18.72		

Band 30 Ant 9

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	23.29			24	0
10	QPSK	1	26	23.29				
10	QPSK	1	49	22.97				
10	QPSK	25	0	22.03			23	1
10	QPSK	25	12	22.24				
10	QPSK	25	25	22.16				
10	QPSK	50	0	22.22			23	1
10	16QAM	1	0	22.62				
10	16QAM	1	26	22.68				
10	16QAM	1	49	22.45			22	2
10	16QAM	25	0	21.29				
10	16QAM	25	12	21.25				
10	16QAM	25	25	21.15			22	2
10	16QAM	50	0	21.22				
10	16QAM	50	0	21.46				
10	64QAM	1	26	21.63			22	2
10	64QAM	1	49	21.33				
10	64QAM	25	0	20.30				
10	64QAM	25	12	20.27			21	3
10	64QAM	25	25	20.18				
10	64QAM	50	0	20.95				
10	256QAM	1	0	18.87			19	5
10	256QAM	1	26	18.14				
10	256QAM	1	49	17.76				
10	256QAM	25	0	17.83			19	5
10	256QAM	25	12	17.81				
10	256QAM	25	25	17.78				
10	256QAM	50	0	17.88				
Channel								
Frequency (MHz)				2760.5	2771.0	2773.5		
5	QPSK	1	0	23.27	23.24	23.27	24	0
5	QPSK	1	12	23.22	23.21	23.24		
5	QPSK	1	24	22.88	22.95	22.93		
5	QPSK	12	0	22.24	22.18	22.26	23	1
5	QPSK	12	12	22.20	22.16	22.10		
5	QPSK	12	13	22.05	22.14	22.08		
5	QPSK	25	0	22.16	22.16	22.18	23	1
5	16QAM	1	0	22.56	22.55	22.56		
5	16QAM	1	12	22.61	22.62	22.64		
5	16QAM	1	24	22.34	22.37	22.37	22	2
5	16QAM	12	0	21.24	21.22	21.20		
5	16QAM	12	7	21.22	21.13	21.21		
5	16QAM	12	13	21.10	21.14	21.10	22	2
5	16QAM	25	0	21.11	21.20	21.19		
5	16QAM	50	0	21.43	21.42	21.44		
5	64QAM	1	0	21.43	21.42	21.44	22	2
5	64QAM	1	12	21.44	21.48	21.42		
5	64QAM	1	24	21.21	21.30	21.30		
5	64QAM	12	0	20.32	20.39	20.32	21	3
5	64QAM	12	7	20.23	20.24	20.17		
5	64QAM	12	13	20.12	20.12	20.14		
5	64QAM	25	0	20.16	20.22	20.20	19	5
5	256QAM	1	0	18.03	18.02	18.05		
5	256QAM	1	12	18.08	18.09	18.09		
5	256QAM	1	24	17.72	17.72	17.70	19	5
5	256QAM	12	0	17.91	17.84	17.88		
5	256QAM	12	7	17.93	17.85	17.97		
5	256QAM	12	13	17.73	17.74	17.75	19	5
5	256QAM	25	0	17.84	17.78	17.85		



Band 38 Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)	Channel		
									Frequency (MHz)	37600	38000
20	QPSK	1	0	22.87	22.84	22.81	24	0	20	20	20
20	QPSK	1	49	22.88	22.77	22.71					
20	QPSK	1	98	22.87	22.77	22.60	24	0	20	20	20
20	QPSK	50	0	22.71	22.76	22.66					
20	QPSK	50	24	22.59	22.65	22.65	24	0	20	20	20
20	QPSK	50	50	22.86	22.72	22.71					
20	QPSK	100	0	22.63	22.70	22.67	24	0	20	20	20
20	16QAM	1	0	22.50	22.43	22.48					
20	16QAM	1	49	22.63	22.52	22.73	24	0	20	20	20
20	16QAM	50	0	22.43	22.44	22.80					
20	16QAM	50	24	22.42	22.52	22.34	24	0	20	20	20
20	16QAM	50	50	22.42	22.47	22.41					
20	16QAM	100	0	22.43	22.45	22.45	24	0	20	20	20
20	64QAM	1	0	22.21	22.73	22.53					
20	64QAM	1	49	22.17	22.10	22.37	23	1	20	20	20
20	64QAM	50	0	21.35	21.34	21.33					
20	64QAM	50	24	21.37	21.44	21.34	23	1	20	20	20
20	64QAM	50	50	21.45	21.45	21.46					
20	256QAM	1	0	21.45	21.37	21.34	20	4	20	20	20
20	256QAM	50	0	18.92	18.95	18.93					
20	256QAM	1	49	19.02	19.06	19.03	20	4	20	20	20
20	256QAM	50	0	19.02	19.05	19.09					
20	256QAM	1	49	19.01	19.13	19.08	20	4	20	20	20
20	256QAM	50	24	19.18	19.22	19.13					
20	256QAM	100	0	19.09	19.08	19.08	20	4	20	20	20
20	256QAM	100	50	19.19	19.22	19.17					

Band 38 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)	Channel		
									Frequency (MHz)	37600	38000
20	QPSK	1	0	22.99	23.44	23.14	24	0	20	20	20
20	QPSK	1	49	23.06	23.38	23.06					
20	QPSK	1	98	23.01	23.34	23.09	24	0	20	20	20
20	QPSK	50	0	23.03	23.22	23.09					
20	QPSK	50	24	23.18	23.13	23.17	24	0	20	20	20
20	QPSK	50	50	23.16	23.12	23.16					
20	QPSK	100	0	23.18	23.24	23.21	24	0	20	20	20
20	16QAM	1	0	22.98	23.19	23.20					
20	16QAM	1	49	23.16	23.31	23.16	23.5	0.5	20	20	20
20	16QAM	50	0	22.77	22.83	22.68					
20	16QAM	50	24	22.89	22.84	22.92	23.5	0.5	20	20	20
20	16QAM	50	50	22.90	22.95	22.94					
20	16QAM	100	0	22.87	22.85	22.90	23.5	0.5	20	20	20
20	64QAM	1	0	22.68	22.74	22.54					
20	64QAM	1	49	22.07	22.91	22.37	22.5	1.5	20	20	20
20	64QAM	50	0	21.72	21.85	21.82					
20	64QAM	50	24	21.75	21.86	21.84	22.5	1.5	20	20	20
20	64QAM	50	50	21.98	22.02	21.92					
20	256QAM	1	0	21.62	21.64	21.68	20.5	3.5	20	20	20
20	256QAM	50	0	19.09	19.04	19.06					
20	256QAM	1	49	19.62	19.77	19.68	20.5	3.5	20	20	20
20	256QAM	50	0	19.64	19.68	19.65					
20	256QAM	1	49	19.55	19.78	19.58	20.5	3.5	20	20	20
20	256QAM	50	24	19.74	19.77	19.77					
20	256QAM	100	0	19.75	19.78	19.73	20.5	3.5	20	20	20
20	256QAM	100	50	19.70	19.78	19.73					



Band 41 Ant 6

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel Frequency (MHz) and lists data for various modulation schemes (QPSK, BPSK, etc.) across different RB sizes (1, 2, 5, 10, 12, 13, 15, 20, 24, 25, 30, 36, 40, 45, 50, 60, 75).

Band 41 HPUE Ant 6

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel Frequency (MHz) and lists data for various modulation schemes (QPSK, BPSK, etc.) across different RB sizes (1, 2, 5, 10, 12, 13, 15, 20, 24, 25, 30, 36, 40, 45, 50, 60, 75).



Reduced Power Mode for DSI6

GSM850 Ant 0				
TX Channel	Burst Average Power (dBm)			Tune-up Limit
Frequency (MHz)	824.2	836.4	848.8	(dBm)
GSM 1 Tx slot	32.42	32.10	32.28	33.50
GPRS 1 Tx slot	32.41	32.08	32.25	33.50
GPRS 2 Tx slots	23.47	23.56	23.00	23.93
GPRS 3 Tx slots	28.61	28.51	28.59	29.50
GPRS 4 Tx slots	26.75	26.72	27.05	28.00
EDGE 1 Tx slot	26.15	25.70	26.09	27.50
EDGE 2 Tx slots	25.02	24.54	25.02	26.50
EDGE 3 Tx slots	23.71	23.22	23.46	24.50
EDGE 4 Tx slots	21.71	21.45	21.36	22.50

GSM1900 Ant 0				
TX Channel	Burst Average Power (dBm)			Tune-up Limit
Frequency (MHz)	1850.2	1880	1909.8	(dBm)
GSM 1 Tx slot	28.68	28.75	30.00	31.50
GPRS 1 Tx slot	28.66	28.74	29.99	31.50
GPRS 2 Tx slots	28.76	28.83	28.75	28.50
GPRS 3 Tx slots	25.11	25.32	25.31	27.00
GPRS 4 Tx slots	23.71	24.03	23.84	25.50
EDGE 1 Tx slot	24.76	25.07	25.05	26.50
EDGE 2 Tx slots	23.42	23.35	23.35	24.50
EDGE 3 Tx slots	22.26	22.65	22.45	24.00
EDGE 4 Tx slots	20.54	20.89	20.78	22.50

Band	WCDMA II Ant 0			WCDMA IV Ant 0			WCDMA V Ant 0			
	TX Channel	9262	9400	9538	1312	1413	1513	4132	4182	4233
Frequency (MHz)	9662	9800	9938	1537	1638	1738	4357	4407	4458	
3GPP Rel 99	AMR 12.2Kbps	1852.4	1850	1007.6	1712.4	1732.6	1752.6	323.4	336.4	343.6
3GPP Rel 99	RMC 12.2Kbps	21.59	21.92	21.72	22.30	21.10	21.61	21.49	22.30	23.05
3GPP Rel 6	HSDPA Subtest-1	20.63	21.00	20.75	21.30	20.14	20.72	20.49	21.30	22.10
3GPP Rel 6	HSDPA Subtest-2	20.70	21.03	20.75	21.30	20.06	20.74	20.53	21.30	22.10
3GPP Rel 6	HSDPA Subtest-3	20.22	20.59	20.26	20.80	19.65	20.25	19.98	20.80	21.62
3GPP Rel 6	HSDPA Subtest-4	20.18	20.59	20.30	20.80	19.63	20.09	19.98	20.80	21.66
3GPP Rel 6	DC-HSDPA Subtest-1	20.37	20.80	20.49	21.30	19.95	20.40	20.24	21.30	21.85
3GPP Rel 6	DC-HSDPA Subtest-2	20.43	20.77	20.40	21.30	19.89	20.50	20.29	21.30	21.81
3GPP Rel 6	DC-HSDPA Subtest-3	18.35	20.21	19.99	20.80	18.49	19.99	19.69	20.80	21.42
3GPP Rel 6	DC-HSDPA Subtest-4	19.92	20.26	19.95	20.80	18.45	19.90	19.78	20.80	21.40
3GPP Rel 6	HSUPA Subtest-1	20.71	21.02	20.80	21.30	20.55	20.62	20.44	21.30	22.15
3GPP Rel 6	HSUPA Subtest-2	18.70	18.10	18.81	19.30	18.58	18.62	18.54	19.30	20.15
3GPP Rel 6	HSUPA Subtest-3	18.66	20.01	19.80	20.30	18.65	18.68	18.54	20.30	21.03
3GPP Rel 6	HSUPA Subtest-4	18.79	19.06	18.81	19.30	18.55	18.67	18.46	19.30	20.10
3GPP Rel 6	HSUPA Subtest-5	20.69	21.10	20.85	21.30	20.62	20.74	20.48	21.30	22.10

Band	WCDMA II Ant 1			WCDMA IV Ant 1			WCDMA V Ant 1			
	TX Channel	9262	9400	9538	1312	1413	1513	4132	4182	4233
Frequency (MHz)	9662	9800	9938	1537	1638	1738	4357	4407	4458	
3GPP Rel 99	AMR 12.2Kbps	1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6
3GPP Rel 99	RMC 12.2Kbps	19.39	19.62	19.23	20.50	18.09	18.54	18.28	19.50	23.13
3GPP Rel 6	HSDPA Subtest-1	18.47	18.66	18.19	19.50	17.39	17.65	17.21	18.50	22.22
3GPP Rel 6	HSDPA Subtest-2	18.38	18.67	18.21	19.50	17.37	17.65	17.25	18.50	22.24
3GPP Rel 6	HSDPA Subtest-3	18.18	18.23	18.26	19.00	16.88	17.04	16.78	18.00	21.41
3GPP Rel 6	HSDPA Subtest-4	18.17	18.16	18.22	19.00	16.82	17.00	16.72	18.00	21.72
3GPP Rel 6	DC-HSDPA Subtest-1	18.13	18.41	17.95	19.50	17.15	17.37	16.88	18.50	22.02
3GPP Rel 6	DC-HSDPA Subtest-2	18.23	18.42	17.97	19.50	17.11	17.36	16.93	18.50	21.97
3GPP Rel 6	DC-HSDPA Subtest-3	17.95	18.04	17.99	19.00	16.71	16.79	16.48	18.00	21.40
3GPP Rel 6	DC-HSDPA Subtest-4	17.91	17.98	17.92	19.00	16.68	16.67	16.35	18.00	21.44
3GPP Rel 6	HSUPA Subtest-1	18.43	18.67	18.17	19.50	17.40	17.64	17.20	18.50	22.22
3GPP Rel 6	HSUPA Subtest-2	16.48	16.64	16.28	17.50	15.39	15.59	15.14	16.50	20.25
3GPP Rel 6	HSUPA Subtest-3	17.42	17.65	17.30	18.50	16.39	16.63	16.26	17.50	21.29
3GPP Rel 6	HSUPA Subtest-4	16.48	16.64	16.22	17.50	15.41	15.59	15.24	16.50	20.22
3GPP Rel 6	HSUPA Subtest-5	18.40	18.73	18.35	19.50	16.76	17.65	17.15	18.50	22.20



Band 2 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Inst (dBm), MPR (dB). Rows include QPSK, 16QAM, 64QAM, 256QAM, and 1024QAM across various frequencies and power levels.

Band 2 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Inst (dBm), MPR (dB). Rows include QPSK, 16QAM, 64QAM, 256QAM, and 1024QAM across various frequencies and power levels.



Band 13 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.81	22.77	22.78	24	0
10	QPSK	1	26	22.77	22.85	22.78		
10	QPSK	1	49	22.85	22.78	22.77		
10	QPSK	25	0	22.78	22.85	22.77	24	0
10	QPSK	25	12	22.72	22.85	22.78		
10	QPSK	25	25	22.85	22.72	22.78		
10	QPSK	50	0	22.79	22.79	22.79	24	0
10	16QAM	1	0	22.76	22.76	22.76		
10	16QAM	1	26	22.74	22.74	22.74		
10	16QAM	1	49	22.78	22.78	22.78	23	1
10	16QAM	25	0	21.85	21.85	21.85		
10	16QAM	25	12	21.92	21.92	21.92		
10	16QAM	25	25	21.76	21.76	21.76	23	1
10	16QAM	50	0	21.78	21.78	21.78		
10	16QAM	50	0	22.28	22.28	22.28		
10	64QAM	1	26	22.09	22.09	22.09	23	1
10	64QAM	1	49	22.11	22.11	22.11		
10	64QAM	25	0	20.84	20.84	20.84		
10	64QAM	25	12	20.88	20.88	20.88	22	2
10	64QAM	25	25	20.90	20.90	20.90		
10	64QAM	50	0	20.73	20.73	20.73		
10	256QAM	1	0	18.88	18.88	18.88	20	4
10	256QAM	1	26	18.92	18.92	18.92		
10	256QAM	1	49	18.75	18.75	18.75		
10	256QAM	25	0	18.89	18.89	18.89	20	4
10	256QAM	25	12	18.87	18.87	18.87		
10	256QAM	25	25	18.75	18.75	18.75		
10	256QAM	50	0	18.95	18.95	18.95		
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.73	22.77	22.76	24	0
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	12	0	22.09	22.14	22.12	24	0
5	QPSK	12	0	22.09	22.09	22.04		
5	QPSK	12	13	22.58	22.58	22.60		
5	QPSK	26	0	22.05	22.02	22.08	24	0
5	16QAM	1	0	22.72	22.85	22.73		
5	16QAM	1	12	22.63	22.67	22.65		
5	16QAM	1	24	22.66	22.76	22.74	23	1
5	16QAM	12	0	21.83	21.80	21.81		
5	16QAM	12	7	21.88	21.88	21.81		
5	16QAM	12	13	21.69	21.69	21.67	23	1
5	16QAM	25	0	21.75	21.70	21.69		
5	16QAM	25	0	22.22	22.21	22.19		
5	64QAM	1	0	22.04	22.07	22.04	23	1
5	64QAM	1	24	22.04	22.08	22.07		
5	64QAM	12	0	20.77	20.74	20.79		
5	64QAM	12	7	20.83	20.79	20.82	22	2
5	64QAM	12	13	20.79	20.84	20.84		
5	64QAM	25	0	20.62	20.65	20.65		
5	256QAM	1	0	18.85	18.83	18.76	20	4
5	256QAM	1	12	18.90	18.97	18.93		
5	256QAM	1	24	18.73	18.73	18.69		
5	256QAM	12	0	18.78	18.81	18.74	20	4
5	256QAM	12	7	18.77	18.80	18.80		
5	256QAM	12	13	18.69	18.69	18.63		
5	256QAM	25	0	18.84	18.83	18.87		

Band 13 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.80	22.77	22.79	24	0
10	QPSK	1	26	22.79	22.79	22.78		
10	QPSK	1	49	22.78	22.81	22.81		
10	QPSK	25	0	22.81	22.81	22.81	23.5	0.5
10	QPSK	25	12	22.24	22.24	22.24		
10	QPSK	25	25	22.37	22.37	22.37		
10	QPSK	50	0	22.35	22.35	22.35	23.5	0.5
10	16QAM	1	0	22.49	22.49	22.49		
10	16QAM	1	26	22.49	22.49	22.44		
10	16QAM	1	49	22.44	22.44	22.44	22.5	1.5
10	16QAM	25	0	21.33	21.33	21.33		
10	16QAM	25	12	21.42	21.42	21.42		
10	16QAM	25	25	21.30	21.30	21.30	22.5	1.5
10	16QAM	50	0	21.52	21.52	21.52		
10	64QAM	1	26	21.48	21.48	21.48		
10	64QAM	1	49	21.49	21.49	21.49	21.5	2.5
10	64QAM	25	0	20.26	20.26	20.26		
10	64QAM	25	12	20.42	20.42	20.42		
10	64QAM	25	25	20.48	20.48	20.48	19.5	4.5
10	64QAM	50	0	20.31	20.31	20.31		
10	256QAM	1	0	18.44	18.44	18.44		
10	256QAM	1	26	18.54	18.54	18.54	19.5	4.5
10	256QAM	1	49	18.54	18.54	18.54		
10	256QAM	25	0	18.41	18.41	18.41		
10	256QAM	25	12	18.44	18.44	18.44	19.5	4.5
10	256QAM	25	25	18.59	18.59	18.59		
10	256QAM	50	0	18.61	18.61	18.61		
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.79	22.71	22.70	24	0
5	QPSK	1	24	22.67	22.73	22.72		
5	QPSK	1	24	22.67	22.73	22.72		
5	QPSK	12	0	22.36	22.38	22.31	23.5	0.5
5	QPSK	12	0	22.22	22.21	22.21		
5	QPSK	12	13	22.31	22.33	22.34		
5	QPSK	26	0	22.28	22.30	22.27	23.5	0.5
5	16QAM	1	0	22.39	22.37	22.45		
5	16QAM	1	12	22.44	22.47	22.40		
5	16QAM	1	24	22.37	22.39	22.36	22.5	1.5
5	16QAM	12	0	21.24	21.21	21.17		
5	16QAM	12	7	21.31	21.31	21.25		
5	16QAM	12	13	21.33	21.37	21.30	22.5	1.5
5	16QAM	25	0	21.20	21.22	21.25		
5	16QAM	25	0	21.49	21.47	21.43		
5	64QAM	1	0	21.49	21.46	21.43	22.5	1.5
5	64QAM	1	12	21.45	21.36	21.43		
5	64QAM	1	24	21.44	21.43	21.46		
5	64QAM	12	0	20.31	20.34	20.16	21.5	2.5
5	64QAM	12	7	20.39	20.31	20.32		
5	64QAM	12	13	20.37	20.46	20.36		
5	64QAM	25	0	20.23	20.29	20.27	19.5	4.5
5	256QAM	1	0	18.36	18.42	18.36		
5	256QAM	1	12	18.61	18.53	18.62		
5	256QAM	1	24	18.52	18.52	18.46	19.5	4.5
5	256QAM	12	0	18.36	18.32	18.34		
5	256QAM	12	7	18.38	18.34	18.33		
5	256QAM	12	13	18.45	18.47	18.47	19.5	4.5
5	256QAM	25	0	18.45	18.42	18.46		



Band 14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.77			24	0
10	QPSK	1	26	22.75				
10	QPSK	1	49	22.52				
10	QPSK	25	0	22.75			24	0
10	QPSK	25	12	22.83				
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.73			24	0
10	16QAM	1	0	22.73				
10	16QAM	1	26	22.75				
10	16QAM	1	49	22.70			23.5	0.5
10	16QAM	25	0	22.31				
10	16QAM	25	12	22.36				
10	16QAM	25	25	22.23			23.5	0.5
10	16QAM	50	0	22.28				
10	16QAM	50	0	22.28				
10	64QAM	1	26	22.33			22.5	1.5
10	64QAM	1	49	22.41				
10	64QAM	25	0	21.30				
10	64QAM	25	12	21.35			20.5	3.5
10	64QAM	25	25	21.47				
10	64QAM	50	0	21.37				
10	256QAM	1	0	19.48			20.5	3.5
10	256QAM	1	26	19.54				
10	256QAM	1	49	19.45				
10	256QAM	25	0	19.42			20.5	3.5
10	256QAM	25	12	19.43				
10	256QAM	25	25	19.45				
10	256QAM	50	0	19.51				
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.70	22.68	22.67	24	0
5	QPSK	1	12	22.71	22.71	22.68		
5	QPSK	1	24	22.47	22.45	22.42		
5	QPSK	12	0	22.64	22.67	22.72	24	0
5	QPSK	12	6	22.51	22.59	22.51		
5	QPSK	12	13	22.61	22.65	22.65		
5	QPSK	25	0	22.64	22.67	22.66	24	0
5	16QAM	1	0	22.64	22.66	22.61		
5	16QAM	1	12	22.71	22.68	22.71		
5	16QAM	1	24	22.65	22.61	22.68	23.5	0.5
5	16QAM	12	0	22.21	22.19	22.19		
5	16QAM	12	7	22.25	22.31	22.25		
5	16QAM	12	13	22.23	22.14	22.14	23.5	0.5
5	16QAM	25	0	22.22	22.21	22.19		
5	16QAM	25	0	22.24	22.31	22.28		
5	64QAM	1	0	22.23	22.26	22.30	22.5	0.5
5	64QAM	1	12	22.38	22.37	22.35		
5	64QAM	12	0	21.24	21.25	21.18		
5	64QAM	12	7	21.31	21.23	21.33	22.5	1.5
5	64QAM	12	13	21.42	21.42	21.45		
5	64QAM	25	0	21.25	21.28	21.34		
5	256QAM	1	0	19.39	19.40	19.41	20.5	3.5
5	256QAM	1	12	19.43	19.52	19.47		
5	256QAM	1	24	19.42	19.43	19.34		
5	256QAM	12	0	19.30	19.37	19.36	20.5	3.5
5	256QAM	12	7	19.40	19.34	19.38		
5	256QAM	12	13	19.34	19.30	19.36		
5	256QAM	25	0	19.39	19.42	19.49		

Band 14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0				24	0
10	QPSK	1	26					
10	QPSK	1	49					
10	QPSK	25	0				24	0
10	QPSK	25	12					
10	QPSK	25	25					
10	QPSK	50	0				24	0
10	16QAM	1	0					
10	16QAM	1	26					
10	16QAM	1	49				24	0
10	16QAM	25	0					
10	16QAM	25	12					
10	16QAM	25	25				24	0
10	16QAM	50	0					
10	16QAM	50	0					
10	64QAM	1	26				24	0
10	64QAM	1	49					
10	64QAM	25	0					
10	64QAM	25	12				23	1
10	64QAM	25	25					
10	64QAM	50	0					
10	256QAM	1	0				21	3
10	256QAM	1	26					
10	256QAM	1	49					
10	256QAM	25	0				21	3
10	256QAM	25	12					
10	256QAM	25	25					
10	256QAM	50	0					
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.99	22.88	22.98	24	0
5	QPSK	1	12	22.99	22.89	22.93		
5	QPSK	1	24	22.85	22.95	22.87		
5	QPSK	12	0	22.91	22.89	22.94	24	0
5	QPSK	12	6	22.92	22.85	22.93		
5	QPSK	12	13	22.89	22.87	22.88		
5	QPSK	25	0	22.99	22.85	22.92	24	0
5	16QAM	1	0	22.85	22.83	22.85		
5	16QAM	1	12	22.88	22.92	22.90		
5	16QAM	1	24	22.93	22.85	22.92	24	0
5	16QAM	12	0	22.60	22.80	22.63		
5	16QAM	12	7	22.79	22.82	22.82		
5	16QAM	12	13	22.68	22.75	22.75	24	0
5	16QAM	25	0	22.48	22.54	22.55		
5	16QAM	25	0	22.50	22.50	22.63		
5	64QAM	1	0	22.64	22.60	22.60	24	0
5	64QAM	1	12	22.72	22.73	22.75		
5	64QAM	12	0	21.71	21.71	21.68		
5	64QAM	12	7	21.58	21.60	21.62	23	1
5	64QAM	12	13	21.76	21.72	21.75		
5	64QAM	25	0	21.68	21.68	21.67		
5	256QAM	1	0	19.74	19.72	19.73	21	3
5	256QAM	1	12	19.81	19.89	19.82		
5	256QAM	1	24	19.86	19.86	19.79		
5	256QAM	12	0	19.75	19.75	19.77	21	3
5	256QAM	12	7	19.72	19.73	19.81		
5	256QAM	12	13	19.69	19.77	19.75		
5	256QAM	25	0	19.73	19.80	19.72		



Band 17 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel				709	710	711		
10	QPSK	1	0	22.84	22.81	22.85	24	0
10	QPSK	1	26	22.78	22.80	22.82		
10	QPSK	1	49	22.82	22.88	22.80		
10	QPSK	25	0	22.81	22.88	22.85	24	0
10	QPSK	25	12	22.83	22.86	22.80		
10	QPSK	25	25	22.86	22.85	22.83		
10	QPSK	50	0	22.78	22.85	22.78	24	0
10	16QAM	1	0	22.82	22.88	22.82		
10	16QAM	1	26	22.76	22.85	22.79		
10	16QAM	1	49	22.78	22.82	22.82	23.5	0.5
10	16QAM	25	0	22.48	22.52	22.47		
10	16QAM	25	12	22.58	22.56	22.56		
10	16QAM	25	26	22.85	22.84	22.85	23.5	0.5
10	16QAM	50	0	22.49	22.50	22.53		
10	16QAM	50	0	22.34	22.43	22.38		
10	64QAM	1	26	22.36	22.41	22.41	23.5	0.5
10	64QAM	1	49	22.34	22.49	22.34		
10	64QAM	25	0	21.44	21.50	21.50		
10	64QAM	25	12	21.52	21.55	21.53	22.5	1.5
10	64QAM	25	26	21.54	21.58	21.67		
10	64QAM	50	0	21.58	21.68	21.58		
10	256QAM	1	0	19.58	19.68	19.62	20.5	3.5
10	256QAM	1	26	19.78	19.62	19.73		
10	256QAM	1	49	19.64	19.73	19.64		
10	256QAM	25	0	19.67	19.69	19.69	20.5	3.5
10	256QAM	25	12	19.55	19.65	19.63		
10	256QAM	25	26	19.65	19.68	19.58		
10	256QAM	50	0	19.65	19.71	19.59		
Channel				709.5	710	713.5	Tune-up Inst (dBm)	MPR (dB)
5	QPSK	1	0	22.77	22.81	22.74	24	0
5	QPSK	1	12	22.69	22.72	22.71		
5	QPSK	1	24	22.72	22.83	22.68		
5	QPSK	12	0	22.78	22.77	22.73	24	0
5	QPSK	12	12	22.81	22.83	22.79		
5	QPSK	12	13	22.81	22.81	22.73		
5	QPSK	26	0	22.65	22.80	22.68	24	0
5	16QAM	1	0	22.78	22.85	22.80		
5	16QAM	1	12	22.85	22.73	22.84		
5	16QAM	1	24	22.74	22.75	22.77	23.5	0.5
5	16QAM	12	0	22.38	22.50	22.44		
5	16QAM	12	7	22.49	22.49	22.48		
5	16QAM	12	13	22.52	22.42	22.61	23.5	0.5
5	16QAM	25	0	22.46	22.44	22.43		
5	16QAM	25	0	22.27	22.32	22.30		
5	64QAM	1	12	22.33	22.33	22.30	23.5	0.5
5	64QAM	1	24	22.25	22.38	22.30		
5	64QAM	12	0	21.34	21.44	21.46		
5	64QAM	12	7	21.45	21.47	21.45	22.5	1.5
5	64QAM	12	13	21.45	21.53	21.57		
5	64QAM	25	0	21.56	21.40	21.28		
5	256QAM	1	0	19.55	19.65	19.50	20.5	3.5
5	256QAM	1	12	19.69	19.76	19.62		
5	256QAM	1	24	19.57	19.66	19.55		
5	256QAM	12	0	19.63	19.59	19.51	20.5	3.5
5	256QAM	12	7	19.50	19.60	19.61		
5	256QAM	12	13	19.57	19.63	19.51		
5	256QAM	25	0	19.54	19.60	19.47		

Band 17 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel				709	710	711		
10	QPSK	1	0	23.02	23.03	23.02	24	0
10	QPSK	1	26	23.47	23.34	23.38		
10	QPSK	1	49	23.47	23.45	23.27		
10	QPSK	25	0	23.47	23.48	23.42	24	0
10	QPSK	25	12	23.46	23.43	23.36		
10	QPSK	25	25	23.41	23.41	23.41		
10	QPSK	50	0	23.30	23.41	23.33	24	0
10	16QAM	1	0	23.47	23.49	23.35		
10	16QAM	1	26	23.39	23.48	23.38		
10	16QAM	1	49	23.46	23.45	23.38	24	0
10	16QAM	25	0	23.04	23.08	23.14		
10	16QAM	25	12	23.18	23.18	23.14		
10	16QAM	25	26	23.18	23.23	23.17	23.5	0.5
10	16QAM	50	0	23.08	23.08	23.10		
10	16QAM	50	0	22.98	23.07	22.93		
10	64QAM	1	26	23.05	23.07	22.98	23.5	0.5
10	64QAM	1	49	23.07	23.04	22.95		
10	64QAM	25	0	22.00	22.00	22.00		
10	64QAM	25	12	22.14	22.11	22.16	22.5	1.5
10	64QAM	25	26	22.16	22.12	22.09		
10	64QAM	50	0	22.05	22.06	22.16		
10	256QAM	1	0	20.20	20.22	20.20	20.5	3.5
10	256QAM	1	26	20.22	20.31	20.21		
10	256QAM	1	49	20.20	20.28	20.19		
10	256QAM	25	0	20.14	20.25	20.21	20.5	3.5
10	256QAM	25	12	20.17	20.34	20.18		
10	256QAM	25	26	20.19	20.26	20.16		
10	256QAM	50	0	20.13	20.22	20.17		
Channel				709.5	710	713.5	Tune-up Inst (dBm)	MPR (dB)
5	QPSK	1	0	23.48	23.48	23.32	24	0
5	QPSK	1	12	23.36	23.31	23.30		
5	QPSK	1	24	23.43	23.34	23.15		
5	QPSK	12	0	23.36	23.40	23.33	24	0
5	QPSK	12	12	23.37	23.37	23.27		
5	QPSK	12	13	23.38	23.36	23.32		
5	QPSK	26	0	23.21	23.38	23.22	24	0
5	16QAM	1	0	23.37	23.37	23.27		
5	16QAM	1	12	23.37	23.44	23.26		
5	16QAM	1	24	23.38	23.37	23.29	23.5	0.5
5	16QAM	12	0	22.98	22.98	23.03		
5	16QAM	12	7	23.09	23.15	23.09		
5	16QAM	12	13	23.13	23.18	23.10	23.5	0.5
5	16QAM	25	0	23.02	23.04	23.00		
5	16QAM	25	0	22.85	23.03	22.90		
5	64QAM	1	12	22.95	23.03	22.90	23.5	0.5
5	64QAM	1	24	22.96	23.04	22.89		
5	64QAM	12	0	21.96	21.92	21.98		
5	64QAM	12	7	22.10	22.06	22.07	22.5	1.5
5	64QAM	12	13	22.06	22.05	21.99		
5	64QAM	25	0	21.96	21.98	22.11		
5	256QAM	1	0	20.12	20.20	20.08	20.5	3.5
5	256QAM	1	12	20.17	20.27	20.15		
5	256QAM	1	24	20.15	20.23	20.07		
5	256QAM	12	0	20.02	20.13	20.18	20.5	3.5
5	256QAM	12	7	20.09	20.16	20.18		
5	256QAM	12	13	20.12	20.16	20.05		
5	256QAM	25	0	20.03	20.11	20.15		



Band 25 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Inst (dBm), MPR (dB). Contains data for various channels and frequencies.

Band 25 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Inst (dBm), MPR (dB). Contains data for various channels and frequencies.



Band 26 FCC Ant 0

BW (MHz)	Modulation	Channel	RB Size	RB Offset	Power Low Ch / Freq (MHz)	Power Middle Ch / Freq (MHz)	Power High Ch / Freq (MHz)	Tune-up limit (dBm)	MPR (dB)
Channel									
Frequency (MHz)									
15	QPSK	1	0	22.88	23.04	22.88	24.0	0	
15	QPSK	1	37	22.92	23.04	22.87	24.0	0	
15	QPSK	1	74	22.96	22.74	22.72	24.0	0	
15	QPSK	36	0	22.89	23.01	22.87	24.0	0	
15	QPSK	36	20	22.88	23.00	22.80	24.0	0	
15	QPSK	36	39	22.86	22.97	22.82	24.0	0	
15	QPSK	75	0	22.84	22.89	22.81	24.0	0	
15	16QAM	1	0	22.84	23.02	22.85	24.0	0	
15	16QAM	1	37	22.89	22.98	22.81	24.0	0	
15	16QAM	1	74	22.90	23.03	22.88	24.0	0	
15	16QAM	36	0	22.41	22.45	22.48	24.0	0	
15	16QAM	36	20	22.50	22.48	22.35	24.0	0	
15	16QAM	36	39	22.49	22.85	22.38	24.0	0	
15	16QAM	75	0	22.59	22.80	22.44	24.0	0	
15	64QAM	1	0	22.82	22.82	22.65	24.0	0.5	
15	64QAM	1	37	22.84	22.72	22.45	24.0	0.5	
15	64QAM	1	74	22.82	22.81	22.55	24.0	0.5	
15	64QAM	36	0	21.43	21.48	21.38	24.0	0.5	
15	64QAM	36	20	21.49	21.47	21.40	24.0	0.5	
15	64QAM	36	39	21.48	21.49	21.41	24.0	0.5	
15	64QAM	75	0	21.66	21.65	21.61	24.0	0.5	
15	256QAM	1	0	19.80	19.86	19.86	24.0	1.5	
15	256QAM	1	37	19.71	19.81	19.86	24.0	1.5	
15	256QAM	1	74	19.75	19.81	19.77	24.0	1.5	
15	256QAM	36	0	19.60	19.82	19.88	24.0	1.5	
15	256QAM	36	20	19.65	19.82	19.87	24.0	1.5	
15	256QAM	36	39	19.59	19.84	19.85	24.0	1.5	
15	256QAM	75	0	19.64	19.68	19.65	24.0	1.5	
Channel									
Frequency (MHz)									
10	QPSK	1	0	22.82	22.95	22.85	24.0	0	
10	QPSK	1	25	22.89	22.93	22.79	24.0	0	
10	QPSK	1	49	22.86	22.82	22.85	24.0	0	
10	QPSK	25	0	22.87	22.94	22.88	24.0	0	
10	QPSK	25	12	22.82	22.92	22.83	24.0	0	
10	QPSK	25	25	22.84	22.84	22.83	24.0	0	
10	QPSK	50	0	22.84	22.98	22.87	24.0	0	
10	16QAM	1	0	22.82	22.90	22.75	24.0	0	
10	16QAM	1	25	22.78	22.91	22.69	24.0	0	
10	16QAM	1	49	22.79	22.97	22.80	24.0	0	
10	16QAM	25	0	22.34	22.42	22.42	24.0	0	
10	16QAM	25	12	22.44	22.42	22.47	24.0	0	
10	16QAM	25	25	22.38	22.38	22.34	24.0	0	
10	16QAM	50	0	22.59	22.45	22.42	24.0	0	
10	64QAM	1	0	22.46	22.69	22.45	24.0	0.5	
10	64QAM	1	25	22.58	22.68	22.43	24.0	0.5	
10	64QAM	1	49	22.50	22.54	22.49	24.0	0.5	
10	64QAM	25	0	21.32	21.37	21.30	24.0	0.5	
10	64QAM	25	12	21.37	21.35	21.37	24.0	0.5	
10	64QAM	25	25	21.42	21.40	21.30	24.0	0.5	
10	64QAM	50	0	21.44	21.53	21.45	24.0	0.5	
10	256QAM	1	0	19.80	19.87	19.82	24.0	1.5	
10	256QAM	1	25	19.82	19.84	19.84	24.0	1.5	
10	256QAM	1	49	19.87	19.89	19.70	24.0	1.5	
10	256QAM	25	0	19.54	19.57	19.48	24.0	1.5	
10	256QAM	25	12	19.48	19.56	19.60	24.0	1.5	
10	256QAM	25	25	19.45	19.81	19.45	24.0	1.5	
10	256QAM	50	0	19.80	19.80	19.82	24.0	1.5	
Channel									
Frequency (MHz)									
5	QPSK	1	0	22.88	23.04	22.84	24.0	0	
5	QPSK	1	12	22.88	22.96	22.79	24.0	0	
5	QPSK	1	24	22.86	22.84	22.87	24.0	0	
5	QPSK	12	0	22.91	22.97	22.84	24.0	0	
5	QPSK	12	7	22.84	22.90	22.80	24.0	0	
5	QPSK	12	13	22.89	22.85	22.80	24.0	0	
5	QPSK	25	0	22.80	22.97	22.80	24.0	0	
5	16QAM	1	0	22.79	22.84	22.73	24.0	0	
5	16QAM	1	12	22.82	22.87	22.76	24.0	0	
5	16QAM	1	24	22.86	22.83	22.78	24.0	0	
5	16QAM	12	0	22.39	22.35	22.37	24.0	0	
5	16QAM	12	7	22.40	22.38	22.49	24.0	0	
5	16QAM	12	13	22.38	22.36	22.33	24.0	0	
5	16QAM	25	0	22.47	22.39	22.37	24.0	0	
5	64QAM	1	0	22.45	22.50	22.51	24.0	0.5	
5	64QAM	1	12	22.40	22.57	22.34	24.0	0.5	
5	64QAM	1	24	22.50	22.51	22.51	24.0	0.5	
5	64QAM	12	0	21.39	21.41	21.39	24.0	0.5	
5	64QAM	12	7	21.47	21.36	21.36	24.0	0.5	
5	64QAM	12	13	21.38	21.46	21.39	24.0	0.5	
5	256QAM	1	0	19.48	19.48	19.48	24.0	1.5	
5	256QAM	1	12	19.89	19.89	19.84	24.0	1.5	
5	256QAM	1	24	19.71	19.73	19.74	24.0	1.5	
5	256QAM	12	0	19.50	19.50	19.45	24.0	1.5	
5	256QAM	12	7	19.49	19.52	19.51	24.0	1.5	
5	256QAM	12	13	19.53	19.57	19.45	24.0	1.5	
5	256QAM	25	0	19.68	19.60	19.65	24.0	1.5	
Channel									
Frequency (MHz)									
3	QPSK	1	0	22.86	23.04	22.80	24.0	0	
3	QPSK	1	8	22.86	22.96	22.85	24.0	0	
3	QPSK	1	14	22.89	22.85	22.85	24.0	0	
3	QPSK	8	0	22.89	22.88	22.80	24.0	0	
3	QPSK	8	4	22.83	22.89	22.84	24.0	0	
3	QPSK	8	7	22.83	22.89	22.80	24.0	0	
3	QPSK	15	0	22.88	22.83	22.80	24.0	0	
3	16QAM	1	0	22.79	22.96	22.73	24.0	0	
3	16QAM	1	8	22.82	22.96	22.76	24.0	0	
3	16QAM	1	14	22.83	22.94	22.78	24.0	0	
3	16QAM	8	0	22.38	22.37	22.36	24.0	0	
3	16QAM	8	4	22.42	22.43	22.52	24.0	0	
3	16QAM	8	7	22.40	22.49	22.35	24.0	0	
3	16QAM	15	0	22.37	22.42	22.36	24.0	0	
3	64QAM	1	0	22.46	22.50	22.50	24.0	0.5	
3	64QAM	1	8	22.38	22.57	22.34	24.0	0.5	
3	64QAM	1	14	22.38	22.55	22.51	24.0	0.5	
3	64QAM	8	0	21.41	21.38	21.26	24.0	0.5	
3	64QAM	8	4	21.46	21.40	21.34	24.0	0.5	
3	64QAM	8	7	21.46	21.38	21.37	24.0	0.5	
3	256QAM	1	0	19.48	19.48	19.47	24.0	1.5	
3	256QAM	1	8	19.89	19.84	19.87	24.0	1.5	
3	256QAM	1	14	19.85	19.71	19.71	24.0	1.5	
3	256QAM	8	0	19.49	19.51	19.51	24.0	1.5	
3	256QAM	8	4	19.52	19.87	19.51	24.0	1.5	
3	256QAM	8	7	19.64	19.53	19.43	24.0	1.5	
3	256QAM	15	0	19.53	19.64	19.53	24.0	1.5	
Channel									
Frequency (MHz)									
1.4	QPSK	1	0	22.83	23.03	22.89	24.0	0	
1.4	QPSK	1	3	22.83	22.96	22.75	24.0	0	
1.4	QPSK	1	5	22.86	22.86	22.87	24.0	0	
1.4	QPSK	3	0	22.82	22.97	22.85	24.0	0	
1.4	QPSK	3	1	22.89	22.88	22.88	24.0	0	
1.4	QPSK	3	3	22.86	22.88	22.80	24.0	0	
1.4	QPSK	6	0	22.89	22.97	22.85	24.0	0	
1.4	16QAM	1	0	22.81	22.97	22.76	24.0	0	
1.4	16QAM	1	3	22.84	22.84	22.79	24.0	0	
1.4	16QAM	1	5	22.82	22.85	22.81	24.0	0	
1.4	16QAM	3	0	22.34	22.43	22.40	24.0	0	
1.4	16QAM	3	1	22.43	22.45	22.50	24.0	0	
1.4	16QAM	3	3	22.37	22.52	22.35	24.0	0	
1.4	64QAM	1	0	22.49	22.45	22.41	24.0	0.5	
1.4	64QAM	1	3	22.52	22.63	2			



Band 26 FCC Ant 1

Band	Modulation	RB Size	RB Offset	Power Low Ch. F/Freq. noise	Power Midle Ch. F/Freq. noise	Power High Ch. F/Freq. noise	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	0	23.00	23.04	23.08	24	0
15	QPSK	1	37	23.04	23.04	23.11		
15	QPSK	1	74	22.87	22.93	23.09		
15	QPSK	36	0	22.88	23.05	23.04		
15	QPSK	36	20	22.87	23.03	23.02	24	0
15	QPSK	36	36	22.85	23.00	23.00		
15	QPSK	75	0	23.02	23.03	23.09		
15	16QAM	1	0	22.98	23.06	23.03		
15	16QAM	1	37	22.97	23.08	23.04	24	0
15	16QAM	1	74	23.02	23.09	23.03		
15	16QAM	36	0	22.40	22.39	22.49		
15	16QAM	36	20	22.83	22.83	22.83		
15	16QAM	36	36	22.80	22.48	22.80	23.5	0.5
15	16QAM	75	0	22.55	22.80	22.56		
15	64QAM	1	0	22.44	22.85	22.50		
15	64QAM	1	37	22.47	22.71	22.71		
15	64QAM	1	74	22.26	22.65	22.65	23.5	0.5
15	64QAM	36	0	21.48	21.41	21.53		
15	64QAM	36	20	21.51	21.50	21.56		
15	64QAM	36	36	21.33	21.34	21.86		
15	64QAM	75	0	21.47	21.45	21.68	22.5	1.5
15	256QAM	1	0	19.65	19.67	19.65		
15	256QAM	1	37	19.67	19.66	19.63		
15	256QAM	1	74	19.71	19.83	19.71		
15	256QAM	36	0	19.60	19.81	19.65	20.5	3.5
15	256QAM	36	20	19.58	19.63	19.62		
15	256QAM	36	36	19.61	19.72	19.64		
15	256QAM	75	0	19.62	19.62	19.58		
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.00	23.06	23.03	24	0
10	QPSK	1	37	22.92	23.04	23.00		
10	QPSK	1	74	22.83	22.84	22.97		
10	QPSK	25	0	22.80	22.94	23.00		
10	QPSK	25	12	22.75	22.95	22.75	24	0
10	QPSK	25	25	22.84	22.96	22.91		
10	QPSK	50	0	22.81	22.95	22.85		
10	16QAM	1	0	22.94	22.99	22.96		
10	16QAM	1	25	22.86	22.98	22.92	24	0
10	16QAM	1	49	22.90	23.01	22.91		
10	16QAM	25	0	22.37	22.34	22.43		
10	16QAM	25	12	22.41	22.49	22.59		
10	16QAM	25	25	22.53	22.45	22.56	23.5	0.5
10	16QAM	50	0	22.47	22.44	22.48		
10	64QAM	1	0	22.38	22.48	22.48		
10	64QAM	1	25	22.40	22.67	22.65		
10	64QAM	1	49	22.19	22.54	22.51	22.5	1.5
10	64QAM	25	0	21.40	21.36	21.48		
10	64QAM	25	12	21.39	21.38	21.47		
10	64QAM	25	25	21.46	21.49	21.69		
10	64QAM	50	0	21.41	21.35	21.63	20.5	3.5
10	256QAM	1	0	19.69	19.57	19.63		
10	256QAM	1	25	19.45	19.58	19.53		
10	256QAM	1	49	19.63	19.77	19.62		
10	256QAM	25	0	19.43	19.50	19.51	20.5	3.5
10	256QAM	25	12	19.50	19.51	19.42		
10	256QAM	25	25	19.54	19.64	19.53		
10	256QAM	50	0	19.47	19.52	19.51		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.03	23.04	23.08	24	0
5	QPSK	1	12	22.97	23.01	23.05		
5	QPSK	1	24	22.79	22.81	23.08		
5	QPSK	12	0	22.96	23.03	22.96		
5	QPSK	12	7	22.86	23.00	22.84	24	0
5	QPSK	12	13	22.83	22.96	22.86		
5	16QAM	1	0	22.97	23.01	22.96		
5	16QAM	1	1	22.84	23.02	22.92		
5	16QAM	1	12	22.85	22.97	22.97	24	0
5	16QAM	1	24	22.91	22.97	23.01		
5	16QAM	12	0	22.33	22.34	22.39		
5	16QAM	12	7	22.45	22.43	22.55		
5	16QAM	12	13	22.50	22.46	22.57	23.5	0.5
5	16QAM	25	0	22.49	22.45	22.44		
5	64QAM	1	0	22.25	22.47	22.43		
5	64QAM	1	12	22.43	22.63	22.67		
5	64QAM	1	24	22.23	22.53	22.51	23.5	0.5
5	64QAM	12	0	21.49	21.29	21.41		
5	64QAM	12	7	21.48	21.47	21.49		
5	64QAM	12	13	21.50	21.45	21.61		
5	64QAM	25	0	21.48	21.41	21.58	22.5	1.5
5	256QAM	1	0	19.52	19.51	19.52		
5	256QAM	1	12	19.50	19.46	19.52		
5	256QAM	1	24	19.65	19.70	19.67		
5	256QAM	12	0	19.41	19.59	19.47	20.5	3.5
5	256QAM	12	7	19.47	19.55	19.43		
5	256QAM	12	13	19.64	19.70	19.64		
5	256QAM	25	0	19.41	19.56	19.53		
Channel								
Frequency (MHz)								
3	QPSK	1	0	22.98	23.05	23.13	24	0
3	QPSK	1	8	22.94	23.01	23.08		
3	QPSK	1	14	22.83	22.83	22.89		
3	QPSK	8	0	22.86	22.86	22.85		
3	QPSK	8	4	22.81	22.86	22.88	24	0
3	QPSK	8	7	22.93	22.90	22.98		
3	QPSK	15	0	22.97	22.94	22.98		
3	16QAM	1	0	22.95	23.04	22.98		
3	16QAM	1	8	22.86	23.05	22.87	24	0
3	16QAM	1	14	22.93	22.97	22.95		
3	16QAM	8	0	22.29	22.36	22.40		
3	16QAM	8	4	22.44	22.44	22.52		
3	16QAM	8	7	22.51	22.49	22.52	23.5	0.5
3	16QAM	15	0	22.48	22.45	22.50		
3	64QAM	1	0	22.33	22.48	22.44		
3	64QAM	1	8	22.38	22.59	22.61		
3	64QAM	1	14	22.22	22.60	22.58	22.5	1.5
3	64QAM	8	0	21.38	21.39	21.42		
3	64QAM	8	4	21.43	21.38	21.51		
3	64QAM	8	7	21.44	21.44	21.58		
3	64QAM	15	0	21.35	21.41	21.60	20.5	3.5
3	256QAM	1	0	19.63	19.57	19.63		
3	256QAM	1	8	19.48	19.57	19.58		
3	256QAM	1	14	19.60	19.78	19.66		
3	256QAM	8	0	19.42	19.52	19.47	20.5	3.5
3	256QAM	8	4	19.50	19.56	19.48		
3	256QAM	8	7	19.65	19.65	19.59		
3	256QAM	15	0	19.42	19.55	19.52		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	23.02	23.08	23.04	24	0
1.4	QPSK	1	3	22.99	22.95	23.05		
1.4	QPSK	1	5	22.73	22.82	23.04		
1.4	QPSK	3	0	22.86	22.88	23.00		
1.4	QPSK	3	1	22.95	23.01	22.98	24	0
1.4	QPSK	3	3	22.92	22.93	22.88		
1.4	QPSK	6	0	22.91	22.99	22.89		
1.4	16QAM	1	0	22.94	23.03	22.93		
1.4	16QAM	1	3	22.88	23.05	22.84	24	0
1.4	16QAM	1	5	23.00	23.03	23.00		
1.4	16QAM	3	0	22.38	22.32	22.44		
1.4	16QAM	3	1	22.50	22.43	22.53		
1.4	16QAM	3	3	22.58	22.46	22.49	23.5	0.5
1.4	16QAM	6	0	22.49	22.45	22.47		
1.4	64QAM	1	0	22.39	22.52	22.48		
1.4	64QAM	1	3	22.44	22.62	22.65		
1.4	64QAM	1	5	22.20	22.58	22.62	23.5	0.5
1.4	64QAM	3	0	22.36	22.54	22.46		
1.4	64QAM	3	1	22.47	22.63	22.63		
1.4	64QAM	3	3	22.21	22.54	22.61		
1.4	64QAM	6	0	21.36	21.35	21.58	22.5	1.5
1.4	256QAM	1	0	19.63	19.56	19.67		
1.4	256QAM	1	3	19.45	19.64	19.61		
1.4	256QAM	1	5	19.68	19.79	19.65		
1.4	256QAM	3	0	19.44	19.51	19.53	20.5	3.5
1.4	256QAM	3	1	19.58	19.57	19.40		
1.4	256QAM	3	3	19.52	19.62	19.56		
1.4	256QAM	6	0	19.44	19.50	19.49		



Band 30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.07			24	0
10	QPSK	1	26	23.08				
10	QPSK	1	49	22.85				
10	QPSK	25	0	22.85			24	0
10	QPSK	25	12	22.81				
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.89			24	0
10	QPSK	50	0	22.89				
10	QPSK	50	0	22.89				
10	16QAM	1	0	23.01			24	0
10	16QAM	1	26	23.02				
10	16QAM	1	49	23.05				
10	16QAM	25	0	22.53			23.5	0.5
10	16QAM	25	12	22.46				
10	16QAM	25	25	22.38				
10	16QAM	50	0	22.59			23.5	0.5
10	16QAM	50	0	22.51				
10	16QAM	50	0	22.46				
10	64QAM	1	26	22.46			23.5	0.5
10	64QAM	1	49	22.55				
10	64QAM	25	0	21.62				
10	64QAM	25	12	21.57			22.5	1.5
10	64QAM	25	25	21.55				
10	64QAM	50	0	21.93				
10	256QAM	1	0	19.53			20.5	3.5
10	256QAM	1	26	19.53				
10	256QAM	1	49	19.32				
10	256QAM	25	0	19.35			20.5	3.5
10	256QAM	25	12	19.42				
10	256QAM	25	25	19.26				
10	256QAM	50	0	19.31				
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.03	22.99	22.98	24	0
5	QPSK	1	12	23.00	22.99	22.98		
5	QPSK	1	24	22.81	22.76	22.83		
5	QPSK	12	0	22.85	22.89	22.89	24	0
5	QPSK	12	0	22.87	22.89	22.75		
5	QPSK	12	13	22.83	22.81	22.85		
5	QPSK	25	0	22.94	22.79	22.98	24	0
5	16QAM	1	0	22.93	22.95	22.94		
5	16QAM	1	12	22.92	22.98	22.90		
5	16QAM	1	24	22.99	22.95	22.97	23.5	0.5
5	16QAM	12	0	22.50	22.42	22.44		
5	16QAM	12	7	22.38	22.41	22.34		
5	16QAM	12	13	22.35	22.32	22.29	23.5	0.5
5	16QAM	25	0	22.42	22.40	22.42		
5	16QAM	25	0	22.44	22.40	22.44		
5	64QAM	1	12	22.37	22.41	22.38	22.5	1.5
5	64QAM	1	24	22.44	22.53	22.53		
5	64QAM	12	0	21.53	21.60	21.54		
5	64QAM	12	7	21.50	21.45	21.45	20.5	3.5
5	64QAM	12	13	21.44	21.44	21.52		
5	64QAM	25	0	21.61	21.59	21.61		
5	256QAM	1	0	19.44	19.48	19.48	20.5	3.5
5	256QAM	1	12	19.48	19.50	19.46		
5	256QAM	1	24	19.29	19.29	19.26		
5	256QAM	12	0	19.32	19.31	19.26	20.5	3.5
5	256QAM	12	7	19.20	19.40	19.20		
5	256QAM	12	13	19.24	19.22	19.18		
5	256QAM	25	0	19.23	19.26	19.27		

Band 30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	21.72			22.9	0
10	QPSK	1	26	21.63				
10	QPSK	1	49	21.69				
10	QPSK	25	0	21.60			22.9	0
10	QPSK	25	12	21.60				
10	QPSK	25	25	21.57				
10	QPSK	50	0	21.59			22.9	0
10	QPSK	50	0	21.57				
10	QPSK	50	0	21.62				
10	16QAM	1	0	21.67			22.9	0
10	16QAM	1	26	21.62				
10	16QAM	1	49	21.67				
10	16QAM	25	0	21.60			22.9	0
10	16QAM	25	12	21.62				
10	16QAM	25	25	21.57				
10	16QAM	50	0	21.58			22.9	0
10	16QAM	50	0	21.58				
10	16QAM	50	0	21.54				
10	64QAM	1	26	21.61			22.9	0
10	64QAM	1	49	21.68				
10	64QAM	25	0	21.31				
10	64QAM	25	12	21.31			22	0.9
10	64QAM	25	25	21.28				
10	64QAM	50	0	21.38				
10	256QAM	1	0	19.15			20	2.9
10	256QAM	1	26	19.18				
10	256QAM	1	49	19.20				
10	256QAM	25	0	19.20			20	2.9
10	256QAM	25	12	19.12				
10	256QAM	25	25	19.22				
10	256QAM	50	0	19.05				
Channel								
Frequency (MHz)								
5	QPSK	1	0	21.70	21.64	21.60	22.9	0
5	QPSK	1	12	21.54	21.60	21.56		
5	QPSK	1	24	21.62	21.61	21.59		
5	QPSK	12	0	21.56	21.62	21.58	22.9	0
5	QPSK	12	0	21.45	21.43	21.30		
5	QPSK	12	13	21.35	21.35	21.28		
5	QPSK	25	0	21.50	21.60	21.50	22.9	0
5	16QAM	1	0	21.45	21.45	21.54		
5	16QAM	1	12	21.50	21.59	21.60		
5	16QAM	1	24	21.59	21.55	21.59	22.9	0
5	16QAM	12	0	21.54	21.53	21.48		
5	16QAM	12	7	21.35	21.36	21.39		
5	16QAM	12	13	21.39	21.36	21.31	22.9	0
5	16QAM	25	0	21.47	21.49	21.56		
5	16QAM	25	0	21.52	21.53	21.57		
5	64QAM	1	12	21.63	21.50	21.49	22.9	0
5	64QAM	1	24	21.53	21.48	21.48		
5	64QAM	12	0	21.53	21.28	21.19		
5	64QAM	12	7	21.24	21.21	21.25	22	0.9
5	64QAM	12	13	21.23	21.18	21.20		
5	64QAM	25	0	21.22	21.21	21.23		
5	256QAM	1	0	19.08	19.04	19.10	20	2.9
5	256QAM	1	12	19.11	19.07	19.12		
5	256QAM	1	24	19.73	19.70	19.71		
5	256QAM	12	0	19.10	19.11	19.15	20	2.9
5	256QAM	12	7	19.10	19.01	19.04		
5	256QAM	12	13	19.00	19.00	19.02		
5	256QAM	25	0	19.08	19.03	19.03		



Band 30 Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	17.80	17.80	17.80	18.5	0
10	QPSK	1	26	17.99	17.99	17.99		
10	QPSK	1	49	17.79	17.79	17.79		
10	QPSK	25	0	17.99	17.99	17.99		
10	QPSK	25	12	17.96	17.96	17.96	18.5	0
10	QPSK	25	25	17.94	17.94	17.94		
10	QPSK	50	0	17.91	17.91	17.91		
10	16QAM	1	0	17.91	17.91	17.91		
10	16QAM	1	26	17.96	17.96	17.96	18.5	0
10	16QAM	1	49	17.99	17.99	17.99		
10	16QAM	25	0	17.99	17.99	17.99		
10	16QAM	25	12	17.96	17.96	17.96		
10	16QAM	25	25	17.95	17.95	17.95	18.5	0
10	16QAM	50	0	17.92	17.92	17.92		
10	64QAM	1	0	17.94	17.94	17.94		
10	64QAM	1	26	17.95	17.95	17.95		
10	64QAM	1	49	17.90	17.90	17.90	18.5	0
10	64QAM	25	0	17.98	17.98	17.98		
10	64QAM	25	12	17.97	17.97	17.97		
10	64QAM	25	25	17.96	17.96	17.96		
10	64QAM	50	0	17.91	17.91	17.91	18.5	0
10	256QAM	1	0	17.91	17.91	17.91		
10	256QAM	1	26	17.78	17.78	17.78		
10	256QAM	1	49	17.78	17.78	17.78		
10	256QAM	25	0	17.83	17.83	17.83	18.5	0
10	256QAM	25	12	17.84	17.84	17.84		
10	256QAM	25	25	17.73	17.73	17.73		
10	256QAM	50	0	17.73	17.73	17.73		
Channel								
Frequency (MHz)				2765				
Frequency (MHz)				2310				
Frequency (MHz)				2312.5				
5	QPSK	1	0	17.88	17.88	17.88	18.5	0
5	QPSK	1	24	17.90	17.90	17.90		
5	QPSK	1	24	17.74	17.75	17.74		
5	QPSK	12	0	17.97	17.97	17.97		
5	QPSK	12	0	17.90	17.92	17.90	18.5	0
5	QPSK	12	13	17.85	17.83	17.91		
5	QPSK	26	0	17.99	17.87	17.99		
5	16QAM	1	0	17.86	17.81	17.83		
5	16QAM	1	12	17.91	17.94	17.90	18.5	0
5	16QAM	1	24	17.90	17.93	17.96		
5	16QAM	12	0	17.89	17.93	17.97		
5	16QAM	12	7	17.84	17.89	17.90		
5	16QAM	12	15	17.90	17.84	17.88	18.5	0
5	16QAM	25	0	17.85	17.87	17.86		
5	64QAM	1	0	17.92	17.92	17.97		
5	64QAM	1	12	17.92	17.91	17.93		
5	64QAM	1	24	17.85	17.80	17.78	18.5	0
5	64QAM	12	0	17.91	17.86	17.94		
5	64QAM	12	7	17.94	17.90	17.85		
5	64QAM	12	13	17.81	17.80	17.79		
5	64QAM	25	0	17.84	17.79	17.87	18.5	0
5	256QAM	1	0	17.82	17.84	17.80		
5	256QAM	1	12	17.76	17.75	17.68		
5	256QAM	1	24	17.73	17.75	17.75		
5	256QAM	12	0	17.71	17.71	17.78	18.5	0
5	256QAM	12	7	17.69	17.62	17.62		
5	256QAM	12	13	17.62	17.64	17.63		
5	256QAM	25	0	17.68	17.71	17.65		

Band 30 Ant 9

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	23.29	23.29	23.29	24	0
10	QPSK	1	26	23.39	23.39	23.39		
10	QPSK	1	49	22.97	22.97	22.97		
10	QPSK	25	0	22.99	22.99	22.99		
10	QPSK	25	12	22.24	22.24	22.24	23	1
10	QPSK	25	25	22.16	22.16	22.16		
10	QPSK	50	0	22.22	22.22	22.22		
10	16QAM	1	0	22.62	22.62	22.62		
10	16QAM	1	26	22.68	22.68	22.68	23	1
10	16QAM	1	49	22.45	22.45	22.45		
10	16QAM	25	0	21.29	21.29	21.29		
10	16QAM	25	12	21.25	21.25	21.25		
10	16QAM	25	25	21.16	21.16	21.16	22	2
10	16QAM	50	0	21.22	21.22	21.22		
10	64QAM	1	0	21.46	21.46	21.46		
10	64QAM	1	26	21.63	21.63	21.63		
10	64QAM	1	49	21.33	21.33	21.33	22	2
10	64QAM	25	0	20.30	20.30	20.30		
10	64QAM	25	12	20.27	20.27	20.27		
10	64QAM	25	25	20.18	20.18	20.18		
10	64QAM	50	0	20.35	20.35	20.35	21	3
10	256QAM	1	0	18.97	18.97	18.97		
10	256QAM	1	26	18.14	18.14	18.14		
10	256QAM	1	49	17.76	17.76	17.76		
10	256QAM	25	0	17.83	17.83	17.83	19	5
10	256QAM	25	12	17.81	17.81	17.81		
10	256QAM	25	25	17.78	17.78	17.78		
10	256QAM	50	0	17.88	17.88	17.88		
Channel								
Frequency (MHz)				2765				
Frequency (MHz)				2310				
Frequency (MHz)				2312.5				
5	QPSK	1	0	23.27	23.24	23.27	24	0
5	QPSK	1	24	23.22	23.21	23.24		
5	QPSK	1	24	22.88	22.95	22.93		
5	QPSK	12	0	22.24	22.18	22.26		
5	QPSK	12	0	22.20	22.16	22.10	23	1
5	QPSK	12	13	22.05	22.14	22.08		
5	QPSK	26	0	22.16	22.16	22.18		
5	16QAM	1	0	22.56	22.55	22.56		
5	16QAM	1	12	22.61	22.62	22.64	23	1
5	16QAM	1	24	22.34	22.37	22.37		
5	16QAM	12	0	21.24	21.22	21.20		
5	16QAM	12	7	21.22	21.13	21.21		
5	16QAM	12	15	21.10	21.14	21.10	22	2
5	16QAM	25	0	21.11	21.20	21.19		
5	64QAM	1	0	21.43	21.42	21.44		
5	64QAM	1	12	21.44	21.48	21.42		
5	64QAM	1	24	21.21	21.30	21.30	22	2
5	64QAM	12	0	20.23	20.19	20.22		
5	64QAM	12	7	20.23	20.24	20.17		
5	64QAM	12	13	20.12	20.12	20.14		
5	64QAM	25	0	20.16	20.22	20.20	21	3
5	256QAM	1	0	18.03	18.02	18.05		
5	256QAM	1	12	18.08	18.09	18.09		
5	256QAM	1	24	17.72	17.72	17.70		
5	256QAM	12	0	17.91	17.84	17.88	19	5
5	256QAM	12	7	17.89	17.86	17.87		
5	256QAM	12	13	17.73	17.74	17.75		
5	256QAM	25	0	17.84	17.78	17.85		



Band 71 Ant 0

Table with columns: BW [MHz], Modulation, Channel, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit [dBm], MPR [dB]. Contains data for various frequencies and modulation types.

Band 71 Ant 1

Table with columns: BW [MHz], Modulation, Channel, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit [dBm], MPR [dB]. Contains data for various frequencies and modulation types.



Band 41 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel										
Frequency (MHz)										
20	QPSK	1	0	39750	40170	40620	41090	41560	20.8	0
20	QPSK	1	49	2003	1953	2007	2004	1939		
20	QPSK	1	49	2003	1953	2007	2004	1939	20.8	0
20	QPSK	50	0	1939	1953	2007	2004	1939		
20	QPSK	50	24	1939	1953	2007	2004	1939	20.8	0
20	QPSK	50	50	2001	1939	2005	2003	2001		
20	QPSK	100	0	1939	1953	2007	2004	1939	20.8	0
20	QPSK	100	49	1939	1953	2007	2004	1939		
20	16QAM	1	49	1939	1953	2007	2004	1939	20.8	0
20	16QAM	1	99	1939	1953	2007	2004	1939		
20	16QAM	50	24	1939	1953	2007	2004	1939	20.8	0
20	16QAM	50	24	1939	1953	2007	2004	1939		
20	16QAM	100	0	1939	1953	2007	2004	1939	20.8	0
20	16QAM	100	0	1939	1953	2007	2004	1939		
20	64QAM	1	49	1939	1953	2007	2004	1939	20.8	0
20	64QAM	1	99	1939	1953	2007	2004	1939		
20	64QAM	50	24	1939	1953	2007	2004	1939	20.8	0
20	64QAM	50	24	1939	1953	2007	2004	1939		
20	64QAM	100	0	1939	1953	2007	2004	1939	20.8	0
20	64QAM	100	0	1939	1953	2007	2004	1939		
20	256QAM	1	49	1939	1953	2007	2004	1939	19.5	1.3
20	256QAM	1	99	1939	1953	2007	2004	1939		
20	256QAM	50	24	1939	1953	2007	2004	1939	19.5	1.3
20	256QAM	50	24	1939	1953	2007	2004	1939		
20	256QAM	100	0	1939	1953	2007	2004	1939	19.5	1.3
20	256QAM	100	0	1939	1953	2007	2004	1939		
Channel										
Frequency (MHz)										
15	QPSK	1	0	39725	40173	40620	41098	41515	20.8	0
15	QPSK	1	37	1939	1953	2005	1999	1937		
15	QPSK	1	37	1939	1953	2005	1999	1937	20.8	0
15	QPSK	36	0	1934	1927	1936	1936	1936		
15	QPSK	36	39	1934	1927	1936	1936	1936	20.8	0
15	QPSK	36	39	1934	1927	1936	1936	1936		
15	QPSK	75	0	1934	1927	1936	1936	1936	20.8	0
15	QPSK	75	0	1934	1927	1936	1936	1936		
15	16QAM	1	37	1939	1953	2005	1999	1937	20.8	0
15	16QAM	1	37	1939	1953	2005	1999	1937		
15	16QAM	36	39	1934	1927	1936	1936	1936	20.8	0
15	16QAM	36	39	1934	1927	1936	1936	1936		
15	16QAM	75	0	1934	1927	1936	1936	1936	20.8	0
15	16QAM	75	0	1934	1927	1936	1936	1936		
15	64QAM	1	37	1939	1953	2005	1999	1937	20.8	0
15	64QAM	1	37	1939	1953	2005	1999	1937		
15	64QAM	36	39	1934	1927	1936	1936	1936	20.8	0
15	64QAM	36	39	1934	1927	1936	1936	1936		
15	64QAM	75	0	1934	1927	1936	1936	1936	20.8	0
15	64QAM	75	0	1934	1927	1936	1936	1936		
15	256QAM	1	37	1939	1953	2005	1999	1937	19.5	1.3
15	256QAM	1	37	1939	1953	2005	1999	1937		
15	256QAM	36	39	1934	1927	1936	1936	1936	19.5	1.3
15	256QAM	36	39	1934	1927	1936	1936	1936		
15	256QAM	75	0	1934	1927	1936	1936	1936	19.5	1.3
15	256QAM	75	0	1934	1927	1936	1936	1936		
Channel										
Frequency (MHz)										
10	QPSK	1	0	39700	40168	40620	41093	41560	20.8	0
10	QPSK	1	25	1936	1936	1936	1936	1936		
10	QPSK	1	25	1936	1936	1936	1936	1936	20.8	0
10	QPSK	25	0	1937	1936	1936	1936	1936		
10	QPSK	25	12	1937	1936	1936	1936	1936	20.8	0
10	QPSK	25	12	1937	1936	1936	1936	1936		
10	QPSK	50	0	1936	1936	1936	1936	1936	20.8	0
10	QPSK	50	0	1936	1936	1936	1936	1936		
10	16QAM	1	25	1936	1936	1936	1936	1936	20.8	0
10	16QAM	1	25	1936	1936	1936	1936	1936		
10	16QAM	25	12	1936	1936	1936	1936	1936	20.8	0
10	16QAM	25	12	1936	1936	1936	1936	1936		
10	16QAM	50	0	1936	1936	1936	1936	1936	20.8	0
10	16QAM	50	0	1936	1936	1936	1936	1936		
10	64QAM	1	25	1936	1936	1936	1936	1936	20.8	0
10	64QAM	1	25	1936	1936	1936	1936	1936		
10	64QAM	25	12	1936	1936	1936	1936	1936	20.8	0
10	64QAM	25	12	1936	1936	1936	1936	1936		
10	64QAM	50	0	1936	1936	1936	1936	1936	20.8	0
10	64QAM	50	0	1936	1936	1936	1936	1936		
10	256QAM	1	25	1936	1936	1936	1936	1936	19.5	1.3
10	256QAM	1	25	1936	1936	1936	1936	1936		
10	256QAM	25	12	1936	1936	1936	1936	1936	19.5	1.3
10	256QAM	25	12	1936	1936	1936	1936	1936		
10	256QAM	50	0	1936	1936	1936	1936	1936	19.5	1.3
10	256QAM	50	0	1936	1936	1936	1936	1936		
Channel										
Frequency (MHz)										
5	QPSK	1	0	39700	40168	40620	41093	41560	20.8	0
5	QPSK	1	12	1936	1936	1936	1936	1936		
5	QPSK	1	12	1936	1936	1936	1936	1936	20.8	0
5	QPSK	12	7	1936	1936	1936	1936	1936		
5	QPSK	12	7	1936	1936	1936	1936	1936	20.8	0
5	QPSK	12	7	1936	1936	1936	1936	1936		
5	QPSK	25	0	1936	1936	1936	1936	1936	20.8	0
5	QPSK	25	0	1936	1936	1936	1936	1936		
5	16QAM	1	12	1936	1936	1936	1936	1936	20.8	0
5	16QAM	1	12	1936	1936	1936	1936	1936		
5	16QAM	12	7	1936	1936	1936	1936	1936	20.8	0
5	16QAM	12	7	1936	1936	1936	1936	1936		
5	16QAM	25	0	1936	1936	1936	1936	1936	20.8	0
5	16QAM	25	0	1936	1936	1936	1936	1936		
5	64QAM	1	12	1936	1936	1936	1936	1936	20.8	0
5	64QAM	1	12	1936	1936	1936	1936	1936		
5	64QAM	12	7	1936	1936	1936	1936	1936	20.8	0
5	64QAM	12	7	1936	1936	1936	1936	1936		
5	64QAM	25	0	1936	1936	1936	1936	1936	20.8	0
5	64QAM	25	0	1936	1936	1936	1936	1936		
5	256QAM	1	12	1936	1936	1936	1936	1936	19.5	1.3
5	256QAM	1	12	1936	1936	1936	1936	1936		
5	256QAM	12	7	1936	1936	1936	1936	1936	19.5	1.3
5	256QAM	12	7	1936	1936	1936	1936	1936		
5	256QAM	25	0	1936	1936	1936	1936	1936	19.5	1.3
5	256QAM	25	0	1936	1936	1936	1936	1936		

Band 41 HPUE Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Middle Ch / Freq	Power Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel										
Frequency (MHz)										
20	QPSK	1	0	2138	2148	2150	2152	2148	22.4	0
20	QPSK	1	49	2138	2148	2150	2152	2148		
20	QPSK	1	49	2138	2148	2150	2152	2148	22.4	0
20	QPSK	50	0	2138	2148	2150	2152	2148		
20	QPSK	50	24	2138	2148	2150	2152	2148	22.4	0
20	QPSK	50	24	2138	2148	2150	2152	2148		
20	QPSK	100	0	2138	2148	2150	2152	2148	22.4	0
20	QPSK	100	49	2138	2148	2150	2152	2148		
20	16QAM	1	49	2138	2148	2150	2152	2148	22.4	0
20	16QAM	1	99	2138	2148	2150	2152	2148		
20	16QAM	50	24	2138	2148	2150	2152	2148	22.4	0



Band 41 Ant 6

Table with 11 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Low Middle Ch / Freq, Power Middle Ch / Freq, Power High Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Includes sub-tables for Channel Frequency (MHz) and Channel.

Band 41 HPUE Ant 6

Table with 11 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Low Middle Ch / Freq, Power Middle Ch / Freq, Power High Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Includes sub-tables for Channel Frequency (MHz) and Channel.



Reduced Power Mode for DSI7

GSM850 Ant 0		Burst Average Power (dBm)			Tune-up	Frame-Average Power (dBm)			Tune-up
TX Channel		128	188	251	Limit	128	188	251	Limit
Frequency (MHz)		824.2	836.4	848.8	(dBm)	824.2	836.4	848.8	(dBm)
GSM 1 Tx slot		32.42	32.10	32.28	33.50	23.42	23.10	23.28	24.50
GPRS 1 Tx slot		32.41	32.08	32.25	33.50	23.41	23.08	23.25	24.50
GPRS 2 Tx slots		28.47	28.56	31.00	33.00	23.47	23.56	25.50	30.00
GPRS 3 Tx slots		28.61	28.51	28.99	29.50	24.35	24.25	24.73	25.24
GPRS 4 Tx slots		26.75	26.72	27.05	28.00	23.75	23.72	24.05	25.00
EDGE 1 Tx slot		26.15	25.70	26.09	27.50	17.15	16.70	17.09	18.50
EDGE 2 Tx slots		25.02	24.54	25.02	26.50	18.02	18.54	19.02	20.50
EDGE 3 Tx slots		23.71	23.22	23.46	24.50	19.45	18.96	19.20	20.24
EDGE 4 Tx slots		21.77	21.45	21.36	22.50	18.77	18.45	18.36	19.50

GSM1900 Ant 0		Burst Average Power (dBm)			Tune-up	Frame-Average Power (dBm)			Tune-up
TX Channel		512	891	810	Limit	512	891	810	Limit
Frequency (MHz)		1850.2	1880	1909.8	(dBm)	1850.2	1880	1909.8	(dBm)
GSM 1 Tx slot		24.89	24.92	25.20	26.70	15.89	15.92	16.20	17.70
GPRS 1 Tx slot		24.91	24.95	25.17	26.70	15.91	15.95	16.17	17.70
GPRS 2 Tx slots		21.93	22.07	21.95	23.70	15.93	16.07	15.95	17.70
GPRS 3 Tx slots		20.14	20.34	20.27	22.00	15.88	16.08	16.01	17.74
GPRS 4 Tx slots		18.93	19.28	19.06	20.70	15.93	16.28	16.06	17.70
EDGE 1 Tx slot		24.73	25.03	25.10	26.50	15.73	16.03	16.10	17.50
EDGE 2 Tx slots		21.93	22.13	22.06	23.70	15.93	16.13	16.08	17.70
EDGE 3 Tx slots		20.11	20.24	20.24	22.00	15.85	15.98	15.98	17.74
EDGE 4 Tx slots		18.78	19.14	19.03	20.70	15.78	16.14	16.03	17.70

Band	WCDMA II Ant 0			Tune-up Limit (dBm)	WCDMA IV Ant 0			Tune-up Limit (dBm)	WCDMA V Ant 0			Tune-up Limit (dBm)
	TX Channel	9262	9400		9538	1312	1413		1513	4132	4182	
Rx Channel	9662	9800	9938	1537	1638	1738	4357	4407	4458	4507	4558	
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6	326.4	336.4	346.6	356.6	366.6	
3GPP Rel 99	AMR 12.2Kbps	16.53	16.88	16.63	17.30	15.58	15.97	15.98	23.03	23.07	22.89	24.00
3GPP Rel 99	RMC 12.2Kbps	16.61	16.56	16.70	17.30	15.60	16.06	16.00	23.05	23.06	22.91	24.00
3GPP Rel 6	HSDPA Subtest-1	15.65	16.08	15.72	16.30	14.70	15.10	14.97	15.80	22.10	22.19	22.00
3GPP Rel 6	HSDPA Subtest-2	15.68	15.97	15.76	16.30	14.70	15.16	15.03	15.80	22.10	22.18	21.98
3GPP Rel 6	HSDPA Subtest-3	16.15	15.50	15.23	15.80	14.11	14.70	14.55	15.30	21.62	21.65	21.60
3GPP Rel 6	HSDPA Subtest-4	15.20	15.52	15.26	15.80	14.10	14.63	14.42	15.30	21.66	21.67	21.62
3GPP Rel 6	DC-HSDPA Subtest-1	15.41	15.84	15.50	16.30	14.37	15.02	14.73	15.80	21.85	21.96	21.80
3GPP Rel 6	DC-HSDPA Subtest-2	15.37	15.82	15.49	16.30	14.32	15.02	14.79	15.80	21.81	21.98	21.70
3GPP Rel 6	DC-HSDPA Subtest-3	15.02	15.26	14.96	15.80	13.86	14.47	14.16	15.30	21.42	21.44	21.37
3GPP Rel 6	DC-HSDPA Subtest-4	14.95	15.30	15.04	15.80	13.96	14.30	14.27	15.30	21.40	21.45	21.40
3GPP Rel 6	HSUPA Subtest-1	15.69	16.08	15.82	16.30	15.04	15.22	15.02	15.80	22.15	22.16	22.00
3GPP Rel 6	HSUPA Subtest-2	13.68	14.11	13.79	14.30	13.06	13.19	13.03	13.80	20.15	20.16	20.01
3GPP Rel 6	HSUPA Subtest-3	14.65	14.96	14.78	15.30	14.11	14.25	14.06	14.80	21.03	21.05	21.00
3GPP Rel 6	HSUPA Subtest-4	13.71	14.02	13.81	14.30	13.05	13.14	12.97	13.80	20.10	20.05	20.00
3GPP Rel 6	HSUPA Subtest-5	15.69	16.14	15.77	16.30	15.16	15.19	15.01	15.80	22.10	22.20	22.00

Band	WCDMA II Ant 1			Tune-up Limit (dBm)	WCDMA IV Ant 1			Tune-up Limit (dBm)	WCDMA V Ant 1			Tune-up Limit (dBm)
	TX Channel	9262	9400		9538	1312	1413		1513	4132	4182	
Rx Channel	9662	9800	9938	1537	1638	1738	4357	4407	4458	4507	4558	
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6	326.4	336.4	346.6	356.6	366.6	
3GPP Rel 99	AMR 12.2Kbps	17.40	17.63	17.30	18.50	16.12	16.50	16.23	17.50	23.13	23.37	23.24
3GPP Rel 99	RMC 12.2Kbps	17.45	17.65	17.32	18.50	16.13	16.60	16.24	17.50	23.19	23.41	23.25
3GPP Rel 6	HSDPA Subtest-1	16.45	16.63	16.25	17.50	15.40	15.86	15.63	16.50	22.22	22.35	22.24
3GPP Rel 6	HSDPA Subtest-2	16.48	16.64	16.26	17.50	15.44	15.69	15.20	16.50	22.24	22.40	22.23
3GPP Rel 6	HSDPA Subtest-3	16.22	16.14	16.27	17.00	14.86	15.10	14.76	16.00	21.41	21.92	21.77
3GPP Rel 6	HSDPA Subtest-4	16.16	16.20	16.16	17.00	14.88	15.00	14.70	16.00	21.72	21.88	21.73
3GPP Rel 6	DC-HSDPA Subtest-1	16.22	16.44	15.96	17.50	15.07	15.31	14.94	16.50	22.04	22.09	21.95
3GPP Rel 6	DC-HSDPA Subtest-2	16.24	16.43	15.97	17.50	15.10	15.32	14.96	16.50	21.97	22.15	21.97
3GPP Rel 6	DC-HSDPA Subtest-3	15.99	16.00	16.00	17.00	14.69	14.85	14.54	16.00	21.40	21.67	21.48
3GPP Rel 6	DC-HSDPA Subtest-4	15.96	15.96	16.01	17.00	14.63	14.86	14.42	16.00	21.44	21.68	21.44
3GPP Rel 6	HSUPA Subtest-1	16.47	16.74	16.27	17.50	15.34	15.57	15.16	16.50	22.22	22.36	22.29
3GPP Rel 6	HSUPA Subtest-2	14.44	14.64	14.26	15.50	13.42	13.63	13.22	14.50	20.25	20.35	20.22
3GPP Rel 6	HSUPA Subtest-3	15.41	15.66	15.28	16.50	14.40	14.57	14.25	15.50	21.29	21.38	21.24
3GPP Rel 6	HSUPA Subtest-4	14.42	14.65	14.19	15.50	13.42	13.63	13.25	14.50	20.22	20.38	20.25
3GPP Rel 6	HSUPA Subtest-5	16.42	16.75	16.28	17.50	14.82	15.56	15.25	16.50	22.20	22.40	22.20



Band 4 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. Freq. 20075, Power Middle Ch. Freq. 20175, Power High Ch. Freq. 20275, Tune-up Inst (dBm), MPR (dB). Contains multiple channel frequency lists.

Band 4 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. Freq. 20075, Power Middle Ch. Freq. 20175, Power High Ch. Freq. 20275, Tune-up Inst (dBm), MPR (dB). Contains multiple channel frequency lists.



Band 7 Ant 7

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit [dBm], MPR [dB]. It lists various channel configurations for Band 7 Ant 7, including QPSK and 16QAM modulations across different RB sizes and offsets.

Band 7 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit [dBm], MPR [dB]. It lists various channel configurations for Band 7 Ant 1, including QPSK and 16QAM modulations across different RB sizes and offsets.



Band 12 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Int (dBm), MPR (dB). Contains multiple rows for various modulation types and power levels.

Band 12 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up Int (dBm), MPR (dB). Contains multiple rows for various modulation types and power levels.



