



REPORT No.: SZ23080275S01

Annex E Conducted Power

Note:

Conducted power unit: dBm

The target power was recorded in the manufacturer's document.

Full Power

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
TX Channel	128	189	251		128	189	251		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	32.51	32.56	32.44	33.00	23.51	23.56	23.44	24.00	0.13
GPRS 1 Tx slot	32.52	32.57	32.47	33.00	23.52	23.57	23.47	24.00	
GPRS 2 Tx slots	29.78	29.77	29.68	30.50	23.78	23.77	23.68	24.50	0.10
GPRS 3 Tx slots	27.75	27.69	27.59	28.50	23.49	23.43	23.33	24.24	0.16
GPRS 4 Tx slots	25.53	25.48	25.43	26.00	22.53	22.48	22.43	23.00	0.10
EDGE 1 Tx slot	25.22	25.23	25.18	26.00	16.22	16.23	16.18	17.00	0.05
EDGE 2 Tx slots	23.41	23.45	23.33	24.00	17.41	17.45	17.33	18.00	0.12
EDGE 3 Tx slots	21.22	21.26	21.20	22.00	16.96	17.00	16.94	17.74	0.06
EDGE 4 Tx slots	19.15	19.32	19.25	20.50	16.15	16.32	16.25	17.50	0.17
Mode		Max.	32.57			Max.	23.78		
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
TX Channel	512	661	810		512	661	810		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	29.26	29.21	29.21	30.00	20.26	20.21	20.21	21.00	0.06
GPRS 1 Tx slot	29.27	29.24	29.22	30.00	20.27	20.24	20.22	21.00	
GPRS 2 Tx slots	26.56	26.62	26.51	27.50	20.56	20.62	20.51	21.50	0.11
GPRS 3 Tx slots	24.49	24.37	24.28	25.00	20.23	20.11	20.02	20.74	0.21
GPRS 4 Tx slots	22.53	22.26	22.21	23.00	19.53	19.26	19.21	20.00	0.32
EDGE 1 Tx slot	25.52	25.54	25.37	26.00	16.52	16.54	16.37	17.00	0.17
EDGE 2 Tx slots	24.37	24.41	24.52	25.00	18.37	18.41	18.52	19.00	0.15
EDGE 3 Tx slots	21.44	21.55	21.48	22.00	17.18	17.29	17.22	17.74	0.11
EDGE 4 Tx slots	19.37	19.43	19.41	20.00	16.37	16.43	16.41	17.00	0.06
Mode		Max.	29.27			Max.	20.62		
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)
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458	
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	22.50	22.54	22.48	23.50	22.61	22.68	22.64	23.50	22.37	22.74	22.69	23.50
3GPP Rel 5 HSDPA Subtest-1	22.36	22.37	22.24	23.00	21.13	21.23	21.12	22.50	21.91	22.10	21.95	22.50
3GPP Rel 5 HSDPA Subtest-2	21.82	21.84	21.69	22.50	21.11	21.21	21.38	22.50	21.62	21.89	21.66	22.50
3GPP Rel 5 HSDPA Subtest-3	21.91	22.08	21.88	23.00	21.22	21.38	21.15	22.50	21.32	21.57	21.35	22.50
3GPP Rel 5 HSDPA Subtest-4	21.61	21.67	21.51	22.50	21.26	21.16	21.11	22.50	21.24	21.49	21.26	22.50
3GPP Rel 6 HSUPA Subtest-1	22.21	22.34	22.15	23.00	22.10	22.34	22.07	23.50	22.30	22.50	22.40	23.50
3GPP Rel 6 HSUPA Subtest-2	22.35	22.39	22.24	23.00	22.04	22.32	22.07	23.50	22.31	22.47	22.34	23.50
3GPP Rel 6 HSUPA Subtest-3	22.07	22.24	22.04	23.00	22.00	22.34	22.02	23.50	22.25	22.46	22.39	23.50
3GPP Rel 6 HSUPA Subtest-4	22.38	22.41	22.26	23.00	22.01	22.29	22.08	23.50	22.29	22.45	22.32	23.50
3GPP Rel 6 HSUPA Subtest-5	22.16	22.30	22.09	23.00	22.10	22.33	22.06	23.50	22.30	22.46	22.40	23.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	22.10	22.12	22.05	23.00	21.94	22.17	21.83	23.50	22.08	22.32	22.29	23.50
Attenuator		Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.6	
Mode		Max.	22.54			Max.	22.68			Max.	22.74	

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	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	23.59	23.62	23.58	24.5
20	QPSK	1	49	23.37	23.43	23.39	
20	QPSK	1	99	23.35	23.41	23.40	
20	QPSK	50	0	22.61	22.68	22.58	
20	QPSK	50	24	22.58	22.64	22.60	23.5
20	QPSK	50	50	22.53	22.60	22.58	
20	QPSK	100	0	22.55	22.58	22.53	
20	16QAM	1	0	22.79	22.81	22.79	
20	16QAM	1	49	22.76	22.78	22.70	23.5
20	16QAM	1	99	22.73	22.77	22.76	
20	16QAM	50	0	21.45	21.49	21.42	
20	16QAM	50	24	21.47	21.48	21.41	
20	16QAM	50	50	21.46	21.47	21.40	22.5
20	16QAM	100	0	21.39	21.45	21.41	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.41	23.47	23.40	24.5
15	QPSK	1	37	23.29	23.38	23.34	
15	QPSK	1	74	23.34	23.39	23.35	
15	QPSK	36	0	22.59	22.64	22.61	
15	QPSK	36	20	22.50	22.57	22.59	23.5
15	QPSK	36	39	22.51	22.58	22.57	
15	QPSK	75	0	22.53	22.50	22.46	
15	16QAM	1	0	22.78	22.76	22.72	
15	16QAM	1	37	22.69	22.71	22.66	23.5
15	16QAM	1	74	22.65	22.69	22.71	
15	16QAM	36	0	21.39	21.42	21.41	
15	16QAM	36	20	21.42	21.47	21.35	
15	16QAM	36	39	21.44	21.41	21.32	22.5
15	16QAM	75	0	21.34	21.44	21.36	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.40	23.51	23.43	24.5
10	QPSK	1	25	23.30	23.38	23.33	
10	QPSK	1	49	23.28	23.37	23.32	
10	QPSK	25	0	22.64	22.61	22.61	
10	QPSK	25	12	22.57	22.59	22.56	23.5
10	QPSK	25	25	22.51	22.52	22.54	
10	QPSK	50	0	22.48	22.57	22.49	
10	16QAM	1	0	22.72	22.73	22.75	
10	16QAM	1	25	22.73	22.71	22.62	23.5
10	16QAM	1	49	22.67	22.71	22.68	
10	16QAM	25	0	21.42	21.46	21.36	
10	16QAM	25	12	21.43	21.42	21.36	
10	16QAM	25	25	21.43	21.46	21.36	22.5
10	16QAM	50	0	21.32	21.43	21.37	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.38	23.45	23.42	24.5
5	QPSK	1	12	23.32	23.42	23.33	
5	QPSK	1	24	23.28	23.33	23.37	
5	QPSK	12	0	22.60	22.61	22.59	
5	QPSK	12	7	22.51	22.56	22.52	23.5
5	QPSK	12	13	22.49	22.58	22.54	
5	QPSK	25	0	22.53	22.51	22.48	
5	16QAM	1	0	22.77	22.73	22.75	
5	16QAM	1	12	22.70	22.77	22.67	23.5
5	16QAM	1	24	22.65	22.70	22.69	
5	16QAM	12	0	21.38	21.45	21.35	
5	16QAM	12	7	21.45	21.47	21.36	
5	16QAM	12	13	21.42	21.41	21.39	22.5
5	16QAM	25	0	21.34	21.44	21.38	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	23.40	23.46	23.41	24.5
3	QPSK	1	8	23.33	23.35	23.37	
3	QPSK	1	14	23.33	23.38	23.35	
3	QPSK	8	0	22.61	22.64	22.62	
3	QPSK	8	4	22.51	22.62	22.53	23.5
3	QPSK	8	7	22.52	22.56	22.55	
3	QPSK	15	0	22.47	22.54	22.46	
3	16QAM	1	0	22.78	22.76	22.78	
3	16QAM	1	8	22.75	22.76	22.69	23.5
3	16QAM	1	14	22.66	22.70	22.68	
3	16QAM	8	0	21.44	21.45	21.38	
3	16QAM	8	4	21.40	21.45	21.38	
3	16QAM	8	7	21.41	21.41	21.39	22.5
3	16QAM	15	0	21.34	21.43	21.39	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.36	23.51	23.43	24.5
1.4	QPSK	1	3	23.30	23.37	23.36	
1.4	QPSK	1	5	23.27	23.38	23.36	
1.4	QPSK	3	0	23.33	23.42	23.39	
1.4	QPSK	3	1	23.45	23.48	23.38	

