







Band 48 Ant 3									
BW (MHz)	Modulation	RS Bits	RS Offset	Power Low Ch / Freq	Power Mid Middle Ch / Freq	Power High Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MRR (dB)
Channel									
56940 56940 56940 56940									
Frequency (MHz)									
30	QPSK	1	0	16.10	16.10	16.11	16.83	17.4	0
30	QPSK	1	49	16.00	15.99	15.83	15.90		
30	QPSK	1	99	15.97	16.01	15.80	15.70		
30	QPSK	50	0	15.90	15.90	15.90	15.80		
30	QPSK	50	24	16.01	15.85	15.70	15.73		
30	QPSK	50	49	15.76	15.85	15.81	15.67		
30	QPSK	100	0	15.95	16.04	16.03	15.80		
30	16QAM	1	0	15.97	15.99	15.97	16.66		
30	16QAM	1	49	15.97	15.90	15.80	15.78		
30	16QAM	1	99	15.70	15.99	15.80	15.70		
30	16QAM	50	0	15.83	15.80	15.70	15.81		
30	16QAM	50	24	15.97	15.80	15.70	15.80		
30	16QAM	50	49	15.86	15.88	15.80	15.82		
30	16QAM	100	0	15.80	15.80	15.80	15.67		
30	16QAM	1	0	15.94	15.90	15.90	15.74		
30	16QAM	1	49	16.03	15.90	15.87	15.77		
30	16QAM	1	99	15.74	15.98	15.88	15.60		
30	16QAM	50	0	15.82	15.81	15.80	15.83		
30	16QAM	50	24	15.98	15.71	15.62	15.83		
30	16QAM	50	49	15.81	15.78	15.80	15.67		
30	16QAM	100	0	15.84	16.00	15.94	15.77		
30	256QAM	1	0	15.92	16.00	15.86	15.70		
30	256QAM	1	49	15.91	15.94	15.70	15.86		
30	256QAM	1	99	15.70	15.97	15.87	15.70		
30	256QAM	50	0	15.87	15.80	15.80	15.72		
30	256QAM	50	24	15.94	15.70	15.70	15.58		
30	256QAM	50	49	15.58	15.83	15.81	15.65		
30	256QAM	100	0	15.85	15.86	15.80	15.72		
Channel									
56940 56940 56940 56940									
Frequency (MHz)									
15	QPSK	1	0	15.98	16.04	16.03	15.74	17.4	0
15	QPSK	1	37	15.81	15.92	15.76	15.70		
15	QPSK	1	74	15.77	16.04	15.70	15.86		
15	QPSK	36	0	15.88	16.01	15.80	15.86		
15	QPSK	36	20	15.83	15.82	15.70	15.69		
15	QPSK	36	39	15.62	15.81	15.70	15.60		
15	QPSK	75	0	15.90	15.98	15.95	15.86		
15	16QAM	1	0	15.91	15.92	15.90	15.80		
15	16QAM	1	37	15.80	15.78	15.84	15.69		
15	16QAM	1	74	15.56	15.85	15.70	15.61		
15	16QAM	36	0	15.89	15.74	15.69	15.83		
15	16QAM	36	20	15.80	15.88	15.50	15.44		
15	16QAM	36	39	15.42	15.63	15.72	15.58		
15	16QAM	75	0	15.81	15.83	15.78	15.74		
15	16QAM	1	0	15.77	15.98	15.87	15.87		
15	16QAM	1	37	15.87	15.78	15.50	15.65		
15	16QAM	1	74	15.69	15.86	15.72	15.48		
15	16QAM	36	0	15.74	15.86	15.87	15.75		
15	16QAM	36	20	15.87	15.65	15.47	15.52		
15	16QAM	36	39	15.51	15.84	15.54	15.54		
15	16QAM	75	0	15.70	15.87	15.78	15.97		
15	256QAM	1	0	15.81	16.02	15.80	15.86		
15	256QAM	1	37	15.80	15.83	15.83	15.70		
15	256QAM	1	74	15.62	15.80	15.78	15.62		
15	256QAM	36	0	15.76	15.69	15.65	15.60		
15	256QAM	36	20	15.76	15.68	15.67	15.62		
15	256QAM	36	39	15.46	15.73	15.70	15.51		
15	256QAM	75	0	15.88	15.75	15.77	15.90		
Channel									
56940 56940 56940 56940									
Frequency (MHz)									
10	QPSK	1	0	15.87	16.00	15.86	15.78	17.4	0
10	QPSK	1	25	15.04	15.89	15.68	15.80		
10	QPSK	1	49	15.82	15.97	15.92	15.74		
10	QPSK	1	99	15.81	15.98	15.86	15.78		
10	QPSK	25	12	15.89	15.81	15.62	15.56		
10	QPSK	25	25	15.72	15.74	15.64	15.49		
10	QPSK	1	0	15.92	16.00	15.86	15.77		
10	16QAM	1	0	15.81	15.86	15.80	15.52		
10	16QAM	1	25	15.89	16.04	15.86	15.83		
10	16QAM	1	49	15.96	15.83	15.74	15.83		
10	16QAM	25	0	15.81	15.76	15.62	15.83		
10	16QAM	25	12	15.81	15.81	15.94	15.40		
10	16QAM	25	25	15.83	15.56	15.74	15.45		
10	16QAM	50	0	15.72	15.72	15.74	15.83		
10	16QAM	1	0	15.80	15.98	15.88	15.66		
10	16QAM	1	25	15.96	15.81	15.52	15.68		
10	16QAM	1	49	15.69	15.91	15.68	15.55		
10	16QAM	25	0	15.74	15.82	15.78	15.72		
10	16QAM	25	12	15.82	15.69	15.50	15.48		
10	16QAM	25	25	15.48	15.60	15.76	15.48		
10	16QAM	50	0	15.88	15.97	15.77	15.72		
10	256QAM	1	0	15.78	15.91	15.80	15.75		
10	256QAM	1	25	15.88	15.77	15.87	15.88		
10	256QAM	1	49	15.85	15.89	15.80	15.83		
10	256QAM	25	0	15.84	15.89	15.89	15.87		
10	256QAM	25	12	15.86	15.89	15.84	15.50		
10	256QAM	25	25	15.53	15.60	15.74	15.40		
10	256QAM	50	0	15.72	15.83	15.82	15.65		
Channel									
56940 56940 56940 56940									
Frequency (MHz)									
5	QPSK	1	0	16.03	16.12	16.08	15.71	17.4	0
5	QPSK	1	12	15.90	15.97	15.80	15.80		
5	QPSK	1	24	15.70	15.89	15.90	15.68		
5	QPSK	12	0	15.82	15.89	15.80	15.80		
5	QPSK	12	7	15.91	15.82	15.87	15.88		
5	QPSK	12	13	15.82	15.78	15.78	15.52		
5	QPSK	25	0	15.92	15.94	15.86	15.72		
5	16QAM	1	0	15.84	15.93	15.91	15.62		
5	16QAM	1	12	15.92	15.80	15.77	15.62		
5	16QAM	1	24	15.86	15.89	15.72	15.58		
5	16QAM	12	0	15.89	15.82	15.68	15.71		
5	16QAM	12	7	15.81	15.77	15.66	15.42		
5	16QAM	12	13	15.90	15.85	15.83	15.52		
5	16QAM	25	0	15.81	15.83	15.78	15.68		
5	16QAM	1	0	15.80	15.97	15.94	15.87		
5	16QAM	1	12	15.90	15.80	15.90	15.69		
5	16QAM	1	24	15.60	15.83	15.70	15.51		
5	16QAM	12	0	15.80	15.80	15.78	15.70		
5	16QAM	12	7	15.87	15.56	15.51	15.40		
5	16QAM	12	13	15.64	15.73	15.72	15.48		
5	16QAM	25	0	15.88	15.97	15.88	15.63		
5	256QAM	1	0	15.88	15.98	15.70	15.75		
5	256QAM	1	12	15.88	15.90	15.71	15.78		
5	256QAM	1	24	15.60	15.90	15.72	15.62		
5	256QAM	12	0	15.75	15.88	15.67	15.54		
5	256QAM	12	7	15.78	15.83	15.61	15.44		
5	256QAM	12	13	15.53	15.70	15.87	15.43		
5	256QAM	25	0	15.72	15.89	15.70	15.70		

### Reduced Power Mode for DS16-Standalone

GSM850 Ant 0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	128	189	251	128	189	251	128	189
Frequency (MHz)	824.2	836.4	848.6	824.2	836.4	848.6	824.2	836.4
GSM 1 Tx slot	33.20	33.32	33.28	33.50	24.20	24.32	24.28	24.50
GPRS 1 Tx slot	33.25	33.39	33.31	33.50	24.25	24.39	24.31	24.50
GPRS 2 Tx slots	30.42	30.54	30.50	31.00	24.42	24.54	24.50	25.00
GPRS 3 Tx slots	28.88	28.92	28.84	29.50	24.62	24.66	24.58	25.24
GPRS 4 Tx slots	27.25	27.38	27.30	28.00	24.25	24.38	24.30	25.00
EDGE 1 Tx slot	26.18	26.24	26.10	27.00	17.18	17.24	17.10	18.00
EDGE 2 Tx slots	24.41	24.49	24.45	25.00	18.41	18.49	18.45	19.00
EDGE 3 Tx slots	23.12	23.25	23.10	24.00	18.86	18.99	18.84	19.74
EDGE 4 Tx slots	21.20	21.27	21.18	22.00	18.20	18.27	18.18	19.00

GSM1900 Ant 0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	512	661	810	512	661	810	512	661
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8	1850.2	1880
GSM 1 Tx slot	28.65	28.68	28.60	29.00	19.65	19.68	19.60	20.00
GPRS 1 Tx slot	28.69	28.74	28.63	29.00	19.69	19.74	19.63	20.00
GPRS 2 Tx slots	25.35	25.39	25.31	26.00	19.35	19.39	19.31	20.00
GPRS 3 Tx slots	22.96	23.07	22.96	24.50	18.70	18.81	18.70	20.24
GPRS 4 Tx slots	21.28	21.38	21.27	22.50	18.28	18.38	18.27	19.50
EDGE 1 Tx slot	23.50	23.57	23.43	24.50	14.50	14.57	14.43	15.50
EDGE 2 Tx slots	21.83	21.87	21.80	23.00	15.83	15.87	15.80	17.00
EDGE 3 Tx slots	20.69	20.74	20.61	22.00	16.43	16.48	16.35	17.74
EDGE 4 Tx slots	18.46	18.57	18.52	20.00	15.46	15.57	15.52	17.00

Band	WCDMA N Ant 0			Tune-up Limit (dBm)	WCDMA V Ant 0			Tune-up Limit (dBm)	
	1312	1413	1513		4132	4182	4233		
TX Channel	1312	1413	1513	4132	4182	4233	4132	4182	
Rx Channel	1537	1638	1738	4357	4407	4458	4357	4407	
Frequency (MHz)	1712.4	1732.6	1752.6	826.4	836.4	846.6	826.4	836.4	
3GPP Rel 99	AMR 12.2Kbps	21.80	21.92	21.87	23.00	23.65	23.72	23.63	24.00
3GPP Rel 99	RM-C 12.2Kbps	21.85	21.99	21.93	23.00	23.71	23.78	23.68	24.00
3GPP Rel 6	HSDPA Subtest-1	21.11	21.15	21.00	22.00	22.89	22.84	22.83	23.00
3GPP Rel 6	HSDPA Subtest-2	20.97	21.09	20.97	22.00	22.77	22.91	22.84	23.00
3GPP Rel 6	HSDPA Subtest-3	20.50	20.61	20.51	21.50	22.30	22.43	22.33	22.50
3GPP Rel 6	HSDPA Subtest-4	20.41	20.62	20.49	21.50	22.24	22.41	22.37	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.03	21.13	20.88	22.00	22.89	22.73	22.75	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	20.84	20.95	20.75	22.00	22.65	22.79	22.59	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	20.45	20.42	20.34	21.50	22.26	22.26	22.21	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	20.33	20.49	20.49	21.50	22.16	22.29	22.31	22.50
3GPP Rel 6	HSUPA Subtest-1	21.10	21.06	21.04	22.00	22.90	22.94	22.94	23.00
3GPP Rel 6	HSUPA Subtest-2	19.02	19.14	18.97	20.00	20.89	20.97	20.75	21.00
3GPP Rel 6	HSUPA Subtest-3	19.96	20.03	20.05	21.00	21.79	21.92	21.93	22.00
3GPP Rel 6	HSUPA Subtest-4	18.90	19.07	19.05	20.00	20.77	20.87	20.83	21.00
3GPP Rel 6	HSUPA Subtest-5	21.06	20.90	20.94	22.00	22.85	22.76	22.74	23.00







Band 38 Ant 0

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Mid Ch / Freq, Power High Ch / Freq, Tune-up (dBm), MPR (dB). Contains multiple rows for Channel, Frequency (MHz), and various RB configurations.

Band 41 Ant 0

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Mid Ch / Freq, Power High Ch / Freq, Tune-up (dBm), MPR (dB). Contains multiple rows for Channel, Frequency (MHz), and various RB configurations.

Band 41 HPUE Ant 0

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Mid Ch / Freq, Power High Ch / Freq, Tune-up (dBm), MPR (dB). Contains multiple rows for Channel, Frequency (MHz), and various RB configurations.







Band 48 Ant 0

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Mid Ch / Freq	Power High Ch / Freq	Power High Mid Ch / Freq	Tune-up freq (dBm)	MPR (dB)
Channel 56940									
Frequency (MHz)									
20	QPSK	1	0	20.77	20.84	20.71	20.67	22	0
20	QPSK	1	49	20.71	20.79	20.67	20.62		
20	QPSK	99	0	20.60	20.72	20.60	20.58		
20	QPSK	50	0	20.51	20.54	20.54	20.55		
20	QPSK	50	24	20.55	20.59	20.49	20.55	21	1
20	QPSK	50	0	20.43	20.52	20.42	20.38		
20	QPSK	100	0	20.56	20.61	20.54	20.52		
20	16QAM	1	0	20.49	20.59	20.53	20.45		
20	16QAM	1	49	20.49	20.54	20.47	20.43	21	1
20	16QAM	1	99	20.43	20.47	20.35	20.41		
20	16QAM	50	0	19.51	19.62	19.60	19.54		
20	16QAM	50	24	19.54	19.58	19.52	19.44		
20	16QAM	50	50	19.46	19.51	19.41	19.48	20	2
20	64QAM	100	0	19.45	19.55	19.5	19.55		
20	64QAM	1	49	19.45	19.55	19.41	19.43	20	2
20	64QAM	1	99	19.36	19.45	19.41	19.63		
20	64QAM	50	0	18.70	18.73	18.67	18.69		
20	64QAM	50	24	18.54	18.68	18.64	18.58	19	3
20	64QAM	50	50	18.51	18.61	18.58	18.52		
20	64QAM	100	0	18.61	18.69	18.58	18.58		
20	256QAM	1	0	18.69	18.74	18.61	18.68		
20	256QAM	1	49	18.65	18.69	18.61	18.65	17	5
20	256QAM	1	99	18.52	18.62	18.48	18.53		
20	256QAM	50	0	18.60	18.66	18.67	18.63		
20	256QAM	50	24	18.52	18.61	18.54	18.55	17	5
20	256QAM	50	50	18.39	18.54	18.41	18.44		
20	256QAM	100	0	18.57	18.61	18.63	18.55		
Channel 56945									
Frequency (MHz)									
15	QPSK	1	0	20.71	20.77	20.62	20.52	22	0
15	QPSK	1	37	20.65	20.69	20.60	20.51		
15	QPSK	1	74	20.60	20.62	20.65	20.49		
15	QPSK	36	0	20.48	20.50	20.48	20.44		
15	QPSK	36	20	20.44	20.49	20.45	20.40	21	1
15	QPSK	36	36	20.33	20.40	20.38	20.38		
15	QPSK	75	0	20.42	20.55	20.43	20.46		
15	16QAM	1	0	20.44	20.55	20.44	20.32		
15	16QAM	1	37	20.40	20.50	20.38	20.38	21	1
15	16QAM	1	74	20.34	20.39	20.21	20.28		
15	16QAM	36	0	19.46	19.51	19.45	19.46		
15	16QAM	36	20	19.45	19.51	19.47	19.30	20	2
15	16QAM	36	36	19.39	19.40	19.26	19.41		
15	16QAM	75	0	19.36	19.51	19.36	19.48		
15	64QAM	1	0	19.36	19.53	19.49	19.33		
15	64QAM	1	37	19.41	19.45	19.33	19.38	20	2
15	64QAM	1	74	19.26	19.41	19.26	19.30		
15	64QAM	36	0	18.55	18.67	18.56	18.59		
15	64QAM	36	20	18.47	18.61	18.61	18.51	19	3
15	64QAM	36	36	18.35	18.63	18.48	18.58		
15	64QAM	75	0	18.54	18.54	18.47	18.44		
15	256QAM	1	0	18.61	18.62	18.67	18.56		
15	256QAM	1	37	18.60	18.65	18.67	18.56	17	5
15	256QAM	1	74	18.42	18.48	18.37	18.44		
15	256QAM	36	0	18.52	18.62	18.54	18.58		
15	256QAM	36	20	18.38	18.50	18.49	18.47	17	5
15	256QAM	36	36	18.36	18.48	18.34	18.35		
15	256QAM	75	0	18.50	18.47	18.43	18.50		
Channel 56950									
Frequency (MHz)									
10	QPSK	1	0	20.72	20.73	20.64	20.61	22	0
10	QPSK	1	25	20.66	20.68	20.59	20.52		
10	QPSK	1	49	20.59	20.60	20.54	20.52		
10	QPSK	25	0	20.38	20.61	20.47	20.44		
10	QPSK	25	12	20.44	20.56	20.45	20.51	21	1
10	QPSK	25	25	20.37	20.37	20.38	20.29		
10	QPSK	50	0	20.53	20.48	20.60	20.46		
10	16QAM	1	0	20.44	20.61	20.39	20.37		
10	16QAM	1	25	20.40	20.48	20.36	20.33	21	1
10	16QAM	1	49	20.31	20.39	20.29	20.28		
10	16QAM	25	0	19.38	19.50	19.51	19.42		
10	16QAM	25	12	18.41	19.45	19.32	19.37	20	2
10	16QAM	25	25	18.42	19.35	19.23	19.38		
10	64QAM	1	0	19.42	19.46	19.41	19.38		
10	64QAM	1	25	19.35	19.44	19.35	19.35	20	2
10	64QAM	1	49	19.27	19.33	19.27	19.31		
10	64QAM	25	0	18.64	18.60	18.61	18.62		
10	64QAM	25	12	18.49	18.64	18.54	18.51	19	3
10	64QAM	25	25	18.37	18.48	18.40	18.44		
10	64QAM	50	0	18.47	18.58	18.49	18.59		
10	256QAM	1	0	18.65	18.61	18.58	18.55		
10	256QAM	1	25	18.63	18.58	18.61	18.51	17	5
10	256QAM	1	49	18.40	18.50	18.45	18.41		
10	256QAM	25	0	18.40	18.58	18.42	18.49		
10	256QAM	25	12	18.45	18.61	18.48	18.44		
10	256QAM	25	25	18.36	18.43	18.35	18.31	17	5
10	256QAM	50	0	18.51	18.54	18.43	18.45		
Channel 56955									
Frequency (MHz)									
5	QPSK	1	0	20.73	20.81	20.57	20.61	22	0
5	QPSK	1	12	20.62	20.64	20.67	20.51		
5	QPSK	1	24	20.55	20.61	20.59	20.51		
5	QPSK	12	0	20.42	20.63	20.46	20.47		
5	QPSK	12	7	20.47	20.52	20.42	20.48	21	1
5	QPSK	12	13	20.31	20.40	20.36	20.34		
5	QPSK	25	0	20.44	20.57	20.44	20.43		
5	16QAM	1	0	20.36	20.49	20.39	20.34		
5	16QAM	1	12	20.39	20.41	20.43	20.39	21	1
5	16QAM	1	24	20.35	20.39	20.24	20.27		
5	16QAM	12	0	19.39	19.54	19.53	19.47		
5	16QAM	12	7	19.40	19.55	19.45	19.34	20	2
5	16QAM	12	13	19.39	19.49	19.31	19.34		
5	64QAM	1	0	19.42	19.48	19.42	19.43		
5	64QAM	1	12	19.35	19.51	19.42	19.40	20	2
5	64QAM	1	12	19.39	19.41	19.34	19.30		
5	64QAM	1	24	19.27	19.37	19.37	19.29		
5	64QAM	12	0	18.56	18.68	18.53	18.55		
5	64QAM	12	7	18.48	18.51	18.53	18.53	19	3
5	64QAM	12	13	18.46	18.56	18.50	18.48		
5	256QAM	1	0	18.47	18.57	18.63	18.42		
5	256QAM	1	12	18.60	18.55	18.54	18.55	17	5
5	256QAM	1	24	18.45	18.51	18.49	18.38		
5	256QAM	12	0	18.47	18.60	18.54	18.57		
5	256QAM	12	7	18.48	18.53	18.43	18.51		
5	256QAM	12	13	18.30	18.45	18.27	18.32	17	5
5	256QAM	25	0	18.53	18.49	18.44	18.45		



GSM850 Ant 1 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.18	32.34	32.26	33.50	23.18	23.34	23.26	24.50
GPRS 1 Tx slot	32.23	32.39	32.30	33.50	23.23	23.38	23.30	24.50
GPRS 2 Tx slots	29.48	29.52	29.41	30.50	23.48	23.52	23.41	24.50
GPRS 3 Tx slots	27.74	27.85	27.79	29.00	23.48	23.59	23.53	24.74
GPRS 4 Tx slots	26.27	26.35	26.27	27.00	23.27	23.35	23.27	24.00
EDGE 1 Tx slot	25.13	25.18	25.08	26.00	16.13	16.18	16.08	17.00
EDGE 2 Tx slots	23.21	23.35	23.21	25.00	17.21	17.35	17.21	19.00
EDGE 3 Tx slots	22.19	22.30	22.27	24.00	17.93	18.04	18.01	19.74
EDGE 4 Tx slots	20.02	20.14	20.07	21.00	17.02	17.14	17.07	18.00

GSM900 Ant 1 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.81	29.93	29.89	30.00	20.81	20.93	20.89	21.00
GPRS 1 Tx slot	29.85	29.97	29.93	30.00	20.85	20.97	20.93	21.00
GPRS 2 Tx slots	25.58	25.62	25.50	27.00	19.58	19.62	19.50	21.00
GPRS 3 Tx slots	23.86	23.69	23.61	25.50	19.40	19.43	19.35	21.24
GPRS 4 Tx slots	21.31	21.41	21.28	22.50	18.31	18.41	18.28	19.50
EDGE 1 Tx slot	23.45	23.54	23.51	25.00	14.45	14.54	14.51	16.00
EDGE 2 Tx slots	21.84	21.91	21.79	23.50	15.84	15.91	15.79	17.50
EDGE 3 Tx slots	20.63	20.69	20.56	22.50	16.37	16.43	16.30	18.24
EDGE 4 Tx slots	18.56	18.66	18.62	20.50	15.56	15.66	15.62	17.50

Band TX Channel	WCDMA N Ant 1 Rx Channel			Tune-up Limit (dBm)	WCDMA V Ant 1			Tune-up Limit (dBm)
	1312	1413	1513		4132	4182	4233	
Frequency (MHz)	1537	1638	1738		4357	4407	4458	
3GPP Rel 99 AMR 12.2Kbps	22.81	22.89	22.78	24.00	22.40	22.46	22.30	24.00
3GPP Rel 99 RMC 12.2Kbps	22.87	22.96	22.83	24.00	22.43	22.49	22.37	24.00
3GPP Rel 6 HSDPA Subtest-1	21.95	22.02	21.87	23.00	21.55	21.60	21.37	23.00
3GPP Rel 6 HSDPA Subtest-2	21.85	21.86	21.83	23.00	21.47	21.50	21.47	23.00
3GPP Rel 6 HSDPA Subtest-3	21.28	21.46	21.37	22.50	20.86	21.05	21.00	22.50
3GPP Rel 6 HSDPA Subtest-4	21.27	21.52	21.36	22.50	20.85	21.15	20.90	22.50
3GPP Rel 8 DC-HSDPA Subtest-1	21.94	22.12	21.74	23.00	21.47	21.68	21.28	23.00
3GPP Rel 8 DC-HSDPA Subtest-2	21.85	21.86	21.70	23.00	21.42	21.42	21.34	23.00
3GPP Rel 8 DC-HSDPA Subtest-3	21.45	21.28	21.38	22.50	21.02	20.85	20.93	22.50
3GPP Rel 8 DC-HSDPA Subtest-4	21.26	21.13	21.39	22.50	20.82	20.75	20.99	22.50
3GPP Rel 6 HSUPA Subtest-1	21.90	21.98	22.06	23.00	21.51	21.56	21.61	23.00
3GPP Rel 6 HSUPA Subtest-2	19.87	19.94	19.82	21.00	19.41	19.49	19.39	21.00
3GPP Rel 6 HSUPA Subtest-3	20.92	20.93	20.82	22.00	20.54	20.48	20.44	22.00
3GPP Rel 6 HSUPA Subtest-4	19.77	19.86	19.82	21.00	19.37	19.45	19.37	21.00
3GPP Rel 6 HSUPA Subtest-5	22.04	21.68	21.73	23.00	21.58	21.32	21.38	23.00



Band 4 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch./Freq. Ch./Freq.	Power High Ch./Freq. Low Ch./Freq.	Power Low Ch./Freq. High Ch./Freq.	Turn-up Time (min)	MPE (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	21.63	21.75	21.68			
20	QPSK	1	49	21.64	21.63	21.63	23	0	
20	QPSK	50	0	20.96	21.03	20.95			
20	QPSK	50	24	20.97	20.98	20.97	22	1	
20	QPSK	50	49	20.98	20.91	20.84			
20	QPSK	100	0	20.99	20.96	20.87			
20	QPSK	100	24	20.75	20.75	20.75	22	1	
20	QPSK	100	49	20.76	20.84	20.74			
20	HQAM	1	0	19.89	19.97	19.83			
20	HQAM	50	24	19.83	19.85	19.85	21	2	
20	HQAM	50	49	19.74	19.89	19.72			
20	HQAM	100	0	19.89	19.92	19.83			
20	HQAM	100	24	19.75	19.83	19.79			
20	HQAM	100	49	19.85	19.78	19.65	21	2	
20	HQAM	50	24	19.86	19.89	19.81			
20	HQAM	50	49	19.76	19.86	19.74	20	3	
20	HQAM	100	0	19.77	19.81	19.81			
20	HQAM	100	24	19.66	19.69	19.69			
20	HQAM	100	49	19.62	19.65	19.65	18	5	
20	HQAM	50	24	19.73	19.82	19.77			
20	HQAM	50	49	19.67	19.76	19.63	18	5	
20	HQAM	100	0	19.68	19.74	19.63			
20	HQAM	100	24	19.59	19.67	19.57			
20	HQAM	100	49	19.65	19.73	19.65	21	2	
20	HQAM	50	24	19.56	19.63	19.56			
20	HQAM	50	49	19.46	19.59	19.47	21	2	
20	HQAM	100	0	19.57	19.63	19.57			
20	HQAM	100	24	19.48	19.55	19.48			
20	HQAM	100	49	19.38	19.51	19.41	20	3	
20	HQAM	50	24	19.49	19.56	19.49			
20	HQAM	50	49	19.39	19.51	19.41	18	5	
20	HQAM	100	0	19.39	19.47	19.39			
20	HQAM	100	24	19.30	19.42	19.30	18	5	
20	HQAM	100	49	19.26	19.37	19.26			
20	HQAM	50	24	19.17	19.28	19.17			
20	HQAM	50	49	19.08	19.21	19.08	17	5	
20	HQAM	100	0	19.09	19.23	19.24			
20	HQAM	100	24	18.99	19.13	18.99			
20	HQAM	100	49	18.90	19.06	18.90	21	2	
20	HQAM	50	24	18.81	18.94	18.81			
20	HQAM	50	49	18.71	18.86	18.71	19	3	
20	HQAM	100	0	18.62	18.76	18.62			
20	HQAM	100	24	18.53	18.67	18.53	17	5	
20	HQAM	100	49	18.44	18.58	18.44			
20	HQAM	50	24	18.35	18.49	18.35	17	5	
20	HQAM	50	49	18.26	18.40	18.26			
20	HQAM	100	0	18.17	18.31	18.17			
20	HQAM	100	24	18.08	18.22	18.08	20	3	
20	HQAM	100	49	17.99	18.13	17.99			
20	HQAM	50	24	17.90	18.04	17.90	18	5	
20	HQAM	50	49	17.81	17.95	17.81			
20	HQAM	100	0	17.72	17.86	17.72			
20	HQAM	100	24	17.63	17.77	17.63	18	5	
20	HQAM	100	49	17.54	17.68	17.54			
20	HQAM	50	24	17.45	17.59	17.45	18	5	
20	HQAM	50	49	17.36	17.50	17.36			
20	HQAM	100	0	17.27	17.41	17.27			
20	HQAM	100	24	17.18	17.32	17.18	18	5	
20	HQAM	100	49	17.09	17.23	17.09			
20	HQAM	50	24	17.00	17.14	17.00	18	5	
20	HQAM	50	49	16.91	17.05	16.91			
20	HQAM	100	0	16.82	16.96	16.82			
20	HQAM	100	24	16.73	16.87	16.73	18	5	
20	HQAM	100	49	16.64	16.78	16.64			
20	HQAM	50	24	16.55	16.69	16.55	18	5	
20	HQAM	50	49	16.46	16.60	16.46			
20	HQAM	100	0	16.37	16.51	16.37			
20	HQAM	100	24	16.28	16.42	16.28	18	5	
20	HQAM	100	49	16.19	16.33	16.19			
20	HQAM	50	24	16.10	16.24	16.10	18	5	
20	HQAM	50	49	16.01	16.15	16.01			
20	HQAM	100	0	15.92	16.06	15.92			
20	HQAM	100	24	15.83	15.97	15.83	18	5	
20	HQAM	100	49	15.74	15.88	15.74			
20	HQAM	50	24	15.65	15.79	15.65	18	5	
20	HQAM	50	49	15.56	15.70	15.56			
20	HQAM	100	0	15.47	15.61	15.47			
20	HQAM	100	24	15.38	15.52	15.38	18	5	
20	HQAM	100	49	15.29	15.43	15.29			
20	HQAM	50	24	15.20	15.34	15.20	18	5	
20	HQAM	50	49	15.11	15.25	15.11			
20	HQAM	100	0	15.02	15.16	15.02			
20	HQAM	100	24	14.93	15.07	14.93	18	5	
20	HQAM	100	49	14.84	14.98	14.84			
20	HQAM	50	24	14.75	14.89	14.75	18	5	
20	HQAM	50	49	14.66	14.80	14.66			
20	HQAM	100	0	14.57	14.71	14.57			
20	HQAM	100	24	14.48	14.62	14.48	18	5	
20	HQAM	100	49	14.39	14.53	14.39			
20	HQAM	50	24	14.30	14.44	14.30	18	5	
20	HQAM	50	49	14.21	14.35	14.21			
20	HQAM	100	0	14.12	14.26	14.12			
20	HQAM	100	24	14.03	14.17	14.03	18	5	
20	HQAM	100	49	13.94	14.08	13.94			
20	HQAM	50	24	13.85	13.99	13.85	18	5	
20	HQAM	50	49	13.76	13.90	13.76			
20	HQAM	100	0	13.67	13.81	13.67			
20	HQAM	100	24	13.58	13.72	13.58	18	5	
20	HQAM	100	49	13.49	13.63	13.49			
20	HQAM	50	24	13.40	13.54	13.40	18	5	
20	HQAM	50	49	13.31	13.45	13.31			
20	HQAM	100	0	13.22	13.36	13.22			
20	HQAM	100	24	13.13	13.27	13.13	18	5	
20	HQAM	100	49	13.04	13.18	13.04			
20	HQAM	50	24	12.95	13.09	12.95	18	5	
20	HQAM	50	49	12.86	13.00	12.86			
20	HQAM	100	0	12.77	12.91	12.77			
20	HQAM	100	24	12.68	12.82	12.68	18	5	
20	HQAM	100	49	12.59	12.73	12.59			
20	HQAM	50	24	12.50	12.64	12.50	18	5	
20	HQAM	50	49	12.41	12.55	12.41			
20	HQAM	100	0	12.32	12.46	12.32			
20	HQAM	100	24	12.23	12.37	12.23	18	5	
20	HQAM	100	49	12.14	12.28	12.14			
20	HQAM	50	24	12.05	12.19	12.05	18	5	
20	HQAM	50	49	11.96	12.10	11.96			
20	HQAM	100	0	11.87	12.01	11.87			
20	HQAM	100	24	11.78	11.92	11.78	18	5	
20	HQAM	100	49	11.69	11.83	11.69			
20	HQAM	50	24	11.60	11.74	11.60	18	5	
20	HQAM	50	49	11.51	11.65	11.51			
20	HQAM	100	0	11.42	11.56	11.42			
20	HQAM	100	24	11.33	11.47	11.33	18	5	
20	HQAM	100	49	11.24	11.38	11.24			
20	HQAM	50	24	11.15	11.29	11.15	18	5	
20	HQAM	50	49	11.06	11.20	11.06			
20	HQAM	100	0	10.97	11.11	10.97			
20	HQAM	100	24	10.88	11.02	10.88	18	5	
20	HQAM	100	49	10.79	10.93	10.79			
20	HQAM	50	24	10.70	10.84	10.70	18	5	
20	HQAM	50	49	10.61	10.75	10.61			
20	HQAM	100	0	10.52	10.66	10.52			
20	HQAM	100	24	10.43	10.57	10.43	18	5	
20	HQAM	100	49	10.34	10.48	10.34			
20	HQAM	50	24	10.25	10.39	10.25	18	5	
20	HQAM	50	49	10.16					



Band 13 Ant 1												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Turn-up time (min)	MRR (dB)				
Channel												
Frequency (MHz)												
10	QPSK	1	0	21.51	21.51	21.51	23	0				
10	QPSK	1	25	21.51	21.51	21.51						
10	QPSK	1	49	21.51	21.51	21.51						
10	QPSK	25	0	20.69	20.72	20.67						
10	QPSK	25	12	20.67	20.72	20.69						
10	QPSK	25	25	20.63	20.60	20.48						
10	QPSK	50	0	20.53	20.58	20.53						
10	QPSK	50	12	20.56	20.55	20.48						
10	16QAM	1	25	20.39	20.54	20.48						
10	16QAM	1	49	20.42	20.47	20.38						
10	16QAM	25	0	19.92	19.98	19.92	21	2				
10	16QAM	25	12	19.95	19.83	19.49						
10	16QAM	25	25	19.92	19.98	19.44						
10	16QAM	50	0	19.96	19.92	19.95						
10	16QAM	1	0	19.42	19.55	19.43						
10	16QAM	1	25	19.43	19.50	19.26						
10	16QAM	1	49	19.53	19.43	19.30						
10	16QAM	25	0	18.99	18.76	18.69						
10	16QAM	25	12	18.92	18.71	18.50						
10	16QAM	25	25	18.51	18.64	18.53						
10	16QAM	50	0	18.58	18.71	18.60						
10	16QAM	50	0	18.58	18.65	18.60						
10	256QAM	1	25	18.65	18.72	18.52	18	5				
10	256QAM	1	49	18.55	18.65	18.59						
10	256QAM	25	0	18.64	18.72	18.62						
10	256QAM	25	12	18.53	18.67	18.57						
10	256QAM	25	25	18.50	18.60	18.50						
10	256QAM	50	0	18.61	18.65	18.60						
Channel												
Frequency (MHz)												
5	QPSK	1	0	21.47	21.58	21.41	23	0				
5	QPSK	1	12	21.08	21.37	21.31						
5	QPSK	1	24	21.42	21.43	21.33						
5	QPSK	12	0	20.59	20.62	20.55						
5	QPSK	12	7	20.54	20.53	20.61						
5	QPSK	12	13	20.48	20.54	20.41						
5	QPSK	25	0	20.49	20.56	20.49						
5	QPSK	25	0	20.24	20.18	20.34						
5	16QAM	1	12	20.32	20.49	20.41						
5	16QAM	1	24	20.39	20.59	20.25						
5	16QAM	12	0	19.91	19.94	19.98	21	2				
5	16QAM	12	7	19.45	19.48	19.38						
5	16QAM	12	13	19.48	19.46	19.30						
5	16QAM	25	0	19.30	19.44	19.30						
5	16QAM	1	0	19.38	19.41	19.31						
5	16QAM	1	12	19.23	19.37	19.20						
5	16QAM	1	24	19.23	19.37	19.20						
5	16QAM	12	0	18.98	18.88	18.66						
5	16QAM	12	7	18.93	18.65	18.51						
5	16QAM	12	13	18.37	18.32	18.42						
5	16QAM	25	0	18.46	18.60	18.48						
5	256QAM	1	12	18.57	18.66	18.52	18	5				
5	256QAM	1	24	18.40	18.59	18.50						
5	256QAM	12	0	18.51	18.63	18.25						
5	256QAM	12	7	18.43	18.56	18.53						
5	256QAM	12	13	18.19	18.27	18.45						
5	256QAM	25	0	18.52	18.54	18.52						

Band 17 Ant 1												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Turn-up time (min)	MRR (dB)				
Channel												
Frequency (MHz)												
10	QPSK	1	0	21.61	21.66	21.57	23	0				
10	QPSK	1	25	21.55	21.64	21.63						
10	QPSK	1	49	21.66	21.62	21.54						
10	QPSK	25	0	20.69	20.72	20.67						
10	QPSK	25	12	20.67	20.72	20.69						
10	QPSK	25	25	20.63	20.60	20.48						
10	QPSK	50	0	20.53	20.58	20.53						
10	QPSK	50	12	20.56	20.55	20.48						
10	16QAM	1	25	20.39	20.54	20.48						
10	16QAM	1	49	20.42	20.47	20.38						
10	16QAM	25	0	19.92	19.98	19.92	21	2				
10	16QAM	25	12	19.95	19.83	19.49						
10	16QAM	25	25	19.92	19.98	19.44						
10	16QAM	50	0	19.96	19.92	19.95						
10	16QAM	1	0	19.42	19.55	19.43						
10	16QAM	1	25	19.43	19.50	19.26						
10	16QAM	1	49	19.53	19.43	19.30						
10	16QAM	25	0	18.99	18.76	18.69						
10	16QAM	25	12	18.92	18.71	18.50						
10	16QAM	25	25	18.51	18.64	18.53						
10	16QAM	50	0	18.58	18.71	18.60						
10	16QAM	50	0	18.58	18.65	18.60						
10	256QAM	1	25	18.65	18.72	18.52	18	5				
10	256QAM	1	49	18.55	18.65	18.59						
10	256QAM	25	0	18.64	18.72	18.62						
10	256QAM	25	12	18.53	18.67	18.57						
10	256QAM	25	25	18.50	18.60	18.50						
10	256QAM	50	0	18.61	18.65	18.60						
Channel												
Frequency (MHz)												
5	QPSK	1	0	21.47	21.58	21.41	23	0				
5	QPSK	1	12	21.08	21.37	21.31						
5	QPSK	1	24	21.42	21.43	21.33						
5	QPSK	12	0	20.59	20.62	20.55						
5	QPSK	12	7	20.54	20.53	20.61						
5	QPSK	12	13	20.48	20.54	20.41						
5	QPSK	25	0	20.49	20.56	20.49						
5	QPSK	25	0	20.24	20.18	20.34						
5	16QAM	1	12	20.32	20.49	20.41						
5	16QAM	1	24	20.39	20.59	20.25						
5	16QAM	12	0	19.91	19.94	19.98	21	2				
5	16QAM	12	7	19.45	19.48	19.38						
5	16QAM	12	13	19.48	19.46	19.30						
5	16QAM	25	0	19.30	19.44	19.30						
5	16QAM	1	0	19.38	19.41	19.31						
5	16QAM	1	12	19.23	19.37	19.20						
5	16QAM	1	24	19.23	19.37	19.20						
5	16QAM	12	0	18.98	18.88	18.66						
5	16QAM	12	7	18.93	18.65	18.51						
5	16QAM	12	13	18.37	18.32	18.42						
5	16QAM	25	0	18.46	18.60	18.48						
5	256QAM	1	12	18.57	18.66	18.52	18	5				
5	256QAM	1	24	18.40	18.59	18.50						
5	256QAM	12	0	18.51	18.63	18.25						
5	256QAM	12	7	18.43	18.56	18.53						
5	256QAM	12	13	18.19	18.27	18.45						
5	256QAM	25	0	18.52	18.54	18.52						

Band 26 Ant 1												
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Turn-up time (min)	MRR (dB)				
Channel												
Frequency (MHz)												
15	QPSK	1	0	21.32	21.36	21.29	22	0				
15	QPSK	1	37	21.36	21.36	21.36						
15	QPSK	1	74	21.14	21.20	21.14						
15	QPSK	36	0	20.28	20.30	20.28						
15	QPSK	36	20	20.19	20.22	20.20						
15	QPSK	36	36	20.17	20.20	20.12						
15	QPSK	72	0	20.24	20.27	20.17						
15	QPSK	72	0	20.19	20.22	20.19						
15	16QAM	1	37	20.10	20.17	20.13						
15	16QAM	1	74	19.99	20.10	20.04						
15	16QAM	36	0	19.24	19.37	19.22	20	2				
15	16QAM	36	20	19.28	19.32	19.22						
15	16QAM	36	36	19.14	19.26	19.13						
15	16QAM	72	0	19.29	19.30	19.21						
15	16QAM	1	0	19.16	19.23	19.15						
15	16QAM	1	37	19.15	19.18	19.04						
15	16QAM	1	74	19.06	19.11	19.09						
15	16QAM	36	0	18.22	18.36	18.22						
15	16QAM	36	20	18.19	18.31	18.17						
15	16QAM	36	36	18.13	18.24	18.14						
15	16QAM	72	0	18.19	18.32	18.20						
15	256QAM	1	37	18.21	18.26	18.19	19	3				
15	256QAM	1	74	18.16	18.26	18.13						
15	256QAM	36	0	18.23	18.24	18.14						
15	256QAM	36	20	18.17	18.28	18.21						
15	256QAM	36	36	18.11	18.21	18.07						
15	256QAM	72	0	18.16	18.22	18.16						
Channel												
Frequency (MHz)												
10	QPSK	1	0	21.20	21.26	21.26	22	0				
10	QPSK	1	12	21.11	21.15	21.01						
10												



Band 38 Ant 1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Time-up limit (min)	MPR (dB)		
Channel										
Frequency (MHz)				39760	39800	39840				
20	QPSK	1	0	22.42	22.43	22.49				
20	QPSK	1	49	22.50	22.55	22.59	24	0		
20	QPSK	1	99	22.52	22.59	22.59				
20	QPSK	50	0	21.48	21.53	21.47				
20	QPSK	50	24	21.36	21.45	21.40	23	1		
20	QPSK	100	0	21.37	21.45	21.34				
20	HQAM	1	0	21.32	21.38	21.36				
20	HQAM	1	49	21.28	21.43	21.31	23	1		
20	HQAM	1	99	21.30	21.35	21.36				
20	HQAM	50	0	20.41	20.34	20.33				
20	HQAM	50	24	20.35	20.39	20.32	22	2		
20	HQAM	100	0	20.20	20.37	20.29				
20	HQAM	100	0	20.20	20.40	20.42				
20	HQAM	100	0	20.25	20.41	20.29				
20	HQAM	100	49	20.26	20.31	20.34	22	2		
20	HQAM	100	99	20.20	20.33	20.14				
20	HQAM	50	0	19.34	19.49	19.38				
20	HQAM	50	24	19.41	19.46	19.29	21	3		
20	HQAM	100	0	19.29	19.45	19.30				
20	HQAM	100	0	19.34	19.43	19.44				
20	256QAM	1	0	17.42	17.47	17.34				
20	256QAM	1	49	17.34	17.44	17.31	19	5		
20	256QAM	1	99	17.30	17.34	17.23				
20	256QAM	50	0	17.29	17.36	17.33				
20	256QAM	50	24	17.20	17.40	17.27	10	5		
20	256QAM	100	0	17.18	17.27	17.17				
20	256QAM	100	0	17.18	17.27	17.17				
Channel										
Frequency (MHz)				39725	39800	39875				
15	QPSK	1	0	22.72	22.82	22.72				
15	QPSK	1	37	22.19	22.23	22.30	24	0		
15	QPSK	1	74	22.12	22.20	22.21				
15	QPSK	50	0	21.40	21.42	21.36				
15	QPSK	50	20	21.26	21.35	21.31	23	1		
15	QPSK	100	0	21.20	21.29	21.25				
15	QPSK	100	0	21.23	21.42	21.26				
15	HQAM	1	0	21.27	21.28	21.24				
15	HQAM	1	37	21.17	21.29	21.19	23	1		
15	HQAM	1	74	21.25	21.25	21.25				
15	HQAM	50	0	20.39	20.45	20.22				
15	HQAM	50	20	20.23	20.35	20.28	22	2		
15	HQAM	100	0	20.17	20.22	20.16				
15	HQAM	100	0	20.25	20.28	20.28				
15	HQAM	100	37	20.14	20.35	20.33	22	2		
15	HQAM	100	74	20.15	20.29	20.29				
15	HQAM	100	74	20.15	20.41	20.33				
15	HQAM	36	20	19.38	19.38	19.24	21	3		
15	HQAM	36	39	19.28	19.38	19.28				
15	HQAM	75	0	19.27	19.35	19.31				
15	256QAM	1	0	17.34	17.40	17.24				
15	256QAM	1	37	17.25	17.38	17.31	19	5		
15	256QAM	1	74	17.18	17.27	17.17				
15	256QAM	36	0	17.19	17.24	17.27				
15	256QAM	36	39	17.12	17.21	17.18	10	5		
15	256QAM	75	0	17.16	17.12	17.03				
15	256QAM	75	0	17.16	17.30	17.03				
Channel										
Frequency (MHz)				2475	2490	2505				
10	QPSK	1	0	22.23	22.24	22.25				
10	QPSK	1	49	22.19	22.21	22.25	24	0		
10	QPSK	1	99	22.19	22.21	22.25				
10	QPSK	50	0	21.48	21.53	21.47				
10	QPSK	50	24	21.36	21.36	21.32	23	1		
10	QPSK	100	0	21.27	21.37	21.29				
10	HQAM	1	0	21.23	21.28	21.30				
10	HQAM	1	49	21.22	21.31	21.19	23	1		
10	HQAM	1	99	21.18	21.30	21.21				
10	HQAM	50	0	20.38	20.50	20.34				
10	HQAM	50	24	20.28	20.28	20.24	22	2		
10	HQAM	100	0	20.20	20.33	20.24				
10	HQAM	100	0	20.20	20.37	20.25				
10	HQAM	100	49	20.20	20.21	20.21	22	2		
10	HQAM	100	99	20.18	20.24	20.20				
10	HQAM	50	0	19.35	19.51	19.35				
10	HQAM	50	24	19.40	19.40	19.27	21	3		
10	HQAM	100	0	19.32	19.45	19.45				
10	HQAM	100	0	19.34	19.43	19.43				
10	HQAM	12	7	20.24	20.33	20.44	20	2		
10	HQAM	12	13	20.32	20.26	20.27	22	2		
10	HQAM	25	0	20.48	20.37	20.47				
10	HQAM	25	0	20.36	20.27	20.30				
10	HQAM	25	0	20.38	20.34	20.32				
10	HQAM	25	0	20.30	20.30	20.29				
10	HQAM	25	0	20.38	20.47	20.47				
10	HQAM	25	0	20.30	20.21	20.21				
10	HQAM	25	0	20.20	20.24	20.20				
10	HQAM	25	0	19.35	19.51	19.35				
10	HQAM	25	12	19.40	19.45	19.45				
10	HQAM	25	19	19.29	19.28	19.35				
10	HQAM	25	19	19.40	19.27	19.45				
10	256QAM	1	0	17.48	17.52	17.58				
10	256QAM	1	25	17.45	17.43	17.35	19	5		
10	256QAM	1	49	17.31	17.50	17.34				
10	256QAM	25	0	17.38	17.54	17.35				
10	256QAM	25	12	17.30	17.39	17.54				
10	256QAM	25	35	17.32	17.52	17.35	19	5		
10	256QAM	50	0	17.34	17.31	17.47				
Channel										
Frequency (MHz)				2468.5	2476.5	2484.5				
5	QPSK	1	0	22.48	22.56	22.66				
5	QPSK	1	12	22.60	22.55	22.64	24	0		
5	QPSK	1	24	22.41	22.44	22.54				
5	QPSK	12	0	21.40	21.48	21.48				
5	QPSK	12	7	21.45	21.39	21.50	23	1		
5	QPSK	12	13	21.25	21.33	21.42				
5	QPSK	25	0	21.43	21.41	21.56				
5	HQAM	1	0	21.27	21.33	21.33				
5	HQAM	1	12	21.33	21.26	21.43	23	1		
5	HQAM	1	24	21.26	21.17	21.26				
5	HQAM	12	0	20.32	20.45	20.56				
5	HQAM	12	7	20.34	20.33	20.44	20	2		
5	HQAM	12	13	20.32	20.26	20.27	22	2		
5	HQAM	25	0	20.48	20.37	20.47				
5	HQAM	25	0	20.34	20.35	20.44				
5	HQAM	25	0	20.24	20.29	20.37				
5	HQAM	25	0	20.14	20.24	20.31				
5	HQAM	25	0	19.34	19.45	19.45				
5	HQAM	25	0	19.29	19.45	19.45				
5	HQAM	12	13	19.32	19.36	19.46				
5	256QAM	1	0	17.39	17.47	17.58				
5	256QAM	1	12	17.45	17.46	17.54	19	5		
5	256QAM	1	24	17.28	17.28	17.43				
5	256QAM	12	0	17.36	17.39	17.57				
5	256QAM	12	7	17.35	17.43	17.50				
5	256QAM	12	13	17.32	17.53	17.38	19	5		
5	256QAM	25	0	17.25	17.31	17.50				

Band 41 Ant 1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Time-up limit (min)	MPR (dB)		
Channel										
Frequency (MHz)				39760	40165	40600	41055	41460		
20	QPSK	1	0	22.54	22.62	22.61	22.43	22.46		
20	QPSK	1	49	22.50	22.59	22.64	22.46	22.43	24	0
20	QPSK	1	99	22.52	22.61	22.67	22.56	22.		



Band 42 Ant 1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)				4190	4290	4390	Turn-up limit (dBm)	MPR (dB)		
20	QPSK	1	0	23.96	23.91	23.90				
20	QPSK	1	49	23.92	23.89	23.87			24	0
20	QPSK	50	0	22.52	22.59	22.48				
20	QPSK	50	0	22.57	22.55	22.53				
20	QPSK	50	24	22.56	22.60	22.56			23	1
20	QPSK	100	0	22.44	22.58	22.51				
20	16QAM	1	0	22.38	22.52	22.42			23	1
20	16QAM	1	49	22.37	22.47	22.38				
20	16QAM	1	99	22.35	22.40	22.30				
20	16QAM	50	0	21.52	21.66	21.56			22	2
20	16QAM	50	24	21.53	21.61	21.48				
20	16QAM	50	24	21.44	21.54	21.40			22	2
20	16QAM	100	0	21.46	21.48	21.44				
20	64QAM	1	0	21.45	21.53	21.45				
20	64QAM	1	49	21.38	21.48	21.44			22	2
20	64QAM	1	99	21.30	21.41	21.37				
20	64QAM	50	0	20.56	20.60	20.53				
20	64QAM	50	24	20.50	20.55	20.50			21	3
20	64QAM	100	0	20.40	20.48	20.34				
20	64QAM	100	0	20.43	20.55	20.40				
20	256QAM	1	0	18.46	18.51	18.42				
20	256QAM	1	49	18.35	18.39	18.36			19	5
20	256QAM	1	99	18.28	18.39	18.30				
20	256QAM	50	0	18.40	18.46	18.34				
20	256QAM	50	24	18.27	18.41	18.20			19	5
20	256QAM	50	24	18.20	18.34	18.21				
20	256QAM	100	0	18.34	18.38	18.34				
Channel										
Frequency (MHz)										
3413										
15	QPSK	1	0	23.17	23.17	23.16				
15	QPSK	1	37	23.14	23.09	23.03			24	0
15	QPSK	1	74	23.49	23.46	23.36				
15	QPSK	36	0	22.40	22.50	22.44				
15	QPSK	36	20	22.51	22.47	22.50			23	1
15	QPSK	36	39	22.40	22.53	22.46				
15	QPSK	75	0	22.31	22.54	22.37				
15	16QAM	1	0	22.35	22.38	22.29				
15	16QAM	1	37	22.32	22.32	22.24			23	1
15	16QAM	1	74	22.32	22.32	22.24				
15	16QAM	36	0	21.47	21.54	21.61				
15	16QAM	36	20	21.40	21.60	21.38			22	2
15	16QAM	36	39	21.38	21.45	21.34				
15	16QAM	75	0	21.29	21.44	21.41				
15	64QAM	1	0	21.40	21.60	21.38				
15	64QAM	1	37	21.27	21.36	21.30			22	2
15	64QAM	1	74	21.25	21.37	21.27				
15	64QAM	36	0	20.43	20.56	20.40				
15	64QAM	36	20	20.43	20.41	20.38			21	3
15	64QAM	36	39	20.40	20.48	20.34				
15	64QAM	75	0	20.34	20.45	20.35				
15	256QAM	1	0	18.40	18.46	18.38				
15	256QAM	1	37	18.37	18.42	18.37			19	5
15	256QAM	1	74	18.32	18.35	18.23				
15	256QAM	36	0	18.31	18.43	18.30				
15	256QAM	36	20	18.17	18.29	18.21			19	5
15	256QAM	36	39	18.16	18.25	18.14				
15	256QAM	75	0	18.34	18.32	18.34				
Channel										
Frequency (MHz)										
3415										
10	QPSK	1	0	23.43	23.43	23.43				
10	QPSK	1	25	23.48	23.51	23.52			24	0
10	QPSK	1	49	23.43	23.49	23.34				
10	QPSK	12	0	22.46	22.49	22.46				
10	QPSK	25	12	22.50	22.53	22.52			23	1
10	QPSK	25	25	22.36	22.45	22.28				
10	QPSK	50	0	22.37	22.53	22.47				
10	16QAM	1	0	22.27	22.38	22.28			23	1
10	16QAM	1	25	22.22	22.39	22.32				
10	16QAM	1	49	22.24	22.34	22.27				
10	16QAM	25	0	21.37	21.61	21.46				
10	16QAM	25	12	21.42	21.60	21.42			22	2
10	16QAM	25	25	21.35	21.42	21.46				
10	16QAM	50	0	21.34	21.51	21.34				
10	64QAM	1	0	21.30	21.67	21.38				
10	64QAM	1	25	21.24	21.37	21.20			22	2
10	64QAM	1	49	21.30	21.27	21.33				
10	64QAM	25	0	20.42	20.48	20.43				
10	64QAM	25	12	20.42	20.41	20.42			21	3
10	64QAM	25	25	20.30	20.34	20.26				
10	64QAM	50	0	20.33	20.50	20.29				
10	256QAM	1	0	18.40	18.43	18.39				
10	256QAM	1	25	18.25	18.35	18.26			19	5
10	256QAM	1	49	18.15	18.23	18.24				
10	256QAM	25	0	18.32	18.39	18.24				
10	256QAM	25	12	18.10	18.24	18.10			19	5
10	256QAM	25	25	18.16	18.25	18.15				
10	256QAM	50	0	18.34	18.32	18.31				
Channel										
Frequency (MHz)										
3415.5										
5	QPSK	1	0	23.56	23.65	23.44				
5	QPSK	1	12	23.47	23.60	23.54			24	0
5	QPSK	1	24	23.46	23.55	23.39				
5	QPSK	12	0	22.46	22.59	22.46				
5	QPSK	12	7	22.42	22.54	22.47			23	1
5	QPSK	12	13	22.35	22.49	22.34				
5	QPSK	25	0	22.34	22.45	22.37				
5	16QAM	1	0	22.30	22.46	22.31				
5	16QAM	1	12	22.28	22.35	22.38			23	1
5	16QAM	1	24	22.30	22.27	22.23				
5	16QAM	12	0	21.48	21.63	21.50				
5	16QAM	12	7	21.45	21.48	21.43			22	2
5	16QAM	12	13	21.35	21.41	21.36				
5	16QAM	25	0	21.39	21.47	21.41				
5	64QAM	1	0	21.39	21.48	21.43				
5	64QAM	1	12	21.30	21.41	21.40			22	2
5	64QAM	1	24	21.27	21.29	21.27				
5	64QAM	12	0	20.47	20.47	20.44				
5	64QAM	12	7	20.47	20.42	20.37			21	3
5	64QAM	12	13	20.25	20.34	20.26				
5	64QAM	25	0	20.30	20.43	20.37				
5	256QAM	1	0	18.40	18.43	18.20				
5	256QAM	1	12	18.30	18.32	18.27			19	5
5	256QAM	1	24	18.18	18.20	18.20				
5	256QAM	12	0	18.28	18.32	18.24				
5	256QAM	12	7	18.12	18.36	18.07			19	5
5	256QAM	12	13	18.17	18.30	18.12				
5	256QAM	25	0	18.22	18.30	18.10				

Band 42 Part 96 Ant 1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)				4390	4390	4390	Turn-up limit (dBm)	MPR (dB)		
20	QPSK	1	0	23.96	23.78	23.43				
20	QPSK	1	49	23.96	23.56	23.43			24	0
20	QPSK	50	0	22.47	22.60	22.48				
20	QPSK	50	24	22.44	22.43	22.45			23	1
20	QPSK	100	0	22.20	22.33	22.46				
20	16QAM	1	0	22.35	22.37	22.38			23	1
20	16QAM	1	49	22.33	22.32	22.26				
20	16QAM	1	99	22.20	22.34	22.15				
20	16QAM	50	0	21.40	21.84	21.43			22	2
20	16QAM	50	24	21.40	21.48	21.48				
20	16QAM	50	24	21.26	21.51	21.41			22	2
20	16QAM	100	0	21.20	21.57	21.52				
20	64QAM	1	0	21.35	21.50	21.38				
20	64QAM	1	49	21.25	21.44	21.28			22	2
20	64QAM	1	99	21.28	21.26	21.23				
20	64QAM	50	0	20.46	20.56	20.51				
20	64QAM	50	24	20.40	20.49	20.47			21	3
20	64QAM	100	0	20.35	20.39	20.18				
20	64QAM	100	0	20.26	20.41	20.27				
20	256QAM	1	0	18.33	18.38	18.30				
20	256QAM	1	49	18.29	18.32	18.30			19	5
20	256QAM	1	99	18.22	18.24	18.20				
20	256QAM	50	0	18.37	18.35	18.27				
20	256QAM	50	24	18.15	18.34	18.03			19	5
20	256QAM	50	24	18.17	18.21	18.03				
20	256QAM	100	0	18.27	18.28	18.24				
Channel										
Frequency (MHz)										
4390										
15	QPSK	1	0	23.92	23.73	23.75				
15	QPSK	1	37	23.40	23.52	23.42			24	0
15	QPSK	1	74	23.36	23.41	23.31				
15	QPSK	36	0	22.45	22.58	22.39				
15	QPSK	36	20	22.52	22.28	22.36			23	1
15										



**Band 48 Ant 1**

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low Mid Ch / Freq	Power High Ch / Freq	Power High Mid Ch / Freq	Tune-up list (dBm)	MPR (dB)
<b>Channel 56940</b>									
<b>Frequency (MHz)</b>									
20	QPSK	1	0	23.72	23.83	23.76	23.66	24	0
20	QPSK	1	49	23.56	23.76	23.61	23.54		
20	QPSK	99	0	23.56	23.65	23.69	23.69		
20	QPSK	50	0	23.64	23.74	23.57	23.53		
20	QPSK	50	24	23.48	23.66	23.48	23.50	24	0
20	QPSK	50	0	23.40	23.48	23.45	23.37		
20	QPSK	100	0	23.52	23.65	23.59	23.48		
20	16QAM	1	0	23.67	23.84	23.75	23.52		
20	16QAM	1	49	23.65	23.74	23.68	23.62	24	0
20	16QAM	1	99	23.84	23.96	23.84	23.49		
20	16QAM	50	0	22.62	22.75	22.66	22.71		
20	16QAM	50	24	22.59	22.70	22.50	22.63		
20	16QAM	50	50	22.56	22.63	22.58	22.48	23	1
20	16QAM	100	0	22.55	22.68	22.59	22.57		
20	64QAM	1	0	22.52	22.51	22.57	22.54		
20	64QAM	1	49	22.46	22.58	22.50	22.49		
20	64QAM	1	99	22.37	22.48	22.43	22.35	23	1
20	64QAM	50	0	21.60	21.74	21.58	21.85		
20	64QAM	50	24	21.57	21.69	21.55	21.59		
20	64QAM	50	50	21.67	21.62	21.62	21.57		
20	64QAM	100	0	21.84	21.70	21.60	21.60	22	2
20	256QAM	1	0	19.54	19.64	19.53	19.58		
20	256QAM	1	49	19.55	19.69	19.45	19.52		
20	256QAM	1	99	19.46	19.52	19.48	19.40		
20	256QAM	50	0	19.54	19.68	19.44	19.52	20	4
20	256QAM	50	24	19.35	19.53	19.35	19.41		
20	256QAM	50	50	19.43	19.48	19.38	19.43		
20	256QAM	100	0	19.43	19.52	19.43	19.47		
<b>Channel 56945</b>									
<b>Frequency (MHz)</b>									
15	QPSK	1	0	23.18	23.13	23.05	23.02	24	0
15	QPSK	1	37	23.49	23.82	23.61	23.42		
15	QPSK	1	74	23.52	23.61	23.60	23.61		
15	QPSK	1	0	23.64	23.69	23.69	23.62		
15	QPSK	36	20	23.33	23.62	23.35	23.37	24	0
15	QPSK	36	36	23.39	23.44	23.40	23.34		
15	QPSK	75	0	23.44	23.84	23.52	23.38		
15	16QAM	1	0	23.52	23.76	23.50	23.40		
15	16QAM	1	37	23.51	23.80	23.63	23.51	24	0
15	16QAM	1	74	23.59	23.51	23.50	23.45		
15	16QAM	36	0	22.58	22.69	22.67	22.66		
15	16QAM	36	36	22.45	22.65	22.49	22.49		
15	16QAM	36	36	22.53	22.49	22.55	22.40	23	1
15	16QAM	75	0	22.51	22.58	22.53	22.48		
15	64QAM	1	0	22.48	22.47	22.41	22.46		
15	64QAM	1	37	22.33	22.52	22.43	22.45		
15	64QAM	1	74	22.22	22.42	22.26	22.31	23	1
15	64QAM	36	0	21.54	21.64	21.56	21.59		
15	64QAM	36	20	21.44	21.64	21.46	21.49		
15	64QAM	36	36	21.50	21.58	21.52	21.53		
15	64QAM	75	0	21.38	21.53	21.52	21.54	22	2
15	256QAM	1	0	19.46	19.51	19.40	19.49		
15	256QAM	1	37	19.45	19.53	19.41	19.40		
15	256QAM	1	74	19.41	19.47	19.44	19.25		
15	256QAM	36	0	19.46	19.44	19.34	19.41	20	4
15	256QAM	36	20	19.30	19.39	19.31	19.33		
15	256QAM	36	36	19.38	19.33	19.23	19.28		
15	256QAM	75	0	19.31	19.48	19.27	19.40		
<b>Channel 56950</b>									
<b>Frequency (MHz)</b>									
10	QPSK	1	0	23.66	23.74	23.67	23.61	24	0
10	QPSK	1	25	23.49	23.70	23.49	23.47		
10	QPSK	1	49	23.43	23.56	23.48	23.55		
10	QPSK	1	0	23.53	23.61	23.60	23.67		
10	QPSK	25	12	23.40	23.54	23.40	23.42	24	0
10	QPSK	25	25	23.45	23.57	23.31	23.27		
10	QPSK	50	0	23.40	23.62	23.53	23.44		
10	16QAM	1	0	23.59	23.80	23.65	23.48		
10	16QAM	1	25	23.51	23.64	23.62	23.47	24	0
10	16QAM	1	49	23.54	23.56	23.60	23.42		
10	16QAM	25	0	22.51	22.62	22.58	22.62		
10	16QAM	25	12	22.54	22.69	22.52	22.59		
10	16QAM	25	25	22.51	22.49	22.54	22.34	23	1
10	16QAM	50	0	22.50	22.58	22.49	22.45		
10	64QAM	1	0	22.47	22.53	22.63	22.39		
10	64QAM	1	25	22.33	22.42	22.44	22.35		
10	64QAM	1	49	22.29	22.41	22.32	22.29	23	1
10	64QAM	25	0	21.64	21.66	21.62	21.64		
10	64QAM	25	12	21.52	21.61	21.49	21.45		
10	64QAM	25	25	21.53	21.54	21.45	21.45		
10	64QAM	50	0	21.52	21.61	21.52	21.47	22	2
10	256QAM	1	0	19.49	19.53	19.45	19.44		
10	256QAM	1	25	19.43	19.54	19.34	19.48		
10	256QAM	1	49	19.38	19.39	19.35	19.28		
10	256QAM	25	0	19.47	19.48	19.33	19.45	20	4
10	256QAM	25	12	19.30	19.45	19.24	19.32		
10	256QAM	25	25	19.32	19.42	19.33	19.25		
10	256QAM	50	0	19.35	19.39	19.26	19.38		
<b>Channel 56955</b>									
<b>Frequency (MHz)</b>									
5	QPSK	1	0	23.67	23.77	23.66	23.54	24	0
5	QPSK	1	12	23.43	23.69	23.50	23.45		
5	QPSK	1	24	23.53	23.59	23.55	23.55		
5	QPSK	12	0	23.58	23.71	23.46	23.49		
5	QPSK	12	7	23.44	23.60	23.38	23.38	24	0
5	QPSK	12	13	23.41	23.35	23.31	23.29		
5	QPSK	25	0	23.44	23.59	23.46	23.43		
5	16QAM	1	0	23.53	23.73	23.69	23.49		
5	16QAM	1	12	23.53	23.66	23.67	23.55	24	0
5	16QAM	1	24	23.55	23.61	23.48	23.40		
5	16QAM	12	0	22.52	22.71	22.54	22.85		
5	16QAM	12	7	22.52	22.60	22.51	22.56		
5	16QAM	12	13	22.41	22.55	22.47	22.36	23	1
5	64QAM	1	0	22.59	22.83	22.49	22.43		
5	64QAM	1	12	22.34	22.50	22.42	22.34		
5	64QAM	1	24	22.24	22.39	22.26	22.24		
5	64QAM	12	0	21.61	21.69	21.55	21.59	22	2
5	64QAM	12	7	21.43	21.59	21.55	21.46		
5	64QAM	12	13	21.43	21.52	21.43	21.45		
5	64QAM	25	0	21.56	21.58	21.51	21.47		
5	256QAM	1	0	19.44	19.52	19.43	19.45	20	4
5	256QAM	1	12	19.48	19.49	19.38	19.42		
5	256QAM	1	24	19.32	19.47	19.42	19.33		
5	256QAM	12	0	19.48	19.54	19.33	19.48		
5	256QAM	12	7	19.27	19.47	19.35	19.33	20	4
5	256QAM	12	13	19.40	19.38	19.29	19.29		
5	256QAM	25	0	19.37	19.47	19.36	19.40		

GSM1900 Ant 2 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM11 Tx slot	29.32	29.41	29.38	30.00	20.32	20.41	20.38	21.00
GPRS 1 Tx slot	29.35	29.47	29.43	30.00	20.35	20.47	20.43	21.00
GPRS 2 Tx slots	26.38	26.51	26.42	27.00	20.38	20.51	20.42	21.00
GPRS 3 Tx slots	23.74	23.85	23.81	25.00	19.48	19.59	19.55	21.24
GPRS 4 Tx slots	22.18	22.29	22.19	24.00	19.18	19.29	19.19	21.00
EDGE 1 Tx slot	24.14	24.28	24.22	25.50	15.14	15.28	15.22	16.50
EDGE 2 Tx slots	22.45	22.56	22.49	24.00	16.45	16.56	16.49	18.00
EDGE 3 Tx slots	21.38	21.49	21.46	22.50	17.12	17.23	17.20	18.24
EDGE 4 Tx slots	19.33	19.42	19.39	20.50	16.33	16.42	16.39	17.50

Band TX Channel	WCDMA II Ant 2			Tune-up Limit (dBm)	WCDMA IV Ant 2			Tune-up Limit (dBm)
	9262	8400	9538		1312	1413	1513	
Rx Channel	9662	8800	9938		1537	1638	1738	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99 AMR 12.2Kbps	23.02	23.15	23.05	24.00	23.20	23.28	23.15	24.00
3GPP Rel 99 RMC 12.2Kbps	23.08	23.17	23.11	24.00	23.29	23.34	23.22	24.00
3GPP Rel 6 HSDPA Subtest-1	22.21	22.37	22.05	23.00	22.27	22.49	22.19	23.00
3GPP Rel 6 HSDPA Subtest-2	22.14	22.26	22.10	23.00	22.23	22.40	22.16	23.00
3GPP Rel 6 HSDPA Subtest-3	21.56	21.80	21.68	22.50	21.72	21.93	21.80	22.50
3GPP Rel 6 HSDPA Subtest-4	21.61	21.74	21.71	22.50	21.71	21.90	21.80	22.50
3GPP Rel 8 DC-HSDPA Subtest-1	22.15	22.32	22.16	23.00	22.24	22.39	22.31	23.00
3GPP Rel 8 DC-HSDPA Subtest-2	21.92	22.03	21.99	23.00	22.08	22.13	22.05	23.00
3GPP Rel 8 DC-HSDPA Subtest-3	21.46	21.56	21.55	22.50	21.60	21.62	21.72	22.50
3GPP Rel 8 DC-HSDPA Subtest-4	21.50	21.58	21.49	22.50	21.60	21.72	21.56	22.50
3GPP Rel 6 HSUPA Subtest-1	22.18	22.35	22.35	23.00	22.28	22.52	22.50	23.00
3GPP Rel 6 HSUPA Subtest-2	20.19	20.24	20.01	21.00	20.30	20.36	20.12	21.00
3GPP Rel 6 HSUPA Subtest-3	21.00	21.23	21.18	22.00	21.37	21.30	21.33	22.00
3GPP Rel 6 HSUPA Subtest-4	20.07	20.15	20.02	21.00	20.12	20.30	20.17	21.00
3GPP Rel 6 HSUPA Subtest-5	22.27	22.18	22.17	23.00	22.38	22.30	22.33	23.00















GSM 1900 Airtel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame Average Power (dBm)			Tune-up Limit (dBm)
	1900.2	1900	1900.8		1900.2	1900	1900.8	
TX Channel	1900.2	1900	1900.8	1900.2	1900	1900.8	1900	
Frequency (MHz)	1900.2	1900	1900.8	1900.2	1900	1900.8	1900	
OPRR 1 Tx Limit	31.15	31.23	31.09	31.09	32.18	32.23	32.40	
OPRR 2 Tx Limit	27.52	27.60	27.54	28.00	21.52	21.60	21.54	
OPRR 3 Tx Limit	25.79	25.79	25.75	27.00	20.00	21.00	20.00	
OPRR 4 Tx Limit	23.39	23.52	23.40	25.00	20.39	20.52	20.40	
EDGE 1 Tx Limit	25.84	25.74	25.80	27.00	18.84	18.74	18.80	
EDGE 2 Tx Limit	24.06	24.12	23.99	25.00	18.06	18.12	17.99	
EDGE 3 Tx Limit	23.34	23.27	23.19	24.00	18.06	18.00	18.00	
EDGE 4 Tx Limit	20.73	20.80	20.77	22.00	17.73	17.80	17.77	

Band	WCDMA II Airtel			Tune-up Limit (dBm)	WCDMA IV Airtel			Tune-up Limit (dBm)
	5962	5960	5958		5912	5910	5908	
TX Channel	5962	5960	5958	5912	5910	5908	5910	
Frequency (MHz)	5962	5960	5958	5912	5910	5908	5910	
OPRR 1 Tx Limit	24.03	24.10	24.12	24.00	24.25	24.31	24.18	
OPRR 2 Tx Limit	24.07	24.25	24.15	24.00	24.27	24.34	24.23	
OPRR 3 Tx Limit	23.10	23.20	23.36	23.00	23.16	23.31	23.31	
OPRR 4 Tx Limit	23.27	23.30	23.09	23.00	23.22	23.30	23.21	
OPRR 5 Tx Limit	23.31	23.31	23.32	23.00	23.50	23.51	23.50	
OPRR 6 Tx Limit	22.89	22.89	22.84	23.00	22.71	22.69	22.81	
OPRR 7 Tx Limit	23.24	23.42	23.19	23.00	23.28	23.34	23.23	
OPRR 8 Tx Limit	23.10	23.30	23.37	23.00	23.20	23.37	23.35	
OPRR 9 Tx Limit	22.89	22.76	22.87	23.00	22.53	22.77	22.81	
OPRR 10 Tx Limit	22.58	22.71	22.69	23.00	22.60	22.71	22.67	
OPRR 11 Tx Limit	23.26	23.37	23.13	23.00	23.30	23.34	23.26	
OPRR 12 Tx Limit	21.40	21.30	21.33	21.00	21.24	21.37	21.31	
OPRR 13 Tx Limit	22.41	22.25	22.24	22.00	22.20	22.32	22.28	
OPRR 14 Tx Limit	21.15	21.20	21.44	21.00	21.18	21.48	21.43	
OPRR 15 Tx Limit	23.02	23.20	23.12	23.00	23.18	23.20	23.21	













### Reduced Power Mode for DSI6-Simultaneous

GSM850 Ant 0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	128	189	251	128	189	251	128	189
Frequency (MHz)	824.2	836.4	848.6	824.2	836.4	848.6	824.2	836.4
GSM 1 Tx slot	33.20	33.32	33.28	33.50	24.20	24.32	24.28	24.50
GPRS 1 Tx slot	33.25	33.39	33.31	33.50	24.25	24.39	24.31	24.50
GPRS 2 Tx slots	30.42	30.54	30.50	31.00	24.42	24.54	24.50	25.00
GPRS 3 Tx slots	28.88	28.92	28.84	29.50	24.62	24.66	24.58	25.24
GPRS 4 Tx slots	27.25	27.38	27.30	28.00	24.25	24.38	24.30	25.00
EDGE 1 Tx slot	26.18	26.24	26.10	27.00	17.18	17.24	17.10	18.00
EDGE 2 Tx slots	24.41	24.49	24.45	25.00	18.41	18.49	18.45	19.00
EDGE 3 Tx slots	23.12	23.25	23.10	24.00	18.86	18.99	18.84	19.74
EDGE 4 Tx slots	21.20	21.27	21.18	22.00	18.20	18.27	18.18	19.00

GSM1900 Ant 0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	512	661	810	512	661	810	512	661
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8	1850.2	1880
GSM 1 Tx slot	28.65	28.68	28.60	29.00	19.65	19.68	19.60	20.00
GPRS 1 Tx slot	28.69	28.74	28.63	29.00	19.69	19.74	19.63	20.00
GPRS 2 Tx slots	25.35	25.39	25.31	26.00	19.35	19.39	19.31	20.00
GPRS 3 Tx slots	22.96	23.07	22.96	24.50	18.70	18.81	18.70	20.24
GPRS 4 Tx slots	21.28	21.38	21.27	22.50	18.28	18.38	18.27	19.50
EDGE 1 Tx slot	23.50	23.57	23.43	24.50	14.50	14.57	14.43	15.50
EDGE 2 Tx slots	21.83	21.87	21.80	23.00	15.83	15.87	15.80	17.00
EDGE 3 Tx slots	20.69	20.74	20.61	22.00	16.43	16.48	16.35	17.74
EDGE 4 Tx slots	18.46	18.57	18.52	20.00	15.46	15.57	15.52	17.00

Band	WCDMA N Ant 0			Tune-up Limit (dBm)	WCDMA V Ant 0			Tune-up Limit (dBm)	
	1312	1413	1513		4132	4182	4233		
TX Channel	1312	1413	1513	4132	4182	4233	4132	4182	
Rx Channel	1537	1638	1738	4357	4407	4458	4357	4407	
Frequency (MHz)	1712.4	1732.6	1752.6	826.4	836.4	846.6	826.4	836.4	
3GPP Rel 99	AMR 12.2Kbps	21.80	21.92	21.87	23.00	23.65	23.72	23.63	24.00
3GPP Rel 99	RM-C 12.2Kbps	21.85	21.99	21.93	23.00	23.71	23.78	23.68	24.00
3GPP Rel 6	HSDPA Subtest-1	21.11	21.15	21.00	22.00	22.89	22.84	22.83	23.00
3GPP Rel 6	HSDPA Subtest-2	20.97	21.09	20.97	22.00	22.77	22.91	22.84	23.00
3GPP Rel 6	HSDPA Subtest-3	20.50	20.61	20.51	21.50	22.30	22.43	22.33	22.50
3GPP Rel 6	HSDPA Subtest-4	20.41	20.62	20.49	21.50	22.24	22.41	22.37	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.03	21.13	20.88	22.00	22.89	22.73	22.75	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	20.84	20.95	20.75	22.00	22.65	22.79	22.59	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	20.45	20.42	20.34	21.50	22.26	22.26	22.21	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	20.33	20.49	20.49	21.50	22.16	22.29	22.31	22.50
3GPP Rel 6	HSUPA Subtest-1	21.10	21.06	21.04	22.00	22.90	22.94	22.94	23.00
3GPP Rel 6	HSUPA Subtest-2	19.02	19.14	18.97	20.00	20.89	20.97	20.75	21.00
3GPP Rel 6	HSUPA Subtest-3	19.96	20.03	20.05	21.00	21.79	21.92	21.93	22.00
3GPP Rel 6	HSUPA Subtest-4	18.90	19.07	19.05	20.00	20.77	20.87	20.83	21.00
3GPP Rel 6	HSUPA Subtest-5	21.06	20.90	20.94	22.00	22.85	22.76	22.74	23.00















GSM850 Ant 1 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.18	32.34	32.26	33.50	23.18	23.34	23.26	24.50
GPRS 1 Tx slot	32.23	32.39	32.30	33.50	23.23	23.38	23.30	24.50
GPRS 2 Tx slots	29.48	29.52	29.41	30.50	23.48	23.52	23.41	24.50
GPRS 3 Tx slots	27.74	27.85	27.79	29.00	23.48	23.59	23.53	24.74
GPRS 4 Tx slots	26.27	26.35	26.27	27.00	23.27	23.35	23.27	24.00
EDGE 1 Tx slot	25.13	25.18	25.08	26.00	16.13	16.18	16.08	17.00
EDGE 2 Tx slots	23.21	23.35	23.21	25.00	17.21	17.35	17.21	19.00
EDGE 3 Tx slots	22.19	22.30	22.27	24.00	17.93	18.04	18.01	19.74
EDGE 4 Tx slots	20.02	20.14	20.07	21.00	17.02	17.14	17.07	18.00

GSM900 Ant 1 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.81	29.93	29.89	30.00	20.81	20.93	20.89	21.00
GPRS 1 Tx slot	29.85	29.97	29.93	30.00	20.85	20.97	20.93	21.00
GPRS 2 Tx slots	25.58	25.62	25.50	27.00	19.58	19.62	19.50	21.00
GPRS 3 Tx slots	23.86	23.69	23.61	25.50	19.40	19.43	19.35	21.24
GPRS 4 Tx slots	21.31	21.41	21.28	22.50	18.31	18.41	18.28	19.50
EDGE 1 Tx slot	23.45	23.54	23.51	25.00	14.45	14.54	14.51	16.00
EDGE 2 Tx slots	21.84	21.91	21.79	23.50	15.84	15.91	15.79	17.50
EDGE 3 Tx slots	20.63	20.69	20.56	22.50	16.37	16.43	16.30	18.24
EDGE 4 Tx slots	18.56	18.66	18.62	20.50	15.56	15.66	15.62	17.50

Band TX Channel	WCDMA N Ant 1 Rx Channel			Tune-up Limit (dBm)	WCDMA V Ant 1			Tune-up Limit (dBm)
	1312	1413	1513		4132	4182	4233	
Frequency (MHz)	1537	1638	1738		4357	4407	4458	
3GPP Rel 99 AMR 12.2Kbps	22.81	22.89	22.78	24.00	22.40	22.46	22.30	24.00
3GPP Rel 99 RMC 12.2Kbps	22.87	22.96	22.83	24.00	22.43	22.49	22.37	24.00
3GPP Rel 6 HSDPA Subtest-1	21.95	22.02	21.87	23.00	21.55	21.60	21.37	23.00
3GPP Rel 6 HSDPA Subtest-2	21.85	21.86	21.83	23.00	21.47	21.50	21.47	23.00
3GPP Rel 6 HSDPA Subtest-3	21.28	21.46	21.37	22.50	20.86	21.05	21.00	22.50
3GPP Rel 6 HSDPA Subtest-4	21.27	21.52	21.36	22.50	20.85	21.15	20.90	22.50
3GPP Rel 8 DC-HSDPA Subtest-1	21.94	22.12	21.74	23.00	21.47	21.68	21.28	23.00
3GPP Rel 8 DC-HSDPA Subtest-2	21.85	21.86	21.70	23.00	21.42	21.42	21.34	23.00
3GPP Rel 8 DC-HSDPA Subtest-3	21.45	21.28	21.38	22.50	21.02	20.85	20.93	22.50
3GPP Rel 8 DC-HSDPA Subtest-4	21.26	21.13	21.39	22.50	20.82	20.75	20.99	22.50
3GPP Rel 6 HSUPA Subtest-1	21.90	21.98	22.06	23.00	21.51	21.56	21.61	23.00
3GPP Rel 6 HSUPA Subtest-2	19.87	19.94	19.82	21.00	19.41	19.49	19.39	21.00
3GPP Rel 6 HSUPA Subtest-3	20.92	20.93	20.82	22.00	20.54	20.48	20.44	22.00
3GPP Rel 6 HSUPA Subtest-4	19.77	19.86	19.82	21.00	19.37	19.45	19.37	21.00
3GPP Rel 6 HSUPA Subtest-5	22.04	21.68	21.73	23.00	21.58	21.32	21.38	23.00













GSM1900 Ant 2 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM11 Tx slot	29.32	29.41	29.38	30.00	20.32	20.41	20.38	21.00
GPRS 1 Tx slot	29.35	29.47	29.43	30.00	20.35	20.47	20.43	21.00
GPRS 2 Tx slots	26.38	26.51	26.42	27.00	20.38	20.51	20.42	21.00
GPRS 3 Tx slots	23.74	23.85	23.81	25.50	19.48	19.59	19.55	21.24
GPRS 4 Tx slots	22.18	22.29	22.19	24.00	19.18	19.29	19.19	21.00
EDGE 1 Tx slot	24.14	24.28	24.22	25.50	15.14	15.28	15.22	16.50
EDGE 2 Tx slots	22.45	22.56	22.49	24.00	16.45	16.56	16.49	18.00
EDGE 3 Tx slots	21.38	21.49	21.46	22.50	17.12	17.23	17.20	18.24
EDGE 4 Tx slots	19.33	19.42	19.39	20.50	16.33	16.42	16.39	17.50

Band TX Channel	WCDMA II Ant 2			Tune-up Limit (dBm)	WCDMA IV Ant 2			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99 AMR 12.2Kbps	23.02	23.15	23.05	24.00	23.20	23.28	23.15	24.00
3GPP Rel 99 RMC 12.2Kbps	23.08	23.17	23.11	24.00	23.29	23.34	23.22	24.00
3GPP Rel 6 HSDPA Subtest-1	22.21	22.37	22.05	23.00	22.27	22.49	22.19	23.00
3GPP Rel 6 HSDPA Subtest-2	22.14	22.26	22.10	23.00	22.23	22.40	22.16	23.00
3GPP Rel 6 HSDPA Subtest-3	21.56	21.80	21.68	22.50	21.72	21.93	21.80	22.50
3GPP Rel 6 HSDPA Subtest-4	21.61	21.74	21.71	22.50	21.71	21.90	21.80	22.50
3GPP Rel 8 DC-HSDPA Subtest-1	22.15	22.32	22.16	23.00	22.24	22.38	22.31	23.00
3GPP Rel 8 DC-HSDPA Subtest-2	21.92	22.05	21.99	23.00	22.08	22.13	22.05	23.00
3GPP Rel 8 DC-HSDPA Subtest-3	21.46	21.56	21.55	22.50	21.60	21.62	21.72	22.50
3GPP Rel 8 DC-HSDPA Subtest-4	21.50	21.58	21.49	22.50	21.60	21.72	21.56	22.50
3GPP Rel 6 HSUPA Subtest-1	22.18	22.35	22.35	23.00	22.28	22.52	22.50	23.00
3GPP Rel 6 HSUPA Subtest-2	20.19	20.24	20.01	21.00	20.30	20.36	20.12	21.00
3GPP Rel 6 HSUPA Subtest-3	21.00	21.23	21.18	22.00	21.37	21.30	21.33	22.00
3GPP Rel 6 HSUPA Subtest-4	20.07	20.15	20.02	21.00	20.12	20.30	20.17	21.00
3GPP Rel 6 HSUPA Subtest-5	22.27	22.18	22.17	23.00	22.38	22.30	22.33	23.00















GSM1900 Ant.3 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM11 Tx slot	31.11	31.18	31.05	31.50	22.11	22.18	22.05	22.50
GPRS 1 Tx slot	31.15	31.23	31.09	31.50	22.15	22.23	22.09	22.50
GPRS 2 Tx slots	27.52	27.60	27.54	28.00	21.52	21.60	21.54	22.00
GPRS 3 Tx slots	25.19	25.28	25.15	27.00	20.93	21.02	20.89	22.74
GPRS 4 Tx slots	23.39	23.52	23.40	25.00	20.39	20.52	20.40	22.00
EDGE 1 Tx slot	25.64	25.74	25.60	27.00	16.64	16.74	16.60	18.00
EDGE 2 Tx slots	24.06	24.12	23.99	25.50	18.06	18.12	17.99	19.50
EDGE 3 Tx slots	22.84	22.91	22.79	24.50	18.58	18.65	18.53	20.24
EDGE 4 Tx slots	20.73	20.80	20.77	22.50	17.73	17.80	17.77	19.50

Band TX Channel	WCDMA II Ant.3			Tune-up Limit (dBm)	WCDMA IV Ant.3			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99 AMR 12.2Kbps	23.10	23.38	23.38	24.10	24.22	24.31	24.18	24.50
3GPP Rel 99 RMC 12.2Kbps	23.34	23.51	23.42	24.10	24.27	24.34	24.23	24.50
3GPP Rel 6 HSDPA Subtest-1	22.34	22.46	22.69	23.10	23.16	23.31	23.31	23.50
3GPP Rel 6 HSDPA Subtest-2	22.46	22.52	22.23	23.10	23.22	23.35	23.21	23.50
3GPP Rel 6 HSDPA Subtest-3	21.91	22.03	21.96	22.60	22.93	22.81	22.69	23.00
3GPP Rel 6 HSDPA Subtest-4	21.89	22.05	22.09	22.60	22.71	22.90	22.81	23.00
3GPP Rel 8 DC-HSDPA Subtest-1	22.44	22.57	22.40	23.10	23.28	23.34	23.23	23.50
3GPP Rel 8 DC-HSDPA Subtest-2	22.38	22.56	22.54	23.10	23.20	23.37	23.38	23.50
3GPP Rel 8 DC-HSDPA Subtest-3	21.80	21.99	21.95	22.60	22.53	22.77	22.61	23.00
3GPP Rel 8 DC-HSDPA Subtest-4	21.90	21.81	21.93	22.60	22.60	22.71	22.57	23.00
3GPP Rel 6 HSUPA Subtest-1	22.34	22.58	22.38	23.10	23.30	23.34	23.26	23.50
3GPP Rel 6 HSUPA Subtest-2	20.67	20.52	20.53	21.10	21.34	21.37	21.31	21.50
3GPP Rel 6 HSUPA Subtest-3	21.67	21.45	21.49	22.10	22.20	22.32	22.26	22.50
3GPP Rel 6 HSUPA Subtest-4	20.26	20.57	20.55	21.10	21.16	21.46	21.43	21.50
3GPP Rel 6 HSUPA Subtest-5	22.38	22.58	22.27	23.10	23.18	23.20	23.21	23.50









Band 41 Ant 3

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up (dBm), MPR (dB). Rows include channel lists and performance data for various modulation schemes and power levels.

