



REPORT No.: SZ23020309S01

Annex E Conducted Power



Full Power

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8		
Frequency (MHz)	824.2	836.4	848.8	33.50	23.65	23.70	23.68	24.50	
GSM 1 Tx slot	32.65	32.70	32.68	33.50	23.65	23.70	23.68	24.50	0.07
GPRS 1 Tx slot	32.63	32.69	32.67	33.00	23.63	23.69	23.67	24.00	
GPRS 2 Tx slots	30.52	30.55	30.51	31.50	24.52	24.55	24.51	25.50	0.04
GPRS 3 Tx slots	28.64	28.66	28.63	29.50	24.38	24.40	24.37	25.24	0.03
GPRS 4 Tx slots	26.57	26.59	26.53	27.50	23.57	23.59	23.53	24.50	0.06
EDGE 1 Tx slot	25.55	25.63	25.57	26.50	18.55	18.63	18.57	17.50	0.08
EDGE 2 Tx slots	24.33	24.37	24.29	25.00	18.33	18.37	18.29	19.00	0.08
EDGE 3 Tx slots	22.13	22.21	22.15	23.00	17.87	17.95	17.89	18.74	0.08
EDGE 4 Tx slots	20.06	20.13	20.04	21.00	17.06	17.13	17.04	18.00	0.09
Mode		Max.	32.70			Max.	24.55		
Attenuator	Cable Loss : 0.6								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8		
Frequency (MHz)	1850.2	1880	1909.8	30.50	20.52	20.56	20.53	21.50	
GSM 1 Tx slot	29.52	29.56	29.53	30.50	20.52	20.56	20.53	21.50	0.06
GPRS 1 Tx slot	29.50	29.55	29.51	30.50	20.50	20.55	20.51	21.50	
GPRS 2 Tx slots	27.17	27.21	27.18	28.00	21.17	21.21	21.18	22.00	0.04
GPRS 3 Tx slots	25.65	25.67	25.61	26.50	21.39	21.41	21.35	22.24	0.06
GPRS 4 Tx slots	23.38	23.42	23.39	24.00	20.38	20.42	20.39	21.00	0.04
EDGE 1 Tx slot	25.35	25.41	25.36	26.00	16.35	16.41	16.36	17.00	0.06
EDGE 2 Tx slots	23.81	23.87	23.85	24.50	17.81	17.87	17.85	18.50	0.06
EDGE 3 Tx slots	21.27	21.36	21.35	22.00	17.01	17.10	17.09	17.74	0.09
EDGE 4 Tx slots	19.21	19.29	19.36	20.00	16.21	16.29	16.36	17.00	0.15
Mode		Max.	29.56			Max.	21.41		
Attenuator	Cable Loss : 0.8								

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
Frequency (MHz)	1852.4	1880	1907.6	24.50	22.66	22.75	22.73	23.50	22.55	22.62	22.56	23.50
3GPP Rel 99 RMC 12.2Kbps	23.65	23.68	23.66	24.50	22.66	22.75	22.73	23.50	22.55	22.62	22.56	23.50
3GPP Rel 6 HSDPA Subtest-1	22.25	22.59	22.56	23.50	22.21	22.56	22.37	23.50	21.55	21.55	21.77	22.50
3GPP Rel 6 HSDPA Subtest-2	20.63	20.74	20.96	21.50	20.78	21.12	20.82	22.00	21.24	21.29	21.27	22.50
3GPP Rel 6 HSDPA Subtest-3	19.78	20.05	19.84	21.00	20.23	20.51	20.21	21.50	20.71	20.93	20.85	22.00
3GPP Rel 6 HSDPA Subtest-4	19.94	19.81	19.72	21.00	20.26	20.48	20.61	21.50	19.83	19.89	19.69	21.50
3GPP Rel 6 HSUPA Subtest-1	19.72	19.94	19.93	21.00	21.50	21.95	21.55	22.50	21.21	21.33	21.42	22.50
3GPP Rel 6 HSUPA Subtest-2	20.32	20.40	20.24	21.50	21.10	21.15	20.81	22.00	19.39	19.42	19.53	20.50
3GPP Rel 6 HSUPA Subtest-3	20.30	20.64	20.50	21.50	21.12	21.25	21.14	22.50	20.55	20.52	20.78	21.50
3GPP Rel 6 HSUPA Subtest-4	20.62	20.93	20.71	21.50	21.39	21.51	21.42	22.50	19.43	19.50	19.60	20.50
3GPP Rel 6 HSUPA Subtest-5	22.53	22.78	22.84	23.50	22.36	22.60	22.54	23.50	21.48	21.56	21.46	22.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	20.17	20.39	20.23	21.00	20.01	20.15	19.89	21.00	19.25	19.31	19.29	20.00
Attenuator	Cable Loss 0.8				Cable Loss 0.8				Cable Loss 0.8			
Mode		Max.	23.68			Max.	22.75		Max.	22.62		



Band 2 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	24.5
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	23.71	23.77	23.75	
20	QPSK	1	49	23.66	23.72	23.64	23.5
20	QPSK	1	99	23.67	23.68	23.70	
20	QPSK	50	0	22.69	22.75	22.73	
20	QPSK	50	24	22.63	22.66	22.62	23.5
20	QPSK	50	50	22.55	22.59	22.70	
20	QPSK	100	0	22.61	22.67	22.64	
20	16QAM	1	0	22.90	22.88	22.84	23.5
20	16QAM	1	49	22.75	22.91	22.82	
20	16QAM	1	99	22.73	22.83	22.76	
20	16QAM	50	0	21.79	21.91	21.83	22.5
20	16QAM	50	24	21.68	21.86	21.71	
20	16QAM	50	50	21.74	21.77	21.69	
20	16QAM	100	0	21.82	21.84	21.76	24.5
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.70	23.74	23.72	24.5
15	QPSK	1	37	23.54	23.57	23.63	
15	QPSK	1	74	23.65	23.66	23.60	
15	QPSK	36	0	22.74	22.82	22.77	23.5
15	QPSK	36	20	22.58	22.64	22.62	
15	QPSK	36	39	22.60	22.55	22.53	
15	QPSK	76	0	22.59	22.64	22.74	23.5
15	16QAM	1	0	22.82	22.96	22.89	
15	16QAM	1	37	22.89	22.88	22.82	
15	16QAM	1	74	22.65	22.83	22.58	22.5
15	16QAM	36	0	21.70	21.89	21.93	
15	16QAM	36	20	21.81	21.74	21.78	
15	16QAM	36	39	21.75	21.63	21.58	22.5
15	16QAM	76	0	21.72	21.66	21.75	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.64	23.75	23.71	24.5
10	QPSK	1	25	23.62	23.73	23.57	
10	QPSK	1	49	23.74	23.52	23.62	
10	QPSK	25	0	22.80	22.85	22.84	23.5
10	QPSK	25	12	22.55	22.64	22.57	
10	QPSK	25	25	22.69	22.52	22.83	
10	QPSK	50	0	22.75	22.69	22.57	23.5
10	16QAM	1	0	22.80	22.73	22.69	
10	16QAM	1	25	22.85	22.71	22.91	
10	16QAM	1	49	22.87	22.84	22.75	22.5
10	16QAM	25	0	21.89	21.76	21.65	
10	16QAM	25	12	21.49	21.65	21.64	
10	16QAM	25	25	21.65	21.63	21.82	22.5
10	16QAM	50	0	21.76	21.78	21.57	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.61	23.73	23.65	24.5
5	QPSK	1	12	23.67	23.53	23.71	
5	QPSK	1	24	23.62	23.69	23.64	
5	QPSK	12	0	22.57	22.56	22.76	23.5
5	QPSK	12	7	22.70	22.59	22.57	
5	QPSK	12	13	22.67	22.66	22.58	
5	QPSK	25	0	22.70	22.53	22.46	23.5
5	16QAM	1	0	22.83	22.85	22.86	
5	16QAM	1	12	22.62	22.79	22.85	
5	16QAM	1	24	22.53	22.81	22.79	22.5
5	16QAM	12	0	21.86	21.95	21.91	
5	16QAM	12	7	21.71	21.96	21.57	
5	16QAM	12	13	21.59	21.83	21.79	22.5
5	16QAM	25	0	21.70	21.92	21.78	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	23.65	23.74	23.60	24.5
3	QPSK	1	8	23.59	23.70	23.61	
3	QPSK	1	14	23.68	23.64	23.59	
3	QPSK	8	0	22.62	22.74	22.55	23.5
3	QPSK	8	4	22.45	22.47	22.49	
3	QPSK	8	7	22.49	22.67	22.64	
3	QPSK	15	0	22.52	22.60	22.64	23.5
3	16QAM	1	0	22.97	22.90	22.71	
3	16QAM	1	8	22.88	22.95	22.77	
3	16QAM	1	14	22.77	22.71	22.71	22.5
3	16QAM	8	0	21.73	21.77	21.66	
3	16QAM	8	4	21.60	21.91	21.82	
3	16QAM	8	7	21.58	21.88	21.68	22.5
3	16QAM	15	0	21.72	21.81	21.71	
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.66	23.72	23.69	24.5
1.4	QPSK	1	3	23.65	23.65	23.68	
1.4	QPSK	1	5	23.52	23.69	23.67	
1.4	QPSK	3	0	22.56	22.64	22.81	23.5
1.4	QPSK	3	1	22.70	22.62	22.50	
1.4	QPSK	3	3	22.52	22.71	22.56	
1.4	QPSK	6	0	22.61	22.56	22.50	23.5
1.4	16QAM	1	0	22.81	22.78	22.89	
1.4	16QAM	1	3	22.77	22.89	22.91	
1.4	16QAM	1	5	22.58	22.77	22.61	23.5
1.4	16QAM	3	0	21.92	21.88	21.98	
1.4	16QAM	3	1	21.72	21.95	21.58	
1.4	16QAM	3	3	21.86	21.82	21.69	22.5
1.4	16QAM	6	0	21.74	21.90	21.63	