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	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	20.94	21.03	20.97	22
20	QPSK	1	49	20.88	20.90	20.83	
20	QPSK	1	99	20.80	20.87	20.84	
20	QPSK	50	0	19.94	20.06	19.95	
20	QPSK	50	24	19.98	19.92	19.90	21
20	QPSK	50	50	19.95	19.98	19.91	
20	QPSK	100	0	19.98	19.99	19.88	
20	16QAM	1	0	20.25	20.16	19.99	
20	16QAM	1	49	20.13	20.22	20.17	21
20	16QAM	1	99	20.23	20.00	20.27	
20	16QAM	50	0	19.06	19.01	19.05	
20	16QAM	50	24	19.15	19.00	18.99	
20	16QAM	50	50	19.02	19.05	19.07	20
20	16QAM	100	0	19.00	19.02	18.98	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	20.81	20.86	20.77	22
15	QPSK	1	37	20.85	20.86	20.80	
15	QPSK	1	74	20.71	20.86	20.83	
15	QPSK	36	0	19.90	19.96	19.85	
15	QPSK	36	20	20.04	19.85	19.86	21
15	QPSK	36	39	19.94	19.91	19.82	
15	QPSK	75	0	19.93	19.91	19.78	
15	16QAM	1	0	20.21	20.10	19.93	
15	16QAM	1	37	20.20	20.32	20.12	21
15	16QAM	1	74	20.25	20.40	20.26	
15	16QAM	36	0	19.05	18.92	18.99	
15	16QAM	36	20	19.11	18.91	18.91	
15	16QAM	36	39	18.98	19.03	19.05	20
15	16QAM	75	0	18.90	18.98	18.97	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	20.88	20.89	20.82	22
10	QPSK	1	25	20.81	20.85	20.77	
10	QPSK	1	49	20.72	20.86	20.76	
10	QPSK	25	0	19.88	20.05	19.90	
10	QPSK	25	12	19.96	19.83	19.89	21
10	QPSK	25	25	19.86	19.96	19.84	
10	QPSK	50	0	19.89	19.95	19.82	
10	16QAM	1	0	20.19	20.11	19.92	
10	16QAM	1	25	20.19	20.36	20.16	21
10	16QAM	1	49	20.21	20.41	20.22	
10	16QAM	25	0	18.98	18.97	19.00	
10	16QAM	25	12	19.07	18.93	18.95	
10	16QAM	25	25	19.01	18.96	19.03	20
10	16QAM	50	0	18.99	18.96	18.89	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	20.87	20.87	20.78	22
5	QPSK	1	12	20.78	20.80	20.82	
5	QPSK	1	24	20.79	20.85	20.75	
5	QPSK	12	0	19.85	20.01	19.89	
5	QPSK	12	7	19.99	19.87	19.81	21
5	QPSK	12	13	19.92	19.92	19.81	
5	QPSK	25	0	19.96	19.95	19.80	
5	16QAM	1	0	20.15	20.14	19.95	
5	16QAM	1	12	20.18	20.34	20.15	21
5	16QAM	1	24	20.23	20.34	20.19	
5	16QAM	12	0	19.04	18.94	19.01	
5	16QAM	12	7	19.05	18.95	18.91	
5	16QAM	12	13	18.97	18.97	19.03	20
5	16QAM	25	0	18.91	18.93	18.89	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	20.78	20.88	20.74	22
3	QPSK	1	8	20.82	20.87	20.78	
3	QPSK	1	14	20.74	20.77	20.75	
3	QPSK	8	0	19.87	19.99	19.91	
3	QPSK	8	4	19.95	19.89	19.88	21
3	QPSK	8	7	19.91	19.90	19.88	
3	QPSK	15	0	19.88	19.90	19.82	
3	16QAM	1	0	20.15	20.15	19.92	
3	16QAM	1	8	20.19	20.33	20.15	21
3	16QAM	1	14	20.25	20.36	20.24	
3	16QAM	8	0	18.99	18.92	18.98	
3	16QAM	8	4	19.12	18.92	18.93	
3	16QAM	8	7	18.92	18.98	19.04	20
3	16QAM	15	0	18.91	18.94	18.95	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	20.78	20.86	20.75	22
1.4	QPSK	1	3	20.78	20.81	20.74	
1.4	QPSK	1	5	20.74	20.85	20.79	
1.4	QPSK	3	0	20.88	20.83	20.88	
1.4	QPSK	3	1	20.87	20.87	20.85	

1.4	QPSK	3	3	23.39	23.43	23.40	
1.4	QPSK	6	0	22.47	22.57	22.49	23.5
1.4	16QAM	1	0	22.75	22.74	22.71	23.5
1.4	16QAM	1	3	22.75	22.72	22.68	
1.4	16QAM	1	5	22.66	22.75	22.75	
1.4	16QAM	3	0	22.55	22.60	22.52	
1.4	16QAM	3	1	22.53	22.57	22.49	
1.4	16QAM	3	3	22.54	22.58	22.47	
1.4	16QAM	6	0	21.57	21.54	21.47	22.5

1.4	QPSK	3	3	20.85	20.89	20.89	
1.4	QPSK	6	0	19.89	19.89	19.78	21
1.4	16QAM	1	0	20.16	20.13	19.90	21
1.4	16QAM	1	3	20.25	20.33	20.16	
1.4	16QAM	1	5	20.20	20.36	20.26	
1.4	16QAM	3	0	19.98	19.98	20.01	
1.4	16QAM	3	1	20.13	19.92	19.89	
1.4	16QAM	3	3	19.95	20.02	19.97	
1.4	16QAM	6	0	18.93	18.92	18.89	20

