



REPORT No.: SZ21110310S01

## 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
	TX Channel	128	189		251	128	189		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	32.48	32.51	32.46	33.50	23.48	23.51	23.46	24.50	0.06
GPRS 1 Tx slot	32.49	32.52	32.50	33.50	23.49	23.52	23.50	24.50	
GPRS 2 Tx slots	30.66	30.67	30.65	31.50	24.66	24.67	24.65	25.50	0.02
GPRS 3 Tx slots	29.09	29.14	29.13	30.00	24.83	24.88	24.87	25.74	0.05
GPRS 4 Tx slots	27.12	27.17	27.09	28.00	24.12	24.17	24.09	25.00	0.08
EDGE 1 Tx slot	25.86	25.92	25.87	26.50	16.86	16.92	16.87	17.50	0.06
EDGE 2 Tx slots	24.82	24.81	24.89	25.50	18.82	18.81	18.89	19.50	0.08
EDGE 3 Tx slots	22.25	22.44	22.15	23.00	17.99	18.18	17.89	18.74	0.29
EDGE 4 Tx slots	20.58	20.67	20.48	21.50	17.58	17.67	17.48	18.50	0.19
Mode		Max.	32.52		Max.	24.88			
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		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	29.51	29.61	29.48	30.50	20.51	20.61	20.48	21.50	0.38
GPRS 1 Tx slot	29.24	29.62	29.51	30.50	20.24	20.62	20.51	21.50	
GPRS 2 Tx slots	27.35	27.44	27.37	28.00	21.35	21.44	21.37	22.00	0.09
GPRS 3 Tx slots	26.64	26.62	26.41	27.50	22.38	22.36	22.15	23.24	0.23
GPRS 4 Tx slots	23.58	23.66	23.48	24.50	20.58	20.66	20.48	21.50	0.18
EDGE 1 Tx slot	26.41	26.44	26.31	27.00	17.41	17.44	17.31	18.00	0.13
EDGE 2 Tx slots	25.22	25.16	25.22	26.00	19.22	19.16	19.22	20.00	0.06
EDGE 3 Tx slots	22.16	22.35	22.26	23.00	17.90	18.09	18.00	18.74	0.19
EDGE 4 Tx slots	20.46	20.65	20.53	21.50	17.46	17.65	17.53	18.50	0.19
Mode		Max.	29.62		Max.	22.38			
Attenuator	Cable Loss : 0.8								

Band	WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			Tune-up Limit (dBm)	WCDMA Band V			Tune-up Limit (dBm)
	TX Channel	9262	9400		9538	1312	1413		1513	4132	4182	
Rx Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458	
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	23.41	23.47	23.42	24.50	23.44	23.48	23.46	24.50	23.71	23.75	23.68	24.50
3GPP Rel 6 HSDPA Subtest-1	21.03	20.56	20.60	22.00	21.00	20.98	20.86	22.00	21.70	21.22	21.44	22.50
3GPP Rel 6 HSDPA Subtest-2	21.03	20.59	20.59	22.00	20.96	21.00	20.92	22.00	21.71	21.27	21.54	22.50
3GPP Rel 6 HSDPA Subtest-3	21.00	20.58	21.06	22.00	21.06	20.97	20.91	22.00	21.70	21.26	21.62	22.50
3GPP Rel 6 HSDPA Subtest-4	21.04	20.61	21.13	22.00	21.11	20.99	20.92	22.00	21.74	21.30	21.64	22.50