Band 4 (AWS Band) (dBm)							
Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	24.5
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	23.60	23.65	23.56	
20	QPSK	1	49	23.55	23.55	23.41	23.5
20	QPSK	1	99	23.51	23.56	23.55	
20	QPSK	50	0	22.69	22.76	22.73	
20	QPSK	50	24	22.57	22.64	22.63	23.5
20	QPSK	50	50	22.61	22.67	22.51	
20	QPSK	100	0	22.57	22.60	22.54	
20	16QAM	1	0	22.69	22.81	22.65	23.5
20	16QAM	1	49	22.75	22.68	22.75	
20	16QAM	1	99	22.58	22.79	22.57	
20	16QAM	50	0	21.45	21.64	21.58	22.5
20	16QAM	50	24	21.44	21.57	21.51	
20	16QAM	50	50	21.48	21.59	21.62	
20	16QAM	100	0	21.69	21.66	21.61	24.5
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	23.53	23.62	23.55	24.5
15	QPSK	1	37	23.48	23.53	23.59	
15	QPSK	1	74	23.54	23.60	23.56	
15	QPSK	36	0	22.64	22.79	22.58	23.5
15	QPSK	36	20	22.63	22.55	22.49	
15	QPSK	36	39	22.59	22.53	22.56	
15	QPSK	76	0	22.60	22.51	22.63	23.5
15	16QAM	1	0	22.59	22.75	22.65	
15	16QAM	1	37	22.51	22.66	22.75	
15	16QAM	1	74	22.61	22.67	22.74	22.5
15	16QAM	36	0	21.63	21.73	21.65	
15	16QAM	36	20	21.62	21.72	21.56	
15	16QAM	36	39	21.58	21.66	21.53	22.5
15	16QAM	76	0	21.68	21.72	21.53	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	23.58	23.63	23.59	24.5
10	QPSK	1	25	23.59	23.57	23.57	
10	QPSK	1	49	23.53	23.51	23.60	
10	QPSK	25	0	22.58	22.76	22.57	23.5
10	QPSK	25	12	22.52	22.63	22.60	
10	QPSK	25	25	22.59	22.62	22.51	
10	QPSK	50	0	22.63	22.51	22.55	23.5
10	16QAM	1	0	22.84	22.81	22.77	
10	16QAM	1	25	22.47	22.59	22.52	
10	16QAM	1	49	22.64	22.60	22.68	22.5
10	16QAM	25	0	21.52	21.75	21.59	
10	16QAM	25	12	21.57	21.70	21.64	
10	16QAM	25	25	21.48	21.72	21.61	22.5
10	16QAM	50	0	21.56	21.74	21.60	
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.55	23.61	23.53	24.5
5	QPSK	1	12	23.50	23.59	23.56	
5	QPSK	1	24	23.52	23.53	23.60	
5	QPSK	12	0	22.57	22.69	22.60	23.5
5	QPSK	12	7	22.51	22.46	22.51	
5	QPSK	12	13	22.48	22.54	22.51	
5	QPSK	25	0	22.54	22.53	22.57	23.5
5	16QAM	1	0	22.69	22.81	22.70	
5	16QAM	1	12	22.60	22.60	22.54	
5	16QAM	1	24	22.63	22.83	22.53	22.5
5	16QAM	12	0	21.49	21.76	21.66	
5	16QAM	12	7	21.63	21.55	21.42	
5	16QAM	12	13	21.68	21.47	21.55	22.5
5	16QAM	25	0	21.66	21.71	21.75	
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0</				



Band 5 (Cellular Band) (dBm) Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	23.23	23.39	23.33	24
10	QPSK	1	25	23.13	23.23	23.32	
10	QPSK	1	49	23.29	23.26	23.27	
10	QPSK	25	0	22.29	22.41	22.22	23
10	QPSK	25	12	22.36	22.19	22.39	
10	QPSK	25	25	22.34	22.19	22.25	
10	QPSK	50	0	22.18	22.20	22.35	23
10	16QAM	1	0	22.32	22.33	22.30	
10	16QAM	1	25	22.28	22.25	22.31	
10	16QAM	1	49	22.38	22.36	22.23	22
10	16QAM	25	0	21.43	21.39	21.40	
10	16QAM	25	12	21.36	21.45	21.21	
10	16QAM	25	25	21.22	21.32	21.40	22
10	16QAM	50	0	21.43	21.43	21.44	
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.35	23.36	23.30	
5	QPSK	1	12	23.22	23.26	23.14	
5	QPSK	1	24	23.14	23.25	23.19	
5	QPSK	12	0	22.38	22.40	22.21	23
5	QPSK	12	7	22.16	22.32	22.25	
5	QPSK	12	13	22.22	22.04	22.30	
5	QPSK	25	0	22.26	22.16	22.21	23
5	16QAM	1	0	22.22	22.41	22.20	
5	16QAM	1	12	22.35	22.26	22.33	
5	16QAM	1	24	22.37	22.35	22.32	22
5	16QAM	12	0	21.42	21.40	21.32	
5	16QAM	12	7	21.21	21.33	21.39	
5	16QAM	12	13	21.19	21.22	21.41	22
5	16QAM	25	0	21.36	21.38	21.42	
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.21	23.37	23.23	
3	QPSK	1	8	23.14	23.30	23.36	
3	QPSK	1	14	23.16	23.22	23.22	
3	QPSK	8	0	22.43	22.44	22.33	23
3	QPSK	8	4	22.19	22.30	22.26	
3	QPSK	8	7	22.34	22.39	22.38	
3	QPSK	15	0	22.12	22.31	22.34	23
3	16QAM	1	0	22.29	22.39	22.39	
3	16QAM	1	8	22.38	22.31	22.42	
3	16QAM	1	14	22.34	22.41	22.44	22
3	16QAM	8	0	21.39	21.41	21.31	
3	16QAM	8	4	21.28	21.35	21.44	
3	16QAM	8	7	21.22	21.27	21.22	22
3	16QAM	15	0	21.33	21.43	21.36	
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.30	23.34	23.33	
1.4	QPSK	1	3	23.18	23.22	23.13	
1.4	QPSK	1	5	23.21	23.21	23.23	
1.4	QPSK	3	0	22.34	22.36	22.33	23
1.4	QPSK	3	1	22.31	22.32	22.35	
1.4	QPSK	3	3	22.35	22.28	22.23	
1.4	QPSK	6	0	22.27	22.43	22.30	23
1.4	16QAM	1	0	22.29	22.38	22.36	
1.4	16QAM	1	3	22.36	22.44	22.24	
1.4	16QAM	1	5	22.35	22.40	22.27	23
1.4	16QAM	3	0	21.24	21.35	21.37	
1.4	16QAM	3	1	21.29	21.42	21.25	
1.4	16QAM	3	3	21.22	21.27	21.33	22
1.4	16QAM	6	0	21.30	21.26	21.35	