Band 13 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				762				
10	QPSK	1	0	22.81			24	0
10	QPSK	1	26	22.77				
10	QPSK	1	49	22.66				
10	QPSK	25	0	22.76			24	0
10	QPSK	25	12	22.72				
10	QPSK	25	25	22.66				
10	QPSK	50	0	22.70			24	0
10	QPSK	50	0	22.76				
10	QPSK	50	0	22.74				
10	16QAM	1	0	22.78			24	0
10	16QAM	1	26	22.74				
10	16QAM	1	49	22.78				
10	16QAM	25	0	21.85			23	1
10	16QAM	25	12	21.92				
10	16QAM	25	25	21.76				
10	16QAM	50	0	21.78			23	1
10	16QAM	50	0	22.28				
10	16QAM	50	0	22.09				
10	64QAM	1	0	22.11			23	1
10	64QAM	1	49	22.11				
10	64QAM	25	0	20.84				
10	64QAM	25	12	20.88			22	2
10	64QAM	25	25	20.90				
10	64QAM	50	0	20.73				
10	256QAM	1	0	18.88			20	4
10	256QAM	1	26	18.92				
10	256QAM	1	49	18.75				
10	256QAM	25	0	18.89			20	4
10	256QAM	25	12	18.87				
10	256QAM	25	25	18.75				
10	256QAM	50	0	18.95				
Channel								
Frequency (MHz)				2320				
5	QPSK	1	0	22.73	22.77	22.70	24	0
5	QPSK	1	12	22.67	22.69	22.72		
5	QPSK	1	24	22.55	22.64	22.61		
5	QPSK	12	0	22.09	22.14	22.72	24	0
5	QPSK	12	0	22.61	22.09	22.64		
5	QPSK	12	13	22.58	22.58	22.60		
5	QPSK	25	0	22.65	22.62	22.59	24	0
5	QPSK	25	0	22.72	22.65	22.73		
5	QPSK	25	0	22.63	22.67	22.65		
5	16QAM	1	12	22.66	22.76	22.74	24	0
5	16QAM	12	0	21.83	21.80	21.81		
5	16QAM	12	7	21.86	21.88	21.81		
5	16QAM	12	13	21.69	21.68	21.67	23	1
5	16QAM	25	0	21.75	21.70	21.69		
5	16QAM	25	0	22.22	22.21	22.19		
5	64QAM	1	0	22.04	22.07	22.04	23	1
5	64QAM	1	24	22.04	22.08	22.07		
5	64QAM	12	0	20.77	20.74	20.79		
5	64QAM	12	7	20.83	20.79	20.82	22	2
5	64QAM	12	13	20.79	20.84	20.84		
5	64QAM	25	0	20.62	20.65	20.65		
5	256QAM	1	0	18.85	18.83	18.76	20	4
5	256QAM	1	12	18.90	18.97	18.93		
5	256QAM	1	24	18.73	18.73	18.69		
5	256QAM	12	0	18.78	18.81	18.74	20	4
5	256QAM	12	7	18.77	18.80	18.80		
5	256QAM	12	13	18.69	18.69	18.63		
5	256QAM	25	0	18.84	18.83	18.87		

Band 13 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				762				
10	QPSK	1	0	22.80			24	0
10	QPSK	1	26	22.79				
10	QPSK	1	49	22.78				
10	QPSK	25	0	22.81			23.5	0.5
10	QPSK	25	12	22.84				
10	QPSK	25	25	22.37				
10	QPSK	50	0	22.85			23.5	0.5
10	QPSK	50	0	22.89				
10	QPSK	50	0	22.49				
10	16QAM	1	0	22.49			23.5	0.5
10	16QAM	1	26	22.49				
10	16QAM	1	49	22.44				
10	16QAM	25	0	21.33			22.5	1.5
10	16QAM	25	12	21.33				
10	16QAM	25	25	21.42				
10	16QAM	50	0	21.30			22.5	1.5
10	16QAM	50	0	21.52				
10	16QAM	50	0	21.48				
10	64QAM	1	0	21.49			22.5	1.5
10	64QAM	1	49	21.49				
10	64QAM	25	0	20.26				
10	64QAM	25	12	20.42			21.5	2.5
10	64QAM	25	25	20.48				
10	64QAM	50	0	20.31				
10	256QAM	1	0	18.44			19.5	4.5
10	256QAM	1	26	18.54				
10	256QAM	1	49	18.54				
10	256QAM	25	0	18.41			19.5	4.5
10	256QAM	25	12	18.44				
10	256QAM	25	25	18.59				
10	256QAM	50	0	18.61				
Channel								
Frequency (MHz)				2320				
5	QPSK	1	0	22.70	22.71	22.70	24	0
5	QPSK	1	12	22.77	22.70	22.72		
5	QPSK	1	24	22.67	22.73	22.72		
5	QPSK	12	0	22.36	22.38	22.31	23.5	0.5
5	QPSK	12	0	22.22	22.21	22.12		
5	QPSK	12	13	22.31	22.33	22.34		
5	QPSK	25	0	22.28	22.30	22.27	23.5	0.5
5	QPSK	25	0	22.30	22.37	22.45		
5	QPSK	25	0	22.44	22.47	22.40		
5	16QAM	1	12	22.37	22.39	22.36	22.5	1.5
5	16QAM	12	0	21.24	21.21	21.17		
5	16QAM	12	7	21.31	21.31	21.25		
5	16QAM	12	13	21.33	21.37	21.30	22.5	1.5
5	16QAM	25	0	21.20	21.22	21.25		
5	16QAM	25	0	21.49	21.47	21.43		
5	64QAM	1	0	21.49	21.47	21.43	22.5	1.5
5	64QAM	1	12	21.45	21.36	21.43		
5	64QAM	1	24	21.44	21.43	21.46		
5	64QAM	12	0	20.31	20.34	20.16	21.5	2.5
5	64QAM	12	7	20.39	20.31	20.32		
5	64QAM	12	13	20.37	20.46	20.36		
5	64QAM	25	0	20.23	20.29	20.27	19.5	4.5
5	256QAM	1	0	18.36	18.42	18.36		
5	256QAM	1	12	18.61	18.53	18.62		
5	256QAM	1	24	18.52	18.52	18.46	19.5	4.5
5	256QAM	12	0	18.36	18.32	18.34		
5	256QAM	12	7	18.38	18.34	18.33		
5	256QAM	12	13	18.45	18.47	18.47	19.5	4.5
5	256QAM	25	0	18.45	18.42	18.46		



Band 14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	22.77			24	0
10	QPSK	1	26	22.75				
10	QPSK	1	49	22.52				
10	QPSK	25	0	22.75			24	0
10	QPSK	25	12	22.83				
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.73			24	0
10	16QAM	1	0	22.73				
10	16QAM	1	26	22.75				
10	16QAM	1	49	22.70			23.5	0.5
10	16QAM	25	0	22.31				
10	16QAM	25	12	22.36				
10	16QAM	25	25	22.23			23.5	0.5
10	16QAM	50	0	22.28				
10	16QAM	50	0	22.28				
10	64QAM	1	26	22.33			22.5	1.5
10	64QAM	1	49	22.41				
10	64QAM	25	0	21.30				
10	64QAM	25	12	21.35			20.5	3.5
10	64QAM	25	25	21.47				
10	64QAM	50	0	21.37				
10	256QAM	1	0	19.48			20.5	3.5
10	256QAM	1	26	19.54				
10	256QAM	1	49	19.45				
10	256QAM	25	0	19.42			20.5	3.5
10	256QAM	25	12	19.43				
10	256QAM	25	25	19.45				
10	256QAM	50	0	19.51				
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.70	22.68	22.67	24	0
5	QPSK	1	12	22.71	22.71	22.68		
5	QPSK	1	24	22.47	22.45	22.42		
5	QPSK	12	0	22.64	22.67	22.72	24	0
5	QPSK	12	6	22.51	22.59	22.51		
5	QPSK	12	13	22.61	22.65	22.65		
5	QPSK	26	0	22.64	22.67	22.66	24	0
5	16QAM	1	0	22.64	22.66	22.61		
5	16QAM	1	12	22.71	22.68	22.71		
5	16QAM	1	24	22.65	22.61	22.68	23.5	0.5
5	16QAM	12	0	22.21	22.19	22.19		
5	16QAM	12	7	22.25	22.31	22.25		
5	16QAM	12	13	22.23	22.14	22.14	23.5	0.5
5	16QAM	25	0	22.22	22.21	22.19		
5	16QAM	25	0	22.24	22.31	22.28		
5	64QAM	1	0	22.23	22.26	22.30	22.5	0.5
5	64QAM	1	12	22.38	22.37	22.35		
5	64QAM	12	0	21.24	21.26	21.18		
5	64QAM	12	7	21.31	21.23	21.33	22.5	1.5
5	64QAM	12	13	21.42	21.42	21.45		
5	64QAM	25	0	21.25	21.28	21.34		
5	256QAM	1	0	19.39	19.40	19.41	20.5	3.5
5	256QAM	1	12	19.43	19.52	19.47		
5	256QAM	1	24	19.42	19.43	19.34		
5	256QAM	12	0	19.30	19.37	19.36	20.5	3.5
5	256QAM	12	7	19.40	19.34	19.38		
5	256QAM	12	13	19.34	19.30	19.36		
5	256QAM	25	0	19.39	19.42	19.49		

Band 14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0				24	0
10	QPSK	1	26					
10	QPSK	1	49					
10	QPSK	25	0				24	0
10	QPSK	25	12					
10	QPSK	25	25					
10	QPSK	50	0				24	0
10	16QAM	1	0					
10	16QAM	1	26					
10	16QAM	1	49				24	0
10	16QAM	25	0					
10	16QAM	25	12					
10	16QAM	25	25				24	0
10	16QAM	50	0					
10	16QAM	50	0					
10	64QAM	1	26				24	0
10	64QAM	1	49					
10	64QAM	25	0					
10	64QAM	25	12				23	1
10	64QAM	25	25					
10	64QAM	50	0					
10	256QAM	1	0				21	3
10	256QAM	1	26					
10	256QAM	1	49					
10	256QAM	25	0				21	3
10	256QAM	25	12					
10	256QAM	25	25					
10	256QAM	50	0					
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.99	22.88	22.98	24	0
5	QPSK	1	12	22.99	22.89	22.93		
5	QPSK	1	24	22.85	22.95	22.87		
5	QPSK	12	0	22.91	22.89	22.94	24	0
5	QPSK	12	6	22.92	22.85	22.93		
5	QPSK	12	13	22.89	22.87	22.88		
5	QPSK	26	0	22.99	22.85	22.92	24	0
5	16QAM	1	0	22.85	22.83	22.85		
5	16QAM	1	12	22.88	22.92	22.90		
5	16QAM	1	24	22.93	22.85	22.92	24	0
5	16QAM	12	0	22.60	22.80	22.63		
5	16QAM	12	7	22.79	22.82	22.82		
5	16QAM	12	13	22.68	22.76	22.76	24	0
5	16QAM	25	0	22.48	22.54	22.55		
5	16QAM	25	0	22.50	22.50	22.63		
5	64QAM	1	0	22.64	22.60	22.60	24	0
5	64QAM	1	12	22.72	22.73	22.75		
5	64QAM	12	0	21.71	21.71	21.68		
5	64QAM	12	7	21.58	21.60	21.62	23	1
5	64QAM	12	13	21.76	21.72	21.75		
5	64QAM	25	0	21.68	21.68	21.67		
5	256QAM	1	0	19.74	19.72	19.73	21	3
5	256QAM	1	12	19.81	19.89	19.82		
5	256QAM	1	24	19.86	19.86	19.79		
5	256QAM	12	0	19.75	19.75	19.77	21	3
5	256QAM	12	7	19.72	19.73	19.81		
5	256QAM	12	13	19.69	19.77	19.75		
5	256QAM	25	0	19.73	19.80	19.72		



Band 17 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel				709	710	711		
10	QPSK	1	0	22.84	22.81	22.85	24	0
10	QPSK	1	26	22.78	22.80	22.82		
10	QPSK	1	49	22.82	22.88	22.80		
10	QPSK	25	0	22.81	22.88	22.85	24	0
10	QPSK	25	12	22.83	22.86	22.80		
10	QPSK	25	25	22.86	22.85	22.83		
10	QPSK	50	0	22.78	22.85	22.78	24	0
10	16QAM	1	0	22.82	22.88	22.82		
10	16QAM	1	26	22.76	22.85	22.79		
10	16QAM	1	49	22.78	22.82	22.82	23.5	0.5
10	16QAM	25	0	22.48	22.52	22.47		
10	16QAM	25	12	22.58	22.56	22.58		
10	16QAM	25	26	22.85	22.84	22.85	23.5	0.5
10	16QAM	50	0	22.49	22.50	22.53		
10	16QAM	50	0	22.34	22.43	22.38		
10	64QAM	1	26	22.36	22.41	22.41	23.5	0.5
10	64QAM	1	49	22.34	22.49	22.34		
10	64QAM	25	0	21.44	21.50	21.50		
10	64QAM	25	12	21.52	21.55	21.53	22.5	1.5
10	64QAM	25	26	21.54	21.58	21.67		
10	64QAM	50	0	21.58	21.68	21.58		
10	256QAM	1	0	19.58	19.68	19.62	20.5	3.5
10	256QAM	1	26	19.78	19.82	19.73		
10	256QAM	1	49	19.64	19.73	19.64		
10	256QAM	25	0	19.67	19.69	19.69	20.5	3.5
10	256QAM	25	12	19.55	19.65	19.63		
10	256QAM	25	26	19.65	19.68	19.58		
10	256QAM	50	0	19.65	19.71	19.59		
Channel				709.5	710	713.5	Tune-up Inst (dBm)	MPR (dB)
5	QPSK	1	0	22.77	22.81	22.74	24	0
5	QPSK	1	12	22.69	22.72	22.71		
5	QPSK	1	24	22.72	22.83	22.68		
5	QPSK	12	0	22.78	22.77	22.73	24	0
5	QPSK	12	12	22.81	22.83	22.69		
5	QPSK	12	13	22.81	22.81	22.73		
5	QPSK	26	0	22.65	22.80	22.68	24	0
5	16QAM	1	0	22.78	22.85	22.80		
5	16QAM	1	12	22.85	22.73	22.84		
5	16QAM	1	24	22.74	22.75	22.77	23.5	0.5
5	16QAM	12	0	22.38	22.50	22.44		
5	16QAM	12	7	22.49	22.49	22.48		
5	16QAM	12	13	22.52	22.42	22.61	23.5	0.5
5	16QAM	25	0	22.46	22.44	22.43		
5	16QAM	25	0	22.27	22.32	22.30		
5	64QAM	1	12	22.33	22.33	22.30	23.5	0.5
5	64QAM	1	24	22.25	22.38	22.30		
5	64QAM	12	0	21.34	21.44	21.46		
5	64QAM	12	7	21.45	21.47	21.45	22.5	1.5
5	64QAM	12	13	21.45	21.53	21.57		
5	64QAM	25	0	21.56	21.40	21.28		
5	256QAM	1	0	19.55	19.65	19.50	20.5	3.5
5	256QAM	1	12	19.69	19.76	19.62		
5	256QAM	1	24	19.57	19.66	19.55		
5	256QAM	12	0	19.63	19.59	19.51	20.5	3.5
5	256QAM	12	7	19.50	19.60	19.61		
5	256QAM	12	13	19.57	19.63	19.51		
5	256QAM	25	0	19.54	19.60	19.47		

Band 17 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. Freq	Middle Ch. Freq	High Ch. Freq		
Channel				709	710	711		
10	QPSK	1	0	23.02	23.01	23.02	24	0
10	QPSK	1	26	23.47	23.34	23.38		
10	QPSK	1	49	23.47	23.45	23.27		
10	QPSK	25	0	23.47	23.48	23.42	24	0
10	QPSK	25	12	23.46	23.43	23.36		
10	QPSK	25	25	23.41	23.41	23.41		
10	QPSK	50	0	23.30	23.41	23.33	24	0
10	16QAM	1	0	23.47	23.49	23.35		
10	16QAM	1	26	23.39	23.48	23.38		
10	16QAM	1	49	23.46	23.45	23.38	24	0
10	16QAM	25	0	23.04	23.08	23.14		
10	16QAM	25	12	23.18	23.18	23.14		
10	16QAM	25	26	23.18	23.23	23.17	23.5	0.5
10	16QAM	50	0	23.08	23.08	23.10		
10	16QAM	50	0	22.98	23.07	22.93		
10	64QAM	1	26	23.05	23.07	22.98	23.5	0.5
10	64QAM	1	49	23.07	23.04	22.95		
10	64QAM	25	0	22.00	22.00	22.00		
10	64QAM	25	12	22.14	22.11	22.16	22.5	1.5
10	64QAM	25	26	22.16	22.12	22.09		
10	64QAM	50	0	22.05	22.06	22.16		
10	256QAM	1	0	20.20	20.22	20.20	20.5	3.5
10	256QAM	1	26	20.22	20.31	20.21		
10	256QAM	1	49	20.20	20.28	20.19		
10	256QAM	25	0	20.14	20.25	20.21	20.5	3.5
10	256QAM	25	12	20.17	20.34	20.18		
10	256QAM	25	26	20.19	20.26	20.16		
10	256QAM	50	0	20.13	20.22	20.17		
Channel				709.5	710	713.5	Tune-up Inst (dBm)	MPR (dB)
5	QPSK	1	0	23.48	23.48	23.32	24	0
5	QPSK	1	12	23.36	23.31	23.30		
5	QPSK	1	24	23.43	23.34	23.15		
5	QPSK	12	0	23.36	23.40	23.33	24	0
5	QPSK	12	12	23.37	23.37	23.27		
5	QPSK	12	13	23.38	23.36	23.32		
5	QPSK	26	0	23.21	23.38	23.22	24	0
5	16QAM	1	0	23.37	23.37	23.27		
5	16QAM	1	12	23.37	23.44	23.26		
5	16QAM	1	24	23.38	23.37	23.29	23.5	0.5
5	16QAM	12	0	22.98	22.98	23.03		
5	16QAM	12	7	23.09	23.15	23.09		
5	16QAM	12	13	23.13	23.18	23.10	23.5	0.5
5	16QAM	25	0	23.02	23.04	23.00		
5	16QAM	25	0	22.85	23.00	22.84		
5	64QAM	1	12	22.95	23.03	22.90	23.5	0.5
5	64QAM	1	24	22.96	23.04	22.89		
5	64QAM	12	0	21.96	21.92	21.98		
5	64QAM	12	7	22.10	22.06	22.07	22.5	1.5
5	64QAM	12	13	22.06	22.05	21.99		
5	64QAM	25	0	21.96	21.98	22.11		
5	256QAM	1	0	20.12	20.20	20.08	20.5	3.5
5	256QAM	1	12	20.17	20.27	20.15		
5	256QAM	1	24	20.15	20.23	20.07		
5	256QAM	12	0	20.02	20.13	20.18	20.5	3.5
5	256QAM	12	7	20.09	20.16	20.18		
5	256QAM	12	13	20.12	20.16	20.05		
5	256QAM	25	0	20.03	20.11	20.15		



Band 26 FCC Ant 0

Channel	Modulation	RB Size	RB Offset	Power Low Ch. F/Freq. noise	Power Midle Ch. F/Freq. noise	Power High Ch. F/Freq. noise	Tune-up limit (dBm)	MPR (dB)
Channel Frequency (MHz)								
15	QPSK	1	0	22.85	23.03	22.85	24	0
15	QPSK	1	37	22.92	23.04	22.87		
15	QPSK	1	74	22.92	22.74	22.72		
15	QPSK	36	0	22.89	23.01	22.67		
15	QPSK	36	20	22.88	23.00	22.80		
15	QPSK	36	38	22.96	22.97	22.92		
15	QPSK	75	0	22.84	22.99	22.81		
15	16QAM	1	0	22.84	23.02	22.85		
15	16QAM	1	37	22.86	22.88	22.81		
15	16QAM	1	74	22.80	23.03	22.88		
15	16QAM	36	0	22.41	22.46	22.48		
15	16QAM	36	20	22.80	22.45	22.58		
15	16QAM	36	38	22.49	22.80	22.38		
15	16QAM	75	0	22.59	22.80	22.44		
15	64QAM	1	0	22.52	22.62	22.55		
15	64QAM	1	37	22.64	22.72	22.45		
15	64QAM	1	74	22.62	22.61	22.55		
15	64QAM	36	0	21.43	21.48	21.38		
15	64QAM	36	20	21.49	21.47	21.49		
15	64QAM	36	38	21.46	21.49	21.41		
15	64QAM	75	0	21.56	21.55	21.51		
15	256QAM	1	0	19.60	19.66	19.58		
15	256QAM	1	37	19.71	19.73	19.68		
15	256QAM	1	74	19.75	19.81	19.77		
15	256QAM	36	0	19.60	19.82	19.68		
15	256QAM	36	20	19.66	19.63	19.67		
15	256QAM	36	38	19.59	19.64	19.55		
15	256QAM	75	0	19.64	19.68	19.65		
Channel Frequency (MHz)								
10	QPSK	1	0	22.92	22.99	22.89	24	0
10	QPSK	1	37	22.88	22.93	22.79		
10	QPSK	1	74	22.86	22.62	22.65		
10	QPSK	25	0	22.97	22.94	22.88		
10	QPSK	25	12	22.92	22.92	22.83		
10	QPSK	25	35	22.94	22.84	22.83		
10	QPSK	50	0	22.84	22.89	22.87		
10	16QAM	1	0	22.82	22.90	22.75		
10	16QAM	1	25	22.78	22.91	22.69		
10	16QAM	1	49	22.79	22.97	22.80		
10	16QAM	25	0	22.34	22.42	22.42		
10	16QAM	25	12	22.44	22.42	22.47		
10	16QAM	25	25	22.38	22.38	22.34		
10	16QAM	50	0	22.56	22.45	22.42		
10	64QAM	1	0	22.46	22.50	22.46		
10	64QAM	1	25	22.38	22.68	22.43		
10	64QAM	1	49	22.50	22.54	22.49		
10	64QAM	25	0	21.32	21.37	21.38		
10	64QAM	25	12	21.37	21.35	21.37		
10	64QAM	25	25	21.42	21.40	21.39		
10	64QAM	50	0	21.44	21.51	21.48		
10	256QAM	1	0	19.60	19.67	19.62		
10	256QAM	1	25	19.62	19.64	19.64		
10	256QAM	1	49	19.67	19.69	19.70		
10	256QAM	25	0	19.54	19.57	19.48		
10	256QAM	25	12	19.48	19.56	19.56		
10	256QAM	25	25	19.48	19.41	19.48		
10	256QAM	50	0	19.60	19.60	19.62		
Channel Frequency (MHz)								
5	QPSK	1	0	22.88	23.04	22.84	24	0
5	QPSK	1	12	22.88	22.96	22.79		
5	QPSK	1	24	22.88	22.64	22.67		
5	QPSK	12	0	22.91	22.97	22.94		
5	QPSK	12	7	22.84	22.90	22.80		
5	QPSK	12	13	22.88	22.86	22.86		
5	QPSK	25	0	22.90	22.87	22.89		
5	16QAM	1	0	22.79	22.94	22.73		
5	16QAM	1	12	22.82	22.87	22.76		
5	16QAM	1	24	22.86	22.95	22.78		
5	16QAM	12	0	22.39	22.35	22.37		
5	16QAM	12	7	22.40	22.38	22.49		
5	16QAM	12	13	22.38	22.56	22.33		
5	16QAM	25	0	22.47	22.39	22.37		
5	64QAM	1	0	22.45	22.50	22.51		
5	64QAM	1	12	22.60	22.87	22.34		
5	64QAM	1	24	22.69	22.51	22.51		
5	64QAM	12	0	21.36	21.41	21.36		
5	64QAM	12	7	21.47	21.36	21.36		
5	64QAM	12	13	21.38	21.46	21.29		
5	64QAM	25	0	21.40	21.46	21.39		
5	256QAM	1	0	19.57	19.63	19.50		
5	256QAM	1	12	19.69	19.69	19.64		
5	256QAM	1	24	19.71	19.73	19.74		
5	256QAM	12	0	19.50	19.50	19.48		
5	256QAM	12	7	19.49	19.52	19.51		
5	256QAM	12	13	19.60	19.67	19.48		
5	256QAM	25	0	19.68	19.60	19.65		
Channel Frequency (MHz)								
3	QPSK	1	0	22.86	23.04	22.80	24	0
3	QPSK	1	8	22.86	22.86	22.86		
3	QPSK	1	14	22.86	22.62	22.65		
3	QPSK	8	0	22.89	22.88	22.80		
3	QPSK	8	4	22.83	22.93	22.84		
3	QPSK	8	7	22.93	22.89	22.90		
3	QPSK	15	0	22.88	22.83	22.89		
3	16QAM	1	0	22.79	22.96	22.73		
3	16QAM	1	8	22.82	22.86	22.78		
3	16QAM	1	14	22.83	22.94	22.78		
3	16QAM	8	0	22.39	22.37	22.36		
3	16QAM	8	4	22.42	22.43	22.52		
3	16QAM	8	7	22.40	22.49	22.36		
3	16QAM	15	0	22.57	22.42	22.36		
3	64QAM	1	0	22.46	22.50	22.50		
3	64QAM	1	8	22.59	22.87	22.34		
3	64QAM	1	14	22.58	22.55	22.51		
3	64QAM	8	0	21.41	21.38	21.26		
3	64QAM	8	4	21.46	21.40	21.34		
3	64QAM	8	7	21.46	21.38	21.37		
3	64QAM	15	0	21.46	21.48	21.47		
3	256QAM	1	0	19.49	19.54	19.47		
3	256QAM	1	8	19.68	19.62	19.58		
3	256QAM	1	14	19.65	19.71	19.71		
3	256QAM	8	0	19.49	19.51	19.51		
3	256QAM	8	4	19.52	19.57	19.51		
3	256QAM	8	7	19.58	19.53	19.43		
3	256QAM	15	0	19.53	19.64	19.53		
Channel Frequency (MHz)								
1.4	QPSK	1	0	22.83	23.03	22.89	24	0
1.4	QPSK	1	3	22.83	22.96	22.75		
1.4	QPSK	1	5	22.85	22.66	22.67		
1.4	QPSK	3	0	22.82	22.97	22.86		
1.4	QPSK	3	1	22.89	22.88	22.88		
1.4	QPSK	3	3	22.86	22.88	22.80		
1.4	QPSK	6	0	22.89	22.97	22.85		
1.4	16QAM	1	0	22.77	22.97	22.76		
1.4	16QAM	1	3	22.84	22.94	22.79		
1.4	16QAM	1	5	22.82	22.85	22.81		
1.4	16QAM	3	0	22.34	22.43	22.40		
1.4	16QAM	3	1	22.43	22.45	22.50		
1.4	16QAM	3	3	22.37	22.52	22.35		
1.4	16QAM	6	0	22.49	22.45	22.41		
1.4	64QAM	1	0	22.42	22.51	22.47		
1.4	64QAM	1	3	22.52	22.63	22.38		
1.4	64QAM	1	5	22.60	22.95	22.21		
1.4	64QAM	3	0	22.39	22.48	22.46		
1.4	64QAM	3	1	22.47	22.62	22.37		
1.4	64QAM	3	3	22.55	22.92	22.31		
1.4	64QAM	6	0	21.47	21.48	21.48		
1.4	256QAM	1	0	19.58	19.61	19.63		
1.4	256QAM	1	3	19.59	19.62	19.62		
1.4	256QAM	1	5	19.67	19.74	19.67		
1.4	256QAM	3	0	19.62	19.54	19.60		
1.4	256QAM	3	1	19.47	19.56	19.47		
1.4	256QAM	3	3	19.55	19.52	19.50		
1.4	256QAM	6	0	19.63	19.61	19.67		



Band 26 FCC Ant 1

Channel	Modulation	RB Size	RB Offset	Power Low Ch. F/Freq noise	Power Midle Ch. F/Freq noise	Power High Ch. F/Freq noise	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	0	23.09	23.16	23.18	24	0
15	QPSK	1	37	23.04	23.04	23.11		
15	QPSK	1	74	22.87	22.93	23.09		
15	QPSK	36	0	22.88	23.05	23.04		
15	QPSK	36	20	22.87	23.03	23.02	24	0
15	QPSK	36	58	22.85	23.00	23.00		
15	QPSK	75	0	23.02	23.03	23.09		
15	16QAM	1	0	22.98	23.06	23.03		
15	16QAM	1	37	22.97	23.08	23.04	24	0
15	16QAM	1	74	23.02	23.09	23.03		
15	16QAM	36	0	22.40	22.39	22.49		
15	16QAM	36	20	22.83	22.83	22.83		
15	16QAM	36	58	22.80	22.48	22.80	23.5	0.5
15	16QAM	75	0	22.55	22.80	22.56		
15	64QAM	1	0	22.44	22.85	22.50		
15	64QAM	1	37	22.47	22.71	22.71		
15	64QAM	1	74	22.26	22.65	22.65	23.5	0.5
15	64QAM	36	0	21.48	21.41	21.53		
15	64QAM	36	20	21.51	21.50	21.56		
15	64QAM	36	58	21.39	21.34	21.86		
15	64QAM	75	0	21.47	21.45	21.68	22.5	1.5
15	256QAM	1	0	19.65	19.67	19.65		
15	256QAM	1	37	19.67	19.66	19.63		
15	256QAM	1	74	19.71	19.83	19.71		
15	256QAM	36	0	19.60	19.81	19.65	20.5	3.5
15	256QAM	36	20	19.68	19.63	19.82		
15	256QAM	36	58	19.61	19.72	19.64		
15	256QAM	75	0	19.62	19.62	19.58		
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.00	23.06	23.03	24	0
10	QPSK	1	37	22.92	22.94	23.00		
10	QPSK	1	74	22.83	22.84	22.97		
10	QPSK	25	0	22.80	22.84	22.80		
10	QPSK	25	12	22.75	22.95	22.75	24	0
10	QPSK	25	35	22.84	22.96	22.91		
10	QPSK	50	0	22.81	22.95	22.85		
10	16QAM	1	0	22.94	22.99	22.96		
10	16QAM	1	25	22.86	22.98	22.92	24	0
10	16QAM	1	49	22.90	23.01	22.91		
10	16QAM	25	0	22.37	22.34	22.43		
10	16QAM	25	12	22.41	22.49	22.59		
10	16QAM	25	35	22.53	22.45	22.56	23.5	0.5
10	16QAM	50	0	22.47	22.44	22.48		
10	64QAM	1	0	22.38	22.48	22.48		
10	64QAM	1	25	22.40	22.67	22.65		
10	64QAM	1	49	22.19	22.54	22.51	22.5	1.5
10	64QAM	25	0	21.40	21.36	21.48		
10	64QAM	25	12	21.39	21.38	21.47		
10	64QAM	25	35	21.46	21.49	21.69		
10	64QAM	50	0	21.41	21.39	21.63	20.5	3.5
10	256QAM	1	0	19.69	19.57	19.63		
10	256QAM	1	25	19.45	19.58	19.53		
10	256QAM	1	49	19.63	19.77	19.62		
10	256QAM	25	0	19.43	19.50	19.51	20.5	3.5
10	256QAM	25	12	19.50	19.51	19.42		
10	256QAM	25	35	19.54	19.64	19.53		
10	256QAM	50	0	19.47	19.52	19.51		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.03	23.04	23.08	24	0
5	QPSK	1	12	22.97	23.01	23.05		
5	QPSK	1	24	22.79	22.81	23.08		
5	QPSK	12	0	22.96	23.03	22.98		
5	QPSK	12	7	22.86	23.00	22.84	24	0
5	QPSK	12	13	22.83	22.96	22.86		
5	16QAM	1	0	22.97	23.01	22.96		
5	16QAM	1	11	22.84	23.02	22.92		
5	16QAM	1	12	22.85	22.97	22.97	24	0
5	16QAM	1	24	22.81	22.97	23.01		
5	16QAM	12	0	22.33	22.34	22.39		
5	16QAM	12	7	22.45	22.43	22.55		
5	16QAM	12	13	22.50	22.46	22.57	23.5	0.5
5	16QAM	25	0	22.49	22.45	22.44		
5	64QAM	1	0	22.25	22.47	22.43		
5	64QAM	1	12	22.43	22.53	22.67		
5	64QAM	1	24	22.23	22.53	22.61	23.5	0.5
5	64QAM	12	0	21.49	21.29	21.41		
5	64QAM	12	7	21.48	21.47	21.49		
5	64QAM	12	13	21.50	21.45	21.61		
5	64QAM	25	0	21.46	21.41	21.58	22.5	1.5
5	256QAM	1	0	19.52	19.51	19.52		
5	256QAM	1	12	19.50	19.46	19.52		
5	256QAM	1	24	19.65	19.79	19.67		
5	256QAM	12	0	19.41	19.59	19.47	20.5	3.5
5	256QAM	12	7	19.47	19.55	19.43		
5	256QAM	12	13	19.64	19.70	19.64		
5	256QAM	25	0	19.41	19.56	19.53		
Channel								
Frequency (MHz)								
3	QPSK	1	0	22.98	23.05	23.13	24	0
3	QPSK	1	8	22.94	23.01	23.06		
3	QPSK	1	14	22.83	22.83	22.89		
3	QPSK	8	0	22.86	22.86	22.85		
3	QPSK	8	4	22.81	22.96	22.88	24	0
3	QPSK	8	7	22.93	22.90	22.98		
3	QPSK	15	0	22.97	22.94	22.98		
3	16QAM	1	0	22.95	23.04	22.98		
3	16QAM	1	8	22.86	23.05	22.97	24	0
3	16QAM	1	14	22.93	22.97	22.95		
3	16QAM	8	0	22.29	22.36	22.40		
3	16QAM	8	4	22.44	22.44	22.52		
3	16QAM	8	7	22.51	22.49	22.52	23.5	0.5
3	16QAM	15	0	22.48	22.45	22.50		
3	64QAM	1	0	22.33	22.48	22.44		
3	64QAM	1	8	22.38	22.59	22.61		
3	64QAM	1	14	22.22	22.60	22.58	22.5	1.5
3	64QAM	8	0	21.38	21.39	21.42		
3	64QAM	8	4	21.43	21.38	21.51		
3	64QAM	8	7	21.44	21.44	21.58		
3	64QAM	15	0	21.35	21.41	21.60	20.5	3.5
3	256QAM	1	0	19.63	19.57	19.63		
3	256QAM	1	8	19.48	19.57	19.58		
3	256QAM	1	14	19.60	19.78	19.66		
3	256QAM	8	0	19.42	19.52	19.47	20.5	3.5
3	256QAM	8	4	19.50	19.56	19.48		
3	256QAM	8	7	19.65	19.65	19.59		
3	256QAM	15	0	19.42	19.55	19.52		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	23.02	23.08	23.04	24	0
1.4	QPSK	1	3	22.99	22.95	23.05		
1.4	QPSK	1	5	22.73	22.82	23.04		
1.4	QPSK	3	0	22.86	22.88	23.00		
1.4	QPSK	3	1	22.95	23.01	22.98	24	0
1.4	QPSK	3	3	22.92	22.93	22.88		
1.4	QPSK	6	0	22.91	22.99	22.89		
1.4	16QAM	1	0	22.94	23.03	22.93		
1.4	16QAM	1	3	22.88	23.05	22.84	24	0
1.4	16QAM	1	5	23.00	23.03	23.00		
1.4	16QAM	3	0	22.38	22.32	22.44		
1.4	16QAM	3	1	22.50	22.43	22.53		
1.4	16QAM	3	3	22.58	22.46	22.49	23.5	0.5
1.4	16QAM	6	0	22.49	22.45	22.47		
1.4	64QAM	1	0	22.39	22.52	22.48		
1.4	64QAM	1	3	22.44	22.62	22.65		
1.4	64QAM	1	5	22.20	22.58	22.62	23.5	0.5
1.4	64QAM	3	0	22.36	22.54	22.46		
1.4	64QAM	3	1	22.47	22.63	22.63		
1.4	64QAM	3	3	22.21	22.54	22.61		
1.4	64QAM	6	0	21.36	21.35	21.58	22.5	1.5
1.4	256QAM	1	0	19.63	19.56	19.67		
1.4	256QAM	1	3	19.45	19.64	19.61		
1.4	256QAM	1	5	19.68	19.79	19.65		
1.4	256QAM	3	0	19.44	19.51	19.53	20.5	3.5
1.4	256QAM	3	1	19.58	19.57	19.40		
1.4	256QAM	3	3	19.52	19.62	19.56		
1.4	256QAM	6	0	19.44	19.50	19.49		



Band 30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	23.07				
10	QPSK	1	26	23.08			24	0
10	QPSK	1	49	22.85				
10	QPSK	25	0	22.85				
10	QPSK	25	12	22.81			24	0
10	QPSK	25	25	22.87				
10	QPSK	50	0	22.80				
10	16QAM	1	0	23.01			24	0
10	16QAM	1	26	23.02				
10	16QAM	1	49	23.05				
10	16QAM	25	0	22.53				
10	16QAM	25	12	22.46			23.5	0.5
10	16QAM	25	25	22.38				
10	16QAM	50	0	22.50				
10	64QAM	1	0	22.51				
10	64QAM	1	26	22.46			23.5	0.5
10	64QAM	1	49	22.55				
10	64QAM	25	0	21.62				
10	64QAM	25	12	21.57			22.5	1.5
10	64QAM	25	25	21.55				
10	64QAM	50	0	21.63				
10	256QAM	1	0	19.53			20.5	3.5
10	256QAM	1	26	19.53				
10	256QAM	1	49	19.32				
10	256QAM	25	0	19.35			20.5	3.5
10	256QAM	25	12	19.42				
10	256QAM	25	25	19.26				
10	256QAM	50	0	19.31				
Channel								
Frequency (MHz)				2760.5	2771.0	2773.5		
5	QPSK	1	0	23.03	22.99	22.98		
5	QPSK	1	12	23.00	22.99	22.98	24	0
5	QPSK	1	24	22.81	22.76	22.83		
5	QPSK	12	0	22.85	22.89	22.89		
5	QPSK	12	12	22.87	22.89	22.75	24	0
5	QPSK	12	13	22.83	22.81	22.85		
5	QPSK	25	0	22.94	22.79	22.98		
5	16QAM	1	0	22.93	22.95	22.94		
5	16QAM	1	12	22.92	22.98	22.90	24	0
5	16QAM	1	24	22.99	22.95	22.97		
5	16QAM	12	0	22.50	22.42	22.44		
5	16QAM	12	7	22.38	22.41	22.34	23.5	0.5
5	16QAM	12	13	22.35	22.32	22.29		
5	16QAM	25	0	22.42	22.40	22.42		
5	64QAM	1	0	22.44	22.40	22.44		
5	64QAM	1	12	22.37	22.41	22.38	23.5	0.5
5	64QAM	1	24	22.44	22.53	22.53		
5	64QAM	12	0	21.53	21.60	21.54		
5	64QAM	12	7	21.50	21.45	21.45	22.5	1.5
5	64QAM	12	13	21.44	21.44	21.52		
5	64QAM	25	0	21.61	21.59	21.61		
5	256QAM	1	0	19.44	19.48	19.48		
5	256QAM	1	12	19.48	19.50	19.46	20.5	3.5
5	256QAM	1	24	19.29	19.29	19.26		
5	256QAM	12	0	19.32	19.31	19.26		
5	256QAM	12	7	19.20	19.40	19.20	20.5	3.5
5	256QAM	12	13	19.24	19.22	19.18		
5	256QAM	25	0	19.23	19.26	19.27		

Band 30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch. / Freq	Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)				2310				
10	QPSK	1	0	16.72				
10	QPSK	1	26	16.63			17.9	0
10	QPSK	1	49	16.71				
10	QPSK	25	0	16.58				
10	QPSK	25	12	16.62			17.9	0
10	QPSK	25	25	16.41				
10	QPSK	50	0	16.57				
10	16QAM	1	0	16.60				
10	16QAM	1	26	16.57			17.9	0
10	16QAM	1	49	16.71				
10	16QAM	25	0	16.58				
10	16QAM	25	12	16.45			17.9	0
10	16QAM	25	25	16.40				
10	16QAM	50	0	16.56				
10	64QAM	1	0	16.67				
10	64QAM	1	26	16.67			17.9	0
10	64QAM	1	49	16.63				
10	64QAM	25	0	16.57				
10	64QAM	25	12	16.46			17.9	0
10	64QAM	25	25	16.38				
10	64QAM	50	0	16.55				
10	256QAM	1	0	16.81				
10	256QAM	1	26	16.63			17.9	0
10	256QAM	1	49	16.70				
10	256QAM	25	0	16.47				
10	256QAM	25	12	16.42			17.9	0
10	256QAM	25	25	16.40				
10	256QAM	50	0	16.63				
Channel								
Frequency (MHz)				2760.5	2771.0	2773.5		
5	QPSK	1	0	16.99	16.63	16.54		
5	QPSK	1	12	16.54	16.51	16.54	17.9	0
5	QPSK	1	24	16.50	16.59	16.59		
5	QPSK	12	0	16.46	16.46	16.46		
5	QPSK	12	12	16.41	16.50	16.52	17.9	0
5	QPSK	12	13	16.27	16.28	16.30		
5	QPSK	25	0	16.53	16.47	16.56		
5	16QAM	1	0	16.48	16.54	16.52		
5	16QAM	1	12	16.55	16.43	16.45	17.9	0
5	16QAM	1	24	16.59	16.63	16.67		
5	16QAM	12	0	16.52	16.43	16.48		
5	16QAM	12	7	16.32	16.44	16.36	17.9	0
5	16QAM	12	13	16.34	16.33	16.34		
5	16QAM	25	0	16.55	16.50	16.46		
5	64QAM	1	0	16.58	16.65	16.69		
5	64QAM	1	12	16.67	16.54	16.62	17.9	0
5	64QAM	1	24	16.67	16.53	16.62		
5	64QAM	12	0	16.43	16.45	16.47		
5	64QAM	12	7	16.40	16.40	16.44	17.9	0
5	64QAM	12	13	16.35	16.32	16.32		
5	64QAM	25	0	16.53	16.37	16.53		
5	256QAM	1	0	16.47	16.49	16.47		
5	256QAM	1	12	16.63	16.62	16.60	17.9	0
5	256QAM	1	24	16.63	16.66	16.63		
5	256QAM	12	0	16.39	16.43	16.44		
5	256QAM	12	7	16.34	16.47	16.28	17.9	0
5	256QAM	12	13	16.38	16.37	16.38		
5	256QAM	25	0	16.50	16.62	16.38		



Band 30 Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch / Freq	Middle Ch / Freq	High Ch / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	18.00			18.5	0
10	QPSK	1	26	17.99				
10	QPSK	1	49	17.79				
10	QPSK	25	0	17.99			18.5	0
10	QPSK	25	12	17.96				
10	QPSK	25	25	17.94				
10	QPSK	50	0	17.91			18.5	0
10	16QAM	1	0	17.91				
10	16QAM	1	26	17.96				
10	16QAM	1	49	17.90			18.5	0
10	16QAM	25	0	17.99				
10	16QAM	25	12	17.97				
10	16QAM	25	25	17.90			18.5	0
10	16QAM	50	0	17.99				
10	16QAM	50	0	17.92				
10	64QAM	1	0	17.94			18.5	0
10	64QAM	1	26	17.95				
10	64QAM	1	49	17.90				
10	64QAM	25	0	17.98			18.5	0
10	64QAM	25	12	17.97				
10	64QAM	25	25	17.90				
10	64QAM	50	0	17.91			18.5	0
10	256QAM	1	0	17.91				
10	256QAM	1	49	17.78				
10	256QAM	25	0	17.83			18.5	0
10	256QAM	25	12	17.74				
10	256QAM	25	25	17.73				
10	256QAM	50	0	17.74			18.5	0
10	256QAM	50	0	17.73				
10	256QAM	50	0	17.73				
Channel								
Frequency (MHz)								
5	QPSK	1	0	17.88	17.96	17.98	18.5	0
5	QPSK	1	24	17.74	17.75	17.74		
5	QPSK	1	48	17.97	17.97	17.98		
5	QPSK	12	0	17.90	17.92	17.95	18.5	0
5	QPSK	12	13	17.85	17.83	17.91		
5	QPSK	26	0	17.89	17.87	17.99		
5	16QAM	1	0	17.86	17.81	17.83	18.5	0
5	16QAM	1	12	17.91	17.94	17.90		
5	16QAM	1	24	17.90	17.93	17.96		
5	16QAM	12	0	17.89	17.93	17.97	18.5	0
5	16QAM	12	7	17.84	17.89	17.90		
5	16QAM	12	15	17.90	17.84	17.88		
5	16QAM	25	0	17.85	17.87	17.86	18.5	0
5	64QAM	1	0	17.92	17.92	17.97		
5	64QAM	1	12	17.92	17.91	17.93		
5	64QAM	1	24	17.85	17.80	17.78	18.5	0
5	64QAM	12	0	17.91	17.86	17.94		
5	64QAM	12	7	17.94	17.90	17.85		
5	64QAM	12	13	17.81	17.80	17.79	18.5	0
5	64QAM	25	0	17.84	17.79	17.87		
5	256QAM	1	0	17.82	17.84	17.80		
5	256QAM	1	12	17.76	17.75	17.66	18.5	0
5	256QAM	1	24	17.73	17.75	17.75		
5	256QAM	12	0	17.71	17.71	17.78		
5	256QAM	12	7	17.69	17.62	17.62	18.5	0
5	256QAM	12	13	17.62	17.64	17.63		
5	256QAM	25	0	17.68	17.71	17.65		

Band 30 Ant 9

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up Inst (dBm)	MPR (dB)
				Low Ch / Freq	Middle Ch / Freq	High Ch / Freq		
Channel								
Frequency (MHz)								
10	QPSK	1	0	21.84			22.5	0
10	QPSK	1	26	21.83				
10	QPSK	1	49	21.50				
10	QPSK	25	0	21.78			22.5	0
10	QPSK	25	12	21.78				
10	QPSK	25	25	21.66				
10	QPSK	50	0	21.67			22.5	0
10	16QAM	1	0	21.65				
10	16QAM	1	26	21.77				
10	16QAM	1	49	21.80			22.5	0
10	16QAM	25	0	21.77				
10	16QAM	25	12	21.34				
10	16QAM	25	25	21.30			22	0.5
10	16QAM	50	0	21.35				
10	16QAM	50	0	21.17				
10	64QAM	1	0	21.48			22	0.5
10	64QAM	1	26	21.62				
10	64QAM	1	49	21.30				
10	64QAM	25	0	20.34			21	1.5
10	64QAM	25	12	20.39				
10	64QAM	25	25	20.52				
10	64QAM	50	0	20.38			19	3.5
10	256QAM	1	0	18.99				
10	256QAM	1	26	18.13				
10	256QAM	1	49	17.71			19	3.5
10	256QAM	25	0	17.62				
10	256QAM	25	12	17.61				
10	256QAM	25	25	17.78			19	3.5
10	256QAM	50	0	17.61				
10	256QAM	50	0	17.61				
Channel								
Frequency (MHz)								
5	QPSK	1	0	21.78	21.79	21.80	22.5	0
5	QPSK	1	24	21.71	21.74	21.90		
5	QPSK	1	48	21.47	21.39	21.39		
5	QPSK	12	0	21.70	21.78	21.72	22.5	0
5	QPSK	12	0	21.73	21.76	21.73		
5	QPSK	12	13	21.56	21.64	21.61		
5	QPSK	26	0	21.56	21.64	21.66	22.5	0
5	16QAM	1	0	21.70	21.74	21.69		
5	16QAM	1	12	21.80	21.77	21.70		
5	16QAM	1	24	21.66	21.65	21.62	22	0.5
5	16QAM	12	0	21.23	21.25	21.25		
5	16QAM	12	7	21.17	21.10	21.15		
5	16QAM	12	15	21.14	21.09	21.09	22	0.5
5	16QAM	25	0	21.07	21.06	21.15		
5	64QAM	1	0	21.37	21.40	21.43		
5	64QAM	1	12	21.42	21.48	21.44	21	1.5
5	64QAM	1	24	21.27	21.28	21.20		
5	64QAM	12	0	20.26	20.31	20.32		
5	64QAM	12	7	20.25	20.17	20.23	19	3.5
5	64QAM	12	13	20.10	20.17	20.15		
5	64QAM	25	0	20.25	20.23	20.18		
5	256QAM	1	0	18.07	18.01	18.04	19	3.5
5	256QAM	1	12	18.09	18.10	18.10		
5	256QAM	1	24	17.63	17.69	17.69		
5	256QAM	12	0	17.62	17.83	17.80	19	3.5
5	256QAM	12	7	17.84	17.84	17.88		
5	256QAM	12	13	17.66	17.74	17.72		
5	256QAM	25	0	17.88	17.87	17.84	19	3.5



Band 66 Ant 0

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Ch. Freq, Power Middle, Power High, Tune-up Inst (dBm), MPR (dB). Contains multiple rows of channel data for various modulation types and power levels.

Band 66 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Ch. Freq, Power Middle, Power High, Tune-up Inst (dBm), MPR (dB). Contains multiple rows of channel data for various modulation types and power levels.



Band 41 Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq, Power Low Middle Ch./Freq, Power Middle Ch./Freq, Power High Middle Ch./Freq, Power High Ch./Freq, Tune-up limit (dBm), MPR (dB). Contains data for Channel 2995.5, 3072.5, 3972.5, 4017.1, 4062.0, 4109.6, 4156.5.

Band 41 HPUE Ant 1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq, Power Low Middle Ch./Freq, Power Middle Ch./Freq, Power High Middle Ch./Freq, Power High Ch./Freq, Tune-up limit (dBm), MPR (dB). Contains data for Channel 2995.5, 3072.5, 3972.5, 4017.1, 4062.0, 4109.6, 4156.5.



Band 41 Ant 6

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Low Middle Ch./Freq., Power Middle Ch./Freq., Power High Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes Channel Frequency (MHz) and Channel Power (dBm) sub-sections.

Band 41 HPUE Ant 6

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Low Middle Ch./Freq., Power Middle Ch./Freq., Power High Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes Channel Frequency (MHz) and Channel Power (dBm) sub-sections.



Band 48 FCC Ant 8

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Low Middle Ch / Freq, Power High Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Includes Channel Frequency (MHz) and Channel Frequency (MHz) sub-headers.

Band 48 FCC Ant 10

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Low Middle Ch / Freq, Power High Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Includes Channel Frequency (MHz) and Channel Frequency (MHz) sub-headers.



UL CA Power

CA_5B Ant 0											
PCC Channel	SCC Channel	Modulation	Combination 10MHz+10MHz (50RB+50RB)				Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Tune up Power (dBm)
			PCC		SCC						
			RB Size	RB offset	RB Size	RB offset					
20450	20549	QPSK	1	0	0	0	1	0	Default Power	22.96	24
20575	20476	QPSK	1	0	0	0	1	0	Default Power	22.92	24
20600	20501	QPSK	1	0	0	0	1	0	Default Power	22.87	24
20450	20549	QPSK	1	0	0	0	1	0	DSI 2	22.96	24
20575	20476	QPSK	1	0	0	0	1	0	DSI 2	22.92	24
20600	20501	QPSK	1	0	0	0	1	0	DSI 2	22.87	24
20450	20549	QPSK	1	0	0	0	1	0	DSI 3	22.96	24
20575	20476	QPSK	1	0	0	0	1	0	DSI 3	22.92	24
20600	20501	QPSK	1	0	0	0	1	0	DSI 3	22.87	24
20450	20549	QPSK	1	0	0	0	1	0	DSI 6	22.96	24
20575	20476	QPSK	1	0	0	0	1	0	DSI 6	22.92	24
20600	20501	QPSK	1	0	0	0	1	0	DSI 6	22.87	24
20450	20549	QPSK	1	0	0	0	1	0	DSI 7	22.96	24
20575	20476	QPSK	1	0	0	0	1	0	DSI 7	22.92	24
20600	20501	QPSK	1	0	0	0	1	0	DSI 7	22.87	24

CA_7C Ant 7											
PCC Channel	SCC Channel	Modulation	Combination 20MHz+20MHz (100RB+100RB)				Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Tune up Power (dBm)
			PCC		SCC						
			RB Size	RB offset	RB Size	RB offset					
20850	21048	QPSK	1	0	0	0	1	0	Default Power	22.46	24
21100	20902	QPSK	1	0	0	0	1	0	Default Power	22.57	24
21350	21152	QPSK	1	0	0	0	1	0	Default Power	22.51	24
20850	21048	QPSK	1	0	0	0	1	0	DSI 2	22.46	24
21100	20902	QPSK	1	0	0	0	1	0	DSI 2	22.57	24
21350	21152	QPSK	1	0	0	0	1	0	DSI 2	22.51	24
20850	21048	QPSK	1	0	0	0	1	0	DSI 3	21.43	23
21100	20902	QPSK	1	0	0	0	1	0	DSI 3	21.51	23
21350	21152	QPSK	1	0	0	0	1	0	DSI 3	21.47	23
20850	21048	QPSK	1	0	0	0	1	0	DSI 6	21.43	23
21100	20902	QPSK	1	0	0	0	1	0	DSI 6	21.51	23
21350	21152	QPSK	1	0	0	0	1	0	DSI 6	21.47	23
20850	21048	QPSK	1	0	0	0	1	0	DSI 7	21.43	23
21100	20902	QPSK	1	0	0	0	1	0	DSI 7	21.51	23
21350	21152	QPSK	1	0	0	0	1	0	DSI 7	21.47	23



CA_66B Ant 0											
Combination 15MHz+5MHz (75RB+25RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
132047	132140	QPSK	1	0	0	0	1	0	Default Power	23.33	24
132322	132229	QPSK	1	0	0	0	1	0	Default Power	23.45	24
132547	132454	QPSK	1	0	0	0	1	0	Default Power	23.27	24
132047	132140	QPSK	1	0	0	0	1	0	DSI 2	23.35	24
132322	132229	QPSK	1	0	0	0	1	0	DSI 2	23.32	24
132547	132454	QPSK	1	0	0	0	1	0	DSI 2	23.44	24
132047	132140	QPSK	1	0	0	0	1	0	DSI 3	17.16	17.7
132322	132229	QPSK	1	0	0	0	1	0	DSI 3	17.2	17.7
132547	132454	QPSK	1	0	0	0	1	0	DSI 3	17.03	17.7
132047	132140	QPSK	1	0	0	0	1	0	DSI 6	21.95	23.2
132322	132229	QPSK	1	0	0	0	1	0	DSI 6	22.06	23.2
132547	132454	QPSK	1	0	0	0	1	0	DSI 6	21.97	23.2
132047	132140	QPSK	1	0	0	0	1	0	DSI 7	16.68	17.2
132322	132229	QPSK	1	0	0	0	1	0	DSI 7	16.72	17.2
132547	132454	QPSK	1	0	0	0	1	0	DSI 7	16.57	17.2

CA_66C Ant 0											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset					
132072	132270	QPSK	1	0	0	0	1	0	Default Power	23.42	24.00
132322	132124	QPSK	1	0	0	0	1	0	Default Power	23.53	24.00
132572	132374	QPSK	1	0	0	0	1	0	Default Power	23.46	24.00
132072	132270	QPSK	1	0	0	0	1	0	DSI 2	23.42	24.00
132322	132124	QPSK	1	0	0	0	1	0	DSI 2	23.53	24.00
132572	132374	QPSK	1	0	0	0	1	0	DSI 2	23.46	24.00
132072	132270	QPSK	1	0	0	0	1	0	DSI 3	17.21	17.70
132322	132124	QPSK	1	0	0	0	1	0	DSI 3	17.29	17.70
132572	132374	QPSK	1	0	0	0	1	0	DSI 3	17.19	17.70
132072	132270	QPSK	1	0	0	0	1	0	DSI 6	22.12	23.20
132322	132124	QPSK	1	0	0	0	1	0	DSI 6	22.21	23.20
132572	132374	QPSK	1	0	0	0	1	0	DSI 6	22.16	23.20
132072	132270	QPSK	1	0	0	0	1	0	DSI 7	16.77	17.20
132322	132124	QPSK	1	0	0	0	1	0	DSI 7	16.81	17.20
132572	132374	QPSK	1	0	0	0	1	0	DSI 7	16.68	17.20



CA_41C Ant 7													
Combination 20MHz+20MHz (100RB+100RB)													
PCC Channel	SCC Channel	Modulation	PCC				SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	RB Size	RB offset					
39790	39988	QPSK	1	0	0	0	1	0	0	Default Power	23.46	24.00	
39750	39948	QPSK	1	0	0	0	1	0	0	Default Power	23.43	24.00	
40185	39987	QPSK	1	0	0	0	1	0	0	Default Power	23.5	24.00	
40620	40422	QPSK	1	0	0	0	1	0	0	Default Power	23.62	24.00	
41055	40857	QPSK	1	0	0	0	1	0	0	Default Power	23.5	24.00	
41490	41292	QPSK	1	0	0	0	1	0	0	Default Power	23.48	24.00	
39790	39988	QPSK	1	0	0	0	1	0	0	DSI 2	23.46	24.00	
39750	39948	QPSK	1	0	0	0	1	0	0	DSI 2	23.43	24.00	
40185	39987	QPSK	1	0	0	0	1	0	0	DSI 2	23.5	24.00	
40620	40422	QPSK	1	0	0	0	1	0	0	DSI 2	23.62	24.00	
41055	40857	QPSK	1	0	0	0	1	0	0	DSI 2	23.6	24.00	
41490	41292	QPSK	1	0	0	0	1	0	0	DSI 2	23.48	24.00	
39790	39988	QPSK	1	0	0	0	1	0	0	DSI 3	23.46	24.00	
39750	39948	QPSK	1	0	0	0	1	0	0	DSI 3	23.43	24.00	
40185	39987	QPSK	1	0	0	0	1	0	0	DSI 3	23.5	24.00	
40620	40422	QPSK	1	0	0	0	1	0	0	DSI 3	23.62	24.00	
41055	40857	QPSK	1	0	0	0	1	0	0	DSI 3	23.6	24.00	
41490	41292	QPSK	1	0	0	0	1	0	0	DSI 3	23.48	24.00	
39790	39988	QPSK	1	0	0	0	1	0	0	DSI 6	23.46	24.00	
39750	39948	QPSK	1	0	0	0	1	0	0	DSI 6	23.43	24.00	
40185	39987	QPSK	1	0	0	0	1	0	0	DSI 6	23.5	24.00	
40620	40422	QPSK	1	0	0	0	1	0	0	DSI 6	23.62	24.00	
41055	40857	QPSK	1	0	0	0	1	0	0	DSI 6	23.6	24.00	
41490	41292	QPSK	1	0	0	0	1	0	0	DSI 6	23.48	24.00	
39790	39988	QPSK	1	0	0	0	1	0	0	DSI 7	23.46	24.00	
39750	39948	QPSK	1	0	0	0	1	0	0	DSI 7	23.43	24.00	
40185	39987	QPSK	1	0	0	0	1	0	0	DSI 7	23.5	24.00	
40620	40422	QPSK	1	0	0	0	1	0	0	DSI 7	23.62	24.00	
41055	40857	QPSK	1	0	0	0	1	0	0	DSI 7	23.6	24.00	
41490	41292	QPSK	1	0	0	0	1	0	0	DSI 7	23.48	24.00	

CA_41C-HPUE Ant 7													
Combination 20MHz+20MHz (100RB+100RB)													
PCC Channel	SCC Channel	Modulation	PCC				SCC		Total RB Size	Target MPR Level (dB)	Power Reduction	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	RB Size	RB offset					
39790	39988	QPSK	1	0	0	0	1	0	0	Default Power	25.71	27.00	
39750	39948	QPSK	1	0	0	0	1	0	0	Default Power	25.71	27.00	
40185	39987	QPSK	1	0	0	0	1	0	0	Default Power	25.75	27.00	
40620	40422	QPSK	1	0	0	0	1	0	0	Default Power	25.82	27.00	
41055	40857	QPSK	1	0	0	0	1	0	0	Default Power	25.79	27.00	
41490	41292	QPSK	1	0	0	0	1	0	0	Default Power	25.8	27.00	
39790	39988	QPSK	1	0	0	0	1	0	0	DSI 2	25.73	27.00	
39750	39948	QPSK	1	0	0	0	1	0	0	DSI 2	25.71	27.00	
40185	39987	QPSK	1	0	0	0	1	0	0	DSI 2	25.75	27.00	
40620	40422	QPSK	1	0	0	0	1	0	0	DSI 2	25.82	27.00	
41055	40857	QPSK	1	0	0	0	1	0	0	DSI 2	25.79	27.00	
41490	41292	QPSK	1	0	0	0	1	0	0	DSI 2	25.8	27.00	
39790	39988	QPSK	1	0	0	0	1	0	0	DSI 3	24.49	25.70	
39750	39948	QPSK	1	0	0	0	1	0	0	DSI 3	24.43	25.70	
40185	39987	QPSK	1	0	0	0	1	0	0	DSI 3	24.45	25.70	
40620	40422	QPSK	1	0	0	0	1	0	0	DSI 3	24.58	25.70	
41055	40857	QPSK	1	0	0	0	1	0	0	DSI 3	24.49	25.70	
41490	41292	QPSK	1	0	0	0	1	0	0	DSI 3	24.47	25.70	
39790	39988	QPSK	1	0	0	0	1	0	0	DSI 6	26.53	26.50	
39750	39948	QPSK	1	0	0	0	1	0	0	DSI 6	26.81	26.50	
40185	39987	QPSK	1	0	0	0	1	0	0	DSI 6	26.85	26.50	
40620	40422	QPSK	1	0	0	0	1	0	0	DSI 6	26.92	26.50	
41055	40857	QPSK	1	0	0	0	1	0	0	DSI 6	26.89	26.50	
41490	41292	QPSK	1	0	0	0	1	0	0	DSI 6	26.9	26.50	
39790	39988	QPSK	1	0	0	0	1	0	0	DSI 7	24.49	25.70	
39750	39948	QPSK	1	0	0	0	1	0	0	DSI 7	24.43	25.70	
40185	39987	QPSK	1	0	0	0	1	0	0	DSI 7	24.45	25.70	
40620	40422	QPSK	1	0	0	0	1	0	0	DSI 7	24.58	25.70	
41055	40857	QPSK	1	0	0	0	1	0	0	DSI 7	24.49	25.70	
41490	41292	QPSK	1	0	0	0	1	0	0	DSI 7	24.47	25.70	



CA_48C-FCC Ant 2												
Combination 20MHz+20MHz (100RB+100RB)												
PCC Channel	SCC Channel	Modulation	PCC		SCC		RB Size	MPR	Lev	Power Reduction	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset						
55340	55338	QPSK	1	99	0	0	1	0	Default Power	22.66	24	
55830	55832	QPSK	1	99	0	0	1	0	Default Power	22.91	24	
56150	55952	QPSK	1	99	0	0	1	0	Default Power	22.8	24	
56640	56442	QPSK	1	99	0	0	1	0	Default Power	22.5	24	
55340	55338	QPSK	1	99	0	0	1	0	DSI 2	15.65	16.8	
55830	55832	QPSK	1	99	0	0	1	0	DSI 2	15.75	16.8	
56150	55952	QPSK	1	99	0	0	1	0	DSI 2	15.65	16.8	
56640	56442	QPSK	1	99	0	0	1	0	DSI 2	15.71	16.8	
55340	55338	QPSK	1	99	0	0	1	0	DSI 3	18.6	19.7	
55830	55832	QPSK	1	99	0	0	1	0	DSI 3	18.69	19.7	
56150	55952	QPSK	1	99	0	0	1	0	DSI 3	18.56	19.7	
56640	56442	QPSK	1	99	0	0	1	0	DSI 3	18.54	19.7	
55340	55338	QPSK	1	99	0	0	1	0	DSI 6	16.18	17.2	
55830	55832	QPSK	1	99	0	0	1	0	DSI 6	16.23	17.2	
56150	55952	QPSK	1	99	0	0	1	0	DSI 6	16.21	17.2	
56640	56442	QPSK	1	99	0	0	1	0	DSI 6	16.1	17.2	
55340	55338	QPSK	1	99	0	0	1	0	DSI 7	14.75	15.7	
55830	55832	QPSK	1	99	0	0	1	0	DSI 7	14.82	15.7	
56150	55952	QPSK	1	99	0	0	1	0	DSI 7	14.71	15.7	
56640	56442	QPSK	1	99	0	0	1	0	DSI 7	14.75	15.7	



Downlink CA Power

End Power

ZCC

Configure	CA Configuration (BCS)	PCC						SCC				Power		
		LTE Band	BW (MHz)	UL Freq (MHz)	UL Channel	Mod	UL F RB	UL RB Offset	LTE Band	BW (MHz)	Dl Freq (MHz)	Dl Channel	W/C Tx Power (dBm)	W/O CA Tx Power (dBm)
Inter-Band	CA_25A-41A	25	20	1980	2630	QPSK	1	0	41	20	2593	40620	23.38	23.61
	CA_26A-41A	26	19M	26850	831.5	QPSK	1	37	41	20	2593	40620	22.92	23.16
	CA_41A-41A	41	20	2593	40620	QPSK	1	0	41	5	2687.5	41955	24.08	24.31
	CA_4A-47A	4	10	1732.5	20175	QPSK	1	0	17	10	740	5790	23.58	23.68
Intra-Band	CA_4A-8A	4	20	1732.5	20175	QPSK	1	0	48	20	3690	56640	23.45	23.66

SCC

Configure	CA Configuration (BCS)	PCC						SCC1				SCC2				Power		
		LTE Band	BW (MHz)	UL Freq (MHz)	UL Channel	Mod	UL F RB	UL RB Offset	LTE Band	BW (MHz)	Dl Freq (MHz)	Dl Channel	LTE Band	BW (MHz)	Dl Freq (MHz)	Dl Channel	W/C Tx Power (dBm)	W/O CA Tx Power (dBm)
Inter-Band	CA_13A-48A-8A	13	10	782	23230	QPSK	1	0	48	20	3590	55340	48	20	3690	56640	22.67	22.81
	CA_13A-48A-6A	13	10	782	23230	QPSK	1	0	48	20	3590	55340	66	20	2155	66886	22.65	22.81
	CA_14A-30A-6A	66	20	1735	132422	QPSK	1	0	14	10M	763	5330	30	10	2355	9820	23.47	23.70
	CA_25A-25A-25A	25	20	1880	26340	QPSK	1	0	25	5	1992.5	8665	26	5	876.5	8865	23.44	23.61
	CA_25A-41C	25	20	1880	26340	QPSK	1	0	41	20	2593	40620	41	20	2612.8	40818	23.48	23.61
	CA_26A-41C	26	15	831.5	26885	QPSK	1	0	41	20	2593	40620	41	20	2612.8	40818	23.05	23.16
	CA_2A-12A-30A	2	20	1880	18900	QPSK	1	0	12	10	737.5	5095	30	10	2355	9820	22.96	23.21
	CA_2A-13A-6A	2	20	1880	18900	QPSK	1	0	13	10	751	5230	48	20	3690	55990	22.99	23.21
	CA_2A-14A-6A	2	20	1880	18900	QPSK	1	0	14	10	763	5330	66	20	2155	66886	23.06	23.21
	CA_2A-30A-6A	2	20	1880	18900	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	23.16	23.21
	CA_2A-48A-8A	2	20	1880	18900	QPSK	1	0	48	20	3590	55340	48	20	3690	56640	23.12	23.21
	CA_2A-4A-13A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	13	10	751	5230	23.11	23.21
	CA_2A-4A-30A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	30	10	2355	9820	23.09	23.21
	CA_2A-5A-30A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	23.03	23.21
	CA_2A-5A-6A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3690	56640	23.15	23.21
	CA_2A-7A-13A	2	20	1880	18900	QPSK	1	0	7	20	2695	3190	12	10	737.5	5095	23.07	23.21
	CA_2A-7A-15A	2	20	1880	18900	QPSK	1	0	7	20	2695	3190	13	10	751	5230	22.98	23.21
	CA_2C-12A	2	20	1870	19801	QPSK	1	0	2	20	1999.9	999	12	10	737.5	5095	23.00	23.21
	CA_41A-41C	41	20	2593	40620	QPSK	1	0	41	20	2690.2	41292	41	20	2680	41490	24.09	24.31
	CA_48A-48A-71A	71	20	683	133322	QPSK	1	0	48	20	3690	55340	48	20	3690	56640	23.01	23.23
	CA_48C-71A	71	20	683	133322	QPSK	1	0	48	20	3625	56990	48	20	3644.5	56188	23.12	23.23
	CA_4A-12A-30A	4	10	1732.5	20175	QPSK	1	0	12	10	737.5	5095	30	10	2355	9820	23.59	23.66
	CA_4A-8A	4	20	1732.5	20175	QPSK	1	0	48	20	3625	56990	48	20	3644.5	56188	23.43	23.66
	CA_4A-4A-13A	4	20	1732.5	20175	QPSK	1	0	4	5	2162.5	2375	13	10	751	5230	23.45	23.66
	CA_4A-4A-71A	4	20	1732.5	20175	QPSK	1	0	4	5	2162.5	2375	71	20	634.5	68786	23.41	23.66
	CA_4A-5A-30A	4	20	1732.5	20175	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	23.54	23.66
	CA_4A-7A-12A	4	20	1732.5	20175	QPSK	1	0	7	20	2695	3190	12	10	737.5	5095	23.61	23.66
	CA_5B-30A	5	10	829	20450	QPSK	1	0	5	5	881.5	2525	30	10	2355	9820	22.91	23.15
	CA_5A-6A-6C	66	20	1745	132322	QPSK	1	0	66	20	2170.2	67038	66	20	2190	67236	23.56	23.70
CA_7A-12A-6A	7	20	2035	21100	QPSK	1	0	12	10	737.5	5095	66	20	2155	66886	22.94	23.01	

4CC

Configure	CA Configuration (BCS)	PCC						SCC1				SCC2				SCC3				Power		
		LTE Band	BW (MHz)	UL Freq (MHz)	UL Channel	Mod	UL F RB	UL RB Offset	LTE Band	BW (MHz)	Dl Freq (MHz)	Dl Channel	LTE Band	BW (MHz)	Dl Freq (MHz)	Dl Channel	LTE Band	BW (MHz)	Dl Freq (MHz)	Dl Channel	W/C Tx Power (dBm)	W/O CA Tx Power (dBm)
Inter-Band	CA_12A-30A-6A-6A	66	20	1720	132072	QPSK	1	0	66	20	2190	67236	12	10	737.5	5095	30	10	2355	9820	23.49	23.70
	CA_12B-6A-6A	12	5	707.5	23095	QPSK	1	0	12	10	744.7	5167	66	20	1720	132072	66	20	2190	67236	23.43	23.66
	CA_13A-48A-8A	13	10	782	23230	QPSK	1	0	48	20	3590	55340	48	20	3625	56990	48	20	3644.5	56188	22.56	22.81
	CA_13A-48A-6B	13	10	782	23230	QPSK	1	0	48	20	3590	55340	66	10	2150.1	66637	66	10	2160	66936	22.71	22.81
	CA_13A-48A-6C	13	10	782	23230	QPSK	1	0	48	20	3590	55340	66	20	2152.5	66861	66	5	2164.2	66978	22.66	22.81
	CA_13A-48C-6A	13	10	782	23230	QPSK	1	0	48	20	3625	56990	48	20	3644.5	56188	66	20	2155	66886	22.70	22.81
	CA_13A-6A-6B	13	10	782	23230	QPSK	1	0	66	20	2155	66886	66	10	2150.1	66637	66	10	2160	66936	22.56	22.81
	CA_14A-6A-6A-6A	14	10	793	23330	QPSK	1	0	66	20	2155	66886	66	20	2120	66536	66	20	2190	67236	22.92	23.01
	CA_25A-41D	25	20	1880	26340	QPSK	1	0	41	20	2593	40620	41	20	2612.8	40818	41	20	2632.6	41016	23.50	23.61
	CA_2A-12A-6A-6A	2	20	1880	18900	QPSK	1	0	12	10	737.5	5095	66	20	2155	66886	66	5	2197.5	67311	23.15	23.21
	CA_2A-12A-6B	2	20	1880	18900	QPSK	1	0	12	10	737.5	5095	66	20	2152.5	66961	66	5	2164.2	66978	23.05	23.21
	CA_2A-12B-6A	2	20	1880	18900	QPSK	1	0	12	5	737.5	5095	12	10	744.7	5167	66	20	2155	66886	23.16	23.21
	CA_2A-13A-6A	2	20	1880	18900	QPSK	1	0	13	10	751	5230	48	20	3690	55990	48	20	3644.5	56188	22.96	23.21
	CA_2A-13A-6B	2	20	1880	18900	QPSK	1	0	13	10	751	5230	66	20	2150.1	66637	66	5	2160	66936	22.97	23.21
	CA_2A-13A-6C	2	20	1880	18900	QPSK	1	0	13	10	751	5230	66	20	2152.5	66961	66	5	2164.2	66978	22.99	23.21
	CA_2A-12A-12A-6A	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	12	10	737.5	5095	66	20	2155	66886	23.16	23.21
	CA_2A-12A-12B	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	12	5	737.5	5095	12	10	744.7	5167	23.07	23.21
	CA_2A-2A-13A-6A	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	13	10	751	5230	66	20	2155	66886	23.03	23.21
	CA_2A-2A-14A-30A	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	14	10	783	5330	30	10	2355	9820	22.97	23.21
	CA_2A-2A-4A-12A	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	12	10	737.5	5095	23.10	23.21
	CA_2A-2A-4A-5A	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	4	5	2165.5	2375	23.02	23.21
	CA_2A-2A-4A-5A	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	5	10	881.5	2525	23.07	23.21
	CA_2A-2A-4A-71A	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	4	20	2132.5	2175	71	20	634.5	68786	23.12	23.21
	CA_2A-2A-5A-6A	2	20	1880	18900	QPSK	1	0	2	5	1987.5	1175	5	10								