Band 41 Ant 3

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up (dBm), MPR (dB). Rows include channel lists and performance data for various modulation schemes and power levels.

Band 41 HPUE Ant 3

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up (dBm), MPR (dB). Rows include channel lists and performance data for various modulation schemes and power levels.







### Uplink CA Power

Ant0		CA_7C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
20850	21048	QPSK	1	99	1	0	23.05	24.00	
21100	21298	QPSK	1	99	1	0	23.17	24.00	
21350	21152	QPSK	1	0	1	99	23.13	24.00	

Ant1		CA_7C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
20850	21048	QPSK	1	99	1	0	22.12	23.00	
21100	21298	QPSK	1	99	1	0	22.24	23.00	
21350	21152	QPSK	1	0	1	99	22.16	23.00	

Ant0		CA_38C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
37850	38048	QPSK	1	99	1	0	20.54	22.00	
37901	38099	QPSK	1	99	1	0	20.63	22.00	
38150	37952	QPSK	1	0	1	99	20.58	22.00	

Ant1		CA_38C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
37850	38048	QPSK	1	99	1	0	22.36	24.00	
37901	38099	QPSK	1	99	1	0	22.48	24.00	
38150	37952	QPSK	1	0	1	99	22.44	24.00	

Ant0		CA_41C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	20.59	22.00	
40185	40383	QPSK	1	99	1	0	20.63	22.00	
40620	40818	QPSK	1	99	1	0	20.73	22.00	
41055	41253	QPSK	1	99	1	0	20.68	22.00	
41490	41292	QPSK	1	0	1	99	20.62	22.00	

Ant1		CA_41C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	22.37	24.00	
40185	40383	QPSK	1	99	1	0	22.42	24.00	
40620	40818	QPSK	1	99	1	0	22.58	24.00	
41055	41253	QPSK	1	99	1	0	22.49	24.00	
41490	41292	QPSK	1	0	1	99	22.46	24.00	

Ant0		CA_41C HPUE							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	23.57	25.00	
40185	40383	QPSK	1	99	1	0	23.6	25.00	
40620	40818	QPSK	1	99	1	0	23.69	25.00	
41055	41253	QPSK	1	99	1	0	23.62	25.00	
41490	41292	QPSK	1	0	1	99	23.54	25.00	

Ant1		CA_41C HPUE							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	25.40	27.00	
40185	40383	QPSK	1	99	1	0	25.44	27.00	
40620	40818	QPSK	1	99	1	0	25.58	27.00	
41055	41253	QPSK	1	99	1	0	25.52	27.00	
41490	41292	QPSK	1	0	1	99	25.47	27.00	



Ant2		CA_7C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
20850	21048	QPSK	1	99	1	0	21.96	23.00	
21100	21298	QPSK	1	99	1	0	22.08	23.00	
21350	21152	QPSK	1	0	1	99	22.05	23.00	

Ant3		CA_7C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
20850	21048	QPSK	1	99	1	0	23.20	24.00	
21100	21298	QPSK	1	99	1	0	23.32	24.00	
21350	21152	QPSK	1	0	1	99	23.26	24.00	

Ant2		CA_38C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
37850	38048	QPSK	1	99	1	0	22.43	24.00	
37901	38099	QPSK	1	99	1	0	22.51	24.00	
38150	37952	QPSK	1	0	1	99	22.46	24.00	

Ant3		CA_38C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
37850	38048	QPSK	1	99	1	0	23.43	24.00	
37901	38099	QPSK	1	99	1	0	23.51	24.00	
38150	37952	QPSK	1	0	1	99	23.46	24.00	

Ant2		CA_41C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	22.13	24.00	
40185	40383	QPSK	1	99	1	0	22.49	24.00	
40620	40818	QPSK	1	99	1	0	22.57	24.00	
41055	41253	QPSK	1	99	1	0	22.52	24.00	
41490	41292	QPSK	1	0	1	99	22.46	24.00	

Ant3		CA_41C							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	23.61	24.00	
40185	40383	QPSK	1	99	1	0	23.7	24.00	
40620	40818	QPSK	1	99	1	0	23.79	24.00	
41055	41253	QPSK	1	99	1	0	23.52	24.00	
41490	41292	QPSK	1	0	1	99	23.43	24.00	

Ant2		CA_41C HPUE							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	25.44	27.00	
40185	40383	QPSK	1	99	1	0	25.54	27.00	
40620	40818	QPSK	1	99	1	0	25.63	27.00	
41055	41253	QPSK	1	99	1	0	25.56	27.00	
41490	41292	QPSK	1	0	1	99	25.51	27.00	

Ant3		CA_41C HPUE							
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)	
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	1	99	1	0	26.66	27.00	
40185	40383	QPSK	1	99	1	0	26.74	27.00	
40620	40818	QPSK	1	99	1	0	26.79	27.00	
41055	41253	QPSK	1	99	1	0	26.72	27.00	
41490	41292	QPSK	1	0	1	99	26.68	27.00	

**Ant2 Standalone**

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	14.12	15.10
21100	21298	QPSK	1	99	1	0	14.28	15.10
21350	21152	QPSK	1	0	1	99	14.22	15.10

**Ant3 Standalone**

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	16.32	17.50
21100	21298	QPSK	1	99	1	0	16.44	17.50
21350	21152	QPSK	1	0	1	99	16.29	17.50

**Ant2 Standalone**

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	15.79	17.40
37901	38099	QPSK	1	99	1	0	15.91	17.40
38150	37952	QPSK	1	0	1	99	18.83	17.40

**Ant3 Standalone**

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	19.27	20.20
37901	38099	QPSK	1	99	1	0	19.32	20.20
38150	37952	QPSK	1	0	1	99	19.24	20.20

**Ant2 Standalone**

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	15.82	17.40
40185	40383	QPSK	1	99	1	0	15.88	17.40
40620	40818	QPSK	1	99	1	0	15.96	17.40
41055	41253	QPSK	1	99	1	0	15.91	17.40
41490	41292	QPSK	1	0	1	99	15.85	17.40

**Ant3 Standalone**

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.29	20.20
40185	40383	QPSK	1	99	1	0	19.26	20.20
40620	40818	QPSK	1	99	1	0	19.37	20.20
41055	41253	QPSK	1	99	1	0	19.2	20.20
41490	41292	QPSK	1	0	1	99	19.15	20.20

**Ant2 Standalone**

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	17.45	19.00
40185	40383	QPSK	1	99	1	0	17.48	19.00
40620	40818	QPSK	1	99	1	0	17.6	19.00
41055	41253	QPSK	1	99	1	0	17.51	19.00
41490	41292	QPSK	1	0	1	99	17.47	19.00

**Ant3 Standalone**

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.00	21.80
40185	40383	QPSK	1	99	1	0	21.12	21.80
40620	40818	QPSK	1	99	1	0	21.14	21.80
41055	41253	QPSK	1	99	1	0	21.05	21.80
41490	41292	QPSK	1	0	1	99	21.11	21.80



Ant2 Simultaneous

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	12.94	14.30
21100	21298	QPSK	1	99	1	0	13.12	14.30
21350	21152	QPSK	1	0	1	99	13.07	14.30

Ant3 Simultaneous

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	15.36	16.60
21100	21298	QPSK	1	99	1	0	15.45	16.60
21350	21152	QPSK	1	0	1	99	15.41	16.60

Ant2 Simultaneous

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	14.73	16.30
37901	38099	QPSK	1	99	1	0	14.77	16.30
38150	37952	QPSK	1	0	1	99	14.61	16.30

Ant3 Simultaneous

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	18.40	19.60
37901	38099	QPSK	1	99	1	0	18.46	19.60
38150	37952	QPSK	1	0	1	99	18.32	19.60

Ant2 Simultaneous

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	14.75	16.30
40185	40383	QPSK	1	99	1	0	14.8	16.30
40620	40818	QPSK	1	99	1	0	14.87	16.30
41055	41253	QPSK	1	99	1	0	14.84	16.30
41490	41292	QPSK	1	0	1	99	14.78	16.30

Ant3 Simultaneous

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.38	19.60
40185	40383	QPSK	1	99	1	0	18.47	19.60
40620	40818	QPSK	1	99	1	0	18.54	19.60
41055	41253	QPSK	1	99	1	0	18.32	19.60
41490	41292	QPSK	1	0	1	99	18.27	19.60

Ant2 Simultaneous

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	16.27	17.90
40185	40383	QPSK	1	99	1	0	16.32	17.90
40620	40818	QPSK	1	99	1	0	16.45	17.90
41055	41253	QPSK	1	99	1	0	16.4	17.90
41490	41292	QPSK	1	0	1	99	16.36	17.90

Ant3 Simultaneous

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.00	21.20
40185	40383	QPSK	1	99	1	0	20.03	21.20
40620	40818	QPSK	1	99	1	0	20.17	21.20
41055	41253	QPSK	1	99	1	0	20.11	21.20
41490	41292	QPSK	1	0	1	99	20.02	21.20



Ant0 Body Worn open

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.96	22.90
21100	21298	QPSK	1	99	1	0	22.08	22.90
21350	21152	QPSK	1	0	1	99	22.02	22.90

Ant1 Body Worn open

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.78	21.40
21100	21298	QPSK	1	99	1	0	19.87	21.40
21350	21152	QPSK	1	0	1	99	19.83	21.40

Ant2 Body Worn open

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	17.21	18.20
21100	21298	QPSK	1	99	1	0	17.34	18.20
21350	21152	QPSK	1	0	1	99	17.28	18.20

Ant1 Body Worn open

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.36	23.60
37901	38099	QPSK	1	99	1	0	22.48	23.60
38150	37952	QPSK	1	0	1	99	22.44	23.60

Ant2 Body Worn open

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	20.66	21.70
37901	38099	QPSK	1	99	1	0	20.71	21.70
38150	37952	QPSK	1	0	1	99	20.54	21.70

Ant1 Body Worn open

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.37	23.60
40185	40383	QPSK	1	99	1	0	22.42	23.60
40620	40818	QPSK	1	99	1	0	22.58	23.60
41055	41253	QPSK	1	99	1	0	22.49	23.60
41490	41292	QPSK	1	0	1	99	22.46	23.60

Ant2 Body Worn open

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.60	21.70
40185	40383	QPSK	1	99	1	0	20.72	21.70
40620	40818	QPSK	1	99	1	0	20.76	21.70
41055	41253	QPSK	1	99	1	0	20.67	21.70
41490	41292	QPSK	1	0	1	99	20.7	21.70

Ant1 Body Worn open

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.78	25.20
40185	40383	QPSK	1	99	1	0	23.75	25.20
40620	40818	QPSK	1	99	1	0	23.97	25.20
41055	41253	QPSK	1	99	1	0	23.89	25.20
41490	41292	QPSK	1	0	1	99	23.86	25.20

Ant2 Body Worn open

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.90	23.30
40185	40383	QPSK	1	99	1	0	21.95	23.30
40620	40818	QPSK	1	99	1	0	22.11	23.30
41055	41253	QPSK	1	99	1	0	21.81	23.30
41490	41292	QPSK	1	0	1	99	22.05	23.30





Ant3 Body Worn open

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.92	22.80
21100	21298	QPSK	1	99	1	0	22.06	22.80
21350	21152	QPSK	1	0	1	99	22.00	22.80

Ant0 Hotspot open

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.74	20.00
21100	21298	QPSK	1	99	1	0	18.86	20.00
21350	21152	QPSK	1	0	1	99	18.80	20.00

Ant1 Hotspot open

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.78	20.20
21100	21298	QPSK	1	99	1	0	18.85	20.20
21350	21152	QPSK	1	0	1	99	18.73	20.20

Ant1 Hotspot open

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.36	23.60
37901	38099	QPSK	1	99	1	0	22.48	23.60
38150	37952	QPSK	1	0	1	99	22.44	23.60

Ant1 Hotspot open

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.37	23.60
40185	40383	QPSK	1	99	1	0	22.42	23.60
40620	40818	QPSK	1	99	1	0	22.58	23.60
41055	41253	QPSK	1	99	1	0	22.49	23.60
41490	41292	QPSK	1	0	1	99	22.46	23.60

Ant3 Body Worn open

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.06	25.90
40185	40383	QPSK	1	99	1	0	25.11	25.90
40620	40818	QPSK	1	99	1	0	25.22	25.90
41055	41253	QPSK	1	99	1	0	25.08	25.90
41490	41292	QPSK	1	0	1	99	25.16	25.90

Ant1 Hotspot open

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.78	25.20
40185	40383	QPSK	1	99	1	0	23.75	25.20
40620	40818	QPSK	1	99	1	0	23.97	25.20
41055	41253	QPSK	1	99	1	0	23.89	25.20
41490	41292	QPSK	1	0	1	99	23.86	25.20

Ant2 Hotspot open

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	16.22	17.70
21100	21298	QPSK	1	99	1	0	16.34	17.70
21350	21152	QPSK	1	0	1	99	16.17	17.70

Ant3 Hotspot open

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.00	22.30
21100	21298	QPSK	1	99	1	0	21.12	22.30
21350	21152	QPSK	1	0	1	99	21.08	22.30

Ant2 Hotspot open

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	19.71	20.90
37901	38099	QPSK	1	99	1	0	19.80	20.90
38150	37952	QPSK	1	0	1	99	19.65	20.90

Ant3 Hotspot open

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.95	24.00
37901	38099	QPSK	1	99	1	0	22.98	24.00
38150	37952	QPSK	1	0	1	99	22.90	24.00

Ant2 Hotspot open

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.75	20.90
40185	40383	QPSK	1	99	1	0	19.77	20.90
40620	40818	QPSK	1	99	1	0	19.84	20.90
41055	41253	QPSK	1	99	1	0	19.73	20.90
41490	41292	QPSK	1	0	1	99	19.68	20.90

Ant3 Hotspot open

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.86	24.00
40185	40383	QPSK	1	99	1	0	23.02	24.00
40620	40818	QPSK	1	99	1	0	23.13	24.00
41055	41253	QPSK	1	99	1	0	23	24.00
41490	41292	QPSK	1	0	1	99	22.86	24.00

Ant2 Hotspot open

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.05	22.50
40185	40383	QPSK	1	99	1	0	21.13	22.50
40620	40818	QPSK	1	99	1	0	21.2	22.50
41055	41253	QPSK	1	99	1	0	21.09	22.50
41490	41292	QPSK	1	0	1	99	21.05	22.50

Ant3 Hotspot open

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	24.46	25.70
40185	40383	QPSK	1	99	1	0	24.49	25.70
40620	40818	QPSK	1	99	1	0	24.66	25.70
41055	41253	QPSK	1	99	1	0	24.62	25.70
41490	41292	QPSK	1	0	1	99	24.51	25.70



## Uplink CA Power

Ant0 Body Worn close

CA_7C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20850	21048	QPSK	1	99	1	0	22.40
21100	21298	QPSK	1	99	1	0	22.40
21350	21152	QPSK	1	0	1	99	22.40

Ant1 Body Worn close

CA_7C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20850	21048	QPSK	1	99	1	0	22.50
21100	21298	QPSK	1	99	1	0	22.50
21350	21152	QPSK	1	0	1	99	22.50

Ant2 Body Worn close

CA_7C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20850	21048	QPSK	1	99	1	0	19.20
21100	21298	QPSK	1	99	1	0	19.20
21350	21152	QPSK	1	0	1	99	19.20

Ant2 Body Worn close

CA_38C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
37850	38048	QPSK	1	99	1	0	23.00
37901	38099	QPSK	1	99	1	0	23.00
38150	37952	QPSK	1	0	1	99	23.00

Ant2 Body Worn close

CA_41C							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	23.00
40185	40383	QPSK	1	99	1	0	23.00
40620	40818	QPSK	1	99	1	0	23.00
41055	41253	QPSK	1	99	1	0	23.00
41490	41292	QPSK	1	0	1	99	23.00

Ant1

CA_41C HPUE							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	26.00
40185	40383	QPSK	1	99	1	0	26.00
40620	40818	QPSK	1	99	1	0	26.00
41055	41253	QPSK	1	99	1	0	26.00
41490	41292	QPSK	1	0	1	99	26.00

Ant2 Body Worn close

CA_41C HPUE							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
39750	39948	QPSK	1	99	1	0	24.60
40185	40383	QPSK	1	99	1	0	24.60
40620	40818	QPSK	1	99	1	0	24.60
41055	41253	QPSK	1	99	1	0	24.60
41490	41292	QPSK	1	0	1	99	24.60

## Uplink CA Power

Ant0 Hotspot close

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.40	20.70
21100	21298	QPSK	1	99	1	0	19.43	20.70
21350	21152	QPSK	1	0	1	99	19.36	20.70

Ant1 Hotspot close

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.78	21.50
21100	21298	QPSK	1	99	1	0	19.87	21.50
21350	21152	QPSK	1	0	1	99	19.83	21.50

Ant1

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.36	23.40
37901	38099	QPSK	1	99	1	0	22.48	23.40
38150	37952	QPSK	1	0	1	99	22.44	23.40

Ant1

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.37	23.40
40185	40383	QPSK	1	99	1	0	22.42	23.40
40620	40818	QPSK	1	99	1	0	22.58	23.40
41055	41253	QPSK	1	99	1	0	22.49	23.40
41490	41292	QPSK	1	0	1	99	22.46	23.40

Ant0

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.57	24.10
40185	40383	QPSK	1	99	1	0	23.6	24.10
40620	40818	QPSK	1	99	1	0	23.69	24.10
41055	41253	QPSK	1	99	1	0	23.62	24.10
41490	41292	QPSK	1	0	1	99	23.54	24.10

Ant1

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.99	25.00
40185	40383	QPSK	1	99	1	0	23.97	25.00
40620	40818	QPSK	1	99	1	0	24.09	25.00
41055	41253	QPSK	1	99	1	0	24.07	25.00
41490	41292	QPSK	1	0	1	99	23.99	25.00



Ant2 Hotspot close

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	16.76	18.30
21100	21298	QPSK	1	99	1	0	16.85	18.30
21350	21152	QPSK	1	0	1	99	16.80	18.30

Ant3 Hotspot close

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.66	23.90
21100	21298	QPSK	1	99	1	0	22.72	23.90
21350	21152	QPSK	1	0	1	99	22.60	23.90

Ant2 Hotspot close

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	18.06	19.90
37901	38099	QPSK	1	99	1	0	18.28	19.90
38150	37952	QPSK	1	0	1	99	18.15	19.90

Ant3

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.91	23.90
37901	38099	QPSK	1	99	1	0	22.99	23.90
38150	37952	QPSK	1	0	1	99	22.95	23.90

Ant2 Hotspot close

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.17	19.90
40185	40383	QPSK	1	99	1	0	18.07	19.90
40620	40818	QPSK	1	99	1	0	18.31	19.90
41055	41253	QPSK	1	99	1	0	18.23	19.90
41490	41292	QPSK	1	0	1	99	18.1	19.90

Ant3

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.99	23.90
40185	40383	QPSK	1	99	1	0	23.07	23.90
40620	40818	QPSK	1	99	1	0	23.11	23.90
41055	41253	QPSK	1	99	1	0	22.95	23.90
41490	41292	QPSK	1	0	1	99	22.88	23.90

Ant2 Hotspot close

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.54	21.50
40185	40383	QPSK	1	99	1	0	19.51	21.50
40620	40818	QPSK	1	99	1	0	19.63	21.50
41055	41253	QPSK	1	99	1	0	19.48	21.50
41490	41292	QPSK	1	0	1	99	19.44	21.50

Ant3

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.81	25.50
40185	40383	QPSK	1	99	1	0	23.91	25.50
40620	40818	QPSK	1	99	1	0	23.97	25.50
41055	41253	QPSK	1	99	1	0	23.89	25.50
41490	41292	QPSK	1	0	1	99	23.85	25.50

Ant1 Standalone

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.68	23.00
21100	21298	QPSK	1	99	1	0	21.80	23.00
21350	21152	QPSK	1	0	1	99	21.72	23.00

Ant2 Standalone

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.11	21.40
21100	21298	QPSK	1	99	1	0	20.25	21.40
21350	21152	QPSK	1	0	1	99	20.15	21.40

Ant2 Standalone

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.41	23.70
37901	38099	QPSK	1	99	1	0	22.53	23.70
38150	37952	QPSK	1	0	1	99	22.46	23.70

Ant2 Standalone

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.45	23.70
40185	40383	QPSK	1	99	1	0	22.49	23.70
40620	40818	QPSK	1	99	1	0	22.56	23.70
41055	41253	QPSK	1	99	1	0	22.43	23.70
41490	41292	QPSK	1	0	1	99	22.37	23.70

Ant2 Standalone

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	24.03	25.30
40185	40383	QPSK	1	99	1	0	24.1	25.30
40620	40818	QPSK	1	99	1	0	24.15	25.30
41055	41253	QPSK	1	99	1	0	24.12	25.30
41490	41292	QPSK	1	0	1	99	24.08	25.30



Ant3 Standalone

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.57	22.80
21100	21298	QPSK	1	99	1	0	21.59	22.80
21350	21152	QPSK	1	0	1	99	21.50	22.80

Ant1 Simultaneous

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.30	23.00
21100	21298	QPSK	1	99	1	0	21.43	23.00
21350	21152	QPSK	1	0	1	99	21.37	23.00



## Uplink CA Power

Ant2 Simultaneous

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.59	20.90
21100	21298	QPSK	1	99	1	0	19.70	20.90
21350	21152	QPSK	1	0	1	99	19.66	20.90

Ant3 Simultaneous

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.63	22.80
21100	21298	QPSK	1	99	1	0	21.67	22.80
21350	21152	QPSK	1	0	1	99	21.55	22.80

Ant2 Simultaneous

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.08	23.40
37901	38099	QPSK	1	99	1	0	22.14	23.40
38150	37952	QPSK	1	0	1	99	22.01	23.40

Ant2 Simultaneous

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.00	23.40
40185	40383	QPSK	1	99	1	0	22.11	23.40
40620	40818	QPSK	1	99	1	0	22.18	23.40
41055	41253	QPSK	1	99	1	0	22.04	23.40
41490	41292	QPSK	1	0	1	99	21.98	23.40

Ant2 Simultaneous

CA_41C HPUE								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.26	24.70
40185	40383	QPSK	1	99	1	0	23.38	24.70
40620	40818	QPSK	1	99	1	0	23.44	24.70
41055	41253	QPSK	1	99	1	0	23.21	24.70
41490	41292	QPSK	1	0	1	99	23.34	24.70





### DL CA Power

#### 2CA DL

CA List	PCC										SCC				Power	
	LTE Band	BW Ant	BW (MHz)	UL Freq (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	DL Antenna Configuration	With CA Tx Power (dBm)	Without CA Tx Power (dBm)
CA_2A-66A	Band 2	Ant2	20M	1880	1890	QPSK	1	0		Band 66	20M	2155	66886	4x4MIMO	21.08	21.24
	Band 2	Ant3	20M	1880	1890	QPSK	1	0		Band 66	20M	2155	66886	4x4MIMO	22.64	22.72
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		20.24	20.36
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		21.76	21.83
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		21.42	21.57
CA_2C	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		22.73	22.89
	Band 2	Ant2	20M	1880	1890	QPSK	1	0		Band 2	20M	1980	1098		21.19	21.24
	Band 2	Ant3	20M	1880	1890	QPSK	1	0		Band 2	20M	1980	1098		22.69	22.72
CA_5A-41A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 41	20M	2593	40620		22.71	22.82
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 41	20M	2593	40620		21.16	21.31
CA_7A-32A	Band 7	Ant0	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 32	20M	1474	10140		23.09	23.24
	Band 7	Ant1	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 32	20M	1474	10140		22.13	22.30
	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 32	20M	1474	10140		22.05	22.13
	Band 7	Ant3	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 32	20M	1474	10140		23.27	23.41
	Band 7	Ant0	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2544	3193	4x4MIMO	23.09	23.24
CA_7B	Band 7	Ant1	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2544	3193	4x4MIMO	22.06	22.30
	Band 7	Ant2	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2544	3193	4x4MIMO	21.92	22.13
	Band 7	Ant3	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2544	3193	4x4MIMO	23.34	23.41
	Band 66	Ant0	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2154	66879	4x4MIMO	20.19	20.36
CA_66B	Band 66	Ant1	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2154	66879	4x4MIMO	21.81	21.83
	Band 66	Ant2	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2154	66879	4x4MIMO	21.43	21.57
	Band 66	Ant3	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2154	66879	4x4MIMO	22.84	22.89
	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2165	66984	4x4MIMO	20.31	20.36
CA_66C	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2165	66984	4x4MIMO	21.65	21.83
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2165	66984	4x4MIMO	21.35	21.57
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2165	66984	4x4MIMO	22.73	22.89
	Band 38	Ant0	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2600	38048	4x4MIMO	21.24	21.40
CA_38C	Band 38	Ant1	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2600	38048	4x4MIMO	22.29	22.53
	Band 38	Ant2	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2600	38048	4x4MIMO	23.45	23.59
	Band 38	Ant3	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2600	38048	4x4MIMO	23.35	23.57
CA_41A-41A	Band 41	Ant0	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	5M	2688	41565	4x4MIMO	20.63	20.77
	Band 41	Ant1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	5M	2688	41565	4x4MIMO	22.46	22.69
	Band 41	Ant2	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	5M	2688	41565	4x4MIMO	22.59	22.68
	Band 41	Ant3	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	5M	2688	41565	4x4MIMO	23.69	23.85
CA_41C	Band 41	Ant0	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2613	40818	4x4MIMO	20.56	20.77
	Band 41	Ant1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2613	40818	4x4MIMO	22.53	22.69
	Band 41	Ant2	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2613	40818	4x4MIMO	22.52	22.68
	Band 41	Ant3	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2613	40818	4x4MIMO	23.63	23.85





4CA DL

Configure	PCC									SCC1				SCC2				SCC3				Power				
	LTE	BW	BW	UL	UL	UL#	UL	UL#	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	With CA	Without CA
	Band	Ant	(MHz)	Channel	Mod.	RB	RB	Offset		Band	(MHz)	Freq.	Channel		Band	(MHz)	Freq.	Channel		Band	(MHz)	Freq.	Channel		Tx. Power (dBm)	Tx. Power (dBm)
CA_2A-4A-7C	Band 2	Ant2	20M	1880	18900	QPSK	1	0		Band 4	20M	2132.5	2175		Band 7	20M	2655	3100		Band 7	20M	2554.8	3298		21.10	21.24
	Band 2	Ant3	20M	1880	18900	QPSK	1	0		Band 4	20M	2132.5	2175		Band 7	20M	2655	3100		Band 7	20M	2554.8	3298		22.59	22.72
	Band 4	Ant2	20M	1732.5	20175	QPSK	1	0		Band 7	20M	2655	3100		Band 7	20M	2554.8	3298		Band 2	20M	1960	900		21.13	21.30
	Band 4	Ant3	20M	1732.5	20175	QPSK	1	0		Band 7	20M	2655	3100		Band 7	20M	2554.8	3298		Band 2	20M	1960	900		22.67	22.87
	Band 7	Ant0	20M	2535	21100	QPSK	1	0		Band 7	20M	2554.8	3298		Band 2	20M	1960	900		Band 4	20M	2132.5	2175		23.12	23.24
	Band 7	Ant1	20M	2535	21100	QPSK	1	0		Band 7	20M	2554.8	3298		Band 2	20M	1960	900		Band 4	20M	2132.5	2175		22.09	22.30
	Band 7	Ant2	20M	2535	21100	QPSK	1	0		Band 7	20M	2554.8	3298		Band 2	20M	1960	900		Band 4	20M	2132.5	2175		22.03	22.13
	Band 7	Ant3	20M	2535	21100	QPSK	1	0		Band 7	20M	2554.8	3298		Band 2	20M	1960	900		Band 4	20M	2132.5	2175		23.25	23.41



5CA DL

Configure	PCC										SCC1					SCC2					SCC3					SCC4					Power		
	LTE	BW	BW	UL	UL	UL#	UL	DL	DL	DL	LTE	BW	DL	DL	DL	LTE	BW	DL	DL	DL	LTE	BW	DL	DL	DL	LTE	BW	DL	DL	DL	With CA	Without CA	
	Band	Ant	(MHz)	Channel	Mod.	RB	RB	DL Antenna Configuration	Channel	DL Antenna Configuration	Band	(MHz)	Channel	DL Antenna Configuration	DL Antenna Configuration	Band	(MHz)	Channel	DL Antenna Configuration	DL Antenna Configuration	Band	(MHz)	Channel	DL Antenna Configuration	DL Antenna Configuration	Band	(MHz)	Channel	DL Antenna Configuration	DL Antenna Configuration	Tx. Power (dBm)	Tx. Power (dBm)	
CA_5A-7C-66A-66A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	22.74	22.82	
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	21.21	21.31	
	Band 7	Ant0	20M	2535	21100	QPSK	1	0	4x4MIMO	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 5	10M	881.5	2525		23.08	23.24	
	Band 7	Ant1	20M	2535	21100	QPSK	1	0	4x4MIMO	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 5	10M	881.5	2525		22.16	22.30	
	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4x4MIMO	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 5	10M	881.5	2525		22.07	22.13	
	Band 7	Ant3	20M	2535	21100	QPSK	1	0	4x4MIMO	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	Band 66	20M	2145	66786	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 5	10M	881.5	2525		23.26	23.41	
	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4x4MIMO	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 5	10M	881.5	2525		4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	20.19	20.36
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 5	10M	881.5	2525		4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	21.70	21.83
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 5	10M	881.5	2525		4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	21.42	21.57
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 5	10M	881.5	2525		4x4MIMO	Band 7	20M	2655	3100	4x4MIMO	Band 7	20M	2554.8	3298	4x4MIMO	22.68	22.89



Full&Default Power Mode

n5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 16800	Middle Ch. / Freq. 167500	High Ch. / Freq. 167800		
Channel								
Frequency (MHz)				834	838.5	839		
20	PI2 BPSK	1	1	23.18	23.23	23.13	24.0	0.0
20	PI2 BPSK	1	53	23.04	23.14	23.06		
20	PI2 BPSK	1	104	22.98	23.06	22.94		
20	PI2 BPSK	50	0	22.85	22.76	22.73	23.5	0.5
20	PI2 BPSK	50	28	23.08	23.18	23.11	24.0	0.0
20	PI2 BPSK	50	56	22.59	22.64	22.51	23.5	0.5
20	PI2 BPSK	100	0	22.86	22.70	22.63		
20	QPSK	1	1	23.23	23.27	23.16		
20	QPSK	1	53	23.11	23.18	23.13	24.0	0.0
20	QPSK	1	104	22.96	23.09	22.98	23.0	1.0
20	QPSK	50	0	22.14	22.28	22.21		
20	QPSK	50	28	23.15	23.21	23.08		
20	QPSK	50	56	22.14	22.18	22.06	23.0	1.0
20	QPSK	100	0	22.17	22.23	22.13		
20	16QAM	1	1	22.39	22.48	22.42		
20	84QAM	1	1	20.73	20.86	20.79	21.5	2.5
20	256QAM	1	1	19.89	19.01	18.96	19.5	4.5
Channel				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	23.11	23.18	23.08	24.0	0.0
Channel				168500	167500	168500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				809	836.5	844		
10	QPSK	1	1	23.13	23.15	23.02	24.0	0.0
Channel				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				809.5	838.5	846.5		
5	QPSK	1	1	23.17	23.23	23.04	24.0	0.0

n7 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 504000	Middle Ch. / Freq. 507000	High Ch. / Freq. 510000		
Channel								
Frequency (MHz)				2500	2535	2550		
40	PI2 BPSK	1	1	21.80	21.91	21.85	23.0	0.0
40	PI2 BPSK	1	108	21.74	21.88	21.81		
40	PI2 BPSK	1	214	21.74	21.80	21.66		
40	PI2 BPSK	108	0	21.38	21.44	21.37	22.5	0.5
40	PI2 BPSK	108	54	21.79	21.87	21.75	23.0	0.0
40	PI2 BPSK	108	108	21.38	21.49	21.37	22.5	0.5
40	PI2 BPSK	216	0	21.39	21.42	21.34		
40	QPSK	1	1	21.92	21.98	21.89		
40	QPSK	1	108	21.78	21.92	21.82	23.0	0.0
40	QPSK	1	214	21.74	21.85	21.80	22.0	1.0
40	QPSK	108	0	20.87	20.97	20.87		
40	QPSK	108	54	21.86	21.90	21.85		
40	QPSK	108	108	20.80	20.89	20.80	23.0	0.0
40	QPSK	216	0	20.81	20.94	20.84	22.0	1.0
40	16QAM	1	1	20.73	20.86	20.77		
40	84QAM	1	1	19.27	19.41	19.36		
40	256QAM	1	1	17.30	17.38	17.29	18.5	4.5
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	21.77	21.88	21.80	23.0	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.5	2535	2557.5		
25	QPSK	1	1	21.81	21.83	21.78	23.0	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
20	PI2 BPSK	1	1	21.88	21.92	21.79	23.0	0.0
Channel				501600	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
15	QPSK	1	1	21.80	21.91	21.75	23.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	21.88	21.84	21.70	23.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	21.83	21.88	21.70	23.0	0.0

n66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 349000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel								
Frequency (MHz)				1700	1745	1760		
40	PI2 BPSK	1	1	22.14	22.27	22.17	23.0	0.0
40	PI2 BPSK	1	108	22.07	22.22	22.11		
40	PI2 BPSK	1	214	22.08	22.16	22.12		
40	PI2 BPSK	108	0	21.88	21.86	21.82	22.5	0.5
40	PI2 BPSK	108	54	22.02	22.20	22.13	23.0	0.0
40	PI2 BPSK	108	108	21.89	21.81	21.78	22.5	0.5
40	PI2 BPSK	216	0	21.74	21.84	21.85		
40	QPSK	1	1	22.23	22.35	22.31		
40	QPSK	1	108	22.04	22.26	22.14	23.0	0.0
40	QPSK	1	214	22.02	22.21	22.07	22.0	1.0
40	QPSK	108	0	21.13	21.38	21.24		
40	QPSK	108	54	22.15	22.29	22.24		
40	QPSK	108	108	21.24	21.48	21.35	22.0	1.0
40	QPSK	216	0	21.28	21.43	21.29	22.0	1.0
40	16QAM	1	1	20.96	21.11	21.01		
40	84QAM	1	1	19.67	19.83	19.81		
40	256QAM	1	1	17.69	17.85	17.73	18.5	4.5
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	22.11	22.27	22.20	23.0	0.0
Channel				344500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	22.16	22.31	22.24	23.0	0.0
Channel				343000	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1772		
15	QPSK	1	1	22.16	22.28	22.24	23.0	0.0
Channel				342500	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
10	QPSK	1	1	22.19	22.22	22.17	23.0	0.0
Channel				342000	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	22.18	22.29	22.21	23.0	0.0





Part270 n77 Ant 0								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	20.24	20.37	20.28		
100	PI2 BPSK	1	137	20.20	20.33	20.22	21.0	0.0
100	PI2 BPSK	1	271	20.15	20.28	20.22		
100	PI2 BPSK	135	0	18.72	18.78	18.74	20.5	0.5
100	PI2 BPSK	135	69	20.22	20.31	20.19	21.0	0.0
100	PI2 BPSK	135	138	18.83	18.78	18.87	20.5	0.5
100	PI2 BPSK	270	0	18.80	18.88	18.80		
100	QPSK	1	1	20.37	20.43	20.31		
100	QPSK	1	137	20.19	20.35	20.25	21.0	0.0
100	QPSK	1	271	20.13	20.31	20.20		
100	QPSK	135	0	18.84	18.97	18.83	20.0	1.0
100	QPSK	135	69	20.20	20.38	20.27	21.0	0.0
100	QPSK	135	138	18.84	18.96	18.81	20.0	1.0
100	QPSK	270	0	18.91	19.02	18.88	20.0	1.0
100	16QAM	1	1	18.80	18.88	18.80	20.0	1.0
100	64QAM	1	1	17.49	17.65	17.53	18.5	2.5
100	256QAM	1	1	15.22	15.32	15.28	16.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	20.26	20.38	20.30	21.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.19	20.29	20.31	21.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.23	20.35	20.32	21.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.19	20.28	20.30	21.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.28	20.37	20.25	21.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.24	20.30	20.31	21.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.20	20.28	20.26	21.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.22	20.28	20.24	21.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.19	20.35	20.30	21.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.28	20.34	20.28	21.0	0.0

Part270 n77 HPUE Ant 0								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.33	23.39	23.29		
100	PI2 BPSK	1	137	23.29	23.33	23.28	24.0	0.0
100	PI2 BPSK	1	271	23.14	23.27	23.23		
100	PI2 BPSK	135	0	22.79	22.88	22.84	23.5	0.5
100	PI2 BPSK	135	69	23.28	23.34	23.20	24.0	0.0
100	PI2 BPSK	135	138	22.86	22.90	22.79	23.5	0.5
100	PI2 BPSK	270	0	22.88	22.94	22.82		
100	QPSK	1	1	23.36	23.42	23.32		
100	QPSK	1	137	23.28	23.35	23.25	24.0	0.0
100	QPSK	1	271	23.21	23.31	23.22		
100	QPSK	135	0	22.21	22.34	22.26	23.0	1.0
100	QPSK	135	69	23.22	23.38	23.28	24.0	0.0
100	QPSK	135	138	22.34	22.39	22.34	23.0	1.0
100	QPSK	270	0	22.32	22.45	22.39	23.0	1.0
100	16QAM	1	1	22.46	22.57	22.51	23.0	1.0
100	64QAM	1	1	20.74	20.88	20.77	21.5	2.5
100	256QAM	1	1	18.58	18.67	18.63	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.28	23.35	23.24	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.11	23.24	23.27	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.29	23.37	23.25	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.26	23.38	23.18	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.25	23.28	23.27	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.29	23.30	23.19	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.24	23.38	23.19	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.31	23.28	23.25	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.31	23.32	23.21	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.28	23.29	23.25	24.0	0.0



Part270 n78 Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		20.31		21.0	0.0	
100	PI2 BPSK	1	137		20.27				
100	PI2 BPSK	1	271		20.22				
100	PI2 BPSK	135	0		19.13		20.5	0.5	
100	PI2 BPSK	135	69		20.25		21.0	0.0	
100	PI2 BPSK	135	138		19.01		20.5	0.5	
100	PI2 BPSK	270	0		19.07				
100	QPSK	1	1		20.35				
100	QPSK	1	137		20.30		21.0	0.0	
100	QPSK	1	271		20.17				
100	QPSK	135	0		19.82		20.0	1.0	
100	QPSK	135	69		20.25		21.0	0.0	
100	QPSK	135	138		18.67		20.0	1.0	
100	QPSK	270	0		18.72		20.0	1.0	
100	16QAM	1	1		18.84		20.0	1.0	
100	64QAM	1	1		17.58		18.5	2.5	
100	256QAM	1	1		15.33		16.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649868	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	647668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	646700	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	

Part270 n78 HPUE Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		23.17		24.0	0.0	
100	PI2 BPSK	1	137		23.08				
100	PI2 BPSK	1	271		23.02				
100	PI2 BPSK	135	0		22.52		23.5	0.5	
100	PI2 BPSK	135	69		23.09		24.0	0.0	
100	PI2 BPSK	135	138		22.46		23.5	0.5	
100	PI2 BPSK	270	0		22.53				
100	QPSK	1	1		23.21				
100	QPSK	1	137		23.11		24.0	0.0	
100	QPSK	1	271		23.04				
100	QPSK	135	0		22.01		23.0	1.0	
100	QPSK	135	69		23.14		24.0	0.0	
100	QPSK	135	138		21.95		23.0	1.0	
100	QPSK	270	0		22.02		23.0	1.0	
100	16QAM	1	1		22.03		23.0	1.0	
100	64QAM	1	1		20.85		21.5	2.5	
100	256QAM	1	1		18.88		19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	647668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	





n5 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 166800	Power Middle Ch. Freq. 167300	Power High Ch. Freq. 167800	Tune-up limit (dBm)	MPR (dB)	
Channel				834	836.5	839			
Frequency (MHz)									
20	PI2 BPSK	1	1	21.69	21.83	21.79			
20	PI2 BPSK	1	59	21.73	21.78	21.87	23.0	0.0	
20	PI2 BPSK	1	104	21.81	21.70	21.68			
20	PI2 BPSK	50	0	21.34	21.41	21.34	22.5	0.5	
20	PI2 BPSK	50	28	21.87	21.79	21.75	23.0	0.0	
20	PI2 BPSK	50	56	21.24	21.34	21.20	22.5	0.5	
20	PI2 BPSK	100	0	21.35	21.40	21.28			
20	QPSK	1	1	21.83	21.89	21.76			
20	QPSK	1	53	21.71	21.82	21.70	23.0	0.0	
20	QPSK	1	104	21.85	21.76	21.81			
20	QPSK	50	0	20.79	20.87	20.76	23.0	1.0	
20	QPSK	50	28	21.68	21.81	21.76	23.0	0.0	
20	QPSK	50	56	20.70	20.84	20.75			
20	QPSK	100	0	20.77	20.90	20.80	22.0	1.0	
20	16QAM	1	1	21.22	21.28	21.13	23.0	1.0	
20	64QAM	1	1	19.46	19.57	19.45	20.5	2.5	
20	256QAM	1	1	17.39	17.51	17.41	18.5	4.5	
Channel				165300	167300	168300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
15	QPSK	1	1	21.72	21.78	21.64	23.0	0.0	
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	21.76	21.81	21.66	23.0	0.0	
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
5	QPSK	1	1	21.77	21.84	21.69	23.0	0.0	

n7 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 504000	Power Middle Ch. Freq. 507000	Power High Ch. Freq. 510000	Tune-up limit (dBm)	MPR (dB)	
Channel				2520	2535	2550			
Frequency (MHz)									
40	PI2 BPSK	1	1	22.80	22.86	22.80			
40	PI2 BPSK	1	109	22.71	22.81	22.69	24.0	0.0	
40	PI2 BPSK	1	214	22.70	22.77	22.73			
40	PI2 BPSK	108	0	22.37	22.44	22.37	23.5	0.5	
40	PI2 BPSK	108	54	22.66	22.79	22.65	24.0	0.0	
40	PI2 BPSK	108	108	22.26	22.41	22.38			
40	PI2 BPSK	216	0	22.37	22.46	22.41	23.5	0.5	
40	QPSK	1	1	22.88	22.93	22.84			
40	QPSK	1	108	22.80	22.88	22.75	24.0	0.0	
40	QPSK	1	214	22.74	22.83	22.78			
40	QPSK	108	0	21.94	22.01	21.97	23.0	1.0	
40	QPSK	108	54	22.80	22.87	22.82	24.0	0.0	
40	QPSK	108	108	22.00	22.05	21.94			
40	QPSK	216	0	22.08	22.13	22.06	23.0	1.0	
40	16QAM	1	1	22.12	22.16	22.05	23.0	1.0	
40	64QAM	1	1	20.55	20.59	20.52	21.5	2.5	
40	256QAM	1	1	18.52	18.67	18.59	19.5	4.5	
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	22.81	22.79	22.73	24.0	0.0	
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
25	QPSK	1	1	22.80	22.87	22.77	24.0	0.0	
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	PI2 BPSK	1	1	22.75	22.85	22.81	24.0	0.0	
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
15	QPSK	1	1	22.74	22.81	22.73	24.0	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	22.79	22.83	22.70	24.0	0.0	
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
5	QPSK	1	1	22.74	22.88	22.80	24.0	0.0	

n66 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 346000	Power Middle Ch. Freq. 349000	Power High Ch. Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel				1730	1745	1760			
Frequency (MHz)									
40	PI2 BPSK	1	1	22.35	22.46	22.40			
40	PI2 BPSK	1	108	22.31	22.41	22.34	24.0	0.0	
40	PI2 BPSK	1	214	22.32	22.36	22.30			
40	PI2 BPSK	108	0	22.01	22.06	22.00	23.5	0.5	
40	PI2 BPSK	108	54	22.37	22.41	22.28	24.0	0.0	
40	PI2 BPSK	108	108	21.96	22.03	21.98			
40	PI2 BPSK	216	0	22.00	22.07	22.02	23.5	0.5	
40	QPSK	1	1	22.48	22.54	22.42			
40	QPSK	1	108	22.43	22.48	22.45	24.0	0.0	
40	QPSK	1	214	22.35	22.42	22.29			
40	QPSK	108	0	21.52	21.67	21.54	23.0	1.0	
40	QPSK	108	54	22.40	22.50	22.38	24.0	0.0	
40	QPSK	108	108	21.65	21.72	21.62			
40	QPSK	216	0	21.67	21.77	21.73	23.0	1.0	
40	16QAM	1	1	21.81	21.88	21.85	23.0	1.0	
40	64QAM	1	1	19.79	19.93	19.80	21.5	2.5	
40	256QAM	1	1	18.00	18.05	18.01	19.5	4.5	
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	22.42	22.45	22.30	24.0	0.0	
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	22.44	22.50	22.35	24.0	0.0	
Channel				343000	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
15	QPSK	1	1	22.41	22.49	22.37	24.0	0.0	
Channel				342000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	22.43	22.46	22.31	24.0	0.0	
Channel				341000	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
5	QPSK	1	1	22.34	22.42	22.31	24.0	0.0	





Part270 n77 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.12	23.17	23.05		
100	PI2 BPSK	1	137	23.03	23.12	23.01	24.0	0.0
100	PI2 BPSK	1	271	23.03	23.08	22.94		
100	PI2 BPSK	135	0	21.59	21.61	21.54	23.5	0.5
100	PI2 BPSK	135	69	23.09	23.13	22.98	24.0	0.0
100	PI2 BPSK	135	138	21.54	21.63	21.48		
100	PI2 BPSK	270	0	21.58	21.67	21.49	23.5	0.5
100	QPSK	1	1	23.18	23.24	23.09		
100	QPSK	1	137	23.19	23.21	23.12	24.0	0.0
100	QPSK	1	271	23.17	23.17	23.02		
100	QPSK	135	0	21.53	21.63	21.54	23.0	1.0
100	QPSK	135	69	23.17	23.19	23.07	24.0	0.0
100	QPSK	135	138	21.51	21.63	21.50		
100	QPSK	270	0	21.62	21.67	21.52	23.0	1.0
100	16QAM	1	1	21.56	21.66	21.52	23.0	1.0
100	64QAM	1	1	20.14	20.23	20.12	21.5	2.5
100	256QAM	1	1	18.22	18.32	18.18	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.08	23.11	22.94	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.03	23.10	22.94	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.01	23.07	22.83	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.11	23.16	22.99	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.09	23.11	22.89	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.03	23.16	22.89	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.04	23.17	23.00	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.00	23.14	22.83	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.03	23.08	22.88	24.0	0.0

Part270 n77 HPUE Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	25.98	26.10	26.03		
100	PI2 BPSK	1	137	25.95	26.07	25.93	27.0	0.0
100	PI2 BPSK	1	271	25.94	26.01	25.98		
100	PI2 BPSK	135	0	25.42	25.51	25.37	26.5	0.5
100	PI2 BPSK	135	69	25.96	26.00	25.90	27.0	0.0
100	PI2 BPSK	135	138	25.48	25.58	25.51		
100	PI2 BPSK	270	0	25.54	25.61	25.48	26.5	0.5
100	QPSK	1	1	26.07	26.17	26.12		
100	QPSK	1	137	26.01	26.11	26.03	27.0	0.0
100	QPSK	1	271	26.97	26.95	26.98		
100	QPSK	135	0	25.05	25.09	24.98	26.0	1.0
100	QPSK	135	69	26.03	26.12	26.04	27.0	0.0
100	QPSK	135	138	24.97	25.04	24.96		
100	QPSK	270	0	25.05	25.11	25.02	26.0	1.0
100	16QAM	1	1	25.00	25.14	25.04	26.0	1.0
100	64QAM	1	1	23.82	23.87	23.53	24.5	2.5
100	256QAM	1	1	21.58	21.69	21.62	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	25.94	26.10	26.06	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.01	26.03	25.99	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.02	26.13	26.03	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.95	26.06	26.07	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.04	26.12	26.01	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.00	26.04	26.07	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	25.97	26.11	26.09	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.99	26.12	26.05	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.02	26.02	26.01	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.98	26.03	26.01	27.0	0.0



Part270 n78 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		23.05				
100	PI2 BPSK	1	137		22.99		24.0	0.0	
100	PI2 BPSK	1	271		22.92				
100	PI2 BPSK	135	0		21.54		23.5	0.5	
100	PI2 BPSK	135	69		22.97		24.0	0.0	
100	PI2 BPSK	135	138		21.56		23.5	0.5	
100	PI2 BPSK	270	0		21.60				
100	QPSK	1	1		23.13				
100	QPSK	1	137		23.02		24.0	0.0	
100	QPSK	1	271		22.96				
100	QPSK	135	0		21.54		23.0	1.0	
100	QPSK	135	69		23.07		24.0	0.0	
100	QPSK	135	138		21.48		23.0	1.0	
100	QPSK	270	0		21.53		23.0	1.0	
100	16QAM	1	1		21.89		23.0	1.0	
100	64QAM	1	1		19.94		21.5	2.5	
100	256QAM	1	1		18.07		19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	23.01	23.03	22.94	24.0	0.0	0.0
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.94	23.00	22.94	24.0	0.0	0.0
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.94	23.01	22.87	24.0	0.0	0.0
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.94	23.01	22.87	24.0	0.0	0.0
Channel									
Frequency (MHz)									
50	QPSK	1	1	23.02	23.05	22.94	24.0	0.0	0.0
Channel									
Frequency (MHz)									
40	QPSK	1	1	23.00	23.02	22.89	24.0	0.0	0.0
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.96	22.98	22.89	24.0	0.0	0.0
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.00	23.04	22.87	24.0	0.0	0.0
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.00	23.08	22.93	24.0	0.0	0.0
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.98	23.07	22.87	24.0	0.0	0.0

Part270 n78 HPUE Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		26.08				
100	PI2 BPSK	1	137		26.05		27.0	0.0	
100	PI2 BPSK	1	271		25.99				
100	PI2 BPSK	135	0		25.50		26.5	0.5	
100	PI2 BPSK	135	69		26.00		27.0	0.0	
100	PI2 BPSK	135	138		25.36		26.5	0.5	
100	PI2 BPSK	270	0		25.46				
100	QPSK	1	1		26.15				
100	QPSK	1	137		26.08		27.0	0.0	
100	QPSK	1	271		26.02				
100	QPSK	135	0		25.00		26.0	1.0	
100	QPSK	135	69		26.09		27.0	0.0	
100	QPSK	135	138		24.95		26.0	1.0	
100	QPSK	270	0		24.99		26.0	1.0	
100	16QAM	1	1		25.29		26.0	1.0	
100	64QAM	1	1		23.83		24.5	2.5	
100	256QAM	1	1		21.76		22.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	25.95	26.11	25.96	27.0	0.0	0.0
Channel									
Frequency (MHz)									
80	QPSK	1	1	25.94	26.05	25.94	27.0	0.0	0.0
Channel									
Frequency (MHz)									
70	QPSK	1	1	26.02	26.09	25.93	27.0	0.0	0.0
Channel									
Frequency (MHz)									
60	QPSK	1	1	25.93	26.10	25.94	27.0	0.0	0.0
Channel									
Frequency (MHz)									
50	QPSK	1	1	25.96	26.04	25.96	27.0	0.0	0.0
Channel									
Frequency (MHz)									
40	QPSK	1	1	26.01	26.05	25.89	27.0	0.0	0.0
Channel									
Frequency (MHz)									
30	QPSK	1	1	25.94	26.01	25.97	27.0	0.0	0.0
Channel									
Frequency (MHz)									
20	QPSK	1	1	25.98	26.03	25.93	27.0	0.0	0.0
Channel									
Frequency (MHz)									
15	QPSK	1	1	25.94	26.07	25.98	27.0	0.0	0.0
Channel									
Frequency (MHz)									
10	QPSK	1	1	25.97	26.10	25.93	27.0	0.0	0.0



n7 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 504000	Middle Ch. / Freq. 507000	High Ch. / Freq. 510000		
Channel				2530	2535	2550		
Frequency (MHz)								
40	PI/2 BPSK	1	1	23.74	23.86	23.81	24.0	0.0
40	PI/2 BPSK	1	108	23.72	23.92	23.59		
40	PI/2 BPSK	1	214	23.69	23.76	23.56		
40	PI/2 BPSK	108	0	23.20	23.28	23.17	23.5	0.5
40	PI/2 BPSK	108	54	23.71	23.79	23.68	24.0	0.0
40	PI/2 BPSK	108	108	23.17	23.28	23.07		
40	PI/2 BPSK	216	0	23.25	23.33	23.10	23.5	0.5
40	QPSK	1	1	23.85	23.81	23.80		
40	QPSK	1	108	23.72	23.84	23.62	24.0	0.0
40	QPSK	1	214	23.72	23.79	23.65		
40	QPSK	108	0	22.66	22.72	22.51	23.0	1.0
40	QPSK	108	54	23.80	23.85	23.73	24.0	0.0
40	QPSK	108	108	22.84	22.73	22.59		
40	QPSK	216	0	22.65	22.79	22.54	23.0	1.0
40	16QAM	1	1	22.80	22.87	22.71	23.0	1.0
40	64QAM	1	1	21.48	21.38	21.33	21.5	2.5
40	256QAM	1	1	18.96	18.05	18.88	19.5	4.5
Channel				503000	507000	511000		
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	23.70	23.85	23.76	24.0	0.0
Channel				502500	507000	511500		
Frequency (MHz)				2512.5	2535	2527.5		
25	QPSK	1	1	23.73	23.83	23.72	24.0	0.0
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	23.71	23.86	23.77	24.0	0.0
Channel				501500	507000	512500		
Frequency (MHz)				2507.5	2535	2542.5		
15	QPSK	1	1	23.77	23.78	23.68	24.0	0.0
Channel				501000	507000	513000		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	23.74	23.81	23.76	24.0	0.0
Channel				500500	507000	513500		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	23.73	23.79	23.71	24.0	0.0

n66 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel				1730	1745	1760		
Frequency (MHz)								
40	PI/2 BPSK	1	1	23.43	23.51	23.47	24.0	0.0
40	PI/2 BPSK	1	108	23.38	23.47	23.38		
40	PI/2 BPSK	1	214	23.38	23.44	23.40		
40	PI/2 BPSK	108	0	22.89	23.04	23.00	23.5	0.5
40	PI/2 BPSK	108	54	23.44	23.48	23.43	24.0	0.0
40	PI/2 BPSK	108	108	23.02	23.08	23.02		
40	PI/2 BPSK	216	0	23.01	23.13	23.02	23.5	0.5
40	QPSK	1	1	23.49	23.56	23.51		
40	QPSK	1	108	23.38	23.52	23.39	24.0	0.0
40	QPSK	1	214	23.33	23.48	23.36		
40	QPSK	108	0	22.44	22.54	22.50	23.0	1.0
40	QPSK	108	54	23.39	23.50	23.40	24.0	0.0
40	QPSK	108	108	22.34	22.47	22.41	23.0	1.0
40	QPSK	216	0	22.42	22.53	22.43		
40	16QAM	1	1	22.45	22.58	22.47	23.0	1.0
40	64QAM	1	1	20.82	20.95	20.90	21.5	2.5
40	256QAM	1	1	18.96	18.99	18.83	19.5	4.5
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	23.40	23.52	23.39	24.0	0.0
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.44	23.51	23.48	24.0	0.0
Channel				343500	349000	354500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.42	23.47	23.41	24.0	0.0
Channel				342500	349000	355000		
Frequency (MHz)				1712.5	1745	1777.5		
10	QPSK	1	1	23.38	23.52	23.45	24.0	0.0
Channel				342000	349000	355500		
Frequency (MHz)				1710	1745	1775		
5	QPSK	1	1	23.40	23.45	23.39	24.0	0.0



n38 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 518004	Power Middle Ch. / Freq. 519000	Power High Ch. / Freq. 519996	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	23.50	23.64	23.49			
40	PI2 BPSK	1	59	23.54	23.62	23.57			
40	PI2 BPSK	1	104	23.39	23.52	23.45			
40	PI2 BPSK	50	0	22.36	22.53	22.37	24.0	0.5	
40	PI2 BPSK	50	28	23.42	23.56	23.52	24.5	0.0	
40	PI2 BPSK	50	56	22.30	22.38	22.35			
40	PI2 BPSK	100	0	22.38	22.49	22.40	24.0	0.5	
40	QPSK	1	1	23.63	23.70	23.51			
40	QPSK	1	53	23.58	23.57	23.59	24.5	0.0	
40	QPSK	1	104	23.59	23.65	23.50			
40	QPSK	50	0	22.51	22.57	22.49	23.5	1.0	
40	QPSK	50	28	23.56	23.66	23.61	24.5	0.0	
40	QPSK	50	56	22.42	22.58	22.50			
40	QPSK	100	0	22.44	22.66	22.46	23.5	1.0	
40	16QAM	1	1	22.52	22.53	22.45	23.5	1.0	
40	64QAM	1	1	21.04	21.13	21.13	22.0	2.5	
40	256QAM	1	1	18.74	18.81	18.79	20.0	4.5	
Channel									
Frequency (MHz)									
30	QPSK	1	1	23.51	23.64	23.37	24.5	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	23.57	23.60	23.44	24.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.57	23.59	23.53	24.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.57	23.56	23.37	24.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	23.49	23.59	23.40	24.5	0.0	

n41 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 508202	Power Middle Ch. / Freq. 518598	Power High Ch. / Freq. 528000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	23.66	23.73	23.60			
100	PI2 BPSK	1	137	23.59	23.68	23.54	24.0	0.0	
100	PI2 BPSK	1	271	23.49	23.61	23.53			
100	PI2 BPSK	135	0	22.03	22.07	22.05	23.5	0.5	
100	PI2 BPSK	135	69	23.58	23.67	23.64	24.0	0.0	
100	PI2 BPSK	135	138	22.14	22.25	22.11			
100	PI2 BPSK	270	0	22.21	22.33	22.18	23.5	0.5	
100	QPSK	1	1	23.71	23.79	23.66			
100	QPSK	1	137	23.62	23.72	23.58	24.0	0.0	
100	QPSK	1	271	23.59	23.68	23.60			
100	QPSK	135	0	22.24	22.33	22.25	23.0	1.0	
100	QPSK	135	69	23.68	23.72	23.64	24.0	0.0	
100	QPSK	135	138	22.39	22.44	22.30			
100	QPSK	270	0	22.41	22.50	22.44	23.0	1.0	
100	16QAM	1	1	22.13	22.17	22.07	23.0	1.0	
100	64QAM	1	1	20.68	20.81	20.78	21.5	2.5	
100	256QAM	1	1	18.42	18.49	18.35	19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	23.68	23.58	23.51	24.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	23.58	23.67	23.52	24.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	23.57	23.68	23.52	24.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	23.54	23.59	23.43	24.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	23.63	23.58	23.54	24.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	23.49	23.63	23.51	24.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	23.54	23.64	23.44	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.48	23.59	23.50	24.0	0.0	

n41 HPUE Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 508202	Power Middle Ch. / Freq. 518598	Power High Ch. / Freq. 528000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	26.77	26.89	26.80			
100	PI2 BPSK	1	137	26.73	26.82	26.72	27.0	0.0	
100	PI2 BPSK	1	271	26.72	26.77	26.69			
100	PI2 BPSK	135	0	26.27	26.32	26.18	26.5	0.5	
100	PI2 BPSK	135	69	26.74	26.83	26.73	27.0	0.0	
100	PI2 BPSK	135	138	26.20	26.34	26.31			
100	PI2 BPSK	270	0	26.34	26.39	26.25	26.5	0.5	
100	QPSK	1	1	26.84	26.93	26.89			
100	QPSK	1	137	26.82	26.89	26.86	27.0	0.0	
100	QPSK	1	271	26.89	26.81	26.78			
100	QPSK	135	0	25.75	25.90	25.81	26.0	1.0	
100	QPSK	135	69	26.82	26.88	26.84	27.0	0.0	
100	QPSK	135	138	25.70	25.82	25.76			
100	QPSK	270	0	25.72	25.86	25.73	26.0	1.0	
100	16QAM	1	1	25.74	25.83	25.75	26.0	1.0	
100	64QAM	1	1	24.24	24.30	24.20	24.5	2.5	
100	256QAM	1	1	22.21	22.29	22.16	22.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	26.79	26.87	26.83	27.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	26.72	26.83	26.83	27.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	26.74	26.78	26.82	27.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	26.78	26.83	26.79	27.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	26.72	26.85	26.82	27.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	26.78	26.79	26.77	27.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	26.75	26.82	26.79	27.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	26.81	26.89	26.83	27.0	0.0	



Part270 n77 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	22.93	23.07	22.92			
100	PI2 BPSK	1	137	22.89	23.02	22.97	24.0	0.0	
100	PI2 BPSK	1	271	22.84	22.99	22.92			
100	PI2 BPSK	135	0	21.48	21.54	21.41	23.5	0.5	
100	PI2 BPSK	135	69	22.91	23.05	22.86	24.0	0.0	
100	PI2 BPSK	135	138	21.41	21.52	21.48			
100	PI2 BPSK	270	0	21.46	21.57	21.52	23.5	0.5	
100	QPSK	1	1	23.08	23.13	23.02			
100	QPSK	1	137	23.02	23.06	22.92	24.0	0.0	
100	QPSK	1	271	22.99	23.01	22.98			
100	QPSK	135	0	21.71	21.76	21.65	23.0	1.0	
100	QPSK	135	69	23.03	23.08	23.01	24.0	0.0	
100	QPSK	135	138	21.59	21.73	21.65			
100	QPSK	270	0	21.66	21.76	21.63	23.0	1.0	
100	16QAM	1	1	22.09	22.12	22.04	23.0	1.0	
100	64QAM	1	1	20.26	20.37	20.34	21.5	2.5	
100	256QAM	1	1	17.91	18.05	17.95	19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	23.00	23.05	22.99	24.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.96	23.09	22.99	24.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.98	23.02	22.91	24.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.98	23.08	22.95	24.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	23.02	22.99	22.97	24.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	22.99	23.04	22.99	24.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.97	22.98	22.87	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.95	23.06	22.96	24.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.03	22.95	22.91	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	23.04	23.07	22.89	24.0	0.0	

Part270 n77 HPUE Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	26.09	26.19	26.11			
100	PI2 BPSK	1	137	26.04	26.14	26.20	27.0	0.0	
100	PI2 BPSK	1	271	25.99	26.11	26.05			
100	PI2 BPSK	135	0	25.70	25.79	25.70	26.5	0.5	
100	PI2 BPSK	135	69	26.04	26.13	26.03	27.0	0.0	
100	PI2 BPSK	135	138	25.54	25.68	25.63			
100	PI2 BPSK	270	0	25.57	25.71	25.57	26.5	0.5	
100	QPSK	1	1	26.19	26.24	26.15			
100	QPSK	1	137	26.13	26.20	26.10	27.0	0.0	
100	QPSK	1	271	26.04	26.17	26.07			
100	QPSK	135	0	25.21	25.27	25.22	26.0	1.0	
100	QPSK	135	69	26.14	26.21	26.16	27.0	0.0	
100	QPSK	135	138	25.06	25.15	25.00			
100	QPSK	270	0	25.09	25.19	25.15	26.0	1.0	
100	16QAM	1	1	25.22	25.37	25.26	26.0	1.0	
100	64QAM	1	1	23.83	23.86	23.82	24.5	2.5	
100	256QAM	1	1	21.50	21.59	21.56	22.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	26.11	26.19	26.03	27.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	26.01	26.03	26.01	27.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	26.09	26.12	26.03	27.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	26.12	26.14	26.03	27.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	26.05	26.10	26.04	27.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	26.15	26.09	26.01	27.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	26.12	26.13	26.03	27.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	26.14	26.20	26.08	27.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	26.15	26.18	26.07	27.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	26.12	26.19	26.10	27.0	0.0	



Part270 n78 Ant 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	23.04	23.04	23.04	
100	PI2 BPSK	1	137	22.98	22.98	22.98	24.0
100	PI2 BPSK	1	271	22.98	22.98	22.98	0.0
100	PI2 BPSK	135	0	21.78	21.78	21.78	0.5
100	PI2 BPSK	135	69	22.98	22.98	22.98	24.0
100	PI2 BPSK	135	138	21.63	21.63	21.63	0.0
100	PI2 BPSK	270	0	21.69	21.69	21.69	0.5
100	QPSK	1	1	23.08	23.08	23.08	
100	QPSK	1	137	23.03	23.03	23.03	24.0
100	QPSK	1	271	22.98	22.98	22.98	0.0
100	QPSK	135	0	21.77	21.77	21.77	23.0
100	QPSK	135	69	23.02	23.02	23.02	1.0
100	QPSK	135	138	21.63	21.63	21.63	24.0
100	QPSK	270	0	21.78	21.78	21.78	23.0
100	16QAM	1	1	21.67	21.67	21.67	23.0
100	64QAM	1	1	20.59	20.59	20.59	21.5
100	256QAM	1	1	18.24	18.24	18.24	19.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	22.94	22.94	22.94	24.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	22.88	22.88	22.88	24.0
Channel							
Frequency (MHz)							
70	QPSK	1	1	22.88	22.88	22.88	24.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	22.87	22.87	22.87	24.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	22.88	22.88	22.88	24.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	22.94	22.94	22.94	24.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	22.96	22.96	22.96	24.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	22.94	22.94	22.94	24.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	22.98	22.98	22.98	24.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	22.98	22.98	22.98	24.0

Part270 n78 HPUE Ant 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	26.14	26.14	26.14	
100	PI2 BPSK	1	137	26.09	26.09	26.09	27.0
100	PI2 BPSK	1	271	26.05	26.05	26.05	0.0
100	PI2 BPSK	135	0	25.70	25.70	25.70	0.5
100	PI2 BPSK	135	69	26.06	26.06	26.06	27.0
100	PI2 BPSK	135	138	25.66	25.66	25.66	0.0
100	PI2 BPSK	270	0	25.71	25.71	25.71	0.5
100	QPSK	1	1	26.17	26.17	26.17	
100	QPSK	1	137	26.11	26.11	26.11	27.0
100	QPSK	1	271	26.03	26.03	26.03	0.0
100	QPSK	135	0	25.21	25.21	25.21	26.0
100	QPSK	135	69	26.12	26.12	26.12	1.0
100	QPSK	135	138	25.19	25.19	25.19	26.0
100	QPSK	270	0	25.23	25.23	25.23	26.0
100	16QAM	1	1	25.05	25.05	25.05	26.0
100	64QAM	1	1	23.78	23.78	23.78	24.5
100	256QAM	1	1	21.83	21.83	21.83	22.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	26.01	26.01	26.01	27.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	25.97	25.97	25.97	27.0
Channel							
Frequency (MHz)							
70	QPSK	1	1	26.06	26.06	26.06	27.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	26.01	26.01	26.01	27.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	25.99	25.99	25.99	27.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	26.08	26.08	26.08	27.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	26.00	26.00	26.00	27.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	26.08	26.08	26.08	27.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	26.01	26.01	26.01	27.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	25.98	25.98	25.98	27.0





n7 Ant 3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 504000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 510000	MPR (dB)
Channel				2530	2535	2550	
Frequency (MHz)							
40	PI/2 BPSK	1	1	23.68	23.73	23.63	
40	PI/2 BPSK	1	108	23.60	23.71	23.59	
40	PI/2 BPSK	1	214	23.60	23.68	23.60	24.0
40	PI/2 BPSK	108	0	23.22	23.28	23.18	23.5
40	PI/2 BPSK	108	54	23.58	23.70	23.66	24.0
40	PI/2 BPSK	108	108	23.19	23.31	23.24	
40	PI/2 BPSK	216	0	23.08	23.20	23.17	23.5
40	QPSK	1	1	23.78	23.79	23.65	
40	QPSK	1	108	23.66	23.71	23.64	24.0
40	QPSK	1	214	23.59	23.62	23.57	
40	QPSK	108	0	22.80	22.89	22.78	23.0
40	QPSK	108	54	23.62	23.73	23.70	24.0
40	QPSK	108	108	22.85	22.91	22.79	23.0
40	QPSK	216	0	22.80	22.85	22.71	23.0
40	16QAM	1	1	22.85	22.91	22.77	23.0
40	64QAM	1	1	21.42	21.45	21.35	21.5
40	256QAM	1	1	19.38	19.32	19.48	19.5
Channel				503000	507000	511000	
Frequency (MHz)							
30	QPSK	1	1	23.68	23.72	23.60	24.0
Channel				502500	507000	511500	
Frequency (MHz)							
25	QPSK	1	1	23.73	23.75	23.73	24.0
Channel				502000	507000	512000	
Frequency (MHz)							
20	PI/2 BPSK	1	1	23.42	23.34	23.62	24.0
Channel				501500	507000	512500	
Frequency (MHz)							
15	QPSK	1	1	23.63	23.74	23.55	24.0
Channel				501000	507000	513000	
Frequency (MHz)							
10	QPSK	1	1	23.63	23.68	23.55	24.0
Channel				500500	507000	513500	
Frequency (MHz)							
5	QPSK	1	1	23.65	23.63	23.61	24.0

n66 Ant 3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	MPR (dB)
Channel				1730	1745	1760	
Frequency (MHz)							
40	PI/2 BPSK	1	1	23.40	23.46	23.43	
40	PI/2 BPSK	1	108	23.29	23.42	23.35	
40	PI/2 BPSK	1	214	23.25	23.37	23.33	24.0
40	PI/2 BPSK	108	0	22.91	23.04	22.89	23.5
40	PI/2 BPSK	108	54	23.34	23.47	23.37	24.0
40	PI/2 BPSK	108	108	22.97	23.09	22.94	
40	PI/2 BPSK	216	0	22.85	22.96	22.97	23.5
40	QPSK	1	1	23.38	23.52	23.46	
40	QPSK	1	108	23.42	23.43	23.39	24.0
40	QPSK	1	214	23.37	23.38	23.27	
40	QPSK	108	0	22.52	22.62	22.59	23.0
40	QPSK	108	54	23.42	23.50	23.44	24.0
40	QPSK	108	108	22.55	22.60	22.56	23.0
40	QPSK	216	0	22.52	22.62	22.52	23.0
40	16QAM	1	1	22.55	22.70	22.51	23.0
40	64QAM	1	1	21.13	21.16	21.14	21.5
40	256QAM	1	1	19.37	19.40	19.32	19.5
Channel				345000	349000	353000	
Frequency (MHz)							
30	QPSK	1	1	23.33	23.38	23.43	24.0
Channel				344000	349000	354000	
Frequency (MHz)							
29	QPSK	1	1	23.35	23.43	23.41	24.0
Channel				343000	349000	354000	
Frequency (MHz)							
15	QPSK	1	1	23.20	23.45	23.35	24.0
Channel				342000	349000	355000	
Frequency (MHz)							
10	QPSK	1	1	23.35	23.48	23.41	24.0
Channel				342500	349000	355500	
Frequency (MHz)							
5	QPSK	1	1	23.32	23.37	23.40	24.0





Part270 n77 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	22.87	22.99	22.88		
100	PI2 BPSK	1	137	22.83	22.94	22.88	24.0	0.0
100	PI2 BPSK	1	271	22.84	22.93	22.88		
100	PI2 BPSK	135	0	21.31	21.46	21.37	23.5	0.5
100	PI2 BPSK	135	69	22.90	22.97	22.93	24.0	0.0
100	PI2 BPSK	135	138	21.22	21.37	21.23		
100	PI2 BPSK	270	0	21.36	21.42	21.33	23.5	0.5
100	QPSK	1	1	23.05	23.09	22.94		
100	QPSK	1	137	22.94	23.02	22.95	24.0	0.0
100	QPSK	1	271	23.00	23.05	22.95		
100	QPSK	135	0	21.48	21.58	21.52	23.0	1.0
100	QPSK	135	69	22.93	23.07	22.98	24.0	0.0
100	QPSK	135	138	21.44	21.57	21.47		
100	QPSK	270	0	21.48	21.61	21.54	23.0	1.0
100	16QAM	1	1	21.57	21.69	21.65	23.0	1.0
100	64QAM	1	1	20.18	20.29	20.21	21.5	2.5
100	256QAM	1	1	18.01	18.05	17.89	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.88	22.97	22.93	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.84	22.95	22.95	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.83	23.01	22.88	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.81	22.99	22.99	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.90	23.05	22.95	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.84	23.05	22.91	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.86	22.96	22.81	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.82	23.05	22.95	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.86	23.02	22.99	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.90	22.99	22.98	24.0	0.0

Part270 n77 HPUE Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	26.10	26.19	26.03		
100	PI2 BPSK	1	137	26.02	26.14	26.09	27.0	0.0
100	PI2 BPSK	1	271	25.97	26.07	25.99		
100	PI2 BPSK	135	0	25.38	25.49	25.43	26.5	0.5
100	PI2 BPSK	135	69	26.00	26.06	25.96	27.0	0.0
100	PI2 BPSK	135	138	25.22	25.35	25.20		
100	PI2 BPSK	270	0	25.38	25.43	25.30	26.5	0.5
100	QPSK	1	1	26.16	26.24	26.08		
100	QPSK	1	137	26.00	26.11	26.01	27.0	0.0
100	QPSK	1	271	26.03	26.15	26.02		
100	QPSK	135	0	24.91	25.01	24.87	26.0	1.0
100	QPSK	135	69	25.95	26.07	26.00	27.0	0.0
100	QPSK	135	138	24.84	24.93	24.81		
100	QPSK	270	0	24.73	24.85	24.76	26.0	1.0
100	16QAM	1	1	24.69	24.80	24.68	26.0	1.0
100	64QAM	1	1	23.59	23.69	23.58	24.5	2.5
100	256QAM	1	1	20.89	21.03	20.90	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	26.09	26.20	25.97	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.97	26.10	25.94	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.03	26.14	25.95	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	26.06	26.10	26.04	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.08	26.19	26.04	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.05	26.14	26.09	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	26.12	26.20	26.04	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	26.04	26.11	26.01	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.08	26.10	26.05	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	26.11	26.13	25.99	27.0	0.0



Part270 n78 Ant 3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	22.86	22.86	22.86	24.0
100	PI2 BPSK	1	137	22.81	22.81	22.81	24.0
100	PI2 BPSK	1	271	22.77	22.77	22.77	24.0
100	PI2 BPSK	135	0	21.65	21.65	21.65	23.5
100	PI2 BPSK	135	69	22.86	22.86	22.86	24.0
100	PI2 BPSK	135	138	21.61	21.61	21.61	23.5
100	PI2 BPSK	270	0	21.67	21.67	21.67	23.5
100	QPSK	1	1	22.91	22.91	22.91	24.0
100	QPSK	1	137	22.89	22.89	22.89	24.0
100	QPSK	1	271	22.82	22.82	22.82	24.0
100	QPSK	135	0	21.35	21.35	21.35	23.0
100	QPSK	135	69	22.88	22.88	22.88	24.0
100	QPSK	135	138	21.33	21.33	21.33	23.0
100	DPSK	270	0	21.41	21.41	21.41	23.0
100	16QAM	1	1	21.95	21.95	21.95	23.0
100	64QAM	1	1	19.78	19.78	19.78	21.5
100	256QAM	1	1	17.82	17.82	17.82	19.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	22.74	22.81	22.88	24.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	22.76	22.76	22.74	24.0
Channel							
Frequency (MHz)							
70	QPSK	1	1	22.70	22.81	22.73	24.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	22.80	22.83	22.67	24.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	22.73	22.76	22.71	24.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	22.78	22.83	22.65	24.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	22.70	22.85	22.74	24.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	22.75	22.82	22.74	24.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	22.71	22.87	22.79	24.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	22.70	22.88	22.68	24.0

Part270 n78 HPUE Ant 3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	26.03	26.03	26.03	27.0
100	PI2 BPSK	1	137	25.91	25.91	25.91	27.0
100	PI2 BPSK	1	271	25.97	25.97	25.97	27.0
100	PI2 BPSK	135	0	25.58	25.58	25.58	26.5
100	PI2 BPSK	135	69	26.09	26.09	26.09	27.0
100	PI2 BPSK	135	138	25.52	25.52	25.52	26.5
100	PI2 BPSK	270	0	25.58	25.58	25.58	26.5
100	QPSK	1	1	26.19	26.19	26.19	27.0
100	QPSK	1	137	26.12	26.12	26.12	27.0
100	QPSK	1	271	25.99	25.99	25.99	27.0
100	QPSK	135	0	25.07	25.07	25.07	26.0
100	QPSK	135	69	26.08	26.08	26.08	27.0
100	QPSK	135	138	24.96	24.96	24.96	26.0
100	DPSK	270	0	25.94	25.94	25.94	26.0
100	16QAM	1	1	24.89	24.89	24.89	26.0
100	64QAM	1	1	23.47	23.47	23.47	24.5
100	256QAM	1	1	21.69	21.69	21.69	22.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	26.00	26.14	26.02	27.0
Channel							
Frequency (MHz)							
80	QPSK	1	1	25.97	26.10	26.01	27.0
Channel							
Frequency (MHz)							
70	QPSK	1	1	26.09	26.15	26.00	27.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	26.05	26.09	26.03	27.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	26.02	26.04	25.93	27.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	25.99	26.06	25.92	27.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	26.00	26.10	25.95	27.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	25.98	26.16	25.99	27.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	26.10	26.13	25.98	27.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	26.01	26.11	26.02	27.0



Reduced Power Mode for DS12 Standalone

n5 Ant 0							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				163800	167300	167800	
Frequency (MHz)				134	138.5	139	
20	Pi/2 BPSK	1	1	23.18	23.23	23.13	24.0
20	Pi/2 BPSK	1	53	23.04	23.14	23.06	0.0
20	Pi/2 BPSK	1	104	22.98	23.06	22.94	
20	Pi/2 BPSK	50	0	22.65	22.76	22.73	23.5
20	Pi/2 BPSK	50	28	23.08	23.18	23.11	24.0
20	Pi/2 BPSK	50	56	22.59	22.64	22.51	0.0
20	Pi/2 BPSK	100	0	22.86	22.70	22.63	23.5
20	QPSK	1	1	23.23	23.27	23.16	24.0
20	QPSK	1	53	23.11	23.18	23.13	0.0
20	QPSK	1	104	22.96	23.09	22.98	
20	QPSK	50	0	22.14	22.28	22.21	23.0
20	QPSK	50	28	23.15	23.21	23.08	24.0
20	QPSK	50	56	22.14	22.18	22.06	0.0
20	QPSK	100	0	22.17	22.23	22.13	23.0
20	16QAM	1	1	22.39	22.48	22.42	23.0
20	64QAM	1	1	20.73	20.86	20.79	21.5
20	256QAM	1	1	19.89	19.91	19.96	19.5
Channel				163300	167300	168300	
Frequency (MHz)				831.5	836.5	841.5	
15	QPSK	1	1	23.11	23.18	23.08	24.0
Channel				165800	167300	168800	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	1	23.13	23.15	23.02	24.0
Channel				163300	167300	169300	
Frequency (MHz)				828.5	836.5	845.5	
5	QPSK	1	1	23.17	23.23	23.04	24.0

n7 Ant 0							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				504000	507000	510000	
Frequency (MHz)				250	253.5	255	
40	Pi/2 BPSK	1	1	21.80	21.91	21.85	23.0
40	Pi/2 BPSK	1	108	21.74	21.88	21.81	
40	Pi/2 BPSK	1	214	21.74	21.80	21.66	
40	Pi/2 BPSK	108	0	21.38	21.44	21.37	22.5
40	Pi/2 BPSK	108	54	21.79	21.87	21.75	23.0
40	Pi/2 BPSK	108	108	21.38	21.49	21.37	0.0
40	Pi/2 BPSK	216	0	21.39	21.42	21.34	22.5
40	QPSK	1	1	21.92	21.96	21.89	23.0
40	QPSK	1	108	21.78	21.92	21.82	
40	QPSK	1	214	21.74	21.85	21.80	
40	QPSK	108	0	20.87	20.97	20.87	22.0
40	QPSK	108	54	21.86	21.90	21.85	23.0
40	QPSK	108	108	20.80	20.89	20.80	0.0
40	QPSK	216	0	20.81	20.94	20.84	22.0
40	16QAM	1	1	20.73	20.86	20.77	22.0
40	64QAM	1	1	19.27	19.41	19.38	20.5
40	256QAM	1	1	17.30	17.38	17.23	18.5
Channel				503000	507000	511000	
Frequency (MHz)				2515	2535	2555	
30	QPSK	1	1	21.77	21.88	21.80	23.0
Channel				602600	507000	511500	
Frequency (MHz)				2512.5	2535	2557.5	
25	QPSK	1	1	21.81	21.83	21.78	23.0
Channel				502600	507000	512000	
Frequency (MHz)				2510	2535	2550	
20	Pi/2 BPSK	1	1	21.88	21.92	21.79	23.0
Channel				501600	507000	512500	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	1	21.80	21.90	21.75	23.0
Channel				501000	507000	513000	
Frequency (MHz)				2505	2535	2555	
10	QPSK	1	1	21.88	21.84	21.70	23.0
Channel				500600	507000	513500	
Frequency (MHz)				2502.5	2535	2597.5	
5	QPSK	1	1	21.83	21.88	21.70	23.0

n66 Ant 0							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				346000	349000	352000	
Frequency (MHz)				1720	1745	1760	
40	Pi/2 BPSK	1	1	22.14	22.27	22.17	23.0
40	Pi/2 BPSK	1	108	22.07	22.22	22.11	0.0
40	Pi/2 BPSK	1	214	22.08	22.16	22.12	
40	Pi/2 BPSK	108	0	21.88	21.86	21.82	22.5
40	Pi/2 BPSK	108	54	22.02	22.20	22.13	23.0
40	Pi/2 BPSK	108	108	21.69	21.81	21.78	0.0
40	Pi/2 BPSK	216	0	21.74	21.84	21.85	22.5
40	QPSK	1	1	22.23	22.35	22.31	23.0
40	QPSK	1	108	22.04	22.28	22.14	0.0
40	QPSK	1	214	22.02	22.21	22.07	
40	QPSK	108	0	21.13	21.38	21.24	22.0
40	QPSK	108	54	22.15	22.29	22.24	23.0
40	QPSK	108	108	21.24	21.48	21.35	0.0
40	QPSK	216	0	21.28	21.43	21.29	22.0
40	16QAM	1	1	20.96	21.11	21.01	22.0
40	64QAM	1	1	18.87	19.99	19.81	20.5
40	256QAM	1	1	17.59	17.85	17.73	18.5
Channel				345000	349000	353000	
Frequency (MHz)				1725	1745	1765	
30	QPSK	1	1	22.11	22.27	22.20	23.0
Channel				344000	349000	364000	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	1	22.16	22.31	22.24	23.0
Channel				343000	349000	365000	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	1	22.16	22.28	22.24	23.0
Channel				343000	349000	365000	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	1	22.19	22.22	22.17	23.0
Channel				342500	349000	365500	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	1	22.18	22.29	22.21	23.0



### n38 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)								
51600.02 51900 51999.98								
40	PI2 BPSK	1	1	21.64	21.78	21.72		
40	PI2 BPSK	1	53	21.64	21.72	21.66	23.0	0.0
40	PI2 BPSK	1	104	21.44	21.61	21.52		
40	PI2 BPSK	50	0	20.90	21.01	20.98	22.5	0.5
40	PI2 BPSK	50	28	21.50	21.75	21.50	23.0	0.0
40	PI2 BPSK	50	56	20.91	21.03	21.00	22.5	0.5
40	PI2 BPSK	100	0	20.90	21.02	21.01		
40	QPSK	1	1	21.79	21.83	21.82		
40	QPSK	1	53	21.85	21.71	21.61	23.0	0.0
40	QPSK	1	104	21.45	21.70	21.52		
40	QPSK	50	0	20.51	20.73	20.56	22.0	1.0
40	QPSK	50	28	21.62	21.76	21.68	23.0	0.0
40	QPSK	50	56	20.48	20.62	20.54	22.0	1.0
40	QPSK	100	0	20.57	20.62	20.58		
40	16QAM	1	1	20.46	20.68	20.53	22.0	1.0
40	64QAM	1	1	19.09	19.28	19.14	20.5	2.5
40	256QAM	1	1	17.21	17.44	17.34	18.5	4.5
Channel								
Frequency (MHz)								
51700.02 51900 52099.98								
30	QPSK	1	1	21.74	21.76	21.75	23.0	0.0
Channel								
Frequency (MHz)								
51600.04 51900 52149.96								
25	QPSK	1	1	21.70	21.69	21.69	23.0	0.0
Channel								
Frequency (MHz)								
51600.00 51900 52200.00								
20	QPSK	1	1	21.65	21.70	21.79	23.0	0.0
Channel								
Frequency (MHz)								
51500.02 51900 52249.98								
15	QPSK	1	1	21.71	21.73	21.72	23.0	0.0
Channel								
Frequency (MHz)								
51500.04 51900 52299.96								
10	QPSK	1	1	21.65	21.69	21.67	23.0	0.0

### n41 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)								
50920.02 51858 52800.00								
100	PI2 BPSK	1	1	21.70	21.82	21.78		
100	PI2 BPSK	1	137	21.72	21.77	21.68	23.0	0.0
100	PI2 BPSK	1	271	21.60	21.71	21.57		
100	PI2 BPSK	135	0	20.06	20.17	20.08	22.5	0.5
100	PI2 BPSK	135	69	21.67	21.74	21.62	23.0	0.0
100	PI2 BPSK	135	138	20.28	20.33	20.25	22.5	0.5
100	PI2 BPSK	270	0	20.12	20.24	20.17		
100	QPSK	1	1	21.74	21.86	21.81		
100	QPSK	1	137	21.71	21.80	21.73	23.0	0.0
100	QPSK	1	271	21.67	21.73	21.70		
100	QPSK	135	0	20.41	20.47	20.40	22.0	1.0
100	QPSK	135	69	21.69	21.78	21.75	23.0	0.0
100	QPSK	135	138	20.41	20.50	20.41	22.0	1.0
100	QPSK	270	0	20.45	20.56	20.47		
100	16QAM	1	1	20.48	20.54	20.49	22.0	1.0
100	64QAM	1	1	18.81	18.97	18.92	20.5	2.5
100	256QAM	1	1	16.61	16.88	16.68	18.5	4.5
Channel								
Frequency (MHz)								
50820.00 51858 52899.98								
90	QPSK	1	1	21.61	21.69	21.59	23.0	0.0
Channel								
Frequency (MHz)								
50720.04 51858 52999.96								
80	QPSK	1	1	21.59	21.68	21.70	23.0	0.0
Channel								
Frequency (MHz)								
50620.02 51858 53100.00								
70	QPSK	1	1	21.65	21.73	21.60	23.0	0.0
Channel								
Frequency (MHz)								
50520.00 51858 53199.98								
60	QPSK	1	1	21.62	21.65	21.68	23.0	0.0
Channel								
Frequency (MHz)								
50420.04 51858 53299.96								
50	QPSK	1	1	21.61	21.67	21.62	23.0	0.0
Channel								
Frequency (MHz)								
50320.02 51858 53400.00								
40	QPSK	1	1	21.65	21.73	21.65	23.0	0.0
Channel								
Frequency (MHz)								
50220.00 51858 53499.98								
30	QPSK	1	1	21.58	21.66	21.61	23.0	0.0
Channel								
Frequency (MHz)								
50120.04 51858 53599.96								
20	QPSK	1	1	21.57	21.65	21.68	23.0	0.0