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	23.46	23.49	23.41	24.5
10	QPSK	1	25	23.29	23.32	23.21	
10	QPSK	1	49	23.21	23.28	23.03	
10	QPSK	25	0	22.39	22.47	22.33	
10	QPSK	25	12	22.46	22.43	22.38	23.5
10	QPSK	25	25	22.38	22.34	22.37	
10	QPSK	50	0	22.27	22.29	22.26	
10	16QAM	1	0	22.36	22.26	22.22	
10	16QAM	1	25	22.35	22.53	22.39	23.5
10	16QAM	1	49	22.32	22.33	22.25	
10	16QAM	25	0	21.31	21.22	21.19	
10	16QAM	25	12	21.23	21.19	21.16	
10	16QAM	25	25	21.31	21.27	21.22	22.5
10	16QAM	50	0	21.35	21.21	21.18	
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.30	23.31	23.23	
5	QPSK	1	12	23.26	23.26	23.19	24.5
5	QPSK	1	24	23.16	23.23	22.97	
5	QPSK	12	0	22.38	22.44	22.20	
5	QPSK	12	7	22.42	22.40	22.35	23.5
5	QPSK	12	13	22.28	22.30	22.27	
5	QPSK	25	0	22.32	22.30	22.35	
5	16QAM	1	0	22.46	22.37	22.32	
5	16QAM	1	12	22.45	22.65	22.51	23.5
5	16QAM	1	24	22.44	22.41	22.37	
5	16QAM	12	0	21.37	21.33	21.24	
5	16QAM	12	7	21.31	21.30	21.22	
5	16QAM	12	13	21.36	21.35	21.29	22.5
5	16QAM	25	0	21.45	21.26	21.23	
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.21	23.29	23.25	
3	QPSK	1	8	23.28	23.26	23.14	24.5
3	QPSK	1	14	23.12	23.21	22.95	
3	QPSK	8	0	22.32	22.43	22.21	
3	QPSK	8	4	22.42	22.40	22.33	23.5
3	QPSK	8	7	22.14	22.19	22.17	
3	QPSK	15	0	22.19	22.18	22.22	
3	16QAM	1	0	22.33	22.17	22.18	
3	16QAM	1	8	22.33	22.51	22.32	23.5
3	16QAM	1	14	22.25	22.23	22.23	
3	16QAM	8	0	21.28	21.16	21.12	
3	16QAM	8	4	21.14	21.16	21.15	
3	16QAM	8	7	21.25	21.17	21.14	22.5
3	16QAM	15	0	21.31	21.18	21.15	
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.31	23.32	23.19	
1.4	QPSK	1	3	23.24	23.24	23.13	24.5
1.4	QPSK	1	5	23.20	23.25	22.98	
1.4	QPSK	3	0	23.20	23.31	23.05	
1.4	QPSK	3	1	23.26	23.23	23.16	23.5
1.4	QPSK	3	3	23.15	23.19	23.22	
1.4	QPSK	6	0	22.26	22.16	22.17	
1.4	16QAM	1	0	22.33	22.21	22.14	
1.4	16QAM	1	3	22.33	22.51	22.29	23.5
1.4	16QAM	1	5	22.31	22.28	22.20	
1.4	16QAM	3	0	22.36	22.29	22.31	
1.4	16QAM	3	1	22.35	22.30	22.24	
1.4	16QAM	3	3	22.36	22.36	22.34	22.5
1.4	16QAM	6	0	21.47	21.33	21.30	

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	18.46	18.54	18.51	19.5
20	QPSK	1	49	18.33	18.40	18.45	
20	QPSK	1	99	18.44	18.45	18.46	
20	QPSK	50	0	17.54	17.67	17.66	
20	QPSK	50	24	17.61	17.66	17.65	18.5
20	QPSK	50	50	17.64	17.63	17.65	
20	QPSK	100	0	17.69	17.70	17.62	
20	16QAM	1	0	17.55	17.49	17.54	
20	16QAM	1	49	17.62	17.61	17.53	18.5
20	16QAM	1	99	17.63	17.68	17.64	
20	16QAM	50	0	16.53	16.68	16.74	
20	16QAM	50	24	16.57	16.62	16.54	
20	16QAM	50	50	16.56	16.67	16.52	17.5
20	16QAM	100	0	16.55	16.60	16.65	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	18.35	18.45	18.39	
15	QPSK	1	37	18.25	18.32	18.37	19.5
15	QPSK	1	74	18.37	18.42	18.44	
15	QPSK	36	0	17.51	17.66	17.58	
15	QPSK	36	20	17.51	17.64	17.59	18.5
15	QPSK	36	39	17.58	17.62	17.63	
15	QPSK	75	0	17.61	17.58	17.53	
15	16QAM	1	0	17.51	17.48	17.46	
15	16QAM	1	37	17.57	17.52	17.52	18.5
15	16QAM	1	74	17.60	17.67	17.54	
15	16QAM	36	0	16.46	16.66	16.73	
15	16QAM	36	20	16.54	16.53	16.49	
15	16QAM	36	39	16.52	16.66	16.45	17.5
15	16QAM	75	0	16.53	16.59	16.64	
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	18.29	18.42	18.40	
10	QPSK	1	25	18.29	18.38	18.35	19.5
10	QPSK	1	49	18.36	18.36	18.39	
10	QPSK	25	0	17.46	17.65	17.56	
10	QPSK	25	12	17.56	17.62	17.60	18.5
10	QPSK	25	25	17.59	17.53	17.64	
10	QPSK	50	0	17.68	17.65	17.60	
10	16QAM	1	0	17.47	17.45	17.46	
10	16QAM	1	25	17.58	17.59	17.43	18.5
10	16QAM	1	49	17.57	17.59	17.62	
10	16QAM	25	0	16.51	16.59	16.72	
10	16QAM	25	12	16.54	16.59	16.44	
10	16QAM	25	25	16.53	16.59	16.46	17.5
10	16QAM	50	0	16.50	16.59	16.64	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	18.35	18.46	18.33	
5	QPSK	1	12	18.30	18.36	18.42	19.5
5	QPSK	1	24	18.38	18.41	18.40	
5	QPSK	12	0	17.51	17.63	17.59	
5	QPSK	12	7	17.60	17.64	17.59	18.5
5	QPSK	12	13	17.56	17.59	17.62	
5	QPSK	25	0	17.61	17.64	17.54	
5	16QAM	1	0	17.54	17.40	17.47	
5	16QAM	1	12	17.59	17.56	17.47	18.5
5	16QAM	1	24	17.55	17.66	17.60	
5	16QAM	12	0	16.51	16.58	16.66	
5	16QAM	12	7	16.49	16.58	16.48	
5	16QAM	12	13	16.48	16.58	16.45	17.5
5	16QAM	25	0	16.46	16.50	16.59	

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	23.50	23.55	23.43	24.5
10	QPSK	1	25	23.43	23.46	23.47	
10	QPSK	1	49	23.33	23.48	23.50	
10	QPSK	25	0	22.66	22.71	22.70	23.5
10	QPSK	25	12	22.68	22.59	22.66	
10	QPSK	25	25	22.68	22.63	22.60	
10	QPSK	50	0	22.62	22.71	22.67	23.5
10	16QAM	1	0	22.86	22.83	22.70	
10	16QAM	1	25	22.61	22.68	22.68	
10	16QAM	1	49	22.66	22.61	22.72	22.5
10	16QAM	25	0	21.64	21.66	21.77	
10	16QAM	25	12	21.62	21.67	21.64	
10	16QAM	25	25	21.74	21.71	21.73	22.5
10	16QAM	50	0	21.78	21.72	21.69	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.30	23.45	23.33	24.5
5	QPSK	1	12	23.38	23.45	23.38	
5	QPSK	1	24	23.32	23.43	23.44	
5	QPSK	12	0	22.63	22.64	22.66	23.5
5	QPSK	12	7	22.59	22.54	22.63	
5	QPSK	12	13	22.60	22.55	22.59	
5	QPSK	25	0	22.61	22.58	22.63	23.5
5	16QAM	1	0	22.82	22.78	22.60	
5	16QAM	1	12	22.51	22.66	22.66	
5	16QAM	1	24	22.61	22.60	22.65	22.5
5	16QAM	12	0	21.55	21.64	21.69	
5	16QAM	12	7	21.61	21.59	21.56	
5	16QAM	12	13	21.66	21.63	21.67	22.5
5	16QAM	25	0	21.76	21.62	21.67	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	23.35	23.53	23.41	24.5
3	QPSK	1	8	23.41	23.41	23.46	
3	QPSK	1	14	23.31	23.47	23.40	
3	QPSK	8	0	22.65	22.65	22.65	23.5
3	QPSK	8	4	22.63	22.49	22.62	
3	QPSK	8	7	22.59	22.58	22.53	
3	QPSK	15	0	22.56	22.58	22.62	23.5
3	16QAM	1	0	22.79	22.78	22.60	
3	16QAM	1	8	22.56	22.61	22.66	
3	16QAM	1	14	22.56	22.56	22.70	22.5
3	16QAM	8	0	21.62	21.60	21.75	
3	16QAM	8	4	21.53	21.57	21.56	
3	16QAM	8	7	21.71	21.67	21.68	22.5
3	16QAM	15	0	21.77	21.67	21.59	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	23.34	23.54	23.35	24.5
1.4	QPSK	1	3	23.41	23.40	23.44	
1.4	QPSK	1	5	23.32	23.38	23.43	
1.4	QPSK	3	0	23.45	23.49	23.49	23.5
1.4	QPSK	3	1	23.50	23.38	23.47	
1.4	QPSK	3	3	23.42	23.38	23.36	
1.4	QPSK	6	0	22.57	22.57	22.59	23.5
1.4	16QAM	1	0	22.81	22.76	22.68	
1.4	16QAM	1	3	22.54	22.59	22.61	
1.4	16QAM	1	5	22.65	22.51	22.69	23.5
1.4	16QAM	3	0	22.55	22.65	22.69	
1.4	16QAM	3	1	22.56	22.58	22.55	
1.4	16QAM	3	3	22.71	22.66	22.69	22.5
1.4	16QAM	6	0	21.72	21.63	21.65	