Band 7 (2600MHz Band) (dBm) Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.23	23.36	23.22	24
20	QPSK	1	49	23.16	23.29	23.34	
20	QPSK	1	99	23.26	23.24	23.25	
20	QPSK	50	0	22.28	22.45	22.40	23
20	QPSK	50	24	22.18	22.44	22.20	
20	QPSK	50	50	22.13	22.37	22.24	
20	QPSK	100	0	22.33	22.40	22.39	23
20	16QAM	1	0	22.37	22.41	22.33	
20	16QAM	1	49	22.33	22.38	22.46	
20	16QAM	1	99	22.30	22.43	22.22	22
20	16QAM	50	0	21.37	21.36	21.32	
20	16QAM	50	24	21.18	21.29	21.35	
20	16QAM	50	50	21.39	21.45	21.40	22
20	16QAM	100	0	21.32	21.38	21.34	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	23.29	23.34	23.32	
15	QPSK	1	37	23.22	23.26	23.27	
15	QPSK	1	74	23.08	23.19	23.17	
15	QPSK	36	0	22.33	22.39	22.27	23
15	QPSK	36	20	22.15	22.16	22.28	
15	QPSK	36	39	22.03	22.35	22.17	
15	QPSK	75	0	22.20	22.43	22.14	23
15	16QAM	1	0	22.25	22.42	22.31	
15	16QAM	1	37	22.20	22.40	22.18	
15	16QAM	1	74	22.15	22.31	22.22	22
15	16QAM	36	0	21.28	21.37	21.32	
15	16QAM	36	20	21.20	21.39	21.27	
15	16QAM	36	39	21.47	21.26	21.27	22
15	16QAM	75	0	21.24	21.31	21.26	
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	23.21	23.32	23.25	
10	QPSK	1	25	23.23	23.30	23.17	
10	QPSK	1	49	23.25	23.26	23.26	
10	QPSK	25	0	22.14	22.35	22.31	23
10	QPSK	25	12	22.16	22.40	22.21	
10	QPSK	25	25	22.18	22.28	22.28	
10	QPSK	50	0	22.21	22.14	22.26	23
10	16QAM	1	0	22.39	22.46	22.33	
10	16QAM	1	25	22.27	22.47	22.29	
10	16QAM	1	49	22.30	22.38	22.16	22
10	16QAM	25	0	21.33	21.36	21.27	
10	16QAM	25	12	21.15	21.47	21.21	
10	16QAM	25	25	21.24	21.30	21.18	22
10	16QAM	50	0	21.29	21.29	21.24	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.20	23.33	23.19	
5	QPSK	1	12	23.29	23.25	23.27	
5	QPSK	1	24	23.15	23.32	23.31	
5	QPSK	12	0	22.33	22.29	22.25	23
5	QPSK	12	7	22.40	22.33	22.28	
5	QPSK	12	13	22.19	22.33	22.21	
5	QPSK	25	0	22.29	22.30	22.17	23
5	16QAM	1	0	22.44	22.39	22.26	
5	16QAM	1	12	22.32	22.41	22.46	
5	16QAM	1	24	22.28	22.31	22.37	23
5	16QAM	12	0	21.32	21.36	21.37	
5	16QAM	12	7	21.36	21.45	21.33	
5	16QAM	12	13	21.39	21.34	21.33	22
5	16QAM	25	0	21.19	21.29	21.27	



Band 12 (700MHz Low Band) (dBm) Part 27F(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23060	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	23.37	23.39	23.28	24
10	QPSK	1	25	23.16	23.38	23.15	
10	QPSK	1	49	23.22	23.26	23.18	
10	QPSK	25	0	22.32	22.40	22.33	23
10	QPSK	25	12	22.21	22.25	22.23	
10	QPSK	25	25	22.08	22.22	22.19	
10	QPSK	50	0	22.15	22.23	22.25	23
10	16QAM	1	0	22.37	22.42	22.35	
10	16QAM	1	25	22.24	22.29	22.22	
10	16QAM	1	49	22.33	22.33	22.31	22
10	16QAM	25	0	21.54	21.38	21.34	
10	16QAM	25	12	21.39	21.41	21.23	
10	16QAM	25	25	21.19	21.25	21.18	22
10	16QAM	50	0	21.33	21.33	21.24	
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.30	23.37	23.23	
5	QPSK	1	12	23.32	23.28	23.34	
5	QPSK	1	24	23.33	23.29	23.19	
5	QPSK	12	0	22.28	22.43	22.33	23
5	QPSK	12	7	22.15	22.26	22.27	
5	QPSK	12	13	22.17	22.18	22.16	
5	QPSK	25	0	22.07	22.29	22.26	23
5	16QAM	1	0	22.42	22.39	22.32	
5	16QAM	1	12	22.16	22.30	22.32	
5	16QAM	1	24	22.36	22.22	22.21	22
5	16QAM	12	0	21.32	21.38	21.38	
5	16QAM	12	7	21.21	21.32	21.25	
5	16QAM	12	13	21.24	21.28	21.33	22
5	16QAM	25	0	21.33	21.29	21.16	
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	23.17	23.35	23.29	
3	QPSK	1	8	23.21	23.28	23.10	
3	QPSK	1	14	23.15	23.18	23.13	
3	QPSK	8	0	22.25	22.36	22.28	23
3	QPSK	8	4	22.31	22.33	22.09	
3	QPSK	8	7	22.33	22.32	22.23	
3	QPSK	15	0	22.14	22.29	22.38	23
3	16QAM	1	0	22.45	22.45	22.39	
3	16QAM	1	8	22.29	22.33	22.35	
3	16QAM	1	14	22.17	22.31	22.32	22
3	16QAM	8	0	21.26	21.42	21.33	
3	16QAM	8	4	21.15	21.36	21.26	
3	16QAM	8	7	21.36	21.22	21.34	22
3	16QAM	15	0	21.33	21.38	21.26	
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	23.29	23.33	23.25	
1.4	QPSK	1	3	23.14	23.26	23.32	
1.4	QPSK	1	5	23.18	23.24	23.28	
1.4	QPSK	3	0	22.19	22.39	22.21	23
1.4	QPSK	3	1	22.15	22.14	22.29	
1.4	QPSK	3	3	22.04	22.19	22.24	
1.4	QPSK	6	0	22.24	22.42	22.28	23
1.4	16QAM	1	0	22.33	22.39	22.31	
1.4	16QAM	1	3	22.22	22.31	22.26	
1.4	16QAM	1	5	22.23	22.21	22.19	23
1.4	16QAM	3	0	21.37	21.44	21.40	
1.4	16QAM	3	1	21.40	21.42	21.27	
1.4	16QAM	3	3	21.19	21.40	21.19	22
1.4	16QAM	6	0	21.39	21.43	21.26	

Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	23.27	23.35	23.34	24
10	QPSK	1	25	23.29	23.32	23.22	
10	QPSK	1	49	23.16	23.28	23.19	
10	QPSK	25	0	22.16	22.36	22.26	23
10	QPSK	25	12	22.24	22.26	22.25	
10	QPSK	25	25	22.15	22.19	22.17	
10	QPSK	50	0	22.16	22.25	22.38	23
10	16QAM	1	0	22.19	22.40	22.32	
10	16QAM	1	25	22.24	22.33	22.32	
10	16QAM	1	49	22.29	22.30	22.24	22
10	16QAM	25	0	21.37	21.37	21.28	
10	16QAM	25	12	21.35	21.32	21.23	
10	16QAM	25	25	21.16	21.22	21.16	22
10	16QAM	50	0	21.27	21.32	21.24	
Channel				23755	23790	23825	
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	23.31	23.32	23.29	
5	QPSK	1	12	23.12	23.30	23.19	
5	QPSK	1	24	23.25	23.27	23.22	
5	QPSK	12	0	22.30	22.41	22.35	23
5	QPSK	12	7	22.29	22.32	22.18	
5	QPSK	12	13	22.11	22.25	22.18	
5	QPSK	25	0	22.20	22.23	22.21	23
5	16QAM	1	0	22.32	22.40	22.40	
5	16QAM	1	12	22.16	22.36	22.37	
5	16QAM	1	24	22.26	22.35	22.26	22
5	16QAM	12	0	21.30	21.36	21.32	
5	16QAM	12	7	21.31	21.25	21.28	
5	16QAM	12	13	21.30	21.33	21.36	22
5	16QAM	25	0	21.29	21.27	21.26	