### n41 HPUE 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)								
50920.02 51858 52800.00								
100	PI2 BPSK	1	1	24.81	24.88	24.78		
100	PI2 BPSK	1	137	24.72	24.81	24.76	28.0	0.0
100	PI2 BPSK	1	271	24.71	24.75	24.64		
100	PI2 BPSK	135	0	24.37	24.43	24.39	25.5	0.5
100	PI2 BPSK	135	69	24.73	24.80	24.72	26.0	0.0
100	PI2 BPSK	135	138	24.43	24.47	24.38	25.5	0.5
100	PI2 BPSK	270	0	24.45	24.51	24.38		
100	QPSK	1	1	24.84	24.92	24.89		
100	QPSK	1	137	24.72	24.85	24.82	26.0	0.0
100	QPSK	1	271	24.67	24.79	24.66		
100	QPSK	135	0	23.92	24.01	23.88	25.0	1.0
100	QPSK	135	69	24.76	24.86	24.76	26.0	0.0
100	QPSK	135	138	23.98	24.01	23.98	25.0	1.0
100	QPSK	270	0	24.04	24.08	24.01		
100	16QAM	1	1	24.08	24.13	24.10	25.0	1.0
100	64QAM	1	1	22.14	22.28	22.10	23.5	2.5
100	256QAM	1	1	20.21	20.35	20.29	21.5	4.5
Channel								
Frequency (MHz)								
50820.00 51858 52899.98								
90	QPSK	1	1	24.71	24.86	24.81	26.0	0.0
Channel								
Frequency (MHz)								
50720.04 51858 52999.96								
80	QPSK	1	1	24.77	24.85	24.85	26.0	0.0
Channel								
Frequency (MHz)								
50620.02 51858 53100.00								
70	QPSK	1	1	24.73	24.82	24.78	26.0	0.0
Channel								
Frequency (MHz)								
50520.00 51858 53199.98								
60	QPSK	1	1	24.70	24.86	24.80	26.0	0.0
Channel								
Frequency (MHz)								
50420.04 51858 53299.96								
50	QPSK	1	1	24.74	24.83	24.83	26.0	0.0
Channel								
Frequency (MHz)								
50320.02 51858 53400.00								
40	QPSK	1	1	24.73	24.82	24.78	26.0	0.0
Channel								
Frequency (MHz)								
50220.00 51858 53499.98								
30	QPSK	1	1	24.80	24.79	24.76	26.0	0.0
Channel								
Frequency (MHz)								
50120.04 51858 53599.96								
20	QPSK	1	1	24.75	24.85	24.77	26.0	0.0



Part270 n77 Ant 0							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	MPR (dB)
Channel				650000	656000	662000	
Frequency (MHz)				3720	3840	3960	
100	PV2 BPSK	1	1	20.24	20.37	20.26	
100	PV2 BPSK	1	137	20.20	20.33	20.22	21.0
100	PV2 BPSK	1	271	20.15	20.28	20.22	
100	PV2 BPSK	135	0	18.72	18.78	18.74	20.5
100	PV2 BPSK	135	69	20.22	20.31	20.19	21.0
100	PV2 BPSK	135	138	18.83	18.76	18.67	20.5
100	PV2 BPSK	270	0	18.80	18.88	18.80	
100	QPSK	1	1	20.37	20.43	20.31	
100	QPSK	1	137	20.19	20.35	20.25	21.0
100	QPSK	1	271	20.13	20.31	20.20	
100	QPSK	135	0	18.84	18.97	18.83	20.0
100	QPSK	135	69	20.20	20.38	20.27	21.0
100	QPSK	135	138	18.84	18.96	18.81	20.0
100	QPSK	270	0	18.91	19.02	18.88	20.0
100	16QAM	1	1	18.80	18.88	18.80	20.0
100	64QAM	1	1	17.49	17.65	17.53	18.5
100	256QAM	1	1	15.22	15.32	15.26	18.5
Channel				649668	656000	662334	
Frequency (MHz)				3745.02	3840	3935.01	
90	QPSK	1	1	20.26	20.38	20.30	21.0
Channel				649334	656000	662668	
Frequency (MHz)				3740.01	3840	3940.02	
80	QPSK	1	1	20.19	20.29	20.31	21.0
Channel				649000	656000	663000	
Frequency (MHz)				3735	3840	3945	
70	QPSK	1	1	20.23	20.39	20.32	21.0
Channel				648668	656000	663334	
Frequency (MHz)				3730.02	3840	3950.01	
60	QPSK	1	1	20.19	20.28	20.30	21.0
Channel				648334	656000	663668	
Frequency (MHz)				3725.01	3840	3955.02	
50	QPSK	1	1	20.28	20.37	20.25	21.0
Channel				648000	656000	664000	
Frequency (MHz)				3720	3840	3960	
40	QPSK	1	1	20.24	20.30	20.31	21.0
Channel				647668	656000	664334	
Frequency (MHz)				3715.02	3840	3965.01	
30	QPSK	1	1	20.20	20.28	20.28	21.0
Channel				647334	656000	664668	
Frequency (MHz)				3710.01	3840	3970.02	
20	QPSK	1	1	20.22	20.28	20.24	21.0
Channel				647168	656000	664834	
Frequency (MHz)				3707.52	3840	3972.51	
15	QPSK	1	1	20.19	20.38	20.30	21.0
Channel				647000	656000	665000	
Frequency (MHz)				3705	3840	3975	
10	QPSK	1	1	20.28	20.34	20.28	21.0

Part270 n77 HPUE Ant 0							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	MPR (dB)
Channel				650000	656000	662000	
Frequency (MHz)				3720	3840	3960	
100	PV2 BPSK	1	1	23.33	23.39	23.29	
100	PV2 BPSK	1	137	23.23	23.33	23.26	24.0
100	PV2 BPSK	1	271	23.14	23.27	23.23	
100	PV2 BPSK	135	0	22.79	22.88	22.84	23.5
100	PV2 BPSK	135	69	23.28	23.34	23.20	24.0
100	PV2 BPSK	135	138	22.86	22.90	22.79	23.5
100	PV2 BPSK	270	0	22.88	22.94	22.82	
100	QPSK	1	1	23.38	23.42	23.32	
100	QPSK	1	137	23.28	23.35	23.26	24.0
100	QPSK	1	271	23.21	23.31	23.22	
100	QPSK	135	0	22.21	22.34	22.28	23.0
100	QPSK	135	69	23.22	23.36	23.28	24.0
100	QPSK	135	138	22.34	22.39	22.34	23.0
100	QPSK	270	0	22.32	22.45	22.39	23.0
100	16QAM	1	1	22.46	22.57	22.51	23.0
100	64QAM	1	1	20.74	20.88	20.77	21.5
100	256QAM	1	1	18.58	18.67	18.63	19.5
Channel				649668	656000	662334	
Frequency (MHz)				3745.02	3840	3935.01	
90	QPSK	1	1	23.28	23.35	23.24	24.0
Channel				649334	656000	662668	
Frequency (MHz)				3740.01	3840	3940.02	
80	QPSK	1	1	23.31	23.34	23.27	24.0
Channel				649000	656000	663000	
Frequency (MHz)				3735	3840	3945	
70	QPSK	1	1	23.29	23.37	23.29	24.0
Channel				648668	656000	663334	
Frequency (MHz)				3730.02	3840	3950.01	
60	QPSK	1	1	23.26	23.38	23.18	24.0
Channel				648334	656000	663668	
Frequency (MHz)				3725.01	3840	3955.02	
50	QPSK	1	1	23.25	23.28	23.27	24.0
Channel				648000	656000	664000	
Frequency (MHz)				3720	3840	3960	
40	QPSK	1	1	23.29	23.30	23.18	24.0
Channel				647668	656000	664334	
Frequency (MHz)				3715.02	3840	3965.01	
30	QPSK	1	1	23.24	23.36	23.19	24.0
Channel				647334	656000	664668	
Frequency (MHz)				3710.01	3840	3970.02	
20	QPSK	1	1	23.31	23.28	23.26	24.0
Channel				647168	656000	664834	
Frequency (MHz)				3707.52	3840	3972.51	
15	QPSK	1	1	23.31	23.32	23.21	24.0
Channel				647000	656000	665000	
Frequency (MHz)				3705	3840	3975	
10	QPSK	1	1	23.26	23.29	23.25	24.0



Part270 n78 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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PV2 BPSK	1	1	20.31	20.31	20.31	21.0	0.0
100	PV2 BPSK	1	137	20.27	20.27	20.27	21.0	0.0
100	PV2 BPSK	1	271	20.22	20.22	20.22	21.0	0.0
100	PV2 BPSK	135	0	19.13	19.13	19.13	20.5	0.5
100	PV2 BPSK	135	69	20.25	20.25	20.25	21.0	0.0
100	PV2 BPSK	135	138	19.01	19.01	19.01	20.5	0.5
100	PV2 BPSK	270	0	19.07	19.07	19.07	20.5	0.5
100	QPSK	1	1	20.36	20.36	20.36	21.0	0.0
100	QPSK	1	137	20.36	20.36	20.36	21.0	0.0
100	QPSK	1	271	20.17	20.17	20.17	21.0	0.0
100	QPSK	135	0	18.82	18.82	18.82	20.0	1.0
100	QPSK	135	69	20.29	20.29	20.29	21.0	0.0
100	QPSK	135	138	18.67	18.67	18.67	20.0	1.0
100	QPSK	270	0	18.72	18.72	18.72	20.0	1.0
100	16QAM	1	1	18.84	18.84	18.84	20.0	1.0
100	64QAM	1	1	17.56	17.56	17.56	18.5	2.5
100	256QAM	1	1	15.33	15.33	15.33	16.5	4.5
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	20.19	20.24	20.14	21.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	20.23	20.26	20.11	21.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	20.15	20.28	20.18	21.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	20.19	20.25	20.13	21.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	20.24	20.27	20.13	21.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	20.20	20.26	20.19	21.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	20.27	20.30	20.08	21.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	20.25	20.34	20.06	21.0	0.0
Channel				647168	650000	653034	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3750	3792.51		
15	QPSK	1	1	20.22	20.27	20.19	21.0	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	20.16	20.23	20.20	21.0	0.0

Part270 n78 HPUE 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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PV2 BPSK	1	1	23.17	23.17	23.17	24.0	0.0
100	PV2 BPSK	1	137	23.08	23.08	23.08	24.0	0.0
100	PV2 BPSK	1	271	23.02	23.02	23.02	24.0	0.0
100	PV2 BPSK	135	0	22.52	22.52	22.52	23.5	0.5
100	PV2 BPSK	135	69	23.09	23.09	23.09	24.0	0.0
100	PV2 BPSK	135	138	22.48	22.48	22.48	23.5	0.5
100	PV2 BPSK	270	0	22.53	22.53	22.53	23.5	0.5
100	QPSK	1	1	23.21	23.21	23.21	24.0	0.0
100	QPSK	1	137	23.11	23.11	23.11	24.0	0.0
100	QPSK	1	271	23.04	23.04	23.04	24.0	0.0
100	QPSK	135	0	22.01	22.01	22.01	23.0	1.0
100	QPSK	135	69	23.14	23.14	23.14	24.0	0.0
100	QPSK	135	138	21.85	21.85	21.85	23.0	1.0
100	QPSK	270	0	22.02	22.02	22.02	23.0	1.0
100	16QAM	1	1	22.03	22.03	22.03	23.0	1.0
100	64QAM	1	1	20.85	20.85	20.85	21.5	2.5
100	256QAM	1	1	18.88	18.88	18.88	19.5	4.5
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	23.11	23.15	23.05	24.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	23.09	23.18	23.02	24.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	23.13	23.19	22.97	24.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	23.12	23.08	22.98	24.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	23.05	23.08	22.94	24.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	23.12	23.08	23.04	24.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	23.11	23.17	23.03	24.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	23.09	23.14	23.01	24.0	0.0
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3750	3792.51		
15	QPSK	1	1	23.11	23.18	23.00	24.0	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	23.09	23.16	22.94	24.0	0.0











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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				650000	650000	650000			
Frequency (MHz)				3750	3750	3750			
100	PI/2 BPSK	1	1		23.05				
100	PI/2 BPSK	1	137		22.99		24.0	0.0	
100	PI/2 BPSK	1	271		22.92				
100	PI/2 BPSK	135	0		21.54		23.5	0.5	
100	PI/2 BPSK	135	69		22.97		24.0	0.0	
100	PI/2 BPSK	135	138		21.56		23.5	0.5	
100	PI/2 BPSK	270	0		21.80				
100	QPSK	1	1		23.13				
100	QPSK	1	137		23.02		24.0	0.0	
100	QPSK	1	271		22.95				
100	QPSK	135	0		21.54		23.0	1.0	
100	QPSK	135	69		23.07		24.0	0.0	
100	QPSK	135	138		21.48		23.0	1.0	
100	QPSK	270	0		21.53				
100	16QAM	1	1		21.89		23.0	1.0	
100	64QAM	1	1		19.94		21.5	2.5	
100	256QAM	1	1		18.07		19.5	4.5	
Channel				649668	650000	650334			
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1		23.01	23.03	22.94	24.0	0.0
Channel				649334	650000	650668			
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1		22.94	23.00	22.94	24.0	0.0
Channel				649000	650000	651000			
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1		22.94	23.09	22.93	24.0	0.0
Channel				648668	650000	651334			
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1		22.94	23.01	22.87	24.0	0.0
Channel				648334	650000	651668			
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1		23.02	23.05	22.94	24.0	0.0
Channel				648000	650000	652000			
Frequency (MHz)				3720	3750	3780			
40	QPSK	1	1		23.00	23.02	22.88	24.0	0.0
Channel				647668	650000	652334			
Frequency (MHz)				3715.02	3750	3785.01			
30	QPSK	1	1		22.96	22.98	22.89	24.0	0.0
Channel				647334	650000	652668			
Frequency (MHz)				3710.01	3750	3790.02			
20	QPSK	1	1		23.00	23.04	22.87	24.0	0.0
Channel				647000	650000	653000			
Frequency (MHz)				3707.52	3750	3792.51			
15	QPSK	1	1		23.00	23.08	22.93	24.0	0.0
Channel				647000	650000	653000			
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1		22.98	23.07	22.87	24.0	0.0

Part270 n78 HPUE 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				650000	650000	650000			
Frequency (MHz)				3750	3750	3750			
100	PI/2 BPSK	1	1		26.38				
100	PI/2 BPSK	1	137		26.06		27.0	0.0	
100	PI/2 BPSK	1	271		25.99				
100	PI/2 BPSK	135	0		25.50		26.5	0.5	
100	PI/2 BPSK	135	69		26.00		27.0	0.0	
100	PI/2 BPSK	135	138		25.39		26.5	0.5	
100	PI/2 BPSK	270	0		25.46				
100	QPSK	1	1		26.15				
100	QPSK	1	137		26.08		27.0	0.0	
100	QPSK	1	271		26.02				
100	QPSK	135	0		25.00		26.0	1.0	
100	QPSK	135	69		26.09		27.0	0.0	
100	QPSK	135	138		24.85		26.0	1.0	
100	QPSK	270	0		24.99				
100	16QAM	1	1		25.29		26.0	1.0	
100	64QAM	1	1		23.83		24.5	2.5	
100	256QAM	1	1		21.76		23.5	4.5	
Channel				649668	650000	650334			
Frequency (MHz)				3745.02	3750	3755.01			
90	QPSK	1	1		25.95	26.11	25.96	27.0	0.0
Channel				649334	650000	650668			
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1		25.94	26.05	25.94	27.0	0.0
Channel				649000	650000	651000			
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1		26.02	26.00	25.98	27.0	0.0
Channel				648668	650000	651334			
Frequency (MHz)				3730.02	3750	3770.01			
60	QPSK	1	1		25.93	26.10	25.94	27.0	0.0
Channel				648334	650000	651668			
Frequency (MHz)				3725.01	3750	3775.02			
50	QPSK	1	1		25.96	26.04	25.96	27.0	0.0
Channel				648000	650000	652000			
Frequency (MHz)				3720	3750	3780			
40	QPSK	1	1		26.01	26.05	25.89	27.0	0.0
Channel				647668	650000	652334			
Frequency (MHz)				3715.02	3750	3785.01			
30	QPSK	1	1		25.94	26.01	25.97	27.0	0.0
Channel				647334	650000	652668			
Frequency (MHz)				3710.01	3750	3790.02			
20	QPSK	1	1		26.98	26.03	26.93	27.0	0.0
Channel				647166	650000	652834			
Frequency (MHz)				3707.52	3750	3792.51			
15	QPSK	1	1		25.94	26.07	25.98	27.0	0.0
Channel				647000	650000	653000			
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1		25.97	26.10	25.93	27.0	0.0



n7 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				504000	507000	510000		
Frequency (MHz)				2520	2535	2550		
40	PV2 BPSK	1	1	13.72	13.77	13.83		
40	PV2 BPSK	1	108	13.82	13.70	13.80	15.2	0.0
40	PV2 BPSK	1	214	13.49	13.64	13.59		
40	PV2 BPSK	108	0	13.57	13.67	13.83	15.2	0.0
40	PV2 BPSK	108	54	13.65	13.73	13.68	15.2	0.0
40	PV2 BPSK	108	108	13.52	13.82	13.49		
40	PV2 BPSK	216	0	13.58	13.68	13.54	15.2	0.0
40	QPSK	1	1	13.88	13.91	13.74		
40	QPSK	1	108	13.55	13.74	13.87	15.2	0.0
40	QPSK	1	214	13.64	13.68	13.63		
40	QPSK	108	0	13.80	13.71	13.66	15.2	0.0
40	QPSK	108	54	13.82	13.75	13.89	15.2	0.0
40	QPSK	108	108	13.57	13.62	13.52		
40	QPSK	216	0	13.54	13.68	13.60	15.2	0.0
40	16QAM	1	1	13.53	13.64	13.55	15.2	0.0
40	64QAM	1	1	13.49	13.80	13.57	15.2	0.0
40	256QAM	1	1	13.46	13.57	13.43	15.2	0.0
Channel				503000	507000	510000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	13.54	13.77	13.89	15.2	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.5	2535	2557.5		
25	QPSK	1	1	13.61	13.74	13.65	15.2	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2550		
20	PV2 BPSK	1	1	13.85	13.89	13.87	15.2	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	13.53	13.87	13.71	15.2	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	13.57	13.73	13.85	15.2	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	13.58	13.76	13.89	15.2	0.0

n66 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				346000	349000	352000		
Frequency (MHz)				1730	1745	1760		
40	PV2 BPSK	1	1	21.93	22.00	21.89		
40	PV2 BPSK	1	108	21.82	21.89	21.84	23.2	0.0
40	PV2 BPSK	1	214	21.72	21.81	21.69		
40	PV2 BPSK	108	0	21.88	21.92	21.77	23.2	0.0
40	PV2 BPSK	108	54	21.84	21.98	21.89	23.2	0.0
40	PV2 BPSK	108	108	21.74	21.83	21.76		
40	PV2 BPSK	216	0	21.75	21.88	21.84	23.2	0.0
40	QPSK	1	1	21.90	22.04	21.98		
40	QPSK	1	108	21.83	21.98	21.92	23.2	0.0
40	QPSK	1	214	21.85	21.94	21.85		
40	QPSK	108	0	21.73	21.88	21.80	23.0	0.2
40	QPSK	108	54	21.92	21.97	21.89	23.2	0.0
40	QPSK	108	108	21.73	21.81	21.77		
40	QPSK	216	0	21.77	21.86	21.82	23.0	0.2
40	16QAM	1	1	21.84	21.79	21.74	23.0	0.2
40	64QAM	1	1	20.82	20.95	20.90	21.5	1.7
40	256QAM	1	1	19.96	19.99	19.93	19.5	3.7
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	21.80	21.93	21.93	23.2	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	21.75	21.92	21.89	23.2	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	21.86	22.00	21.87	23.2	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	21.83	21.90	21.83	23.2	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	21.77	21.89	21.88	23.2	0.0





Part270 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				650000	650000	662000		
Frequency (MHz)				3750	3840	3930		
100	PV2 BPSK	1	1	15.95	15.10	14.98		
100	PV2 BPSK	1	137	14.95	15.06	15.04	15.9	0.0
100	PV2 BPSK	1	271	14.97	15.06	14.89		
100	PV2 BPSK	135	0	14.89	14.91	14.91	15.9	0.0
100	PV2 BPSK	135	69	14.93	14.93	14.91	15.9	0.0
100	PV2 BPSK	135	138	14.88	15.07	14.87		
100	PV2 BPSK	270	0	15.10	15.13	15.01	15.9	0.0
100	QPSK	1	1	15.04	15.16	15.08		
100	QPSK	1	137	15.01	15.06	14.87	15.9	0.0
100	QPSK	1	271	14.89	15.00	15.00		
100	QPSK	135	0	14.78	14.92	14.80	15.9	0.0
100	QPSK	135	69	14.99	15.08	14.95	15.9	0.0
100	QPSK	135	138	14.93	14.92	14.80		
100	QPSK	270	0	14.99	15.03	14.94	15.9	0.0
100	16QAM	1	1	15.04	15.13	14.95	15.9	0.0
100	64QAM	1	1	14.98	15.02	14.89	15.9	0.0
100	256QAM	1	1	14.74	14.99	14.82	15.9	0.0
Channel				649668	650000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3840	3935.01		
90	QPSK	1	1	14.94	15.05	15.03	15.9	0.0
Channel				649334	650000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	14.98	15.10	14.98	15.9	0.0
Channel				649000	650000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	14.99	15.11	15.05	15.9	0.0
Channel				648668	650000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	14.98	15.06	14.94	15.9	0.0
Channel				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3840	3955.02		
50	QPSK	1	1	15.01	15.02	15.00	15.9	0.0
Channel				648000	650000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	15.00	15.09	15.02	15.9	0.0
Channel				647668	650000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	14.93	15.06	14.98	15.9	0.0
Channel				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	14.90	15.08	15.04	15.9	0.0
Channel				647168	650000	664834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	14.95	15.01	14.97	15.9	0.0
Channel				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	14.91	15.05	15.03	15.9	0.0

Part270 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				650000	650000	662000		
Frequency (MHz)				3750	3840	3930		
100	PV2 BPSK	1	1	17.51	17.61	17.48		
100	PV2 BPSK	1	137	17.50	17.54	17.50	18.9	0.0
100	PV2 BPSK	1	271	17.50	17.62	17.45		
100	PV2 BPSK	135	0	17.44	17.45	17.47	18.9	0.0
100	PV2 BPSK	135	69	17.38	17.48	17.39	18.9	0.0
100	PV2 BPSK	135	138	17.36	17.60	17.39		
100	PV2 BPSK	270	0	17.56	17.66	17.56	18.9	0.0
100	QPSK	1	1	17.50	17.72	17.58		
100	QPSK	1	137	17.55	17.53	17.41	18.9	0.0
100	QPSK	1	271	17.40	17.56	17.45		
100	QPSK	135	0	17.33	17.48	17.30	18.9	0.0
100	QPSK	135	69	17.44	17.61	17.46	18.9	0.0
100	QPSK	135	138	17.36	17.43	17.27		
100	QPSK	270	0	17.42	17.50	17.48	18.9	0.0
100	16QAM	1	1	17.53	17.62	17.47	18.9	0.0
100	64QAM	1	1	17.43	17.49	17.40	18.9	0.0
100	256QAM	1	1	17.23	17.45	17.32	18.9	0.0
Channel				648668	650000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3840	3935.01		
90	QPSK	1	1	17.44	17.59	17.47	18.9	0.0
Channel				648334	650000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	17.38	17.61	17.42	18.9	0.0
Channel				648000	650000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	17.37	17.59	17.45	18.9	0.0
Channel				647668	650000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	17.45	17.57	17.44	18.9	0.0
Channel				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3840	3955.02		
50	QPSK	1	1	17.43	17.60	17.40	18.9	0.0
Channel				648000	650000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	17.44	17.67	17.51	18.9	0.0
Channel				647668	650000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	1	17.34	17.63	17.52	18.9	0.0
Channel				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	17.36	17.57	17.48	18.9	0.0
Channel				647168	650000	664834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	17.36	17.64	17.49	18.9	0.0
Channel				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	17.44	17.64	17.45	18.9	0.0



Part270 n78 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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI2 BPSK	1	1		14.97		15.9	0.0
100	PI2 BPSK	1	137		14.93			
100	PI2 BPSK	1	271		14.92			
100	PI2 BPSK	135	0		14.88		15.9	0.0
100	PI2 BPSK	135	69		14.98		15.9	0.0
100	PI2 BPSK	135	138		14.97		15.9	0.0
100	PI2 BPSK	270	0		15.05		15.9	0.0
100	QPSK	1	1		15.09		15.9	0.0
100	QPSK	1	137		15.02			
100	QPSK	1	271		14.88			
100	QPSK	135	0		14.90		15.9	0.0
100	QPSK	135	69		15.03		15.9	0.0
100	QPSK	135	138		14.80		15.9	0.0
100	QPSK	270	0		14.88		15.9	0.0
100	16QAM	1	1		14.98		15.9	0.0
100	64QAM	1	1		14.94		15.9	0.0
100	256QAM	1	1		14.97		15.9	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	14.91	14.97	14.94	15.9	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	14.89	14.99	14.96	15.9	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	14.88	14.91	14.98	15.9	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	14.85	14.94	14.98	15.9	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	14.88	15.01	14.96	15.9	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	14.80	14.94	14.90	15.9	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	14.83	14.98	14.96	15.9	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	14.80	14.93	14.96	15.9	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.62	3750	3792.61		
15	QPSK	1	1	14.81	14.92	14.97	15.9	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	14.91	14.98	14.90	15.9	0.0

Part270 n78 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				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI2 BPSK	1	1		17.53		18.9	0.0
100	PI2 BPSK	1	137		17.50			
100	PI2 BPSK	1	271		17.45			
100	PI2 BPSK	135	0		17.46		18.9	0.0
100	PI2 BPSK	135	69		17.48		18.9	0.0
100	PI2 BPSK	135	138		17.83		18.9	0.0
100	PI2 BPSK	270	0		17.61		18.9	0.0
100	QPSK	1	1		17.89		18.9	0.0
100	QPSK	1	137		17.82			
100	QPSK	1	271		17.55			
100	QPSK	135	0		17.48		18.9	0.0
100	QPSK	135	69		17.65		18.9	0.0
100	QPSK	135	138		17.41		18.9	0.0
100	QPSK	270	0		17.50		18.9	0.0
100	16QAM	1	1		17.59		18.9	0.0
100	64QAM	1	1		17.62		18.9	0.0
100	256QAM	1	1		17.48		18.9	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	17.37	17.62	17.46	18.9	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	17.42	17.60	17.47	18.9	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	17.43	17.63	17.46	18.9	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	17.37	17.65	17.40	18.9	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	17.35	17.62	17.51	18.9	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	17.35	17.62	17.40	18.9	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	17.39	17.58	17.44	18.9	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	17.40	17.58	17.51	18.9	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.62	3750	3792.61		
15	QPSK	1	1	17.42	17.58	17.52	18.9	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	17.43	17.64	17.45	18.9	0.0





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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				504000	507000	510000			
Frequency (MHz)				2520	2535	2550			
40	PV2 BPSK	1	1	16.71	16.76	16.80			
40	PV2 BPSK	1	108	16.82	16.87	16.90	17.8	0.0	
40	PV2 BPSK	1	214	16.93	16.98	16.51			
40	PV2 BPSK	108	0	16.47	16.60	16.53	17.8	0.0	
40	PV2 BPSK	108	54	16.53	16.65	16.52	17.8	0.0	
40	PV2 BPSK	108	108	16.49	16.82	16.48			
40	PV2 BPSK	216	0	16.63	16.66	16.61	17.8	0.0	
40	QPSK	1	1	16.68	16.84	16.77			
40	QPSK	1	108	16.58	16.66	16.43	17.8	0.0	
40	QPSK	1	214	16.52	16.56	16.52			
40	QPSK	108	0	16.43	16.55	16.40	17.8	0.0	
40	QPSK	108	54	16.62	16.64	16.62	17.8	0.0	
40	QPSK	108	108	16.49	16.54	16.45			
40	QPSK	216	0	16.52	16.68	16.54	17.8	0.0	
40	16QAM	1	1	16.64	16.67	16.59	17.8	0.0	
40	64QAM	1	1	16.54	16.64	16.60	17.8	0.0	
40	256QAM	1	1	16.45	16.55	16.39	17.8	0.0	
Channel				503000	507000	510000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2515	2535	2555			
30	QPSK	1	1	16.65	16.77	16.70	17.8	0.0	
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2512.5	2535	2557.5			
25	QPSK	1	1	16.62	16.74	16.64	17.8	0.0	
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2510	2535	2550			
20	PV2 BPSK	1	1	16.56	16.70	16.62	17.8	0.0	
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	1	16.64	16.79	16.64	17.8	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	1	16.54	16.71	16.74	17.8	0.0	
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2597.5			
5	QPSK	1	1	16.64	16.75	16.65	17.8	0.0	

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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				346000	349000	352000			
Frequency (MHz)				1730	1745	1760			
40	PV2 BPSK	1	1	16.51	16.52	16.38			
40	PV2 BPSK	1	108	16.42	16.47	16.42	19.5	0.0	
40	PV2 BPSK	1	214	16.28	16.42	16.35			
40	PV2 BPSK	108	0	16.22	16.36	16.36	19.5	0.0	
40	PV2 BPSK	108	54	16.34	16.42	16.29	19.5	0.0	
40	PV2 BPSK	108	108	16.25	16.42	16.35			
40	PV2 BPSK	216	0	16.39	16.50	16.37	19.5	0.0	
40	QPSK	1	1	16.51	16.62	16.54			
40	QPSK	1	108	16.44	16.43	16.29	19.5	0.0	
40	QPSK	1	214	16.32	16.32	16.38			
40	QPSK	108	0	16.21	16.34	16.27	19.5	0.0	
40	QPSK	108	54	16.47	16.50	16.49	19.5	0.0	
40	QPSK	108	108	16.30	16.37	16.26			
40	QPSK	216	0	16.32	16.46	16.40	19.5	0.0	
40	16QAM	1	1	16.50	16.51	16.39	19.5	0.0	
40	64QAM	1	1	16.31	16.44	16.45	19.5	0.0	
40	256QAM	1	1	16.29	16.40	16.24	19.5	0.0	
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1725	1745	1765			
30	QPSK	1	1	16.44	16.58	16.49	19.5	0.0	
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	1	16.41	16.54	16.49	19.5	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	16.47	16.55	16.47	19.5	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	16.48	16.47	16.46	19.5	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	16.44	16.57	16.43	19.5	0.0	





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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				650000	650000	662000		
Frequency (MHz)								
100	PI2 BPSK	1	1	14.16	14.20	14.10		
100	PI2 BPSK	1	137	14.07	14.12	14.00	15.1	0.0
100	PI2 BPSK	1	271	14.09	14.16	14.05		
100	PI2 BPSK	135	0	13.98	14.08	14.00	15.1	0.0
100	PI2 BPSK	135	69	14.10	14.20	14.06	15.1	0.0
100	PI2 BPSK	135	138	13.84	14.07	13.98		
100	PI2 BPSK	270	0	14.02	14.11	13.98	15.1	0.0
100	QPSK	1	1	14.16	14.26	14.20		
100	QPSK	1	137	14.13	14.22	14.15	15.1	0.0
100	QPSK	1	271	14.05	14.12	14.08		
100	QPSK	135	0	14.10	14.18	14.14	15.1	0.0
100	QPSK	135	69	14.11	14.20	14.17	15.1	0.0
100	QPSK	135	138	14.07	14.10	14.05		
100	QPSK	270	0	14.05	14.13	14.07	15.1	0.0
100	16QAM	1	1	14.18	14.21	14.11	15.1	0.0
100	64QAM	1	1	14.08	14.17	14.04	15.1	0.0
100	256QAM	1	1	13.98	14.07	14.00	15.1	0.0
Channel				649868	650000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
90	QPSK	1	1	14.02	14.13	14.08	15.1	0.0
Channel				649334	650000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
80	QPSK	1	1	14.12	14.12	14.11	15.1	0.0
Channel				649000	650000	663000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
70	QPSK	1	1	14.04	14.15	14.12	15.1	0.0
Channel				649688	650000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
60	QPSK	1	1	14.06	14.19	14.13	15.1	0.0
Channel				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
50	QPSK	1	1	14.12	14.16	14.10	15.1	0.0
Channel				648000	650000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
40	QPSK	1	1	14.03	14.21	14.15	15.1	0.0
Channel				647668	650000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
30	QPSK	1	1	14.11	14.17	14.15	15.1	0.0
Channel				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
20	QPSK	1	1	14.07	14.20	14.07	15.1	0.0
Channel				647168	650000	664834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	14.09	14.10	14.11	15.1	0.0
Channel				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	14.05	14.14	14.08	15.1	0.0

Part270 n77 HPUE Ant 3								
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				650000	650000	662000		
Frequency (MHz)								
100	PI2 BPSK	1	1	17.22	17.34	17.21		
100	PI2 BPSK	1	137	17.16	17.18	17.14	18.1	0.0
100	PI2 BPSK	1	271	17.20	17.32	17.15		
100	PI2 BPSK	135	0	17.11	17.15	17.09	18.1	0.0
100	PI2 BPSK	135	69	17.26	17.36	17.15	18.1	0.0
100	PI2 BPSK	135	138	17.06	17.18	17.08		
100	PI2 BPSK	270	0	17.16	17.28	17.10	18.1	0.0
100	QPSK	1	1	17.23	17.41	17.33		
100	QPSK	1	137	17.29	17.36	17.26	18.1	0.0
100	QPSK	1	271	17.13	17.20	17.19		
100	QPSK	135	0	17.18	17.27	17.22	18.1	0.0
100	QPSK	135	69	17.27	17.35	17.25	18.1	0.0
100	QPSK	135	138	17.21	17.23	17.17		
100	QPSK	270	0	17.19	17.26	17.20	18.1	0.0
100	16QAM	1	1	17.29	17.30	17.28	18.1	0.0
100	64QAM	1	1	17.14	17.31	17.14	18.1	0.0
100	256QAM	1	1	17.02	17.15	17.11	18.1	0.0
Channel				649688	650000	665334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
90	QPSK	1	1	17.11	17.32	17.21	18.1	0.0
Channel				649334	650000	665668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
80	QPSK	1	1	17.16	17.37	17.25	18.1	0.0
Channel				649000	650000	666000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
70	QPSK	1	1	17.18	17.30	17.24	18.1	0.0
Channel				648688	650000	666334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
60	QPSK	1	1	17.15	17.37	17.24	18.1	0.0
Channel				648334	650000	666668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
50	QPSK	1	1	17.17	17.32	17.19	18.1	0.0
Channel				648000	650000	667000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
40	QPSK	1	1	17.18	17.30	17.20	18.1	0.0
Channel				647688	650000	667334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
30	QPSK	1	1	17.10	17.30	17.24	18.1	0.0
Channel				647334	650000	667668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
20	QPSK	1	1	17.08	17.31	17.27	18.1	0.0
Channel				647168	650000	668334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	17.16	17.32	17.28	18.1	0.0
Channel				647000	650000	669000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	17.19	17.28	17.24	18.1	0.0



### Part270 n78 Ant 3

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)				650000	650000	650000		
Channel				3750	3750	3750		
100	PI2 BPSK	1	1	14.06	13.98		15.1	0.0
100	PI2 BPSK	1	137	13.98				
100	PI2 BPSK	1	271	13.99				
100	PI2 BPSK	135	0	13.85			15.1	0.0
100	PI2 BPSK	135	69	13.93			15.1	0.0
100	PI2 BPSK	135	138	13.88			15.1	0.0
100	PI2 BPSK	270	0	13.98			15.1	0.0
100	QPSK	1	1	14.11	14.06		15.1	0.0
100	QPSK	1	137	13.84				
100	QPSK	1	271	13.84				
100	QPSK	135	0	13.92			15.1	0.0
100	QPSK	135	69	13.98			15.1	0.0
100	QPSK	135	138	13.92			15.1	0.0
100	QPSK	270	0	14.02			15.1	0.0
100	16QAM	1	1	13.94			15.1	0.0
100	64QAM	1	1	13.89			15.1	0.0
100	256QAM	1	1	13.94			15.1	0.0
Channel								
Frequency (MHz)				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Channel				3745.02	3750	3755.01		
90	QPSK	1	1	13.93	14.06	14.02	15.1	0.0
Channel								
Frequency (MHz)				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Channel				3740.01	3750	3760.02		
80	QPSK	1	1	13.99	14.04	13.99	15.1	0.0
Channel								
Frequency (MHz)				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Channel				3735	3750	3765		
70	QPSK	1	1	13.94	14.05	14.02	15.1	0.0
Channel								
Frequency (MHz)				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Channel				3730.02	3750	3770.01		
60	QPSK	1	1	13.91	14.09	13.96	15.1	0.0
Channel								
Frequency (MHz)				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Channel				3725.01	3750	3775.02		
50	QPSK	1	1	13.95	14.06	14.03	15.1	0.0
Channel								
Frequency (MHz)				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Channel				3720	3750	3780		
40	QPSK	1	1	13.96	14.07	13.96	15.1	0.0
Channel								
Frequency (MHz)				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Channel				3715.02	3750	3785.01		
30	QPSK	1	1	13.96	14.05	14.02	15.1	0.0
Channel								
Frequency (MHz)				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Channel				3710.01	3750	3790.02		
20	QPSK	1	1	13.92	14.00	14.02	15.1	0.0
Channel								
Frequency (MHz)				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Channel				3707.52	3750	3792.51		
15	QPSK	1	1	13.93	14.02	14.05	15.1	0.0
Channel								
Frequency (MHz)				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Channel				3705	3750	3795		
10	QPSK	1	1	13.88	14.05	13.86	15.1	0.0

### Part270 n78 HPUE Ant 3

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)				650000	650000	650000		
Channel				3750	3750	3750		
100	PI2 BPSK	1	1	17.27			18.1	0.0
100	PI2 BPSK	1	137	17.20				
100	PI2 BPSK	1	271	17.13				
100	PI2 BPSK	135	0	17.13			18.1	0.0
100	PI2 BPSK	135	69	17.13			18.1	0.0
100	PI2 BPSK	135	138	17.10			18.1	0.0
100	PI2 BPSK	270	0	17.13			18.1	0.0
100	QPSK	1	1	17.29				
100	QPSK	1	137	17.26			18.1	0.0
100	QPSK	1	271	17.09				
100	QPSK	135	0	17.06			18.1	0.0
100	QPSK	135	69	17.20			18.1	0.0
100	QPSK	135	138	17.18			18.1	0.0
100	QPSK	270	0	17.20			18.1	0.0
100	16QAM	1	1	17.22			18.1	0.0
100	64QAM	1	1	17.07			18.1	0.0
100	256QAM	1	1	17.10			18.1	0.0
Channel								
Frequency (MHz)				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Channel				3745.02	3750	3755.01		
90	QPSK	1	1	16.98	17.24	17.12	18.1	0.0
Channel								
Frequency (MHz)				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Channel				3740.01	3750	3760.02		
80	QPSK	1	1	17.07	17.18	17.12	18.1	0.0
Channel								
Frequency (MHz)				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Channel				3735	3750	3765		
70	QPSK	1	1	17.05	17.22	17.07	18.1	0.0
Channel								
Frequency (MHz)				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Channel				3730.02	3750	3770.01		
60	QPSK	1	1	16.96	17.27	17.10	18.1	0.0
Channel								
Frequency (MHz)				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Channel				3725.01	3750	3775.02		
50	QPSK	1	1	17.00	17.25	17.15	18.1	0.0
Channel								
Frequency (MHz)				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Channel				3720	3750	3780		
40	QPSK	1	1	16.98	17.24	17.07	18.1	0.0
Channel								
Frequency (MHz)				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Channel				3715.02	3750	3785.01		
30	QPSK	1	1	17.07	17.21	17.08	18.1	0.0
Channel								
Frequency (MHz)				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Channel				3710.01	3750	3790.02		
20	QPSK	1	1	17.03	17.18	17.11	18.1	0.0
Channel								
Frequency (MHz)				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Channel				3707.52	3750	3792.51		
15	QPSK	1	1	17.03	17.28	17.07	18.1	0.0
Channel								
Frequency (MHz)				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Channel				3705	3750	3795		
10	QPSK	1	1	17.04	17.20	17.09	18.1	0.0











**n5 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)				165500	167300	167600		
20	PI2 BPSK	1	1	21.69	21.83	21.79	23.0	0.0
20	PI2 BPSK	1	53	21.73	21.78	21.67		
20	PI2 BPSK	1	164	21.81	21.70	21.86		
20	PI2 BPSK	50	0	21.34	21.41	21.34		
20	PI2 BPSK	50	28	21.67	21.79	21.75	23.0	0.0
20	PI2 BPSK	50	58	21.24	21.34	21.20	23.0	0.5
20	PI2 BPSK	100	0	21.35	21.40	21.28		
20	QPSK	1	1	21.83	21.89	21.76	23.0	0.0
20	QPSK	1	53	21.71	21.82	21.70		
20	QPSK	1	164	21.65	21.76	21.81		
20	QPSK	50	0	20.79	20.87	20.76		
20	QPSK	50	28	21.88	21.81	21.76	23.0	0.0
20	QPSK	50	58	20.70	20.84	20.75	23.0	1.0
20	QPSK	100	0	20.77	20.90	20.80		
20	16QAM	1	1	21.22	21.28	21.13	22.0	1.0
20	16QAM	1	1	19.46	19.57	19.45	20.5	2.5
20	256QAM	1	1	17.38	17.51	17.41	19.5	4.5
Channel								
Frequency (MHz)				165300	167300	168300	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	21.72	21.78	21.64	23.0	0.0
Channel								
Frequency (MHz)				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	22	23.5	24	23.0	0.0
Channel								
Frequency (MHz)				165300	167200	169300	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	1	21.77	21.84	21.69	23.0	0.0

**n7 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)				505000	507000	510000		
40	PI2 BPSK	1	1	22.80	22.86	22.80	24.0	0.0
40	PI2 BPSK	1	108	22.71	22.81	22.69		
40	PI2 BPSK	1	214	22.70	22.77	22.73		
40	PI2 BPSK	108	0	22.37	22.44	22.37		
40	PI2 BPSK	108	54	22.66	22.79	22.65	24.0	0.0
40	PI2 BPSK	108	108	22.29	22.41	22.38	23.5	0.5
40	PI2 BPSK	216	0	22.37	22.46	22.41		
40	QPSK	1	1	22.86	22.93	22.84	24.0	0.0
40	QPSK	1	108	22.80	22.88	22.75		
40	QPSK	1	214	22.74	22.83	22.73		
40	QPSK	108	0	21.94	22.01	21.97		
40	QPSK	108	54	22.80	22.87	22.82	24.0	0.0
40	QPSK	108	108	22.00	22.06	21.94	23.0	1.0
40	QPSK	216	0	22.08	22.13	22.00		
40	16QAM	1	1	22.12	22.16	22.05	23.0	1.0
40	64QAM	1	1	20.55	20.59	20.52	21.5	2.5
40	256QAM	1	1	18.52	18.67	18.59	19.5	4.5
Channel								
Frequency (MHz)				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	22.81	22.79	22.73	24.0	0.0
Channel								
Frequency (MHz)				502600	507000	511500	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	22.80	22.87	22.77	24.0	0.0
Channel								
Frequency (MHz)				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
20	PI2 BPSK	1	1	22.75	22.85	22.81	24.0	0.0
Channel								
Frequency (MHz)				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	22.74	22.81	22.73	24.0	0.0
Channel								
Frequency (MHz)				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	22.79	22.83	22.70	24.0	0.0
Channel								
Frequency (MHz)				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	1	22.74	22.88	22.80	24.0	0.0

**n66 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)				346000	349000	353000		
40	PI2 BPSK	1	1	22.35	22.46	22.40	24.0	0.0
40	PI2 BPSK	1	108	22.31	22.41	22.34		
40	PI2 BPSK	1	214	22.32	22.36	22.30		
40	PI2 BPSK	108	0	22.01	22.06	22.00		
40	PI2 BPSK	108	54	22.37	22.41	22.28	24.0	0.0
40	PI2 BPSK	108	108	21.98	22.03	21.98	23.5	0.5
40	PI2 BPSK	216	0	22.00	22.07	22.02		
40	QPSK	1	1	22.48	22.54	22.42	24.0	0.0
40	QPSK	1	108	22.43	22.48	22.45		
40	QPSK	1	214	22.35	22.42	22.29		
40	QPSK	108	0	21.52	21.67	21.54		
40	QPSK	108	54	22.40	22.50	22.38	24.0	0.0
40	QPSK	108	108	21.85	21.72	21.62	23.0	1.0
40	QPSK	216	0	21.67	21.77	21.73		
40	16QAM	1	1	21.61	21.69	21.65	23.0	1.0
40	64QAM	1	1	19.79	19.93	19.80	21.5	2.5
40	256QAM	1	1	18.00	18.05	18.01	19.5	4.5
Channel								
Frequency (MHz)				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	22.42	22.45	22.30	24.0	0.0
Channel								
Frequency (MHz)				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	22.44	22.50	22.35	24.0	0.0
Channel								
Frequency (MHz)				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	22.41	22.49	22.37	24.0	0.0
Channel								
Frequency (MHz)				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	22.43	22.46	22.31	24.0	0.0
Channel								
Frequency (MHz)				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	1	22.34	22.42	22.31	24.0	0.0





Part270 n77 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
3750 3840 3930								
100	PI2 BPSK	1	1	23.12	23.17	23.05	24.0	0.0
100	PI2 BPSK	1	137	23.03	23.12	23.01		
100	PI2 BPSK	1	271	23.03	23.08	22.94		
100	PI2 BPSK	135	0	21.58	21.81	21.54	23.5	0.5
100	PI2 BPSK	135	69	23.08	23.13	22.88	24.0	0.0
100	PI2 BPSK	135	138	21.54	21.83	21.48	23.5	0.5
100	PI2 BPSK	270	0	21.58	21.67	21.48		
100	QPSK	1	1	23.18	23.24	23.08		
100	QPSK	1	137	23.18	23.21	23.12	24.0	0.0
100	QPSK	1	271	23.17	23.17	23.02	23.0	1.0
100	QPSK	135	0	21.53	21.63	21.54		
100	QPSK	135	69	23.17	23.19	23.07		
100	QPSK	135	138	21.51	21.63	21.40	23.0	1.0
100	QPSK	270	0	21.82	21.87	21.52		
100	16QAM	1	1	21.56	21.86	21.52		
100	16QAM	1	1	20.14	20.23	20.12	21.5	2.5
100	256QAM	1	1	18.22	18.32	18.18	19.5	4.5
Channel								
Frequency (MHz)								
3745.02 3840 3935.01								
90	QPSK	1	1	23.08	23.11	22.94	24.0	0.0
Channel								
Frequency (MHz)								
649334 650000 662968								
80	QPSK	1	1	3740.01	3840	3940.02	24.0	0.0
Channel								
Frequency (MHz)								
649000 650000 663000								
70	QPSK	1	1	23.01	23.07	22.96	24.0	0.0
Channel								
Frequency (MHz)								
648968 650000 663334								
60	QPSK	1	1	23.11	23.16	22.99	24.0	0.0
Channel								
Frequency (MHz)								
648334 650000 663668								
50	QPSK	1	1	3725.01	3840	3955.02	24.0	0.0
Channel								
Frequency (MHz)								
3720 3840 3960								
40	QPSK	1	1	23.06	23.11	22.98	24.0	0.0
Channel								
Frequency (MHz)								
647868 650000 664334								
30	QPSK	1	1	3713.02	3840	3962.01	24.0	0.0
Channel								
Frequency (MHz)								
647334 650000 664668								
20	QPSK	1	1	3710.01	3840	3970.02	24.0	0.0
Channel								
Frequency (MHz)								
647168 650000 664834								
15	QPSK	1	1	3707.53	3840	3972.51	24.0	0.0
Channel								
Frequency (MHz)								
647000 650000 665000								
10	QPSK	1	1	3705	3840	3975	24.0	0.0

Part270 n77 HPUE Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
3750 3840 3930								
100	PI2 BPSK	1	1	25.98	26.10	26.03	27.0	0.0
100	PI2 BPSK	1	137	25.95	26.07	25.93		
100	PI2 BPSK	1	271	25.94	26.01	25.98		
100	PI2 BPSK	135	0	25.42	25.51	25.37	26.5	0.5
100	PI2 BPSK	135	69	25.98	26.00	25.90	27.0	0.0
100	PI2 BPSK	135	138	25.48	25.58	25.51	26.5	0.5
100	PI2 BPSK	270	0	25.54	25.61	25.48		
100	QPSK	1	1	26.07	26.17	26.12		
100	QPSK	1	137	26.01	26.11	26.03	27.0	0.0
100	QPSK	1	271	25.97	26.05	25.98	24.98	26.0
100	QPSK	135	0	25.05	25.09	24.98		
100	QPSK	135	69	26.03	26.12	26.04		
100	QPSK	135	138	24.97	25.04	24.96	26.0	1.0
100	QPSK	270	0	25.05	25.11	25.02		
100	16QAM	1	1	25.00	25.14	25.04		
100	16QAM	1	1	23.02	23.67	23.53	24.5	2.5
100	256QAM	1	1	21.58	21.89	21.62	22.5	4.5
Channel								
Frequency (MHz)								
3745.02 3840 3935.01								
90	QPSK	1	1	25.94	26.10	26.06	27.0	0.0
Channel								
Frequency (MHz)								
649334 650000 662968								
80	QPSK	1	1	3740.01	3840	3940.02	27.0	0.0
Channel								
Frequency (MHz)								
649000 650000 663000								
70	QPSK	1	1	26.02	26.13	26.03	27.0	0.0
Channel								
Frequency (MHz)								
648968 650000 663334								
60	QPSK	1	1	25.95	26.06	26.07	27.0	0.0
Channel								
Frequency (MHz)								
648334 650000 663668								
50	QPSK	1	1	3725.01	3840	3955.02	27.0	0.0
Channel								
Frequency (MHz)								
3720 3840 3960								
40	QPSK	1	1	26.00	26.04	26.07	27.0	0.0
Channel								
Frequency (MHz)								
647868 650000 664334								
30	QPSK	1	1	3713.02	3840	3962.01	27.0	0.0
Channel								
Frequency (MHz)								
647334 650000 664668								
20	QPSK	1	1	3710.01	3840	3970.02	27.0	0.0
Channel								
Frequency (MHz)								
647168 650000 664834								
15	QPSK	1	1	3707.53	3840	3972.51	27.0	0.0
Channel								
Frequency (MHz)								
647000 650000 665000								
10	QPSK	1	1	3705	3840	3975	27.0	0.0



### Part270 n78 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.05	23.05	23.05		
100	PI2 BPSK	1	137	22.99	22.99	22.99	24.0	0.0
100	PI2 BPSK	1	271	22.92	22.92	22.92		
100	PI2 BPSK	135	0	21.54	21.54	21.54	23.5	0.5
100	PI2 BPSK	135	69	22.97	22.97	22.97	24.0	0.0
100	PI2 BPSK	135	138	21.56	21.56	21.56	23.5	0.5
100	PI2 BPSK	270	0	21.80	21.80	21.80	24.0	0.0
100	QPSK	1	1	23.13	23.13	23.13		
100	QPSK	1	137	23.02	23.02	23.02	24.0	0.0
100	QPSK	1	271	22.95	22.95	22.95		
100	QPSK	135	0	21.54	21.54	21.54	23.0	1.0
100	QPSK	135	69	23.07	23.07	23.07	24.0	0.0
100	QPSK	135	138	21.48	21.48	21.48	23.0	1.0
100	QPSK	270	0	21.53	21.53	21.53	23.0	1.0
100	16QAM	1	1	21.89	21.89	21.89	23.0	1.0
100	16QAM	1	1	19.84	19.84	19.84	21.5	2.5
100	256QAM	1	1	18.07	18.07	18.07	19.5	4.5
Channel				848668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	23.01	23.03	22.94	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.94	23.00	22.84	24.0	0.0
Channel				849000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	22.94	23.09	22.93	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.94	23.01	22.87	24.0	0.0
Channel				848334	650000	651688	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	23.02	23.05	22.94	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.00	23.02	22.88	24.0	0.0
Channel				847668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3763.01		
30	QPSK	1	1	22.98	22.98	22.89	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.00	23.04	22.87	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.00	23.08	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.98	23.07	22.87	24.0	0.0

### Part270 n78 HPUE Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	26.08	26.08	26.08		
100	PI2 BPSK	1	137	26.05	26.05	26.05	27.0	0.0
100	PI2 BPSK	1	271	25.96	25.96	25.96		
100	PI2 BPSK	135	0	25.50	25.50	25.50	26.5	0.5
100	PI2 BPSK	135	69	26.00	26.00	26.00	27.0	0.0
100	PI2 BPSK	135	138	25.39	25.39	25.39	26.5	0.5
100	PI2 BPSK	270	0	25.46	25.46	25.46	27.0	0.0
100	QPSK	1	1	26.16	26.16	26.16		
100	QPSK	1	137	26.08	26.08	26.08	27.0	0.0
100	QPSK	1	271	26.02	26.02	26.02		
100	QPSK	135	0	25.00	25.00	25.00	26.0	1.0
100	QPSK	135	69	26.09	26.09	26.09	27.0	0.0
100	QPSK	135	138	24.96	24.96	24.96	26.0	1.0
100	QPSK	270	0	24.95	24.95	24.95	26.0	1.0
100	16QAM	1	1	25.29	25.29	25.29	26.0	1.0
100	16QAM	1	1	23.83	23.83	23.83	24.5	2.5
100	256QAM	1	1	21.76	21.76	21.76	22.5	4.5
Channel				848668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	25.95	26.11	25.96	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.94	26.05	25.84	27.0	0.0
Channel				849000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	26.02	26.09	25.96	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.93	26.10	25.84	27.0	0.0
Channel				848334	650000	651688	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	25.96	26.04	25.86	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.01	26.05	25.89	27.0	0.0
Channel				847668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3763.01		
30	QPSK	1	1	25.94	26.01	25.87	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.98	26.03	25.93	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	25.94	26.07	25.98	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.97	26.10	25.93	27.0	0.0



n7 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				503000	507000	510000		
Frequency (MHz)				2530	2535	2550		
40	PI/2 BPSK	1	1	12.65	12.74	12.68		
40	PI/2 BPSK	1	108	12.60	12.73	12.64	14.1	0.0
40	PI/2 BPSK	1	214	12.53	12.61	12.56		
40	PI/2 BPSK	108	0	12.64	12.65	12.63	14.1	0.0
40	PI/2 BPSK	108	54	12.68	12.79	12.67	14.1	0.0
40	PI/2 BPSK	108	108	12.59	12.57	12.56	14.1	0.0
40	PI/2 BPSK	216	0	12.58	12.65	12.51		
40	QPSK	1	1	12.67	12.60	12.74		
40	QPSK	1	108	12.57	12.80	12.63	14.1	0.0
40	QPSK	1	214	12.60	12.74	12.61		
40	QPSK	108	0	12.62	12.74	12.72	14.1	0.0
40	QPSK	108	54	12.62	12.78	12.74	14.1	0.0
40	QPSK	108	108	12.54	12.67	12.50	14.1	0.0
40	QPSK	216	0	12.57	12.68	12.62		
40	16QAM	1	1	12.57	12.66	12.51	14.1	0.0
40	16QAM	1	1	12.53	12.65	12.62	14.1	0.0
40	256QAM	1	1	12.46	12.54	12.44	14.1	0.0
Channel				503000	507000	510000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	12.61	12.68	12.66	14.1	0.0
Channel				502000	507000	511500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2512.5	2535	2527.5		
25	QPSK	1	1	12.65	12.70	12.70	14.1	0.0
Channel				502000	507000	510000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	12.56	12.77	12.67	14.1	0.0
Channel				501500	507000	512500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	12.63	12.79	12.69	14.1	0.0
Channel				501000	507000	513000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	12.65	12.68	12.65	14.1	0.0
Channel				500500	507000	513500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	12.54	12.75	12.66	14.1	0.0

n66 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				349000	349000	350000		
Frequency (MHz)				1730	1745	1760		
40	PI/2 BPSK	1	1	20.92	21.02	20.88		
40	PI/2 BPSK	1	108	20.89	20.89	20.84	22.3	0.0
40	PI/2 BPSK	1	214	20.68	20.82	20.67		
40	PI/2 BPSK	108	0	20.89	20.91	20.78	22.3	0.0
40	PI/2 BPSK	108	54	20.90	20.95	20.94	22.3	0.0
40	PI/2 BPSK	108	108	20.70	20.78	20.75	22.3	0.0
40	PI/2 BPSK	216	0	20.72	20.93	20.81		
40	QPSK	1	1	20.94	21.10	21.03		
40	QPSK	1	108	20.89	21.02	20.92	22.3	0.0
40	QPSK	1	214	20.83	20.99	20.85		
40	QPSK	108	0	20.72	20.85	20.75	22.3	0.0
40	QPSK	108	54	20.87	20.96	20.90	22.3	0.0
40	QPSK	108	108	20.77	20.85	20.76	22.3	0.0
40	QPSK	216	0	20.80	20.91	20.88		
40	16QAM	1	1	20.70	20.76	20.74	22.3	0.0
40	16QAM	1	1	20.82	20.95	20.90	21.5	0.8
40	256QAM	1	1	18.96	18.99	18.93	19.5	2.8
Channel				349000	349000	350000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	20.88	20.97	20.95	22.3	0.0
Channel				344000	349000	354000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	20.91	21.05	20.98	22.3	0.0
Channel				343500	349000	354500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	20.90	21.01	20.93	22.3	0.0
Channel				343000	349000	355000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	20.81	21.04	20.95	22.3	0.0
Channel				342500	349000	356000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	20.86	20.99	20.97	22.3	0.0



**n38 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)								
40	PI2 BPSK	1	1	13.00	13.11	12.99		
40	PI2 BPSK	1	53	12.88	13.06	12.96		0.0
40	PI2 BPSK	1	104	12.89	13.08	13.02		
40	PI2 BPSK	50	0	12.95	12.93	12.85	14.4	0.0
40	PI2 BPSK	50	28	12.84	12.99	12.88	14.4	0.0
40	PI2 BPSK	50	58	12.95	13.02	12.85	14.4	0.0
40	PI2 BPSK	100	0	13.02	13.02	13.01		
40	QPSK	1	1	13.05	13.17	13.12		
40	QPSK	1	53	13.00	12.99	12.90	14.4	0.0
40	QPSK	1	104	12.94	13.01	12.95		
40	QPSK	50	0	12.86	12.93	12.87	14.4	0.0
40	QPSK	50	28	13.03	13.14	13.08	14.4	0.0
40	QPSK	50	58	12.92	12.91	12.83	14.4	0.0
40	QPSK	100	0	12.88	12.95	12.97		
40	16QAM	1	1	13.02	13.16	12.99	14.4	0.0
40	16QAM	1	1	12.97	13.06	12.96	14.4	0.0
40	256QAM	1	1	12.75	12.95	12.88	14.4	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.01	13.08	13.04	14.4	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	13.00	13.03	13.01	14.4	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.00	13.07	13.07	14.4	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.02	13.13	13.04	14.4	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.01	13.07	13.02	14.4	0.0

**n41 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	PI2 BPSK	1	1	13.12	13.17	13.08		
100	PI2 BPSK	1	137	13.00	13.15	13.12	14.4	0.0
100	PI2 BPSK	1	271	13.01	13.13	13.08		
100	PI2 BPSK	135	0	13.02	13.07	13.00	14.4	0.0
100	PI2 BPSK	135	69	12.97	13.12	12.96	14.4	0.0
100	PI2 BPSK	135	138	13.00	13.08	12.95	14.4	0.0
100	PI2 BPSK	270	0	13.08	13.10	13.05		
100	QPSK	1	1	13.16	13.22	13.16		
100	QPSK	1	137	13.07	13.09	13.04	14.4	0.0
100	QPSK	1	271	13.02	13.07	13.08		
100	QPSK	135	0	12.91	13.08	12.93	14.4	0.0
100	QPSK	135	69	13.12	13.19	13.11	14.4	0.0
100	QPSK	135	138	13.00	13.04	12.94	14.4	0.0
100	QPSK	270	0	13.02	13.05	13.06		
100	16QAM	1	1	13.12	13.21	13.07	14.4	0.0
100	16QAM	1	1	13.09	13.15	13.08	14.4	0.0
100	256QAM	1	1	12.88	13.04	12.93	14.4	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.10	13.18	13.07	14.4	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.10	13.10	13.02	14.4	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.06	13.08	13.09	14.4	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.05	13.17	13.04	14.4	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.05	13.14	13.05	14.4	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.12	13.15	13.12	14.4	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.09	13.10	13.09	14.4	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.07	13.15	13.09	14.4	0.0

**n41 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	PI2 BPSK	1	1	16.23	16.29	16.25		
100	PI2 BPSK	1	137	16.20	16.25	16.21	17.4	0.0
100	PI2 BPSK	1	271	16.11	16.20	16.07		
100	PI2 BPSK	135	0	16.08	16.17	16.10	17.4	0.0
100	PI2 BPSK	135	69	16.14	16.17	16.08	17.4	0.0
100	PI2 BPSK	135	138	16.09	16.25	16.20	17.4	0.0
100	PI2 BPSK	270	0	16.31	16.28	16.17		
100	QPSK	1	1	16.25	16.37	16.27		
100	QPSK	1	137	16.12	16.33	16.14	17.4	0.0
100	QPSK	1	271	16.17	16.19	16.15		
100	QPSK	135	0	16.07	16.06	16.00	17.4	0.0
100	QPSK	135	69	16.20	16.33	16.19	17.4	0.0
100	QPSK	135	138	16.08	16.20	16.14	17.4	0.0
100	QPSK	270	0	16.17	16.28	16.16		
100	16QAM	1	1	16.24	16.22	16.20	17.4	0.0
100	16QAM	1	1	16.08	16.20	16.18	17.4	0.0
100	256QAM	1	1	15.93	16.22	16.02	17.4	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	16.15	16.29	16.20	17.4	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	16.11	16.31	16.13	17.4	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	16.15	16.27	16.18	17.4	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	16.15	16.34	16.14	17.4	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	16.18	16.33	16.14	17.4	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	16.16	16.28	16.24	17.4	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	16.19	16.25	16.15	17.4	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.17	16.23	16.22	17.4	0.0



Part270 n77 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
3750 3840 3930									
100	PI2 BPSK	1	1	14.00	14.11	13.94			
100	PI2 BPSK	1	137	14.02	14.04	14.01	15.4	0.0	
100	PI2 BPSK	1	271	13.96	14.12	13.95			18.4
100	PI2 BPSK	135	0	13.91	13.97	13.99	15.4	0.0	
100	PI2 BPSK	135	69	13.90	13.95	13.90	15.4	0.0	
100	PI2 BPSK	135	138	13.84	14.10	13.94	15.4	0.0	
100	PI2 BPSK	270	0	14.11	14.19	14.05			18.4
100	QPSK	1	1	14.07	14.20	14.10	15.4	0.0	
100	QPSK	1	137	14.06	14.08	13.94			18.4
100	QPSK	1	271	13.93	13.99	14.05			18.4
100	QPSK	135	0	13.76	13.87	13.85	15.4	0.0	
100	QPSK	135	69	14.02	14.13	13.97	15.4	0.0	
100	QPSK	135	138	13.95	13.98	13.88	15.4	0.0	
100	QPSK	270	0	14.03	14.05	13.97			18.4
100	16QAM	1	1	14.01	14.18	13.95	15.4	0.0	
100	16QAM	1	1	14.00	14.03	13.88	15.4	0.0	
100	256QAM	1	1	13.75	14.05	13.80	15.4	0.0	
Channel									
Frequency (MHz)									
3745.02 3840 3935.01									
90	QPSK	1	1	13.93	14.09	14.06	15.4	0.0	
Channel									
Frequency (MHz)									
649334 650000 662968									
80	QPSK	1	1	14.04	14.13	13.99	15.4	0.0	
Channel									
Frequency (MHz)									
649000 650000 663000									
70	QPSK	1	1	14.01	14.10	13.95	15.4	0.0	
Channel									
Frequency (MHz)									
648668 650000 663334									
60	QPSK	1	1	13.97	14.14	14.04	15.4	0.0	
Channel									
Frequency (MHz)									
648334 650000 663668									
50	QPSK	1	1	13.94	14.05	13.95	15.4	0.0	
Channel									
Frequency (MHz)									
3720 3840 3960									
40	QPSK	1	1	13.99	14.16	14.06	15.4	0.0	
Channel									
Frequency (MHz)									
647868 650000 664334									
30	QPSK	1	1	13.99	14.07	13.99	15.4	0.0	
Channel									
Frequency (MHz)									
647334 650000 664668									
20	QPSK	1	1	14.01	14.11	13.97	15.4	0.0	
Channel									
Frequency (MHz)									
647168 650000 664834									
15	QPSK	1	1	13.93	14.12	13.98	15.4	0.0	
Channel									
Frequency (MHz)									
3705 3840 3975									
10	QPSK	1	1	14.03	14.15	14.01	15.4	0.0	

Part270 n77 HPUE Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
3750 3840 3930									
100	PI2 BPSK	1	1	17.02	17.17	16.98			
100	PI2 BPSK	1	137	16.97	17.05	16.98			18.4
100	PI2 BPSK	1	271	17.03	17.16	16.97			18.4
100	PI2 BPSK	135	0	16.97	16.93	17.04	18.4	0.0	
100	PI2 BPSK	135	69	16.89	17.01	16.90	18.4	0.0	
100	PI2 BPSK	135	138	16.85	17.12	16.85	18.4	0.0	
100	PI2 BPSK	270	0	17.04	17.16	17.10			18.4
100	QPSK	1	1	17.00	17.22	17.13	18.4	0.0	
100	QPSK	1	137	17.02	17.02	16.87			18.4
100	QPSK	1	271	16.86	17.02	16.93			18.4
100	QPSK	135	0	16.84	16.98	16.81	18.4	0.0	
100	QPSK	135	69	16.91	17.19	17.02	18.4	0.0	
100	QPSK	135	138	16.86	16.89	16.82	18.4	0.0	
100	QPSK	270	0	16.95	17.04	16.87			18.4
100	16QAM	1	1	16.99	17.15	17.03	18.4	0.0	
100	16QAM	1	1	16.93	16.98	16.93	18.4	0.0	
100	256QAM	1	1	16.77	16.91	16.81	18.4	0.0	
Channel									
Frequency (MHz)									
3745.02 3840 3935.01									
90	QPSK	1	1	16.92	17.11	17.06	18.4	0.0	
Channel									
Frequency (MHz)									
649334 650000 662968									
80	QPSK	1	1	16.98	17.10	17.03	18.4	0.0	
Channel									
Frequency (MHz)									
649000 650000 663000									
70	QPSK	1	1	16.87	17.08	17.01	18.4	0.0	
Channel									
Frequency (MHz)									
648668 650000 663334									
60	QPSK	1	1	16.95	17.11	17.04	18.4	0.0	
Channel									
Frequency (MHz)									
648334 650000 663668									
50	QPSK	1	1	16.92	17.07	17.00	18.4	0.0	
Channel									
Frequency (MHz)									
3720 3840 3960									
40	QPSK	1	1	16.97	17.16	17.04	18.4	0.0	
Channel									
Frequency (MHz)									
647868 650000 664334									
30	QPSK	1	1	16.90	17.10	17.05	18.4	0.0	
Channel									
Frequency (MHz)									
647334 650000 664668									
20	QPSK	1	1	16.88	17.17	17.04	18.4	0.0	
Channel									
Frequency (MHz)									
647168 650000 664834									
15	QPSK	1	1	16.87	17.09	17.09	18.4	0.0	
Channel									
Frequency (MHz)									
3705 3840 3975									
10	QPSK	1	1	16.89	17.15	17.10	18.4	0.0	



Part270 n78 Ant 2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)		
Channel				3750	3750	3750				
Frequency (MHz)										
100	P1/2 BPSK	1	1		13.96					
100	P1/2 BPSK	1	137		13.96				0.0	
100	P1/2 BPSK	1	271		13.96					18.4
100	P1/2 BPSK	135	0		13.88			15.4	0.0	
100	P1/2 BPSK	135	69		14.06			15.4	0.0	
100	P1/2 BPSK	135	138		14.06			15.4	0.0	
100	P1/2 BPSK	270	0		14.11					
100	QPSK	1	1		14.15					
100	QPSK	1	137		14.06			15.4	0.0	
100	QPSK	1	271		14.00					
100	QPSK	135	0		13.90			15.4	0.0	
100	QPSK	135	69		14.13			15.4	0.0	
100	QPSK	135	138		13.82			15.4	0.0	
100	QPSK	270	0		13.88					18.4
100	16QAM	1	1		14.03			15.4	0.0	
100	64QAM	1	1		14.01			15.4	0.0	
100	256QAM	1	1		13.93			15.4	0.0	
Channel				649868	650000	650234	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
90	QPSK	1	1	13.83	14.04	13.96	15.4	0.0		
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
80	QPSK	1	1	13.81	14.03	13.90	15.4	0.0		
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
70	QPSK	1	1	13.79	13.95	14.02	15.4	0.0		
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
60	QPSK	1	1	13.80	13.94	13.98	15.4	0.0		
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
50	QPSK	1	1	13.86	13.96	13.92	15.4	0.0		
Channel				647868	650000	652334	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
40	QPSK	1	1	13.82	13.96	13.97	15.4	0.0		
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
30	QPSK	1	1	13.84	13.96	13.95	15.4	0.0		
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
20	QPSK	1	1	13.82	13.96	13.97	15.4	0.0		
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
15	QPSK	1	1	13.82	13.94	13.92	15.4	0.0		
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
10	QPSK	1	1	13.81	13.99	13.96	15.4	0.0		

Part270 n78 HPUE Ant 2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)		
Channel				3750	3750	3750				
Frequency (MHz)										
100	P1/2 BPSK	1	1		17.07					
100	P1/2 BPSK	1	137		16.96					18.4
100	P1/2 BPSK	1	271		16.96					18.4
100	P1/2 BPSK	135	0		17.00			15.4	0.0	
100	P1/2 BPSK	135	69		17.06			15.4	0.0	
100	P1/2 BPSK	135	138		16.98			15.4	0.0	
100	P1/2 BPSK	270	0		17.07					
100	QPSK	1	1		17.14					
100	QPSK	1	137		17.10			15.4	0.0	
100	QPSK	1	271		17.09					
100	QPSK	135	0		16.97			15.4	0.0	
100	QPSK	135	69		17.01			15.4	0.0	
100	QPSK	135	138		16.97			15.4	0.0	
100	QPSK	270	0		16.94					18.4
100	16QAM	1	1		17.05			15.4	0.0	
100	64QAM	1	1		17.02			15.4	0.0	
100	256QAM	1	1		16.94			15.4	0.0	
Channel				649868	650000	650234	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
90	QPSK	1	1	16.78	16.96	16.97	15.4	0.0		
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
80	QPSK	1	1	16.79	16.94	16.91	15.4	0.0		
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
70	QPSK	1	1	16.75	17.00	16.98	15.4	0.0		
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
60	QPSK	1	1	16.76	17.05	16.90	15.4	0.0		
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
50	QPSK	1	1	16.83	17.06	16.92	15.4	0.0		
Channel				647868	650000	652334	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
40	QPSK	1	1	16.87	16.99	16.94	15.4	0.0		
Channel				647668	650000	652668	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
30	QPSK	1	1	16.82	16.98	17.00	15.4	0.0		
Channel				647334	650000	652968	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
20	QPSK	1	1	16.79	16.96	16.94	15.4	0.0		
Channel				647168	650000	653234	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
15	QPSK	1	1	16.77	16.97	16.95	15.4	0.0		
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR		
Frequency (MHz)										
10	QPSK	1	1	16.87	16.96	16.91	15.4	0.0		





n7 Ant 3								
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				503000	507000	510000		
Frequency (MHz)				2530	2535	2550		
40	PI/2 BPSK	1	1	15.75	15.72	15.64		
40	PI/2 BPSK	1	108	15.63	15.68	15.56	18.8	0.0
40	PI/2 BPSK	1	214	15.51	15.70	15.47		
40	PI/2 BPSK	108	0	15.49	15.57	15.52	18.8	0.0
40	PI/2 BPSK	108	54	15.52	15.70	15.55	18.8	0.0
40	PI/2 BPSK	108	108	15.46	15.68	15.47	18.8	0.0
40	PI/2 BPSK	216	0	15.69	15.69	15.57		
40	QPSK	1	1	15.73	15.80	15.77		
40	QPSK	1	108	15.63	15.67	15.40	18.8	0.0
40	QPSK	1	214	15.56	15.59	15.58		
40	QPSK	108	0	15.47	15.56	15.35	18.8	0.0
40	QPSK	108	54	15.65	15.71	15.62	18.8	0.0
40	QPSK	108	108	15.51	15.59	15.47	18.8	0.0
40	QPSK	216	0	15.51	15.63	15.57		
40	16QAM	1	1	15.60	15.64	15.64	18.8	0.0
40	16QAM	1	1	15.53	15.68	15.67	18.8	0.0
40	256QAM	1	1	15.41	15.56	15.41	18.8	0.0
Channel				503300	507000	511000	Tune-up limit (dBm)	MPR
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	15.68	15.69	15.63	18.8	0.0
Channel				502500	507000	511500	Tune-up limit	MPR
Frequency (MHz)				2512.5	2535	2527.5	(dBm)	(dB)
25	QPSK	1	1	15.62	15.67	15.71	18.8	0.0
Channel				502000	507000	510000	Tune-up limit	MPR
Frequency (MHz)				2510	2535	2560	(dBm)	(dB)
20	PI/2 BPSK	1	1	15.58	15.76	15.64	18.8	0.0
Channel				501500	507000	512500	Tune-up limit	MPR
Frequency (MHz)				2507.5	2535	2562.5	(dBm)	(dB)
15	QPSK	1	1	15.61	15.68	15.62	18.8	0.0
Channel				501000	507000	513000	Tune-up limit	MPR
Frequency (MHz)				2505	2535	2565	(dBm)	(dB)
10	QPSK	1	1	15.56	15.66	15.67	18.8	0.0
Channel				500500	507000	513500	Tune-up limit	MPR
Frequency (MHz)				2502.5	2535	2567.5	(dBm)	(dB)
5	QPSK	1	1	15.66	15.73	15.66	18.8	0.0

n66 Ant 3								
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				349000	349000	352000		
Frequency (MHz)				1730	1745	1760		
40	PI/2 BPSK	1	1	17.53	17.51	17.35		
40	PI/2 BPSK	1	108	17.45	17.45	17.47	18.6	0.0
40	PI/2 BPSK	1	214	17.30	17.43	17.38		
40	PI/2 BPSK	108	0	17.18	17.41	17.35	18.6	0.0
40	PI/2 BPSK	108	54	17.31	17.47	17.31	18.6	0.0
40	PI/2 BPSK	108	108	17.28	17.44	17.33	18.6	0.0
40	PI/2 BPSK	216	0	17.40	17.54	17.44		
40	QPSK	1	1	17.47	17.58	17.51		
40	QPSK	1	108	17.45	17.41	17.28	18.6	0.0
40	QPSK	1	214	17.29	17.29	17.42		
40	QPSK	108	0	17.17	17.34	17.27	18.6	0.0
40	QPSK	108	54	17.47	17.54	17.48	18.6	0.0
40	QPSK	108	108	17.26	17.35	17.27	18.6	0.0
40	QPSK	216	0	17.33	17.46	17.40		
40	16QAM	1	1	17.56	17.54	17.37	18.6	0.0
40	16QAM	1	1	17.33	17.49	17.46	18.6	0.0
40	256QAM	1	1	17.35	17.47	17.21	18.6	0.0
Channel				349500	349500	353000	Tune-up limit (dBm)	MPR
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	17.42	17.53	17.45	18.6	0.0
Channel				344000	349000	354000	Tune-up limit	MPR
Frequency (MHz)				1720	1745	1770	(dBm)	(dB)
20	QPSK	1	1	17.22	17.49	17.43	18.6	0.0
Channel				343500	349000	354500	Tune-up limit	MPR
Frequency (MHz)				1717.5	1745	1772.5	(dBm)	(dB)
15	QPSK	1	1	17.44	17.51	17.43	18.6	0.0
Channel				343000	349000	355000	Tune-up limit	MPR
Frequency (MHz)				1715	1745	1775	(dBm)	(dB)
10	QPSK	1	1	17.40	17.47	17.37	18.6	0.0
Channel				342500	349000	355500	Tune-up limit	MPR
Frequency (MHz)				1712.5	1745	1777.5	(dBm)	(dB)
5	QPSK	1	1	17.32	17.45	17.43	18.6	0.0







Part270 n78 Ant 3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel				3750	3750	3750	
Frequency (MHz)							
100	PI2 BPSK	1	1	13.11			
100	PI2 BPSK	1	137	13.02			0.0
100	PI2 BPSK	1	271	13.00			
100	PI2 BPSK	135	0	13.01			14.2 0.0
100	PI2 BPSK	135	69	13.12			14.2 0.0
100	PI2 BPSK	135	138	13.01			14.2 0.0
100	PI2 BPSK	270	0	13.09			
100	QPSK	1	1	13.18			14.2 0.0
100	QPSK	1	137	13.09			
100	QPSK	1	271	12.95			
100	QPSK	135	0	13.01			14.2 0.0
100	QPSK	135	69	13.18			14.2 0.0
100	QPSK	135	138	13.05			14.2 0.0
100	QPSK	270	0	13.05			
100	16QAM	1	1	13.04			14.2 0.0
100	64QAM	1	1	13.05			14.2 0.0
100	256QAM	1	1	12.97			14.2 0.0
Channel				648668	650000	650334	Tune-up limit MPR (dBm)
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1	12.95	13.05	13.05	14.2 0.0
Channel				649334	650000	650668	Tune-up limit MPR (dBm)
Frequency (MHz)				3740.01	3750	3760.02	
80	QPSK	1	1	12.99	13.11	13.04	14.2 0.0
Channel				649000	650000	651000	Tune-up limit MPR (dBm)
Frequency (MHz)				3735	3750	3765	
70	QPSK	1	1	12.98	13.12	12.99	14.2 0.0
Channel				648668	650000	651334	Tune-up limit MPR (dBm)
Frequency (MHz)				3730.02	3750	3770.01	
60	QPSK	1	1	13.00	13.11	13.04	14.2 0.0
Channel				648334	650000	651668	Tune-up limit MPR (dBm)
Frequency (MHz)				3725.01	3750	3775.02	
50	QPSK	1	1	12.97	13.11	13.05	14.2 0.0
Channel				648000	650000	652000	Tune-up limit MPR (dBm)
Frequency (MHz)				3720	3750	3780	
40	QPSK	1	1	13.02	13.10	12.98	14.2 0.0
Channel				647668	650000	652334	Tune-up limit MPR (dBm)
Frequency (MHz)				3715.02	3750	3785.01	
30	QPSK	1	1	12.93	13.10	12.99	14.2 0.0
Channel				647334	650000	652668	Tune-up limit MPR (dBm)
Frequency (MHz)				3710.01	3750	3790.02	
20	QPSK	1	1	12.95	13.06	13.03	14.2 0.0
Channel				647168	650000	652834	Tune-up limit MPR (dBm)
Frequency (MHz)				3707.52	3750	3792.51	
15	QPSK	1	1	12.95	13.03	12.95	14.2 0.0
Channel				647000	650000	653000	Tune-up limit MPR (dBm)
Frequency (MHz)				3705	3750	3795	
10	QPSK	1	1	12.95	13.10	13.03	14.2 0.0

Part270 n78 HPUE Ant 3							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel				3750	3750	3750	
Frequency (MHz)							
100	PI2 BPSK	1	1	16.12			
100	PI2 BPSK	1	137	15.96			0.0
100	PI2 BPSK	1	271	16.02			
100	PI2 BPSK	135	0	15.84			17.2 0.0
100	PI2 BPSK	135	69	16.07			17.2 0.0
100	PI2 BPSK	135	138	15.98			17.2 0.0
100	PI2 BPSK	270	0	16.02			
100	QPSK	1	1	16.21			17.2 0.0
100	QPSK	1	137	16.12			
100	QPSK	1	271	15.94			
100	QPSK	135	0	15.86			17.2 0.0
100	QPSK	135	69	16.09			17.2 0.0
100	QPSK	135	138	16.00			17.2 0.0
100	QPSK	270	0	15.93			
100	16QAM	1	1	16.03			17.2 0.0
100	64QAM	1	1	15.97			17.2 0.0
100	256QAM	1	1	15.96			17.2 0.0
Channel				648668	650000	650334	Tune-up limit MPR (dBm)
Frequency (MHz)				3745.02	3750	3755.01	
90	QPSK	1	1	16.02	16.11	16.07	17.2 0.0
Channel				649334	650000	650668	Tune-up limit MPR (dBm)
Frequency (MHz)				3740.01	3750	3760.02	
80	QPSK	1	1	15.92	16.03	15.90	17.2 0.0
Channel				649000	650000	651000	Tune-up limit MPR (dBm)
Frequency (MHz)				3735	3750	3765	
70	QPSK	1	1	15.98	16.11	16.08	17.2 0.0
Channel				648668	650000	651334	Tune-up limit MPR (dBm)
Frequency (MHz)				3730.02	3750	3770.01	
60	QPSK	1	1	15.94	16.09	15.96	17.2 0.0
Channel				648334	650000	651668	Tune-up limit MPR (dBm)
Frequency (MHz)				3725.01	3750	3775.02	
50	QPSK	1	1	15.92	16.06	16.02	17.2 0.0
Channel				648000	650000	652000	Tune-up limit MPR (dBm)
Frequency (MHz)				3720	3750	3780	
40	QPSK	1	1	15.91	16.07	15.98	17.2 0.0
Channel				647668	650000	652334	Tune-up limit MPR (dBm)
Frequency (MHz)				3715.02	3750	3785.01	
30	QPSK	1	1	15.92	16.06	16.00	17.2 0.0
Channel				647334	650000	652668	Tune-up limit MPR (dBm)
Frequency (MHz)				3710.01	3750	3790.02	
20	QPSK	1	1	15.94	16.10	16.04	17.2 0.0
Channel				647168	650000	652834	Tune-up limit MPR (dBm)
Frequency (MHz)				3707.52	3750	3792.51	
15	QPSK	1	1	15.96	16.09	16.07	17.2 0.0
Channel				647000	650000	653000	Tune-up limit MPR (dBm)
Frequency (MHz)				3705	3750	3795	
10	QPSK	1	1	15.97	16.01	16.03	17.2 0.0







Part270 n77 Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	20.24	20.37	20.26		
100	PI2 BPSK	1	137	20.20	20.31	20.22	21.0	0.0
100	PI2 BPSK	1	271	20.15	20.28	20.22		
100	PI2 BPSK	135	0	18.72	18.78	18.74	20.5	0.5
100	PI2 BPSK	135	69	20.22	20.31	20.19	21.0	0.0
100	PI2 BPSK	135	138	18.83	18.78	18.87		
100	PI2 BPSK	270	0	18.80	18.88	18.80	20.5	0.5
100	QPSK	1	1	20.37	20.43	20.31		
100	QPSK	1	137	20.19	20.35	20.25	21.0	0.0
100	QPSK	1	271	20.13	20.31	20.20		
100	QPSK	135	0	18.84	18.97	18.83	20.0	1.0
100	QPSK	135	69	20.20	20.38	20.27	21.0	0.0
100	QPSK	135	138	18.84	18.88	18.81		
100	QPSK	270	0	18.91	19.02	18.86	20.0	1.0
100	16QAM	1	1	18.80	18.88	18.80	20.0	1.0
100	64QAM	1	1	17.49	17.85	17.53	18.5	2.5
100	256QAM	1	1	15.22	15.32	15.28	18.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	20.28	20.38	20.30	21.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.10	20.29	20.31	21.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.23	20.38	20.32	21.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.19	20.28	20.30	21.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.28	20.37	20.25	21.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.24	20.30	20.31	21.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.20	20.28	20.28	21.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.22	20.28	20.24	21.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.19	20.38	20.30	21.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.28	20.34	20.28	21.0	0.0