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	23.41	23.42	23.28	24.5
10	QPSK	1	25	23.34	23.37	23.38	
10	QPSK	1	49	23.29	23.33	23.36	
10	QPSK	25	0	22.45	22.48	22.48	23.5
10	QPSK	25	12	22.40	22.38	22.40	
10	QPSK	25	25	22.40	22.37	22.43	
10	QPSK	50	0	22.46	22.42	22.44	23.5
10	16QAM	1	0	22.60	22.69	22.39	
10	16QAM	1	25	22.44	22.44	22.46	
10	16QAM	1	49	22.50	22.58	22.57	22.5
10	16QAM	25	0	21.49	21.52	21.37	
10	16QAM	25	12	21.50	21.51	21.55	
10	16QAM	25	25	21.59	21.50	21.45	22.5
10	16QAM	50	0	21.41	21.48	21.41	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	
5	QPSK	1	0	23.35	23.36	23.22	24.5
5	QPSK	1	12	23.28	23.31	23.32	
5	QPSK	1	24	23.23	23.27	23.30	
5	QPSK	12	0	22.39	22.42	22.42	23.5
5	QPSK	12	7	22.34	22.32	22.34	
5	QPSK	12	13	22.34	22.31	22.37	
5	QPSK	25	0	22.40	22.36	22.38	23.5
5	16QAM	1	0	22.54	22.63	22.33	
5	16QAM	1	12	22.38	22.38	22.40	
5	16QAM	1	24	22.44	22.52	22.51	22.5
5	16QAM	12	0	21.43	21.46	21.31	
5	16QAM	12	7	21.44	21.45	21.49	
5	16QAM	12	13	21.53	21.44	21.39	22.5
5	16QAM	25	0	21.35	21.42	21.35	

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	21.17	21.19	21.12	22
20	QPSK	1	49	20.88	21.00	20.85	
20	QPSK	1	99	20.96	20.96	20.93	
20	QPSK	50	0	20.08	20.13	20.11	
20	QPSK	50	24	20.01	20.09	20.08	21
20	QPSK	50	50	20.12	20.07	20.09	
20	QPSK	100	0	20.08	20.13	20.10	
20	16QAM	1	0	20.38	20.33	20.35	
20	16QAM	1	49	20.25	20.34	20.11	21
20	16QAM	1	99	20.19	20.26	20.34	
20	16QAM	50	0	19.19	19.12	19.11	
20	16QAM	50	24	19.31	19.26	19.14	
20	16QAM	50	50	19.24	19.23	19.20	20
20	16QAM	100	0	19.25	19.22	19.12	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	20.78	20.98	20.94	22
15	QPSK	1	37	20.86	20.93	20.75	
15	QPSK	1	74	20.90	20.95	20.89	
15	QPSK	36	0	19.86	19.90	19.89	
15	QPSK	36	20	19.92	20.05	20.07	21
15	QPSK	36	39	20.03	20.03	20.04	
15	QPSK	75	0	19.88	19.92	20.04	
15	16QAM	1	0	20.36	20.26	20.33	
15	16QAM	1	37	20.20	20.30	20.07	21
15	16QAM	1	74	20.14	20.17	20.27	
15	16QAM	36	0	19.17	19.07	19.09	
15	16QAM	36	20	19.20	19.24	19.13	
15	16QAM	36	39	19.18	19.14	19.12	20
15	16QAM	75	0	19.18	19.14	19.02	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	20.83	20.93	20.91	22
10	QPSK	1	25	20.71	20.92	20.72	
10	QPSK	1	49	20.81	20.85	20.79	
10	QPSK	25	0	19.81	19.89	19.90	
10	QPSK	25	12	19.89	19.97	19.95	21
10	QPSK	25	25	19.98	19.97	19.98	
10	QPSK	50	0	19.89	19.78	20.04	
10	16QAM	1	0	20.32	20.22	20.26	
10	16QAM	1	25	20.13	20.25	19.98	21
10	16QAM	1	49	20.10	20.16	20.21	
10	16QAM	25	0	19.02	19.04	18.98	
10	16QAM	25	12	19.23	19.15	19.04	
10	16QAM	25	25	19.08	19.15	19.08	20
10	16QAM	50	0	19.15	19.08	19.03	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	20.79	20.96	20.90	22
5	QPSK	1	12	20.80	20.87	20.74	
5	QPSK	1	24	20.86	20.83	20.83	
5	QPSK	12	0	19.89	19.92	19.90	
5	QPSK	12	7	19.90	20.00	19.94	21
5	QPSK	12	13	20.01	19.98	19.97	
5	QPSK	25	0	19.85	19.84	20.04	
5	16QAM	1	0	20.27	20.24	20.27	
5	16QAM	1	12	20.08	20.25	20.00	21
5	16QAM	1	24	20.07	20.18	20.19	
5	16QAM	12	0	19.09	18.97	19.00	
5	16QAM	12	7	19.20	19.14	18.99	
5	16QAM	12	13	19.07	19.16	19.11	20
5	16QAM	25	0	19.19	19.14	19.02	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	20.79	20.89	20.86	22
3	QPSK	1	8	20.71	20.89	20.76	
3	QPSK	1	14	20.81	20.82	20.87	
3	QPSK	8	0	19.88	19.86	19.89	
3	QPSK	8	4	19.92	19.95	19.95	21
3	QPSK	8	7	19.98	19.98	19.95	
3	QPSK	15	0	19.87	19.78	19.95	
3	16QAM	1	0	20.28	20.25	20.20	
3	16QAM	1	8	20.16	20.21	20.04	21
3	16QAM	1	14	20.02	20.18	20.28	
3	16QAM	8	0	19.04	19.04	18.99	
3	16QAM	8	4	19.17	19.14	19.07	
3	16QAM	8	7	19.11	19.10	19.14	20
3	16QAM	15	0	19.10	19.08	19.02	
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	20.78	20.94	20.90	22
1.4	QPSK	1	3	20.81	20.89	20.78	
1.4	QPSK	1	5	20.82	20.90	20.78	
1.4	QPSK	3	0	20.92	20.90	21.04	
1.4	QPSK	3	1	20.95	20.97	20.93	