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	24.5
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.73	23.86	23.77	24.5
20	QPSK	1	49	23.70	23.80	23.52	
20	QPSK	1	99	23.53	23.68	23.66	
20	QPSK	50	0	22.63	22.87	22.75	23.5
20	QPSK	50	24	22.65	22.70	22.68	
20	QPSK	50	50	22.70	22.76	22.76	
20	QPSK	100	0	22.75	22.82	22.79	23.5
20	16QAM	1	0	22.82	22.91	22.70	
20	16QAM	1	49	22.91	22.91	22.77	
20	16QAM	1	99	22.75	22.77	22.63	22.5
20	16QAM	50	0	21.65	21.80	21.74	
20	16QAM	50	24	21.64	21.74	21.60	
20	16QAM	50	50	21.81	21.86	21.66	22.5
20	16QAM	100	0	21.70	21.76	21.77	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.74	23.83	23.82	24.5
15	QPSK	1	37	23.82	23.69	23.82	
15	QPSK	1	74	23.56	23.74	23.67	
15	QPSK	36	0	22.58	22.85	22.68	23.5
15	QPSK	36	20	22.75	22.75	22.58	
15	QPSK	36	39	22.60	22.65	22.60	
15	QPSK	76	0	22.76	22.75	22.60	23.5
15	16QAM	1	0	22.74	22.78	22.77	
15	16QAM	1	37	22.80	22.88	22.86	
15	16QAM	1	74	22.73	22.68	22.66	22.5
15	16QAM	36	0	21.69	21.84	21.75	
15	16QAM	36	20	21.82	21.83	21.79	
15	16QAM	36	39	21.60	21.63	21.62	22.5
15	16QAM	76	0	21.82	21.83	21.71	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.75	23.84	23.68	24.5
10	QPSK	1	25	23.59	23.62	23.67	
10	QPSK	1	49	23.61	23.63	23.60	
10	QPSK	25	0	22.75	22.79	22.63	23.5
10	QPSK	25	12	22.68	22.77	22.71	
10	QPSK	25	25	22.58	22.69	22.78	
10	QPSK	50	0	22.67	22.80	22.65	23.5
10	16QAM	1	0	22.79	22.81	22.71	
10	16QAM	1	25	22.73	22.86	22.73	
10	16QAM	1	49	22.60	22.77	22.78	23.5
10	16QAM	25	0	21.73	21.87	21.84	
10	16QAM	25	12	21.75	21.66	21.64	
10	16QAM	25	25	21.61	21.82	21.75	22.5
10	16QAM	50	0	21.72	21.79	21.66	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
5	QPSK	1	0	23.78	23.81	23.76	24.5
5	QPSK	1	12	23.69	23.81	23.53	
5	QPSK	1	24	23.76	23.65	23.69	
5	QPSK	12	0	22.78	22.77	22.76	23.5
5	QPSK	12	7	22.59	22.58	22.65	
5	QPSK	12	13	22.69	22.54	22.65	
5	QPSK	25	0	22.51	22.72	22.78	23.5
5	16QAM	1	0	22.71	22.83	22.88	
5	16QAM	1	12	22.74	22.69	22.67	
5	16QAM	1	24	22.59	22.73	22.63	22.5
5	16QAM	12	0	21.83	21.87	21.81	
5	16QAM	12	7	21.85	21.69	21.65	
5	16QAM	12	13	21.58	21.87	21.87	22.5
5	16QAM	25	0	21.81	21.80	21.82	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.83	23.84	23.83	24.5
3	QPSK	1	8	23.76	23.81	23.81	
3	QPSK	1	14	23.70	23.58	23.68	
3	QPSK	8	0	22.67	22.67	22.65	23.5
3	QPSK	8	4	22.68	22.52	22.74	
3	QPSK	8	7	22.69	22.65	22.60	
3	QPSK	15	0	22.68	22.66	22.73	23.5
3	16QAM	1	0	22.69	22.87	22.88	
3	16QAM	1	8	22.88	22.76	22.76	
3	16QAM	1	14	22.63	22.71	22.70	23.5
3	16QAM	8	0	21.72	21.82	21.69	
3	16QAM	8	4	21.55	21.79	21.63	
3	16QAM	8	7	21.62	21.62	21.58	22.5
3	16QAM	15	0	21.71	21.78	21.80	
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.64	23.82	23.65	24.5
1.4	QPSK	1	3	23.55	23.64	23.65	
1.4	QPSK	1	5	23.65	23.80	23.77	
1.4	QPSK	3	0	22.76	22.89	22.87	23.5
1.4	QPSK	3	1	22.53	22.53	22.64	
1.4	QPSK	3	3	22.59	22.76	22.81	
1.4	QPSK	6	0	22.74	22.80	22.74	23.5
1.4	16QAM	1	0	22.87	22.82	22.71	
1.4	16QAM	1	3	22.87	22.69	22.79	
1.4	16QAM	1	5	22.60	22.85	22.63	23.5
1.4	16QAM	3	0	21.89	21.85	21.82	
1.4	16QAM	3	1	21.73	22.02	21.85	
1.4	16QAM	3	3	21.69	21.95	21.86	22.5
1.4	16QAM	6	0	21.87	21.83	21.76	

Band 71 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				133222	133322	133372	23
Frequency (MHz)				673	683	688	
20	QPSK	1	0	22.21	22.44	22.31	23
20	QPSK	1	49	22.31	22.35	22.28	
20	QPSK	1	99	22.32	22.41	22.25	
20	QPSK	50	0	21.33	21.42	21.32	22
20	QPSK	50	24	21.18	21.21	21.15	
20	QPSK	50	50	21.09	21.26	21.21	
20	QPSK	100	0	21.13	21.33	21.27	22
20	16QAM	1	0	21.35	21.39	21.33	
20	16QAM	1	49	21.32	21.37	21.36	
20	16QAM	1	99	21.19	21.36	21.16	21
20	16QAM	50	0	20.26	20.39	20.35	
20	16QAM	50	24	20.24	20.34	20.32	
20	16QAM	50	50	20.28	20.31	20.16	21
20	16QAM	100	0	20.17	20.26	20.24	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	22.35	22.42	22.32	23
15	QPSK	1	37	22.21	22.36	22.30	
15	QPSK	1	74	22.19	22.37	22.23	
15	QPSK	36	0	21.38	21.42	21.35	22
15	QPSK	36	20	21.09	21.28	21.19	
15	QPSK	36	39	21.14	21.38	21.15	
15	QPSK	75	0	21.13	21.35	21.20	22
15	16QAM	1	0	21.26	21.36	21.22	
15	16QAM	1	37	21.19	21.33	21.29	
15	16QAM	1	74	21.28	21.38	21.33	21
15	16QAM	36	0	20.25	20.41	20.30	
15	16QAM	36	20	20.31	20.33	20.27	
15	16QAM	36	39	20.30	20.29	20.25	21
15	16QAM	75	0	20.28	20.35	20.23	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	683	
10	QPSK	1	0	22.34	22.41	22.28	23
10	QPSK	1	25	22.18	22.35	22.36	
10	QPSK	1	49	22.30	22.34	22.17	
10	QPSK	25	0	21.30	21.46	21.43	22
10	QPSK	25	12	21.37	21.44	21.10	
10	QPSK	25	25	21.25	21.23	21.19	
10	QPSK	50	0	21.09	21.35	21.34	22
10	16QAM	1	0	21.33	21.38	21.25	
10	16QAM	1	25	21.36	21.24	21.26	
10	16QAM	1	49	21.26	21.40	21.32	21
10	16QAM	25	0	20.35	20.39	20.33	
10	16QAM	25	12	20.43	20.33	20.28	
10	16QAM	25	25	20.20	20.45	20.33	21
10	16QAM	50	0	20.19	20.31	20.27	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	685.5	
5	QPSK	1	0	22.17	22.42	22.32	23
5	QPSK	1	12	22.26	22.29	22.17	
5	QPSK	1	24	22.19	22.25	22.27	
5	QPSK	12	0	21.28	21.34	21.29	22
5	QPSK	12	7	21.22	21.34	21.34	
5	QPSK	12	13	21.03	21.07	21.03	
5	QPSK	25	0	21.35	21.32	21.30	22
5	16QAM	1	0	21.34	21.42	21.30	
5	16QAM	1	12	21.22	21.37	21.27	
5	16QAM	1	24	21.14	21.31	21.23	22
5	16QAM	12	0	20.22	20.36	20.27	
5	16QAM	12	7	20.20	20.35	20.23	
5	16QAM	12	13	20.34	20.24	20.39	21
5	16QAM	25	0	20.26	20.39	20.30	



2.4GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)			Tune-Up Limit	Power Setting	Duty Cycle %
			1Mbps	2Mbps	3Mbps			
802.11b 1Mbps	CH 1	2412	13.39	14.00	10.00	100.00		
	CH 7	2442	13.12	14.00	10.00			
	CH 13	2472	13.44	14.00	10.00			
802.11g 6Mbps	CH 1	2412	13.14	14.00	10.00	98.10		
	CH 7	2442	12.47	13.00	10.00			
	CH 13	2472	12.90	13.50	10.00			
802.11n-HT20 MCS0	CH 1	2412	13.37	14.00	10.00	97.67		
	CH 7	2442	12.72	13.50	10.00			
	CH 13	2472	13.26	14.00	10.00			

5GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)			Tune-Up Limit	Power Setting	Duty Cycle %
			1Mbps	2Mbps	3Mbps			
802.11a 6Mbps	CH 36	5180	12.13	12.50	10.00	98.54		
	CH 44	5220	12.57	13.00	10.00			
	CH 48	5240	12.83	13.50	10.00			
802.11n-HT20 MCS0	CH 36	5180	13.10	13.50	10.00	98.26		
	CH 44	5220	12.42	13.00	10.00			
	CH 48	5240	12.60	13.00	10.00			
802.11n-HT40 MCS0	CH 38	5190	12.86	13.50	10.00	96.55		
	CH 46	5230	12.51	13.00	10.00			
	CH 36	5180	13.08	13.50	10.00			
802.11ac-VHT20 MCS0	CH 44	5220	12.90	13.50	10.00	98.28		
	CH 48	5240	13.11	13.50	10.00			
	CH 38	5190	12.77	13.50	10.00			
802.11ac-VHT40 MCS0	CH 46	5230	12.48	13.00	10.00	96.55		
	CH 42	5210	12.18	12.50	10.00			