Part270 n77 HPUE Ant 0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.33	23.39	23.29		
100	PI2 BPSK	1	137	23.23	23.33	23.28	24.0	0.0
100	PI2 BPSK	1	271	23.14	23.27	23.23		
100	PI2 BPSK	135	0	22.79	22.88	22.84	23.5	0.5
100	PI2 BPSK	135	69	23.28	23.34	23.20	24.0	0.0
100	PI2 BPSK	135	138	22.88	22.80	22.79		
100	PI2 BPSK	270	0	22.88	22.94	22.82	23.5	0.5
100	QPSK	1	1	23.36	23.42	23.32		
100	QPSK	1	137	23.28	23.35	23.25	24.0	0.0
100	QPSK	1	271	23.24	23.31	23.22		
100	QPSK	135	0	22.21	22.34	22.28	23.0	1.0
100	QPSK	135	69	23.22	23.38	23.28	24.0	0.0
100	QPSK	135	138	22.34	22.39	22.34	23.0	1.0
100	QPSK	270	0	22.32	22.45	22.38		
100	16QAM	1	1	22.45	22.57	22.51	23.0	1.0
100	64QAM	1	1	20.74	20.88	20.77	21.5	2.5
100	256QAM	1	1	18.58	18.67	18.63	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.28	23.35	23.24	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.11	23.34	23.27	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.25	23.37	23.29	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.26	23.38	23.18	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.25	23.28	23.27	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.29	23.30	23.19	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.24	23.38	23.19	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.31	23.28	23.25	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.31	23.32	23.21	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.26	23.29	23.25	24.0	0.0







n5 Ant 1									
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				168000	167500	167800			
Frequency (MHz)				834	836.5	839			
20	PI2 BPSK	1	1	21.69	21.83	21.79			
20	PI2 BPSK	1	53	21.73	21.78	21.87	23.0	0.0	
20	PI2 BPSK	1	104	21.81	21.70	21.68			
20	PI2 BPSK	50	0	21.34	21.41	21.34	22.5	0.5	
20	PI2 BPSK	50	28	21.87	21.79	21.75	23.0	0.0	
20	PI2 BPSK	50	56	21.24	21.34	21.20			
20	PI2 BPSK	100	0	21.35	21.40	21.28	22.5	0.5	
20	QPSK	1	1	21.83	21.89	21.76			
20	QPSK	1	53	21.71	21.82	21.70	23.0	0.0	
20	QPSK	1	104	21.85	21.76	21.81			
20	QPSK	50	0	20.79	20.87	20.76	23.0	1.0	
20	QPSK	50	28	21.68	21.81	21.76	23.0	0.0	
20	QPSK	50	56	20.70	20.84	20.75			
20	QPSK	100	0	20.77	20.90	20.80	22.0	1.0	
20	16QAM	1	1	21.22	21.29	21.13	22.0	1.0	
20	64QAM	1	1	19.46	19.57	19.45	20.5	2.5	
20	256QAM	1	1	17.39	17.51	17.41	18.5	4.5	
Channel				168300	167800	168000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				831.5	833.5	831.5			
15	QPSK	1	1	21.72	21.78	21.64	23.0	0.0	
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				829	835.5	841			
10	QPSK	1	1	21.76	21.81	21.66	23.0	0.0	
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	1	21.77	21.84	21.69	23.0	0.0	

n7 Ant 1									
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				504000	507000	510000			
Frequency (MHz)				2520	2535	2550			
40	PI2 BPSK	1	1	19.87	19.77	19.70			
40	PI2 BPSK	1	109	19.61	19.72	19.65	21.0	0.0	
40	PI2 BPSK	1	214	19.55	19.67	19.60			
40	PI2 BPSK	108	0	19.51	19.57	19.54	21.0	0.0	
40	PI2 BPSK	108	54	19.60	19.69	19.63	21.0	0.0	
40	PI2 BPSK	108	108	19.45	19.53	19.42	21.0	0.0	
40	PI2 BPSK	216	0	19.51	19.56	19.48			
40	QPSK	1	1	19.79	19.83	19.71			
40	QPSK	1	108	19.72	19.78	19.62	21.0	0.0	
40	QPSK	1	214	19.66	19.71	19.60			
40	QPSK	108	0	19.65	19.68	19.61	21.0	0.0	
40	QPSK	108	54	19.72	19.78	19.62	21.0	0.0	
40	QPSK	108	108	19.61	19.70	19.65			
40	QPSK	216	0	19.66	19.74	19.71	21.0	0.0	
40	16QAM	1	1	18.57	19.68	19.61	21.0	0.0	
40	64QAM	1	1	18.50	19.61	19.57	21.0	0.0	
40	256QAM	1	1	18.52	18.67	18.59	19.5	1.5	
Channel				508000	507000	511000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2515	2535	2555			
30	QPSK	1	1	19.71	19.72	19.65	21.0	0.0	
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2572.5	2535	2527.5			
25	QPSK	1	1	19.75	19.71	19.62	21.0	0.0	
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2510	2535	2560			
20	PI2 BPSK	1	1	19.86	19.77	19.62	21.0	0.0	
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	1	19.86	19.73	19.59	21.0	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	1	19.69	19.69	19.60	21.0	0.0	
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2502.5	2535	2577.5			
5	QPSK	1	1	19.64	19.79	19.63	21.0	0.0	

n6 Ant 1									
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				346000	349000	352000			
Frequency (MHz)				1730	1745	1760			
40	PI2 BPSK	1	1	21.72	21.91	21.86			
40	PI2 BPSK	1	108	21.74	21.78	21.74	23.0	0.0	
40	PI2 BPSK	1	214	21.61	21.79	21.71			
40	PI2 BPSK	108	0	21.67	21.84	21.66	23.0	0.0	
40	PI2 BPSK	108	54	21.78	21.81	21.68	23.0	0.0	
40	PI2 BPSK	108	108	21.55	21.67	21.56	23.0	0.0	
40	PI2 BPSK	216	0	21.62	21.64	21.59			
40	QPSK	1	1	21.82	21.88	21.89			
40	QPSK	1	108	21.80	21.89	21.89	23.0	0.0	
40	QPSK	1	214	21.79	21.88	21.78			
40	QPSK	108	0	21.52	21.67	21.54	23.0	0.0	
40	QPSK	108	54	21.78	21.89	21.81	23.0	0.0	
40	QPSK	108	108	21.65	21.72	21.62			
40	QPSK	216	0	21.67	21.77	21.73	23.0	0.0	
40	16QAM	1	1	21.61	21.69	21.65	23.0	0.0	
40	64QAM	1	1	19.79	19.93	19.80	21.5	1.5	
40	256QAM	1	1	18.00	18.05	18.01	19.5	3.5	
Channel				352000	349000	353000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1755	1745	1765			
30	QPSK	1	1	21.82	21.86	21.79	23.0	0.0	
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1720			
20	QPSK	1	1	21.88	21.91	21.82	23.0	0.0	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1722.5			
15	QPSK	1	1	21.77	21.86	21.78	23.0	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1725			
10	QPSK	1	1	21.88	21.89	21.82	23.0	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1727.5			
5	QPSK	1	1	21.82	21.93	21.76	23.0	0.0	



**Part270 n77 Ant 1**

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. F.Freq. 650000	Middle Ch. F.Freq. 656000	High Ch. F.Freq. 662000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.12	23.17	23.05	24.0	0.0
100	PI2 BPSK	1	137	23.00	23.12	23.01		
100	PI2 BPSK	1	271	23.03	23.08	22.94		
100	PI2 BPSK	135	0	21.59	21.61	21.54	23.5	0.5
100	PI2 BPSK	135	69	23.09	23.13	22.98	24.0	0.0
100	PI2 BPSK	135	138	21.54	21.63	21.48	23.5	0.5
100	PI2 BPSK	270	0	21.58	21.67	21.48	23.5	0.5
100	QPSK	1	1	23.18	23.24	23.09	24.0	0.0
100	QPSK	1	137	23.19	23.21	23.12		
100	QPSK	1	271	23.17	23.17	23.02		
100	QPSK	135	0	21.53	21.63	21.54	23.0	1.0
100	QPSK	135	69	23.17	23.19	23.07	24.0	0.0
100	QPSK	135	138	21.51	21.63	21.50	23.0	1.0
100	QPSK	270	0	21.62	21.67	21.52	23.0	1.0
100	16QAM	1	1	21.58	21.68	21.52	23.0	1.0
100	64QAM	1	1	20.14	20.23	20.12	21.5	2.5
100	256QAM	1	1	18.22	18.32	18.18	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.08	23.11	22.94	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.01	23.10	22.94	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.01	23.07	22.96	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.11	23.18	22.99	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.05	23.11	22.98	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.03	23.18	22.99	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.04	23.17	23.00	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.00	23.14	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.03	23.08	22.96	24.0	0.0

**Part270 n77 HPUE Ant 1**

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. F.Freq. 650000	Middle Ch. F.Freq. 656000	High Ch. F.Freq. 662000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	25.98	26.10	26.03	27.0	0.0
100	PI2 BPSK	1	137	25.95	26.07	25.99		
100	PI2 BPSK	1	271	25.94	26.01	25.98		
100	PI2 BPSK	135	0	25.42	25.51	25.37	26.5	0.5
100	PI2 BPSK	135	69	25.98	26.06	25.90	27.0	0.0
100	PI2 BPSK	135	138	25.48	25.58	25.51	26.5	0.5
100	PI2 BPSK	270	0	25.54	25.61	25.48	26.5	0.5
100	QPSK	1	1	26.07	26.17	26.12	27.0	0.0
100	QPSK	1	137	26.01	26.11	26.03		
100	QPSK	1	271	25.97	26.05	25.98		
100	QPSK	135	0	25.05	25.09	24.98	26.0	1.0
100	QPSK	135	69	26.03	26.12	26.04	27.0	0.0
100	QPSK	135	138	24.97	25.04	24.96	26.0	1.0
100	QPSK	270	0	25.06	25.11	25.02	26.0	1.0
100	16QAM	1	1	25.00	25.14	25.04	26.0	1.0
100	64QAM	1	1	23.62	23.67	23.53	24.5	2.5
100	256QAM	1	1	21.56	21.69	21.62	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	25.94	26.10	26.06	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.91	26.03	25.99	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.02	26.13	26.03	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.95	26.06	26.07	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.04	26.12	26.01	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.00	26.04	26.07	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	25.97	26.11	26.09	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.99	26.12	26.05	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.02	26.02	26.01	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.98	26.03	26.01	27.0	0.0



Part270 n78 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 650000	Middle Ch. Freq. 650000	High Ch. Freq. 650000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	3750	3750	3750		
100	PI2 BPSK	1	137		23.05			
100	PI2 BPSK	1	271		22.92		24.0	0.0
100	PI2 BPSK	135	0		21.54		23.5	0.5
100	PI2 BPSK	135	69		22.97		24.0	0.0
100	PI2 BPSK	135	133		21.56		23.5	0.5
100	PI2 BPSK	270	0		21.60		23.5	0.5
100	QPSK	1	1		23.13			
100	QPSK	1	137		23.02		24.0	0.0
100	QPSK	1	271		22.86			
100	QPSK	135	0		21.54		23.0	1.0
100	QPSK	135	69		23.07		24.0	0.0
100	QPSK	135	138		21.48		23.0	1.0
100	QPSK	270	0		21.53		23.0	1.0
100	16QAM	1	1		21.69		23.0	1.0
100	64QAM	1	1		19.94		21.5	2.5
100	256QAM	1	1		18.07		19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.01	23.03	22.94	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.94	23.00	22.94	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.94	23.03	22.93	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.94	23.01	22.87	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.02	23.05	22.84	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.02	23.05	22.84	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.98	22.98	22.89	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.00	23.04	22.87	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.00	23.08	22.93	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.98	23.07	22.87	24.0	0.0

Part270 n78 HPUE Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 650000	Middle Ch. Freq. 650000	High Ch. Freq. 650000		
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	3750	3750	3750		
100	PI2 BPSK	1	137		26.08			
100	PI2 BPSK	1	271		26.05		27.0	0.0
100	PI2 BPSK	135	0		25.99		28.5	0.5
100	PI2 BPSK	135	69		25.50		28.5	0.5
100	PI2 BPSK	135	133		26.00		27.0	0.0
100	PI2 BPSK	270	0		25.39		28.5	0.5
100	QPSK	1	1		26.46			
100	QPSK	1	137		26.15			
100	QPSK	1	271		26.02		27.0	0.0
100	QPSK	135	0		25.00		28.0	1.0
100	QPSK	135	69		26.09		27.0	0.0
100	QPSK	135	138		24.95		28.0	1.0
100	QPSK	270	0		24.99		28.0	1.0
100	16QAM	1	1		25.29		28.5	1.0
100	64QAM	1	1		23.83		24.5	2.5
100	256QAM	1	1		21.76		22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	25.95	26.11	25.96	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.94	26.05	25.94	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	25.92	26.03	25.96	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.93	26.10	25.94	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	25.96	26.04	25.96	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	25.91	26.05	25.99	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	25.94	26.01	25.97	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.98	26.03	25.93	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	25.94	26.07	25.98	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.97	26.10	25.93	27.0	0.0



n7 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 504000	Middle Ch. / Freq. 507000	High Ch. / Freq. 510000		
Channel				2530	2535	2550		
Frequency (MHz)								
40	PI/2 BPSK	1	1	17.33	17.33	17.24	18.8	0.0
40	PI/2 BPSK	1	108	17.19	17.36	17.21		
40	PI/2 BPSK	1	214	17.16	17.23	17.25		
40	PI/2 BPSK	108	0	17.01	17.19	17.17	18.8	0.0
40	PI/2 BPSK	108	54	17.22	17.26	17.19	18.8	0.0
40	PI/2 BPSK	108	108	17.11	17.20	17.15	18.8	0.0
40	PI/2 BPSK	216	0	17.24	17.26	17.15		
40	QPSK	1	1	17.40	17.42	17.36		
40	QPSK	1	108	17.30	17.37	17.34	18.8	0.0
40	QPSK	1	214	17.26	17.31	17.30	18.8	0.0
40	QPSK	108	0	17.21	17.23	17.19		
40	QPSK	108	54	17.35	17.38	17.20		
40	QPSK	108	108	17.04	17.17	17.11	18.8	0.0
40	QPSK	216	0	17.16	17.24	17.19	18.8	0.0
40	16QAM	1	1	17.16	17.31	17.08		
40	64QAM	1	1	17.08	17.18	17.20		
40	256QAM	1	1	17.09	17.28	17.12	18.8	0.0
Channel				503000	507000	511000		
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	17.30	17.32	17.25	18.8	0.0
Channel				502500	507000	511500		
Frequency (MHz)				2512.5	2535	2537.5		
25	QPSK	1	1	17.27	17.23	17.23	18.8	0.0
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	17.32	17.37	17.27	18.8	0.0
Channel				501500	507000	512500		
Frequency (MHz)				2507.5	2535	2542.5		
15	QPSK	1	1	17.33	17.35	17.25	18.8	0.0
Channel				501000	507000	513000		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	17.30	17.34	17.24	18.8	0.0
Channel				500500	507000	513500		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	17.25	17.29	17.23	18.8	0.0

n66 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel				1730	1745	1760		
Frequency (MHz)								
40	PI/2 BPSK	1	1	23.43	23.51	23.47	24.0	0.0
40	PI/2 BPSK	1	108	23.38	23.47	23.38		
40	PI/2 BPSK	1	214	23.38	23.44	23.40		
40	PI/2 BPSK	108	0	22.89	23.04	23.00	23.5	0.5
40	PI/2 BPSK	108	54	23.44	23.48	23.43	24.0	0.0
40	PI/2 BPSK	108	108	23.02	23.08	23.02	23.5	0.5
40	PI/2 BPSK	216	0	23.01	23.13	23.02		
40	QPSK	1	1	23.49	23.58	23.51		
40	QPSK	1	108	23.38	23.52	23.39	24.0	0.0
40	QPSK	1	214	23.33	23.48	23.36	23.0	1.0
40	QPSK	108	0	22.44	22.54	22.50		
40	QPSK	108	54	23.39	23.50	23.40		
40	QPSK	108	108	22.34	22.47	22.41	23.0	1.0
40	QPSK	216	0	22.42	22.53	22.43	23.0	1.0
40	16QAM	1	1	22.45	22.58	22.47		
40	64QAM	1	1	20.82	20.95	20.90		
40	256QAM	1	1	18.96	18.99	18.83	19.5	4.5
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	23.40	23.52	23.39	24.0	0.0
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.44	23.51	23.48	24.0	0.0
Channel				343500	349000	354500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.42	23.47	23.41	24.0	0.0
Channel				343000	349000	355000		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.38	23.52	23.45	24.0	0.0
Channel				342500	349000	355500		
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	23.40	23.45	23.39	24.0	0.0



n38 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)								
40	PI2 BPSK	1	1	17.95	18.05	18.00		
40	PI2 BPSK	1	53	17.91	17.94	17.97	19.2	0.0
40	PI2 BPSK	1	104	17.76	17.94	17.91		
40	PI2 BPSK	50	0	17.75	17.74	17.77	19.2	0.0
40	PI2 BPSK	50	28	17.79	17.93	17.90	19.2	0.0
40	PI2 BPSK	50	56	17.90	17.94	17.93	19.2	0.0
40	PI2 BPSK	100	0	17.80	17.85	17.81	19.2	0.0
40	QPSK	1	1	18.13	18.15	17.99		
40	QPSK	1	53	18.00	18.03	17.84	19.2	0.0
40	QPSK	1	104	17.90	17.91	17.89		
40	QPSK	50	0	17.90	17.94	17.83	19.2	0.0
40	QPSK	50	28	17.89	18.05	17.79	19.2	0.0
40	QPSK	50	56	17.83	17.90	17.87		
40	QPSK	100	0	18.00	18.03	17.88	19.2	0.0
40	16QAM	1	1	17.84	17.87	17.85	19.2	0.0
40	64QAM	1	1	17.69	17.92	17.88	19.2	0.0
40	256QAM	1	1	17.73	17.73	17.78	19.2	0.0
Channel								
Frequency (MHz)								
39	QPSK	1	1	17.95	18.00	17.99	19.2	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	17.95	17.97	17.99	19.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.97	17.91	17.90	19.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.00	17.94	17.94	19.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.00	17.94	17.94	24.5	0.0

n41 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	PI2 BPSK	1	1	18.04	18.11	18.10		
100	PI2 BPSK	1	137	17.95	18.08	18.01	19.2	0.0
100	PI2 BPSK	1	271	17.85	17.98	17.97		
100	PI2 BPSK	135	0	17.85	17.87	17.87	19.2	0.0
100	PI2 BPSK	135	69	17.85	18.00	18.04	19.2	0.0
100	PI2 BPSK	135	138	17.86	17.92	17.86	19.2	0.0
100	PI2 BPSK	270	0	17.88	17.95	17.98	19.2	0.0
100	QPSK	1	1	18.17	18.19	18.06		
100	QPSK	1	137	18.11	18.14	17.99	19.2	0.0
100	QPSK	1	271	18.01	17.96	17.92		
100	QPSK	135	0	17.97	18.06	17.95	19.2	0.0
100	QPSK	135	69	18.01	18.10	17.89	19.2	0.0
100	QPSK	135	138	17.98	18.04	17.95		
100	QPSK	270	0	18.04	18.11	18.02	19.2	0.0
100	16QAM	1	1	17.94	17.97	17.89	19.2	0.0
100	64QAM	1	1	17.77	17.97	17.98	19.2	0.0
100	256QAM	1	1	17.86	17.88	17.86	19.2	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.04	18.05	18.03	19.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.02	18.13	17.92	19.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.08	18.11	17.92	19.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.08	18.16	18.01	19.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.05	18.06	18.01	19.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.07	18.15	18.00	19.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.08	18.09	17.92	19.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.13	18.14	18.00	19.2	0.0

n41 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	PI2 BPSK	1	1	21.03	21.16	21.16		
100	PI2 BPSK	1	137	20.98	21.09	20.97	22.2	0.0
100	PI2 BPSK	1	271	20.98	21.03	20.93		
100	PI2 BPSK	135	0	20.85	20.84	20.88	22.2	0.0
100	PI2 BPSK	135	69	20.88	21.04	20.99	22.2	0.0
100	PI2 BPSK	135	138	20.90	20.87	20.91	22.2	0.0
100	PI2 BPSK	270	0	20.84	20.99	20.98	22.2	0.0
100	QPSK	1	1	21.18	21.22	21.04		
100	QPSK	1	137	21.08	21.14	21.04	22.2	0.0
100	QPSK	1	271	20.97	20.92	20.87		
100	QPSK	135	0	20.98	21.10	20.88	22.2	0.0
100	QPSK	135	69	21.00	21.06	20.92	22.2	0.0
100	QPSK	135	138	20.95	21.01	21.01		
100	QPSK	270	0	21.00	21.08	21.02	22.2	0.0
100	16QAM	1	1	20.99	20.98	20.87	22.2	0.0
100	64QAM	1	1	20.73	20.98	20.98	22.2	0.0
100	256QAM	1	1	20.83	20.86	20.85	22.2	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	21.08	21.13	21.01	22.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.13	21.17	20.94	22.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.13	21.08	20.98	22.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.13	21.12	21.00	22.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.08	21.16	20.98	22.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.09	21.15	20.94	22.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.07	21.19	20.89	22.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.10	21.09	20.90	22.2	0.0



Part270 n77 Ant 2							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	MPR (dB)
Channel							
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	18.72	18.78	18.67	
100	PI/2 BPSK	1	137	18.64	18.66	18.90	19.7
100	PI/2 BPSK	1	271	18.56	18.65	18.50	
100	PI/2 BPSK	135	0	18.45	18.52	18.48	19.7
100	PI/2 BPSK	135	69	18.53	18.64	18.47	19.7
100	PI/2 BPSK	135	138	18.59	18.57	18.43	19.7
100	PI/2 BPSK	270	0	18.60	18.70	18.58	19.7
100	QPSK	1	1	18.77	18.85	18.71	
100	QPSK	1	137	18.65	18.80	18.72	19.7
100	QPSK	1	271	18.58	18.78	18.68	
100	QPSK	135	0	18.58	18.66	18.58	19.7
100	QPSK	135	69	18.67	18.75	18.59	19.7
100	QPSK	135	138	18.50	18.58	18.57	19.7
100	QPSK	270	0	18.52	18.63	18.60	19.7
100	16QAM	1	1	18.55	18.61	18.56	19.7
100	64QAM	1	1	18.51	18.68	18.70	19.7
100	256QAM	1	1	17.91	18.05	17.95	19.5
Channel				649998	656000	662000	MPR (dB)
Frequency (MHz)				3745.02	3840	3935.01	
90	QPSK	1	1	18.68	18.80	18.64	19.7
Channel				649334	656000	662668	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3940.02	MPR (dB)
80	QPSK	1	1	18.42	18.78	18.60	19.7
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	MPR (dB)
70	QPSK	1	1	18.41	18.74	18.63	19.7
Channel				648568	656000	663334	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3950.01	MPR (dB)
60	QPSK	1	1	18.63	18.73	18.65	19.7
Channel				648334	656000	663668	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3955.02	MPR (dB)
50	QPSK	1	1	18.64	18.68	18.63	19.7
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	MPR (dB)
40	QPSK	1	1	18.64	18.79	18.62	19.7
Channel				647668	656000	664334	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3965.01	MPR (dB)
30	QPSK	1	1	18.66	18.79	18.58	19.7
Channel				647334	656000	664668	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3970.02	MPR (dB)
20	QPSK	1	1	18.62	18.74	18.61	19.7
Channel				647168	656000	664834	Tune-up limit (dBm)
Frequency (MHz)				3707.62	3840	3972.51	MPR (dB)
15	QPSK	1	1	18.65	18.72	18.65	19.7
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	MPR (dB)
10	QPSK	1	1	18.70	18.74	18.64	19.7

Part270 n77 HPUE Ant 2							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	MPR (dB)
Channel							
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	21.91	21.96	21.88	
100	PI/2 BPSK	1	137	21.83	21.85	21.94	22.7
100	PI/2 BPSK	1	271	21.81	21.87	21.65	
100	PI/2 BPSK	135	0	21.65	21.70	21.65	22.7
100	PI/2 BPSK	135	69	21.77	21.81	21.69	22.7
100	PI/2 BPSK	135	138	21.74	21.73	21.66	22.7
100	PI/2 BPSK	270	0	21.81	21.87	21.78	22.7
100	QPSK	1	1	21.97	22.01	21.98	
100	QPSK	1	137	21.88	21.96	21.84	22.7
100	QPSK	1	271	21.84	21.84	21.86	
100	QPSK	135	0	21.84	21.89	21.82	22.7
100	QPSK	135	69	21.90	21.97	21.78	22.7
100	QPSK	135	138	21.86	21.78	21.70	22.7
100	QPSK	270	0	21.72	21.82	21.76	22.7
100	16QAM	1	1	21.71	21.87	21.82	22.7
100	64QAM	1	1	21.88	21.80	21.86	22.7
100	256QAM	1	1	21.50	21.59	21.56	22.5
Channel				649998	656000	662334	MPR (dB)
Frequency (MHz)				3745.02	3840	3935.01	
90	QPSK	1	1	21.74	21.78	21.75	22.7
Channel				649334	656000	662668	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3940.02	MPR (dB)
80	QPSK	1	1	21.71	21.72	21.67	22.7
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	MPR (dB)
70	QPSK	1	1	21.77	21.73	21.71	22.7
Channel				648568	656000	663334	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3950.01	MPR (dB)
60	QPSK	1	1	21.76	21.75	21.85	22.7
Channel				648334	656000	663668	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3955.02	MPR (dB)
50	QPSK	1	1	21.69	21.72	21.75	22.7
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	MPR (dB)
40	QPSK	1	1	21.77	21.71	21.67	22.7
Channel				647668	656000	664334	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840	3965.01	MPR (dB)
30	QPSK	1	1	21.75	21.78	21.76	22.7
Channel				647334	656000	664668	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3970.02	MPR (dB)
20	QPSK	1	1	21.70	21.76	21.66	22.7
Channel				647168	656000	664834	Tune-up limit (dBm)
Frequency (MHz)				3707.62	3840	3972.51	MPR (dB)
15	QPSK	1	1	21.73	21.81	21.69	22.7
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	MPR (dB)
10	QPSK	1	1	21.76	21.75	21.76	22.7



### Part270 n78 Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 650000	Middle Ch. Freq. 650000	High Ch. Freq. 650000		
Channel				3750	3750	3750		
Frequency (MHz)								
100	PI2 BPSK	1	1	18.61	18.61	18.61	19.7	0.0
100	PI2 BPSK	1	137	18.61	18.61	18.61		
100	PI2 BPSK	1	271	18.52	18.52	18.52		
100	PI2 BPSK	135	0	18.28	18.28	18.28	19.7	0.0
100	PI2 BPSK	135	69	18.37	18.37	18.37	19.7	0.0
100	PI2 BPSK	135	138	18.34	18.34	18.34	19.7	0.0
100	PI2 BPSK	270	0	18.47	18.47	18.47	19.7	0.0
100	QPSK	1	1	18.71	18.71	18.71		
100	QPSK	1	137	18.64	18.64	18.64	19.7	0.0
100	QPSK	1	271	18.60	18.60	18.60		
100	QPSK	135	0	18.50	18.50	18.50	19.7	0.0
100	QPSK	135	69	18.56	18.56	18.56	19.7	0.0
100	QPSK	135	138	18.38	18.38	18.38	19.7	0.0
100	QPSK	270	0	18.40	18.40	18.40	19.7	0.0
100	16QAM	1	1	18.48	18.48	18.48	19.7	0.0
100	64QAM	1	1	18.56	18.56	18.56	19.7	0.0
100	256QAM	1	1	18.18	18.18	18.18	19.5	0.2
Channel				649889	650000	650334		
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	18.58	18.63	18.47	19.7	0.0
Channel				649334	650000	650668		
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	18.57	18.52	18.51	19.7	0.0
Channel				649000	650000	651000		
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	18.50	18.54	18.52	19.7	0.0
Channel				3730.02	3750	3770.01		
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	18.47	18.64	18.41	19.7	0.0
Channel				648334	650000	651668		
Frequency (MHz)				3725.01	3750	3755.02		
50	QPSK	1	1	18.49	18.58	18.43	19.7	0.0
Channel				648000	650000	652000		
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	18.50	18.63	18.42	19.7	0.0
Channel				647668	650000	652334		
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	18.50	18.62	18.46	19.7	0.0
Channel				647334	650000	652668		
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	18.56	18.69	18.44	19.7	0.0
Channel				647168	650000	652834		
Frequency (MHz)				3707.62	3750	3782.51		
15	QPSK	1	1	18.50	18.58	18.51	19.7	0.0
Channel				647000	650000	653000		
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	18.56	18.64	18.42	19.7	0.0

### Part270 n78 HPUE Ant 2

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 650000	Middle Ch. Freq. 650000	High Ch. Freq. 650000		
Channel				3750	3750	3750		
Frequency (MHz)								
100	PI2 BPSK	1	1	21.83	21.73	21.83	22.7	0.0
100	PI2 BPSK	1	137	21.73	21.73	21.73		
100	PI2 BPSK	1	271	21.70	21.70	21.70		
100	PI2 BPSK	135	0	21.80	21.80	21.80	22.7	0.0
100	PI2 BPSK	135	69	21.86	21.86	21.86	22.7	0.0
100	PI2 BPSK	135	138	21.60	21.60	21.60	22.7	0.0
100	PI2 BPSK	270	0	21.66	21.66	21.66	22.7	0.0
100	QPSK	1	1	21.86	21.86	21.86		
100	QPSK	1	137	21.80	21.80	21.80	22.7	0.0
100	QPSK	1	271	21.78	21.78	21.78		
100	QPSK	135	0	21.71	21.71	21.71	22.7	0.0
100	QPSK	135	69	21.81	21.81	21.81	22.7	0.0
100	QPSK	135	138	21.56	21.56	21.56	22.7	0.0
100	QPSK	270	0	21.74	21.74	21.74	22.7	0.0
100	16QAM	1	1	21.64	21.64	21.64	22.7	0.0
100	64QAM	1	1	21.77	21.77	21.77	22.7	0.0
100	256QAM	1	1	21.80	21.80	21.80	22.5	0.2
Channel				649889	650000	650334		
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	21.71	21.75	21.76	22.7	0.0
Channel				649334	650000	650668		
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	21.68	21.71	21.77	22.7	0.0
Channel				649000	650000	651000		
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	21.72	21.70	21.70	22.7	0.0
Channel				3730.02	3750	3770.01		
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	21.77	21.77	21.67	22.7	0.0
Channel				648334	650000	651668		
Frequency (MHz)				3725.01	3750	3755.02		
50	QPSK	1	1	21.72	21.79	21.75	22.7	0.0
Channel				648000	650000	652000		
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	21.70	21.79	21.75	22.7	0.0
Channel				647668	650000	652334		
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	21.75	21.73	21.70	22.7	0.0
Channel				647334	650000	652668		
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	21.74	21.76	21.67	22.7	0.0
Channel				647168	650000	652834		
Frequency (MHz)				3707.62	3750	3782.51		
15	QPSK	1	1	21.72	21.77	21.72	22.7	0.0
Channel				647000	650000	653000		
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	21.77	21.72	21.66	22.7	0.0





n7 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 504000	Middle Ch. / Freq. 507000	High Ch. / Freq. 510000		
Channel				2530	2535	2550		
Frequency (MHz)								
40	PI/2 BPSK	1	1	21.76	21.83	21.73	22.8	0.0
40	PI/2 BPSK	1	108	21.68	21.80	21.73		
40	PI/2 BPSK	1	214	21.66	21.78	21.71		
40	PI/2 BPSK	108	0	21.53	21.58	21.56	22.8	0.0
40	PI/2 BPSK	108	54	21.61	21.79	21.70	22.8	0.0
40	PI/2 BPSK	108	108	21.65	21.87	21.82	22.8	0.0
40	PI/2 BPSK	216	0	21.69	21.71	21.61	22.8	0.0
40	QPSK	1	1	21.83	21.87	21.76	22.8	0.0
40	QPSK	1	108	21.79	21.83	21.85		
40	QPSK	1	214	21.72	21.82	21.84		
40	QPSK	108	0	21.65	21.71	21.65	22.8	0.0
40	QPSK	108	54	21.77	21.81	21.69	22.8	0.0
40	QPSK	108	108	21.81	21.71	21.69	22.8	0.0
40	QPSK	216	0	21.71	21.78	21.84	22.8	0.0
40	16QAM	1	1	21.52	21.63	21.67	22.8	0.0
40	64QAM	1	1	21.42	21.45	21.35	21.5	1.3
40	256QAM	1	1	19.38	19.32	19.48	19.5	3.3
Channel				503000	507000	510000		
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	21.73	21.82	21.71	22.8	0.0
Channel				502500	507000	511500		
Frequency (MHz)				2512.5	2535	2537.5		
25	QPSK	1	1	21.70	21.79	21.69	22.8	0.0
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	21.71	21.82	21.69	22.8	0.0
Channel				501500	507000	515500		
Frequency (MHz)				2507.5	2535	2542.5		
15	QPSK	1	1	21.75	21.75	21.73	22.8	0.0
Channel				501000	507000	516000		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	21.76	21.74	21.71	22.8	0.0
Channel				500500	507000	516500		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	21.80	21.83	21.67	22.8	0.0

n66 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel				1730	1745	1760		
Frequency (MHz)								
40	PI/2 BPSK	1	1	22.12	22.21	22.14	22.9	0.0
40	PI/2 BPSK	1	108	22.12	22.16	22.14		
40	PI/2 BPSK	1	214	22.13	22.14	22.14		
40	PI/2 BPSK	108	0	21.92	21.95	21.95	22.9	0.0
40	PI/2 BPSK	108	54	22.01	22.19	22.12	22.9	0.0
40	PI/2 BPSK	108	108	22.12	22.08	22.00	22.9	0.0
40	PI/2 BPSK	216	0	22.08	22.14	21.98	22.9	0.0
40	QPSK	1	1	22.16	22.24	22.12	22.9	0.0
40	QPSK	1	108	22.10	22.12	22.11		
40	QPSK	1	214	22.21	22.22	22.07		
40	QPSK	108	0	22.11	22.18	22.07	22.9	0.0
40	QPSK	108	54	22.10	22.21	22.02	22.9	0.0
40	QPSK	108	108	22.04	22.12	22.01	22.9	0.0
40	QPSK	216	0	22.01	22.18	22.08	22.9	0.0
40	16QAM	1	1	21.98	22.15	22.13	22.9	0.0
40	64QAM	1	1	21.13	21.16	21.14	21.5	1.4
40	256QAM	1	1	19.37	19.40	19.32	19.5	3.4
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	22.07	22.15	21.98	22.9	0.0
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	22.04	22.10	22.01	22.9	0.0
Channel				343500	349000	354500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	22.00	22.14	22.03	22.9	0.0
Channel				343000	349000	355000		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	22.03	22.18	22.05	22.9	0.0
Channel				342500	349000	355500		
Frequency (MHz)				1712.5	1745	1772.5		
5	QPSK	1	1	22.05	22.13	22.01	22.9	0.0



n38 Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 518004	Power Middle Ch. / Freq. 519000	Power High Ch. / Freq. 519996	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	22.47	22.87	22.58	23.4	0.0	
40	PI2 BPSK	1	59	22.50	22.53	22.51			
40	PI2 BPSK	1	104	22.30	22.41	22.39			
40	PI2 BPSK	50	0	22.26	22.41	22.35	23.4	0.0	
40	PI2 BPSK	50	28	22.47	22.54	22.40	23.4	0.0	
40	PI2 BPSK	50	56	22.34	22.35	22.36			
40	PI2 BPSK	100	0	22.38	22.45	22.36	23.4	0.0	
40	QPSK	1	1	22.59	22.70	22.51			
40	QPSK	1	53	22.63	22.80	22.48	23.4	0.0	
40	QPSK	1	104	22.44	22.56	22.49			
40	QPSK	50	0	22.43	22.54	22.42	23.4	0.0	
40	QPSK	50	28	22.51	22.66	22.35	23.4	0.0	
40	QPSK	50	56	22.43	22.56	22.42			
40	QPSK	100	0	22.53	22.57	22.52	23.4	0.0	
40	16QAM	1	1	22.45	22.47	22.41	23.4	0.0	
40	64QAM	1	1	21.58	21.64	21.54	22.0	1.4	
40	256QAM	1	1	19.28	19.40	19.32	20.0	3.4	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.53	22.59	22.43	23.4	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	22.50	22.45	22.42	23.4	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.46	22.85	22.41	23.4	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	22.47	22.62	22.39	23.4	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	22.53	22.59	22.43	24.5	0.0	

n41 Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 508202	Power Middle Ch. / Freq. 518598	Power High Ch. / Freq. 528000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	22.57	22.71	22.61			
100	PI2 BPSK	1	137	22.53	22.57	22.55	23.4	0.0	
100	PI2 BPSK	1	271	22.41	22.61	22.49			
100	PI2 BPSK	135	0	22.33	22.48	22.49	23.4	0.0	
100	PI2 BPSK	135	69	22.54	22.62	22.50	23.4	0.0	
100	PI2 BPSK	135	138	22.42	22.47	22.49			
100	PI2 BPSK	270	0	22.51	22.48	22.46	23.4	0.0	
100	QPSK	1	1	22.83	22.77	22.56			
100	QPSK	1	137	22.72	22.74	22.51	23.4	0.0	
100	QPSK	1	271	22.57	22.64	22.59			
100	QPSK	135	0	22.58	22.60	22.51	23.4	0.0	
100	QPSK	135	69	22.59	22.70	22.46	23.4	0.0	
100	QPSK	135	138	22.58	22.60	22.56			
100	QPSK	270	0	22.62	22.66	22.60	23.4	0.0	
100	16QAM	1	1	22.50	22.60	22.54	23.4	0.0	
100	64QAM	1	1	21.85	21.70	21.68	22.0	1.4	
100	256QAM	1	1	18.43	19.47	19.47	20.0	3.4	
Channel									
Frequency (MHz)									
90	QPSK	1	1	22.53	22.73	22.43	23.4	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.50	22.68	22.50	23.4	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.58	22.84	22.50	23.4	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.59	22.69	22.52	23.4	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	22.55	22.64	22.43	23.4	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	22.58	22.68	22.45	23.4	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.53	22.70	22.52	23.4	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.52	22.72	22.46	23.4	0.0	

n41 HPUE Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 508202	Power Middle Ch. / Freq. 518598	Power High Ch. / Freq. 528000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	25.43	25.62	25.51			
100	PI2 BPSK	1	137	25.39	25.43	25.45	26.4	0.0	
100	PI2 BPSK	1	271	25.36	25.58	25.38			
100	PI2 BPSK	135	0	25.22	25.39	25.45	26.4	0.0	
100	PI2 BPSK	135	69	25.46	25.53	25.37	26.4	0.0	
100	PI2 BPSK	135	138	25.39	25.43	25.40			
100	PI2 BPSK	270	0	25.41	25.42	25.39	26.4	0.0	
100	QPSK	1	1	25.85	25.72	25.59			
100	QPSK	1	137	25.63	26.85	25.47	26.4	0.0	
100	QPSK	1	271	25.45	26.52	25.46			
100	QPSK	135	0	25.50	25.52	25.47	26.4	0.0	
100	QPSK	135	69	25.55	25.63	25.37	26.4	0.0	
100	QPSK	135	138	25.50	25.51	25.52			
100	QPSK	270	0	25.57	25.60	25.47	26.4	0.0	
100	16QAM	1	1	25.43	25.55	25.46	26.4	0.0	
100	64QAM	1	1	24.71	24.74	24.69	25.0	1.4	
100	256QAM	1	1	22.21	22.32	22.18	23.0	3.4	
Channel									
Frequency (MHz)									
90	QPSK	1	1	25.55	25.59	25.50	26.4	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	25.58	25.62	25.54	26.4	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	25.54	25.65	25.48	26.4	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	25.58	25.68	25.51	26.4	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	25.80	25.66	25.55	26.4	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	25.54	25.57	25.45	26.4	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	25.60	25.67	25.45	26.4	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	25.56	25.60	25.51	26.4	0.0	



Part270 n77 Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.54	18.62	18.57			
100	PI2 BPSK	1	137	18.48	18.55	18.51	19.8	0.0	
100	PI2 BPSK	1	271	18.39	18.57	18.46			
100	PI2 BPSK	135	0	18.39	18.51	18.43	19.8	0.0	
100	PI2 BPSK	135	69	18.52	18.58	18.44	19.8	0.0	
100	PI2 BPSK	135	138	18.44	18.48	18.50	19.8	0.0	
100	PI2 BPSK	270	0	18.49	18.57	18.49	19.8	0.0	
100	QPSK	1	1	18.63	18.69	18.54			
100	QPSK	1	137	18.60	18.65	18.51	19.8	0.0	
100	QPSK	1	271	18.52	18.52	18.45			
100	QPSK	135	0	18.48	18.55	18.50	19.8	0.0	
100	QPSK	135	69	18.53	18.65	18.49	19.8	0.0	
100	QPSK	135	138	18.42	18.50	18.46	19.8	0.0	
100	QPSK	270	0	18.50	18.57	18.52	19.8	0.0	
100	16QAM	1	1	18.43	18.58	18.50	19.8	0.0	
100	64QAM	1	1	18.40	18.47	18.43	19.8	0.0	
100	256QAM	1	1	18.43	18.49	18.33	19.5	0.3	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.54	18.57	18.41	19.8	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.53	18.62	18.49	19.8	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.59	18.63	18.43	19.8	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.59	18.55	18.49	19.8	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.60	18.66	18.47	19.8	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.59	18.64	18.49	19.8	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.52	18.60	18.51	19.8	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.60	18.62	18.42	19.8	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.57	18.55	18.41	19.8	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.52	18.65	18.43	19.8	0.0	

Part270 n77 HPUE Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	21.14	21.22	21.14			
100	PI2 BPSK	1	137	21.14	21.19	21.07	22.8	0.0	
100	PI2 BPSK	1	271	20.97	21.12	21.02			
100	PI2 BPSK	135	0	20.99	21.14	21.06	22.8	0.0	
100	PI2 BPSK	135	69	21.18	21.21	21.03	22.8	0.0	
100	PI2 BPSK	135	138	21.04	21.05	21.15	22.8	0.0	
100	PI2 BPSK	270	0	21.14	21.20	21.10	22.8	0.0	
100	QPSK	1	1	21.21	21.34	21.11			
100	QPSK	1	137	21.23	21.25	21.15	22.8	0.0	
100	QPSK	1	271	21.12	21.12	21.10			
100	QPSK	135	0	21.04	21.19	21.07	22.8	0.0	
100	QPSK	135	69	21.14	21.27	21.05	22.8	0.0	
100	QPSK	135	138	21.06	21.11	21.09	22.8	0.0	
100	QPSK	270	0	21.16	21.19	21.06	22.8	0.0	
100	16QAM	1	1	21.06	21.16	21.06	22.8	0.0	
100	64QAM	1	1	20.97	21.07	21.00	22.8	0.0	
100	256QAM	1	1	20.76	20.83	20.79	22.5	0.3	
Channel									
Frequency (MHz)									
90	QPSK	1	1	21.03	21.15	20.93	22.8	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	21.07	21.15	20.94	22.8	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	21.12	21.22	20.97	22.8	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	21.12	21.14	20.92	22.8	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	21.10	21.13	20.92	22.8	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	21.04	21.17	20.89	22.8	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	21.09	21.18	20.92	22.8	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	21.11	21.14	21.01	22.8	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	21.08	21.24	20.95	22.8	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	21.02	21.14	21.02	22.8	0.0	



Part270 n78 Ant 3

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). Includes data for various modulation types like Pi/2 BPSK, QPSK, 16QAM, and 64QAM across different RB sizes and offsets.

Part270 n78 HPUE Ant 3

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). Similar to the first table but with different power and tune-up parameters for HPUE Ant 3.



### Reduced Power Mode for DSI3 Simultaneous

#### n5 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)								
20	PI2 BPSK	1	1	23.18	23.23	23.13	24.0	0.0
20	PI2 BPSK	1	53	23.04	23.14	23.06		
20	PI2 BPSK	1	104	22.98	23.06	22.94		
20	PI2 BPSK	53	0	22.95	22.76	22.73	23.5	0.5
20	PI2 BPSK	50	26	23.08	23.18	23.11	24.0	0.0
20	PI2 BPSK	50	58	22.59	22.64	22.51	23.5	0.5
20	PI2 BPSK	100	0	22.86	22.70	22.63		
20	PI2 BPSK	100	0	22.86	22.70	22.63		
20	QPSK	1	1	23.23	23.27	23.16	24.0	0.0
20	QPSK	1	53	23.11	23.18	23.13		
20	QPSK	1	104	22.98	23.09	22.98		
20	QPSK	50	0	22.14	22.28	22.21	23.0	1.0
20	QPSK	50	26	22.15	23.21	23.08	24.0	0.0
20	QPSK	50	58	22.14	22.18	22.06	23.0	1.0
20	QPSK	100	0	22.17	22.23	22.13		
20	QPSK	100	0	22.17	22.23	22.13		
20	16QAM	1	1	22.39	22.48	22.42	23.0	1.0
20	16QAM	1	1	20.73	20.86	20.79	21.5	2.5
20	256QAM	1	1	18.89	18.91	18.86	18.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	831.5	836.5	841.5	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	185300	187300	189300	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	836.5	838.5	840.5	24.0	0.0

#### n7 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)								
40	PI2 BPSK	1	1	18.66	18.66	18.69	20.0	0.0
40	PI2 BPSK	1	108	18.66	18.91	18.69		
40	PI2 BPSK	1	214	18.67	18.70	18.73		
40	PI2 BPSK	108	0	18.57	18.70	18.58	20.0	0.0
40	PI2 BPSK	108	54	18.73	18.70	18.82	20.0	0.0
40	PI2 BPSK	108	108	18.84	18.81	18.79	20.0	0.0
40	PI2 BPSK	216	0	18.72	18.83	18.74		
40	PI2 BPSK	216	0	18.72	18.83	18.74		
40	QPSK	1	1	18.85	18.83	18.91	20.0	0.0
40	QPSK	1	108	18.86	18.80	18.83		
40	QPSK	1	214	18.88	18.83	18.71		
40	QPSK	108	0	18.66	18.90	18.79	20.0	0.0
40	QPSK	108	54	18.71	18.91	18.76	20.0	0.0
40	QPSK	108	108	18.71	18.75	18.77	20.0	0.0
40	QPSK	216	0	18.67	18.72	18.58		
40	QPSK	216	0	18.67	18.72	18.58		
40	16QAM	1	1	18.78	18.80	18.77	20.0	0.0
40	16QAM	1	1	18.91	18.83	18.83	20.0	0.0
40	256QAM	1	1	17.30	17.38	17.23	18.5	1.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	2515	2535	2555	20.0	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.89	18.78	18.78	20.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	501800	507000	512600	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	2507.5	2535	2567.5	20.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.81	18.84	18.80	20.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.85	18.78	18.78	20.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.89	18.78	18.78	20.0	0.0

#### n66 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)								
40	PI2 BPSK	1	1	22.14	22.27	22.17	23.0	0.0
40	PI2 BPSK	1	108	22.07	22.22	22.11		
40	PI2 BPSK	1	214	22.08	22.16	22.12		
40	PI2 BPSK	108	0	21.88	21.98	21.82	22.5	0.5
40	PI2 BPSK	108	54	22.02	22.20	22.13		
40	PI2 BPSK	108	108	21.89	21.81	21.78		
40	PI2 BPSK	216	0	21.74	21.84	21.85	22.5	0.5
40	QPSK	1	1	22.23	22.36	22.31	23.0	0.0
40	QPSK	1	108	22.04	22.26	22.14		
40	QPSK	1	214	22.02	22.21	22.07		
40	QPSK	108	0	21.13	21.36	21.24	22.0	1.0
40	QPSK	108	54	22.15	22.29	22.24	23.0	0.0
40	QPSK	108	108	21.04	21.48	21.35	22.0	1.0
40	QPSK	216	0	21.28	21.43	21.29		
40	QPSK	216	0	21.28	21.43	21.29		
40	16QAM	1	1	20.96	21.11	21.01	22.0	1.0
40	16QAM	1	1	19.67	19.93	19.81	20.5	2.5
40	256QAM	1	1	17.59	17.85	17.73	18.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	1725	1745	1765	23.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	1720	1745	1770	23.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	1715	1745	1775	23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
5	QPSK	1	1	1712.5	1745	1777.5	23.0	0.0



n38 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				2590.02	2595	2599.98			
Frequency (MHz)									
40	PI2 BPSK	1	1	19.03	19.19	19.08			
40	PI2 BPSK	1	59	18.98	19.11	18.86			
40	PI2 BPSK	1	104	18.85	18.97	19.00			
40	PI2 BPSK	50	0	19.10	19.12	19.07	20.4	0.0	
40	PI2 BPSK	50	28	19.15	19.19	19.11	20.4	0.0	
40	PI2 BPSK	50	56	18.84	19.10	18.93	20.4	0.0	
40	PI2 BPSK	100	0	18.97	18.97	18.94	20.4	0.0	
40	QPSK	1	1	19.22	19.28	19.17			
40	QPSK	1	53	19.05	19.24	18.94	20.4	0.0	
40	QPSK	1	104	18.94	19.02	19.03			
40	QPSK	50	0	19.20	19.25	18.99	20.4	0.0	
40	QPSK	50	28	18.93	19.21	18.78	20.4	0.0	
40	QPSK	50	56	19.13	19.12	19.09			
40	QPSK	100	0	18.83	18.11	18.92	20.4	0.0	
40	16QAM	1	1	18.79	18.90	18.86	20.4	0.0	
40	64QAM	1	1	18.75	18.93	18.74	20.4	0.0	
40	256QAM	1	1	17.11	17.27	17.12	18.5	1.9	
Channel				517002	518000	520098	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	19.00	19.16	18.80	20.4	0.0	
Channel				516504	519000	521496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
25	QPSK	1	1	19.98	19.21	18.83	20.4	0.0	
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	18.95	19.17	18.81	20.4	0.0	
Channel				515500	519000	522496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
15	QPSK	1	1	18.94	19.16	18.83	20.4	0.0	
Channel				515004	519000	522996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	18.88	19.21	18.83	20.4	0.0	

n41 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				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	19.15	19.32	19.15			
100	PI2 BPSK	1	137	18.96	19.20	18.90	20.4	0.0	
100	PI2 BPSK	1	271	18.97	19.04	19.08			
100	PI2 BPSK	135	0	19.23	19.24	19.17	20.4	0.0	
100	PI2 BPSK	135	69	19.22	19.27	19.18	20.4	0.0	
100	PI2 BPSK	135	138	18.96	19.20	18.90	20.4	0.0	
100	PI2 BPSK	270	0	18.99	19.05	19.06			
100	QPSK	1	1	19.27	19.36	19.27			
100	QPSK	1	137	19.09	19.28	19.05	20.4	0.0	
100	QPSK	1	271	19.07	19.13	19.16			
100	QPSK	135	0	19.24	19.31	19.14	20.4	0.0	
100	QPSK	135	69	19.04	19.33	18.89	20.4	0.0	
100	QPSK	135	138	19.24	19.24	19.22	20.4	0.0	
100	QPSK	270	0	18.97	19.22	19.00			
100	16QAM	1	1	18.92	18.96	19.00	20.4	0.0	
100	64QAM	1	1	18.90	18.97	18.85	20.4	0.0	
100	256QAM	1	1	16.83	16.88	16.80	18.5	1.9	
Channel				506200	516596	526996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
90	QPSK	1	1	18.92	19.08	19.12	20.4	0.0	
Channel				507204	516598	526998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
80	QPSK	1	1	19.01	19.03	19.00	20.4	0.0	
Channel				506202	516598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
70	QPSK	1	1	18.92	19.07	19.10	20.4	0.0	
Channel				505200	516596	531006	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
60	QPSK	1	1	18.95	19.06	19.03	20.4	0.0	
Channel				504204	516598	532998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
50	QPSK	1	1	18.95	19.00	19.04	20.4	0.0	
Channel				503202	516598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
40	QPSK	1	1	19.01	19.09	19.00	20.4	0.0	
Channel				502200	516598	534996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	18.99	19.02	19.09	20.4	0.0	
Channel				501204	516598	535998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	18.96	19.06	19.05	20.4	0.0	

n41 HPUE 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				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	22.25	22.28	22.20			
100	PI2 BPSK	1	137	22.21	22.31	22.14	23.4	0.0	
100	PI2 BPSK	1	271	22.12	22.27	22.09			
100	PI2 BPSK	135	0	22.21	22.40	22.28	23.4	0.0	
100	PI2 BPSK	135	69	22.22	22.36	22.26	23.4	0.0	
100	PI2 BPSK	135	138	22.07	22.25	22.13	23.4	0.0	
100	PI2 BPSK	270	0	22.08	22.18	22.18			
100	QPSK	1	1	22.34	22.42	22.36			
100	QPSK	1	137	22.18	22.38	22.24	23.4	0.0	
100	QPSK	1	271	22.16	22.30	22.24			
100	QPSK	135	0	22.30	22.31	22.34	23.4	0.0	
100	QPSK	135	69	22.02	22.36	22.19	23.4	0.0	
100	QPSK	135	138	22.19	22.34	22.28	23.4	0.0	
100	QPSK	270	0	22.04	22.34	22.24			
100	16QAM	1	1	22.09	22.29	22.10	23.4	0.0	
100	64QAM	1	1	22.01	22.18	22.09	23.4	0.0	
100	256QAM	1	1	20.21	20.35	20.29	21.5	1.9	
Channel				506200	516598	526996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
90	QPSK	1	1	22.12	22.19	22.17	23.4	0.0	
Channel				507204	516598	526998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
80	QPSK	1	1	22.01	22.19	22.21	23.4	0.0	
Channel				506202	516598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
70	QPSK	1	1	22.01	22.15	22.16	23.4	0.0	
Channel				505200	516596	531006	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
60	QPSK	1	1	22.08	22.22	22.16	23.4	0.0	
Channel				504204	516598	532998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
50	QPSK	1	1	22.02	22.14	22.22	23.4	0.0	
Channel				503202	516598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
40	QPSK	1	1	22.01	22.20	22.20	23.4	0.0	
Channel				502200	516598	534996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	22.04	22.26	22.20	23.4	0.0	
Channel				501204	516598	535998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	22.06	22.22	22.16	23.4	0.0	



Part270 n77 Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	20.24	20.37	20.28			
100	PI2 BPSK	1	137	20.20	20.33	20.22	21.0	0.0	
100	PI2 BPSK	1	271	20.15	20.28	20.22			
100	PI2 BPSK	135	0	18.72	18.78	18.74	20.5	0.5	
100	PI2 BPSK	135	69	20.22	20.31	20.19	21.0	0.0	
100	PI2 BPSK	135	138	18.83	18.78	18.87	20.5	0.5	
100	PI2 BPSK	270	0	18.80	18.88	18.80			
100	QPSK	1	1	20.37	20.43	20.31			
100	QPSK	1	137	20.19	20.35	20.25	21.0	0.0	
100	QPSK	1	271	20.13	20.31	20.20			
100	QPSK	135	0	18.84	18.97	18.83	20.0	1.0	
100	QPSK	135	69	20.20	20.38	20.27	21.0	0.0	
100	QPSK	135	138	18.84	18.96	18.81	20.0	1.0	
100	QPSK	270	0	18.91	19.02	18.88	20.0	1.0	
100	16QAM	1	1	18.80	18.88	18.80	20.0	1.0	
100	64QAM	1	1	17.49	17.65	17.53	18.5	2.5	
100	256QAM	1	1	15.22	15.32	15.28	16.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	20.26	20.38	20.30	21.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	23.19	23.25	23.31	21.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	20.23	20.35	20.32	21.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	20.19	20.28	20.30	21.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	20.28	20.37	20.25	21.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	20.24	20.30	20.31	21.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	20.20	20.28	20.26	21.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	20.22	20.28	20.24	21.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	20.19	20.35	20.30	21.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	20.28	20.34	20.28	21.0	0.0	

Part270 n77 HPUE Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	23.33	23.39	23.29			
100	PI2 BPSK	1	137	23.23	23.33	23.28	24.0	0.0	
100	PI2 BPSK	1	271	23.14	23.27	23.23			
100	PI2 BPSK	135	0	22.79	22.88	22.84	23.5	0.5	
100	PI2 BPSK	135	69	23.28	23.34	23.20	24.0	0.0	
100	PI2 BPSK	135	138	22.86	22.90	22.79	23.5	0.5	
100	PI2 BPSK	270	0	22.88	22.94	22.82			
100	QPSK	1	1	23.36	23.42	23.32			
100	QPSK	1	137	23.28	23.35	23.25	24.0	0.0	
100	QPSK	1	271	23.21	23.31	23.22			
100	QPSK	135	0	22.21	22.34	22.26	23.0	1.0	
100	QPSK	135	69	23.22	23.38	23.28	24.0	0.0	
100	QPSK	135	138	22.34	22.39	22.34	23.0	1.0	
100	QPSK	270	0	22.32	22.45	22.39	23.0	1.0	
100	16QAM	1	1	22.46	22.57	22.51	23.0	1.0	
100	64QAM	1	1	20.74	20.88	20.77	21.5	2.5	
100	256QAM	1	1	18.58	18.67	18.63	19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	23.28	23.35	23.24	24.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	23.11	23.34	23.27	24.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	23.29	23.37	23.25	24.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	23.26	23.38	23.31	24.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	23.25	23.28	23.27	24.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	23.29	23.30	23.19	24.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	23.24	23.38	23.19	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.31	23.28	23.25	24.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.31	23.32	23.21	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	23.28	23.29	23.25	24.0	0.0	



Part270 n78 Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		20.31		21.0	0.0	
100	PI2 BPSK	1	137		20.27				
100	PI2 BPSK	1	271		20.22				
100	PI2 BPSK	135	0		19.13		20.5	0.5	
100	PI2 BPSK	135	69		20.25		21.0	0.0	
100	PI2 BPSK	135	138		19.01		20.5	0.5	
100	PI2 BPSK	270	0		19.07				
100	QPSK	1	1		20.35				
100	QPSK	1	137		20.30		21.0	0.0	
100	QPSK	1	271		20.17				
100	QPSK	135	0		19.82		20.0	1.0	
100	QPSK	135	69		20.29		21.0	0.0	
100	QPSK	135	138		18.67		20.0	1.0	
100	QPSK	270	0		18.72		20.0	1.0	
100	16QAM	1	1		18.84		20.0	1.0	
100	64QAM	1	1		17.58		18.5	2.5	
100	256QAM	1	1		15.33		16.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649868	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	647668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	646700	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	

Part270 n78 HPUE Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		23.17		24.0	0.0	
100	PI2 BPSK	1	137		23.08				
100	PI2 BPSK	1	271		23.02				
100	PI2 BPSK	135	0		22.52		23.5	0.5	
100	PI2 BPSK	135	69		23.09		24.0	0.0	
100	PI2 BPSK	135	138		22.46		23.5	0.5	
100	PI2 BPSK	270	0		22.53				
100	QPSK	1	1		23.21				
100	QPSK	1	137		23.11		24.0	0.0	
100	QPSK	1	271		23.04				
100	QPSK	135	0		22.01		23.0	1.0	
100	QPSK	135	69		23.14		24.0	0.0	
100	QPSK	135	138		21.95		23.0	1.0	
100	QPSK	270	0		22.02		23.0	1.0	
100	16QAM	1	1		22.03		23.0	1.0	
100	64QAM	1	1		20.85		21.5	2.5	
100	256QAM	1	1		18.88		19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	647668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	





### n5 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 166800	Power Middle Ch. / Freq. 167300	Power High Ch. / Freq. 167800	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	21.69	21.83	21.79	23.0	0.0
20	PI2 BPSK	1	59	21.73	21.78	21.87		
20	PI2 BPSK	1	104	21.61	21.70	21.68		
20	PI2 BPSK	50	0	21.34	21.41	21.34	22.5	0.5
20	PI2 BPSK	50	28	21.67	21.79	21.75	23.0	0.0
20	PI2 BPSK	50	56	21.24	21.34	21.20	22.5	0.5
20	PI2 BPSK	100	0	21.35	21.40	21.28	23.0	0.0
20	QPSK	1	1	21.83	21.89	21.76	23.0	0.0
20	QPSK	1	53	21.71	21.82	21.70		
20	QPSK	1	104	21.65	21.76	21.61		
20	QPSK	50	0	20.79	20.87	20.76	22.0	1.0
20	QPSK	50	28	21.68	21.81	21.76	23.0	0.0
20	QPSK	50	56	20.70	20.84	20.75	22.0	1.0
20	QPSK	100	0	20.77	20.90	20.80	22.0	1.0
20	16QAM	1	1	21.22	21.28	21.13	22.0	1.0
20	64QAM	1	1	19.46	19.57	19.45	20.5	2.5
20	256QAM	1	1	17.39	17.51	17.41	18.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	165300	167300	168300	Tune-up limit	MPR
							(dBm)	(dB)
							23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	165800	167300	168800	Tune-up limit	MPR
							(dBm)	(dB)
							23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	162.5	163.5	164.5	Tune-up limit	MPR
							(dBm)	(dB)
							23.0	0.0

### n7 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 504000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 510000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	19.67	19.77	19.70	21.0	0.0
40	PI2 BPSK	1	109	19.61	19.72	19.65		
40	PI2 BPSK	1	214	19.55	19.67	19.60		
40	PI2 BPSK	108	0	19.51	19.57	19.54	21.0	0.0
40	PI2 BPSK	108	54	19.60	19.69	19.63	21.0	0.0
40	PI2 BPSK	108	108	19.45	19.53	19.42	21.0	0.0
40	PI2 BPSK	216	0	19.51	19.56	19.48	21.0	0.0
40	QPSK	1	1	19.79	19.83	19.71	21.0	0.0
40	QPSK	1	108	19.72	19.78	19.62		
40	QPSK	1	214	19.66	19.71	19.60		
40	QPSK	108	0	19.65	19.68	19.61	21.0	0.0
40	QPSK	108	54	19.72	19.78	19.62	21.0	0.0
40	QPSK	108	108	19.61	19.70	19.65	21.0	0.0
40	QPSK	216	0	19.66	19.74	19.71	21.0	0.0
40	16QAM	1	1	19.57	19.68	19.61	21.0	0.0
40	64QAM	1	1	19.50	19.61	19.57	21.0	0.0
40	256QAM	1	1	18.52	18.67	18.59	19.5	1.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	503000	507000	511000	Tune-up limit	MPR
							(dBm)	(dB)
							21.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	502500	507000	511500	Tune-up limit	MPR
							(dBm)	(dB)
							21.0	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	2510	2535	2550	Tune-up limit	MPR
							(dBm)	(dB)
							21.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.66	19.73	19.59	21.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	505000	507000	513000	Tune-up limit	MPR
							(dBm)	(dB)
							21.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	2502.5	2533	2557.5	Tune-up limit	MPR
							(dBm)	(dB)
							21.0	0.0

### n6 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	21.72	21.91	21.86	23.0	0.0
40	PI2 BPSK	1	108	21.74	21.78	21.74		
40	PI2 BPSK	1	214	21.61	21.79	21.71		
40	PI2 BPSK	108	0	21.67	21.84	21.66	23.0	0.0
40	PI2 BPSK	108	54	21.78	21.81	21.68	23.0	0.0
40	PI2 BPSK	108	108	21.55	21.67	21.56	23.0	0.0
40	PI2 BPSK	216	0	21.62	21.64	21.59	23.0	0.0
40	QPSK	1	1	21.82	21.98	21.89	23.0	0.0
40	QPSK	1	108	21.80	21.89	21.89		
40	QPSK	1	214	21.79	21.88	21.78		
40	QPSK	108	0	21.52	21.67	21.54	23.0	0.0
40	QPSK	108	54	21.78	21.89	21.81	23.0	0.0
40	QPSK	108	108	21.65	21.72	21.62	23.0	0.0
40	QPSK	216	0	21.67	21.77	21.73	23.0	0.0
40	16QAM	1	1	21.61	21.68	21.65	23.0	0.0
40	64QAM	1	1	19.79	19.93	19.80	21.5	1.5
40	256QAM	1	1	18.00	18.05	18.01	19.5	3.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	345000	349000	353000	Tune-up limit	MPR
							(dBm)	(dB)
							23.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	344000	349000	354000	Tune-up limit	MPR
							(dBm)	(dB)
							23.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	1717.5	1745	1772.5	Tune-up limit	MPR
							(dBm)	(dB)
							23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	342500	349000	355500	Tune-up limit	MPR
							(dBm)	(dB)
							23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.82	21.93	21.76	23.0	0.0



### n38 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PV2 BPSK	1	1	20.19	20.14	20.14	21.5	0.0
40	PV2 BPSK	1	53	20.10	20.20	20.18		
40	PV2 BPSK	1	104	20.11	20.13	20.18	21.5	0.0
40	PV2 BPSK	50	0	20.04	20.18	19.98		
40	PV2 BPSK	50	28	19.97	20.22	20.05	21.5	0.0
40	PV2 BPSK	50	56	20.13	20.10	20.04		
40	PV2 BPSK	100	0	20.24	20.16	20.02	21.5	0.0
40	QPSK	1	1	20.28	20.29	20.19		
40	QPSK	1	53	20.20	20.38	20.19	21.5	0.0
40	QPSK	1	104	20.15	20.27	20.21		
40	QPSK	50	0	20.07	20.22	20.16	21.5	0.0
40	QPSK	50	28	20.31	20.34	20.17		
40	QPSK	50	56	20.10	20.24	20.14	21.5	0.0
40	QPSK	100	0	20.18	20.30	20.12		
40	16QAM	1	1	19.98	20.12	19.98	21.5	0.0
40	64QAM	1	1	20.01	20.06	19.98		
40	256QAM	1	1	18.30	18.42	18.29	19.5	2.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.21	20.25	20.18	21.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.10	20.28	20.13	21.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.17	20.25	20.13	21.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.12	20.26	20.08	21.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.10	20.28	20.18	24.0	0.0
Channel								
Frequency (MHz)								

### n41 Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PV2 BPSK	1	1	20.30	20.29	20.28	21.5	0.0
100	PV2 BPSK	1	137	20.18	20.28	20.22		
100	PV2 BPSK	1	271	20.18	20.17	20.21	21.5	0.0
100	PV2 BPSK	135	0	20.08	20.24	20.04		
100	PV2 BPSK	135	69	20.11	20.26	20.14	21.5	0.0
100	PV2 BPSK	135	138	20.19	20.15	20.09		
100	PV2 BPSK	270	0	20.29	20.27	20.16	21.5	0.0
100	QPSK	1	1	20.34	20.44	20.33		
100	QPSK	1	137	20.25	20.40	20.31	21.5	0.0
100	QPSK	1	271	20.20	20.34	20.28		
100	QPSK	135	0	20.20	20.34	20.23	21.5	0.0
100	QPSK	135	69	20.37	20.38	20.27		
100	QPSK	135	138	20.21	20.29	20.25	21.5	0.0
100	QPSK	270	0	20.23	20.35	20.28		
100	16QAM	1	1	20.05	20.17	20.08	21.5	0.0
100	64QAM	1	1	20.13	20.18	20.12		
100	256QAM	1	1	17.85	17.94	17.81	19.5	2.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	20.25	20.38	20.23	21.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.20	20.32	20.19	21.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.28	20.37	20.22	21.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.27	20.41	20.27	21.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.27	20.30	20.21	21.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.20	20.37	20.27	21.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.31	20.35	20.29	21.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.27	20.38	20.20	21.5	0.0
Channel								
Frequency (MHz)								

### n41 HPUE Ant 1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PV2 BPSK	1	1	23.41	23.43	23.43	24.5	0.0
100	PV2 BPSK	1	137	23.28	23.42	23.28		
100	PV2 BPSK	1	271	23.30	23.27	23.37	24.5	0.0
100	PV2 BPSK	135	0	23.16	23.34	23.25		
100	PV2 BPSK	135	69	23.35	23.32	23.24	24.5	0.0
100	PV2 BPSK	135	138	23.22	23.35	23.24		
100	PV2 BPSK	270	0	23.34	23.38	23.29	24.5	0.0
100	QPSK	1	1	23.48	23.53	23.41		
100	QPSK	1	137	23.49	23.44	23.36	24.5	0.0
100	QPSK	1	271	23.32	23.42	23.44		
100	QPSK	135	0	23.34	23.45	23.42	24.5	0.0
100	QPSK	135	69	23.39	23.50	23.38		
100	QPSK	135	138	23.38	23.32	23.33	24.5	0.0
100	QPSK	270	0	23.35	23.48	23.38		
100	16QAM	1	1	23.27	23.35	23.30	24.5	0.0
100	64QAM	1	1	23.38	23.40	23.32		
100	256QAM	1	1	21.80	21.88	21.63	22.5	2.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.41	23.49	23.37	24.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.40	23.42	23.29	24.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.44	23.46	23.23	24.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.36	23.39	23.31	24.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.35	23.48	23.38	24.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.35	23.44	23.29	24.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.35	23.45	23.35	24.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.41	23.50	23.28	24.5	0.0
Channel								
Frequency (MHz)								



Part270 n77 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	22.59	22.64	22.52		
100	PI2 BPSK	1	137	22.53	22.65	22.49	24.0	0.0
100	PI2 BPSK	1	271	22.48	22.58	22.44		
100	PI2 BPSK	135	0	21.45	21.48	21.46	23.5	0.5
100	PI2 BPSK	135	69	22.55	22.57	22.48	24.0	0.0
100	PI2 BPSK	135	138	21.47	21.58	21.43	23.5	0.5
100	PI2 BPSK	270	0	21.48	21.57	21.41		
100	QPSK	1	1	22.71	22.78	22.65		
100	QPSK	1	137	22.86	22.72	22.59	24.0	0.0
100	QPSK	1	271	22.83	22.72	22.82		
100	QPSK	135	0	21.45	21.49	21.47	23.0	1.0
100	QPSK	135	69	22.68	22.72	22.65	24.0	0.0
100	QPSK	135	138	21.48	21.52	21.38	23.0	1.0
100	QPSK	270	0	21.52	21.63	21.46	23.0	1.0
100	16QAM	1	1	21.82	21.82	21.49	23.0	1.0
100	64QAM	1	1	20.05	20.11	20.00	21.5	2.5
100	256QAM	1	1	18.07	18.20	18.12	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.58	22.65	22.52	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.57	22.63	22.49	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.61	22.72	22.59	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.56	22.69	22.53	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.61	22.65	22.47	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.59	22.63	22.57	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.58	22.63	22.54	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.55	22.61	22.56	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.53	22.67	22.49	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.59	22.64	22.57	24.0	0.0

Part270 n77 HPUE Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	25.58	25.69	25.48		
100	PI2 BPSK	1	137	25.54	25.68	25.46	27.0	0.0
100	PI2 BPSK	1	271	25.47	25.62	25.39		
100	PI2 BPSK	135	0	24.40	24.54	24.52	26.5	0.5
100	PI2 BPSK	135	69	25.49	25.58	25.52	27.0	0.0
100	PI2 BPSK	135	138	24.52	24.64	24.41	26.5	0.5
100	PI2 BPSK	270	0	24.44	24.58	24.43		
100	QPSK	1	1	25.75	25.80	25.63		
100	QPSK	1	137	25.67	25.78	25.56	27.0	0.0
100	QPSK	1	271	25.68	25.74	25.39		
100	QPSK	135	0	24.40	24.48	24.43	26.0	1.0
100	QPSK	135	69	25.65	25.69	25.54	27.0	0.0
100	QPSK	135	138	24.49	24.47	24.43	26.0	1.0
100	QPSK	270	0	24.55	24.68	24.46	26.0	1.0
100	16QAM	1	1	24.56	24.59	24.55	26.0	1.0
100	64QAM	1	1	23.01	23.05	23.01	24.5	2.5
100	256QAM	1	1	21.03	21.15	21.07	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	25.60	25.68	25.52	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.67	25.71	25.53	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	25.68	25.68	25.53	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.70	25.75	25.58	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	25.70	25.74	25.52	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	25.64	25.67	25.55	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	25.62	25.68	25.53	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.68	25.72	25.53	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	25.64	25.73	25.57	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.65	25.75	25.59	27.0	0.0



Part270 n78 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	22.50	22.50	22.50	24.0	0.0	
100	PI2 BPSK	1	137	22.50	22.50	22.50	24.0	0.0	
100	PI2 BPSK	1	271	22.47	22.47	22.47	24.0	0.0	
100	PI2 BPSK	135	0	21.38	21.38	21.38	23.5	0.5	
100	PI2 BPSK	135	69	22.52	22.52	22.52	24.0	0.0	
100	PI2 BPSK	135	138	21.48	21.48	21.48	23.5	0.5	
100	PI2 BPSK	270	0	21.48	21.48	21.48	23.5	0.5	
100	QPSK	1	1	22.73	22.73	22.73	24.0	0.0	
100	QPSK	1	137	22.63	22.63	22.63	24.0	0.0	
100	QPSK	1	271	22.61	22.61	22.61	24.0	0.0	
100	QPSK	135	0	21.39	21.39	21.39	23.0	1.0	
100	QPSK	135	69	22.63	22.63	22.63	24.0	0.0	
100	QPSK	135	138	21.39	21.39	21.39	23.0	1.0	
100	QPSK	270	0	21.54	21.54	21.54	23.0	1.0	
100	16QAM	1	1	21.54	21.54	21.54	23.0	1.0	
100	64QAM	1	1	20.01	20.01	20.01	21.5	2.5	
100	256QAM	1	1	18.05	18.05	18.05	19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	22.52	22.50	22.38	24.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.52	22.54	22.45	24.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.47	22.60	22.47	24.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.47	22.59	22.37	24.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	22.42	22.51	22.42	24.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	22.49	22.50	22.40	24.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.44	22.60	22.38	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.46	22.59	22.39	24.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	22.50	22.57	22.40	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.50	22.51	22.39	24.0	0.0	

Part270 n78 HPUE Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	25.50	25.50	25.50	27.0	0.0	
100	PI2 BPSK	1	137	25.50	25.50	25.50	27.0	0.0	
100	PI2 BPSK	1	271	25.41	25.41	25.41	27.0	0.0	
100	PI2 BPSK	135	0	24.43	24.43	24.43	26.5	0.5	
100	PI2 BPSK	135	69	25.47	25.47	25.47	27.0	0.0	
100	PI2 BPSK	135	138	24.48	24.48	24.48	26.5	0.5	
100	PI2 BPSK	270	0	24.38	24.38	24.38	26.5	0.5	
100	QPSK	1	1	25.69	25.69	25.69	27.0	0.0	
100	QPSK	1	137	25.67	25.67	25.67	27.0	0.0	
100	QPSK	1	271	25.63	25.63	25.63	27.0	0.0	
100	QPSK	135	0	24.37	24.37	24.37	26.0	1.0	
100	QPSK	135	69	25.55	25.55	25.55	27.0	0.0	
100	QPSK	135	138	24.27	24.27	24.27	26.0	1.0	
100	QPSK	270	0	24.58	24.58	24.58	26.0	1.0	
100	16QAM	1	1	24.47	24.47	24.47	26.0	1.0	
100	64QAM	1	1	22.92	22.92	22.92	24.5	2.5	
100	256QAM	1	1	20.95	20.95	20.95	22.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	25.39	25.48	25.39	27.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	25.47	25.56	25.39	27.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	25.47	25.53	25.42	27.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	25.43	25.48	25.34	27.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	25.47	25.50	25.41	27.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	25.50	25.51	25.42	27.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	25.49	25.58	25.36	27.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	25.43	25.51	25.31	27.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	25.50	25.51	25.37	27.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	25.50	25.58	25.33	27.0	0.0	



n7 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 504000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 510000	Tune-up limit (dBm)	MPR (dB)
Channel				2520	2535	2550		
Frequency (MHz)				14.71	14.77	14.68		
40	PI/2 BPSK	1	1	14.71	14.77	14.68	15.8	0.0
40	PI/2 BPSK	1	108	14.54	14.85	14.49		
40	PI/2 BPSK	1	214	14.57	14.80	14.56		
40	PI/2 BPSK	108	0	14.78	14.78	14.83	15.8	0.0
40	PI/2 BPSK	108	54	14.62	14.71	14.52	15.8	0.0
40	PI/2 BPSK	108	108	14.58	14.83	14.50	15.8	0.0
40	PI/2 BPSK	216	0	14.57	14.71	14.49		
40	QPSK	1	1	14.86	14.89	14.74		
40	QPSK	1	108	14.67	14.78	14.58	15.8	0.0
40	QPSK	1	214	14.68	14.74	14.62		
40	QPSK	108	0	14.51	14.68	14.47	15.8	0.0
40	QPSK	108	54	14.74	14.85	14.66	15.8	0.0
40	QPSK	108	108	14.53	14.67	14.56	15.8	0.0
40	QPSK	216	0	14.73	14.80	14.66		
40	16QAM	1	1	14.53	14.73	14.53	15.8	0.0
40	64QAM	1	1	14.51	14.83	14.49	15.8	0.0
40	256QAM	1	1	14.54	14.67	14.46	15.8	0.0
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	14.78	14.79	14.69	15.8	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.5	2535	2537.5		
25	QPSK	1	1	14.74	14.81	14.60	15.8	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	14.70	14.80	14.59	15.8	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2542.5		
15	QPSK	1	1	14.78	14.78	14.58	15.8	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	14.78	14.85	14.69	15.8	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	14.70	14.80	14.58	15.8	0.0

n66 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760		
Frequency (MHz)				23.43	23.47	23.47		
40	PI/2 BPSK	1	1	23.43	23.51	23.47	24.0	0.0
40	PI/2 BPSK	1	108	23.38	23.47	23.38		
40	PI/2 BPSK	1	214	23.38	23.44	23.40		
40	PI/2 BPSK	108	0	22.89	23.04	23.00	23.5	0.5
40	PI/2 BPSK	108	54	23.44	23.48	23.43	24.0	0.0
40	PI/2 BPSK	108	108	23.02	23.08	23.02	23.5	0.5
40	PI/2 BPSK	216	0	23.01	23.13	23.02		
40	QPSK	1	1	23.49	23.58	23.51		
40	QPSK	1	108	23.38	23.52	23.39	24.0	0.0
40	QPSK	1	214	23.33	23.48	23.36		
40	QPSK	108	0	22.44	22.54	22.50	23.0	1.0
40	QPSK	108	54	23.39	23.50	23.40	24.0	0.0
40	QPSK	108	108	22.34	22.47	22.41	23.0	1.0
40	QPSK	216	0	22.42	22.51	22.43		
40	16QAM	1	1	22.45	22.58	22.47	23.0	1.0
40	64QAM	1	1	20.82	20.95	20.90	21.5	2.5
40	256QAM	1	1	18.96	18.99	18.83	19.5	4.5
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	23.40	23.52	23.39	24.0	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.44	23.51	23.48	24.0	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.42	23.47	23.41	24.0	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.38	23.52	23.45	24.0	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	23.40	23.45	23.39	24.0	0.0



**n38 Ant 2**

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 518004	Middle Ch. Freq. 519000	High Ch. Freq. 519996		
Channel								
Frequency (MHz)				2590.02	2595	2599.98		
40	PI2 BPSK	1	1	15.57	15.62	15.41	16.8	0.0
40	PI2 BPSK	1	93	15.33	15.47	15.35		
40	PI2 BPSK	1	104	15.49	15.40	15.41		
40	PI2 BPSK	50	0	15.52	15.64	15.44	16.8	0.0
40	PI2 BPSK	50	28	15.43	15.51	15.38	16.8	0.0
40	PI2 BPSK	50	56	15.37	15.40	15.42	16.8	0.0
40	PI2 BPSK	100	0	15.35	15.51	15.40	16.8	0.0
40	QPSK	1	1	15.62	15.73	15.48		
40	QPSK	1	53	15.57	15.56	15.48	16.8	0.0
40	QPSK	1	104	15.54	15.57	15.44		
40	QPSK	50	0	15.32	15.45	15.33	16.8	0.0
40	QPSK	50	28	15.55	15.64	15.51	16.8	0.0
40	QPSK	50	56	15.42	15.53	15.38	16.8	0.0
40	QPSK	100	0	15.51	15.63	15.43	16.8	0.0
40	16QAM	1	1	15.44	15.47	15.40	16.8	0.0
40	64QAM	1	1	15.40	15.46	15.43	16.8	0.0
40	256QAM	1	1	15.48	15.49	15.27	16.8	0.0
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2585.01	2595	2604.99		
30	QPSK	1	1	15.43	15.57	15.34	16.8	0.0
Channel				516504	519000	521496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2592.99	2595	2607.01		
25	QPSK	1	1	15.43	15.51	15.29	16.8	0.0
Channel				518000	519000	522000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	1	15.40	15.50	15.29	16.8	0.0
Channel				515500	519000	522496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.51	2595	2612.49		
15	QPSK	1	1	15.39	15.56	15.32	16.8	0.0
Channel				518004	519000	522996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2593.02	2595	2614.98		
10	QPSK	1	1	15.43	15.51	15.29	24.5	0.0

**n41 Ant 2**

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 509202	Middle Ch. Freq. 518598	High Ch. Freq. 528000		
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	15.61	15.68	15.56		
100	PI2 BPSK	1	137	15.47	15.59	15.43	16.8	0.0
100	PI2 BPSK	1	271	15.56	15.61	15.54		
100	PI2 BPSK	135	0	15.59	15.75	15.54	16.8	0.0
100	PI2 BPSK	135	69	15.47	15.58	15.42	16.8	0.0
100	PI2 BPSK	135	138	15.50	15.55	15.47	16.8	0.0
100	PI2 BPSK	270	0	15.49	15.63	15.46	16.8	0.0
100	QPSK	1	1	15.70	15.80	15.63		
100	QPSK	1	137	15.62	15.67	15.53	16.8	0.0
100	QPSK	1	271	15.60	15.69	15.57		
100	QPSK	135	0	15.47	15.56	15.38	16.8	0.0
100	QPSK	135	69	15.60	15.73	15.60	16.8	0.0
100	QPSK	135	138	15.54	15.61	15.42	16.8	0.0
100	QPSK	270	0	15.56	15.69	15.54	16.8	0.0
100	16QAM	1	1	15.48	15.80	15.44	16.8	0.0
100	64QAM	1	1	15.52	15.59	15.50	16.8	0.0
100	256QAM	1	1	15.56	15.58	15.38	16.8	0.0
Channel				508200	518598	528998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	1	15.56	15.74	15.52	16.8	0.0
Channel				507204	518598	528998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2532.02	2592.99	2643.99		
80	QPSK	1	1	15.61	15.72	15.54	16.8	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	15.62	15.76	15.55	16.8	0.0
Channel				505200	518598	533996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	15.66	15.72	15.48	16.8	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2654.99		
50	QPSK	1	1	15.66	15.71	15.49	16.8	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	15.63	15.74	15.50	16.8	0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	15.56	15.70	15.57	16.8	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	15.66	15.68	15.56	16.8	0.0

**n41 HPUE Ant 2**

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 506002	Middle Ch. Freq. 518598	High Ch. Freq. 528000		
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	18.59	18.66	18.56		
100	PI2 BPSK	1	137	18.53	18.62	18.46	19.8	0.0
100	PI2 BPSK	1	271	18.50	18.65	18.53		
100	PI2 BPSK	135	0	18.57	18.76	18.56	19.8	0.0
100	PI2 BPSK	135	69	18.48	18.58	18.43	19.8	0.0
100	PI2 BPSK	135	138	18.53	18.50	18.48	19.8	0.0
100	PI2 BPSK	270	0	18.44	18.62	18.45	19.8	0.0
100	QPSK	1	1	18.65	18.83	18.68		
100	QPSK	1	137	18.67	18.66	18.55	19.8	0.0
100	QPSK	1	271	18.63	18.71	18.59		
100	QPSK	135	0	18.48	18.53	18.38	19.8	0.0
100	QPSK	135	69	18.55	18.67	18.57	19.8	0.0
100	QPSK	135	138	18.51	18.59	18.36	19.8	0.0
100	QPSK	270	0	18.66	18.73	18.56	19.8	0.0
100	16QAM	1	1	18.48	18.57	18.43	19.8	0.0
100	64QAM	1	1	18.56	18.62	18.46	19.8	0.0
100	256QAM	1	1	18.54	18.55	18.35	19.8	0.0
Channel				508200	518598	528998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	1	18.52	18.62	18.54	19.8	0.0
Channel				507204	518598	528998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2532.02	2592.99	2643.99		
80	QPSK	1	1	18.47	18.65	18.43	19.8	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	18.52	18.66	18.51	19.8	0.0
Channel				505200	518598	533996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	18.54	18.63	18.50	19.8	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2654.99		
50	QPSK	1	1	18.46	18.68	18.51	19.8	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	18.51	18.63	18.43	19.8	0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	18.51	18.72	18.53	19.8	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	18.49	18.73	18.49	19.8	0.0



Part270 n77 Ant 2										
BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)		
				Low Ch. / Freq. 650000	Middle Ch. / Freq. 656000	High Ch. / Freq. 662000				
Channel										
Frequency (MHz)										
100	PI2 BPSK	1	1	15.44	15.49	15.47				
100	PI2 BPSK	1	137	15.38	15.33	15.28				
100	PI2 BPSK	1	271	15.29	15.33	15.32				
100	PI2 BPSK	135	0	15.35	15.54	15.45	17.1	0.0		
100	PI2 BPSK	135	69	15.30	15.33	15.25	17.1	0.0		
100	PI2 BPSK	135	138	15.29	15.37	15.42				
100	PI2 BPSK	270	0	15.28	15.39	15.33	17.1	0.0		
100	QPSK	1	1	15.55	15.66	15.67				
100	QPSK	1	137	15.49	15.53	15.38	17.1	0.0		
100	QPSK	1	271	15.45	15.33	15.83				
100	QPSK	135	0	15.45	15.47	15.43	17.1	0.0		
100	QPSK	135	69	15.34	15.52	15.28	17.1	0.0		
100	QPSK	135	138	15.25	15.34	15.36				
100	QPSK	270	0	15.35	15.46	15.37	17.1	0.0		
100	16QAM	1	1	15.34	15.50	15.41	17.1	0.0		
100	64QAM	1	1	15.36	15.42	15.22	17.1	0.0		
100	256QAM	1	1	15.28	15.34	15.34	17.1	0.0		
Channel										
Frequency (MHz)										
90	QPSK	1	1	15.43	15.54	15.40	17.1	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	15.42	15.45	15.39	17.1	0.0		
Channel										
Frequency (MHz)										
70	QPSK	1	1	15.37	15.52	15.44	17.1	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	15.37	15.48	15.42	17.1	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	15.35	15.49	15.42	17.1	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	15.38	15.50	15.45	17.1	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	15.45	15.45	15.37	17.1	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	15.38	15.45	15.39	17.1	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	15.38	15.54	15.39	17.1	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	15.44	15.51	15.45	17.1	0.0		

Part270 n77 HPUE Ant 2										
BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)		
				Low Ch. / Freq. 650000	Middle Ch. / Freq. 656000	High Ch. / Freq. 662000				
Channel										
Frequency (MHz)										
100	PI2 BPSK	1	1	18.47	18.44	18.42				
100	PI2 BPSK	1	137	18.39	18.32	18.41				
100	PI2 BPSK	1	271	18.34	18.32	18.38				
100	PI2 BPSK	135	0	18.40	18.60	18.45	20.1	0.0		
100	PI2 BPSK	135	69	18.46	18.39	18.45	20.1	0.0		
100	PI2 BPSK	135	138	18.47	18.36	18.48				
100	PI2 BPSK	270	0	18.53	18.35	18.35	20.1	0.0		
100	QPSK	1	1	18.56	18.67	18.62				
100	QPSK	1	137	18.46	18.58	18.35	20.1	0.0		
100	QPSK	1	271	18.49	18.49	18.59				
100	QPSK	135	0	18.45	18.44	18.41	20.1	0.0		
100	QPSK	135	69	18.44	18.48	18.31	20.1	0.0		
100	QPSK	135	138	18.46	18.33	18.41				
100	QPSK	270	0	18.38	18.43	18.42	20.1	0.0		
100	16QAM	1	1	18.32	18.52	18.44	20.1	0.0		
100	64QAM	1	1	18.38	18.39	18.31	20.1	0.0		
100	256QAM	1	1	18.35	18.32	18.33	20.1	0.0		
Channel										
Frequency (MHz)										
90	QPSK	1	1	18.41	18.57	18.39	20.1	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	18.41	18.45	18.39	20.1	0.0		
Channel										
Frequency (MHz)										
70	QPSK	1	1	18.38	18.47	18.31	20.1	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	18.38	18.53	18.38	20.1	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	18.45	18.54	18.38	20.1	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	18.45	18.60	18.39	20.1	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	18.37	18.56	18.32	20.1	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	18.41	18.48	18.40	20.1	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	18.35	18.45	18.40	20.1	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	18.44	18.53	18.24	20.1	0.0		



Part270 n78 Ant 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	15.34	15.34	15.34	0.0
100	PI2 BPSK	1	137	15.20	15.20	15.20	17.1
100	PI2 BPSK	1	271	15.22	15.22	15.22	0.0
100	PI2 BPSK	135	0	15.44	15.44	15.44	17.1
100	PI2 BPSK	135	69	15.18	15.18	15.18	17.1
100	PI2 BPSK	135	138	15.27	15.27	15.27	17.1
100	PI2 BPSK	270	0	15.28	15.28	15.28	17.1
100	QPSK	1	1	15.47	15.47	15.47	17.1
100	QPSK	1	137	15.44	15.44	15.44	0.0
100	QPSK	1	271	15.41	15.41	15.41	17.1
100	QPSK	135	0	15.30	15.30	15.30	17.1
100	QPSK	135	69	15.37	15.37	15.37	17.1
100	QPSK	135	138	15.21	15.21	15.21	17.1
100	QPSK	270	0	15.25	15.25	15.25	17.1
100	16QAM	1	1	15.29	15.29	15.29	17.1
100	64QAM	1	1	15.28	15.28	15.28	17.1
100	256QAM	1	1	15.19	15.19	15.19	17.1
Channel							
Frequency (MHz)							
90	QPSK	1	1	15.32	15.32	15.32	17.1
Channel							
Frequency (MHz)							
80	QPSK	1	1	15.32	15.42	15.29	17.1
Channel							
Frequency (MHz)							
70	QPSK	1	1	15.30	15.42	15.20	17.1
Channel							
Frequency (MHz)							
60	QPSK	1	1	15.29	15.36	15.30	17.1
Channel							
Frequency (MHz)							
50	QPSK	1	1	15.34	15.45	15.28	17.1
Channel							
Frequency (MHz)							
40	QPSK	1	1	15.32	15.35	15.30	17.1
Channel							
Frequency (MHz)							
30	QPSK	1	1	15.27	15.34	15.28	17.1
Channel							
Frequency (MHz)							
20	QPSK	1	1	15.24	15.39	15.30	17.1
Channel							
Frequency (MHz)							
15	QPSK	1	1	15.27	15.34	15.25	17.1
Channel							
Frequency (MHz)							
10	QPSK	1	1	15.24	15.36	15.23	17.1