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	23.45	23.47	23.40	24.5
20	QPSK	1	49	23.16	23.28	23.13	
20	QPSK	1	99	23.24	23.24	23.21	
20	QPSK	50	0	22.36	22.41	22.39	
20	QPSK	50	24	22.29	22.37	22.36	23.5
20	QPSK	50	50	22.40	22.35	22.37	
20	QPSK	100	0	22.36	22.41	22.38	
20	16QAM	1	0	22.66	22.61	22.63	
20	16QAM	1	49	22.53	22.62	22.39	23.5
20	16QAM	1	99	22.47	22.54	22.62	
20	16QAM	50	0	21.47	21.40	21.39	
20	16QAM	50	24	21.59	21.54	21.42	
20	16QAM	50	50	21.52	21.51	21.48	22.5
20	16QAM	100	0	21.53	21.50	21.40	
Channel				133197	133297	133397	
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	23.06	23.26	23.22	24.5
15	QPSK	1	37	23.14	23.21	23.03	
15	QPSK	1	74	23.18	23.23	23.17	
15	QPSK	36	0	22.14	22.18	22.17	
15	QPSK	36	20	22.20	22.33	22.35	23.5
15	QPSK	36	39	22.31	22.31	22.32	
15	QPSK	75	0	22.16	22.20	22.32	
15	16QAM	1	0	22.64	22.54	22.61	
15	16QAM	1	37	22.48	22.58	22.35	23.5
15	16QAM	1	74	22.42	22.45	22.55	
15	16QAM	36	0	21.45	21.35	21.37	
15	16QAM	36	20	21.48	21.52	21.41	
15	16QAM	36	39	21.46	21.42	21.40	22.5
15	16QAM	75	0	21.46	21.42	21.30	
Channel				133172	133272	133422	
Frequency (MHz)				668	678	693	
10	QPSK	1	0	23.11	23.21	23.19	24.5
10	QPSK	1	25	22.99	23.20	23.00	
10	QPSK	1	49	23.09	23.13	23.07	
10	QPSK	25	0	22.09	22.17	22.18	
10	QPSK	25	12	22.17	22.25	22.23	23.5
10	QPSK	25	25	22.26	22.25	22.26	
10	QPSK	50	0	22.17	22.06	22.32	
10	16QAM	1	0	22.60	22.50	22.54	
10	16QAM	1	25	22.41	22.53	22.26	23.5
10	16QAM	1	49	22.38	22.44	22.49	
10	16QAM	25	0	21.30	21.32	21.26	
10	16QAM	25	12	21.51	21.43	21.32	
10	16QAM	25	25	21.36	21.43	21.36	22.5
10	16QAM	50	0	21.43	21.36	21.31	
Channel				133147	133247	133447	
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	23.07	23.24	23.18	24.5
5	QPSK	1	12	23.08	23.15	23.02	
5	QPSK	1	24	23.14	23.11	23.11	
5	QPSK	12	0	22.17	22.20	22.18	
5	QPSK	12	7	22.18	22.28	22.22	23.5
5	QPSK	12	13	22.29	22.26	22.25	
5	QPSK	25	0	22.13	22.12	22.32	
5	16QAM	1	0	22.55	22.52	22.55	
5	16QAM	1	12	22.36	22.53	22.28	23.5
5	16QAM	1	24	22.35	22.46	22.47	
5	16QAM	12	0	21.37	21.25	21.28	
5	16QAM	12	7	21.48	21.42	21.27	
5	16QAM	12	13	21.35	21.44	21.39	22.5
5	16QAM	25	0	21.47	21.42	21.30	

1.4	QPSK	3	3	21.00	20.97	20.94	
1.4	QPSK	6	0	19.91	19.78	20.02	21
1.4	16QAM	1	0	20.25	20.21	20.20	21
1.4	16QAM	1	3	20.12	20.24	19.97	
1.4	16QAM	1	6	20.12	20.19	20.23	
1.4	16QAM	3	0	19.89	20.11	19.90	
1.4	16QAM	3	1	20.09	20.06	19.92	
1.4	16QAM	3	3	19.96	19.99	19.98	
1.4	16QAM	6	0	19.13	19.09	19.10	20

Band 38(only on channel required) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	23.42	23.57	23.41	24.5
20	QPSK	1	49	23.49	23.32	23.34	
20	QPSK	1	99	23.36	23.47	23.37	
20	QPSK	50	0	22.69	22.75	22.60	
20	QPSK	50	24	22.67	22.61	22.46	23.5
20	QPSK	50	50	22.61	22.57	22.40	
20	QPSK	100	0	22.67	22.73	22.52	
20	16QAM	1	0	22.81	22.75	22.69	
20	16QAM	1	49	22.59	22.69	22.62	23.5
20	16QAM	1	99	22.51	22.74	22.60	
20	16QAM	50	0	21.76	21.62	21.56	
20	16QAM	50	24	21.59	21.65	21.53	
20	16QAM	50	50	21.47	21.50	21.42	22.5
20	16QAM	100	0	21.59	21.65	21.59	
Channel				37825	38000	38175	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	23.31	23.56	23.35	24.5
15	QPSK	1	37	23.39	23.30	23.29	
15	QPSK	1	74	23.30	23.37	23.32	
15	QPSK	36	0	22.61	22.71	22.53	
15	QPSK	36	20	22.59	22.57	22.37	23.5
15	QPSK	36	39	22.60	22.54	22.31	
15	QPSK	75	0	22.61	22.54	22.42	
15	16QAM	1	0	22.69	22.64	22.57	
15	16QAM	1	37	22.52	22.67	22.52	23.5
15	16QAM	1	74	22.39	22.64	22.57	
15	16QAM	36	0	21.68	21.54	21.46	
15	16QAM	36	20	21.50	21.59	21.44	
15	16QAM	36	39	21.35	21.41	21.35	22.5
15	16QAM	75	0	21.53	21.64	21.50	
Channel				37800	38000	38200	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	23.37	23.52	23.35	24.5
10	QPSK	1	25	23.39	23.28	23.34	
10	QPSK	1	49	23.31	23.37	23.35	
10	QPSK	25	0	22.62	22.67	22.55	
10	QPSK	25	12	22.58	22.60	22.44	23.5
10	QPSK	25	25	22.52	22.55	22.37	
10	QPSK	50	0	22.59	22.61	22.43	
10	16QAM	1	0	22.70	22.66	22.57	
10	16QAM	1	25	22.56	22.59	22.58	23.5
10	16QAM	1	49	22.45	22.73	22.56	
10	16QAM	25	0	21.72	21.54	21.51	
10	16QAM	25	12	21.55	21.60	21.49	
10	16QAM	25	25	21.40	21.43	21.41	22.5
10	16QAM	50	0	21.53	21.61	21.56	
Channel				37775	38000	38225	Tune-up limit (dBm)
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	23.31	23.54	23.33	24.5
5	QPSK	1	12	23.39	23.32	23.31	
5	QPSK	1	24	23.29	23.35	23.33	
5	QPSK	12	0	22.63	22.68	22.54	
5	QPSK	12	7	22.66	22.53	22.39	23.5
5	QPSK	12	13	22.52	22.50	22.37	
5	QPSK	25	0	22.65	22.55	22.42	
5	16QAM	1	0	22.73	22.69	22.68	
5	16QAM	1	12	22.50	22.58	22.53	23.5
5	16QAM	1	24	22.48	22.62	22.59	
5	16QAM	12	0	21.65	21.58	21.44	
5	16QAM	12	7	21.53	21.58	21.52	
5	16QAM	12	13	21.39	21.43	21.32	22.5
5	16QAM	25	0	21.57	21.60	21.57	

2.4GHz WLAN ANT 1

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
2.4GHz WLAN ANT 1	802.11b 1Mbps	CH 1	2412	16.05	17.00	99.71
		CH 6	2437	15.62	16.00	
		CH 11	2462	15.56	16.00	
	802.11g 6Mbps	CH 1	2412	13.34	14.00	98.02
		CH 6	2437	13.64	14.50	
		CH 11	2462	13.59	14.00	
	802.11n-HT20 MCS0	CH 1	2412	13.38	14.00	98.27
		CH 6	2437	13.65	14.00	
		CH 11	2462	12.57	14.00	

Mode	Channel	Frequency (MHz)	1Mbps		2Mbps		3Mbps	
			Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit
BR / EDR	CH 00	2402	9.33	10.00	5.92	6.50	5.85	6.50
	CH 39	2441	9.07	10.00	6.63	7.00	6.59	7.00
	CH 78	2480	10.33	11.00	6.27	7.00	6.34	7.00
Duty Cycle %			77.55		77.31		77.25	

Mode	Channel	Frequency (MHz)	Average power (dBm)
			GFSK
LE	CH 00	2402	0.26
	CH 19	2440	1.91
	CH 39	2480	1.01
Tune-up Limit			2.5
Duty Cycle %			64.52