3GPP Rel 8 DC-HSDPA Subtest-1	21.70	21.70	21.75	22.50	21.75	22.11	21.69	23.00	21.52	21.30	21.54	22.50
3GPP Rel 8 DC-HSDPA Subtest-2	21.70	21.75	21.66	22.50	21.66	22.09	21.64	23.00	21.50	21.22	21.41	22.50
3GPP Rel 8 DC-HSDPA Subtest-3	21.62	21.62	21.55	22.50	21.78	22.09	21.67	23.00	21.49	21.31	21.55	22.50
3GPP Rel 8 DC-HSDPA Subtest-4	21.63	21.61	21.62	22.50	21.68	22.06	21.61	23.00	21.49	21.20	21.38	22.50
3GPP Rel 6 HSUPA Subtest-1	21.77	21.21	21.51	22.50	21.73	22.08	21.66	23.00	21.51	21.29	21.49	22.50
3GPP Rel 6 HSUPA Subtest-2	21.76	21.17	21.46	22.50	22.28	22.18	22.17	23.00	22.65	22.65	22.56	23.50
3GPP Rel 6 HSUPA Subtest-3	21.72	21.15	21.45	22.50	22.18	22.23	22.26	23.00	22.68	22.68	22.69	23.50
3GPP Rel 6 HSUPA Subtest-4	21.76	21.13	21.42	22.50	22.22	22.20	22.26	23.00	22.63	22.64	22.61	23.50
3GPP Rel 6 HSUPA Subtest-5	21.74	21.19	21.45	22.50	22.16	22.24	22.18	23.00	22.65	22.60	22.58	23.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	21.74	21.26	21.49	22.50	21.82	22.09	21.70	23.00	22.26	22.26	22.53	23.50
Attenuator		Cable Loss	0.8		Cable Loss	0.8			Cable Loss	0.6		
Mode		Max.	23.47		Max.	23.48			Max.	23.75		

Band 2 (1900MHz Band) 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)				18600	18800	19000	
20	QPSK	1	0	23.06	23.09	23.03	
20	QPSK	1	49	23.04	22.98	22.91	
20	QPSK	1	99	22.98	22.94	22.92	
20	QPSK	50	0	22.26	22.35	22.28	23
20	QPSK	50	24	22.27	22.32	22.32	
20	QPSK	50	50	22.32	22.28	22.34	
20	QPSK	100	0	22.25	22.34	22.30	23
20	16QAM	1	0	22.31	22.31	22.33	
20	16QAM	1	49	22.15	22.45	22.41	
20	16QAM	1	99	22.40	22.25	22.65	23
20	16QAM	50	0	22.33	22.30	22.28	
20	16QAM	50	24	22.29	22.34	22.35	
20	16QAM	50	50	22.37	22.34	22.41	23
20	16QAM	100	0	22.40	22.41	22.28	
20	64QAM	1	0	22.35	22.54	22.28	
20	64QAM	1	49	22.30	22.48	22.39	23
20	64QAM	1	99	22.25	22.58	22.58	
20	64QAM	50	0	22.35	22.27	22.32	
20	64QAM	50	24	22.38	22.32	22.37	23
20	64QAM	50	50	22.37	22.38	22.32	
20	64QAM	100	0	22.25	22.22	22.23	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	18800	1902.5	
15	QPSK	1	0	22.87	22.90	22.81	
15	QPSK	1	37	22.66	23.02	22.90	
15	QPSK	1	74	23.03	22.95	23.03	
15	QPSK	36	0	22.12	22.21	22.20	23
15	QPSK	36	20	22.11	22.30	22.27	
15	QPSK	36	39	22.23	22.24	22.21	
15	QPSK	75	0	22.15	22.21	22.17	23
15	16QAM	1	0	22.24	22.32	22.26	
15	16QAM	1	37	22.37	22.40	22.26	