Part270 n78 HPUE Ant 2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	18.32	18.32	18.32	0.0
100	PI2 BPSK	1	137	18.35	18.35	18.35	20.1
100	PI2 BPSK	1	271	18.34	18.34	18.34	0.0
100	PI2 BPSK	135	0	18.33	18.33	18.33	20.1
100	PI2 BPSK	135	69	18.39	18.39	18.39	20.1
100	PI2 BPSK	135	138	18.33	18.33	18.33	20.1
100	PI2 BPSK	270	0	18.34	18.34	18.34	20.1
100	QPSK	1	1	18.50	18.50	18.50	20.1
100	QPSK	1	137	18.40	18.40	18.40	20.1
100	QPSK	1	271	18.32	18.32	18.32	20.1
100	QPSK	135	0	18.35	18.35	18.35	20.1
100	QPSK	135	69	18.37	18.37	18.37	20.1
100	QPSK	135	138	18.32	18.32	18.32	20.1
100	QPSK	270	0	18.33	18.33	18.33	20.1
100	16QAM	1	1	18.32	18.32	18.32	20.1
100	64QAM	1	1	18.34	18.34	18.34	20.1
100	256QAM	1	1	18.37	18.37	18.37	20.1
Channel							
Frequency (MHz)							
90	QPSK	1	1	18.38	18.39	18.43	20.1
Channel							
Frequency (MHz)							
80	QPSK	1	1	18.34	18.44	18.30	20.1
Channel							
Frequency (MHz)							
70	QPSK	1	1	18.34	18.46	18.33	20.1
Channel							
Frequency (MHz)							
60	QPSK	1	1	18.40	18.47	18.35	20.1
Channel							
Frequency (MHz)							
50	QPSK	1	1	18.41	18.44	18.37	20.1
Channel							
Frequency (MHz)							
40	QPSK	1	1	18.39	18.47	18.39	20.1
Channel							
Frequency (MHz)							
30	QPSK	1	1	18.36	18.41	18.36	20.1
Channel							
Frequency (MHz)							
20	QPSK	1	1	18.39	18.46	18.38	20.1
Channel							
Frequency (MHz)							
15	QPSK	1	1	18.38	18.46	18.34	20.1
Channel							
Frequency (MHz)							
10	QPSK	1	1	18.37	18.46	18.37	20.1





n7 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 504000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 510000	Tune-up limit (dBm)	MPR (dB)
Channel				2520	2535	2550		
Frequency (MHz)								
40	PI/2 BPSK	1	1	20.61	20.64	20.51	21.8	0.0
40	PI/2 BPSK	1	108	20.58	20.57	20.55		
40	PI/2 BPSK	1	214	20.51	20.58	20.57		
40	PI/2 BPSK	108	0	20.51	20.58	20.43	21.8	0.0
40	PI/2 BPSK	108	54	20.68	20.73	20.66	21.8	0.0
40	PI/2 BPSK	108	108	20.70	20.68	20.70	21.8	0.0
40	PI/2 BPSK	216	0	20.53	20.58	20.52		
40	PI/2 BPSK	216	108	20.53	20.58	20.52		
40	QPSK	1	1	20.72	20.79	20.84	21.8	0.0
40	QPSK	1	108	20.63	20.66	20.59		
40	QPSK	1	214	20.60	20.58	20.49		
40	QPSK	108	0	20.46	20.52	20.48	21.8	0.0
40	QPSK	108	54	20.60	20.71	20.59	21.8	0.0
40	QPSK	108	108	20.54	20.62	20.58	21.8	0.0
40	QPSK	216	0	20.64	20.68	20.57		
40	QPSK	216	108	20.57	20.66	20.54		
40	16QAM	1	1	20.52	20.59	20.46	21.5	0.3
40	256QAM	1	1	19.38	19.32	19.48	19.5	2.3
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	20.58	20.70	20.56	21.8	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.5	2535	2557.5		
25	QPSK	1	1	20.52	20.59	20.49	21.8	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	20.63	20.65	20.50	21.8	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	20.66	20.71	20.57	21.8	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	20.63	20.70	20.57	21.8	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	20.65	20.74	20.58	21.8	0.0

n66 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760		
Frequency (MHz)								
40	PI/2 BPSK	1	1	18.71	18.89	18.78	20.1	0.0
40	PI/2 BPSK	1	108	18.72	18.79	18.76		
40	PI/2 BPSK	1	214	18.83	18.74	18.68		
40	PI/2 BPSK	108	0	18.76	18.96	18.73	20.1	0.0
40	PI/2 BPSK	108	54	18.75	18.95	18.83	20.1	0.0
40	PI/2 BPSK	108	108	18.79	18.80	18.81	20.1	0.0
40	PI/2 BPSK	216	0	18.82	18.79	18.65		
40	PI/2 BPSK	216	108	18.82	18.79	18.65		
40	QPSK	1	1	18.86	18.07	18.90	20.1	0.0
40	QPSK	1	108	18.89	18.89	18.84		
40	QPSK	1	214	18.93	18.85	18.76		
40	QPSK	108	0	18.85	18.70	18.63	20.1	0.0
40	QPSK	108	54	18.69	18.89	18.79	20.1	0.0
40	QPSK	108	108	18.82	18.74	18.80	20.1	0.0
40	QPSK	216	0	18.76	18.77	18.68		
40	16QAM	1	1	18.80	18.71	18.59		
40	64QAM	1	1	18.84	18.70	18.65	20.1	0.0
40	256QAM	1	1	18.85	18.68	18.60	19.5	0.8
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	18.80	18.76	18.86	20.1	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	18.83	18.79	18.69	20.1	0.0
Channel				343000	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	18.72	18.74	18.69	20.1	0.0
Channel				342000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	18.76	18.68	18.82	20.1	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1772.5		
5	QPSK	1	1	18.81	18.73	18.59	20.1	0.0



n38 Ant 3								
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				516004	519900	519996		
Frequency (MHz)				2590.02	2595	2599.98		
40	PI2 BPSK	1	1	20.82	20.84	20.84		
40	PI2 BPSK	1	59	20.88	20.94	20.89		
40	PI2 BPSK	1	104	20.87	20.90	20.85		
40	PI2 BPSK	50	0	20.80	20.91	20.84	22.5	0.0
40	PI2 BPSK	50	28	20.76	20.85	20.73	22.5	0.0
40	PI2 BPSK	50	56	20.73	20.82	20.69		
40	PI2 BPSK	100	0	20.79	20.89	20.68	22.5	0.0
40	QPSK	1	1	21.01	21.05	21.04		
40	QPSK	1	53	20.94	21.04	20.82	22.5	0.0
40	QPSK	1	104	20.90	21.11	20.97		
40	QPSK	50	0	20.69	20.90	20.77	22.5	0.0
40	QPSK	50	28	20.73	20.99	20.72	22.5	0.0
40	QPSK	50	56	20.68	20.90	20.89		
40	QPSK	100	0	20.80	20.94	20.89	22.5	0.0
40	16QAM	1	1	20.71	20.87	20.73	22.5	0.0
40	64QAM	1	1	20.74	20.91	20.87	22.0	0.5
40	256QAM	1	1	19.29	19.40	19.32	20.0	2.5
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2585.01	2595	2604.99		
30	QPSK	1	1	20.73	20.90	20.69	22.5	0.0
Channel				516504	519000	521498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2592.25	2595	2607.748		
25	QPSK	1	1	20.65	20.83	20.77	22.5	0.0
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	1	20.71	20.86	20.74	22.5	0.0
Channel				515500	519000	522498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.51	2595	2612.49		
15	QPSK	1	1	20.68	20.85	20.78	22.5	0.0
Channel				515000	519000	523498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.51	2595	2617.49		
15	QPSK	1	1	20.65	20.83	20.77	24.5	0.0

n41 Ant 3								
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				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	20.90	20.95	20.93		
100	PI2 BPSK	1	137	20.81	20.98	20.75	22.5	0.0
100	PI2 BPSK	1	271	20.76	20.98	20.95		
100	PI2 BPSK	135	0	20.88	21.02	20.97	22.5	0.0
100	PI2 BPSK	135	69	20.86	20.94	20.85	22.5	0.0
100	PI2 BPSK	135	138	20.77	20.90	20.97	22.5	0.0
100	PI2 BPSK	270	0	20.86	20.94	20.83		
100	QPSK	1	1	21.05	21.19	21.18		
100	QPSK	1	137	20.98	21.09	20.94	22.5	0.0
100	QPSK	1	271	20.93	21.16	21.06		
100	QPSK	135	0	20.82	20.98	20.89	22.5	0.0
100	QPSK	135	69	20.81	21.07	20.99	22.5	0.0
100	QPSK	135	138	20.79	20.95	21.01		
100	QPSK	270	0	20.95	21.05	20.98	22.5	0.0
100	16QAM	1	1	20.78	20.91	20.78	22.5	0.0
100	64QAM	1	1	20.84	21.05	20.90	22.0	0.5
100	256QAM	1	1	19.44	19.54	19.44	20.0	2.5
Channel				508200	518598	526998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	1	20.80	20.96	20.89	22.5	0.0
Channel				507204	518598	526998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2533.02	2592.99	2643.99		
80	QPSK	1	1	20.74	20.94	20.91	22.5	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	20.73	20.91	20.83	22.5	0.0
Channel				505200	518598	531998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	20.73	20.93	20.90	22.5	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2520	2592.99	2664.98		
50	QPSK	1	1	20.78	20.91	20.87	22.5	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.01	2592.99	2670		
40	QPSK	1	1	20.72	20.90	20.82	22.5	0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	20.73	20.98	20.82	22.5	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	20.72	20.97	20.84	22.5	0.0

n41 HPUE Ant 3								
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				506202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	23.86	23.89	23.93		
100	PI2 BPSK	1	137	23.80	23.98	23.78	25.5	0.0
100	PI2 BPSK	1	271	23.73	24.04	24.00		
100	PI2 BPSK	135	0	23.84	24.00	23.98	25.5	0.0
100	PI2 BPSK	135	69	23.87	23.90	23.86	25.5	0.0
100	PI2 BPSK	135	138	23.77	23.92	23.97	25.5	0.0
100	PI2 BPSK	270	0	23.83	23.93	23.83		
100	QPSK	1	1	24.06	24.23	24.15		
100	QPSK	1	137	24.03	24.10	23.89	25.5	0.0
100	QPSK	1	271	23.92	24.21	24.14		
100	QPSK	135	0	23.77	23.98	23.85	25.5	0.0
100	QPSK	135	69	23.75	24.12	23.74	25.5	0.0
100	QPSK	135	138	23.84	24.00	24.04		
100	QPSK	270	0	23.92	24.04	24.01	25.5	0.0
100	16QAM	1	1	23.75	23.91	23.83	25.5	0.0
100	64QAM	1	1	23.82	23.99	23.93	25.0	0.5
100	256QAM	1	1	22.43	22.57	22.38	23.0	2.5
Channel				505200	518598	530998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	1	23.86	23.96	23.94	25.5	0.0
Channel				507204	518598	526998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2533.02	2592.99	2643.99		
80	QPSK	1	1	23.79	24.00	23.92	25.5	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	23.77	23.97	23.94	25.5	0.0
Channel				505200	518598	531998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	23.78	23.96	23.86	25.5	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2520	2592.99	2664.98		
50	QPSK	1	1	23.75	23.95	23.88	25.5	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.01	2592.99	2670		
40	QPSK	1	1	23.73	24.01	23.82	25.5	0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	23.77	23.91	23.88	25.5	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	23.80	23.93	23.84	25.5	0.0



Part270 n77 Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	14.32	14.36	14.23			
100	PI2 BPSK	1	137	14.23	14.29	14.21	15.5	0.0	
100	PI2 BPSK	1	271	14.33	14.33	14.16			
100	PI2 BPSK	135	0	14.36	14.42	14.20	15.5	0.0	
100	PI2 BPSK	135	69	14.37	14.44	14.20	15.5	0.0	
100	PI2 BPSK	135	138	14.25	14.24	14.25	15.5	0.0	
100	PI2 BPSK	270	0	14.33	14.34	14.17	15.5	0.0	
100	QPSK	1	1	14.43	14.52	14.37			
100	QPSK	1	137	14.35	14.38	14.38	15.5	0.0	
100	QPSK	1	271	14.43	14.50	14.33			
100	QPSK	135	0	14.19	14.24	14.25	15.5	0.0	
100	QPSK	135	69	14.32	14.40	14.30	15.5	0.0	
100	QPSK	135	138	14.27	14.39	14.20	15.5	0.0	
100	QPSK	270	0	14.26	14.35	14.20	15.5	0.0	
100	16QAM	1	1	14.35	14.42	14.27	15.5	0.0	
100	64QAM	1	1	14.25	14.30	14.30	15.5	0.0	
100	256QAM	1	1	14.33	14.27	14.18	15.5	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	14.27	14.35	14.28	15.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	14.27	14.42	14.29	15.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	14.34	14.43	14.24	15.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	14.25	14.40	14.30	15.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	14.36	14.43	14.28	15.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	14.31	14.44	14.21	15.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	14.36	14.40	14.26	15.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	14.26	14.45	14.21	15.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	14.32	14.35	14.23	15.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	14.36	14.36	14.20	15.5	0.0	

Part270 n77 HPUE Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	17.46	17.41	17.34			
100	PI2 BPSK	1	137	17.34	17.44	17.35	18.5	0.0	
100	PI2 BPSK	1	271	17.41	17.41	17.30			
100	PI2 BPSK	135	0	17.46	17.53	17.27	18.5	0.0	
100	PI2 BPSK	135	69	17.44	17.53	17.30	18.5	0.0	
100	PI2 BPSK	135	138	17.35	17.31	17.29	18.5	0.0	
100	PI2 BPSK	270	0	17.41	17.49	17.28	18.5	0.0	
100	QPSK	1	1	17.58	17.60	17.49			
100	QPSK	1	137	17.41	17.48	17.45	18.5	0.0	
100	QPSK	1	271	17.48	17.57	17.44			
100	QPSK	135	0	17.28	17.37	17.36	18.5	0.0	
100	QPSK	135	69	17.45	17.50	17.39	18.5	0.0	
100	QPSK	135	138	17.32	17.53	17.29	18.5	0.0	
100	QPSK	270	0	17.38	17.51	17.28	18.5	0.0	
100	16QAM	1	1	17.51	17.58	17.52	18.5	0.0	
100	64QAM	1	1	17.30	17.40	17.34	18.5	0.0	
100	256QAM	1	1	17.39	17.50	17.34	18.5	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	17.37	17.50	17.38	18.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	17.40	17.45	17.42	18.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	17.43	17.43	17.40	18.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	17.41	17.43	17.40	18.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	17.31	17.41	17.43	18.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	17.40	17.40	17.32	18.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	17.40	17.47	17.40	18.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.36	17.46	17.33	18.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	17.38	17.43	17.43	18.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	17.41	17.41	17.36	18.5	0.0	



**Part270 n78 Ant 3**

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 650000	Middle Ch. / Freq. 650000	High Ch. / Freq. 650000		
Channel				3750	3750	3750		
Frequency (MHz)								
100	PI2 BPSK	1	1		14.29			
100	PI2 BPSK	1	137		14.27			
100	PI2 BPSK	1	271		14.31			15.5 0.0
100	PI2 BPSK	135	0		14.31			15.5 0.0
100	PI2 BPSK	135	69		14.43			15.5 0.0
100	PI2 BPSK	135	138		14.44			15.5 0.0
100	PI2 BPSK	270	0		14.27			15.5 0.0
100	QPSK	1	1		14.48			
100	QPSK	1	137		14.32			15.5 0.0
100	QPSK	1	271		14.40			
100	QPSK	135	0		14.21			15.5 0.0
100	QPSK	135	69		14.40			15.5 0.0
100	QPSK	135	138		14.39			15.5 0.0
100	QPSK	270	0		14.24			15.5 0.0
100	16QAM	1	1		14.53			15.5 0.0
100	64QAM	1	1		14.17			15.5 0.0
100	256QAM	1	1		14.34			15.5 0.0
Channel				649868	650000	650334		MPR (dB)
Frequency (MHz)								
90	QPSK	1	1	14.25	14.27	14.17	15.5	0.0
Channel				649334	650000	650668		MPR (dB)
Frequency (MHz)								
80	QPSK	1	1	14.27	14.34	14.19	15.5	0.0
Channel				649000	650000	651000		MPR (dB)
Frequency (MHz)								
70	QPSK	1	1	14.21	14.27	14.19	15.5	0.0
Channel				649668	650000	651334		MPR (dB)
Frequency (MHz)								
60	QPSK	1	1	14.25	14.34	14.25	15.5	0.0
Channel				649334	650000	651668		MPR (dB)
Frequency (MHz)								
50	QPSK	1	1	14.24	14.29	14.28	15.5	0.0
Channel				649000	650000	652000		MPR (dB)
Frequency (MHz)								
40	QPSK	1	1	14.16	14.20	14.22	15.5	0.0
Channel				647868	650000	652334		MPR (dB)
Frequency (MHz)								
30	QPSK	1	1	14.17	14.31	14.19	15.5	0.0
Channel				647334	650000	652668		MPR (dB)
Frequency (MHz)								
20	QPSK	1	1	14.25	14.25	14.23	15.5	0.0
Channel				647168	650000	652834		MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	14.21	14.25	14.19	15.5	0.0
Channel				647000	650000	653000		MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	14.16	14.27	14.28	15.5	0.0

**Part270 n78 HPUE Ant 3**

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 650000	Middle Ch. / Freq. 650000	High Ch. / Freq. 650000		
Channel				3750	3750	3750		
Frequency (MHz)								
100	PI2 BPSK	1	1		17.30			
100	PI2 BPSK	1	137		17.24			18.5 0.0
100	PI2 BPSK	1	271		17.24			
100	PI2 BPSK	135	0		17.44			18.5 0.0
100	PI2 BPSK	135	69		17.41			18.5 0.0
100	PI2 BPSK	135	138		17.13			18.5 0.0
100	PI2 BPSK	270	0		17.32			18.5 0.0
100	QPSK	1	1		17.49			
100	QPSK	1	137		17.30			18.5 0.0
100	QPSK	1	271		17.45			
100	QPSK	135	0		17.28			18.5 0.0
100	QPSK	135	69		17.47			18.5 0.0
100	QPSK	135	138		17.33			18.5 0.0
100	QPSK	270	0		17.34			18.5 0.0
100	16QAM	1	1		17.47			18.5 0.0
100	64QAM	1	1		17.23			18.5 0.0
100	256QAM	1	1		17.34			18.5 0.0
Channel				649868	650000	650334		MPR (dB)
Frequency (MHz)								
90	QPSK	1	1	17.27	17.36	17.18	18.5	0.0
Channel				649334	650000	650668		MPR (dB)
Frequency (MHz)								
80	QPSK	1	1	17.25	17.40	17.19	18.5	0.0
Channel				649000	650000	651000		MPR (dB)
Frequency (MHz)								
70	QPSK	1	1	17.20	17.37	17.25	18.5	0.0
Channel				648668	650000	651334		MPR (dB)
Frequency (MHz)								
60	QPSK	1	1	17.25	17.32	17.19	18.5	0.0
Channel				648334	650000	651668		MPR (dB)
Frequency (MHz)								
50	QPSK	1	1	17.17	17.38	17.22	18.5	0.0
Channel				648000	650000	652000		MPR (dB)
Frequency (MHz)								
40	QPSK	1	1	17.21	17.33	17.19	18.5	0.0
Channel				647668	650000	652334		MPR (dB)
Frequency (MHz)								
30	QPSK	1	1	17.22	17.29	17.19	18.5	0.0
Channel				647334	650000	652668		MPR (dB)
Frequency (MHz)								
20	QPSK	1	1	17.21	17.36	17.23	18.5	0.0
Channel				647168	650000	652834		MPR (dB)
Frequency (MHz)								
15	QPSK	1	1	17.26	17.34	17.19	18.5	0.0
Channel				647000	650000	653000		MPR (dB)
Frequency (MHz)								
10	QPSK	1	1	17.18	17.31	17.18	18.5	0.0



Reduced Power Mode for DSI5 Standalone

n5 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				834	836.5	839		
Frequency (MHz)								
20	PI2 BPSK	1	1	23.18	23.23	23.13		
20	PI2 BPSK	1	53	23.04	23.14	23.06	24.0	0.0
20	PI2 BPSK	1	104	22.98	23.06	22.94		
20	PI2 BPSK	50	0	22.85	22.76	22.73	23.5	0.5
20	PI2 BPSK	50	28	23.08	23.18	23.11	24.0	0.0
20	PI2 BPSK	50	56	22.99	22.94	22.91	23.5	0.5
20	PI2 BPSK	100	0	22.66	22.70	22.63		
20	QPSK	1	1	23.23	23.27	23.16		
20	QPSK	1	53	23.11	23.18	23.13	24.0	0.0
20	QPSK	1	104	22.96	23.09	22.98		
20	QPSK	50	0	22.14	22.28	22.21	23.0	1.0
20	QPSK	50	28	23.15	23.21	23.08	24.0	0.0
20	QPSK	50	56	22.14	22.18	22.06	23.0	1.0
20	QPSK	100	0	22.17	22.23	22.13		
20	16QAM	1	1	22.39	22.48	22.42	23.0	1.0
20	64QAM	1	1	20.73	20.86	20.79	21.5	2.5
20	256QAM	1	1	18.89	19.01	18.96	19.5	4.5
Channel				166300	167300	168300	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
15	QPSK	1	1	23.11	23.18	23.08	24.0	0.0
Channel				166800	167300	168800	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
10	QPSK	1	1	22.9	23.5	24	24.0	0.0
Channel				166300	167300	169300	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
5	QPSK	1	1	23.17	23.23	23.04	24.0	0.0

n7 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				500000	507000	510000		
Frequency (MHz)								
40	PI2 BPSK	1	1	19.27	19.41	19.21		
40	PI2 BPSK	1	108	19.15	19.37	19.26	21.0	0.0
40	PI2 BPSK	1	214	19.14	19.22	19.13		
40	PI2 BPSK	108	0	19.29	19.33	19.27	21.0	0.0
40	PI2 BPSK	108	54	19.37	19.44	19.27	21.0	0.0
40	PI2 BPSK	108	108	19.26	19.36	19.27	21.0	0.0
40	PI2 BPSK	216	0	19.15	19.24	19.22		
40	QPSK	1	1	19.40	19.48	19.35		
40	QPSK	1	108	19.29	19.47	19.34	21.0	0.0
40	QPSK	1	214	19.24	19.36	19.26		
40	QPSK	108	0	19.33	19.38	19.27	21.0	0.0
40	QPSK	108	54	19.22	19.40	19.26	21.0	0.0
40	QPSK	108	108	19.11	19.25	19.26	21.0	0.0
40	QPSK	216	0	19.37	19.43	19.19		
40	16QAM	1	1	19.18	19.39	19.20	21.0	0.0
40	64QAM	1	1	19.27	19.41	19.36	20.5	0.5
40	256QAM	1	1	17.30	17.38	17.23	19.0	2.0
Channel				503000	507000	511000	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
30	QPSK	1	1	19.18	19.24	19.23	21.0	0.0
Channel				502600	507000	511500	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
25	QPSK	1	1	19.13	19.26	19.10	21.0	0.0
Channel				502000	507000	512000	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
20	PI2 BPSK	1	1	19.11	19.21	19.20	21.0	0.0
Channel				2507.5	2535	2560	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
15	QPSK	1	1	19.17	19.22	19.24	21.0	0.0
Channel				501000	507000	513000	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
10	QPSK	1	1	19.13	19.34	19.25	21.0	0.0
Channel				500500	507000	513500	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
5	QPSK	1	1	19.12	19.26	19.24	21.0	0.0

n66 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				345000	349000	353000		
Frequency (MHz)								
40	PI2 BPSK	1	1	22.14	22.27	22.17		
40	PI2 BPSK	1	108	22.07	22.22	22.11	23.0	0.0
40	PI2 BPSK	1	214	22.08	22.16	22.15		
40	PI2 BPSK	108	0	21.88	21.88	21.82	22.5	0.5
40	PI2 BPSK	108	54	22.02	22.20	22.13	23.0	0.0
40	PI2 BPSK	108	108	21.99	21.81	21.78	22.5	0.5
40	PI2 BPSK	216	0	21.74	21.94	21.85		
40	QPSK	1	1	22.23	22.35	22.31		
40	QPSK	1	108	22.04	22.26	22.14	23.0	0.0
40	QPSK	1	214	22.02	22.21	22.07		
40	QPSK	108	0	21.13	21.36	21.24	22.0	1.0
40	QPSK	108	54	22.15	22.29	22.24	23.0	0.0
40	QPSK	108	108	21.24	21.48	21.35	22.0	1.0
40	QPSK	216	0	21.28	21.43	21.29		
40	16QAM	1	1	20.96	21.11	21.01	22.0	1.0
40	64QAM	1	1	19.87	19.93	19.81	20.5	2.5
40	256QAM	1	1	17.59	17.85	17.73	18.5	4.5
Channel				345000	349000	353000	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
30	QPSK	1	1	22.11	22.27	22.20	23.0	0.0
Channel				344000	349000	354000	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
20	QPSK	1	1	22.16	22.31	22.24	23.0	0.0
Channel				343500	349000	354500	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
15	QPSK	1	1	22.18	22.28	22.24	23.0	0.0
Channel				1715	1745	1775	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
10	QPSK	1	1	22.19	22.22	22.17	23.0	0.0
Channel				342500	349000	355500	Tune-up limit [dBm]	MPR [dB]
Frequency (MHz)								
5	QPSK	1	1	22.16	22.29	22.21	23.0	0.0



n38 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				2590.02	2595	2599.98			
Frequency (MHz)									
40	PI2 BPSK	1	1	19.03	19.19	19.06			
40	PI2 BPSK	1	53	18.93	19.26	18.83			
40	PI2 BPSK	1	104	18.89	19.98	18.89			
40	PI2 BPSK	50	0	19.10	19.12	19.04	20.4	0.0	
40	PI2 BPSK	50	28	19.08	19.17	19.11	20.4	0.0	
40	PI2 BPSK	50	56	18.90	19.09	18.80	20.4	0.0	
40	PI2 BPSK	100	0	18.91	19.00	18.93	20.4	0.0	
40	QPSK	1	1	19.18	19.30	19.15			
40	QPSK	1	53	19.01	19.18	18.99	20.4	0.0	
40	QPSK	1	104	18.96	19.06	19.08			
40	QPSK	50	0	19.21	19.17	19.07	20.4	0.0	
40	QPSK	50	28	18.91	19.25	18.82	20.4	0.0	
40	QPSK	50	56	19.09	19.09	18.19			
40	QPSK	100	0	18.88	18.08	18.88	20.4	0.0	
40	16QAM	1	1	18.97	18.92	18.88	20.4	0.0	
40	64QAM	1	1	18.81	18.91	18.71	20.4	0.0	
40	256QAM	1	1	17.11	17.27	17.12	18.5	1.9	
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	18.95	19.17	18.81	20.4	0.0	
Channel				516504	519000	521496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
25	QPSK	1	1	19.98	19.21	18.83	20.4	0.0	
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	18.94	18.16	18.83	20.4	0.0	
Channel				516500	519000	522000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
15	QPSK	1	1	19.00	19.16	18.80	20.4	0.0	
Channel				516004	519000	522996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	18.88	19.21	18.83	20.4	0.0	

n41 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				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	19.15	19.32	19.15			
100	PI2 BPSK	1	137	18.96	19.20	18.90	20.4	0.0	
100	PI2 BPSK	1	271	18.97	19.04	19.08			
100	PI2 BPSK	135	0	19.23	19.24	19.17	20.4	0.0	
100	PI2 BPSK	135	69	19.22	19.27	19.18	20.4	0.0	
100	PI2 BPSK	135	138	18.96	19.20	18.90	20.4	0.0	
100	PI2 BPSK	270	0	18.99	19.05	19.06	20.4	0.0	
100	QPSK	1	1	19.27	19.36	19.27			
100	QPSK	1	137	19.09	19.28	19.05	20.4	0.0	
100	QPSK	1	271	19.07	19.13	19.16			
100	QPSK	135	0	19.24	19.31	19.14	20.4	0.0	
100	QPSK	135	69	19.04	19.33	18.89	20.4	0.0	
100	QPSK	135	138	19.24	19.24	19.22	20.4	0.0	
100	QPSK	270	0	18.97	19.22	19.00			
100	16QAM	1	1	18.92	18.96	19.00	20.4	0.0	
100	64QAM	1	1	18.90	18.97	18.85	20.4	0.0	
100	256QAM	1	1	16.83	16.88	16.80	18.5	1.9	
Channel				506200	518598	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
90	QPSK	1	1	18.92	19.08	19.12	20.4	0.0	
Channel				507204	518598	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
80	QPSK	1	1	19.01	19.03	19.00	20.4	0.0	
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
70	QPSK	1	1	18.92	19.07	19.10	20.4	0.0	
Channel				505200	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
60	QPSK	1	1	18.95	19.06	19.03	20.4	0.0	
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
50	QPSK	1	1	18.95	19.00	19.04	20.4	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
40	QPSK	1	1	19.01	19.98	19.00	20.4	0.0	
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	18.93	19.02	19.09	20.4	0.0	
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	18.98	19.06	19.05	20.4	0.0	

n41 HPUE 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				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	22.25	22.28	22.20			
100	PI2 BPSK	1	137	22.01	22.31	22.14	23.4	0.0	
100	PI2 BPSK	1	271	22.12	22.27	22.09			
100	PI2 BPSK	135	0	22.21	22.40	22.28	23.4	0.0	
100	PI2 BPSK	135	69	22.22	22.36	22.26	23.4	0.0	
100	PI2 BPSK	135	138	22.07	22.25	22.13	23.4	0.0	
100	PI2 BPSK	270	0	22.08	22.18	22.18	23.4	0.0	
100	QPSK	1	1	22.34	22.42	22.36			
100	QPSK	1	137	22.18	22.38	22.24	23.4	0.0	
100	QPSK	1	271	22.16	22.30	22.24			
100	QPSK	135	0	22.30	22.31	22.34	23.4	0.0	
100	QPSK	135	69	22.02	22.36	22.19	23.4	0.0	
100	QPSK	135	138	22.19	22.34	22.28	23.4	0.0	
100	QPSK	270	0	22.04	22.34	22.24			
100	16QAM	1	1	22.09	22.29	22.10	23.4	0.0	
100	64QAM	1	1	22.01	22.18	22.09	23.4	0.0	
100	256QAM	1	1	20.21	20.35	20.29	21.5	1.9	
Channel				506200	518598	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
90	QPSK	1	1	22.12	22.19	22.17	23.4	0.0	
Channel				507204	518598	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
80	QPSK	1	1	22.09	22.19	22.21	23.4	0.0	
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
70	QPSK	1	1	22.01	22.15	22.18	23.4	0.0	
Channel				505200	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
60	QPSK	1	1	22.08	22.22	22.16	23.4	0.0	
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
50	QPSK	1	1	22.02	22.14	22.22	23.4	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
40	QPSK	1	1	22.01	22.20	22.20	23.4	0.0	
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
30	QPSK	1	1	22.04	22.26	22.20	23.4	0.0	
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
20	QPSK	1	1	22.06	22.22	22.16	23.4	0.0	



Part270 n77 Ant 0								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	20.24	20.37	20.28	21.0	0.0
100	PI2 BPSK	1	137	20.20	20.33	20.22		
100	PI2 BPSK	1	271	20.15	20.28	20.22		
100	PI2 BPSK	135	0	18.72	18.78	18.74	20.5	0.5
100	PI2 BPSK	135	69	20.22	20.31	20.19	21.0	0.0
100	PI2 BPSK	135	138	18.83	18.78	18.87	20.5	0.5
100	PI2 BPSK	270	0	18.90	18.88	18.80	21.0	0.0
100	QPSK	1	1	20.37	20.43	20.31	21.0	0.0
100	QPSK	1	137	20.19	20.35	20.25		
100	QPSK	1	271	20.13	20.31	20.20		
100	QPSK	135	0	18.84	18.97	18.83	20.0	1.0
100	QPSK	135	69	20.20	20.38	20.27	21.0	0.0
100	QPSK	135	138	18.84	18.96	18.81	20.0	1.0
100	QPSK	270	0	18.91	18.92	18.88	20.0	1.0
100	16QAM	1	1	18.80	18.88	18.80	20.0	1.0
100	64QAM	1	1	17.49	17.65	17.53	18.5	2.5
100	256QAM	1	1	15.22	15.32	15.26	16.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	20.26	20.38	20.30	21.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.19	20.29	20.31	21.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.23	20.35	20.32	21.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.19	20.28	20.30	21.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.28	20.37	20.25	21.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.24	20.30	20.31	21.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.20	20.28	20.26	21.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.22	20.28	20.24	21.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.19	20.35	20.30	21.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.28	20.34	20.28	21.0	0.0

Part270 n77 HPUE Ant 0								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.33	23.39	23.29	24.0	0.0
100	PI2 BPSK	1	137	23.29	23.33	23.28		
100	PI2 BPSK	1	271	23.14	23.27	23.23		
100	PI2 BPSK	135	0	22.79	22.88	22.84	23.5	0.5
100	PI2 BPSK	135	69	23.28	23.34	23.20	24.0	0.0
100	PI2 BPSK	135	138	22.86	22.90	22.79	23.5	0.5
100	PI2 BPSK	270	0	22.88	22.94	22.82	24.0	0.0
100	QPSK	1	1	23.36	23.42	23.32	24.0	0.0
100	QPSK	1	137	23.28	23.35	23.25		
100	QPSK	1	271	23.21	23.31	23.22		
100	QPSK	135	0	22.21	22.34	22.26	23.0	1.0
100	QPSK	135	69	23.22	23.38	23.28	24.0	0.0
100	QPSK	135	138	22.34	22.39	22.34	23.0	1.0
100	QPSK	270	0	22.32	22.45	22.29	23.0	1.0
100	16QAM	1	1	22.46	22.57	22.51	23.0	1.0
100	64QAM	1	1	20.74	20.88	20.77	21.5	2.5
100	256QAM	1	1	18.58	18.67	18.63	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.28	23.35	23.24	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.11	23.24	23.17	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.29	23.37	23.25	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.26	23.38	23.24	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.25	23.28	23.27	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.29	23.30	23.19	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.24	23.38	23.19	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.31	23.28	23.25	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.31	23.32	23.21	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.28	23.29	23.25	24.0	0.0



Part270 n78 Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3750	3750	3750			
100	PI2 BPSK	1	1		20.31		21.0	0.0	
100	PI2 BPSK	1	137		20.27				
100	PI2 BPSK	1	271		20.22				
100	PI2 BPSK	135	0		19.13		20.5	0.5	
100	PI2 BPSK	135	69		20.25		21.0	0.0	
100	PI2 BPSK	135	138		19.01		20.5	0.5	
100	PI2 BPSK	270	0		19.07				
100	QPSK	1	1		20.35				
100	QPSK	1	137		20.30		21.0	0.0	
100	QPSK	1	271		20.17				
100	QPSK	135	0		19.82		20.0	1.0	
100	QPSK	135	69		20.29		21.0	0.0	
100	QPSK	135	138		18.67		20.0	1.0	
100	QPSK	270	0		18.72		20.0	1.0	
100	16QAM	1	1		18.84		20.0	1.0	
100	64QAM	1	1		17.58		18.5	2.5	
100	256QAM	1	1		15.33		16.5	4.5	
Channel									
Frequency (MHz)				649868	650000	650334	Tune-up limit	MPR	
				3745.02	3750	3755.01	(dBm)	(dB)	
90	QPSK	1	1		20.19	20.24	20.14	21.0	0.0
Channel									
Frequency (MHz)				649334	650000	650668	Tune-up limit	MPR	
				3740.01	3750	3760.02	(dBm)	(dB)	
80	QPSK	1	1		20.23	20.28	20.11	21.0	0.0
Channel									
Frequency (MHz)				649000	650000	651000	Tune-up limit	MPR	
				3735	3750	3765	(dBm)	(dB)	
70	QPSK	1	1		20.15	20.25	20.18	21.0	0.0
Channel									
Frequency (MHz)				649668	650000	649334	Tune-up limit	MPR	
				3730.02	3750	3770.01	(dBm)	(dB)	
60	QPSK	1	1		20.19	20.25	20.13	21.0	0.0
Channel									
Frequency (MHz)				649334	650000	651668	Tune-up limit	MPR	
				3725.01	3750	3775.02	(dBm)	(dB)	
50	QPSK	1	1		20.24	20.27	20.13	21.0	0.0
Channel									
Frequency (MHz)				649000	650000	652000	Tune-up limit	MPR	
				3720	3750	3780	(dBm)	(dB)	
40	QPSK	1	1		20.20	20.25	20.19	21.0	0.0
Channel									
Frequency (MHz)				647868	650000	652334	Tune-up limit	MPR	
				3715.02	3750	3785.01	(dBm)	(dB)	
30	QPSK	1	1		20.27	20.30	20.08	21.0	0.0
Channel									
Frequency (MHz)				647334	650000	652868	Tune-up limit	MPR	
				3710.01	3750	3790.02	(dBm)	(dB)	
20	QPSK	1	1		20.25	20.24	20.08	21.0	0.0
Channel									
Frequency (MHz)				647168	650000	652834	Tune-up limit	MPR	
				3707.52	3750	3792.51	(dBm)	(dB)	
15	QPSK	1	1		20.22	20.27	20.19	21.0	0.0
Channel									
Frequency (MHz)				647000	650000	653000	Tune-up limit	MPR	
				3705	3750	3795	(dBm)	(dB)	
10	QPSK	1	1		20.16	20.23	20.20	21.0	0.0

Part270 n78 HPUE Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3750	3750	3750			
100	PI2 BPSK	1	1		23.17		24.0	0.0	
100	PI2 BPSK	1	137		23.08				
100	PI2 BPSK	1	271		23.02				
100	PI2 BPSK	135	0		22.52		23.5	0.5	
100	PI2 BPSK	135	69		23.09		24.0	0.0	
100	PI2 BPSK	135	138		22.46		23.5	0.5	
100	PI2 BPSK	270	0		22.53				
100	QPSK	1	1		23.21				
100	QPSK	1	137		23.11		24.0	0.0	
100	QPSK	1	271		23.04				
100	QPSK	135	0		22.01		23.0	1.0	
100	QPSK	135	69		23.14		24.0	0.0	
100	QPSK	135	138		21.95		23.0	1.0	
100	QPSK	270	0		22.02		23.0	1.0	
100	16QAM	1	1		22.03		23.0	1.0	
100	64QAM	1	1		20.85		21.5	2.5	
100	256QAM	1	1		18.88		19.5	4.5	
Channel									
Frequency (MHz)				649668	650000	650334	Tune-up limit	MPR	
				3745.02	3750	3755.01	(dBm)	(dB)	
90	QPSK	1	1		23.11	23.15	23.05	24.0	0.0
Channel									
Frequency (MHz)				649334	650000	650668	Tune-up limit	MPR	
				3740.01	3750	3760.02	(dBm)	(dB)	
80	QPSK	1	1		23.09	23.13	23.02	24.0	0.0
Channel									
Frequency (MHz)				649000	650000	651000	Tune-up limit	MPR	
				3735	3750	3765	(dBm)	(dB)	
70	QPSK	1	1		23.13	23.18	23.07	24.0	0.0
Channel									
Frequency (MHz)				649668	650000	649334	Tune-up limit	MPR	
				3730.02	3750	3770.01	(dBm)	(dB)	
60	QPSK	1	1		23.12	23.08	22.98	24.0	0.0
Channel									
Frequency (MHz)				649334	650000	651668	Tune-up limit	MPR	
				3725.01	3750	3775.02	(dBm)	(dB)	
50	QPSK	1	1		23.05	23.08	22.94	24.0	0.0
Channel									
Frequency (MHz)				649000	650000	652000	Tune-up limit	MPR	
				3720	3750	3780	(dBm)	(dB)	
40	QPSK	1	1		23.12	23.04	23.04	24.0	0.0
Channel									
Frequency (MHz)				647868	650000	652334	Tune-up limit	MPR	
				3715.02	3750	3785.01	(dBm)	(dB)	
30	QPSK	1	1		23.11	23.17	23.03	24.0	0.0
Channel									
Frequency (MHz)				647334	650000	652868	Tune-up limit	MPR	
				3710.01	3750	3790.02	(dBm)	(dB)	
20	QPSK	1	1		23.09	23.14	23.01	24.0	0.0
Channel									
Frequency (MHz)				647168	650000	652834	Tune-up limit	MPR	
				3707.52	3750	3792.51	(dBm)	(dB)	
15	QPSK	1	1		23.11	23.18	23.00	24.0	0.0
Channel									
Frequency (MHz)				647000	650000	653000	Tune-up limit	MPR	
				3705	3750	3795	(dBm)	(dB)	
10	QPSK	1	1		23.09	23.16	22.94	24.0	0.0





### n5 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 166800	Middle Ch. Freq. 167300	High Ch. Freq. 167800		
Channel								
				834	836.5	839		
20	PI2 BPSK	1	1	21.69	21.83	21.79	23.0	0.0
20	PI2 BPSK	1	59	21.73	21.78	21.87		
20	PI2 BPSK	1	104	21.61	21.70	21.68		
20	PI2 BPSK	50	0	21.34	21.41	21.34	22.5	0.5
20	PI2 BPSK	50	28	21.87	21.79	21.75	23.0	0.0
20	PI2 BPSK	50	56	21.24	21.34	21.20	22.5	0.5
20	PI2 BPSK	100	0	21.35	21.40	21.28		
20	QPSK	1	1	21.83	21.89	21.76	23.0	0.0
20	QPSK	1	53	21.71	21.82	21.70		
20	QPSK	1	104	21.65	21.76	21.61		
20	QPSK	50	0	20.79	20.87	20.76	23.0	1.0
20	QPSK	50	28	21.68	21.81	21.76	23.0	0.0
20	QPSK	50	56	20.70	20.84	20.75	22.0	1.0
20	QPSK	100	0	20.77	20.90	20.80		
20	16QAM	1	1	21.22	21.28	21.13	22.0	1.0
20	64QAM	1	1	19.46	19.57	19.45	20.5	2.5
20	256QAM	1	1	17.39	17.51	17.41	18.5	4.5
				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
				831.5	836.5	841.5		
Channel								
15	QPSK	1	1	21.72	21.78	21.64	23.0	0.0
				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
				829	836.5	844		
Channel								
10	QPSK	1	1	21.76	21.81	21.66	23.0	0.0
				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
				826.5	836.5	846.5		
Channel								
5	QPSK	1	1	21.77	21.84	21.69	23.0	0.0

### n7 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 504000	Middle Ch. Freq. 507000	High Ch. Freq. 510000		
Channel								
				2520	2535	2550		
40	PI2 BPSK	1	1	21.46	21.49	21.39	22.5	0.0
40	PI2 BPSK	1	109	21.44	21.48	21.44		
40	PI2 BPSK	1	214	21.32	21.41	21.37		
40	PI2 BPSK	108	0	21.17	21.32	21.42	22.5	0.0
40	PI2 BPSK	108	54	21.32	21.39	21.30	22.5	0.0
40	PI2 BPSK	108	108	21.30	21.39	21.36	22.5	0.0
40	PI2 BPSK	216	0	21.40	21.48	21.35		
40	QPSK	1	1	21.48	21.56	21.51	22.5	0.0
40	QPSK	1	108	21.47	21.41	21.32		
40	QPSK	1	214	21.32	21.37	21.37		
40	QPSK	108	0	21.22	21.30	21.24	22.5	0.0
40	QPSK	108	54	21.42	21.51	21.47	22.5	0.0
40	QPSK	108	108	21.38	21.44	21.41	22.5	0.0
40	QPSK	216	0	21.35	21.48	21.41		
40	16QAM	1	1	21.31	21.42	21.38	22.5	0.0
40	64QAM	1	1	20.55	20.59	20.52	21.5	1.0
40	256QAM	1	1	18.52	18.67	18.59	19.5	3.0
				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
				2515	2535	2555		
Channel								
30	QPSK	1	1	21.39	21.48	21.38	22.5	0.0
				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
				2512.5	2535	2557.5		
Channel								
25	QPSK	1	1	21.37	21.52	21.47	22.5	0.0
				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
				2510	2535	2560		
Channel								
20	PI2 BPSK	1	1	21.44	21.45	21.37	22.5	0.0
				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
				2507.5	2535	2562.5		
Channel								
15	QPSK	1	1	21.37	21.42	21.46	22.5	0.0
				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
				2505	2535	2565		
Channel								
10	QPSK	1	1	21.39	21.50	21.39	22.5	0.0
				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
				2502.5	2535	2567.5		
Channel								
5	QPSK	1	1	21.38	21.49	21.43	22.5	0.0

### n66 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 346000	Middle Ch. Freq. 349000	High Ch. Freq. 352000		
Channel								
				1730	1745	1760		
40	PI2 BPSK	1	1	22.35	22.46	22.40	24.0	0.0
40	PI2 BPSK	1	108	22.31	22.41	22.34		
40	PI2 BPSK	1	214	22.32	22.36	22.30		
40	PI2 BPSK	108	0	22.01	22.06	22.00	23.5	0.5
40	PI2 BPSK	108	54	22.37	22.41	22.28	24.0	0.0
40	PI2 BPSK	108	108	21.96	22.03	21.98	23.5	0.5
40	PI2 BPSK	216	0	22.00	22.07	22.02		
40	QPSK	1	1	22.48	22.54	22.42	24.0	0.0
40	QPSK	1	108	22.43	22.48	22.45		
40	QPSK	1	214	22.35	22.42	22.29		
40	QPSK	108	0	21.52	21.67	21.54	23.0	1.0
40	QPSK	108	54	22.40	22.50	22.38	24.0	0.0
40	QPSK	108	108	21.65	21.72	21.62	23.0	1.0
40	QPSK	216	0	21.67	21.77	21.73		
40	16QAM	1	1	21.61	21.68	21.65	23.0	1.0
40	64QAM	1	1	19.79	19.93	19.80	21.5	2.5
40	256QAM	1	1	18.00	18.05	18.01	19.5	4.5
				350500	349000	353000	Tune-up limit (dBm)	MPR (dB)
				1735	1745	1755		
Channel								
30	QPSK	1	1	22.42	22.45	22.30	24.0	0.0
				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
				1720	1745	1770		
Channel								
20	QPSK	1	1	22.44	22.50	22.35	24.0	0.0
				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
				1717.5	1745	1772.5		
Channel								
15	QPSK	1	1	22.41	22.49	22.37	24.0	0.0
				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
				1715	1745	1775		
Channel								
10	QPSK	1	1	22.43	22.46	22.31	24.0	0.0
				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
				1712.5	1745	1772.5		
Channel								
5	QPSK	1	1	22.34	22.42	22.31	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				516504	519000	519996		
Frequency (MHz)				2595.02	2595	2599.98		
40	PI2 BPSK	1	1	21.23	21.29	21.09	22.0	0.0
40	PI2 BPSK	1	93	21.17	21.19	21.18		
40	PI2 BPSK	1	104	21.13	21.08	21.13		
40	PI2 BPSK	50	0	20.94	21.17	21.01	22.0	0.0
40	PI2 BPSK	50	28	21.01	21.08	21.03	22.0	0.0
40	PI2 BPSK	50	56	21.10	21.09	21.00	22.0	0.0
40	PI2 BPSK	100	0	21.13	21.18	21.09	22.0	0.0
40	QPSK	1	1	21.33	21.35	21.19		
40	QPSK	1	53	21.17	21.26	21.28	22.0	0.0
40	QPSK	1	104	21.12	21.16	21.08		
40	QPSK	50	0	21.19	21.20	21.11	22.0	0.0
40	QPSK	50	28	21.19	21.32	21.18	22.0	0.0
40	QPSK	50	56	21.20	21.19	21.18		
40	QPSK	100	0	21.13	21.25	21.07	22.0	0.0
40	16QAM	1	1	21.02	21.05	20.93	22.0	0.0
40	64QAM	1	1	20.36	20.49	20.35	21.5	0.5
40	256QAM	1	1	17.73	17.82	17.68	19.5	2.5
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2595.01	2595	2604.99		
30	QPSK	1	1	20.97	20.86	20.82	22.0	0.0
Channel				516504	519000	521496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2592.25	2595	2607.45		
25	QPSK	1	1	23.32	23.93	23.93	22.0	0.0
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	1	20.87	20.93	20.83	22.0	0.0
Channel				515504	519000	522396	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.51	2595	2612.49		
15	QPSK	1	1	20.88	21.01	20.87	22.0	0.0
Channel				516004	519000	522996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575.01	2595	2614.98		
10	QPSK	1	1	20.82	20.93	20.86	24.0	0.0

n41 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				508202	518598	528200		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	21.28	21.34	21.24		
100	PI2 BPSK	1	137	21.21	21.31	21.21	22.0	0.0
100	PI2 BPSK	1	271	21.21	21.20	21.18		
100	PI2 BPSK	135	0	21.05	21.21	21.07	22.0	0.0
100	PI2 BPSK	135	69	21.12	21.20	21.12	22.0	0.0
100	PI2 BPSK	135	138	21.13	21.14	21.13	22.0	0.0
100	PI2 BPSK	270	0	21.27	21.27	21.14	22.0	0.0
100	QPSK	1	1	21.39	21.42	21.33		
100	QPSK	1	137	21.23	21.38	21.33	22.0	0.0
100	QPSK	1	271	21.22	21.27	21.22		
100	QPSK	135	0	21.24	21.29	21.19	22.0	0.0
100	QPSK	135	69	21.32	21.38	21.25	22.0	0.0
100	QPSK	135	138	21.25	21.28	21.20		
100	QPSK	270	0	21.28	21.33	21.22	22.0	0.0
100	16QAM	1	1	21.08	21.15	21.03	22.0	0.0
100	64QAM	1	1	20.13	20.18	20.12	21.5	0.5
100	256QAM	1	1	17.85	17.94	17.81	19.5	2.5
Channel				508200	518598	528198	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2544	2592.99	2644.88		
90	QPSK	1	1	20.93	20.98	20.81	22.0	0.0
Channel				507204	518598	528198	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2532.02	2592.99	2643.99		
80	QPSK	1	1	20.97	20.97	20.77	22.0	0.0
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	20.88	20.98	20.82	22.0	0.0
Channel				508200	518598	531596	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	20.98	20.96	20.88	22.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2520	2592.99	2654.88		
50	QPSK	1	1	20.89	21.00	20.89	22.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	20.88	20.91	20.87	22.0	0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	20.85	20.87	20.82	22.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	20.82	20.96	20.90	22.0	0.0

n41 HPUE 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				506202	516598	526200		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	23.79	23.88	23.81		
100	PI2 BPSK	1	137	23.70	23.81	23.69	25.0	0.0
100	PI2 BPSK	1	271	23.70	23.66	23.74		
100	PI2 BPSK	135	0	23.68	23.70	23.63	25.0	0.0
100	PI2 BPSK	135	69	23.72	23.76	23.67	25.0	0.0
100	PI2 BPSK	135	138	23.65	23.70	23.61	25.0	0.0
100	PI2 BPSK	270	0	23.75	23.75	23.64	25.0	0.0
100	QPSK	1	1	23.88	23.94	23.81		
100	QPSK	1	137	23.85	23.89	23.80	25.0	0.0
100	QPSK	1	271	23.76	23.85	23.83		
100	QPSK	135	0	23.68	23.83	23.77	25.0	0.0
100	QPSK	135	69	23.80	23.87	23.78	25.0	0.0
100	QPSK	135	138	23.74	23.76	23.72		
100	QPSK	270	0	23.74	23.81	23.71	25.0	0.0
100	16QAM	1	1	23.70	23.74	23.65	25.0	0.0
100	64QAM	1	1	23.91	23.93	23.85	24.5	0.5
100	256QAM	1	1	21.60	21.68	21.63	22.5	2.5
Channel				506200	516598	526198	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2544	2592.99	2644.88		
90	QPSK	1	1	23.81	23.85	23.69	25.0	0.0
Channel				507204	516598	528198	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2532.02	2592.99	2643.99		
80	QPSK	1	1	23.74	23.93	23.70	25.0	0.0
Channel				506202	516598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	23.78	23.88	23.68	25.0	0.0
Channel				508200	516598	531596	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	23.81	23.87	23.69	25.0	0.0
Channel				504204	516598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2520	2592.99	2654.88		
50	QPSK	1	1	23.82	23.80	23.72	25.0	0.0
Channel				503202	516598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	23.82	23.89	23.70	25.0	0.0
Channel				502200	516598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	23.80	23.82	23.71	25.0	0.0
Channel				501204	516598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	23.82	23.90	23.76	25.0	0.0



Part270 n77 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.12	23.17	23.05		
100	PI2 BPSK	1	137	23.03	23.12	23.01	24.0	0.0
100	PI2 BPSK	1	271	23.03	23.08	22.94		
100	PI2 BPSK	135	0	21.59	21.61	21.54	23.5	0.5
100	PI2 BPSK	135	69	23.09	23.13	22.98	24.0	0.0
100	PI2 BPSK	135	138	21.54	21.63	21.48		
100	PI2 BPSK	270	0	21.58	21.67	21.49	23.5	0.5
100	QPSK	1	1	23.18	23.24	23.09		
100	QPSK	1	137	23.19	23.21	23.12	24.0	0.0
100	QPSK	1	271	23.17	23.17	23.02		
100	QPSK	135	0	21.53	21.63	21.54	23.0	1.0
100	QPSK	135	69	23.17	23.19	23.07	24.0	0.0
100	QPSK	135	138	21.51	21.63	21.50		
100	QPSK	270	0	21.62	21.67	21.52	23.0	1.0
100	16QAM	1	1	21.56	21.66	21.52	23.0	1.0
100	64QAM	1	1	20.14	20.23	20.12	21.5	2.5
100	256QAM	1	1	18.22	18.32	18.18	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.08	23.11	22.94	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.03	23.10	22.94	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.01	23.07	22.83	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.11	23.16	22.99	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.09	23.11	22.89	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.03	23.16	22.89	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.04	23.17	23.00	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.00	23.14	22.83	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.03	23.08	22.88	24.0	0.0

Part270 n77 HPUE Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	25.98	26.10	26.03		
100	PI2 BPSK	1	137	25.95	26.07	25.93	27.0	0.0
100	PI2 BPSK	1	271	25.94	26.01	25.98		
100	PI2 BPSK	135	0	25.42	25.51	25.37	26.5	0.5
100	PI2 BPSK	135	69	25.96	26.00	25.90	27.0	0.0
100	PI2 BPSK	135	138	25.48	25.58	25.51		
100	PI2 BPSK	270	0	25.54	25.61	25.48	26.5	0.5
100	QPSK	1	1	26.07	26.17	26.12		
100	QPSK	1	137	26.01	26.11	26.03	27.0	0.0
100	QPSK	1	271	26.97	26.06	25.98		
100	QPSK	135	0	25.05	25.09	24.98	26.0	1.0
100	QPSK	135	69	26.03	26.12	26.04	27.0	0.0
100	QPSK	135	138	24.97	25.04	24.96		
100	QPSK	270	0	25.05	25.11	25.02	26.0	1.0
100	16QAM	1	1	25.00	25.14	25.04	26.0	1.0
100	64QAM	1	1	23.82	23.87	23.53	24.5	2.5
100	256QAM	1	1	21.58	21.69	21.62	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	25.94	26.10	26.06	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.01	26.03	25.99	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.02	26.13	26.03	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.95	26.06	26.07	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.04	26.12	26.01	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.00	26.04	26.07	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	25.97	26.11	26.09	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.99	26.12	26.05	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.02	26.02	26.01	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.98	26.03	26.01	27.0	0.0



Part270 n78 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		23.05				
100	PI2 BPSK	1	137		22.99		24.0	0.0	
100	PI2 BPSK	1	271		22.92				
100	PI2 BPSK	135	0		21.54		23.5	0.5	
100	PI2 BPSK	135	69		22.97		24.0	0.0	
100	PI2 BPSK	135	138		21.56		23.5	0.5	
100	PI2 BPSK	270	0		21.60				
100	QPSK	1	1		23.13				
100	QPSK	1	137		23.02		24.0	0.0	
100	QPSK	1	271		22.96				
100	QPSK	135	0		21.54		23.0	1.0	
100	QPSK	135	69		23.07		24.0	0.0	
100	QPSK	135	138		21.48		23.0	1.0	
100	QPSK	270	0		21.53		23.0	1.0	
100	16QAM	1	1		21.89		23.0	1.0	
100	64QAM	1	1		19.94		21.5	2.5	
100	256QAM	1	1		18.07		19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	23.01	23.03	22.94	24.0	0.0	0.0
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.94	23.00	22.94	24.0	0.0	0.0
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.94	23.01	22.87	24.0	0.0	0.0
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.94	23.01	22.87	24.0	0.0	0.0
Channel									
Frequency (MHz)									
50	QPSK	1	1	23.02	23.05	22.94	24.0	0.0	0.0
Channel									
Frequency (MHz)									
40	QPSK	1	1	23.00	23.02	22.89	24.0	0.0	0.0
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.96	22.98	22.89	24.0	0.0	0.0
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.00	23.04	22.87	24.0	0.0	0.0
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.00	23.08	22.93	24.0	0.0	0.0
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.98	23.07	22.87	24.0	0.0	0.0

Part270 n78 HPUE Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		26.08				
100	PI2 BPSK	1	137		26.05		27.0	0.0	
100	PI2 BPSK	1	271		25.99				
100	PI2 BPSK	135	0		25.50		26.5	0.5	
100	PI2 BPSK	135	69		26.00		27.0	0.0	
100	PI2 BPSK	135	138		25.36		26.5	0.5	
100	PI2 BPSK	270	0		25.46				
100	QPSK	1	1		26.15				
100	QPSK	1	137		26.08		27.0	0.0	
100	QPSK	1	271		26.02				
100	QPSK	135	0		25.00		26.0	1.0	
100	QPSK	135	69		26.09		27.0	0.0	
100	QPSK	135	138		24.95		26.0	1.0	
100	QPSK	270	0		24.99		26.0	1.0	
100	16QAM	1	1		25.29		26.0	1.0	
100	64QAM	1	1		23.83		24.5	2.5	
100	256QAM	1	1		21.76		22.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	25.95	26.11	25.96	27.0	0.0	0.0
Channel									
Frequency (MHz)									
80	QPSK	1	1	25.94	26.05	25.94	27.0	0.0	0.0
Channel									
Frequency (MHz)									
70	QPSK	1	1	26.02	26.09	25.93	27.0	0.0	0.0
Channel									
Frequency (MHz)									
60	QPSK	1	1	26.02	26.10	25.94	27.0	0.0	0.0
Channel									
Frequency (MHz)									
50	QPSK	1	1	25.96	26.04	25.96	27.0	0.0	0.0
Channel									
Frequency (MHz)									
40	QPSK	1	1	26.01	26.05	25.89	27.0	0.0	0.0
Channel									
Frequency (MHz)									
30	QPSK	1	1	25.94	26.01	25.97	27.0	0.0	0.0
Channel									
Frequency (MHz)									
20	QPSK	1	1	25.98	26.03	25.93	27.0	0.0	0.0
Channel									
Frequency (MHz)									
15	QPSK	1	1	25.94	26.07	25.98	27.0	0.0	0.0
Channel									
Frequency (MHz)									
10	QPSK	1	1	25.97	26.10	25.93	27.0	0.0	0.0



n7 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 504000	Middle Ch. / Freq. 507000	High Ch. / Freq. 510000		
Channel				2530	2535	2550		
Frequency (MHz)								
40	PI/2 BPSK	1	1	18.28	18.36	18.24		
40	PI/2 BPSK	1	108	18.23	18.30	18.24	19.8	0.0
40	PI/2 BPSK	1	214	18.13	18.19	18.19		
40	PI/2 BPSK	108	0	18.04	18.20	18.11	19.8	0.0
40	PI/2 BPSK	108	54	18.20	18.22	18.15	19.8	0.0
40	PI/2 BPSK	108	108	18.15	18.21	18.14	19.8	0.0
40	PI/2 BPSK	216	0	18.20	18.31	18.11		
40	QPSK	1	1	18.36	18.45	18.40		
40	QPSK	1	108	18.32	18.36	18.33	19.8	0.0
40	QPSK	1	214	18.21	18.26	18.27		
40	QPSK	108	0	18.15	18.26	18.19	19.8	0.0
40	QPSK	108	54	18.28	18.36	18.18	19.8	0.0
40	QPSK	108	108	18.09	18.22	18.13	19.8	0.0
40	QPSK	216	0	18.16	18.27	18.21	19.8	0.0
40	16QAM	1	1	18.15	18.26	18.00	19.8	0.0
40	64QAM	1	1	18.10	18.20	18.24	19.8	0.0
40	256QAM	1	1	18.07	18.23	18.10	19.5	0.3
Channel				503000	507000	511000		
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	18.28	18.41	18.33	19.8	0.0
Channel				502500	507000	511500		
Frequency (MHz)				2512.5	2535	2527.5		
25	QPSK	1	1	18.21	18.37	18.34	19.8	0.0
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	18.28	18.33	18.28	19.8	0.0
Channel				501500	507000	512500		
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	18.32	18.34	18.28	19.8	0.0
Channel				501000	507000	513000		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	18.30	18.36	18.32	19.8	0.0
Channel				500500	507000	513500		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	18.27	18.40	18.30	19.8	0.0

n66 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel				1730	1745	1760		
Frequency (MHz)								
40	PI/2 BPSK	1	1	23.43	23.51	23.47		
40	PI/2 BPSK	1	108	23.38	23.47	23.38	24.0	0.0
40	PI/2 BPSK	1	214	23.38	23.44	23.40		
40	PI/2 BPSK	108	0	22.89	23.04	23.00	23.5	0.5
40	PI/2 BPSK	108	54	23.44	23.48	23.43	24.0	0.0
40	PI/2 BPSK	108	108	23.02	23.08	23.02	23.5	0.5
40	PI/2 BPSK	216	0	23.01	23.13	23.02		
40	QPSK	1	1	23.49	23.56	23.51		
40	QPSK	1	108	23.38	23.52	23.39	24.0	0.0
40	QPSK	1	214	23.33	23.48	23.36		
40	QPSK	108	0	22.44	22.54	22.50	23.0	1.0
40	QPSK	108	54	23.39	23.50	23.40	24.0	0.0
40	QPSK	108	108	22.34	22.47	22.41	23.0	1.0
40	QPSK	216	0	22.42	22.53	22.43		
40	16QAM	1	1	22.49	22.58	22.47	23.0	1.0
40	64QAM	1	1	20.82	20.95	20.90	21.5	2.5
40	256QAM	1	1	18.96	18.99	18.83	19.5	4.5
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	23.40	23.52	23.39	24.0	0.0
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.44	23.51	23.48	24.0	0.0
Channel				343500	349000	354500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.42	23.47	23.41	24.0	0.0
Channel				343000	349000	355000		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.38	23.52	23.45	24.0	0.0
Channel				342500	349000	355500		
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	23.40	23.45	23.39	24.0	0.0



n38 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 518004	Middle Ch. / Freq. 519000	High Ch. / Freq. 519996		
	Channel			2590.02	2595	2599.98		
40	PI2 BPSK	1	1	18.88	18.99	18.90		
40	PI2 BPSK	1	59	19.00	18.97	18.90	20.3	0.0
40	PI2 BPSK	1	104	18.89	18.84	18.79		
40	PI2 BPSK	50	0	18.82	18.81	18.77	20.3	0.0
40	PI2 BPSK	50	28	18.86	18.89	18.75	20.3	0.0
40	PI2 BPSK	50	56	18.76	18.96	18.82	20.3	0.0
40	PI2 BPSK	100	0	18.80	19.07	18.85	20.3	0.0
40	QPSK	1	1	19.05	19.12	19.03		
40	QPSK	1	53	19.02	18.97	18.92	20.3	0.0
40	QPSK	1	104	18.86	18.91	18.77		
40	QPSK	50	0	18.85	18.84	18.79	20.3	0.0
40	QPSK	50	28	18.92	18.94	18.80	20.3	0.0
40	QPSK	50	56	18.78	18.79	18.82	20.3	0.0
40	QPSK	100	0	18.88	18.92	18.77	20.3	0.0
40	16QAM	1	1	18.71	18.90	18.76	20.3	0.0
40	64QAM	1	1	18.82	18.98	18.82	20.3	0.0
40	256QAM	1	1	18.28	18.31	18.18	19.5	0.8
	Channel			517002	518000	520098	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2585.51	2595	2604.99		
30	QPSK	1	1	18.64	18.59	18.71	20.3	0.0
	Channel			516504	519000	521496	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2592.92	2595	2607.48		
25	QPSK	1	1	18.60	18.60	18.60	20.3	0.0
	Channel			518000	519000	522000	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2580	2595	2610		
20	QPSK	1	1	18.63	18.89	18.65	20.3	0.0
	Channel			517500	519000	522096	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2577.51	2595	2612.49		
15	QPSK	1	1	18.67	18.68	18.64	20.3	0.0
	Channel			518004	519000	522996	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2626.50	2595	2614.98		
10	QPSK	1	1	18.70	18.80	18.73	24.5	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 508002	Middle Ch. / Freq. 518598	High Ch. / Freq. 528000		
	Channel			2546.01	2592.99	2640		
100	PI2 BPSK	1	1	19.00	19.10	18.96		
100	PI2 BPSK	1	137	19.07	19.00	19.01	20.3	0.0
100	PI2 BPSK	1	271	19.01	18.96	18.85		
100	PI2 BPSK	135	0	18.88	18.95	18.80	20.3	0.0
100	PI2 BPSK	135	69	18.96	19.00	18.89	20.3	0.0
100	PI2 BPSK	135	138	18.96	19.04	18.71	20.3	0.0
100	PI2 BPSK	270	0	18.90	19.15	18.94	20.3	0.0
100	QPSK	1	1	19.10	19.17	19.09		
100	QPSK	1	137	19.05	19.08	19.00	20.3	0.0
100	QPSK	1	271	18.95	19.03	18.92		
100	QPSK	135	0	18.96	18.93	18.94	20.3	0.0
100	QPSK	135	69	18.98	19.02	18.90	20.3	0.0
100	QPSK	135	138	18.90	18.91	18.95	20.3	0.0
100	QPSK	270	0	18.91	18.95	18.86	20.3	0.0
100	16QAM	1	1	18.80	19.03	18.85	20.3	0.0
100	64QAM	1	1	18.96	19.02	18.94	20.3	0.0
100	256QAM	1	1	18.42	18.49	18.35	19.5	0.8
	Channel			508200	518598	528998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2641	2592.99	2644.98		
90	QPSK	1	1	19.04	19.08	19.00	20.3	0.0
	Channel			507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2633.02	2592.99	2643.99		
80	QPSK	1	1	19.03	19.08	19.01	20.3	0.0
	Channel			508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2631.01	2592.99	2655		
70	QPSK	1	1	19.01	19.10	18.94	20.3	0.0
	Channel			508200	518598	532998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2626	2592.99	2659.98		
60	QPSK	1	1	19.04	19.05	19.03	20.3	0.0
	Channel			504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2621.02	2592.99	2644.98		
50	QPSK	1	1	19.02	19.04	19.02	20.3	0.0
	Channel			503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2610.01	2592.99	2670		
40	QPSK	1	1	18.98	19.02	18.94	20.3	0.0
	Channel			502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2611	2592.99	2674.98		
30	QPSK	1	1	18.98	19.12	19.03	20.3	0.0
	Channel			501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2606.02	2592.99	2679.99		
20	QPSK	1	1	18.98	19.11	19.01	20.3	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 508002	Middle Ch. / Freq. 518598	High Ch. / Freq. 528000		
	Channel			2646.01	2592.99	2640		
100	PI2 BPSK	1	1	22.10	22.26	22.06		
100	PI2 BPSK	1	137	22.19	22.10	22.15	23.3	0.0
100	PI2 BPSK	1	271	22.12	22.07	21.90		
100	PI2 BPSK	135	0	21.99	22.05	21.93	23.3	0.0
100	PI2 BPSK	135	69	22.03	22.14	21.95	23.3	0.0
100	PI2 BPSK	135	138	21.94	22.11	21.82	23.3	0.0
100	PI2 BPSK	270	0	21.98	22.23	22.10	23.3	0.0
100	QPSK	1	1	22.25	22.26	22.20		
100	QPSK	1	137	22.12	22.22	22.13	23.3	0.0
100	QPSK	1	271	22.08	22.13	22.06		
100	QPSK	135	0	22.12	22.07	22.05	23.3	0.0
100	QPSK	135	69	22.11	22.17	22.02	23.3	0.0
100	QPSK	135	138	22.01	22.08	22.10	23.3	0.0
100	QPSK	270	0	22.06	22.10	21.97	23.3	0.0
100	16QAM	1	1	21.88	22.18	22.00	23.3	0.0
100	64QAM	1	1	22.09	22.18	22.06	23.3	0.0
100	256QAM	1	1	22.21	22.21	22.18	22.5	0.8
	Channel			508200	518598	528998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2641	2592.99	2644.98		
90	QPSK	1	1	22.10	22.28	22.06	23.3	0.0
	Channel			507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2633.02	2592.99	2643.99		
80	QPSK	1	1	22.12	22.20	22.10	23.3	0.0
	Channel			508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2631.01	2592.99	2655		
70	QPSK	1	1	22.18	22.19	22.14	23.3	0.0
	Channel			508200	518598	532998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2626	2592.99	2659.98		
60	QPSK	1	1	22.20	22.23	22.12	23.3	0.0
	Channel			504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2621.02	2592.99	2644.98		
50	QPSK	1	1	22.15	22.16	22.09	23.3	0.0
	Channel			503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2610.01	2592.99	2670		
40	QPSK	1	1	22.19	22.22	22.12	23.3	0.0
	Channel			502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2611	2592.99	2674.98		
30	QPSK	1	1	22.13	22.24	22.12	23.3	0.0
	Channel			501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
	Frequency (MHz)			2606.02	2592.99	2679.99		
20	QPSK	1	1	22.15	22.18	22.12	23.3	0.0



Part270 n77 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	19.52	19.58	19.47			
100	PI2 BPSK	1	137	19.44	19.48	19.40	20.6	0.0	
100	PI2 BPSK	1	271	19.35	19.45	19.30			
100	PI2 BPSK	135	0	19.25	19.32	19.28	20.6	0.0	
100	PI2 BPSK	135	69	19.33	19.44	19.27	20.6	0.0	
100	PI2 BPSK	135	138	19.39	19.37	19.23	20.6	0.0	
100	PI2 BPSK	270	0	19.40	19.50	19.38	20.6	0.0	
100	QPSK	1	1	19.57	19.65	19.51			
100	QPSK	1	137	19.45	19.60	19.52	20.6	0.0	
100	QPSK	1	271	19.38	19.58	19.48			
100	QPSK	135	0	19.38	19.46	19.38	20.6	0.0	
100	QPSK	135	69	19.47	19.55	19.39	20.6	0.0	
100	QPSK	135	138	19.30	19.38	19.37	20.6	0.0	
100	QPSK	270	0	19.32	19.43	19.40	20.6	0.0	
100	16QAM	1	1	19.35	19.41	19.38	20.6	0.0	
100	64QAM	1	1	19.31	19.48	19.50	20.6	0.0	
100	256QAM	1	1	17.91	18.05	17.95	19.5	1.1	
Channel									
Frequency (MHz)									
90	QPSK	1	1	19.48	19.52	19.42	20.6	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	19.53	19.60	19.59	20.6	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	19.48	19.54	19.40	20.6	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	19.52	19.53	19.44	20.6	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	19.47	19.50	19.44	20.6	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	19.44	19.62	19.42	20.6	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.53	19.56	19.47	20.6	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.47	19.54	19.46	20.6	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.46	19.61	19.37	20.6	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.44	19.51	19.42	20.6	0.0	

Part270 n77 HPUE Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	22.51	22.56	22.48			
100	PI2 BPSK	1	137	22.43	22.45	22.44	23.6	0.0	
100	PI2 BPSK	1	271	22.41	22.47	22.25			
100	PI2 BPSK	135	0	22.25	22.30	22.25	23.6	0.0	
100	PI2 BPSK	135	69	22.37	22.41	22.29	23.6	0.0	
100	PI2 BPSK	135	138	22.34	22.33	22.29	23.6	0.0	
100	PI2 BPSK	270	0	22.41	22.47	22.38	23.6	0.0	
100	QPSK	1	1	22.57	22.61	22.56			
100	QPSK	1	137	22.48	22.56	22.54	23.6	0.0	
100	QPSK	1	271	22.44	22.54	22.49			
100	QPSK	135	0	22.44	22.49	22.42	23.6	0.0	
100	QPSK	135	69	22.50	22.57	22.38	23.6	0.0	
100	QPSK	135	138	22.26	22.38	22.30	23.6	0.0	
100	QPSK	270	0	22.32	22.42	22.36	23.6	0.0	
100	16QAM	1	1	22.31	22.47	22.42	23.6	0.0	
100	64QAM	1	1	22.28	22.50	22.48	23.6	0.0	
100	256QAM	1	1	21.50	21.59	21.56	22.5	1.1	
Channel									
Frequency (MHz)									
90	QPSK	1	1	22.48	22.52	22.44	23.6	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.48	22.56	22.49	23.6	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.49	22.50	22.43	23.6	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.46	22.54	22.43	23.6	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	22.49	22.55	22.47	23.6	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	22.43	22.47	22.45	23.6	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.46	22.53	22.46	23.6	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.42	22.56	22.43	23.6	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	22.53	22.45	22.53	23.6	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.43	22.55	22.42	23.6	0.0	



Part270 n78 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		19.57				
100	PI2 BPSK	1	137		19.44		20.6	0.0	
100	PI2 BPSK	1	271		19.41				
100	PI2 BPSK	135	0		19.27		20.6	0.0	
100	PI2 BPSK	135	69		19.35		20.6	0.0	
100	PI2 BPSK	135	138		19.27		20.6	0.0	
100	PI2 BPSK	270	0		19.43		20.6	0.0	
100	QPSK	1	1		19.62				
100	QPSK	1	137		19.58		20.6	0.0	
100	QPSK	1	271		19.51				
100	QPSK	135	0		19.45		20.6	0.0	
100	QPSK	135	69		19.49		20.6	0.0	
100	QPSK	135	138		19.29		20.6	0.0	
100	QPSK	270	0		19.34		20.6	0.0	
100	16QAM	1	1		19.38		20.6	0.0	
100	64QAM	1	1		19.48		20.6	0.0	
100	256QAM	1	1		19.24	19.5	19.5	1.1	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	19.40	19.41	19.53	20.6	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3730.02	3750	3770.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	19.35	19.40	19.40	20.6	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	649334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	3725.01	3750	3775.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.42	19.45	19.44	20.6	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3705	3750	3795	20.6	0.0	

Part270 n78 HPUE Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		22.56				
100	PI2 BPSK	1	137		22.46		23.6	0.0	
100	PI2 BPSK	1	271		22.38				
100	PI2 BPSK	135	0		22.31		23.6	0.0	
100	PI2 BPSK	135	69		22.41		23.6	0.0	
100	PI2 BPSK	135	138		22.25		23.6	0.0	
100	PI2 BPSK	270	0		22.40		23.6	0.0	
100	QPSK	1	1		22.59				
100	QPSK	1	137		22.49		23.6	0.0	
100	QPSK	1	271		22.53				
100	QPSK	135	0		22.42		23.6	0.0	
100	QPSK	135	69		22.55		23.6	0.0	
100	QPSK	135	138		22.29		23.6	0.0	
100	QPSK	270	0		22.39		23.6	0.0	
100	16QAM	1	1		22.39		23.6	0.0	
100	64QAM	1	1		22.43		23.6	0.0	
100	256QAM	1	1		22.03	22.5	22.5	1.1	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.40	22.43	22.41	23.6	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3730.02	3750	3770.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	22.31	22.44	22.47	23.6	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	649668	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	3725.01	3750	3775.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	22.38	22.42	22.40	23.6	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3705	3750	3795	23.6	0.0	





n7 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 504000	Middle Ch. / Freq. 507000	High Ch. / Freq. 510000		
Channel				2530	2535	2550		
Frequency (MHz)				2530	2535	2550		
40	PI/2 BPSK	1	1	22.73	22.77	22.70	23.3	0.0
40	PI/2 BPSK	1	108	22.82	22.71	22.54		
40	PI/2 BPSK	1	214	22.54	22.59	22.55		
40	PI/2 BPSK	108	0	22.44	22.83	22.47	23.3	0.0
40	PI/2 BPSK	108	54	22.60	22.88	22.54	23.3	0.0
40	PI/2 BPSK	108	108	22.55	22.57	22.47	23.3	0.0
40	PI/2 BPSK	216	0	22.68	22.73	22.60	23.3	0.0
40	QPSK	1	1	22.89	22.83	22.76		
40	QPSK	1	108	22.61	22.78	22.67	23.3	0.0
40	QPSK	1	214	23.37	22.89	22.89		
40	QPSK	108	0	22.82	22.87	22.56	23.0	0.3
40	QPSK	108	54	22.82	22.75	22.81	23.3	0.0
40	QPSK	108	108	22.48	22.58	22.51	23.0	0.3
40	QPSK	216	0	22.59	22.82	22.80		
40	16QAM	1	1	22.57	22.83	22.59	23.0	0.3
40	64QAM	1	1	21.42	21.45	21.35	21.5	1.8
40	256QAM	1	1	19.38	19.32	19.48	19.5	3.8
Channel				503000	507000	511000		
Frequency (MHz)				503000	507000	511000		
30	QPSK	1	1	22.83	22.79	22.71	23.3	0.0
Channel				502500	507000	511500		
Frequency (MHz)				502500	507000	511500		
25	QPSK	1	1	22.57	22.75	22.63	23.3	0.0
Channel				502000	507000	512000		
Frequency (MHz)				502000	507000	512000		
20	PI/2 BPSK	1	1	22.60	22.78	22.88	23.3	0.0
Channel				501500	507000	512500		
Frequency (MHz)				501500	507000	512500		
15	QPSK	1	1	22.82	22.89	22.88	23.3	0.0
Channel				501000	507000	513000		
Frequency (MHz)				501000	507000	513000		
10	QPSK	1	1	22.65	22.79	22.73	23.3	0.0
Channel				500500	507000	513500		
Frequency (MHz)				500500	507000	513500		
5	QPSK	1	1	22.54	22.73	22.68	23.3	0.0

n66 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel				1730	1745	1760		
Frequency (MHz)				1730	1745	1760		
40	PI/2 BPSK	1	1	23.40	23.48	23.43	24.0	0.0
40	PI/2 BPSK	1	108	23.29	23.42	23.35		
40	PI/2 BPSK	1	214	23.25	23.37	23.33		
40	PI/2 BPSK	108	0	22.91	23.04	22.89	23.5	0.5
40	PI/2 BPSK	108	54	23.34	23.47	23.37	24.0	0.0
40	PI/2 BPSK	108	108	22.97	23.09	22.94	23.5	0.5
40	PI/2 BPSK	216	0	22.85	22.98	22.97		
40	QPSK	1	1	23.38	23.52	23.46		
40	QPSK	1	108	23.42	23.43	23.39	24.0	0.0
40	QPSK	1	214	23.37	23.38	23.27		
40	QPSK	108	0	22.52	22.62	22.59	23.0	1.0
40	QPSK	108	54	23.42	23.50	23.44	24.0	0.0
40	QPSK	108	108	22.55	22.60	22.56	23.0	1.0
40	QPSK	216	0	22.52	22.62	22.52		
40	16QAM	1	1	22.55	22.70	22.51	23.0	1.0
40	64QAM	1	1	21.13	21.16	21.14	21.5	2.5
40	256QAM	1	1	19.37	19.40	19.32	19.5	4.5
Channel				345000	349000	353000		
Frequency (MHz)				345000	349000	353000		
30	QPSK	1	1	23.33	23.38	23.43	24.0	0.0
Channel				344000	349000	354000		
Frequency (MHz)				344000	349000	354000		
29	QPSK	1	1	23.35	23.43	23.41	24.0	0.0
Channel				343000	349000	355000		
Frequency (MHz)				343000	349000	355000		
15	QPSK	1	1	23.28	23.45	23.35	24.0	0.0
Channel				342000	349000	356000		
Frequency (MHz)				342000	349000	356000		
10	QPSK	1	1	23.35	23.48	23.41	24.0	0.0
Channel				341000	349000	357000		
Frequency (MHz)				341000	349000	357000		
5	QPSK	1	1	23.32	23.37	23.40	24.0	0.0



### n38 Ant 3

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				518004	519000	519996		
Frequency (MHz)				2590.02	2595	2599.98		
40	PI2 BPSK	1	1	22.77	22.78	22.68		
40	PI2 BPSK	1	53	22.87	22.85	22.57	24.0	0.0
40	PI2 BPSK	1	104	22.78	22.93	22.83		
40	PI2 BPSK	50	0	22.29	22.47	22.34	24.0	0.0
40	PI2 BPSK	50	28	22.74	22.84	22.80	24.0	0.0
40	PI2 BPSK	50	56	22.45	22.52	22.48	24.0	0.0
40	PI2 BPSK	100	0	22.84	22.94	22.74		
40	QPSK	1	1	22.89	23.01	22.78		
40	QPSK	1	53	22.76	22.93	22.65	24.0	0.0
40	QPSK	1	104	22.83	22.85	22.82		
40	QPSK	50	0	22.83	22.84	22.58	23.5	0.5
40	QPSK	50	28	22.81	22.89	22.77	24.0	0.0
40	QPSK	50	56	22.84	22.86	22.79		
40	QPSK	100	0	22.89	22.76	22.72	23.5	0.5
40	16QAM	1	1	22.83	22.82	22.66	23.5	0.5
40	64QAM	1	1	21.58	21.64	21.54	22.0	2.0
40	256QAM	1	1	19.29	19.40	19.32	20.0	4.0
Channel				517002	518000	520098		
Frequency (MHz)				2585.01	2590	2604.99		
30	QPSK	1	1	22.78	22.76	22.72	24.0	0.0
Channel				516504	518000	521496		
Frequency (MHz)				2592.52	2595	2607.48		
25	QPSK	1	1	22.71	22.70	22.63	24.0	0.0
Channel				516000	518000	522000		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	1	22.67	22.76	22.63	24.0	0.0
Channel				515500	518000	523498		
Frequency (MHz)				2577.51	2595	2612.49		
15	QPSK	1	1	22.78	22.71	22.70	24.0	0.0
Channel				515000	518000	524998		
Frequency (MHz)				2572.51	2595	2617.49		
15	QPSK	1	1	22.78	22.80	22.72	24.5	0.0

### n41 Ant 3

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				509002	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	22.87	22.85	22.79		
100	PI2 BPSK	1	137	22.92	22.97	22.71	24.0	0.0
100	PI2 BPSK	1	271	22.83	23.03	22.70		
100	PI2 BPSK	135	0	22.43	22.54	22.47	24.0	0.0
100	PI2 BPSK	135	69	22.78	22.89	22.86	24.0	0.0
100	PI2 BPSK	135	138	22.51	22.68	22.51	24.0	0.0
100	PI2 BPSK	270	0	22.88	22.99	22.77		
100	QPSK	1	1	23.04	23.08	22.84		
100	QPSK	1	137	22.81	22.96	22.73	24.0	0.0
100	QPSK	1	271	22.89	22.96	22.78		
100	QPSK	135	0	22.90	22.91	22.72	23.5	0.5
100	QPSK	135	69	22.86	22.96	22.84	24.0	0.0
100	QPSK	135	138	22.77	22.93	22.85		
100	QPSK	270	0	22.78	22.92	22.75	23.5	0.5
100	16QAM	1	1	22.94	22.88	22.78	23.5	0.5
100	64QAM	1	1	21.21	21.29	21.15	22.0	2.0
100	256QAM	1	1	18.95	19.09	18.96	20.0	4.0
Channel				508200	518598	526998		
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	1	22.84	22.98	22.82	24.0	0.0
Channel				507204	518598	526998		
Frequency (MHz)				2538.02	2592.99	2643.99		
80	QPSK	1	1	22.77	22.85	22.83	24.0	0.0
Channel				506202	518598	531000		
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	22.78	22.94	22.85	24.0	0.0
Channel				505204	518598	532998		
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	22.82	23.01	22.87	24.0	0.0
Channel				504204	518598	534998		
Frequency (MHz)				2521.02	2592.99	2664.98		
50	QPSK	1	1	22.87	22.85	22.78	24.0	0.0
Channel				503202	518598	534000		
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	22.79	23.00	22.70	24.0	0.0
Channel				502200	518598	534998		
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	22.80	22.96	22.75	24.0	0.0
Channel				501204	518598	535998		
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	22.82	22.97	22.77	24.0	0.0

### n41 HPUE Ant 3

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				509002	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	25.75	25.91	25.95		
100	PI2 BPSK	1	137	25.78	26.01	25.92	27.0	0.0
100	PI2 BPSK	1	271	25.75	25.88	25.84		
100	PI2 BPSK	135	0	25.81	25.89	25.78	27.0	0.0
100	PI2 BPSK	135	69	25.80	25.97	25.95	27.0	0.0
100	PI2 BPSK	135	138	25.87	25.85	25.79	27.0	0.0
100	PI2 BPSK	270	0	25.74	25.88	25.81		
100	QPSK	1	1	25.91	26.04	25.90		
100	QPSK	1	137	25.83	26.05	25.82	27.0	0.0
100	QPSK	1	271	25.78	26.06	25.92		
100	QPSK	135	0	25.73	25.97	25.92	26.5	0.5
100	QPSK	135	69	25.88	26.02	25.92	27.0	0.0
100	QPSK	135	138	25.89	26.01	25.82		
100	QPSK	270	0	25.76	25.99	25.79	26.5	0.5
100	16QAM	1	1	25.95	25.95	25.90	26.5	0.5
100	64QAM	1	1	24.71	24.74	24.69	25.0	2.0
100	256QAM	1	1	22.21	22.32	22.18	23.0	4.0
Channel				508200	518598	526998		
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	1	25.85	25.93	25.90	27.0	0.0
Channel				507204	518598	526998		
Frequency (MHz)				2538.02	2592.99	2643.99		
80	QPSK	1	1	25.89	25.93	25.93	27.0	0.0
Channel				506202	518598	531000		
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	25.88	25.93	25.95	27.0	0.0
Channel				505204	518598	532998		
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	25.85	25.94	25.85	27.0	0.0
Channel				504204	518598	534998		
Frequency (MHz)				2521.02	2592.99	2664.98		
50	QPSK	1	1	25.88	25.95	25.80	27.0	0.0
Channel				503202	518598	534000		
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	25.94	25.98	25.91	27.0	0.0
Channel				502200	518598	534998		
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	25.80	25.97	25.81	27.0	0.0
Channel				501204	518598	535998		
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	25.83	25.88	25.92	27.0	0.0