Full Power Mode

n2 Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Mid Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
20	PI2 BPSK	1	1	23.31	23.35	23.20			
20	PI2 BPSK	1	53	23.25	23.31	23.19	24.0	0.0	
20	PI2 BPSK	1	104	23.21	23.32	23.13			
20	PI2 BPSK	50	0	23.27	23.41	23.23	24.0	0.0	
20	PI2 BPSK	50	28	23.33	23.40	23.19	24.0	0.0	
20	PI2 BPSK	50	56	23.25	23.40	23.14			
20	PI2 BPSK	100	0	23.28	23.43	23.15	24.0	0.0	
20	QPSK	1	1	23.28	23.44	23.20			
20	QPSK	1	53	23.33	23.44	23.35	24.0	0.0	
20	QPSK	1	104	23.20	23.37	23.24			
20	QPSK	50	0	23.23	23.38	23.16	24.0	0.0	
20	QPSK	50	28	23.31	23.42	23.21	24.0	0.0	
20	QPSK	50	56	23.24	23.32	23.13	24.0	0.0	
20	QPSK	100	0	23.28	23.40	23.20			
20	16QAM	1	1	22.05	22.49	22.75	23.0	1.0	
20	16QAM	1	1	21.10	21.07	21.00	21.5	2.5	
20	256QAM	1	1	19.21	19.24	18.97	19.5	4.5	
Channel									
Frequency [MHz]									
15	QPSK	1	1	37.100	37.600	38.000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
10	QPSK	1	1	37.050	37.600	38.150	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
5	QPSK	1	1	23.30	23.24	23.14	24.0	0.0	

n2 Ant 1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Mid Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
20	PI2 BPSK	1	1	22.38	22.58	22.77			
20	PI2 BPSK	1	53	22.40	22.67	22.62	24.0	0.0	
20	PI2 BPSK	1	104	22.51	22.72	22.81			
20	PI2 BPSK	50	0	21.81	22.25	22.28	23.5	0.5	
20	PI2 BPSK	50	28	22.38	22.79	22.80	24.0	0.0	
20	PI2 BPSK	50	56	21.98	22.36	22.25			
20	PI2 BPSK	100	0	21.89	22.37	22.25	23.5	0.5	
20	QPSK	1	1	22.38	22.45	22.20			
20	QPSK	1	53	22.43	22.75	22.60	24.0	0.0	
20	QPSK	1	104	22.50	22.80	22.58			
20	QPSK	50	0	21.92	21.99	21.82	23.0	1.0	
20	QPSK	50	28	22.34	22.67	22.60	24.0	0.0	
20	QPSK	50	56	21.48	21.64	21.58	23.0	1.0	
20	QPSK	100	0	21.41	21.72	21.70			
20	16QAM	1	1	21.54	21.88	21.77	23.0	1.0	
20	16QAM	1	1	19.96	20.30	20.30	21.5	2.5	
20	256QAM	1	1	18.02	18.23	18.11	19.5	4.5	
Channel									
Frequency [MHz]									
15	QPSK	1	1	37.100	37.600	38.000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
10	QPSK	1	1	37.050	37.600	38.150	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
5	QPSK	1	1	22.34	22.68	22.72	24.0	0.0	



n5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 166800	Middle Ch. / Freq. 167300	High Ch. / Freq. 167800		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.04	23.16	23.10		
20	PI2 BPSK	1	63	23.09	23.15	23.00	24.0	0.0
20	PI2 BPSK	1	104	23.00	22.94	23.03		
20	PI2 BPSK	50	0	23.08	23.08	23.11	24.0	0.0
20	PI2 BPSK	50	28	23.13	23.11	23.07	24.0	0.0
20	PI2 BPSK	50	66	23.01	22.96	23.00		
20	PI2 BPSK	100	0	23.13	23.08	23.07	24.0	0.0
20	QPSK	1	1	23.04	23.10	23.07		
20	QPSK	1	63	23.07	23.10	23.11	24.0	0.0
20	QPSK	1	104	23.04	22.96	23.11		
20	QPSK	50	0	23.12	23.04	23.00	24.0	0.0
20	QPSK	50	28	23.11	23.15	23.10	24.0	0.0
20	QPSK	50	66	22.97	22.96	23.05		
20	QPSK	100	0	23.06	23.07	23.03	24.0	0.0
20	16QAM	1	1	22.12	22.18	21.96	23.0	1.0
20	16QAM	1	1	21.14	21.36	21.02	21.5	2.5
20	256QAM	1	1	19.23	19.12	19.42	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.13	23.06	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.96	23.14	23.12	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.04	23.11	23.14	24.0	0.0

n5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 166800	Middle Ch. / Freq. 167300	High Ch. / Freq. 167800		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.96	22.97	23.04		
20	PI2 BPSK	1	63	22.92	22.96	22.96	24.0	0.0
20	PI2 BPSK	1	104	23.00	23.05	23.15		
20	PI2 BPSK	50	0	23.03	23.04	22.94	24.0	0.0
20	PI2 BPSK	50	28	22.97	23.01	22.95	24.0	0.0
20	PI2 BPSK	50	66	22.93	23.03	23.03		
20	PI2 BPSK	100	0	22.97	23.02	22.96	24.0	0.0
20	QPSK	1	1	22.96	23.10	22.93		
20	QPSK	1	63	22.95	23.12	22.94	24.0	0.0
20	QPSK	1	104	23.03	23.15	23.10		
20	QPSK	50	0	22.47	22.53	22.42	23.5	0.5
20	QPSK	50	28	22.54	23.00	22.56	24.0	0.0
20	QPSK	50	66	22.43	22.56	22.46		
20	QPSK	100	0	22.42	22.46	22.41	23.5	0.5
20	16QAM	1	1	22.30	22.43	22.40	23.5	0.5
20	16QAM	1	1	20.77	21.11	20.62	21.5	2.5
20	256QAM	1	1	18.99	19.11	19.07	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.03	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.01	23.01	22.99	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	23.03	23.07	24.0	0.0



n7 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 504000	Power Middle Ch. / Freq 507000	Power High Ch. / Freq 510000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.62	22.81	22.87	24.0	0.0
40	PI2 BPSK	1	108	22.47	22.98	23.11		
40	PI2 BPSK	1	214	22.89	23.00	22.73		
40	PI2 BPSK	108	0	22.39	22.81	22.86	24.0	0.0
40	PI2 BPSK	108	54	22.35	22.89	22.92	24.0	0.0
40	PI2 BPSK	108	108	22.62	22.97	22.83	24.0	0.0
40	PI2 BPSK	216	0	22.42	22.90	22.86	24.0	0.0
40	QPSK	1	1	22.23	22.23	22.23	24.0	0.0
40	QPSK	1	108	22.43	23.00	22.87		
40	QPSK	1	214	22.85	22.88	22.76		
40	QPSK	108	0	22.42	22.81	22.78	24.0	0.0
40	QPSK	108	54	22.35	22.86	22.82	24.0	0.0
40	QPSK	108	108	22.48	22.89	22.86	24.0	0.0
40	QPSK	216	0	22.35	22.80	22.87	24.0	0.0
40	16QAM	1	1	22.09	21.85	22.08	23.0	1.0
40	64QAM	1	1	20.23	20.72	20.44	21.5	2.5
40	256QAM	1	1	18.48	19.11	18.54	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.77	22.92	22.71	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.80	22.58	22.60	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.81	22.81	22.60	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.75	22.63	22.62	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.76	22.87	22.84	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.76	22.49	22.73	24.0	0.0

n7 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 504000	Power Middle Ch. / Freq 507000	Power High Ch. / Freq 510000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.93	22.82	22.65	24.0	0.0
40	PI2 BPSK	1	108	22.68	23.00	22.97		
40	PI2 BPSK	1	214	23.02	22.95	23.15		
40	PI2 BPSK	108	0	22.58	22.93	22.71	24.0	0.0
40	PI2 BPSK	108	54	22.97	23.17	22.83	24.0	0.0
40	PI2 BPSK	108	108	22.78	23.12	23.02	24.0	0.0
40	PI2 BPSK	216	0	22.67	23.06	22.81	24.0	0.0
40	QPSK	1	1	22.10	22.10	22.10	24.0	0.0
40	QPSK	1	108	22.73	23.12	23.05		
40	QPSK	1	214	23.11	23.11	23.05		
40	QPSK	108	0	22.12	22.82	22.16	23.5	0.5
40	QPSK	108	54	22.07	22.83	22.81	24.0	0.0
40	QPSK	108	108	22.28	22.82	22.82	23.5	0.5
40	QPSK	216	0	22.12	22.81	22.82	23.5	0.5
40	16QAM	1	1	22.38	22.92	22.05	23.5	0.5
40	64QAM	1	1	20.84	20.88	20.81	21.5	2.5
40	256QAM	1	1	19.08	18.91	18.96	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.99	22.87	22.87	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.12	22.78	22.96	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.11	22.80	22.99	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.94	22.86	23.10	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.00	22.77	23.04	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	22.62	23.11	24.0	0.0



n12 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	22.74	22.82	22.87	24.0	0.0
15	P12 BPSK	1	40	22.72	22.86	22.84		
15	P12 BPSK	1	77	22.70	22.84	22.81		
15	P12 BPSK	36	0	22.67	22.81	22.86	24.0	0.0
15	P12 BPSK	36	22	22.87	22.83	22.94	24.0	0.0
15	P12 BPSK	36	43	22.81	22.81	22.86	24.0	0.0
15	P12 BPSK	75	0	22.86	22.72	22.87	24.0	0.0
15	QPSK	1	1	22.75	22.85	22.85	24.0	0.0
15	QPSK	1	40	22.65	22.74	22.85		
15	QPSK	1	77	22.70	22.83	22.82		
15	QPSK	36	0	22.33	22.70	22.81	24.0	0.0
15	QPSK	36	22	22.71	22.76	22.81	24.0	0.0
15	QPSK	36	43	22.34	22.84	22.87	24.0	0.0
15	QPSK	75	0	22.40	22.87	22.44	24.0	0.0
15	16QAM	1	1	22.69	22.88	22.79	24.0	0.0
15	64QAM	1	1	21.21	21.19	21.15	21.5	2.5
15	256QAM	1	1	19.33	19.21	19.36	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.84	22.89	22.72	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.80	22.84	22.76	24.0	0.0

n12 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	23.21	23.18	23.12	24.0	0.0
15	P12 BPSK	1	40	23.24	23.23	23.18		
15	P12 BPSK	1	77	23.21	23.28	23.25		
15	P12 BPSK	36	0	23.17	23.12	23.16	24.0	0.0
15	P12 BPSK	36	22	23.18	23.16	23.12	24.0	0.0
15	P12 BPSK	36	43	23.12	23.12	23.18	24.0	0.0
15	P12 BPSK	75	0	23.19	23.21	23.15	24.0	0.0
15	QPSK	1	1	23.25	23.25	23.25	24.0	0.0
15	QPSK	1	40	23.25	23.30	23.23		
15	QPSK	1	77	23.26	23.27	23.15		
15	QPSK	36	0	22.85	22.84	22.83	24.0	0.0
15	QPSK	36	22	23.21	23.22	23.11	24.0	0.0
15	QPSK	36	43	22.81	22.80	22.91	24.0	0.0
15	QPSK	75	0	22.87	22.80	22.88	24.0	0.0
15	16QAM	1	1	22.92	22.79	22.82	24.0	0.0
15	64QAM	1	1	20.12	20.27	20.21	21.5	2.5
15	256QAM	1	1	18.69	18.79	18.82	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.25	23.28	23.22	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.16	23.20	23.02	24.0	0.0



n13 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.69			
10	PI2 BPSK	1	26		22.74		24.0	0.0
10	PI2 BPSK	1	50		22.55			
10	PI2 BPSK	25	0		22.27		23.5	0.5
10	PI2 BPSK	25	14		22.63		24.0	0.0
10	PI2 BPSK	25	27		22.16		23.5	0.5
10	PI2 BPSK	50	0		22.30			
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.78		24.0	0.0
10	QPSK	1	50		22.62			
10	QPSK	25	0		21.78		23.0	1.0
10	QPSK	25	14		22.57		24.0	0.0
10	QPSK	25	27		21.86		23.0	1.0
10	QPSK	50	0		21.03			
10	16QAM	1	1		21.83		23.0	1.0
10	64QAM	1	1		20.79		21.5	2.5
10	256QAM	1	1		18.29		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.85		24.0	0.0

n13 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.61			
10	PI2 BPSK	1	26		22.80		24.0	0.0
10	PI2 BPSK	1	50		22.85			
10	PI2 BPSK	25	0		22.28		23.5	0.5
10	PI2 BPSK	25	14		22.67		24.0	0.0
10	PI2 BPSK	25	27		22.34		23.5	0.5
10	PI2 BPSK	50	0		22.32			
10	QPSK	1	1		22.90			
10	QPSK	1	26		22.84		24.0	0.0
10	QPSK	1	50		22.84			
10	QPSK	25	0		21.75		23.0	1.0
10	QPSK	25	14		22.64		24.0	0.0
10	QPSK	25	27		21.82		23.0	1.0
10	QPSK	50	0		21.14			
10	16QAM	1	1		21.95		23.0	1.0
10	64QAM	1	1		19.95		21.5	2.5
10	256QAM	1	1		18.13		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.87		24.0	0.0



n14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)	
				Low Ch. / Freq	Power Middle Ch. / Freq 158600	Power High Ch. / Freq			
Channel									
Frequency (MHz)									
10	PI2 BPSK	1	1		22.84				
10	PI2 BPSK	1	26		22.56		24.0	0.0	
10	PI2 BPSK	1	50		22.60				
10	PI2 BPSK	25	0		22.60		24.0	0.0	
10	PI2 BPSK	25	14		22.56		24.0	0.0	
10	PI2 BPSK	25	27		22.51		24.0	0.0	
10	PI2 BPSK	50	0		22.57		24.0	0.0	
10	QPSK	1	1		22.76				
10	QPSK	1	26		22.58		24.0	0.0	
10	QPSK	1	50		22.67				
10	QPSK	25	0		22.60		24.0	0.0	
10	QPSK	25	14		22.63		24.0	0.0	
10	QPSK	25	27		22.53		24.0	0.0	
10	QPSK	50	0		22.54		24.0	0.0	
10	16QAM	1	1		22.59		24.0	0.0	
10	16QAM	1	1		21.45		22.5	1.5	
10	256QAM	1	1		19.07		20.0	4.0	
Channel				158100	158600	159100	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				158.2	158.6	158.9			
5	QPSK	1	1		22.93	22.65	22.63	24.0	0.0

n14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)	
				Low Ch. / Freq	Power Middle Ch. / Freq 158600	Power High Ch. / Freq			
Channel									
Frequency (MHz)									
10	PI2 BPSK	1	1		23.02				
10	PI2 BPSK	1	26		23.03		24.0	0.0	
10	PI2 BPSK	1	50		23.07				
10	PI2 BPSK	25	0		22.99		24.0	0.0	
10	PI2 BPSK	25	14		22.96		24.0	0.0	
10	PI2 BPSK	25	27		23.00		24.0	0.0	
10	PI2 BPSK	50	0		22.94		24.0	0.0	
10	QPSK	1	1		23.32				
10	QPSK	1	26		22.95		24.0	0.0	
10	QPSK	1	50		23.03				
10	QPSK	25	0		22.98		24.0	0.0	
10	QPSK	25	14		23.01		24.0	0.0	
10	QPSK	25	27		22.94		24.0	0.0	
10	QPSK	50	0		22.95		24.0	0.0	
10	16QAM	1	1		21.98		23.0	1.0	
10	16QAM	1	1		20.48		21.5	2.5	
10	256QAM	1	1		18.54		19.5	4.5	
Channel				158100	158600	159100	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				158.2	158.6	158.9			
5	QPSK	1	1		22.93	23.09	23.07	24.0	0.0



n25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.05	23.11	23.13	24.0	0.0
20	PI2 BPSK	1	53	23.18	23.20	23.12		
20	PI2 BPSK	1	104	23.13	23.30	23.14		
20	PI2 BPSK	50	0	23.09	23.06	23.22	24.0	0.0
20	PI2 BPSK	50	28	23.10	23.19	23.17	24.0	0.0
20	PI2 BPSK	50	56	23.12	23.25	23.16	24.0	0.0
20	PI2 BPSK	100	0	23.11	23.18	23.18	24.0	0.0
20	QPSK	1	1	23.15	23.21	23.20	24.0	0.0
20	QPSK	1	53	23.14	23.45	23.33		
20	QPSK	1	104	23.05	23.46	23.34		
20	QPSK	50	0	23.10	23.30	23.18	24.0	0.0
20	QPSK	50	28	23.11	23.49	23.21	24.0	0.0
20	QPSK	50	56	23.04	23.48	23.17	24.0	0.0
20	QPSK	100	0	23.05	23.45	23.17	24.0	0.0
20	16QAM	1	1	22.08	22.67	22.11	23.0	1.0
20	64QAM	1	1	20.46	21.06	20.98	21.5	2.5
20	256QAM	1	1	18.72	19.62	18.79	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	37.100	37.650	38.150	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	37.100	37.650	38.200	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	37.050	37.650	38.250	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	37.000	37.650	38.300	Tune-up limit (dB)	MPR (dB)

n25 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.64	22.67	22.42	24.0	0.0
20	PI2 BPSK	1	53	22.67	22.61	22.24		
20	PI2 BPSK	1	104	22.62	22.47	22.01		
20	PI2 BPSK	50	0	22.11	22.20	21.85	23.5	0.5
20	PI2 BPSK	50	28	22.39	22.71	22.29	24.0	0.0
20	PI2 BPSK	50	56	22.15	22.12	21.63	23.9	0.9
20	PI2 BPSK	100	0	22.08	22.21	21.75	24.0	0.0
20	QPSK	1	1	22.69	22.68	22.46	24.0	0.0
20	QPSK	1	53	22.62	22.85	22.25		
20	QPSK	1	104	22.65	22.68	22.94		
20	QPSK	50	0	21.61	21.11	21.30	23.0	1.0
20	QPSK	50	28	22.69	22.67	22.30	24.0	0.0
20	QPSK	50	56	21.65	21.63	21.19	23.0	1.0
20	QPSK	100	0	21.61	21.11	21.29	23.0	1.0
20	16QAM	1	1	21.51	21.96	21.54	23.0	1.0
20	64QAM	1	1	19.88	20.07	19.93	21.5	2.5
20	256QAM	1	1	18.04	18.11	17.88	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	37.100	37.650	38.150	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	37.100	37.650	38.200	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	37.050	37.650	38.250	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	37.000	37.650	38.300	Tune-up limit (dB)	MPR (dB)



n26 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.99	23.05	23.12	24.0	0.0
20	PI2 BPSK	1	53	23.11	23.12	23.04		
20	PI2 BPSK	1	104	23.05	23.01	22.95		
20	PI2 BPSK	50	0	23.07	23.05	23.08	24.0	0.0
20	PI2 BPSK	50	28	23.12	23.15	23.02	24.0	0.0
20	PI2 BPSK	50	56	23.08	23.04	22.95	24.0	0.0
20	PI2 BPSK	100	0	23.03	23.09	23.04	24.0	0.0
20	QPSK	1	1	23.13	23.05	23.12	24.0	0.0
20	QPSK	1	53	23.05	23.13	23.05		
20	QPSK	1	104	23.07	23.04	22.97		
20	QPSK	50	0	23.03	23.01	23.00	24.0	0.0
20	QPSK	50	28	23.08	23.10	23.05	24.0	0.0
20	QPSK	50	56	23.05	23.01	22.93	24.0	0.0
20	QPSK	100	0	22.98	23.05	22.94	24.0	0.0
20	16QAM	1	1	22.77	22.84	22.95	23.0	1.0
20	16QAM	1	1	21.02	20.97	20.94	21.5	2.5
20	256QAM	1	1	18.89	19.07	19.39	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.91	23.15	23.11	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.08	23.03	23.05	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.03	22.99	23.15	24.0	0.0

n26 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.08	23.16	23.04	24.0	0.0
20	PI2 BPSK	1	53	22.90	23.05	23.01		
20	PI2 BPSK	1	104	23.03	23.11	22.95		
20	PI2 BPSK	50	0	23.03	23.10	22.94	24.0	0.0
20	PI2 BPSK	50	28	22.88	23.03	22.92	24.0	0.0
20	PI2 BPSK	50	56	22.85	23.01	22.95	24.0	0.0
20	PI2 BPSK	100	0	23.03	23.11	23.09	24.0	0.0
20	QPSK	1	1	23.08	23.00	23.05	24.0	0.0
20	QPSK	1	53	23.07	23.12	23.07		
20	QPSK	1	104	22.85	23.10	23.06		
20	QPSK	50	0	23.02	23.03	22.95	24.0	0.0
20	QPSK	50	28	23.03	23.11	23.05	24.0	0.0
20	QPSK	50	56	22.98	23.05	22.95	24.0	0.0
20	QPSK	100	0	22.94	23.05	22.92	24.0	0.0
20	16QAM	1	1	22.08	22.10	22.09	23.0	1.0
20	16QAM	1	1	20.80	20.86	20.71	21.5	2.5
20	256QAM	1	1	19.09	19.19	19.02	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.13	23.15	23.05	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.15	23.04	23.10	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.05	23.12	23.17	24.0	0.0



n30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	22.75				
10	PI2 BPSK	1	26	22.89			24.0	0.0
10	PI2 BPSK	1	50	22.77				
10	PI2 BPSK	25	0	22.71			24.0	0.0
10	PI2 BPSK	25	14	22.70			24.0	0.0
10	PI2 BPSK	25	27	22.76			24.0	0.0
10	PI2 BPSK	50	0	22.72			24.0	0.0
10	QPSK	1	1	22.85				
10	QPSK	1	26	22.76			24.0	0.0
10	QPSK	1	50	22.81				
10	QPSK	25	0	22.73			24.0	0.0
10	QPSK	25	14	22.76			24.0	0.0
10	QPSK	25	27	22.67			24.0	0.0
10	QPSK	50	0	22.70			24.0	0.0
10	16QAM	1	1	21.92			23.0	1.0
10	16QAM	1	1	20.89			21.5	2.5
10	256QAM	1	1	18.79			19.5	4.5
Channel				481500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2397.2	2310	2372.2	(dB)	(dB)
5	QPSK	1	1	22.87	22.85	22.70	24.0	0.0

n30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	22.55				
10	PI2 BPSK	1	26	22.51			24.0	0.0
10	PI2 BPSK	1	50	22.47				
10	PI2 BPSK	25	0	22.50			23.5	0.5
10	PI2 BPSK	25	14	22.42			24.0	0.0
10	PI2 BPSK	25	27	21.92			23.5	0.5
10	PI2 BPSK	50	0	21.95			24.0	0.0
10	QPSK	1	1	22.39				
10	QPSK	1	26	22.42			24.0	0.0
10	QPSK	1	50	22.49				
10	QPSK	25	0	21.47			23.0	1.0
10	QPSK	25	14	22.44			24.0	0.0
10	QPSK	25	27	21.42			23.0	1.0
10	QPSK	50	0	21.93			23.0	1.0
10	16QAM	1	1	21.80			23.0	1.0
10	16QAM	1	1	20.89			21.5	2.5
10	256QAM	1	1	18.92			19.5	4.5
Channel				481500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2397.2	2310	2372.2	(dB)	(dB)
5	QPSK	1	1	22.49	22.47	22.51	24.0	0.0



n66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 346000	Power Middle Ch. / Freq 349000	High Ch. / Freq 352000		
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	23.27	23.41	23.29	24.0	0.0
40	P12 BPSK	1	108	23.26	23.40	23.34		
40	P12 BPSK	1	214	23.29	23.42	23.27		
40	P12 BPSK	108	0	23.30	23.37	23.27	24.0	0.0
40	P12 BPSK	108	96	23.26	23.31	23.33	24.0	0.0
40	P12 BPSK	108	108	23.33	23.25	23.36	24.0	0.0
40	P12 BPSK	216	0	23.31	23.31	23.39		
40	QPSK	1	1	23.33	23.34	23.33		
40	QPSK	1	108	23.25	23.45	23.25	24.0	0.0
40	QPSK	1	214	23.25	23.50	23.20	24.0	0.0
40	QPSK	108	0	23.26	23.36	23.26		
40	QPSK	108	96	23.25	23.42	23.33		
40	QPSK	108	108	23.25	23.33	23.32	24.0	0.0
40	QPSK	216	0	23.29	23.40	23.33	24.0	0.0
40	16QAM	1	1	22.05	22.06	22.40		
40	16QAM	1	1	20.94	20.79	21.5		
40	16QAM	1	1	18.84	18.94	19.23	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.21	23.34	23.33	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.23	23.36	23.24	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.33	23.30	23.20	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.17	23.02	23.20	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.19	23.16	23.27	24.0	0.0

n66 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 346000	Power Middle Ch. / Freq 349000	High Ch. / Freq 352000		
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	22.70	22.85	22.83	24.0	0.0
40	P12 BPSK	1	108	22.69	22.80	22.86		
40	P12 BPSK	1	214	22.47	22.85	22.76		
40	P12 BPSK	108	0	22.53	22.40	22.41	23.5	0.5
40	P12 BPSK	108	96	22.51	22.42	22.47	24.0	0.0
40	P12 BPSK	108	108	22.57	22.54	22.73	23.5	0.5
40	P12 BPSK	216	0	22.45	22.80	22.74		
40	QPSK	1	1	22.68	22.77	22.82		
40	QPSK	1	108	22.65	22.77	22.82	24.0	0.0
40	QPSK	1	214	22.72	22.79	22.75	23.0	1.0
40	QPSK	108	0	21.97	21.92	21.91		
40	QPSK	108	96	21.95	21.90	22.02		
40	QPSK	108	108	21.95	21.90	22.02	23.0	1.0
40	QPSK	216	0	21.97	22.01	21.99	23.0	1.0
40	16QAM	1	1	21.66	21.80	21.97		
40	16QAM	1	1	20.43	20.44	20.44		
40	16QAM	1	1	18.38	18.55	18.50	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.65	22.76	22.72	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.66	22.69	22.83	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.77	22.74	22.75	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.80	22.78	22.71	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.74	22.78	22.76	24.0	0.0



n70 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
15	PI2 BPSK	1	1		23.48				
15	PI2 BPSK	1	40		23.41		24.0	0.0	
15	PI2 BPSK	1	77		23.16				
15	PI2 BPSK	36	0		23.34		24.0	0.0	
15	PI2 BPSK	36	22		23.36		24.0	0.0	
15	PI2 BPSK	36	43		23.21		24.0	0.0	
15	PI2 BPSK	75	0		23.33		24.0	0.0	
15	QPSK	1	1		22.85				
15	QPSK	1	40		23.37		24.0	0.0	
15	QPSK	1	77		23.17				
15	QPSK	36	0		23.34		24.0	0.0	
15	QPSK	36	22		23.33		24.0	0.0	
15	QPSK	36	43		23.06		24.0	0.0	
15	QPSK	75	0		23.30		24.0	0.0	
15	16QAM	1	1		21.85		23.0	1.0	
15	16QAM	1	1		20.81		21.5	2.5	
15	256QAM	1	1		18.13		19.5	4.5	
Channel				34000	34000	34100	Tune-up limit (dBm)	MPR (dB)	
Frequency [MHz]				3300	3300	3300			
10	QPSK	1	1		23.30	23.41	23.24	24.0	0.0
Channel				33950	34050	34150	Tune-up limit (dBm)	MPR (dB)	
Frequency [MHz]				3392.5	3402.5	3412.5			
5	QPSK	1	1		23.25	23.33	23.23	24.0	0.0

n70 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
15	PI2 BPSK	1	1		22.95				
15	PI2 BPSK	1	40		22.92		24.0	0.0	
15	PI2 BPSK	1	77		22.89				
15	PI2 BPSK	36	0		22.95		23.5	0.5	
15	PI2 BPSK	36	22		22.88		24.0	0.0	
15	PI2 BPSK	36	43		22.90		23.5	0.5	
15	PI2 BPSK	75	0		22.82		24.0	0.0	
15	QPSK	1	1		22.97				
15	QPSK	1	40		22.94		24.0	0.0	
15	QPSK	1	77		22.99				
15	QPSK	36	0		22.18		23.0	1.0	
15	QPSK	36	22		22.81		24.0	0.0	
15	QPSK	36	43		22.02		23.0	1.0	
15	QPSK	75	0		22.00		23.0	1.0	
15	16QAM	1	1		21.90		23.0	1.0	
15	16QAM	1	1		20.82		21.5	2.5	
15	256QAM	1	1		18.42		19.5	4.5	
Channel				34000	34000	34100	Tune-up limit (dBm)	MPR (dB)	
Frequency [MHz]				3300	3300	3300			
10	QPSK	1	1		22.84	22.90	22.87	24.0	0.0
Channel				33950	34050	34150	Tune-up limit (dBm)	MPR (dB)	
Frequency [MHz]				3392.5	3402.5	3412.5			
5	QPSK	1	1		22.95	22.83	22.95	24.0	0.0



n71 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134500	Middle Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.62	22.92	22.91		
20	PI2 BPSK	1	63	22.87	22.86	22.85	24.0	0.0
20	PI2 BPSK	1	104	22.82	22.82	22.76		
20	PI2 BPSK	50	0	22.93	22.84	22.83	24.0	0.0
20	PI2 BPSK	50	28	22.90	22.79	22.77	24.0	0.0
20	PI2 BPSK	50	66	22.91	22.73	22.80	24.0	0.0
20	PI2 BPSK	100	0	22.87	22.84	22.81		
20	QPSK	1	1	22.90	22.90	22.89		
20	QPSK	1	63	22.50	22.70	22.52	24.0	0.0
20	QPSK	1	104	22.81	22.73	22.76		
20	QPSK	50	0	22.83	22.90	22.72	24.0	0.0
20	QPSK	50	28	22.87	22.91	22.78	24.0	0.0
20	QPSK	50	66	22.85	22.88	22.74	24.0	0.0
20	QPSK	100	0	22.78	22.80	22.75		
20	16QAM	1	1	22.93	22.79	22.81	24.0	0.0
20	16QAM	1	1	21.21	21.24	22.0		
20	256QAM	1	1	18.66	18.70	18.89	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.89	22.99	22.88	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.92	23.01	22.90	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.08	22.99	22.85	24.0	0.0

n71 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134500	Middle Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.03	23.05	23.01		
20	PI2 BPSK	1	63	23.00	22.97	22.94	24.0	0.0
20	PI2 BPSK	1	104	23.06	23.02	23.01		
20	PI2 BPSK	50	0	22.97	22.99	23.03	24.0	0.0
20	PI2 BPSK	50	28	23.06	22.94	22.85	24.0	0.0
20	PI2 BPSK	50	66	22.98	22.92	22.82	24.0	0.0
20	PI2 BPSK	100	0	22.87	23.00	22.88		
20	QPSK	1	1	22.90	22.90	22.89		
20	QPSK	1	63	22.58	23.02	23.03	24.0	0.0
20	QPSK	1	104	22.85	23.00	23.02		
20	QPSK	50	0	22.85	22.95	22.82	24.0	0.0
20	QPSK	50	28	22.83	23.04	22.84	24.0	0.0
20	QPSK	50	66	22.87	22.75	22.67	24.0	0.0
20	QPSK	100	0	22.64	22.77	22.70		
20	16QAM	1	1	22.98	22.95	22.87	24.0	0.0
20	16QAM	1	1	20.79	20.70	20.54	21.5	2.5
20	256QAM	1	1	18.83	18.66	18.81	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.05	23.08	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.97	23.08	23.08	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.04	23.03	22.87	24.0	0.0



Cell ID	Cell Name	Cell Type	Antenna	Power	Power	Power	Power	Power	Power	Power
				Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
Detailed table content for n48_FCC Ant 8. This is a large data table with multiple columns and rows, containing numerical and categorical data.										

Cell ID	Cell Name	Cell Type	Antenna	Power	Power	Power	Power	Power	Power	Power
				Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
Detailed table content for n48_FCC Ant 10. This is a large data table with multiple columns and rows, containing numerical and categorical data.										



Reduced Power Mode for DS12

n2 Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Med. Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
20	P12 BPSK	1	1	23.31	23.35	23.20			
20	P12 BPSK	1	53	23.25	23.31	23.19	24.0	0.0	
20	P12 BPSK	1	104	23.21	23.32	23.13			
20	P12 BPSK	50	0	23.27	23.41	23.23	24.0	0.0	
20	P12 BPSK	50	28	23.33	23.46	23.19	24.0	0.0	
20	P12 BPSK	50	56	23.25	23.40	23.14			
20	P12 BPSK	100	0	23.28	23.43	23.15	24.0	0.0	
20	QPSK	1	1	23.28	23.44	23.20			
20	QPSK	1	53	23.33	23.44	23.35	24.0	0.0	
20	QPSK	1	104	23.20	23.37	23.24			
20	QPSK	50	0	23.23	23.38	23.16	24.0	0.0	
20	QPSK	50	28	23.31	23.42	23.21	24.0	0.0	
20	QPSK	50	56	23.24	23.32	23.13	24.0	0.0	
20	QPSK	100	0	23.28	23.40	23.20			
20	16QAM	1	1	22.05	22.49	22.75	23.0	1.0	
20	64QAM	1	1	21.10	21.07	21.00	21.5	2.5	
20	256QAM	1	1	19.21	19.24	18.97	19.5	4.5	
Channel									
Frequency [MHz]									
15	QPSK	1	1	37.000	37.600	38.000	Tune-up limit	MPR	
Channel									
Frequency [MHz]									
10	QPSK	1	1	37.000	37.600	38.000	Tune-up limit	MPR	
Channel									
Frequency [MHz]									
5	QPSK	1	1	37.000	37.600	38.000	Tune-up limit	MPR	

n2 Ant 1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Med. Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
20	P12 BPSK	1	1	13.58	13.76	13.71			
20	P12 BPSK	1	53	13.72	13.72	13.67	15.0	0.0	
20	P12 BPSK	1	104	13.81	13.67	13.67			
20	P12 BPSK	50	0	13.67	13.82	13.70	15.0	0.0	
20	P12 BPSK	50	28	13.72	13.61	13.98	15.0	0.0	
20	P12 BPSK	50	56	13.68	13.58	13.76			
20	P12 BPSK	100	0	13.72	13.72	13.74	15.0	0.0	
20	QPSK	1	1	13.58	13.60	13.59			
20	QPSK	1	53	13.70	13.80	13.70	15.0	0.0	
20	QPSK	1	104	13.78	13.88	13.75			
20	QPSK	50	0	13.62	13.73	13.55	15.0	0.0	
20	QPSK	50	28	13.71	13.70	13.72	15.0	0.0	
20	QPSK	50	56	13.70	13.68	13.60	15.0	0.0	
20	QPSK	100	0	13.62	13.70	13.72	15.0	0.0	
20	16QAM	1	1	13.70	13.85	13.70	15.0	0.0	
20	64QAM	1	1	13.61	13.75	13.89	15.0	0.0	
20	256QAM	1	1	13.55	13.65	13.62	15.0	0.0	
Channel									
Frequency [MHz]									
15	QPSK	1	1	37.000	37.600	38.000	Tune-up limit	MPR	
Channel									
Frequency [MHz]									
10	QPSK	1	1	37.000	37.600	38.000	Tune-up limit	MPR	
Channel									
Frequency [MHz]									
5	QPSK	1	1	37.000	37.600	38.000	Tune-up limit	MPR	



n5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Med. Ch. / Freq	High Ch. / Freq		
Channel								
Frequency [MHz]								
20	PI2 BPSK	1	1	23.04	23.16	23.10	24.0	0.0
20	PI2 BPSK	1	53	23.09	23.15	23.00		
20	PI2 BPSK	1	104	23.09	22.94	23.03		
20	PI2 BPSK	50	0	23.08	23.08	23.11	24.0	0.0
20	PI2 BPSK	50	28	23.13	23.11	23.07	24.0	0.0
20	PI2 BPSK	50	56	23.01	22.99	23.00	24.0	0.0
20	PI2 BPSK	100	0	23.13	23.08	23.07	24.0	0.0
20	QPSK	1	1	23.13	23.16	23.10	24.0	0.0
20	QPSK	1	53	23.07	23.10	23.11		
20	QPSK	1	104	23.04	22.99	23.11		
20	QPSK	50	0	23.12	23.04	23.00	24.0	0.0
20	QPSK	50	28	23.13	23.15	23.10	24.0	0.0
20	QPSK	50	56	22.97	22.95	23.05	24.0	0.0
20	QPSK	100	0	23.09	23.07	23.03	24.0	0.0
20	16QAM	1	1	22.12	22.18	21.95	23.0	1.0
20	16QAM	1	1	21.14	21.36	21.92	21.5	2.5
20	256QAM	1	1	19.23	19.12	19.42	19.5	4.5
Channel								
Frequency [MHz]								
15	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency [MHz]								
10	QPSK	1	1	22.95	23.14	23.12	24.0	0.0
Channel								
Frequency [MHz]								
5	QPSK	1	1	23.04	23.11	23.14	24.0	0.0

n5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Med. Ch. / Freq	High Ch. / Freq		
Channel								
Frequency [MHz]								
20	PI2 BPSK	1	1	20.89	20.93	20.95	22.0	0.0
20	PI2 BPSK	1	53	20.85	20.86	20.94		
20	PI2 BPSK	1	104	21.05	20.96	21.12		
20	PI2 BPSK	50	0	21.08	21.04	20.90	22.0	0.0
20	PI2 BPSK	50	28	20.94	20.97	20.82	22.0	0.0
20	PI2 BPSK	50	56	20.83	21.01	21.02	22.0	0.0
20	PI2 BPSK	100	0	21.01	21.06	20.88	22.0	0.0
20	QPSK	1	1	21.06	21.06	21.05	22.0	0.0
20	QPSK	1	53	20.83	21.03	20.82		
20	QPSK	1	104	21.03	21.10	21.10		
20	QPSK	50	0	20.89	20.81	21.00	22.0	0.0
20	QPSK	50	28	21.00	21.02	21.05	22.0	0.0
20	QPSK	50	56	20.92	20.96	20.99	22.0	0.0
20	QPSK	100	0	20.83	20.88	20.80	22.0	0.0
20	16QAM	1	1	21.00	21.02	21.06	22.0	0.0
20	16QAM	1	1	20.72	20.95	20.89	21.5	0.5
20	256QAM	1	1	19.91	19.98	19.11	19.5	2.5
Channel								
Frequency [MHz]								
15	QPSK	1	1	21.05	21.12	21.03	22.0	0.0
Channel								
Frequency [MHz]								
10	QPSK	1	1	21.07	21.06	21.00	22.0	0.0
Channel								
Frequency [MHz]								
5	QPSK	1	1	21.11	21.08	21.10	22.0	0.0



n7 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 504000	Power Med. Ch. / Freq 507000	Power High Ch. / Freq 510000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	22.62	22.81	22.87		
40	P12 BPSK	1	108	22.47	22.98	23.11	24.0	0.0
40	P12 BPSK	1	214	22.89	23.20	23.73		
40	P12 BPSK	108	0	22.39	22.81	22.86	24.0	0.0
40	P12 BPSK	108	54	22.35	22.69	22.92	24.0	0.0
40	P12 BPSK	108	108	22.62	22.97	23.33		
40	P12 BPSK	216	0	22.42	22.90	22.95	24.0	0.0
40	QPSK	1	1	22.23	22.23	22.23		
40	QPSK	1	108	22.43	23.00	22.67	24.0	0.0
40	QPSK	1	214	22.85	22.58	22.76		
40	QPSK	108	0	22.42	22.81	22.78	24.0	0.0
40	QPSK	108	54	22.35	22.86	22.92	24.0	0.0
40	QPSK	108	108	22.48	22.89	22.86	24.0	0.0
40	QPSK	216	0	22.55	22.90	22.87		
40	16QAM	1	1	22.09	21.85	22.08	23.0	1.0
40	64QAM	1	1	20.23	20.72	20.44	21.5	2.5
40	256QAM	1	1	18.48	19.11	18.54	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.66	22.92	22.71	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.80	22.58	22.60	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.81	22.81	22.60	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.75	22.63	22.62	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.76	22.67	22.64	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.76	22.49	22.73	24.0	0.0

n7 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 504000	Power Med. Ch. / Freq 507000	Power High Ch. / Freq 510000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	18.96	18.84	18.85		
40	P12 BPSK	1	108	18.88	18.92	18.92	20.0	0.0
40	P12 BPSK	1	214	18.85	18.95	18.90		
40	P12 BPSK	108	0	18.81	18.95	18.83	20.0	0.0
40	P12 BPSK	108	54	18.91	18.89	18.89	20.0	0.0
40	P12 BPSK	108	108	18.76	18.87	18.73		
40	P12 BPSK	216	0	18.82	18.97	18.88	20.0	0.0
40	QPSK	1	1	18.98	18.98	18.98		
40	QPSK	1	108	18.87	18.95	18.80	20.0	0.0
40	QPSK	1	214	18.90	18.81	18.76		
40	QPSK	108	0	18.83	18.76	18.70	20.0	0.0
40	QPSK	108	54	18.92	18.87	18.77	20.0	0.0
40	QPSK	108	108	18.81	18.85	18.85	20.0	0.0
40	QPSK	216	0	18.80	18.83	18.69		
40	16QAM	1	1	18.86	18.96	18.86	20.0	0.0
40	64QAM	1	1	18.84	18.77	18.83	20.0	0.0
40	256QAM	1	1	18.87	18.90	18.78	19.5	0.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.75	18.71	18.65	20.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.79	18.78	18.72	20.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.70	18.72	18.72	20.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.75	18.71	18.72	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.83	18.84	18.68	20.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.72	18.76	18.60	20.0	0.0



n12 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	PI2 BPSK	1	1	22.74	22.82	22.87	24.0	0.0
15	PI2 BPSK	1	40	22.72	22.86	22.84		
15	PI2 BPSK	1	77	22.70	22.84	22.81		
15	PI2 BPSK	36	0	22.87	22.81	22.86	24.0	0.0
15	PI2 BPSK	36	22	22.87	22.83	22.94	24.0	0.0
15	PI2 BPSK	36	43	22.81	22.81	22.86	24.0	0.0
15	PI2 BPSK	75	0	22.86	22.72	22.87	24.0	0.0
15	QPSK	1	1	22.75	22.85	22.84	24.0	0.0
15	QPSK	1	40	22.85	22.74	22.85		
15	QPSK	1	77	22.70	22.83	22.82		
15	QPSK	36	0	22.33	22.70	22.81	24.0	0.0
15	QPSK	36	22	22.71	22.76	22.81	24.0	0.0
15	QPSK	36	43	22.34	22.84	22.87	24.0	0.0
15	QPSK	75	0	22.40	22.87	22.44	24.0	0.0
15	16QAM	1	1	22.69	22.88	22.79	24.0	0.0
15	16QAM	1	1	21.21	21.19	21.15	21.5	1.5
15	256QAM	1	1	19.33	19.21	19.36	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.84	22.89	22.72	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.80	22.84	22.76	24.0	0.0

n12 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	PI2 BPSK	1	1	22.20	22.10	22.17	23.0	0.0
15	PI2 BPSK	1	40	22.24	22.35	22.16		
15	PI2 BPSK	1	77	22.14	22.23	22.29		
15	PI2 BPSK	36	0	22.10	22.09	22.09	23.0	0.0
15	PI2 BPSK	36	22	22.20	22.11	22.18	23.0	0.0
15	PI2 BPSK	36	43	22.04	22.16	22.10	23.0	0.0
15	PI2 BPSK	75	0	22.16	22.22	22.13	23.0	0.0
15	QPSK	1	1	22.25	22.38	22.29	23.0	0.0
15	QPSK	1	40	22.23	22.29	22.15		
15	QPSK	1	77	22.21	22.29	22.17		
15	QPSK	36	0	22.18	22.23	22.15	23.0	0.0
15	QPSK	36	22	22.30	22.32	22.24	23.0	0.0
15	QPSK	36	43	22.28	22.27	22.14	23.0	0.0
15	QPSK	75	0	22.21	22.20	22.18	23.0	0.0
15	16QAM	1	1	22.32	22.29	22.23	23.0	0.0
15	16QAM	1	1	20.12	20.21	20.27	21.5	1.5
15	256QAM	1	1	18.69	18.75	18.82	19.5	3.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.27	22.20	22.15	23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.21	22.15	22.05	23.0	0.0



n13 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.69			
10	PI2 BPSK	1	26		22.74		24.0	0.0
10	PI2 BPSK	1	50		22.55			
10	PI2 BPSK	25	0		22.27		23.5	0.5
10	PI2 BPSK	25	14		22.63		24.0	0.0
10	PI2 BPSK	25	27		22.16		23.5	0.5
10	PI2 BPSK	50	0		22.30			
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.78		24.0	0.0
10	QPSK	1	50		22.62			
10	QPSK	25	0		21.78		23.0	1.0
10	QPSK	25	14		22.57		24.0	0.0
10	QPSK	25	27		21.86		23.0	1.0
10	QPSK	50	0		21.03			
10	16QAM	1	1		21.83		23.0	1.0
10	64QAM	1	1		20.79		21.5	2.5
10	256QAM	1	1		18.29		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.85		24.0	0.0

n13 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.61			
10	PI2 BPSK	1	26		22.80		24.0	0.0
10	PI2 BPSK	1	50		22.85			
10	PI2 BPSK	25	0		22.28		23.5	0.5
10	PI2 BPSK	25	14		22.67		24.0	0.0
10	PI2 BPSK	25	27		22.54		23.5	0.5
10	PI2 BPSK	50	0		22.32			
10	QPSK	1	1		22.90			
10	QPSK	1	26		22.84		24.0	0.0
10	QPSK	1	50		22.84			
10	QPSK	25	0		21.75		23.0	1.0
10	QPSK	25	14		22.64		24.0	0.0
10	QPSK	25	27		21.82		23.0	1.0
10	QPSK	50	0		21.14			
10	16QAM	1	1		21.95		23.0	1.0
10	64QAM	1	1		19.95		21.5	2.5
10	256QAM	1	1		18.13		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.87		24.0	0.0



n14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq 158600	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.84			
10	PI2 BPSK	1	26		22.56		24.0	0.0
10	PI2 BPSK	1	50		22.60			
10	PI2 BPSK	25	0		22.60		24.0	0.0
10	PI2 BPSK	25	14		22.56		24.0	0.0
10	PI2 BPSK	25	27		22.51		24.0	0.0
10	PI2 BPSK	50	0		22.57			
10	QPSK	1	1		22.76			
10	QPSK	1	26		22.58		24.0	0.0
10	QPSK	1	50		22.67			
10	QPSK	25	0		22.60		24.0	0.0
10	QPSK	25	14		22.63		24.0	0.0
10	QPSK	25	27		22.53		24.0	0.0
10	QPSK	50	0		22.54			
10	16QAM	1	1		22.59		24.0	0.0
10	16QAM	1	1		21.45		22.5	1.5
10	256QAM	1	1		19.07		20.0	4.0
Channel				158100	158600	159100	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				158.2	158.6	158.9		
5	QPSK	1	1	22.59	22.65	22.63	24.0	0.0

n14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq 158600	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		21.69			
10	PI2 BPSK	1	26		21.48		22.5	0.0
10	PI2 BPSK	1	50		21.51			
10	PI2 BPSK	25	0		21.53		22.5	0.0
10	PI2 BPSK	25	14		21.45		22.5	0.0
10	PI2 BPSK	25	27		21.51		22.5	0.0
10	PI2 BPSK	50	0		21.51			
10	QPSK	1	1		21.69			
10	QPSK	1	26		21.54		22.5	0.0
10	QPSK	1	50		21.51			
10	QPSK	25	0		21.46		22.5	0.0
10	QPSK	25	14		21.56		22.5	0.0
10	QPSK	25	27		21.49		22.5	0.0
10	QPSK	50	0		21.50			
10	16QAM	1	1		21.43		22.5	0.0
10	16QAM	1	1		20.08		21.5	1.0
10	256QAM	1	1		18.14		19.5	3.0
Channel				158100	158600	159100	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				158.2	158.6	158.9		
5	QPSK	1	1	21.62	21.64	21.61	22.5	0.0



n25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency [MHz]								
20	PI2 BPSK	1	1	23.05	23.11	23.13	24.0	0.0
20	PI2 BPSK	1	53	23.18	23.20	23.12		
20	PI2 BPSK	1	104	23.13	23.30	23.14		
20	PI2 BPSK	50	0	23.09	23.06	23.22	24.0	0.0
20	PI2 BPSK	50	28	23.10	23.19	23.17	24.0	0.0
20	PI2 BPSK	50	56	23.12	23.25	23.16	24.0	0.0
20	PI2 BPSK	100	0	23.11	23.18	23.18	24.0	0.0
20	QPSK	1	1	23.26	23.24	23.26	24.0	0.0
20	QPSK	1	53	23.14	23.45	23.33		
20	QPSK	1	104	23.05	23.46	23.34		
20	QPSK	50	0	23.10	23.30	23.18	24.0	0.0
20	QPSK	50	28	23.11	23.49	23.21	24.0	0.0
20	QPSK	50	56	23.04	23.48	23.17	24.0	0.0
20	QPSK	100	0	23.05	23.45	23.17	24.0	0.0
20	16QAM	1	1	22.08	22.67	22.11	23.0	1.0
20	64QAM	1	1	20.46	21.06	20.98	21.5	2.5
20	256QAM	1	1	18.72	18.62	18.79	19.5	4.5
Channel								
				371500	376500	381500	Tune-up limit (dB)	MPR (dB)
Frequency [MHz]								
15	QPSK	1	1	37.02	37.14	37.02	24.0	0.0
Channel								
				371000	376500	382000	Tune-up limit (dB)	MPR (dB)
Frequency [MHz]								
10	QPSK	1	1	23.13	22.85	23.46	24.0	0.0
Channel								
				370500	376500	382500	Tune-up limit (dB)	MPR (dB)
Frequency [MHz]								
5	QPSK	1	1	23.09	23.11	23.33	24.0	0.0

n25 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency [MHz]								
20	PI2 BPSK	1	1	13.73	13.81	13.69	15.0	0.0
20	PI2 BPSK	1	53	13.81	13.83	13.65		
20	PI2 BPSK	1	104	13.83	13.81	13.69		
20	PI2 BPSK	50	0	13.73	13.77	13.68	15.0	0.0
20	PI2 BPSK	50	28	13.81	13.76	13.81	15.0	0.0
20	PI2 BPSK	50	56	13.71	13.71	13.75	15.0	0.0
20	PI2 BPSK	100	0	13.82	13.80	13.71	15.0	0.0
20	QPSK	1	1	13.66	13.68	13.66	15.0	0.0
20	QPSK	1	53	13.84	13.87	13.72		
20	QPSK	1	104	13.88	13.81	13.84		
20	QPSK	50	0	13.77	13.81	13.65	15.0	0.0
20	QPSK	50	28	13.81	13.80	13.75	15.0	0.0
20	QPSK	50	56	13.72	13.78	13.67	15.0	0.0
20	QPSK	100	0	13.77	13.83	13.71	15.0	0.0
20	16QAM	1	1	13.83	13.88	13.71	15.0	0.0
20	64QAM	1	1	13.70	13.81	13.61	15.0	0.0
20	256QAM	1	1	13.70	13.80	13.72	15.0	0.0
Channel								
				371500	376500	381500	Tune-up limit (dB)	MPR (dB)
Frequency [MHz]								
15	QPSK	1	1	13.70	13.77	13.75	15.0	0.0
Channel								
				371000	376500	382000	Tune-up limit (dB)	MPR (dB)
Frequency [MHz]								
10	QPSK	1	1	13.72	13.72	13.73	15.0	0.0
Channel								
				370500	376500	382500	Tune-up limit (dB)	MPR (dB)
Frequency [MHz]								
5	QPSK	1	1	13.78	13.83	13.75	15.0	0.0



n26 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel				164900	166300	167800		
Frequency (MHz)				19.4	19.5	19.6		
20	PI2 BPSK	1	1	22.99	23.05	23.12		
20	PI2 BPSK	1	53	23.11	23.12	23.04	24.0	0.0
20	PI2 BPSK	1	104	23.05	23.01	22.95		
20	PI2 BPSK	50	0	23.07	23.05	23.08	24.0	0.0
20	PI2 BPSK	50	28	23.12	23.15	23.02	24.0	0.0
20	PI2 BPSK	50	56	23.08	23.04	22.95		
20	PI2 BPSK	100	0	23.03	23.09	23.04	24.0	0.0
20	QPSK	1	1	23.13	22.95	23.12		
20	QPSK	1	53	23.05	23.13	23.05	24.0	0.0
20	QPSK	1	104	23.07	23.04	22.97		
20	QPSK	50	0	23.03	23.01	23.00	24.0	0.0
20	QPSK	50	28	23.08	23.10	23.05	24.0	0.0
20	QPSK	50	56	23.05	23.01	22.93	24.0	0.0
20	QPSK	100	0	22.98	23.05	22.94		
20	16QAM	1	1	22.77	22.84	22.95	23.0	1.0
20	16QAM	1	1	21.02	20.97	20.94	21.5	2.5
20	256QAM	1	1	18.89	19.07	19.39	19.5	4.5
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				19.2	19.5	19.8		
15	QPSK	1	1	22.91	23.15	23.11	23.0	0.0
Channel				163800	166300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				19.0	19.5	19.4		
10	QPSK	1	1	23.08	23.03	23.05	24.0	0.0
Channel				163300	166300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				18.5	19.5	19.5		
5	QPSK	1	1	23.03	22.99	23.15	24.0	0.0

n26 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel				164900	166300	167800		
Frequency (MHz)				19.4	19.5	19.6		
20	PI2 BPSK	1	1	21.05	21.18	21.03		
20	PI2 BPSK	1	53	20.83	21.10	20.97	22.0	0.0
20	PI2 BPSK	1	104	20.97	21.15	20.93		
20	PI2 BPSK	50	0	20.95	21.06	21.01	22.0	0.0
20	PI2 BPSK	50	28	20.90	21.04	20.96	22.0	0.0
20	PI2 BPSK	50	56	20.77	20.93	21.05		
20	PI2 BPSK	100	0	21.01	21.04	21.14	22.0	0.0
20	QPSK	1	1	21.05	21.05	21.05		
20	QPSK	1	53	21.00	21.05	21.00	22.0	0.0
20	QPSK	1	104	20.94	21.03	21.03		
20	QPSK	50	0	21.00	21.04	20.95	22.0	0.0
20	QPSK	50	28	21.02	21.15	21.05	22.0	0.0
20	QPSK	50	56	20.99	21.05	21.04	22.0	0.0
20	QPSK	100	0	21.02	21.09	21.01		
20	16QAM	1	1	21.03	21.04	21.15	22.0	0.0
20	16QAM	1	1	20.80	20.71	20.71	21.5	2.5
20	256QAM	1	1	19.09	19.19	19.02	19.5	2.5
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				19.2	19.5	19.8		
15	QPSK	1	1	21.11	21.15	20.95	22.0	0.0
Channel				163800	166300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				19.0	19.5	19.4		
10	QPSK	1	1	21.03	21.14	21.07	22.0	0.0
Channel				163300	166300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				18.5	19.5	19.5		
5	QPSK	1	1	21.12	21.08	21.01	22.0	0.0



n30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.75			
10	PI2 BPSK	1	26		22.89		24.0	0.0
10	PI2 BPSK	1	50		22.77			
10	PI2 BPSK	25	0		22.71		24.0	0.0
10	PI2 BPSK	25	14		22.70		24.0	0.0
10	PI2 BPSK	25	27		22.76		24.0	0.0
10	PI2 BPSK	50	0		22.72		24.0	0.0
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.76		24.0	0.0
10	QPSK	1	50		22.81			
10	QPSK	25	0		22.73		24.0	0.0
10	QPSK	25	14		22.76		24.0	0.0
10	QPSK	25	27		22.67		24.0	0.0
10	QPSK	50	0		22.70		24.0	0.0
10	16QAM	1	1		21.92		23.0	1.0
10	16QAM	1	1		20.89		21.5	2.5
10	16QAM	1	1		18.79		19.5	4.5
Channel								
Frequency (MHz)				481500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2397.2	2310	2372.2	24.0	0.0
5	QPSK	1	1		22.87		24.0	0.0

n30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		18.03			
10	PI2 BPSK	1	26		17.92		19.5	0.0
10	PI2 BPSK	1	50		17.91			
10	PI2 BPSK	25	0		18.08		19.5	0.0
10	PI2 BPSK	25	14		18.08		19.5	0.0
10	PI2 BPSK	25	27		17.94		19.5	0.0
10	PI2 BPSK	50	0		17.95		19.5	0.0
10	QPSK	1	1		18.05			
10	QPSK	1	26		18.02		19.5	0.0
10	QPSK	1	50		18.06			
10	QPSK	25	0		17.99		19.5	0.0
10	QPSK	25	14		18.02		19.5	0.0
10	QPSK	25	27		18.00		19.5	0.0
10	QPSK	50	0		18.00		19.5	0.0
10	16QAM	1	1		17.93		19.5	0.0
10	16QAM	1	1		17.86		19.5	0.0
10	16QAM	1	1		18.02		19.5	0.0
Channel								
Frequency (MHz)				481500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2397.2	2310	2372.2	19.5	0.0
5	QPSK	1	1		18.03		19.5	0.0



n66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 346000	Power Middle Ch. / Freq 349000	High Ch. / Freq 352000		
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	23.27	23.41	23.29	24.0	0.0
40	P12 BPSK	1	108	23.26	23.40	23.34		
40	P12 BPSK	1	214	23.29	23.42	23.27		
40	P12 BPSK	108	0	23.30	23.37	23.27	24.0	0.0
40	P12 BPSK	108	54	23.29	23.31	23.33	24.0	0.0
40	P12 BPSK	108	108	23.33	23.25	23.36	24.0	0.0
40	P12 BPSK	216	0	23.31	23.31	23.39		
40	QPSK	1	1	23.33	23.34	23.33		
40	QPSK	1	108	23.25	23.45	23.25	24.0	0.0
40	QPSK	1	214	23.25	23.59	23.20	24.0	0.0
40	QPSK	108	0	23.26	23.38	23.26		
40	QPSK	108	54	23.25	23.42	23.31		
40	QPSK	108	108	23.25	23.33	23.32	24.0	0.0
40	QPSK	216	0	23.29	23.40	23.33	24.0	0.0
40	16QAM	1	1	22.05	22.06	22.40		
40	16QAM	1	1	20.94	20.79	21.5		
40	256QAM	1	1	18.84	18.94	19.23	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.21	23.34	23.33	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.23	23.36	23.24	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.33	23.30	23.20	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.17	23.02	23.20	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.19	23.16	23.27	24.0	0.0

n66 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 346000	Power Middle Ch. / Freq 349000	High Ch. / Freq 352000		
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	15.82	15.74	15.82	17.0	0.0
40	P12 BPSK	1	108	15.84	15.83	15.75		
40	P12 BPSK	1	214	15.82	15.89	15.89		
40	P12 BPSK	108	0	15.72	15.82	15.78	17.0	0.0
40	P12 BPSK	108	54	15.76	15.86	15.81	17.0	0.0
40	P12 BPSK	108	108	15.88	15.75	15.81		
40	P12 BPSK	216	0	15.63	15.72	15.74		
40	QPSK	1	1	15.83	15.83	15.83	17.0	0.0
40	QPSK	1	108	15.74	15.80	15.82		
40	QPSK	1	214	15.81	15.99	15.83		
40	QPSK	108	0	15.86	15.75	15.72	17.0	0.0
40	QPSK	108	54	15.71	15.86	15.74		
40	QPSK	108	108	15.88	15.65	15.89		
40	QPSK	216	0	15.71	15.80	15.77	17.0	0.0
40	16QAM	1	1	15.85	15.81	15.85		
40	16QAM	1	1	15.82	15.88	15.79		
40	256QAM	1	1	15.68	15.68	15.71	17.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.76	15.77	15.75	17.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.71	15.73	15.71	17.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.76	15.75	15.82	17.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.80	15.75	15.79	17.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	15.76	15.87	15.70	17.0	0.0



n70 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dB)	MPR (dB)	
Channel									
Frequency [MHz]									
15	PI2 BPSK	1	1		23.48				
15	PI2 BPSK	1	40		23.41		24.0	0.0	
15	PI2 BPSK	1	77		23.16				
15	PI2 BPSK	36	0		23.34		24.0	0.0	
15	PI2 BPSK	36	22		23.36		24.0	0.0	
15	PI2 BPSK	36	43		23.21				
15	PI2 BPSK	75	0		23.33		24.0	0.0	
15	QPSK	1	1		23.45				
15	QPSK	1	40		23.37		24.0	0.0	
15	QPSK	1	77		23.17				
15	QPSK	36	0		23.34		24.0	0.0	
15	QPSK	36	22		23.33		24.0	0.0	
15	QPSK	36	43		23.06		24.0	0.0	
15	QPSK	72	0		23.30				
15	16QAM	1	1		21.85		23.0	1.0	
15	16QAM	1	1		20.81		21.5	2.5	
15	256QAM	1	1		18.13		19.5	4.5	
Channel									
Frequency [MHz]									
				34000	34000	34100	Tune-up limit (dB)	MPR (dB)	
10	QPSK	1	1		23.30	23.41	23.24	24.0	0.0
Channel									
				33950	34050	34150	Tune-up limit (dB)	MPR (dB)	
Frequency [MHz]									
5	QPSK	1	1		23.25	23.33	23.23	24.0	0.0

n70 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dB)	MPR (dB)	
Channel									
Frequency [MHz]									
15	PI2 BPSK	1	1		15.82				
15	PI2 BPSK	1	40		15.74		17.0	0.0	
15	PI2 BPSK	1	77		15.73				
15	PI2 BPSK	36	0		15.92		17.0	0.0	
15	PI2 BPSK	36	22		15.74		17.0	0.0	
15	PI2 BPSK	36	43		15.69				
15	PI2 BPSK	75	0		15.87		17.0	0.0	
15	QPSK	1	1		15.98				
15	QPSK	1	40		15.75		17.0	0.0	
15	QPSK	1	77		15.69				
15	QPSK	36	0		15.85		17.0	0.0	
15	QPSK	36	22		15.85		17.0	0.0	
15	QPSK	36	43		15.83		17.0	0.0	
15	QPSK	72	0		15.84				
15	16QAM	1	1		15.71		17.0	0.0	
15	16QAM	1	1		15.84		17.0	0.0	
15	256QAM	1	1		15.91		17.0	0.0	
Channel									
Frequency [MHz]									
				34000	34000	34100	Tune-up limit (dB)	MPR (dB)	
10	QPSK	1	1		15.97	15.79	15.85	17.0	0.0
Channel									
				33950	34050	34150	Tune-up limit (dB)	MPR (dB)	
Frequency [MHz]									
5	QPSK	1	1		15.95	15.81	15.88	17.0	0.0



n71 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134500	Middle Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.62	22.92	22.91		
20	PI2 BPSK	1	63	22.87	22.86	22.85	24.0	0.0
20	PI2 BPSK	1	104	22.82	22.82	22.76		
20	PI2 BPSK	50	0	22.93	22.84	22.83	24.0	0.0
20	PI2 BPSK	50	28	22.90	22.79	22.77	24.0	0.0
20	PI2 BPSK	50	66	22.91	22.73	22.80	24.0	0.0
20	PI2 BPSK	100	0	22.87	22.84	22.81		
20	QPSK	1	1	22.94	22.92	22.90		
20	QPSK	1	63	22.50	22.70	22.52	24.0	0.0
20	QPSK	1	104	22.81	22.73	22.76		
20	QPSK	50	0	22.83	22.90	22.72	24.0	0.0
20	QPSK	50	28	22.87	22.91	22.78	24.0	0.0
20	QPSK	50	66	22.85	22.88	22.74	24.0	0.0
20	QPSK	100	0	22.78	22.82	22.75		
20	16QAM	1	1	22.93	22.79	22.81	24.0	0.0
20	16QAM	1	1	21.21	21.24	22.0	2.0	
20	256QAM	1	1	18.66	18.70	18.89	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.89	22.99	22.88	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.92	23.01	22.90	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.08	22.99	22.85	24.0	0.0

n71 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134500	Middle Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.00	22.04	21.92		
20	PI2 BPSK	1	63	21.85	21.92	21.89	23.0	0.0
20	PI2 BPSK	1	104	21.99	21.95	21.95		
20	PI2 BPSK	50	0	21.87	21.83	21.84	23.0	0.0
20	PI2 BPSK	50	28	21.86	21.78	21.85	23.0	0.0
20	PI2 BPSK	50	66	21.89	21.88	21.71	23.0	0.0
20	PI2 BPSK	100	0	21.79	21.81	21.74		
20	QPSK	1	1	22.00	22.00	22.00		
20	QPSK	1	63	21.82	21.95	21.95	23.0	0.0
20	QPSK	1	104	21.84	21.85	21.91		
20	QPSK	50	0	21.82	21.81	21.87	23.0	0.0
20	QPSK	50	28	21.86	22.15	22.01	23.0	0.0
20	QPSK	50	66	21.80	21.90	21.85	23.0	0.0
20	QPSK	100	0	21.77	22.00	21.85		
20	16QAM	1	1	21.86	22.00	21.86	23.0	0.0
20	16QAM	1	1	20.67	20.66	20.53	21.5	1.5
20	256QAM	1	1	18.79	18.65	18.79	19.5	3.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.10	22.02	22.03	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.14	22.04	22.03	23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.01	22.12	22.08	23.0	0.0



n38 Ant 7									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	P1/2 BPSK	1	1	23.02	23.04	23.07	24.0	0.0	
40	P1/2 BPSK	1	53	23.05	23.06	23.13			
40	P1/2 BPSK	1	104	23.07	23.04	23.07			
40	P1/2 BPSK	50	0	23.03	23.07	23.09	24.0	0.0	
40	P1/2 BPSK	50	26	23.06	23.01	23.07	24.0	0.0	
40	P1/2 BPSK	50	56	23.15	23.05	23.06	24.0	0.0	
40	P1/2 BPSK	100	0	23.07	23.03	23.01			
40	QPSK	1	1	23.11	23.16	23.15			
40	QPSK	1	53	23.07	23.14	23.12	24.0	0.0	
40	QPSK	1	104	23.05	23.12	23.12			
40	QPSK	50	0	22.85	22.88	22.85	24.0	0.0	
40	QPSK	50	26	22.75	22.85	22.81			
40	QPSK	50	56	22.65	22.87	22.81			
40	QPSK	100	0	22.80	22.82	22.76	24.0	0.0	
40	NSQAM	1	1	23.09	23.08	23.10	24.0	0.0	
40	NSQAM	1	1	21.55	21.58	21.50	22.5	1.5	
40	25QAM	1	1	19.53	19.52	19.33	20.5	3.5	
Channel									
Frequency (MHz)									
30	QPSK	1	1	23.00	23.14	23.08	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.03	23.11	22.97	24.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.02	23.02	23.02	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.89	23.00	23.07	24.0	0.0	

n38 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	P1/2 BPSK	1	1	19.01	19.04	19.02	20.5	0.0	
40	P1/2 BPSK	1	53	18.93	19.13	19.04			
40	P1/2 BPSK	1	104	19.00	19.08	19.01			
40	P1/2 BPSK	50	0	18.98	19.12	19.20	20.5	0.0	
40	P1/2 BPSK	50	26	18.92	19.85	19.05	20.5	0.0	
40	P1/2 BPSK	50	56	18.90	19.07	18.98	20.5	0.0	
40	P1/2 BPSK	100	0	19.05	19.01	18.95			
40	QPSK	1	1	19.15	19.23	19.20			
40	QPSK	1	53	19.11	19.88	19.19	20.5	0.0	
40	QPSK	1	104	18.96	19.13	18.94			
40	QPSK	50	0	18.95	19.00	19.02	20.5	0.0	
40	QPSK	50	26	18.93	19.09	19.05			
40	QPSK	50	56	18.90	19.08	19.02			
40	QPSK	100	0	18.99	19.15	19.12	20.5	0.0	
40	NSQAM	1	1	18.97	19.15	18.91	20.5	0.0	
40	NSQAM	1	1	19.07	18.98	19.05	20.5	0.0	
40	25QAM	1	1	17.84	17.99	17.99	19.0	1.5	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.14	19.80	19.12	20.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.15	19.19	19.20	20.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.11	19.08	19.13	20.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.98	18.17	19.13	20.5	0.0	



n41_FCC Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2088.01	2094.9	2100		
100	PUS BPSK	1	1	22.47	22.41	22.50	23.5	0.0
100	PUS BPSK	1	137	22.40	22.47	22.36		
100	PUS BPSK	1	271	22.40	22.48	22.50		
100	PUS BPSK	135	0	22.45	22.47	22.48	23.5	0.0
100	PUS BPSK	135	66	22.53	22.43	22.38	23.5	0.0
100	PUS BPSK	135	138	22.46	22.47	22.35	23.5	0.0
100	PUS BPSK	270	0	22.47	22.47	22.50		
100	QPSK	1	1	22.45	22.45	22.45		
100	QPSK	1	137	22.48	22.53	22.48	23.5	0.0
100	QPSK	1	271	22.48	22.50	22.45		
100	QPSK	135	0	22.48	22.51	22.43	23.5	0.0
100	QPSK	135	66	22.52	22.52	22.50		
100	QPSK	135	138	22.41	22.43	22.36	23.5	0.0
100	QPSK	270	0	22.48	22.50	22.44	23.5	0.0
100	16QAM	1	1	22.50	22.49	22.41	23.5	0.0
100	16QAM	1	1	22.52	22.49	22.38	23.5	0.0
100	256QAM	1	1	21.56	21.65	21.61	22.5	1.0
Channel								
Frequency (MHz)				50200	51000	52000	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	22.40	22.43	22.48	23.5	0.0
Channel				50204	51008	52008	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	22.52	22.42	22.45	23.5	0.0
Channel								
Frequency (MHz)				50600	51608	53100	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	22.45	22.46	22.44	23.5	0.0
Channel								
Frequency (MHz)				50600	51608	53196	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	22.44	22.49	22.35	23.5	0.0
Channel								
Frequency (MHz)				50604	51608	2654.99	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	22.71	22.44	22.42	23.5	0.0
Channel								
Frequency (MHz)				2616.01	2692.99	2670	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	22.47	22.54	22.43	23.5	0.0
Channel								
Frequency (MHz)				50900	51608	53000	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	22.11	22.29	22.14	23.5	0.0
Channel								
Frequency (MHz)				501204	51608	53098	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	22.45	22.47	22.38	23.5	0.0

n41_FCC_HPUE Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2241.11	2242.1	2242		
100	PUS BPSK	1	1	22.47	22.41	22.50	23.5	0.0
100	PUS BPSK	1	137	22.40	22.47	22.36		
100	PUS BPSK	1	271	22.40	22.48	22.50		
100	PUS BPSK	135	0	22.45	22.47	22.48	23.5	0.0
100	PUS BPSK	135	66	22.53	22.43	22.38	23.5	0.0
100	PUS BPSK	135	138	22.46	22.47	22.35	23.5	0.0
100	PUS BPSK	270	0	22.47	22.47	22.50		
100	QPSK	1	1	22.45	22.45	22.45		
100	QPSK	1	137	22.48	22.53	22.48	23.5	0.0
100	QPSK	1	271	22.48	22.50	22.45		
100	QPSK	135	0	22.48	22.51	22.43	23.5	0.0
100	QPSK	135	66	22.52	22.52	22.50		
100	QPSK	135	138	22.41	22.43	22.36	23.5	0.0
100	QPSK	270	0	22.48	22.50	22.44	23.5	0.0
100	16QAM	1	1	22.50	22.49	22.41	23.5	0.0
100	16QAM	1	1	22.52	22.49	22.38	23.5	0.0
100	256QAM	1	1	21.56	21.65	21.61	22.5	1.0
Channel								
Frequency (MHz)				50200	51000	52000	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	22.40	22.43	22.48	23.5	0.0
Channel				50204	51008	52008	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	22.52	22.42	22.45	23.5	0.0
Channel								
Frequency (MHz)				50600	51608	53100	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	22.45	22.46	22.44	23.5	0.0
Channel								
Frequency (MHz)				50600	51608	53196	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	22.44	22.49	22.35	23.5	0.0
Channel								
Frequency (MHz)				50604	51608	2654.99	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	22.71	22.44	22.42	23.5	0.0
Channel								
Frequency (MHz)				2616.01	2692.99	2670	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	22.47	22.54	22.43	23.5	0.0
Channel								
Frequency (MHz)				50900	51608	53000	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	22.11	22.29	22.14	23.5	0.0
Channel								
Frequency (MHz)				501204	51608	53098	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	22.45	22.47	22.38	23.5	0.0



n41_FCC Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2586.01	2592.99	2600		
100	PUS BPSK	1	1	19.22	19.35	19.35	20.5	0.0
100	PUS BPSK	1	137	19.35	19.32	18.88		
100	PUS BPSK	1	271	19.22	19.25	18.81		
100	PUS BPSK	135	0	19.17	19.33	18.99		
100	PUS BPSK	135	69	19.27	19.24	19.04		
100	PUS BPSK	135	138	19.30	19.28	19.03		
100	PUS BPSK	270	0	19.27	19.20	18.87		
100	QPSK	1	1	19.21	19.29	19.11		
100	QPSK	1	137	19.23	19.20	18.89		
100	QPSK	1	271	19.23	19.26	19.03		
100	QPSK	135	0	19.22	19.25	19.05		
100	QPSK	135	69	19.32	19.35	19.10		
100	QPSK	135	138	19.25	19.25	19.05		
100	QPSK	270	0	19.25	19.30	19.20		
100	16QAM	1	1	19.24	19.22	19.03		
100	16QAM	1	1	19.34	19.20	19.04		
100	256QAM	1	1	19.33	19.28	18.98		
100	256QAM	1	1	19.33	19.28	18.98		
Channel								
Frequency (MHz)				2641	2650.99	2664.98		
90	QPSK	1	1	19.30	19.30	19.08	20.5	0.0
Channel								
Frequency (MHz)				3072.04	3109.98	3200.98		
80	QPSK	1	1	19.15	19.33	19.10	20.5	0.0
Channel								
Frequency (MHz)				3082.02	3109.98	3190.00		
70	QPSK	1	1	19.25	19.27	18.99	20.5	0.0
Channel								
Frequency (MHz)				3082.00	3109.98	3195.98		
60	QPSK	1	1	19.13	19.25	18.95	20.5	0.0
Channel								
Frequency (MHz)				3082.04	3109.98	3205.98		
50	QPSK	1	1	19.11	19.32	19.04	20.5	0.0
Channel								
Frequency (MHz)				2616.01	2650.99	2670		
40	QPSK	1	1	19.30	19.34	19.12	20.5	0.0
Channel								
Frequency (MHz)				3090.00	3109.98	3209.98		
30	QPSK	1	1	19.10	19.24	19.06	20.5	0.0
Channel								
Frequency (MHz)				3012.04	3109.98	3209.98		
20	QPSK	1	1	19.30	19.23	19.08	20.5	0.0

n41_FCC_HPUE Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2544.01	2592.99	2600		
100	PUS BPSK	1	1	19.22	19.35	18.98	20.5	0.0
100	PUS BPSK	1	137	19.36	19.32	18.88		
100	PUS BPSK	1	271	19.22	19.25	18.81		
100	PUS BPSK	135	0	19.17	19.33	18.99		
100	PUS BPSK	135	69	19.27	19.24	19.04		
100	PUS BPSK	135	138	19.30	19.28	19.03		
100	PUS BPSK	270	0	19.27	19.20	18.87		
100	QPSK	1	1	19.21	19.29	19.11		
100	QPSK	1	137	19.23	19.20	18.89		
100	QPSK	1	271	19.23	19.26	19.03		
100	QPSK	135	0	19.22	19.25	19.05		
100	QPSK	135	69	19.32	19.35	19.10		
100	QPSK	135	138	19.25	19.25	19.05		
100	QPSK	270	0	19.25	19.30	19.20		
100	16QAM	1	1	19.20	19.22	19.03		
100	16QAM	1	1	19.34	19.20	19.04		
100	256QAM	1	1	19.33	19.28	18.98		
100	256QAM	1	1	19.33	19.28	18.98		
Channel								
Frequency (MHz)				2641	2650.99	2664.98		
90	QPSK	1	1	19.30	19.30	19.08	20.5	0.0
Channel								
Frequency (MHz)				3072.04	3109.98	3200.98		
80	QPSK	1	1	19.15	19.33	19.10	20.5	0.0
Channel								
Frequency (MHz)				3082.02	3109.98	3190.00		
70	QPSK	1	1	19.25	19.27	18.99	20.5	0.0
Channel								
Frequency (MHz)				3082.00	3109.98	3195.98		
60	QPSK	1	1	19.13	19.25	18.95	20.5	0.0
Channel								
Frequency (MHz)				3082.04	3109.98	3205.98		
50	QPSK	1	1	19.11	19.32	19.04	20.5	0.0
Channel								
Frequency (MHz)				2616.01	2650.99	2670		
40	QPSK	1	1	19.30	19.34	19.12	20.5	0.0
Channel								
Frequency (MHz)				3090.00	3109.98	3209.98		
30	QPSK	1	1	19.10	19.24	19.06	20.5	0.0
Channel								
Frequency (MHz)				3012.04	3109.98	3209.98		
20	QPSK	1	1	19.30	19.23	19.08	20.5	0.0



n41_FCC Ant 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PW-BPSK	1	1	2143	2143	2145			
100	PW-BPSK	1	137	2127	2139	2126	22.5	0.0	
100	PW-BPSK	1	271	2124	2129	2117			
100	PW-BPSK	135	0	2123	2138	2132	22.5	0.0	
100	PW-BPSK	135	69	2136	2137	2132	22.5	0.0	
100	PW-BPSK	135	135	2136	2124	2132	22.5	0.0	
100	PW-BPSK	270	0	2131	2134	2121			
100	QPSK	1	1	2120	2120	2121			
100	QPSK	1	137	2121	2126	2125	22.5	0.0	
100	QPSK	1	271	2125	2126	2137			
100	QPSK	135	0	2133	2127	2123	22.5	0.0	
100	QPSK	135	69	2133	2143	2124			
100	QPSK	135	135	2111	2122	2116			
100	QPSK	270	0	2128	2137	2122	22.5	0.0	
100	HQAM	1	1	2142	2144	2143	22.5	0.0	
100	HQAM	1	1	2132	2146	2142	22.5	0.0	
100	256QAM	1	1	1981	1988	1987	21.0	1.5	
Channel									
Frequency (MHz)									
50	QPSK	1	1	2145	2147	2119	22.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	2024	2029	2029	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	2133	2144	2123	22.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	2020	2020	2020	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	2131	2142	2115	22.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	2127	2137	2115	22.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	2134	2143	2117	22.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	2111	2122	2115	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	2131	2141	2129	22.5	0.0	

n41_FCC_HPUE Ant 6									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PW-BPSK	1	1	2440	2440	2442			
100	PW-BPSK	1	137	2433	2434	2432	25.5	0.0	
100	PW-BPSK	1	271	2432	2431	2432			
100	PW-BPSK	135	0	2429	2439	2429	25.0	0.5	
100	PW-BPSK	135	69	2425	2439	2426	25.5	0.0	
100	PW-BPSK	135	135	2432	2427	2436	25.0	0.5	
100	PW-BPSK	270	0	2426	2434	2425			
100	QPSK	1	1	2436	2435	2435			
100	QPSK	1	137	2422	2431	2421	25.5	0.0	
100	QPSK	1	271	2407	2416	2402			
100	QPSK	135	0	2420	2432	2430	25.5	0.0	
100	QPSK	135	69	2422	2433	2419			
100	QPSK	135	135	2426	2420	2432			
100	QPSK	270	0	2414	2423	2425	24.5	1.0	
100	HQAM	1	1	2439	2432	2426	24.5	1.0	
100	HQAM	1	1	2187	2202	2188	23.0	2.5	
100	256QAM	1	1	1987	1988	1983	21.0	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	2041	2049	2044	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	2130	2129	2129	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	2043	2043	2043	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	2030	2030	2030	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	2432	2448	2440	25.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	2439	2445	2437	25.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	2439	2439	2439	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	2411	2411	2411	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	2444	2443	2441	25.5	0.0	



n41_FCC Ant 9

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2586.01	2592.99	2600		
100	PWZ BPSK	1	1	18.54	18.55	18.57	19.5	0.0
100	PWZ BPSK	1	137	18.55	18.59	18.48		
100	PWZ BPSK	1	271	18.55	18.59	18.62		
100	PWZ BPSK	135	0	18.64	18.63	18.50	19.5	0.0
100	PWZ BPSK	135	66	18.64	18.65	18.44	19.5	0.0
100	PWZ BPSK	135	138	18.65	18.62	18.48	19.5	0.0
100	PWZ BPSK	270	0	18.62	18.61	18.58	19.5	0.0
100	QPSK	1	1	18.52	18.57	18.61		
100	QPSK	1	137	18.49	18.74	18.58	19.5	0.0
100	QPSK	1	271	18.50	18.57	18.48		
100	QPSK	135	0	18.46	18.69	18.62	19.5	0.0
100	QPSK	135	66	18.62	18.73	18.62		
100	QPSK	135	138	18.52	18.58	18.50	19.5	0.0
100	QPSK	270	0	18.48	18.66	18.60	19.5	0.0
100	16QAM	1	1	18.46	18.63	18.53	19.5	0.0
100	16QAM	1	1	18.50	18.65	18.55	19.5	0.0
100	256QAM	1	1	18.49	18.73	18.53	19.5	0.0
Channel								
Frequency (MHz)				5020.0	5026.99	5034		
90	QPSK	1	1	18.44	18.43	18.59	19.5	0.0
Channel				5020.0	5026.99	5034		
Frequency (MHz)				2532.02	2538.99	2545.97		
80	QPSK	1	1	18.43	18.62	18.44	19.5	0.0
Channel								
Frequency (MHz)				5062.02	5068.98	5076.00		
70	QPSK	1	1	18.39	18.50	18.46	19.5	0.0
Channel								
Frequency (MHz)				5020.0	5026.99	5034		
60	QPSK	1	1	18.40	18.73	18.46	19.5	0.0
Channel								
Frequency (MHz)				5020.0	5026.99	5034		
50	QPSK	1	1	18.52	18.68	18.56	19.5	0.0
Channel								
Frequency (MHz)				2516.01	2522.99	2530		
40	QPSK	1	1	18.36	18.57	18.49	19.5	0.0
Channel								
Frequency (MHz)				5020.0	5026.99	5034		
30	QPSK	1	1	18.41	18.64	18.57	19.5	0.0
Channel								
Frequency (MHz)				501204	501898	502598		
20	QPSK	1	1	18.37	18.65	18.45	19.5	0.0

n41_FCC_HPUE Ant 9

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2544.01	2552.00	2560		
100	PWZ BPSK	1	1	18.44	18.65	18.57	19.5	0.0
100	PWZ BPSK	1	137	18.56	18.69	18.48		
100	PWZ BPSK	1	271	18.55	18.59	18.62		
100	PWZ BPSK	135	0	18.64	18.63	18.50	19.5	0.0
100	PWZ BPSK	135	66	18.64	18.69	18.44	19.5	0.0
100	PWZ BPSK	135	138	18.60	18.62	18.48	19.5	0.0
100	PWZ BPSK	270	0	18.62	18.61	18.58	19.5	0.0
100	QPSK	1	1	18.52	18.57	18.61		
100	QPSK	1	137	18.49	18.74	18.58	19.5	0.0
100	QPSK	1	271	18.50	18.57	18.48		
100	QPSK	135	0	18.46	18.69	18.62	19.5	0.0
100	QPSK	135	66	18.62	18.71	18.62		
100	QPSK	135	138	18.52	18.58	18.50	19.5	0.0
100	QPSK	270	0	18.48	18.66	18.60	19.5	0.0
100	16QAM	1	1	18.46	18.63	18.53	19.5	0.0
100	16QAM	1	1	18.50	18.65	18.55	19.5	0.0
100	256QAM	1	1	18.49	18.73	18.53	19.5	0.0
Channel								
Frequency (MHz)				2544.01	2552.00	2560		
90	QPSK	1	1	18.44	18.61	18.50	19.5	0.0
Channel				5020.0	5026.99	5034		
Frequency (MHz)				2532.02	2538.99	2540.99		
80	QPSK	1	1	18.41	18.62	18.44	19.5	0.0
Channel								
Frequency (MHz)				5062.02	5068.98	5076.00		
70	QPSK	1	1	18.39	18.60	18.46	19.5	0.0
Channel								
Frequency (MHz)				5020.0	5026.99	5034		
60	QPSK	1	1	18.40	18.73	18.46	19.5	0.0
Channel								
Frequency (MHz)				5020.0	5026.99	5034		
50	QPSK	1	1	18.52	18.68	18.56	19.5	0.0
Channel								
Frequency (MHz)				2516.01	2522.99	2530		
40	QPSK	1	1	18.36	18.59	18.44	19.5	0.0
Channel								
Frequency (MHz)				5020.0	5026.99	5034		
30	QPSK	1	1	18.41	18.64	18.57	19.5	0.0
Channel								
Frequency (MHz)				501204	501898	502598		
20	QPSK	1	1	18.37	18.65	18.45	19.5	0.0



n48_FCC Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
40	PIQ BPSK	1	1	1174	1175	1176	13.0	0.0
40	PIQ BPSK	1	53	1182	1184	1181		
40	PIQ BPSK	1	104	1177	1183	1176		
40	PIQ BPSK	50	0	1164	1178	1158	13.0	0.0
40	PIQ BPSK	50	28	1170	1172	1159		
40	PIQ BPSK	50	56	1175	1176	1173		
40	PIQ BPSK	100	0	1167	1183	1158	13.0	0.0
40	QPSK	1	1	1172	1185	1181		
40	QPSK	1	53	1169	1174	1170		
40	QPSK	1	104	1176	1176	1181	13.0	0.0
40	QPSK	50	0	1166	1175	1167		
40	QPSK	50	28	1175	1182	1170		
40	QPSK	50	56	1166	1180	1183	13.0	0.0
40	QPSK	100	0	1158	1177	1181		
40	QPSK	1	1	1185	1181	1176		
40	16QAM	1	1	1158	1176	1170	13.0	0.0
40	16QAM	1	1	1158	1176	1170		
40	256QAM	1	1	1166	1177	1174		
Channel				3595	3595	3595	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	3595	3594	3594	13.0	0.0
Channel				3595	3595	3595	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	63703	64166	64000	13.0	0.0
Channel				63703	64166	64000	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	63703	64166	64032	13.0	0.0
Channel				63703	64166	64032	Tune-up limit (dBm)	MPR (dB)

n48_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
40	PIQ BPSK	1	1	1633	1633	1633	17.5	0.0
40	PIQ BPSK	1	53	1620	1611	1632		
40	PIQ BPSK	1	104	1627	1628	1629		
40	PIQ BPSK	50	0	1615	1618	1624	17.5	0.0
40	PIQ BPSK	50	28	1614	1619	1623		
40	PIQ BPSK	50	56	1633	1616	1613		
40	PIQ BPSK	100	0	1619	1618	1622	17.5	0.0
40	QPSK	1	1	1641	1641	1641		
40	QPSK	1	53	1630	1621	1613		
40	QPSK	1	104	1623	1627	1624	17.5	0.0
40	QPSK	50	0	1621	1636	1625		
40	QPSK	50	28	1619	1618	1628		
40	QPSK	50	56	1630	1610	1618	17.5	0.0
40	QPSK	100	0	1619	1632	1622		
40	16QAM	1	1	1640	1622	1627		
40	16QAM	1	1	1616	1611	1610	17.5	0.0
40	256QAM	1	1	1620	1629	1634		
40	256QAM	1	1	1620	1629	1634		
Channel				33603	33603	33603	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	33603	33614	33644	13.0	0.0
Channel				33603	33614	33644	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	63703	64166	64000	17.5	0.0
Channel				63703	64166	64000	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	63703	64166	64032	17.5	0.0
Channel				63703	64166	64032	Tune-up limit (dBm)	MPR (dB)



n48_FCC Ant 8								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PIQ BPSK	1	1	16.50	16.54	16.53	17.5	0.0
40	PIQ BPSK	1	53	16.24	16.13	16.46		
40	PIQ BPSK	1	104	16.40	16.46	16.40		
40	PIQ BPSK	50	0	16.32	16.37	16.34	17.5	0.0
40	PIQ BPSK	50	28	16.28	16.30	16.37	17.5	0.0
40	PIQ BPSK	50	56	16.38	16.34	16.20	17.5	0.0
40	PIQ BPSK	100	0	16.34	16.38	16.36		
40	QPSK	1	1	16.41	16.35	16.45		
40	QPSK	1	53	16.38	16.29	16.39	17.5	0.0
40	QPSK	1	104	16.36	16.45	16.36		
40	QPSK	50	0	16.40	16.32	16.30		
40	QPSK	50	28	16.32	16.29	16.28	17.5	0.0
40	QPSK	50	56	16.28	16.14	16.23		
40	QPSK	100	0	16.28	16.40	16.35	17.5	0.0
40	16QAM	1	1	16.23	16.41	16.34	17.5	0.0
40	16QAM	1	1	16.25	16.21	16.10	17.5	0.0
40	256QAM	1	1	16.35	16.32	16.32	17.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	16.27	16.37	16.23	17.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.37	16.33	16.19	17.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	16.31	16.29	16.14	17.5	0.0

n48_FCC Ant 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PIQ BPSK	1	1	22.16	22.15	21.98	23.0	0.0
40	PIQ BPSK	1	53	22.02	22.01	21.87		
40	PIQ BPSK	1	104	21.90	22.00	21.82		
40	PIQ BPSK	50	0	22.03	21.95	21.80	22.5	0.5
40	PIQ BPSK	50	28	22.02	22.01	21.81	23.0	0.0
40	PIQ BPSK	50	56	21.86	21.86	21.50	22.5	0.5
40	PIQ BPSK	100	0	21.72	21.72	21.54		
40	QPSK	1	1	22.05	22.18	21.95		
40	QPSK	1	53	22.10	22.07	21.90	23.0	0.0
40	QPSK	1	104	22.08	22.06	21.86		
40	QPSK	50	0	21.83	21.75	21.56		
40	QPSK	50	28	22.18	22.11	21.95	23.0	0.0
40	QPSK	50	56	21.84	21.85	21.73		
40	QPSK	100	0	21.14	21.88	20.93	22.5	1.0
40	16QAM	1	1	21.10	21.11	20.99	22.0	1.0
40	16QAM	1	1	19.95	19.93	19.79	20.5	2.5
40	256QAM	1	1	18.57	18.51	18.31	19.0	4.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.14	22.06	21.82	23.0	1.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.18	22.08	21.81	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.20	22.15	21.84	23.0	0.0



Part270 n77 Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	13.17	12.85	12.82	14.0	0.0
100	PIQ BPSK	1	137	13.16	12.86	12.75		
100	PIQ BPSK	1	211	13.20	12.82	12.71		
100	PIQ BPSK	145	0	13.19	12.86	12.84		
100	PIQ BPSK	135	69	12.86	12.73	12.54	14.0	0.0
100	PIQ BPSK	135	138	13.10	12.80	12.70	14.0	0.0
100	PIQ BPSK	270	0	13.18	12.81	12.87	14.0	0.0
100	QPSK	1	1	13.25	12.81	12.81	14.0	0.0
100	QPSK	1	137	13.28	12.88	12.74		
100	QPSK	1	271	13.26	12.83	12.71		
100	QPSK	135	0	13.20	12.88	12.82		
100	QPSK	135	69	13.15	12.85	12.81	14.0	0.0
100	QPSK	135	138	13.31	12.91	12.87	14.0	0.0
100	QPSK	270	0	13.27	12.85	12.86	14.0	0.0
100	NSAM	1	1	13.18	12.80	12.80	14.0	0.0
100	NSAM	1	1	13.04	12.78	12.85	14.0	0.0
100	25QAM	1	1	13.20	12.83	12.78	14.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.27	12.88	12.70	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.20	12.86	12.75	14.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.24	12.88	12.80	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.29	12.92	12.74	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.25	12.93	12.88	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.29	12.89	12.81	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.24	12.85	12.76	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.25	12.85	12.77	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.29	12.86	12.81	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.32	12.89	12.74	14.0	0.0

Part270 n77 HPUE Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	13.17	12.85	12.82	14.0	0.0
100	PIQ BPSK	1	137	13.16	12.86	12.75		
100	PIQ BPSK	1	211	13.20	12.82	12.71		
100	PIQ BPSK	138	0	13.19	12.86	12.84		
100	PIQ BPSK	138	69	12.86	12.73	12.54	14.0	0.0
100	PIQ BPSK	138	138	13.10	12.80	12.70	14.0	0.0
100	PIQ BPSK	270	0	13.18	12.81	12.87	14.0	0.0
100	QPSK	1	1	13.25	12.81	12.81	14.0	0.0
100	QPSK	1	137	13.28	12.88	12.74		
100	QPSK	1	271	13.26	12.83	12.71		
100	QPSK	135	0	13.20	12.88	12.82		
100	QPSK	135	69	13.15	12.85	12.81	14.0	0.0
100	QPSK	138	138	13.31	12.91	12.87	14.0	0.0
100	QPSK	270	0	13.27	12.85	12.86	14.0	0.0
100	NSAM	1	1	13.18	12.80	12.80	14.0	0.0
100	NSAM	1	1	13.04	12.78	12.85	14.0	0.0
100	25QAM	1	1	13.20	12.83	12.78	14.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.27	12.88	12.70	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.24	12.86	12.75	14.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.29	12.92	12.74	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.25	12.93	12.88	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.29	12.89	12.81	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.24	12.85	12.76	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.29	12.86	12.81	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.25	12.85	12.77	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.29	12.86	12.81	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.32	12.89	12.74	14.0	0.0



Part27Q n77 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	13.19	13.19	13.19	14.0	0.0
100	PIQ BPSK	1	137	13.18	13.17	13.17	14.0	0.0
100	PIQ BPSK	1	271	13.17	13.17	13.17	14.0	0.0
100	PIQ BPSK	135	0	13.15	13.15	13.15	14.0	0.0
100	PIQ BPSK	135	69	13.10	13.10	13.10	14.0	0.0
100	PIQ BPSK	135	138	13.23	13.23	13.23	14.0	0.0
100	PIQ BPSK	270	0	13.18	13.18	13.18	14.0	0.0
100	QPSK	1	1	13.20	13.20	13.20	14.0	0.0
100	QPSK	1	137	13.15	13.15	13.15	14.0	0.0
100	QPSK	1	271	13.20	13.20	13.20	14.0	0.0
100	QPSK	135	0	13.17	13.17	13.17	14.0	0.0
100	QPSK	135	69	13.27	13.27	13.27	14.0	0.0
100	QPSK	135	138	13.16	13.16	13.16	14.0	0.0
100	QPSK	270	0	13.23	13.23	13.23	14.0	0.0
100	NSAM	1	1	13.19	13.19	13.19	14.0	0.0
100	NSAM	1	1	13.15	13.15	13.15	14.0	0.0
100	25QAM	1	1	13.28	13.28	13.28	14.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.06	13.06	13.06	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.18	13.04	13.15	14.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.12	13.11	13.14	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.08	13.19	13.04	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.20	13.13	13.15	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.21	13.14	13.20	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.15	13.19	13.20	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.11	13.03	13.11	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.09	13.08	13.05	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.26	13.17	13.12	14.0	0.0