15	16QAM	1	74	22.32	22.44	22.44	23
15	16QAM	36	0	22.11	22.16	22.19	
15	16QAM	36	20	22.20	22.13	22.26	
15	16QAM	36	39	22.25	22.34	22.31	23
15	16QAM	75	0	22.12	22.14	22.23	
15	64QAM	1	0	22.32	22.08	22.14	
15	64QAM	1	37	22.31	22.12	22.54	23
15	64QAM	1	74	22.20	22.24	22.39	
15	64QAM	36	0	22.05	22.22	22.10	
15	64QAM	36	20	22.25	22.27	22.17	23
15	64QAM	36	39	22.13	22.18	22.27	
15	64QAM	75	0	22.12	22.19	22.18	
Channel				18650	18900	19150	
Frequency (MHz)				1855	18800	1905	
10	QPSK	1	0	22.84	22.83	22.83	
10	QPSK	1	25	22.95	23.05	22.93	
10	QPSK	1	49	22.84	22.92	22.84	
10	QPSK	25	0	22.23	22.24	22.20	23
10	QPSK	25	12	22.19	22.31	22.24	
10	QPSK	25	25	22.10	22.23	22.19	
10	QPSK	50	0	22.16	22.25	22.23	23
10	16QAM	1	0	22.64	22.57	22.56	
10	16QAM	1	25	22.33	22.29	22.36	
10	16QAM	1	49	22.28	22.36	22.15	23
10	16QAM	25	0	22.18	22.17	22.14	
10	16QAM	25	12	22.34	22.14	22.14	
10	16QAM	25	25	22.14	22.34	22.44	23
10	16QAM	50	0	22.71	22.64	22.68	
10	64QAM	1	0	22.22	22.27	22.27	
10	64QAM	1	25	22.25	22.30	22.34	23
10	64QAM	1	49	21.92	22.05	22.02	
10	64QAM	25	0	22.22	22.26	22.27	
10	64QAM	25	12	22.25	22.23	22.24	23
10	64QAM	25	25	22.18	21.96	22.18	
10	64QAM	50	0	22.19	22.19	22.16	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	18800	1907.5	
5	QPSK	1	0	22.98	23.03	22.97	
5	QPSK	1	12	22.97	22.92	22.95	
5	QPSK	1	24	22.93	23.01	23.02	
5	QPSK	12	0	22.22	22.13	22.20	23
5	QPSK	12	7	22.23	22.28	22.20	
5	QPSK	12	13	22.22	22.21	22.24	
5	QPSK	25	0	22.21	22.19	22.21	23
5	16QAM	1	0	22.34	22.24	22.62	
5	16QAM	1	12	22.32	22.25	22.62	
5	16QAM	1	24	22.35	22.22	22.61	23
5	16QAM	12	0	22.44	22.58	22.44	
5	16QAM	12	7	22.34	22.34	22.14	
5	16QAM	12	13	22.14	22.47	22.24	23
5	16QAM	25	0	22.24	22.70	22.68	
5	64QAM	1	0	22.44	22.16	22.21	
5	64QAM	1	12	22.60	22.26	22.37	23
5	64QAM	1	24	22.61	22.25	22.27	
5	64QAM	12	0	22.26	22.19	22.18	
5	64QAM	12	7	22.32	22.16	22.16	23
5	64QAM	12	13	22.29	22.25	22.23	
5	64QAM	25	0	22.36	22.16	22.23	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	18800	1908.5	
3	QPSK	1	0	22.92	22.99	22.91	
3	QPSK	1	8	23.02	23.05	22.88	
3	QPSK	1	14	23.03	22.90	22.90	
3	QPSK	8	0	22.10	22.05	22.07	23
3	QPSK	8	4	22.16	22.10	22.11	
3	QPSK	8	7	22.16	22.10	22.06	
3	QPSK	15	0	22.08	22.16	22.09	23
3	16QAM	1	0	22.24	22.15	22.09	

Band 4 (AWS Band) 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	23.09	23.17	23.16	