Reduced Power

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)
TX Channel		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	RMC 12.2Kbps	19.50	19.54	19.48	20.50	19.11	19.18	19.14	20.00
3GPP Rel 5	HSDPA Subtest-1	19.36	19.37	19.24	20.00	17.63	17.73	17.62	19.00
3GPP Rel 5	HSDPA Subtest-2	18.82	18.84	18.69	19.50	17.61	17.71	17.88	19.00
3GPP Rel 5	HSDPA Subtest-3	18.91	19.08	18.88	20.00	17.72	17.88	17.65	19.00
3GPP Rel 5	HSDPA Subtest-4	18.61	18.67	18.51	19.50	17.76	17.66	17.61	19.00
3GPP Rel 6	HSUPA Subtest-1	19.21	19.34	19.15	20.00	18.60	18.84	18.57	20.00
3GPP Rel 6	HSUPA Subtest-2	19.35	19.39	19.24	20.00	18.54	18.82	18.57	20.00
3GPP Rel 6	HSUPA Subtest-3	19.07	19.24	19.04	20.00	18.50	18.84	18.52	20.00
3GPP Rel 6	HSUPA Subtest-4	19.38	19.41	19.26	20.00	18.51	18.79	18.58	20.00
3GPP Rel 6	HSUPA Subtest-5	19.16	19.30	19.09	20.00	18.60	18.83	18.56	20.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.10	19.12	19.05	20.00	18.44	18.67	18.33	20.00
Attenuator			Cable Loss	0.8			Cable Loss	0.8	
Mode			Max.	19.54			Max.	19.18	

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	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	19.09	19.12	19.08	
20	QPSK	1	49	18.87	18.93	18.89	20
20	QPSK	1	99	18.85	18.91	18.90	
20	QPSK	50	0	18.11	18.18	18.08	
20	QPSK	50	24	18.08	18.14	18.10	19
20	QPSK	50	50	18.03	18.10	18.08	
20	QPSK	100	0	18.05	18.08	18.03	
20	16QAM	1	0	18.29	18.31	18.29	19
20	16QAM	1	49	18.26	18.28	18.20	
20	16QAM	1	99	18.23	18.27	18.26	
20	16QAM	50	0	16.95	16.99	16.92	18
20	16QAM	50	24	16.97	16.98	16.91	
20	16QAM	50	50	16.96	16.97	16.90	
20	16QAM	100	0	16.89	16.95	16.91	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	18.91	18.97	18.90	20
15	QPSK	1	37	18.79	18.88	18.84	
15	QPSK	1	74	18.84	18.89	18.85	
15	QPSK	36	0	18.09	18.14	18.11	19
15	QPSK	36	20	18.00	18.07	18.09	
15	QPSK	36	39	18.01	18.08	18.07	
15	QPSK	75	0	18.03	18.00	17.96	19
15	16QAM	1	0	18.28	18.26	18.22	
15	16QAM	1	37	18.19	18.21	18.16	
15	16QAM	1	74	18.15	18.19	18.21	18
15	16QAM	36	0	16.89	16.92	16.91	
15	16QAM	36	20	16.92	16.97	16.85	
15	16QAM	36	39	16.94	16.91	16.82	18
15	16QAM	75	0	16.84	16.94	16.86	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	18.90	19.01	18.93	20
10	QPSK	1	25	18.80	18.88	18.83	
10	QPSK	1	49	18.78	18.87	18.82	
10	QPSK	25	0	18.14	18.11	18.11	19
10	QPSK	25	12	18.07	18.09	18.06	
10	QPSK	25	25	18.01	18.02	18.04	
10	QPSK	50	0	17.98	18.07	17.99	19
10	16QAM	1	0	18.22	18.23	18.25	
10	16QAM	1	25	18.23	18.21	18.12	
10	16QAM	1	49	18.17	18.21	18.18	18
10	16QAM	25	0	16.92	16.96	16.86	
10	16QAM	25	12	16.93	16.92	16.86	
10	16QAM	25	25	16.93	16.96	16.86	18
10	16QAM	50	0	16.82	16.93	16.87	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	18.88	18.95	18.92	20
5	QPSK	1	12	18.82	18.92	18.83	
5	QPSK	1	24	18.78	18.83	18.87	
5	QPSK	12	0	18.10	18.11	18.09	19
5	QPSK	12	7	18.01	18.06	18.02	
5	QPSK	12	13	17.99	18.08	18.04	
5	QPSK	25	0	18.03	18.01	17.98	19
5	16QAM	1	0	18.27	18.23	18.25	
5	16QAM	1	12	18.20	18.27	18.17	
5	16QAM	1	24	18.15	18.20	18.19	18
5	16QAM	12	0	16.88	16.95	16.85	
5	16QAM	12	7	16.95	16.97	16.86	
5	16QAM	12	13	16.92	16.91	16.89	18
5	16QAM	25	0	16.84	16.94	16.88	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	18.90	18.96	18.91	20
3	QPSK	1	8	18.83	18.85	18.87	
3	QPSK	1	14	18.83	18.88	18.85	
3	QPSK	8	0	18.11	18.14	18.12	19
3	QPSK	8	4	18.01	18.12	18.03	
3	QPSK	8	7	18.02	18.06	18.05	
3	QPSK	15	0	17.97	18.04	17.96	19
3	16QAM	1	0	18.28	18.26	18.28	
3	16QAM	1	8	18.25	18.26	18.19	
3	16QAM	1	14	18.16	18.20	18.18	18
3	16QAM	8	0	16.94	16.95	16.88	
3	16QAM	8	4	16.90	16.95	16.88	
3	16QAM	8	7	16.91	16.91	16.89	18
3	16QAM	15	0	16.84	16.93	16.89	
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	18.86	19.01	18.93	20
1.4	QPSK	1	3	18.80	18.87	18.86	
1.4	QPSK	1	5	18.77	18.88	18.86	
1.4	QPSK	3	0	18.83	18.92	18.89	19
1.4	QPSK	3	1	18.95	18.98	18.88	
1.4	QPSK	3	3	18.89	18.93	18.90	
1.4	QPSK	6	0	17.97	18.07	17.99	19
1.4	16QAM	1	0	18.25	18.24	18.21	
1.4	16QAM	1	3	18.25	18.22	18.18	
1.4	16QAM	1	5	18.16	18.25	18.25	19
1.4	16QAM	3	0	18.05	18.10	18.02	
1.4	16QAM	3	1	18.03	18.07	17.99	
1.4	16QAM	3	3	18.04	18.08	17.97	18
1.4	16QAM	6	0	17.07	17.04	16.97	