Part27Q n77 HPUE Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	13.15	13.15	13.15	14.0	0.0
100	PIQ BPSK	1	137	13.18	13.18	13.18	14.0	0.0
100	PIQ BPSK	1	271	13.17	13.17	13.17	14.0	0.0
100	PIQ BPSK	135	0	13.15	13.15	13.15	14.0	0.0
100	PIQ BPSK	135	69	13.10	13.10	13.10	14.0	0.0
100	PIQ BPSK	135	138	13.23	13.23	13.23	14.0	0.0
100	PIQ BPSK	270	0	13.18	13.18	13.18	14.0	0.0
100	QPSK	1	1	13.20	13.20	13.20	14.0	0.0
100	QPSK	1	137	13.15	13.15	13.15	14.0	0.0
100	QPSK	1	271	13.20	13.20	13.20	14.0	0.0
100	QPSK	135	0	13.17	13.17	13.17	14.0	0.0
100	QPSK	135	69	13.27	13.27	13.27	14.0	0.0
100	QPSK	135	138	13.16	13.16	13.16	14.0	0.0
100	QPSK	270	0	13.23	13.23	13.23	14.0	0.0
100	NSAM	1	1	13.19	13.19	13.19	14.0	0.0
100	NSAM	1	1	13.15	13.15	13.15	14.0	0.0
100	25QAM	1	1	13.28	13.28	13.28	14.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.06	13.06	13.06	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.18	13.04	13.15	14.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.12	13.11	13.14	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.08	13.19	13.04	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.20	13.13	13.15	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.21	13.14	13.20	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.15	13.19	13.20	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.11	13.03	13.11	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.09	13.08	13.05	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.26	13.17	13.12	14.0	0.0



Part270 n77 Ant 5

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mids 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	17.02	16.91	16.92	18.0	0.0
100	PIQ BPSK	1	137	16.82	16.88	16.76	18.0	0.0
100	PIQ BPSK	1	211	16.82	16.90	16.93	18.0	0.0
100	PIQ BPSK	135	0	16.78	16.88	16.81	18.0	0.0
100	PIQ BPSK	135	69	16.82	16.87	16.82	18.0	0.0
100	PIQ BPSK	135	138	16.78	16.84	16.71	18.0	0.0
100	PIQ BPSK	270	0	16.89	16.85	16.70	18.0	0.0
100	QPSK	1	1	17.02	17.01	16.97	18.0	0.0
100	QPSK	1	137	16.91	17.00	16.87	18.0	0.0
100	QPSK	1	211	16.79	16.89	16.89	18.0	0.0
100	QPSK	135	0	16.77	16.87	16.74	18.0	0.0
100	QPSK	135	69	16.85	16.84	16.81	18.0	0.0
100	QPSK	135	138	16.72	16.87	16.82	18.0	0.0
100	QPSK	270	0	16.90	16.89	16.81	18.0	0.0
100	16QAM	1	1	16.80	16.84	16.80	18.0	0.0
100	16QAM	1	1	16.81	16.90	16.77	18.0	0.0
100	256QAM	1	1	16.82	16.87	16.84	18.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	17.02	16.98	16.83	18.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	17.02	16.99	16.93	18.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	16.87	16.93	16.94	18.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	16.89	16.89	16.87	18.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	16.92	16.94	16.92	18.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	16.97	16.97	16.99	18.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	16.99	16.93	16.97	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.97	17.01	16.94	18.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	16.99	16.87	16.82	18.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	16.91	17.00	16.83	18.0	0.0

Part270 n77 HPUE Ant 5

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mids 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	16.91	16.91	16.85	18.0	0.0
100	PIQ BPSK	1	137	16.86	16.88	16.76	18.0	0.0
100	PIQ BPSK	1	211	16.82	16.89	16.89	18.0	0.0
100	PIQ BPSK	135	0	16.78	16.88	16.81	18.0	0.0
100	PIQ BPSK	135	69	16.82	16.87	16.82	18.0	0.0
100	PIQ BPSK	135	138	16.78	16.84	16.71	18.0	0.0
100	PIQ BPSK	270	0	16.80	16.85	16.70	18.0	0.0
100	QPSK	1	1	17.02	17.01	16.97	18.0	0.0
100	QPSK	1	137	16.91	17.00	16.87	18.0	0.0
100	QPSK	1	211	16.79	16.89	16.89	18.0	0.0
100	QPSK	135	0	16.77	16.87	16.74	18.0	0.0
100	QPSK	135	69	16.85	16.84	16.81	18.0	0.0
100	QPSK	135	138	16.72	16.87	16.82	18.0	0.0
100	QPSK	270	0	16.90	16.89	16.81	18.0	0.0
100	16QAM	1	1	16.80	16.84	16.80	18.0	0.0
100	16QAM	1	1	16.81	16.90	16.77	18.0	0.0
100	256QAM	1	1	16.82	16.87	16.84	18.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	17.02	16.98	16.83	18.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	17.02	16.99	16.93	18.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	16.91	16.93	16.94	18.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	16.89	16.89	16.87	18.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	16.92	16.94	16.92	18.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	16.99	16.99	16.99	18.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	16.99	16.93	16.97	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.97	17.01	16.94	18.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	16.99	16.87	16.82	18.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	16.91	17.00	16.83	18.0	0.0



Part27Q n77 Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	16.59	16.97	17.01	18.0	0.0
100	PIQ BPSK	1	137	16.59	16.97	17.01	18.0	0.0
100	PIQ BPSK	1	211	16.59	16.97	17.01	18.0	0.0
100	PIQ BPSK	135	0	17.03	17.03	17.03	18.0	0.0
100	PIQ BPSK	135	66	16.97	16.97	16.97	18.0	0.0
100	PIQ BPSK	135	138	16.96	16.96	16.96	18.0	0.0
100	PIQ BPSK	270	0	16.96	16.96	16.96	18.0	0.0
100	QPSK	1	1	17.05	17.05	17.05	18.0	0.0
100	QPSK	1	137	16.97	16.97	16.97	18.0	0.0
100	QPSK	1	211	17.03	17.03	17.03	18.0	0.0
100	QPSK	135	0	16.92	16.92	16.92	18.0	0.0
100	QPSK	135	66	17.07	17.07	17.07	18.0	0.0
100	QPSK	135	138	16.95	16.95	16.95	18.0	0.0
100	QPSK	270	0	17.01	17.01	17.01	18.0	0.0
100	NSAM	1	1	16.95	16.95	16.95	18.0	0.0
100	NSAM	1	1	16.92	16.92	16.92	18.0	0.0
100	25QAM	1	1	17.03	17.03	17.03	18.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	3495	3499.98	3504.99	Turn-up limit (dB)	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	17.05	16.98	16.98	18.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	17.05	16.94	16.91	18.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	17.01	17.02	17.01	18.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	16.92	16.94	16.98	18.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	17.04	16.99	16.99	18.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.05	16.98	16.98	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.98	17.01	16.99	18.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	16.97	17.04	16.88	18.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.00	16.96	16.91	18.0	0.0

Part27Q n77 HPUE Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	16.99	16.97	17.01	18.0	0.0
100	PIQ BPSK	1	137	16.99	16.97	17.01	18.0	0.0
100	PIQ BPSK	1	211	16.99	16.97	17.01	18.0	0.0
100	PIQ BPSK	135	0	17.03	17.03	17.03	18.0	0.0
100	PIQ BPSK	135	66	16.97	16.97	16.97	18.0	0.0
100	PIQ BPSK	135	138	16.96	16.96	16.96	18.0	0.0
100	PIQ BPSK	270	0	16.96	16.96	16.96	18.0	0.0
100	QPSK	1	1	17.05	17.05	17.05	18.0	0.0
100	QPSK	1	137	16.97	16.97	16.97	18.0	0.0
100	QPSK	1	211	17.03	17.03	17.03	18.0	0.0
100	QPSK	135	0	16.92	16.92	16.92	18.0	0.0
100	QPSK	135	66	17.07	17.07	17.07	18.0	0.0
100	QPSK	135	138	16.95	16.95	16.95	18.0	0.0
100	QPSK	270	0	17.01	17.01	17.01	18.0	0.0
100	NSAM	1	1	16.95	16.95	16.95	18.0	0.0
100	NSAM	1	1	16.92	16.92	16.92	18.0	0.0
100	25QAM	1	1	17.03	17.03	17.03	18.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	3495	3499.98	3504.99	Turn-up limit (dB)	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	17.05	16.98	16.98	18.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	17.05	16.94	16.91	18.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	17.01	17.02	17.01	18.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	16.92	16.94	16.98	18.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	17.04	16.99	16.99	18.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.05	16.98	16.98	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.98	17.01	16.99	18.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	16.97	17.04	16.88	18.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.00	16.96	16.91	18.0	0.0



Part270 n77 Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	MidB Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.81	15.33	15.47	16.5	0.0
100	PIQ BPSK	1	137	15.58	15.30	15.44		
100	PIQ BPSK	1	211	15.20	15.02	15.40		
100	PIQ BPSK	135	0	15.58	15.35	15.42	16.5	0.0
100	PIQ BPSK	135	69	15.25	15.33	15.38	16.5	0.0
100	PIQ BPSK	135	138	15.65	15.39	15.37	16.5	0.0
100	PIQ BPSK	270	0	15.61	15.41	15.39	16.5	0.0
100	QPSK	1	1	15.60	15.05	15.32	16.5	0.0
100	QPSK	1	137	15.60	15.34	15.45		
100	QPSK	1	271	15.61	15.40	15.38		
100	QPSK	135	0	15.60	15.39	15.50	16.5	0.0
100	QPSK	135	69	15.64	15.52	15.35	16.5	0.0
100	QPSK	135	138	15.60	15.00	15.26	16.5	0.0
100	QPSK	270	0	15.49	15.47	15.38	16.5	0.0
100	NSAM	1	1	15.40	15.32	15.36	16.5	0.0
100	NSAM	1	1	15.37	15.36	15.52	16.5	0.0
100	25QAM	1	1	15.56	15.40	15.41	16.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.40	15.24	15.39	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.20	15.17	15.45	16.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.44	15.32	15.33	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.37	15.33	15.42	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.45	15.39	15.42	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.40	15.33	15.48	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.40	15.33	15.40	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.50	15.39	15.38	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.38	15.46	15.34	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.42	15.54	15.52	16.5	0.0

Part270 n77 HPUE Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	MidB Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.51	15.33	15.47	16.5	0.0
100	PIQ BPSK	1	137	15.58	15.50	15.44		
100	PIQ BPSK	1	211	15.10	15.02	15.40		
100	PIQ BPSK	135	0	15.58	15.35	15.42	16.5	0.0
100	PIQ BPSK	135	69	15.53	15.33	15.38	16.5	0.0
100	PIQ BPSK	135	138	15.65	15.39	15.37	16.5	0.0
100	PIQ BPSK	270	0	15.61	15.41	15.39	16.5	0.0
100	QPSK	1	1	15.60	15.05	15.32	16.5	0.0
100	QPSK	1	137	15.60	15.34	15.45		
100	QPSK	1	271	15.61	15.40	15.38		
100	QPSK	135	0	15.60	15.39	15.50	16.5	0.0
100	QPSK	135	69	15.64	15.52	15.35	16.5	0.0
100	QPSK	135	138	15.60	15.00	15.26	16.5	0.0
100	QPSK	270	0	15.49	15.47	15.38	16.5	0.0
100	NSAM	1	1	15.40	15.32	15.36	16.5	0.0
100	NSAM	1	1	15.37	15.36	15.52	16.5	0.0
100	25QAM	1	1	15.56	15.40	15.41	16.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.40	15.24	15.39	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.20	15.17	15.45	16.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.44	15.32	15.33	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.37	15.33	15.42	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.45	15.39	15.42	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.40	15.33	15.48	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.40	15.33	15.40	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.50	15.39	15.38	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.38	15.46	15.34	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.42	15.54	15.52	16.5	0.0



Part27Q n77 Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	3499.98	3499.98	3499.98	16.5	0.0
100	PIQ BPSK	1	137	15.30	15.27	15.27	16.5	0.0
100	PIQ BPSK	1	271	15.35	15.35	15.35	16.5	0.0
100	PIQ BPSK	135	0	15.07	15.07	15.07	16.5	0.0
100	PIQ BPSK	135	69	15.21	15.21	15.21	16.5	0.0
100	PIQ BPSK	135	138	15.35	15.35	15.35	16.5	0.0
100	PIQ BPSK	270	0	15.19	15.19	15.19	16.5	0.0
100	QPSK	1	1	15.20	15.20	15.20	16.5	0.0
100	QPSK	1	137	15.09	15.09	15.09	16.5	0.0
100	QPSK	1	271	15.26	15.26	15.26	16.5	0.0
100	QPSK	135	0	15.28	15.28	15.28	16.5	0.0
100	QPSK	135	69	15.45	15.45	15.45	16.5	0.0
100	QPSK	135	138	15.33	15.33	15.33	16.5	0.0
100	QPSK	270	0	15.30	15.30	15.30	16.5	0.0
100	SC-FDM	1	1	15.37	15.37	15.37	16.5	0.0
100	SC-FDM	1	1	15.10	15.10	15.10	16.5	0.0
100	256QAM	1	1	15.22	15.22	15.22	16.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	33300	33300	33366	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.44	15.46	15.37	16.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.44	15.45	15.46	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.48	15.35	15.42	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.41	15.49	15.35	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.44	15.3	15.44	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.42	15.42	15.42	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.49	15.31	15.40	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.48	15.46	15.46	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.46	15.41	15.47	16.5	0.0

Part27Q n77 HPUE Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	3499.98	3499.98	3499.98	16.5	0.0
100	PIQ BPSK	1	137	15.35	15.27	15.27	16.5	0.0
100	PIQ BPSK	1	271	15.35	15.35	15.35	16.5	0.0
100	PIQ BPSK	135	0	15.07	15.07	15.07	16.5	0.0
100	PIQ BPSK	135	69	15.21	15.21	15.21	16.5	0.0
100	PIQ BPSK	135	138	15.35	15.35	15.35	16.5	0.0
100	PIQ BPSK	270	0	15.19	15.19	15.19	16.5	0.0
100	QPSK	1	1	15.20	15.20	15.20	16.5	0.0
100	QPSK	1	137	15.09	15.09	15.09	16.5	0.0
100	QPSK	1	271	15.26	15.26	15.26	16.5	0.0
100	QPSK	135	0	15.28	15.28	15.28	16.5	0.0
100	QPSK	135	69	15.45	15.45	15.45	16.5	0.0
100	QPSK	135	138	15.33	15.33	15.33	16.5	0.0
100	QPSK	270	0	15.30	15.30	15.30	16.5	0.0
100	SC-FDM	1	1	15.37	15.37	15.37	16.5	0.0
100	SC-FDM	1	1	15.10	15.10	15.10	16.5	0.0
100	256QAM	1	1	15.22	15.22	15.22	16.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	33300	33300	33366	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.44	15.46	15.37	16.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.44	15.45	15.46	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.48	15.35	15.42	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.41	15.49	15.35	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.44	15.3	15.44	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.42	15.42	15.42	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.49	15.31	15.40	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.48	15.46	15.46	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.46	15.41	15.47	16.5	0.0



Part270 n77 Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	23.52	22.91	22.93	24.0	0.0
100	PIQ BPSK	1	137	23.08	22.79	22.88		
100	PIQ BPSK	1	211	23.01	22.88	22.72		
100	PIQ BPSK	135	0	22.78	22.47	22.41	24.0	0.0
100	PIQ BPSK	135	69	22.82	22.42	22.53	24.0	0.0
100	PIQ BPSK	135	138	22.74	22.40	22.38	24.0	0.0
100	PIQ BPSK	270	0	22.85	22.58	22.51	24.0	0.0
100	QPSK	1	1	23.18	22.88	22.80	24.0	0.0
100	QPSK	1	137	23.10	22.70	22.71		
100	QPSK	1	271	23.01	22.83	22.89		
100	QPSK	135	0	22.88	22.50	22.55	24.0	0.0
100	QPSK	135	69	22.82	22.52	22.57		
100	QPSK	135	138	22.81	22.54	22.47		
100	QPSK	270	0	22.88	22.60	22.57	24.0	0.0
100	NSAM	1	1	23.06	22.81	22.78	24.0	0.0
100	NSAM	1	1	22.82	22.12	22.15	23.5	1.0
100	NSAM	1	1	20.50	20.38	20.41	21.0	3.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.67	22.47	22.54	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.70	22.54	22.54	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.73	22.64	22.50	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.80	22.85	22.51	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.81	22.81	22.84	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.84	22.79	22.54	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.83	22.82	22.60	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.85	22.89	22.55	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.81	22.59	22.50	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.82	22.84	22.84	24.0	0.0

Part270 n77 HPUE Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	24.71	24.22	24.24	25.5	0.0
100	PIQ BPSK	1	137	24.82	24.24	24.22		
100	PIQ BPSK	1	211	24.55	24.18	24.15		
100	PIQ BPSK	135	0	23.86	23.50	23.55	25.0	0.5
100	PIQ BPSK	135	69	24.59	24.28	24.34	24.0	0.0
100	PIQ BPSK	135	138	23.72	23.44	23.30	25.0	0.5
100	PIQ BPSK	270	0	23.78	23.43	23.35	24.0	0.0
100	QPSK	1	1	24.84	24.32	24.25	25.5	0.0
100	QPSK	1	137	24.78	24.46	24.40		
100	QPSK	1	271	24.89	24.36	24.32		
100	QPSK	135	0	23.90	23.56	23.54	25.5	0.0
100	QPSK	135	69	24.81	24.30	24.25		
100	QPSK	135	138	23.73	23.45	23.37		
100	QPSK	270	0	23.82	23.52	23.57	24.5	1.0
100	NSAM	1	1	23.90	23.94	23.65	24.5	1.0
100	NSAM	1	1	22.22	22.15	22.15	23.0	2.5
100	NSAM	1	1	20.50	20.35	20.41	21.0	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	24.49	24.17	24.20	25.5	1.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.47	24.22	24.27	25.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	24.59	24.32	24.22	25.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.45	24.18	24.29	25.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.57	24.21	24.19	25.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	24.40	24.32	24.10	25.5	1.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	24.59	24.20	24.23	25.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	24.52	24.28	24.25	25.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	24.48	24.27	24.19	25.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	24.52	24.18	24.26	25.5	0.0



Part27Q n77 Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P1/2 BPSK	1	1	22.55	22.56	22.57	24.0	0.0
100	P1/2 BPSK	1	137	22.54	22.55	22.56	24.0	0.0
100	P1/2 BPSK	1	271	22.74	22.75	22.76	24.0	0.0
100	P1/2 BPSK	135	0	22.85	22.86	22.87	24.0	0.0
100	P1/2 BPSK	135	66	22.94	22.95	22.96	24.0	0.0
100	P1/2 BPSK	135	138	22.98	22.99	23.00	24.0	0.0
100	P1/2 BPSK	270	0	22.89	22.90	22.91	24.0	0.0
100	QPSK	1	1	22.75	22.76	22.77	24.0	0.0
100	QPSK	1	137	22.76	22.77	22.78	24.0	0.0
100	QPSK	135	0	22.89	22.90	22.91	24.0	0.0
100	QPSK	135	66	22.98	22.99	23.00	24.0	0.0
100	QPSK	135	138	22.75	22.76	22.77	24.0	0.0
100	QPSK	270	0	22.82	22.83	22.84	24.0	0.0
100	16QAM	1	1	22.80	22.81	22.82	24.0	1.0
100	16QAM	1	1	22.85	22.86	22.87	24.0	1.0
100	256QAM	1	1	20.55	20.56	20.57	21.0	3.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.91	22.92	22.93	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.92	22.93	22.94	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.83	22.84	22.85	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.88	22.89	22.90	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.84	22.85	22.86	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.77	22.78	22.79	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.92	22.93	22.94	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.77	22.78	22.79	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.84	22.85	22.86	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.91	22.92	22.93	24.0	0.0

Part27Q n77 HPUE Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P1/2 BPSK	1	1	24.23	24.24	24.25	25.5	0.0
100	P1/2 BPSK	1	137	24.10	24.11	24.12	25.5	0.0
100	P1/2 BPSK	1	271	24.15	24.16	24.17	25.5	0.0
100	P1/2 BPSK	135	0	23.91	23.92	23.93	25.0	0.0
100	P1/2 BPSK	135	66	24.30	24.31	24.32	25.0	0.0
100	P1/2 BPSK	135	138	23.85	23.86	23.87	25.0	0.0
100	P1/2 BPSK	270	0	23.87	23.88	23.89	25.0	0.0
100	QPSK	1	1	24.22	24.23	24.24	25.5	0.0
100	QPSK	1	137	24.22	24.23	24.24	25.5	0.0
100	QPSK	135	0	24.16	24.17	24.18	25.5	0.0
100	QPSK	135	66	24.33	24.34	24.35	25.5	0.0
100	QPSK	135	138	24.22	24.23	24.24	25.5	0.0
100	QPSK	270	0	23.70	23.71	23.72	24.5	1.0
100	16QAM	1	1	22.44	22.45	22.46	24.5	1.0
100	16QAM	1	1	22.45	22.46	22.47	24.5	1.0
100	256QAM	1	1	20.55	20.56	20.57	21.0	3.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	24.14	24.15	24.16	24.9	1.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.24	24.25	24.26	24.26	25.5
Channel								
Frequency (MHz)								
70	QPSK	1	1	24.19	24.20	24.21	24.19	25.5
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.16	24.17	24.18	24.16	25.5
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.23	24.24	24.25	24.23	25.5
Channel								
Frequency (MHz)								
40	QPSK	1	1	24.10	24.11	24.12	24.10	25.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	24.10	24.11	24.12	24.10	25.5
Channel								
Frequency (MHz)								
20	QPSK	1	1	24.25	24.26	24.27	24.25	25.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	24.11	24.12	24.13	24.11	25.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	24.11	24.12	24.13	24.11	25.5



Part270 n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	3765	3765	3765	14.0	0.0
100	PIQ BPSK	1	137	12.62	12.62	12.62	14.0	0.0
100	PIQ BPSK	1	271	12.53	12.53	12.53	14.0	0.0
100	PIQ BPSK	135	0	12.89	12.89	12.89	14.0	0.0
100	PIQ BPSK	135	89	12.89	12.89	12.89	14.0	0.0
100	PIQ BPSK	135	138	12.54	12.54	12.54	14.0	0.0
100	PIQ BPSK	270	0	12.59	12.59	12.59	14.0	0.0
100	QPSK	1	1	12.75	12.75	12.75	14.0	0.0
100	QPSK	1	137	12.62	12.62	12.62	14.0	0.0
100	QPSK	1	271	12.53	12.53	12.53	14.0	0.0
100	QPSK	135	0	12.89	12.89	12.89	14.0	0.0
100	QPSK	135	89	12.89	12.89	12.89	14.0	0.0
100	QPSK	135	138	12.53	12.53	12.53	14.0	0.0
100	QPSK	270	0	12.62	12.62	12.62	14.0	0.0
100	NSAM	1	1	12.58	12.58	12.58	14.0	0.0
100	NSAM	1	1	12.51	12.51	12.51	14.0	0.0
100	25QAM	1	1	12.68	12.68	12.68	14.0	0.0
90	QPSK	1	1	3745.02	3750	3754.98	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.63	12.63	12.63	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.62	12.64	12.67	14.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	12.56	12.57	12.56	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.64	12.70	12.56	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.62	12.70	12.58	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	12.63	12.63	12.63	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.63	12.70	12.54	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.56	12.59	12.58	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.64	12.66	12.49	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.54	12.60	12.56	14.0	0.0

Part27Q n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	3499.98	3499.98	3499.98	14.0	0.0
100	PIQ BPSK	1	137	12.52	12.52	12.52	14.0	0.0
100	PIQ BPSK	1	271	12.52	12.52	12.52	14.0	0.0
100	PIQ BPSK	138	0	12.86	12.86	12.86	14.0	0.0
100	PIQ BPSK	138	89	12.87	12.87	12.87	14.0	0.0
100	PIQ BPSK	138	138	12.63	12.63	12.63	14.0	0.0
100	PIQ BPSK	270	0	12.50	12.50	12.50	14.0	0.0
100	QPSK	1	1	12.75	12.75	12.75	14.0	0.0
100	QPSK	1	137	12.61	12.61	12.61	14.0	0.0
100	QPSK	1	271	12.62	12.62	12.62	14.0	0.0
100	QPSK	138	0	12.85	12.85	12.85	14.0	0.0
100	QPSK	138	89	12.85	12.85	12.85	14.0	0.0
100	QPSK	138	138	12.63	12.63	12.63	14.0	0.0
100	QPSK	270	0	12.54	12.54	12.54	14.0	0.0
100	NSAM	1	1	12.58	12.58	12.58	14.0	0.0
100	NSAM	1	1	12.68	12.68	12.68	14.0	0.0
100	25QAM	1	1	12.61	12.61	12.61	14.0	0.0
90	QPSK	1	1	3480.00	3485	3490.98	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.67	12.67	12.67	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.65	12.63	12.61	14.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	12.56	12.56	12.56	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.58	12.69	12.62	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.57	12.60	12.65	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	12.64	12.67	12.59	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.62	12.64	12.63	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.59	12.63	12.57	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.63	12.64	12.63	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.65	12.64	12.62	14.0	0.0



Part270 n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P1/2 BPSK	1	1	16.99	16.99	16.99	18.0	0.0
100	P1/2 BPSK	1	137	16.88	16.88	16.88	18.0	0.0
100	P1/2 BPSK	1	221	16.74	16.74	16.74	18.0	0.0
100	P1/2 BPSK	135	0	16.90	16.90	16.90	18.0	0.0
100	P1/2 BPSK	135	69	16.87	16.87	16.87	18.0	0.0
100	P1/2 BPSK	135	138	16.79	16.79	16.79	18.0	0.0
100	P1/2 BPSK	270	0	16.78	16.78	16.78	18.0	0.0
100	QPSK	1	1	17.00	17.00	17.00	18.0	0.0
100	QPSK	1	137	16.96	16.96	16.96	18.0	0.0
100	QPSK	1	271	16.70	16.70	16.70	18.0	0.0
100	QPSK	135	0	16.88	16.88	16.88	18.0	0.0
100	QPSK	135	69	16.89	16.89	16.89	18.0	0.0
100	QPSK	135	138	16.87	16.87	16.87	18.0	0.0
100	QPSK	270	0	16.96	16.96	16.96	18.0	0.0
100	16QAM	1	1	16.88	16.88	16.88	18.0	0.0
100	64QAM	1	1	16.90	16.90	16.90	18.0	0.0
100	256QAM	1	1	16.84	16.84	16.84	18.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	3746.02	3750	3754.98	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
90	QPSK	1	1	3740.01	3750	3760.01	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	16.94	16.90	16.90	18.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	16.95	16.91	16.95	18.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	16.84	16.81	16.82	18.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	16.87	16.84	16.81	18.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	16.87	16.84	16.81	18.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	16.83	16.81	16.83	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.87	16.84	16.81	18.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	16.90	16.90	16.87	18.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	16.84	16.84	16.89	18.0	0.0



Part27Q n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	16.93	16.93	16.93	18.0	0.0
100	PI2 BPSK	1	137	16.91	16.91	16.91	18.0	0.0
100	PI2 BPSK	1	271	16.86	16.86	16.86	18.0	0.0
100	PI2 BPSK	135	0	17.06	17.06	17.06	18.0	0.0
100	PI2 BPSK	135	89	16.77	16.77	16.77	18.0	0.0
100	PI2 BPSK	135	133	16.84	16.84	16.84	18.0	0.0
100	PI2 BPSK	270	0	16.79	16.79	16.79	18.0	0.0
100	QPSK	1	1	17.10	17.10	17.10	18.0	0.0
100	QPSK	1	137	16.88	16.88	16.88	18.0	0.0
100	QPSK	1	271	16.82	16.82	16.82	18.0	0.0
100	QPSK	135	0	16.98	16.98	16.98	18.0	0.0
100	QPSK	135	89	17.02	17.02	17.02	18.0	0.0
100	QPSK	135	133	16.91	16.91	16.91	18.0	0.0
100	QPSK	270	0	16.90	16.90	16.90	18.0	0.0
100	16QAM	1	1	17.01	17.01	17.01	18.0	0.0
100	56QAM	1	1	17.01	17.01	17.01	18.0	0.0
100	256QAM	1	1	16.98	16.98	16.98	18.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	63380	63332	63690	Tune-up limit (dB)	MPR
				3495	3499.98	3504.99		
				16.87	16.87	16.87	18.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	63366	63332	63690	Tune-up limit (dB)	MPR
				3492.02	3497.98	3503		
				16.89	16.86	16.82	18.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	63234	63332	63432	Tune-up limit (dB)	MPR
				3493.01	3497.98	3501.99		
				16.81	16.84	16.85	18.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	63300	63332	63466	Tune-up limit (dB)	MPR
				3490	3499.98	3509.98		
				16.85	16.92	16.90	18.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	63166	63332	63500	Tune-up limit (dB)	MPR
				3479.02	3499.98	3509		
				16.85	16.87	16.85	18.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	63132	63332	63332	Tune-up limit (dB)	MPR
				3477.01	3499.98	3509.98		
				16.83	16.84	16.84	18.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	63100	63332	63690	Tune-up limit (dB)	MPR
				3475	3497.98	3507.98		
				16.89	16.87	16.80	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	63068	63332	63600	Tune-up limit (dB)	MPR
				3469.02	3499.98	3509		
				16.91	16.94	16.85	18.0	0.0
Channel								
Frequency (MHz)								
14	QPSK	1	1	63000	63332	63616	Tune-up limit (dB)	MPR
				3467.5	3499.98	3504.98		
				16.99	16.97	16.92	18.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	63034	63332	63632	Tune-up limit (dB)	MPR
				3465.01	3499.98	3504.98		
				16.96	16.86	16.86	18.0	0.0



Part270 n78_FCC Ant 8

Bandwidth (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.33	15.33	15.33	16.5	0.0
100	PIQ BPSK	1	137	15.24	15.24	15.24	16.5	0.0
100	PIQ BPSK	1	271	15.26	15.26	15.26	16.5	0.0
100	PIQ BPSK	135	0	15.42	15.42	15.42	16.5	0.0
100	PIQ BPSK	135	69	15.27	15.27	15.27	16.5	0.0
100	PIQ BPSK	135	138	15.15	15.15	15.15	16.5	0.0
100	PIQ BPSK	270	0	15.17	15.17	15.17	16.5	0.0
100	QPSK	1	1	15.20	15.20	15.20	16.5	0.0
100	QPSK	1	137	15.26	15.26	15.26	16.5	0.0
100	QPSK	1	271	15.30	15.30	15.30	16.5	0.0
100	QPSK	135	0	15.45	15.45	15.45	16.5	0.0
100	QPSK	135	69	15.27	15.27	15.27	16.5	0.0
100	QPSK	135	138	15.43	15.43	15.43	16.5	0.0
100	QPSK	270	0	15.42	15.42	15.42	16.5	0.0
100	NSQAM	1	1	15.38	15.38	15.38	16.5	0.0
100	NSQAM	1	1	15.33	15.33	15.33	16.5	0.0
100	25QAM	1	1	15.37	15.37	15.37	16.5	0.0
100	25QAM	1	1	15.37	15.37	15.37	16.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.41	15.41	15.41	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.45	15.33	15.42	16.5	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	15.45	15.33	15.42	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.40	15.46	15.45	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.45	15.47	15.39	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.37	15.41	15.29	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.47	15.45	15.37	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.34	15.45	15.39	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.40	15.32	15.43	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.42	15.30	15.34	16.5	0.0

Part27Q n78_FCC Ant 8

Bandwidth (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.15	15.15	15.15	16.5	0.0
100	PIQ BPSK	1	137	15.19	15.19	15.19	16.5	0.0
100	PIQ BPSK	1	271	15.28	15.28	15.28	16.5	0.0
100	PIQ BPSK	135	0	15.42	15.42	15.42	16.5	0.0
100	PIQ BPSK	135	69	15.17	15.17	15.17	16.5	0.0
100	PIQ BPSK	135	138	15.10	15.10	15.10	16.5	0.0
100	PIQ BPSK	270	0	15.15	15.15	15.15	16.5	0.0
100	QPSK	1	1	15.43	15.43	15.43	16.5	0.0
100	QPSK	1	137	15.20	15.20	15.20	16.5	0.0
100	QPSK	1	271	15.13	15.13	15.13	16.5	0.0
100	QPSK	135	0	15.37	15.37	15.37	16.5	0.0
100	QPSK	135	69	15.33	15.33	15.33	16.5	0.0
100	QPSK	135	138	15.32	15.32	15.32	16.5	0.0
100	QPSK	270	0	15.32	15.32	15.32	16.5	0.0
100	NSQAM	1	1	15.19	15.19	15.19	16.5	0.0
100	NSQAM	1	1	15.28	15.28	15.28	16.5	0.0
100	25QAM	1	1	15.25	15.25	15.25	16.5	0.0
100	25QAM	1	1	15.25	15.25	15.25	16.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.23	15.22	15.2	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.33	15.29	15.28	16.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.33	15.29	15.27	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.35	15.39	15.28	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.21	15.21	15.30	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.23	15.23	15.21	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.30	15.30	15.27	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.33	15.23	15.23	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.21	15.23	15.32	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.27	15.33	15.31	16.5	0.0



Part270 n78_FCC Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P1/2 BPSK	1	1	22.93	22.68		24.0	0.0
100	P1/2 BPSK	1	137	22.68	22.93			
100	P1/2 BPSK	1	271	22.93	22.68			
100	P1/2 BPSK	135	0	22.33	22.58		23.5	0.5
100	P1/2 BPSK	135	69	22.58	22.33		24.0	0.0
100	P1/2 BPSK	135	138	22.33	22.58		23.5	0.5
100	P1/2 BPSK	270	0	22.28	22.53			
100	QPSK	1	1	22.68	22.93		24.0	0.0
100	QPSK	1	137	22.70	22.91			
100	QPSK	1	271	22.91	22.70			
100	QPSK	135	0	22.73	22.98		24.0	0.0
100	QPSK	135	69	22.79	22.68			
100	QPSK	135	138	22.68	22.79			
100	QPSK	270	0	22.31	22.56		23.0	1.0
100	MSAM	1	1	21.88	22.0		23.0	3.0
100	MSAM	1	1	20.92	21.04		21.5	2.5
100	25QAM	1	1	18.89	19.01		19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	37.66	37.90	38.13	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	37.62	37.86	38.09	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.74	22.98	23.21	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.85	22.77	22.70	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.80	22.64	22.73	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.72	22.80	22.72	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.17	22.81	22.71	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.54	22.74	22.67	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.69	22.69	22.72	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.69	22.69	22.78	Tune-up limit (dBm)	MPR (dB)



Part27Q n78_FCC Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	22.43	22.79	22.79	24.0	0.0
100	PIQ BPSK	1	137	22.76	22.76	22.76	24.0	0.0
100	PIQ BPSK	185	0	22.44	22.84	22.84	23.5	0.5
100	PIQ BPSK	185	89	22.84	22.84	22.84	24.0	0.0
100	PIQ BPSK	185	138	22.41	22.37	22.37	23.5	0.5
100	PIQ BPSK	270	0	22.37	22.37	22.37	24.0	0.0
100	QPSK	1	1	22.80	22.80	22.80	24.0	0.0
100	QPSK	1	137	22.88	22.92	22.92	24.0	0.0
100	QPSK	1	271	22.92	22.77	22.77	24.0	0.0
100	QPSK	185	0	22.77	22.80	22.80	24.0	0.0
100	QPSK	185	89	22.80	22.70	22.70	23.0	1.0
100	QPSK	185	138	22.70	21.77	21.77	23.0	1.0
100	16QAM	1	1	20.65	21.5	21.5	21.5	2.5
100	SSQAM	1	1	18.90	18.90	18.90	18.5	4.5
100	25QAM	1	1	63380	63332	63860	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
90	QPSK	1	1	3495	3499.98	3504.99	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	63056	63332	63608	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	3495.02	3492.8	3490.5	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	63234	63332	63432	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
60	QPSK	1	1	63691	63976	64260	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.77	22.76	22.85	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	63000	63332	63666	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
50	QPSK	1	1	3495.02	3499.98	3504.99	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.84	22.79	22.76	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	63786	63332	63000	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.89	22.86	22.75	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	63335	63332	63332	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
20	QPSK	1	1	34701	3499.98	3529.98	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	63698	63332	63000	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
16	QPSK	1	1	63698	63332	63000	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
16	QPSK	1	1	63000	63332	63666	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
16	QPSK	1	1	3495.6	3499.98	3504.6	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
16	QPSK	1	1	22.80	22.83	22.87	24.0	0.0
Channel								
Frequency (MHz)								
16	QPSK	1	1	63034	63332	63634	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
16	QPSK	1	1	3495.01	3499.98	3504.98	Tune-up limit (dB)	MPR
Channel								
Frequency (MHz)								
16	QPSK	1	1	22.81	22.72	22.72	24.0	0.0



Reduced Power Mode for DSI3

n2 Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Med. Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
20	PI2 BPSK	1	1	19.15	19.38	19.12			
20	PI2 BPSK	1	53	19.19	19.35	19.03	20.0	0.0	
20	PI2 BPSK	1	104	19.23	19.29	19.36			
20	PI2 BPSK	50	0	19.27	19.44	19.13	20.0	0.0	
20	PI2 BPSK	50	28	19.31	19.43	19.00	20.0	0.0	
20	PI2 BPSK	50	56	19.14	19.21	19.36			
20	PI2 BPSK	100	0	19.09	19.31	19.08	20.0	0.0	
20	QPSK	1	1	19.26	19.44	19.25			
20	QPSK	1	53	19.33	19.33	19.17	20.0	0.0	
20	QPSK	1	104	19.06	19.35	19.16			
20	QPSK	50	0	19.11	19.33	19.03	20.0	0.0	
20	QPSK	50	28	19.15	19.36	19.15	20.0	0.0	
20	QPSK	50	56	19.07	19.31	19.13	20.0	0.0	
20	QPSK	100	0	19.23	19.32	19.18	20.0	0.0	
20	16QAM	1	1	19.27	19.35	19.13	20.0	0.0	
20	16QAM	1	1	19.18	19.35	19.10	20.0	0.0	
20	256QAM	1	1	19.20	19.22	19.30	19.5	0.5	
Channel									
				371500	376000	380500	Tune-up limit	MPR	
Frequency [MHz]									
15	QPSK	1	1	19.22	19.34	19.22	20.0	0.0	
Channel									
				371000	376000	381000	Tune-up limit	MPR	
Frequency [MHz]									
10	QPSK	1	1	19.35	19.40	19.35	20.0	0.0	
Channel									
				370500	376000	381500	Tune-up limit	MPR	
Frequency [MHz]									
5	QPSK	1	1	19.38	19.37	19.29	20.0	0.0	

n2 Ant 1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Med. Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
20	PI2 BPSK	1	1	18.98	18.89	18.86			
20	PI2 BPSK	1	53	19.01	18.92	19.01	20.0	0.0	
20	PI2 BPSK	1	104	18.95	18.97	19.08			
20	PI2 BPSK	50	0	18.85	18.97	19.01	20.0	0.0	
20	PI2 BPSK	50	28	18.88	19.02	18.97	20.0	0.0	
20	PI2 BPSK	50	56	19.02	18.91	19.00	20.0	0.0	
20	PI2 BPSK	100	0	18.87	18.99	18.95	20.0	0.0	
20	QPSK	1	1	18.90	18.95	18.95			
20	QPSK	1	53	18.85	18.94	18.92	20.0	0.0	
20	QPSK	1	104	18.94	19.01	18.90			
20	QPSK	50	0	18.85	18.91	18.91	20.0	0.0	
20	QPSK	50	28	18.90	18.86	18.85	20.0	0.0	
20	QPSK	50	56	18.82	19.00	18.96	20.0	0.0	
20	QPSK	100	0	18.92	18.92	18.92	20.0	0.0	
20	16QAM	1	1	18.88	18.99	18.90	20.0	0.0	
20	16QAM	1	1	18.87	18.92	18.99	20.0	0.0	
20	256QAM	1	1	18.87	19.00	18.95	19.5	0.5	
Channel									
				371500	376000	380500	Tune-up limit	MPR	
Frequency [MHz]									
15	QPSK	1	1	18.85	18.95	18.85	20.0	0.0	
Channel									
				371000	376000	381000	Tune-up limit	MPR	
Frequency [MHz]									
10	QPSK	1	1	18.86	18.89	18.84	20.0	0.0	
Channel									
				370500	376000	381500	Tune-up limit	MPR	
Frequency [MHz]									
5	QPSK	1	1	18.94	19.00	18.91	20.0	0.0	



n5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Med. Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.04	23.16	23.10	24.0	0.0
20	PI2 BPSK	1	53	23.09	23.15	23.00		
20	PI2 BPSK	1	104	23.09	22.94	23.03		
20	PI2 BPSK	50	0	23.08	23.08	23.11	24.0	0.0
20	PI2 BPSK	50	28	23.15	23.11	23.07	24.0	0.0
20	PI2 BPSK	50	56	23.01	22.99	23.00	24.0	0.0
20	PI2 BPSK	100	0	23.13	23.08	23.07	24.0	0.0
20	QPSK	1	1	23.13	23.16	23.12	24.0	0.0
20	QPSK	1	53	23.07	23.15	23.11		
20	QPSK	1	104	23.04	22.99	23.11		
20	QPSK	50	0	23.12	23.04	23.00	24.0	0.0
20	QPSK	50	28	23.13	23.15	23.10	24.0	0.0
20	QPSK	50	56	22.97	22.95	23.05	24.0	0.0
20	QPSK	100	0	23.09	23.07	23.03	24.0	0.0
20	16QAM	1	1	22.12	22.18	21.95	23.0	1.0
20	16QAM	1	1	21.14	21.36	21.92	21.5	2.5
20	256QAM	1	1	19.23	19.12	19.42	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.95	23.14	23.12	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.04	23.11	23.14	24.0	0.0

n5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Med. Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.96	22.97	23.04	24.0	0.0
20	PI2 BPSK	1	53	22.92	22.96	22.98		
20	PI2 BPSK	1	104	23.00	23.05	23.15		
20	PI2 BPSK	50	0	23.03	23.04	22.94	24.0	0.0
20	PI2 BPSK	50	28	22.97	23.01	22.93	24.0	0.0
20	PI2 BPSK	50	56	22.93	23.03	23.03	24.0	0.0
20	PI2 BPSK	100	0	22.97	23.02	22.98	24.0	0.0
20	QPSK	1	1	22.95	22.99	23.05	24.0	0.0
20	QPSK	1	53	22.95	23.12	22.94		
20	QPSK	1	104	23.03	23.15	23.10		
20	QPSK	50	0	22.47	22.53	22.42	23.5	0.5
20	QPSK	50	28	22.41	23.00	22.35	24.0	0.0
20	QPSK	50	56	22.43	22.56	22.46	23.5	0.5
20	QPSK	100	0	22.42	22.48	22.41	23.5	0.5
20	16QAM	1	1	22.30	22.43	22.40	23.5	0.5
20	16QAM	1	1	20.77	21.11	20.92	21.5	2.5
20	256QAM	1	1	19.99	19.11	19.07	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.03	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.01	23.01	22.99	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	23.03	23.07	24.0	0.0



n7 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 504000	Power Med. Ch. / Freq 507000	Power High Ch. / Freq 510000	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	21.78	22.23	22.02		
40	P12 BPSK	1	108	21.83	22.21	21.99	23.0	0.0
40	P12 BPSK	1	214	21.86	22.11	22.03		
40	P12 BPSK	108	0	21.91	22.15	21.89	23.0	0.0
40	P12 BPSK	108	54	21.78	22.18	21.97	23.0	0.0
40	P12 BPSK	108	108	21.78	22.19	21.95	23.0	0.0
40	P12 BPSK	216	0	21.85	22.10	21.91	23.0	0.0
40	QPSK	1	1	21.95	22.36			
40	QPSK	1	108	21.85	22.19	21.90	23.0	0.0
40	QPSK	1	214	21.86	22.22	21.94		
40	QPSK	108	0	21.80	22.04	21.93	23.0	0.0
40	QPSK	108	54	21.85	22.20	21.95	23.0	0.0
40	QPSK	108	108	21.81	22.04	21.94	23.0	0.0
40	QPSK	216	0	21.83	22.19	21.93	23.0	0.0
40	16QAM	1	1	21.77	22.14	22.04	23.0	0.0
40	64QAM	1	1	20.23	20.66	20.40	21.5	1.5
40	256QAM	1	1	18.30	18.77	18.49	19.5	3.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.84	22.22	21.99	23.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.84	22.25	22.09	23.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.92	22.16	22.02	23.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.80	22.29	21.94	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.83	22.26	22.10	23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.94	22.16	21.98	23.0	0.0

n7 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 504000	Power Med. Ch. / Freq 507000	Power High Ch. / Freq 510000	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	19.86	19.84	19.75		
40	P12 BPSK	1	108	19.78	19.82	19.72	21.0	0.0
40	P12 BPSK	1	214	19.75	19.85	19.80		
40	P12 BPSK	108	0	19.71	19.85	19.73	21.0	0.0
40	P12 BPSK	108	54	19.81	19.76	19.78	21.0	0.0
40	P12 BPSK	108	108	19.68	19.77	19.63	21.0	0.0
40	P12 BPSK	216	0	19.82	19.87	19.76	21.0	0.0
40	QPSK	1	1	19.98				
40	QPSK	1	108	19.77	19.85	19.70	21.0	0.0
40	QPSK	1	214	19.80	19.71	19.85		
40	QPSK	108	0	19.70	19.86	19.60	21.0	0.0
40	QPSK	108	54	19.82	19.83	19.81	21.0	0.0
40	QPSK	108	108	19.71	19.75	19.55	21.0	0.0
40	QPSK	216	0	19.70	19.73	19.59	21.0	0.0
40	16QAM	1	1	19.76	19.86	19.76	21.0	0.0
40	64QAM	1	1	18.84	18.87	18.73	21.0	0.0
40	256QAM	1	1	18.70	18.79	18.59	19.5	1.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	19.65	19.75	19.71	21.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	19.69	19.69	19.62	21.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.84	19.82	19.74	21.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.73	19.82	19.81	21.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.71	19.81	19.87	21.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	19.74	19.83	19.73	21.0	0.0



n12 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	22.74	22.82	22.87	24.0	0.0
15	P12 BPSK	1	40	22.72	22.86	22.84		
15	P12 BPSK	1	77	22.70	22.84	22.81		
15	P12 BPSK	36	0	22.67	22.81	22.86	24.0	0.0
15	P12 BPSK	36	22	22.87	22.83	22.94	24.0	0.0
15	P12 BPSK	36	43	22.81	22.81	22.86	24.0	0.0
15	P12 BPSK	75	0	22.86	22.72	22.87	24.0	0.0
15	QPSK	1	1	22.75	22.85	22.85	24.0	0.0
15	QPSK	1	40	22.65	22.74	22.85		
15	QPSK	1	77	22.70	22.83	22.82		
15	QPSK	36	0	22.33	22.70	22.81	24.0	0.0
15	QPSK	36	22	22.71	22.76	22.81	24.0	0.0
15	QPSK	36	43	22.34	22.84	22.87	24.0	0.0
15	QPSK	75	0	22.40	22.87	22.44	24.0	0.0
15	16QAM	1	1	22.69	22.88	22.79	24.0	0.0
15	64QAM	1	1	21.21	21.19	21.15	2.5	2.5
15	256QAM	1	1	19.33	19.21	19.36	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.84	22.89	22.72	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.80	22.84	22.76	24.0	0.0

n12 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	23.21	23.18	23.12	24.0	0.0
15	P12 BPSK	1	40	23.24	23.23	23.18		
15	P12 BPSK	1	77	23.21	23.28	23.25		
15	P12 BPSK	36	0	23.17	23.12	23.16	24.0	0.0
15	P12 BPSK	36	22	23.18	23.16	23.12	24.0	0.0
15	P12 BPSK	36	43	23.12	23.12	23.16	24.0	0.0
15	P12 BPSK	75	0	23.19	23.21	23.15	24.0	0.0
15	QPSK	1	1	23.25	23.25	23.25	24.0	0.0
15	QPSK	1	40	23.25	23.30	23.23		
15	QPSK	1	77	23.26	23.27	23.15		
15	QPSK	36	0	22.85	22.84	22.83	24.0	0.0
15	QPSK	36	22	23.21	23.22	23.11	24.0	0.0
15	QPSK	36	43	22.81	22.80	22.91	24.0	0.0
15	QPSK	75	0	22.87	22.80	22.88	24.0	0.0
15	16QAM	1	1	22.92	22.79	22.82	24.0	0.0
15	64QAM	1	1	20.12	20.27	20.21	2.5	2.5
15	256QAM	1	1	18.69	18.79	18.82	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.25	23.28	23.22	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.16	23.20	23.02	24.0	0.0



n13 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.69			
10	PI2 BPSK	1	26		22.74		24.0	0.0
10	PI2 BPSK	1	50		22.55			
10	PI2 BPSK	25	0		22.27		23.5	0.5
10	PI2 BPSK	25	14		22.63		24.0	0.0
10	PI2 BPSK	25	27		22.16		23.5	0.5
10	PI2 BPSK	50	0		22.30			
10	QPSK	1	1		22.81			
10	QPSK	1	26		22.78		24.0	0.0
10	QPSK	1	50		22.62			
10	QPSK	25	0		21.78		23.0	1.0
10	QPSK	25	14		22.57		24.0	0.0
10	QPSK	25	27		21.86		23.0	1.0
10	QPSK	50	0		21.03			
10	16QAM	1	1		21.83		23.0	1.0
10	64QAM	1	1		20.79		21.5	2.5
10	256QAM	1	1		18.29		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.85		24.0	0.0

n13 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.61			
10	PI2 BPSK	1	26		22.80		24.0	0.0
10	PI2 BPSK	1	50		22.85			
10	PI2 BPSK	25	0		22.28		23.5	0.5
10	PI2 BPSK	25	14		22.67		24.0	0.0
10	PI2 BPSK	25	27		22.54		23.5	0.5
10	PI2 BPSK	50	0		22.32			
10	QPSK	1	1		22.93			
10	QPSK	1	26		22.94		24.0	0.0
10	QPSK	1	50		22.84			
10	QPSK	25	0		21.75		23.0	1.0
10	QPSK	25	14		22.64		24.0	0.0
10	QPSK	25	27		21.82		23.0	1.0
10	QPSK	50	0		21.14			
10	16QAM	1	1		21.95		23.0	1.0
10	64QAM	1	1		19.95		21.5	2.5
10	256QAM	1	1		18.13		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.87		24.0	0.0



n14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit [dBm]	MPR [dB]	
				Low Ch. / Freq	Power Middle Ch. / Freq 158600	Power High Ch. / Freq			
Channel									
Frequency [MHz]									
10	PI2 BPSK	1	1		22.84				
10	PI2 BPSK	1	26		22.56		24.0	0.0	
10	PI2 BPSK	1	50		22.60				
10	PI2 BPSK	25	0		22.60		24.0	0.0	
10	PI2 BPSK	25	14		22.56		24.0	0.0	
10	PI2 BPSK	25	27		22.51		24.0	0.0	
10	PI2 BPSK	50	0		22.57		24.0	0.0	
10	QPSK	1	1		22.76				
10	QPSK	1	26		22.58		24.0	0.0	
10	QPSK	1	50		22.67				
10	QPSK	25	0		22.60		24.0	0.0	
10	QPSK	25	14		22.63		24.0	0.0	
10	QPSK	25	27		22.53		24.0	0.0	
10	QPSK	50	0		22.54		24.0	0.0	
10	16QAM	1	1		22.59		24.0	0.0	
10	16QAM	1	1		21.45		22.5	1.5	
10	256QAM	1	1		19.07		20.0	4.0	
Channel				158100	158600	159100	Tune-up limit [dBm]	MPR [dB]	
Frequency [MHz]				158.2	158.6	158.8			
5	QPSK	1	1		22.93	22.65	22.63	24.0	0.0

n14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit [dBm]	MPR [dB]	
				Low Ch. / Freq	Power Middle Ch. / Freq 158600	Power High Ch. / Freq			
Channel									
Frequency [MHz]									
10	PI2 BPSK	1	1		23.02				
10	PI2 BPSK	1	26		23.03		24.0	0.0	
10	PI2 BPSK	1	50		23.07				
10	PI2 BPSK	25	0		22.99		24.0	0.0	
10	PI2 BPSK	25	14		22.96		24.0	0.0	
10	PI2 BPSK	25	27		23.00		24.0	0.0	
10	PI2 BPSK	50	0		22.94		24.0	0.0	
10	QPSK	1	1		23.32				
10	QPSK	1	26		22.98		24.0	0.0	
10	QPSK	1	50		23.03				
10	QPSK	25	0		22.98		24.0	0.0	
10	QPSK	25	14		23.01		24.0	0.0	
10	QPSK	25	27		22.94		24.0	0.0	
10	QPSK	50	0		22.95		24.0	0.0	
10	16QAM	1	1		21.98		23.0	1.0	
10	16QAM	1	1		20.48		21.5	2.5	
10	256QAM	1	1		18.54		19.5	4.5	
Channel				158100	158600	159100	Tune-up limit [dBm]	MPR [dB]	
Frequency [MHz]				158.2	158.6	158.8			
5	QPSK	1	1		22.93	23.09	23.07	24.0	0.0



n25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.13	18.95	19.04	20.0	0.0
20	PI2 BPSK	1	53	18.23	19.01	19.05		
20	PI2 BPSK	1	104	19.21	19.28	19.37		
20	PI2 BPSK	50	0	19.19	18.87	19.19	20.0	0.0
20	PI2 BPSK	50	28	19.12	19.14	19.08	20.0	0.0
20	PI2 BPSK	50	56	19.23	19.12	19.08	20.0	0.0
20	PI2 BPSK	100	0	19.27	18.99	19.02	20.0	0.0
20	QPSK	1	1	19.33	19.46	19.38	20.0	0.0
20	QPSK	1	53	19.30	19.41	19.22		
20	QPSK	1	104	19.20	19.38	19.33		
20	QPSK	50	0	19.18	19.05	19.08	20.0	0.0
20	QPSK	50	28	19.20	19.41	19.15	20.0	0.0
20	QPSK	50	56	19.05	19.35	19.03	20.0	0.0
20	QPSK	100	0	19.13	19.32	19.04	20.0	0.0
20	16QAM	1	1	19.08	19.30	19.17	20.0	0.0
20	16QAM	1	1	19.11	19.38	19.08	20.0	0.0
20	256QAM	1	1	19.69	19.79	19.79	19.5	0.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	37.100	37.650	38.000	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	37.050	37.650	38.250	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	19.19	19.40	19.36	20.0	0.0

n25 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.65	18.69	18.57	20.0	0.0
20	PI2 BPSK	1	53	18.63	18.74	18.49		
20	PI2 BPSK	1	104	18.71	18.73	18.48		
20	PI2 BPSK	50	0	18.71	18.82	18.50	20.0	0.0
20	PI2 BPSK	50	28	18.73	18.66	18.52	20.0	0.0
20	PI2 BPSK	50	56	18.68	18.63	18.52	20.0	0.0
20	PI2 BPSK	100	0	18.76	18.75	18.54	20.0	0.0
20	QPSK	1	1	18.69	18.75	18.75	20.0	0.0
20	QPSK	1	53	18.81	18.71	18.60		
20	QPSK	1	104	18.82	18.90	18.89		
20	QPSK	50	0	18.70	18.85	18.43	20.0	0.0
20	QPSK	50	28	18.81	18.83	18.35	20.0	0.0
20	QPSK	50	56	18.96	18.72	18.52	20.0	0.0
20	QPSK	100	0	18.72	18.74	18.46	20.0	0.0
20	16QAM	1	1	18.76	18.87	18.58	20.0	0.0
20	16QAM	1	1	18.89	18.73	18.36	20.0	0.0
20	256QAM	1	1	19.99	19.04	19.80	19.5	0.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	37.100	37.650	38.000	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	37.050	37.650	38.250	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.65	18.87	18.70	20.0	0.0



n26 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.99	23.05	23.12	24.0	0.0
20	PI2 BPSK	1	53	23.11	23.12	23.04		
20	PI2 BPSK	1	104	23.05	23.01	22.95		
20	PI2 BPSK	50	0	23.07	23.05	23.08	24.0	0.0
20	PI2 BPSK	50	28	23.12	23.15	23.02	24.0	0.0
20	PI2 BPSK	50	56	23.08	23.04	22.95	24.0	0.0
20	PI2 BPSK	100	0	23.03	23.09	23.04	24.0	0.0
20	QPSK	1	1	23.13	23.05	23.12	24.0	0.0
20	QPSK	1	53	23.05	23.13	23.05		
20	QPSK	1	104	23.07	23.04	22.97		
20	QPSK	50	0	23.03	23.01	23.00	24.0	0.0
20	QPSK	50	28	23.08	23.10	23.05	24.0	0.0
20	QPSK	50	56	23.05	23.01	22.93	24.0	0.0
20	QPSK	100	0	22.98	23.05	22.94	24.0	0.0
20	16QAM	1	1	22.77	22.84	22.95	23.0	1.0
20	16QAM	1	1	21.02	20.97	20.94	21.5	2.5
20	256QAM	1	1	18.89	19.07	19.39	19.5	4.5
Channel								
				164300	166300	168300	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	22.91	23.15	23.11	24.0	0.0
Channel								
				163800	166300	168800	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	23.08	23.03	23.05	24.0	0.0
Channel								
				163300	166300	169300	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
5	QPSK	1	1	23.03	22.99	23.15	24.0	0.0

n26 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.08	23.16	23.04	24.0	0.0
20	PI2 BPSK	1	53	22.90	23.05	23.01		
20	PI2 BPSK	1	104	23.03	23.11	22.95		
20	PI2 BPSK	50	0	23.03	23.10	22.94	23.5	0.5
20	PI2 BPSK	50	28	22.88	23.03	22.92	24.0	0.0
20	PI2 BPSK	50	56	22.85	23.01	22.95	23.5	0.5
20	PI2 BPSK	100	0	23.03	23.11	23.09	24.0	0.0
20	QPSK	1	1	23.08	23.00	23.05	24.0	0.0
20	QPSK	1	53	23.07	23.12	23.07		
20	QPSK	1	104	22.85	23.10	23.06		
20	QPSK	50	0	23.02	23.03	22.95	23.0	1.0
20	QPSK	50	28	23.03	23.11	23.05	24.0	0.0
20	QPSK	50	56	22.98	23.05	22.95	23.0	1.0
20	QPSK	100	0	22.94	23.05	22.92	23.0	1.0
20	16QAM	1	1	22.08	22.10	22.09	23.0	1.0
20	16QAM	1	1	20.80	20.86	20.71	21.5	2.5
20	256QAM	1	1	19.09	19.19	19.02	19.5	4.5
Channel								
				164300	166300	168300	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	23.13	23.15	23.05	24.0	0.0
Channel								
				163800	166300	168800	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	23.15	23.04	23.10	24.0	0.0
Channel								
				163300	166300	169300	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
5	QPSK	1	1	23.05	23.12	23.17	24.0	0.0



n30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.75			
10	PI2 BPSK	1	26		22.89		24.0	0.0
10	PI2 BPSK	1	50		22.77			
10	PI2 BPSK	25	0		22.71		24.0	0.0
10	PI2 BPSK	25	14		22.70		24.0	0.0
10	PI2 BPSK	25	27		22.76		24.0	0.0
10	PI2 BPSK	50	0		22.72		24.0	0.0
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.76		24.0	0.0
10	QPSK	1	50		22.81			
10	QPSK	25	0		22.73		24.0	0.0
10	QPSK	25	14		22.76		24.0	0.0
10	QPSK	25	27		22.67		24.0	0.0
10	QPSK	50	0		22.70		24.0	0.0
10	16QAM	1	1		21.92		23.0	1.0
10	16QAM	1	1		20.89		21.5	2.5
10	16QAM	1	1		18.79		19.5	4.5
Channel								
				461500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
5	QPSK	1	1		22.87		24.0	0.0

n30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		19.39			
10	PI2 BPSK	1	26		19.27		21.0	0.0
10	PI2 BPSK	1	50		19.22			
10	PI2 BPSK	25	0		19.51		21.0	0.0
10	PI2 BPSK	25	14		19.49		21.0	0.0
10	PI2 BPSK	25	27		19.29		21.0	0.0
10	PI2 BPSK	50	0		19.32		21.0	0.0
10	QPSK	1	1		19.33			
10	QPSK	1	26		19.33		21.0	0.0
10	QPSK	1	50		19.43			
10	QPSK	25	0		19.34		21.0	0.0
10	QPSK	25	14		19.42		21.0	0.0
10	QPSK	25	27		19.39		21.0	0.0
10	QPSK	50	0		19.47		21.0	0.0
10	16QAM	1	1		19.32		21.0	0.0
10	16QAM	1	1		19.41		21.0	0.0
10	16QAM	1	1		17.89		19.5	1.5
Channel								
				461500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
5	QPSK	1	1		19.50		21.0	0.0



n66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)		
				Low Ch. / Freq 346000	Power Middle Ch. / Freq 349000	Power High Ch. / Freq 352000				
Channel										
Frequency (MHz)										
40	PI2 BPSK	1	1	18.66	18.88	18.65	19.5	0.0		
40	PI2 BPSK	1	108	18.63	18.83	18.76				
40	PI2 BPSK	1	214	18.62	18.80	18.73				
40	PI2 BPSK	108	0	18.73	18.80	18.73	19.5	0.0		
40	PI2 BPSK	108	96	18.72	18.87	18.74	19.5	0.0		
40	PI2 BPSK	108	108	18.78	18.64	18.81	19.5	0.0		
40	PI2 BPSK	216	0	18.73	18.68	18.70	19.5	0.0		
40	QPSK	1	1	18.73	18.68	18.70	19.5	0.0		
40	QPSK	1	108	18.69	18.76	18.66				
40	QPSK	1	214	18.70	18.89	18.53				
40	QPSK	108	0	18.66	18.73	18.60	19.5	0.0		
40	QPSK	108	54	18.75	18.87	18.85	19.5	0.0		
40	QPSK	108	108	18.69	18.76	18.66	19.5	0.0		
40	QPSK	216	0	18.62	18.81	18.65	19.5	0.0		
40	16QAM	1	1	18.72	18.81	18.63	19.5	0.0		
40	64QAM	1	1	18.65	18.73	18.80	19.5	0.0		
40	256QAM	1	1	18.70	18.85	18.80	19.5	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	18.72	18.69	18.85	19.5	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	18.74	18.77	18.53	19.5	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	18.70	18.76	18.50	19.5	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	18.67	18.78	18.61	19.5	0.0		
Channel										
Frequency (MHz)										
5	QPSK	1	1	18.75	18.78	18.50	19.5	0.0		
Channel										
Frequency (MHz)										

n66 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)		
				Low Ch. / Freq 346000	Power Middle Ch. / Freq 349000	Power High Ch. / Freq 352000				
Channel										
Frequency (MHz)										
40	PI2 BPSK	1	1	18.17	18.15	18.32	19.5	0.0		
40	PI2 BPSK	1	108	17.99	18.01	18.24				
40	PI2 BPSK	1	214	17.99	18.03	18.18				
40	PI2 BPSK	108	0	18.19	18.24	18.26	19.5	0.0		
40	PI2 BPSK	108	96	18.17	18.30	18.26	19.5	0.0		
40	PI2 BPSK	108	108	18.03	18.24	18.26	19.5	0.0		
40	PI2 BPSK	216	0	17.97	18.09	18.14	19.5	0.0		
40	QPSK	1	1	18.23	18.25	18.25	19.5	0.0		
40	QPSK	1	108	18.15	18.15	18.25				
40	QPSK	1	214	18.31	18.34	18.23				
40	QPSK	108	0	17.88	18.18	18.22	19.5	0.0		
40	QPSK	108	54	18.03	18.31	18.24	19.5	0.0		
40	QPSK	108	108	17.98	17.96	18.03	19.5	0.0		
40	QPSK	216	0	18.08	18.30	18.27	19.5	0.0		
40	16QAM	1	1	18.30	18.15	18.22	19.5	0.0		
40	64QAM	1	1	18.04	18.04	18.12	19.5	0.0		
40	256QAM	1	1	18.08	18.12	18.08	19.5	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	18.31	18.30	18.27	19.5	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	18.20	18.37	18.21	19.5	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	18.14	18.28	18.27	19.5	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	18.16	18.43	18.31	19.5	0.0		
Channel										
Frequency (MHz)										
5	QPSK	1	1	18.17	18.29	18.32	19.5	0.0		
Channel										
Frequency (MHz)										



n70 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency [MHz]								
15	PI2 BPSK	1	1	18.36			19.0	0.0
15	PI2 BPSK	1	40	18.34				
15	PI2 BPSK	1	77	18.11				
15	PI2 BPSK	36	0	18.26			19.0	0.0
15	PI2 BPSK	36	22	18.25			19.0	0.0
15	PI2 BPSK	36	43	18.13			19.0	0.0
15	PI2 BPSK	75	0	18.23			19.0	0.0
15	QPSK	1	1	18.40				
15	QPSK	1	40	18.38			19.0	0.0
15	QPSK	1	77	18.08				
15	QPSK	36	0	18.14			19.0	0.0
15	QPSK	36	22	18.30			19.0	0.0
15	QPSK	36	43	18.26			19.0	0.0
15	QPSK	75	0	18.12			19.0	0.0
15	16QAM	1	1	18.21			19.0	0.0
15	16QAM	1	1	18.04			19.0	0.0
15	256QAM	1	1	18.10			19.0	0.0
Channel				34000	34000	34100	Tune-up limit	MPR
Frequency [MHz]				3300	3300	3300	(dBm)	(dB)
10	QPSK	1	1	18.27	18.34	18.24	19.0	0.0
Channel				33950	34050	34150	Tune-up limit	MPR
Frequency [MHz]				3392.5	3402.5	3412.5	(dBm)	(dB)
5	QPSK	1	1	18.19	18.28	18.19	19.0	0.0

n70 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency [MHz]								
15	PI2 BPSK	1	1	18.70			20.0	0.0
15	PI2 BPSK	1	40	18.67				
15	PI2 BPSK	1	77	18.60				
15	PI2 BPSK	36	0	18.87			20.0	0.0
15	PI2 BPSK	36	22	18.72			20.0	0.0
15	PI2 BPSK	36	43	18.62			20.0	0.0
15	PI2 BPSK	75	0	18.76			20.0	0.0
15	QPSK	1	1	18.98				
15	QPSK	1	40	18.77			20.0	0.0
15	QPSK	1	77	18.52				
15	QPSK	36	0	18.53			20.0	0.0
15	QPSK	36	22	18.65			20.0	0.0
15	QPSK	36	43	18.80			20.0	0.0
15	QPSK	75	0	18.68			20.0	0.0
15	16QAM	1	1	18.81			20.0	0.0
15	16QAM	1	1	18.79			20.0	0.0
15	256QAM	1	1	18.20			19.5	0.0
Channel				34000	34000	34100	Tune-up limit	MPR
Frequency [MHz]				3300	3300	3300	(dBm)	(dB)
10	QPSK	1	1	18.27	18.34	18.24	20.0	0.0
Channel				33950	34050	34150	Tune-up limit	MPR
Frequency [MHz]				3392.5	3402.5	3412.5	(dBm)	(dB)
5	QPSK	1	1	18.19	18.28	18.19	20.0	0.0



n71 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134600	Midst. Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.92	22.92	22.91	24.0	0.0
20	PI2 BPSK	1	53	22.87	22.86	22.85		
20	PI2 BPSK	1	104	22.82	22.82	22.78		
20	PI2 BPSK	50	0	22.93	22.84	22.83	24.0	0.0
20	PI2 BPSK	50	38	22.90	22.79	22.77	24.0	0.0
20	PI2 BPSK	50	86	22.91	22.73	22.80	24.0	0.0
20	PI2 BPSK	100	0	22.87	22.84	22.81	24.0	0.0
20	QPSK	1	1	22.90	22.90	22.90	24.0	0.0
20	QPSK	1	53	22.90	22.79	22.82		
20	QPSK	1	104	22.81	22.73	22.76		
20	QPSK	50	0	22.83	22.90	22.72	24.0	0.0
20	QPSK	50	38	22.87	22.91	22.78	24.0	0.0
20	QPSK	50	86	22.85	22.68	22.74	24.0	0.0
20	QPSK	100	0	22.75	22.80	22.75	24.0	0.0
20	16QAM	1	1	22.83	22.73	22.81	24.0	0.0
20	16QAM	1	1	21.21	21.30	21.24	22.0	2.0
20	256QAM	1	1	18.66	18.70	18.80	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.89	22.89	22.88	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.92	23.01	22.90	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	22.99	22.85	24.0	0.0

n71 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134600	Midst. Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.03	23.05	23.01	24.0	0.0
20	PI2 BPSK	1	53	23.00	22.97	22.94		
20	PI2 BPSK	1	104	23.06	23.02	23.01		
20	PI2 BPSK	50	0	22.97	22.99	23.03	24.0	0.0
20	PI2 BPSK	50	38	23.06	22.94	22.85	24.0	0.0
20	PI2 BPSK	50	86	22.98	22.92	22.82	24.0	0.0
20	PI2 BPSK	100	0	22.87	23.00	22.88	24.0	0.0
20	QPSK	1	1	23.00	23.00	23.00	24.0	0.0
20	QPSK	1	53	22.88	23.02	23.03		
20	QPSK	1	104	22.85	23.00	23.02		
20	QPSK	50	0	22.83	22.96	22.82	24.0	0.0
20	QPSK	50	38	22.83	23.04	22.84	24.0	0.0
20	QPSK	50	86	22.87	22.75	22.87	24.0	0.0
20	QPSK	100	0	22.84	22.77	22.73	24.0	0.0
20	16QAM	1	1	22.98	22.90	22.97	24.0	0.0
20	16QAM	1	1	20.75	20.70	20.84	21.5	2.5
20	256QAM	1	1	18.83	18.66	18.91	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.05	23.08	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.97	23.08	23.08	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.94	23.03	22.97	24.0	0.0



n38 Ant 7								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
40	PIQ BPSK	1	1	21.32	21.43	21.37	22.5	0.0
40	PIQ BPSK	1	53	21.23	21.27	21.23		
40	PIQ BPSK	1	104	21.28	21.44	21.34		
40	PIQ BPSK	50	0	21.39	21.37	21.18	22.5	0.0
40	PIQ BPSK	50	28	21.24	21.33	21.31		
40	PIQ BPSK	50	96	21.35	21.45	21.25		
40	PIQ BPSK	100	0	21.34	21.38	21.19	22.5	0.0
40	QPSK	1	1	21.33	21.47	21.40		
40	QPSK	1	53	21.28	21.39	21.11		
40	QPSK	1	104	21.25	21.28	21.25	22.5	0.0
40	QPSK	50	0	21.31	21.33	21.25		
40	QPSK	50	28	21.25	21.49	21.35		
40	QPSK	50	96	21.18	21.37	21.34	22.5	0.0
40	QPSK	100	0	21.39	21.33	21.28		
40	NSAM	1	1	21.24	21.42	21.29		
40	NSAM	1	1	21.25	21.40	21.25	22.5	0.0
40	NSAM	1	1	19.59	19.60	19.60		
40	25GAM	1	1	19.59	19.60	19.60		
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.29	21.58	21.28	22.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.57	21.33	21.34	22.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.53	21.31	21.23	22.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.29	21.22	21.16	22.5	0.0

n38 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
40	PIQ BPSK	1	1	20.01	20.06	19.96	21.5	0.0
40	PIQ BPSK	1	53	20.06	20.10	20.10		
40	PIQ BPSK	1	104	20.05	20.10	20.10		
40	PIQ BPSK	50	0	20.07	20.14	20.03	21.5	0.0
40	PIQ BPSK	50	28	19.98	20.11	20.06		
40	PIQ BPSK	50	96	19.95	19.95	19.95		
40	PIQ BPSK	100	0	19.94	20.04	19.86	21.5	0.0
40	QPSK	1	1	20.05	20.15	20.05		
40	QPSK	1	53	20.01	20.06	19.94		
40	QPSK	1	104	19.94	20.11	19.92	21.5	0.0
40	QPSK	50	0	19.95	19.95	19.92		
40	QPSK	50	28	19.93	20.14	20.14		
40	QPSK	50	96	19.91	19.98	19.83	21.5	0.0
40	QPSK	100	0	20.07	20.11	19.92		
40	NSAM	1	1	19.91	20.00	20.00		
40	NSAM	1	1	19.94	20.00	19.93	21.5	0.0
40	NSAM	1	1	18.05	18.08	17.82		
40	25GAM	1	1	18.05	18.08	17.82		
Channel								
Frequency (MHz)								
30	QPSK	1	1	19.99	20.00	20.07	21.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.90	20.00	20.11	21.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.90	19.99	20.08	21.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.94	20.01	20.01	21.5	0.0



n41_FCC Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				50502	51898	53000		
100	PV2 BPSK	1	1	21.32	21.33	21.19		
100	PV2 BPSK	1	137	21.12	21.31	21.19	22.5	0.0
100	PV2 BPSK	1	271	21.29	21.34	21.25		
100	PV2 BPSK	135	0	21.35	21.40	21.22	22.5	0.0
100	PV2 BPSK	135	69	21.27	21.43	21.34	22.5	0.0
100	PV2 BPSK	135	138	21.15	21.34	21.19	22.5	0.0
100	PV2 BPSK	270	0	21.18	21.37	21.23		
100	QPSK	1	1	21.32	21.32	21.32		
100	QPSK	1	137	21.17	21.32	21.21	22.5	0.0
100	QPSK	1	271	21.28	21.36	21.27		
100	QPSK	135	0	21.33	21.40	21.32	22.5	0.0
100	QPSK	135	69	21.35	21.45	21.40		
100	QPSK	135	138	21.22	21.41	21.34	22.5	0.0
100	QPSK	270	0	21.34	21.35	21.18	22.5	0.0
100	HQAM	1	1	21.35	21.43	21.33	22.5	0.0
100	HSAM	1	1	21.35	21.43	21.24	22.5	0.0
100	256QAM	1	1	21.31	21.49	21.38	22.5	0.0
Channel								
Frequency (MHz)				50500	51898	53000	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	21.42	21.47	21.28	22.5	0.0
Channel								
Frequency (MHz)				50502	51898	53000	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	21.21	21.39	21.26	22.5	0.0
Channel								
Frequency (MHz)				50502	51898	53100	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	21.15	21.45	21.19	22.5	0.0
Channel								
Frequency (MHz)				50500	51898	53196	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	21.22	21.49	21.23	22.5	0.0
Channel								
Frequency (MHz)				50504	51898	53096	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	21.32	21.42	21.25	22.5	0.0
Channel								
Frequency (MHz)				50502	51898	53000	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	21.22	21.34	21.33	22.5	0.0
Channel								
Frequency (MHz)				50500	51898	53096	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	21.12	21.45	21.25	22.5	0.0
Channel								
Frequency (MHz)				50504	51898	53096	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	21.27	21.33	21.34	22.5	0.0

n41_FCC_HPUE Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				50502	51898	53000		
100	PV2 BPSK	1	1	21.32	21.33	21.19		
100	PV2 BPSK	1	137	21.12	21.31	21.19	22.5	0.0
100	PV2 BPSK	1	271	21.29	21.34	21.25		
100	PV2 BPSK	135	0	21.35	21.40	21.22	22.5	0.0
100	PV2 BPSK	135	69	21.27	21.43	21.34	22.5	0.0
100	PV2 BPSK	135	138	21.15	21.34	21.19	22.5	0.0
100	PV2 BPSK	270	0	21.18	21.37	21.23		
100	QPSK	1	1	21.32	21.32	21.32		
100	QPSK	1	137	21.17	21.32	21.21	22.5	0.0
100	QPSK	1	271	21.28	21.36	21.27		
100	QPSK	135	0	21.33	21.40	21.32	22.5	0.0
100	QPSK	135	69	21.35	21.45	21.40		
100	QPSK	135	138	21.22	21.41	21.34	22.5	0.0
100	QPSK	270	0	21.34	21.35	21.18	22.5	0.0
100	16QAM	1	1	21.35	21.43	21.33	22.5	0.0
100	64QAM	1	1	21.35	21.43	21.24	22.5	0.0
100	256QAM	1	1	21.31	21.49	21.38	22.5	0.0
Channel								
Frequency (MHz)				50500	51898	53000	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	21.42	21.47	21.28	22.5	0.0
Channel								
Frequency (MHz)				50502	51898	53000	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	21.21	21.39	21.26	22.5	0.0
Channel								
Frequency (MHz)				50502	51898	53100	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	21.15	21.45	21.19	22.5	0.0
Channel								
Frequency (MHz)				50500	51898	53196	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	21.22	21.49	21.23	22.5	0.0
Channel								
Frequency (MHz)				50504	51898	53096	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	21.32	21.42	21.25	22.5	0.0
Channel								
Frequency (MHz)				50502	51898	53000	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	21.22	21.34	21.33	22.5	0.0
Channel								
Frequency (MHz)				50500	51898	53096	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	21.12	21.45	21.25	22.5	0.0
Channel								
Frequency (MHz)				50504	51898	53096	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	21.27	21.33	21.34	22.5	0.0



n41_FCC Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PV2 BPSK	1	1	20.15	20.33	20.15	21.5	0.0
100	PV2 BPSK	1	137	20.28	20.28	20.15		
100	PV2 BPSK	1	271	20.15	20.31	20.17	21.5	0.0
100	PV2 BPSK	135	0	20.34	20.43	20.35		
100	PV2 BPSK	135	69	20.24	20.42	20.39	21.5	0.0
100	PV2 BPSK	135	198	20.22	20.26	20.11		
100	PV2 BPSK	270	0	20.27	20.37	20.30	21.5	0.0
100	QPSK	1	1	20.30	20.40	20.40		
100	QPSK	1	137	20.36	20.44	20.33	21.5	0.0
100	QPSK	1	271	20.26	20.32	20.26		
100	QPSK	135	0	20.24	20.32	20.34	21.5	0.0
100	QPSK	135	69	20.28	20.42	20.35		
100	QPSK	135	198	20.24	20.31	20.25	21.5	0.0
100	QPSK	270	0	20.17	20.32	20.20		
100	HQAM	1	1	20.25	20.35	20.28	21.5	0.0
100	HQAM	1	1	19.85	19.66	19.52		
100	256QAM	1	1	19.85	19.66	19.52	21.0	0.5
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.40	20.47	20.25	21.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.28	20.33	20.38	21.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.28	20.33	20.38	21.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.28	20.43	20.32	21.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.37	20.45	20.39	21.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.34	20.33	20.34	21.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.22	20.41	20.25	21.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.22	20.36	20.23	21.5	0.0
Channel								
Frequency (MHz)								

n41_FCC_HPUE Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PV2 BPSK	1	1	20.15	20.33	20.15	21.5	0.0
100	PV2 BPSK	1	137	20.25	20.28	20.15		
100	PV2 BPSK	1	271	20.15	20.31	20.17	21.5	0.0
100	PV2 BPSK	135	0	20.34	20.43	20.35		
100	PV2 BPSK	135	69	20.24	20.42	20.39	21.5	0.0
100	PV2 BPSK	135	198	20.22	20.26	20.11		
100	PV2 BPSK	270	0	20.27	20.37	20.30	21.5	0.0
100	QPSK	1	1	20.30	20.40	20.40		
100	QPSK	1	137	20.36	20.44	20.33	21.5	0.0
100	QPSK	1	271	20.26	20.32	20.26		
100	QPSK	135	0	20.24	20.42	20.34	21.5	0.0
100	QPSK	135	69	20.28	20.42	20.35		
100	QPSK	135	198	20.24	20.31	20.25	21.5	0.0
100	QPSK	270	0	20.17	20.32	20.20		
100	16QAM	1	1	20.25	20.35	20.28	21.5	0.0
100	256QAM	1	1	19.88	19.66	19.52		
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.28	20.47	20.25	21.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.28	20.33	20.38	21.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.28	20.33	20.38	21.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.28	20.43	20.32	21.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.37	20.45	20.39	21.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.34	20.33	20.34	21.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.22	20.41	20.25	21.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.22	20.36	20.23	21.5	0.0
Channel								
Frequency (MHz)								



n41_FCC Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2550.01	2599.99	2649.99		
100	Pi2 BPSK	1	1	17.24	17.24	17.24	18.5	0.0
100	Pi2 BPSK	1	137	17.21	17.33	17.22		
100	Pi2 BPSK	1	271	17.48	17.52	17.51		
100	Pi2 BPSK	135	0	17.24	17.37	17.34	18.5	0.0
100	Pi2 BPSK	135	66	17.24	17.26	17.18	18.5	0.0
100	Pi2 BPSK	135	138	17.31	17.27	17.48	18.5	0.0
100	Pi2 BPSK	270	0	17.48	17.51	17.39		
100	QPSK	1	1	17.48	17.55	17.55		
100	QPSK	1	137	17.19	17.37	17.21	18.5	0.0
100	QPSK	1	271	17.36	17.43	17.31		
100	QPSK	135	0	17.35	17.51	17.23	18.5	0.0
100	QPSK	135	66	17.33	17.50	17.32		
100	QPSK	135	138	17.30	17.45	17.27	18.5	0.0
100	QPSK	270	0	17.34	17.37	17.38	18.5	0.0
100	HQAM	1	1	17.45	17.52	17.51	18.5	0.0
100	HQAM	1	1	17.51	17.57	17.39	18.5	0.0
100	256QAM	1	1	17.34	17.36	17.24	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5100.00	5200.00		
50	QPSK	1	1	17.25	17.49	17.17	18.5	0.0
Channel								
Frequency (MHz)				5070.02	5169.98	5269.98		
80	QPSK	1	1	17.13	17.21	17.15	18.5	0.0
Channel								
Frequency (MHz)				5062.02	5169.98	5310.00		
70	QPSK	1	1	17.23	17.25	17.28	18.5	0.0
Channel								
Frequency (MHz)				5030.00	5189.98	5319.98		
60	QPSK	1	1	17.17	17.24	17.27	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5189.98	5369.98		
50	QPSK	1	1	17.24	17.43	17.20	18.5	0.0
Channel								
Frequency (MHz)				2616.01	2599.99	2670		
40	QPSK	1	1	17.25	17.44	17.22	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5169.98	5349.98		
30	QPSK	1	1	17.24	17.49	17.24	18.5	0.0
Channel								
Frequency (MHz)				501204	5189.98	5369.98		
20	QPSK	1	1	17.33	17.49	17.20	18.5	0.0

n41_FCC_HPUE Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2550.01	2599.99	2649.99		
100	Pi2 BPSK	1	1	17.24	17.24	17.24	18.5	0.0
100	Pi2 BPSK	1	137	17.21	17.33	17.22		
100	Pi2 BPSK	1	271	17.48	17.52	17.51		
100	Pi2 BPSK	135	0	17.24	17.37	17.34	18.5	0.0
100	Pi2 BPSK	135	66	17.24	17.26	17.18	18.5	0.0
100	Pi2 BPSK	135	138	17.31	17.27	17.48	18.5	0.0
100	Pi2 BPSK	270	0	17.48	17.51	17.39		
100	QPSK	1	1	17.48	17.55	17.55		
100	QPSK	1	137	17.19	17.37	17.21	18.5	0.0
100	QPSK	1	271	17.36	17.43	17.31		
100	QPSK	135	0	17.35	17.51	17.23	18.5	0.0
100	QPSK	135	66	17.33	17.50	17.32		
100	QPSK	135	138	17.30	17.45	17.27	18.5	0.0
100	QPSK	270	0	17.34	17.37	17.38	18.5	0.0
100	HQAM	1	1	17.45	17.52	17.51	18.5	0.0
100	HQAM	1	1	17.51	17.57	17.39	18.5	0.0
100	256QAM	1	1	17.34	17.36	17.24	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5100.00	5200.00		
50	QPSK	1	1	17.25	17.49	17.17	18.5	0.0
Channel								
Frequency (MHz)				5070.02	5169.98	5269.98		
80	QPSK	1	1	17.13	17.21	17.15	18.5	0.0
Channel								
Frequency (MHz)				5062.02	5169.98	5310.00		
70	QPSK	1	1	17.23	17.25	17.28	18.5	0.0
Channel								
Frequency (MHz)				5030.00	5189.98	5319.98		
60	QPSK	1	1	17.17	17.24	17.27	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5189.98	5369.98		
50	QPSK	1	1	17.24	17.43	17.20	18.5	0.0
Channel								
Frequency (MHz)				2516.01	2599.99	2670		
40	QPSK	1	1	17.25	17.44	17.22	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5169.98	5349.98		
30	QPSK	1	1	17.24	17.49	17.24	18.5	0.0
Channel								
Frequency (MHz)				501204	5189.98	5369.98		
20	QPSK	1	1	17.33	17.49	17.20	18.5	0.0



n41_FCC Ant 9

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2582.01	5164.02	7746.03		
100	PV2 BPSK	1	1	18.75	18.52	18.27		
100	PV2 BPSK	1	137	18.77	18.55	18.33	20.0	0.0
100	PV2 BPSK	1	271	18.83	18.64	18.47		
100	PV2 BPSK	135	0	18.82	18.63	18.54	20.0	0.0
100	PV2 BPSK	135	69	18.85	18.61	18.53	20.0	0.0
100	PV2 BPSK	135	138	18.82	18.59	18.77	20.0	0.0
100	PV2 BPSK	270	0	18.85	18.63	18.76		
100	QPSK	1	1	18.83	18.58	18.51		
100	QPSK	1	137	18.83	18.61	18.86	20.0	0.0
100	QPSK	1	271	18.84	18.96	18.92		
100	QPSK	135	0	18.93	18.92	18.78	20.0	0.0
100	QPSK	135	69	18.95	18.95	18.91		
100	QPSK	135	138	18.91	18.93	18.94	20.0	0.0
100	QPSK	270	0	18.89	18.92	18.78	20.0	0.0
100	HQAM	1	1	18.85	18.94	18.94	20.0	0.0
100	HQAM	1	1	18.82	18.88	18.73	20.0	0.0
100	256QAM	1	1	18.74	18.85	18.75	20.0	0.0
Channel								
Frequency (MHz)				5202.01	10404.02	15606.03		
50	QPSK	1	1	18.92	18.91	18.94	20.0	0.0
Channel				5202.02	10404.04	15606.08		
Frequency (MHz)				2582.02	5164.04	7746.16		
80	QPSK	1	1	18.72	18.65	18.17	20.0	0.0
Channel								
Frequency (MHz)				5162.01	10324.02	15486.03		
70	QPSK	1	1	18.91	18.92	18.88	20.0	0.0
Channel				5162.04	10324.08	15486.16		
Frequency (MHz)				1876	3752	5628		
60	QPSK	1	1	18.76	18.64	18.81	20.0	0.0
Channel				1876.04	3752.08	5628.16		
Frequency (MHz)				5002.01	10004.02	15006.03		
50	QPSK	1	1	18.83	18.50	18.55	20.0	0.0
Channel								
Frequency (MHz)				2616.01	5232.02	7848.03		
40	QPSK	1	1	18.87	18.94	18.12	20.0	0.0
Channel				2616.04	5232.08	7848.16		
Frequency (MHz)				2311	4622	6933		
30	QPSK	1	1	18.82	18.92	18.56	20.0	0.0
Channel				1812.04	3624.08	5436.16		
Frequency (MHz)				2582.02	5164.04	7746.08		
20	QPSK	1	1	18.91	18.84	18.96	20.0	0.0

n41_FCC_HPUE Ant 9

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2541.01	5082.02	7623.03		
100	PV2 BPSK	1	1	18.15	18.92	18.87		
100	PV2 BPSK	1	137	18.77	18.95	18.93	20.0	0.0
100	PV2 BPSK	1	271	18.83	18.94	18.87		
100	PV2 BPSK	135	0	18.88	18.93	18.84	20.0	0.0
100	PV2 BPSK	135	69	18.88	18.91	18.93	20.0	0.0
100	PV2 BPSK	135	138	18.82	18.95	18.77	20.0	0.0
100	PV2 BPSK	270	0	18.85	18.83	18.76		
100	QPSK	1	1	18.81	18.98	18.93		
100	QPSK	1	137	18.83	18.91	18.86	20.0	0.0
100	QPSK	1	271	18.84	18.96	18.92		
100	QPSK	135	0	18.91	18.92	18.78	20.0	0.0
100	QPSK	135	69	18.95	18.95	18.91		
100	QPSK	135	138	18.91	18.93	18.94	20.0	0.0
100	QPSK	270	0	18.89	18.92	18.78	20.0	0.0
100	HQAM	1	1	18.86	18.94	18.94	20.0	0.0
100	HQAM	1	1	18.82	18.88	18.73	20.0	0.0
100	256QAM	1	1	18.74	18.85	18.75	20.0	0.0
Channel								
Frequency (MHz)				5082.01	10164.02	15246.03		
50	QPSK	1	1	18.76	18.91	18.84	20.0	0.0
Channel				5082.04	10164.08	15246.16		
Frequency (MHz)				2541.02	5082.04	7623.28		
80	QPSK	1	1	18.72	18.93	18.17	20.0	0.0
Channel								
Frequency (MHz)				5082.01	10164.02	15246.03		
70	QPSK	1	1	18.91	18.92	18.88	20.0	0.0
Channel				5082.04	10164.08	15246.16		
Frequency (MHz)				1876	3752	5628		
60	QPSK	1	1	18.76	18.64	18.81	20.0	0.0
Channel				1876.04	3752.08	5628.16		
Frequency (MHz)				5002.01	10004.02	15006.03		
50	QPSK	1	1	18.83	18.90	18.85	20.0	0.0
Channel								
Frequency (MHz)				2616.01	5232.02	7848.03		
40	QPSK	1	1	18.87	18.94	18.82	20.0	0.0
Channel				2616.04	5232.08	7848.16		
Frequency (MHz)				2311	4622	6933		
30	QPSK	1	1	18.82	18.92	18.56	20.0	0.0
Channel				1812.04	3624.08	5436.16		
Frequency (MHz)				2541.02	5082.04	7623.28		
20	QPSK	1	1	18.91	18.84	18.96	20.0	0.0



n48_FCC Ant 2

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel	63800	64166	64532		
Frequency (MHz)	15.55	15.72	15.89		
40 P12 BPSK	1	1	1	17.0	0.0
40 P12 BPSK	1	53	15.84		
40 P12 BPSK	1	104	15.91		
40 P12 BPSK	50	0	15.97	17.0	0.0
40 P12 BPSK	50	28	15.93	17.0	0.0
40 P12 BPSK	50	96	15.99	17.0	0.0
40 P12 BPSK	100	0	15.48	15.72	15.83
40 QPSK	1	1	15.55	15.85	15.93
40 QPSK	1	53	15.55	15.87	15.89
40 QPSK	1	104	15.76	15.82	15.82
40 QPSK	50	0	15.65	15.84	15.85
40 QPSK	50	28	15.65	15.79	15.70
40 QPSK	50	96	15.53	15.83	15.90
40 QPSK	100	0	15.55	15.78	15.47
40 NSAM	1	1	15.28	15.76	15.73
40 NSAM	1	1	15.45	15.81	15.86
40 25GAM	1	1	15.50	15.65	15.83
Channel	63900	64166	64532	Tune-up limit (dBm)	MPR (dB)
30 QPSK	1	1	15.51	15.77	15.79
Channel	63934	64166	64500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)	15.52	15.72	15.92		
20 QPSK	1	1	15.52	15.72	15.92
Channel	63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)	15.52	15.72	15.92		
10 QPSK	1	1	15.52	15.72	15.92

n48_FCC Ant 5

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel	63600	64166	64532		
Frequency (MHz)	15.52	15.72	15.92		
40 P12 BPSK	1	1	15.82	17.1	17.25
40 P12 BPSK	1	53	15.88	17.50	17.77
40 P12 BPSK	1	104	15.72	17.25	17.25
40 P12 BPSK	50	0	15.58	17.67	17.69
40 P12 BPSK	50	28	15.53	17.50	17.22
40 P12 BPSK	50	96	15.76	17.64	17.45
40 P12 BPSK	100	0	15.64	17.68	17.59
40 QPSK	1	1	15.71	17.98	17.71
40 QPSK	1	53	15.83	17.67	17.59
40 QPSK	1	104	15.67	17.62	17.57
40 QPSK	50	0	15.70	17.75	17.52
40 QPSK	50	28	15.86	17.62	17.60
40 QPSK	50	96	15.42	17.60	17.52
40 QPSK	100	0	15.56	17.72	17.58
40 NSAM	1	1	15.67	17.69	17.26
40 NSAM	1	1	15.85	17.61	17.45
40 25GAM	1	1	15.43	17.80	17.49
Channel	63600	64166	64532	Tune-up limit (dBm)	MPR (dB)
30 QPSK	1	1	15.59	17.67	17.42
Channel	63634	64166	64500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)	15.52	15.72	15.92		
20 QPSK	1	1	15.52	17.57	17.25
Channel	63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)	15.52	15.72	15.92		
10 QPSK	1	1	15.54	17.63	17.66



n48_FCC Ant 8

Channel	Power Low Ch. / Freq.	Power MidCh. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel	63800	64166	64532		
Frequency (MHz)	13.34	13.32	13.15		
40	PIQ BPSK	1	1	14.5	0.0
40	PIQ BPSK	1	53	13.21	13.13
40	PIQ BPSK	1	104	13.28	13.34
40	PIQ BPSK	50	0	13.29	13.19
40	PIQ BPSK	50	28	13.26	13.16
40	PIQ BPSK	50	56	13.24	13.24
40	PIQ BPSK	100	0	13.22	13.19
40	QPSK	1	1	13.25	13.34
40	QPSK	1	53	13.27	13.10
40	QPSK	1	104	13.17	13.42
40	QPSK	50	0	13.14	13.07
40	QPSK	50	28	13.25	13.27
40	QPSK	50	56	13.11	12.95
40	QPSK	100	0	13.19	13.25
40	NSAM	1	1	13.22	13.36
40	NSAM	1	1	13.10	13.04
40	25GAM	1	1	13.21	13.24
Channel	63900	64166	64532	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	13.19	13.13
Channel	63956	64166	64532	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	13.13	13.22
Channel	63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	13.24	13.12

n48_FCC Ant 10

Channel	Power Low Ch. / Freq.	Power MidCh. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel	63800	64166	64532		
Frequency (MHz)	11.30	11.24	11.06		
40	PIQ BPSK	1	1	11.35	11.24
40	PIQ BPSK	1	53	11.26	11.21
40	PIQ BPSK	1	104	11.17	11.25
40	PIQ BPSK	50	0	11.34	11.29
40	PIQ BPSK	50	28	11.17	11.21
40	PIQ BPSK	50	56	11.10	11.13
40	PIQ BPSK	100	0	11.30	11.06
40	QPSK	1	1	11.37	11.25
40	QPSK	1	53	11.13	11.16
40	QPSK	1	104	11.27	11.25
40	QPSK	50	0	11.14	11.20
40	QPSK	50	28	11.32	11.27
40	QPSK	50	56	11.10	11.25
40	QPSK	100	0	11.28	11.19
40	NSAM	1	1	11.11	11.12
40	NSAM	1	1	11.14	11.14
40	25GAM	1	1	11.21	11.09
Channel	63900	64166	64532	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	11.15	11.20
Channel	63956	64166	64532	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	11.14	11.22
Channel	63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	11.10	11.20