20	QPSK	1	49	22.95	23.03	23.02	
20	QPSK	1	99	22.87	23.00	23.12	
20	QPSK	50	0	22.16	22.29	22.26	23
20	QPSK	50	24	22.16	22.24	22.24	
20	QPSK	50	50	22.05	22.16	22.17	
20	QPSK	100	0	22.15	22.19	22.26	23
20	16QAM	1	0	22.02	22.32	22.19	
20	16QAM	1	49	22.17	21.94	22.08	
20	16QAM	1	99	21.96	22.18	22.02	23
20	16QAM	50	0	22.15	22.08	22.22	
20	16QAM	50	24	22.41	22.52	22.41	
20	16QAM	50	50	22.37	22.38	22.38	23
20	16QAM	100	0	22.39	22.47	22.48	
20	64QAM	1	0	22.13	22.24	22.46	
20	64QAM	1	49	22.17	22.10	21.98	23
20	64QAM	1	99	22.44	22.01	22.48	
20	64QAM	50	0	22.14	22.23	22.18	
20	64QAM	50	24	22.16	22.27	22.21	23
20	64QAM	50	50	22.20	22.15	22.17	
20	64QAM	100	0	22.23	22.21	22.30	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.96	23.00	23.10	
15	QPSK	1	37	23.00	23.09	23.01	
15	QPSK	1	74	22.87	23.09	23.12	
15	QPSK	36	0	22.10	22.17	22.20	23
15	QPSK	36	20	22.14	22.27	22.23	
15	QPSK	36	39	22.19	22.18	22.27	
15	QPSK	75	0	22.14	22.16	22.17	23
15	16QAM	1	0	22.08	22.30	22.02	
15	16QAM	1	37	22.16	22.16	22.00	
15	16QAM	1	74	22.02	22.32	22.11	23
15	16QAM	36	0	22.03	22.05	22.24	
15	16QAM	36	20	21.98	22.05	22.11	
15	16QAM	36	39	21.94	22.03	22.09	23
15	16QAM	75	0	22.05	22.06	22.15	
15	64QAM	1	0	22.00	22.31	22.36	
15	64QAM	1	37	22.42	22.18	22.24	23
15	64QAM	1	74	22.46	22.17	22.21	
15	64QAM	36	0	22.11	22.18	22.22	
15	64QAM	36	20	22.17	22.19	22.21	23
15	64QAM	36	39	22.20	22.16	22.18	
15	64QAM	75	0	22.13	22.24	22.17	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.88	23.07	22.90	
10	QPSK	1	25	22.86	22.99	23.00	
10	QPSK	1	49	22.94	22.77	23.00	
10	QPSK	25	0	21.93	22.15	22.17	23
10	QPSK	25	12	22.05	22.11	22.15	
10	QPSK	25	25	21.94	22.05	22.12	
10	QPSK	50	0	22.00	22.10	22.02	23
10	16QAM	1	0	21.99	22.14	21.90	
10	16QAM	1	25	22.26	22.00	22.32	
10	16QAM	1	49	22.33	22.23	22.22	23
10	16QAM	25	0	21.99	21.98	21.97	
10	16QAM	25	12	21.91	22.01	21.98	
10	16QAM	25	25	22.25	2		

3	16QAM	1	8	22.28	22.22	22.18	23
3	16QAM	1	14	22.21	22.18	22.06	
3	16QAM	8	0	22.64	22.77	22.69	
3	16QAM	8	4	22.71	22.68	22.74	
3	16QAM	8	7	22.61	22.66	22.69	23
3	16QAM	15	0	22.64	22.68	22.63	
3	64QAM	1	0	22.17	22.10	22.13	
3	64QAM	1	8	22.59	22.58	22.18	23
3	64QAM	1	14	22.20	22.56	22.20	
3	64QAM	8	0	22.12	22.14	21.98	
3	64QAM	8	4	22.22	22.12	22.12	23
3	64QAM	8	7	22.32	22.21	22.07	
3	64QAM	15	0	22.17	22.17	22.15	