Part270 n77 Ant 3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	MPR (dB)
Channel							
Frequency (MHz)				3750	3840	3930	
100	PI2 BPSK	1	1	20.51	20.54	20.45	
100	PI2 BPSK	1	137	20.46	20.49	20.38	21.9
100	PI2 BPSK	1	271	20.35	20.46	20.30	
100	PI2 BPSK	135	0	20.22	20.34	20.32	21.9
100	PI2 BPSK	135	69	20.35	20.43	20.29	21.9
100	PI2 BPSK	135	138	20.35	20.41	20.34	21.9
100	PI2 BPSK	270	0	20.44	20.52	20.32	21.9
100	QPSK	1	1	20.56	20.61	20.53	
100	QPSK	1	137	20.48	20.60	20.45	21.9
100	QPSK	1	271	20.37	20.55	20.42	
100	QPSK	135	0	20.43	20.46	20.42	21.9
100	QPSK	135	69	20.43	20.54	20.40	21.9
100	QPSK	135	138	20.31	20.43	20.35	21.9
100	QPSK	270	0	20.56	20.47	20.38	21.9
100	16QAM	1	1	20.30	20.43	20.38	21.9
100	64QAM	1	1	20.18	20.29	20.22	21.5
100	256QAM	1	1	17.96	18.05	17.99	19.5
Channel							
Frequency (MHz)				649668	650000	662334	
90	QPSK	1	1	20.46	20.56	20.50	21.9
Channel							
Frequency (MHz)				649334	650000	662668	
80	QPSK	1	1	20.47	20.55	20.40	21.9
Channel							
Frequency (MHz)				649000	650000	663000	
70	QPSK	1	1	20.44	20.53	20.39	21.9
Channel							
Frequency (MHz)				648668	650000	663334	
60	QPSK	1	1	20.53	20.49	20.47	21.9
Channel							
Frequency (MHz)				648334	650000	663668	
50	QPSK	1	1	20.52	20.53	20.47	21.9
Channel							
Frequency (MHz)				648000	650000	664000	
40	QPSK	1	1	20.52	20.43	20.39	21.9
Channel							
Frequency (MHz)				647668	650000	664334	
30	QPSK	1	1	20.47	20.51	20.41	21.9
Channel							
Frequency (MHz)				647334	650000	664668	
20	QPSK	1	1	20.43	20.53	20.40	21.9
Channel							
Frequency (MHz)				647168	650000	664834	
15	QPSK	1	1	20.51	20.45	20.41	21.9
Channel							
Frequency (MHz)				647000	650000	665000	
10	QPSK	1	1	20.44	20.54	20.40	21.9

Part270 n77 HPUE Ant 3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	MPR (dB)
Channel							
Frequency (MHz)				3750	3840	3930	
100	PI2 BPSK	1	1	23.66	23.66	23.59	
100	PI2 BPSK	1	137	23.60	23.55	23.52	24.9
100	PI2 BPSK	1	271	23.40	23.58	23.35	
100	PI2 BPSK	135	0	23.38	23.43	23.40	24.9
100	PI2 BPSK	135	69	23.45	23.50	23.45	24.9
100	PI2 BPSK	135	138	23.40	23.57	23.40	24.9
100	PI2 BPSK	270	0	23.59	23.60	23.40	24.9
100	QPSK	1	1	23.62	23.74	23.68	
100	QPSK	1	137	23.59	23.71	23.59	24.9
100	QPSK	1	271	23.46	23.63	23.33	
100	QPSK	135	0	23.51	23.61	23.54	24.9
100	QPSK	135	69	23.59	23.68	23.48	24.9
100	QPSK	135	138	23.45	23.58	23.45	24.9
100	QPSK	270	0	23.52	23.63	23.46	24.9
100	16QAM	1	1	23.38	23.48	23.44	24.9
100	64QAM	1	1	23.59	23.69	23.56	24.5
100	256QAM	1	1	20.89	21.03	20.90	22.5
Channel							
Frequency (MHz)				649668	650000	662334	
90	QPSK	1	1	23.52	23.65	23.59	24.9
Channel							
Frequency (MHz)				649334	650000	662668	
80	QPSK	1	1	23.58	23.68	23.54	24.9
Channel							
Frequency (MHz)				649000	650000	663000	
70	QPSK	1	1	23.49	23.64	23.53	24.9
Channel							
Frequency (MHz)				648668	650000	663334	
60	QPSK	1	1	23.53	23.65	23.57	24.9
Channel							
Frequency (MHz)				648334	650000	663668	
50	QPSK	1	1	23.56	23.66	23.56	24.9
Channel							
Frequency (MHz)				648000	650000	664000	
40	QPSK	1	1	23.48	23.71	23.60	24.9
Channel							
Frequency (MHz)				647668	650000	664334	
30	QPSK	1	1	23.51	23.60	23.54	24.9
Channel							
Frequency (MHz)				647334	650000	664668	
20	QPSK	1	1	23.59	23.69	23.60	24.9
Channel							
Frequency (MHz)				647168	650000	664834	
15	QPSK	1	1	23.53	23.59	23.64	24.9
Channel							
Frequency (MHz)				647000	650000	665000	
10	QPSK	1	1	23.54	23.64	23.62	24.9



Part270 n78 Ant 3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	20.47	20.47	20.47	21.9
100	PI2 BPSK	1	137	20.41	20.41	20.41	
100	PI2 BPSK	1	271	20.37	20.37	20.37	21.9
100	PI2 BPSK	135	0	20.30	20.30	20.30	
100	PI2 BPSK	135	69	20.32	20.32	20.32	21.9
100	PI2 BPSK	135	138	20.35	20.35	20.35	
100	PI2 BPSK	270	0	20.48	20.48	20.48	21.9
100	QPSK	1	1	20.57	20.57	20.57	
100	QPSK	1	137	20.49	20.49	20.49	21.9
100	QPSK	1	271	20.43	20.43	20.43	
100	QPSK	135	0	20.39	20.39	20.39	21.9
100	QPSK	135	69	20.45	20.45	20.45	
100	QPSK	135	138	20.37	20.37	20.37	21.9
100	QPSK	270	0	20.34	20.34	20.34	
100	16QAM	1	1	20.35	20.35	20.35	21.9
100	64QAM	1	1	20.22	20.22	20.22	
100	256QAM	1	1	17.82	17.82	19.5	2.4
Channel							
Frequency (MHz)							
90	QPSK	1	1	20.40	20.51	20.36	21.9
Channel							
Frequency (MHz)							
80	QPSK	1	1	20.33	20.41	20.39	21.9
Channel							
Frequency (MHz)							
70	QPSK	1	1	20.39	20.43	20.43	21.9
Channel							
Frequency (MHz)							
60	QPSK	1	1	20.32	20.41	20.37	21.9
Channel							
Frequency (MHz)							
50	QPSK	1	1	20.36	20.51	20.40	21.9
Channel							
Frequency (MHz)							
40	QPSK	1	1	37.20	37.50	37.20	21.9
Channel							
Frequency (MHz)							
30	QPSK	1	1	20.33	20.47	20.40	21.9
Channel							
Frequency (MHz)							
20	QPSK	1	1	20.40	20.48	20.36	21.9
Channel							
Frequency (MHz)							
15	QPSK	1	1	20.33	20.45	20.39	21.9
Channel							
Frequency (MHz)							
10	QPSK	1	1	20.33	20.40	20.42	21.9

Part270 n78 HPUE Ant 3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	23.59	23.59	23.59	24.9
100	PI2 BPSK	1	137	23.42	23.42	23.42	
100	PI2 BPSK	1	271	23.47	23.47	23.47	24.9
100	PI2 BPSK	135	0	23.32	23.32	23.32	
100	PI2 BPSK	135	69	23.37	23.37	23.37	24.9
100	PI2 BPSK	135	138	23.51	23.51	23.51	
100	PI2 BPSK	270	0	23.58	23.58	23.58	24.9
100	QPSK	1	1	23.69	23.69	23.69	
100	QPSK	1	137	23.82	23.82	23.82	24.9
100	QPSK	1	271	23.54	23.54	23.54	
100	QPSK	135	0	23.53	23.53	23.53	24.9
100	QPSK	135	69	23.63	23.63	23.63	
100	QPSK	135	138	23.48	23.48	23.48	24.9
100	QPSK	270	0	23.55	23.55	23.55	
100	16QAM	1	1	23.42	23.42	23.42	24.9
100	64QAM	1	1	23.61	23.61	23.61	
100	256QAM	1	1	21.89	21.89	22.5	2.4
Channel							
Frequency (MHz)							
90	QPSK	1	1	23.40	23.49	23.48	24.9
Channel							
Frequency (MHz)							
80	QPSK	1	1	23.48	23.55	23.53	24.9
Channel							
Frequency (MHz)							
70	QPSK	1	1	23.48	23.80	23.50	24.9
Channel							
Frequency (MHz)							
60	QPSK	1	1	23.42	23.50	23.51	24.9
Channel							
Frequency (MHz)							
50	QPSK	1	1	23.43	23.80	23.48	24.9
Channel							
Frequency (MHz)							
40	QPSK	1	1	37.20	37.50	37.20	24.9
Channel							
Frequency (MHz)							
30	QPSK	1	1	23.48	23.58	23.47	24.9
Channel							
Frequency (MHz)							
20	QPSK	1	1	23.43	23.50	23.44	24.9
Channel							
Frequency (MHz)							
15	QPSK	1	1	23.47	23.55	23.52	24.9
Channel							
Frequency (MHz)							
10	QPSK	1	1	23.41	23.55	23.44	24.9



n5 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)				168900	167300	167800		
				834	836.5	839		
20	PI/2 BPSK	1	1	23.18	23.23	23.13	24.0	0.0
20	PI/2 BPSK	1	53	23.04	23.14	23.06		
20	PI/2 BPSK	1	104	22.98	23.06	22.94		
20	PI/2 BPSK	50	0	22.85	22.76	22.73	23.5	0.5
20	PI/2 BPSK	50	28	23.08	23.18	23.11		
20	PI/2 BPSK	50	56	22.99	22.84	22.51		
20	PI/2 BPSK	100	0	22.66	22.70	22.63	23.5	0.5
20	QPSK	1	1	23.23	23.27	23.16		
20	QPSK	1	53	23.11	23.16	23.13		
20	QPSK	1	104	22.98	23.09	22.98	24.0	0.0
20	QPSK	50	0	22.14	22.28	22.21		
20	QPSK	50	28	23.15	23.21	23.08		
20	QPSK	50	56	22.14	22.18	22.06	23.0	1.0
20	QPSK	100	0	22.17	22.23	22.13		
20	16QAM	1	1	22.39	22.48	22.42		
20	64QAM	1	1	20.73	20.86	20.79	21.5	2.5
20	256QAM	1	1	18.89	19.01	18.96		
Channel								
Frequency (MHz)				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
				831.5	836.5	841.5		
15	QPSK	1	1	23.11	23.18	23.08	24.0	0.0
Channel								
Frequency (MHz)				168800	167300	168800	Tune-up limit (dBm)	MPR (dB)
				829	836.5	844		
10	QPSK	1	1	23.13	23.15	23.02	24.0	0.0
Channel								
Frequency (MHz)				169300	167300	169300	Tune-up limit (dBm)	MPR (dB)
				826.5	836.5	846.5		
5	QPSK	1	1	23.17	23.23	23.04	24.0	0.0

Reduced Power Mode for DSI5 Simultaneous

n7 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)				504000	507000	510000		
				2520	2535	2550		
40	PI/2 BPSK	1	1	18.57	18.63	18.60	20.2	0.0
40	PI/2 BPSK	1	108	18.63	18.82	18.73		
40	PI/2 BPSK	1	214	18.63	18.81	18.73		
40	PI/2 BPSK	108	0	18.68	18.82	18.50	20.2	0.0
40	PI/2 BPSK	108	54	18.66	18.80	18.74		
40	PI/2 BPSK	108	108	18.59	18.82	18.67		
40	PI/2 BPSK	216	0	18.72	18.79	18.84	20.2	0.0
40	QPSK	1	1	18.72	18.95	18.80		
40	QPSK	1	108	18.76	18.90	18.81		
40	QPSK	1	214	18.67	18.67	18.55	20.2	0.0
40	QPSK	108	0	18.62	18.68	18.66		
40	QPSK	108	54	18.62	18.77	18.86		
40	QPSK	108	108	18.56	18.76	18.50	20.2	0.0
40	QPSK	216	0	18.63	18.86	18.70		
40	16QAM	1	1	18.62	18.85	18.65		
40	64QAM	1	1	18.62	18.83	18.74	20.2	0.0
40	256QAM	1	1	17.30	17.38	17.23		
Channel								
Frequency (MHz)				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
				2515	2535	2555		
30	QPSK	1	1	18.65	18.66	18.53	20.2	0.0
Channel								
Frequency (MHz)				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
				2512.5	2535	2557.5		
25	QPSK	1	1	18.56	18.62	18.56	20.2	0.0
Channel								
Frequency (MHz)				503000	507000	507000	Tune-up limit (dBm)	MPR (dB)
				2510	2535	2560		
20	PI/2 BPSK	1	1	18.69	18.72	18.57	20.2	0.0
Channel								
Frequency (MHz)				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
				2507.5	2535	2562.5		
15	QPSK	1	1	18.62	18.64	18.50	20.2	0.0
Channel								
Frequency (MHz)				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
				2505	2535	2565		
10	QPSK	1	1	18.59	18.71	18.59	20.2	0.0
Channel								
Frequency (MHz)				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
				2502.5	2535	2567.5		
5	QPSK	1	1	18.65	18.71	18.47	20.2	0.0

n66 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)				346000	349000	352000		
				1730	1745	1760		
40	PI/2 BPSK	1	1	22.14	22.27	22.17	23.0	0.0
40	PI/2 BPSK	1	108	22.07	22.22	22.11		
40	PI/2 BPSK	1	214	22.08	22.16	22.12		
40	PI/2 BPSK	108	0	21.88	21.96	21.82	22.5	0.5
40	PI/2 BPSK	108	54	22.02	22.20	22.13		
40	PI/2 BPSK	108	108	21.89	21.81	21.78		
40	PI/2 BPSK	216	0	21.74	21.94	21.85	22.5	0.5
40	QPSK	1	1	22.23	22.35	22.31		
40	QPSK	1	108	22.04	22.26	22.14		
40	QPSK	1	214	22.02	22.21	22.07	23.0	0.0
40	QPSK	108	0	21.13	21.36	21.24		
40	QPSK	108	54	22.15	22.29	22.24		
40	QPSK	108	108	21.24	21.48	21.35	22.0	1.0
40	QPSK	216	0	21.26	21.43	21.29		
40	16QAM	1	1	20.98	21.11	21.01		
40	64QAM	1	1	19.67	19.93	19.81	20.5	2.5
40	256QAM	1	1	17.59	17.85	17.73		
Channel								
Frequency (MHz)				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
				1725	1745	1765		
30	QPSK	1	1	22.11	22.27	22.20	23.0	0.0
Channel								
Frequency (MHz)				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
				1720	1745	1770		
20	QPSK	1	1	22.16	22.31	22.24	23.0	0.0
Channel								
Frequency (MHz)				343000	349000	354500	Tune-up limit (dBm)	MPR (dB)
				1717.5	1745	1772.5		
15	QPSK	1	1	22.16	22.28	22.24	23.0	0.0
Channel								
Frequency (MHz)				342000	349000	355000	Tune-up limit (dBm)	MPR (dB)
				1715	1745	1775		
10	QPSK	1	1	22.19	22.22	22.17	23.0	0.0
Channel								
Frequency (MHz)				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
				1712.5	1745	1777.5		
5	QPSK	1	1	22.16	22.29	22.21	23.0	0.0



## n38 Ant 0

Channel			Power Low	Power Middle	Power High				
Channel	Frequency (MHz)		Ch. / Freq.	Ch. / Freq.	Ch. / Freq.	Tune-up limit (dBm)		MPR (dB)	
40	PI2 BPSK	1	1	17.91	18.04	17.85			
40	PI2 BPSK	1	53	17.78	17.93	17.59			0.0
40	PI2 BPSK	1	164	17.09	17.76	17.79			
40	PI2 BPSK	50	0	17.95	17.93	17.87	19.4	0.0	
40	PI2 BPSK	50	28	17.98	17.96	17.89	19.4	0.0	
40	PI2 BPSK	50	58	17.72	18.00	17.58	19.4	0.0	
40	PI2 BPSK	100	0	17.89	17.80	17.82			
40	QPSK	1	1	18.04	18.14	18.03			
40	QPSK	1	53	17.74	17.87	17.85	19.4	0.0	
40	QPSK	1	104	17.70	17.87	17.85			
40	QPSK	50	0	18.02	18.05	17.95	19.4	0.0	
40	QPSK	50	28	17.78	18.03	17.80	19.4	0.0	
40	QPSK	50	58	17.99	17.85	17.85	19.4	0.0	
40	QPSK	100	0	17.73	17.98	17.63			
40	16QAM	1	1	17.68	17.76	17.66	19.4	0.0	
40	64QAM	1	1	17.66	17.69	17.62	19.4	0.0	
40	256QAM	1	1	16.55	16.58	16.57	18.5	0.9	
Channel			51705	51900	52098	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2555.01	2595	2604.99				
30	QPSK	1	1	17.66	17.75	17.66	19.4	0.0	
Channel			516504	519000	521498	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2552.42	2595	2607.48				
25	QPSK	1	1	17.72	17.82	17.80	19.4	0.0	
Channel			515000	519000	522000	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2580	2595	2610				
20	QPSK	1	1	17.75	17.73	17.65	19.4	0.0	
Channel			515502	519000	522498	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2573.5	2595	2612.49				
15	QPSK	1	1	17.72	17.73	17.63	19.4	0.0	
Channel			515004	519000	522998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2575.02	2595	2614.98				
10	QPSK	1	1	17.68	17.77	17.69	19.4	0.0	

## n41 Ant 0

Channel			Power Low	Power Middle	Power High				
Channel	Frequency (MHz)		Ch. / Freq.	Ch. / Freq.	Ch. / Freq.	Tune-up limit (dBm)		MPR (dB)	
100	PI2 BPSK	1	1	18.01	18.17	17.93			
100	PI2 BPSK	1	137	17.82	18.00	17.63	19.4	0.0	
100	PI2 BPSK	1	271	17.75	17.81	17.85			
100	PI2 BPSK	135	0	17.98	18.05	17.91	19.4	0.0	
100	PI2 BPSK	135	69	18.02	18.05	17.99	19.4	0.0	
100	PI2 BPSK	135	138	17.77	18.03	17.69	19.4	0.0	
100	PI2 BPSK	270	0	17.83	17.91	17.91			
100	QPSK	1	1	18.11	18.23	18.13			
100	QPSK	1	137	17.83	18.01	17.52	19.4	0.0	
100	QPSK	1	271	17.85	17.91	17.96			
100	QPSK	135	0	18.06	18.14	18.01	19.4	0.0	
100	QPSK	135	69	17.86	18.07	17.70	19.4	0.0	
100	QPSK	135	138	18.02	18.02	17.96	19.4	0.0	
100	QPSK	270	0	17.77	18.05	17.72			
100	16QAM	1	1	17.72	17.80	17.80	19.4	0.0	
100	64QAM	1	1	17.73	17.76	17.86	19.4	0.0	
100	256QAM	1	1	16.61	16.68	16.68	18.5	0.9	
Channel			505200	518598	520998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2541	2592.99	2644.98				
90	QPSK	1	1	17.95	17.99	17.98	19.4	0.0	
Channel			507204	518598	520998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2536.02	2592.99	2649.99				
80	QPSK	1	1	17.98	17.97	18.03	19.4	0.0	
Channel			505202	518598	531000	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2531.01	2592.99	2655				
70	QPSK	1	1	17.98	17.94	17.97	19.4	0.0	
Channel			505200	518598	531998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2536	2592.99	2659.99				
60	QPSK	1	1	17.88	18.03	17.95	19.4	0.0	
Channel			504204	518598	532998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2521.02	2592.99	2664.99				
50	QPSK	1	1	17.90	17.95	17.97	19.4	0.0	
Channel			505202	518598	534000	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2516.01	2592.99	2670				
40	QPSK	1	1	17.93	18.04	17.97	19.4	0.0	
Channel			502200	518598	534998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2511	2592.99	2674.98				
30	QPSK	1	1	17.99	17.97	17.95	19.4	0.0	
Channel			501204	518598	535998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2506.02	2592.99	2679.99				
20	QPSK	1	1	17.97	17.94	17.97	19.4	0.0	

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Channel			Power Low	Power Middle	Power High				
Channel	Frequency (MHz)		Ch. / Freq.	Ch. / Freq.	Ch. / Freq.	Tune-up limit (dBm)		MPR (dB)	
100	PI2 BPSK	1	1	21.09	21.01	20.96			
100	PI2 BPSK	1	137	20.81	21.16	20.97	22.4	0.0	
100	PI2 BPSK	1	271	20.93	21.09	20.94			
100	PI2 BPSK	135	0	21.07	21.21	21.12	22.4	0.0	
100	PI2 BPSK	135	69	21.02	21.12	21.05	22.4	0.0	
100	PI2 BPSK	135	138	20.88	21.05	20.97	22.4	0.0	
100	PI2 BPSK	270	0	20.82	21.01	21.01			
100	QPSK	1	1	21.10	21.24	21.17			
100	QPSK	1	137	20.95	21.18	21.02	22.4	0.0	
100	QPSK	1	271	20.91	21.08	21.02			
100	QPSK	135	0	21.15	21.19	21.16	22.4	0.0	
100	QPSK	135	69	20.80	21.11	21.02	22.4	0.0	
100	QPSK	135	138	21.00	21.08	21.07	22.4	0.0	
100	QPSK	270	0	20.98	21.11	21.05			
100	16QAM	1	1	20.96	21.16	20.93	22.4	0.0	
100	64QAM	1	1	20.78	21.01	20.95	22.4	0.0	
100	256QAM	1	1	20.21	20.35	20.29	21.5	0.9	
Channel			505200	518598	530998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2541	2592.99	2644.98				
90	QPSK	1	1	21.05	21.21	21.07	22.4	0.0	
Channel			507204	518598	529998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2536.02	2592.99	2649.99				
80	QPSK	1	1	21.03	21.19	21.14	22.4	0.0	
Channel			505202	518598	531000	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2531.01	2592.99	2655				
70	QPSK	1	1	20.99	21.15	21.15	22.4	0.0	
Channel			505200	518598	531998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2536	2592.99	2659.99				
60	QPSK	1	1	20.99	21.23	21.08	22.4	0.0	
Channel			504204	518598	532998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2521.02	2592.99	2664.99				
50	QPSK	1	1	20.95	21.21	21.03	22.4	0.0	
Channel			505202	518598	534000	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2516.01	2592.99	2670				
40	QPSK	1	1	20.95	21.13	21.09	22.4	0.0	
Channel			502200	518598	534998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2511	2592.99	2674.98				
30	QPSK	1	1	21.00	21.23	21.05	22.4	0.0	
Channel			501204	518598	535998	Tune-up limit (dB)		MPR (dB)	
Frequency (MHz)			2506.02	2592.99	2679.99				
20	QPSK	1	1	21.01	21.17	21.03	22.4	0.0	



Part270 n77 Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3750	3840	3930			
100	PI2 BPSK	1	1	20.24	20.37	20.26			
100	PI2 BPSK	1	137	20.20	20.33	20.22	21.0	0.0	
100	PI2 BPSK	1	271	20.15	20.28	20.22			
100	PI2 BPSK	135	0	18.72	18.78	18.74	20.5	0.5	
100	PI2 BPSK	135	69	20.22	20.31	20.19	21.0	0.0	
100	PI2 BPSK	135	138	18.63	18.76	18.67	20.5	0.5	
100	PI2 BPSK	270	0	18.80	18.88	18.80			
100	QPSK	1	1	20.37	20.41	20.31			
100	QPSK	1	137	20.19	20.35	20.25	21.0	0.0	
100	QPSK	1	271	20.13	20.31	20.20			
100	QPSK	135	0	18.84	18.97	18.83	20.0	1.0	
100	QPSK	135	69	20.20	20.38	20.27	21.0	0.0	
100	QPSK	135	138	18.84	18.96	18.81	20.0	1.0	
100	QPSK	270	0	18.91	19.02	18.88			
100	16QAM	1	1	18.60	18.68	18.60	20.0	1.0	
100	16QAM	1	1	17.49	17.65	17.53	18.5	2.5	
100	256QAM	1	1	15.22	15.32	15.26	16.5	4.5	
Channel				648668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	20.26	20.38	20.30	21.0	0.0	
Channel									
Frequency (MHz)				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3840	3940.02			
80	QPSK	1	1	20.19	20.29	20.31	21.0	0.0	
Channel									
Frequency (MHz)				649000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	20.23	20.38	20.32	21.0	0.0	
Channel									
Frequency (MHz)				648668	650000	653334	Tune-up limit (dBm)	MPR (dB)	
60	QPSK	1	1	20.19	20.28	20.30	21.0	0.0	
Channel									
Frequency (MHz)				648334	650000	653668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	20.28	20.37	20.25	21.0	0.0	
Channel									
Frequency (MHz)				647668	650000	654334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	20.24	20.30	20.31	21.0	0.0	
Channel									
Frequency (MHz)				647668	650000	654334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	20.20	20.29	20.29	21.0	0.0	
Channel									
Frequency (MHz)				647334	650000	654668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3840	3970.02			
20	QPSK	1	1	20.22	20.28	20.24	21.0	0.0	
Channel									
Frequency (MHz)				647168	650000	654834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.53	3840	3972.51			
15	QPSK	1	1	20.19	20.36	20.30	21.0	0.0	
Channel									
Frequency (MHz)				647000	650000	655000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	20.28	20.34	20.28	21.0	0.0	

Part270 n77 HPUE Ant 0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3750	3840	3930			
100	PI2 BPSK	1	1	23.33	23.39	23.29			
100	PI2 BPSK	1	137	23.23	23.33	23.26	24.0	0.0	
100	PI2 BPSK	1	271	23.14	23.27	23.23			
100	PI2 BPSK	135	0	22.79	22.88	22.84	23.5	0.5	
100	PI2 BPSK	135	69	23.28	23.34	23.20	24.0	0.0	
100	PI2 BPSK	135	138	22.86	22.90	22.79	23.5	0.5	
100	PI2 BPSK	270	0	22.88	22.94	22.82			
100	QPSK	1	1	23.36	23.42	23.32			
100	QPSK	1	137	23.28	23.35	23.25	24.0	0.0	
100	QPSK	1	271	23.21	23.31	23.22			
100	QPSK	135	0	22.21	22.34	22.26	23.0	1.0	
100	QPSK	135	69	23.22	23.36	23.26	24.0	0.0	
100	QPSK	135	138	22.34	22.39	22.34	23.0	1.0	
100	QPSK	270	0	22.32	22.45	22.39			
100	16QAM	1	1	22.46	22.57	22.51	23.0	1.0	
100	16QAM	1	1	20.74	20.88	20.77	21.5	2.5	
100	256QAM	1	1	18.58	18.67	18.63	19.5	4.5	
Channel				648668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3745.02	3840	3935.01			
90	QPSK	1	1	23.28	23.35	23.24	24.0	0.0	
Channel									
Frequency (MHz)				649334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3840	3940.02			
80	QPSK	1	1	23.31	23.34	23.27	24.0	0.0	
Channel									
Frequency (MHz)				649000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3840	3945			
70	QPSK	1	1	23.29	23.37	23.29	24.0	0.0	
Channel									
Frequency (MHz)				648668	650000	653334	Tune-up limit (dBm)	MPR (dB)	
60	QPSK	1	1	23.26	23.38	23.18	24.0	0.0	
Channel									
Frequency (MHz)				648334	650000	653668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3725.01	3840	3955.02			
50	QPSK	1	1	23.25	23.28	23.27	24.0	0.0	
Channel									
Frequency (MHz)				647668	650000	654334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3840	3960			
40	QPSK	1	1	23.29	23.30	23.18	24.0	0.0	
Channel									
Frequency (MHz)				647668	650000	654334	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3715.02	3840	3965.01			
30	QPSK	1	1	23.24	23.36	23.19	24.0	0.0	
Channel									
Frequency (MHz)				647334	650000	654668	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3840	3970.02			
20	QPSK	1	1	23.31	23.28	23.25	24.0	0.0	
Channel									
Frequency (MHz)				647168	650000	654834	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.53	3840	3972.51			
15	QPSK	1	1	23.31	23.32	23.21	24.0	0.0	
Channel									
Frequency (MHz)				647000	650000	655000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3840	3975			
10	QPSK	1	1	23.28	23.29	23.25	24.0	0.0	



Part270 n78 Ant 0							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
				3750	3750	3750	
100	PI2 BPSK	1	1		20.31		
100	PI2 BPSK	1	137		20.27		0.0
100	PI2 BPSK	1	271		20.22		
100	PI2 BPSK	135	0		19.13		20.5 0.5
100	PI2 BPSK	135	69		20.25		21.0 0.0
100	PI2 BPSK	135	138		19.01		20.5 0.5
100	PI2 BPSK	270	0		19.07		
100	QPSK	1	1		20.35		
100	QPSK	1	137		20.30		21.0 0.0
100	QPSK	1	271		20.17		
100	QPSK	135	0		18.82		20.0 1.0
100	QPSK	135	69		20.29		21.0 0.0
100	QPSK	135	138		18.67		20.0 1.0
100	QPSK	270	0		18.72		
100	16QAM	1	1		18.84		20.0 1.0
100	16QAM	1	1		17.56		18.5 2.5
100	256QAM	1	1		15.33		16.5 4.5
Channel							
Frequency (MHz)							
				648668	650000	650334	
90	QPSK	1	1		3745.02	3750	3755.01
Channel							
Frequency (MHz)							
				649334	650000	650668	
80	QPSK	1	1		3740.01	3750	3760.02
Channel							
Frequency (MHz)							
				649000	650000	651000	
70	QPSK	1	1		20.15	20.28	20.18
Channel							
Frequency (MHz)							
				648668	650000	651334	
60	QPSK	1	1		20.19	20.25	20.13
Channel							
Frequency (MHz)							
				648334	650000	651668	
50	QPSK	1	1		3725.01	3750	3775.02
Channel							
Frequency (MHz)							
				647668	650000	652334	
40	QPSK	1	1		20.20	20.26	20.19
Channel							
Frequency (MHz)							
				647334	650000	652668	
30	QPSK	1	1		3710.01	3750	3790.02
Channel							
Frequency (MHz)							
				647000	650000	653000	
20	QPSK	1	1		20.25	20.24	20.08
Channel							
Frequency (MHz)							
				647168	650000	652834	
15	QPSK	1	1		20.22	20.27	20.19
Channel							
Frequency (MHz)							
				647000	650000	653000	
10	QPSK	1	1		3705	3750	3795

Part270 n78 HPUE Ant 0							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	MPR (dB)
Channel							
Frequency (MHz)							
				3750	3750	3750	
100	PI2 BPSK	1	1		23.17		
100	PI2 BPSK	1	137		23.08		24.0 0.0
100	PI2 BPSK	1	271		23.02		
100	PI2 BPSK	135	0		22.52		23.5 0.5
100	PI2 BPSK	135	69		23.09		24.0 0.0
100	PI2 BPSK	135	138		22.46		23.5 0.5
100	PI2 BPSK	270	0		22.53		
100	QPSK	1	1		23.21		
100	QPSK	1	137		23.11		24.0 0.0
100	QPSK	1	271		23.04		
100	QPSK	135	0		22.01		23.0 1.0
100	QPSK	135	69		23.14		24.0 0.0
100	QPSK	135	138		21.56		23.0 1.0
100	QPSK	270	0		22.02		
100	16QAM	1	1		22.03		23.0 1.0
100	16QAM	1	1		20.85		21.5 2.5
100	256QAM	1	1		18.88		19.5 4.5
Channel							
Frequency (MHz)							
				648668	650000	650334	
90	QPSK	1	1		3745.02	3750	3755.01
Channel							
Frequency (MHz)							
				649334	650000	650668	
80	QPSK	1	1		3740.01	3750	3760.02
Channel							
Frequency (MHz)							
				649000	650000	651000	
70	QPSK	1	1		23.13	23.18	22.97
Channel							
Frequency (MHz)							
				648668	650000	651334	
60	QPSK	1	1		23.12	23.08	22.98
Channel							
Frequency (MHz)							
				648334	650000	651668	
50	QPSK	1	1		3725.01	3750	3775.02
Channel							
Frequency (MHz)							
				647668	650000	652334	
40	QPSK	1	1		23.12	23.06	23.04
Channel							
Frequency (MHz)							
				647334	650000	652668	
30	QPSK	1	1		3710.01	3750	3790.02
Channel							
Frequency (MHz)							
				647000	650000	653000	
20	QPSK	1	1		23.09	23.14	23.01
Channel							
Frequency (MHz)							
				647168	650000	652834	
15	QPSK	1	1		23.11	23.18	23.00
Channel							
Frequency (MHz)							
				647000	650000	653000	
10	QPSK	1	1		3705	3750	3795





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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)				165900	167300	167600			
				834	836.5	839			
20	PI2 BPSK	1	1	21.09	21.83	21.79			
20	PI2 BPSK	1	53	21.73	21.78	21.67	23.0	0.0	
20	PI2 BPSK	1	104	21.81	21.70	21.86			
20	PI2 BPSK	50	0	21.34	21.41	21.34	22.5	0.5	
20	PI2 BPSK	50	28	21.67	21.79	21.75	23.0	0.0	
20	PI2 BPSK	50	58	21.24	21.34	21.20	22.5	0.5	
20	PI2 BPSK	100	0	21.35	21.40	21.28			
20	QPSK	1	1	21.83	21.89	21.76			
20	QPSK	1	53	21.71	21.82	21.70	23.0	0.0	
20	QPSK	1	104	21.65	21.76	21.81			
20	QPSK	50	0	20.79	20.87	20.76	22.0	1.0	
20	QPSK	50	28	21.88	21.81	21.76	23.0	0.0	
20	QPSK	50	58	20.70	20.84	20.75	22.0	1.0	
20	QPSK	100	0	20.77	20.90	20.80			
20	16QAM	1	1	21.22	21.28	21.13	22.0	1.0	
20	64QAM	1	1	19.46	19.57	19.45	20.5	2.5	
20	256QAM	1	1	17.39	17.51	17.41	19.5	4.5	
Channel									
Frequency (MHz)				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)	
				831.5	836.5	841.5			
15	QPSK	1	1	21.72	21.78	21.64	23.0	0.0	
Channel									
Frequency (MHz)				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)	
				829	836.5	844			
10	QPSK	1	1	21.76	21.81	21.69	23.0	0.0	
Channel									
Frequency (MHz)				165300	167200	169300	Tune-up limit (dBm)	MPR (dB)	
				828.5	836.5	846.5			
5	QPSK	1	1	21.77	21.84	21.69	23.0	0.0	

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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)				505000	507000	510000			
				2520	2535	2550			
40	PI2 BPSK	1	1	20.49	20.53	20.43			
40	PI2 BPSK	1	108	20.45	20.54	20.45			
40	PI2 BPSK	1	214	20.29	20.42	20.38	21.9	0.0	
40	PI2 BPSK	108	0	20.22	20.33	20.41	21.9	0.0	
40	PI2 BPSK	108	54	20.31	20.38	20.35	21.9	0.0	
40	PI2 BPSK	108	108	20.35	20.44	20.35	21.9	0.0	
40	PI2 BPSK	216	0	20.46	20.50	20.33			
40	QPSK	1	1	20.53	20.63	20.57			
40	QPSK	1	108	20.47	20.36	20.36	21.9	0.0	
40	QPSK	1	214	20.33	20.34	20.32			
40	QPSK	108	0	20.26	20.25	20.21	21.9	0.0	
40	QPSK	108	54	20.42	20.50	20.48	21.9	0.0	
40	QPSK	108	108	20.44	20.41	20.44	21.9	0.0	
40	QPSK	216	0	20.37	20.44	20.41			
40	16QAM	1	1	20.28	20.46	20.44	21.9	0.0	
40	64QAM	1	1	20.23	20.39	20.31	21.5	0.4	
40	256QAM	1	1	18.52	18.87	18.59	19.5	2.4	
Channel									
Frequency (MHz)				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)	
				2515	2535	2555			
30	QPSK	1	1	20.42	20.55	20.47	21.9	0.0	
Channel									
Frequency (MHz)				502600	507000	511500	Tune-up limit (dBm)	MPR (dB)	
				2512.5	2535	2577.5			
25	QPSK	1	1	20.40	20.49	20.45	21.9	0.0	
Channel									
Frequency (MHz)				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
				2510	2535	2560			
20	PI2 BPSK	1	1	20.52	20.57	20.48	21.9	0.0	
Channel									
Frequency (MHz)				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
				2507.5	2535	2572.5			
15	QPSK	1	1	20.48	20.57	20.43	21.9	0.0	
Channel									
Frequency (MHz)				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
				2505	2535	2565			
10	QPSK	1	1	20.59	20.55	20.47	21.9	0.0	
Channel									
Frequency (MHz)				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
				2502.5	2535	2567.5			
5	QPSK	1	1	20.49	20.54	20.51	21.9	0.0	

n66 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)				346500	349000	353000			
				1730	1745	1760			
40	PI2 BPSK	1	1	20.92	20.89	20.74			
40	PI2 BPSK	1	108	20.93	20.95	20.78			
40	PI2 BPSK	1	214	20.79	20.89	20.78	22.3	0.0	
40	PI2 BPSK	108	0	20.80	20.90	20.80	22.3	0.0	
40	PI2 BPSK	108	54	20.78	20.87	20.88	22.3	0.0	
40	PI2 BPSK	108	108	20.83	20.96	20.85	22.3	0.0	
40	PI2 BPSK	216	0	20.87	20.85	20.86			
40	QPSK	1	1	20.85	20.99	20.93			
40	QPSK	1	108	20.85	20.85	20.78	22.3	0.0	
40	QPSK	1	214	20.93	20.86	20.70			
40	QPSK	108	0	20.89	20.84	20.81	22.3	0.0	
40	QPSK	108	54	20.84	20.98	20.73	22.3	0.0	
40	QPSK	108	108	20.88	20.95	20.81	22.3	0.0	
40	QPSK	216	0	20.79	20.86	20.77			
40	16QAM	1	1	20.85	20.90	20.85	22.3	0.0	
40	64QAM	1	1	19.79	19.93	19.80	21.5	0.8	
40	256QAM	1	1	18.00	18.05	18.01	19.5	2.8	
Channel									
Frequency (MHz)				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)	
				1725	1745	1765			
30	QPSK	1	1	20.93	20.89	20.84	22.3	0.0	
Channel									
Frequency (MHz)				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
				1720	1745	1770			
20	QPSK	1	1	20.85	20.89	20.78	22.3	0.0	
Channel									
Frequency (MHz)				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
				1717.5	1745	1772.5			
15	QPSK	1	1	20.92	20.87	20.70	22.3	0.0	
Channel									
Frequency (MHz)				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
				1715	1745	1775			
10	QPSK	1	1	20.84	20.84	20.75	22.3	0.0	
Channel									
Frequency (MHz)				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
				1712.5	1745	1777.5			
5	QPSK	1	1	20.90	20.88	20.73	22.3	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	Pi2 BPSK	1	1	20.23	20.23	20.20	21.6	0.0	
40	Pi2 BPSK	1	53	20.14	20.22	20.08	21.6	0.0	
40	Pi2 BPSK	1	104	20.14	20.13	20.08	21.6	0.0	
40	Pi2 BPSK	50	0	20.03	20.13	19.97	21.6	0.0	
40	Pi2 BPSK	50	28	20.04	20.22	20.01	21.6	0.0	
40	Pi2 BPSK	50	58	20.07	20.10	20.01	21.6	0.0	
40	Pi2 BPSK	100	0	20.14	20.23	20.11	21.6	0.0	
40	QPSK	1	1	20.30	20.40	20.26	21.6	0.0	
40	QPSK	1	53	20.15	20.35	20.20	21.6	0.0	
40	QPSK	1	104	20.11	20.21	20.15	21.6	0.0	
40	QPSK	50	0	20.16	20.27	20.18	21.6	0.0	
40	QPSK	50	28	20.23	20.32	20.21	21.6	0.0	
40	QPSK	50	58	20.13	20.16	20.19	21.6	0.0	
40	QPSK	100	0	20.14	20.27	20.13	21.6	0.0	
40	16QAM	1	1	19.98	20.06	20.03	21.6	0.0	
40	16QAM	1	1	20.09	20.14	20.00	21.5	0.1	
40	256QAM	1	1	17.71	17.85	17.69	19.5	2.1	
Channel									
Frequency (MHz)									
				17602	51800	52098			
				2595.01	2595	2604.99			
30	QPSK	1	1	19.94	19.86	19.79	21.6	0.0	
Channel									
Frequency (MHz)									
				516504	519000	521496			
				2562.52	2595	2607.48			
25	QPSK	1	1	19.50	19.84	19.70	21.6	0.0	
Channel									
Frequency (MHz)									
				516500	519000	522000			
				2860	2595	2610			
20	QPSK	1	1	19.94	19.93	19.88	21.6	0.0	
Channel									
Frequency (MHz)									
				516502	519000	522488			
				2573.54	2595	2612.49			
15	QPSK	1	1	19.92	19.91	19.85	21.6	0.0	
Channel									
Frequency (MHz)									
				516504	519000	522986			
				2575.02	2595	2614.98			
10	QPSK	1	1	19.85	19.87	19.76	24.0	0.0	

n41 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)									
				2546.01	2592.99	2640			
100	Pi2 BPSK	1	1	20.30	20.29	20.26			
100	Pi2 BPSK	1	137	20.18	20.28	20.22	21.6	0.0	
100	Pi2 BPSK	1	271	20.16	20.17	20.21	21.6	0.0	
100	Pi2 BPSK	135	0	20.08	20.24	20.04	21.6	0.0	
100	Pi2 BPSK	135	68	20.11	20.26	20.14	21.6	0.0	
100	Pi2 BPSK	135	138	20.19	20.15	20.09	21.6	0.0	
100	Pi2 BPSK	270	0	20.29	20.27	20.16	21.6	0.0	
100	QPSK	1	1	20.34	20.44	20.33	21.6	0.0	
100	QPSK	1	137	20.25	20.40	20.31	21.6	0.0	
100	QPSK	1	271	20.20	20.34	20.28	21.6	0.0	
100	QPSK	135	0	20.20	20.34	20.23	21.6	0.0	
100	QPSK	135	68	20.37	20.39	20.27	21.6	0.0	
100	QPSK	135	138	20.21	20.29	20.25	21.6	0.0	
100	QPSK	270	0	20.23	20.35	20.20	21.6	0.0	
100	16QAM	1	1	20.05	20.17	20.08	21.6	0.0	
100	16QAM	1	1	20.13	20.18	20.12	21.5	0.1	
100	256QAM	1	1	17.85	17.94	17.81	19.5	2.1	
Channel									
Frequency (MHz)									
				508200	518598	529986			
				2541	2592.99	2644.98			
90	QPSK	1	1	20.25	20.36	20.23	21.6	0.0	
Channel									
Frequency (MHz)									
				507204	518598	529986			
				2536.02	2592.99	2649.99			
80	QPSK	1	1	20.20	20.32	20.19	21.6	0.0	
Channel									
Frequency (MHz)									
				506202	518598	531000			
				2531.01	2592.99	2655			
70	QPSK	1	1	20.28	20.37	20.22	21.6	0.0	
Channel									
Frequency (MHz)									
				505200	518598	531996			
				2526	2592.99	2659.99			
60	QPSK	1	1	20.27	20.41	20.27	21.6	0.0	
Channel									
Frequency (MHz)									
				504204	518598	532998			
				2521.02	2592.99	2664.99			
50	QPSK	1	1	20.27	20.30	20.21	21.6	0.0	
Channel									
Frequency (MHz)									
				503202	518598	534000			
				2516.01	2592.99	2670			
40	QPSK	1	1	20.20	20.37	20.27	21.6	0.0	
Channel									
Frequency (MHz)									
				502200	518598	534996			
				2511	2592.99	2674.98			
30	QPSK	1	1	20.30	20.35	20.20	21.6	0.0	
Channel									
Frequency (MHz)									
				501204	518598	535998			
				2506.02	2592.99	2679.99			
20	QPSK	1	1	20.27	20.38	20.20	21.6	0.0	

n41 HPUE 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)									
				2546.01	2592.99	2640			
100	Pi2 BPSK	1	1	23.41	23.43	23.43			
100	Pi2 BPSK	1	137	23.26	23.42	23.28	24.6	0.0	
100	Pi2 BPSK	1	271	23.30	23.27	23.37	24.6	0.0	
100	Pi2 BPSK	135	0	23.16	23.34	23.25	24.6	0.0	
100	Pi2 BPSK	135	68	23.35	23.32	23.24	24.6	0.0	
100	Pi2 BPSK	135	138	23.22	23.35	23.24	24.6	0.0	
100	Pi2 BPSK	270	0	23.34	23.36	23.29	24.6	0.0	
100	QPSK	1	1	23.46	23.53	23.41	24.6	0.0	
100	QPSK	1	137	23.49	23.44	23.36	24.6	0.0	
100	QPSK	1	271	23.32	23.42	23.44	24.6	0.0	
100	QPSK	135	0	23.34	23.45	23.42	24.6	0.0	
100	QPSK	135	68	23.39	23.50	23.36	24.6	0.0	
100	QPSK	135	138	23.36	23.32	23.33	24.6	0.0	
100	QPSK	270	0	23.35	23.40	23.38	24.6	0.0	
100	16QAM	1	1	23.27	23.35	23.30	24.6	0.0	
100	16QAM	1	1	23.38	23.40	23.32	24.5	0.1	
100	256QAM	1	1	21.60	21.88	21.83	22.5	2.1	
Channel									
Frequency (MHz)									
				508200	518598	529986			
				2541	2592.99	2644.98			
90	QPSK	1	1	23.41	23.49	23.37	24.6	0.0	
Channel									
Frequency (MHz)									
				507204	518598	529986			
				2536.02	2592.99	2649.99			
80	QPSK	1	1	23.40	23.42	23.29	24.6	0.0	
Channel									
Frequency (MHz)									
				506202	518598	531000			
				2531.01	2592.99	2655			
70	QPSK	1	1	23.44	23.46	23.28	24.6	0.0	
Channel									
Frequency (MHz)									
				505200	518598	531996			
				2526	2592.99	2659.99			
60	QPSK	1	1	23.38	23.39	23.31	24.6	0.0	
Channel									
Frequency (MHz)									
				504204	518598	532998			
				2521.02	2592.99	2664.99			
50	QPSK	1	1	23.35	23.48	23.36	24.6	0.0	
Channel									
Frequency (MHz)									
				503202	518598	534000			
				2516.01	2592.99	2670			
40	QPSK	1	1	23.35	23.44	23.28	24.6	0.0	
Channel									
Frequency (MHz)									
				502200	518598	534996			
				2511	2592.99	2674.98			
30	QPSK	1	1	23.35	23.45	23.35	24.6	0.0	
Channel									
Frequency (MHz)									
				501204	518598	535998			
				2506.02	2592.99	2679.99			
20	QPSK	1	1	23.41	23.50	23.28	24.6	0.0	



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq. 650000	Power Middle Ch./Freq. 650000	Power High Ch./Freq. 650000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				3750	3840	3930		
100	PI2 BPSK	1	1	20.57	20.59	20.60		
100	PI2 BPSK	1	137	20.57	20.59	20.54		
100	PI2 BPSK	1	271	20.49	20.52	20.48	22.1	0.0
100	PI2 BPSK	135	0	20.37	20.43	20.38	22.1	0.0
100	PI2 BPSK	135	69	20.46	20.50	20.44	22.1	0.0
100	PI2 BPSK	135	138	20.46	20.51	20.42	22.1	0.0
100	PI2 BPSK	270	0	20.47	20.61	20.42		
100	QPSK	1	1	20.58	20.68	20.68		
100	QPSK	1	137	20.57	20.64	20.62	22.1	0.0
100	QPSK	1	271	20.49	20.64	20.66		
100	QPSK	135	0	20.47	20.56	20.43	22.1	0.0
100	QPSK	135	69	20.55	20.64	20.55	22.1	0.0
100	QPSK	135	138	20.40	20.51	20.45	22.1	0.0
100	QPSK	270	0	20.43	20.57	20.52		
100	16QAM	1	1	20.45	20.50	20.51	22.1	0.0
100	16QAM	1	1	20.19	20.23	20.14	21.5	0.6
100	256QAM	1	1	18.22	18.32	18.18	19.5	2.8
Channel								
Frequency (MHz)								
				3745.02	3840	3935.01		
90	QPSK	1	1	20.43	20.61	20.59	22.1	0.0
Channel								
Frequency (MHz)								
				649334	650000	662968		
80	QPSK	1	1	3740.01	3840	3940.02		
Channel								
Frequency (MHz)								
				649000	650000	663000		
70	QPSK	1	1	20.52	20.65	20.56	22.1	0.0
Channel								
Frequency (MHz)								
				648968	650000	663334		
60	QPSK	1	1	20.50	20.57	20.56	22.1	0.0
Channel								
Frequency (MHz)								
				648334	650000	663668		
50	QPSK	1	1	3725.01	3840	3955.02		
Channel								
Frequency (MHz)								
				20.44	20.60	20.52	22.1	0.0
Channel								
Frequency (MHz)								
				3720	3840	3960		
40	QPSK	1	1	20.52	20.63	20.62	22.1	0.0
Channel								
Frequency (MHz)								
				647868	650000	664334		
30	QPSK	1	1	3715.02	3840	3965.01		
Channel								
Frequency (MHz)								
				20.54	20.64	20.62	22.1	0.0
Channel								
Frequency (MHz)								
				647334	650000	664668		
20	QPSK	1	1	3710.01	3840	3970.02		
Channel								
Frequency (MHz)								
				20.55	20.61	20.57	22.1	0.0
Channel								
Frequency (MHz)								
				647168	650000	664834		
15	QPSK	1	1	3707.53	3840	3972.51		
Channel								
Frequency (MHz)								
				20.50	20.53	20.58	22.1	0.0
Channel								
Frequency (MHz)								
				647000	650000	665000		
10	QPSK	1	1	3705	3840	3975		
Channel								
Frequency (MHz)								
				20.48	20.64	20.55	22.1	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq. 650000	Power Middle Ch./Freq. 650000	Power High Ch./Freq. 650000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				3750	3840	3930		
100	PI2 BPSK	1	1	23.42	23.51	23.50		
100	PI2 BPSK	1	137	23.53	23.50	23.41		
100	PI2 BPSK	1	271	23.45	23.45	23.38	25.1	0.0
100	PI2 BPSK	135	0	23.24	23.29	23.22	25.1	0.0
100	PI2 BPSK	135	69	23.39	23.38	23.29	25.1	0.0
100	PI2 BPSK	135	138	23.41	23.39	23.28	25.1	0.0
100	PI2 BPSK	270	0	23.33	23.38	23.32		
100	QPSK	1	1	23.54	23.63	23.69		
100	QPSK	1	137	23.46	23.53	23.54	25.1	0.0
100	QPSK	1	271	23.40	23.57	23.51		
100	QPSK	135	0	23.39	23.49	23.31	25.1	0.0
100	QPSK	135	69	23.42	23.38	23.43	25.1	0.0
100	QPSK	135	138	23.40	23.46	23.32	25.1	0.0
100	QPSK	270	0	23.23	23.51	23.45		
100	16QAM	1	1	23.35	23.39	23.48	25.1	0.0
100	16QAM	1	1	23.08	23.14	23.00	24.5	0.6
100	256QAM	1	1	21.58	21.89	21.62	22.5	2.8
Channel								
Frequency (MHz)								
				3745.02	3840	3935.01		
90	QPSK	1	1	23.42	23.49	23.45	25.1	0.0
Channel								
Frequency (MHz)								
				649334	650000	662968		
80	QPSK	1	1	3740.01	3840	3940.02		
Channel								
Frequency (MHz)								
				649000	650000	663000		
70	QPSK	1	1	23.42	23.58	23.52	25.1	0.0
Channel								
Frequency (MHz)								
				648968	650000	663334		
60	QPSK	1	1	23.48	23.52	23.49	25.1	0.0
Channel								
Frequency (MHz)								
				648334	650000	663668		
50	QPSK	1	1	3725.01	3840	3955.02		
Channel								
Frequency (MHz)								
				23.49	23.55	23.47	25.1	0.0
Channel								
Frequency (MHz)								
				3720	3840	3960		
40	QPSK	1	1	23.41	23.51	23.48	25.1	0.0
Channel								
Frequency (MHz)								
				647868	650000	664334		
30	QPSK	1	1	3715.02	3840	3965.01		
Channel								
Frequency (MHz)								
				23.40	23.48	23.49	25.1	0.0
Channel								
Frequency (MHz)								
				647334	650000	664668		
20	QPSK	1	1	3710.01	3840	3970.02		
Channel								
Frequency (MHz)								
				23.41	23.54	23.53	25.1	0.0
Channel								
Frequency (MHz)								
				647168	650000	664834		
15	QPSK	1	1	3707.53	3840	3972.51		
Channel								
Frequency (MHz)								
				23.48	23.50	23.45	25.1	0.0
Channel								
Frequency (MHz)								
				647000	650000	665000		
10	QPSK	1	1	3705	3840	3975		
Channel								
Frequency (MHz)								
				23.43	23.57	23.48	25.1	0.0



**Part270 n78 Ant 1**

Channel	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
100	3750	3750	3750		
100	20.43	20.33	20.33		0.0
100	20.34	20.34	20.34		0.0
100	20.25	20.25	20.25	22.1	0.0
100	20.25	20.25	20.25	22.1	0.0
100	20.36	20.36	20.36	22.1	0.0
100	20.34	20.34	20.34		0.0
100	20.51	20.51	20.51		0.0
100	20.38	20.38	20.38	22.1	0.0
100	20.50	20.50	20.50		0.0
100	20.33	20.33	20.33	22.1	0.0
100	20.48	20.48	20.48	22.1	0.0
100	20.25	20.25	20.25	22.1	0.0
100	20.35	20.35	20.35	22.1	0.0
100	20.35	20.35	20.35	22.1	0.0
100	20.01	20.01	20.01	21.5	0.6
100	18.27	18.27	18.27	19.5	2.6
848668	650000	650334			
3745.02	3750	3755.01			
90	20.16	20.19	20.22	22.1	0.0
849334	650000	650668			
3740.01	3750	3760.02			
80	20.23	20.23	20.14	22.1	0.0
849000	650000	651000			
3735	3750	3765			
70	20.25	20.19	20.18	22.1	0.0
848668	650000	651334			
3720.02	3750	3730.01			
60	20.15	20.26	20.18	22.1	0.0
848334	650000	651668			
3725.01	3750	3735.02			
50	20.33	20.25	20.14	22.1	0.0
848000	650000	652000			
3720	3750	3780			
40	20.30	20.20	20.14	22.1	0.0
847668	650000	652334			
3715.02	3750	3763.01			
30	20.25	20.33	20.15	22.1	0.0
847334	650000	652668			
3710.01	3750	3790.02			
20	20.21	20.20	20.12	22.1	0.0
847168	650000	652934			
3707.52	3750	3792.51			
15	20.20	20.28	20.12	22.1	0.0
847000	650000	653000			
3705	3750	3795			
10	20.29	20.31	20.18	22.1	0.0

**Part270 n78 HPUE Ant 1**

Channel	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
100	3750	3750	3750		
100	23.30	23.30	23.30		0.0
100	23.31	23.31	23.31		0.0
100	23.18	23.18	23.18	25.1	0.0
100	23.12	23.12	23.12	25.1	0.0
100	23.11	23.11	23.11	25.1	0.0
100	23.31	23.31	23.31		0.0
100	23.40	23.40	23.40		0.0
100	23.36	23.36	23.36	25.1	0.0
100	23.33	23.33	23.33		0.0
100	23.30	23.30	23.30	25.1	0.0
100	23.31	23.31	23.31	25.1	0.0
100	23.22	23.22	23.22	25.1	0.0
100	23.36	23.36	23.36	25.1	0.0
100	23.31	23.31	23.31	25.1	0.0
100	23.11	23.11	23.11	25.1	0.0
100	22.97	22.97	22.97	24.5	0.6
100	21.86	21.86	21.86	22.5	2.6
848668	650000	650334			
3745.02	3750	3755.01			
90	23.22	23.26	23.19	25.1	0.0
849334	650000	650668			
3740.01	3750	3760.02			
80	23.19	23.10	23.19	25.1	0.0
849000	650000	651000			
3735	3750	3765			
70	23.15	23.18	23.15	25.1	0.0
848668	650000	651334			
3720.02	3750	3730.01			
60	23.22	23.33	23.21	25.1	0.0
848334	650000	651668			
3725.01	3750	3735.02			
50	23.18	23.30	23.15	25.1	0.0
848000	650000	652000			
3720	3750	3780			
40	23.13	23.22	23.19	25.1	0.0
847668	650000	652334			
3715.02	3750	3763.01			
30	23.23	23.19	23.17	25.1	0.0
847334	650000	652668			
3710.01	3750	3790.02			
20	23.21	23.19	23.14	25.1	0.0
847168	650000	652934			
3707.52	3750	3792.51			
15	23.11	23.16	23.16	25.1	0.0
847000	650000	653000			
3705	3750	3795			
10	23.24	23.24	23.19	25.1	0.0



n7 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				502000	507000	510000		
Frequency (MHz)				2520	2535	2550		
40	PI/2 BPSK	1	1	17.33	17.33	17.24		
40	PI/2 BPSK	1	108	17.19	17.38	17.21	18.7	0.0
40	PI/2 BPSK	1	214	17.16	17.23	17.25		
40	PI/2 BPSK	108	0	17.01	17.19	17.17	18.7	0.0
40	PI/2 BPSK	108	54	17.22	17.26	17.19	18.7	0.0
40	PI/2 BPSK	108	108	17.11	17.20	17.15	18.7	0.0
40	PI/2 BPSK	216	0	17.24	17.28	17.15		
40	QPSK	1	1	17.40	17.42	17.36		
40	QPSK	1	108	17.30	17.37	17.34	18.7	0.0
40	QPSK	1	214	17.28	17.31	17.30		
40	QPSK	108	0	17.21	17.23	17.19	18.7	0.0
40	QPSK	108	54	17.35	17.38	17.20	18.7	0.0
40	QPSK	108	108	17.04	17.17	17.11	18.7	0.0
40	QPSK	216	0	17.12	17.24	17.19		
40	16QAM	1	1	17.18	17.31	17.09	18.7	0.0
40	16QAM	1	1	17.08	17.18	17.20	18.7	0.0
40	256QAM	1	1	17.09	17.28	17.12	18.7	0.0
Channel				503000	507000	510000		
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	17.30	17.32	17.25	18.7	0.0
Channel				502000	507000	511500		
Frequency (MHz)				2512.5	2535	2527.5		
25	QPSK	1	1	17.27	17.29	17.23	18.7	0.0
Channel				502000	507000	513000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	17.32	17.37	17.27	18.7	0.0
Channel				501500	507000	512500		
Frequency (MHz)				2507.5	2535	2522.5		
15	QPSK	1	1	17.33	17.35	17.25	18.7	0.0
Channel				501000	507000	513000		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	17.30	17.34	17.24	18.7	0.0
Channel				502000	507000	513500		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	17.25	17.29	17.23	18.7	0.0

n66 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				349000	349000	350000		
Frequency (MHz)				1730	1745	1760		
40	PI/2 BPSK	1	1	23.43	23.51	23.47		
40	PI/2 BPSK	1	108	23.38	23.47	23.38	24.0	0.0
40	PI/2 BPSK	1	214	23.38	23.44	23.40		
40	PI/2 BPSK	108	0	22.89	23.04	23.00	23.5	0.5
40	PI/2 BPSK	108	54	23.44	23.48	23.43	24.0	0.0
40	PI/2 BPSK	108	108	23.02	23.06	23.02	23.5	0.5
40	PI/2 BPSK	216	0	23.01	23.13	23.02		
40	QPSK	1	1	23.45	23.58	23.51		
40	QPSK	1	108	23.38	23.52	23.39	24.0	0.0
40	QPSK	1	214	23.33	23.48	23.36		
40	QPSK	108	0	22.44	22.54	22.50	23.0	1.0
40	QPSK	108	54	23.39	23.50	23.40	24.0	0.0
40	QPSK	108	108	22.34	22.47	22.41	23.0	1.0
40	QPSK	216	0	22.42	22.51	22.43		
40	16QAM	1	1	22.49	22.58	22.47	23.0	1.0
40	16QAM	1	1	20.82	20.95	20.90	21.5	2.5
40	256QAM	1	1	18.96	18.99	18.93	19.5	4.5
Channel				349000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	23.40	23.52	23.39	24.0	0.0
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.44	23.51	23.48	24.0	0.0
Channel				343500	349000	354500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.42	23.47	23.41	24.0	0.0
Channel				343000	349000	355000		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.38	23.52	23.45	24.0	0.0
Channel				342500	349000	356000		
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	23.40	23.45	23.39	24.0	0.0



n38 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				519004	519000	519998			
Frequency (MHz)				2590.02	2595	2599.98			
40	PI2 BPSK	1	1	16.25	16.39	16.24			
40	PI2 BPSK	1	53	16.42	16.34	16.36		0.0	
40	PI2 BPSK	1	164	16.34	16.30	16.19			
40	PI2 BPSK	50	0	16.31	16.33	16.05		17.8	0.0
40	PI2 BPSK	50	28	16.30	16.33	16.15		17.8	0.0
40	PI2 BPSK	50	58	16.13	16.32	15.99		17.8	0.0
40	PI2 BPSK	100	0	16.28	16.33	16.29			
40	QPSK	1	1	16.42	16.49	16.29			
40	QPSK	1	53	16.42	16.41	16.19		17.8	0.0
40	QPSK	1	164	16.35	16.39	16.42			
40	QPSK	50	0	16.21	16.42	16.20		17.8	0.0
40	QPSK	50	28	16.38	16.44	16.35		17.8	0.0
40	QPSK	50	58	16.19	16.29	16.32		17.8	0.0
40	QPSK	100	0	16.12	16.30	16.18			
40	16QAM	1	1	16.25	16.30	16.24		17.8	0.0
40	16QAM	1	1	16.22	16.34	16.23		17.8	0.0
40	256QAM	1	1	16.11	16.15	16.06		17.8	0.0
Channel				517002	519000	520998			
Frequency (MHz)				2595.01	2595	2604.99			
30	QPSK	1	1	16.17	16.22	16.12		17.8	0.0
Channel				516504	519000	521498			
Frequency (MHz)				2592.52	2595	2607.48			
25	QPSK	1	1	16.13	16.20	16.17		17.8	0.0
Channel				518500	519000	522000			
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	1	16.18	16.18	16.17		17.8	0.0
Channel				516502	519000	522498			
Frequency (MHz)				2577.51	2595	2612.49			
15	QPSK	1	1	16.14	16.24	16.14		17.8	0.0
Channel				516004	519000	522998			
Frequency (MHz)				2575.02	2595	2614.98			
10	QPSK	1	1	16.11	16.27	16.07		24.5	0.0

n41 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				526002	518598	529000			
Frequency (MHz)				2546.01	2592.99	2640			
100	PI2 BPSK	1	1	16.35	16.45	16.33			
100	PI2 BPSK	1	137	16.51	16.41	16.45		17.8	0.0
100	PI2 BPSK	1	271	16.44	16.43	16.23			
100	PI2 BPSK	135	0	16.38	16.44	16.15		17.8	0.0
100	PI2 BPSK	135	69	16.37	16.41	16.30		17.8	0.0
100	PI2 BPSK	135	138	16.25	16.40	16.12		17.8	0.0
100	PI2 BPSK	270	0	16.35	16.45	16.33			
100	QPSK	1	1	16.53	16.54	16.39			
100	QPSK	1	137	16.45	16.49	16.33		17.8	0.0
100	QPSK	1	271	16.43	16.46	16.51			
100	QPSK	135	0	16.35	16.46	16.24		17.8	0.0
100	QPSK	135	69	16.42	16.49	16.44		17.8	0.0
100	QPSK	135	138	16.29	16.32	16.38		17.8	0.0
100	QPSK	270	0	16.25	16.40	16.31			
100	16QAM	1	1	16.29	16.38	16.31		17.8	0.0
100	16QAM	1	1	16.32	16.43	16.37		17.8	0.0
100	256QAM	1	1	16.18	16.21	16.18		17.8	0.0
Channel				509200	518598	529998			
Frequency (MHz)				2541	2592.99	2644.98			
90	QPSK	1	1	16.47	16.38	16.34		17.8	0.0
Channel				507204	518598	529998			
Frequency (MHz)				2536.02	2592.99	2649.99			
80	QPSK	1	1	16.49	16.43	16.24		17.8	0.0
Channel				508202	518598	531000			
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	16.40	16.50	16.35		17.8	0.0
Channel				505200	518598	531998			
Frequency (MHz)				2526	2592.99	2659.99			
60	QPSK	1	1	16.48	16.48	16.35		17.8	0.0
Channel				504204	518598	532998			
Frequency (MHz)				2521.02	2592.99	2664.99			
50	QPSK	1	1	16.47	16.43	16.25		17.8	0.0
Channel				502202	518598	534000			
Frequency (MHz)				2516.01	2592.99	2670			
40	QPSK	1	1	16.39	16.47	16.27		17.8	0.0
Channel				502200	518598	534998			
Frequency (MHz)				2511	2592.99	2674.98			
30	QPSK	1	1	16.45	16.46	16.20		17.8	0.0
Channel				501204	518598	535998			
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	16.42	16.41	16.33		17.8	0.0

n41 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				529202	518598	533000			
Frequency (MHz)				2546.01	2592.99	2640			
100	PI2 BPSK	1	1	19.62	19.74	19.68			
100	PI2 BPSK	1	137	19.77	19.72	19.77		20.8	0.0
100	PI2 BPSK	1	271	19.85	19.70	19.50			
100	PI2 BPSK	135	0	19.73	19.75	19.45		20.8	0.0
100	PI2 BPSK	135	69	19.73	19.78	19.64		20.8	0.0
100	PI2 BPSK	135	138	19.53	19.73	19.42		20.8	0.0
100	PI2 BPSK	270	0	19.69	19.71	19.82			
100	QPSK	1	1	19.78	19.98	19.74			
100	QPSK	1	137	19.74	19.75	19.85		20.8	0.0
100	QPSK	1	271	19.71	19.82	19.76			
100	QPSK	135	0	19.63	19.75	19.53		20.8	0.0
100	QPSK	135	69	19.78	19.83	19.70		20.8	0.0
100	QPSK	135	138	19.52	19.61	19.73		20.8	0.0
100	QPSK	270	0	19.57	19.77	19.59			
100	16QAM	1	1	19.55	19.73	19.67		20.8	0.0
100	16QAM	1	1	19.62	19.78	19.68		20.8	0.0
100	256QAM	1	1	19.45	19.55	19.44		20.8	0.0
Channel				508200	518598	533998			
Frequency (MHz)				2541	2592.99	2644.98			
90	QPSK	1	1	19.72	19.83	19.69		20.8	0.0
Channel				507204	518598	529998			
Frequency (MHz)				2536.02	2592.99	2649.99			
80	QPSK	1	1	19.71	19.80	19.66		20.8	0.0
Channel				508202	518598	531000			
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	19.75	19.79	19.62		20.8	0.0
Channel				505200	518598	531998			
Frequency (MHz)				2526	2592.99	2659.99			
60	QPSK	1	1	19.68	19.74	19.68		20.8	0.0
Channel				504204	518598	532998			
Frequency (MHz)				2521.02	2592.99	2664.99			
50	QPSK	1	1	19.68	19.80	19.71		20.8	0.0
Channel				502202	518598	534000			
Frequency (MHz)				2516.01	2592.99	2670			
40	QPSK	1	1	19.72	19.84	19.60		20.8	0.0
Channel				502200	518598	534998			
Frequency (MHz)				2511	2592.99	2674.98			
30	QPSK	1	1	19.72	19.79	19.68		20.8	0.0
Channel				501204	518598	535998			
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	19.69	19.79	19.64		20.8	0.0



Part270 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)				3750	3840	3930		
100	PI2 BPSK	1	1	16.54	16.63	16.53		
100	PI2 BPSK	1	137	16.45	16.51	16.40	18.0	0.0
100	PI2 BPSK	1	271	16.31	16.48	16.34		
100	PI2 BPSK	135	0	16.27	16.32	16.26	18.0	0.0
100	PI2 BPSK	135	69	16.31	16.47	16.32	18.0	0.0
100	PI2 BPSK	135	138	16.43	16.43	16.22	18.0	0.0
100	PI2 BPSK	270	0	16.45	16.45	16.45		
100	QPSK	1	1	16.56	16.66	16.51	18.0	0.0
100	QPSK	1	137	16.48	16.59	16.50		
100	QPSK	1	271	16.34	16.50	16.48		
100	QPSK	135	0	16.36	16.43	16.43	18.0	0.0
100	QPSK	135	69	16.49	16.55	16.42	18.0	0.0
100	QPSK	135	138	16.31	16.38	16.28	18.0	0.0
100	QPSK	270	0	16.30	16.45	16.39		
100	16QAM	1	1	16.41	16.47	16.37	18.0	0.0
100	16QAM	1	1	16.36	16.44	16.52	18.0	0.0
100	256QAM	1	1	16.39	16.41	16.32	18.0	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3840	3935.01		
90	QPSK	1	1	16.45	16.57	16.41	18.0	0.0
Channel								
Frequency (MHz)				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	16.45	16.62	16.27	18.0	0.0
Channel								
Frequency (MHz)				649000	650000	650000	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	16.52	16.61	16.37	18.0	0.0
Channel								
Frequency (MHz)				648668	650000	650334	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	16.54	16.55	16.43	18.0	0.0
Channel								
Frequency (MHz)				648334	650000	650668	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	16.45	16.57	16.39	18.0	0.0
Channel								
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	16.52	16.59	16.39	18.0	0.0
Channel								
Frequency (MHz)				647668	650000	654334	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	16.54	16.54	16.42	18.0	0.0
Channel								
Frequency (MHz)				647334	650000	654668	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	16.45	16.52	16.42	18.0	0.0
Channel								
Frequency (MHz)				647168	650000	654934	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	16.45	16.60	16.43	18.0	0.0
Channel								
Frequency (MHz)				647000	650000	655000	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	16.54	16.52	16.46	18.0	0.0

Part270 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)				3750	3840	3930		
100	PI2 BPSK	1	1	19.54	19.60	19.50		
100	PI2 BPSK	1	137	19.40	19.49	19.39	21.0	0.0
100	PI2 BPSK	1	271	19.45	19.46	19.31		
100	PI2 BPSK	135	0	19.32	19.35	19.29	21.0	0.0
100	PI2 BPSK	135	69	19.42	19.46	19.34	21.0	0.0
100	PI2 BPSK	135	138	19.34	19.30	19.26	21.0	0.0
100	PI2 BPSK	270	0	19.43	19.47	19.33		
100	QPSK	1	1	19.57	19.61	19.52	21.0	0.0
100	QPSK	1	137	19.45	19.60	19.50		
100	QPSK	1	271	19.42	19.52	19.48		
100	QPSK	135	0	19.42	19.45	19.40	21.0	0.0
100	QPSK	135	69	19.55	19.57	19.43	21.0	0.0
100	QPSK	135	138	19.32	19.36	19.30	21.0	0.0
100	QPSK	270	0	19.36	19.42	19.33		
100	16QAM	1	1	19.37	19.45	19.38	21.0	0.0
100	16QAM	1	1	19.32	19.52	19.43	21.0	0.0
100	256QAM	1	1	19.29	19.38	19.26	21.0	0.0
Channel								
Frequency (MHz)				3745.02	3840	3935.01	Tune-up limit (dBm)	MPR (dB)
90	QPSK	1	1	19.47	19.49	19.40	21.0	0.0
Channel								
Frequency (MHz)				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	19.48	19.57	19.49	21.0	0.0
Channel								
Frequency (MHz)				649000	650000	650000	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	19.46	19.47	19.48	21.0	0.0
Channel								
Frequency (MHz)				648668	650000	650334	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	19.45	19.51	19.41	21.0	0.0
Channel								
Frequency (MHz)				648334	650000	650668	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	19.54	19.53	19.39	21.0	0.0
Channel								
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	19.51	19.50	19.37	21.0	0.0
Channel								
Frequency (MHz)				647668	650000	654334	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	19.53	19.52	19.39	21.0	0.0
Channel								
Frequency (MHz)				647334	650000	654668	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	19.43	19.49	19.47	21.0	0.0
Channel								
Frequency (MHz)				647168	650000	654934	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	19.46	19.48	19.42	21.0	0.0
Channel								
Frequency (MHz)				647000	650000	655000	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	19.45	19.58	19.42	21.0	0.0



### Part270 n78 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)				3750	3750	3750		
100	PI2 BPSK	1	1	18.50				
100	PI2 BPSK	1	137	18.33			18.0	0.0
100	PI2 BPSK	1	271	18.48			18.0	0.0
100	PI2 BPSK	135	0	18.32			18.0	0.0
100	PI2 BPSK	135	69	18.35			18.0	0.0
100	PI2 BPSK	135	138	18.24			18.0	0.0
100	PI2 BPSK	270	0	18.41			18.0	0.0
100	QPSK	1	1	18.55			18.0	0.0
100	QPSK	1	137	18.44			18.0	0.0
100	QPSK	1	271	18.39			18.0	0.0
100	QPSK	135	0	18.46			18.0	0.0
100	QPSK	135	69	18.39			18.0	0.0
100	QPSK	135	138	18.21			18.0	0.0
100	QPSK	270	0	18.33			18.0	0.0
100	16QAM	1	1	18.41			18.0	0.0
100	16QAM	1	1	18.39			18.0	0.0
100	256QAM	1	1	18.47			18.0	0.0
Channel				648868	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	18.27	18.46	18.30	18.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	18.39	18.40	18.23	18.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	18.44	18.45	18.22	18.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3750.01		
60	QPSK	1	1	18.31	18.40	18.38	18.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3755.02		
50	QPSK	1	1	18.28	18.41	18.22	18.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	18.44	18.48	18.38	18.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3765.01		
30	QPSK	1	1	18.42	18.52	18.30	18.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	18.40	18.50	18.36	18.0	0.0
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3750	3792.51		
15	QPSK	1	1	18.42	18.52	18.39	18.0	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	18.27	18.49	18.28	18.0	0.0

### Part270 n78 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)				3750	3750	3750		
100	PI2 BPSK	1	1	19.55				
100	PI2 BPSK	1	137	19.41			21.0	0.0
100	PI2 BPSK	1	271	19.32			21.0	0.0
100	PI2 BPSK	135	0	19.23			21.0	0.0
100	PI2 BPSK	135	69	19.37			21.0	0.0
100	PI2 BPSK	135	138	19.19			21.0	0.0
100	PI2 BPSK	270	0	19.37			21.0	0.0
100	QPSK	1	1	19.60			21.0	0.0
100	QPSK	1	137	19.47			21.0	0.0
100	QPSK	1	271	19.49			21.0	0.0
100	QPSK	135	0	19.34			21.0	0.0
100	QPSK	135	69	19.53			21.0	0.0
100	QPSK	135	138	19.19			21.0	0.0
100	QPSK	270	0	19.32			21.0	0.0
100	16QAM	1	1	19.33			21.0	0.0
100	16QAM	1	1	19.42			21.0	0.0
100	256QAM	1	1	19.34			21.0	0.0
Channel				648668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	19.47	19.47	19.29	21.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	19.44	19.58	19.33	21.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	19.43	19.44	19.40	21.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3750.01		
60	QPSK	1	1	19.49	19.56	19.28	21.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3755.02		
50	QPSK	1	1	19.44	19.50	19.36	21.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	19.49	19.53	19.26	21.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3765.01		
30	QPSK	1	1	19.40	19.57	19.27	21.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	19.46	19.54	19.28	21.0	0.0
Channel				647168	650000	652834	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3707.52	3750	3792.51		
15	QPSK	1	1	19.49	19.58	19.25	21.0	0.0
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	19.53	19.51	19.33	21.0	0.0





n7 Ant 3								
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				502000	507000	510000		
Frequency (MHz)				2520	2535	2550		
40	PI/2 BPSK	1	1	22.73	22.77	22.70		
40	PI/2 BPSK	1	108	22.62	22.71	22.64	23.8	0.0
40	PI/2 BPSK	1	214	22.54	22.59	22.55		
40	PI/2 BPSK	108	0	22.44	22.83	22.47	23.8	0.0
40	PI/2 BPSK	108	54	22.60	22.66	22.54	23.8	0.0
40	PI/2 BPSK	108	108	22.56	22.57	22.47	23.8	0.0
40	PI/2 BPSK	216	0	22.66	22.73	22.60		
40	QPSK	1	1	22.69	22.83	22.76		
40	QPSK	1	108	22.61	22.78	22.67	23.8	0.0
40	QPSK	1	214	22.57	22.69	22.69		
40	QPSK	108	0	21.89	21.99	21.87	23.0	0.8
40	QPSK	108	54	22.62	22.75	22.61	23.8	0.0
40	QPSK	108	108	21.79	21.89	21.85	23.0	0.8
40	QPSK	216	0	21.84	21.99	21.88		
40	16QAM	1	1	21.79	21.91	21.81	23.0	0.8
40	16QAM	1	1	21.42	21.45	21.35	21.5	2.3
40	256QAM	1	1	19.38	19.32	19.48	19.5	4.3
Channel				503000	507000	510000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555	23.8	0.0
30	QPSK	1	1	22.63	22.79	22.71	23.8	0.0
Channel				502500	507000	511500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2512.5	2535	2527.5	23.8	0.0
25	QPSK	1	1	22.57	22.75	22.63	23.8	0.0
Channel				502000	507000	510000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560	23.8	0.0
20	PI/2 BPSK	1	1	22.80	22.78	22.68	23.8	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2502.5	23.8	0.0
15	QPSK	1	1	22.62	22.69	22.68	23.8	0.0
Channel				501000	507000	513000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				2505	2535	2565	23.8	0.0
10	QPSK	1	1	22.65	22.79	22.73	23.8	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5	23.8	0.0
5	QPSK	1	1	22.54	22.73	22.68	23.8	0.0

n66 Ant 3								
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				349000	349000	350000		
Frequency (MHz)				1730	1745	1760		
40	PI/2 BPSK	1	1	19.69	19.88	19.99		
40	PI/2 BPSK	1	108	19.87	19.94	19.76	20.9	0.0
40	PI/2 BPSK	1	214	19.89	19.91	19.89		
40	PI/2 BPSK	108	0	19.70	20.00	19.88	20.9	0.0
40	PI/2 BPSK	108	54	19.82	20.02	19.91	20.9	0.0
40	PI/2 BPSK	108	108	19.82	19.89	19.78	20.9	0.0
40	PI/2 BPSK	216	0	19.84	19.82	19.89		
40	QPSK	1	1	19.94	20.04	20.01		
40	QPSK	1	108	19.94	20.01	19.89	20.9	0.0
40	QPSK	1	214	19.92	19.98	19.98		
40	QPSK	108	0	19.73	19.91	19.85	20.9	0.0
40	QPSK	108	54	19.84	19.96	19.75	20.9	0.0
40	QPSK	108	108	19.83	19.82	19.94	20.9	0.0
40	QPSK	216	0	19.79	19.89	19.88		
40	16QAM	1	1	19.88	19.88	19.74	20.9	0.0
40	16QAM	1	1	19.88	19.87	19.87	20.9	0.0
40	256QAM	1	1	19.37	19.40	19.32	19.5	1.4
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765	20.9	0.0
30	QPSK	1	1	19.84	19.90	19.90	20.9	0.0
Channel				344000	349000	354000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				1720	1745	1770	20.9	0.0
20	QPSK	1	1	19.86	19.95	19.89	20.9	0.0
Channel				343000	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5	20.9	0.0
15	QPSK	1	1	19.83	19.95	19.91	20.9	0.0
Channel				342000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775	20.9	0.0
10	QPSK	1	1	19.80	19.95	19.93	20.9	0.0
Channel				341500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5	20.9	0.0
5	QPSK	1	1	19.79	19.90	19.91	20.9	0.0



### n38 Ant 3

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	PI2 BPSK	1	1	21.25	21.33	21.11		
40	PI2 BPSK	1	53	21.17	21.37	21.14		0.0
40	PI2 BPSK	1	104	20.99	21.26	20.99		
40	PI2 BPSK	50	0	20.99	21.06	21.02	22.2	0.0
40	PI2 BPSK	50	28	21.21	21.12	21.05	22.2	0.0
40	PI2 BPSK	50	58	21.13	21.08	21.04	22.2	0.0
40	PI2 BPSK	100	0	21.29	21.24	21.08		
40	QPSK	1	1	21.29	21.48	21.34		
40	QPSK	1	53	21.14	21.25	21.07	22.2	0.0
40	QPSK	1	104	21.19	21.37	21.17		
40	QPSK	50	0	21.13	21.15	21.06	22.2	0.0
40	QPSK	50	28	21.09	21.29	21.11	22.2	0.0
40	QPSK	50	58	20.92	21.01	21.02	22.2	0.0
40	QPSK	100	0	21.07	21.12	21.08		
40	16QAM	1	1	21.14	21.08	21.13	22.2	0.0
40	16QAM	1	1	21.17	21.18	21.10	22.0	0.2
40	256QAM	1	1	19.28	19.40	19.32	20.0	2.2
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.08	21.17	21.12	22.2	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.09	21.11	21.14	22.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.13	21.12	21.11	22.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.04	21.11	21.18	22.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.12	21.14	21.13	24.5	0.0

### n41 Ant 3

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	21.32	21.45	21.25		
100	PI2 BPSK	1	137	21.27	21.41	21.29		0.0
100	PI2 BPSK	1	271	21.13	21.29	21.09		
100	PI2 BPSK	135	0	21.11	21.13	21.11	22.2	0.0
100	PI2 BPSK	135	69	21.27	21.24	21.18	22.2	0.0
100	PI2 BPSK	135	138	21.17	21.19	21.15	22.2	0.0
100	PI2 BPSK	270	0	21.34	21.34	21.17		
100	QPSK	1	1	21.41	21.52	21.46		
100	QPSK	1	137	21.20	21.37	21.20	22.2	0.0
100	QPSK	1	271	21.25	21.40	21.28		
100	QPSK	135	0	21.19	21.20	21.19	22.2	0.0
100	QPSK	135	69	21.24	21.34	21.25	22.2	0.0
100	QPSK	135	138	21.05	21.14	21.10	22.2	0.0
100	QPSK	270	0	21.18	21.22	21.17		
100	16QAM	1	1	21.19	21.18	21.20	22.2	0.0
100	16QAM	1	1	21.26	21.29	21.20	22.0	0.2
100	256QAM	1	1	18.95	19.09	18.96	20.0	2.2
Channel								
Frequency (MHz)								
90	QPSK	1	1	21.31	21.38	21.34	22.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.31	21.43	21.20	22.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.34	21.40	21.34	22.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.34	21.48	21.40	22.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.28	21.41	21.43	22.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.37	21.43	21.32	22.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.28	21.46	21.20	22.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.32	21.44	21.40	22.2	0.0

### n41 HPUE Ant 3

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	23.72	23.85	23.66		
100	PI2 BPSK	1	137	23.71	23.77	23.72		25.2
100	PI2 BPSK	1	271	23.52	23.68	23.55		
100	PI2 BPSK	135	0	23.55	23.48	23.48	25.2	0.0
100	PI2 BPSK	135	69	23.63	23.68	23.54	25.2	0.0
100	PI2 BPSK	135	138	23.59	23.61	23.58	25.2	0.0
100	PI2 BPSK	270	0	23.79	23.78	23.53		
100	QPSK	1	1	23.83	23.95	23.88		
100	QPSK	1	137	23.81	23.75	23.85	25.2	0.0
100	QPSK	1	271	23.66	23.78	23.71		
100	QPSK	135	0	23.62	23.56	23.60	25.2	0.0
100	QPSK	135	69	23.68	23.79	23.68	25.2	0.0
100	QPSK	135	138	23.49	23.57	23.47	25.2	0.0
100	QPSK	270	0	23.53	23.61	23.56		
100	16QAM	1	1	23.56	23.56	23.59	25.2	0.0
100	16QAM	1	1	23.58	23.70	23.64	25.0	0.2
100	256QAM	1	1	22.21	22.32	22.18	23.0	2.2
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.78	23.84	23.83	25.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.70	23.87	23.78	25.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.79	23.92	23.74	25.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.71	23.90	23.81	25.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.70	23.82	23.79	25.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.74	23.89	23.75	25.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.73	23.81	23.83	25.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.72	23.85	23.84	25.2	0.0



Part270 n77 Ant 3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 660000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
				3750	3840	3930			
100	PI2 BPSK	1	1	15.53	15.53	15.51			
100	PI2 BPSK	1	137	15.50	15.45	15.40			
100	PI2 BPSK	1	271	15.37	15.45	15.33	16.5	0.0	
100	PI2 BPSK	135	0	15.21	15.32	15.33	16.5	0.0	
100	PI2 BPSK	135	69	15.35	15.39	15.32	16.5	0.0	
100	PI2 BPSK	135	138	15.39	15.37	15.31	16.5	0.0	
100	PI2 BPSK	270	0	15.43	15.59	15.38			
100	QPSK	1	1	15.56	15.63	15.53			
100	QPSK	1	137	15.48	15.59	15.47	16.5	0.0	
100	QPSK	1	271	15.36	15.58	15.44			
100	QPSK	135	0	15.49	15.51	15.38	16.5	0.0	
100	QPSK	135	69	15.42	15.53	15.47	16.5	0.0	
100	QPSK	135	138	15.34	15.48	15.38			
100	QPSK	270	0	15.45	15.50	15.40	16.5	0.0	
100	16QAM	1	1	15.32	15.39	15.44	16.5	0.0	
100	16QAM	1	1	15.36	15.46	15.34	16.5	0.0	
100	256QAM	1	1	15.33	15.38	15.30	16.5	0.0	
Channel									
Frequency (MHz)									
				3745.02	3840	3935.01	Tune-up limit (dBm)	MPR (dB)	
90	QPSK	1	1	15.46	15.49	15.44	16.5	0.0	
Channel									
Frequency (MHz)									
				649.334	650000	662968	Tune-up limit (dBm)	MPR (dB)	
80	QPSK	1	1	15.53	15.54	15.40	16.5	0.0	
Channel									
Frequency (MHz)									
				649000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
70	QPSK	1	1	15.45	15.48	15.38	16.5	0.0	
Channel									
Frequency (MHz)									
				648668	650000	663334	Tune-up limit (dBm)	MPR (dB)	
60	QPSK	1	1	15.51	15.58	15.42	16.5	0.0	
Channel									
Frequency (MHz)									
				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)	
50	QPSK	1	1	15.47	15.55	15.39	16.5	0.0	
Channel									
Frequency (MHz)									
				3720.02	3840	3950.01	Tune-up limit (dBm)	MPR (dB)	
40	QPSK	1	1	15.52	15.57	15.49	16.5	0.0	
Channel									
Frequency (MHz)									
				3720	3840	3960	Tune-up limit (dBm)	MPR (dB)	
30	QPSK	1	1	15.53	15.53	15.45	16.5	0.0	
Channel									
Frequency (MHz)									
				647868	650000	664334	Tune-up limit (dBm)	MPR (dB)	
30	QPSK	1	1	15.52	15.57	15.49	16.5	0.0	
Channel									
Frequency (MHz)									
				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)	
20	QPSK	1	1	15.50	15.59	15.48	16.5	0.0	
Channel									
Frequency (MHz)									
				647168	650000	664834	Tune-up limit (dBm)	MPR (dB)	
15	QPSK	1	1	15.51	15.53	15.40	16.5	0.0	
Channel									
Frequency (MHz)									
				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	1	15.45	15.54	15.48	16.5	0.0	