Part270 n77 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	MidB Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	15.72	15.39	15.35	16.5	0.0
100	PI2 BPSK	1	137	15.68	15.38	15.26		
100	PI2 BPSK	1	211	15.25	15.27	15.25		
100	PI2 BPSK	135	0	15.71	15.42	15.38	16.5	0.0
100	PI2 BPSK	135	69	15.52	15.20	15.01	16.5	0.0
100	PI2 BPSK	135	138	15.58	15.33	15.32	16.5	0.0
100	PI2 BPSK	270	0	15.66	15.29	15.13	16.5	0.0
100	QPSK	1	1	15.72	15.35	15.40	16.5	0.0
100	QPSK	1	137	15.74	15.39	15.29		
100	QPSK	1	271	15.63	15.37	15.17		
100	QPSK	135	0	15.65	15.37	15.35	16.5	0.0
100	QPSK	135	69	15.63	15.45	15.35	16.5	0.0
100	QPSK	135	138	15.77	15.44	15.35	16.5	0.0
100	QPSK	270	0	15.78	15.48	15.41	16.5	0.0
100	16QAM	1	1	15.72	15.39	15.45	16.5	0.0
100	16QAM	1	1	15.55	15.38	15.11	16.5	0.0
100	256QAM	1	1	15.67	15.41	15.25	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.42	15.41	15.31	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.73	15.43	15.39	16.5	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	15.74	15.44	15.35	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.77	15.45	15.44	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.72	15.52	15.37	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.73	15.51	15.34	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.73	15.50	15.44	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.72	15.40	15.38	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.77	15.49	15.33	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.75	15.41	15.39	16.5	0.0

Part270 n77 HPUE Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	MidB Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	15.72	15.35	15.35	16.5	0.0
100	PI2 BPSK	1	137	15.68	15.38	15.26		
100	PI2 BPSK	1	211	15.25	15.27	15.25		
100	PI2 BPSK	135	0	15.71	15.42	15.38	16.5	0.0
100	PI2 BPSK	135	69	15.52	15.20	15.01	16.5	0.0
100	PI2 BPSK	135	138	15.58	15.33	15.32	16.5	0.0
100	PI2 BPSK	270	0	15.66	15.29	15.13	16.5	0.0
100	QPSK	1	1	15.72	15.35	15.40	16.5	0.0
100	QPSK	1	137	15.74	15.39	15.29		
100	QPSK	1	271	15.63	15.37	15.17		
100	QPSK	135	0	15.65	15.37	15.35	16.5	0.0
100	QPSK	135	69	15.63	15.45	15.35	16.5	0.0
100	QPSK	135	138	15.77	15.44	15.35	16.5	0.0
100	QPSK	270	0	15.78	15.48	15.41	16.5	0.0
100	16QAM	1	1	15.72	15.39	15.45	16.5	0.0
100	16QAM	1	1	15.55	15.38	15.11	16.5	0.0
100	256QAM	1	1	15.67	15.41	15.25	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.42	15.41	15.31	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.73	15.43	15.39	16.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.74	15.44	15.35	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.77	15.45	15.44	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.72	15.52	15.37	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.73	15.51	15.34	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.73	15.50	15.44	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.72	15.40	15.38	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.77	15.49	15.33	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.75	15.41	15.39	16.5	0.0



Part27Q n77 Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.55	15.55	15.55	16.5	0.0
100	PIQ BPSK	1	137	15.56	15.56	15.56	16.5	0.0
100	PIQ BPSK	1	271	15.56	15.56	15.56	16.5	0.0
100	PIQ BPSK	135	0	15.71	15.71	15.71	16.5	0.0
100	PIQ BPSK	135	69	15.70	15.70	15.70	16.5	0.0
100	PIQ BPSK	135	138	15.50	15.50	15.50	16.5	0.0
100	PIQ BPSK	270	0	15.66	15.66	15.66	16.5	0.0
100	QPSK	1	1	15.55	15.55	15.55	16.5	0.0
100	QPSK	1	137	15.52	15.52	15.52	16.5	0.0
100	QPSK	1	271	15.56	15.56	15.56	16.5	0.0
100	QPSK	135	0	15.55	15.55	15.55	16.5	0.0
100	QPSK	135	69	15.65	15.65	15.65	16.5	0.0
100	QPSK	135	138	15.59	15.59	15.59	16.5	0.0
100	QPSK	270	0	15.50	15.50	15.50	16.5	0.0
100	NSAM	1	1	15.74	15.74	15.74	16.5	0.0
100	NSAM	1	1	15.54	15.54	15.54	16.5	0.0
100	25GAM	1	1	15.68	15.68	15.68	16.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.74	15.65	15.61	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.77	15.72	15.71	16.5	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	15.72	15.72	15.72	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.74	15.81	15.65	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.72	15.72	15.61	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.71	15.73	15.70	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.72	15.74	15.63	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.75	15.74	15.69	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.72	15.82	15.69	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.76	15.74	15.65	16.5	0.0

Part27Q n77 HPUE Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.65	15.65	15.65	16.5	0.0
100	PIQ BPSK	1	137	15.66	15.66	15.66	16.5	0.0
100	PIQ BPSK	1	271	15.66	15.66	15.66	16.5	0.0
100	PIQ BPSK	135	0	15.71	15.71	15.71	16.5	0.0
100	PIQ BPSK	135	69	15.70	15.70	15.70	16.5	0.0
100	PIQ BPSK	135	138	15.50	15.50	15.50	16.5	0.0
100	PIQ BPSK	270	0	15.66	15.66	15.66	16.5	0.0
100	QPSK	1	1	15.65	15.65	15.65	16.5	0.0
100	QPSK	1	137	15.82	15.82	15.82	16.5	0.0
100	QPSK	1	271	15.56	15.56	15.56	16.5	0.0
100	QPSK	135	0	15.55	15.55	15.55	16.5	0.0
100	QPSK	135	69	15.65	15.65	15.65	16.5	0.0
100	QPSK	135	138	15.59	15.59	15.59	16.5	0.0
100	QPSK	270	0	15.50	15.50	15.50	16.5	0.0
100	NSAM	1	1	15.74	15.74	15.74	16.5	0.0
100	NSAM	1	1	15.54	15.54	15.54	16.5	0.0
100	25GAM	1	1	15.68	15.68	15.68	16.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.76	15.66	15.61	16.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.77	15.72	15.71	16.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.72	15.72	15.72	16.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.74	15.81	15.65	16.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.72	15.72	15.61	16.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.71	15.73	15.70	16.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.72	15.74	15.63	16.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.76	15.74	15.69	16.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.72	15.82	15.69	16.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.76	15.74	15.65	16.5	0.0



Part270 n77 Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000		
Channel							
Frequency (MHz)							
100	PIQ BPSK	1	1	18.80	18.85	18.85	0.0
100	PIQ BPSK	1	137	18.83	18.86	18.89	20.0
100	PIQ BPSK	1	271	18.85	18.82	18.81	0.0
100	PIQ BPSK	135	0	18.88	18.82	18.48	20.0
100	PIQ BPSK	135	69	18.82	18.82	18.82	0.0
100	PIQ BPSK	135	138	18.82	18.82	18.82	20.0
100	PIQ BPSK	270	0	18.86	18.71	18.50	0.0
100	QPSK	1	1	18.82	18.85	18.85	0.0
100	QPSK	1	137	18.79	18.85	18.84	20.0
100	QPSK	1	271	18.71	18.82	18.82	0.0
100	QPSK	135	0	18.75	18.85	18.85	0.0
100	QPSK	135	69	18.82	18.82	18.84	20.0
100	QPSK	135	138	18.77	18.82	18.82	0.0
100	QPSK	270	0	18.82	18.84	18.87	0.0
100	SSB	1	1	18.84	18.87	18.82	0.0
100	SSB	1	1	18.74	18.83	18.47	0.0
100	25GAM	1	1	18.82	18.80	18.85	20.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	18.82	18.86	18.80	0.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	18.83	18.85	18.84	0.0
Channel							
Frequency (MHz)							
75	QPSK	1	1	18.82	18.82	18.86	0.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	18.78	18.83	18.82	0.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	18.85	18.85	18.89	0.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	18.84	18.81	18.81	0.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	18.82	18.87	18.84	0.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	18.82	18.85	18.82	0.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	18.85	18.85	18.85	0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	18.86	18.82	18.83	0.0

Part270 n77 HPUE Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	18.82	18.85	18.85	0.0	0.0
100	PIQ BPSK	1	137	18.83	18.86	18.89	20.0	0.0
100	PIQ BPSK	1	271	18.85	18.82	18.81	0.0	0.0
100	PIQ BPSK	135	0	18.88	18.82	18.48	20.0	0.0
100	PIQ BPSK	135	69	18.82	18.82	18.82	20.0	0.0
100	PIQ BPSK	135	138	18.82	18.82	18.82	20.0	0.0
100	PIQ BPSK	270	0	18.86	18.71	18.50	0.0	0.0
100	QPSK	1	1	18.82	18.85	18.85	0.0	0.0
100	QPSK	1	137	18.79	18.85	18.84	20.0	0.0
100	QPSK	1	271	18.71	18.82	18.82	0.0	0.0
100	QPSK	135	0	18.75	18.85	18.85	0.0	0.0
100	QPSK	135	69	18.82	18.82	18.84	20.0	0.0
100	QPSK	135	138	18.82	18.82	18.82	0.0	0.0
100	QPSK	270	0	18.82	18.84	18.87	0.0	0.0
100	SSB	1	1	18.84	18.87	18.82	0.0	0.0
100	SSB	1	1	18.74	18.83	18.47	0.0	0.0
100	25GAM	1	1	18.82	18.80	18.85	20.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.88	18.86	18.80	0.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.83	18.85	18.84	0.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.82	18.82	18.86	0.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.78	18.83	18.82	0.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.85	18.85	18.89	0.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.84	18.81	18.81	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.82	18.87	18.84	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.82	18.85	18.82	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.85	18.85	18.85	0.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.86	18.82	18.83	0.0	0.0



Part27Q n77 Ant 5

Channel	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel	3390	3390	3390		
Frequency (MHz)	15.30	15.30	15.30		
100	19.08	19.08	19.08	20.0	0.0
100	19.12	19.12	19.12		
100	19.16	19.16	19.16		
100	19.20	19.20	19.20		
100	19.24	19.24	19.24		
100	19.28	19.28	19.28		
100	19.32	19.32	19.32		
100	19.36	19.36	19.36		
100	19.40	19.40	19.40		
100	19.44	19.44	19.44		
100	19.48	19.48	19.48		
100	19.52	19.52	19.52		
100	19.56	19.56	19.56		
100	19.60	19.60	19.60		
100	19.64	19.64	19.64		
100	19.68	19.68	19.68		
100	19.72	19.72	19.72		
100	19.76	19.76	19.76		
100	19.80	19.80	19.80		
100	19.84	19.84	19.84		
100	19.88	19.88	19.88		
100	19.92	19.92	19.92		
100	19.96	19.96	19.96		
100	20.00	20.00	20.00		
Channel	33300	33330	33360	Tune-up limit (dBm)	MPR
Channel	3495	3498.98	3502.99		
Frequency (MHz)	19.02	19.10	19.17	20.0	0.0
90	33300	33330	33360	Tune-up limit (dBm)	MPR
Channel	3495.98	3499.97	3503.98		
Frequency (MHz)	19.02	19.10	19.17	20.0	0.0
80	33330	33360	33390	Tune-up limit (dBm)	MPR
Channel	33234	33332	33432		
Frequency (MHz)	18.90	19.00	19.10	20.0	0.0
70	33360	33390	33420	Tune-up limit (dBm)	MPR
Channel	3495	3498.98	3502.99		
Frequency (MHz)	18.99	19.02	19.05	20.0	0.0
60	33390	33420	33450	Tune-up limit (dBm)	MPR
Channel	33198	33332	33466		
Frequency (MHz)	18.76	18.96	19.05	20.0	0.0
50	33420	33450	33480	Tune-up limit (dBm)	MPR
Channel	3470.01	3498.98	3529.98		
Frequency (MHz)	19.03	19.11	19.35	20.0	0.0
40	33450	33480	33510	Tune-up limit (dBm)	MPR
Channel	33332	33332	33332		
Frequency (MHz)	19.03	19.03	19.03	20.0	0.0
30	33480	33510	33540	Tune-up limit (dBm)	MPR
Channel	33094	33332	33582		
Frequency (MHz)	18.92	19.02	19.12	20.0	0.0
20	33510	33540	33570	Tune-up limit (dBm)	MPR
Channel	33068	33332	33600		
Frequency (MHz)	18.95	19.05	19.15	20.0	0.0
15	33540	33570	33600	Tune-up limit (dBm)	MPR
Channel	33575	3498.98	3542.49		
Frequency (MHz)	19.06	19.03	18.97	20.0	0.0

Part27Q n77 HPUE Ant 5

Channel	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel	3495.98	3495.98	3495.98		
Frequency (MHz)	19.02	19.02	19.02		
100	19.08	19.08	19.08	20.0	0.0
100	19.12	19.12	19.12		
100	19.16	19.16	19.16		
100	19.20	19.20	19.20		
100	19.24	19.24	19.24		
100	19.28	19.28	19.28		
100	19.32	19.32	19.32		
100	19.36	19.36	19.36		
100	19.40	19.40	19.40		
100	19.44	19.44	19.44		
100	19.48	19.48	19.48		
100	19.52	19.52	19.52		
100	19.56	19.56	19.56		
100	19.60	19.60	19.60		
100	19.64	19.64	19.64		
100	19.68	19.68	19.68		
100	19.72	19.72	19.72		
100	19.76	19.76	19.76		
100	19.80	19.80	19.80		
100	19.84	19.84	19.84		
100	19.88	19.88	19.88		
100	19.92	19.92	19.92		
100	19.96	19.96	19.96		
100	20.00	20.00	20.00		
Channel	33300	33330	33360	Tune-up limit (dBm)	MPR
Channel	3495.98	3498.98	3502.99		
Frequency (MHz)	19.02	19.10	19.17	20.0	0.0
90	33300	33330	33360	Tune-up limit (dBm)	MPR
Channel	3495.98	3498.98	3502.99		
Frequency (MHz)	19.02	19.10	19.17	20.0	0.0
80	33330	33360	33390	Tune-up limit (dBm)	MPR
Channel	33234	33332	33432		
Frequency (MHz)	18.90	19.00	19.10	20.0	0.0
70	33360	33390	33420	Tune-up limit (dBm)	MPR
Channel	3495	3498.98	3502.99		
Frequency (MHz)	18.99	19.02	19.05	20.0	0.0
60	33390	33420	33450	Tune-up limit (dBm)	MPR
Channel	33198	33332	33466		
Frequency (MHz)	18.76	18.96	19.05	20.0	0.0
50	33420	33450	33480	Tune-up limit (dBm)	MPR
Channel	3470.01	3498.98	3529.98		
Frequency (MHz)	19.03	19.11	19.35	20.0	0.0
40	33450	33480	33510	Tune-up limit (dBm)	MPR
Channel	33332	33332	33332		
Frequency (MHz)	19.03	19.03	19.03	20.0	0.0
30	33480	33510	33540	Tune-up limit (dBm)	MPR
Channel	33094	33332	33582		
Frequency (MHz)	18.92	19.02	19.12	20.0	0.0
20	33510	33540	33570	Tune-up limit (dBm)	MPR
Channel	33068	33332	33600		
Frequency (MHz)	18.95	19.05	19.15	20.0	0.0
15	33540	33570	33600	Tune-up limit (dBm)	MPR
Channel	33575	3498.98	3542.49		
Frequency (MHz)	19.06	19.03	18.97	20.0	0.0



Part270 n77 Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	MidB Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	12.06	11.75	11.85	13.0	0.0
100	PIQ BPSK	1	137	11.83	11.91	11.79		
100	PIQ BPSK	1	211	11.87	12.06	11.81		
100	PIQ BPSK	135	0	11.94	11.73	11.83		
100	PIQ BPSK	135	69	11.90	11.76	11.76	13.0	0.0
100	PIQ BPSK	135	138	12.01	11.94	11.95	13.0	0.0
100	PIQ BPSK	270	0	12.06	11.80	11.84	13.0	0.0
100	QPSK	1	1	12.05	12.05	11.97	13.0	0.0
100	QPSK	1	137	11.98	11.89	11.82		
100	QPSK	1	211	12.06	11.86	11.80		
100	QPSK	135	0	11.95	11.95	11.87		
100	QPSK	135	69	12.07	12.05	11.97	13.0	0.0
100	QPSK	135	138	11.89	11.99	11.82	13.0	0.0
100	QPSK	270	0	11.89	11.87	11.79	13.0	0.0
100	SSB	1	1	11.96	11.87	11.75	13.0	0.0
100	SSB	1	1	11.74	11.80	11.85	13.0	0.0
100	25GAM	1	1	12.00	11.83	11.86	13.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	11.74	11.63	11.75	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.63	11.59	11.65	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.63	11.72	11.80	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.63	11.74	11.74	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.75	11.57	11.69	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.75	11.69	11.71	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.63	11.70	11.67	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.64	11.68	11.73	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.66	11.64	11.70	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.68	11.57	11.62	13.0	0.0

Part270 n77 HPUE Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	MidB Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	12.06	11.75	11.85	13.0	0.0
100	PIQ BPSK	1	137	11.83	11.91	11.79		
100	PIQ BPSK	1	211	11.87	12.06	11.81		
100	PIQ BPSK	135	0	11.94	11.73	11.83		
100	PIQ BPSK	135	69	11.90	11.76	11.76	13.0	0.0
100	PIQ BPSK	135	138	12.01	11.94	11.95	13.0	0.0
100	PIQ BPSK	270	0	12.06	11.80	11.84	13.0	0.0
100	QPSK	1	1	12.05	12.05	11.97	13.0	0.0
100	QPSK	1	137	11.98	11.89	11.82		
100	QPSK	1	211	12.06	11.86	11.80		
100	QPSK	135	0	11.95	11.95	11.87		
100	QPSK	135	69	12.07	12.07	11.97	13.0	0.0
100	QPSK	135	138	11.89	11.99	11.82	13.0	0.0
100	QPSK	270	0	11.89	11.87	11.79	13.0	0.0
100	SSB	1	1	11.96	11.87	11.75	13.0	0.0
100	SSB	1	1	11.74	11.80	11.85	13.0	0.0
100	25GAM	1	1	12.00	11.83	11.86	13.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	11.74	11.63	11.75	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.63	11.59	11.65	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.63	11.72	11.80	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.63	11.74	11.74	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.75	11.57	11.69	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.75	11.69	11.71	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.63	11.70	11.67	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.64	11.68	11.73	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.66	11.64	11.70	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.68	11.57	11.62	13.0	0.0



Part27Q n77 Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	11.73	11.93		13.0	0.0
100	PIQ BPSK	1	137	11.93	11.93			
100	PIQ BPSK	1	271	11.70	11.70			
100	PIQ BPSK	135	0	11.91			13.0	0.0
100	PIQ BPSK	135	69	11.99			13.0	0.0
100	PIQ BPSK	135	138	11.77			13.0	0.0
100	PIQ BPSK	270	0	11.92			13.0	0.0
100	QPSK	1	1	11.73				
100	QPSK	1	137	11.77			13.0	0.0
100	QPSK	1	271	11.76				
100	QPSK	135	0	11.98				
100	QPSK	135	69	11.97			13.0	0.0
100	QPSK	135	138	11.75			13.0	0.0
100	QPSK	270	0	11.95			13.0	0.0
100	NSAM	1	1	11.90			13.0	0.0
100	NSAM	1	1	11.74			13.0	0.0
100	25GAM	1	1	11.84			13.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	11.74	11.74	11.59	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.72	11.72	11.57	13.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	11.72	11.69	11.62	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.71	11.74	11.66	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.70	11.76	11.64	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.63	11.62	11.62	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.71	11.71	11.65	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.66	11.64	11.68	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.61	11.62	11.77	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.65	11.65	11.65	13.0	0.0

Part27Q n77 HPUE Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	11.73			13.0	0.0
100	PIQ BPSK	1	137	11.93				
100	PIQ BPSK	1	271	11.70				
100	PIQ BPSK	135	0	11.91			13.0	0.0
100	PIQ BPSK	135	69	11.99			13.0	0.0
100	PIQ BPSK	135	138	11.77			13.0	0.0
100	PIQ BPSK	270	0	11.92			13.0	0.0
100	QPSK	1	1	11.73				
100	QPSK	1	137	11.77			13.0	0.0
100	QPSK	1	271	11.76				
100	QPSK	135	0	11.98				
100	QPSK	135	69	11.97			13.0	0.0
100	QPSK	135	138	11.75			13.0	0.0
100	QPSK	270	0	11.95			13.0	0.0
100	NSAM	1	1	11.90			13.0	0.0
100	NSAM	1	1	11.74			13.0	0.0
100	25GAM	1	1	11.84			13.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	11.74	11.74	11.62	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.72	11.72	11.62	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.72	11.69	11.62	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.71	11.74	11.66	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.70	11.76	11.64	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.63	11.62	11.62	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.71	11.71	11.65	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.66	11.64	11.68	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.61	11.62	11.77	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.65	11.65	11.65	13.0	0.0



Part270 n77 Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	9.92	9.92	9.92	11.0	0.0
100	PIQ BPSK	1	137	9.92	9.77	9.75	11.0	0.0
100	PIQ BPSK	1	271	9.98	9.88	9.88	11.0	0.0
100	PIQ BPSK	135	0	9.92	9.76	9.77	11.0	0.0
100	PIQ BPSK	135	69	9.92	9.75	9.75	11.0	0.0
100	PIQ BPSK	135	134	9.92	9.88	9.78	11.0	0.0
100	PIQ BPSK	270	0	9.84	9.72	9.72	11.0	0.0
100	QPSK	1	1	10.00	9.98	9.98	11.0	0.0
100	QPSK	1	137	9.85	9.70	9.85	11.0	0.0
100	QPSK	1	271	9.92	9.84	9.88	11.0	0.0
100	QPSK	135	0	9.92	9.80	9.80	11.0	0.0
100	QPSK	135	69	9.92	9.85	9.84	11.0	0.0
100	QPSK	135	134	9.92	9.80	9.85	11.0	0.0
100	QPSK	270	0	9.97	9.86	9.81	11.0	0.0
100	16QAM	1	1	9.92	9.84	9.74	11.0	0.0
100	16QAM	1	1	9.92	9.80	9.85	11.0	0.0
100	256QAM	1	1	9.92	9.80	9.78	11.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	9.84	9.83	9.83	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	9.83	9.85	9.79	11.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	9.81	9.78	9.74	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	9.81	9.86	9.78	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.85	9.78	9.68	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	9.72	9.63	9.73	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	9.72	9.63	9.74	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	9.54	9.76	9.69	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	9.73	9.83	9.85	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	9.83	9.79	9.75	11.0	0.0

Part270 n77 HPUE Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	9.92	9.92	9.92	11.0	0.0
100	PIQ BPSK	1	137	9.92	9.77	9.75	11.0	0.0
100	PIQ BPSK	1	271	9.98	9.88	9.88	11.0	0.0
100	PIQ BPSK	135	0	9.92	9.76	9.77	11.0	0.0
100	PIQ BPSK	135	69	9.92	9.75	9.75	11.0	0.0
100	PIQ BPSK	135	134	9.92	9.88	9.78	11.0	0.0
100	PIQ BPSK	270	0	9.84	9.72	9.72	11.0	0.0
100	QPSK	1	1	10.00	9.98	9.98	11.0	0.0
100	QPSK	1	137	9.85	9.70	9.85	11.0	0.0
100	QPSK	1	271	9.92	9.84	9.88	11.0	0.0
100	QPSK	135	0	9.92	9.80	9.80	11.0	0.0
100	QPSK	135	69	9.92	9.85	9.84	11.0	0.0
100	QPSK	135	134	9.92	9.80	9.85	11.0	0.0
100	QPSK	270	0	9.97	9.86	9.81	11.0	0.0
100	16QAM	1	1	9.92	9.84	9.74	11.0	0.0
100	16QAM	1	1	9.92	9.80	9.85	11.0	0.0
100	256QAM	1	1	9.92	9.80	9.78	11.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	9.84	9.83	9.81	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	9.83	9.85	9.79	11.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	9.81	9.78	9.74	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	9.81	9.86	9.78	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.85	9.76	9.68	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	9.72	9.63	9.72	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	9.72	9.63	9.74	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	9.54	9.76	9.69	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	9.73	9.83	9.85	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	9.83	9.79	9.75	11.0	0.0



Part27Q n77 Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	1	137	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	1	271	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	135	0	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	135	69	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	135	138	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	270	0	9.79	9.79	9.79	11.0	0.0
100	QPSK	1	1	9.54	9.54	9.54	11.0	0.0
100	QPSK	1	137	9.54	9.54	9.54	11.0	0.0
100	QPSK	1	271	9.54	9.54	9.54	11.0	0.0
100	QPSK	135	0	9.54	9.54	9.54	11.0	0.0
100	QPSK	135	69	9.54	9.54	9.54	11.0	0.0
100	QPSK	135	138	9.54	9.54	9.54	11.0	0.0
100	QPSK	270	0	9.54	9.54	9.54	11.0	0.0
100	QPSK	270	0	9.54	9.54	9.54	11.0	0.0
100	16QAM	1	1	9.58	9.58	9.58	11.0	0.0
100	64QAM	1	1	9.58	9.58	9.58	11.0	0.0
100	256QAM	1	1	9.53	9.53	9.53	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.80	9.80	9.80	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	9.72	9.72	9.72	11.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	9.74	9.74	9.74	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	9.83	9.83	9.84	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.81	9.81	9.81	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	9.74	9.74	9.74	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	9.72	9.72	9.72	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	9.71	9.71	9.71	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	9.82	9.81	9.79	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	9.81	9.85	9.81	11.0	0.0

Part27Q n77 HPUE Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	1	137	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	1	271	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	135	0	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	135	69	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	135	138	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	270	0	9.79	9.79	9.79	11.0	0.0
100	QPSK	1	1	9.84	9.84	9.84	11.0	0.0
100	QPSK	1	137	9.84	9.84	9.84	11.0	0.0
100	QPSK	1	271	9.84	9.84	9.84	11.0	0.0
100	QPSK	135	0	9.84	9.84	9.84	11.0	0.0
100	QPSK	135	69	9.84	9.84	9.84	11.0	0.0
100	QPSK	135	138	9.84	9.84	9.84	11.0	0.0
100	QPSK	270	0	9.84	9.84	9.84	11.0	0.0
100	16QAM	1	1	9.86	9.86	9.86	11.0	0.0
100	64QAM	1	1	9.85	9.85	9.85	11.0	0.0
100	256QAM	1	1	9.83	9.83	9.83	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.89	9.89	9.89	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	9.75	9.75	9.75	11.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	9.76	9.76	9.76	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	9.83	9.83	9.84	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.81	9.81	9.81	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	9.74	9.74	9.74	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	9.72	9.72	9.72	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	9.73	9.73	9.73	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	9.82	9.81	9.79	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	9.81	9.85	9.81	11.0	0.0



Part270 n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit	MPR
				Low Ch. Freq.	Mid Ch. Freq.		
Channel							
Frequency (MHz)							
100	PIQ BPSK	1	1	15.14	15.14		
100	PIQ BPSK	1	137	15.09	15.09	16.5	0.0
100	PIQ BPSK	1	271	15.05	15.05		
100	PIQ BPSK	135	0	15.17	15.17	16.5	0.0
100	PIQ BPSK	135	69	15.16	15.16	16.5	0.0
100	PIQ BPSK	135	138	15.03	15.03	16.5	0.0
100	PIQ BPSK	270	0	15.11	15.11		
100	QPSK	1	1	15.03	15.03		
100	QPSK	1	137	15.12	15.12	16.5	0.0
100	QPSK	1	271	15.02	15.02		
100	QPSK	135	0	15.02	15.02		
100	QPSK	135	69	15.10	15.10	16.5	0.0
100	QPSK	135	138	14.97	14.97		
100	QPSK	270	0	15.07	15.07	16.5	0.0
100	NSAM	1	1	15.06	15.06	16.5	0.0
100	NSAM	1	1	15.13	15.13	16.5	0.0
100	25GAM	1	1	15.14	15.14	16.5	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	15.05	15.05	16.5	0.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	15.04	15.04	16.5	0.0
Channel							
Frequency (MHz)							
75	QPSK	1	1	15.09	15.09	16.5	0.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	15.11	15.11	16.5	0.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	15.03	15.03	16.5	0.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	15.09	15.09	16.5	0.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	15.11	15.11	16.5	0.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	15.16	15.16	16.5	0.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	15.19	15.19	16.5	0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	15.12	15.11	16.05	0.0

Part27Q n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit	MPR
				Low Ch. Freq.	Mid Ch. Freq.		
Channel							
Frequency (MHz)							
100	PIQ BPSK	1	1	15.05	15.05		
100	PIQ BPSK	1	137	15.23	15.23	16.5	0.0
100	PIQ BPSK	1	271	15.07	15.07		
100	PIQ BPSK	135	0	15.12	15.12	16.5	0.0
100	PIQ BPSK	135	69	15.12	15.12	16.5	0.0
100	PIQ BPSK	135	138	15.05	15.05	16.5	0.0
100	PIQ BPSK	270	0	14.99	14.99		
100	QPSK	1	1	15.03	15.03		
100	QPSK	1	137	15.15	15.15	16.5	0.0
100	QPSK	1	271	15.15	15.15		
100	QPSK	135	0	14.95	14.95		
100	QPSK	135	69	15.15	15.15	16.5	0.0
100	QPSK	135	138	15.04	15.04		
100	QPSK	270	0	15.08	15.08	16.5	0.0
100	NSAM	1	1	15.10	15.10	16.5	0.0
100	NSAM	1	1	15.15	15.15	16.5	0.0
100	25GAM	1	1	15.13	15.13	16.5	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	15.20	15.19	15.12	16.5
Channel							
Frequency (MHz)							
80	QPSK	1	1	15.21	15.19	15.20	16.5
Channel							
Frequency (MHz)							
70	QPSK	1	1	15.19	15.19	16.5	0.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	15.16	15.16	16.5	0.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	15.16	15.16	16.5	0.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	15.10	15.09	15.19	16.5
Channel							
Frequency (MHz)							
30	QPSK	1	1	15.20	15.19	15.27	16.5
Channel							
Frequency (MHz)							
20	QPSK	1	1	15.10	15.21	15.16	16.5
Channel							
Frequency (MHz)							
15	QPSK	1	1	15.21	15.20	15.18	16.5
Channel							
Frequency (MHz)							
10	QPSK	1	1	15.21	15.18	15.12	16.5



Part270 n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P12 BPSK	1	1	18.53	18.53	18.53	20.0	0.0
100	P12 BPSK	1	137	18.74	18.74	18.74	20.0	0.0
100	P12 BPSK	1	221	18.74	18.74	18.74	20.0	0.0
100	P12 BPSK	135	0	18.03	18.03	18.03	20.0	0.0
100	P12 BPSK	135	69	18.89	18.89	18.89	20.0	0.0
100	P12 BPSK	135	138	18.81	18.81	18.81	20.0	0.0
100	P12 BPSK	270	0	18.71	18.71	18.71	20.0	0.0
100	QPSK	1	1	18.05	18.05	18.05	20.0	0.0
100	QPSK	1	137	18.82	18.82	18.82	20.0	0.0
100	QPSK	1	271	18.58	18.58	18.58	20.0	0.0
100	QPSK	135	69	18.85	18.85	18.85	20.0	0.0
100	QPSK	135	138	18.96	18.96	18.96	20.0	0.0
100	QPSK	270	0	18.47	18.47	18.47	20.0	0.0
100	16QAM	1	1	18.98	18.98	18.98	20.0	0.0
100	64QAM	1	1	18.82	18.82	18.82	20.0	0.0
100	256QAM	1	1	18.87	18.87	18.87	20.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64969	65000	65032	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	3745.02	3750	3754.98	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	64934	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	3740.01	3750	3759.99	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.50	18.73	18.50	20.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	65000	65000	65000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.53	18.96	18.53	20.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	64968	65000	65132	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.89	18.94	18.94	20.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	64934	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	3726.01	3750	3752.99	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.56	18.84	18.73	20.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	64900	65000	65000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	3720	3750	3750	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.73	18.84	18.73	20.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	64766	65000	65232	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	3717.02	3750.00	3754.98	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.15	18.02	18.15	20.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	64734	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	3713.01	3750	3756.99	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.53	18.94	18.53	20.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	64718	65000	65232	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	3707.82	3750	3752.81	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.83	18.87	18.73	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	64700	65000	65260	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	3705	3750	3754	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.79	18.89	18.90	20.0	0.0



Part27Q n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	18.79	18.80	18.81	20.0	0.0
100	PI2 BPSK	1	137	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	1	271	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	135	0	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	135	69	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	135	135	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	270	0	18.80	18.80	18.80	20.0	0.0
100	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
100	QPSK	1	137	18.79	18.79	18.79	20.0	0.0
100	QPSK	1	271	18.80	18.80	18.80	20.0	0.0
100	QPSK	135	0	18.80	18.80	18.80	20.0	0.0
100	QPSK	135	69	18.80	18.80	18.80	20.0	0.0
100	QPSK	135	135	18.80	18.80	18.80	20.0	0.0
100	QPSK	270	0	18.80	18.80	18.80	20.0	0.0
100	16QAM	1	1	18.80	18.80	18.80	20.0	0.0
100	64QAM	1	1	18.80	18.80	18.80	20.0	0.0
100	256QAM	1	1	18.79	18.79	18.79	20.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.79	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.81	18.80	18.81	20.0	0.0
Channel								
Frequency (MHz)								
18	QPSK	1	1	18.87	18.83	18.84	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.83	18.85	18.88	20.0	0.0



Part270 n78_FCC Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	11.70				
100	PIQ BPSK	1	137	11.58			13.0	0.0
100	PIQ BPSK	1	271	11.55				
100	PIQ BPSK	135	0	11.70			13.0	0.0
100	PIQ BPSK	135	69	11.62			13.0	0.0
100	PIQ BPSK	135	138	11.57			13.0	0.0
100	PIQ BPSK	270	0	11.60			13.0	0.0
100	QPSK	1	1	11.50				
100	QPSK	1	137	11.71			13.0	0.0
100	QPSK	1	271	11.56				
100	QPSK	135	0	11.52				
100	QPSK	135	69	11.88			13.0	0.0
100	QPSK	135	138	11.81				
100	QPSK	270	0	11.85			13.0	0.0
100	16QAM	1	1	11.75			13.0	0.0
100	64QAM	1	1	11.89			13.0	0.0
100	256QAM	1	1	11.77			13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.42	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.22	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.72	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.78	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.74	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.70	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.67	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.65	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.63	55000	55000	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.70	55000	55000	13.0	0.0

Part27Q n78_FCC Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	11.72				
100	PIQ BPSK	1	137	11.65			13.0	0.0
100	PIQ BPSK	1	271	11.55				
100	PIQ BPSK	135	0	11.76			13.0	0.0
100	PIQ BPSK	135	69	11.64			13.0	0.0
100	PIQ BPSK	135	138	11.57			13.0	0.0
100	PIQ BPSK	270	0	11.47			13.0	0.0
100	QPSK	1	1	11.65				
100	QPSK	1	137	11.70			13.0	0.0
100	QPSK	1	271	11.60				
100	QPSK	135	0	11.70				
100	QPSK	135	69	11.79			13.0	0.0
100	QPSK	135	138	11.76				
100	QPSK	270	0	11.75			13.0	0.0
100	16QAM	1	1	11.80			13.0	0.0
100	64QAM	1	1	11.85			13.0	0.0
100	256QAM	1	1	11.73			13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.81	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.70	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.75	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.77	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.77	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.75	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.74	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.80	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.86	63300	63300	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.76	63300	63300	13.0	0.0



Part270 n78_FCC Ant 10

Band (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P12 BPSK	1	1	9.74				
100	P12 BPSK	1	137	9.59			11.0	0.0
100	P12 BPSK	1	221	9.10				
100	P12 BPSK	135	0	9.30			11.0	0.0
100	P12 BPSK	135	69	9.53			11.0	0.0
100	P12 BPSK	135	138	9.95			11.0	0.0
100	P12 BPSK	270	0	9.86				
100	QPSK	1	1	9.95				
100	QPSK	1	137	9.87			11.0	0.0
100	QPSK	1	271	9.62				
100	QPSK	135	69	9.87				
100	QPSK	135	138	9.70			11.0	0.0
100	QPSK	270	0	9.32			11.0	0.0
100	16QAM	1	1	9.86			11.0	0.0
100	64QAM	1	1	9.81			11.0	0.0
100	256QAM	1	1	9.88			11.0	0.0
Channel								
Frequency (MHz)								
				84969	85000	85032	Tune-up limit	MPR
				3745.02	3750	3754.98	(dBm)	(dB)
90	QPSK	1	1	9.79	9.68	9.60	11.0	0.0
Channel								
Frequency (MHz)								
				84934	85000	85066	Tune-up limit	MPR
				3740.01	3750	3759.99	(dBm)	(dB)
80	QPSK	1	1	9.10	9.54	9.70	11.0	0.0
Channel								
Frequency (MHz)								
				84900	85000	85100	Tune-up limit	MPR
				3736	3750	3764	(dBm)	(dB)
70	QPSK	1	1	9.73	9.69	9.64	11.0	0.0
Channel								
Frequency (MHz)								
				84868	85000	85132	Tune-up limit	MPR
				3732.02	3750	3767.98	(dBm)	(dB)
60	QPSK	1	1	9.73	9.70	9.68	11.0	0.0
Channel								
Frequency (MHz)								
				84834	85000	85106	Tune-up limit	MPR
				3726.01	3750	3762.99	(dBm)	(dB)
50	QPSK	1	1	9.58	9.73	9.61	11.0	0.0
Channel								
Frequency (MHz)								
				84800	85000	85200	Tune-up limit	MPR
				3720	3750	3780	(dBm)	(dB)
40	QPSK	1	1	9.74	9.70	9.60	11.0	0.0
Channel								
Frequency (MHz)								
				84766	85000	85032	Tune-up limit	MPR
				3715.02	3750	3764.98	(dBm)	(dB)
30	QPSK	1	1	9.70	9.10	9.30	11.0	0.0
Channel								
Frequency (MHz)								
				84730	85000	85200	Tune-up limit	MPR
				3712	3750	3782	(dBm)	(dB)
20	QPSK	1	1	9.59	9.62	9.60	11.0	0.0
Channel								
Frequency (MHz)								
				84734	85000	85206	Tune-up limit	MPR
				3710.01	3750	3780.99	(dBm)	(dB)
15	QPSK	1	1	9.71	9.81	9.70	11.0	0.0
Channel								
Frequency (MHz)								
				84716	85000	85202	Tune-up limit	MPR
				3707.92	3750	3792.08	(dBm)	(dB)
10	QPSK	1	1	9.69	9.74	9.67	11.0	0.0



Part27Q n78_FCC Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	9.17	9.17	9.17	11.0	0.0
100	PI2 BPSK	1	137	9.57	9.57	9.57	11.0	0.0
100	PI2 BPSK	1	271	9.97	9.97	9.97	11.0	0.0
100	PI2 BPSK	135	0	9.56	9.56	9.56	11.0	0.0
100	PI2 BPSK	135	69	9.71	9.71	9.71	11.0	0.0
100	PI2 BPSK	135	138	9.86	9.86	9.86	11.0	0.0
100	PI2 BPSK	270	0	9.62	9.62	9.62	11.0	0.0
100	QPSK	1	1	9.77	9.77	9.77	11.0	0.0
100	QPSK	1	137	9.52	9.52	9.52	11.0	0.0
100	QPSK	1	271	9.76	9.76	9.76	11.0	0.0
100	QPSK	135	0	9.54	9.54	9.54	11.0	0.0
100	QPSK	135	69	9.69	9.69	9.69	11.0	0.0
100	QPSK	135	138	9.84	9.84	9.84	11.0	0.0
100	QPSK	270	0	9.48	9.48	9.48	11.0	0.0
100	16QAM	1	1	9.62	9.62	9.62	11.0	0.0
100	64QAM	1	1	9.70	9.70	9.70	11.0	0.0
100	256QAM	1	1	9.68	9.68	9.68	11.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	8.72	8.72	8.72	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	8.29	8.29	8.29	11.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	8.00	8.00	8.00	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	8.27	8.27	8.27	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	8.25	8.25	8.25	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	8.27	8.27	8.27	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	8.29	8.29	8.29	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	8.25	8.25	8.25	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	8.23	8.23	8.23	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	8.63	8.63	8.63	11.0	0.0



Reduced Power Mode for DSI4

n2 Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Med. Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dB)	MPR (dB)	
Channel									
Frequency [MHz]									
20	P12 BPSK	1	1	23.31	23.35	23.20			
20	P12 BPSK	1	53	23.25	23.31	23.19	24.0	0.0	
20	P12 BPSK	1	104	23.21	23.32	23.13			
20	P12 BPSK	50	0	23.27	23.41	23.23	24.0	0.0	
20	P12 BPSK	50	28	23.33	23.40	23.19	24.0	0.0	
20	P12 BPSK	50	56	23.25	23.40	23.14			
20	P12 BPSK	100	0	23.28	23.43	23.15	24.0	0.0	
20	QPSK	1	1	23.28	23.44	23.20			
20	QPSK	1	53	23.33	23.44	23.35	24.0	0.0	
20	QPSK	1	104	23.20	23.37	23.24			
20	QPSK	50	0	23.23	23.38	23.16	24.0	0.0	
20	QPSK	50	28	23.31	23.42	23.21	24.0	0.0	
20	QPSK	50	56	23.24	23.32	23.13	24.0	0.0	
20	QPSK	100	0	23.28	23.40	23.20			
20	16QAM	1	1	22.05	22.49	22.75	23.0	1.0	
20	64QAM	1	1	21.10	21.07	21.00	21.5	2.5	
20	256QAM	1	1	19.21	19.24	18.97	19.5	4.5	
Channel									
Frequency [MHz]									
15	QPSK	1	1	37.22	37.27	37.32	24.0	0.0	
Channel									
Frequency [MHz]									
10	QPSK	1	1	37.000	37.000	38.000	Tune-up limit	MPR	
Channel									
Frequency [MHz]									
10	QPSK	1	1	37.050	37.000	38.150	Tune-up limit	MPR	
Channel									
Frequency [MHz]									
5	QPSK	1	1	23.30	23.24	23.14	24.0	0.0	

n2 Ant 1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Med. Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dB)	MPR (dB)	
Channel									
Frequency [MHz]									
20	P12 BPSK	1	1	22.38	22.48	22.77			
20	P12 BPSK	1	53	22.40	22.67	22.62	24.0	0.0	
20	P12 BPSK	1	104	22.51	22.72	22.81			
20	P12 BPSK	50	0	21.81	22.25	22.28	23.5	0.5	
20	P12 BPSK	50	28	22.38	22.79	22.80	24.0	0.0	
20	P12 BPSK	50	56	21.98	22.36	22.25			
20	P12 BPSK	100	0	21.89	22.37	22.25	23.5	0.5	
20	QPSK	1	1	22.38	22.48	22.60			
20	QPSK	1	53	22.43	22.75	22.60	24.0	0.0	
20	QPSK	1	104	22.50	22.80	22.88			
20	QPSK	50	0	21.92	21.99	21.82	23.0	1.0	
20	QPSK	50	28	22.34	22.67	22.60	24.0	0.0	
20	QPSK	50	56	21.48	21.64	21.58	23.0	1.0	
20	QPSK	100	0	21.41	21.72	21.70			
20	16QAM	1	1	21.54	21.88	21.77	23.0	1.0	
20	64QAM	1	1	19.96	20.03	20.30	21.5	2.5	
20	256QAM	1	1	18.02	18.23	18.11	19.5	4.5	
Channel									
Frequency [MHz]									
15	QPSK	1	1	37.22	37.27	37.32	24.0	0.0	
Channel									
Frequency [MHz]									
10	QPSK	1	1	37.000	37.000	38.000	Tune-up limit	MPR	
Channel									
Frequency [MHz]									
10	QPSK	1	1	37.050	37.000	38.150	Tune-up limit	MPR	
Channel									
Frequency [MHz]									
5	QPSK	1	1	22.34	22.68	22.72	24.0	0.0	



n5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.04	23.16	23.10	24.0	0.0
20	PI2 BPSK	1	53	23.09	23.15	23.00		
20	PI2 BPSK	1	104	23.09	22.94	23.03		
20	PI2 BPSK	50	0	23.08	23.08	23.11	24.0	0.0
20	PI2 BPSK	50	28	23.13	23.11	23.07	24.0	0.0
20	PI2 BPSK	50	56	23.01	22.99	23.00	24.0	0.0
20	PI2 BPSK	100	0	23.13	23.08	23.07	24.0	0.0
20	QPSK	1	1	23.13	23.16	23.10	24.0	0.0
20	QPSK	1	53	23.07	23.10	23.11		
20	QPSK	1	104	23.04	22.99	23.11		
20	QPSK	50	0	23.12	23.04	23.00	24.0	0.0
20	QPSK	50	28	23.13	23.15	23.10	24.0	0.0
20	QPSK	50	56	22.97	22.95	23.05	24.0	0.0
20	QPSK	100	0	23.09	23.07	23.03	24.0	0.0
20	16QAM	1	1	22.12	22.18	21.95	23.0	1.0
20	16QAM	1	1	21.14	21.36	21.92	21.5	2.5
20	256QAM	1	1	19.23	19.12	19.42	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.95	23.14	23.12	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.04	23.11	23.14	24.0	0.0

n5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.96	22.97	23.04	24.0	0.0
20	PI2 BPSK	1	53	22.92	22.96	22.98		
20	PI2 BPSK	1	104	23.00	23.05	23.15		
20	PI2 BPSK	50	0	23.03	23.04	23.04	24.0	0.0
20	PI2 BPSK	50	28	22.97	23.01	22.93	24.0	0.0
20	PI2 BPSK	50	56	22.93	23.03	23.03	24.0	0.0
20	PI2 BPSK	100	0	22.97	23.02	22.98	24.0	0.0
20	QPSK	1	1	22.95	22.99	23.05	24.0	0.0
20	QPSK	1	53	22.95	23.12	22.94		
20	QPSK	1	104	23.03	23.15	23.10		
20	QPSK	50	0	22.47	22.53	22.42	23.5	0.5
20	QPSK	50	28	22.94	23.00	22.95	24.0	0.0
20	QPSK	50	56	22.43	22.56	22.46	23.5	0.5
20	QPSK	100	0	22.42	22.48	22.41	23.5	0.5
20	16QAM	1	1	22.30	22.43	22.40	23.5	0.5
20	16QAM	1	1	20.77	21.11	20.92	21.5	2.5
20	256QAM	1	1	19.99	19.11	19.07	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.03	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.01	23.01	22.99	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	23.03	23.07	24.0	0.0



n7 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 504000	Power Middle Ch. / Freq 507000	Power High Ch. / Freq 510000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.62	22.81	22.87	24.0	0.0
40	PI2 BPSK	1	108	22.47	22.98	23.11		
40	PI2 BPSK	1	214	22.89	23.00	23.73		
40	PI2 BPSK	108	0	22.39	22.81	22.86	24.0	0.0
40	PI2 BPSK	108	54	22.35	22.69	22.92	24.0	0.0
40	PI2 BPSK	108	108	22.62	22.97	23.83	24.0	0.0
40	PI2 BPSK	216	0	22.42	22.90	22.96		
40	QPSK	1	1	22.23	22.23	22.23		
40	QPSK	1	108	22.43	23.00	22.87	24.0	0.0
40	QPSK	1	214	22.85	22.88	22.76	24.0	0.0
40	QPSK	108	0	22.42	22.81	22.78		
40	QPSK	108	54	22.35	22.86	22.82		
40	QPSK	108	108	22.48	22.89	22.86	24.0	0.0
40	QPSK	216	0	22.55	22.90	22.87	24.0	0.0
40	16QAM	1	1	22.09	21.85	22.08		
40	16QAM	1	1	20.23	20.72	20.44		
40	256QAM	1	1	18.48	19.11	18.54	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.66	22.66	22.66	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.80	22.58	22.60	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.81	22.81	22.60	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.75	22.63	22.62	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.76	22.87	22.84	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.76	22.49	22.73	Tune-up limit (dB)	MPR (dB)

n7 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 504000	Power Middle Ch. / Freq 507000	Power High Ch. / Freq 510000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.93	22.82	22.65	24.0	0.0
40	PI2 BPSK	1	108	22.68	23.00	22.97		
40	PI2 BPSK	1	214	23.02	22.95	23.15		
40	PI2 BPSK	108	0	22.58	22.93	22.71	24.0	0.0
40	PI2 BPSK	108	54	22.97	23.17	22.83	24.0	0.0
40	PI2 BPSK	108	108	22.78	23.12	23.02		
40	PI2 BPSK	216	0	22.67	23.06	22.81		
40	QPSK	1	1	22.23	22.23	22.23	24.0	0.0
40	QPSK	1	108	22.73	23.12	23.05		
40	QPSK	1	214	23.11	23.11	23.05		
40	QPSK	108	0	22.12	22.82	22.16	23.5	0.5
40	QPSK	108	54	22.27	23.03	22.85	24.0	0.0
40	QPSK	108	108	22.28	22.62	22.62	23.5	0.5
40	QPSK	216	0	22.12	22.85	22.32	23.5	0.5
40	16QAM	1	1	22.38	22.92	22.05		
40	16QAM	1	1	20.84	20.88	20.81		
40	256QAM	1	1	19.08	18.91	18.96	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.89	22.87	22.87	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.12	22.78	22.96	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.11	22.80	22.99	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.94	22.86	23.10	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.00	22.77	23.04	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	22.62	23.11	Tune-up limit (dB)	MPR (dB)



n12 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	22.74	22.82	22.87	24.0	0.0
15	P12 BPSK	1	40	22.72	22.86	22.84		
15	P12 BPSK	1	77	22.70	22.84	22.81		
15	P12 BPSK	36	0	22.67	22.81	22.86	24.0	0.0
15	P12 BPSK	36	22	22.87	22.83	22.94	24.0	0.0
15	P12 BPSK	36	43	22.81	22.81	22.86	24.0	0.0
15	P12 BPSK	75	0	22.86	22.72	22.87	24.0	0.0
15	QPSK	1	1	22.75	22.85	22.85	24.0	0.0
15	QPSK	1	40	22.68	22.74	22.85		
15	QPSK	1	77	22.70	22.83	22.82		
15	QPSK	36	0	22.33	22.70	22.81	24.0	0.0
15	QPSK	36	22	22.71	22.76	22.81	24.0	0.0
15	QPSK	36	43	22.34	22.84	22.87	24.0	0.0
15	QPSK	75	0	22.40	22.87	22.44	24.0	0.0
15	16QAM	1	1	22.69	22.88	22.79	24.0	0.0
15	16QAM	1	1	21.21	21.19	21.15	2.5	2.5
15	256QAM	1	1	19.33	19.21	19.36	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.84	22.89	22.72	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.80	22.84	22.76	24.0	0.0

n12 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	23.21	23.18	23.12	24.0	0.0
15	P12 BPSK	1	40	23.24	23.23	23.18		
15	P12 BPSK	1	77	23.21	23.28	23.25		
15	P12 BPSK	36	0	23.17	23.12	23.16	24.0	0.0
15	P12 BPSK	36	22	23.18	23.16	23.12	24.0	0.0
15	P12 BPSK	36	43	23.12	23.12	23.16	24.0	0.0
15	P12 BPSK	75	0	23.19	23.21	23.15	24.0	0.0
15	QPSK	1	1	23.25	23.25	23.25	24.0	0.0
15	QPSK	1	40	23.25	23.30	23.23		
15	QPSK	1	77	23.26	23.27	23.15		
15	QPSK	36	0	22.85	22.84	22.83	24.0	0.0
15	QPSK	36	22	23.21	23.22	23.11	24.0	0.0
15	QPSK	36	43	22.81	22.80	22.91	24.0	0.0
15	QPSK	75	0	22.87	22.80	22.88	24.0	0.0
15	16QAM	1	1	22.92	22.79	22.82	24.0	0.0
15	16QAM	1	1	20.12	20.27	20.15	2.5	2.5
15	256QAM	1	1	19.69	19.79	19.82	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.25	23.28	23.22	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.16	23.20	23.02	24.0	0.0



n13 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.69			
10	PI2 BPSK	1	26		22.74		24.0	0.0
10	PI2 BPSK	1	50		22.55			
10	PI2 BPSK	25	0		22.27		23.5	0.5
10	PI2 BPSK	25	14		22.63		24.0	0.0
10	PI2 BPSK	25	27		22.16		23.5	0.5
10	PI2 BPSK	50	0		22.30			
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.78		24.0	0.0
10	QPSK	1	50		22.62			
10	QPSK	25	0		21.78		23.0	1.0
10	QPSK	25	14		22.57		24.0	0.0
10	QPSK	25	27		21.86		23.0	1.0
10	QPSK	50	0		21.03			
10	16QAM	1	1		21.83		23.0	1.0
10	64QAM	1	1		20.79		21.5	2.5
10	256QAM	1	1		18.29		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.85		24.0	0.0

n13 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.61			
10	PI2 BPSK	1	26		22.80		24.0	0.0
10	PI2 BPSK	1	50		22.85			
10	PI2 BPSK	25	0		22.28		23.5	0.5
10	PI2 BPSK	25	14		22.67		24.0	0.0
10	PI2 BPSK	25	27		22.34		23.5	0.5
10	PI2 BPSK	50	0		22.32			
10	QPSK	1	1		22.90			
10	QPSK	1	26		22.84		24.0	0.0
10	QPSK	1	50		22.84			
10	QPSK	25	0		21.75		23.0	1.0
10	QPSK	25	14		22.64		24.0	0.0
10	QPSK	25	27		21.82		23.0	1.0
10	QPSK	50	0		21.14			
10	16QAM	1	1		21.95		23.0	1.0
10	64QAM	1	1		19.95		21.5	2.5
10	256QAM	1	1		18.13		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.87		24.0	0.0



n14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)	
				Low Ch. / Freq	Power Middle Ch. / Freq 158600	Power High Ch. / Freq			
Channel									
Frequency (MHz)									
10	PI2 BPSK	1	1		22.84				
10	PI2 BPSK	1	26		22.56		24.0	0.0	
10	PI2 BPSK	1	50		22.60				
10	PI2 BPSK	25	0		22.60		24.0	0.0	
10	PI2 BPSK	25	14		22.56		24.0	0.0	
10	PI2 BPSK	25	27		22.51		24.0	0.0	
10	PI2 BPSK	50	0		22.57		24.0	0.0	
10	QPSK	1	1		22.76				
10	QPSK	1	26		22.58		24.0	0.0	
10	QPSK	1	50		22.67				
10	QPSK	25	0		22.60		24.0	0.0	
10	QPSK	25	14		22.63		24.0	0.0	
10	QPSK	25	27		22.53		24.0	0.0	
10	QPSK	50	0		22.54		24.0	0.0	
10	16QAM	1	1		22.59		23.0	1.0	
10	16QAM	1	1		21.45		21.5	2.5	
10	256QAM	1	1		19.07		19.5	4.5	
Channel				158100	158600	159100	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				158.2	158.6	158.9			
5	QPSK	1	1		22.93	22.65	22.63	24.0	0.0

n14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)	
				Low Ch. / Freq	Power Middle Ch. / Freq 158600	Power High Ch. / Freq			
Channel									
Frequency (MHz)									
10	PI2 BPSK	1	1		23.02				
10	PI2 BPSK	1	26		23.03		24.0	0.0	
10	PI2 BPSK	1	50		23.07				
10	PI2 BPSK	25	0		22.99		24.0	0.0	
10	PI2 BPSK	25	14		22.96		24.0	0.0	
10	PI2 BPSK	25	27		23.00		24.0	0.0	
10	PI2 BPSK	50	0		22.94		24.0	0.0	
10	QPSK	1	1		23.32				
10	QPSK	1	26		22.98		24.0	0.0	
10	QPSK	1	50		23.03				
10	QPSK	25	0		22.98		24.0	0.0	
10	QPSK	25	14		23.01		24.0	0.0	
10	QPSK	25	27		22.94		24.0	0.0	
10	QPSK	50	0		22.95		24.0	0.0	
10	16QAM	1	1		21.98		23.0	1.0	
10	16QAM	1	1		20.48		21.5	2.5	
10	256QAM	1	1		18.54		19.5	4.5	
Channel				158100	158600	159100	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				158.2	158.6	158.9			
5	QPSK	1	1		22.93	23.09	23.07	24.0	0.0



n25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.05	23.11	23.13	24.0	0.0
20	PI2 BPSK	1	53	23.18	23.20	23.12		
20	PI2 BPSK	1	104	23.13	23.30	23.14		
20	PI2 BPSK	50	0	23.09	23.06	23.22	24.0	0.0
20	PI2 BPSK	50	28	23.10	23.19	23.17	24.0	0.0
20	PI2 BPSK	50	56	23.12	23.25	23.16	24.0	0.0
20	PI2 BPSK	100	0	23.11	23.18	23.18	24.0	0.0
20	QPSK	1	1	23.15	23.21	23.20	24.0	0.0
20	QPSK	1	53	23.14	23.45	23.33		
20	QPSK	1	104	23.05	23.46	23.34		
20	QPSK	50	0	23.10	23.30	23.18	24.0	0.0
20	QPSK	50	28	23.11	23.49	23.21	24.0	0.0
20	QPSK	50	56	23.04	23.48	23.17	24.0	0.0
20	QPSK	100	0	23.05	23.45	23.17	24.0	0.0
20	16QAM	1	1	22.08	22.67	22.11	23.0	1.0
20	64QAM	1	1	20.46	21.06	20.98	21.5	2.5
20	256QAM	1	1	18.72	19.62	18.79	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	37.100	37.100	37.100	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	37.050	37.050	37.050	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	37.000	37.000	37.000	Tune-up limit (dB)	MPR (dB)

n25 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.64	22.67	22.42	24.0	0.0
20	PI2 BPSK	1	53	22.67	22.61	22.24		
20	PI2 BPSK	1	104	22.62	22.47	22.01		
20	PI2 BPSK	50	0	22.11	22.20	21.85	23.5	0.5
20	PI2 BPSK	50	28	22.39	22.71	22.29	24.0	0.0
20	PI2 BPSK	50	56	22.15	22.12	21.63	23.5	0.5
20	PI2 BPSK	100	0	22.08	22.21	21.75	24.0	0.0
20	QPSK	1	1	22.69	22.68	22.46	24.0	0.0
20	QPSK	1	53	22.62	22.85	22.25		
20	QPSK	1	104	22.65	22.68	22.04		
20	QPSK	50	0	21.61	21.11	21.30	23.0	1.0
20	QPSK	50	28	22.69	22.67	22.30	24.0	0.0
20	QPSK	50	56	21.65	21.63	21.19	23.0	1.0
20	QPSK	100	0	21.61	21.11	21.20	23.0	1.0
20	16QAM	1	1	21.51	21.96	21.54	23.0	1.0
20	64QAM	1	1	19.88	20.07	19.93	21.5	2.5
20	256QAM	1	1	18.04	18.11	17.88	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	37.100	37.100	37.100	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	37.050	37.050	37.050	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	37.000	37.000	37.000	Tune-up limit (dB)	MPR (dB)



n26 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.99	23.05	23.12	24.0	0.0
20	PI2 BPSK	1	53	23.11	23.12	23.04		
20	PI2 BPSK	1	104	23.05	23.01	22.95		
20	PI2 BPSK	50	0	23.07	23.05	23.08	24.0	0.0
20	PI2 BPSK	50	28	23.12	23.15	23.02	24.0	0.0
20	PI2 BPSK	50	56	23.08	23.04	22.95	24.0	0.0
20	PI2 BPSK	100	0	23.03	23.09	23.04	24.0	0.0
20	QPSK	1	1	23.13	23.05	23.12	24.0	0.0
20	QPSK	1	53	23.05	23.13	23.05		
20	QPSK	1	104	23.07	23.04	22.97		
20	QPSK	50	0	23.03	23.01	23.00	24.0	0.0
20	QPSK	50	28	23.08	23.10	23.05	24.0	0.0
20	QPSK	50	56	23.05	23.01	22.93	24.0	0.0
20	QPSK	100	0	22.98	23.05	22.94	24.0	0.0
20	16QAM	1	1	22.77	22.84	22.95	23.0	1.0
20	16QAM	1	1	21.02	20.97	20.94	21.5	2.5
20	256QAM	1	1	18.89	19.07	19.39	19.5	4.5
Channel								
				164300	166300	168300	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	22.91	23.15	23.11	24.0	0.0
Channel								
				163800	166300	168800	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	23.08	23.03	23.05	24.0	0.0
Channel								
				163300	166300	169300	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
5	QPSK	1	1	23.03	22.99	23.15	24.0	0.0

n26 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.08	23.16	23.04	24.0	0.0
20	PI2 BPSK	1	53	22.90	23.05	23.01		
20	PI2 BPSK	1	104	23.03	23.11	22.95		
20	PI2 BPSK	50	0	23.03	23.10	22.94	23.5	0.5
20	PI2 BPSK	50	28	22.88	23.03	22.92	24.0	0.0
20	PI2 BPSK	50	56	22.85	23.01	22.95	23.5	0.5
20	PI2 BPSK	100	0	23.03	23.11	23.09	24.0	0.0
20	QPSK	1	1	23.08	23.00	23.05	24.0	0.0
20	QPSK	1	53	23.07	23.12	23.07		
20	QPSK	1	104	22.85	23.10	23.06		
20	QPSK	50	0	23.02	23.03	22.95	23.0	1.0
20	QPSK	50	28	23.03	23.11	23.05	24.0	0.0
20	QPSK	50	56	22.98	23.05	22.95	23.0	1.0
20	QPSK	100	0	22.94	23.05	22.92	23.0	1.0
20	16QAM	1	1	22.08	22.10	22.09	23.0	1.0
20	16QAM	1	1	20.80	20.86	20.71	21.5	2.5
20	256QAM	1	1	19.09	19.19	19.02	19.5	4.5
Channel								
				164300	166300	168300	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	23.13	23.15	23.05	24.0	0.0
Channel								
				163800	166300	168800	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	23.15	23.04	23.10	24.0	0.0
Channel								
				163300	166300	169300	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)								
5	QPSK	1	1	23.05	23.12	23.17	24.0	0.0



n30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency [MHz]								
10	PI2 BPSK	1	1	22.75				
10	PI2 BPSK	1	26	22.89			24.0	0.0
10	PI2 BPSK	1	50	22.77				
10	PI2 BPSK	25	0	22.71			24.0	0.0
10	PI2 BPSK	25	14	22.70			24.0	0.0
10	PI2 BPSK	25	27	22.76			24.0	0.0
10	PI2 BPSK	50	0	22.72			24.0	0.0
10	QPSK	1	1	22.85				
10	QPSK	1	26	22.76			24.0	0.0
10	QPSK	1	50	22.81				
10	QPSK	25	0	22.73			24.0	0.0
10	QPSK	25	14	22.76			24.0	0.0
10	QPSK	25	27	22.67			24.0	0.0
10	QPSK	50	0	22.70			24.0	0.0
10	16QAM	1	1	21.92			23.0	1.0
10	16QAM	1	1	20.89			21.5	2.5
10	256QAM	1	1	18.79			19.5	4.5
Channel				481500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency [MHz]				2397.2	2310	2372.2	(dB)	(dB)
5	QPSK	1	1	22.87	22.85	22.70	24.0	0.0

n30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency [MHz]								
10	PI2 BPSK	1	1	22.55				
10	PI2 BPSK	1	26	22.51			24.0	0.0
10	PI2 BPSK	1	50	22.47				
10	PI2 BPSK	25	0	22.50			23.5	0.5
10	PI2 BPSK	25	14	22.42			24.0	0.0
10	PI2 BPSK	25	27	21.92			23.5	0.5
10	PI2 BPSK	50	0	21.95			24.0	0.0
10	QPSK	1	1	22.39				
10	QPSK	1	26	22.42			24.0	0.0
10	QPSK	1	50	22.49				
10	QPSK	25	0	21.47			23.0	1.0
10	QPSK	25	14	22.44			24.0	0.0
10	QPSK	25	27	21.42			23.0	1.0
10	QPSK	50	0	21.93			23.0	1.0
10	16QAM	1	1	21.80			23.0	1.0
10	16QAM	1	1	20.89			21.5	2.5
10	256QAM	1	1	18.92			19.5	4.5
Channel				481500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency [MHz]				2397.2	2310	2372.2	(dB)	(dB)
5	QPSK	1	1	22.49	22.47	22.51	24.0	0.0



n66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 346000	Power Middle Ch. / Freq 349000	High Ch. / Freq 352000		
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	23.27	23.41	23.29	24.0	0.0
40	P12 BPSK	1	108	23.26	23.40	23.34		
40	P12 BPSK	1	214	23.29	23.42	23.27		
40	P12 BPSK	108	0	23.30	23.37	23.27		
40	P12 BPSK	108	96	23.26	23.31	23.33	24.0	0.0
40	P12 BPSK	108	108	23.33	23.25	23.36	24.0	0.0
40	P12 BPSK	216	0	23.31	23.31	23.39		
40	QPSK	1	1	23.33	23.34	23.33		
40	QPSK	1	108	23.25	23.45	23.25		
40	QPSK	1	214	23.25	23.50	23.20	24.0	0.0
40	QPSK	108	0	23.26	23.36	23.26	24.0	0.0
40	QPSK	108	54	23.25	23.42	23.33		
40	QPSK	108	108	23.25	23.33	23.32		
40	QPSK	216	0	23.29	23.40	23.33		
40	16QAM	1	1	22.05	22.06	22.40	23.0	1.0
40	64QAM	1	1	20.84	20.79	21.15	21.5	2.5
40	256QAM	1	1	18.64	18.34	19.23	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.21	23.34	23.33	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.23	23.36	23.24	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.33	23.30	23.20	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.17	23.02	23.20	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.19	23.16	23.27	24.0	0.0

n66 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq 346000	Power Middle Ch. / Freq 349000	High Ch. / Freq 352000		
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	22.70	22.85	22.83	24.0	0.0
40	P12 BPSK	1	108	22.69	22.80	22.86		
40	P12 BPSK	1	214	22.47	22.85	22.76		
40	P12 BPSK	108	0	22.53	22.40	22.41		
40	P12 BPSK	108	96	22.51	22.42	22.47	24.0	0.0
40	P12 BPSK	108	108	22.57	22.54	22.75	23.5	0.5
40	P12 BPSK	216	0	22.45	22.80	22.74		
40	QPSK	1	1	22.68	22.77	22.82		
40	QPSK	1	108	22.65	22.77	22.82		
40	QPSK	1	214	22.72	22.79	22.75	24.0	0.0
40	QPSK	108	0	21.97	21.92	21.91	23.0	1.0
40	QPSK	108	54	21.95	22.74	22.84		
40	QPSK	108	108	21.95	21.90	22.02		
40	QPSK	216	0	21.97	22.01	21.99		
40	16QAM	1	1	21.66	21.80	21.97	23.0	1.0
40	64QAM	1	1	20.43	20.48	20.44	21.5	2.5
40	256QAM	1	1	18.38	18.05	18.50	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.65	22.76	22.72	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.66	22.69	22.83	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.77	22.74	22.75	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.80	22.78	22.71	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.74	22.78	22.76	24.0	0.0



n70 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
15	PI2 BPSK	1	1		23.48				
15	PI2 BPSK	1	40		23.41		24.0	0.0	
15	PI2 BPSK	1	77		23.16				
15	PI2 BPSK	36	0		23.34		24.0	0.0	
15	PI2 BPSK	36	22		23.36		24.0	0.0	
15	PI2 BPSK	36	43		23.21		24.0	0.0	
15	PI2 BPSK	75	0		23.33		24.0	0.0	
15	QPSK	1	1		22.85				
15	QPSK	1	40		23.37		24.0	0.0	
15	QPSK	1	77		23.17				
15	QPSK	36	0		23.04		24.0	0.0	
15	QPSK	36	22		23.33		24.0	0.0	
15	QPSK	36	43		23.06		24.0	0.0	
15	QPSK	75	0		23.30		24.0	0.0	
15	16QAM	1	1		21.85		23.0	1.0	
15	16QAM	1	1		20.81		21.5	2.5	
15	256QAM	1	1		18.13		19.5	4.5	
Channel				34000	34000	34100	Tune-up limit (dBm)	MPR (dB)	
Frequency [MHz]				3300	3300	3300			
10	QPSK	1	1		23.30	23.41	23.24	24.0	0.0
Channel				33950	34050	34150	Tune-up limit (dBm)	MPR (dB)	
Frequency [MHz]				3392.5	3402.5	3412.5			
5	QPSK	1	1		23.25	23.33	23.23	24.0	0.0

n70 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency [MHz]									
15	PI2 BPSK	1	1		22.95				
15	PI2 BPSK	1	40		22.92		24.0	0.0	
15	PI2 BPSK	1	77		22.89				
15	PI2 BPSK	36	0		22.95		23.5	0.5	
15	PI2 BPSK	36	22		22.88		24.0	0.0	
15	PI2 BPSK	36	43		22.90		23.5	0.5	
15	PI2 BPSK	75	0		22.82		24.0	0.0	
15	QPSK	1	1		22.97				
15	QPSK	1	40		22.94		24.0	0.0	
15	QPSK	1	77		22.99				
15	QPSK	36	0		22.18		23.0	1.0	
15	QPSK	36	22		22.81		24.0	0.0	
15	QPSK	36	43		22.02		23.0	1.0	
15	QPSK	75	0		22.00		23.0	1.0	
15	16QAM	1	1		21.90		23.0	1.0	
15	16QAM	1	1		20.82		21.5	2.5	
15	256QAM	1	1		18.42		19.5	4.5	
Channel				34000	34000	34100	Tune-up limit (dBm)	MPR (dB)	
Frequency [MHz]				3300	3300	3300			
10	QPSK	1	1		22.84	22.90	22.87	24.0	0.0
Channel				33950	34050	34150	Tune-up limit (dBm)	MPR (dB)	
Frequency [MHz]				3392.5	3402.5	3412.5			
5	QPSK	1	1		22.95	22.83	22.95	24.0	0.0



n71 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq. 134500	Medi. Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	P12 BPSK	1	1	22.92	22.92	22.91	24.0	0.0
20	P12 BPSK	1	53	22.87	22.86	22.86		
20	P12 BPSK	1	104	22.92	22.92	22.76		
20	P12 BPSK	50	0	22.93	22.84	22.83		
20	P12 BPSK	50	28	22.90	22.79	22.77	24.0	0.0
20	P12 BPSK	50	56	22.91	22.73	22.80	24.0	0.0
20	P12 BPSK	100	0	22.87	22.84	22.81	24.0	0.0
20	QPSK	1	1	22.92	22.92	22.92	24.0	0.0
20	QPSK	1	53	22.90	22.75	22.82		
20	QPSK	1	104	22.81	22.73	22.76		
20	QPSK	50	0	22.83	22.80	22.72		
20	QPSK	50	28	22.87	22.81	22.78	24.0	0.0
20	QPSK	50	56	22.85	22.68	22.74	24.0	0.0
20	QPSK	100	0	22.76	22.65	22.70	24.0	0.0
20	HQAM	1	1	22.93	22.79	22.81	24.0	0.0
20	64QAM	1	1	21.21	21.20	21.24	22.0	2.0
20	256QAM	1	1	18.66	18.70	18.80	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.89	22.90	22.88	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.92	23.01	22.90	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	22.89	22.85	24.0	0.0

n71 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq. 134500	Medi. Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	P12 BPSK	1	1	23.03	23.08	23.01	24.0	0.0
20	P12 BPSK	1	53	23.00	22.87	22.84		
20	P12 BPSK	1	104	23.06	23.02	23.01		
20	P12 BPSK	50	0	22.97	22.89	23.03		
20	P12 BPSK	50	28	23.09	22.94	22.89	24.0	0.0
20	P12 BPSK	50	56	22.96	22.82	22.82	24.0	0.0
20	P12 BPSK	100	0	22.87	23.00	22.88	24.0	0.0
20	QPSK	1	1	23.03	23.03	23.03	24.0	0.0
20	QPSK	1	53	22.88	23.02	23.03		
20	QPSK	1	104	22.85	23.00	23.02		
20	QPSK	50	0	22.83	22.85	22.82		
20	QPSK	50	28	23.03	23.04	23.04	24.0	0.0
20	QPSK	50	56	22.87	22.75	22.67	24.0	0.0
20	QPSK	100	0	22.84	22.77	22.70	24.0	0.0
20	HQAM	1	1	22.88	22.80	22.87	24.0	0.0
20	64QAM	1	1	20.79	20.70	20.84	21.5	2.5
20	256QAM	1	1	18.83	18.86	18.81	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.05	23.08	23.03	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.97	23.08	23.08	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.84	23.03	22.97	24.0	0.0



n38 Ant 7								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. (dBm)	Power Middle Ch. Freq. (dBm)	Power High Ch. Freq. (dBm)	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PIQ BPSK	1	1	23.02	23.04	23.07	24.0	0.0
40	PIQ BPSK	1	53	23.05	23.06	23.13	24.0	0.0
40	PIQ BPSK	1	104	23.07	23.04	23.07	24.0	0.0
40	PIQ BPSK	50	0	23.03	23.07	23.09	24.0	0.0
40	PIQ BPSK	50	28	23.06	23.01	23.07	24.0	0.0
40	PIQ BPSK	50	56	23.15	23.05	23.06	24.0	0.0
40	PIQ BPSK	100	0	23.07	23.03	23.01	24.0	0.0
40	QPSK	1	1	23.11	23.16	23.15	24.0	0.0
40	QPSK	1	53	23.07	23.14	23.12	24.0	0.0
40	QPSK	1	104	23.05	23.12	23.12	24.0	0.0
40	QPSK	50	0	22.95	22.99	22.95	24.0	0.0
40	QPSK	50	28	22.91	22.99	22.91	24.0	0.0
40	QPSK	50	56	22.88	22.97	22.81	24.0	0.0
40	QPSK	100	0	22.89	22.82	22.78	24.0	0.0
40	NSM	1	1	23.09	23.08	23.10	24.0	0.0
40	NSM	1	1	23.15	23.08	23.05	23.5	1.5
40	25GAM	1	1	19.53	19.52	19.33	20.5	3.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.05	23.14	23.08	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.03	23.11	22.97	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.02	23.02	23.02	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.89	23.00	23.07	24.0	0.0