Channel				1607	1690	19193	Tune-up limit
Frequency (MHz)				1850.7	1880	1909.3	(dBm)
1.4	QPSK	1	0	22.98	23.01	22.96	
1.4	QPSK	1	3	22.88	22.86	22.85	
1.4	QPSK	1	5	22.85	22.83	22.81	
1.4	QPSK	3	0	22.85	22.85	22.81	24
1.4	QPSK	3	1	22.89	22.86	22.84	
1.4	QPSK	3	3	22.91	22.95	22.84	
1.4	QPSK	6	0	22.06	22.04	22.03	23
1.4	16QAM	1	0	22.09	22.09	22.03	
1.4	16QAM	1	3	22.05	22.25	22.23	
1.4	16QAM	1	5	21.93	22.13	21.81	
1.4	16QAM	3	0	21.95	22.00	21.97	23
1.4	16QAM	3	1	22.13	21.95	22.00	
1.4	16QAM	3	3	22.15	22.12	21.86	
1.4	16QAM	6	0	22.16	22.09	22.04	23
1.4	64QAM	1	0	22.04	21.96	21.99	
1.4	64QAM	1	3	22.06	22.27	22.15	
1.4	64QAM	1	5	22.04	22.39	21.98	
1.4	64QAM	3	0	22.07	22.13	22.14	23
1.4	64QAM	3	1	22.16	22.13	22.34	
1.4	64QAM	3	3	22.08	22.22	21.99	
1.4	64QAM	6	0	22.13	22.16	22.05	23

3	16QAM	1	8	22.31	22.31	22.05	23
3	16QAM	1	14	22.22	22.00	22.08	
3	16QAM	8	0	22.01	22.02	22.11	
3	16QAM	8	4	22.11	22.11	22.12	23
3	16QAM	8	7	22.33	22.41	22.45	
3	16QAM	15	0	22.33	22.31	22.38	
3	64QAM	1	0	22.00	22.09	22.07	23
3	64QAM	1	8	22.19	22.07	22.23	
3	64QAM	1	14	22.00	22.07	21.90	
3	64QAM	8	0	21.98	22.02	21.96	
3	64QAM	8	4	22.10	22.08	22.12	23
3	64QAM	8	7	22.04	22.11	22.23	
3	64QAM	15	0	22.00	22.08	21.99	
Channel				19957	20175	20393	Tune-up limit
Frequency (MHz)				1710.7	1732.5	1754.3	(dBm)
1.4	QPSK	1	0	22.65	22.86	22.87	
1.4	QPSK	1	3	22.99	22.99	23.03	
1.4	QPSK	1	5	22.85	22.94	22.96	
1.4	QPSK	3	0	22.93	22.90	22.89	24
1.4	QPSK	3	1	22.89	22.99	23.04	
1.4	QPSK	3	3	22.88	22.95	22.94	
1.4	QPSK	6	0	22.04	22.06	22.02	23
1.4	16QAM	1	0	21.98	22.45	22.11	
1.4	16QAM	1	3	22.11	22.19	22.23	
1.4	16QAM	1	5	22.17	22.33	22.13	
1.4	16QAM	3	0	22.20	22.24	22.15	23
1.4	16QAM	3	1	22.21	22.24	22.26	
1.4	16QAM	3	3	22.20	22.32	22.21	
1.4	16QAM	6	0	22.11	22.12	22.03	23
1.4	64QAM	1	0	21.89	21.83	21.97	
1.4	64QAM	1	3	22.15	22.13	22.25	
1.4	64QAM	1	5	22.06	22.02	21.86	
1.4	64QAM	3	0	21.97	21.95	22.14	23
1.4	64QAM	3	1	21.88	22.03	22.00	
1.4	64QAM	3	3	21.94	22.11	21.99	
1.4	64QAM	6	0	21.93	21.94	22.01	23

Band 5 (Cellular Band) 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	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	23.55	23.56	23.48	24.5
10	QPSK	1	25	23.41	23.44	23.24	
10	QPSK	1	49	23.33	23.45	23.13	
10	QPSK	25	0	22.86	22.88	22.69	23.5
10	QPSK	25	12	22.62	22.64	22.69	
10	QPSK	25	25	22.62	22.73	22.78	