Part270 n77 HPUE Ant 3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 660000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
				3750	3840	3930			
100	PI2 BPSK	1	1	18.09	18.62	18.57			
100	PI2 BPSK	1	137	18.05	18.57	18.56			
100	PI2 BPSK	1	271	18.43	18.63	18.39	19.5	0.0	
100	PI2 BPSK	135	0	18.37	18.40	18.45	19.5	0.0	
100	PI2 BPSK	135	69	18.45	18.55	18.43	19.5	0.0	
100	PI2 BPSK	135	138	18.43	18.60	18.37	19.5	0.0	
100	PI2 BPSK	270	0	18.55	18.82	18.48			
100	QPSK	1	1	18.74	18.86	18.69			
100	QPSK	1	137	18.05	18.68	18.57	19.5	0.0	
100	QPSK	1	271	18.49	18.67	18.58			
100	QPSK	135	0	18.51	18.67	18.56	19.5	0.0	
100	QPSK	135	69	18.05	18.74	18.50	19.5	0.0	
100	QPSK	135	138	18.42	18.60	18.50			
100	QPSK	270	0	18.52	18.67	18.42	19.5	0.0	
100	16QAM	1	1	18.35	18.55	18.41	19.5	0.0	
100	16QAM	1	1	18.56	18.73	18.57	19.5	0.0	
100	256QAM	1	1	18.55	18.81	18.41	19.5	0.0	
Channel									
Frequency (MHz)									
				3745.02	3840	3935.01	Tune-up limit (dBm)	MPR (dB)	
90	QPSK	1	1	18.05	18.72	18.52	19.5	0.0	
Channel									
Frequency (MHz)									
				649334	650000	662968	Tune-up limit (dBm)	MPR (dB)	
80	QPSK	1	1	18.59	18.67	18.59	19.5	0.0	
Channel									
Frequency (MHz)									
				649000	650000	663000	Tune-up limit (dBm)	MPR (dB)	
70	QPSK	1	1	18.03	18.71	18.50	19.5	0.0	
Channel									
Frequency (MHz)									
				648668	650000	663334	Tune-up limit (dBm)	MPR (dB)	
60	QPSK	1	1	18.02	18.69	18.58	19.5	0.0	
Channel									
Frequency (MHz)									
				648334	650000	663668	Tune-up limit (dBm)	MPR (dB)	
50	QPSK	1	1	18.71	18.75	18.52	19.5	0.0	
Channel									
Frequency (MHz)									
				3720.02	3840	3950.01	Tune-up limit (dBm)	MPR (dB)	
40	QPSK	1	1	18.07	18.66	18.54	19.5	0.0	
Channel									
Frequency (MHz)									
				3720	3840	3960	Tune-up limit (dBm)	MPR (dB)	
30	QPSK	1	1	18.65	18.73	18.49	19.5	0.0	
Channel									
Frequency (MHz)									
				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)	
20	QPSK	1	1	18.70	18.68	18.52	19.5	0.0	
Channel									
Frequency (MHz)									
				647168	650000	664834	Tune-up limit (dBm)	MPR (dB)	
15	QPSK	1	1	18.02	18.75	18.58	19.5	0.0	
Channel									
Frequency (MHz)									
				647000	650000	665000	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	1	18.59	18.70	18.57	19.5	0.0	



### Part270 n78 Ant 3

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				3750	3750	3750		
100	PI2 BPSK	1	1		15.25			
100	PI2 BPSK	1	137		15.08		16.5	0.0
100	PI2 BPSK	1	271		15.20			
100	PI2 BPSK	135	0		15.05		16.5	0.0
100	PI2 BPSK	135	69		15.05		16.5	0.0
100	PI2 BPSK	135	138		15.15		16.5	0.0
100	PI2 BPSK	270	0		15.33			
100	QPSK	1	1		15.31		16.5	0.0
100	QPSK	1	137		15.35			
100	QPSK	1	271		15.27			
100	QPSK	135	0		15.15		16.5	0.0
100	QPSK	135	69		15.22		16.5	0.0
100	QPSK	135	138		15.10		16.5	0.0
100	QPSK	270	0		15.12			
100	16QAM	1	1		15.17		16.5	0.0
100	16QAM	1	1		15.16		16.5	0.0
100	256QAM	1	1		15.14		16.5	0.0
Channel								
Frequency (MHz)								
				648688	650000	650334	Tune-up limit (dBm)	MPR (dB)
				3745.02	3750	3755.01		
90	QPSK	1	1	14.70	14.93	14.59	16.5	0.0
Channel								
Frequency (MHz)								
				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
				3740.01	3750	3760.02		
80	QPSK	1	1	14.73	14.92	14.40	16.5	0.0
Channel								
Frequency (MHz)								
				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
				3735	3750	3765		
70	QPSK	1	1	14.86	14.93	14.57	16.5	0.0
Channel								
Frequency (MHz)								
				648688	650000	651334	Tune-up limit (dBm)	MPR (dB)
				3720.02	3750	3730.01		
60	QPSK	1	1	14.70	14.98	14.52	16.5	0.0
Channel								
Frequency (MHz)								
				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
				3725.01	3750	3735.02		
50	QPSK	1	1	14.88	14.95	14.55	16.5	0.0
Channel								
Frequency (MHz)								
				647868	650000	652334	Tune-up limit (dBm)	MPR (dB)
				3715.02	3750	3725.01		
40	QPSK	1	1	14.70	14.92	14.52	16.5	0.0
Channel								
Frequency (MHz)								
				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
				3710.01	3750	3730.02		
20	QPSK	1	1	14.71	15.05	14.56	16.5	0.0
Channel								
Frequency (MHz)								
				647168	650000	652334	Tune-up limit (dBm)	MPR (dB)
				3707.52	3750	3722.51		
15	QPSK	1	1	14.79	15.04	14.51	16.5	0.0
Channel								
Frequency (MHz)								
				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
				3705	3750	3795		
10	QPSK	1	1	14.74	15.08	14.58	16.5	0.0

### Part270 n78 HPUE Ant 3

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				3750	3750	3750		
100	PI2 BPSK	1	1		18.64			
100	PI2 BPSK	1	137		18.66		19.5	0.0
100	PI2 BPSK	1	271		18.64			
100	PI2 BPSK	135	0		18.40		19.5	0.0
100	PI2 BPSK	135	69		18.63		19.5	0.0
100	PI2 BPSK	135	138		18.73		19.5	0.0
100	PI2 BPSK	270	0		18.57			
100	QPSK	1	1		18.77		19.5	0.0
100	QPSK	1	137		18.69			
100	QPSK	1	271		18.60			
100	QPSK	135	0		18.72		19.5	0.0
100	QPSK	135	69		18.73		19.5	0.0
100	QPSK	135	138		18.62		19.5	0.0
100	QPSK	270	0		18.57			
100	16QAM	1	1		18.46		19.5	0.0
100	16QAM	1	1		18.46		19.5	0.0
100	256QAM	1	1		18.39		19.5	0.0
Channel								
Frequency (MHz)								
				648688	650000	650334	Tune-up limit (dBm)	MPR (dB)
				3745.02	3750	3755.01		
90	QPSK	1	1	18.20	18.19	18.15	19.5	0.0
Channel								
Frequency (MHz)								
				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
				3740.01	3750	3760.02		
80	QPSK	1	1	18.16	18.21	18.17	19.5	0.0
Channel								
Frequency (MHz)								
				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
				3735	3750	3765		
70	QPSK	1	1	18.30	18.19	18.19	19.5	0.0
Channel								
Frequency (MHz)								
				648688	650000	651334	Tune-up limit (dBm)	MPR (dB)
				3720.02	3750	3730.01		
60	QPSK	1	1	18.29	18.15	18.05	19.5	0.0
Channel								
Frequency (MHz)								
				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
				3725.01	3750	3735.02		
50	QPSK	1	1	18.27	18.26	18.17	19.5	0.0
Channel								
Frequency (MHz)								
				647868	650000	652334	Tune-up limit (dBm)	MPR (dB)
				3715.02	3750	3725.01		
40	QPSK	1	1	18.30	18.15	18.19	19.5	0.0
Channel								
Frequency (MHz)								
				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
				3710.01	3750	3730.02		
20	QPSK	1	1	18.32	18.27	18.05	19.5	0.0
Channel								
Frequency (MHz)								
				647168	650000	652334	Tune-up limit (dBm)	MPR (dB)
				3707.52	3750	3722.51		
15	QPSK	1	1	18.25	18.20	18.17	19.5	0.0
Channel								
Frequency (MHz)								
				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)
				3705	3750	3795		
10	QPSK	1	1	18.23	18.15	18.12	19.5	0.0



n5 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)										
20	PI2 BPSK	1	1	23.18	23.23	23.13	24.0	0.0		
20	PI2 BPSK	1	59	23.04	23.14	23.06				
20	PI2 BPSK	1	104	22.98	23.06	22.94				
20	PI2 BPSK	50	0	22.65	22.76	22.73	23.5	0.5		
20	PI2 BPSK	50	28	23.08	23.18	23.11	24.0	0.0		
20	PI2 BPSK	50	56	22.59	22.64	22.51	23.5	0.5		
20	PI2 BPSK	100	0	22.86	22.70	22.63				
20	QPSK	1	1	23.23	23.27	23.16				
20	QPSK	1	53	23.11	23.18	23.13	24.0	0.0		
20	QPSK	1	104	22.96	23.06	22.98				
20	QPSK	50	0	22.14	22.28	22.21			23.0	1.0
20	QPSK	50	28	23.15	23.21	23.08	24.0	0.0		
20	QPSK	50	56	22.14	22.18	22.08	23.0	1.0		
20	QPSK	100	0	22.17	22.23	22.13	23.0	1.0		
20	16QAM	1	1	22.38	22.48	22.42			23.0	1.0
20	64QAM	1	1	20.73	20.86	20.79			21.5	2.5
20	256QAM	1	1	18.89	18.01	18.86	19.5	4.5		
Channel										
Frequency (MHz)										
15	QPSK	1	1	23.11	23.18	23.08	24.0	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	165800	167300	168800	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
5	QPSK	1	1	826.5	836.5	846.5	Tune-up limit	MPR		

Reduced Power Mode for DS16 Standalone										
n7 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)										
40	PI2 BPSK	1	1	21.80	21.91	21.85	23.0	0.0		
40	PI2 BPSK	1	109	21.74	21.88	21.81				
40	PI2 BPSK	1	214	21.74	21.80	21.66				
40	PI2 BPSK	108	0	21.38	21.44	21.37	22.5	0.5		
40	PI2 BPSK	108	54	21.79	21.87	21.75	23.0	0.0		
40	PI2 BPSK	108	108	21.38	21.49	21.37	22.5	0.5		
40	PI2 BPSK	216	0	21.39	21.42	21.34				
40	QPSK	1	1	21.92	21.96	21.89				
40	QPSK	1	108	21.78	21.92	21.82	23.0	0.0		
40	QPSK	1	214	21.74	21.85	21.80				
40	QPSK	108	0	20.87	20.97	20.87			22.0	1.0
40	QPSK	108	54	21.86	21.90	21.85	23.0	0.0		
40	QPSK	108	108	20.80	20.89	20.80	22.0	1.0		
40	QPSK	216	0	20.81	20.94	20.84	22.0	1.0		
40	16QAM	1	1	20.73	20.86	20.77			22.0	1.0
40	64QAM	1	1	19.27	19.41	19.38			20.5	2.5
40	256QAM	1	1	17.30	17.38	17.23	18.5	4.5		
Channel										
Frequency (MHz)										
30	QPSK	1	1	21.77	21.88	21.80	23.0	0.0		
Channel										
Frequency (MHz)										
25	QPSK	1	1	502600	507000	511500	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
20	PI2 BPSK	1	1	2510	2535	2550	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
15	QPSK	1	1	2507.5	2535	2562.5	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
10	QPSK	1	1	501000	507000	513000	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
5	QPSK	1	1	2502.5	2535	2567.5	Tune-up limit	MPR		

n66 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)										
40	PI2 BPSK	1	1	22.14	22.27	22.17	23.0	0.0		
40	PI2 BPSK	1	108	22.07	22.22	22.11				
40	PI2 BPSK	1	214	22.08	22.16	22.12				
40	PI2 BPSK	108	0	21.88	21.86	21.82	22.5	0.5		
40	PI2 BPSK	108	54	22.02	22.20	22.13	23.0	0.0		
40	PI2 BPSK	108	108	21.89	21.81	21.78	22.5	0.5		
40	PI2 BPSK	216	0	21.74	21.94	21.85				
40	QPSK	1	1	22.23	22.35	22.31				
40	QPSK	1	108	22.04	22.26	22.14	23.0	0.0		
40	QPSK	1	214	22.02	22.21	22.07	22.0	1.0		
40	QPSK	108	0	21.13	21.36	21.24			22.0	1.0
40	QPSK	108	54	22.15	22.29	22.24			23.0	0.0
40	QPSK	108	108	21.24	21.48	21.38	22.0	1.0		
40	QPSK	216	0	21.26	21.43	21.28	22.0	1.0		
40	16QAM	1	1	20.88	21.11	21.01			22.0	1.0
40	64QAM	1	1	19.87	19.93	19.81			20.5	2.5
40	256QAM	1	1	17.59	17.85	17.73	18.5	4.5		
Channel										
Frequency (MHz)										
30	QPSK	1	1	343500	349000	353000	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
20	QPSK	1	1	343500	349000	354500	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
15	QPSK	1	1	1717.5	1745	1772.5	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
10	QPSK	1	1	342500	349000	355900	Tune-up limit	MPR		
Channel										
Frequency (MHz)										
5	QPSK	1	1	1712.5	1745	1772.5	Tune-up limit	MPR		



n38 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)										
40	PI2 BPSK	1	1	2590.02	2595	2599.98				
40	PI2 BPSK	1	1	21.54	21.76	21.72	23.0	0.0		
40	PI2 BPSK	1	59	21.84	21.72	21.86				
40	PI2 BPSK	1	104	21.44	21.61	21.52				
40	PI2 BPSK	50	0	20.90	21.01	20.98	22.5	0.5		
40	PI2 BPSK	50	28	21.50	21.75	21.50	23.0	0.0		
40	PI2 BPSK	50	56	20.91	21.03	21.00				
40	PI2 BPSK	100	0	20.90	21.02	21.01	22.5	0.5		
40	QPSK	1	1	21.79	21.83	21.82				
40	QPSK	1	53	21.55	21.71	21.61	23.0	0.0		
40	QPSK	1	104	21.45	21.70	21.82				
40	QPSK	50	0	20.51	20.73	20.55	22.0	1.0		
40	QPSK	50	28	21.62	21.76	21.68	23.0	0.0		
40	QPSK	50	56	20.48	20.62	20.54				
40	QPSK	100	0	20.57	20.66	20.58	22.0	1.0		
40	16QAM	1	1	20.46	20.65	20.53	22.0	1.0		
40	64QAM	1	1	19.09	19.28	19.14	20.5	2.5		
40	256QAM	1	1	17.21	17.44	17.34	18.5	4.5		
Channel										
Frequency (MHz)										
30	QPSK	1	1	5170.02	5180.00	5200.00				
30	QPSK	1	1	21.74	21.76	21.75	23.0	0.0		
Channel										
Frequency (MHz)										
25	QPSK	1	1	5165.04	5190.00	5214.96				
25	QPSK	1	1	2592.95	2595	2597.98				
Channel										
Frequency (MHz)										
20	QPSK	1	1	21.70	21.69	21.69	23.0	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	5180.00	5190.00	5220.00				
15	QPSK	1	1	21.65	21.70	21.73	23.0	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	5165.04	5190.00	5229.96				
10	QPSK	1	1	21.71	21.73	21.72	23.0	0.0		
Channel										
Frequency (MHz)										

n41 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)										
100	PI2 BPSK	1	1	2546.01	2592.99	2640				
100	PI2 BPSK	1	1	21.70	21.82	21.78				
100	PI2 BPSK	1	137	21.12	21.77	21.88	23.0	0.0		
100	PI2 BPSK	1	271	21.60	21.71	21.57				
100	PI2 BPSK	135	0	20.06	20.17	20.08	22.5	0.5		
100	PI2 BPSK	135	69	21.67	21.74	21.62	23.0	0.0		
100	PI2 BPSK	135	138	20.26	20.33	20.25				
100	PI2 BPSK	270	0	20.12	20.24	20.17	22.5	0.5		
100	QPSK	1	1	21.74	21.86	21.81				
100	QPSK	1	137	21.71	21.80	21.73	23.0	0.0		
100	QPSK	1	271	21.67	21.73	21.70				
100	QPSK	135	0	20.41	20.47	20.40	22.0	1.0		
100	QPSK	135	69	21.69	21.76	21.75	23.0	0.0		
100	QPSK	135	138	20.41	20.50	20.41				
100	QPSK	270	0	20.45	20.56	20.47	22.0	1.0		
100	16QAM	1	1	20.48	20.54	20.49	22.0	1.0		
100	64QAM	1	1	18.91	18.97	18.92	20.5	2.5		
100	256QAM	1	1	18.61	18.88	18.88	18.5	4.5		
Channel										
Frequency (MHz)										
90	QPSK	1	1	5082.00	5185.98	5299.98				
90	QPSK	1	1	21.61	21.69	21.59	23.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	5072.04	5185.98	5299.98				
80	QPSK	1	1	2592.02	2592.99	2593.99				
Channel										
Frequency (MHz)										
70	QPSK	1	1	21.59	21.68	21.70	23.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	5082.00	5185.98	5310.00				
60	QPSK	1	1	21.62	21.65	21.68	23.0	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	5042.04	5185.98	5329.98				
50	QPSK	1	1	21.61	21.67	21.62	23.0	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	5032.02	5185.98	5340.00				
40	QPSK	1	1	2516.01	2592.99	2670				
Channel										
Frequency (MHz)										
30	QPSK	1	1	5022.00	5185.98	5349.98				
30	QPSK	1	1	2511	2592.99	2674.98				
Channel										
Frequency (MHz)										
20	QPSK	1	1	5012.04	5185.98	5359.98				
20	QPSK	1	1	2506.02	2592.99	2679.99				
Channel										
Frequency (MHz)										

n41 HPUE 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)										
100	PI2 BPSK	1	1	2546.01	2592.99	2640				
100	PI2 BPSK	1	1	24.81	24.88	24.78	26.0	0.0		
100	PI2 BPSK	1	137	24.72	24.81	24.78				
100	PI2 BPSK	1	271	24.71	24.75	24.64				
100	PI2 BPSK	135	0	24.37	24.43	24.39	25.5	0.5		
100	PI2 BPSK	135	69	24.73	24.80	24.72	26.0	0.0		
100	PI2 BPSK	135	138	24.43	24.47	24.38				
100	PI2 BPSK	270	0	24.45	24.51	24.38	25.5	0.5		
100	QPSK	1	1	24.84	24.92	24.89				
100	QPSK	1	137	24.72	24.85	24.82	26.0	0.0		
100	QPSK	1	271	24.67	24.79	24.68				
100	QPSK	135	0	23.92	24.01	23.88	26.0	1.0		
100	QPSK	135	69	24.76	24.86	24.78	26.0	0.0		
100	QPSK	135	138	23.98	24.01	23.98				
100	QPSK	270	0	24.04	24.08	24.01	25.0	1.0		
100	16QAM	1	1	24.08	24.13	24.10	25.0	1.0		
100	64QAM	1	1	22.14	22.28	22.10	23.5	2.5		
100	256QAM	1	1	20.21	20.35	20.29	21.5	4.5		
Channel										
Frequency (MHz)										
90	QPSK	1	1	5082.00	5185.98	5299.98				
90	QPSK	1	1	24.71	24.86	24.81	26.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	5072.04	5185.98	5299.98				
80	QPSK	1	1	2592.02	2592.99	2593.99				
Channel										
Frequency (MHz)										
70	QPSK	1	1	24.77	24.85	24.82	26.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	5082.00	5185.98	5310.00				
60	QPSK	1	1	24.70	24.86	24.80	26.0	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	5042.04	5185.98	5329.98				
50	QPSK	1	1	24.74	24.83	24.83	26.0	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	5032.02	5185.98	5340.00				
40	QPSK	1	1	2516.01	2592.99	2670				
Channel										
Frequency (MHz)										
30	QPSK	1	1	5022.00	5185.98	5349.98				
30	QPSK	1	1	2511	2592.99	2674.98				
Channel										
Frequency (MHz)										
20	QPSK	1	1	5012.04	5185.98	5359.98				
20	QPSK	1	1	2506.02	2592.99	2679.99				
Channel										
Frequency (MHz)										



Part270 n77 Ant 0										
Channel	Power Low	Power Middle	Power High	Tune-up limit	MPR					
Channel	Ch. F.Freq. 650000	Ch. F.Freq. 656000	Ch. F.Freq. 662000	(dBm)	(dB)					
Frequency (MHz)										
100	P12 BPSK	1	1	20.24	20.37	20.28				
100	P12 BPSK	1	137	20.20	20.33	20.22	21.0	0.0		
100	P12 BPSK	1	271	20.15	20.28	20.22				
100	P12 BPSK	135	0	18.72	18.78	18.74	20.5	0.5		
100	P12 BPSK	135	69	20.22	20.31	20.19	21.0	0.0		
100	P12 BPSK	135	138	18.83	18.78	18.87	20.5	0.5		
100	P12 BPSK	270	0	18.80	18.88	18.80				
100	QPSK	1	1	20.37	20.43	20.31				
100	QPSK	1	137	20.19	20.35	20.25	21.0	0.0		
100	QPSK	1	271	20.13	20.31	20.20				
100	QPSK	135	0	18.84	18.87	18.83	20.0	1.0		
100	QPSK	135	69	20.20	20.38	20.27	21.0	0.0		
100	QPSK	135	138	18.84	18.86	18.81	20.0	1.0		
100	QPSK	270	0	18.91	18.92	18.88	20.0	1.0		
100	16QAM	1	1	18.80	18.88	18.80	20.0	1.0		
100	64QAM	1	1	17.48	17.65	17.53	18.5	2.5		
100	256QAM	1	1	15.22	15.32	15.28	16.5	4.5		
Channel										
Frequency (MHz)										
90	QPSK	1	1	20.26	20.38	20.30	21.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	20.19	20.25	20.31	21.0	0.0		
Channel										
Frequency (MHz)										
70	QPSK	1	1	20.23	20.35	20.32	21.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	20.19	20.28	20.30	21.0	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	20.28	20.37	20.25	21.0	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	20.24	20.30	20.31	21.0	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	20.20	20.28	20.26	21.0	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	20.22	20.28	20.24	21.0	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	20.19	20.35	20.30	21.0	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	20.28	20.34	20.28	21.0	0.0		

Part270 n77 HPUE Ant 0										
Channel	Power Low	Power Middle	Power High	Tune-up limit	MPR					
Channel	Ch. F.Freq. 650000	Ch. F.Freq. 656000	Ch. F.Freq. 662000	(dBm)	(dB)					
Frequency (MHz)										
100	P12 BPSK	1	1	23.33	23.39	23.29				
100	P12 BPSK	1	137	23.23	23.33	23.28	24.0	0.0		
100	P12 BPSK	1	271	23.14	23.27	23.23				
100	P12 BPSK	135	0	22.79	22.88	22.84	23.5	0.5		
100	P12 BPSK	135	69	23.28	23.34	23.20	24.0	0.0		
100	P12 BPSK	135	138	22.88	22.90	22.79	23.5	0.5		
100	P12 BPSK	270	0	22.88	22.94	22.82				
100	QPSK	1	1	23.36	23.42	23.32				
100	QPSK	1	137	23.28	23.35	23.25	24.0	0.0		
100	QPSK	1	271	23.21	23.31	23.22				
100	QPSK	135	0	22.21	22.34	22.26	23.0	1.0		
100	QPSK	135	69	23.22	23.38	23.28	24.0	0.0		
100	QPSK	135	138	22.34	22.39	22.34	23.0	1.0		
100	QPSK	270	0	22.32	22.45	22.39				
100	16QAM	1	1	22.46	22.57	22.51	23.0	1.0		
100	64QAM	1	1	20.74	20.88	20.77	21.5	2.5		
100	256QAM	1	1	18.58	18.67	18.63	19.5	4.5		
Channel										
Frequency (MHz)										
90	QPSK	1	1	23.28	23.35	23.24	24.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	23.11	23.24	23.17	24.0	0.0		
Channel										
Frequency (MHz)										
70	QPSK	1	1	23.29	23.37	23.25	24.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	23.26	23.38	23.24	24.0	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	23.25	23.28	23.27	24.0	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	23.29	23.30	23.19	24.0	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	23.24	23.38	23.19	24.0	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	23.31	23.28	23.25	24.0	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	23.31	23.32	23.21	24.0	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	23.28	23.29	23.25	24.0	0.0		



Part270 n78 Ant 0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)		
Channel				3750	3750	3750				
Frequency (MHz)										
100	PI2 BPSK	1	1		20.31					
100	PI2 BPSK	1	137		20.27		21.0	0.0		
100	PI2 BPSK	1	271		20.22					
100	PI2 BPSK	135	0		19.13		20.5	0.5		
100	PI2 BPSK	135	69		20.25		21.0	0.0		
100	PI2 BPSK	135	138		19.01		20.5	0.5		
100	PI2 BPSK	270	0		19.07					
100	QPSK	1	1		20.35					
100	QPSK	1	137		20.30		21.0	0.0		
100	QPSK	1	271		20.17					
100	QPSK	135	0		19.82		20.0	1.0		
100	QPSK	135	69		20.29		21.0	0.0		
100	QPSK	135	138		18.67		20.0	1.0		
100	QPSK	270	0		18.72		20.0	1.0		
100	16QAM	1	1		18.84		20.0	1.0		
100	64QAM	1	1		17.58		18.5	2.5		
100	256QAM	1	1		15.33		16.5	4.5		
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3745.02	3750	3755.01				
90	QPSK	1	1		20.19	20.24	20.14	21.0	0.0	
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3740.01	3750	3760.02				
80	QPSK	1	1		23.23	23.23	23.11	21.0	0.0	
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3735	3750	3765				
70	QPSK	1	1		20.15	20.25	20.18	21.0	0.0	
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3730.02	3750	3770.01				
60	QPSK	1	1		20.19	20.25	20.13	21.0	0.0	
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3725.01	3750	3775.02				
50	QPSK	1	1		20.24	20.27	20.13	21.0	0.0	
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3720	3750	3780				
40	QPSK	1	1		20.20	20.25	20.19	21.0	0.0	
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3715.02	3750	3785.01				
30	QPSK	1	1		20.27	20.30	20.08	21.0	0.0	
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3710.01	3750	3790.02				
20	QPSK	1	1		20.25	20.24	20.08	21.0	0.0	
Channel				647000	650000	652934	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3705	3750	3795				
15	QPSK	1	1		20.22	20.27	20.19	21.0	0.0	
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3705	3750	3795				
10	QPSK	1	1		20.16	20.23	20.20	21.0	0.0	

Part270 n78 HPUE Ant 0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)		
Channel				3750	3750	3750				
Frequency (MHz)										
100	PI2 BPSK	1	1		23.17					
100	PI2 BPSK	1	137		23.08		24.0	0.0		
100	PI2 BPSK	1	271		23.02					
100	PI2 BPSK	135	0		22.52		23.5	0.5		
100	PI2 BPSK	135	69		23.09		24.0	0.0		
100	PI2 BPSK	135	138		22.46		23.5	0.5		
100	PI2 BPSK	270	0		22.53					
100	QPSK	1	1		23.21					
100	QPSK	1	137		23.11		24.0	0.0		
100	QPSK	1	271		23.04					
100	QPSK	135	0		22.01		23.0	1.0		
100	QPSK	135	69		23.14		24.0	0.0		
100	QPSK	135	138		21.95		23.0	1.0		
100	QPSK	270	0		22.02		23.0	1.0		
100	16QAM	1	1		22.03		23.0	1.0		
100	64QAM	1	1		20.85		21.5	2.5		
100	256QAM	1	1		18.88		19.5	4.5		
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3745.02	3750	3755.01				
90	QPSK	1	1		23.11	23.15	23.05	24.0	0.0	
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3740.01	3750	3760.02				
80	QPSK	1	1		23.09	23.13	23.02	24.0	0.0	
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3735	3750	3765				
70	QPSK	1	1		23.13	23.18	23.07	24.0	0.0	
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3730.02	3750	3770.01				
60	QPSK	1	1		23.12	23.08	22.98	24.0	0.0	
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3725.01	3750	3785.02				
50	QPSK	1	1		23.05	23.08	22.94	24.0	0.0	
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3720	3750	3780				
40	QPSK	1	1		23.12	23.04	23.04	24.0	0.0	
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3715.02	3750	3785.01				
30	QPSK	1	1		23.11	23.17	23.03	24.0	0.0	
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3710.01	3750	3790.02				
20	QPSK	1	1		23.09	23.14	23.01	24.0	0.0	
Channel				647000	650000	652934	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3705	3750	3795				
15	QPSK	1	1		23.11	23.18	23.00	24.0	0.0	
Channel				647000	650000	653000	Tune-up limit (dBm)	MPR (dB)		
Frequency (MHz)				3705	3750	3795				
10	QPSK	1	1		23.09	23.16	22.94	24.0	0.0	





n5 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	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	21.69	21.83	21.79		
20	PI2 BPSK	1	59	21.73	21.78	21.87	23.0	0.0
20	PI2 BPSK	1	104	21.81	21.70	21.68		
20	PI2 BPSK	50	0	21.34	21.41	21.34	22.5	0.5
20	PI2 BPSK	50	28	21.87	21.79	21.75	23.0	0.0
20	PI2 BPSK	50	56	21.24	21.34	21.20	22.5	0.5
20	PI2 BPSK	100	0	21.35	21.40	21.28		
20	QPSK	1	1	21.83	21.89	21.76		
20	QPSK	1	53	21.71	21.82	21.70	23.0	0.0
20	QPSK	1	104	21.85	21.76	21.81		
20	QPSK	50	0	20.79	20.87	20.76	23.0	1.0
20	QPSK	50	28	21.68	21.81	21.76	23.0	0.0
20	QPSK	50	56	20.70	20.84	20.75		
20	QPSK	100	0	20.77	20.90	20.80	22.0	1.0
20	16QAM	1	1	21.22	21.28	21.13	23.0	1.0
20	64QAM	1	1	19.46	19.57	19.45	20.5	2.5
20	256QAM	1	1	17.39	17.51	17.41	18.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
				831.5	838.5	841.5	23.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
				329	838.5	334	23.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
				826.5	836.5	846.5	23.0	0.0

n7 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 504000	Middle Ch. Freq. 507000	High Ch. Freq. 510000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.80	22.86	22.80		
40	PI2 BPSK	1	109	22.71	22.81	22.69	23.9	0.0
40	PI2 BPSK	1	214	22.70	22.77	22.73		
40	PI2 BPSK	108	0	22.37	22.44	22.37	23.5	0.4
40	PI2 BPSK	108	54	22.66	22.79	22.65	23.9	0.0
40	PI2 BPSK	108	108	22.26	22.41	22.38	23.5	0.4
40	PI2 BPSK	216	0	22.37	22.46	22.41		
40	QPSK	1	1	22.88	22.93	22.84		
40	QPSK	1	108	22.80	22.88	22.75	23.9	0.0
40	QPSK	1	214	22.74	22.83	22.78		
40	QPSK	108	0	21.94	22.01	21.97	23.0	0.9
40	QPSK	108	54	22.80	22.87	22.82	23.9	0.0
40	QPSK	108	108	22.00	22.05	21.94		
40	QPSK	216	0	22.08	22.13	22.06	23.0	0.9
40	16QAM	1	1	22.12	22.16	22.05	23.0	0.9
40	64QAM	1	1	20.55	20.59	20.52	21.5	2.4
40	256QAM	1	1	18.52	18.67	18.59	19.5	4.4
Channel								
Frequency (MHz)								
30	QPSK	1	1	508000	507000	511000	Tune-up limit (dBm)	MPR (dB)
				2515	2535	2555	23.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
				2572.5	2535	2597.5	23.9	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.75	22.85	22.81	23.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.74	22.81	22.73	23.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.79	22.83	22.70	23.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.74	22.88	22.80	23.5	0.0

n66 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 346000	Middle Ch. Freq. 349000	High Ch. Freq. 352000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.35	22.46	22.40		
40	PI2 BPSK	1	108	22.31	22.41	22.34	24.0	0.0
40	PI2 BPSK	1	214	22.32	22.36	22.30		
40	PI2 BPSK	108	0	22.01	22.06	22.00	23.5	0.5
40	PI2 BPSK	108	54	22.37	22.41	22.28	24.0	0.0
40	PI2 BPSK	108	108	21.96	22.03	21.98	23.5	0.5
40	PI2 BPSK	216	0	22.00	22.07	22.02		
40	QPSK	1	1	22.48	22.54	22.42		
40	QPSK	1	108	22.43	22.48	22.45	24.0	0.0
40	QPSK	1	214	22.35	22.42	22.29		
40	QPSK	108	0	21.52	21.67	21.54	23.0	1.0
40	QPSK	108	54	22.40	22.50	22.38	24.0	0.0
40	QPSK	108	108	21.65	21.72	21.62	23.0	1.0
40	QPSK	216	0	21.67	21.77	21.73		
40	16QAM	1	1	21.61	21.68	21.65	23.0	1.0
40	64QAM	1	1	19.79	19.93	19.80	21.5	2.5
40	256QAM	1	1	18.00	18.05	18.01	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
				1725	1745	1765	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
				1720	1745	1770	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
				1717.5	1745	1772.5	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	342500	349000	353500	Tune-up limit (dBm)	MPR (dB)
				1712.5	1745	1775	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.34	22.42	22.31	24.0	0.0



n38 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 518004	Power Middle Ch. Freq. 519000	Power High Ch. Freq. 519996	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	22.85	22.78	22.72			
40	PI2 BPSK	1	53	22.88	22.72	22.58	24.0	0.0	
40	PI2 BPSK	1	104	22.56	22.87	22.59			
40	PI2 BPSK	50	0	21.58	21.68	21.60	23.5	0.5	
40	PI2 BPSK	50	28	22.86	22.71	22.64	24.0	0.0	
40	PI2 BPSK	50	56	21.84	21.74	21.63	23.0	1.0	
40	PI2 BPSK	100	0	21.70	21.80	21.70	23.5	0.5	
40	QPSK	1	1	22.72	22.84	22.77			
40	QPSK	1	53	22.88	22.79	22.65	24.0	0.0	
40	QPSK	1	104	22.83	22.78	22.63			
40	QPSK	50	0	21.72	21.78	21.68	23.0	1.0	
40	QPSK	50	28	22.72	22.78	22.71	24.0	0.0	
40	QPSK	50	56	21.74	21.85	21.72	23.0	1.0	
40	QPSK	100	0	21.76	21.88	21.84	23.0	1.0	
40	16QAM	1	1	21.80	21.72	21.62	23.0	1.0	
40	64QAM	1	1	20.36	20.46	20.35	21.5	2.5	
40	256QAM	1	1	18.28	18.31	18.24	19.5	4.5	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.66	22.72	22.68	24.0	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	22.84	22.70	22.63	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.63	22.80	22.71	24.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	22.69	22.76	22.65	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.82	22.74	22.69	24.0	0.0	

n41 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 508202	Power Middle Ch. Freq. 518598	Power High Ch. Freq. 528800	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	22.84	22.90	22.78			
100	PI2 BPSK	1	137	22.72	22.85	22.81	23.9	0.0	
100	PI2 BPSK	1	271	22.73	22.81	22.67			
100	PI2 BPSK	135	0	21.53	21.54	21.60	23.5	0.4	
100	PI2 BPSK	135	69	22.71	22.83	22.71	23.9	0.0	
100	PI2 BPSK	135	138	21.52	21.62	21.57	23.5	0.4	
100	PI2 BPSK	270	0	21.63	21.68	21.57	23.5	0.4	
100	QPSK	1	1	22.93	22.97	22.88			
100	QPSK	1	137	22.85	22.92	22.80	23.9	0.0	
100	QPSK	1	271	22.84	22.88	22.83			
100	QPSK	135	0	21.63	21.73	21.69	23.0	0.9	
100	QPSK	135	69	22.84	22.91	22.78	23.9	0.0	
100	QPSK	135	138	21.69	21.80	21.71	23.0	0.9	
100	QPSK	270	0	21.83	21.89	21.75	23.0	0.9	
100	16QAM	1	1	21.80	21.82	21.75	23.0	0.9	
100	64QAM	1	1	20.56	20.69	20.55	21.5	2.4	
100	256QAM	1	1	18.46	18.51	18.44	19.5	4.4	
Channel									
Frequency (MHz)									
90	QPSK	1	1	22.82	22.88	22.85	23.9	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.92	22.88	22.84	23.9	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.79	22.92	22.83	23.9	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.79	22.93	22.84	23.9	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	22.79	22.84	22.79	23.9	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	22.84	22.89	22.83	23.9	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.88	22.94	22.75	23.9	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.84	22.90	22.77	23.9	0.0	

n41 HPUE Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 508202	Power Middle Ch. Freq. 518598	Power High Ch. Freq. 528800	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	25.82	25.96	25.89			
100	PI2 BPSK	1	137	25.85	25.92	25.83	28.9	0.0	
100	PI2 BPSK	1	271	25.76	25.86	25.75			
100	PI2 BPSK	135	0	25.34	25.44	25.38	26.5	0.4	
100	PI2 BPSK	135	69	25.87	25.91	25.87	26.5	0.0	
100	PI2 BPSK	135	138	25.35	25.39	25.24	26.5	0.4	
100	PI2 BPSK	270	0	25.36	25.42	25.28	26.5	0.4	
100	QPSK	1	1	25.88	26.01	25.91			
100	QPSK	1	137	25.87	25.95	25.87	26.9	0.0	
100	QPSK	1	271	25.79	25.89	25.78			
100	QPSK	135	0	24.97	25.04	24.92	26.0	0.9	
100	QPSK	135	69	25.82	25.98	25.87	26.9	0.0	
100	QPSK	135	138	25.18	25.22	25.18	26.0	0.9	
100	QPSK	270	0	25.18	25.27	25.13	26.0	0.9	
100	16QAM	1	1	24.84	24.95	24.85	26.0	0.9	
100	64QAM	1	1	23.93	24.00	23.85	24.5	2.4	
100	256QAM	1	1	21.60	21.68	21.63	22.5	4.4	
Channel									
Frequency (MHz)									
90	QPSK	1	1	25.86	25.97	25.86	26.9	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	25.91	25.93	25.84	26.9	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	25.84	25.87	25.77	26.9	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	25.84	25.95	25.83	26.9	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	25.88	25.93	25.77	26.9	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	25.92	25.99	25.70	26.9	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	25.90	25.88	25.81	26.9	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	25.92	25.90	25.79	26.9	0.0	



Part270 n77 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.12	23.17	23.05		
100	PI2 BPSK	1	137	23.03	23.12	23.01	24.0	0.0
100	PI2 BPSK	1	271	23.03	23.08	22.94		
100	PI2 BPSK	135	0	21.59	21.61	21.54	23.5	0.5
100	PI2 BPSK	135	69	23.09	23.13	22.98	24.0	0.0
100	PI2 BPSK	135	138	21.54	21.63	21.48		
100	PI2 BPSK	270	0	21.58	21.67	21.49	23.5	0.5
100	QPSK	1	1	23.18	23.24	23.09		
100	QPSK	1	137	23.19	23.21	23.12	24.0	0.0
100	QPSK	1	271	23.17	23.17	23.02		
100	QPSK	135	0	21.53	21.63	21.54	23.0	1.0
100	QPSK	135	69	23.17	23.19	23.07	24.0	0.0
100	QPSK	135	138	21.51	21.63	21.50		
100	QPSK	270	0	21.62	21.67	21.52	23.0	1.0
100	16QAM	1	1	21.56	21.66	21.52	23.0	1.0
100	64QAM	1	1	20.14	20.23	20.12	21.5	2.5
100	256QAM	1	1	18.22	18.32	18.18	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.08	23.11	22.94	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.03	23.10	22.94	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.01	23.07	22.83	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.11	23.16	22.99	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.09	23.11	22.89	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.03	23.16	22.89	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.04	23.17	23.00	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.00	23.14	22.83	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.03	23.08	22.88	24.0	0.0

Part270 n77 HPUE Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	25.98	26.10	26.03		
100	PI2 BPSK	1	137	25.95	26.07	25.93	27.0	0.0
100	PI2 BPSK	1	271	25.94	26.01	25.98		
100	PI2 BPSK	135	0	25.42	25.51	25.37	26.5	0.5
100	PI2 BPSK	135	69	25.96	26.00	25.90	27.0	0.0
100	PI2 BPSK	135	138	25.48	25.58	25.31		
100	PI2 BPSK	270	0	25.54	25.61	25.48	26.5	0.5
100	QPSK	1	1	26.07	26.17	26.12		
100	QPSK	1	137	26.01	26.11	26.03	27.0	0.0
100	QPSK	1	271	26.97	26.95	26.98		
100	QPSK	135	0	25.05	25.09	24.98	26.0	1.0
100	QPSK	135	69	26.03	26.12	26.04	27.0	0.0
100	QPSK	135	138	24.97	25.04	24.96		
100	QPSK	270	0	25.05	25.11	25.02	26.0	1.0
100	16QAM	1	1	25.00	25.14	25.04	26.0	1.0
100	64QAM	1	1	23.82	23.87	23.53	24.5	2.5
100	256QAM	1	1	21.58	21.69	21.62	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	25.94	26.10	26.06	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.01	26.03	25.99	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.02	26.13	26.03	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.95	26.06	26.07	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.04	26.12	26.01	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.00	26.04	26.07	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	25.97	26.11	26.09	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.99	26.12	26.05	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.02	26.02	26.01	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.98	26.03	26.01	27.0	0.0



Part270 n78 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		23.05				
100	PI2 BPSK	1	137		22.99		24.0	0.0	
100	PI2 BPSK	1	271		22.92				
100	PI2 BPSK	135	0		21.54		23.5	0.5	
100	PI2 BPSK	135	69		22.97		24.0	0.0	
100	PI2 BPSK	135	138		21.56		23.5	0.5	
100	PI2 BPSK	270	0		21.60				
100	QPSK	1	1		23.13				
100	QPSK	1	137		23.02		24.0	0.0	
100	QPSK	1	271		22.96				
100	QPSK	135	0		21.54		23.0	1.0	
100	QPSK	135	69		23.07		24.0	0.0	
100	QPSK	135	138		21.48		23.0	1.0	
100	QPSK	270	0		21.53		23.0	1.0	
100	16QAM	1	1		21.89		23.0	1.0	
100	64QAM	1	1		19.94		21.5	2.5	
100	256QAM	1	1		18.07		19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	23.01	23.03	22.94	24.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.94	23.00	22.94	24.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.94	23.01	22.87	24.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.94	23.01	22.87	24.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	23.02	23.05	22.94	24.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	23.00	23.02	22.89	24.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.96	22.98	22.89	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.00	23.04	22.87	24.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.00	23.08	22.93	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.98	23.07	22.87	24.0	0.0	

Part270 n78 HPUE Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		26.08				
100	PI2 BPSK	1	137		26.05		27.0	0.0	
100	PI2 BPSK	1	271		25.99				
100	PI2 BPSK	135	0		25.50		26.5	0.5	
100	PI2 BPSK	135	69		26.00		27.0	0.0	
100	PI2 BPSK	135	138		25.36		26.5	0.5	
100	PI2 BPSK	270	0		25.46				
100	QPSK	1	1		26.15				
100	QPSK	1	137		26.08		27.0	0.0	
100	QPSK	1	271		26.02				
100	QPSK	135	0		25.00		26.0	1.0	
100	QPSK	135	69		26.09		27.0	0.0	
100	QPSK	135	138		24.95		26.0	1.0	
100	QPSK	270	0		24.99		26.0	1.0	
100	16QAM	1	1		25.29		26.0	1.0	
100	64QAM	1	1		23.83		24.5	2.5	
100	256QAM	1	1		21.76		22.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	25.95	26.11	25.96	27.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	25.94	26.05	25.94	27.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	26.02	26.09	25.93	27.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	25.93	26.10	25.94	27.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	25.96	26.04	25.96	27.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	26.01	26.05	25.89	27.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	25.94	26.01	25.97	27.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	25.98	26.03	25.93	27.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	25.94	26.07	25.98	27.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	25.97	26.10	25.93	27.0	0.0	



n7 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 504000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 510000	Tune-up limit (dBm)	MPR (dB)
Channel				2530	2535	2550		
Frequency (MHz)				2530	2535	2550		
40	PI/2 BPSK	1	1	21.31	21.28	21.14	22.3	0.0
40	PI/2 BPSK	1	108	21.09	21.26	21.02		
40	PI/2 BPSK	1	214	21.09	21.20	20.95		
40	PI/2 BPSK	108	0	21.28	21.38	21.20	22.3	0.0
40	PI/2 BPSK	108	54	21.23	21.30	21.13	22.3	0.0
40	PI/2 BPSK	108	108	21.10	21.22	21.06	22.3	0.0
40	PI/2 BPSK	216	0	21.07	21.17	20.97	22.3	0.0
40	QPSK	1	1	21.38	21.40	21.26		
40	QPSK	1	108	21.22	21.38	21.15	22.3	0.0
40	QPSK	1	214	21.24	21.31	21.16		
40	QPSK	108	0	21.11	21.24	20.99	22.3	0.0
40	QPSK	108	54	21.24	21.39	21.12	22.3	0.0
40	QPSK	108	108	21.15	21.25	21.04	22.3	0.0
40	QPSK	216	0	21.08	21.28	20.99	22.3	0.0
40	16QAM	1	1	21.13	21.20	21.01	22.3	0.0
40	16QAM	1	1	21.17	21.23	20.99	21.5	0.8
40	256QAM	1	1	18.98	18.05	18.88	19.5	2.8
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				503000	507000	511000		
30	QPSK	1	1	21.25	21.28	21.07	22.3	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				502500	507000	511500		
25	QPSK	1	1	21.27	21.19	21.07	22.3	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				502000	507000	512000		
20	PI/2 BPSK	1	1	21.17	21.30	21.10	22.3	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				501500	507000	512500		
15	QPSK	1	1	21.24	21.23	21.06	22.3	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				501000	507000	513000		
10	QPSK	1	1	21.28	21.27	21.16	22.3	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				500500	507000	513500		
5	QPSK	1	1	21.20	21.25	21.11	22.3	0.0

n66 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760		
Frequency (MHz)				1730	1745	1760		
40	PI/2 BPSK	1	1	23.43	23.51	23.47	24.0	0.0
40	PI/2 BPSK	1	108	23.38	23.47	23.38		
40	PI/2 BPSK	1	214	23.38	23.44	23.40		
40	PI/2 BPSK	108	0	22.89	23.04	23.00	23.5	0.5
40	PI/2 BPSK	108	54	23.44	23.48	23.43	24.0	0.0
40	PI/2 BPSK	108	108	23.02	23.08	23.02	23.5	0.5
40	PI/2 BPSK	216	0	23.01	23.13	23.02	23.5	0.5
40	QPSK	1	1	23.49	23.58	23.51		
40	QPSK	1	108	23.38	23.52	23.39	24.0	0.0
40	QPSK	1	214	23.33	23.48	23.36		
40	QPSK	108	0	22.44	22.54	22.50	23.0	1.0
40	QPSK	108	54	23.39	23.50	23.40	24.0	0.0
40	QPSK	108	108	22.34	22.47	22.41	23.0	1.0
40	QPSK	216	0	22.42	22.53	22.43	23.0	1.0
40	16QAM	1	1	22.45	22.58	22.47	23.0	1.0
40	16QAM	1	1	20.82	20.95	20.90	21.5	2.5
40	256QAM	1	1	18.96	18.99	18.83	19.5	4.5
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				345000	349000	353000		
30	QPSK	1	1	23.40	23.52	23.39	24.0	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				344000	349000	354000		
20	QPSK	1	1	23.44	23.51	23.48	24.0	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				343500	349000	354500		
15	QPSK	1	1	23.42	23.47	23.41	24.0	0.0
Channel				342500	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				342500	349000	355000		
10	QPSK	1	1	23.38	23.52	23.45	24.0	0.0
Channel				342000	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				342000	349000	355500		
5	QPSK	1	1	23.40	23.45	23.39	24.0	0.0



### n38 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 518004	Power Middle Ch. / Freq. 519000	Power High Ch. / Freq. 519996	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	20.39	20.47	20.50	21.7	0.0
40	PI2 BPSK	1	99	20.35	20.50	20.29		
40	PI2 BPSK	1	104	20.35	20.43	20.27		
40	PI2 BPSK	50	0	20.39	20.53	20.41	21.7	0.0
40	PI2 BPSK	50	28	20.39	20.55	20.44	21.7	0.0
40	PI2 BPSK	50	56	20.37	20.41	20.46	21.7	0.0
40	PI2 BPSK	100	0	20.23	20.45	20.37	21.7	0.0
40	QPSK	1	1	20.58	20.68	20.58		
40	QPSK	1	53	20.46	20.58	20.55	21.7	0.0
40	QPSK	1	104	20.34	20.38	20.29		
40	QPSK	50	0	20.25	20.42	20.24	21.7	0.0
40	QPSK	50	28	20.45	20.58	20.44	21.7	0.0
40	QPSK	50	56	20.38	20.49	20.34		
40	QPSK	100	0	20.41	20.51	20.45	21.7	0.0
40	16QAM	1	1	20.27	20.41	20.40	21.7	0.0
40	64QAM	1	1	20.36	20.51	20.25	21.5	0.2
40	256QAM	1	1	18.38	18.45	18.24	19.5	2.2
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.23	20.38	20.27	21.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	185504	185500	185496	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.17	20.33	20.23	21.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.19	20.40	20.26	21.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.19	20.38	20.36	24.5	0.0

### n41 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 509202	Power Middle Ch. / Freq. 518998	Power High Ch. / Freq. 528000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	20.50	20.58	20.53	21.7	0.0
100	PI2 BPSK	1	137	20.44	20.57	20.41		
100	PI2 BPSK	1	271	20.41	20.56	20.40		
100	PI2 BPSK	135	0	20.52	20.60	20.54	21.7	0.0
100	PI2 BPSK	135	69	20.50	20.61	20.55	21.7	0.0
100	PI2 BPSK	135	138	20.42	20.54	20.51	21.7	0.0
100	PI2 BPSK	270	0	20.38	20.57	20.44	21.7	0.0
100	QPSK	1	1	20.67	20.78	20.70		
100	QPSK	1	137	20.53	20.63	20.58	21.7	0.0
100	QPSK	1	271	20.44	20.51	20.44		
100	QPSK	135	0	20.34	20.56	20.38	21.7	0.0
100	QPSK	135	69	20.49	20.61	20.59	21.7	0.0
100	QPSK	135	138	20.42	20.60	20.41	21.7	0.0
100	QPSK	270	0	20.52	20.55	20.50		
100	16QAM	1	1	20.37	20.54	20.44	21.7	0.0
100	64QAM	1	1	20.41	20.56	20.39	21.5	0.2
100	256QAM	1	1	18.42	18.49	18.35	19.5	2.2
Channel								
Frequency (MHz)								
90	QPSK	1	1	20.49	20.57	20.59	21.7	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	507204	518998	529998	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.52	20.67	20.57	21.7	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.49	20.60	20.54	21.7	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.55	20.57	20.49	21.7	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	503202	518998	534000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.57	20.65	20.50	21.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.55	20.60	20.51	21.7	0.0

### n41 HPUE Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 509202	Power Middle Ch. / Freq. 518998	Power High Ch. / Freq. 528000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.51	23.53	23.50	24.7	0.0
100	PI2 BPSK	1	137	23.45	23.53	23.45		
100	PI2 BPSK	1	271	23.35	23.52	23.40		
100	PI2 BPSK	135	0	23.49	23.65	23.54	24.7	0.0
100	PI2 BPSK	135	69	23.51	23.63	23.61	24.7	0.0
100	PI2 BPSK	135	138	23.43	23.52	23.48	24.7	0.0
100	PI2 BPSK	270	0	23.30	23.61	23.43	24.7	0.0
100	QPSK	1	1	23.83	23.75	23.67		
100	QPSK	1	137	23.58	23.67	23.63	24.7	0.0
100	QPSK	1	271	23.47	23.50	23.48		
100	QPSK	135	0	23.30	23.54	23.40	24.7	0.0
100	QPSK	135	69	23.51	23.65	23.60	24.7	0.0
100	QPSK	135	138	23.38	23.60	23.38	24.7	0.0
100	QPSK	270	0	23.52	23.58	23.51		
100	16QAM	1	1	23.34	23.52	23.45	24.7	0.0
100	64QAM	1	1	23.38	23.51	23.41	24.5	0.2
100	256QAM	1	1	22.21	22.29	22.16	22.5	2.2
Channel								
Frequency (MHz)								
90	QPSK	1	1	508200	518998	529998	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	507204	518998	529998	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.49	23.58	23.61	24.7	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.45	23.53	23.56	24.7	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.51	23.55	23.53	24.7	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	503202	518998	534000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.53	23.62	23.59	24.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.47	23.57	23.56	24.7	0.0



Part270 n77 Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	18.39	18.46	18.42		
100	PI2 BPSK	1	137	18.38	18.43	18.21	19.7	0.0
100	PI2 BPSK	1	271	18.25	18.43	18.32		
100	PI2 BPSK	135	0	18.41	18.51	18.41	19.7	0.0
100	PI2 BPSK	135	69	18.40	18.48	18.42	19.7	0.0
100	PI2 BPSK	135	138	18.45	18.48	18.28		
100	PI2 BPSK	270	0	18.28	18.39	18.32	19.7	0.0
100	QPSK	1	1	18.59	18.64	18.55		
100	QPSK	1	137	18.57	18.58	18.45	19.7	0.0
100	QPSK	1	271	18.40	18.35	18.42		
100	QPSK	135	0	18.41	18.44	18.33	19.7	0.0
100	QPSK	135	69	18.45	18.53	18.42	19.7	0.0
100	QPSK	135	138	18.25	18.38	18.27		
100	QPSK	270	0	18.40	18.48	18.42	19.7	0.0
100	16QAM	1	1	18.45	18.52	18.39	19.7	0.0
100	64QAM	1	1	18.39	18.47	18.33	19.7	0.0
100	256QAM	1	1	18.28	18.38	18.31	19.5	0.2
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.41	18.45	18.36	19.7	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.44	18.55	18.41	19.7	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.43	18.44	18.42	19.7	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.48	18.55	18.43	19.7	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.45	18.50	18.38	19.7	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.47	18.43	18.42	19.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.42	18.44	18.39	19.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.42	18.50	18.44	19.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.39	18.47	18.49	19.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.43	18.45	18.34	19.7	0.0

Part270 n77 HPUE Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	21.44	21.42	21.41		
100	PI2 BPSK	1	137	21.32	21.44	21.34	22.7	0.0
100	PI2 BPSK	1	271	21.21	21.39	21.26		
100	PI2 BPSK	135	0	21.38	21.45	21.38	22.7	0.0
100	PI2 BPSK	135	69	21.41	21.46	21.41	22.7	0.0
100	PI2 BPSK	135	138	21.46	21.46	21.21		
100	PI2 BPSK	270	0	21.33	21.45	21.37	22.7	0.0
100	QPSK	1	1	21.56	21.65	21.53		
100	QPSK	1	137	21.56	21.54	21.46	22.7	0.0
100	QPSK	1	271	21.40	21.53	21.45		
100	QPSK	135	0	21.46	21.44	21.35	22.7	0.0
100	QPSK	135	69	21.45	21.53	21.49	22.7	0.0
100	QPSK	135	138	21.31	21.41	21.30		
100	QPSK	270	0	21.40	21.49	21.37	22.7	0.0
100	16QAM	1	1	21.40	21.52	21.44	22.7	0.0
100	64QAM	1	1	21.41	21.45	21.29	22.7	0.0
100	256QAM	1	1	21.32	21.42	21.26	22.5	0.2
Channel								
Frequency (MHz)								
90	QPSK	1	1	21.36	21.46	21.41	22.7	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.37	21.47	21.37	22.7	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.36	21.41	21.30	22.7	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.39	21.50	21.38	22.7	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.43	21.49	21.35	22.7	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.49	21.50	21.34	22.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.39	21.46	21.42	22.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.40	21.40	21.36	22.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.39	21.47	21.33	22.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.41	21.47	21.31	22.7	0.0



Part270 n78 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		18.36	18.36			
100	PI2 BPSK	1	137		18.25	18.25	19.7	0.0	
100	PI2 BPSK	1	271		18.33	18.33			
100	PI2 BPSK	135	0		18.30	18.30	19.7	0.0	
100	PI2 BPSK	135	69		18.27	18.27	19.7	0.0	
100	PI2 BPSK	135	138		18.34	18.34			
100	PI2 BPSK	270	0		18.19	18.19	19.7	0.0	
100	QPSK	1	1		18.51	18.51			
100	QPSK	1	137		18.37	18.37	19.7	0.0	
100	QPSK	1	271		18.40	18.40			
100	QPSK	135	0		18.28	18.28	19.7	0.0	
100	QPSK	135	69		18.38	18.38	19.7	0.0	
100	QPSK	135	138		18.28	18.28			
100	QPSK	270	0		18.27	18.27	19.7	0.0	
100	16QAM	1	1		18.33	18.33			
100	64QAM	1	1		18.38	18.38	19.7	0.0	
100	256QAM	1	1		18.22	18.22	19.5	0.2	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.24	18.33	18.22	19.7	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.24	18.35	18.25	19.7	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	649000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.24	18.27	18.29	19.7	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.31	18.34	18.24	19.7	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	647168	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.22	18.27	18.15	19.7	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									

Part270 n78 HPUE Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		21.32	21.32			
100	PI2 BPSK	1	137		21.26	21.26	22.7	0.0	
100	PI2 BPSK	1	271		21.25	21.25			
100	PI2 BPSK	135	0		21.29	21.29	22.7	0.0	
100	PI2 BPSK	135	69		21.37	21.37	22.7	0.0	
100	PI2 BPSK	135	138		21.34	21.34			
100	PI2 BPSK	270	0		21.27	21.27	22.7	0.0	
100	QPSK	1	1		21.56	21.56			
100	QPSK	1	137		21.34	21.34	22.7	0.0	
100	QPSK	1	271		21.43	21.43			
100	QPSK	135	0		21.28	21.28	22.7	0.0	
100	QPSK	135	69		21.37	21.37	22.7	0.0	
100	QPSK	135	138		21.29	21.29			
100	QPSK	270	0		21.35	21.35	22.7	0.0	
100	16QAM	1	1		21.38	21.38			
100	64QAM	1	1		21.26	21.26	22.7	0.0	
100	256QAM	1	1		21.26	21.26	22.5	0.2	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	21.26	21.25	21.24	22.7	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	21.16	21.34	21.31	22.7	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	647000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	21.21	21.28	21.26	22.7	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	21.24	21.30	21.20	22.7	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	647168	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	21.15	21.33	21.22	22.7	0.0	
Channel									
Frequency (MHz)									





n7 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 504000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 510000	Tune-up limit (dBm)	MPR (dB)
Channel				2520	2535	2550		
Frequency (MHz)								
40	PI/2 BPSK	1	1	21.59	21.66	21.41		
40	PI/2 BPSK	1	108	21.50	21.51	21.48	22.8	0.0
40	PI/2 BPSK	1	214	21.42	21.49	21.43		
40	PI/2 BPSK	108	0	21.50	21.67	21.42	22.8	0.0
40	PI/2 BPSK	108	54	21.55	21.72	21.49	22.8	0.0
40	PI/2 BPSK	108	108	21.42	21.50	21.54	22.8	0.0
40	PI/2 BPSK	216	0	21.44	21.46	21.48		
40	QPSK	1	1	21.71	21.81	21.59		
40	QPSK	1	108	21.51	21.70	21.47	22.8	0.0
40	QPSK	1	214	21.41	21.53	21.45		
40	QPSK	108	0	21.39	21.49	21.50	22.8	0.0
40	QPSK	108	54	21.51	21.84	21.46	22.8	0.0
40	QPSK	108	108	21.40	21.57	21.49	22.8	0.0
40	QPSK	216	0	21.58	21.80	21.50		
40	16QAM	1	1	21.45	21.53	21.46	22.8	0.0
40	64QAM	1	1	21.37	21.48	21.47	21.5	1.3
40	256QAM	1	1	19.38	19.32	19.48	19.5	3.3
Channel				503000	507000	510000		
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	21.54	21.72	21.40	22.8	0.0
Channel				502500	507000	511500		
Frequency (MHz)				2527.5	2535	2527.5		
25	QPSK	1	1	21.53	21.55	21.42	22.8	0.0
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	21.58	21.70	21.43	22.8	0.0
Channel				501500	507000	515500		
Frequency (MHz)				2507.5	2535	2542.5		
15	QPSK	1	1	21.53	21.70	21.43	22.8	0.0
Channel				501000	507000	516000		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	21.55	21.72	21.48	22.8	0.0
Channel				500500	507000	516500		
Frequency (MHz)				2502.5	2530	2527.5		
5	QPSK	1	1	21.52	21.61	21.49	22.8	0.0

n66 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel				1730	1745	1760		
Frequency (MHz)								
40	PI/2 BPSK	1	1	23.40	23.46	23.43		
40	PI/2 BPSK	1	108	23.29	23.42	23.35	24.0	0.0
40	PI/2 BPSK	1	214	23.25	23.37	23.33		
40	PI/2 BPSK	108	0	22.91	23.04	22.89	23.5	0.5
40	PI/2 BPSK	108	54	23.34	23.47	23.37	24.0	0.0
40	PI/2 BPSK	108	108	23.27	23.39	22.94	23.5	0.5
40	PI/2 BPSK	216	0	22.85	22.96	22.97		
40	QPSK	1	1	23.38	23.52	23.46		
40	QPSK	1	108	23.42	23.43	23.39	24.0	0.0
40	QPSK	1	214	23.37	23.38	23.27		
40	QPSK	108	0	22.52	22.62	22.59	23.0	1.0
40	QPSK	108	54	23.42	23.50	23.44	24.0	0.0
40	QPSK	108	108	22.55	22.60	22.56	23.0	1.0
40	QPSK	216	0	22.52	22.62	22.52		
40	16QAM	1	1	22.55	22.70	22.51	23.0	1.0
40	64QAM	1	1	21.13	21.16	21.14	21.5	2.5
40	256QAM	1	1	19.37	19.40	19.32	19.5	4.5
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	23.33	23.38	23.43	24.0	0.0
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.35	23.43	23.41	24.0	0.0
Channel				343000	349000	354500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.28	23.45	23.35	24.0	0.0
Channel				342000	349000	355000		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.35	23.48	23.41	24.0	0.0
Channel				342500	349000	355500		
Frequency (MHz)				1712.5	1745	1772.5		
5	QPSK	1	1	23.32	23.37	23.40	24.0	0.0



### n38 Ant 3

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				2590.02	2595	2599.98		
Frequency (MHz)								
40	PI2 BPSK	1	1	22.39	22.47	22.36	24.0	0.0
40	PI2 BPSK	1	59	22.30	22.32	22.32		
40	PI2 BPSK	1	104	22.28	22.30	22.37		
40	PI2 BPSK	50	0	22.28	22.35	22.30	24.0	0.0
40	PI2 BPSK	50	28	22.47	22.45	22.31	24.0	0.0
40	PI2 BPSK	50	56	22.13	22.32	22.33	24.0	0.0
40	PI2 BPSK	100	0	22.20	22.28	22.37	24.0	0.0
40	QPSK	1	1	22.44	22.58	22.53	24.0	0.0
40	QPSK	1	53	22.43	22.52	22.47		
40	QPSK	1	104	22.35	22.53	22.53		
40	QPSK	50	0	22.30	22.31	22.26	23.5	0.5
40	QPSK	50	28	22.31	22.45	22.29	24.0	0.0
40	QPSK	100	0	22.29	22.35	22.25	23.5	0.5
40	16QAM	1	1	22.22	22.25	22.32	23.5	0.5
40	64QAM	1	1	21.58	21.64	21.54	22.0	2.0
40	256QAM	1	1	19.28	19.40	19.32	20.0	4.0
Channel				517002	518000	520998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				516504	519000	521496		
30	QPSK	1	1	22.16	22.18	22.36	24.0	0.0
Channel				516504	519000	521496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2592.25	2595	2607.48		
25	QPSK	1	1	22.15	22.24	22.31	24.0	0.0
Channel				518000	519000	522000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	1	22.20	22.25	22.25	24.0	0.0
Channel				516504	519000	522498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.51	2595	2612.49		
15	QPSK	1	1	22.15	22.20	22.29	24.0	0.0
Channel				517002	519000	522498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575.51	2595	2612.49		
15	QPSK	1	1	22.17	22.22	22.27	24.5	0.0

### n41 Ant 3

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				508002	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	22.46	22.52	22.46	24.0	0.0
100	PI2 BPSK	1	137	22.35	22.60	22.39		
100	PI2 BPSK	1	271	22.31	22.41	22.44		
100	PI2 BPSK	135	0	22.35	22.49	22.43	24.0	0.0
100	PI2 BPSK	135	69	22.54	22.51	22.45	24.0	0.0
100	PI2 BPSK	135	138	22.27	22.45	22.37	24.0	0.0
100	PI2 BPSK	270	0	22.32	22.43	22.42	24.0	0.0
100	QPSK	1	1	22.55	22.67	22.64	24.0	0.0
100	QPSK	1	137	22.59	22.64	22.57		
100	QPSK	1	271	22.47	22.65	22.65		
100	QPSK	135	0	22.40	22.45	22.38	23.5	0.5
100	QPSK	135	69	22.45	22.52	22.47	24.0	0.0
100	QPSK	135	138	22.47	22.47	22.48		
100	QPSK	270	0	22.33	22.40	22.34	23.5	0.5
100	16QAM	1	1	22.33	22.37	22.35	23.5	0.5
100	64QAM	1	1	21.21	21.29	21.15	22.0	2.0
100	256QAM	1	1	18.95	19.09	18.96	20.0	4.0
Channel				508000	518598	528998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2544	2592.99	2644.88		
90	QPSK	1	1	22.42	22.48	22.54	24.0	0.0
Channel				507204	518598	528998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2533.02	2592.99	2643.89		
80	QPSK	1	1	22.38	22.53	22.53	24.0	0.0
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	22.42	22.47	22.35	24.0	0.0
Channel				508204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	22.45	22.47	22.50	24.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2644.88		
50	QPSK	1	1	22.42	22.41	22.55	24.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510.01	2592.99	2670		
40	QPSK	1	1	22.36	22.51	22.55	24.0	0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	22.37	22.41	22.54	24.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	22.43	22.51	22.46	24.0	0.0

### n41 HPUE Ant 3

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				508002	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	25.45	25.57	25.41	27.0	0.0
100	PI2 BPSK	1	137	25.41	25.58	25.35		
100	PI2 BPSK	1	271	25.36	25.42	25.42		
100	PI2 BPSK	135	0	25.39	25.53	25.48	27.0	0.0
100	PI2 BPSK	135	69	25.58	25.56	25.42	27.0	0.0
100	PI2 BPSK	135	138	25.27	25.39	25.36	27.0	0.0
100	PI2 BPSK	270	0	25.32	25.43	25.41	27.0	0.0
100	QPSK	1	1	25.58	25.69	25.62	27.0	0.0
100	QPSK	1	137	25.47	25.66	25.60		
100	QPSK	1	271	25.41	25.65	25.67		
100	QPSK	135	0	25.36	25.42	25.36	26.5	0.5
100	QPSK	135	69	25.44	25.53	25.38	27.0	0.0
100	QPSK	135	138	25.52	25.42	25.46		
100	QPSK	270	0	25.34	25.45	25.38	26.5	0.5
100	16QAM	1	1	25.32	25.38	25.38	26.5	0.5
100	64QAM	1	1	24.20	24.23	24.20	25.0	2.0
100	256QAM	1	1	21.89	22.04	21.95	23.0	4.0
Channel				508000	518598	528998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2544	2592.99	2644.88		
90	QPSK	1	1	25.39	25.50	25.57	27.0	0.0
Channel				507204	518598	528998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2533.02	2592.99	2643.89		
80	QPSK	1	1	25.42	25.45	25.54	27.0	0.0
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	25.40	25.43	25.36	27.0	0.0
Channel				508204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	25.41	25.45	25.57	27.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2644.88		
50	QPSK	1	1	25.43	25.44	25.55	27.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510.01	2592.99	2670		
40	QPSK	1	1	25.45	25.50	25.59	27.0	0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	25.38	25.48	25.55	27.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	25.37	25.49	25.53	27.0	0.0



Part270 n77 Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	19.02	19.06	19.05		
100	PI2 BPSK	1	137	18.99	19.00	19.03	20.7	0.0
100	PI2 BPSK	1	271	18.86	19.06	18.95		
100	PI2 BPSK	135	0	18.88	18.95	18.88	20.7	0.0
100	PI2 BPSK	135	69	18.02	19.02	18.94	20.7	0.0
100	PI2 BPSK	135	138	18.86	18.98	19.02	20.7	0.0
100	PI2 BPSK	270	0	18.98	18.99	18.92	20.7	0.0
100	QPSK	1	1	18.04	18.17	18.05		
100	QPSK	1	137	18.11	18.12	18.69	20.7	0.0
100	QPSK	1	271	19.00	18.93	18.98		
100	QPSK	135	0	18.97	19.01	18.93	20.7	0.0
100	QPSK	135	69	19.02	19.14	19.00	20.7	0.0
100	QPSK	135	138	18.94	18.93	18.91	20.7	0.0
100	QPSK	270	0	19.01	19.07	18.99	20.7	0.0
100	16QAM	1	1	18.92	19.07	18.99	20.7	0.0
100	64QAM	1	1	18.91	18.97	18.89	20.7	0.0
100	256QAM	1	1	18.43	18.49	18.33	19.5	1.2
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.88	18.92	18.96	20.7	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.89	18.89	18.87	20.7	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.93	18.90	18.00	20.7	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.85	18.98	18.92	20.7	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.86	18.91	18.92	20.7	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.92	18.92	18.94	20.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.83	18.90	18.86	20.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.88	18.95	18.88	20.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.91	18.97	18.84	20.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.92	18.99	18.98	20.7	0.0

Part270 n77 HPUE Ant 3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	22.16	22.14	22.05		
100	PI2 BPSK	1	137	22.09	22.18	22.03	23.7	0.0
100	PI2 BPSK	1	271	21.88	22.05	22.00		
100	PI2 BPSK	135	0	21.98	22.05	22.00	23.7	0.0
100	PI2 BPSK	135	69	22.19	22.18	22.01	23.7	0.0
100	PI2 BPSK	135	138	21.98	22.03	22.10	23.7	0.0
100	PI2 BPSK	270	0	22.07	22.12	22.01	23.7	0.0
100	QPSK	1	1	22.21	22.27	22.03		
100	QPSK	1	137	22.22	22.28	22.09	23.7	0.0
100	QPSK	1	271	22.03	22.08	22.13		
100	QPSK	135	0	21.97	22.21	21.98	23.7	0.0
100	QPSK	135	69	22.16	22.23	22.05	23.7	0.0
100	QPSK	135	138	22.03	22.08	22.10	23.7	0.0
100	QPSK	270	0	22.17	22.21	22.04	23.7	0.0
100	16QAM	1	1	22.08	22.16	22.05	23.7	0.0
100	64QAM	1	1	21.95	22.03	21.98	23.7	0.0
100	256QAM	1	1	21.28	21.33	21.29	22.5	1.2
Channel								
Frequency (MHz)								
90	QPSK	1	1	21.92	22.03	21.98	23.7	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.98	22.01	21.94	23.7	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.88	21.98	21.82	23.7	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.97	22.10	21.98	23.7	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.90	22.05	22.02	23.7	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.90	22.00	22.01	23.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.92	22.08	21.93	23.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.94	22.07	21.92	23.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.94	22.03	21.98	23.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.93	21.99	21.92	23.7	0.0



Part270 n78 Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.87	18.87	18.87	20.7	0.0	
100	PI2 BPSK	1	137	18.79	18.79	18.79			
100	PI2 BPSK	1	271	18.84	18.84	18.84	20.7	0.0	
100	PI2 BPSK	135	0	18.80	18.80	18.80			
100	PI2 BPSK	135	69	18.86	18.86	18.86	20.7	0.0	
100	PI2 BPSK	135	138	18.73	18.73	18.73			
100	PI2 BPSK	270	0	18.74	18.74	18.74	20.7	0.0	
100	QPSK	1	1	18.52	18.52	18.52			
100	QPSK	1	137	18.91	18.91	18.91	20.7	0.0	
100	QPSK	1	271	18.71	18.71	18.71			
100	QPSK	135	0	18.77	18.77	18.77	20.7	0.0	
100	QPSK	135	69	18.89	18.89	18.89			
100	QPSK	135	138	18.79	18.79	18.79	20.7	0.0	
100	QPSK	270	0	18.82	18.82	18.82			
100	16QAM	1	1	18.82	18.82	18.82	20.7	0.0	
100	16QAM	1	1	18.71	18.71	18.71			
100	256QAM	1	1	18.32	18.32	19.5	19.5	1.2	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.79	18.73	18.80	20.7	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.72	18.75	18.71	20.7	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.74	18.74	18.71	20.7	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.77	18.77	18.79	20.7	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.72	18.72	18.74	20.7	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.77	18.73	18.74	20.7	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.73	18.72	18.73	20.7	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.73	18.77	18.78	20.7	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.71	18.71	18.77	20.7	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.75	18.73	18.80	20.7	0.0	
Channel									
Frequency (MHz)									

Part270 n78 HPUE Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	21.93	21.93	21.93	23.7	0.0	
100	PI2 BPSK	1	137	22.24	22.24	22.24			
100	PI2 BPSK	1	271	21.83	21.83	21.83	23.7	0.0	
100	PI2 BPSK	135	0	21.88	21.88	21.88			
100	PI2 BPSK	135	69	21.96	21.96	21.96	23.7	0.0	
100	PI2 BPSK	135	138	21.82	21.82	21.82			
100	PI2 BPSK	270	0	21.87	21.87	21.87	23.7	0.0	
100	QPSK	1	1	22.07	22.07	22.07			
100	QPSK	1	137	22.01	22.01	22.01	23.7	0.0	
100	QPSK	1	271	21.90	21.90	21.90			
100	QPSK	135	0	21.98	21.98	21.98	23.7	0.0	
100	QPSK	135	69	22.08	22.08	22.08			
100	QPSK	135	138	21.82	21.82	21.82	23.7	0.0	
100	QPSK	270	0	22.24	22.24	22.24			
100	16QAM	1	1	22.01	22.01	22.01	23.7	0.0	
100	16QAM	1	1	21.78	21.78	21.78			
100	256QAM	1	1	21.50	21.50	22.5	22.5	1.2	
Channel									
Frequency (MHz)									
90	QPSK	1	1	21.76	21.86	21.71	23.7	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	21.79	21.84	21.81	23.7	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	21.78	21.79	21.71	23.7	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	21.73	21.77	21.74	23.7	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	21.71	21.85	21.72	23.7	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	21.78	21.85	21.77	23.7	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	21.78	21.83	21.78	23.7	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	21.79	21.78	21.76	23.7	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	21.71	21.83	21.72	23.7	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	21.78	21.82	21.79	23.7	0.0	
Channel									
Frequency (MHz)									



Reduced Power Mode for DSI6 Simultaneous

n5 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)				166800	167500	167600		
				834	836.5	839		
20	PI2 BPSK	1	1	23.18	23.23	23.13		
20	PI2 BPSK	1	53	22.04	23.14	23.06	24.0	0.0
20	PI2 BPSK	1	104	22.98	23.08	22.94		
20	PI2 BPSK	50	0	22.65	22.76	22.73	23.5	0.5
20	PI2 BPSK	50	28	23.08	23.18	23.11	24.0	0.0
20	PI2 BPSK	50	58	22.59	22.64	22.51		
20	PI2 BPSK	100	0	22.66	22.70	22.63	23.5	0.5
20	QPSK	1	1	23.23	23.27	23.16		
20	QPSK	1	53	23.11	23.18	23.13	24.0	0.0
20	QPSK	1	104	22.96	23.09	22.96		
20	QPSK	50	0	22.14	22.25	22.21	23.0	1.0
20	QPSK	50	28	23.15	23.21	23.08	24.0	0.0
20	QPSK	50	58	22.14	22.18	22.06		
20	QPSK	100	0	22.17	22.23	22.13	23.0	1.0
20	16QAM	1	1	22.39	22.48	22.42	23.0	1.0
20	64QAM	1	1	20.73	20.86	20.79	21.5	2.5
20	256QAM	1	1	18.89	19.01	18.86	19.5	4.5
Channel								
Frequency (MHz)				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
				831.5	838.5	841.5		
15	QPSK	1	1	23.11	23.18	23.08	24.0	0.0
Channel								
Frequency (MHz)				168800	167300	168800	Tune-up limit (dBm)	MPR (dB)
				829	833.5	84		
10	QPSK	1	1	23.13	23.15	23.02	24.0	0.0
Channel								
Frequency (MHz)				169300	167500	169300	Tune-up limit (dBm)	MPR (dB)
				826.5	836.5	846.5		
5	QPSK	1	1	23.17	23.23	23.04	24.0	0.0

n7 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)				504000	507000	510000		
				2520	2535	2550		
40	PI2 BPSK	1	1	21.80	21.91	21.85		
40	PI2 BPSK	1	108	21.74	21.88	21.81	23.0	0.0
40	PI2 BPSK	1	214	21.74	21.80	21.68		
40	PI2 BPSK	108	0	21.38	21.44	21.37	22.5	0.5
40	PI2 BPSK	108	54	21.79	21.87	21.75	23.0	0.0
40	PI2 BPSK	108	108	21.38	21.49	21.37		
40	PI2 BPSK	216	0	21.38	21.42	21.34	22.5	0.5
40	QPSK	1	1	21.92	21.96	21.89		
40	QPSK	1	108	21.78	21.92	21.82	23.0	0.0
40	QPSK	1	214	21.74	21.85	21.86		
40	QPSK	108	0	20.97	20.97	20.87	22.0	1.0
40	QPSK	108	54	21.86	21.90	21.85	23.0	0.0
40	QPSK	108	108	20.80	20.89	20.80		
40	QPSK	216	0	20.94	20.94	20.84	22.0	1.0
40	16QAM	1	1	20.72	20.86	20.77	22.0	1.0
40	64QAM	1	1	19.27	19.41	19.38	20.5	2.5
40	256QAM	1	1	17.30	17.38	17.23	18.5	4.5
Channel								
Frequency (MHz)				505000	507000	511000	Tune-up limit (dBm)	MPR (dB)
				2522.5	2535	2555		
30	QPSK	1	1	21.77	21.88	21.80	23.0	0.0
Channel								
Frequency (MHz)				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
				2522.5	2535	2527.5		
25	QPSK	1	1	21.81	21.83	21.73	23.0	0.0
Channel								
Frequency (MHz)				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
				2510	2535	2560		
20	PI2 BPSK	1	1	21.88	21.92	21.75	23.0	0.0
Channel								
Frequency (MHz)				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
				2507.5	2535	2562.5		
15	QPSK	1	1	21.80	21.90	21.78	23.0	0.0
Channel								
Frequency (MHz)				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
				2505	2535	2565		
10	QPSK	1	1	21.88	21.84	21.78	23.0	0.0
Channel								
Frequency (MHz)				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
				2502.5	2535	2567.5		
5	QPSK	1	1	21.83	21.88	21.70	23.0	0.0

n66 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)				346000	349000	352000		
				1730	1745	1760		
40	PI2 BPSK	1	1	22.14	22.27	22.17		
40	PI2 BPSK	1	108	22.07	22.22	22.11	23.0	0.0
40	PI2 BPSK	1	214	22.08	22.16	22.12		
40	PI2 BPSK	108	0	21.68	21.66	21.62	22.5	0.5
40	PI2 BPSK	108	54	22.02	22.20	22.13	23.0	0.0
40	PI2 BPSK	108	108	21.69	21.81	21.78		
40	PI2 BPSK	216	0	21.74	21.94	21.85	22.5	0.5
40	QPSK	1	1	22.23	22.35	22.31		
40	QPSK	1	108	22.04	22.26	22.14	23.0	0.0
40	QPSK	1	214	22.02	22.21	22.07		
40	QPSK	108	0	21.13	21.38	21.24	22.0	1.0
40	QPSK	108	54	22.15	22.29	22.24	23.0	0.0
40	QPSK	108	108	21.24	21.48	21.35		
40	QPSK	216	0	21.28	21.43	21.29	22.0	1.0
40	16QAM	1	1	20.98	21.11	21.01	22.0	1.0
40	64QAM	1	1	19.87	19.93	19.81	20.5	2.5
40	256QAM	1	1	17.59	17.85	17.73	18.5	4.5
Channel								
Frequency (MHz)				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
				1745	1745	1765		
30	QPSK	1	1	22.11	22.27	22.20	23.0	0.0
Channel								
Frequency (MHz)				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
				1720	1745	1770		
20	QPSK	1	1	22.16	22.31	22.24	23.0	0.0
Channel								
Frequency (MHz)				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
				1717.5	1745	1772.5		
15	QPSK	1	1	22.18	22.28	22.24	23.0	0.0
Channel								
Frequency (MHz)				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
				1715	1745	1775		
10	QPSK	1	1	22.19	22.22	22.17	23.0	0.0
Channel								
Frequency (MHz)				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
				1712.5	1745	1777.5		
5	QPSK	1	1	22.16	22.29	22.21	23.0	0.0



### n38 Ant 0

Channel	Power Low	Power Middle	Power High	Tune-up limit	MPR			
BW (MHz)	Modulation	RB Size	RB Offset	Ch. Freq. 518004	Ch. Freq. 519000	Ch. Freq. 519996	(dBm)	(dB)
40	PI2 BPSK	1	1	21.54	21.72	21.86	23.0	0.0
40	PI2 BPSK	1	93	21.54	21.72	21.86	23.0	0.0
40	PI2 BPSK	1	104	21.44	21.61	21.52	23.0	0.0
40	PI2 BPSK	50	0	20.90	21.01	20.98	22.5	0.5
40	PI2 BPSK	50	28	21.50	21.75	21.50	23.0	0.0
40	PI2 BPSK	50	56	20.91	21.03	21.00	22.5	0.5
40	PI2 BPSK	100	0	20.90	21.02	21.01	22.5	0.5
40	QPSK	1	1	21.79	21.83	21.82	23.0	0.0
40	QPSK	1	53	21.55	21.71	21.61	23.0	0.0
40	QPSK	1	104	21.45	21.70	21.82	23.0	0.0
40	QPSK	50	0	20.51	20.73	20.55	22.0	1.0
40	QPSK	50	28	21.62	21.76	21.68	23.0	0.0
40	QPSK	50	56	20.48	20.62	20.54	22.0	1.0
40	QPSK	100	0	20.57	20.62	20.58	22.0	1.0
40	16QAM	1	1	20.46	20.65	20.53	22.0	1.0
40	64QAM	1	1	19.09	19.28	19.14	20.5	2.5
40	256QAM	1	1	17.21	17.44	17.34	18.5	4.5
30	QPSK	1	1	21.74	21.76	21.75	23.0	0.0
25	QPSK	1	1	21.70	21.69	21.69	23.0	0.0
20	QPSK	1	1	21.65	21.70	21.73	23.0	0.0
15	QPSK	1	1	21.71	21.73	21.72	23.0	0.0
10	QPSK	1	1	21.65	21.69	21.67	23.0	0.0

### n41 Ant 0

Channel	Power Low	Power Middle	Power High	Tune-up limit	MPR			
BW (MHz)	Modulation	RB Size	RB Offset	Ch. Freq. 506202	Ch. Freq. 518598	Ch. Freq. 528000	(dBm)	(dB)
100	PI2 BPSK	1	1	21.70	21.82	21.78	23.0	0.0
100	PI2 BPSK	1	137	21.12	21.77	21.68	23.0	0.0
100	PI2 BPSK	1	271	21.60	21.71	21.57	23.0	0.0
100	PI2 BPSK	135	0	20.06	20.17	20.08	22.5	0.5
100	PI2 BPSK	135	69	21.67	21.74	21.62	23.0	0.0
100	PI2 BPSK	135	138	20.26	20.33	20.25	22.5	0.5
100	PI2 BPSK	270	0	20.12	20.24	20.17	22.5	0.5
100	QPSK	1	1	21.74	21.86	21.81	23.0	0.0
100	QPSK	1	137	21.71	21.80	21.73	23.0	0.0
100	QPSK	1	271	21.67	21.73	21.70	23.0	0.0
100	QPSK	135	0	20.41	20.47	20.40	22.0	1.0
100	QPSK	135	69	21.69	21.78	21.65	23.0	0.0
100	QPSK	135	138	20.41	20.50	20.41	22.0	1.0
100	QPSK	270	0	20.45	20.56	20.47	22.0	1.0
100	16QAM	1	1	20.48	20.54	20.49	22.0	1.0
100	64QAM	1	1	18.91	18.97	18.92	20.5	2.5
100	256QAM	1	1	16.61	16.68	16.68	18.5	4.5
90	QPSK	1	1	21.61	21.69	21.59	23.0	0.0
80	QPSK	1	1	21.59	21.68	21.70	23.0	0.0
70	QPSK	1	1	21.68	21.73	21.65	23.0	0.0
60	QPSK	1	1	21.62	21.65	21.68	23.0	0.0
50	QPSK	1	1	21.61	21.67	21.62	23.0	0.0
40	QPSK	1	1	21.65	21.73	21.65	23.0	0.0
30	QPSK	1	1	21.58	21.66	21.61	23.0	0.0
20	QPSK	1	1	21.57	21.65	21.68	23.0	0.0

### n41 HPUE Ant 0

Channel	Power Low	Power Middle	Power High	Tune-up limit	MPR			
BW (MHz)	Modulation	RB Size	RB Offset	Ch. Freq. 506202	Ch. Freq. 518598	Ch. Freq. 528000	(dBm)	(dB)
100	PI2 BPSK	1	1	24.81	24.88	24.78	26.0	0.0
100	PI2 BPSK	1	137	24.72	24.81	24.78	26.0	0.0
100	PI2 BPSK	1	271	24.71	24.75	24.64	26.0	0.0
100	PI2 BPSK	135	0	24.37	24.43	24.39	25.5	0.5
100	PI2 BPSK	135	69	24.73	24.80	24.72	26.0	0.0
100	PI2 BPSK	135	138	24.43	24.47	24.38	25.5	0.5
100	PI2 BPSK	270	0	24.45	24.51	24.38	25.5	0.5
100	QPSK	1	1	24.84	24.92	24.89	26.0	0.0
100	QPSK	1	137	24.72	24.85	24.82	26.0	0.0
100	QPSK	1	271	24.67	24.79	24.68	26.0	0.0
100	QPSK	135	0	23.92	24.01	23.88	25.0	1.0
100	QPSK	135	69	24.76	24.86	24.76	26.0	0.0
100	QPSK	135	138	23.98	24.01	23.98	25.0	1.0
100	QPSK	270	0	24.04	24.08	24.01	25.0	1.0
100	16QAM	1	1	24.08	24.13	24.10	25.0	1.0
100	64QAM	1	1	22.14	22.28	22.10	23.5	2.5
100	256QAM	1	1	20.21	20.35	20.29	21.5	4.5
90	QPSK	1	1	24.71	24.86	24.81	26.0	0.0
80	QPSK	1	1	24.77	24.85	24.83	26.0	0.0
70	QPSK	1	1	24.73	24.82	24.76	26.0	0.0
60	QPSK	1	1	24.70	24.86	24.80	26.0	0.0
50	QPSK	1	1	24.74	24.83	24.83	26.0	0.0
40	QPSK	1	1	24.72	24.87	24.83	26.0	0.0
30	QPSK	1	1	24.80	24.79	24.78	26.0	0.0
20	QPSK	1	1	24.75	24.85	24.77	26.0	0.0