n38 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. (dBm)	Power Middle Ch. Freq. (dBm)	Power High Ch. Freq. (dBm)	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PIQ BPSK	1	1	22.97	22.81	22.81	24.0	0.0
40	PIQ BPSK	1	53	22.92	22.84	22.80	24.0	0.0
40	PIQ BPSK	1	104	22.94	22.92	22.98	24.0	0.0
40	PIQ BPSK	50	0	22.98	22.18	22.08	23.5	0.5
40	PIQ BPSK	50	28	22.93	22.47	22.03	24.0	0.0
40	PIQ BPSK	50	56	22.97	22.11	22.08	23.5	0.5
40	PIQ BPSK	100	0	22.10	22.13	22.02	24.0	0.0
40	QPSK	1	1	22.81	22.75	22.65	24.0	0.0
40	QPSK	1	53	22.81	22.83	22.82	24.0	0.0
40	QPSK	1	104	22.85	22.72	22.65	24.0	0.0
40	QPSK	50	0	21.81	21.81	21.53	24.0	0.0
40	QPSK	50	28	21.84	22.81	22.54	24.0	0.0
40	QPSK	50	56	21.81	21.66	21.55	24.0	0.0
40	QPSK	100	0	21.48	21.58	21.48	23.0	1.0
40	NSM	1	1	21.72	21.82	21.76	21.0	1.0
40	NSM	1	1	19.75	19.52	19.18	21.5	2.5
40	25GAM	1	1	18.02	18.07	18.18	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.83	22.82	22.82	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.95	22.95	22.95	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.81	22.81	22.81	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.57	22.81	22.56	24.0	0.0



n41_FCC Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				50602	51898	53000		
100	P12 BPSK	1	1	23.52	23.54	22.85	24.0	0.0
100	P12 BPSK	1	137	22.78	22.86	22.85		
100	P12 BPSK	1	271	22.85	22.83	22.87		
100	P12 BPSK	135	0	22.79	22.89	22.89	24.0	0.0
100	P12 BPSK	135	69	22.91	22.93	22.92	24.0	0.0
100	P12 BPSK	135	138	22.85	22.85	22.79	24.0	0.0
100	P12 BPSK	270	0	22.85	22.85	22.81		
100	QPSK	1	1	22.84	22.85	22.85		
100	QPSK	1	137	22.84	22.89	22.84	24.0	0.0
100	QPSK	1	271	22.92	22.93	22.91		
100	QPSK	135	0	22.85	22.92	22.83	24.0	0.0
100	QPSK	135	69	22.93	22.96	22.95		
100	QPSK	135	138	22.88	22.83	22.84		
100	QPSK	270	0	22.91	22.95	22.89	24.0	0.0
100	HQAM	1	1	22.82	22.86	22.75	24.0	0.0
100	HQAM	1	1	22.85	23.00	22.85	24.0	0.0
100	256QAM	1	1	21.80	21.79	21.78	22.5	4.5
Channel								
Frequency (MHz)				50602	51898	53000		
50	QPSK	1	1	22.82	22.80	22.84	24.0	0.0
Channel								
Frequency (MHz)				50602	51898	53000		
80	QPSK	1	1	22.82	22.82	22.76	24.0	0.0
Channel								
Frequency (MHz)				50602	51898	53000		
70	QPSK	1	1	22.81	22.80	22.83	24.0	0.0
Channel								
Frequency (MHz)				50600	51898	53196		
60	QPSK	1	1	22.87	23.01	22.85	24.0	0.0
Channel								
Frequency (MHz)				50604	51898	53000		
50	QPSK	1	1	22.86	23.04	22.79	24.0	0.0
Channel								
Frequency (MHz)				50602	51898	53000		
40	QPSK	1	1	22.89	22.88	22.84	24.0	0.0
Channel								
Frequency (MHz)				50600	51898	53196		
30	QPSK	1	1	23.11	22.92	22.74	24.0	0.0
Channel								
Frequency (MHz)				50104	51898	53098		
20	QPSK	1	1	22.82	22.89	22.78	24.0	0.0

n41_FCC_HPUE Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				50602	51898	53000		
100	P12 BPSK	1	1	25.07	25.10	25.51	27.0	0.0
100	P12 BPSK	1	137	25.81	25.92	25.83		
100	P12 BPSK	1	271	25.10	25.01	25.87		
100	P12 BPSK	135	0	25.52	25.65	25.62	26.5	0.5
100	P12 BPSK	135	69	25.92	25.99	25.89	27.0	0.0
100	P12 BPSK	135	138	25.89	25.84	25.53	26.5	0.5
100	P12 BPSK	270	0	25.52	25.61	25.51		
100	QPSK	1	1	25.16	25.12	25.11		
100	QPSK	1	137	25.78	25.89	25.85	27.0	0.0
100	QPSK	1	271	25.87	25.97	25.87		
100	QPSK	135	0	25.00	25.14	25.95		
100	QPSK	135	69	25.93	26.02	25.97	27.0	0.0
100	QPSK	135	138	25.10	25.15	25.16		
100	QPSK	270	0	25.94	25.13	25.11	26.9	1.0
100	16QAM	1	1	25.05	25.13	25.09	26.0	1.0
100	64QAM	1	1	23.77	23.84	23.84	24.5	2.5
100	256QAM	1	1	21.67	21.79	21.73	22.5	4.5
Channel								
Frequency (MHz)				50602	51898	53000		
50	QPSK	1	1	25.10	25.06	25.45	27.0	0.0
Channel								
Frequency (MHz)				50602	51898	53000		
80	QPSK	1	1	25.10	25.02	25.53	27.0	0.0
Channel								
Frequency (MHz)				50602	51898	53190		
70	QPSK	1	1	25.10	25.07	25.09	27.0	0.0
Channel								
Frequency (MHz)				50600	51898	53196		
60	QPSK	1	1	25.01	25.06	25.99	27.0	0.0
Channel								
Frequency (MHz)				50604	51898	53000		
50	QPSK	1	1	25.16	25.11	25.05	27.0	0.0
Channel								
Frequency (MHz)				50602	51898	53000		
40	QPSK	1	1	25.13	25.07	25.00	27.0	0.0
Channel								
Frequency (MHz)				50600	51898	53196		
30	QPSK	1	1	25.11	25.02	24.98	27.0	0.0
Channel								
Frequency (MHz)				50104	51898	53098		
20	QPSK	1	1	25.04	25.02	25.18	27.0	0.0



n41_FCC Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				50502	51898	53000		
100	PV2 BPSK	1	1	2132	2135	2138	22.5	0.0
100	PV2 BPSK	1	137	2080	2081	2089		
100	PV2 BPSK	1	271	2103	2102	2076		
100	PV2 BPSK	135	0	2107	2152	2073	22.5	0.0
100	PV2 BPSK	135	66	2089	2089	2088	22.5	0.0
100	PV2 BPSK	135	138	2102	2102	2088	22.5	0.0
100	PV2 BPSK	270	0	2100	2104	2068		
100	QPSK	1	1	2135	2140	2130		
100	QPSK	1	137	2131	2131	2089	22.5	0.0
100	QPSK	1	271	2135	2140	2118		
100	QPSK	135	0	2112	2131	2088	22.5	0.0
100	QPSK	135	66	2128	2143	2113		
100	QPSK	135	138	2128	2128	2088		
100	QPSK	270	0	2123	2138	2103	22.5	0.0
100	HQAM	1	1	2129	2144	2104	22.5	0.0
100	HQAM	1	1	2127	2133	2083	22.5	0.0
100	256QAM	1	1	1936	1938	1971	21.0	1.5
Channel								
Frequency (MHz)				50500	51896	53000		
50	QPSK	1	1	2122	2134	2113	22.5	0.0
Channel				50502	51898	53000		
80	QPSK	1	1	2082	2092	2049	22.5	0.0
Channel				50502	51898	53100		
70	QPSK	1	1	2123	2125	2104	22.5	0.0
Channel				50500	51898	53196		
60	QPSK	1	1	2125	2138	2107	22.5	0.0
Channel				50500	51898	53096		
50	QPSK	1	1	2127	2133	2102	22.5	0.0
Channel				50500	51898	53000		
40	QPSK	1	1	2125	2140	2114	22.5	0.0
Channel				50500	51898	53096		
30	QPSK	1	1	2122	2143	2113	22.5	0.0
Channel				50104	51898	53098		
20	QPSK	1	1	2122	2143	2105	22.5	0.0

n41_FCC_HPUE Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				50502	51898	53000		
100	PV2 BPSK	1	1	2435	2437	2434		
100	PV2 BPSK	1	137	2382	2381	2356	25.5	0.0
100	PV2 BPSK	1	271	2410	2413	2374		
100	PV2 BPSK	135	0	2382	2382	2332	25.0	0.0
100	PV2 BPSK	135	66	2387	2403	2349	25.0	0.0
100	PV2 BPSK	135	138	2344	2352	2324	25.0	0.0
100	PV2 BPSK	270	0	2347	2348	2326		
100	QPSK	1	1	2435	2435	2418		
100	QPSK	1	137	2385	2402	2363	25.5	0.0
100	QPSK	1	271	2423	2424	2395		
100	QPSK	135	0	2383	2383	2333	25.5	0.0
100	QPSK	135	66	2387	2404	2350		
100	QPSK	135	138	2350	2352	2347		
100	QPSK	270	0	2388	2391	2363	24.5	1.0
100	16QAM	1	1	2441	2446	2411	24.5	1.0
100	64QAM	1	1	2135	2177	2135	23.0	2.5
100	256QAM	1	1	1937	1938	1971	21.0	4.5
Channel								
Frequency (MHz)				50500	51896	53000		
50	QPSK	1	1	2438	2437	2414	25.0	0.0
Channel				50502	51898	53098		
80	QPSK	1	1	2382	2392	2349	25.0	0.0
Channel				50502	51898	53100		
70	QPSK	1	1	2438	2440	2410	25.5	0.0
Channel				50500	51898	53196		
60	QPSK	1	1	2438	2440	2404	25.5	0.0
Channel				50504	51898	53096		
50	QPSK	1	1	2438	2438	2413	25.5	0.0
Channel				50500	51898	53000		
40	QPSK	1	1	2438	2438	2404	25.0	0.0
Channel				50500	51898	53096		
30	QPSK	1	1	2438	2439	2413	25.5	0.0
Channel				50104	51898	53098		
20	QPSK	1	1	2441	2437	2402	25.5	0.0



n41_FCC Ant 6

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Mid Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2562.01	2599.99	2638		
100	P1/2 BPSK	1	1	21.43	21.43	21.45		
100	P1/2 BPSK	1	137	21.27	21.39	21.26	22.5	0.0
100	P1/2 BPSK	1	271	21.24	21.29	21.17		
100	P1/2 BPSK	135	0	21.23	21.38	21.32	22.5	0.0
100	P1/2 BPSK	135	69	21.35	21.37	21.32	22.5	0.0
100	P1/2 BPSK	135	135	21.15	21.24	21.12	22.5	0.0
100	P1/2 BPSK	270	0	21.31	21.34	21.21		
100	QPSK	1	1	21.45	21.50	21.31		
100	QPSK	1	137	21.21	21.28	21.25	22.5	0.0
100	QPSK	1	271	21.25	21.24	21.17		
100	QPSK	135	0	21.13	21.27	21.23	22.5	0.0
100	QPSK	135	69	21.30	21.41	21.24		
100	QPSK	135	135	21.11	21.22	21.16	22.5	0.0
100	QPSK	270	0	21.28	21.37	21.22	22.5	0.0
100	HQAM	1	1	21.42	21.44	21.43	22.5	0.0
100	HQAM	1	1	21.35	21.46	21.42	22.5	0.0
100	256QAM	1	1	19.81	19.88	19.87	21.0	1.5
Channel								
Frequency (MHz)				5020.00	5100.00	5200.00		
50	QPSK	1	1	21.82	21.47	21.19	22.5	0.0
Channel								
Frequency (MHz)				5120.04	5189.96	5259.96		
80	QPSK	1	1	21.33	21.44	21.23	22.5	0.0
Channel								
Frequency (MHz)				5182.02	5189.98	5310.00		
70	QPSK	1	1	21.33	21.38	21.19	24.5	0.0
Channel								
Frequency (MHz)				5300.00	5189.98	5319.96		
60	QPSK	1	1	21.31	21.42	21.15	22.5	0.0
Channel								
Frequency (MHz)				5420.04	5189.96	5459.96		
50	QPSK	1	1	21.23	21.37	21.15	22.5	0.0
Channel								
Frequency (MHz)				5500.00	5110.00	5300.00		
40	QPSK	1	1	21.24	21.43	21.17	22.5	0.0
Channel								
Frequency (MHz)				5600.00	5110.00	5499.96		
30	QPSK	1	1	21.11	21.29	21.25	22.5	0.0
Channel								
Frequency (MHz)				5710.04	5189.96	5399.96		
20	QPSK	1	1	21.31	21.41	21.29	22.5	0.0

n41_FCC_HPUE Ant 6

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Mid Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2441.01	2478.99	2518		
100	P1/2 BPSK	1	1	24.40	24.53	24.53		
100	P1/2 BPSK	1	137	24.33	24.34	24.32	25.5	0.0
100	P1/2 BPSK	1	271	24.22	24.31	24.23		
100	P1/2 BPSK	135	0	23.79	23.89	23.79	25.0	0.0
100	P1/2 BPSK	135	69	24.25	24.39	24.26	25.5	0.0
100	P1/2 BPSK	135	135	23.02	23.77	23.65	25.0	0.5
100	P1/2 BPSK	270	0	23.76	23.84	23.75		
100	QPSK	1	1	24.06	24.05	24.43		
100	QPSK	1	137	24.22	24.31	24.21	25.5	0.0
100	QPSK	1	271	24.07	24.16	24.02		
100	QPSK	135	0	23.00	23.92	23.92	25.5	0.0
100	QPSK	135	69	24.22	24.33	24.18		
100	QPSK	135	135	23.06	23.20	23.12	25.5	0.0
100	QPSK	270	0	23.14	23.23	23.25	24.5	1.0
100	16QAM	1	1	21.89	23.72	23.70	24.5	1.0
100	64QAM	1	1	21.87	23.05	21.85	23.0	2.5
100	256QAM	1	1	19.87	19.88	19.85	21.0	4.5
Channel								
Frequency (MHz)				5020.00	5189.96	5299.96		
50	QPSK	1	1	24.38	24.40	24.40	25.0	0.0
Channel								
Frequency (MHz)				5120.04	5189.96	5299.96		
80	QPSK	1	1	24.39	24.43	24.42	25.5	0.0
Channel								
Frequency (MHz)				5200.00	5189.98	5319.96		
70	QPSK	1	1	24.43	24.47	24.40	25.5	0.0
Channel								
Frequency (MHz)				5300.00	5189.98	5319.96		
60	QPSK	1	1	24.32	24.48	24.40	25.5	0.0
Channel								
Frequency (MHz)				5400.04	5189.96	5409.96		
80	QPSK	1	1	24.39	24.46	24.37	25.5	0.0
Channel								
Frequency (MHz)				5500.00	5110.00	5300.00		
40	QPSK	1	1	24.38	24.51	24.32	25.0	0.0
Channel								
Frequency (MHz)				5600.00	5110.00	5499.96		
30	QPSK	1	1	24.17	24.43	24.33	25.5	0.0
Channel								
Frequency (MHz)				5710.04	5189.96	5399.96		
20	QPSK	1	1	24.44	24.53	24.41	25.5	0.0



n41_FCC Ant 9

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				2582.01	5164.02	7746.03		
100	PV2 BPSK	1	1	18.75	18.52	18.27		
100	PV2 BPSK	1	137	18.77	18.55	18.33	20.0	0.0
100	PV2 BPSK	1	271	18.83	18.64	18.47		
100	PV2 BPSK	135	0	18.82	18.63	18.54	20.0	0.0
100	PV2 BPSK	135	69	18.85	18.61	18.33	20.0	0.0
100	PV2 BPSK	135	138	18.82	18.59	18.77	20.0	0.0
100	PV2 BPSK	270	0	18.85	18.63	18.76		
100	QPSK	1	1	18.83	18.58	18.31		
100	QPSK	1	137	18.83	18.61	18.86	20.0	0.0
100	QPSK	1	271	18.84	18.96	18.92		
100	QPSK	135	0	18.93	18.92	18.78	20.0	0.0
100	QPSK	135	69	19.05	19.05	19.01		
100	QPSK	135	138	19.01	19.03	18.94		
100	QPSK	270	0	18.89	18.92	18.78	20.0	0.0
100	HQAM	1	1	18.85	18.94	18.94	20.0	0.0
100	HQAM	1	1	18.82	18.88	18.73	20.0	0.0
100	256QAM	1	1	18.74	18.85	18.75	20.0	0.0
Channel								
Frequency (MHz)				5263.01	10526.02	15789.03		
50	QPSK	1	1	18.92	18.91	18.94	20.0	0.0
Channel				5263.02	10526.04	15789.06		
Frequency (MHz)				2582.02	5164.04	7746.06		
80	QPSK	1	1	18.72	18.55	18.27	20.0	0.0
Channel								
Frequency (MHz)				5164.01	10328.02	15536.03		
70	QPSK	1	1	18.91	18.92	18.88	20.0	0.0
Channel				5164.03	10328.06	15536.06		
Frequency (MHz)				1876	3752	5628		
60	QPSK	1	1	18.76	18.64	18.81	20.0	0.0
Channel				1876.04	3752.08	5628.12		
Frequency (MHz)				5263.03	10526.06	15789.09		
50	QPSK	1	1	18.83	18.90	18.95	20.0	0.0
Channel								
Frequency (MHz)				2582.01	5164.02	7746.03		
40	QPSK	1	1	18.87	18.94	18.92	20.0	0.0
Channel				2582.02	5164.04	7746.06		
Frequency (MHz)				2313	4626.02	6939.03		
30	QPSK	1	1	18.82	18.92	18.96	20.0	0.0
Channel				2313.04	4626.08	6939.12		
Frequency (MHz)				5263.04	10526.08	15789.12		
20	QPSK	1	1	18.91	18.94	18.96	20.0	0.0

n41_FCC_HPUE Ant 9

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				2541.01	5082.02	7623.03		
100	PV2 BPSK	1	1	18.85	18.92	18.92		
100	PV2 BPSK	1	137	18.77	18.55	18.53	20.0	0.0
100	PV2 BPSK	1	271	18.83	18.64	18.87		
100	PV2 BPSK	135	0	18.82	18.63	18.54	20.0	0.0
100	PV2 BPSK	135	69	18.85	18.61	18.33	20.0	0.0
100	PV2 BPSK	135	138	18.82	18.59	18.77	20.0	0.0
100	PV2 BPSK	270	0	18.85	18.63	18.76		
100	QPSK	1	1	18.83	18.58	18.31		
100	QPSK	1	137	18.83	18.61	18.86	20.0	0.0
100	QPSK	1	271	18.84	18.96	18.92		
100	QPSK	135	0	18.93	18.92	18.78	20.0	0.0
100	QPSK	135	69	19.05	19.05	19.01		
100	QPSK	135	138	19.01	19.03	18.94		
100	QPSK	270	0	18.89	18.92	18.78	20.0	0.0
100	HQAM	1	1	18.85	18.94	18.94	20.0	0.0
100	HQAM	1	1	18.82	18.88	18.73	20.0	0.0
100	256QAM	1	1	18.74	18.85	18.75	20.0	0.0
Channel								
Frequency (MHz)				5082.01	10164.02	15246.03		
50	QPSK	1	1	18.76	18.91	18.84	20.0	0.0
Channel				5082.02	10164.04	15246.06		
Frequency (MHz)				2541.02	5082.04	7623.06		
80	QPSK	1	1	18.72	18.93	18.87	20.0	0.0
Channel								
Frequency (MHz)				5082.01	10164.02	15246.03		
70	QPSK	1	1	18.91	18.92	18.88	20.0	0.0
Channel				5082.03	10164.06	15246.06		
Frequency (MHz)				1876	3752	5628		
60	QPSK	1	1	18.76	18.64	18.81	20.0	0.0
Channel				1876.04	3752.08	5628.12		
Frequency (MHz)				5082.04	10164.08	15246.12		
50	QPSK	1	1	18.83	18.90	18.95	20.0	0.0
Channel								
Frequency (MHz)				2541.01	5082.02	7623.03		
40	QPSK	1	1	18.87	18.94	18.92	20.0	0.0
Channel				2541.02	5082.04	7623.06		
Frequency (MHz)				2313	4626.02	6939.03		
30	QPSK	1	1	18.82	18.92	18.96	20.0	0.0
Channel				2313.04	4626.08	6939.12		
Frequency (MHz)				5082.05	10164.10	15246.15		
20	QPSK	1	1	18.91	18.94	18.96	20.0	0.0



n48_FCC Ant 2

Channel	Power Low Ch. Freq.	Power MidCh. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)			
Channel	63800	64166	64532					
Frequency (MHz)	22.55	22.55	22.57					
40	PIQ BPSK	1	1	24.0	0.0			
40	PIQ BPSK	1	53	22.71	22.89	22.79		
40	PIQ BPSK	1	104	22.78	22.87	22.79		
40	PIQ BPSK	50	0	22.87	22.77	22.86	24.0	0.0
40	PIQ BPSK	50	28	22.58	22.71	22.63	24.0	0.0
40	PIQ BPSK	50	56	22.54	22.73	22.66	24.0	0.0
40	PIQ BPSK	100	0	22.52	22.68	22.48		
40	QPSK	1	1	22.68	22.80	22.76		
40	QPSK	1	53	22.72	22.90	22.78	24.0	0.0
40	QPSK	1	104	22.64	22.83	22.85		
40	QPSK	50	0	22.65	22.80	22.81		
40	QPSK	50	28	22.75	22.88	22.71	24.0	0.0
40	QPSK	50	56	22.69	22.82	22.66		
40	QPSK	100	0	22.58	22.70	22.54	24.0	0.0
40	QPSK	1	1	22.52	22.58	22.49		
40	8QAM	1	1	22.51	22.50	22.10	21.0	1.0
40	25QAM	1	1	19.60	19.85	19.76	21.0	3.0
Channel	63900	64166	64532	Tune-up limit (dBm)	MPR (dB)			
30	QPSK	1	1	22.41	22.59	22.52	24.0	0.0
Channel	63934	64166	64532	Tune-up limit (dBm)	MPR (dB)			
Frequency (MHz)	22.67	22.67	22.69					
20	QPSK	1	1	22.73	22.84	22.84	24.0	0.0
Channel	63700	64166	64532	Tune-up limit (dBm)	MPR (dB)			
Frequency (MHz)	22.59	22.59	22.61					
10	QPSK	1	1	22.68	22.89	22.77	24.0	0.0

n48_FCC Ant 5

Channel	Power Low Ch. Freq.	Power MidCh. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)			
Channel	63800	64166	64532					
Frequency (MHz)	21.72	21.83	21.81					
40	PIQ BPSK	1	1	21.72	21.83	21.81		
40	PIQ BPSK	1	53	21.88	21.71	21.68	23.0	0.0
40	PIQ BPSK	1	104	21.60	21.78	21.71		
40	PIQ BPSK	50	0	21.59	21.70	21.62	22.5	0.0
40	PIQ BPSK	50	28	21.51	21.80	21.59	23.0	0.0
40	PIQ BPSK	50	56	21.35	21.38	21.27	22.5	0.0
40	PIQ BPSK	100	0	21.45	21.49	21.42		
40	QPSK	1	1	21.83	21.92	21.87		
40	QPSK	1	53	21.83	21.75	21.69	23.0	0.0
40	QPSK	1	104	21.68	21.71	21.66		
40	QPSK	50	0	20.50	20.61	20.52		
40	QPSK	50	28	21.34	21.61	21.53	23.0	0.0
40	QPSK	50	56	20.45	20.50	20.45		
40	QPSK	100	0	20.50	20.57	20.48	22.0	1.0
40	8QAM	1	1	20.48	20.59	20.49	20.0	1.0
40	25QAM	1	1	18.97	19.02	18.91	20.5	2.5
40	25QAM	1	1	17.81	17.81	17.50	18.5	4.5
Channel	63900	64166	64532	Tune-up limit (dBm)	MPR (dB)			
30	QPSK	1	1	21.74	21.89	21.80	23.0	1.0
Channel	63934	64166	64532	Tune-up limit (dBm)	MPR (dB)			
Frequency (MHz)	21.84	21.84	21.86					
20	QPSK	1	1	21.81	21.81	21.82	23.0	0.0
Channel	63700	64166	64532	Tune-up limit (dBm)	MPR (dB)			
Frequency (MHz)	21.68	21.68	21.69					
10	QPSK	1	1	21.79	21.81	21.85	23.0	0.0



n48_FCC Ant 8								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				63800	64166	64532		
40	PIQ BPSK	1	1	16.25	16.39	16.53	17.5	0.0
40	PIQ BPSK	1	53	16.17	16.07	16.36		
40	PIQ BPSK	1	104	16.11	16.20	16.27		
40	PIQ BPSK	50	0	16.08	16.13	16.25	17.5	0.0
40	PIQ BPSK	50	28	16.26	16.17	16.21	17.5	0.0
40	PIQ BPSK	50	56	16.33	16.26	16.35	17.5	0.0
40	PIQ BPSK	100	0	16.09	16.09	16.03		
40	QPSK	1	1	16.35	16.60	16.33		
40	QPSK	1	53	16.22	16.25	16.22	17.5	0.0
40	QPSK	1	104	16.15	16.30	16.50		
40	QPSK	50	0	16.07	16.20	16.17		
40	QPSK	50	28	16.14	16.25	16.22	17.5	0.0
40	QPSK	50	56	16.11	16.19	16.16		
40	QPSK	100	0	16.18	16.24	16.20	17.5	0.0
40	NSAM	1	1	16.22	16.22	16.22	17.5	0.0
40	NSAM	1	1	16.33	16.28	16.20	17.5	0.0
40	25GAM	1	1	16.07	16.16	16.36	17.5	0.0
Channel								
Frequency (MHz)				63900	64166	64532	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	16.19	16.23	16.24	17.5	0.0
Channel								
Frequency (MHz)				63900	64166	64532	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	16.22	16.28	16.13	17.5	0.0
Channel								
Frequency (MHz)				63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	16.34	16.25	16.20	17.5	0.0

n48_FCC Ant 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				63600	64166	64532		
40	PIQ BPSK	1	1	13.75	13.65	13.53		
40	PIQ BPSK	1	53	13.79	13.66	13.61		
40	PIQ BPSK	1	104	13.83	13.68	13.68	14.5	0.0
40	PIQ BPSK	50	0	13.80	13.78	13.53	14.5	0.0
40	PIQ BPSK	50	28	13.65	13.64	13.64	14.5	0.0
40	PIQ BPSK	50	56	13.60	13.65	13.55	14.5	0.0
40	PIQ BPSK	100	0	13.76	13.78	13.64		
40	QPSK	1	1	13.87	13.85	13.72		
40	QPSK	1	53	13.85	13.75	13.70	14.5	0.0
40	QPSK	1	104	13.79	13.75	13.50		
40	QPSK	50	0	13.87	13.63	13.50		
40	QPSK	50	28	13.81	13.83	13.77	14.5	0.0
40	QPSK	50	56	13.84	13.73	13.55		
40	QPSK	100	0	13.72	13.75	13.53	14.5	0.0
40	NSAM	1	1	13.58	13.57	13.60	14.5	0.0
40	NSAM	1	1	13.60	13.55	13.55	14.5	0.0
40	25GAM	1	1	13.76	13.52	13.70	14.5	0.0
Channel								
Frequency (MHz)				63600	64166	64532	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	13.74	13.72	13.45	14.5	0.0
Channel								
Frequency (MHz)				63600	64166	64532	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	13.87	13.80	13.70	14.5	0.0
Channel								
Frequency (MHz)				63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	13.66	13.60	13.50	14.5	0.0



Part270 n77 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000		
Channel							
Frequency (MHz)							
100	PIQ BPSK	1	1	23.38	22.92	22.92	0.0
100	PIQ BPSK	1	137	23.24	22.88	22.82	24.0
100	PIQ BPSK	1	271	23.17	22.80	22.70	24.0
100	PIQ BPSK	135	0	23.28	22.86	22.75	24.0
100	PIQ BPSK	135	69	23.25	22.86	22.78	24.0
100	PIQ BPSK	135	134	23.25	22.79	22.64	24.0
100	PIQ BPSK	270	0	23.27	22.86	22.80	24.0
100	QPSK	1	1	23.41	22.91	22.85	0.0
100	QPSK	1	137	23.38	22.88	22.82	24.0
100	QPSK	1	271	23.29	22.86	22.81	24.0
100	QPSK	135	0	23.35	22.89	22.80	24.0
100	QPSK	135	69	23.31	22.91	22.84	24.0
100	QPSK	135	134	23.25	22.81	22.70	24.0
100	QPSK	270	0	23.30	22.90	22.83	24.0
100	NSAM	1	1	23.32	22.80	22.74	0.0
100	NSAM	1	1	23.25	22.90	22.75	0.0
100	25GAM	1	1	23.29	21.67	21.59	22.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	23.31	22.86	22.77	24.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	23.27	22.88	22.82	24.0
Channel							
Frequency (MHz)							
75	QPSK	1	1	23.28	22.96	22.75	24.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	23.38	22.84	22.89	24.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	23.33	22.95	22.78	24.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	23.29	22.84	22.78	24.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	23.34	22.79	22.83	24.0
Channel							
Frequency (MHz)							
25	QPSK	1	1	23.25	22.89	22.77	24.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	23.39	22.82	22.86	24.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	23.33	22.87	22.88	24.0

Part270 n77 HPUE Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	25.20	25.93	25.52	27.0	0.0
100	PIQ BPSK	1	137	26.08	25.92	25.85	27.0	0.0
100	PIQ BPSK	1	271	25.90	25.97	25.88	27.0	0.0
100	PIQ BPSK	135	0	25.17	25.72	25.72	26.5	0.5
100	PIQ BPSK	135	69	25.12	25.88	25.77	27.0	0.0
100	PIQ BPSK	135	134	25.02	25.75	25.59	26.5	0.5
100	PIQ BPSK	270	0	25.14	25.73	25.58	27.0	0.0
100	QPSK	1	1	25.34	25.93	25.55	27.0	0.0
100	QPSK	1	137	25.29	25.93	25.58	27.0	0.0
100	QPSK	1	271	25.01	25.87	25.60	27.0	0.0
100	QPSK	135	0	25.55	25.90	25.50	27.0	0.0
100	QPSK	135	69	25.28	25.43	25.20	27.0	0.0
100	QPSK	135	134	25.34	25.00	25.00	27.0	0.0
100	QPSK	270	0	25.33	24.46	24.31	26.0	1.0
100	NSAM	1	1	25.36	24.75	24.04	26.0	1.0
100	NSAM	1	1	25.02	25.83	25.55	24.5	2.5
100	25GAM	1	1	22.20	21.87	21.65	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	25.17	25.86	25.81	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.14	25.85	25.82	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	25.14	25.87	25.91	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.20	25.83	25.83	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	25.25	25.94	25.84	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	25.16	25.91	25.89	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	25.18	25.91	25.84	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.16	25.86	25.84	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	25.25	25.96	25.79	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.22	25.92	25.89	27.0	0.0



Part27Q n77 Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	23.26	23.36	23.41	24.0	0.0
100	PIQ BPSK	1	137	23.36	23.36	23.36	24.0	0.0
100	PIQ BPSK	1	271	23.33	23.33	23.33	24.0	0.0
100	PIQ BPSK	135	0	23.38	23.38	23.38	24.0	0.0
100	PIQ BPSK	135	69	23.34	23.34	23.34	24.0	0.0
100	PIQ BPSK	135	138	23.32	23.32	23.32	24.0	0.0
100	PIQ BPSK	270	0	23.36	23.36	23.36	24.0	0.0
100	QPSK	1	1	23.20	23.20	23.20	24.0	0.0
100	QPSK	1	137	23.41	23.41	23.41	24.0	0.0
100	QPSK	1	271	23.46	23.46	23.46	24.0	0.0
100	QPSK	135	0	23.33	23.33	23.33	24.0	0.0
100	QPSK	135	69	23.34	23.34	23.34	24.0	0.0
100	QPSK	135	138	23.29	23.29	23.29	24.0	0.0
100	QPSK	270	0	23.32	23.32	23.32	24.0	0.0
100	16QAM	1	1	23.36	23.36	23.36	24.0	0.0
100	16QAM	1	1	23.45	23.45	23.45	24.0	0.0
100	256QAM	1	1	22.12	22.12	22.12	22.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	33300	33330	33366	33396	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	34950	34980	35010	35040	MPR
Channel								
Frequency (MHz)								
75	QPSK	1	1	63234	63332	63432	63532	MPR
Channel								
Frequency (MHz)								
60	QPSK	1	1	83200	83332	83466	83600	MPR
Channel								
Frequency (MHz)								
50	QPSK	1	1	3476	3498	3521	3543	MPR
Channel								
Frequency (MHz)								
40	QPSK	1	1	3470	3498	3526	3554	MPR
Channel								
Frequency (MHz)								
30	QPSK	1	1	63698	63832	63966	64100	MPR
Channel								
Frequency (MHz)								
20	QPSK	1	1	3390	3408	3426	3444	MPR
Channel								
Frequency (MHz)								
15	QPSK	1	1	3450	3468	3486	3504	MPR
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.35	23.34	23.41	24.0	0.0

Part27Q n77 HPUE Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	25.23	25.23	25.23	27.0	0.0
100	PIQ BPSK	1	137	25.36	25.36	25.36	27.0	0.0
100	PIQ BPSK	1	271	25.75	25.75	25.75	27.0	0.0
100	PIQ BPSK	135	0	25.17	25.17	25.17	26.5	0.5
100	PIQ BPSK	135	69	25.20	25.20	25.20	27.0	0.0
100	PIQ BPSK	135	138	25.61	25.61	25.61	26.5	0.5
100	PIQ BPSK	270	0	25.11	25.11	25.11	27.0	0.0
100	QPSK	1	1	25.43	25.43	25.43	27.0	0.0
100	QPSK	1	137	25.59	25.59	25.59	27.0	0.0
100	QPSK	1	271	25.00	25.00	25.00	27.0	0.0
100	QPSK	135	0	25.64	25.64	25.64	27.0	0.0
100	QPSK	135	69	25.82	25.82	25.82	27.0	0.0
100	QPSK	135	138	25.20	25.20	25.20	26.8	1.0
100	QPSK	270	0	25.03	25.03	25.03	26.8	1.0
100	16QAM	1	1	25.86	25.86	25.86	26.0	1.0
100	16QAM	1	1	25.25	25.25	25.25	25.5	1.5
100	256QAM	1	1	22.12	22.12	22.12	22.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	33300	33332	33366	33396	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	34950	34980	35010	35040	MPR
Channel								
Frequency (MHz)								
70	QPSK	1	1	63234	63332	63432	63532	MPR
Channel								
Frequency (MHz)								
60	QPSK	1	1	83200	83332	83466	83600	MPR
Channel								
Frequency (MHz)								
50	QPSK	1	1	3476	3498	3521	3543	MPR
Channel								
Frequency (MHz)								
40	QPSK	1	1	3470	3498	3526	3554	MPR
Channel								
Frequency (MHz)								
30	QPSK	1	1	63698	63832	63966	64100	MPR
Channel								
Frequency (MHz)								
20	QPSK	1	1	3390	3408	3426	3444	MPR
Channel								
Frequency (MHz)								
15	QPSK	1	1	3450	3468	3486	3504	MPR
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.26	25.26	25.24	27.0	0.0



Part270 n77 Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000		
Channel							
Frequency (MHz)							
100	PIQ BPSK	1	1	22.58	22.58	22.58	0.0
100	PIQ BPSK	1	137	22.55	22.63	22.56	0.0
100	PIQ BPSK	1	211	22.60	22.64	22.57	0.0
100	PIQ BPSK	135	0	22.58	22.58	22.58	0.0
100	PIQ BPSK	135	69	22.57	22.43	22.43	0.0
100	PIQ BPSK	135	138	22.51	22.59	22.48	0.0
100	PIQ BPSK	270	0	22.53	22.58	22.60	0.0
100	QPSK	1	1	22.53	22.58	22.63	0.0
100	QPSK	1	137	22.34	22.39	22.82	0.0
100	QPSK	1	211	22.26	22.58	22.15	0.0
100	QPSK	135	0	22.35	22.14	22.11	0.0
100	QPSK	135	69	22.65	22.59	22.35	0.0
100	QPSK	135	138	22.35	22.12	22.00	0.0
100	QPSK	270	0	22.71	22.81	22.58	0.0
100	NSAM	1	1	22.24	22.15	22.21	0.0
100	NSAM	1	1	21.51	21.00	20.95	1.5
100	25GAM	1	1	19.83	19.45	19.72	3.5
Channel							
Frequency (MHz)							
50	QPSK	1	1	22.43	22.59	22.62	0.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	22.40	22.57	22.59	0.0
Channel							
Frequency (MHz)							
70	QPSK	1	1	22.63	22.63	22.59	0.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	22.65	22.65	22.63	0.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	22.61	22.68	22.62	0.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	22.62	22.63	22.62	0.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	22.61	22.63	22.71	0.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	22.65	22.59	22.60	0.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	22.62	22.63	22.62	0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	22.67	22.72	22.66	0.0

Part270 n77 HPUE Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	23.03	23.45	23.30	0.0	0.0
100	PIQ BPSK	1	137	23.87	23.64	23.54	25.0	0.0
100	PIQ BPSK	1	211	23.85	23.68	23.60	25.0	0.0
100	PIQ BPSK	135	0	23.70	23.42	23.38	24.5	0.0
100	PIQ BPSK	135	69	23.72	23.41	23.42	25.0	0.0
100	PIQ BPSK	135	138	23.76	23.45	23.41	24.5	0.0
100	PIQ BPSK	270	0	23.06	22.77	22.73	24.5	0.0
100	QPSK	1	1	23.94	23.70	23.68	25.0	0.0
100	QPSK	1	137	23.87	23.66	23.61	25.0	0.0
100	QPSK	1	211	23.75	23.43	23.48	25.0	0.0
100	QPSK	135	0	23.54	23.03	23.02	25.0	0.0
100	QPSK	135	69	23.78	23.47	23.50	25.0	0.0
100	QPSK	135	138	23.07	23.19	23.20	24.0	0.0
100	QPSK	270	0	23.16	22.95	22.91	24.0	0.0
100	NSAM	1	1	22.94	22.67	22.70	24.0	0.0
100	NSAM	1	1	21.51	21.00	20.95	22.5	0.0
100	25GAM	1	1	19.83	19.45	19.72	20.5	4.5
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.89	23.70	23.52	25.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.95	23.82	23.63	25.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.90	23.94	23.52	25.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.88	23.89	23.66	25.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.85	23.63	23.52	25.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.80	23.00	23.82	25.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.91	23.87	23.64	25.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.94	23.84	23.56	25.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.87	23.35	23.61	25.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.88	23.68	23.64	25.0	0.0



Part27Q n77 Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	22.77	22.90	23.03	24.0	0.0
100	PIQ BPSK	1	137	22.50	22.63	22.76	24.0	0.0
100	PIQ BPSK	1	271	22.23	22.36	22.49	24.0	0.0
100	PIQ BPSK	135	0	22.80	22.93	23.06	24.0	0.0
100	PIQ BPSK	135	69	22.46	22.59	22.72	24.0	0.0
100	PIQ BPSK	135	138	22.31	22.44	22.57	24.0	0.0
100	PIQ BPSK	270	0	22.48	22.61	22.74	24.0	0.0
100	QPSK	1	1	22.81	22.94	23.07	24.0	0.0
100	QPSK	1	137	22.52	22.65	22.78	24.0	0.0
100	QPSK	1	271	22.21	22.34	22.47	24.0	0.0
100	QPSK	135	0	22.89	23.02	23.15	24.0	0.0
100	QPSK	135	69	22.62	22.75	22.88	24.0	0.0
100	QPSK	135	138	22.28	22.41	22.54	24.0	0.0
100	QPSK	270	0	22.52	22.65	22.78	24.0	0.0
100	16QAM	1	1	22.76	22.89	23.02	24.0	0.0
100	16QAM	1	1	21.35	21.48	21.61	21.5	1.5
100	256QAM	1	1	20.59	20.72	20.85	21.5	2.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.67	22.78	22.88	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.67	22.68	22.69	24.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	22.67	22.70	22.73	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.68	22.74	22.74	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.65	22.80	22.77	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.74	22.79	22.83	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.77	22.78	22.77	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.75	22.80	22.78	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.67	22.80	22.78	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.73	22.74	22.71	24.0	0.0

Part27Q n77 HPUE Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	24.13	24.01	23.90	25.0	0.0
100	PIQ BPSK	1	137	24.01	23.90	23.78	25.0	0.0
100	PIQ BPSK	1	271	23.89	23.78	23.66	25.0	0.0
100	PIQ BPSK	135	0	23.78	23.66	23.54	25.0	0.0
100	PIQ BPSK	135	69	23.66	23.54	23.42	25.0	0.0
100	PIQ BPSK	135	138	23.54	23.42	23.30	25.0	0.0
100	PIQ BPSK	270	0	23.42	23.30	23.18	25.0	0.0
100	QPSK	1	1	23.20	23.08	22.96	25.0	0.0
100	QPSK	1	137	23.08	22.96	22.84	25.0	0.0
100	QPSK	1	271	22.96	22.84	22.72	25.0	0.0
100	QPSK	135	0	23.08	22.96	22.84	25.0	0.0
100	QPSK	135	69	22.91	22.79	22.67	25.0	0.0
100	QPSK	135	138	22.84	22.72	22.60	25.0	0.0
100	QPSK	270	0	22.72	22.60	22.48	25.0	0.0
100	16QAM	1	1	22.96	23.08	23.20	24.0	1.0
100	16QAM	1	1	21.65	21.77	21.89	21.5	1.5
100	256QAM	1	1	20.82	20.94	21.06	21.5	2.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.86	24.01	23.80	25.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.02	23.95	23.82	25.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	24.00	23.95	23.89	25.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.00	23.90	23.78	25.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.00	23.87	23.75	25.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	24.00	23.87	23.77	25.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	24.00	23.91	23.81	25.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.96	23.95	23.77	25.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	24.04	24.01	23.78	25.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.98	23.93	23.76	25.0	0.0



Part270 n77 Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.94	15.73	15.93	17.0	0.0
100	PIQ BPSK	1	137	15.96	15.93	15.82		
100	PIQ BPSK	1	211	15.85	15.91	15.76		
100	PIQ BPSK	135	0	15.97	15.76	15.86		
100	PIQ BPSK	135	69	15.92	15.71	15.79	17.0	0.0
100	PIQ BPSK	135	134	15.93	15.99	15.91	17.0	0.0
100	PIQ BPSK	270	0	16.05	15.76	15.82	17.0	0.0
100	QPSK	1	1	15.95	15.94	15.95		
100	QPSK	1	137	15.93	15.77	15.85		
100	QPSK	1	271	15.92	15.77	15.78		
100	QPSK	135	0	15.92	15.94	15.93	17.0	0.0
100	QPSK	135	69	16.05	15.91	15.95		
100	QPSK	135	134	15.93	15.99	15.91		
100	QPSK	270	0	15.94	15.91	15.77		
100	8QAM	1	1	15.96	15.92	15.79	17.0	0.0
100	8QAM	1	1	15.75	15.75	15.95	17.0	0.0
100	25QAM	1	1	15.95	15.85	15.84	17.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.97	15.96	15.88	17.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.92	15.93	15.93	17.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	16.00	15.90	15.92	17.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	16.08	15.92	15.81	17.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.97	15.92	15.80	17.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	16.03	15.97	15.83	17.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.99	15.92	15.85	17.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.93	15.89	15.91	17.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.99	15.97	15.89	17.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.94	15.98	15.83	17.0	0.0

Part270 n77 HPUE Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.94	15.73	15.93	17.0	0.0
100	PIQ BPSK	1	137	15.96	15.93	15.82		
100	PIQ BPSK	1	211	15.95	15.91	15.76		
100	PIQ BPSK	135	0	15.97	15.76	15.86		
100	PIQ BPSK	135	69	15.92	15.71	15.79	17.0	0.0
100	PIQ BPSK	135	134	15.93	15.99	15.91	17.0	0.0
100	PIQ BPSK	270	0	16.05	15.76	15.82	17.0	0.0
100	QPSK	1	1	15.95	15.94	15.95		
100	QPSK	1	137	15.93	15.77	15.85		
100	QPSK	1	271	15.92	15.77	15.78		
100	QPSK	135	0	15.92	15.94	15.93	17.0	0.0
100	QPSK	135	69	16.05	15.91	15.95		
100	QPSK	135	134	15.93	15.99	15.91		
100	QPSK	270	0	15.94	15.91	15.77		
100	8QAM	1	1	15.96	15.92	15.79	17.0	0.0
100	8QAM	1	1	15.75	15.75	15.95	17.0	0.0
100	25QAM	1	1	15.95	15.85	15.84	17.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.99	15.96	15.88	17.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.93	15.93	15.93	17.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	16.01	15.90	15.92	17.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	16.08	15.92	15.81	17.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.97	15.92	15.80	17.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	16.03	15.97	15.83	17.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.99	15.92	15.85	17.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.93	15.89	15.91	17.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.99	15.97	15.89	17.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.94	15.98	15.83	17.0	0.0



Part27Q n77 Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.33	15.82	15.82	17.0	0.0
100	PIQ BPSK	1	137	15.82	15.82	15.82	17.0	0.0
100	PIQ BPSK	1	271	15.87	15.87	15.87	17.0	0.0
100	PIQ BPSK	135	0	15.95	15.95	15.95	17.0	0.0
100	PIQ BPSK	135	69	15.87	15.87	15.87	17.0	0.0
100	PIQ BPSK	135	138	15.95	15.95	15.95	17.0	0.0
100	PIQ BPSK	270	0	15.71	15.71	15.71	17.0	0.0
100	QPSK	1	1	15.94	15.94	15.94	17.0	0.0
100	QPSK	1	137	15.98	15.98	15.98	17.0	0.0
100	QPSK	1	271	15.76	15.76	15.76	17.0	0.0
100	QPSK	135	0	15.75	15.75	15.75	17.0	0.0
100	QPSK	135	69	15.98	15.98	15.98	17.0	0.0
100	QPSK	135	138	15.78	15.78	15.78	17.0	0.0
100	QPSK	270	0	15.78	15.78	15.78	17.0	0.0
100	16QAM	1	1	15.84	15.84	15.84	17.0	0.0
100	64QAM	1	1	15.84	15.84	15.84	17.0	0.0
100	256QAM	1	1	15.88	15.88	15.88	17.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.91	15.91	15.91	17.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.92	15.92	15.94	17.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	15.93	15.93	15.95	17.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.99	15.98	15.94	17.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.92	15.99	15.93	17.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.98	15.93	15.87	17.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.93	15.91	15.94	17.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.95	15.91	15.99	17.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.94	15.90	15.91	17.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.88	15.92	15.98	17.0	0.0

Part27Q n77 HPUE Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	15.63	15.63	15.63	17.0	0.0
100	PIQ BPSK	1	137	15.87	15.87	15.87	17.0	0.0
100	PIQ BPSK	1	271	15.87	15.87	15.87	17.0	0.0
100	PIQ BPSK	135	0	15.55	15.55	15.55	17.0	0.0
100	PIQ BPSK	135	69	15.87	15.87	15.87	17.0	0.0
100	PIQ BPSK	135	138	15.85	15.85	15.85	17.0	0.0
100	PIQ BPSK	270	0	15.71	15.71	15.71	17.0	0.0
100	QPSK	1	1	15.84	15.84	15.84	17.0	0.0
100	QPSK	1	137	15.88	15.88	15.88	17.0	0.0
100	QPSK	1	271	15.76	15.76	15.76	17.0	0.0
100	QPSK	135	0	15.75	15.75	15.75	17.0	0.0
100	QPSK	135	69	15.98	15.98	15.98	17.0	0.0
100	QPSK	135	138	15.78	15.78	15.78	17.0	0.0
100	QPSK	270	0	15.78	15.78	15.78	17.0	0.0
100	16QAM	1	1	15.84	15.84	15.84	17.0	0.0
100	64QAM	1	1	15.84	15.84	15.84	17.0	0.0
100	256QAM	1	1	15.88	15.88	15.88	17.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.91	15.91	15.91	17.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.92	15.92	15.94	17.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	15.93	15.93	15.95	17.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.99	15.98	15.94	17.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.92	15.99	15.93	17.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.98	15.93	15.87	17.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.93	15.91	15.94	17.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.95	15.91	15.99	17.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.94	15.90	15.91	17.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.88	15.92	15.98	17.0	0.0



Part270 n77 Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	12.45	12.37	12.45	13.5	0.0
100	PIQ BPSK	1	137	12.43	12.32	12.28		
100	PIQ BPSK	1	211	12.39	12.37	12.33		
100	PIQ BPSK	135	0	12.48	12.27	12.30		
100	PIQ BPSK	135	69	12.40	12.29	12.25	13.5	0.0
100	PIQ BPSK	135	138	12.35	12.17	12.27	13.5	0.0
100	PIQ BPSK	270	0	12.32	12.22	12.20	13.5	0.0
100	QPSK	1	1	12.51	12.44	12.41	13.5	0.0
100	QPSK	1	137	12.35	12.17	12.30		
100	QPSK	1	211	12.40	12.30	12.28		
100	QPSK	135	0	12.45	12.34	12.30		
100	QPSK	135	69	12.48	12.38	12.34	13.5	0.0
100	QPSK	135	138	12.34	12.25	12.26	13.5	0.0
100	QPSK	270	0	12.45	12.36	12.27	13.5	0.0
100	8QAM	1	1	12.48	12.30	12.41	13.5	0.0
100	8QAM	1	1	12.42	12.29	12.30	13.5	0.0
100	25QAM	1	1	12.38	12.33	12.31	13.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	12.45	12.35	12.38	13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.47	12.38	12.39	13.5	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	12.46	12.37	12.44	13.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.44	12.37	12.44	13.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.41	12.35	12.43	13.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	12.39	12.41	12.41	13.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.40	12.34	12.43	13.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.47	12.42	12.42	13.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.39	12.33	12.46	13.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.45	12.29	12.39	13.5	0.0

Part270 n77 HPUE Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	12.45	12.37	12.45	13.5	0.0
100	PIQ BPSK	1	137	12.43	12.32	12.28		
100	PIQ BPSK	1	211	12.39	12.37	12.33		
100	PIQ BPSK	135	0	12.48	12.27	12.30		
100	PIQ BPSK	135	69	12.40	12.29	12.25	13.5	0.0
100	PIQ BPSK	135	138	12.35	12.17	12.27	13.5	0.0
100	PIQ BPSK	270	0	12.32	12.22	12.20	13.5	0.0
100	QPSK	1	1	12.51	12.44	12.41	13.5	0.0
100	QPSK	1	137	12.35	12.17	12.30		
100	QPSK	1	211	12.40	12.30	12.28		
100	QPSK	135	0	12.45	12.34	12.30		
100	QPSK	135	69	12.48	12.38	12.34	13.5	0.0
100	QPSK	135	138	12.34	12.25	12.26	13.5	0.0
100	QPSK	270	0	12.45	12.36	12.27	13.5	0.0
100	8QAM	1	1	12.48	12.30	12.41	13.5	0.0
100	8QAM	1	1	12.42	12.29	12.30	13.5	0.0
100	25QAM	1	1	12.38	12.33	12.31	13.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	12.45	12.35	12.38	13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.47	12.38	12.39	13.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	12.46	12.37	12.44	13.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.44	12.37	12.44	13.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.41	12.35	12.43	13.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	12.39	12.41	12.41	13.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.40	12.34	12.43	13.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.47	12.42	12.42	13.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.39	12.33	12.46	13.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.45	12.29	12.39	13.5	0.0



Part27Q n77 Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	12.33	12.43	12.53	13.5	0.0
100	PIQ BPSK	1	137	12.43	12.53	12.63	13.5	0.0
100	PIQ BPSK	1	271	12.53	12.63	12.73	13.5	0.0
100	PIQ BPSK	135	0	12.35	12.45	12.55	13.5	0.0
100	PIQ BPSK	135	69	12.45	12.55	12.65	13.5	0.0
100	PIQ BPSK	135	138	12.55	12.65	12.75	13.5	0.0
100	PIQ BPSK	270	0	12.29	12.39	12.49	13.5	0.0
100	QPSK	1	1	12.45	12.55	12.65	13.5	0.0
100	QPSK	1	137	12.35	12.45	12.55	13.5	0.0
100	QPSK	1	271	12.45	12.55	12.65	13.5	0.0
100	QPSK	135	0	12.39	12.49	12.59	13.5	0.0
100	QPSK	135	69	12.49	12.59	12.69	13.5	0.0
100	QPSK	135	138	12.59	12.69	12.79	13.5	0.0
100	QPSK	270	0	12.31	12.41	12.51	13.5	0.0
100	QPSK	270	69	12.41	12.51	12.61	13.5	0.0
100	QPSK	270	138	12.51	12.61	12.71	13.5	0.0
100	8QAM	1	1	12.36	12.46	12.56	13.5	0.0
100	8QAM	1	137	12.46	12.56	12.66	13.5	0.0
100	256QAM	1	1	12.43	12.53	12.63	13.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	12.27	12.34	12.44	13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.27	12.40	12.29	13.5	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	12.27	12.37	12.34	13.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.31	12.39	12.26	13.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.32	12.38	12.35	13.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	12.35	12.43	12.27	13.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.28	12.34	12.29	13.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.35	12.38	12.28	13.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.31	12.34	12.27	13.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.38	12.31	12.32	13.5	0.0

Part27Q n77 HPUE Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	12.33	12.43	12.53	13.5	0.0
100	PIQ BPSK	1	137	12.43	12.53	12.63	13.5	0.0
100	PIQ BPSK	1	271	12.53	12.63	12.73	13.5	0.0
100	PIQ BPSK	135	0	12.35	12.45	12.55	13.5	0.0
100	PIQ BPSK	135	69	12.45	12.55	12.65	13.5	0.0
100	PIQ BPSK	135	138	12.55	12.65	12.75	13.5	0.0
100	PIQ BPSK	270	0	12.29	12.39	12.49	13.5	0.0
100	QPSK	1	1	12.45	12.55	12.65	13.5	0.0
100	QPSK	1	137	12.35	12.45	12.55	13.5	0.0
100	QPSK	1	271	12.45	12.55	12.65	13.5	0.0
100	QPSK	135	0	12.39	12.49	12.59	13.5	0.0
100	QPSK	135	69	12.49	12.59	12.69	13.5	0.0
100	QPSK	135	138	12.59	12.69	12.79	13.5	0.0
100	QPSK	270	0	12.31	12.41	12.51	13.5	0.0
100	QPSK	270	69	12.41	12.51	12.61	13.5	0.0
100	QPSK	270	138	12.51	12.61	12.71	13.5	0.0
100	8QAM	1	1	12.36	12.46	12.56	13.5	0.0
100	8QAM	1	137	12.46	12.56	12.66	13.5	0.0
100	256QAM	1	1	12.43	12.53	12.63	13.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	12.29	12.34	12.44	13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.27	12.40	12.29	13.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	12.27	12.37	12.34	13.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.31	12.39	12.26	13.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.32	12.38	12.35	13.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	12.35	12.43	12.27	13.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.28	12.34	12.29	13.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.35	12.38	12.28	13.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.31	12.34	12.27	13.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.38	12.31	12.32	13.5	0.0



Part270 n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	22.35	22.36	22.37	24.0	0.0
100	PIQ BPSK	1	137	22.35	22.36	22.37	24.0	0.0
100	PIQ BPSK	1	271	22.35	22.36	22.37	24.0	0.0
100	PIQ BPSK	135	0	22.35	22.36	22.37	23.5	0.5
100	PIQ BPSK	135	69	22.35	22.36	22.37	24.0	0.0
100	PIQ BPSK	135	138	22.35	22.36	22.37	23.5	0.5
100	PIQ BPSK	270	0	22.35	22.36	22.37	23.5	0.5
100	QPSK	1	1	22.35	22.36	22.37	24.0	0.0
100	QPSK	1	137	22.35	22.36	22.37	24.0	0.0
100	QPSK	1	271	22.35	22.36	22.37	24.0	0.0
100	QPSK	135	0	22.35	22.36	22.37	24.0	0.0
100	QPSK	135	69	22.35	22.36	22.37	24.0	0.0
100	QPSK	135	138	22.35	22.36	22.37	23.5	0.5
100	QPSK	270	0	22.35	22.36	22.37	23.0	1.0
100	16QAM	1	1	22.35	22.36	22.37	23.0	1.0
100	64QAM	1	1	22.35	22.36	22.37	21.5	2.5
100	256QAM	1	1	18.25	18.25	18.25	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.35	22.35	22.34	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.33	22.32	22.31	24.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	22.33	22.31	22.28	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.28	22.24	22.11	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.30	22.35	22.23	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.30	22.29	22.18	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.27	22.22	22.09	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.33	22.30	22.08	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.37	22.35	22.38	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.35	22.33	22.32	24.0	0.0

Part27Q n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	22.32	22.32	22.32	24.0	0.0
100	PIQ BPSK	1	137	22.42	22.42	22.42	24.0	0.0
100	PIQ BPSK	1	271	22.52	22.52	22.52	24.0	0.0
100	PIQ BPSK	135	0	22.31	22.31	22.31	23.5	0.5
100	PIQ BPSK	135	69	22.42	22.42	22.42	24.0	0.0
100	PIQ BPSK	135	138	22.41	22.41	22.41	23.5	0.5
100	PIQ BPSK	270	0	22.32	22.32	22.32	23.0	1.0
100	QPSK	1	1	22.32	22.32	22.32	24.0	0.0
100	QPSK	1	137	22.41	22.41	22.41	24.0	0.0
100	QPSK	1	271	22.52	22.52	22.52	24.0	0.0
100	QPSK	135	0	22.31	22.31	22.31	24.0	0.0
100	QPSK	135	69	22.42	22.42	22.42	24.0	0.0
100	QPSK	135	138	22.41	22.41	22.41	23.5	0.5
100	QPSK	270	0	22.32	22.32	22.32	23.0	1.0
100	16QAM	1	1	21.95	21.95	21.95	21.0	1.0
100	64QAM	1	1	20.25	20.25	20.25	21.5	2.5
100	256QAM	1	1	18.37	18.37	18.37	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.33	22.33	22.33	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.31	22.31	22.31	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.31	22.29	22.16	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.33	22.33	22.21	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.33	22.24	22.11	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.30	22.20	22.27	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.12	22.12	22.21	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.28	22.17	22.29	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.35	22.29	22.20	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.31	22.24	22.29	24.0	0.0



Part270 n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P12 BPSK	1	1	22.68	22.78	22.88	24.0	0.0
100	P12 BPSK	1	137	22.78	22.78	22.78		
100	P12 BPSK	1	221	22.75	22.75	22.75		
100	P12 BPSK	135	0	22.78	22.78	22.78	24.0	0.0
100	P12 BPSK	135	69	22.74	22.74	22.74	24.0	0.0
100	P12 BPSK	135	138	22.72	22.72	22.72	24.0	0.0
100	P12 BPSK	270	0	22.69	22.69	22.69	24.0	0.0
100	QPSK	1	1	22.68	22.68	22.68		
100	QPSK	1	137	22.74	22.74	22.74	24.0	0.0
100	QPSK	1	271	22.79	22.79	22.79		
100	QPSK	135	69	22.75	22.75	22.75	24.0	0.0
100	QPSK	135	138	22.74	22.74	22.74	24.0	0.0
100	QPSK	270	0	22.73	22.73	22.73	24.0	0.0
100	16QAM	1	1	22.78	22.78	22.78	24.0	0.0
100	64QAM	1	1	21.75	21.75	21.75	22.5	1.5
100	256QAM	1	1	19.10	19.10	19.10	20.0	4.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64969	65000	65032	Tune-up limit	MPR
				3745.92	3750	3754.98	(dBm)	(dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	64934	65000	65066	Tune-up limit	MPR
				3742.01	3750	3759.99	(dBm)	(dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	64900	65000	65100	Tune-up limit	MPR
				22.76	22.84	22.81	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	64866	65000	65132	Tune-up limit	MPR
				22.77	22.84	22.78	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64832	65000	65106	Tune-up limit	MPR
				22.75	22.78	22.74	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64800	65000	65106	Tune-up limit	MPR
				3726.01	3750	3742.99	(dBm)	(dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	64774	65000	65078	Tune-up limit	MPR
				3720	3750	3730	(dBm)	(dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	64738	65000	65032	Tune-up limit	MPR
				3716.02	3750	3744.98	(dBm)	(dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	64703	65000	65026	Tune-up limit	MPR
				3710	3750	3730	(dBm)	(dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	64668	65000	65006	Tune-up limit	MPR
				3704	3750	3740	(dBm)	(dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	64634	65000	65006	Tune-up limit	MPR
				3700	3750	3750	(dBm)	(dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	64599	65000	65006	Tune-up limit	MPR
				3695	3750	3750	(dBm)	(dB)



Part27Q n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.01	23.01	23.01	24.0	0.0
100	PI2 BPSK	1	137	22.95	22.95	22.95	24.0	0.0
100	PI2 BPSK	1	271	22.90	22.90	22.90	24.0	0.0
100	PI2 BPSK	135	0	23.08	23.08	23.08	24.0	0.0
100	PI2 BPSK	135	69	22.90	22.90	22.90	24.0	0.0
100	PI2 BPSK	135	135	22.95	22.95	22.95	24.0	0.0
100	PI2 BPSK	270	0	22.97	22.97	22.97	24.0	0.0
100	QPSK	1	1	23.00	23.00	23.00	24.0	0.0
100	QPSK	1	137	23.02	23.02	23.02	24.0	0.0
100	QPSK	1	271	22.98	22.98	22.98	24.0	0.0
100	QPSK	135	0	23.08	23.08	23.08	24.0	0.0
100	QPSK	135	69	23.07	23.07	23.07	24.0	0.0
100	QPSK	135	135	23.04	23.04	23.04	24.0	0.0
100	QPSK	270	0	22.93	22.93	22.93	24.0	0.0
100	16QAM	1	1	23.05	23.05	23.05	24.0	0.0
100	64QAM	1	1	23.08	23.08	23.08	22.5	1.5
100	256QAM	1	1	19.22	19.22	19.22	20.0	4.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.07	22.97	23.06	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.05	23.01	23.01	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.03	23.02	23.05	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.07	23.04	23.06	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.06	23.06	23.05	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.03	23.08	23.04	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.97	23.01	22.99	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.05	23.01	22.96	24.0	0.0
Channel								
Frequency (MHz)								
18	QPSK	1	1	23.00	23.03	22.99	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.06	22.97	23.02	24.0	0.0



Part270 n78_FCC Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit	MPR
				Low Ch. / Freq.	Mid Ch. / Freq.		
Channel							
Frequency (MHz)							
100	PIQ BPSK	1	1	15.36			
100	PIQ BPSK	1	137	15.80		17.0	0.0
100	PIQ BPSK	1	271	15.83			
100	PIQ BPSK	135	0	15.70		17.0	0.0
100	PIQ BPSK	135	69	15.80		17.0	0.0
100	PIQ BPSK	135	138	15.80		17.0	0.0
100	PIQ BPSK	270	0	15.79		17.0	0.0
100	QPSK	1	1	15.88			
100	QPSK	1	137	15.79		17.0	0.0
100	QPSK	1	271	15.80			
100	QPSK	135	0	15.77			
100	QPSK	135	69	15.87		17.0	0.0
100	QPSK	135	138	15.73			
100	QPSK	270	0	15.85		17.0	0.0
100	QPSK	1	1	15.86		17.0	0.0
100	8QAM	1	1	15.73		17.0	0.0
100	8QAM	1	1	15.78		17.0	0.0
100	25QAM	1	1	15.78		17.0	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	15.72	15.75	15.70	17.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	15.72	15.70	15.72	17.0
Channel							
Frequency (MHz)							
75	QPSK	1	1	15.81	15.81	15.76	17.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	15.89	15.79	15.75	17.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	15.70	15.74	15.82	17.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	15.89	15.78	15.89	17.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	15.83	15.78	15.76	17.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	15.88	15.75	15.76	17.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	15.71	15.80	15.73	17.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	15.81	15.75	15.89	17.0

Part27Q n78_FCC Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit	MPR
				Low Ch. / Freq.	Mid Ch. / Freq.		
Channel							
Frequency (MHz)							
100	PIQ BPSK	1	1	15.73			
100	PIQ BPSK	1	137	15.81		17.0	0.0
100	PIQ BPSK	1	271	15.87			
100	PIQ BPSK	135	0	15.81		17.0	0.0
100	PIQ BPSK	135	69	15.79		17.0	0.0
100	PIQ BPSK	135	138	15.86		17.0	0.0
100	PIQ BPSK	270	0	15.73		17.0	0.0
100	QPSK	1	1	15.88			
100	QPSK	1	137	15.83		17.0	0.0
100	QPSK	1	271	15.72			
100	QPSK	135	0	15.71			
100	QPSK	135	69	15.85		17.0	0.0
100	QPSK	135	138	15.87			
100	QPSK	270	0	15.75		17.0	0.0
100	8QAM	1	1	15.84		17.0	0.0
100	8QAM	1	1	15.87		17.0	0.0
100	25QAM	1	1	15.73		17.0	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	15.86	15.77	15.82	17.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	15.84	15.72	15.83	17.0
Channel							
Frequency (MHz)							
70	QPSK	1	1	15.84	15.73	15.83	17.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	15.83	15.84	15.88	17.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	15.89	15.70	15.85	17.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	15.87	15.80	15.79	17.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	15.83	15.84	15.82	17.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	15.85	15.84	15.74	17.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	15.84	15.70	15.87	17.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	15.87	15.87	15.89	17.0



Part270 n78_FCC Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P12 BPSK	1	1	12.11	12.11		13.5	0.0
100	P12 BPSK	1	137	12.13	12.13			
100	P12 BPSK	1	221	12.22	12.22			
100	P12 BPSK	135	0	12.25	12.25		13.5	0.0
100	P12 BPSK	135	69	12.22	12.22		13.5	0.0
100	P12 BPSK	135	138	12.33	12.33		13.5	0.0
100	P12 BPSK	270	0	12.30	12.30			
100	QPSK	1	1	12.32	12.32			
100	QPSK	1	137	12.14	12.14		13.5	0.0
100	QPSK	1	271	12.31	12.31			
100	QPSK	135	69	12.35	12.35			
100	QPSK	135	138	12.32	12.32		13.5	0.0
100	QPSK	270	0	12.17	12.17			
100	QPSK	270	0	12.28	12.28		13.5	0.0
100	SSBAM	1	1	12.16	12.16		13.5	0.0
100	SSBAM	1	1	12.25	12.25		13.5	0.0
100	SSBAM	1	1	12.28	12.28		13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	84969	85000	85032	Tune-up limit (dBm)	MPR (dB)
				3745.02	3750	3754.98		
				8223	8223	8245	13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	84934	85000	85066	Tune-up limit (dBm)	MPR (dB)
				3740.01	3750	3759.99		
				12.31	12.23	12.23	13.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	85000	85000	85100	Tune-up limit (dBm)	MPR (dB)
				12.28	12.13	12.20		
				84968	85000	85132	Tune-up limit (dBm)	MPR (dB)
				12.28	12.13	12.16		
				12.28	12.28	12.30	13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	84934	85000	85106	Tune-up limit (dBm)	MPR (dB)
				3726.01	3750	3754.99		
				12.27	12.28	12.27	13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	84934	85000	85106	Tune-up limit (dBm)	MPR (dB)
				12.21	12.28	12.27		
				12.21	12.28	12.27	13.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	84900	85000	85000	Tune-up limit (dBm)	MPR (dB)
				3720	3750	3750		
				12.18	12.12	12.17	13.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	84968	85000	85032	Tune-up limit (dBm)	MPR (dB)
				3712.02	3750	3754.98		
				12.29	12.12	12.23	13.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	84900	85000	85000	Tune-up limit (dBm)	MPR (dB)
				12.21	12.16	12.28		
				12.21	12.16	12.28	13.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	84934	85000	85066	Tune-up limit (dBm)	MPR (dB)
				3710.01	3750	3759.99		
				12.16	12.23	12.23	13.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	84968	85000	85032	Tune-up limit (dBm)	MPR (dB)
				3707.92	3750	3752.08		
				12.18	12.18	12.14	13.5	0.0



Part27Q n78_FCC Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	12.22	12.22	12.22	13.5	0.0
100	PI2 BPSK	1	137	12.19	12.19	12.19	13.5	0.0
100	PI2 BPSK	1	271	12.17	12.17	12.17	13.5	0.0
100	PI2 BPSK	135	0	12.18	12.18	12.18	13.5	0.0
100	PI2 BPSK	135	69	12.28	12.28	12.28	13.5	0.0
100	PI2 BPSK	135	138	12.25	12.25	12.25	13.5	0.0
100	PI2 BPSK	270	0	12.26	12.26	12.26	13.5	0.0
100	QPSK	1	1	12.40	12.40	12.40	13.5	0.0
100	QPSK	1	137	12.18	12.18	12.18	13.5	0.0
100	QPSK	1	271	12.31	12.31	12.31	13.5	0.0
100	QPSK	135	9	12.34	12.34	12.34	13.5	0.0
100	QPSK	135	69	12.37	12.37	12.37	13.5	0.0
100	QPSK	135	138	12.25	12.25	12.25	13.5	0.0
100	QPSK	270	0	12.20	12.20	12.20	13.5	0.0
100	16QAM	1	1	12.24	12.24	12.24	13.5	0.0
100	64QAM	1	1	12.38	12.38	12.38	13.5	0.0
100	256QAM	1	1	12.20	12.20	12.20	13.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	63380	63332	63896	Tune-up limit (dBm)	MFR
				3495	3499.99	3504.99	13.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	63380	63332	63896	Tune-up limit (dBm)	MFR
				3495.02	3499.98	3510	13.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	63234	63332	63432	Tune-up limit (dBm)	MFR
				3498.01	3498.99	3511.99	13.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	63000	63332	63666	Tune-up limit (dBm)	MFR
				3496	3499.98	3519.98	13.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	63066	63332	63600	Tune-up limit (dBm)	MFR
				3495.02	3499.98	3505	13.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	63132	63332	63532	Tune-up limit (dBm)	MFR
				3471.01	3499.99	3529.98	13.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	63160	63332	63504	Tune-up limit (dBm)	MFR
				3495	3499.98	3524.98	13.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	63034	63332	63632	Tune-up limit (dBm)	MFR
				3499.99	3499.98	3517.49	13.5	0.0
Channel								
Frequency (MHz)								
18	QPSK	1	1	63068	63332	63000	Tune-up limit (dBm)	MFR
				3499.02	3499.98	3499	13.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	63280	63332	63168	Tune-up limit (dBm)	MFR
				3497.5	3499.98	3442.49	13.5	0.0



Reduced Power Mode for DSI6

n2 Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Made Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	P12 BPSK	1	1	22.71	22.99	22.82			
20	P12 BPSK	1	83	22.70	22.89	22.59	23.5	0.0	
20	P12 BPSK	1	104	22.58	22.69	22.89			
20	P12 BPSK	50	0	22.70	22.88	22.83	23.5	0.0	
20	P12 BPSK	50	28	22.71	22.91	22.80	23.5	0.0	
20	P12 BPSK	50	56	22.60	22.80	22.83	23.5	0.0	
20	P12 BPSK	100	0	22.74	22.81	22.85			
20	QPSK	1	1	22.84	23.03	22.77			
20	QPSK	1	83	22.80	22.85	22.76	23.5	0.0	
20	QPSK	1	104	22.58	22.84	22.80			
20	QPSK	50	0	22.59	22.91	22.54	23.5	0.0	
20	QPSK	50	28	22.75	22.95	22.81	23.5	0.0	
20	QPSK	50	56	22.74	22.80	22.55	23.5	0.0	
20	QPSK	100	0	22.68	22.72	22.80			
20	16QAM	1	1	22.95	22.48	22.75	23.0	0.5	
20	16QAM	1	1	21.10	21.07	21.00	21.5	2.0	
20	256QAM	1	1	19.21	19.24	19.37	19.5	4.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	22.72	23.02	22.87	23.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.74	23.00	22.86	23.5	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	22.78	22.95	22.87	23.5	0.0	

n2 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Made Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	P12 BPSK	1	1	18.11	18.23	18.19			
20	P12 BPSK	1	83	18.04	18.11	18.01	19.5	0.0	
20	P12 BPSK	1	104	18.01	18.11	18.03			
20	P12 BPSK	50	0	18.19	18.23	18.08	19.5	0.0	
20	P12 BPSK	50	28	17.97	18.07	17.90	19.5	0.0	
20	P12 BPSK	50	56	18.19	18.27	18.21	19.5	0.0	
20	P12 BPSK	100	0	18.16	18.31	18.29			
20	QPSK	1	1	18.25	18.32	18.28			
20	QPSK	1	83	18.10	18.21	18.12	19.5	0.0	
20	QPSK	1	104	18.21	18.22	18.11			
20	QPSK	50	0	18.00	18.10	17.97	19.5	0.0	
20	QPSK	50	28	18.10	18.24	18.15	19.5	0.0	
20	QPSK	50	56	18.04	18.09	18.07	19.5	0.0	
20	QPSK	100	0	18.00	18.10	18.10			
20	16QAM	1	1	18.14	18.15	18.06	19.5	0.0	
20	16QAM	1	1	18.28	18.29	18.17	19.5	0.0	
20	256QAM	1	1	18.02	18.23	18.11	19.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.09	18.20	18.13	19.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.12	18.13	18.13	19.5	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	18.16	18.12	18.16	19.5	0.0	



n5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Med. Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.04	23.16	23.10	24.0	0.0
20	PI2 BPSK	1	53	23.09	23.15	23.00		
20	PI2 BPSK	1	104	23.09	22.94	23.03		
20	PI2 BPSK	50	0	23.08	23.08	23.11	24.0	0.0
20	PI2 BPSK	50	28	23.15	23.11	23.07	24.0	0.0
20	PI2 BPSK	50	56	23.01	22.99	23.00	24.0	0.0
20	PI2 BPSK	100	0	23.13	23.08	23.07	24.0	0.0
20	QPSK	1	1	23.13	23.16	23.10	24.0	0.0
20	QPSK	1	53	23.07	23.15	23.11		
20	QPSK	1	104	23.04	22.99	23.11		
20	QPSK	50	0	23.12	23.04	23.00	24.0	0.0
20	QPSK	50	28	23.15	23.15	23.10	24.0	0.0
20	QPSK	50	56	22.97	22.99	23.05	24.0	0.0
20	QPSK	100	0	23.09	23.07	23.03	24.0	0.0
20	16QAM	1	1	22.12	22.18	21.95	23.0	1.0
20	16QAM	1	1	21.14	21.36	21.92	21.5	2.5
20	256QAM	1	1	19.23	19.12	19.42	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.95	23.14	23.12	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.04	23.11	23.14	24.0	0.0

n5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Med. Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.96	22.97	23.04	24.0	0.0
20	PI2 BPSK	1	53	22.92	22.96	22.98		
20	PI2 BPSK	1	104	23.00	23.05	23.15		
20	PI2 BPSK	50	0	23.03	23.04	23.04	24.0	0.0
20	PI2 BPSK	50	28	22.97	23.01	22.93	24.0	0.0
20	PI2 BPSK	50	56	22.93	23.03	23.03	24.0	0.0
20	PI2 BPSK	100	0	22.97	23.02	22.98	24.0	0.0
20	QPSK	1	1	22.95	22.99	23.05	24.0	0.0
20	QPSK	1	53	22.95	23.12	22.94		
20	QPSK	1	104	23.03	23.15	23.10		
20	QPSK	50	0	22.47	22.53	22.42	23.5	0.5
20	QPSK	50	28	22.94	23.00	22.95	24.0	0.0
20	QPSK	50	56	22.43	22.56	22.46	23.5	0.5
20	QPSK	100	0	22.42	22.48	22.41	23.5	0.5
20	16QAM	1	1	22.30	22.43	22.40	23.5	0.5
20	16QAM	1	1	20.77	21.11	20.92	21.5	2.5
20	256QAM	1	1	19.99	19.11	19.07	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.03	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.01	23.01	22.99	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	23.03	23.07	24.0	0.0



n7 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 504000	Power Med. Ch. / Freq 507000	Power High Ch. / Freq 510000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.62	22.81	22.87		
40	PI2 BPSK	1	108	22.47	22.98	23.11	24.0	0.0
40	PI2 BPSK	1	214	22.89	23.20	23.73		
40	PI2 BPSK	108	0	22.39	22.81	22.86	24.0	0.0
40	PI2 BPSK	108	94	22.35	22.69	22.92	24.0	0.0
40	PI2 BPSK	108	108	22.62	22.97	23.33		
40	PI2 BPSK	216	0	22.42	22.90	22.95	24.0	0.0
40	QPSK	1	1	22.23	22.23	22.23		
40	QPSK	1	108	22.43	23.00	22.87	24.0	0.0
40	QPSK	1	214	22.85	22.88	22.76		
40	QPSK	108	0	22.42	22.81	22.78	24.0	0.0
40	QPSK	108	54	22.35	22.86	22.92	24.0	0.0
40	QPSK	108	108	22.48	22.89	22.86	24.0	0.0
40	QPSK	216	0	22.55	22.90	22.87		
40	16QAM	1	1	22.09	21.85	22.08	23.0	1.0
40	64QAM	1	1	20.23	20.72	20.44	21.5	2.5
40	256QAM	1	1	18.48	19.11	18.54	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.66	22.66	22.66	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.80	22.58	22.60	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.81	22.81	22.60	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.75	22.63	22.62	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.76	22.67	22.64	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.76	22.49	22.73	24.0	0.0

n7 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 504000	Power Med. Ch. / Freq 507000	Power High Ch. / Freq 510000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.10	22.21	22.20		
40	PI2 BPSK	1	108	22.08	22.11	22.00	23.0	0.0
40	PI2 BPSK	1	214	22.01	22.08	22.04		
40	PI2 BPSK	108	0	22.17	22.20	22.10	23.0	0.0
40	PI2 BPSK	108	94	22.12	22.14	22.04	23.0	0.0
40	PI2 BPSK	108	108	21.85	21.96	21.85		
40	PI2 BPSK	216	0	21.89	22.09	21.84	23.0	0.0
40	QPSK	1	1	22.23	22.23	22.23		
40	QPSK	1	108	22.00	22.05	22.03	23.0	0.0
40	QPSK	1	214	22.10	22.11	22.10		
40	QPSK	108	0	22.02	22.16	22.06	23.0	0.0
40	QPSK	108	54	22.15	22.20	22.15	23.0	0.0
40	QPSK	108	108	22.02	22.02	22.02	23.0	0.0
40	QPSK	216	0	22.02	22.11	22.08		
40	16QAM	1	1	22.05	22.02	22.05	23.0	0.0
40	64QAM	1	1	20.84	20.88	20.81	21.5	1.5
40	256QAM	1	1	19.08	19.01	18.95	19.5	3.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.17	22.20	22.19	23.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.08	22.09	22.10	23.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.17	22.16	22.19	23.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.10	22.17	22.19	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.08	22.20	22.08	23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.02	22.20	22.17	23.0	0.0



n12 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	22.74	22.82	22.87	24.0	0.0
15	P12 BPSK	1	40	22.72	22.86	22.84		
15	P12 BPSK	1	77	22.70	22.84	22.81		
15	P12 BPSK	36	0	22.67	22.81	22.86	24.0	0.0
15	P12 BPSK	36	22	22.87	22.83	22.94	24.0	0.0
15	P12 BPSK	36	43	22.81	22.81	22.86	24.0	0.0
15	P12 BPSK	75	0	22.86	22.72	22.87	24.0	0.0
15	QPSK	1	1	22.75	22.85	22.84	24.0	0.0
15	QPSK	1	40	22.65	22.74	22.85		
15	QPSK	1	77	22.70	22.83	22.82		
15	QPSK	36	0	22.33	22.70	22.81	24.0	0.0
15	QPSK	36	22	22.71	22.76	22.81	24.0	0.0
15	QPSK	36	43	22.34	22.84	22.87	24.0	0.0
15	QPSK	75	0	22.40	22.87	22.44	24.0	0.0
15	16QAM	1	1	22.69	22.88	22.79	24.0	0.0
15	16QAM	1	1	21.21	21.19	21.15	2.5	2.5
15	256QAM	1	1	19.33	19.21	19.36	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.84	22.89	22.72	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.80	22.84	22.76	24.0	0.0

n12 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	23.21	23.18	23.12	24.0	0.0
15	P12 BPSK	1	40	23.24	23.23	23.18		
15	P12 BPSK	1	77	23.21	23.28	23.25		
15	P12 BPSK	36	0	23.17	23.12	23.16	24.0	0.0
15	P12 BPSK	36	22	23.18	23.16	23.12	24.0	0.0
15	P12 BPSK	36	43	23.12	23.12	23.18	24.0	0.0
15	P12 BPSK	75	0	23.19	23.21	23.15	24.0	0.0
15	QPSK	1	1	23.25	23.28	23.25	24.0	0.0
15	QPSK	1	40	23.25	23.30	23.23		
15	QPSK	1	77	23.26	23.27	23.15		
15	QPSK	36	0	22.85	22.84	22.83	24.0	0.0
15	QPSK	36	22	23.21	23.22	23.11	24.0	0.0
15	QPSK	36	43	22.81	22.80	22.91	24.0	0.0
15	QPSK	75	0	22.87	22.80	22.88	24.0	0.0
15	16QAM	1	1	22.92	22.79	22.82	24.0	0.0
15	16QAM	1	1	20.12	20.27	20.15	2.5	2.5
15	256QAM	1	1	18.69	18.79	18.82	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.25	23.28	23.22	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.16	23.20	23.02	24.0	0.0



n13 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.69			
10	PI2 BPSK	1	26		22.74		24.0	0.0
10	PI2 BPSK	1	50		22.55			
10	PI2 BPSK	25	0		22.27		23.5	0.5
10	PI2 BPSK	25	14		22.63		24.0	0.0
10	PI2 BPSK	25	27		22.16		23.5	0.5
10	PI2 BPSK	50	0		22.30			
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.78		24.0	0.0
10	QPSK	1	50		22.62			
10	QPSK	25	0		21.78		23.0	1.0
10	QPSK	25	14		22.57		24.0	0.0
10	QPSK	25	27		21.86		23.0	1.0
10	QPSK	50	0		21.03			
10	16QAM	1	1		21.83		23.0	1.0
10	64QAM	1	1		20.79		21.5	2.5
10	256QAM	1	1		18.29		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.85		24.0	0.0

n13 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.61			
10	PI2 BPSK	1	26		22.80		24.0	0.0
10	PI2 BPSK	1	50		22.85			
10	PI2 BPSK	25	0		22.28		23.5	0.5
10	PI2 BPSK	25	14		22.67		24.0	0.0
10	PI2 BPSK	25	27		22.34		23.5	0.5
10	PI2 BPSK	50	0		22.32			
10	QPSK	1	1		22.90			
10	QPSK	1	26		22.84		24.0	0.0
10	QPSK	1	50		22.84			
10	QPSK	25	0		21.75		23.0	1.0
10	QPSK	25	14		22.64		24.0	0.0
10	QPSK	25	27		21.82		23.0	1.0
10	QPSK	50	0		21.14			
10	16QAM	1	1		21.95		23.0	1.0
10	64QAM	1	1		19.95		21.5	2.5
10	256QAM	1	1		18.13		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.87		24.0	0.0