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	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	18.44	18.53	18.47	19.5
20	QPSK	1	49	18.38	18.40	18.33	
20	QPSK	1	99	18.30	18.37	18.34	
20	QPSK	50	0	17.44	17.56	17.45	
20	QPSK	50	24	17.48	17.42	17.40	18.5
20	QPSK	50	50	17.45	17.48	17.41	
20	QPSK	100	0	17.48	17.49	17.38	
20	16QAM	1	0	17.75	17.66	17.49	
20	16QAM	1	49	17.63	17.72	17.67	18.5
20	16QAM	1	99	17.73	17.50	17.77	
20	16QAM	50	0	16.56	16.51	16.55	
20	16QAM	50	24	16.65	16.50	16.49	
20	16QAM	50	50	16.52	16.55	16.57	17.5
20	16QAM	100	0	16.50	16.52	16.48	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	18.31	18.36	18.27	19.5
15	QPSK	1	37	18.35	18.36	18.30	
15	QPSK	1	74	18.21	18.36	18.33	
15	QPSK	36	0	17.40	17.46	17.35	
15	QPSK	36	20	17.54	17.35	17.36	18.5
15	QPSK	36	39	17.44	17.41	17.32	
15	QPSK	75	0	17.43	17.41	17.28	
15	16QAM	1	0	17.71	17.60	17.43	
15	16QAM	1	37	17.70	17.82	17.62	18.5
15	16QAM	1	74	17.75	17.90	17.76	
15	16QAM	36	0	16.55	16.42	16.49	
15	16QAM	36	20	16.61	16.41	16.41	
15	16QAM	36	39	16.48	16.53	16.55	17.5
15	16QAM	75	0	16.40	16.48	16.47	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	18.38	18.39	18.32	19.5
10	QPSK	1	25	18.31	18.35	18.27	
10	QPSK	1	49	18.22	18.36	18.26	
10	QPSK	25	0	17.38	17.55	17.40	
10	QPSK	25	12	17.46	17.33	17.39	18.5
10	QPSK	25	25	17.36	17.46	17.34	
10	QPSK	50	0	17.39	17.45	17.32	
10	16QAM	1	0	17.69	17.61	17.42	
10	16QAM	1	25	17.69	17.86	17.66	18.5
10	16QAM	1	49	17.71	17.91	17.72	
10	16QAM	25	0	16.48	16.47	16.50	
10	16QAM	25	12	16.57	16.43	16.45	
10	16QAM	25	25	16.51	16.46	16.53	17.5
10	16QAM	50	0	16.49	16.46	16.39	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	18.37	18.37	18.28	19.5
5	QPSK	1	12	18.28	18.30	18.32	
5	QPSK	1	24	18.29	18.35	18.25	
5	QPSK	12	0	17.35	17.51	17.39	
5	QPSK	12	7	17.49	17.37	17.31	18.5
5	QPSK	12	13	17.42	17.42	17.31	
5	QPSK	25	0	17.46	17.45	17.30	
5	16QAM	1	0	17.65	17.64	17.45	
5	16QAM	1	12	17.68	17.84	17.65	18.5
5	16QAM	1	24	17.73	17.84	17.69	
5	16QAM	12	0	16.54	16.44	16.51	
5	16QAM	12	7	16.55	16.45	16.41	
5	16QAM	12	13	16.47	16.47	16.53	17.5
5	16QAM	25	0	16.41	16.43	16.39	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	18.28	18.38	18.24	19.5
3	QPSK	1	8	18.32	18.37	18.28	
3	QPSK	1	14	18.24	18.27	18.25	
3	QPSK	8	0	17.37	17.49	17.41	
3	QPSK	8	4	17.45	17.39	17.38	18.5
3	QPSK	8	7	17.41	17.40	17.38	
3	QPSK	15	0	17.38	17.40	17.32	
3	16QAM	1	0	17.65	17.65	17.42	
3	16QAM	1	8	17.69	17.83	17.65	18.5
3	16QAM	1	14	17.75	17.86	17.74	
3	16QAM	8	0	16.49	16.42	16.48	
3	16QAM	8	4	16.62	16.42	16.43	
3	16QAM	8	7	16.42	16.48	16.54	17.5
3	16QAM	15	0	16.41	16.44	16.45	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	18.28	18.36	18.25	19.5
1.4	QPSK	1	3	18.28	18.31	18.24	
1.4	QPSK	3	0	18.38	18.33	18.38	
1.4	QPSK	3	1	18.37	18.37	18.35	
1.4	QPSK	3	3	18.35	18.39	18.39	18.5
1.4	QPSK	6	0	17.39	17.39	17.28	
1.4	16QAM	1	0	17.66	17.63	17.40	
1.4	16QAM	1	3	17.75	17.83	17.66	
1.4	16QAM	1	5	17.70	17.86	17.76	18.5
1.4	16QAM	3	0	17.48	17.48	17.51	
1.4	16QAM	3	1	17.63	17.42	17.39	
1.4	16QAM	3	3	17.45	17.52	17.47	
1.4	16QAM	6	0	16.43	16.42	16.39	17.5

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	14.5
20	QPSK	1	0	13.41	13.49	13.46	
20	QPSK	1	49	13.28	13.35	13.40	
20	QPSK	1	99	13.39	13.40	13.41	
20	QPSK	50	0	12.49	12.62	12.61	13.5
20	QPSK	50	24	12.56	12.61	12.60	
20	QPSK	50	50	12.59	12.58	12.60	
20	QPSK	100	0	12.64	12.65	12.57	
20	16QAM	1	0	12.50	12.44	12.49	13.5
20	16QAM	1	49	12.57	12.56	12.48	
20	16QAM	1	99	12.58	12.63	12.59	
20	16QAM	50	0	11.48	11.63	11.69	
20	16QAM	50	24	11.52	11.57	11.49	12.5
20	16QAM	50	50	11.51	11.62	11.47	
20	16QAM	100	0	11.50	11.55	11.60	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)
15	QPSK	1	0	13.30	13.40	13.34	14.5
15	QPSK	1	37	13.20	13.27	13.32	
15	QPSK	1	74	13.32	13.37	13.39	
15	QPSK	36	0	12.46	12.61	12.53	
15	QPSK	36	20	12.46	12.59	12.54	13.5
15	QPSK	36	39	12.53	12.57	12.58	
15	QPSK	75	0	12.56	12.53	12.48	
15	16QAM	1	0	12.46	12.43	12.41	
15	16QAM	1	37	12.52	12.47	12.47	13.5
15	16QAM	1	74	12.55	12.62	12.49	
15	16QAM	36	0	11.41	11.61	11.68	
15	16QAM	36	20	11.49	11.48	11.44	
15	16QAM	36	39	11.47	11.61	11.40	12.5
15	16QAM	75	0	11.48	11.54	11.59	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	14.5
10	QPSK	1	0	13.24	13.37	13.35	
10	QPSK	1	25	13.24	13.33	13.30	
10	QPSK	1	49	13.31	13.31	13.34	
10	QPSK	25	0	12.41	12.60	12.51	13.5
10	QPSK	25	12	12.51	12.57	12.55	
10	QPSK	25	25	12.54	12.48	12.59	
10	QPSK	50	0	12.63	12.60	12.55	
10	16QAM	1	0	12.42	12.40	12.41	13.5
10	16QAM	1	25	12.53	12.54	12.38	
10	16QAM	1	49	12.52	12.54	12.57	
10	16QAM	25	0	11.46	11.54	11.67	
10	16QAM	25	12	11.49	11.54	11.39	12.5
10	16QAM	25	25	11.48	11.54	11.41	
10	16QAM	50	0	11.45	11.54	11.59	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)
5	QPSK	1	0	13.30	13.41	13.28	14.5
5	QPSK	1	12	13.25	13.31	13.37	
5	QPSK	1	24	13.33	13.36	13.35	
5	QPSK	12	0	12.46	12.58	12.54	
5	QPSK	12	7	12.55	12.59	12.54	13.5
5	QPSK	12	13	12.51	12.54	12.57	
5	QPSK	25	0	12.56	12.59	12.49	
5	16QAM	1	0	12.49	12.35	12.42	
5	16QAM	1	12	12.54	12.51	12.42	13.5
5	16QAM	1	24	12.50	12.61	12.55	
5	16QAM	12	0	11.46	11.53	11.61	
5	16QAM	12	7	11.44	11.53	11.43	
5	16QAM	12	13	11.43	11.53	11.40	12.5
5	16QAM	25	0	11.41	11.45	11.54	