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Mode	Channel	Frequency (MHz)	Average power (dBm)			Tune-Up Limit	Power Setting	Duty Cycle %
			1Mbps	2Mbps	3Mbps			
802.11a 6Mbps	CH 149	5745	12.47	13.00	9.00	97.83		
	CH 157	5785	11.29	12.00	9.00			
	CH 165	5825	10.83	11.50	9.00			
802.11n-HT20 MCS0	CH 149	5745	12.78	13.50	9.00	97.41		
	CH 157	5785	11.61	12.00	9.00			
	CH 165	5825	11.35	12.00	9.00			
802.11n-HT40 MCS0	CH 151	5755	12.60	13.00	9.00	97.44		
	CH 159	5795	11.21	12.00	9.00			
	CH 149	5745	12.81	13.50	9.00			
802.11ac-VHT20 MCS0	CH 157	5785	11.60	12.00	9.00	98.28		
	CH 165	5825	11.12	11.50	9.00			
	CH 151	5755	12.58	13.00	9.00			
802.11ac-VHT40 MCS0	CH 159	5795	11.59	12.00	9.00	94.92		
	CH 155	5775	12.14	12.50	9.00			

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	7.99	7.31	7.49
	CH 39	2441	9.28	9.09	9.01
	CH 78	2480	8.30	7.66	7.66
Tune-up Limit			9.5	9.5	9.5
Duty Cycle %			78.13	77.6	77.6

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
LE	CH 00	2402	2.46	2.43	
	CH 19	2440	4.54	4.89	
	CH 39	2480	3.01	3.24	
Tune-up Limit			5	5	
Duty Cycle %			31.91	34.4	



Reduced Power

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	28.65	28.70	28.68	29.50	19.65	19.70	19.68	20.50	
GPRS 1 Tx slot	28.63	28.69	28.67	29.00	19.63	19.69	19.67	20.00	0.07
GPRS 2 Tx slots	26.52	26.55	26.51	27.50	20.52	20.55	20.51	21.50	0.04
GPRS 3 Tx slots	24.64	24.66	24.63	25.50	20.38	20.40	20.37	21.24	0.03
GPRS 4 Tx slots	22.57	22.59	22.53	23.50	19.57	19.59	19.53	20.50	0.06
EDGE 1 Tx slot	21.55	21.63	21.57	22.50	12.55	12.63	12.57	13.50	0.08
EDGE 2 Tx slots	20.33	20.37	20.29	21.00	14.33	14.37	14.29	15.00	0.08
EDGE 3 Tx slots	18.13	18.21	18.15	19.00	13.87	13.95	13.89	14.74	0.08
EDGE 4 Tx slots	16.06	16.13	16.04	17.00	13.06	13.13	13.04	14.00	0.09
Mode		Max.	28.70			Max.	20.55		
Attenuator	Cable Loss : 0.6								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	25.02	25.06	25.03	26.00	16.02	16.06	16.03	17.00	
GPRS 1 Tx slot	25.00	25.05	25.01	26.00	16.00	16.05	16.01	17.00	0.06
GPRS 2 Tx slots	22.67	22.71	22.68	23.50	16.67	16.71	16.68	17.50	0.04
GPRS 3 Tx slots	21.15	21.17	21.11	22.00	16.89	16.91	16.85	17.74	0.06
GPRS 4 Tx slots	18.88	18.92	18.89	19.50	15.88	15.92	15.89	16.50	0.04
EDGE 1 Tx slot	20.85	20.91	20.86	21.50	11.85	11.91	11.86	12.50	0.06
EDGE 2 Tx slots	19.31	19.37	19.35	20.00	13.31	13.37	13.35	14.00	0.06
EDGE 3 Tx slots	16.77	16.86	16.85	17.50	12.51	12.60	12.59	13.24	0.09
EDGE 4 Tx slots	14.71	14.79	14.86	15.50	11.71	11.79	11.86	12.50	0.15
Mode		Max.	25.06			Max.	16.91		
Attenuator	Cable Loss : 0.8								

Band	WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99 RMC 12.2Kbps	17.64	17.67	17.65	18.50	14.64	14.73	14.71	15.50	18.52	18.59	18.53	19.50
3GPP Rel 6 HSDPA Subtest-1	16.25	16.59	16.56	17.50	14.21	14.56	14.37	15.50	17.55	17.55	17.77	18.50
3GPP Rel 6 HSDPA Subtest-2	14.63	14.74	14.96	15.50	12.78	13.12	12.82	14.00	17.24	17.29	17.27	18.50
3GPP Rel 6 HSDPA Subtest-3	13.78	14.05	13.84	15.00	12.23	12.51	12.21	13.50	16.71	16.93	16.85	18.00
3GPP Rel 6 HSDPA Subtest-4	13.94	13.81	13.72	15.00	12.26	12.48	12.61	13.50	15.83	15.89	15.69	17.50
3GPP Rel 6 HSUPA Subtest-1	13.72	13.94	13.93	15.00	13.50	13.95	13.55	14.50	17.21	17.33	17.42	18.50
3GPP Rel 6 HSUPA Subtest-2	14.32	14.40	14.24	15.50	13.10	13.15	12.81	14.00	15.39	15.42	15.53	16.50
3GPP Rel 6 HSUPA Subtest-3	14.30	14.64	14.50	15.50	13.12	13.25	13.14	14.50	16.55	16.52	16.78	17.50
3GPP Rel 6 HSUPA Subtest-4	14.62	14.93	14.71	15.50	13.39	13.51	13.42	14.50	15.43	15.50	15.60	16.50
3GPP Rel 6 HSUPA Subtest-5	16.53	16.78	16.84	17.50	14.36	14.60	14.54	15.50	17.48	17.56	17.46	18.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	14.17	14.39	14.23	15.00	12.01	12.15	11.89	13.00	15.25	15.31	15.29	16.00
Attenuator		Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.8	
Mode		Max.	17.67			Max.	14.73			Max.	18.59	



Band 2 (1900MHz Band) (dBm)								
Part 24E								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				18700	18900	19100	Tune-up limit (dBm)	
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	16.69	16.75	16.73	17.5	
20	QPSK	1	49	16.64	16.70	16.62		
20	QPSK	1	99	16.65	16.66	16.68		
20	QPSK	50	0	15.67	15.73	15.71	16.5	
20	QPSK	50	24	15.61	15.64	15.60		
20	QPSK	50	50	15.53	15.57	15.68		
20	QPSK	100	0	15.59	15.65	15.62	16.5	
20	16QAM	1	0	15.88	15.86	15.82		
20	16QAM	1	49	15.73	15.89	15.80		
20	16QAM	1	99	15.71	15.81	15.74	15.5	
20	16QAM	50	0	14.77	14.89	14.81		
20	16QAM	50	24	14.66	14.84	14.69		
20	16QAM	50	50	14.72	14.75	14.67	15.5	
20	16QAM	100	0	14.80	14.82	14.74		
Channel				18875	18900	19125		Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	Tune-up limit (dBm)	
15	QPSK	1	0	16.68	16.72	16.70		
15	QPSK	1	37	16.52	16.55	16.61	17.5	
15	QPSK	1	74	16.63	16.64	16.58		
15	QPSK	36	0	15.72	15.80	15.75		
15	QPSK	36	20	15.56	15.62	15.60	16.5	
15	QPSK	36	39	15.58	15.53	15.51		
15	QPSK	75	0	15.57	15.62	15.72		
15	16QAM	1	0	15.80	15.94	15.87	16.5	
15	16QAM	1	37	15.87	15.88	15.80		
15	16QAM	1	74	15.63	15.81	15.56		
15	16QAM	36	0	14.68	14.87	14.91	15.5	
15	16QAM	36	20	14.79	14.72	14.76		
15	16QAM	36	39	14.73	14.61	14.56		
15	16QAM	75	0	14.70	14.64	14.73	15.5	
Channel				18650	18900	19150		Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905		Tune-up limit (dBm)
10	QPSK	1	0	16.62	16.73	16.69		
10	QPSK	1	25	16.60	16.71	16.55	17.5	
10	QPSK	1	49	16.72	16.50	16.60		
10	QPSK	25	0	15.78	15.83	15.82		
10	QPSK	25	12	15.53	15.62	15.55	16.5	
10	QPSK	25	25	15.67	15.50	15.81		
10	QPSK	50	0	15.73	15.67	15.55		
10	16QAM	1	0	15.78	15.71	15.67	16.5	
10	16QAM	1	25	15.83	15.69	15.89		
10	16QAM	1	49	15.85	15.82	15.73		
10	16QAM	25	0	14.87	14.74	14.63	15.5	
10	16QAM	25	12	14.47	14.63	14.62		
10	16QAM	25	25	14.63	14.61	14.80		
10	16QAM	50	0	14.74	14.78	14.55	15.5	
Channel				18625	18900	19175		Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5		Tune-up limit (dBm)
5	QPSK	1	0	16.59	16.71	16.63		
5	QPSK	1	12	16.65	16.51	16.69	17.5	
5	QPSK	1	24	16.60	16.67	16.62		
5	QPSK	12	0	15.55	15.54	15.74		
5	QPSK	12	7	15.68	15.57	15.55	16.5	
5	QPSK	12	13	15.65	15.64	15.56		
5	QPSK	25	0	15.68	15.51	15.44		
5	16QAM	1	0	15.81	15.83	15.84	16.5	
5	16QAM	1	12	15.60	15.77	15.83		
5	16QAM	1	24	15.51	15.79	15.77		
5	16QAM	12	0	14.84	14.93	14.89	15.5	
5	16QAM	12	7	14.69	14.94	14.55		
5	16QAM	12	13	14.57	14.81	14.77		
5	16QAM	25	0	14.68	14.90	14.76	15.5	
Channel				18615	18900	19185		Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5		Tune-up limit (dBm)
3	QPSK	1	0	16.63	16.72	16.58		
3	QPSK	1	8	16.57	16.68	16.59	17.5	
3	QPSK	1	14	16.66	16.62	16.57		
3	QPSK	8	0	15.60	15.72	15.53		
3	QPSK	8	4	15.43	15.45	15.47	16.5	
3	QPSK	8	7	15.47	15.65	15.62		
3	QPSK	15	0	15.50	15.58	15.62		
3	16QAM	1	0	15.95	15.88	15.69	16.5	
3	16QAM	1	8	15.86	15.93	15.75		
3	16QAM	1	14	15.75	15.69	15.69		
3	16QAM	8	0	14.71	14.75	14.64	15.5	
3	16QAM	8	4	14.58	14.89	14.80		
3	16QAM	8	7	14.56	14.88	14.66		
3	16QAM	15	0	14.70	14.79	14.69	15.5	
Channel				18607	18900	19193		Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3		Tune-up limit (dBm)
1.4	QPSK	1	0	16.64	16.70	16.67		
1.4	QPSK	1	3	16.63	16.63	16.66	17.5	
1.4	QPSK	1	5	16.50	16.67	16.65		
1.4	QPSK	3	0	15.54	15.62	15.79		
1.4	QPSK	3	1	15.68	15.60	15.48	16.5	
1.4	QPSK	3	3	15.50	15.69	15.54		
1.4	QPSK	6	0	15.59	15.54	15.48		
1.4	16QAM	1	0	15.79	15.76	15.87	16.5	
1.4	16QAM	1	3	15.75	15.87	15.89		
1.4	16QAM	1	5	15.56	15.75	15.59		
1.4	16QAM	3	0	14.90	14.86	14.96	16.5	
1.4	16QAM	3	1	14.70	14.93	14.56		
1.4	16QAM	3	3	14.84	14.80	14.67		
1.4	16QAM	6	0	14.72	14.88	14.61	15.5	