n14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.84			
10	PI2 BPSK	1	26		22.56		24.0	0.0
10	PI2 BPSK	1	50		22.60			
10	PI2 BPSK	25	0		22.60		24.0	0.0
10	PI2 BPSK	25	14		22.56		24.0	0.0
10	PI2 BPSK	25	27		22.51		24.0	0.0
10	PI2 BPSK	50	0		22.57			
10	QPSK	1	1		22.76			
10	QPSK	1	26		22.58		24.0	0.0
10	QPSK	1	50		22.67			
10	QPSK	25	0		22.60		24.0	0.0
10	QPSK	25	14		22.63		24.0	0.0
10	QPSK	25	27		22.53		24.0	0.0
10	QPSK	50	0		22.54			
10	16QAM	1	1		22.59		24.0	0.0
10	16QAM	1	1		21.45		22.5	1.5
10	256QAM	1	1		19.07		20.0	4.0
Channel				168.00	168.600	169.100	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				168.0	168.6	169.1		
5	QPSK	1	1		22.93		24.0	0.0

n14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		23.02			
10	PI2 BPSK	1	26		23.03		24.0	0.0
10	PI2 BPSK	1	50		23.07			
10	PI2 BPSK	25	0		22.99		24.0	0.0
10	PI2 BPSK	25	14		22.96		24.0	0.0
10	PI2 BPSK	25	27		23.00		24.0	0.0
10	PI2 BPSK	50	0		22.94			
10	QPSK	1	1		23.33			
10	QPSK	1	26		22.95		24.0	0.0
10	QPSK	1	50		23.03			
10	QPSK	25	0		22.98		24.0	0.0
10	QPSK	25	14		23.01		24.0	0.0
10	QPSK	25	27		22.94		24.0	0.0
10	QPSK	50	0		22.95			
10	16QAM	1	1		21.98		23.0	1.0
10	16QAM	1	1		20.48		21.5	2.5
10	256QAM	1	1		18.54		19.5	4.5
Channel				168.100	168.600	169.100	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				168.1	168.6	169.1		
5	QPSK	1	1		22.93		24.0	0.0



n25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.50	22.60	22.55	23.5	0.0
20	PI2 BPSK	1	53	22.60	22.64	22.58		
20	PI2 BPSK	1	104	22.65	22.77	22.55		
20	PI2 BPSK	50	0	22.53	22.55	22.67	23.5	0.0
20	PI2 BPSK	50	28	22.67	22.72	22.70	23.5	0.0
20	PI2 BPSK	50	56	22.62	22.67	22.65	23.5	0.0
20	PI2 BPSK	100	0	22.53	22.59	22.70	23.5	0.0
20	QPSK	1	1	22.73	22.84	22.75	23.5	0.0
20	QPSK	1	53	22.64	22.69	22.73		
20	QPSK	1	104	22.65	23.01	22.77		
20	QPSK	50	0	22.65	22.78	22.66	23.5	0.0
20	QPSK	50	28	22.65	23.00	22.72	23.5	0.0
20	QPSK	50	56	22.49	22.95	22.67	23.5	0.0
20	QPSK	100	0	22.62	22.68	22.71	23.5	0.0
20	16QAM	1	1	22.08	22.67	22.11	23.0	0.5
20	16QAM	1	1	20.45	21.06	20.98	21.5	2.0
20	256QAM	1	1	18.72	18.82	18.79	19.5	4.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.85	22.49	22.65	23.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.47	22.54	22.52	23.5	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.53	22.60	22.51	23.5	0.0

n25 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.16	18.25	18.18	19.5	0.0
20	PI2 BPSK	1	53	18.02	18.11	18.08		
20	PI2 BPSK	1	104	18.09	18.15	18.03		
20	PI2 BPSK	50	0	18.11	18.26	18.24	19.5	0.0
20	PI2 BPSK	50	28	18.07	18.11	17.97	19.5	0.0
20	PI2 BPSK	50	56	18.23	18.25	18.14	19.5	0.0
20	PI2 BPSK	100	0	18.24	18.26	18.12	19.5	0.0
20	QPSK	1	1	18.27	18.28	18.26	19.5	0.0
20	QPSK	1	53	18.15	18.27	18.21		
20	QPSK	1	104	18.14	18.26	18.24		
20	QPSK	50	0	18.07	18.20	18.08	19.5	0.0
20	QPSK	50	28	18.13	18.25	18.23	19.5	0.0
20	QPSK	50	56	18.05	18.18	18.16	19.5	0.0
20	QPSK	100	0	18.12	18.23	18.11	19.5	0.0
20	16QAM	1	1	18.18	18.22	18.18	19.5	0.0
20	16QAM	1	1	18.27	18.32	18.17	19.5	0.0
20	256QAM	1	1	18.04	18.11	17.89	19.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.15	18.13	18.15	19.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.14	18.10	18.11	19.5	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.14	18.24	18.16	19.5	0.0



n26 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency [MHz]								
20	PI2 BPSK	1	1	22.99	23.05	23.12	24.0	0.0
20	PI2 BPSK	1	53	23.11	23.12	23.04		
20	PI2 BPSK	1	104	23.05	23.01	22.95		
20	PI2 BPSK	50	0	23.07	23.05	23.08	24.0	0.0
20	PI2 BPSK	50	28	23.12	23.15	23.02	24.0	0.0
20	PI2 BPSK	50	56	23.08	23.04	22.95	24.0	0.0
20	PI2 BPSK	100	0	23.03	23.09	23.04	24.0	0.0
20	QPSK	1	1	23.13	23.05	23.12	24.0	0.0
20	QPSK	1	53	23.05	23.13	23.05		
20	QPSK	1	104	23.07	23.04	22.97		
20	QPSK	50	0	23.03	23.01	23.00	24.0	0.0
20	QPSK	50	28	23.08	23.10	23.05	24.0	0.0
20	QPSK	50	56	23.05	23.01	22.93	24.0	0.0
20	QPSK	100	0	22.98	23.05	22.94	24.0	0.0
20	16QAM	1	1	22.77	22.84	22.95	23.0	1.0
20	16QAM	1	1	21.02	20.97	20.94	21.5	2.5
20	256QAM	1	1	18.89	19.07	19.39	19.5	4.5
Channel								
				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency [MHz]								
15	QPSK	1	1	22.91	23.15	23.11	24.0	0.0
Channel								
				163800	166300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency [MHz]								
10	QPSK	1	1	23.08	23.03	23.05	24.0	0.0
Channel								
				163300	166300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency [MHz]								
5	QPSK	1	1	23.03	22.99	23.15	24.0	0.0

n26 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency [MHz]								
20	PI2 BPSK	1	1	23.08	23.16	23.04	24.0	0.0
20	PI2 BPSK	1	53	22.90	23.05	23.01		
20	PI2 BPSK	1	104	23.03	23.11	22.95		
20	PI2 BPSK	50	0	23.03	23.10	22.94	24.0	0.0
20	PI2 BPSK	50	28	22.88	23.03	22.92	24.0	0.0
20	PI2 BPSK	50	56	22.85	23.01	22.95	24.0	0.0
20	PI2 BPSK	100	0	23.03	23.11	23.09	24.0	0.0
20	QPSK	1	1	23.08	23.00	23.05	24.0	0.0
20	QPSK	1	53	23.07	23.12	23.07		
20	QPSK	1	104	22.85	23.10	23.06		
20	QPSK	50	0	23.02	23.03	22.95	24.0	0.0
20	QPSK	50	28	23.03	23.11	23.05	24.0	0.0
20	QPSK	50	56	22.98	23.05	22.95	24.0	0.0
20	QPSK	100	0	22.94	23.05	22.92	24.0	0.0
20	16QAM	1	1	22.08	22.10	22.09	23.0	1.0
20	16QAM	1	1	20.80	20.86	20.71	21.5	2.5
20	256QAM	1	1	19.09	19.19	19.02	19.5	4.5
Channel								
				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency [MHz]								
15	QPSK	1	1	23.13	23.15	23.05	24.0	0.0
Channel								
				163800	166300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency [MHz]								
10	QPSK	1	1	23.15	23.04	23.10	24.0	0.0
Channel								
				163300	166300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency [MHz]								
5	QPSK	1	1	23.05	23.12	23.17	24.0	0.0



n30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.75			
10	PI2 BPSK	1	26		22.89		24.0	0.0
10	PI2 BPSK	1	50		22.77			
10	PI2 BPSK	25	0		22.71		24.0	0.0
10	PI2 BPSK	25	14		22.70		24.0	0.0
10	PI2 BPSK	25	27		22.70		24.0	0.0
10	PI2 BPSK	50	0		22.72		24.0	0.0
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.76		24.0	0.0
10	QPSK	1	50		22.81			
10	QPSK	25	0		22.73		24.0	0.0
10	QPSK	25	14		22.76		24.0	0.0
10	QPSK	25	27		22.67		24.0	0.0
10	QPSK	50	0		22.70		24.0	0.0
10	16QAM	1	1		21.92		23.0	1.0
10	16QAM	1	1		20.89		21.5	2.5
10	16QAM	1	1		18.79		19.5	4.5
Channel				481500	462000	462000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2397.2	2310	2332.2	(dB)	(dB)
5	QPSK	1	1		22.87		24.0	0.0

n30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		21.99			
10	PI2 BPSK	1	26		21.91		23.0	0.0
10	PI2 BPSK	1	50		21.88			
10	PI2 BPSK	25	0		22.00		23.0	0.0
10	PI2 BPSK	25	14		21.93		23.0	0.0
10	PI2 BPSK	25	27		21.92		23.0	0.0
10	PI2 BPSK	50	0		21.95		23.0	0.0
10	QPSK	1	1		22.39			
10	QPSK	1	26		21.95		23.0	0.0
10	QPSK	1	50		21.89			
10	QPSK	25	0		21.47		23.0	0.0
10	QPSK	25	14		21.99		23.0	0.0
10	QPSK	25	27		21.42		23.0	0.0
10	QPSK	50	0		21.93		23.0	0.0
10	16QAM	1	1		21.90		23.0	0.0
10	16QAM	1	1		20.00		21.5	1.5
10	16QAM	1	1		18.02		19.5	3.5
Channel				481500	462000	462000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2397.2	2310	2332.2	(dB)	(dB)
5	QPSK	1	1		21.98		23.0	0.0



n66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 346000	Power Medio Ch. / Freq 349000	Power High Ch. / Freq 352000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	22.32	22.46	22.33		
40	P12 BPSK	1	108	22.24	22.41	22.39	23.0	0.0
40	P12 BPSK	1	214	22.27	22.40	22.33		
40	P12 BPSK	108	0	22.29	22.31	22.23	23.0	0.0
40	P12 BPSK	108	54	22.27	22.33	22.29	23.0	0.0
40	P12 BPSK	108	108	22.34	22.29	22.36		
40	P12 BPSK	216	0	22.25	22.34	22.31	23.0	0.0
40	QPSK	1	1	22.25	22.25	22.25		
40	QPSK	1	108	22.19	22.48	22.23	23.0	0.0
40	QPSK	1	214	22.24	22.42	22.13		
40	QPSK	108	0	22.26	22.35	22.31	23.0	0.0
40	QPSK	108	54	22.32	22.46	22.32	23.0	0.0
40	QPSK	108	108	22.32	22.39	22.26	23.0	0.0
40	QPSK	216	0	22.27	22.41	22.31		
40	16QAM	1	1	22.05	22.06	22.40	23.0	0.0
40	64QAM	1	1	20.94	21.19	20.79	21.5	1.5
40	256QAM	1	1	18.84	18.94	19.23	19.5	3.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.23	22.37	22.27	23.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.18	22.35	22.27	23.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.14	22.28	22.30	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.26	22.35	22.18	23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.21	22.27	22.19	23.0	0.0

n66 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 346000	Power Medio Ch. / Freq 349000	Power High Ch. / Freq 352000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	18.17	18.15	18.32		
40	P12 BPSK	1	108	17.99	18.01	18.24	19.5	0.0
40	P12 BPSK	1	214	17.99	18.03	18.18		
40	P12 BPSK	108	0	18.19	18.24	18.26	19.5	0.0
40	P12 BPSK	108	54	18.17	18.30	18.26	19.5	0.0
40	P12 BPSK	108	108	18.03	18.24	18.26		
40	P12 BPSK	216	0	17.97	18.09	18.14	19.5	0.0
40	QPSK	1	1	18.25	18.25	18.25		
40	QPSK	1	108	18.15	18.15	18.25	19.5	0.0
40	QPSK	1	214	18.31	18.34	18.23		
40	QPSK	108	0	17.85	18.18	18.22	19.5	0.0
40	QPSK	108	54	18.03	18.31	18.24	19.5	0.0
40	QPSK	108	108	17.98	17.96	18.03	19.5	0.0
40	QPSK	216	0	18.08	18.30	18.27	19.5	0.0
40	16QAM	1	1	18.30	18.15	18.22	19.5	0.0
40	64QAM	1	1	18.04	18.04	18.12	19.5	0.0
40	256QAM	1	1	16.08	18.12	18.06	19.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.31	18.30	18.27	19.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.20	18.37	18.21	19.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.14	18.28	18.27	19.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.16	18.43	18.31	19.5	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.17	18.29	18.32	19.5	0.0



n70 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dB)	MPR (dB)	
Channel									
Frequency (MHz)									
15	PI2 BPSK	1	1		22.25				
15	PI2 BPSK	1	40		22.13		23.0	0.0	
15	PI2 BPSK	1	77		22.22				
15	PI2 BPSK	36	0		22.21		23.0	0.0	
15	PI2 BPSK	36	22		22.25		23.0	0.0	
15	PI2 BPSK	36	43		22.25				
15	PI2 BPSK	75	0		22.11		23.0	0.0	
15	QPSK	1	1		22.46				
15	QPSK	1	40		22.19		23.0	0.0	
15	QPSK	1	77		22.14				
15	QPSK	36	0		22.17		23.0	0.0	
15	QPSK	36	22		22.35		23.0	0.0	
15	QPSK	36	43		22.20		23.0	0.0	
15	QPSK	75	0		22.31				
15	16QAM	1	1		21.85		23.0	0.0	
15	16QAM	1	1		20.81		21.5	1.5	
15	256QAM	1	1		18.13		19.5	3.5	
Channel				34000	34000	34100	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3300	3300	3300			
10	QPSK	1	1		22.19	22.15	22.16	23.0	0.0
Channel				33950	34050	34150	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3392.5	3402.5	3412.5			
5	QPSK	1	1		22.21	22.29	22.19	23.0	0.0

n70 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Mid Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dB)	MPR (dB)	
Channel									
Frequency (MHz)									
15	PI2 BPSK	1	1		18.39				
15	PI2 BPSK	1	40		18.46		19.5	0.0	
15	PI2 BPSK	1	77		18.41				
15	PI2 BPSK	36	0		18.32		19.5	0.0	
15	PI2 BPSK	36	22		18.37		19.5	0.0	
15	PI2 BPSK	36	43		18.36				
15	PI2 BPSK	75	0		18.50		19.5	0.0	
15	QPSK	1	1		18.52				
15	QPSK	1	40		18.45		19.5	0.0	
15	QPSK	1	77		18.43				
15	QPSK	36	0		18.34		19.5	0.0	
15	QPSK	36	22		18.44		19.5	0.0	
15	QPSK	36	43		18.33		19.5	0.0	
15	QPSK	75	0		18.35				
15	16QAM	1	1		18.42		19.5	0.0	
15	16QAM	1	1		18.33		19.5	0.0	
15	256QAM	1	1		18.42		19.5	0.0	
Channel				34000	34000	34100	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3300	3300	3300			
10	QPSK	1	1		18.34	18.45	18.45	19.5	0.0
Channel				33950	34050	34150	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3392.5	3402.5	3412.5			
5	QPSK	1	1		18.30	18.36	18.41	19.5	0.0



n71 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134500	Middle Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	P12 BPSK	1	1	22.62	22.92	22.91		
20	P12 BPSK	1	63	22.87	22.86	22.85	24.0	0.0
20	P12 BPSK	1	104	22.82	22.82	22.76		
20	P12 BPSK	50	0	22.93	22.84	22.83	24.0	0.0
20	P12 BPSK	50	28	22.90	22.79	22.77	24.0	0.0
20	P12 BPSK	50	66	22.91	22.73	22.80		
20	P12 BPSK	100	0	22.87	22.84	22.81		
20	QPSK	1	1	22.90	22.90	22.90		
20	QPSK	1	63	22.50	22.70	22.52	24.0	0.0
20	QPSK	1	104	22.81	22.73	22.76		
20	QPSK	50	0	22.83	22.90	22.72	24.0	0.0
20	QPSK	50	28	22.87	22.91	22.78	24.0	0.0
20	QPSK	50	66	22.85	22.88	22.74	24.0	0.0
20	QPSK	100	0	22.78	22.80	22.75		
20	16QAM	1	1	22.93	22.79	22.81	24.0	0.0
20	16QAM	1	1	21.21	21.24	22.0		
20	256QAM	1	1	18.66	18.70	18.89	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.89	22.99	22.88	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.92	23.01	22.90	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.08	22.99	22.85	24.0	0.0

n71 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134500	Middle Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	P12 BPSK	1	1	23.03	23.05	23.01		
20	P12 BPSK	1	63	23.00	22.97	22.94	24.0	0.0
20	P12 BPSK	1	104	23.06	23.02	23.01		
20	P12 BPSK	50	0	22.97	22.99	23.03	24.0	0.0
20	P12 BPSK	50	28	23.06	22.94	22.85	24.0	0.0
20	P12 BPSK	50	66	22.98	22.92	22.82	24.0	0.0
20	P12 BPSK	100	0	22.87	23.00	22.88		
20	QPSK	1	1	23.00	23.00	23.00		
20	QPSK	1	63	22.88	23.02	23.03	24.0	0.0
20	QPSK	1	104	22.85	23.00	23.02		
20	QPSK	50	0	22.85	22.95	22.82	24.0	0.0
20	QPSK	50	28	23.03	23.04	22.94	24.0	0.0
20	QPSK	50	66	22.97	22.75	22.67	24.0	0.0
20	QPSK	100	0	22.64	22.77	22.70		
20	16QAM	1	1	22.98	22.95	22.87	24.0	0.0
20	16QAM	1	1	20.79	20.70	20.54	21.5	2.5
20	256QAM	1	1	18.83	18.66	18.81	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.05	23.08	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.97	23.08	23.08	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.04	23.03	22.87	24.0	0.0



n38 Ant 7								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel				518000	519000	520000		
Frequency (MHz)								
40	PIQ BPSK	1	1	20.78	20.85	20.72	22.0	0.0
40	PIQ BPSK	1	53	20.65	20.79	20.87		
40	PIQ BPSK	1	104	20.64	20.68	20.63		
40	PIQ BPSK	50	0	20.58	20.70	20.58	22.0	0.0
40	PIQ BPSK	50	28	20.78	20.80	20.78	22.0	0.0
40	PIQ BPSK	50	56	20.53	20.74	20.64	22.0	0.0
40	PIQ BPSK	100	0	20.89	20.93	20.89		
40	QPSK	1	1	20.85	20.85	20.85		
40	QPSK	1	53	20.57	20.70	20.87	22.0	0.0
40	QPSK	1	104	20.68	20.81	20.79		
40	QPSK	50	0	20.58	20.74	20.74		
40	QPSK	50	28	20.75	20.83	20.77	22.0	0.0
40	QPSK	50	56	20.60	20.87	20.60		
40	QPSK	100	0	20.58	20.70	20.73	22.0	0.0
40	NSM	1	1	20.60	20.71	20.59	22.0	0.0
40	NSM	1	1	20.53	20.68	20.65	22.0	0.0
40	25GAM	1	1	19.53	19.67	19.33	20.5	1.5
Channel				518000	519000	520000	Turn-up limit (dBm)	MPR (dB)
30	QPSK	1	1	20.70	20.76	20.70	22.0	0.0
Channel				518000	519000	520000	Turn-up limit (dBm)	MPR (dB)
20	QPSK	1	1	20.74	20.84	20.76	22.0	0.0
Channel				515000	519000	525000	Turn-up limit (dBm)	MPR (dB)
15	QPSK	1	1	20.74	20.80	20.84	22.0	0.0
Channel				515000	519000	525000	Turn-up limit (dBm)	MPR (dB)
10	QPSK	1	1	20.84	20.70	20.73	22.0	0.0

n38 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel				518000	519000	520000		
Frequency (MHz)								
40	PIQ BPSK	1	1	22.37	22.41	22.41		
40	PIQ BPSK	1	53	22.32	22.64	22.60		
40	PIQ BPSK	1	104	22.64	22.62	22.58	24.0	0.0
40	PIQ BPSK	50	0	22.38	22.18	22.58	23.5	0.5
40	PIQ BPSK	50	28	22.53	22.47	22.63	24.0	0.0
40	PIQ BPSK	50	56	22.07	22.11	22.58	23.5	0.5
40	PIQ BPSK	100	0	22.10	22.13	22.02		
40	QPSK	1	1	22.61	22.75	22.65		
40	QPSK	1	53	22.81	22.83	22.82	24.0	0.0
40	QPSK	1	104	22.68	22.72	22.66		
40	QPSK	50	0	21.81	21.81	21.53		
40	QPSK	50	28	22.34	22.81	22.54	24.0	0.0
40	QPSK	50	56	21.81	21.66	21.55		
40	QPSK	100	0	21.48	21.58	21.48	23.0	1.0
40	NSM	1	1	21.72	21.82	21.56	23.0	1.0
40	NSM	1	1	19.75	19.52	19.18	21.5	1.5
40	25GAM	1	1	18.02	18.07	18.18	19.5	1.5
Channel				518000	519000	520000	Turn-up limit (dBm)	MPR (dB)
30	QPSK	1	1	22.88	22.82	22.82	24.0	1.0
Channel				518000	519000	520000	Turn-up limit (dBm)	MPR (dB)
20	QPSK	1	1	22.55	22.55	22.50	24.0	0.0
Channel				515000	519000	525000	Turn-up limit (dBm)	MPR (dB)
15	QPSK	1	1	22.81	22.89	23.23	24.0	0.0
Channel				515000	519000	525000	Turn-up limit (dBm)	MPR (dB)
10	QPSK	1	1	22.57	22.81	22.56	24.0	0.0



n41_FCC Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Mid Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2582.0	2592.0	2602.0		
100	P12 BPSK	1	1	20.72	20.82	20.92	22.0	0.0
100	P12 BPSK	1	137	20.70	20.83	20.83		
100	P12 BPSK	1	271	20.75	20.88	20.85		
100	P12 BPSK	135	0	20.81	20.96	20.73	22.0	0.0
100	P12 BPSK	135	69	20.74	20.91	20.81	22.0	0.0
100	P12 BPSK	135	138	20.85	20.98	20.90	22.0	0.0
100	P12 BPSK	270	0	20.86	21.00	20.73		
100	QPSK	1	1	20.83	21.01	20.85		
100	QPSK	1	137	20.88	20.94	20.84	22.0	0.0
100	QPSK	1	271	20.73	20.86	20.90		
100	QPSK	135	0	20.85	20.93	20.81	22.0	0.0
100	QPSK	135	69	20.82	20.96	20.92		
100	QPSK	135	138	20.83	20.88	20.84		
100	QPSK	270	0	20.81	20.99	20.89	22.0	0.0
100	HQAM	1	1	20.73	20.86	20.83	22.0	0.0
100	HQAM	1	1	20.85	20.87	20.81	22.0	0.0
100	256QAM	1	1	20.75	20.87	20.83	22.0	0.0
Channel								
Frequency (MHz)				5250.0	5260.0	5270.0		
50	QPSK	1	1	20.74	20.85	20.81	22.0	0.0
Channel				5274.0	5284.0	5294.0		
80	QPSK	1	1	20.82	20.93	20.89	22.0	0.0
Channel								
Frequency (MHz)				5820.0	5830.0	5840.0		
70	QPSK	1	1	20.83	20.93	20.85	22.0	0.0
Channel								
Frequency (MHz)				6390.0	6400.0	6410.0		
60	QPSK	1	1	20.69	20.96	20.82	22.0	0.0
Channel								
Frequency (MHz)				6960.0	6970.0	6980.0		
50	QPSK	1	1	20.73	20.84	20.81	22.0	0.0
Channel								
Frequency (MHz)				7530.0	7540.0	7550.0		
40	QPSK	1	1	20.70	20.87	20.73	22.0	0.0
Channel								
Frequency (MHz)				8100.0	8110.0	8120.0		
30	QPSK	1	1	20.83	20.92	20.81	22.0	0.0
Channel								
Frequency (MHz)				8670.0	8680.0	8690.0		
20	QPSK	1	1	20.68	20.89	20.81	22.0	0.0

n41_FCC_HPUE Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Mid Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2582.0	2592.0	2602.0		
100	P12 BPSK	1	1	20.75	20.82	20.74	22.0	0.0
100	P12 BPSK	1	137	20.70	20.83	20.83		
100	P12 BPSK	1	271	20.75	20.88	20.85		
100	P12 BPSK	135	0	20.81	20.96	20.73	22.0	0.0
100	P12 BPSK	135	69	20.74	20.91	20.81	22.0	0.0
100	P12 BPSK	135	138	20.85	20.98	20.90	22.0	0.0
100	P12 BPSK	270	0	20.86	21.00	20.73		
100	QPSK	1	1	20.83	21.01	20.85		
100	QPSK	1	137	20.88	20.94	20.84	22.0	0.0
100	QPSK	1	271	20.73	20.86	20.90		
100	QPSK	135	0	20.85	20.93	20.81	22.0	0.0
100	QPSK	135	69	20.82	20.96	20.92		
100	QPSK	135	138	20.83	20.88	20.84		
100	QPSK	270	0	20.81	20.99	20.89	22.0	0.0
100	16QAM	1	1	20.73	20.86	20.83	22.0	0.0
100	64QAM	1	1	20.85	20.87	20.81	22.0	0.0
100	256QAM	1	1	20.75	20.87	20.83	22.0	0.0
Channel								
Frequency (MHz)				5250.0	5260.0	5270.0		
50	QPSK	1	1	20.74	20.85	20.81	22.0	0.0
Channel				5274.0	5284.0	5294.0		
80	QPSK	1	1	20.82	20.93	20.89	22.0	0.0
Channel								
Frequency (MHz)				5820.0	5830.0	5840.0		
70	QPSK	1	1	20.83	20.93	20.85	22.0	0.0
Channel								
Frequency (MHz)				6390.0	6400.0	6410.0		
60	QPSK	1	1	20.69	20.96	20.82	22.0	0.0
Channel								
Frequency (MHz)				6960.0	6970.0	6980.0		
50	QPSK	1	1	20.73	20.84	20.81	22.0	0.0
Channel								
Frequency (MHz)				7530.0	7540.0	7550.0		
40	QPSK	1	1	20.70	20.87	20.73	22.0	0.0
Channel								
Frequency (MHz)				8100.0	8110.0	8120.0		
30	QPSK	1	1	20.83	20.92	20.81	22.0	0.0
Channel								
Frequency (MHz)				8670.0	8680.0	8690.0		
20	QPSK	1	1	20.69	20.89	20.81	22.0	0.0



n41_FCC Ant 1							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	
Channel				505002	518098	530000	
Frequency (MHz)				2580.01	2590.99	2600	
100	PV2 BPSK	1	1	21.25	21.35	21.05	
100	PV2 BPSK	1	137	20.80	20.91	20.59	
100	PV2 BPSK	1	271	21.03	21.02	20.75	
100	PV2 BPSK	135	0	21.07	21.12	20.73	22.5
100	PV2 BPSK	135	66	20.99	20.99	20.68	22.5
100	PV2 BPSK	135	138	21.02	21.02	20.68	22.5
100	PV2 BPSK	270	0	21.00	21.04	20.68	22.5
100	QPSK	1	1	21.25	21.05	21.00	
100	QPSK	1	137	21.31	21.31	20.99	22.5
100	QPSK	1	271	21.35	21.45	21.18	
100	QPSK	135	0	21.13	21.31	20.95	22.5
100	QPSK	135	66	21.25	21.43	21.13	22.5
100	QPSK	135	138	21.25	21.25	20.80	22.5
100	QPSK	270	0	21.23	21.38	21.03	22.5
100	HQAM	1	1	21.25	21.44	21.04	22.5
100	HQAM	1	1	21.23	21.33	20.93	22.5
100	256QAM	1	1	19.85	19.98	19.71	21.0
Channel				505000	518000	530000	
Frequency (MHz)				2581	2592.99	2644.98	
50	QPSK	1	1	21.22	21.34	21.13	22.5
Channel				505004	518096	530000	
Frequency (MHz)				2582.02	2592.99	2644.99	
80	QPSK	1	1	21.23	21.35	21.04	22.5
Channel				505002	518098	531000	
Frequency (MHz)				2583.01	2592.99	2645	
70	QPSK	1	1	21.25	21.45	21.12	22.5
Channel				505000	518098	531996	
Frequency (MHz)				2582	2592.99	2650.98	
60	QPSK	1	1	21.25	21.38	21.07	22.5
Channel				505004	518096	530996	
Frequency (MHz)				2582.04	2592.99	2644.99	
50	QPSK	1	1	21.27	21.33	21.02	22.5
Channel				505005	518098	530000	
Frequency (MHz)				2583.01	2592.99	2670	
40	QPSK	1	1	21.25	21.45	21.14	22.5
Channel				505000	518098	530996	
Frequency (MHz)				2581	2592.99	2674.98	
30	QPSK	1	1	21.27	21.43	21.13	22.5
Channel				501204	518098	530998	
Frequency (MHz)				2582.02	2592.99	2669.99	
20	QPSK	1	1	21.35	21.41	21.05	22.5

n41_FCC_HPUE Ant 1							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	
Channel				505002	518098	530000	
Frequency (MHz)				2581.01	2592.99	2645 <th></th>	
100	PV2 BPSK	1	1	22.05	22.82	22.66	
100	PV2 BPSK	1	137	22.71	22.83	22.69	
100	PV2 BPSK	1	271	22.68	22.68	22.71	24.0
100	PV2 BPSK	135	0	22.84	22.90	22.60	24.0
100	PV2 BPSK	135	66	22.89	22.89	22.66	24.0
100	PV2 BPSK	135	138	22.89	22.71	22.65	24.0
100	PV2 BPSK	270	0	22.81	22.89	22.84	24.0
100	QPSK	1	1	22.36	22.95	22.75	
100	QPSK	1	137	22.83	22.93	22.80	24.0
100	QPSK	1	271	22.80	22.80	22.79	
100	QPSK	135	0	22.74	22.85	22.52	24.0
100	QPSK	135	66	22.81	22.89	22.85	24.0
100	QPSK	135	138	22.80	22.84	22.75	24.0
100	QPSK	270	0	22.78	22.92	22.71	24.0
100	HQAM	1	1	22.70	22.78	22.66	24.0
100	64QAM	1	1	21.75	21.77	21.58	21.0
100	256QAM	1	1	19.87	19.88	19.71	21.0
Channel				505000	518098	530996	
Frequency (MHz)				2581	2592.99	2644.98	
50	QPSK	1	1	22.79	22.81	22.85	24.0
Channel				505004	518096	530996	
Frequency (MHz)				2582.02	2592.99	2649.99	
80	QPSK	1	1	22.80	22.84	22.82	24.0
Channel				505002	518098	531000	
Frequency (MHz)				2583.01	2592.99	2645	
70	QPSK	1	1	22.81	22.89	22.77	24.0
Channel				505000	518098	531996	
Frequency (MHz)				2582	2592.99	2650.98	
60	QPSK	1	1	22.75	22.93	22.79	24.0
Channel				505004	518096	530996	
Frequency (MHz)				2582.04	2592.99	2644.99	
50	QPSK	1	1	22.72	22.91	22.73	24.0
Channel				505005	518098	530000	
Frequency (MHz)				2583.01	2592.99	2670	
40	QPSK	1	1	22.80	22.82	22.72	24.0
Channel				505000	518098	530996	
Frequency (MHz)				2581	2592.99	2674.98	
30	QPSK	1	1	22.75	22.90	22.77	24.0
Channel				501204	518098	530998	
Frequency (MHz)				2582.02	2592.99	2669.99	
20	QPSK	1	1	22.78	22.82	22.52	24.0



n41_FCC Ant 6

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2550.01	2550.99	2550		
100	PV2 BPSK	1	1	18.24	18.33	18.37	19.5	0.0
100	PV2 BPSK	1	137	18.21	18.33	18.22		
100	PV2 BPSK	1	271	18.48	18.52	18.51		
100	PV2 BPSK	135	0	18.24	18.37	18.34	19.5	0.0
100	PV2 BPSK	135	69	18.34	18.36	18.18	19.5	0.0
100	PV2 BPSK	135	198	18.31	18.27	18.48	19.5	0.0
100	PV2 BPSK	270	0	18.48	18.51	18.39		
100	QPSK	1	1	18.48	18.55	18.55		
100	QPSK	1	137	18.19	18.37	18.21	19.5	0.0
100	QPSK	1	271	18.36	18.43	18.31		
100	QPSK	135	0	18.35	18.21	18.23	19.5	0.0
100	QPSK	135	69	18.33	18.50	18.32		
100	QPSK	135	198	18.30	18.45	18.27		
100	QPSK	270	0	18.34	18.27	18.38	19.5	0.0
100	HQAM	1	1	18.45	18.52	18.51	19.5	0.0
100	HQAM	1	1	18.51	18.27	18.38	19.5	0.0
100	256QAM	1	1	18.34	18.36	18.24	19.5	0.0
Channel								
Frequency (MHz)				5020.00	5020.00	5020.00		
50	QPSK	1	1	18.42	18.42	18.17	19.5	0.0
Channel								
Frequency (MHz)				5020.02	5020.98	5020.98		
80	QPSK	1	1	18.18	18.31	18.18	19.5	0.0
Channel								
Frequency (MHz)				5020.02	5020.98	5020.98		
70	QPSK	1	1	18.20	18.35	18.28	19.5	0.0
Channel								
Frequency (MHz)				5020.00	5020.98	5020.98		
60	QPSK	1	1	18.17	18.34	18.27	19.5	0.0
Channel								
Frequency (MHz)				5020.01	5020.99	5020.99		
50	QPSK	1	1	18.24	18.43	18.20	19.5	0.0
Channel								
Frequency (MHz)				2550.01	2550.99	2550		
40	QPSK	1	1	18.25	18.44	18.22	19.5	0.0
Channel								
Frequency (MHz)				5020.00	5020.98	5020.98		
30	QPSK	1	1	18.24	18.43	18.24	19.5	0.0
Channel								
Frequency (MHz)				5020.04	5020.98	5020.98		
20	QPSK	1	1	18.33	18.49	18.20	19.5	0.0

n41_FCC_HPUE Ant 6

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2550.01	2550.99	2550		
100	PV2 BPSK	1	1	18.45	18.45	18.32	19.5	0.0
100	PV2 BPSK	1	137	18.21	18.33	18.22		
100	PV2 BPSK	1	271	18.48	18.52	18.51		
100	PV2 BPSK	135	0	18.24	18.37	18.34	19.5	0.0
100	PV2 BPSK	135	69	18.34	18.36	18.18	19.5	0.0
100	PV2 BPSK	135	198	18.31	18.27	18.48	19.5	0.0
100	PV2 BPSK	270	0	18.48	18.51	18.39		
100	QPSK	1	1	18.48	18.55	18.55		
100	QPSK	1	137	18.19	18.37	18.21	19.5	0.0
100	QPSK	1	271	18.36	18.43	18.31		
100	QPSK	135	0	18.35	18.21	18.23	19.5	0.0
100	QPSK	135	69	18.33	18.50	18.32		
100	QPSK	135	198	18.30	18.45	18.27		
100	QPSK	270	0	18.34	18.27	18.38	19.5	0.0
100	16QAM	1	1	18.45	18.52	18.51	19.5	0.0
100	64QAM	1	1	18.43	18.27	18.38	19.5	0.0
100	256QAM	1	1	18.34	18.36	18.24	19.5	0.0
Channel								
Frequency (MHz)				5020.00	5020.00	5020.00		
50	QPSK	1	1	18.28	18.48	18.17	19.5	0.0
Channel								
Frequency (MHz)				5020.04	5020.98	5020.98		
80	QPSK	1	1	18.18	18.31	18.18	19.5	0.0
Channel								
Frequency (MHz)				5020.02	5020.98	5020.98		
70	QPSK	1	1	18.20	18.35	18.28	19.5	0.0
Channel								
Frequency (MHz)				5020.00	5020.98	5020.98		
60	QPSK	1	1	18.17	18.34	18.27	19.5	0.0
Channel								
Frequency (MHz)				5020.04	5020.98	5020.98		
50	QPSK	1	1	18.24	18.43	18.20	19.5	0.0
Channel								
Frequency (MHz)				2550.01	2550.99	2550		
40	QPSK	1	1	18.25	18.44	18.22	19.5	0.0
Channel								
Frequency (MHz)				5020.00	5020.98	5020.98		
30	QPSK	1	1	18.24	18.43	18.24	19.5	0.0
Channel								
Frequency (MHz)				5020.04	5020.98	5020.98		
20	QPSK	1	1	18.33	18.49	18.20	19.5	0.0



n48_FCC Ant 2

Bandwidth (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				63800	64166	64532		
40	PI2 BPSK	1	1	14.21	14.19	14.21	15.5	0.0
40	PI2 BPSK	1	53	14.29	14.22	14.19		
40	PI2 BPSK	1	104	14.33	14.25	14.11		
40	PI2 BPSK	50	0	14.59	14.27	14.36	15.5	0.0
40	PI2 BPSK	50	28	14.15	14.30	13.89	15.5	0.0
40	PI2 BPSK	50	56	14.21	14.25	14.19	15.5	0.0
40	PI2 BPSK	100	0	14.02	14.20	14.13		
40	QPSK	1	1	14.23	14.37	14.15		
40	QPSK	1	53	14.55	14.15	14.59	15.5	0.0
40	QPSK	1	104	14.16	14.59	13.87		
40	QPSK	50	0	14.13	14.15	14.21	15.5	0.0
40	QPSK	50	28	14.23	14.29	14.25		
40	QPSK	50	56	14.26	14.15	13.96	15.5	0.0
40	QPSK	100	0	14.59	14.23	13.96	15.5	0.0
40	NSM	1	1	14.07	14.20	14.28	15.5	0.0
40	NSM	1	1	14.52	14.08	14.16	15.5	0.0
40	25GAM	1	1	14.01	14.19	14.14	15.5	0.0
Channel								
Frequency (MHz)				63900	64166	64532	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	14.43	14.54	14.56	15.5	0.0
Channel								
Frequency (MHz)				63900	64166	64532	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	14.27	14.27	14.03	15.5	0.0
Channel								
Frequency (MHz)				63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	14.19	14.35	14.04	15.5	0.0

n48_FCC Ant 5

Bandwidth (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				63600	64166	64532		
40	PI2 BPSK	1	1	20.97	20.72	20.81		
40	PI2 BPSK	1	53	20.73	20.70	20.62	22.0	0.0
40	PI2 BPSK	1	104	20.65	20.75	20.64		
40	PI2 BPSK	50	0	20.87	20.87	20.72	22.0	0.0
40	PI2 BPSK	50	28	20.84	20.76	20.71	22.0	0.0
40	PI2 BPSK	50	56	20.95	20.65	20.50	22.0	0.0
40	PI2 BPSK	100	0	20.72	20.65	20.73		
40	QPSK	1	1	20.77	20.95	20.75		
40	QPSK	1	53	20.87	20.84	20.69	22.0	0.0
40	QPSK	1	104	20.83	20.70	20.70		
40	QPSK	50	0	20.92	20.83	20.73	22.0	0.0
40	QPSK	50	28	20.70	20.75	20.75		
40	QPSK	50	56	20.97	20.92	20.83	22.0	0.0
40	QPSK	100	0	20.90	20.87	20.68	22.0	0.0
40	NSM	1	1	20.48	20.55	20.46	22.0	0.0
40	NSM	1	1	19.97	19.92	19.91	20.5	1.5
40	25GAM	1	1	17.81	17.81	17.50	19.5	3.5
Channel								
Frequency (MHz)				63600	64166	64532	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	20.84	20.83	20.71	22.0	0.0
Channel								
Frequency (MHz)				63600	64166	64532	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	20.90	20.72	20.69	22.0	0.0
Channel								
Frequency (MHz)				63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	20.97	20.80	20.65	22.0	0.0



Part270 n77 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	14.20	13.90	13.77	15.0	0.0
100	PIQ BPSK	1	137	14.15	13.91	13.73		
100	PIQ BPSK	1	271	14.11	13.90	13.60		
100	PIQ BPSK	135	0	14.19	13.91	13.82		
100	PIQ BPSK	135	69	13.96	13.70	13.58	15.0	0.0
100	PIQ BPSK	135	134	14.15	13.75	13.70	15.0	0.0
100	PIQ BPSK	270	0	14.15	13.84	13.62	15.0	0.0
100	QPSK	1	1	14.20	14.00	13.96	15.0	0.0
100	QPSK	1	137	14.28	13.89	13.74		
100	QPSK	1	271	14.26	13.79	13.69		
100	QPSK	135	0	14.18	13.71	13.59		
100	QPSK	135	69	14.32	13.59	13.39	15.0	0.0
100	QPSK	135	134	14.28	13.96	13.85	15.0	0.0
100	QPSK	270	0	14.30	13.92	13.88	15.0	0.0
100	SSB-M	1	1	14.19	13.96	13.86	15.0	0.0
100	SSB-M	1	1	14.08	13.74	13.65	15.0	0.0
100	25GAM	1	1	14.24	13.98	13.78	15.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	14.43	13.90	13.81	15.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	14.23	13.98	13.93	15.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	14.26	13.90	13.85	15.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	14.31	13.89	13.84	15.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	14.23	13.98	13.80	15.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	14.20	13.91	13.89	15.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.23	13.92	13.91	15.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.21	13.85	13.85	15.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.29	13.97	13.80	15.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.26	13.87	13.81	15.0	0.0

Part270 n77 HPUE Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	14.20	13.90	13.77	15.0	0.0
100	PIQ BPSK	1	137	14.15	13.91	13.75		
100	PIQ BPSK	1	271	14.14	13.89	13.69		
100	PIQ BPSK	135	0	14.15	13.91	13.82		
100	PIQ BPSK	135	69	13.96	13.70	13.58	15.0	0.0
100	PIQ BPSK	135	134	14.15	13.75	13.70	15.0	0.0
100	PIQ BPSK	270	0	14.15	13.84	13.62	15.0	0.0
100	QPSK	1	1	14.20	14.00	13.96	15.0	0.0
100	QPSK	1	137	14.28	13.89	13.74		
100	QPSK	1	271	14.26	13.79	13.69		
100	QPSK	135	0	14.18	13.71	13.59		
100	QPSK	135	69	14.32	13.59	13.39	15.0	0.0
100	QPSK	135	134	14.28	13.96	13.85	15.0	0.0
100	QPSK	270	0	14.30	13.92	13.88	15.0	0.0
100	SSB-M	1	1	14.19	13.96	13.86	15.0	0.0
100	SSB-M	1	1	14.08	13.74	13.65	15.0	0.0
100	25GAM	1	1	14.24	13.98	13.78	15.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	14.43	13.90	13.81	15.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	14.23	13.98	13.93	15.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	14.26	13.90	13.85	15.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	14.31	13.89	13.84	15.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	14.23	13.98	13.80	15.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	14.20	13.91	13.89	15.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.23	13.92	13.91	15.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.21	13.85	13.85	15.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.29	13.97	13.80	15.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.26	13.87	13.81	15.0	0.0



Part27Q n77 Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	14.30	14.36	14.36	15.0	0.0
100	PIQ BPSK	1	137	14.30	14.36	14.36	15.0	0.0
100	PIQ BPSK	1	271	14.30	14.36	14.36	15.0	0.0
100	PIQ BPSK	135	0	14.31	14.37	14.37	15.0	0.0
100	PIQ BPSK	135	69	14.32	14.38	14.38	15.0	0.0
100	PIQ BPSK	135	138	14.33	14.39	14.39	15.0	0.0
100	PIQ BPSK	270	0	14.32	14.38	14.38	15.0	0.0
100	QPSK	1	1	14.34	14.40	14.40	15.0	0.0
100	QPSK	1	137	14.35	14.41	14.41	15.0	0.0
100	QPSK	1	271	14.36	14.42	14.42	15.0	0.0
100	QPSK	135	0	14.35	14.41	14.41	15.0	0.0
100	QPSK	135	69	14.42	14.48	14.48	15.0	0.0
100	QPSK	135	138	14.34	14.40	14.40	15.0	0.0
100	QPSK	270	0	14.35	14.41	14.41	15.0	0.0
100	ISDM	1	1	14.35	14.41	14.41	15.0	0.0
100	ISDM	1	1	14.35	14.41	14.41	15.0	0.0
100	25GAM	1	1	14.42	14.48	14.48	15.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	14.25	14.31	14.31	15.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	14.23	14.27	14.29	15.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	14.24	14.34	14.30	15.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	14.34	14.33	14.31	15.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	14.31	14.34	14.32	15.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	14.30	14.32	14.29	15.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.24	14.23	14.23	15.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.31	14.40	14.34	15.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.32	14.37	14.34	15.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.36	14.41	14.23	15.0	0.0

Part27Q n77 HPUE Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	14.30	14.36	14.36	15.0	0.0
100	PIQ BPSK	1	137	14.30	14.36	14.36	15.0	0.0
100	PIQ BPSK	1	271	14.30	14.36	14.36	15.0	0.0
100	PIQ BPSK	135	0	14.31	14.37	14.37	15.0	0.0
100	PIQ BPSK	135	69	14.22	14.28	14.28	15.0	0.0
100	PIQ BPSK	135	138	14.23	14.29	14.29	15.0	0.0
100	PIQ BPSK	270	0	14.32	14.38	14.38	15.0	0.0
100	QPSK	1	1	14.34	14.40	14.40	15.0	0.0
100	QPSK	1	137	14.35	14.41	14.41	15.0	0.0
100	QPSK	1	271	14.36	14.42	14.42	15.0	0.0
100	QPSK	135	0	14.35	14.41	14.41	15.0	0.0
100	QPSK	135	69	14.42	14.48	14.48	15.0	0.0
100	QPSK	135	138	14.34	14.40	14.40	15.0	0.0
100	QPSK	270	0	14.35	14.41	14.41	15.0	0.0
100	ISDM	1	1	14.35	14.41	14.41	15.0	0.0
100	ISDM	1	1	14.35	14.41	14.41	15.0	0.0
100	25GAM	1	1	14.42	14.48	14.48	15.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	14.25	14.31	14.31	15.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	14.23	14.27	14.29	15.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	14.24	14.34	14.30	15.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	14.34	14.33	14.31	15.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	14.31	14.34	14.32	15.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	14.30	14.32	14.29	15.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.24	14.23	14.23	15.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.31	14.40	14.34	15.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.32	14.37	14.34	15.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.36	14.41	14.23	15.0	0.0



Part270 n77 Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	2152	2150	2150	23.0	0.0
100	PI2 BPSK	1	137	2181	2160	2187		
100	PI2 BPSK	1	211	2185	2164	2190	23.0	0.0
100	PI2 BPSK	135	0	2137	2158	2144		
100	PI2 BPSK	135	69	2178	2158	2153	23.0	0.0
100	PI2 BPSK	135	138	2179	2155	2156		
100	PI2 BPSK	270	0	2164	2166	2149	23.0	0.0
100	QPSK	1	1	2157	2157	2163		
100	QPSK	1	137	2178	2183	2154	23.0	0.0
100	QPSK	1	271	2171	2160	2158		
100	QPSK	135	0	2175	2159	2148	23.0	0.0
100	QPSK	135	69	2191	2158	2156		
100	QPSK	135	138	2175	2155	2155	23.0	0.0
100	QPSK	270	0	2150	2184	2158		
100	16QAM	1	1	2184	2154	2150	20.5	2.5
100	16QAM	1	1	2151	2035	2038		
100	256QAM	1	1	1983	1943	1976	20.5	2.5
Channel								
Frequency (MHz)								
50	QPSK	1	1	1745	1742	1745	23.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	2143	2164	2145	23.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	2185	2182	2150	23.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	2184	2186	2148	23.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	2150	2182	2152	23.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	2180	2188	2149	23.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	2150	2150	2150	23.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	2181	2181	2148	23.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	2191	2186	2158	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	2150	2159	2145	23.0	0.0
Channel								

Part270 n77 HPUE Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	2187	2155	2150	23.0	0.0
100	PI2 BPSK	1	137	2181	2160	2187		
100	PI2 BPSK	1	211	2185	2164	2190	23.0	0.0
100	PI2 BPSK	135	0	2137	2158	2144		
100	PI2 BPSK	135	69	2178	2158	2153	23.0	0.0
100	PI2 BPSK	135	138	2179	2155	2156		
100	PI2 BPSK	270	0	2164	2166	2149	23.0	0.0
100	QPSK	1	1	2157	2157	2163		
100	QPSK	1	137	2178	2183	2154	23.0	0.0
100	QPSK	1	271	2171	2160	2158		
100	QPSK	135	0	2175	2159	2148	23.0	0.0
100	QPSK	135	69	2191	2158	2156		
100	QPSK	135	138	2175	2155	2155	23.0	0.0
100	QPSK	270	0	2150	2184	2158		
100	16QAM	1	1	2184	2154	2150	20.5	2.5
100	16QAM	1	1	2151	2035	2038		
100	256QAM	1	1	1983	1943	1976	20.5	2.5
Channel								
Frequency (MHz)								
50	QPSK	1	1	1745	1742	1745	23.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	2143	2164	2145	23.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	2185	2182	2150	23.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	2184	2186	2148	23.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	2150	2182	2152	23.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	2180	2188	2149	23.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	2150	2150	2150	23.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	2181	2181	2148	23.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	2191	2186	2158	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	2150	2159	2145	23.0	0.0
Channel								



Part270 n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	13.27	13.70	13.92	15.0	0.0
100	PIQ BPSK	1	137	13.27	13.70	13.92	15.0	0.0
100	PIQ BPSK	1	271	13.27	13.70	13.92	15.0	0.0
100	PIQ BPSK	135	0	13.27	13.70	13.92	15.0	0.0
100	PIQ BPSK	135	69	13.27	13.70	13.92	15.0	0.0
100	PIQ BPSK	135	138	13.27	13.70	13.92	15.0	0.0
100	PIQ BPSK	270	0	13.27	13.70	13.92	15.0	0.0
100	QPSK	1	1	13.27	13.71	13.92	15.0	0.0
100	QPSK	1	137	13.27	13.71	13.92	15.0	0.0
100	QPSK	1	271	13.27	13.71	13.92	15.0	0.0
100	QPSK	135	0	13.27	13.71	13.92	15.0	0.0
100	QPSK	135	69	13.27	13.71	13.92	15.0	0.0
100	QPSK	135	138	13.27	13.71	13.92	15.0	0.0
100	QPSK	270	0	13.27	13.71	13.92	15.0	0.0
100	NSAM	1	1	13.27	13.81	13.92	15.0	0.0
100	NSAM	1	1	13.27	13.85	13.92	15.0	0.0
100	25GAM	1	1	13.27	13.67	13.92	15.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.44	13.62	13.55	15.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.22	13.59	13.43	15.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	13.24	13.59	13.55	15.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.61	13.69	13.58	15.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.56	13.60	13.50	15.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.41	13.54	13.54	15.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.29	13.34	13.55	15.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.21	13.25	13.62	15.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.57	13.63	13.60	15.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.60	13.58	13.55	15.0	0.0

Part27Q n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	13.25	13.77	13.92	15.0	0.0
100	PIQ BPSK	1	137	13.25	13.77	13.92	15.0	0.0
100	PIQ BPSK	1	271	13.25	13.77	13.92	15.0	0.0
100	PIQ BPSK	135	0	13.25	13.88	13.92	15.0	0.0
100	PIQ BPSK	135	69	13.25	13.88	13.92	15.0	0.0
100	PIQ BPSK	135	138	13.25	13.88	13.92	15.0	0.0
100	PIQ BPSK	270	0	13.25	13.88	13.92	15.0	0.0
100	QPSK	1	1	13.25	13.83	13.92	15.0	0.0
100	QPSK	1	137	13.25	13.83	13.92	15.0	0.0
100	QPSK	1	271	13.25	13.83	13.92	15.0	0.0
100	QPSK	135	0	13.25	13.92	13.92	15.0	0.0
100	QPSK	135	69	13.25	13.92	13.92	15.0	0.0
100	QPSK	135	138	13.25	13.92	13.92	15.0	0.0
100	QPSK	270	0	13.25	13.92	13.92	15.0	0.0
100	NSAM	1	1	13.25	13.85	13.92	15.0	0.0
100	NSAM	1	1	13.25	13.75	13.92	15.0	0.0
100	25GAM	1	1	13.25	13.88	13.92	15.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.30	13.81	13.43	15.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.24	13.73	13.45	15.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.24	13.69	13.49	15.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.68	13.72	13.63	15.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.68	13.81	13.73	15.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.73	13.71	13.62	15.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.72	13.71	13.71	15.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.75	13.77	13.62	15.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.72	13.73	13.67	15.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.69	13.70	13.62	15.0	0.0



Part270 n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P1/2 BPSK	1	1	21.70	21.70	21.70	23.0	0.0
100	P1/2 BPSK	1	137	21.73	21.73	21.73	23.0	0.0
100	P1/2 BPSK	1	221	21.75	21.75	21.75	23.0	0.0
100	P1/2 BPSK	135	0	21.78	21.78	21.78	23.0	0.0
100	P1/2 BPSK	135	69	21.79	21.79	21.79	23.0	0.0
100	P1/2 BPSK	135	138	21.85	21.85	21.85	23.0	0.0
100	P1/2 BPSK	270	0	21.73	21.73	21.73	23.0	0.0
100	QPSK	1	1	21.66	21.66	21.66	23.0	0.0
100	QPSK	1	137	21.78	21.78	21.78	23.0	0.0
100	QPSK	1	271	21.79	21.79	21.79	23.0	0.0
100	QPSK	135	69	21.75	21.75	21.75	23.0	0.0
100	QPSK	135	138	21.85	21.85	21.85	23.0	0.0
100	QPSK	270	0	21.78	21.78	21.78	23.0	0.0
100	16QAM	1	1	21.78	21.78	21.78	23.0	0.0
100	64QAM	1	1	21.75	21.75	21.75	23.0	0.0
100	256QAM	1	1	19.10	19.10	19.10	20.0	3.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64969	65000	65032	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	3745.02	3750	3754.98	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	64934	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.75	21.84	21.83	23.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.72	21.78	21.85	23.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	64968	65000	65132	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.73	21.77	21.83	23.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	64934	65000	65106	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	QPSK	1	1	3726.01	3730	3734.99	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.68	21.70	21.73	23.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	64900	65000	65000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	3720	3750	3780	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.74	21.78	21.81	23.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	64766	65000	65032	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.72	21.65	21.63	23.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	64734	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.65	21.68	21.69	23.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	64718	65000	65032	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	3707.82	3709	3709.81	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.84	21.74	21.78	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	64700	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	3709	3750	3791	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.66	21.78	21.75	23.0	0.0



Part27Q n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MFR (dB)
Channel								
100	PI2 BPSK	1	1	22.01	22.01	22.01	23.0	0.0
100	PI2 BPSK	1	137	22.01	22.01	22.01	23.0	0.0
100	PI2 BPSK	1	271	22.00	22.00	22.00	23.0	0.0
100	PI2 BPSK	135	0	22.05	22.05	22.05	23.0	0.0
100	PI2 BPSK	135	69	22.02	22.02	22.02	23.0	0.0
100	PI2 BPSK	135	135	21.98	21.98	21.98	23.0	0.0
100	PI2 BPSK	270	0	21.98	21.98	21.98	23.0	0.0
100	QPSK	1	1	22.00	22.00	22.00	23.0	0.0
100	QPSK	1	137	22.01	22.01	22.01	23.0	0.0
100	QPSK	1	271	22.00	22.00	22.00	23.0	0.0
100	QPSK	135	0	21.95	21.95	21.95	23.0	0.0
100	QPSK	135	69	22.01	22.01	22.01	23.0	0.0
100	QPSK	135	135	21.95	21.95	21.95	23.0	0.0
100	QPSK	270	0	21.97	21.97	21.97	23.0	0.0
100	16QAM	1	1	21.95	21.95	21.95	23.0	0.0
100	64QAM	1	1	21.88	21.88	21.88	22.5	0.5
100	256QAM	1	1	19.22	19.22	19.22	20.0	3.0
Channel								
90	QPSK	1	1	63300	63332	63360	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3495	3499.98	3504.98		
90	QPSK	1	1	21.80	21.80	21.80	23.0	0.0
	Frequency (MHz)			63365	63332	63300	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3495.02	3492.98	3493.0		
80	QPSK	1	1	21.81	21.81	21.84	23.0	0.0
Channel								
70	QPSK	1	1	63234	63332	63432	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3498.01	3497.98	3497.98		
70	QPSK	1	1	21.82	21.80	21.85	23.0	0.0
Channel								
60	QPSK	1	1	63000	63332	63660	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3490	3499.98	3509.98		
60	QPSK	1	1	21.88	21.91	21.97	23.0	0.0
Channel								
50	QPSK	1	1	63068	63332	63600	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3495.02	3499.98	3505		
50	QPSK	1	1	21.84	21.84	21.97	23.0	0.0
Channel								
40	QPSK	1	1	63135	63332	63532	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3471.01	3499.98	3529.98		
40	QPSK	1	1	21.84	21.80	21.85	23.0	0.0
Channel								
30	QPSK	1	1	63000	63332	63600	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3495	3499.98	3504.98		
30	QPSK	1	1	21.82	21.84	21.87	23.0	0.0
Channel								
20	QPSK	1	1	63068	63332	63600	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3498.02	3499.98	3500		
20	QPSK	1	1	21.86	21.85	21.95	23.0	0.0
Channel								
18	QPSK	1	1	63000	63332	63600	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3495.5	3499.98	3504.50		
18	QPSK	1	1	21.92	21.92	21.91	23.0	0.0
Channel								
10	QPSK	1	1	63034	63332	63632	Tune-up limit (dBm)	MFR
	Frequency (MHz)			3495.01	3499.98	3504.98		
10	QPSK	1	1	21.82	21.99	21.87	23.0	0.0



Reduced Power Mode for DSI7

n2 Ant 0										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Med. Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency [MHz]										
20	P12 BPSK	1	1	16.69	16.86	16.58				
20	P12 BPSK	1	53	16.66	16.86	16.49	17.5	0.0		
20	P12 BPSK	1	104	16.57	16.81	16.50				
20	P12 BPSK	50	0	16.80	16.94	16.58	17.5	0.0		
20	P12 BPSK	50	28	16.83	16.88	16.47	17.5	0.0		
20	P12 BPSK	50	56	16.86	16.73	16.44				
20	P12 BPSK	100	0	16.60	16.80	16.55	17.5	0.0		
20	QPSK	1	1	16.23	17.00	16.75				
20	QPSK	1	53	16.78	16.88	16.65	17.5	0.0		
20	QPSK	1	104	16.58	16.88	16.62				
20	QPSK	50	0	16.58	16.80	16.50	17.5	0.0		
20	QPSK	50	28	16.61	16.89	16.70	17.5	0.0		
20	QPSK	50	56	16.60	16.83	16.68	17.5	0.0		
20	QPSK	100	0	16.74	16.88	16.67				
20	16QAM	1	1	16.75	16.87	16.62	17.5	0.0		
20	16QAM	1	1	16.64	16.88	16.57	17.5	0.0		
20	256QAM	1	1	16.71	16.75	16.38	17.5	0.0		
Channel										
				371500	376000	380500	Tune-up limit	MPR		
Frequency [MHz]				3697.5	1680	3922.5	(dBm)	(dB)		
15	QPSK	1	1	16.70	16.96	16.74	17.5	0.0		
Channel										
				371000	376000	381000	Tune-up limit	MPR		
Frequency [MHz]				3695	1680	3905	(dBm)	(dB)		
10	QPSK	1	1	16.77	16.96	16.82	17.5	0.0		
Channel										
				370500	376000	381500	Tune-up limit	MPR		
Frequency [MHz]				3692.5	1680	3927.5	(dBm)	(dB)		
5	QPSK	1	1	16.70	16.88	16.83	17.5	0.0		

n2 Ant 1										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 372000	Power Med. Ch. / Freq 376000	Power High Ch. / Freq 380000	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency [MHz]										
20	P12 BPSK	1	1	17.10	17.21	17.26				
20	P12 BPSK	1	53	17.17	17.19	17.22	18.5	0.0		
20	P12 BPSK	1	104	17.26	17.18	17.20				
20	P12 BPSK	50	0	17.17	17.15	17.21	18.5	0.0		
20	P12 BPSK	50	28	17.21	17.08	17.09	18.5	0.0		
20	P12 BPSK	50	56	17.21	17.05	17.25				
20	P12 BPSK	100	0	17.25	17.28	17.28	18.5	0.0		
20	QPSK	1	1	17.25	17.25	17.25				
20	QPSK	1	53	17.32	17.32	17.34	18.5	0.0		
20	QPSK	1	104	17.29	17.40	17.24				
20	QPSK	50	0	17.13	17.19	17.07	18.5	0.0		
20	QPSK	50	28	17.21	17.33	17.20	18.5	0.0		
20	QPSK	50	56	17.18	17.20	17.08	18.5	0.0		
20	QPSK	100	0	17.11	17.20	17.23				
20	16QAM	1	1	17.18	17.38	17.20	18.5	0.0		
20	16QAM	1	1	17.06	17.20	17.13	18.5	0.0		
20	256QAM	1	1	17.09	17.14	17.17	18.5	0.0		
Channel										
				371500	376000	380500	Tune-up limit	MPR		
Frequency [MHz]				3697.5	1680	3922.5	(dBm)	(dB)		
15	QPSK	1	1	17.31	17.37	17.33	18.5	0.0		
Channel										
				371000	376000	381000	Tune-up limit	MPR		
Frequency [MHz]				3695	1680	3905	(dBm)	(dB)		
10	QPSK	1	1	17.33	17.43	17.24	18.5	0.0		
Channel										
				370500	376000	381500	Tune-up limit	MPR		
Frequency [MHz]				3692.5	1680	3927.5	(dBm)	(dB)		
5	QPSK	1	1	17.31	17.37	17.33	18.5	0.0		



n5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Med. Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	P12 BPSK	1	1	23.04	23.16	23.10	24.0	0.0
20	P12 BPSK	1	53	23.09	23.15	23.00		
20	P12 BPSK	1	104	23.09	22.94	23.03		
20	P12 BPSK	50	0	23.08	23.08	23.11	24.0	0.0
20	P12 BPSK	50	28	23.15	23.11	23.07	24.0	0.0
20	P12 BPSK	50	56	23.01	22.99	23.00	24.0	0.0
20	P12 BPSK	100	0	23.13	23.08	23.07	24.0	0.0
20	QPSK	1	1	23.13	23.16	23.12	24.0	0.0
20	QPSK	1	53	23.07	23.15	23.11		
20	QPSK	1	104	23.04	22.99	23.11		
20	QPSK	50	0	23.12	23.04	23.00	24.0	0.0
20	QPSK	50	28	23.13	23.15	23.10	24.0	0.0
20	QPSK	50	56	22.97	22.95	23.05	24.0	0.0
20	QPSK	100	0	23.09	23.07	23.03	24.0	0.0
20	16QAM	1	1	22.12	22.18	21.95	23.0	1.0
20	16QAM	1	1	21.14	21.36	21.92	21.5	2.5
20	256QAM	1	1	19.23	19.12	19.42	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.95	23.14	23.12	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.04	23.11	23.14	24.0	0.0

n5 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Med. Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	P12 BPSK	1	1	22.96	22.97	23.04	24.0	0.0
20	P12 BPSK	1	53	22.92	22.96	22.98		
20	P12 BPSK	1	104	23.00	23.05	23.15		
20	P12 BPSK	50	0	23.03	23.04	22.94	24.0	0.0
20	P12 BPSK	50	28	22.97	23.01	22.93	24.0	0.0
20	P12 BPSK	50	56	22.93	23.03	23.03	24.0	0.0
20	P12 BPSK	100	0	22.97	23.02	22.98	24.0	0.0
20	QPSK	1	1	22.95	22.99	23.05	24.0	0.0
20	QPSK	1	53	22.95	23.12	22.94		
20	QPSK	1	104	23.03	23.15	23.10		
20	QPSK	50	0	22.47	22.53	22.42	23.5	0.5
20	QPSK	50	28	22.94	23.00	22.95	24.0	0.0
20	QPSK	50	56	22.43	22.56	22.46	23.5	0.5
20	QPSK	100	0	22.42	22.48	22.41	23.5	0.5
20	16QAM	1	1	22.30	22.43	22.40	23.5	0.5
20	16QAM	1	1	20.77	21.11	20.92	21.5	2.5
20	256QAM	1	1	19.99	19.11	19.07	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.04	23.03	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.01	23.01	22.99	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.98	23.03	23.07	24.0	0.0



n7 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 504000	Power Med. Ch. / Freq 507000	Power High Ch. / Freq 510000	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
40	P1/2 BPSK	1	1	21.79	22.23	22.02		
40	P1/2 BPSK	1	108	21.83	22.21	21.99	23.0	0.0
40	P1/2 BPSK	1	214	21.86	22.11	22.03		
40	P1/2 BPSK	108	0	21.91	22.15	21.89	23.0	0.0
40	P1/2 BPSK	108	54	21.78	22.18	21.97	23.0	0.0
40	P1/2 BPSK	108	108	21.78	22.19	21.95	23.0	0.0
40	P1/2 BPSK	216	0	21.85	22.10	21.91	23.0	0.0
40	QPSK	1	1	21.85	22.26			
40	QPSK	1	108	21.85	22.19	21.90	23.0	0.0
40	QPSK	1	214	21.86	22.22	21.94		
40	QPSK	108	0	21.80	22.04	21.93	23.0	0.0
40	QPSK	108	54	21.85	22.20	21.95	23.0	0.0
40	QPSK	108	108	21.81	22.04	21.94	23.0	0.0
40	QPSK	216	0	21.83	22.19	21.93	23.0	0.0
40	16QAM	1	1	21.77	22.14	22.04	23.0	0.0
40	64QAM	1	1	20.23	20.66	20.40	21.5	1.5
40	256QAM	1	1	18.30	18.77	18.49	19.5	3.5
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.84	22.22	21.99	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.84	22.25	22.09	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.92	22.16	22.02	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.80	22.29	21.94	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.83	22.26	22.10	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.94	22.16	21.98	23.0	0.0

n7 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq 504000	Power Med. Ch. / Freq 507000	Power High Ch. / Freq 510000	Tune-up limit (dB)	MPR (dB)
Channel								
Frequency (MHz)								
40	P1/2 BPSK	1	1	17.34	17.36	17.23		
40	P1/2 BPSK	1	108	17.33	17.35	17.23		
40	P1/2 BPSK	1	214	17.22	17.37	17.26	18.5	0.0
40	P1/2 BPSK	108	0	17.21	17.30	17.24	18.5	0.0
40	P1/2 BPSK	108	54	17.26	17.28	17.21	18.5	0.0
40	P1/2 BPSK	108	108	17.13	17.32	17.15	18.5	0.0
40	P1/2 BPSK	216	0	17.35	17.35	17.22	18.5	0.0
40	QPSK	1	1	17.29	17.29			
40	QPSK	1	108	17.29	17.30	17.15		
40	QPSK	1	214	17.25	17.22	17.17		
40	QPSK	108	0	17.22	17.14	17.08	18.5	0.0
40	QPSK	108	54	17.25	17.31	17.16	18.5	0.0
40	QPSK	108	108	17.25	17.24	17.09	18.5	0.0
40	QPSK	216	0	17.19	17.33	17.12	18.5	0.0
40	16QAM	1	1	17.25	17.34	17.22	18.5	0.0
40	64QAM	1	1	17.31	17.13	17.23	18.5	0.0
40	256QAM	1	1	17.15	17.28	17.08	18.5	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.30	17.28	17.20	18.5	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
25	QPSK	1	1	17.25	17.31	17.21	18.5	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.18	17.31	17.20	18.5	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
15	QPSK	1	1	17.20	17.28	17.16	18.5	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.23	17.25	17.25	18.5	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
5	QPSK	1	1	17.24	17.31	17.18	18.5	0.0



n12 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	22.74	22.82	22.87	24.0	0.0
15	P12 BPSK	1	40	22.72	22.86	22.84		
15	P12 BPSK	1	77	22.70	22.84	22.81		
15	P12 BPSK	36	0	22.67	22.81	22.86	24.0	0.0
15	P12 BPSK	36	22	22.87	22.83	22.94	24.0	0.0
15	P12 BPSK	36	43	22.81	22.81	22.86	24.0	0.0
15	P12 BPSK	75	0	22.86	22.72	22.87	24.0	0.0
15	QPSK	1	1	22.75	22.85	22.84	24.0	0.0
15	QPSK	1	40	22.65	22.74	22.85		
15	QPSK	1	77	22.70	22.83	22.82		
15	QPSK	36	0	22.33	22.70	22.81	24.0	0.0
15	QPSK	36	22	22.71	22.76	22.81	24.0	0.0
15	QPSK	36	43	22.34	22.84	22.87	24.0	0.0
15	QPSK	75	0	22.40	22.87	22.44	24.0	0.0
15	16QAM	1	1	22.69	22.88	22.79	24.0	0.0
15	64QAM	1	1	21.21	21.19	21.15	21.5	2.5
15	256QAM	1	1	19.33	19.21	19.36	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.84	22.89	22.72	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.80	22.84	22.76	24.0	0.0

n12 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
15	P12 BPSK	1	1	23.21	23.18	23.12	24.0	0.0
15	P12 BPSK	1	40	23.24	23.23	23.18		
15	P12 BPSK	1	77	23.21	23.28	23.25		
15	P12 BPSK	36	0	23.17	23.12	23.16	24.0	0.0
15	P12 BPSK	36	22	23.18	23.16	23.12	24.0	0.0
15	P12 BPSK	36	43	23.12	23.12	23.16	24.0	0.0
15	P12 BPSK	75	0	23.19	23.21	23.15	24.0	0.0
15	QPSK	1	1	23.25	23.28	23.25	24.0	0.0
15	QPSK	1	40	23.25	23.30	23.23		
15	QPSK	1	77	23.26	23.27	23.16		
15	QPSK	36	0	22.85	22.84	22.83	24.0	0.0
15	QPSK	36	22	23.21	23.22	23.11	24.0	0.0
15	QPSK	36	43	22.81	22.80	22.91	24.0	0.0
15	QPSK	75	0	22.87	22.80	22.88	24.0	0.0
15	16QAM	1	1	22.92	22.79	22.82	24.0	0.0
15	64QAM	1	1	20.12	20.27	20.21	21.5	2.5
15	256QAM	1	1	18.69	18.79	18.82	19.5	4.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.25	23.28	23.22	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.16	23.20	23.02	24.0	0.0



n13 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.69			
10	PI2 BPSK	1	26		22.74		24.0	0.0
10	PI2 BPSK	1	50		22.55			
10	PI2 BPSK	25	0		22.27		23.5	0.5
10	PI2 BPSK	25	14		22.63		24.0	0.0
10	PI2 BPSK	25	27		22.16		23.5	0.5
10	PI2 BPSK	50	0		22.30			
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.78		24.0	0.0
10	QPSK	1	50		22.62			
10	QPSK	25	0		21.78		23.0	1.0
10	QPSK	25	14		22.57		24.0	0.0
10	QPSK	25	27		21.86		23.0	1.0
10	QPSK	50	0		21.03			
10	16QAM	1	1		21.83		23.0	1.0
10	64QAM	1	1		20.79		21.5	2.5
10	256QAM	1	1		18.29		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.85		24.0	0.0

n13 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.61			
10	PI2 BPSK	1	26		22.80		24.0	0.0
10	PI2 BPSK	1	50		22.85			
10	PI2 BPSK	25	0		22.28		23.5	0.5
10	PI2 BPSK	25	14		22.67		24.0	0.0
10	PI2 BPSK	25	27		22.54		23.5	0.5
10	PI2 BPSK	50	0		22.32			
10	QPSK	1	1		22.90			
10	QPSK	1	26		22.84		24.0	0.0
10	QPSK	1	50		22.84			
10	QPSK	25	0		21.75		23.0	1.0
10	QPSK	25	14		22.64		24.0	0.0
10	QPSK	25	27		21.82		23.0	1.0
10	QPSK	50	0		21.14			
10	16QAM	1	1		21.95		23.0	1.0
10	64QAM	1	1		19.95		21.5	2.5
10	256QAM	1	1		18.13		19.5	4.5
Channel				165000	166400	166900	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				22.52	22.64	22.89	24.0	0.0
5	QPSK	1	1		22.87		24.0	0.0



n14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit [dBm]	MPR [dB]	
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq			
Channel									
Frequency [MHz]									
10	PI2 BPSK	1	1		22.84				
10	PI2 BPSK	1	26		22.56		24.0	0.0	
10	PI2 BPSK	1	50		22.60				
10	PI2 BPSK	25	0		22.60		24.0	0.0	
10	PI2 BPSK	25	14		22.56		24.0	0.0	
10	PI2 BPSK	25	27		22.51		24.0	0.0	
10	PI2 BPSK	50	0		22.57		24.0	0.0	
10	QPSK	1	1		22.76				
10	QPSK	1	26		22.58		24.0	0.0	
10	QPSK	1	50		22.67				
10	QPSK	25	0		22.60		24.0	0.0	
10	QPSK	25	14		22.63		24.0	0.0	
10	QPSK	25	27		22.53		24.0	0.0	
10	QPSK	50	0		22.54		24.0	0.0	
10	16QAM	1	1		22.59		24.0	0.0	
10	16QAM	1	1		21.45		22.5	1.5	
10	256QAM	1	1		19.07		20.0	4.0	
Channel				168.00	168.600	169.100	Tune-up limit [dBm]	MPR [dB]	
Frequency [MHz]				168.0	168.6	169.0			
5	QPSK	1	1		22.99	22.65	22.63	24.0	0.0

n14 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit [dBm]	MPR [dB]	
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq			
Channel									
Frequency [MHz]									
10	PI2 BPSK	1	1		23.02				
10	PI2 BPSK	1	26		23.03		24.0	0.0	
10	PI2 BPSK	1	50		23.07				
10	PI2 BPSK	25	0		22.99		24.0	0.0	
10	PI2 BPSK	25	14		22.96		24.0	0.0	
10	PI2 BPSK	25	27		23.00		24.0	0.0	
10	PI2 BPSK	50	0		22.94		24.0	0.0	
10	QPSK	1	1		23.32				
10	QPSK	1	26		22.98		24.0	0.0	
10	QPSK	1	50		23.03				
10	QPSK	25	0		22.98		24.0	0.0	
10	QPSK	25	14		23.01		24.0	0.0	
10	QPSK	25	27		22.94		24.0	0.0	
10	QPSK	50	0		22.95		24.0	0.0	
10	16QAM	1	1		21.98		23.0	1.0	
10	16QAM	1	1		20.48		21.5	2.5	
10	256QAM	1	1		18.54		19.5	4.5	
Channel				168.100	168.600	169.100	Tune-up limit [dBm]	MPR [dB]	
Frequency [MHz]				168.1	168.6	169.0			
5	QPSK	1	1		22.93	23.09	23.07	24.0	0.0



n25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency [MHz]								
20	PI2 BPSK	1	1	16.68	16.46	16.51		
20	PI2 BPSK	1	53	16.72	16.48	16.53	17.5	0.0
20	PI2 BPSK	1	104	16.72	16.74	16.51		
20	PI2 BPSK	50	0	16.69	16.39	16.68	17.5	0.0
20	PI2 BPSK	50	28	16.83	16.59	16.58	17.5	0.0
20	PI2 BPSK	50	56	16.76	16.57	16.59		
20	PI2 BPSK	100	0	16.77	16.50	16.57	17.5	0.0
20	QPSK	1	1	17.25	17.25	17.25		
20	QPSK	1	53	16.95	16.70	16.70	17.5	0.0
20	QPSK	1	104	16.69	16.88	16.75		
20	QPSK	50	0	16.72	16.74	16.56	17.5	0.0
20	QPSK	50	28	16.75	16.56	16.55	17.5	0.0
20	QPSK	50	56	16.55	16.82	16.54	17.5	0.0
20	QPSK	100	0	16.62	16.53	16.54		
20	16QAM	1	1	16.55	16.85	16.65	17.5	0.0
20	64QAM	1	1	16.58	16.84	16.58	17.5	0.0
20	256QAM	1	1	16.71	16.80	16.74	17.5	0.0
Channel								
Frequency [MHz]								
15	QPSK	1	1	16.69	16.59	16.71	17.5	0.0
Channel								
Frequency [MHz]								
10	QPSK	1	1	16.71	16.56	16.70	17.5	0.0
Channel								
Frequency [MHz]								
5	QPSK	1	1	16.70	16.97	16.74	17.5	0.0

n25 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency [MHz]								
20	PI2 BPSK	1	1	17.16	17.20	17.09		
20	PI2 BPSK	1	53	17.16	17.19	16.96	18.5	0.0
20	PI2 BPSK	1	104	17.24	17.27	16.94		
20	PI2 BPSK	50	0	17.17	17.10	17.03	18.5	0.0
20	PI2 BPSK	50	28	17.28	17.21	16.97	18.5	0.0
20	PI2 BPSK	50	56	17.21	17.11	17.03		
20	PI2 BPSK	100	0	17.31	17.23	17.00	18.5	0.0
20	QPSK	1	1	17.45	17.33	17.25		
20	QPSK	1	53	17.35	17.23	17.12	18.5	0.0
20	QPSK	1	104	17.37	17.38	17.18		
20	QPSK	50	0	17.17	17.11	16.93	18.5	0.0
20	QPSK	50	28	17.35	17.37	17.15	18.5	0.0
20	QPSK	50	56	17.08	17.17	17.07	18.5	0.0
20	QPSK	100	0	17.23	17.24	16.99		
20	16QAM	1	1	17.23	17.40	17.12	18.5	0.0
20	64QAM	1	1	17.14	17.20	16.84	18.5	0.0
20	256QAM	1	1	17.50	17.50	17.35	18.5	0.0
Channel								
Frequency [MHz]								
15	QPSK	1	1	17.27	17.30	17.15	18.5	0.0
Channel								
Frequency [MHz]								
10	QPSK	1	1	17.37	17.45	17.17	18.5	0.0
Channel								
Frequency [MHz]								
5	QPSK	1	1	17.27	17.41	17.13	18.5	0.0



n26 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.99	23.05	23.12	24.0	0.0
20	PI2 BPSK	1	53	23.11	23.12	23.04		
20	PI2 BPSK	1	104	23.05	23.01	22.95		
20	PI2 BPSK	50	0	23.07	23.05	23.08	24.0	0.0
20	PI2 BPSK	50	28	23.12	23.15	23.02	24.0	0.0
20	PI2 BPSK	50	56	23.08	23.04	22.95	24.0	0.0
20	PI2 BPSK	100	0	23.03	23.09	23.04	24.0	0.0
20	QPSK	1	1	23.13	23.05	23.12	24.0	0.0
20	QPSK	1	53	23.05	23.13	23.05		
20	QPSK	1	104	23.07	23.04	22.97		
20	QPSK	50	0	23.03	23.01	23.00	24.0	0.0
20	QPSK	50	28	23.08	23.10	23.05	24.0	0.0
20	QPSK	50	56	23.05	23.01	22.93	24.0	0.0
20	QPSK	100	0	22.98	23.05	22.94	24.0	0.0
20	16QAM	1	1	22.77	22.84	22.95	23.0	1.0
20	16QAM	1	1	21.02	20.97	20.94	21.5	2.5
20	256QAM	1	1	18.89	19.07	19.39	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.91	23.15	23.11	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.08	23.03	23.05	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.03	22.99	23.15	24.0	0.0

n26 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	High Ch. / Freq		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.08	23.16	23.04	24.0	0.0
20	PI2 BPSK	1	53	22.90	23.05	23.01		
20	PI2 BPSK	1	104	23.03	23.11	22.95		
20	PI2 BPSK	50	0	23.03	23.10	22.94	24.0	0.0
20	PI2 BPSK	50	28	22.88	23.03	22.92	24.0	0.0
20	PI2 BPSK	50	56	22.85	23.01	22.95	24.0	0.0
20	PI2 BPSK	100	0	23.03	23.11	23.09	24.0	0.0
20	QPSK	1	1	23.08	23.00	23.05	24.0	0.0
20	QPSK	1	53	23.07	23.12	23.07		
20	QPSK	1	104	22.85	23.10	23.06		
20	QPSK	50	0	23.02	23.03	22.95	24.0	0.0
20	QPSK	50	28	23.03	23.11	23.05	24.0	0.0
20	QPSK	50	56	22.98	23.05	22.95	24.0	0.0
20	QPSK	100	0	22.94	23.05	22.92	24.0	0.0
20	16QAM	1	1	22.08	22.10	22.09	23.0	1.0
20	16QAM	1	1	20.80	20.86	20.71	21.5	2.5
20	256QAM	1	1	19.09	19.19	19.02	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.13	23.15	23.05	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.15	23.04	23.10	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.05	23.12	23.17	24.0	0.0



n30 Ant 7

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		22.75			
10	PI2 BPSK	1	26		22.89		24.0	0.0
10	PI2 BPSK	1	50		22.77			
10	PI2 BPSK	25	0		22.71		24.0	0.0
10	PI2 BPSK	25	14		22.70		24.0	0.0
10	PI2 BPSK	25	27		22.70		24.0	0.0
10	PI2 BPSK	50	0		22.72		24.0	0.0
10	QPSK	1	1		22.85			
10	QPSK	1	26		22.76		24.0	0.0
10	QPSK	1	50		22.81			
10	QPSK	25	0		22.73		24.0	0.0
10	QPSK	25	14		22.76		24.0	0.0
10	QPSK	25	27		22.67		24.0	0.0
10	QPSK	50	0		22.70		24.0	0.0
10	16QAM	1	1		21.92		23.0	1.0
10	16QAM	1	1		20.89		21.5	2.5
10	16QAM	1	1		18.79		19.5	4.5
Channel				461500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2397.2	2410	2392.2	(dB)	(dB)
5	QPSK	1	1		22.87		24.0	0.0

n30 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq		
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1		18.34			
10	PI2 BPSK	1	26		18.25		20.0	0.0
10	PI2 BPSK	1	50		18.24			
10	PI2 BPSK	25	0		18.46		20.0	0.0
10	PI2 BPSK	25	14		18.40		20.0	0.0
10	PI2 BPSK	25	27		18.28		20.0	0.0
10	PI2 BPSK	50	0		18.31		20.0	0.0
10	QPSK	1	1		18.61			
10	QPSK	1	26		18.37		20.0	0.0
10	QPSK	1	50		18.44			
10	QPSK	25	0		18.33		20.0	0.0
10	QPSK	25	14		18.46		20.0	0.0
10	QPSK	25	27		18.38		20.0	0.0
10	QPSK	50	0		18.42		20.0	0.0
10	16QAM	1	1		18.31		20.0	0.0
10	16QAM	1	1		18.40		20.0	0.0
10	16QAM	1	1		17.88		19.5	0.5
Channel				461500	462000	462500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2397.2	2410	2392.2	(dB)	(dB)
5	QPSK	1	1		18.42		20.0	0.0



n66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)		
				Low Ch. / Freq	Mid Ch. / Freq	High Ch. / Freq				
Channel										
Frequency (MHz)										
40	P12 BPSK	1	1	17.61	17.83	17.70	18.5	0.0		
40	P12 BPSK	1	108	17.60	17.78	17.75				
40	P12 BPSK	1	214	17.63	17.83	17.71				
40	P12 BPSK	108	0	17.77	17.76	17.74	18.5	0.0		
40	P12 BPSK	108	54	17.74	17.84	17.74				
40	P12 BPSK	108	108	17.82	17.82	17.78				
40	P12 BPSK	216	0	17.74	17.70	17.67	18.5	0.0		
40	QPSK	1	1	17.75	18.01	17.84				
40	QPSK	1	108	17.72	17.95	17.85				
40	QPSK	1	214	17.88	17.94	17.94	18.5	0.0		
40	QPSK	108	0	17.62	17.75	17.66				
40	QPSK	108	54	17.71	17.81	17.74				
40	QPSK	108	108	17.65	17.78	17.67	18.5	0.0		
40	QPSK	216	0	17.61	17.80	17.66				
40	16QAM	1	1	17.75	17.76	17.66				
40	16QAM	1	1	17.61	17.73	17.84	18.5	0.0		
40	16QAM	1	1	17.70	17.82	17.77				
40	16QAM	1	1	17.70	17.82	17.77				
Channel				34500	34900	35300	Tune-up limit (dB)	MPR (dB)		
Frequency (MHz)				3290	1845	3185				
30	QPSK	1	1	17.73	17.88	17.75	18.5	0.0		
Channel				34400	34900	35400			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3290	1845	3190				
20	QPSK	1	1	17.63	17.96	17.81	18.5	0.0		
Channel				34300	34900	35400			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3122.5	1845	3122.5				
15	QPSK	1	1	17.70	17.87	17.74	18.5	0.0		
Channel				34300	34900	35000			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3115	1845	3122				
10	QPSK	1	1	17.74	17.88	17.70	18.5	0.0		
Channel				34200	34900	35000			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3122.5	1845	3122.5				
5	QPSK	1	1	17.70	17.84	17.81	18.5	0.0		
Channel				34200	34900	35000			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3122.5	1845	3122.5				