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	18.67	18.69	18.62	19.5		
20	QPSK	1		49	18.38	18.50	18.35			
20	QPSK	1		99	18.46	18.46	18.43			
20	QPSK	50		0	17.58	17.63	17.61	18.5		
20	QPSK	50		24	17.51	17.59	17.58			
20	QPSK	50		50	17.62	17.57	17.59			
20	QPSK	100		0	17.58	17.63	17.60	18.5		
20	16QAM	1		0	17.88	17.83	17.85			
20	16QAM	1		49	17.75	17.84	17.61			
20	16QAM	1		99	17.69	17.76	17.84	17.5		
20	16QAM	50		0	16.69	16.62	16.61			
20	16QAM	50		24	16.81	16.76	16.64			
20	16QAM	50		50	16.74	16.73	16.70			
20	16QAM	100		0	16.75	16.72	16.62			
Channel					132047	132322	132597	Tune-up limit (dBm)		
Frequency (MHz)					1717.5	1745	1772.5			
15	QPSK		1		0	18.28	18.48	18.44	19.5	
15	QPSK		1		37	18.36	18.43	18.25		
15	QPSK		1		74	18.40	18.45	18.39		
15	QPSK	36		0		17.36	17.40	17.39	18.5	
15	QPSK	36		20		17.42	17.55	17.57		
15	QPSK	36		39		17.53	17.53	17.54		
15	QPSK	75		0		17.38	17.42	17.54	18.5	
15	16QAM	1		0		17.86	17.76	17.83		
15	16QAM	1		37		17.70	17.80	17.57		
15	16QAM	1		74		17.64	17.67	17.77	17.5	
15	16QAM	36		0		16.67	16.57	16.59		
15	16QAM	36		20		16.70	16.74	16.63		
15	16QAM	36		39		16.68	16.64	16.62		
15	16QAM	75		0		16.68	16.64	16.52		
Channel					132022	132322	132622	Tune-up limit (dBm)		
Frequency (MHz)					1715	1745	1775			
10	QPSK	1		0		18.33	18.43	18.41	19.5	
10	QPSK	1		25		18.21	18.42	18.22		
10	QPSK	1		49		18.31	18.35	18.29		
10	QPSK	25		0		17.31	17.39	17.40	18.5	
10	QPSK	25		12		17.39	17.47	17.45		
10	QPSK	25		25		17.48	17.47	17.48		
10	QPSK	50		0		17.39	17.28	17.54	18.5	
10	16QAM	1		0		17.82	17.72	17.76		
10	16QAM	1		25		17.63	17.75	17.48		
10	16QAM	1		49		17.60	17.66	17.71	17.5	
10	16QAM	25		0		16.52	16.54	16.48		
10	16QAM	25		12		16.73	16.65	16.54		
10	16QAM	25		25		16.58	16.65	16.58		
10	16QAM	50		0		16.65	16.58	16.53		
Channel					131997	132322	132647	Tune-up limit (dBm)		
Frequency (MHz)					1712.5	1745	1777.5			
5	QPSK	1		0		18.29	18.46	18.40	19.5	
5	QPSK	1		12		18.30	18.37	18.24		
5	QPSK	1		24		18.36	18.33	18.33		
5	QPSK	12		0		17.39	17.42	17.40	18.5	
5	QPSK	12		7		17.40	17.50	17.44		
5	QPSK	12		13		17.51	17.48	17.47		
5	QPSK	25		0		17.35	17.34	17.54	18.5	
5	16QAM	1		0		17.77	17.74	17.77		
5	16QAM	1		12		17.58	17.75	17.50		
5	16QAM	1		24		17.57	17.68	17.69	17.5	
5	16QAM	12		0		16.59	16.47	16.50		
5	16QAM	12		7		16.70	16.64	16.49		
5	16QAM	12		13		16.57	16.66	16.61		
5	16QAM	25		0		16.69	16.64	16.52		
Channel					131987	132322	132655	Tune-up limit (dBm)		
Frequency (MHz)					1711.5	1745	1778.5			
3	QPSK		1		0	18.29	18.39	18.36	19.5	
3	QPSK		1		8	18.21	18.39	18.26		
3	QPSK		1		14	18.31	18.32	18.37		
3	QPSK	8		0		17.38	17.36	17.39	18.5	
3	QPSK	8		4		17.42	17.45	17.45		
3	QPSK	8		7		17.48	17.48	17.45		
3	QPSK	15		0		17.37	17.28	17.45	18.5	
3	16QAM	1		0		17.78	17.75	17.70		
3	16QAM	1		8		17.66	17.71	17.54		
3	16QAM	1		14		17.52	17.68	17.78	17.5	
3	16QAM	8		0		16.54	16.54	16.49		
3	16QAM	8		4		16.67	16.64	16.57		
3	16QAM	8		7		16.61	16.60	16.64		
3	16QAM	15		0		16.60	16.58	16.52		
Channel					131979	132322	132665	Tune-up limit (dBm)		
Frequency (MHz)					1710.7	1745	1779.3			
1.4	QPSK	1		0		18.28	18.44	18.40	19.5	
1.4	QPSK	1		3		18.31	18.39	18.28		
1.4	QPSK	3		0		18.42	18.40	18.54		
1.4	QPSK	3		1		18.45	18.47	18.43		
1.4	QPSK	3		3		18.50	18.47	18.44	18.5	
1.4	QPSK	3		6		17.41	17.28	17.52		
1.4	16QAM	1		0		17.75	17.71	17.70		
1.4	16QAM	1		3		17.62	17.74	17.47		
1.4	16QAM	1		5		17.62	17.69	17.73	18.5	
1.4	16QAM	3		0		17.39	17.61	17.40		
1.4	16QAM	3		1		17.59	17.56	17.42		
1.4	16QAM	3		3		17.46	17.49	17.48		
1.4	16QAM	6		0		16.63	16.59	16.60	17.5	

Band 38(only on channel required) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	21.42	21.57	21.41	22.5
20	QPSK	1	49	21.49	21.32	21.34	
20	QPSK	1	99	21.36	21.47	21.37	
20	QPSK	50	0	20.69	20.75	20.60	21.5
20	QPSK	50	24	20.67	20.61	20.46	
20	QPSK	50	50	20.61	20.57	20.40	
20	QPSK	100	0	20.67	20.73	20.52	21.5
20	16QAM	1	0	20.81	20.75	20.69	
20	16QAM	1	49	20.59	20.69	20.62	
20	16QAM	1	99	20.51	20.74	20.60	20.5
20	16QAM	50	0	19.76	19.62	19.56	
20	16QAM	50	24	19.59	19.65	19.53	
20	16QAM	50	50	19.47	19.50	19.42	20.5
20	16QAM	100	0	19.59	19.65	19.59	
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	21.31	21.56	21.35	22.5
15	QPSK	1	37	21.39	21.30	21.29	
15	QPSK	1	74	21.30	21.37	21.32	
15	QPSK	36	0	20.61	20.71	20.53	21.5
15	QPSK	36	20	20.59	20.57	20.37	
15	QPSK	36	39	20.60	20.54	20.31	
15	QPSK	75	0	20.61	20.54	20.42	21.5
15	16QAM	1	0	20.69	20.64	20.57	
15	16QAM	1	37	20.52	20.67	20.52	
15	16QAM	1	74	20.39	20.64	20.57	20.5
15	16QAM	36	0	19.68	19.54	19.46	
15	16QAM	36	20	19.50	19.59	19.44	
15	16QAM	36	39	19.35	19.41	19.35	20.5
15	16QAM	75	0	19.53	19.64	19.50	
Channel				37800	38000	38200	
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	21.37	21.52	21.35	22.5
10	QPSK	1	25	21.39	21.28	21.34	
10	QPSK	1	49	21.31	21.37	21.35	
10	QPSK	25	0	20.62	20.67	20.55	21.5
10	QPSK	25	12	20.58	20.60	20.44	
10	QPSK	25	25	20.52	20.55	20.37	
10	QPSK	50	0	20.59	20.61	20.43	21.5
10	16QAM	1	0	20.70	20.66	20.57	
10	16QAM	1	25	20.56	20.59	20.58	
10	16QAM	1	49	20.45	20.73	20.56	20.5
10	16QAM	25	0	19.72	19.54	19.51	
10	16QAM	25	12	19.55	19.60	19.49	
10	16QAM	25	25	19.40	19.43	19.41	20.5
10	16QAM	50	0	19.53	19.61	19.56	
Channel				37775	38000	38225	
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	21.31	21.54	21.33	22.5
5	QPSK	1	12	21.39	21.32	21.31	
5	QPSK	1	24	21.29	21.35	21.33	
5	QPSK	12	0	20.63	20.68	20.54	21.5
5	QPSK	12	7	20.66	20.53	20.39	
5	QPSK	12	13	20.52	20.50	20.37	
5	QPSK	25	0	20.65	20.55	20.42	21.5
5	16QAM	1	0	20.73	20.69	20.68	
5	16QAM	1	12	20.50	20.58	20.53	
5	16QAM	1	24	20.48	20.62	20.59	20.5
5	16QAM	12	0	19.65	19.58	19.44	
5	16QAM	12	7	19.53	19.58	19.52	
5	16QAM	12	13	19.39	19.43	19.32	20.5
5	16QAM	25	0	19.57	19.60	19.57	