Band 4 (AWS Band) (dBm)								
Part 27L (only on channel required)								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				20050	20175	20300	Tune-up limit (dBm)	
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	14.57	14.62	14.53	15.5	
20	QPSK	1	49	14.52	14.52	14.38		
20	QPSK	1	99	14.48	14.53	14.52		
20	QPSK	50	0	13.66	13.73	13.70	14.5	
20	QPSK	50	24	13.54	13.61	13.60		
20	QPSK	50	50	13.58	13.64	13.48		
20	QPSK	100	0	13.54	13.57	13.51	14.5	
20	16QAM	1	0	13.66	13.78	13.62		
20	16QAM	1	49	13.72	13.65	13.72		
20	16QAM	1	99	13.55	13.76	13.54	13.5	
20	16QAM	50	0	12.42	12.61	12.55		
20	16QAM	50	24	12.41	12.54	12.48		
20	16QAM	50	50	12.45	12.56	12.59	13.5	
20	16QAM	100	0	12.66	12.63	12.58		
Channel				20025	20175	20325		Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	Tune-up limit (dBm)	
15	QPSK	1	0	14.50	14.59	14.52		
15	QPSK	1	37	14.45	14.50	14.56	15.5	
15	QPSK	1	74	14.51	14.57	14.53		
15	QPSK	36	0	13.61	13.76	13.55		
15	QPSK	36	20	13.60	13.52	13.46	14.5	
15	QPSK	36	39	13.56	13.50	13.53		
15	QPSK	75	0	13.57	13.48	13.60		
15	16QAM	1	0	13.56	13.72	13.62	14.5	
15	16QAM	1	37	13.48	13.63	13.72		
15	16QAM	1	74	13.58	13.64	13.71		
15	16QAM	36	0	12.60	12.70	12.62	13.5	
15	16QAM	36	20	12.59	12.69	12.53		
15	16QAM	36	39	12.55	12.63	12.50		
15	16QAM	75	0	12.65	12.69	12.50	13.5	
Channel				20000	20175	20350		Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750		Tune-up limit (dBm)
10	QPSK	1	0	14.55	14.60	14.56		
10	QPSK	1	25	14.56	14.54	14.54	15.5	
10	QPSK	1	49	14.50	14.48	14.57		
10	QPSK	25	0	13.55	13.73	13.54		
10	QPSK	25	12	13.49	13.60	13.57	14.5	
10	QPSK	25	25	13.66	13.59	13.48		
10	QPSK	50	0	13.50	13.48	13.52		
10	16QAM	1	0	13.81	13.78	13.74	14.5	
10	16QAM	1	25	13.44	13.56	13.49		
10	16QAM	1	49	13.61	13.57	13.65		
10	16QAM	25	0	12.49	12.72	12.56	13.5	
10	16QAM	25	12	12.54	12.67	12.61		
10	16QAM	25	25	12.45	12.69	12.58		
10	16QAM	50	0	12.53	12.71	12.57	13.5	
Channel				19975	20175	20375		Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5		Tune-up limit (dBm)
5	QPSK	1	0	14.52	14.58	14.50		
5	QPSK	1	12	14.47	14.56	14.53	15.5	
5	QPSK	1	24	14.49	14.50	14.57		
5	QPSK	12	0	13.54	13.66	13.57		
5	QPSK	12	7	13.48	13.43	13.48	14.5	
5	QPSK	12	13	13.45	13.51	13.48		
5	QPSK	25	0	13.51	13.50	13.54		
5	16QAM	1	0	13.66	13.78	13.67	14.5	
5	16QAM	1	12	13.57	13.57	13.51		
5	16QAM	1	24	13.60	13.80	13.50		
5	16QAM	12	0	12.60	12.73	12.63	13.5	
5	16QAM	12	7	12.60	12.52	12.39		
5	16QAM	12	13	12.65	12.44	12.52</		



Band 5 (Cellular Band) (dBm) Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	21.19	21.35	21.29	22
10	QPSK	1	25	21.09	21.19	21.28	
10	QPSK	1	49	21.25	21.22	21.23	
10	QPSK	25	0	20.25	20.37	20.18	21
10	QPSK	25	12	20.32	20.15	20.35	
10	QPSK	25	25	20.30	20.15	20.21	
10	QPSK	50	0	20.14	20.16	20.31	21
10	16QAM	1	0	20.28	20.29	20.26	
10	16QAM	1	25	20.24	20.21	20.27	
10	16QAM	1	49	20.34	20.32	20.19	20
10	16QAM	25	0	19.39	19.35	19.36	
10	16QAM	25	12	19.32	19.41	19.17	
10	16QAM	25	25	19.18	19.28	19.36	20
10	16QAM	50	0	19.39	19.39	19.40	
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	21.31	21.32	21.26	22
5	QPSK	1	12	21.18	21.22	21.10	
5	QPSK	1	24	21.10	21.21	21.15	
5	QPSK	12	0	20.34	20.36	20.17	21
5	QPSK	12	7	20.12	20.28	20.21	
5	QPSK	12	13	20.18	20.00	20.26	
5	QPSK	25	0	20.22	20.12	20.17	21
5	16QAM	1	0	20.18	20.37	20.16	
5	16QAM	1	12	20.31	20.22	20.29	
5	16QAM	1	24	20.33	20.31	20.28	20
5	16QAM	12	0	19.38	19.36	19.28	
5	16QAM	12	7	19.17	19.29	19.35	
5	16QAM	12	13	19.15	19.18	19.37	20
5	16QAM	25	0	19.32	19.34	19.38	
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	21.17	21.33	21.19	22
3	QPSK	1	8	21.10	21.26	21.32	
3	QPSK	1	14	21.12	21.18	21.18	
3	QPSK	8	0	20.39	20.40	20.29	21
3	QPSK	8	4	20.15	20.26	20.22	
3	QPSK	8	7	20.30	20.35	20.34	
3	QPSK	15	0	20.08	20.27	20.30	21
3	16QAM	1	0	20.25	20.35	20.35	
3	16QAM	1	8	20.34	20.27	20.38	
3	16QAM	1	14	20.30	20.37	20.40	20
3	16QAM	8	0	19.35	19.37	19.27	
3	16QAM	8	4	19.24	19.31	19.40	
3	16QAM	8	7	19.18	19.23	19.18	20
3	16QAM	15	0	19.29	19.39	19.32	
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	21.26	21.30	21.29	22
1.4	QPSK	1	3	21.14	21.18	21.09	
1.4	QPSK	1	5	21.17	21.17	21.19	
1.4	QPSK	3	0	20.30	20.32	20.29	21
1.4	QPSK	3	1	20.27	20.28	20.31	
1.4	QPSK	3	3	20.31	20.24	20.19	
1.4	QPSK	6	0	20.23	20.39	20.26	21
1.4	16QAM	1	0	20.25	20.34	20.32	
1.4	16QAM	1	3	20.32	20.40	20.20	
1.4	16QAM	1	5	20.31	20.36	20.23	21
1.4	16QAM	3	0	19.20	19.31	19.33	
1.4	16QAM	3	1	19.25	19.38	19.21	
1.4	16QAM	3	3	19.18	19.23	19.29	20
1.4	16QAM	6	0	19.26	19.22	19.31	