Part270 n77 Ant 0										
BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)		
				Low Ch. / Freq. 650000	Middle Ch. / Freq. 656000	High Ch. / Freq. 662000				
				3750	3840	3930				
100	PI2 BPSK	1	1	20.24	20.37	20.28				
100	PI2 BPSK	1	137	20.20	20.33	20.22	21.0	0.0		
100	PI2 BPSK	1	271	20.15	20.28	20.22				
100	PI2 BPSK	135	0	18.72	18.78	18.74	20.5	0.5		
100	PI2 BPSK	135	69	20.22	20.31	20.19	21.0	0.0		
100	PI2 BPSK	135	138	18.83	18.78	18.87	20.5	0.5		
100	PI2 BPSK	270	0	18.80	18.88	18.80				
100	QPSK	1	1	20.37	20.43	20.31				
100	QPSK	1	137	20.19	20.35	20.25	21.0	0.0		
100	QPSK	1	271	20.13	20.31	20.20				
100	QPSK	135	0	18.84	18.97	18.83	20.0	1.0		
100	QPSK	135	69	20.20	20.38	20.27	21.0	0.0		
100	QPSK	135	138	18.84	18.96	18.81	20.0	1.0		
100	QPSK	270	0	18.91	18.92	18.88	20.0	1.0		
100	16QAM	1	1	18.80	18.88	18.80	20.0	1.0		
100	64QAM	1	1	17.49	17.65	17.53	18.5	2.5		
100	256QAM	1	1	15.22	15.32	15.26	16.5	4.5		
	Channel			649868	650000	662334	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3745.02	3840	3935.01				
90	QPSK	1	1	20.26	20.38	20.30	21.0	0.0		
	Channel			649334	650000	662668	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3740.01	3840	3940.02				
80	QPSK	1	1	20.19	20.25	20.31	21.0	0.0		
	Channel			649000	650000	663000	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3735	3840	3945				
70	QPSK	1	1	20.23	20.35	20.32	21.0	0.0		
	Channel			648668	650000	663334	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3730.02	3840	3950.01				
60	QPSK	1	1	20.19	20.28	20.30	21.0	0.0		
	Channel			648334	650000	663668	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3725.01	3840	3955.02				
50	QPSK	1	1	20.28	20.37	20.25	21.0	0.0		
	Channel			648000	650000	664000	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3720	3840	3960				
40	QPSK	1	1	20.24	20.30	20.31	21.0	0.0		
	Channel			647668	650000	664334	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3715.02	3840	3965.01				
30	QPSK	1	1	20.20	20.28	20.26	21.0	0.0		
	Channel			647334	650000	664668	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3710.01	3840	3970.02				
20	QPSK	1	1	20.22	20.28	20.24	21.0	0.0		
	Channel			647168	650000	664834	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3707.52	3840	3972.51				
15	QPSK	1	1	20.19	20.35	20.30	21.0	0.0		
	Channel			647000	650000	665000	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3705	3840	3975				
10	QPSK	1	1	20.28	20.34	20.28	21.0	0.0		

Part270 n77 HPUE Ant 0										
BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)		
				Low Ch. / Freq. 650000	Middle Ch. / Freq. 656000	High Ch. / Freq. 662000				
				3750	3840	3930				
100	PI2 BPSK	1	1	23.33	23.39	23.29				
100	PI2 BPSK	1	137	23.29	23.33	23.28	24.0	0.0		
100	PI2 BPSK	1	271	23.14	23.27	23.23				
100	PI2 BPSK	135	0	22.79	22.88	22.84	23.5	0.5		
100	PI2 BPSK	135	69	23.28	23.34	23.20	24.0	0.0		
100	PI2 BPSK	135	138	22.86	22.90	22.79	23.5	0.5		
100	PI2 BPSK	270	0	22.88	22.94	22.82				
100	QPSK	1	1	23.36	23.42	23.32				
100	QPSK	1	137	23.28	23.35	23.25	24.0	0.0		
100	QPSK	1	271	23.21	23.31	23.22				
100	QPSK	135	0	22.21	22.34	22.26	23.0	1.0		
100	QPSK	135	69	23.22	23.36	23.26	24.0	0.0		
100	QPSK	135	138	22.34	22.39	22.34	23.0	1.0		
100	QPSK	270	0	22.32	22.45	22.39	23.0	1.0		
100	16QAM	1	1	22.46	22.57	22.51	23.0	1.0		
100	64QAM	1	1	20.74	20.88	20.77	21.5	2.5		
100	256QAM	1	1	18.58	18.67	18.63	19.5	4.5		
	Channel			649668	650000	662334	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3745.02	3840	3935.01				
90	QPSK	1	1	23.28	23.35	23.24	24.0	0.0		
	Channel			649334	650000	662668	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3740.01	3840	3940.02				
80	QPSK	1	1	23.11	23.34	23.27	24.0	0.0		
	Channel			649000	650000	663000	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3735	3840	3945				
70	QPSK	1	1	23.29	23.37	23.27	24.0	0.0		
	Channel			648668	650000	663334	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3730.02	3840	3950.01				
60	QPSK	1	1	23.26	23.38	23.24	24.0	0.0		
	Channel			648334	650000	663668	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3725.01	3840	3955.02				
50	QPSK	1	1	23.25	23.28	23.27	24.0	0.0		
	Channel			648000	650000	664000	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3720	3840	3960				
40	QPSK	1	1	23.29	23.30	23.19	24.0	0.0		
	Channel			647668	650000	664334	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3715.02	3840	3965.01				
30	QPSK	1	1	23.24	23.38	23.19	24.0	0.0		
	Channel			647334	650000	664668	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3710.01	3840	3970.02				
20	QPSK	1	1	23.31	23.28	23.25	24.0	0.0		
	Channel			647168	650000	664834	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3707.52	3840	3972.51				
15	QPSK	1	1	23.31	23.32	23.21	24.0	0.0		
	Channel			647000	650000	665000	Tune-up limit (dBm)	MPR (dB)		
	Frequency (MHz)			3705	3840	3975				
10	QPSK	1	1	23.28	23.29	23.25	24.0	0.0		



Part270 n78 Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		20.31		21.0	0.0	
100	PI2 BPSK	1	137		20.27				
100	PI2 BPSK	1	271		20.22				
100	PI2 BPSK	135	0		19.13		20.5	0.5	
100	PI2 BPSK	135	69		20.25		21.0	0.0	
100	PI2 BPSK	135	138		19.01		20.5	0.5	
100	PI2 BPSK	270	0		19.07				
100	QPSK	1	1		20.35				
100	QPSK	1	137		20.30		21.0	0.0	
100	QPSK	1	271		20.17				
100	QPSK	135	0		19.82		20.0	1.0	
100	QPSK	135	69		20.29		21.0	0.0	
100	QPSK	135	138		18.67		20.0	1.0	
100	QPSK	270	0		18.72		20.0	1.0	
100	16QAM	1	1		18.84		20.0	1.0	
100	64QAM	1	1		17.58		18.5	2.5	
100	256QAM	1	1		15.33		16.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649868	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	647668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	646700	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	

Part270 n78 HPUE Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		23.17		24.0	0.0	
100	PI2 BPSK	1	137		23.08				
100	PI2 BPSK	1	271		23.02				
100	PI2 BPSK	135	0		22.52		23.5	0.5	
100	PI2 BPSK	135	69		23.09		24.0	0.0	
100	PI2 BPSK	135	138		22.46		23.5	0.5	
100	PI2 BPSK	270	0		22.53				
100	QPSK	1	1		23.21				
100	QPSK	1	137		23.11		24.0	0.0	
100	QPSK	1	271		23.04				
100	QPSK	135	0		22.01		23.0	1.0	
100	QPSK	135	69		23.14		24.0	0.0	
100	QPSK	135	138		21.95		23.0	1.0	
100	QPSK	270	0		22.02		23.0	1.0	
100	16QAM	1	1		22.03		23.0	1.0	
100	64QAM	1	1		20.85		21.5	2.5	
100	256QAM	1	1		18.88		19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	648334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	648000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	647668	650000	652334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	647334	650000	652668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	





n5 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 166800	Power Middle Ch. / Freq. 167300	Power High Ch. / Freq. 167800	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				834	836.5	839			
20	PI2 BPSK	1	1	21.69	21.83	21.79			
20	PI2 BPSK	1	59	21.73	21.78	21.87	23.0	0.0	
20	PI2 BPSK	1	104	21.81	21.70	21.68			
20	PI2 BPSK	50	0	21.34	21.41	21.34	22.5	0.5	
20	PI2 BPSK	50	28	21.87	21.79	21.75	23.0	0.0	
20	PI2 BPSK	50	56	21.24	21.34	21.20	22.5	0.5	
20	PI2 BPSK	100	0	21.35	21.40	21.28			
20	QPSK	1	1	21.83	21.89	21.76			
20	QPSK	1	53	21.71	21.82	21.70	23.0	0.0	
20	QPSK	1	104	21.85	21.76	21.81			
20	QPSK	50	0	20.79	20.87	20.76	23.0	1.0	
20	QPSK	50	28	21.68	21.81	21.76	23.0	0.0	
20	QPSK	50	56	20.70	20.84	20.75			
20	QPSK	100	0	20.77	20.90	20.80	22.0	1.0	
20	16QAM	1	1	21.22	21.28	21.13	23.0	1.0	
20	64QAM	1	1	19.46	19.57	19.45	20.5	2.5	
20	256QAM	1	1	17.39	17.51	17.41	18.5	4.5	
Channel									
Frequency (MHz)				165300	167300	168300	Tune-up limit	MPR	
				831.5	836.5	841.5	(dBm)	(dB)	
15	QPSK	1	1	21.72	21.78	21.64	23.0	0.0	
Channel									
Frequency (MHz)				165800	167300	168800	Tune-up limit	MPR	
				839	836.5	841	(dBm)	(dB)	
10	QPSK	1	1	21.76	21.81	21.66	23.0	0.0	
Channel									
Frequency (MHz)				165300	167300	169300	Tune-up limit	MPR	
				826.5	836.5	846.5	(dBm)	(dB)	
5	QPSK	1	1	21.77	21.84	21.69	23.0	0.0	

n7 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 504000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 510000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				2520	2535	2550			
40	PI2 BPSK	1	1	22.80	22.86	22.80			
40	PI2 BPSK	1	109	22.71	22.81	22.89	23.9	0.0	
40	PI2 BPSK	1	214	22.70	22.77	22.73			
40	PI2 BPSK	108	0	22.37	22.44	22.37	23.5	0.4	
40	PI2 BPSK	108	54	22.66	22.79	22.65	23.9	0.0	
40	PI2 BPSK	108	108	22.26	22.41	22.38	23.5	0.4	
40	PI2 BPSK	216	0	22.37	22.46	22.41			
40	QPSK	1	1	22.88	22.93	22.84			
40	QPSK	1	108	22.80	22.88	22.75	23.9	0.0	
40	QPSK	1	214	22.74	22.83	22.78			
40	QPSK	108	0	21.94	22.01	21.97	23.0	0.9	
40	QPSK	108	54	22.80	22.87	22.82	23.9	0.0	
40	QPSK	108	108	22.00	22.05	21.94			
40	QPSK	216	0	22.08	22.13	22.00	23.0	0.9	
40	16QAM	1	1	22.12	22.16	22.05	23.0	0.9	
40	64QAM	1	1	20.55	20.59	20.52	21.5	2.4	
40	256QAM	1	1	18.52	18.67	18.59	19.5	4.4	
Channel									
Frequency (MHz)				503000	507000	511000	Tune-up limit	MPR	
				2515	2535	2555	(dBm)	(dB)	
30	QPSK	1	1	22.81	22.79	22.73	23.9	0.0	
Channel									
Frequency (MHz)				502500	507000	511500	Tune-up limit	MPR	
				2512.5	2535	2557.5	(dBm)	(dB)	
25	QPSK	1	1	22.80	22.87	22.77	23.9	0.0	
Channel									
Frequency (MHz)				502000	507000	512000	Tune-up limit	MPR	
				2510	2535	2560	(dBm)	(dB)	
20	PI2 BPSK	1	1	22.75	22.85	22.81	23.9	0.0	
Channel									
Frequency (MHz)				501500	507000	512500	Tune-up limit	MPR	
				2507.5	2535	2562.5	(dBm)	(dB)	
15	QPSK	1	1	22.74	22.81	22.73	23.9	0.0	
Channel									
Frequency (MHz)				501000	507000	513000	Tune-up limit	MPR	
				2505	2535	2565	(dBm)	(dB)	
10	QPSK	1	1	22.79	22.83	22.70	23.9	0.0	
Channel									
Frequency (MHz)				500500	507000	513500	Tune-up limit	MPR	
				2502.5	2535	2567.5	(dBm)	(dB)	
5	QPSK	1	1	22.74	22.88	22.80	23.5	0.0	

n66 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				1730	1745	1760			
40	PI2 BPSK	1	1	22.35	22.46	22.40			
40	PI2 BPSK	1	108	22.31	22.41	22.34	24.0	0.0	
40	PI2 BPSK	1	214	22.32	22.36	22.30			
40	PI2 BPSK	108	0	22.01	22.06	22.00	23.5	0.5	
40	PI2 BPSK	108	54	22.37	22.41	22.28	24.0	0.0	
40	PI2 BPSK	108	108	21.96	22.03	21.98	23.5	0.5	
40	PI2 BPSK	216	0	22.00	22.07	22.02			
40	QPSK	1	1	22.48	22.54	22.42			
40	QPSK	1	108	22.43	22.48	22.45	24.0	0.0	
40	QPSK	1	214	22.35	22.42	22.29			
40	QPSK	108	0	21.52	21.67	21.54	23.0	1.0	
40	QPSK	108	54	22.40	22.50	22.38	24.0	0.0	
40	QPSK	108	108	21.65	21.72	21.62	23.0	1.0	
40	QPSK	216	0	21.67	21.77	21.73	23.0	1.0	
40	16QAM	1	1	21.61	21.68	21.65	23.0	1.0	
40	64QAM	1	1	19.79	19.93	19.80	21.5	2.5	
40	256QAM	1	1	18.00	18.05	18.01	19.5	4.5	
Channel									
Frequency (MHz)				345000	349000	353000	Tune-up limit	MPR	
				1725	1745	1765	(dBm)	(dB)	
30	QPSK	1	1	22.42	22.45	22.30	24.0	0.0	
Channel									
Frequency (MHz)				344000	349000	354000	Tune-up limit	MPR	
				1720	1745	1770	(dBm)	(dB)	
20	QPSK	1	1	22.44	22.50	22.35	24.0	0.0	
Channel									
Frequency (MHz)				343000	349000	354500	Tune-up limit	MPR	
				1717.5	1745	1772.5	(dBm)	(dB)	
15	QPSK	1	1	22.41	22.49	22.37	24.0	0.0	
Channel									
Frequency (MHz)				342000	349000	355000	Tune-up limit	MPR	
				1712.5	1745	1775	(dBm)	(dB)	
10	QPSK	1	1	22.43	22.46	22.31	24.0	0.0	
Channel									
Frequency (MHz)				341000	349000	355500	Tune-up limit	MPR	
				1707.5	1745	1780	(dBm)	(dB)	
5	QPSK	1	1	22.34	22.42	22.31	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				518004	519000	519996			
Frequency (MHz)				2590.02	2595	2599.98			
40	PI2 BPSK	1	1	22.65	22.78	22.72	24.0	0.0	
40	PI2 BPSK	1	59	22.68	22.72	22.59			
40	PI2 BPSK	1	104	22.56	22.67	22.59			
40	PI2 BPSK	50	0	21.58	21.68	21.60	23.5	0.5	
40	PI2 BPSK	50	28	22.66	22.71	22.64	24.0	0.0	
40	PI2 BPSK	50	56	21.84	21.74	21.63	23.5	0.5	
40	PI2 BPSK	100	0	21.70	21.80	21.70			
40	QPSK	1	1	22.72	22.84	22.77	24.0	0.0	
40	QPSK	1	53	22.68	22.79	22.65			
40	QPSK	1	104	22.63	22.78	22.63			
40	QPSK	50	0	21.72	21.78	21.68	23.0	1.0	
40	QPSK	50	28	22.72	22.78	22.71	24.0	0.0	
40	QPSK	50	56	21.74	21.85	21.72	23.0	1.0	
40	QPSK	100	0	21.76	21.68	21.84	23.0	1.0	
40	16QAM	1	1	21.80	21.72	21.62	23.0	1.0	
40	64QAM	1	1	20.36	20.49	20.35	21.5	2.5	
40	256QAM	1	1	18.28	18.31	18.24	19.5	4.5	
Channel				519002	519000	520098			
Frequency (MHz)				2595.01	2595	2604.99			
30	QPSK	1	1	22.66	22.72	22.68	24.0	0.0	
Channel				516504	519000	521496			
Frequency (MHz)				2592.25	2595	2607.75			
25	QPSK	1	1	22.64	22.70	22.63	24.0	0.0	
Channel				518000	519000	522000			
Frequency (MHz)				2580	2595	2610			
20	QPSK	1	1	22.63	22.80	22.71	24.0	0.0	
Channel				516500	519000	522496			
Frequency (MHz)				2577.51	2595	2612.49			
15	QPSK	1	1	22.69	22.76	22.65	24.0	0.0	
Channel				516004	519000	522996			
Frequency (MHz)				2575.01	2595	2614.99			
10	QPSK	1	1	22.62	22.74	22.69	24.0	0.0	

n41 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				508002	518598	528000			
Frequency (MHz)				2546.01	2592.99	2640			
100	PI2 BPSK	1	1	22.84	22.90	22.78			
100	PI2 BPSK	1	137	22.72	22.85	22.81	23.9	0.0	
100	PI2 BPSK	1	271	22.73	22.81	22.67			
100	PI2 BPSK	135	0	21.53	21.54	21.60	23.5	0.4	
100	PI2 BPSK	135	69	22.71	22.83	22.71	23.9	0.0	
100	PI2 BPSK	135	138	21.52	21.62	21.57	23.5	0.4	
100	PI2 BPSK	270	0	21.63	21.68	21.57			
100	QPSK	1	1	22.93	22.97	22.88			
100	QPSK	1	137	22.85	22.92	22.80	23.9	0.0	
100	QPSK	1	271	22.84	22.88	22.83			
100	QPSK	135	0	21.63	21.73	21.69	23.0	0.9	
100	QPSK	135	69	22.84	22.91	22.78	23.9	0.0	
100	QPSK	135	138	21.69	21.80	21.71	23.0	0.9	
100	QPSK	270	0	21.83	21.89	21.75			
100	16QAM	1	1	21.80	21.82	21.75	23.0	0.9	
100	64QAM	1	1	20.56	20.69	20.55	21.5	2.4	
100	256QAM	1	1	18.46	18.51	18.44	19.5	4.4	
Channel				508200	518598	528998			
Frequency (MHz)				2541	2592.99	2644.99			
90	QPSK	1	1	22.82	22.89	22.85	23.9	0.0	
Channel				507204	518598	529998			
Frequency (MHz)				2538.02	2592.99	2649.99			
80	QPSK	1	1	22.82	22.88	22.84	23.9	0.0	
Channel				508202	518598	531000			
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	22.79	22.92	22.83	23.9	0.0	
Channel				508200	518598	531998			
Frequency (MHz)				2526	2592.99	2659.98			
60	QPSK	1	1	22.79	22.93	22.84	23.9	0.0	
Channel				504204	518598	532998			
Frequency (MHz)				2521.02	2592.99	2664.98			
50	QPSK	1	1	22.79	22.84	22.79	23.9	0.0	
Channel				503202	518598	534000			
Frequency (MHz)				2516.01	2592.99	2670			
40	QPSK	1	1	22.84	22.89	22.83	23.9	0.0	
Channel				502200	518598	534998			
Frequency (MHz)				2511	2592.99	2674.98			
30	QPSK	1	1	22.88	22.94	22.75	23.9	0.0	
Channel				501204	518598	535998			
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	22.84	22.90	22.77	23.9	0.0	

n41 HPUE 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				508002	518598	528000			
Frequency (MHz)				2546.01	2592.99	2640			
100	PI2 BPSK	1	1	25.62	25.96	25.89			
100	PI2 BPSK	1	137	25.85	25.92	25.83	26.9	0.0	
100	PI2 BPSK	1	271	25.76	25.86	25.75			
100	PI2 BPSK	135	0	25.34	25.44	25.38	26.5	0.4	
100	PI2 BPSK	135	69	25.87	25.91	25.87	26.9	0.0	
100	PI2 BPSK	135	138	25.35	25.39	25.24	26.5	0.4	
100	PI2 BPSK	270	0	25.36	25.42	25.28			
100	QPSK	1	1	25.88	26.01	25.91			
100	QPSK	1	137	25.87	25.95	25.87	26.9	0.0	
100	QPSK	1	271	25.79	25.89	25.78			
100	QPSK	135	0	24.97	25.04	24.92	26.0	0.9	
100	QPSK	135	69	25.82	25.98	25.87	26.9	0.0	
100	QPSK	135	138	25.18	25.22	25.18	26.0	0.9	
100	QPSK	270	0	25.18	25.27	25.13			
100	16QAM	1	1	24.84	24.95	24.85	26.0	0.9	
100	64QAM	1	1	23.93	24.00	23.85	24.5	2.4	
100	256QAM	1	1	21.60	21.68	21.63	22.5	4.4	
Channel				508200	518598	528998			
Frequency (MHz)				2541	2592.99	2644.99			
90	QPSK	1	1	25.86	25.97	25.86	26.9	0.0	
Channel				507204	518598	529998			
Frequency (MHz)				2538.02	2592.99	2649.99			
80	QPSK	1	1	25.91	25.93	25.84	26.9	0.0	
Channel				508202	518598	531000			
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	25.84	25.87	25.77	26.9	0.0	
Channel				508200	518598	531998			
Frequency (MHz)				2526	2592.99	2659.98			
60	QPSK	1	1	25.84	25.95	25.83	26.9	0.0	
Channel				504204	518598	532998			
Frequency (MHz)				2521.02	2592.99	2664.98			
50	QPSK	1	1	25.88	25.93	25.77	26.9	0.0	
Channel				503202	518598	534000			
Frequency (MHz)				2516.01	2592.99	2670			
40	QPSK	1	1	25.92	25.89	25.76	26.9	0.0	
Channel				502200	518598	534998			
Frequency (MHz)				2511	2592.99	2674.98			
30	QPSK	1	1	25.90	25.88	25.81	26.9	0.0	
Channel				501204	518598	535998			
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	25.92	25.90	25.79	26.9	0.0	



Part270 n77 Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.12	23.17	23.05		
100	PI2 BPSK	1	137	23.03	23.12	23.01	24.0	0.0
100	PI2 BPSK	1	271	23.03	23.08	22.94		
100	PI2 BPSK	135	0	21.59	21.61	21.54	23.5	0.5
100	PI2 BPSK	135	69	23.09	23.13	22.98	24.0	0.0
100	PI2 BPSK	135	138	21.54	21.63	21.48		
100	PI2 BPSK	270	0	21.58	21.67	21.49	23.5	0.5
100	QPSK	1	1	23.18	23.24	23.09		
100	QPSK	1	137	23.19	23.21	23.12	24.0	0.0
100	QPSK	1	271	23.17	23.17	23.02		
100	QPSK	135	0	21.53	21.63	21.54	23.0	1.0
100	QPSK	135	69	23.17	23.19	23.07	24.0	0.0
100	QPSK	135	138	21.51	21.63	21.50		
100	QPSK	270	0	21.62	21.67	21.52	23.0	1.0
100	16QAM	1	1	21.56	21.66	21.52	23.0	1.0
100	64QAM	1	1	20.14	20.23	20.12	21.5	2.5
100	256QAM	1	1	18.22	18.32	18.18	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.08	23.11	22.94	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.03	23.10	22.94	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.01	23.07	22.83	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.11	23.16	22.99	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.04	23.13	23.00	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.09	23.11	22.89	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.03	23.16	22.89	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.04	23.17	23.00	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.00	23.14	22.83	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.03	23.08	22.88	24.0	0.0

Part270 n77 HPUE Ant 1								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	25.98	26.10	26.03		
100	PI2 BPSK	1	137	25.95	26.07	25.93	27.0	0.0
100	PI2 BPSK	1	271	25.94	26.01	25.98		
100	PI2 BPSK	135	0	25.42	25.51	25.37	26.5	0.5
100	PI2 BPSK	135	69	25.96	26.00	25.90	27.0	0.0
100	PI2 BPSK	135	138	25.48	25.58	25.31		
100	PI2 BPSK	270	0	25.54	25.61	25.48	26.5	0.5
100	QPSK	1	1	26.07	26.17	26.12		
100	QPSK	1	137	26.01	26.11	26.03	27.0	0.0
100	QPSK	1	271	26.97	26.06	25.98		
100	QPSK	135	0	25.05	25.09	24.98	26.0	1.0
100	QPSK	135	69	26.03	26.12	26.04	27.0	0.0
100	QPSK	135	138	24.97	25.04	24.96		
100	QPSK	270	0	25.05	25.11	25.02	26.0	1.0
100	16QAM	1	1	25.00	25.14	25.04	26.0	1.0
100	64QAM	1	1	23.82	23.87	23.53	24.5	2.5
100	256QAM	1	1	21.58	21.69	21.62	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	25.94	26.10	26.06	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.01	26.03	25.99	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.02	26.13	26.03	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.95	26.06	26.07	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.04	26.12	26.01	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.00	26.04	26.07	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	25.97	26.11	26.09	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.99	26.12	26.05	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.02	26.02	26.01	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.98	26.03	26.01	27.0	0.0



Part270 n78 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		23.05				
100	PI2 BPSK	1	137		22.99		24.0	0.0	
100	PI2 BPSK	1	271		22.92				
100	PI2 BPSK	135	0		21.54		23.5	0.5	
100	PI2 BPSK	135	69		22.97		24.0	0.0	
100	PI2 BPSK	135	138		21.56		23.5	0.5	
100	PI2 BPSK	270	0		21.60				
100	QPSK	1	1		23.13				
100	QPSK	1	137		23.02		24.0	0.0	
100	QPSK	1	271		22.96				
100	QPSK	135	0		21.54		23.0	1.0	
100	QPSK	135	69		23.07		24.0	0.0	
100	QPSK	135	138		21.48		23.0	1.0	
100	QPSK	270	0		21.53		23.0	1.0	
100	16QAM	1	1		21.89		23.0	1.0	
100	64QAM	1	1		19.94		21.5	2.5	
100	256QAM	1	1		18.07		19.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	23.01	23.03	22.94	24.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.94	23.00	22.94	24.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	22.94	23.01	22.87	24.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.94	23.01	22.87	24.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	23.02	23.05	22.94	24.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	23.00	23.02	22.89	24.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.96	22.98	22.89	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.00	23.04	22.87	24.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.00	23.08	22.93	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.98	23.07	22.87	24.0	0.0	

Part270 n78 HPUE Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		26.08				
100	PI2 BPSK	1	137		26.05		27.0	0.0	
100	PI2 BPSK	1	271		25.99				
100	PI2 BPSK	135	0		25.50		26.5	0.5	
100	PI2 BPSK	135	69		26.00		27.0	0.0	
100	PI2 BPSK	135	138		25.36		26.5	0.5	
100	PI2 BPSK	270	0		25.46				
100	QPSK	1	1		26.15				
100	QPSK	1	137		26.08		27.0	0.0	
100	QPSK	1	271		26.02				
100	QPSK	135	0		25.00		26.0	1.0	
100	QPSK	135	69		26.09		27.0	0.0	
100	QPSK	135	138		24.95		26.0	1.0	
100	QPSK	270	0		24.86		26.0	1.0	
100	16QAM	1	1		25.29		26.0	1.0	
100	64QAM	1	1		23.83		24.5	2.5	
100	256QAM	1	1		21.76		22.5	4.5	
Channel									
Frequency (MHz)									
90	QPSK	1	1	25.95	26.11	25.96	27.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	25.94	26.05	25.94	27.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	26.02	26.09	25.93	27.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	25.93	26.10	25.94	27.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	25.96	26.04	25.96	27.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	26.01	26.05	25.89	27.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	25.94	26.01	25.97	27.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	25.98	26.03	25.93	27.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	25.94	26.07	25.98	27.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	25.97	26.10	25.93	27.0	0.0	



n7 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 504000	Middle Ch. / Freq. 507000	High Ch. / Freq. 510000		
Channel				2530	2535	2550		
Frequency (MHz)				2530	2535	2550		
40	PI/2 BPSK	1	1	20.79	20.84	20.60	22.0	0.0
40	PI/2 BPSK	1	108	20.55	20.73	20.51		
40	PI/2 BPSK	1	214	20.58	20.68	20.45		
40	PI/2 BPSK	108	0	20.82	20.84	20.71	22.0	0.0
40	PI/2 BPSK	108	54	20.78	20.78	20.68	22.0	0.0
40	PI/2 BPSK	108	108	20.57	20.70	20.55	22.0	0.0
40	PI/2 BPSK	216	0	20.57	20.63	20.47		
40	QPSK	1	1	20.86	20.63	20.75	22.0	0.0
40	QPSK	1	108	20.68	20.85	20.64		
40	QPSK	1	214	20.89	20.85	20.68		
40	QPSK	108	0	20.65	20.69	20.52	22.0	0.0
40	QPSK	108	54	20.74	20.75	20.57	22.0	0.0
40	QPSK	108	108	20.67	20.70	20.59	22.0	0.0
40	QPSK	216	0	20.57	20.72	20.55		
40	16QAM	1	1	20.62	20.73	20.56	22.0	0.0
40	64QAM	1	1	20.68	20.77	20.50	21.5	0.5
40	256QAM	1	1	18.98	19.05	18.88	19.5	2.5
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				5030	5035	5055		
30	QPSK	1	1	20.78	20.85	20.60	22.0	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				5025	5035	5075		
25	QPSK	1	1	20.73	20.81	20.60	22.0	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				5010	5035	5060		
20	PI/2 BPSK	1	1	20.77	20.88	20.65	22.0	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				5007.5	5035	5062.5		
15	QPSK	1	1	20.80	20.84	20.65	22.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				5005	5035	5065		
10	QPSK	1	1	20.77	20.85	20.64	22.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				5002.5	5035	5067.5		
5	QPSK	1	1	20.77	20.77	20.63	22.0	0.0

n66 Ant 2								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel				1730	1745	1760		
Frequency (MHz)				1730	1745	1760		
40	PI/2 BPSK	1	1	23.43	23.51	23.47	24.0	0.0
40	PI/2 BPSK	1	108	23.38	23.47	23.38		
40	PI/2 BPSK	1	214	23.38	23.44	23.40		
40	PI/2 BPSK	108	0	22.89	23.04	23.00	23.5	0.5
40	PI/2 BPSK	108	54	23.44	23.48	23.43	24.0	0.0
40	PI/2 BPSK	108	108	23.02	23.08	23.02	23.5	0.5
40	PI/2 BPSK	216	0	23.01	23.13	23.02		
40	QPSK	1	1	23.49	23.58	23.51	24.0	0.0
40	QPSK	1	108	23.38	23.52	23.39		
40	QPSK	1	214	23.33	23.48	23.36		
40	QPSK	108	0	22.44	22.54	22.50	23.0	1.0
40	QPSK	108	54	23.39	23.50	23.40	24.0	0.0
40	QPSK	108	108	22.34	22.47	22.41	23.0	1.0
40	QPSK	216	0	22.42	22.53	22.43		
40	16QAM	1	1	22.45	22.58	22.47	23.0	1.0
40	64QAM	1	1	20.82	20.95	20.80	21.5	2.5
40	256QAM	1	1	18.96	18.99	18.83	19.5	4.5
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	23.40	23.52	23.39	24.0	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.44	23.51	23.48	24.0	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.42	23.47	23.41	24.0	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
10	QPSK	1	1	23.38	23.52	23.45	24.0	0.0
Channel				342000	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710	1745	1775		
5	QPSK	1	1	23.40	23.45	23.39	24.0	0.0



n38 Ant 2								
Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)			
40	PI2 BPSK	1	1	19.85	19.96	19.85		
40	PI2 BPSK	1	1	20.04	19.89	19.74		
40	PI2 BPSK	1	104	19.97	19.89	19.74		
40	PI2 BPSK	50	0	19.87	20.01	19.87	21.3	0.0
40	PI2 BPSK	50	28	19.89	20.10	19.89	21.3	0.0
40	PI2 BPSK	50	56	19.87	20.11	19.84	21.3	0.0
40	PI2 BPSK	100	0	19.84	19.93	19.76		
40	QPSK	1	1	20.07	20.18	19.94		
40	QPSK	1	53	19.98	20.09	19.94	21.3	0.0
40	QPSK	1	104	19.97	19.88	19.76		
40	QPSK	50	0	19.91	20.02	19.90	21.3	0.0
40	QPSK	50	28	19.90	20.07	19.92	21.3	0.0
40	QPSK	50	56	19.83	19.91	19.86	21.3	0.0
40	QPSK	100	0	19.94	20.03	19.88		
40	16QAM	1	1	19.90	19.95	19.88	21.3	0.0
40	64QAM	1	1	19.91	19.94	19.76	21.3	0.0
40	256QAM	1	1	19.55	18.63	18.57	19.5	1.8
Channel	517002	518000	520998	Tune-up limit (dBm)	MPR (dB)			
30	QPSK	1	1	19.32	19.35	19.36	21.3	0.0
Channel	516504	518000	521496	Tune-up limit (dBm)	MPR (dB)			
25	QPSK	1	1	19.37	19.33	19.27	21.3	0.0
Channel	516000	518000	522000	Tune-up limit (dBm)	MPR (dB)			
20	QPSK	1	1	19.32	19.37	19.40	21.3	0.0
Channel	525225	5255	263748	Tune-up limit (dBm)	MPR (dB)			
15	QPSK	1	1	19.37	19.35	19.36	21.3	0.0
Channel	516504	518000	522996	Tune-up limit (dBm)	MPR (dB)			
10	QPSK	1	1	19.31	19.37	19.31	24.5	0.0

n41 Ant 2								
Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)			
100	PI2 BPSK	1	1	19.98	20.03	19.97		
100	PI2 BPSK	1	137	20.06	19.99	19.88	21.3	0.0
100	PI2 BPSK	1	271	20.08	20.01	19.90		
100	PI2 BPSK	135	0	19.98	20.12	19.91	21.3	0.0
100	PI2 BPSK	135	69	20.00	20.17	20.00	21.3	0.0
100	PI2 BPSK	135	138	19.96	20.18	20.04	21.3	0.0
100	PI2 BPSK	270	0	19.90	19.98	19.83		
100	QPSK	1	1	20.19	20.23	20.00		
100	QPSK	1	137	20.03	20.17	20.04	21.3	0.0
100	QPSK	1	271	20.08	19.96	19.81		
100	QPSK	135	0	19.98	20.10	19.94	21.3	0.0
100	QPSK	135	69	20.01	20.17	20.06	21.3	0.0
100	QPSK	135	138	19.91	20.02	19.78	21.3	0.0
100	QPSK	270	0	19.97	20.16	20.06		
100	16QAM	1	1	20.00	19.98	19.80	21.3	0.0
100	64QAM	1	1	19.84	20.01	19.84	21.3	0.0
100	256QAM	1	1	18.42	18.49	18.35	19.5	1.8
Channel	506200	518598	529998	Tune-up limit (dBm)	MPR (dB)			
90	QPSK	1	1	19.87	20.00	19.80	21.3	0.0
Channel	507204	518598	529998	Tune-up limit (dBm)	MPR (dB)			
80	QPSK	1	1	19.07	20.09	19.70	21.3	0.0
Channel	506202	518598	531000	Tune-up limit (dBm)	MPR (dB)			
70	QPSK	1	1	20.01	20.03	19.84	21.3	0.0
Channel	505200	518598	531996	Tune-up limit (dBm)	MPR (dB)			
60	QPSK	1	1	20.01	20.05	19.74	21.3	0.0
Channel	504204	518598	532998	Tune-up limit (dBm)	MPR (dB)			
50	QPSK	1	1	20.02	20.01	19.90	21.3	0.0
Channel	503202	518598	534000	Tune-up limit (dBm)	MPR (dB)			
40	QPSK	1	1	20.04	20.08	19.85	21.3	0.0
Channel	502200	518598	534998	Tune-up limit (dBm)	MPR (dB)			
30	QPSK	1	1	19.88	20.07	19.74	21.3	0.0
Channel	501204	518598	535998	Tune-up limit (dBm)	MPR (dB)			
20	QPSK	1	1	19.95	20.02	19.83	21.3	0.0

n41 HPUE Ant 2								
Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)			
100	PI2 BPSK	1	1	22.88	23.02	23.03		
100	PI2 BPSK	1	137	22.94	23.03	22.95	24.3	0.0
100	PI2 BPSK	1	271	22.82	22.99	22.93		
100	PI2 BPSK	135	0	23.01	22.94	22.86	24.3	0.0
100	PI2 BPSK	135	69	23.00	22.86	23.00	24.3	0.0
100	PI2 BPSK	135	138	23.00	23.02	22.92	24.3	0.0
100	PI2 BPSK	270	0	22.98	22.98	23.01		
100	QPSK	1	1	23.02	23.07	23.03		
100	QPSK	1	137	22.89	22.87	22.88	24.3	0.0
100	QPSK	1	271	22.94	23.05	22.94		
100	QPSK	135	0	23.01	23.00	22.99	24.3	0.0
100	QPSK	135	69	22.88	23.04	22.90	24.3	0.0
100	QPSK	135	138	22.85	22.85	22.83	24.3	0.0
100	QPSK	270	0	22.88	22.91	22.82		
100	16QAM	1	1	23.01	23.00	22.89	24.3	0.0
100	64QAM	1	1	22.99	22.94	22.95	24.3	0.0
100	256QAM	1	1	22.21	22.29	22.16	22.5	1.8
Channel	506200	518598	529998	Tune-up limit (dBm)	MPR (dB)			
90	QPSK	1	1	22.47	22.50	22.38	24.3	0.0
Channel	507204	518598	529998	Tune-up limit (dBm)	MPR (dB)			
80	QPSK	1	1	22.45	22.41	22.33	24.3	0.0
Channel	506202	518598	531000	Tune-up limit (dBm)	MPR (dB)			
70	QPSK	1	1	22.43	22.31	22.41	24.3	0.0
Channel	505200	518598	531996	Tune-up limit (dBm)	MPR (dB)			
60	QPSK	1	1	22.43	22.36	22.37	24.3	0.0
Channel	504204	518598	532998	Tune-up limit (dBm)	MPR (dB)			
50	QPSK	1	1	22.34	22.41	22.44	24.3	0.0
Channel	503202	518598	534000	Tune-up limit (dBm)	MPR (dB)			
40	QPSK	1	1	22.38	22.49	22.42	24.3	0.0
Channel	502200	518598	534998	Tune-up limit (dBm)	MPR (dB)			
30	QPSK	1	1	22.41	22.32	22.37	24.3	0.0
Channel	501204	518598	535998	Tune-up limit (dBm)	MPR (dB)			
20	QPSK	1	1	22.34	22.32	22.38	24.3	0.0



Part270 n77 Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	17.82	17.97	17.85		
100	PI2 BPSK	1	137	17.89	17.90	17.79	19.2	0.0
100	PI2 BPSK	1	271	17.72	17.90	17.74		
100	PI2 BPSK	135	0	17.92	18.06	17.95	19.2	0.0
100	PI2 BPSK	135	69	17.95	17.90	17.83	19.2	0.0
100	PI2 BPSK	135	138	18.04	17.90	17.83	19.2	0.0
100	PI2 BPSK	270	0	17.75	17.98	17.80		
100	QPSK	1	1	18.12	18.19	18.13		
100	QPSK	1	137	17.98	17.99	17.88	19.2	0.0
100	QPSK	1	271	17.98	18.11	17.91		
100	QPSK	135	0	17.87	17.92	17.83	19.2	0.0
100	QPSK	135	69	17.93	17.95	17.88	19.2	0.0
100	QPSK	135	138	17.89	17.95	17.73		
100	QPSK	270	0	17.81	17.85	17.88	19.2	0.0
100	16QAM	1	1	17.85	18.00	17.84	19.2	0.0
100	64QAM	1	1	17.92	17.89	17.91	19.2	0.0
100	256QAM	1	1	17.74	17.81	17.82	19.2	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	17.83	17.85	17.76	19.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	17.81	17.93	17.79	19.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	17.72	17.82	17.74	19.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	17.85	17.84	17.87	19.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	17.72	17.88	17.74	19.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	17.73	17.87	17.89	19.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.75	17.79	17.74	19.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.78	17.89	17.84	19.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	17.78	17.85	17.75	19.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.72	17.91	17.81	19.2	0.0

Part270 n77 HPUE Ant 2								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	20.65	20.70	20.62		
100	PI2 BPSK	1	137	20.58	20.71	20.63	22.2	0.0
100	PI2 BPSK	1	271	20.38	20.51	20.47		
100	PI2 BPSK	135	0	20.01	20.60	20.58	22.2	0.0
100	PI2 BPSK	135	69	20.60	20.70	20.55	22.2	0.0
100	PI2 BPSK	135	138	20.59	20.69	20.35	22.2	0.0
100	PI2 BPSK	270	0	20.60	20.57	20.61		
100	QPSK	1	1	20.83	20.89	20.81		
100	QPSK	1	137	20.70	20.82	20.71	22.2	0.0
100	QPSK	1	271	20.59	20.65	20.71		
100	QPSK	135	0	20.61	20.71	20.64	22.2	0.0
100	QPSK	135	69	20.60	20.77	20.50	22.2	0.0
100	QPSK	135	138	20.45	20.65	20.43		
100	QPSK	270	0	20.53	20.73	20.57	22.2	0.0
100	16QAM	1	1	20.52	20.68	20.72	22.2	0.0
100	64QAM	1	1	20.55	20.71	20.55	22.2	0.0
100	256QAM	1	1	20.59	20.70	20.52	22.2	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	20.45	20.60	20.40	22.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.43	20.71	20.41	22.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.57	20.62	20.51	22.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.45	20.67	20.37	22.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.44	20.54	20.54	22.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.48	20.62	20.49	22.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.50	20.88	20.51	22.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.48	20.56	20.51	22.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.60	20.59	20.54	22.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.44	20.69	20.49	22.2	0.0



Part270 n78 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
3750 3750 3750									
100	PI2 BPSK	1	1		17.94				
100	PI2 BPSK	1	137		17.78		19.2	0.0	
100	PI2 BPSK	1	271		17.83				
100	PI2 BPSK	135	0		17.88		19.2	0.0	
100	PI2 BPSK	135	69		17.87		19.2	0.0	
100	PI2 BPSK	135	138		17.71		19.2	0.0	
100	PI2 BPSK	270	0		17.78		19.2	0.0	
100	QPSK	1	1		18.08				
100	QPSK	1	137		17.96		19.2	0.0	
100	QPSK	1	271		18.05				
100	QPSK	135	0		17.79		19.2	0.0	
100	QPSK	135	69		17.83		19.2	0.0	
100	QPSK	135	138		17.78		19.2	0.0	
100	QPSK	270	0		17.75		19.2	0.0	
100	16QAM	1	1		17.59		19.2	0.0	
100	64QAM	1	1		17.75		19.2	0.0	
100	256QAM	1	1		17.75		19.2	0.0	
Channel									
Frequency (MHz)									
649868 650000 650334									
3745.02 3750 3755.01									
90	QPSK	1	1	17.85	17.89	17.80	19.2	0.0	
Channel									
Frequency (MHz)									
649334 650000 650668									
3740.01 3750 3760.02									
80	QPSK	1	1	17.73	17.83	17.79	19.2	0.0	
Channel									
Frequency (MHz)									
649000 650000 651000									
3735 3750 3765									
70	QPSK	1	1	17.80	17.91	17.73	19.2	0.0	
Channel									
Frequency (MHz)									
648668 650000 651334									
3730.02 3750 3760.01									
60	QPSK	1	1	17.86	17.80	17.76	19.2	0.0	
Channel									
Frequency (MHz)									
648334 650000 651668									
3725.01 3750 3755.02									
50	QPSK	1	1	17.73	17.88	17.63	19.2	0.0	
Channel									
Frequency (MHz)									
648000 650000 652000									
3720 3750 3760									
40	QPSK	1	1	17.81	17.73	17.69	19.2	0.0	
Channel									
Frequency (MHz)									
647668 650000 652334									
3715.02 3750 3765.01									
30	QPSK	1	1	17.82	17.76	17.69	19.2	0.0	
Channel									
Frequency (MHz)									
647334 650000 652668									
3710.01 3750 3760.02									
20	QPSK	1	1	17.83	17.77	17.65	19.2	0.0	
Channel									
Frequency (MHz)									
647000 650000 652934									
3705.02 3750 3765.01									
15	QPSK	1	1	17.79	17.85	17.73	19.2	0.0	
Channel									
Frequency (MHz)									
647000 650000 653000									
3705 3750 3765									
10	QPSK	1	1	17.87	17.89	17.69	19.2	0.0	

Part270 n78 HPUE Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 650000	Power High Ch. Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
3750 3750 3750									
100	PI2 BPSK	1	1		20.85				
100	PI2 BPSK	1	137		20.66		22.2	0.0	
100	PI2 BPSK	1	271		20.49				
100	PI2 BPSK	135	0		20.50		22.2	0.0	
100	PI2 BPSK	135	69		20.87		22.2	0.0	
100	PI2 BPSK	135	138		20.61		22.2	0.0	
100	PI2 BPSK	270	0		20.38		22.2	0.0	
100	QPSK	1	1		20.70				
100	QPSK	1	137		20.81		22.2	0.0	
100	QPSK	1	271		20.50				
100	QPSK	135	0		20.60		22.2	0.0	
100	QPSK	135	69		20.70		22.2	0.0	
100	QPSK	135	138		20.64		22.2	0.0	
100	QPSK	270	0		20.54		22.2	0.0	
100	16QAM	1	1		20.61		22.2	0.0	
100	64QAM	1	1		20.60		22.2	0.0	
100	256QAM	1	1		20.59		22.2	0.0	
Channel									
Frequency (MHz)									
649868 650000 650334									
3745.02 3750 3755.01									
90	QPSK	1	1	20.39	20.47	20.55	22.2	0.0	
Channel									
Frequency (MHz)									
649334 650000 650668									
3740.01 3750 3760.02									
80	QPSK	1	1	20.46	20.51	20.40	22.2	0.0	
Channel									
Frequency (MHz)									
649000 650000 651000									
3735 3750 3765									
70	QPSK	1	1	20.45	20.50	20.40	22.2	0.0	
Channel									
Frequency (MHz)									
648668 650000 651334									
3730.02 3750 3760.01									
60	QPSK	1	1	20.48	20.48	20.39	22.2	0.0	
Channel									
Frequency (MHz)									
648334 650000 651668									
3725.01 3750 3755.02									
50	QPSK	1	1	20.42	20.60	20.46	22.2	0.0	
Channel									
Frequency (MHz)									
648000 650000 652000									
3720 3750 3760									
40	QPSK	1	1	20.44	20.43	20.44	22.2	0.0	
Channel									
Frequency (MHz)									
647668 650000 652334									
3715.02 3750 3765.01									
30	QPSK	1	1	20.47	20.50	20.43	22.2	0.0	
Channel									
Frequency (MHz)									
647334 650000 652668									
3710.01 3750 3760.02									
20	QPSK	1	1	20.45	20.47	20.45	22.2	0.0	
Channel									
Frequency (MHz)									
647000 650000 652934									
3705.02 3750 3765.01									
15	QPSK	1	1	20.42	20.46	20.39	22.2	0.0	
Channel									
Frequency (MHz)									
647000 650000 653000									
3705 3750 3765									
10	QPSK	1	1	20.48	20.58	20.50	22.2	0.0	





n7 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 504000	Middle Ch. / Freq. 507000	High Ch. / Freq. 510000		
Channel				2520	2535	2550		
Frequency (MHz)								
40	PI2 BPSK	1	1	21.08	21.28	21.05		
40	PI2 BPSK	1	108	21.13	21.22	21.07	22.5	0.0
40	PI2 BPSK	1	214	21.06	21.19	21.11		
40	PI2 BPSK	108	0	21.14	21.28	20.96	22.5	0.0
40	PI2 BPSK	108	54	21.09	21.14	20.98	22.5	0.0
40	PI2 BPSK	108	108	21.14	21.32	21.13	22.5	0.0
40	PI2 BPSK	216	0	21.18	21.31	21.02	22.5	0.0
40	QPSK	1	1	21.20	21.27	21.19		
40	QPSK	1	108	21.11	21.10	21.13	22.5	0.0
40	QPSK	1	214	21.18	21.18	21.08		
40	QPSK	108	0	21.05	21.18	21.07	22.5	0.0
40	QPSK	108	54	21.14	21.20	21.04	22.5	0.0
40	QPSK	108	108	21.07	21.10	21.14	22.5	0.0
40	QPSK	216	0	21.07	21.14	21.10	22.5	0.0
40	16QAM	1	1	21.13	21.17	21.13	22.5	0.0
40	64QAM	1	1	21.13	21.14	20.96	21.5	1.0
40	256QAM	1	1	19.38	19.32	19.48	19.5	3.0
Channel				503000	507000	511000		
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	21.21	21.19	21.11	22.5	0.0
Channel				502500	507000	511500		
Frequency (MHz)				2512.5	2535	2527.5		
25	QPSK	1	1	21.13	21.24	20.97	22.5	0.0
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI2 BPSK	1	1	21.20	21.18	21.07	22.5	0.0
Channel				501500	507000	512500		
Frequency (MHz)				2507.5	2535	2542.5		
15	QPSK	1	1	21.18	21.18	21.12	22.5	0.0
Channel				501000	507000	513000		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	21.11	21.26	21.11	22.5	0.0
Channel				500500	507000	513500		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	21.15	21.17	20.98	22.5	0.0

n66 Ant 3								
BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel				1730	1745	1760		
Frequency (MHz)								
40	PI2 BPSK	1	1	23.40	23.46	23.43		
40	PI2 BPSK	1	108	23.29	23.42	23.35	24.0	0.0
40	PI2 BPSK	1	214	23.25	23.37	23.33		
40	PI2 BPSK	108	0	22.91	23.04	22.89	23.5	0.5
40	PI2 BPSK	108	54	23.34	23.47	23.37	24.0	0.0
40	PI2 BPSK	108	108	23.27	23.38	22.94	23.5	0.5
40	PI2 BPSK	216	0	22.85	22.96	22.97		
40	QPSK	1	1	23.38	23.52	23.46		
40	QPSK	1	108	23.42	23.43	23.39	24.0	0.0
40	QPSK	1	214	23.37	23.38	23.27		
40	QPSK	108	0	22.52	22.62	22.59	23.0	1.0
40	QPSK	108	54	23.42	23.50	23.44	24.0	0.0
40	QPSK	108	108	22.55	22.60	22.56	23.0	1.0
40	QPSK	216	0	22.52	22.62	22.52		
40	16QAM	1	1	22.55	22.70	22.51	23.0	1.0
40	64QAM	1	1	21.13	21.16	21.14	21.5	2.5
40	256QAM	1	1	19.37	19.40	19.32	19.5	4.5
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	23.33	23.38	23.43	24.0	0.0
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.35	23.43	23.41	24.0	0.0
Channel				343000	349000	354500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.28	23.45	23.35	24.0	0.0
Channel				342000	349000	355000		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.35	23.48	23.41	24.0	0.0
Channel				342500	349000	355500		
Frequency (MHz)				1712.5	1745	1772.5		
5	QPSK	1	1	23.32	23.37	23.40	24.0	0.0



n38 Ant 3								
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				516004	516000	516996		
Frequency (MHz)				2590.02	2595	2599.98		
40	PI2 BPSK	1	1	21.72	21.81	21.88	23.5	0.0
40	PI2 BPSK	1	59	21.75	21.78	21.74		
40	PI2 BPSK	1	104	21.81	21.91	21.79		
40	PI2 BPSK	50	0	21.77	21.79	21.77	23.5	0.0
40	PI2 BPSK	50	28	21.76	21.83	21.75	23.5	0.0
40	PI2 BPSK	50	56	21.70	21.85	21.83		
40	PI2 BPSK	100	0	21.77	21.74	21.79	23.5	0.0
40	QPSK	1	1	21.78	21.93	21.90		
40	QPSK	1	53	21.79	21.75	21.80	23.5	0.0
40	QPSK	1	104	21.73	21.78	21.79		
40	QPSK	50	0	21.80	21.78	21.87	23.5	0.0
40	QPSK	50	28	21.72	21.88	21.71	23.5	0.0
40	QPSK	50	56	21.73	21.70	21.88		
40	QPSK	100	0	21.88	21.85	21.79	23.5	0.0
40	16QAM	1	1	21.82	21.88	21.57	23.5	0.0
40	64QAM	1	1	21.58	21.64	21.54	22.0	1.5
40	256QAM	1	1	19.29	19.40	19.32	20.0	3.5
Channel				517002	516000	520998		
Frequency (MHz)				2595.01	2595	2604.99		
30	QPSK	1	1	21.78	21.73	21.81	23.5	0.0
Channel				516504	516000	521496		
Frequency (MHz)				2592.25	2595	2607.48		
25	QPSK	1	1	21.72	21.69	21.70	23.5	0.0
Channel				516000	516000	522000		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	1	21.77	21.70	21.72	23.5	0.0
Channel				516500	516000	522496		
Frequency (MHz)				2577.51	2595	2612.49		
15	QPSK	1	1	21.80	21.71	21.72	23.5	0.0
Channel				517502	516000	522496		
Frequency (MHz)				2577.51	2595	2612.49		
15	QPSK	1	1	21.69	21.76	21.73	24.5	0.0

n41 Ant 3								
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				506202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	21.81	21.91	21.89	23.5	0.0
100	PI2 BPSK	1	137	21.85	21.81	21.88		
100	PI2 BPSK	1	271	21.85	21.96	21.84		
100	PI2 BPSK	135	0	21.83	21.88	21.87	23.5	0.0
100	PI2 BPSK	135	69	21.81	21.88	21.84	23.5	0.0
100	PI2 BPSK	135	138	21.84	21.93	21.89		
100	PI2 BPSK	270	0	21.88	21.84	21.88	23.5	0.0
100	QPSK	1	1	21.93	22.01	21.95		
100	QPSK	1	137	21.83	21.84	21.86	23.5	0.0
100	QPSK	1	271	21.85	21.89	21.88		
100	QPSK	135	0	21.92	21.92	21.94	23.5	0.0
100	QPSK	135	69	21.85	21.95	21.85	23.5	0.0
100	QPSK	135	138	21.81	21.83	21.72		
100	QPSK	270	0	21.78	21.91	21.82	23.5	0.0
100	16QAM	1	1	21.68	21.91	21.72	23.5	0.0
100	64QAM	1	1	21.21	21.29	21.15	22.0	1.5
100	256QAM	1	1	18.95	19.09	18.96	20.0	3.5
Channel				506200	518598	528998		
Frequency (MHz)				2544	2592.99	2644.98		
90	QPSK	1	1	21.83	21.89	21.84	23.5	0.0
Channel				507204	518598	529998		
Frequency (MHz)				2533.02	2592.99	2643.99		
80	QPSK	1	1	21.88	21.85	21.81	23.5	0.0
Channel				506202	518598	531000		
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	21.88	21.85	21.84	23.5	0.0
Channel				506200	518598	529998		
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	21.93	22.00	21.85	23.5	0.0
Channel				504204	518598	532998		
Frequency (MHz)				2521.02	2592.99	2644.98		
50	QPSK	1	1	21.88	22.00	21.86	23.5	0.0
Channel				503202	518598	534000		
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	21.88	21.85	21.84	23.5	0.0
Channel				502200	518598	534998		
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	21.88	21.90	21.84	23.5	0.0
Channel				501204	518598	535998		
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	21.82	21.91	21.88	23.5	0.0

n41 HPUE Ant 3								
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				506202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	25.05	25.08	25.04	26.5	0.0
100	PI2 BPSK	1	137	25.02	25.00	24.98		
100	PI2 BPSK	1	271	24.90	25.06	25.06		
100	PI2 BPSK	135	0	24.98	25.00	24.98	26.5	0.0
100	PI2 BPSK	135	69	24.88	25.06	25.08	26.5	0.0
100	PI2 BPSK	135	138	24.97	25.02	24.95		
100	PI2 BPSK	270	0	24.97	24.97	25.04	26.5	0.0
100	QPSK	1	1	25.02	25.09	25.05		
100	QPSK	1	137	25.02	24.97	25.00	26.5	0.0
100	QPSK	1	271	25.03	25.02	24.98		
100	QPSK	135	0	24.97	25.02	24.97	26.5	0.0
100	QPSK	135	69	24.88	25.06	24.97	26.5	0.0
100	QPSK	135	138	25.01	24.96	24.96		
100	QPSK	270	0	24.89	25.02	24.97	26.5	0.0
100	16QAM	1	1	24.90	25.01	25.01	26.5	0.0
100	64QAM	1	1	24.20	24.23	24.20	25.0	1.5
100	256QAM	1	1	21.89	22.04	21.95	23.0	3.5
Channel				506200	518598	528998		
Frequency (MHz)				2544	2592.99	2644.98		
90	QPSK	1	1	24.98	24.79	24.91	26.5	0.0
Channel				507204	518598	529998		
Frequency (MHz)				2533.02	2592.99	2643.99		
80	QPSK	1	1	24.73	24.91	24.77	26.5	0.0
Channel				506202	518598	531000		
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	24.71	24.93	24.72	26.5	0.0
Channel				506200	518598	529998		
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	24.89	24.79	24.82	26.5	0.0
Channel				504204	518598	532998		
Frequency (MHz)				2521.02	2592.99	2644.98		
50	QPSK	1	1	24.91	24.81	24.78	26.5	0.0
Channel				503202	518598	534000		
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	24.89	24.71	24.72	26.5	0.0
Channel				502200	518598	534998		
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	24.91	24.91	24.78	26.5	0.0
Channel				501204	518598	535998		
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	24.91	24.77	24.88	26.5	0.0



Part270 n77 Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.54	18.62	18.57			
100	PI2 BPSK	1	137	18.48	18.55	18.51	20.3	0.0	
100	PI2 BPSK	1	271	18.39	18.57	18.46			
100	PI2 BPSK	135	0	18.39	18.51	18.43	20.3	0.0	
100	PI2 BPSK	135	69	18.52	18.58	18.44	20.3	0.0	
100	PI2 BPSK	135	138	18.44	18.48	18.50	20.3	0.0	
100	PI2 BPSK	270	0	18.49	18.57	18.49	20.3	0.0	
100	QPSK	1	1	18.63	18.69	18.54			
100	QPSK	1	137	18.60	18.65	18.51	20.3	0.0	
100	QPSK	1	271	18.52	18.53	18.45			
100	QPSK	135	0	18.48	18.55	18.50	20.3	0.0	
100	QPSK	135	69	18.53	18.65	18.49	20.3	0.0	
100	QPSK	135	138	18.42	18.50	18.46			
100	QPSK	270	0	18.50	18.57	18.52	20.3	0.0	
100	16QAM	1	1	18.43	18.58	18.50	20.3	0.0	
100	64QAM	1	1	18.40	18.47	18.43	20.3	0.0	
100	256QAM	1	1	18.43	18.49	18.33	19.5	0.8	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.54	18.57	18.41	20.3	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.53	18.62	18.49	20.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.59	18.63	18.43	20.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.59	18.55	18.49	20.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.60	18.66	18.47	20.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.59	18.64	18.49	20.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.52	18.60	18.51	20.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.60	18.62	18.42	20.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.57	18.55	18.41	20.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.52	18.65	18.43	20.3	0.0	

Part270 n77 HPUE Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	21.64	21.72	21.64			
100	PI2 BPSK	1	137	21.64	21.69	21.57	23.3	0.0	
100	PI2 BPSK	1	271	21.77	21.62	21.52			
100	PI2 BPSK	135	0	21.75	21.64	21.56	23.3	0.0	
100	PI2 BPSK	135	69	21.68	21.71	21.53	23.3	0.0	
100	PI2 BPSK	135	138	21.54	21.55	21.65	23.3	0.0	
100	PI2 BPSK	270	0	21.64	21.70	21.60			
100	QPSK	1	1	21.71	21.64	21.61			
100	QPSK	1	137	21.73	21.75	21.65	23.3	0.0	
100	QPSK	1	271	21.62	21.62	21.60			
100	QPSK	135	0	21.54	21.69	21.57	23.3	0.0	
100	QPSK	135	69	21.64	21.77	21.55	23.3	0.0	
100	QPSK	135	138	21.56	21.61	21.59			
100	QPSK	270	0	21.66	21.69	21.58	23.3	0.0	
100	16QAM	1	1	21.56	21.66	21.56	23.3	0.0	
100	64QAM	1	1	21.61	21.57	21.59	23.3	0.0	
100	256QAM	1	1	21.26	21.33	21.29	22.5	0.8	
Channel									
Frequency (MHz)									
90	QPSK	1	1	21.62	21.79	21.51	23.3	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	21.64	21.75	21.52	23.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	21.66	21.80	21.61	23.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	21.57	21.70	21.73	23.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	21.63	21.69	21.51	23.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	21.63	21.72	21.52	23.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	21.61	21.74	21.53	23.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	21.62	21.77	21.57	23.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	21.66	21.80	21.55	23.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	21.64	21.78	21.54	23.3	0.0	



Part270 n78 Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	3750	3750	3750			
100	PI2 BPSK	1	137		18.50				
100	PI2 BPSK	1	271		18.43		20.3	0.0	
100	PI2 BPSK	135	0		18.35		20.3	0.0	
100	PI2 BPSK	135	69		18.45		20.3	0.0	
100	PI2 BPSK	135	138		18.33		20.3	0.0	
100	PI2 BPSK	270	0		18.50		20.3	0.0	
100	QPSK	1	1		18.53				
100	QPSK	1	137		18.52		20.3	0.0	
100	QPSK	1	271		18.42				
100	QPSK	135	0		18.46		20.3	0.0	
100	QPSK	135	69		18.46		20.3	0.0	
100	QPSK	135	138		18.43		20.3	0.0	
100	QPSK	270	0		18.51		20.3	0.0	
100	16QAM	1	1		18.47		20.3	0.0	
100	64QAM	1	1		18.35		20.3	0.0	
100	256QAM	1	1		18.32		19.5	0.8	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649868	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.44	18.47	18.37	20.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3730.02	3750	3770.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.44	18.42	18.39	20.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	3735	3750	3765	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.44	18.43	18.35	20.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	648000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									

Part270 n78 HPUE Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 650000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	3750	3750	3750			
100	PI2 BPSK	1	137		21.60				
100	PI2 BPSK	1	271		21.55		23.3	0.0	
100	PI2 BPSK	135	0		21.53		23.3	0.0	
100	PI2 BPSK	135	69		21.59		23.3	0.0	
100	PI2 BPSK	135	138		21.56		23.3	0.0	
100	PI2 BPSK	270	0		21.59		23.3	0.0	
100	QPSK	1	1		21.69				
100	QPSK	1	137		21.59		23.3	0.0	
100	QPSK	1	271		21.51				
100	QPSK	135	0		21.55		23.3	0.0	
100	QPSK	135	69		21.60		23.3	0.0	
100	QPSK	135	138		21.53		23.3	0.0	
100	QPSK	270	0		21.54		23.3	0.0	
100	16QAM	1	1		21.54		23.3	0.0	
100	64QAM	1	1		21.56		23.3	0.0	
100	256QAM	1	1		21.50		22.5	0.8	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649868	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	21.61	21.59	21.50	23.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3730.02	3750	3770.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	21.55	21.60	21.56	23.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	3735	3750	3765	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	21.52	21.65	21.63	23.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647000	650000	653000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									



**WiFi&Bluetooth Power**

	Mode	Channel	Frequency (MHz)	Full Power Extremity for Standalone Ant4		Full Power Extremity for Standalone Ant5		Full Power Extremity for Standalone Ant 6+4		Head for Standalone Ant5+4		Head for Standalone Ant 4		Head for Standalone Ant 5		Head for Simultaneous DBS Only Bodywork for Simultaneous WWAN+non DBS Ant4		Head for Simultaneous DBS Only Bodywork for Simultaneous WWAN+non DBS Ant4		Head for Simultaneous DBS Only Bodywork for Simultaneous WWAN+non DBS Ant5	
				Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit
2.4GHz WLAN	802.11b 1Mbps	1	2412	21.55	23.00	20.85	23.50	24.22	26.00	19.39	21.00	16.24	18.00	15.74	17.50	16.84	18.50	13.73	15.50	13.23	15.00
		6	2437	21.73	23.00	21.19	23.00	24.48	26.00	19.61	21.00	16.28	18.00	16.05	17.50	17.12	18.50	13.79	15.50	13.52	15.00
		11	2462	21.74	23.00	21.36	23.00	24.56	26.00	19.71	21.00	16.45	18.00	16.26	17.50	17.20	18.50	13.82	15.50	13.75	15.00
		1	2412	19.55	21.00	19.55	21.00	22.57	24.00		21.00		18.00		17.50		18.50		15.50		15.00
		6	2437	19.57	21.00	19.53	21.00	22.57	24.00		21.00		18.00		17.50		18.50		15.50		15.00
		11	2462	19.65	21.00	19.58	21.00	22.63	24.00		21.00		18.00		17.50		18.50		15.50		15.00
	802.11n-HT20 MCS0	1	2412	18.16	19.50	18.11	19.50	21.15	23.50		21.00		18.00		17.50		18.50		15.50		15.00
		6	2437	18.44	19.50	18.07	19.50	21.27	23.50		21.00		18.00		17.50		18.50		15.50		15.00
		11	2462	17.82	19.50	17.76	19.50	20.80	23.50		21.00		18.00		17.50		18.50		15.50		15.00
		3	2422	18.61	20.00	18.45	20.00	21.64	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		6	2437	18.53	20.00	18.24	20.00	21.40	23.00	Not Required	21.00	Not Required	18.00	Not Required	17.50	Not Required	18.50	Not Required	15.50	Not Required	15.00
		9	2452	18.22	20.00	17.87	19.50	21.96	23.50		21.00		18.00		17.50		18.50		15.50		15.00
	802.11n-HT40 MCS0	1	2412	18.31	20.00	18.22	20.00	21.26	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		6	2437	18.40	20.00	18.15	20.00	21.33	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		11	2462	17.88	19.50	17.84	19.50	20.87	23.50		21.00		18.00		17.50		18.50		15.50		15.00
		3	2422	18.69	20.00	18.49	20.00	21.60	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		6	2437	18.58	20.00	18.32	20.00	21.49	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		9	2452	18.28	20.00	17.95	19.50	21.13	23.50		21.00		18.00		17.50		18.50		15.50		15.00
	802.11n-HE40 MCS0	1	2412	18.31	20.00	18.22	20.00	21.26	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		6	2437	18.40	20.00	18.15	20.00	21.33	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		11	2462	17.88	19.50	17.84	19.50	20.87	23.50		21.00		18.00		17.50		18.50		15.50		15.00
		3	2422	18.69	20.00	18.49	20.00	21.60	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		6	2437	18.58	20.00	18.32	20.00	21.49	23.00		21.00		18.00		17.50		18.50		15.50		15.00
		9	2452	18.28	20.00	17.95	19.50	21.13	23.50		21.00		18.00		17.50		18.50		15.50		15.00



			Head for Simultaneous WWAN+DSS Bodyworn for Simultaneous WWAN+DSS Ant4		Head for Simultaneous WWAN+DSS Bodyworn for Simultaneous WWAN+DSS Ant4		Head for Simultaneous WWAN+DSS Bodyworn for Simultaneous WWAN+DSS Ant5		Head for Simultaneous WWAN+DSS Ant4		Head for Simultaneous WWAN+DSS Ant5		Bodyworn for Standalone Ant4		Bodyworn for Standalone Ant4		Bodyworn for Standalone Ant5		Bodyworn for Simultaneous DSS only Ant4				
Mode	Channel	Frequency (MHz)	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit			
2.4GHz WLAN	802.11b 1Mbps	1	2412	13.83	15.50	10.75	12.50	10.21	12.00	10.84	12.50	7.77	9.50	7.23	9.00	22.86	24.00	19.74	21.50	19.27	21.00	19.88	21.50
		6	2437	14.09	15.50	10.77	12.50	10.49	12.00	11.13	12.50	7.79	9.50	7.48	9.00	23.12	24.50	19.74	21.50	19.59	21.00	20.12	21.50
		11	2462	14.16	15.50	10.91	12.50	10.73	12.00	11.23	12.50	7.88	9.50	7.72	9.00	23.23	24.00	19.65	21.50	19.76	21.00	20.21	21.50
	802.11g 6Mbps	1	2412		15.50		12.50		12.00		12.50		9.50		9.00	22.57	24.00	19.55	21.00	19.55	21.00		21.50
		6	2437		15.50		12.50		12.00		12.50		9.50		9.00	22.57	24.00	19.57	21.00	19.53	21.00		21.50
		11	2462		15.50		12.50		12.00		12.50		9.50		9.00	22.63	24.00	19.65	21.00	19.58	21.00		21.50
	802.11n-HT20 MCS0	1	2412		15.50		12.50		12.00		12.50		9.50		9.00	22.50		19.50		19.50			21.50
		6	2437		15.50		12.50		12.00		12.50		9.50		9.00	22.50		19.50		19.50			21.50
		11	2462		15.50		12.50		12.00		12.50		9.50		9.00	22.50		19.50		19.50			21.50
	802.11n-HT40 MCS0	3	2422		15.50		12.50		12.00		12.50		9.50		9.00	23.00		20.00		20.00			21.50
		6	2437	Not Required	15.50	Not Required	12.50	Not Required	12.00	Not Required	12.50	Not Required	9.50	Not Required	9.00	23.00		20.00		20.00		Not Required	21.50
		9	2452		15.50		12.50		12.00		12.50		9.50		9.00	22.50		20.00		19.50			21.50
	802.11n-HE20 MCS0	1	2412		15.50		12.50		12.00		12.50		9.50		9.00	23.00		20.00		20.00			21.50
		6	2437		15.50		12.50		12.00		12.50		9.50		9.00	23.00		20.00		20.00			21.50
		11	2462		15.50		12.50		12.00		12.50		9.50		9.00	22.50		19.50		19.50			21.50
	802.11n-HE40 MCS0	3	2422		15.50		12.50		12.00		12.50		9.50		9.00	23.00		20.00		20.00			21.50
		6	2437		15.50		12.50		12.00		12.50		9.50		9.00	23.00		20.00		20.00			21.50
		9	2452		15.50		12.50		12.00		12.50		9.50		9.00	22.50		20.00		19.60			21.50



Mode	Channel	Frequency (MHz)	Body worn for Simultaneous DBS only A44		Body worn for Simultaneous DBS only A45		Helmet for Simultaneous WWANnon DBS A44+4		Helmet for Simultaneous WWANnon DBS A44		Helmet for Simultaneous WWANnon DBS A45		Helmet for Simultaneous WWAN+DBS A44+4		Helmet for Simultaneous WWAN+DBS A44		Helmet for Simultaneous WWAN+DBS A45		Externally for Simultaneous DBS only A44+4		Externally for Simultaneous DBS only A44		
			Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)
2.4GHz WLAN	802.11b 1Mbps	1	2412	16.81	18.50	16.28	18.00	13.33	15.00	10.20	12.00	9.81	11.50	10.34	12.00	7.28	9.00	6.85	8.50	21.36	23.00	18.29	20.00
		6	2437	16.68	18.50	16.56	18.00	13.82	15.00	10.18	12.00	10.03	11.50	10.62	12.00	7.23	9.00	7.01	8.50	21.60	23.00	18.24	20.00
		11	2462	16.55	18.50	16.78	18.00	13.71	15.00	10.41	12.00	10.25	11.50	10.75	12.00	7.43	9.00	7.24	8.50	21.70	23.00	18.45	20.00
	802.11g 9Mbps	1	2412		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		23.00		20.00
		6	2437		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		23.00		20.00
		11	2462		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		23.00		20.00
	802.11n-HT20 MCS0	1	2412		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		22.50		19.50
		6	2437		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		22.50		19.50
		11	2462		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		23.00		20.00
	802.11n-HT40 MCS0	3	2422	Not Required	18.50	Not Required	18.00	Not Required	15.00	Not Required	12.00	Not Required	11.50	Not Required	12.00	Not Required	9.00	Not Required	8.50	Not Required	23.00	Not Required	20.00
		6	2437	Not Required	18.50	Not Required	18.00	Not Required	15.00	Not Required	12.00	Not Required	11.50	Not Required	12.00	Not Required	9.00	Not Required	8.50	Not Required	23.00	Not Required	20.00
		9	2452	Not Required	18.50	Not Required	18.00	Not Required	15.00	Not Required	12.00	Not Required	11.50	Not Required	12.00	Not Required	9.00	Not Required	8.50	Not Required	23.00	Not Required	20.00
	802.11n+HE20 MCS0	1	2412		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		23.00		20.00
		6	2437		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		23.00		20.00
		11	2462		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		22.50		19.50
	802.11n+HE40 MCS0	3	2422		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		23.00		20.00
		6	2437		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		23.00		20.00
		9	2452		18.50		18.00		15.00		12.00		11.50		12.00		9.00		8.50		22.50		20.00



				Exemption for Simultaneous DBS only A-G5		Exemption for Simultaneous WWAN+non DBS A-G4		Exemption for Simultaneous WWAN+non DBS A-G4		Exemption for Simultaneous WWAN+non DBS A-G5		Exemption for Simultaneous WWAN+DBS A-G4		Exemption for Simultaneous WWAN+DBS A-G4		Exemption for Simultaneous WWAN+DBS A-G5						
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Average power (dBm)	Time-Up Limit	Duty Cycle %		
2.4GHz WLAN	802.11b-1Mbps	1	2412	17.87	19.50	17.86	19.50	14.72	16.50	14.24	16.50	14.89	16.50	11.71	13.50	11.23	13.00			100		
		6	2437	18.02	19.50	18.12	19.50	14.75	16.50	14.55	16.50	15.14	16.50	11.73	13.50	11.52	13.00					
		11	2462	18.17	19.50	18.21	19.50	14.89	16.50	14.73	16.50	15.22	16.50	11.88	13.50	11.77	13.00					
		1	2412		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		6	2437		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		11	2462		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
	802.11g-6Mbps	1	2412		19.50		19.50		16.50		16.00		16.50		13.50		13.00				98.97	
		6	2437		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		11	2462		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		1	2412		19.50		19.50		16.50		16.00		16.50		13.50		13.00					100.00
		6	2437		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		11	2462		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
	802.11n-HT20 MCS0	1	2412		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		6	2437		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		11	2462		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		3	2422	Not Required	19.50	Not Required	19.50	16.50	16.00	16.50	16.00	16.50	16.00	13.50	13.00	13.00	13.00	100				
		6	2437	Not Required	19.50	Not Required	19.50	16.50	16.00	16.50	16.00	16.50	16.00	13.50	13.00	13.00	13.00	100				
		9	2452	Not Required	19.50	Not Required	19.50	16.50	16.00	16.50	16.00	16.50	16.00	13.50	13.00	13.00	13.00	100				
	802.11n-HT40 MCS0	1	2412		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		6	2437		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		11	2462		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		3	2422		19.50		19.50		16.50		16.00		16.50		13.50		13.00				100	
		6	2437		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
		9	2452		19.50		19.50		16.50		16.00		16.50		13.50		13.00					
802.11ax-HE30 MCS0	1	2412		19.50		19.50		16.50		16.00		16.50		13.50		13.00						
	6	2437		19.50		19.50		16.50		16.00		16.50		13.50		13.00						
	11	2462		19.50		19.50		16.50		16.00		16.50		13.50		13.00						
	3	2422		19.50		19.50		16.50		16.00		16.50		13.50		13.00				100		
	6	2437		19.50		19.50		16.50		16.00		16.50		13.50		13.00						
	9	2452		19.50		19.50		16.50		16.00		16.50		13.50		13.00						





Mode	Channel	Frequency (MHz)	Full Power Head for Stationary Bodywork for Standalone Bodywork for Simultaneous DBS only Externally for Standalone Externally for Simultaneous DBS only Ant4		Full Power Head for Stationary Bodywork for Standalone Bodywork for Simultaneous DBS only Externally for Standalone Externally for Simultaneous DBS only Ant5		Full Power Head for Stationary Bodywork for Standalone Bodywork for Simultaneous DBS only Externally for Standalone Externally for Simultaneous DBS only Ant5		Head for Simultaneous DBS only	Head for Simultaneous DBS only	Head for Simultaneous DBS only	Head for Simultaneous WWAN+non DBS Ant4	Head for Simultaneous WWAN+non DBS Ant4	Head for Simultaneous WWAN+non DBS Ant4	Head for Simultaneous WWAN+non DBS Ant4	Head for Simultaneous WWAN+non DBS Ant4						
			Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit				
E-EDGE WLAN	802.11a-6MPP	36	5180	18.98	20.50	19.13	21.00	23.02	23.50	21.00	17.00	17.00	18.00	15.00	14.50	15.00	13.00	11.50				
		40	5200	18.76	20.50	19.20	21.00	22.04	23.50	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		44	5220	18.42	20.50	19.26	21.00	21.87	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		48	5240	18.95	20.50	19.17	21.00	22.07	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		36	5180	18.25	20.50	18.84	20.50	21.57	23.00	Not Required	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50			
		40	5200	18.32	20.50	18.88	20.50	21.62	23.00	Not Required	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50			
	802.11a-HT20 MCS9	44	5220	18.15	20.50	18.73	20.50	21.46	23.00	19.23	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		48	5240	18.44	20.50	18.74	20.50	21.60	23.00	19.23	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		38	5160	18.33	17.00	18.91	17.50	19.64	20.00	18.64	20.00	16.28	17.00	15.86	17.50	15.00	14.50	15.00	12.00	11.50		
		46	5230	17.62	19.50	18.85	20.00	21.12	22.50	19.23	21.00	16.73	17.00	16.19	17.50	15.00	14.50	15.00	12.00	11.50		
		36	5180	18.38	20.00	18.96	20.50	21.89	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		40	5200	18.40	20.00	19.02	20.50	21.73	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
	802.11ac-VHT20 MCS9	44	5220	18.24	20.50	18.96	20.50	21.64	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		48	5240	18.63	20.50	18.95	20.50	21.80	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		38	5160	18.57	17.00	18.98	17.50	19.79	20.50	20.50	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		46	5230	17.87	19.50	18.73	20.50	21.33	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		42	5210	18.41	16.00	18.23	17.00	17.85	19.50	19.50	17.00	16.47	18.00	13.37	15.00	12.95	14.50	13.50	10.33	12.00	9.96	11.50
		36	5180	18.58	20.00	19.07	20.50	21.84	23.00	Not Required	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50			
	802.11ax-HE30 MCS9	40	5200	18.98	20.00	19.11	21.00	21.85	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		44	5220	18.36	20.00	19.13	21.00	21.77	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		48	5240	18.84	20.50	19.06	20.50	21.96	23.50	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		38	5160	18.66	17.50	18.98	17.50	19.87	20.50	20.50	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		46	5230	18.94	19.80	19.94	20.80	21.62	23.00	21.00	17.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50				
		42	5210	14.55	16.00	15.29	17.00	17.95	19.50	19.50	17.00	16.00	17.00	18.00	15.00	14.50	15.00	12.00	11.50			

Mode	Channel	Frequency (MHz)	Full Power Head for Stationary Bodywork for Standalone Bodywork for Simultaneous DBS only Externally for Standalone Externally for Simultaneous DBS only Ant4		Full Power Head for Stationary Bodywork for Standalone Bodywork for Simultaneous DBS only Externally for Standalone Externally for Simultaneous DBS only Ant5		Full Power Head for Stationary Bodywork for Standalone Bodywork for Simultaneous DBS only Externally for Standalone Externally for Simultaneous DBS only Ant5		Head for Simultaneous DBS only Ant4+4	Head for Simultaneous DBS only Ant4	Head for Simultaneous DBS only Ant5	Head for Simultaneous WWAN+non DBS Ant4+4	Head for Simultaneous WWAN+non DBS Ant4	Head for Simultaneous WWAN+non DBS Ant5	Head for Simultaneous WWAN+non DBS Ant4	Head for Simultaneous WWAN+non DBS Ant4	Head for Simultaneous WWAN+non DBS Ant5										
			Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit							
E-EDGE WLAN	802.11a-6MPP	52	5260	19.08	20.50	19.15	20.50	20.13	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		56	5280	18.98	20.50	19.33	20.50	20.13	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		60	5300	18.83	20.50	19.03	20.50	21.94	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		64	5320	18.71	20.50	19.12	20.50	21.93	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		52	5260	18.55	20.00	18.70	20.50	21.84	23.00	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		56	5280	18.61	20.00	18.87	20.50	21.75	23.00	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
	802.11a-HT20 MCS9	60	5300	18.40	20.00	18.71	20.50	21.81	23.00	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		64	5320	18.35	20.00	18.77	20.50	21.58	23.00	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		54	5270	18.01	19.50	18.62	20.00	21.34	23.00	Not Required	21.50	18.00	18.50	15.00	15.00	15.50	15.50	12.00	12.50								
		62	5310	18.82	18.50	17.22	19.00	20.03	21.50	21.50	18.00	18.50	15.00	15.00	15.50	15.50	12.00	12.50									
		52	5260	18.79	20.50	18.89	20.50	21.85	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		56	5280	18.75	20.50	19.00	20.50	21.89	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
	802.11ac-VHT20 MCS9	60	5300	18.63	20.50	18.84	20.50	21.75	23.00	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		64	5320	18.49	20.00	18.88	20.50	21.70	23.00	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		54	5270	18.25	20.00	18.77	20.00	21.83	23.00	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		62	5310	17.12	19.00	17.29	19.00	20.22	21.50	21.50	18.00	18.50	15.00	15.00	15.50	15.50	12.00	12.50									
		58	5290	16.45	18.00	16.81	18.50	19.64	21.00	19.64	21.50	16.38	18.00	16.79	18.50	16.77	18.50	13.41	15.00	13.75	15.50	13.77	15.50	10.43	12.00	10.78	12.50
		50	5250	13.74	15.50	14.09	15.50	16.93	18.50	18.50	18.00	15.50	15.50	18.50	15.00	15.00	15.50	15.50	12.00	12.50							
	802.11ax-HE30 MCS9	52	5260	18.96	20.50	19.07	20.50	22.03	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		56	5280	18.90	20.50	19.12	21.00	22.92	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		60	5300	18.73	20.50	18.96	20.50	21.96	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		64	5320	18.63	20.50	19.00	20.50	21.83	23.50	21.50	18.00	18.50	15.50	15.00	15.50	15.50	12.00	12.50									
		54	5270	18.49	20.00	18.84	20.50	21.68	23.00	Not Required	21.50	18.00	18.50	15.00	15.00	15.50	15.50	12.00	12.50								
		62	5310	17.23	19.00	17.32	19.00	20.29	22.00	21.50	18.00	18.50	15.00	15.00	15.50	15.50	12.00	12.50									
802.11ax-HE9B MCS9	58	5290	16.63	18.50	16.95	18.50	19.80	21.50	21.50	18.00	18.50	15.00	15.00	15.50	15.50	12.00	12.50										
	50	5250	13.83	15.50	14.35	16.00	17.11	18.5	18.50	16.00	16.00	18.50	15.00	15.00	15.50	15.50	12.00	12.50									





Mode	Channel	Frequency (MHz)	Full Power Bodyroom for Standalone		Full Power Bodyroom for Standalone		Full Power Bodyroom for Standalone		Head for Standalone		Head for Standalone		Head for Standalone		Head for Standalone		Head for Standalone		Head for Standalone		Head for Standalone		Head for Standalone				
			Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	Average power (dBm)	Turn-Up Limit	
802.11a 8Mbps	100	5500	17.96	19.50	18.40	20.00	21.20	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	116	5580	18.79	20.50	18.10	20.00	21.47	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	124	5620	18.94	20.50	18.08	20.00	21.38	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	132	5660	18.60	20.50	18.36	20.00	21.52	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	140	5700	18.48	20.00	18.57	20.00	21.94	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	144	5720	18.55	20.00	18.39	20.00	21.48	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	150	5500	17.79	19.50	17.95	19.50	20.88	22.50	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	116	5580	18.40	20.00	17.65	19.50	21.05	22.50	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	124	5620	18.22	20.00	17.84	19.50	21.84	22.50	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	132	5660	18.27	20.00	17.95	19.50	21.12	22.50	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	140	5700	18.06	19.50	18.09	19.50	21.06	22.50	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	144	5720	18.11	20.00	17.98	19.50	21.06	22.50	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	102	5510	17.09	18.50	17.47	19.00	20.27	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	110	5550	17.09	18.50	17.28	19.00	20.20	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	126	5630	17.44	19.00	17.22	19.00	20.34	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	134	5670	17.26	19.00	17.69	19.00	20.52	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	142	5710	17.25	19.00	17.62	19.00	20.45	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	100	5500	17.84	19.50	18.15	20.00	21.01	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	116	5580	18.58	20.00	17.85	19.50	21.24	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	124	5620	18.35	20.00	17.91	19.50	21.15	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	132	5660	18.41	20.00	18.12	20.00	21.28	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	140	5700	18.26	20.00	18.26	20.00	21.26	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	144	5720	18.31	20.00	18.17	20.00	21.25	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	102	5510	17.05	18.50	17.60	19.00	20.34	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	110	5550	17.09	18.50	17.48	19.00	20.30	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	126	5630	17.68	19.00	17.35	19.00	20.52	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	134	5670	17.54	19.00	17.92	19.00	20.74	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	142	5710	17.59	19.00	17.76	19.00	20.66	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	134	5670	18.05	19.50	18.52	19.00	19.30	21.00	19.88	20.50	15.51	17.50	16.01	17.50	16.95	15.50	13.42	15.00	13.98	15.50	13.93	15.50	10.44	16.00	10.96	12.00	10.96
	132	5610	18.66	18.00	18.31	18.00	19.60	21.00	19.11	20.50	15.87	17.50	15.83	17.50	17.16	19.00	13.76	15.00	13.85	15.50	14.14	16.00	10.89	12.50	10.87	12.50	
	138	5690	18.45	18.00	17.86	18.50	19.78	21.00	19.38	20.50	16.08	17.50	15.82	18.00	17.39	19.00	13.85	15.50	14.47	16.00	14.41	16.00	11.01	12.50	11.46	12.50	
	802.11a-MCS0	114	5570	15.23	17.00	15.36	17.00	18.31	20.00	20.00	17.00	17.00	17.00	10.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	
802.11a-MCS0	100	5500	17.94	19.50	18.24	20.00	21.10	22.50	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	116	5580	18.73	20.00	17.98	19.50	21.38	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	124	5620	18.60	20.00	18.01	19.50	21.30	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	132	5660	18.58	20.00	18.23	20.00	21.42	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	140	5700	18.46	20.00	18.46	20.00	21.47	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	144	5720	18.53	20.00	18.27	20.00	21.41	23.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	102	5510	17.17	19.00	17.72	19.50	20.46	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	110	5550	17.24	19.00	17.67	19.50	20.47	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
802.11a-MCS0	126	5630	17.90	19.50	17.55	19.00	20.74	22.00	20.50	17.50	18.00	19.00	15.50	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00		
	134	5670	17.71	19.00	18.02	19.50	20.88	22.00	20.50	17.50	18.00	19.00	15.50	16.00	1												



**BR/EDR Ant 5**

Mode	Channel	Frequency (MHz)	Average power (dBm)			Tune-up Limit
			1Mbps	2Mbps	3Mbps	
BR / EDR	CH00	2402	7.71	7.23	7.20	9.00
	CH39	2441	8.53	7.98	7.95	9.00
	CH78	2480	6.12	5.45	5.43	7.00

**BLE 1M**

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
LE	CH00	2402	8.88		
	CH19	2440	7.25		
	CH39	2480	6.02		
Tune-up Limit			8.00		

**BLE 2M**

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
LE	CH00	2402	6.75		
	CH19	2440	7.63		
	CH39	2480	5.07		
Tune-up Limit			8.00		

**BR/EDR Ant 4**

Mode	Channel	Frequency (MHz)	Average power (dBm)			Tune-up Limit
			1Mbps	2Mbps	3Mbps	
BR / EDR	CH00	2402	10.42	9.97	9.96	11.00
	CH39	2441	11.87	11.15	11.16	12.00
	CH78	2480	9.11	8.48	8.48	10.00

**BLE 1M**

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
LE	CH00	2402	8.51		
	CH19	2440	9.59		
	CH39	2480	7.36		
Tune-up Limit			10.00		

**BLE 2M**

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
LE	CH00	2402	8.80		
	CH19	2440	9.71		
	CH39	2480	7.43		
Tune-up Limit			10.00		