n66 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)		
				Low Ch. / Freq	Mid Ch. / Freq	High Ch. / Freq				
Channel										
Frequency (MHz)										
40	P12 BPSK	1	1	17.72	17.82	17.84	19.0	0.0		
40	P12 BPSK	1	108	17.52	17.89	17.72				
40	P12 BPSK	1	214	17.51	17.89	17.85				
40	P12 BPSK	108	0	17.65	17.71	17.77	19.0	0.0		
40	P12 BPSK	108	54	17.69	17.85	17.73				
40	P12 BPSK	108	108	17.58	17.79	17.71				
40	P12 BPSK	216	0	17.52	17.58	17.68	19.0	0.0		
40	QPSK	1	1	17.69	17.88	17.85				
40	QPSK	1	108	17.63	17.70	17.73				
40	QPSK	1	214	17.86	17.84	17.73	19.0	0.0		
40	QPSK	108	0	17.28	17.54	17.74				
40	QPSK	108	54	17.61	17.84	17.74				
40	QPSK	108	108	17.52	17.44	17.96	19.0	0.0		
40	QPSK	216	0	17.63	17.81	17.75				
40	16QAM	1	1	17.76	17.89	17.69				
40	16QAM	1	1	17.59	17.54	17.83	19.0	0.0		
40	16QAM	1	1	17.57	17.85	17.80				
40	16QAM	1	1	17.57	17.85	17.80				
Channel				34500	34900	35300	Tune-up limit (dB)	MPR (dB)		
Frequency (MHz)				3290	1845	3185				
30	QPSK	1	1	17.83	17.89	17.85	19.0	0.0		
Channel				34400	34900	35400			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3290	1845	3190				
20	QPSK	1	1	17.72	17.81	17.85	19.0	0.0		
Channel				34300	34900	35400			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3122.5	1845	3122.5				
15	QPSK	1	1	17.84	17.96	17.85	19.0	0.0		
Channel				34300	34900	35000			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3115	1845	3122				
10	QPSK	1	1	17.74	17.83	17.80	19.0	0.0		
Channel				34200	34900	35000			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3122.5	1845	3122.5				
5	QPSK	1	1	17.81	17.96	17.82	19.0	0.0		
Channel				34200	34900	35000			Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				3122.5	1845	3122.5				



n70 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)	
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq			
Channel									
Frequency (MHz)									
15	PI2 BPSK	1	1		17.87				
15	PI2 BPSK	1	40		17.88		18.5	0.0	
15	PI2 BPSK	1	77		17.81				
15	PI2 BPSK	36	0		17.71		18.5	0.0	
15	PI2 BPSK	36	22		17.73		18.5	0.0	
15	PI2 BPSK	36	43		17.59		18.5	0.0	
15	PI2 BPSK	75	0		17.74		18.5	0.0	
15	QPSK	1	1		17.89				
15	QPSK	1	40		17.84		18.5	0.0	
15	QPSK	1	77		17.59				
15	QPSK	36	0		17.64		18.5	0.0	
15	QPSK	36	22		17.80		18.5	0.0	
15	QPSK	36	43		17.73		18.5	0.0	
15	QPSK	75	0		17.74		18.5	0.0	
15	16QAM	1	1		17.69		18.5	0.0	
15	16QAM	1	1		17.51		18.5	0.0	
15	256QAM	1	1		17.58		18.5	0.0	
Channel				34000	34050	34100	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3390	3392.5	3395			
10	QPSK	1	1		17.81	17.87	17.70	18.5	0.0
Channel				33950	34050	34150	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3392.5	3395	3397.5			
5	QPSK	1	1		17.81	17.78	17.78	18.5	0.0

n70 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dB)	MPR (dB)	
				Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq			
Channel									
Frequency (MHz)									
15	PI2 BPSK	1	1		17.71				
15	PI2 BPSK	1	40		17.65		19.0	0.0	
15	PI2 BPSK	1	77		17.65				
15	PI2 BPSK	36	0		17.92		19.0	0.0	
15	PI2 BPSK	36	22		17.74		19.0	0.0	
15	PI2 BPSK	36	43		17.57		19.0	0.0	
15	PI2 BPSK	75	0		17.76		19.0	0.0	
15	QPSK	1	1		17.86				
15	QPSK	1	40		17.75		19.0	0.0	
15	QPSK	1	77		17.56				
15	QPSK	36	0		17.57		19.0	0.0	
15	QPSK	36	22		17.84		19.0	0.0	
15	QPSK	36	43		17.78		19.0	0.0	
15	QPSK	75	0		17.73		19.0	0.0	
15	16QAM	1	1		17.80		19.0	0.0	
15	16QAM	1	1		17.84		19.0	0.0	
15	256QAM	1	1		17.51		19.0	0.0	
Channel				34000	34050	34100	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3390	3392.5	3395			
10	QPSK	1	1		17.75	17.83	17.81	19.0	0.0
Channel				33950	34050	34150	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3392.5	3395	3397.5			
5	QPSK	1	1		17.78	17.88	17.75	19.0	0.0



n71 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134500	Middle Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.62	22.92	22.91		
20	PI2 BPSK	1	63	22.87	22.86	22.85	24.0	0.0
20	PI2 BPSK	1	104	22.82	22.82	22.76		
20	PI2 BPSK	50	0	22.93	22.84	22.83	24.0	0.0
20	PI2 BPSK	50	28	22.90	22.79	22.77	24.0	0.0
20	PI2 BPSK	50	66	22.91	22.73	22.80	24.0	0.0
20	PI2 BPSK	100	0	22.87	22.84	22.81		
20	QPSK	1	1	22.90	22.90	22.89		
20	QPSK	1	63	22.50	22.70	22.52	24.0	0.0
20	QPSK	1	104	22.81	22.73	22.76		
20	QPSK	50	0	22.83	22.90	22.72	24.0	0.0
20	QPSK	50	28	22.87	22.91	22.78	24.0	0.0
20	QPSK	50	66	22.85	22.88	22.74	24.0	0.0
20	QPSK	100	0	22.78	22.80	22.75		
20	16QAM	1	1	22.93	22.79	22.81	24.0	0.0
20	16QAM	1	1	21.21	21.24	22.0		
20	256QAM	1	1	18.66	18.70	18.89	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.89	22.99	22.88	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.92	23.01	22.90	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.08	22.99	22.85	24.0	0.0

n71 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 134500	Middle Ch. / Freq. 136100	High Ch. / Freq. 137600		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.03	23.05	23.01		
20	PI2 BPSK	1	63	23.00	22.97	22.94	24.0	0.0
20	PI2 BPSK	1	104	23.06	23.02	23.01		
20	PI2 BPSK	50	0	22.97	22.99	23.03	24.0	0.0
20	PI2 BPSK	50	28	23.06	22.94	22.85	24.0	0.0
20	PI2 BPSK	50	66	22.98	22.92	22.82	24.0	0.0
20	PI2 BPSK	100	0	22.87	23.00	22.88		
20	QPSK	1	1	23.00	23.00	22.99		
20	QPSK	1	63	22.88	23.02	23.03	24.0	0.0
20	QPSK	1	104	22.85	23.00	23.02		
20	QPSK	50	0	22.85	22.95	22.82	24.0	0.0
20	QPSK	50	28	23.03	23.04	22.94	24.0	0.0
20	QPSK	50	66	22.97	22.75	22.67	24.0	0.0
20	QPSK	100	0	22.64	22.77	22.70		
20	16QAM	1	1	22.98	22.95	22.87	24.0	0.0
20	16QAM	1	1	20.79	20.70	20.54	21.5	2.5
20	256QAM	1	1	18.83	18.66	18.81	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.05	23.08	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.97	23.08	23.08	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.04	23.03	22.87	24.0	0.0



n38 Ant 7								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel				518000	519000	520000		
Frequency (MHz)								
40	PIQ BPSK	1	1	21.32	21.43	21.37	22.5	0.0
40	PIQ BPSK	1	53	21.23	21.27	21.23		
40	PIQ BPSK	1	104	21.28	21.44	21.34		
40	PIQ BPSK	50	0	21.30	21.37	21.18	22.5	0.0
40	PIQ BPSK	50	28	21.24	21.33	21.31	22.5	0.0
40	PIQ BPSK	50	56	21.30	21.45	21.25	22.5	0.0
40	PIQ BPSK	100	0	21.34	21.38	21.19		
40	QPSK	1	1	21.33	21.47	21.40		
40	QPSK	1	53	21.28	21.30	21.11	22.5	0.0
40	QPSK	1	104	21.25	21.28	21.25		
40	QPSK	50	0	21.31	21.33	21.20	22.5	0.0
40	QPSK	50	28	21.25	21.49	21.35		
40	QPSK	50	56	21.18	21.37	21.34		
40	QPSK	100	0	21.30	21.33	21.28	22.5	0.0
40	NRAM	1	1	21.24	21.42	21.29	22.5	0.0
40	NRAM	1	1	21.35	21.40	21.25	22.5	0.0
40	25GAM	1	1	19.59	19.60	19.60	20.5	2.0
Channel				519000	519000	520000	Turn-up limit (dBm)	MPR (dB)
Frequency (MHz)								
30	QPSK	1	1	21.29	21.38	21.28	22.5	0.0
Channel				519000	519000	520000	Turn-up limit (dBm)	MPR (dB)
Frequency (MHz)								
20	QPSK	1	1	21.17	21.33	21.34	22.5	0.0
Channel				519000	519000	520000	Turn-up limit (dBm)	MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	21.13	21.31	21.23	22.5	0.0
Channel				519000	519000	520000	Turn-up limit (dBm)	MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	21.29	21.22	21.16	22.5	0.0

n38 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel				518000	519000	520000		
Frequency (MHz)								
40	PIQ BPSK	1	1	17.99	18.14	18.01		
40	PIQ BPSK	1	53	17.88	18.17	18.02	19.5	0.0
40	PIQ BPSK	1	104	17.90	17.98	17.87		
40	PIQ BPSK	50	0	17.95	18.09	18.17	19.5	0.0
40	PIQ BPSK	50	28	17.87	17.86	18.08	19.5	0.0
40	PIQ BPSK	50	56	17.94	18.11	17.95	19.5	0.0
40	PIQ BPSK	100	0	18.09	17.98	17.98		
40	QPSK	1	1	18.17	18.28	18.25		
40	QPSK	1	53	18.16	18.01	18.23	19.5	0.0
40	QPSK	1	104	17.83	18.13	17.84		
40	QPSK	50	0	17.91	17.95	18.05		
40	QPSK	50	28	17.95	18.21	18.05	19.5	0.0
40	QPSK	50	56	17.85	17.95	18.20		
40	QPSK	100	0	17.96	18.17	18.09	19.5	0.0
40	NRAM	1	1	17.84	18.11	17.86	19.5	0.0
40	NRAM	1	1	18.10	17.85	18.05	19.5	0.0
40	25GAM	1	1	17.88	18.00	17.87	19.5	0.0
Channel				519000	519000	520000	Turn-up limit (dBm)	MPR (dB)
Frequency (MHz)								
30	QPSK	1	1	18.12	18.20	18.10	19.5	0.0
Channel				519000	519000	520000	Turn-up limit (dBm)	MPR (dB)
Frequency (MHz)								
20	QPSK	1	1	18.09	18.14	18.12	19.5	0.0
Channel				519000	519000	520000	Turn-up limit (dBm)	MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	18.07	18.24	18.15	19.5	0.0
Channel				519000	519000	520000	Turn-up limit (dBm)	MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	18.12	18.24	18.12	19.5	0.0



n41_FCC Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Mid Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2582.01	5164.02	7746.03		
100	PV2 BPSK	1	1	21.32	21.33	21.19		
100	PV2 BPSK	1	137	21.12	21.31	21.19	22.5	0.0
100	PV2 BPSK	1	271	21.29	21.34	21.25		
100	PV2 BPSK	135	0	21.35	21.40	21.22	22.5	0.0
100	PV2 BPSK	135	69	21.27	21.43	21.34	22.5	0.0
100	PV2 BPSK	135	138	21.15	21.34	21.19	22.5	0.0
100	PV2 BPSK	270	0	21.18	21.37	21.23	22.5	0.0
100	QPSK	1	1	21.32	21.32	21.32		
100	QPSK	1	137	21.17	21.32	21.21	22.5	0.0
100	QPSK	1	271	21.28	21.36	21.27		
100	QPSK	135	0	21.33	21.40	21.32	22.5	0.0
100	QPSK	135	69	21.35	21.45	21.40	22.5	0.0
100	QPSK	135	138	21.22	21.41	21.34	22.5	0.0
100	QPSK	270	0	21.34	21.35	21.18	22.5	0.0
100	HQAM	1	1	21.35	21.43	21.33	22.5	0.0
100	HSQAM	1	1	21.25	21.43	21.24	22.5	0.0
100	256QAM	1	1	21.31	21.49	21.38	22.5	0.0
Channel								
Frequency (MHz)				5020.01	10040.02	15060.03	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	21.42	21.47	21.28	22.5	0.0
Channel								
Frequency (MHz)				5028.02	10056.04	15072.06	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	21.21	21.29	21.25	22.5	0.0
Channel								
Frequency (MHz)				5162.02	10324.04	15488.06	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	21.15	21.45	21.19	22.5	0.0
Channel								
Frequency (MHz)				5300.00	10600.00	15900.00	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	21.22	21.49	21.23	22.5	0.0
Channel								
Frequency (MHz)				5420.01	10840.02	16280.03	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	21.32	21.42	21.25	22.5	0.0
Channel								
Frequency (MHz)				5520.01	11040.02	16560.03	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	21.22	21.34	21.33	22.5	0.0
Channel								
Frequency (MHz)				5620.01	11240.02	16840.03	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	21.12	21.45	21.25	22.5	0.0
Channel								
Frequency (MHz)				5720.01	11440.02	17120.03	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	21.27	21.33	21.34	22.5	0.0

n41_FCC_HPUE Ant 7

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2541.01	5082.02	7623.03		
100	PV2 BPSK	1	1	21.32	21.33	21.19		
100	PV2 BPSK	1	137	21.12	21.31	21.19	22.5	0.0
100	PV2 BPSK	1	271	21.29	21.34	21.25		
100	PV2 BPSK	135	0	21.35	21.40	21.22	22.5	0.0
100	PV2 BPSK	135	69	21.27	21.43	21.34	22.5	0.0
100	PV2 BPSK	135	138	21.15	21.34	21.19	22.5	0.0
100	PV2 BPSK	270	0	21.18	21.37	21.23	22.5	0.0
100	QPSK	1	1	21.32	21.32	21.32		
100	QPSK	1	137	21.17	21.32	21.21	22.5	0.0
100	QPSK	1	271	21.28	21.36	21.27		
100	QPSK	135	0	21.33	21.40	21.32	22.5	0.0
100	QPSK	135	69	21.35	21.45	21.40	22.5	0.0
100	QPSK	135	138	21.22	21.41	21.34	22.5	0.0
100	QPSK	270	0	21.34	21.35	21.18	22.5	0.0
100	16QAM	1	1	21.35	21.43	21.33	22.5	0.0
100	64QAM	1	1	21.25	21.43	21.24	22.5	0.0
100	256QAM	1	1	21.31	21.49	21.38	22.5	0.0
Channel								
Frequency (MHz)				5000.00	10000.00	15000.00	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	21.42	21.47	21.28	22.5	0.0
Channel								
Frequency (MHz)				5008.02	10016.04	15008.06	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	21.21	21.29	21.25	22.5	0.0
Channel								
Frequency (MHz)				5162.02	10324.04	15488.06	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	21.15	21.45	21.19	22.5	0.0
Channel								
Frequency (MHz)				5300.00	10600.00	15900.00	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	21.22	21.49	21.23	22.5	0.0
Channel								
Frequency (MHz)				5420.01	10840.02	16280.03	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	21.32	21.42	21.25	22.5	0.0
Channel								
Frequency (MHz)				5520.01	11040.02	16560.03	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	21.22	21.34	21.33	22.5	0.0
Channel								
Frequency (MHz)				5620.01	11240.02	16840.03	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	21.12	21.45	21.25	22.5	0.0
Channel								
Frequency (MHz)				5720.01	11440.02	17120.03	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	21.27	21.33	21.34	22.5	0.0



n41_FCC Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Mid Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				50502	51698	52894		
100	PV2 BPSK	1	1	18.15	18.27	18.39	19.5	0.0
100	PV2 BPSK	1	137	18.38	18.29	17.87		
100	PV2 BPSK	1	271	18.10	18.27	17.80		
100	PV2 BPSK	135	0	18.21	18.29	18.04	19.5	0.0
100	PV2 BPSK	135	69	18.25	18.16	18.04	19.5	0.0
100	PV2 BPSK	135	138	18.35	18.24	18.01	19.5	0.0
100	PV2 BPSK	270	0	18.22	18.16	17.91		
100	QPSK	1	1	18.15	18.00	18.16		
100	QPSK	1	137	18.19	18.25	17.88	19.5	0.0
100	QPSK	1	271	18.22	18.26	18.02		
100	QPSK	135	0	18.25	18.24	18.07	19.5	0.0
100	QPSK	135	69	18.33	18.38	18.14		
100	QPSK	135	138	18.24	18.22	18.06		
100	QPSK	270	0	18.23	18.33	18.15	19.5	0.0
100	HQAM	1	1	18.19	18.17	18.00	19.5	0.0
100	HQAM	1	1	18.34	18.21	18.00	19.5	0.0
100	256QAM	1	1	18.34	18.33	17.94	19.5	0.0
Channel								
Frequency (MHz)				50500	51698	52894		
50	QPSK	1	1	18.42	18.27	18.13	19.5	0.0
Channel								
Frequency (MHz)				50502	51698	52894		
80	QPSK	1	1	18.27	18.33	18.14	19.5	0.0
Channel								
Frequency (MHz)				50502	51698	53100		
70	QPSK	1	1	18.18	18.27	18.09	19.5	0.0
Channel								
Frequency (MHz)				50500	51698	53196		
60	QPSK	1	1	18.28	18.38	18.14	19.5	0.0
Channel								
Frequency (MHz)				50504	51698	52658		
50	QPSK	1	1	18.27	18.27	18.09	19.5	0.0
Channel								
Frequency (MHz)				50502	51698	52894		
40	QPSK	1	1	18.18	18.27	18.12	19.5	0.0
Channel								
Frequency (MHz)				50500	51698	53196		
30	QPSK	1	1	18.15	18.29	18.13	19.5	0.0
Channel								
Frequency (MHz)				50504	51698	53098		
20	QPSK	1	1	18.19	18.26	18.05	19.5	0.0

n41_FCC_HPUE Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Mid Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				50502	51698	52894		
100	PV2 BPSK	1	1	18.15	18.27	18.39	19.5	0.0
100	PV2 BPSK	1	137	18.38	18.29	17.87		
100	PV2 BPSK	1	271	18.10	18.27	17.80		
100	PV2 BPSK	135	0	18.21	18.29	18.04	19.5	0.0
100	PV2 BPSK	135	69	18.25	18.16	18.04	19.5	0.0
100	PV2 BPSK	135	138	18.35	18.24	18.01	19.5	0.0
100	PV2 BPSK	270	0	18.22	18.16	17.91		
100	QPSK	1	1	18.15	18.00	18.16		
100	QPSK	1	137	18.19	18.25	17.88	19.5	0.0
100	QPSK	1	271	18.22	18.26	18.02		
100	QPSK	135	0	18.25	18.24	18.07	19.5	0.0
100	QPSK	135	69	18.33	18.38	18.14		
100	QPSK	135	138	18.24	18.22	18.06		
100	QPSK	270	0	18.23	18.33	18.15	19.5	0.0
100	1024QAM	1	1	18.19	18.17	18.00	19.5	0.0
100	512QAM	1	1	18.34	18.21	18.00	19.5	0.0
100	256QAM	1	1	18.34	18.33	17.94	19.5	0.0
Channel								
Frequency (MHz)				50500	51698	52894		
50	QPSK	1	1	18.28	18.27	18.13	19.5	0.0
Channel								
Frequency (MHz)				50502	51698	52894		
80	QPSK	1	1	18.27	18.33	18.14	19.5	0.0
Channel								
Frequency (MHz)				50502	51698	53100		
70	QPSK	1	1	18.18	18.27	18.09	19.5	0.0
Channel								
Frequency (MHz)				50500	51698	53196		
60	QPSK	1	1	18.28	18.38	18.14	19.5	0.0
Channel								
Frequency (MHz)				50504	51698	52658		
50	QPSK	1	1	18.27	18.27	18.09	19.5	0.0
Channel								
Frequency (MHz)				50502	51698	52894		
40	QPSK	1	1	18.18	18.27	18.12	19.5	0.0
Channel								
Frequency (MHz)				50500	51698	53196		
30	QPSK	1	1	18.15	18.29	18.13	19.5	0.0
Channel								
Frequency (MHz)				50504	51698	53098		
20	QPSK	1	1	18.19	18.26	18.05	19.5	0.0



n41_FCC Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2562.01	2599.99	2640		
100	Pi2 BPSK	1	1	17.24	17.23	17.22	18.5	0.0
100	Pi2 BPSK	1	137	17.21	17.23	17.22		
100	Pi2 BPSK	1	271	17.48	17.52	17.51		
100	Pi2 BPSK	135	0	17.24	17.27	17.34	18.5	0.0
100	Pi2 BPSK	135	69	17.24	17.26	17.18	18.5	0.0
100	Pi2 BPSK	135	138	17.31	17.27	17.48	18.5	0.0
100	Pi2 BPSK	270	0	17.48	17.51	17.39		
100	QPSK	1	1	17.19	17.25	17.25	18.5	0.0
100	QPSK	1	137	17.19	17.37	17.21		
100	QPSK	1	271	17.26	17.43	17.31		
100	QPSK	135	0	17.35	17.21	17.23	18.5	0.0
100	QPSK	135	69	17.33	17.29	17.32		
100	QPSK	135	138	17.30	17.45	17.27		
100	QPSK	270	0	17.34	17.27	17.38	18.5	0.0
100	HQAM	1	1	17.45	17.52	17.51	18.5	0.0
100	HQAM	1	1	17.51	17.27	17.39	18.5	0.0
100	256QAM	1	1	17.34	17.36	17.24	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5100.00	5200.00		
50	QPSK	1	1	17.25	17.42	17.17	18.5	0.0
Channel								
Frequency (MHz)				5078.02	5169.98	5269.98		
80	QPSK	1	1	17.13	17.21	17.15	18.5	0.0
Channel								
Frequency (MHz)				5026.02	5189.98	5310.00		
70	QPSK	1	1	17.23	17.25	17.28	18.5	0.0
Channel								
Frequency (MHz)				5030.00	5189.98	5319.98		
60	QPSK	1	1	17.17	17.24	17.27	18.5	0.0
Channel								
Frequency (MHz)				5021.00	5199.99	5264.99		
50	QPSK	1	1	17.24	17.43	17.20	18.5	0.0
Channel								
Frequency (MHz)				2616.01	2599.99	2670		
40	QPSK	1	1	17.25	17.44	17.22	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5189.98	5309.98		
30	QPSK	1	1	17.24	17.49	17.24	18.5	0.0
Channel								
Frequency (MHz)				5012.04	5189.98	5309.98		
20	QPSK	1	1	17.33	17.49	17.20	18.5	0.0

n41_FCC_HPUE Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				2562.01	2599.99	2640		
100	Pi2 BPSK	1	1	17.24	17.23	17.22	18.5	0.0
100	Pi2 BPSK	1	137	17.21	17.23	17.22		
100	Pi2 BPSK	1	271	17.48	17.52	17.51		
100	Pi2 BPSK	135	0	17.24	17.27	17.34	18.5	0.0
100	Pi2 BPSK	135	69	17.24	17.26	17.18	18.5	0.0
100	Pi2 BPSK	135	138	17.31	17.27	17.48	18.5	0.0
100	Pi2 BPSK	270	0	17.48	17.51	17.39		
100	QPSK	1	1	17.19	17.25	17.25	18.5	0.0
100	QPSK	1	137	17.19	17.37	17.21		
100	QPSK	1	271	17.26	17.43	17.31		
100	QPSK	135	0	17.35	17.21	17.23	18.5	0.0
100	QPSK	135	69	17.33	17.29	17.32		
100	QPSK	135	138	17.30	17.45	17.27		
100	QPSK	270	0	17.34	17.27	17.38	18.5	0.0
100	HQAM	1	1	17.45	17.52	17.51	18.5	0.0
100	HQAM	1	1	17.51	17.27	17.39	18.5	0.0
100	256QAM	1	1	17.34	17.36	17.24	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5100.00	5200.00		
50	QPSK	1	1	17.25	17.42	17.17	18.5	0.0
Channel								
Frequency (MHz)				5078.02	5169.98	5269.98		
80	QPSK	1	1	17.13	17.21	17.15	18.5	0.0
Channel								
Frequency (MHz)				5026.02	5189.98	5310.00		
70	QPSK	1	1	17.23	17.25	17.28	18.5	0.0
Channel								
Frequency (MHz)				5030.00	5189.98	5319.98		
60	QPSK	1	1	17.17	17.24	17.27	18.5	0.0
Channel								
Frequency (MHz)				5021.00	5199.99	5264.99		
50	QPSK	1	1	17.24	17.43	17.20	18.5	0.0
Channel								
Frequency (MHz)				2516.01	2599.99	2670		
40	QPSK	1	1	17.25	17.44	17.22	18.5	0.0
Channel								
Frequency (MHz)				5020.00	5189.98	5309.98		
30	QPSK	1	1	17.24	17.49	17.24	18.5	0.0
Channel								
Frequency (MHz)				5012.04	5189.98	5309.98		
20	QPSK	1	1	17.33	17.49	17.20	18.5	0.0



n41_FCC Ant 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PV2 BPSK	1	1	18.52	18.64	18.75	17.5	0.0
100	PV2 BPSK	1	137	18.52	18.67	18.45		
100	PV2 BPSK	1	271	18.52	18.64	18.60		
100	PV2 BPSK	135	0	18.52	18.59	18.49	17.5	0.0
100	PV2 BPSK	135	69	18.63	18.66	18.41	17.5	0.0
100	PV2 BPSK	135	138	18.52	18.55	18.51	17.5	0.0
100	PV2 BPSK	270	0	18.65	18.62	18.60		
100	QPSK	1	1	18.52	18.72	18.65		
100	QPSK	1	137	18.51	18.56	18.63	17.5	0.0
100	QPSK	1	271	18.47	18.56	18.51		
100	QPSK	135	0	18.51	18.56	18.60		
100	QPSK	135	69	18.55	18.67	18.55	17.5	0.0
100	QPSK	135	138	18.51	18.58	18.54		
100	QPSK	270	0	18.52	18.56	18.64	17.5	0.0
100	HQAM	1	1	18.52	18.56	18.55	17.5	0.0
100	HQAM	1	1	18.52	18.55	18.57	17.5	0.0
100	256QAM	1	1	18.46	18.69	18.49	17.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.41	18.46	18.59	17.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.43	18.62	18.52	17.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.47	18.61	18.52	17.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.42	18.63	18.52	17.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.47	18.64	18.52	17.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.47	18.64	18.52	17.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.41	18.70	18.52	17.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.45	18.69	18.53	17.5	0.0

n41_FCC_HPUE Ant 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PV2 BPSK	1	1	18.52	18.64	18.53		
100	PV2 BPSK	1	137	18.52	18.67	18.45	17.5	0.0
100	PV2 BPSK	1	271	18.52	18.64	18.60		
100	PV2 BPSK	135	0	18.52	18.59	18.49	17.5	0.0
100	PV2 BPSK	135	69	18.63	18.66	18.41	17.5	0.0
100	PV2 BPSK	135	138	18.52	18.55	18.51	17.5	0.0
100	PV2 BPSK	270	0	18.65	18.62	18.60		
100	QPSK	1	1	18.52	18.72	18.65		
100	QPSK	1	137	18.51	18.56	18.63	17.5	0.0
100	QPSK	1	271	18.47	18.56	18.51		
100	QPSK	135	0	18.51	18.56	18.60		
100	QPSK	135	69	18.55	18.67	18.55	17.5	0.0
100	QPSK	135	138	18.51	18.58	18.54		
100	QPSK	270	0	18.52	18.56	18.64	17.5	0.0
100	16QAM	1	1	18.52	18.56	18.55	17.5	0.0
100	64QAM	1	1	18.52	18.55	18.57	17.5	0.0
100	256QAM	1	1	18.46	18.69	18.49	17.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.41	18.46	18.59	17.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.43	18.62	18.52	17.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.47	18.61	18.52	17.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.42	18.63	18.52	17.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.47	18.64	18.52	17.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.47	18.64	18.52	17.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.41	18.70	18.52	17.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.45	18.69	18.53	17.5	0.0



n48_FCC Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				63800	64166	64532		
40	PIQ BPSK	1	1	11.58	11.70	11.85	13.0	0.0
40	PIQ BPSK	1	53	11.80	11.78	11.80		
40	PIQ BPSK	1	104	11.80	11.74	11.80		
40	PIQ BPSK	50	0	11.81	11.79	11.88	13.0	0.0
40	PIQ BPSK	50	28	11.80	11.80	11.82	13.0	0.0
40	PIQ BPSK	50	56	11.75	11.81	11.80	13.0	0.0
40	PIQ BPSK	100	0	11.80	11.70	11.85	13.0	0.0
40	QPSK	1	1	11.50	11.80	11.87		
40	QPSK	1	53	11.57	11.87	11.80	13.0	0.0
40	QPSK	1	104	11.68	11.80	11.89		
40	QPSK	50	0	11.50	11.87	11.54		
40	QPSK	50	28	11.70	11.83	11.70	13.0	0.0
40	QPSK	50	56	11.50	11.58	11.80		
40	QPSK	100	0	11.54	11.72	11.88	13.0	0.0
40	NSM	1	1	11.80	11.74	11.78	13.0	0.0
40	NSM	1	1	11.50	11.83	11.87	13.0	0.0
40	25GAM	1	1	11.40	11.82	11.84	13.0	0.0
Channel								
Frequency (MHz)				63900	64166	64532	Turn-up limit (dB)	MPR (dB)
30	QPSK	1	1	11.40	11.82	11.84	13.0	0.0
Channel								
Frequency (MHz)				63900	64166	64532	Turn-up limit (dB)	MPR (dB)
20	QPSK	1	1	11.40	11.79	11.80	13.0	0.0
Channel								
Frequency (MHz)				63700	64166	64532	Turn-up limit (dB)	MPR (dB)
10	QPSK	1	1	11.40	11.79	11.80	13.0	0.0

n48_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	MidB Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)				63600	64166	64532		
40	PIQ BPSK	1	1	11.82	11.71	11.70		
40	PIQ BPSK	1	53	11.88	11.50	11.77		
40	PIQ BPSK	1	104	11.70	11.70	11.70	19.0	0.0
40	PIQ BPSK	50	0	11.58	11.67	11.68	19.0	0.0
40	PIQ BPSK	50	28	11.83	11.50	11.72	19.0	0.0
40	PIQ BPSK	50	56	11.70	11.64	11.50	19.0	0.0
40	PIQ BPSK	100	0	11.84	11.68	11.59	19.0	0.0
40	QPSK	1	1	11.71	11.68	11.71		
40	QPSK	1	53	11.83	11.67	11.59	19.0	0.0
40	QPSK	1	104	11.67	11.62	11.62		
40	QPSK	50	0	11.66	11.60	11.50		
40	QPSK	50	28	11.70	11.70	11.60	19.0	0.0
40	QPSK	50	56	11.42	11.60	11.50		
40	QPSK	100	0	11.66	11.72	11.68	19.0	0.0
40	NSM	1	1	11.80	11.69	11.58	19.0	0.0
40	NSM	1	1	11.80	11.61	11.50	19.0	0.0
40	25GAM	1	1	11.43	11.80	11.49	19.0	0.0
Channel								
Frequency (MHz)				63600	64166	64532	Turn-up limit (dB)	MPR (dB)
30	QPSK	1	1	11.40	11.67	11.40	19.0	0.0
Channel								
Frequency (MHz)				63600	64166	64532	Turn-up limit (dB)	MPR (dB)
20	QPSK	1	1	11.50	11.50	11.50	19.0	0.0
Channel								
Frequency (MHz)				63700	64166	64532	Turn-up limit (dB)	MPR (dB)
10	QPSK	1	1	11.54	11.63	11.60	19.0	0.0



n48_FCC Ant 8								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				63800	64166	64532		
40	PIQ BPSK	1	1	13.34	13.32	13.15	14.5	0.0
40	PIQ BPSK	1	53	13.21	13.13	13.40		
40	PIQ BPSK	1	104	13.28	13.34	13.33		
40	PIQ BPSK	50	0	13.29	13.19	13.32	14.5	0.0
40	PIQ BPSK	50	28	13.26	13.16	13.29	14.5	0.0
40	PIQ BPSK	50	56	13.24	13.24	13.10	14.5	0.0
40	PIQ BPSK	100	0	13.22	13.19	13.21		
40	QPSK	1	1	13.25	13.34	13.40		
40	QPSK	1	53	13.27	13.10	13.18	14.5	0.0
40	QPSK	1	104	13.17	13.42	13.39		
40	QPSK	50	0	13.14	13.27	13.16		
40	QPSK	50	28	13.25	13.27	13.19	14.5	0.0
40	QPSK	50	56	13.11	12.96	13.16		
40	QPSK	100	0	13.19	13.25	13.16	14.5	0.0
40	NSAM	1	1	13.22	13.36	13.44	14.5	0.0
40	NSAM	1	1	13.10	13.04	13.16	14.5	0.0
40	25GAM	1	1	13.21	13.24	13.45	14.5	0.0
Channel								
Frequency (MHz)				63900	64166	64532	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	13.19	13.13	13.09	14.5	0.0
Channel								
Frequency (MHz)				63956	64166	64532	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	13.13	13.22	13.01	14.5	0.0
Channel								
Frequency (MHz)				63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	13.24	13.12	13.14	14.5	0.0

n48_FCC Ant 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				63600	64166	64532		
40	PIQ BPSK	1	1	11.36	11.24	11.05		
40	PIQ BPSK	1	53	11.26	11.21	11.02		
40	PIQ BPSK	1	104	11.17	11.25	10.80	12.0	0.0
40	PIQ BPSK	50	0	11.34	11.29	11.04	12.0	0.0
40	PIQ BPSK	50	28	11.17	11.20	11.07	12.0	0.0
40	PIQ BPSK	50	56	11.10	11.13	10.97	12.0	0.0
40	PIQ BPSK	100	0	11.30	11.33	11.06		
40	QPSK	1	1	11.37	11.25	11.22		
40	QPSK	1	53	11.13	11.16	11.08	12.0	0.0
40	QPSK	1	104	11.27	11.25	11.02		
40	QPSK	50	0	11.14	11.20	11.07		
40	QPSK	50	28	11.32	11.27	11.13	12.0	0.0
40	QPSK	50	56	11.10	11.25	10.89		
40	QPSK	100	0	11.28	11.19	10.98	12.0	0.0
40	NSAM	1	1	11.11	11.12	11.00	12.0	0.0
40	NSAM	1	1	11.14	11.14	11.01	12.0	0.0
40	25GAM	1	1	11.21	11.09	11.01	12.0	0.0
Channel								
Frequency (MHz)				63656	64166	64532	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	11.15	11.40	11.02	12.0	0.0
Channel								
Frequency (MHz)				63612	64166	64532	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	11.14	11.22	11.12	12.0	0.0
Channel								
Frequency (MHz)				63700	64166	64532	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	11.10	11.20	11.13	12.0	0.0



Part270 n77 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	13.17	12.85	12.82	14.0	0.0
100	PI2 BPSK	1	137	13.16	12.86	12.75		
100	PI2 BPSK	1	211	13.20	12.82	12.71		
100	PI2 BPSK	135	0	13.19	12.96	12.84	14.0	0.0
100	PI2 BPSK	135	69	12.96	12.72	12.54	14.0	0.0
100	PI2 BPSK	135	134	13.10	12.80	12.70	14.0	0.0
100	PI2 BPSK	270	0	13.18	12.81	12.67	14.0	0.0
100	QPSK	1	1	13.28	13.00	12.91	14.0	0.0
100	QPSK	1	137	13.28	12.88	12.74		
100	QPSK	1	271	13.29	12.82	12.71		
100	QPSK	135	0	13.20	12.88	12.82	14.0	0.0
100	QPSK	135	69	13.25	12.95	12.88	14.0	0.0
100	QPSK	135	134	13.31	12.91	12.87	14.0	0.0
100	QPSK	270	0	13.27	12.95	12.86	14.0	0.0
100	SSB	1	1	13.16	12.90	12.80	14.0	0.0
100	SSB	1	1	13.04	12.75	12.65	14.0	0.0
100	25GAM	1	1	13.20	12.93	12.78	14.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.27	12.88	12.70	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.24	12.88	12.76	14.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	13.24	12.94	12.80	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.29	12.92	12.74	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.25	12.93	12.68	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.29	12.88	12.81	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.24	12.95	12.70	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.25	12.85	12.77	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.29	12.86	12.81	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.32	12.89	12.74	14.0	0.0

Part270 n77 HPUE Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Mid Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	13.17	12.85	12.82	14.0	0.0
100	PI2 BPSK	1	137	13.16	12.86	12.75		
100	PI2 BPSK	1	211	13.00	12.82	12.71		
100	PI2 BPSK	135	0	13.19	12.96	12.84	14.0	0.0
100	PI2 BPSK	135	69	12.96	12.72	12.54	14.0	0.0
100	PI2 BPSK	135	134	13.10	12.80	12.70	14.0	0.0
100	PI2 BPSK	270	0	13.18	12.81	12.67	14.0	0.0
100	QPSK	1	1	13.28	13.00	12.91	14.0	0.0
100	QPSK	1	137	13.28	12.88	12.74		
100	QPSK	1	271	13.29	12.82	12.71		
100	QPSK	135	0	13.20	12.88	12.82	14.0	0.0
100	QPSK	135	69	13.25	12.95	12.88	14.0	0.0
100	QPSK	135	134	13.31	12.91	12.87	14.0	0.0
100	QPSK	270	0	13.27	12.95	12.86	14.0	0.0
100	SSB	1	1	13.16	12.90	12.80	14.0	0.0
100	SSB	1	1	13.04	12.75	12.65	14.0	0.0
100	25GAM	1	1	13.20	12.93	12.78	14.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.27	12.88	12.70	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.24	12.88	12.76	14.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.24	12.94	12.80	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.29	12.92	12.74	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.25	12.93	12.68	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.29	12.88	12.81	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.24	12.95	12.70	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.25	12.85	12.77	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.29	12.86	12.81	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.32	12.89	12.74	14.0	0.0



Part27Q n77 Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch./Freq.	Mid Ch./Freq.	High Ch./Freq.		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	13.34	13.33	13.34	14.0	0.0
100	PIQ BPSK	1	137	13.32	13.32	13.32	14.0	0.0
100	PIQ BPSK	1	271	13.32	13.32	13.32	14.0	0.0
100	PIQ BPSK	135	0	13.32	13.32	13.32	14.0	0.0
100	PIQ BPSK	135	69	13.26	13.26	13.26	14.0	0.0
100	PIQ BPSK	135	138	13.26	13.26	13.26	14.0	0.0
100	PIQ BPSK	270	0	13.33	13.33	13.33	14.0	0.0
100	QPSK	1	1	13.45	13.45	13.45	14.0	0.0
100	QPSK	1	137	13.32	13.32	13.32	14.0	0.0
100	QPSK	1	271	13.32	13.32	13.32	14.0	0.0
100	QPSK	135	0	13.32	13.32	13.32	14.0	0.0
100	QPSK	135	69	13.42	13.42	13.42	14.0	0.0
100	QPSK	135	138	13.33	13.33	13.33	14.0	0.0
100	QPSK	270	0	13.38	13.38	13.38	14.0	0.0
100	NSAM	1	1	13.34	13.34	13.34	14.0	0.0
100	NSAM	1	1	13.35	13.35	13.35	14.0	0.0
100	25GAM	1	1	13.41	13.41	13.41	14.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.21	13.24	13.24	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.21	13.19	13.20	14.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	13.21	13.20	13.20	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.23	13.24	13.19	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.15	13.13	13.30	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.30	13.29	13.14	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.20	13.24	13.14	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.26	13.18	13.26	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.24	13.23	13.15	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.40	13.32	13.27	14.0	0.0

Part27Q n77 HPUE Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch./Freq.	Mid Ch./Freq.	High Ch./Freq.		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	13.24	13.33	13.33	14.0	0.0
100	PIQ BPSK	1	137	13.32	13.32	13.32	14.0	0.0
100	PIQ BPSK	1	271	13.32	13.32	13.32	14.0	0.0
100	PIQ BPSK	135	0	13.30	13.30	13.30	14.0	0.0
100	PIQ BPSK	135	69	13.25	13.25	13.25	14.0	0.0
100	PIQ BPSK	135	138	13.25	13.25	13.25	14.0	0.0
100	PIQ BPSK	270	0	13.33	13.33	13.33	14.0	0.0
100	QPSK	1	1	13.45	13.45	13.45	14.0	0.0
100	QPSK	1	137	13.30	13.30	13.30	14.0	0.0
100	QPSK	1	271	13.26	13.26	13.26	14.0	0.0
100	QPSK	135	0	13.32	13.32	13.32	14.0	0.0
100	QPSK	135	69	13.42	13.42	13.42	14.0	0.0
100	QPSK	135	138	13.33	13.33	13.33	14.0	0.0
100	QPSK	270	0	13.38	13.38	13.38	14.0	0.0
100	NSAM	1	1	13.34	13.34	13.34	14.0	0.0
100	NSAM	1	1	13.35	13.35	13.35	14.0	0.0
100	25GAM	1	1	13.41	13.41	13.41	14.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.21	13.24	13.24	14.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.21	13.19	13.20	14.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.21	13.20	13.20	14.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.23	13.24	13.19	14.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.15	13.13	13.30	14.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.30	13.29	13.14	14.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.20	13.24	13.14	14.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.26	13.18	13.26	14.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.24	13.23	13.15	14.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.40	13.32	13.27	14.0	0.0



Part270 n77 Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	18.80	18.85	18.90	20.0	0.0
100	PIQ BPSK	1	137	18.83	18.88	18.93	20.0	0.0
100	PIQ BPSK	1	271	18.86	18.92	18.97	20.0	0.0
100	PIQ BPSK	135	0	18.89	18.92	18.94	20.0	0.0
100	PIQ BPSK	135	69	18.92	18.92	18.92	20.0	0.0
100	PIQ BPSK	135	134	18.92	18.92	18.92	20.0	0.0
100	PIQ BPSK	270	0	18.96	18.71	18.50	20.0	0.0
100	QPSK	1	1	18.80	18.85	18.90	20.0	0.0
100	QPSK	1	137	18.79	18.85	18.94	20.0	0.0
100	QPSK	1	271	18.71	18.89	18.99	20.0	0.0
100	QPSK	135	0	18.75	18.95	18.95	20.0	0.0
100	QPSK	135	69	18.85	18.90	18.94	20.0	0.0
100	QPSK	135	134	18.77	18.90	18.92	20.0	0.0
100	QPSK	270	0	18.89	18.94	18.97	20.0	0.0
100	NSAM	1	1	18.84	18.87	18.90	20.0	0.0
100	NSAM	1	1	18.74	18.93	18.97	20.0	0.0
100	25GAM	1	1	18.82	18.80	18.85	20.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.45	18.66	18.80	20.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.40	18.60	18.80	20.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	18.43	18.66	18.84	20.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.78	18.83	18.90	20.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.85	18.85	18.89	20.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.84	18.71	18.81	20.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.80	18.67	18.54	20.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.80	18.85	18.82	20.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.89	18.85	18.55	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.86	18.82	18.53	20.0	0.0

Part270 n77 HPUE Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	18.80	18.85	18.90	20.0	0.0
100	PIQ BPSK	1	137	18.83	18.88	18.93	20.0	0.0
100	PIQ BPSK	1	271	18.86	18.92	18.97	20.0	0.0
100	PIQ BPSK	135	0	18.89	18.92	18.94	20.0	0.0
100	PIQ BPSK	135	69	18.92	18.92	18.92	20.0	0.0
100	PIQ BPSK	135	134	18.92	18.92	18.92	20.0	0.0
100	PIQ BPSK	270	0	18.96	18.71	18.50	20.0	0.0
100	QPSK	1	1	18.80	18.85	18.90	20.0	0.0
100	QPSK	1	137	18.79	18.85	18.94	20.0	0.0
100	QPSK	1	271	18.71	18.89	18.99	20.0	0.0
100	QPSK	135	0	18.75	18.95	18.95	20.0	0.0
100	QPSK	135	69	18.85	18.90	18.94	20.0	0.0
100	QPSK	135	134	18.77	18.90	18.92	20.0	0.0
100	QPSK	270	0	18.89	18.94	18.97	20.0	0.0
100	NSAM	1	1	18.84	18.87	18.90	20.0	0.0
100	NSAM	1	1	18.74	18.93	18.97	20.0	0.0
100	25GAM	1	1	18.82	18.80	18.85	20.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.88	18.66	18.60	20.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.83	18.60	18.54	20.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.82	18.72	18.56	20.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.78	18.83	18.80	20.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.85	18.85	18.89	20.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.84	18.71	18.81	20.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.80	18.67	18.54	20.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.80	18.85	18.82	20.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.89	18.85	18.55	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.86	18.82	18.53	20.0	0.0



Part27Q n77 Ant 5

Channel	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel	3495	3495	3495		
Frequency (MHz)	19.06	19.06	19.06		
100 PIQ BPSK	1	1	1	20.0	0.0
100 PIQ BPSK	1	137	137		
100 PIQ BPSK	1	221	221		
100 PIQ BPSK	135	0	0	20.0	0.0
100 PIQ BPSK	135	69	69		
100 PIQ BPSK	135	138	138		
100 PIQ BPSK	270	0	0	20.0	0.0
100 QPSK	1	1	1		
100 QPSK	1	137	137	20.0	0.0
100 QPSK	1	271	271		
100 QPSK	135	0	0		
100 QPSK	135	69	69	20.0	0.0
100 QPSK	135	138	138		
100 QPSK	270	0	0	20.0	0.0
100 NSAM	1	1	1	20.0	0.0
100 NSAM	1	1	1	20.0	0.0
100 NSAM	1	1	1	20.0	0.0
100 NSAM	1	1	1	20.0	0.0
Channel	63330	63330	63366	Tune-up limit (dBm)	MPR
Frequency (MHz)	3495	3498.98	3504.99		
90 QPSK	1	1	1	20.0	0.0
Channel	19402	19402	19402	Tune-up limit (dBm)	MPR
Frequency (MHz)	2497.02	2498.98	2500		
80 QPSK	1	1	1	20.0	0.0
Channel	63234	63234	63232	Tune-up limit	MPR
Frequency (MHz)	18.97	18.98	18.98		
70 QPSK	1	1	1	20.0	0.0
Channel	63300	63332	63666	Tune-up limit	MPR
Frequency (MHz)	3495	3498.98	3504.99		
60 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
50 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
40 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
30 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
20 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
15 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
10 QPSK	1	1	1	20.0	0.0

Part27Q n77 HPUE Ant 5

Channel	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel	3495.98	3495.98	3495.98		
Frequency (MHz)	19.06	19.06	19.06		
100 PIQ BPSK	1	1	1	20.0	0.0
100 PIQ BPSK	1	137	137		
100 PIQ BPSK	1	221	221		
100 PIQ BPSK	135	0	0	20.0	0.0
100 PIQ BPSK	135	69	69		
100 PIQ BPSK	135	138	138		
100 PIQ BPSK	270	0	0	20.0	0.0
100 QPSK	1	1	1		
100 QPSK	1	137	137	20.0	0.0
100 QPSK	1	271	271		
100 QPSK	135	0	0		
100 QPSK	135	69	69	20.0	0.0
100 QPSK	135	138	138		
100 QPSK	270	0	0	20.0	0.0
100 NSAM	1	1	1	20.0	0.0
100 NSAM	1	1	1	20.0	0.0
100 NSAM	1	1	1	20.0	0.0
100 NSAM	1	1	1	20.0	0.0
Channel	63300	63332	63366	Tune-up limit (dBm)	MPR
Frequency (MHz)	3495	3498.98	3504.99		
90 QPSK	1	1	1	20.0	0.0
Channel	19402	19402	19402	Tune-up limit (dBm)	MPR
Frequency (MHz)	2497.02	2498.98	2500		
80 QPSK	1	1	1	20.0	0.0
Channel	63234	63234	63232	Tune-up limit	MPR
Frequency (MHz)	18.97	18.98	18.98		
70 QPSK	1	1	1	20.0	0.0
Channel	63300	63332	63666	Tune-up limit	MPR
Frequency (MHz)	3495	3498.98	3504.99		
60 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
50 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
40 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
30 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
20 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
15 QPSK	1	1	1	20.0	0.0
Channel	63332	63332	63666	Tune-up limit	MPR
Frequency (MHz)	18.99	18.99	18.99		
10 QPSK	1	1	1	20.0	0.0



Part270 n77 Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	MidB Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	12.06	11.75	11.85	13.0	0.0
100	PIQ BPSK	1	137	11.83	11.91	11.79		
100	PIQ BPSK	1	211	11.87	12.06	11.81		
100	PIQ BPSK	135	0	11.94	11.73	11.83		
100	PIQ BPSK	135	69	11.90	11.76	11.76	13.0	0.0
100	PIQ BPSK	135	138	12.01	11.94	11.95	13.0	0.0
100	PIQ BPSK	270	0	12.06	11.80	11.84	13.0	0.0
100	QPSK	1	1	12.05	12.05	11.97	13.0	0.0
100	QPSK	1	137	11.98	11.89	11.82		
100	QPSK	1	211	12.06	11.86	11.80		
100	QPSK	135	0	11.95	11.95	11.87		
100	QPSK	135	69	12.07	12.05	11.97	13.0	0.0
100	QPSK	135	138	11.89	11.99	11.82	13.0	0.0
100	QPSK	270	0	11.89	11.87	11.79	13.0	0.0
100	8QAM	1	1	11.96	11.87	11.75	13.0	0.0
100	8QAM	1	1	11.74	11.80	11.83	13.0	0.0
100	25QAM	1	1	12.00	11.83	11.86	13.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	11.74	11.63	11.75	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.63	11.59	11.65	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.63	11.72	11.80	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.63	11.74	11.74	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.75	11.57	11.69	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.75	11.69	11.71	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.63	11.70	11.67	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.64	11.68	11.73	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.66	11.64	11.70	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.68	11.57	11.62	13.0	0.0

Part270 n77 HPUE Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	MidB Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	12.06	11.75	11.85	13.0	0.0
100	PIQ BPSK	1	137	11.83	11.91	11.79		
100	PIQ BPSK	1	211	11.87	12.06	11.81		
100	PIQ BPSK	135	0	11.94	11.73	11.83		
100	PIQ BPSK	135	69	11.90	11.76	11.76	13.0	0.0
100	PIQ BPSK	135	138	12.01	11.94	11.95	13.0	0.0
100	PIQ BPSK	270	0	12.06	11.80	11.84	13.0	0.0
100	QPSK	1	1	12.05	12.05	11.97	13.0	0.0
100	QPSK	1	137	11.98	11.89	11.82		
100	QPSK	1	211	12.06	11.86	11.80		
100	QPSK	135	0	11.95	11.95	11.87		
100	QPSK	135	69	12.07	12.05	11.97	13.0	0.0
100	QPSK	135	138	11.89	11.99	11.82	13.0	0.0
100	QPSK	270	0	11.89	11.87	11.79	13.0	0.0
100	8QAM	1	1	11.96	11.87	11.75	13.0	0.0
100	8QAM	1	1	11.74	11.80	11.83	13.0	0.0
100	25QAM	1	1	12.00	11.83	11.86	13.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	11.74	11.63	11.75	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.63	11.59	11.65	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.63	11.72	11.80	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.63	11.74	11.74	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.75	11.57	11.69	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.75	11.69	11.71	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.63	11.70	11.67	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.64	11.68	11.73	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.66	11.64	11.70	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.68	11.57	11.62	13.0	0.0



Part27Q n77 Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	11.73	11.93	12.13	13.0	0.0
100	PIQ BPSK	1	137	11.93	12.13	12.33	13.0	0.0
100	PIQ BPSK	1	271	12.13	12.33	12.53	13.0	0.0
100	PIQ BPSK	135	0	11.91	12.11	12.31	13.0	0.0
100	PIQ BPSK	135	69	11.91	12.11	12.31	13.0	0.0
100	PIQ BPSK	135	138	11.91	12.11	12.31	13.0	0.0
100	PIQ BPSK	270	0	11.92	12.12	12.32	13.0	0.0
100	QPSK	1	1	11.77	11.97	12.17	13.0	0.0
100	QPSK	1	137	11.97	12.17	12.37	13.0	0.0
100	QPSK	1	271	12.17	12.37	12.57	13.0	0.0
100	QPSK	135	0	11.95	12.15	12.35	13.0	0.0
100	QPSK	135	69	11.95	12.15	12.35	13.0	0.0
100	QPSK	135	138	11.95	12.15	12.35	13.0	0.0
100	QPSK	270	0	11.95	12.15	12.35	13.0	0.0
100	NSAM	1	1	11.90	12.10	12.30	13.0	0.0
100	NSAM	1	1	11.94	12.14	12.34	13.0	0.0
100	25GAM	1	1	11.84	12.04	12.24	13.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	11.74	11.94	12.14	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.72	11.92	12.12	13.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	11.69	11.89	12.09	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.71	11.91	12.11	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.70	11.90	12.10	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.63	11.83	12.03	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.71	11.91	12.11	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.65	11.85	12.05	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.61	11.81	12.01	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.65	11.85	12.05	13.0	0.0

Part27Q n77 HPUE Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	11.73	11.93	12.13	13.0	0.0
100	PIQ BPSK	1	137	11.93	12.13	12.33	13.0	0.0
100	PIQ BPSK	1	271	12.13	12.33	12.53	13.0	0.0
100	PIQ BPSK	135	0	11.91	12.11	12.31	13.0	0.0
100	PIQ BPSK	135	69	11.91	12.11	12.31	13.0	0.0
100	PIQ BPSK	135	138	11.91	12.11	12.31	13.0	0.0
100	PIQ BPSK	270	0	11.92	12.12	12.32	13.0	0.0
100	QPSK	1	1	11.77	11.97	12.17	13.0	0.0
100	QPSK	1	137	11.97	12.17	12.37	13.0	0.0
100	QPSK	1	271	12.17	12.37	12.57	13.0	0.0
100	QPSK	135	0	11.95	12.15	12.35	13.0	0.0
100	QPSK	135	69	11.95	12.15	12.35	13.0	0.0
100	QPSK	135	138	11.95	12.15	12.35	13.0	0.0
100	QPSK	270	0	11.95	12.15	12.35	13.0	0.0
100	NSAM	1	1	11.90	12.10	12.30	13.0	0.0
100	NSAM	1	1	11.94	12.14	12.34	13.0	0.0
100	25GAM	1	1	11.84	12.04	12.24	13.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	11.74	11.94	12.14	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.72	11.92	12.12	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.69	11.89	12.09	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.71	11.91	12.11	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.70	11.90	12.10	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.63	11.83	12.03	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.71	11.91	12.11	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.65	11.85	12.05	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.61	11.81	12.01	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.65	11.85	12.05	13.0	0.0



Part270 n77 Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	9.52	9.52	9.52	11.0	0.0
100	PI2 BPSK	1	137	9.52	9.77	9.75		
100	PI2 BPSK	1	271	9.58	9.58	9.58		
100	PI2 BPSK	135	0	9.52	9.76	9.77	11.0	0.0
100	PI2 BPSK	135	69	9.50	9.75	9.75	11.0	0.0
100	PI2 BPSK	135	134	9.52	9.52	9.75	11.0	0.0
100	PI2 BPSK	270	0	9.84	9.72	9.72		
100	QPSK	1	1	9.52	9.52	9.52		
100	QPSK	1	137	9.52	9.70	9.85	11.0	0.0
100	QPSK	1	271	9.50	9.50	9.88		
100	QPSK	135	0	9.52	9.52	9.80		
100	QPSK	135	69	9.52	9.52	9.84	11.0	0.0
100	QPSK	135	134	9.52	9.50	9.85		
100	QPSK	270	0	9.57	9.86	9.81	11.0	0.0
100	SSB-M	1	1	9.50	9.50	9.74	11.0	0.0
100	SSB-M	1	1	9.52	9.52	9.85	11.0	0.0
100	25GAM	1	1	9.52	9.80	9.78	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.84	9.83	9.83	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	9.83	9.85	9.79	11.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	9.81	9.78	9.74	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	9.81	9.86	9.78	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.85	9.73	9.68	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	9.72	9.83	9.73	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	9.73	9.73	9.74	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	9.54	9.76	9.69	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	9.73	9.83	9.85	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	9.83	9.79	9.75	11.0	0.0

Part270 n77 HPUE Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 65000	Middle Ch. Freq. 65000	High Ch. Freq. 65000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	9.52	9.52	9.52		
100	PI2 BPSK	1	137	9.52	9.77	9.75	11.0	0.0
100	PI2 BPSK	1	271	9.58	9.58	9.58		
100	PI2 BPSK	135	0	9.52	9.76	9.77	11.0	0.0
100	PI2 BPSK	135	69	9.50	9.75	9.75	11.0	0.0
100	PI2 BPSK	135	134	9.54	9.52	9.75	11.0	0.0
100	PI2 BPSK	270	0	9.84	9.72	9.72		
100	QPSK	1	1	9.52	9.52	9.52		
100	QPSK	1	137	9.52	9.70	9.85	11.0	0.0
100	QPSK	1	271	9.50	9.50	9.88		
100	QPSK	135	0	9.52	9.52	9.80		
100	QPSK	135	69	9.52	9.52	9.84	11.0	0.0
100	QPSK	135	134	9.52	9.50	9.85		
100	QPSK	270	0	9.57	9.86	9.81	11.0	0.0
100	SSB-M	1	1	9.50	9.50	9.74	11.0	0.0
100	SSB-M	1	1	9.52	9.52	9.85	11.0	0.0
100	25GAM	1	1	9.52	9.80	9.78	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.84	9.83	9.83	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	9.83	9.85	9.79	11.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	9.81	9.78	9.74	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	9.81	9.86	9.78	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.85	9.76	9.68	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	9.72	9.83	9.73	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	9.73	9.73	9.74	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	9.54	9.76	9.69	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	9.73	9.83	9.85	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	9.83	9.79	9.75	11.0	0.0



Part27Q n77 Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	1	137	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	1	271	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	135	0	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	135	69	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	135	138	9.53	9.53	9.53	11.0	0.0
100	PIQ BPSK	270	0	9.79	9.79	9.79	11.0	0.0
100	QPSK	1	1	9.54	9.54	9.54	11.0	0.0
100	QPSK	1	137	9.54	9.54	9.54	11.0	0.0
100	QPSK	1	271	9.54	9.54	9.54	11.0	0.0
100	QPSK	135	0	9.54	9.54	9.54	11.0	0.0
100	QPSK	135	69	9.54	9.54	9.54	11.0	0.0
100	QPSK	135	138	9.54	9.54	9.54	11.0	0.0
100	QPSK	270	0	9.54	9.54	9.54	11.0	0.0
100	QPSK	270	0	9.54	9.54	9.54	11.0	0.0
100	16QAM	1	1	9.58	9.58	9.58	11.0	0.0
100	64QAM	1	1	9.58	9.58	9.58	11.0	0.0
100	256QAM	1	1	9.53	9.53	9.53	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.80	9.80	9.80	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	9.72	9.72	9.72	11.0	0.0
Channel								
Frequency (MHz)								
75	QPSK	1	1	9.74	9.74	9.74	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	9.83	9.83	9.84	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.81	9.81	9.81	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	9.74	9.74	9.74	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	9.72	9.72	9.72	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	9.71	9.71	9.71	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	9.82	9.81	9.79	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	9.81	9.85	9.81	11.0	0.0

Part27Q n77 HPUE Ant 10

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	1	137	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	1	271	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	135	0	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	135	69	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	135	138	9.83	9.83	9.83	11.0	0.0
100	PIQ BPSK	270	0	9.79	9.79	9.79	11.0	0.0
100	QPSK	1	1	9.84	9.84	9.84	11.0	0.0
100	QPSK	1	137	9.84	9.84	9.84	11.0	0.0
100	QPSK	1	271	9.84	9.84	9.84	11.0	0.0
100	QPSK	135	0	9.84	9.84	9.84	11.0	0.0
100	QPSK	135	69	9.84	9.84	9.84	11.0	0.0
100	QPSK	135	138	9.84	9.84	9.84	11.0	0.0
100	QPSK	270	0	9.84	9.84	9.84	11.0	0.0
100	16QAM	1	1	9.86	9.86	9.86	11.0	0.0
100	64QAM	1	1	9.85	9.85	9.85	11.0	0.0
100	256QAM	1	1	9.83	9.83	9.83	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.89	9.89	9.89	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	9.75	9.75	9.75	11.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	9.76	9.76	9.76	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	9.83	9.83	9.84	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	9.81	9.81	9.81	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	9.74	9.74	9.74	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	9.72	9.72	9.72	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	9.73	9.73	9.73	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	9.82	9.81	9.79	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	9.81	9.85	9.81	11.0	0.0



Part270 n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit	MPR
				Low Ch. / Freq.	Mid Ch. / Freq.		
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	12.45			
100	PI2 BPSK	1	137	12.45		14.0	0.0
100	PI2 BPSK	1	211	12.28			
100	PI2 BPSK	135	0	12.43		14.0	0.0
100	PI2 BPSK	135	69	12.46		14.0	0.0
100	PI2 BPSK	135	138	12.35		14.0	0.0
100	PI2 BPSK	270	0	12.38			
100	QPSK	1	1	12.47			
100	QPSK	1	137	12.43		14.0	0.0
100	QPSK	1	211	12.37			
100	QPSK	135	0	12.38			
100	QPSK	135	69	12.38		14.0	0.0
100	QPSK	135	138	12.30			
100	QPSK	270	0	12.41		14.0	0.0
100	NSAM	1	1	12.42		14.0	0.0
100	NSAM	1	1	12.39		14.0	0.0
100	25GAM	1	1	12.45		14.0	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	12.45	65000	65000	MPR
Channel							
Frequency (MHz)							
80	QPSK	1	1	12.31	3750	3750.99	MPR
Channel							
Frequency (MHz)							
75	QPSK	1	1	12.31	12.42	12.28	14.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	12.33	65000	65000	MPR
Channel							
Frequency (MHz)							
50	QPSK	1	1	12.40	3750	3754.99	MPR
Channel							
Frequency (MHz)							
40	QPSK	1	1	12.31	12.24	12.31	14.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	12.27	12.34	12.35	14.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	12.37	12.45	12.31	14.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	12.32	12.37	12.26	14.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	12.35	12.36	12.32	14.0

Part27Q n78_FCC Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Tune-up limit	MPR
				Low Ch. / Freq.	Mid Ch. / Freq.		
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	12.54			
100	PI2 BPSK	1	137	12.58			
100	PI2 BPSK	1	211	12.30		14.0	0.0
100	PI2 BPSK	135	0	12.50		14.0	0.0
100	PI2 BPSK	135	69	12.26		14.0	0.0
100	PI2 BPSK	135	138	12.45		14.0	0.0
100	PI2 BPSK	270	0	12.29			
100	QPSK	1	1	12.50			
100	QPSK	1	137	12.35		14.0	0.0
100	QPSK	1	211	12.28			
100	QPSK	135	0	12.35			
100	QPSK	135	69	12.35		14.0	0.0
100	QPSK	135	138	12.27			
100	QPSK	270	0	12.30		14.0	0.0
100	NSAM	1	1	12.40		14.0	0.0
100	NSAM	1	1	12.43		14.0	0.0
100	25GAM	1	1	12.40		14.0	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	12.44	63300	63332	MPR
Channel							
Frequency (MHz)							
80	QPSK	1	1	12.40	3495.98	3504.99	MPR
Channel							
Frequency (MHz)							
70	QPSK	1	1	12.48	12.40	12.42	14.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	12.52	63300	63332	MPR
Channel							
Frequency (MHz)							
50	QPSK	1	1	12.44	3495.98	3504.99	MPR
Channel							
Frequency (MHz)							
40	QPSK	1	1	12.41	12.40	12.39	14.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	12.51	12.45	12.47	14.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	12.50	12.46	12.36	14.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	12.48	12.54	12.39	14.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	12.40	12.48	12.37	14.0



Part270 n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P12 BPSK	1	1	18.53	18.53	18.53	20.0	0.0
100	P12 BPSK	1	137	18.74	18.74	18.74	20.0	0.0
100	P12 BPSK	1	221	18.74	18.74	18.74	20.0	0.0
100	P12 BPSK	135	0	18.03	18.03	18.03	20.0	0.0
100	P12 BPSK	135	69	18.89	18.89	18.89	20.0	0.0
100	P12 BPSK	135	138	18.81	18.81	18.81	20.0	0.0
100	P12 BPSK	270	0	18.71	18.71	18.71	20.0	0.0
100	QPSK	1	1	18.05	18.05	18.05	20.0	0.0
100	QPSK	1	137	18.82	18.82	18.82	20.0	0.0
100	QPSK	1	271	18.58	18.58	18.58	20.0	0.0
100	QPSK	135	69	18.85	18.85	18.85	20.0	0.0
100	QPSK	135	138	18.96	18.96	18.96	20.0	0.0
100	QPSK	270	0	18.47	18.47	18.47	20.0	0.0
100	16QAM	1	1	18.98	18.98	18.98	20.0	0.0
100	64QAM	1	1	18.92	18.92	18.92	20.0	0.0
100	256QAM	1	1	18.97	18.97	18.97	20.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64969	65000	65032	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	3745.02	3750	3754.98	20.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64934	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	3740.01	3750	3759.99	20.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.50	18.73	18.73	20.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	65000	65000	65000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.53	18.96	18.96	20.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	64968	65000	65132	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.89	18.94	18.94	20.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	64934	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	3726.01	3750	3759.99	20.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.56	18.84	18.73	20.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	64900	65000	65000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	3720	3750	3750	20.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.73	18.84	18.73	20.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	64766	65000	65232	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	3717.02	3750.00	3754.98	20.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.15	18.02	18.13	20.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	64734	65000	65066	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	3713.01	3750	3759.99	20.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.53	18.94	18.93	20.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	64718	65000	65232	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	3707.82	3750	3752.81	20.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.83	18.87	18.73	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	64700	65000	65260	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	3705	3750	3751	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.79	18.89	18.90	20.0	0.0



Part27Q n78_FCC Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	18.79	18.80	18.81	20.0	0.0
100	PI2 BPSK	1	137	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	1	271	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	135	0	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	135	69	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	135	135	18.80	18.80	18.80	20.0	0.0
100	PI2 BPSK	270	0	18.80	18.80	18.80	20.0	0.0
100	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
100	QPSK	1	137	18.79	18.79	18.79	20.0	0.0
100	QPSK	1	271	18.80	18.80	18.80	20.0	0.0
100	QPSK	135	0	18.80	18.80	18.80	20.0	0.0
100	QPSK	135	69	18.80	18.80	18.80	20.0	0.0
100	QPSK	135	135	18.80	18.80	18.80	20.0	0.0
100	QPSK	270	0	18.80	18.80	18.80	20.0	0.0
100	16QAM	1	1	18.80	18.80	18.80	20.0	0.0
100	64QAM	1	1	18.80	18.80	18.80	20.0	0.0
100	256QAM	1	1	18.79	18.79	18.79	20.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.79	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.80	18.80	18.80	20.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.81	18.80	18.81	20.0	0.0
Channel								
Frequency (MHz)								
18	QPSK	1	1	18.87	18.83	18.84	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.83	18.85	18.88	20.0	0.0



Part270 n78_FCC Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	11.70				
100	PIQ BPSK	1	137	11.58			13.0	0.0
100	PIQ BPSK	1	211	11.55				
100	PIQ BPSK	135	0	11.70			13.0	0.0
100	PIQ BPSK	135	69	11.62			13.0	0.0
100	PIQ BPSK	135	138	11.57			13.0	0.0
100	PIQ BPSK	270	0	11.60			13.0	0.0
100	QPSK	1	1	11.50				
100	QPSK	1	137	11.71			13.0	0.0
100	QPSK	1	271	11.56				
100	QPSK	135	0	11.52				
100	QPSK	135	69	11.88			13.0	0.0
100	QPSK	135	138	11.81				
100	QPSK	270	0	11.85			13.0	0.0
100	16QAM	1	1	11.75			13.0	0.0
100	64QAM	1	1	11.89			13.0	0.0
100	256QAM	1	1	11.77			13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.42	55000	11.79	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.22	55000	11.79	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.72	55000	11.77	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.78	55000	11.71	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.74	55000	11.79	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.70	55000	11.70	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.67	55000	11.77	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.55	55000	11.88	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.83	55000	11.70	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.70	55000	11.80	13.0	0.0

Part27Q n78_FCC Ant 8

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PIQ BPSK	1	1	11.72				
100	PIQ BPSK	1	137	11.65			13.0	0.0
100	PIQ BPSK	1	211	11.55				
100	PIQ BPSK	135	0	11.76			13.0	0.0
100	PIQ BPSK	135	69	11.64			13.0	0.0
100	PIQ BPSK	135	138	11.77			13.0	0.0
100	PIQ BPSK	270	0	11.47			13.0	0.0
100	QPSK	1	1	11.65				
100	QPSK	1	137	11.70			13.0	0.0
100	QPSK	1	271	11.60				
100	QPSK	135	0	11.70				
100	QPSK	135	69	11.79			13.0	0.0
100	QPSK	135	138	11.76				
100	QPSK	270	0	11.75			13.0	0.0
100	16QAM	1	1	11.80			13.0	0.0
100	64QAM	1	1	11.65			13.0	0.0
100	256QAM	1	1	11.73			13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.81	63300	11.83	13.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	11.70	63300	11.83	13.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	11.75	63300	11.83	13.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	11.77	63300	11.83	13.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	11.77	63300	11.83	13.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	11.70	63300	11.83	13.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	11.72	63300	11.83	13.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	11.80	63300	11.76	13.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	11.86	63300	11.87	13.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	11.76	63300	11.83	13.0	0.0



Part270 n78_FCC Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P12_BPSK	1	1	9.74				
100	P12_BPSK	1	137	9.59			11.0	0.0
100	P12_BPSK	1	221	9.10				
100	P12_BPSK	135	0	9.30			11.0	0.0
100	P12_BPSK	135	69	9.53			11.0	0.0
100	P12_BPSK	135	138	9.95			11.0	0.0
100	P12_BPSK	270	0	9.86				
100	QPSK	1	1	9.95				
100	QPSK	1	137	9.87			11.0	0.0
100	QPSK	1	271	9.62				
100	QPSK	135	69	9.87				
100	QPSK	135	138	9.70			11.0	0.0
100	QPSK	270	0	9.32			11.0	0.0
100	16QAM	1	1	9.86			11.0	0.0
100	64QAM	1	1	9.81			11.0	0.0
100	256QAM	1	1	9.88			11.0	0.0
Channel								
Frequency (MHz)								
				84969	85000	85032	Tune-up limit	MPR
				3745.02	3750	3754.98	(dBm)	(dB)
90	QPSK	1	1	9.79	9.68	9.60	11.0	0.0
Channel								
				84934	85000	85066	Tune-up limit	MPR
				3740.01	3750	3759.99	(dBm)	(dB)
80	QPSK	1	1	9.10	9.54	9.70	11.0	0.0
Channel								
				84900	85000	85100	Tune-up limit	MPR
				3736	3750	3764	(dBm)	(dB)
70	QPSK	1	1	9.73	9.69	9.64	11.0	0.0
Channel								
				84868	85000	85132	Tune-up limit	MPR
				3730.02	3750	3760.98	(dBm)	(dB)
60	QPSK	1	1	9.73	9.70	9.68	11.0	0.0
Channel								
				84834	85000	85106	Tune-up limit	MPR
				3726.01	3750	3752.99	(dBm)	(dB)
50	QPSK	1	1	9.58	9.73	9.61	11.0	0.0
Channel								
				84800	85000	85200	Tune-up limit	MPR
				3720	3750	3780	(dBm)	(dB)
40	QPSK	1	1	9.74	9.70	9.60	11.0	0.0
Channel								
				84768	85000	85032	Tune-up limit	MPR
				3715.02	3750	3764.98	(dBm)	(dB)
30	QPSK	1	1	9.70	9.10	9.30	11.0	0.0
Channel								
				84700	85000	85200	Tune-up limit	MPR
				3712	3750	3782	(dBm)	(dB)
20	QPSK	1	1	9.59	9.62	9.60	11.0	0.0
Channel								
				84734	85000	85206	Tune-up limit	MPR
				3710.01	3750	3760.99	(dBm)	(dB)
15	QPSK	1	1	9.71	9.81	9.70	11.0	0.0
Channel								
				84768	85000	85202	Tune-up limit	MPR
				3707.02	3750	3762.98	(dBm)	(dB)
10	QPSK	1	1	9.69	9.74	9.67	11.0	0.0



Part27Q n78_FCC Ant 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	9.17	9.17	9.17	11.0	0.0
100	PI2 BPSK	1	137	9.57	9.57	9.57	11.0	0.0
100	PI2 BPSK	1	271	9.97	9.97	9.97	11.0	0.0
100	PI2 BPSK	135	0	9.56	9.56	9.56	11.0	0.0
100	PI2 BPSK	135	69	9.71	9.71	9.71	11.0	0.0
100	PI2 BPSK	135	138	9.86	9.86	9.86	11.0	0.0
100	PI2 BPSK	270	0	9.62	9.62	9.62	11.0	0.0
100	QPSK	1	1	9.17	9.17	9.17	11.0	0.0
100	QPSK	1	137	9.52	9.52	9.52	11.0	0.0
100	QPSK	1	271	9.76	9.76	9.76	11.0	0.0
100	QPSK	135	0	9.54	9.54	9.54	11.0	0.0
100	QPSK	135	69	9.69	9.69	9.69	11.0	0.0
100	QPSK	135	138	9.84	9.84	9.84	11.0	0.0
100	QPSK	270	0	9.48	9.48	9.48	11.0	0.0
100	16QAM	1	1	9.62	9.62	9.62	11.0	0.0
100	64QAM	1	1	9.70	9.70	9.70	11.0	0.0
100	256QAM	1	1	9.68	9.68	9.68	11.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	8.72	8.72	8.72	11.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	8.27	8.27	8.27	11.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	8.30	8.30	8.30	11.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	8.27	8.27	8.27	11.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	8.25	8.25	8.25	11.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	8.27	8.27	8.27	11.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	8.29	8.29	8.29	11.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	8.25	8.25	8.25	11.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	8.23	8.23	8.23	11.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	8.63	8.63	8.63	11.0	0.0



WIFI&Bluetooth

<WLAN 2.4GHz FCC>

2.4GHz WLAN_Ant 3				Default		Head Standalone		Head Simultaneous		Body-wron Standalone		Extremity Standalone		Extremity Simultaneous		Hotspot on&Body-wron Simultaneous		Duty Cycle %
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit		
2.4GHz WLAN	802.11b 1Mbps	1	2412	21.30	22.50	16.70	18.00	14.20	15.50	17.20	18.50	19.75	21.00	15.20	16.50	13.20	14.50	98.28
		6	2437	21.10	22.50	16.50	18.00	14.10	15.50	17.10	18.50	19.56	21.00	15.10	16.50	13.00	14.50	
		11	2462	21.10	22.50	16.60	18.00	14.10	15.50	17.00	18.50	19.87	21.00	15.00	16.50	13.00	14.50	
	802.11g 6Mbps	1	2412	20.30	21.50	16.68	18.00	14.08	15.50	17.08	18.50	19.72	21.00	15.18	16.50	13.18	14.50	98.28
		6	2437	20.10	21.50	16.68	18.00	14.08	15.50	17.08	18.50	19.60	21.00	15.08	16.50	13.08	14.50	
	802.11n-HT20 MCS0	1	2412	20.30	21.50	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50	14.50	97.87
		6	2437	20.10	21.50	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50	14.50	
		11	2462	19.30	21.00	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50	14.50	
		3	2422	19.30	21.00	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50	14.50	
		6	2437	19.40	21.00	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50	14.50	
		9	2452	18.90	20.50	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	20.50	17.00	14.50	14.50	
	802.11ac-VHT20 MCS0	1	2412	18.20	19.50	Not Required	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50	96.31
6		2437	18.00	19.50	Not Required	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50		
11		2462	18.10	19.50	Not Required	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50		
802.11ac-VHT40 MCS0	3	2422	18.20	19.50	Not Required	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50	95.24	
	6	2437	18.30	19.50	Not Required	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50		
	9	2452	18.30	19.50	Not Required	18.00	18.00	15.50	15.50	18.00	18.00	15.50	15.50	21.00	17.00	14.50		

<WLAN 5GHz FCC>

5.2GHz WLAN_Ant 5				Default		Head Standalone		Head Simultaneous		Body-wron Standalone		Extremity Standalone		Extremity Simultaneous		Hotspot on&Body-wron Simultaneous		Duty Cycle %
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit		
5.2GHz WLAN	802.11a 6Mbps	36	5180	20.33	22.00	16.50	16.50	12.50	12.50	16.50	16.50	18.50	18.50	15.00	15.00	11.00	98.35	
		40	5200	20.75	22.00	16.50	16.50	12.50	12.50	16.50	16.50	18.50	18.50	15.00	15.00	11.00		
		44	5220	20.50	22.00	16.50	16.50	12.50	12.50	16.50	16.50	18.50	18.50	15.00	15.00	11.00		
	802.11n-HT20 MCS0	48	5240	20.13	22.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00	98.23	
		36	5180	20.67	22.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
		40	5200	20.10	22.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
	802.11n-VHT40 MCS0	44	5220	20.55	22.00	14.52	16.50	16.50	12.50	12.50	14.52	16.50	15.57	17.00	15.00	11.00	96.46	
		48	5240	20.26	22.00	14.52	16.50	16.50	12.50	12.50	14.52	16.50	15.57	17.00	15.00	11.00		
		36	5180	19.57	21.00	15.08	16.50	16.50	12.50	12.50	15.08	16.50	17.12	18.50	15.00	11.00		
	802.11ac-VHT20 MCS0	36	5180	19.55	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00	98.24	
		40	5200	19.14	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
		44	5220	19.42	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
	802.11ac-VHT40 MCS0	48	5240	19.28	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00	96.49	
		36	5180	19.53	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
	802.11ac-VHT80 MCS0	46	5230	19.50	17.00	11.08	16.50	16.50	12.50	12.50	11.08	16.50	16.50	15.00	15.00	11.00	93.02	
		42	5210	15.15	16.50	16.00	16.00	11.08	12.50	16.00	16.00	16.50	13.57	15.00	9.52	11.00		

5.3GHz WLAN_Ant 5				Default		Head Standalone		Head Simultaneous		Body-wron Standalone		Extremity Standalone		Extremity Simultaneous		Body-wron Simultaneous		Duty Cycle %
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit		
5.3GHz WLAN	802.11a 6Mbps	52	5260	20.35	22.00	16.50	16.50	12.50	12.50	16.50	16.50	18.00	18.00	13.50	13.50	11.00	98.35	
		56	5280	20.23	22.00	16.50	16.50	12.50	12.50	16.50	16.50	18.00	18.00	13.50	13.50	11.00		
		60	5300	20.40	22.00	16.50	16.50	12.50	12.50	16.50	16.50	18.00	18.00	13.50	13.50	11.00		
	802.11n-HT20 MCS0	64	5320	20.44	22.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00	98.23	
		52	5260	20.69	22.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
		56	5280	20.18	22.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
	802.11n-VHT40 MCS0	64	5320	20.19	22.00	15.06	16.50	16.50	12.50	12.50	15.06	16.50	16.58	18.00	13.50	13.50	11.00	96.46
		54	5270	19.67	21.00	14.97	16.50	16.50	12.50	12.50	14.97	16.50	16.08	17.50	13.50	13.50	11.00	
		62	5310	19.62	21.00	14.97	16.50	16.50	12.50	12.50	14.97	16.50	16.08	17.50	13.50	13.50	11.00	
	802.11ac-VHT20 MCS0	52	5260	19.45	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00	98.24	
		56	5280	19.08	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
		60	5300	19.52	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
	802.11ac-VHT40 MCS0	64	5320	19.57	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00	96.49	
		54	5270	19.45	21.00	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
		62	5310	19.04	17.50	Not Required	16.50	16.50	12.50	12.50	Not Required	16.50	16.50	15.00	15.00	11.00		
	802.11ac-VHT80 MCS0	58	5290	14.28	15.50	11.19	16.50	16.50	12.50	12.50	11.19	16.50	16.50	15.00	15.00	11.00	93.02	
		58	5290	14.28	15.50	15.50	11.19	12.50	15.50	11.19	15.50	15.50	12.30	13.50	9.61	11.00		

5.5GHz WLAN_Ant 5				Default		Head Standalone		Head Simultaneous		Body-wron Standalone		Extremity Standalone		Extremity Simultaneous		Body-wron Simultaneous		Duty Cycle %
Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit		
5.5GHz WLAN	802.11a 6Mbps	100	5500	19.56	21.00	17.00	17.00	13.00	13.00	16.50	16.50	18.00	18.00	15.00	15.00	13.00	98.35	
		116	5580	20.47	22.00	17.00	17.00	13.00	13.00	16.50	16.50	18.00	18.00	15.00	15.00	13.00		
		132	5660	20.34	22.00	17.00	17.00	13.00	13.00	16.50	16.50	18.00	18.00	15.00	15.00	13.00		
	802.11n-HT20 MCS0	140	5700	19.45	21.00	Not Required	17.00	17.00	13.00	13.00	Not Required	17.00	17.00	15.00	15.00	13.00	98.23	
		100	5500	20.11	22.00	Not Required	17.00	17.00	13.00	13.00	Not Required	17.00	17.00	15.00	15.00	13.00		
		116	5580	20.28	22.00	Not Required	17.00	17.00	13.00	13.00	Not Required	17.00	17.00	15.00	15.00	13.00		
	802.11n-VHT40 MCS0	132	5660	20.22	22.00	Not Required	17.00	17.00	13.00	13.00	Not Required	17.00	17.00	15.00	15.00	13.00	96.46	
		140	5700	19.16	17.00	Not Required	17.00	17.00	13.00	13.00	Not Required	17.00	17.00	15.00	15.00	13.00		
		102	5510	18.94	20.50	Not Required	17.00	17.00	13.00	13.00	Not Required	17.00	16.40	18.00	15.00	15.00		
	802.11ac-VHT20 MCS0	110																

BR/EDR_Standalone

Mode	Channel	Frequency (MHz)	Average power (dBm)									Tune-up Limit
			Packet Type									
			DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3DH5	
Bluetooth	CH 0	2402	11.30	11.30	11.40	6.60	6.60	6.70	6.70	6.70	6.80	13.00
	CH 39	2441	10.90	10.90	11.00	6.00	6.00	6.10	6.10	6.10	6.20	
	CH 78	2480	11.40	11.40	11.50	6.80	6.80	6.90	6.90	6.90	7.00	

BLE

Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	6.10	6.20
	CH 19	2440	5.80	5.90
	CH 39	2480	6.00	6.10
Tune-up Limit			7.50	

BR/EDR_Simultaneous

Mode	Channel	Frequency (MHz)	Average power (dBm)									Tune-up Limit
			Packet Type									
			DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3DH5	
Bluetooth	CH 0	2402	6.80	6.80	6.90	4.20	4.20	4.30	4.30	4.30	4.40	8.50
	CH 39	2441	6.40	6.40	6.50	3.70	3.70	3.80	3.80	3.80	3.90	
	CH 78	2480	6.90	6.90	7.00	4.40	4.40	4.50	4.50	4.50	4.60	