Band 7 (2600MHz Band) (dBm) Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	13.21	13.34	13.20	14
20	QPSK	1	49	13.14	13.27	13.32	
20	QPSK	1	99	13.24	13.22	13.23	
20	QPSK	50	0	12.26	12.43	12.38	13
20	QPSK	50	24	12.16	12.42	12.18	
20	QPSK	50	50	12.11	12.35	12.22	
20	QPSK	100	0	12.31	12.38	12.37	13
20	16QAM	1	0	12.35	12.39	12.31	
20	16QAM	1	49	12.31	12.36	12.44	
20	16QAM	1	99	12.28	12.41	12.20	12
20	16QAM	50	0	11.35	11.34	11.30	
20	16QAM	50	24	11.16	11.27	11.33	
20	16QAM	50	50	11.37	11.43	11.38	12
20	16QAM	100	0	11.30	11.36	11.32	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	13.27	13.32	13.30	14
15	QPSK	1	37	13.20	13.24	13.25	
15	QPSK	1	74	13.06	13.17	13.15	
15	QPSK	36	0	12.31	12.37	12.25	13
15	QPSK	36	20	12.13	12.14	12.26	
15	QPSK	36	39	12.01	12.33	12.15	
15	QPSK	75	0	12.18	12.41	12.12	13
15	16QAM	1	0	12.23	12.40	12.29	
15	16QAM	1	37	12.18	12.38	12.16	
15	16QAM	1	74	12.13	12.29	12.20	12
15	16QAM	36	0	11.26	11.35	11.30	
15	16QAM	36	20	11.18	11.37	11.25	
15	16QAM	36	39	11.45	11.24	11.25	12
15	16QAM	75	0	11.22	11.29	11.24	
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	13.19	13.30	13.23	14
10	QPSK	1	25	13.21	13.28	13.15	
10	QPSK	1	49	13.23	13.24	13.24	
10	QPSK	25	0	12.12	12.33	12.29	13
10	QPSK	25	12	12.14	12.38	12.19	
10	QPSK	25	25	12.16	12.26	12.26	
10	QPSK	50	0	12.19	12.12	12.24	13
10	16QAM	1	0	12.37	12.44	12.31	
10	16QAM	1	25	12.25	12.45	12.27	
10	16QAM	1	49	12.28	12.36	12.14	12
10	16QAM	25	0	11.31	11.36	11.25	
10	16QAM	25	12	11.13	11.45	11.19	
10	16QAM	25	25	11.22	11.28	11.16	12
10	16QAM	50	0	11.27	11.27	11.22	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	13.18	13.31	13.17	14
5	QPSK	1	12	13.27	13.23	13.25	
5	QPSK	1	24	13.13	13.30	13.29	
5	QPSK	12	0	12.31	12.27	12.23	13
5	QPSK	12	7	12.38	12.31	12.26	
5	QPSK	12	13	12.17	12.31	12.19	
5	QPSK	25	0	12.27	12.28	12.15	13
5	16QAM	1	0	12.42	12.37	12.24	
5	16QAM	1	12	12.30	12.39	12.44	
5	16QAM	1	24	12.26	12.29	12.35	12
5	16QAM	12	0	11.30	11.34	11.35	
5	16QAM	12	7	11.34	11.43	11.31	
5	16QAM	12	13	11.37	11.32	11.31	12
5	16QAM	25	0	11.17	11.27	11.25	



Band 12 (700MHz Low Band) (dBm) Part 27E(only on channel required)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23060	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	21.35	21.37	21.26	22
10	QPSK	1	25	21.14	21.36	21.13	
10	QPSK	1	49	21.20	21.24	21.16	
10	QPSK	25	0	20.30	20.38	20.31	21
10	QPSK	25	12	20.19	20.23	20.21	
10	QPSK	25	25	20.06	20.20	20.17	
10	QPSK	50	0	20.13	20.21	20.23	21
10	16QAM	1	0	20.35	20.40	20.33	
10	16QAM	1	25	20.22	20.27	20.20	
10	16QAM	1	49	20.31	20.31	20.29	20
10	16QAM	25	0	19.52	19.36	19.32	
10	16QAM	25	12	19.37	19.39	19.21	
10	16QAM	25	25	19.17	19.23	19.16	20
10	16QAM	50	0	19.31	19.31	19.22	
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	21.28	21.35	21.21	
5	QPSK	1	12	21.30	21.26	21.32	
5	QPSK	1	24	21.31	21.27	21.17	
5	QPSK	12	0	20.26	20.41	20.31	21
5	QPSK	12	7	20.13	20.24	20.25	
5	QPSK	12	13	20.15	20.16	20.14	
5	QPSK	25	0	20.05	20.27	20.24	21
5	16QAM	1	0	20.40	20.37	20.30	
5	16QAM	1	12	20.14	20.28	20.30	
5	16QAM	1	24	20.34	20.20	20.19	20
5	16QAM	12	0	19.30	19.36	19.36	
5	16QAM	12	7	19.19	19.30	19.23	
5	16QAM	12	13	19.22	19.26	19.31	20
5	16QAM	25	0	19.31	19.27	19.14	
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	21.15	21.33	21.27	
3	QPSK	1	8	21.19	21.26	21.08	
3	QPSK	1	14	21.13	21.16	21.11	
3	QPSK	8	0	20.23	20.34	20.26	21
3	QPSK	8	4	20.29	20.31	20.07	
3	QPSK	8	7	20.31	20.30	20.21	
3	QPSK	15	0	20.12	20.27	20.36	21
3	16QAM	1	0	20.43	20.43	20.37	
3	16QAM	1	8	20.27	20.31	20.33	
3	16QAM	1	14	20.15	20.29	20.30	20
3	16QAM	8	0	19.24	19.40	19.31	
3	16QAM	8	4	19.13	19.34	19.24	
3	16QAM	8	7	19.34	19.20	19.32	20
3	16QAM	15	0	19.31	19.36	19.24	
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	21.27	21.31	21.23	
1.4	QPSK	1	3	21.12	21.24	21.30	
1.4	QPSK	1	5	21.16	21.22	21.26	
1.4	QPSK	3	0	20.17	20.37	20.19	21
1.4	QPSK	3	1	20.13	20.12	20.27	
1.4	QPSK	3	3	20.02	20.17	20.22	
1.4	QPSK	6	0	20.22	20.40	20.26	21
1.4	16QAM	1	0	20.31	20.37	20.29	
1.4	16QAM	1	3	20.20	20.29	20.24	
1.4	16QAM	1	5	20.21	20.19	20.17	21
1.4	16QAM	3	0	19.35	19.42	19.38	
1.4	16QAM	3	1	19.38	19.40	19.25	
1.4	16QAM	3	3	19.17	19.38	19.17	20
1.4	16QAM	6	0	19.37	19.41	19.24	

Band 17 (700MHz Band) (dBm) Part 27H(only on channel required)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	21.26	21.34	21.33	22
10	QPSK	1	25	21.28	21.31	21.21	
10	QPSK	1	49	21.15	21.27	21.18	
10	QPSK	25	0	20.15	20.35	20.25	21
10	QPSK	25	12	20.23	20.25	20.24	
10	QPSK	25	25	20.14	20.18	20.16	
10	QPSK	50	0	20.15	20.24	20.37	21
10	16QAM	1	0	20.18	20.39	20.31	
10	16QAM	1	25	20.23	20.32	20.31	
10	16QAM	1	49	20.28	20.29	20.23	20
10	16QAM	25	0	19.36	19.36	19.27	
10	16QAM	25	12	19.34	19.31	19.22	
10	16QAM	25	25	19.15	19.21	19.15	20
10	16QAM	50	0	19.26	19.31	19.23	
Channel				23755	23790	23825	
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	21.30	21.31	21.28	
5	QPSK	1	12	21.11	21.29	21.18	
5	QPSK	1	24	21.24	21.26	21.21	
5	QPSK	12	0	20.29	20.40	20.34	21
5	QPSK	12	7	20.28	20.31	20.17	
5	QPSK	12	13	20.10	20.24	20.17	
5	QPSK	25	0	20.19	20.22	20.20	21
5	16QAM	1	0	20.31	20.39	20.39	
5	16QAM	1	12	20.15	20.35	20.36	
5	16QAM	1	24	20.25	20.34	20.25	20
5	16QAM	12	0	19.29	19.35	19.31	
5	16QAM	12	7	19.30	19.24	19.27	
5	16QAM	12	13	19.29	19.32	19.35	20
5	16QAM	25	0	19.28	19.26	19.25	



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	14.70	14.83	14.74	15.5
20	QPSK	1	49	14.67	14.77	14.49	
20	QPSK	1	99	14.50	14.65	14.63	
20	QPSK	50	0	13.60	13.84	13.72	14.5
20	QPSK	50	24	13.62	13.67	13.65	
20	QPSK	50	50	13.67	13.73	13.73	
20	QPSK	100	0	13.72	13.79	13.76	14.5
20	16QAM	1	0	13.79	13.88	13.67	
20	16QAM	1	49	13.88	13.88	13.74	
20	16QAM	1	99	13.72	13.74	13.60	13.5
20	16QAM	50	0	12.62	12.77	12.71	
20	16QAM	50	24	12.61	12.71	12.57	
20	16QAM	50	50	12.78	12.83	12.63	13.5
20	16QAM	100	0	12.67	12.73	12.74	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	14.71	14.80	14.79	15.5
15	QPSK	1	37	14.79	14.66	14.79	
15	QPSK	1	74	14.53	14.71	14.64	
15	QPSK	36	0	13.55	13.82	13.65	14.5
15	QPSK	36	20	13.72	13.72	13.55	
15	QPSK	36	39	13.57	13.62	13.57	
15	QPSK	75	0	13.73	13.72	13.57	14.5
15	16QAM	1	0	13.71	13.75	13.74	
15	16QAM	1	37	13.77	13.85	13.83	
15	16QAM	1	74	13.70	13.65	13.63	13.5
15	16QAM	36	0	12.66	12.81	12.72	
15	16QAM	36	20	12.79	12.80	12.76	
15	16QAM	36	39	12.57	12.60	12.59	13.5
15	16QAM	75	0	12.79	12.80	12.68	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	14.72	14.81	14.65	15.5
10	QPSK	1	25	14.56	14.59	14.64	
10	QPSK	1	49	14.58	14.60	14.57	
10	QPSK	25	0	13.72	13.76	13.60	14.5
10	QPSK	25	12	13.65	13.74	13.68	
10	QPSK	25	25	13.55	13.66	13.75	
10	QPSK	50	0	13.64	13.77	13.62	14.5
10	16QAM	1	0	13.76	13.78	13.68	
10	16QAM	1	25	13.70	13.83	13.70	
10	16QAM	1	49	13.57	13.74	13.75	13.5
10	16QAM	25	0	12.70	12.84	12.81	
10	16QAM	25	12	12.72	12.63	12.61	
10	16QAM	25	25	12.58	12.79	12.72	13.5
10	16QAM	50	0	12.69	12.76	12.63	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	14.75	14.78	14.73	15.5
5	QPSK	1	12	14.66	14.78	14.50	
5	QPSK	1	24	14.73	14.62	14.66	
5	QPSK	12	0	13.75	13.74	13.73	14.5
5	QPSK	12	7	13.56	13.55	13.62	
5	QPSK	12	13	13.66	13.51	13.62	
5	QPSK	25	0	13.48	13.69	13.75	14.5
5	16QAM	1	0	13.68	13.80	13.85	
5	16QAM	1	12	13.71	13.66	13.64	
5	16QAM	1	24	13.56	13.70	13.60	13.5
5	16QAM	12	0	12.80	12.84	12.78	
5	16QAM	12	7	12.82	12.66	12.62	
5	16QAM	12	13	12.55	12.84	12.84	13.5
5	16QAM	25	0	12.78	12.77	12.79	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	14.80	14.81	14.80	15.5
3	QPSK	1	8	14.73	14.78	14.78	
3	QPSK	1	14	14.67	14.55	14.65	
3	QPSK	8	0	13.64	13.64	13.62	14.5
3	QPSK	8	4	13.65	13.49	13.71	
3	QPSK	8	7	13.66	13.62	13.57	
3	QPSK	15	0	13.65	13.63	13.70	14.5
3	16QAM	1	0	13.66	13.84	13.85	
3	16QAM	1	8	13.85	13.73	13.73	
3	16QAM	1	14	13.60	13.68	13.67	13.5
3	16QAM	8	0	12.69	12.79	12.66	
3	16QAM	8	4	12.52	12.76	12.60	
3	16QAM	8	7	12.59	12.59	12.55	13.5
3	16QAM	15	0	12.68	12.75	12.77	
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	14.61	14.79	14.62	15.5
1.4	QPSK	1	3	14.52	14.61	14.62	
1.4	QPSK	1	5	14.62	14.77	14.74	
1.4	QPSK	3	0	13.73	13.86	13.84	14.5
1.4	QPSK	3	1	13.50	13.50	13.61	
1.4	QPSK	3	3	13.56	13.73	13.78	
1.4	QPSK	6	0	13.71	13.77	13.71	14.5
1.4	16QAM	1	0	13.84	13.79	13.68	
1.4	16QAM	1	3	13.84	13.66	13.76	
1.4	16QAM	1	5	13.57	13.82	13.60	14.5
1.4	16QAM	3	0	12.86	12.82	12.79	
1.4	16QAM	3	1	12.70	12.99	12.82	
1.4	16QAM	3	3	12.66	12.92	12.83	13.5
1.4	16QAM	6	0	12.84	12.80	12.73	

Band 71 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	20.18	20.41	20.28	21
20	QPSK	1	49	20.28	20.32	20.25	
20	QPSK	1	99	20.29	20.38	20.22	
20	QPSK	50	0	19.30	19.39	19.29	20
20	QPSK	50	24	19.15	19.18	19.12	
20	QPSK	50	50	19.06	19.23	19.18	
20	QPSK	100	0	19.10	19.30	19.24	20
20	16QAM	1	0	19.32	19.36	19.30	
20	16QAM	1	49	19.29	19.34	19.33	
20	16QAM	1	99	19.16	19.33	19.13	19
20	16QAM	50	0	18.23	18.36	18.32	
20	16QAM	50	24	18.21	18.31	18.29	
20	16QAM	50	50	18.25	18.28	18.13	19
20	16QAM	100	0	18.14	18.23	18.21	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	20.32	20.39	20.29	21
15	QPSK	1	37	20.18	20.33	20.27	
15	QPSK	1	74	20.16	20.34	20.20	
15	QPSK	36	0	19.35	19.39	19.32	20
15	QPSK	36	20	19.06	19.25	19.16	
15	QPSK	36	39	19.11	19.35	19.12	
15	QPSK	75	0	19.10	19.32	19.17	20
15	16QAM	1	0	19.23	19.33	19.19	
15	16QAM	1	37	19.16	19.30	19.26	
15	16QAM	1	74	19.25	19.35	19.30	19
15	16QAM	36	0	18.22	18.38	18.27	
15	16QAM	36	20	18.28	18.30	18.24	
15	16QAM	36	39	18.27	18.26	18.22	19
15	16QAM	75	0	18.25	18.32	18.20	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	20.31	20.38	20.25	21
10	QPSK	1	25	20.15	20.32	20.33	
10	QPSK	1	49	20.27	20.31	20.14	
10	QPSK	25	0	19.27	19.43	19.40	20
10	QPSK	25	12	19.34	19.41	19.07	
10	QPSK	25	25	19.22	19.20	19.16	
10	QPSK	50	0	19.06	19.32	19.31	20
10	16QAM	1	0	19.30	19.35	19.22	
10	16QAM	1	25	19.33	19.21	19.23	
10	16QAM	1	49	19.23	19.37	19.29	19
10	16QAM	25	0	18.32	18.36	18.30	
10	16QAM	25	12	18.40	18.30	18.25	
10	16QAM	25	25	18.17	18.42	18.30	19
10	16QAM	50	0	18.16	18.28	18.24	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	20.14	20.39	20.29	21
5	QPSK	1	12	20.23	20.26	20.14	
5	QPSK	1	24	20.16	20.22	20.24	
5	QPSK	12	0	19.25	19.31	19.26	20
5	QPSK	12	7	19.19	19.31	19.31	
5	QPSK	12	13	19.00	19.04	19.00	
5	QPSK	25	0	19.32	19.29	19.27	20
5	16QAM	1	0	19.31	19.39	19.27	
5	16QAM	1	12	19.19	19.34	19.24	
5	16QAM	1	24	19.11	19.28	19.20	19
5	16QAM	12	0	18.19	18.33	18.24	
5	16QAM	12	7	18.17	18.32	18.20	
5	16QAM	12	13	18.31	18.21	18.36	19
5	16QAM	25	0	18.23	18.36	18.27	