10	QPSK	50	0	22.68	22.56	22.70	23.5
10	16QAM	1	0	22.72	22.91	22.82	
10	16QAM	1	25	22.95	22.98	22.66	
10	16QAM	1	49	22.78	22.84	22.91	23.5
10	16QAM	25	0	22.87	22.88	22.70	
10	16QAM	25	12	22.81	22.89	22.67	
10	16QAM	25	25	22.84	22.77	22.80	23.5
10	16QAM	50	0	22.85	22.76	22.66	
10	64QAM	1	0	22.81	22.91	22.79	
10	64QAM	1	25	22.78	22.98	22.78	23.5
10	64QAM	1	49	22.67	22.89	22.80	
10	64QAM	25	0	22.78	22.89	22.56	
10	64QAM	25	12	22.77	22.94	22.65	23.5
10	64QAM	25	25	22.89	22.78	22.48	
10	64QAM	50	0	22.85	22.81	22.67	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.50	23.46	23.44	24.5
5	QPSK	1	12	23.40	23.51	23.35	
5	QPSK	1	24	23.40	23.35	23.35	
5	QPSK	12	0	22.77	22.82	22.68	23.5
5	QPSK	12	7	22.84	22.85	22.77	
5	QPSK	12	13	22.89	22.73	22.68	
5	QPSK	25	0	22.80	22.76	22.68	23.5
5	16QAM	1	0	23.09	23.02	22.78	
5	16QAM	1	12	22.79	23.01	22.77	
5	16QAM	1	24	22.66	23.01	22.84	23.5
5	16QAM	12	0	22.75	22.84	22.83	
5	16QAM	12	7	22.82	22.85	22.67	
5	16QAM	12	13	22.82	22.73	22.78	23.5
5	16QAM	25	0	22.83	22.88	22.83	
5	64QAM	1	0	22.90	22.78	22.89	
5	64QAM	1	12	22.78	22.72	22.86	23.5
5	64QAM	1	24	22.92	22.76	22.70	
5	64QAM	12	0	22.64	22.78	22.58	
5	64QAM	12	7	22.68	22.84	22.62	23.5
5	64QAM	12	13	22.86	22.81	22.38	
5	64QAM	25	0	22.74	22.81	22.42	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.19	23.50	23.35	24.5
3	QPSK	1	8	23.45	23.46	23.37	
3	QPSK	1	14	23.46	23.44	23.18	
3	QPSK	8	0	22.70	22.83	22.81	23.5
3	QPSK	8	4	22.84	22.90	22.87	
3	QPSK	8	7	22.79	22.81	22.68	
3	QPSK	15	0	22.77	22.83	22.82	23.5
3	16QAM	1	0	22.79	22.90	22.97	
3	16QAM	1	8	22.72	22.98	22.82	
3	16QAM	1	14	22.77	23.03	22.78	23.5
3	16QAM	8	0	22.73	22.82	22.56	
3	16QAM	8	4	22.89	23.00	22.57	
3	16QAM	8	7	22.81	22.87	22.61	23.5
3	16QAM	15	0	22.75	22.77	22.32	
3	64QAM	1	0	22.70	22.58	22.79	
3	64QAM	1	8	22.58	22.82	22.58	23.5
3	64QAM	1	14	22.60	22.78	22.59	
3	64QAM	8	0	22.70	22.80	22.78	
3	64QAM	8	4	22.92	22.76	22.70	23.5
3	64QAM	8	7	22.87	22.79	22.76	
3	64QAM	15	0	22.76	22.86	22.66	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.40	23.47	23.51	24.5
1.4	QPSK	1	3	23.53	23.46	23.53	
1.4	QPSK	1	5	23.42	23.36	23.37	
1.4	QPSK	3	0	23.43	23.49	23.45	23.5
1.4	QPSK	3	1	23.49	23.36	23.46	
1.4	QPSK	3	3	23.50	23.42	23.42	
1.4	QPSK	6	0	22.75	22.74	22.73	23.5
1.4	16QAM	1	0	22.88	22.69	22.86	
1.4	16QAM	1	3	22.68	22.92	22.81	
1.4	16QAM	1	5	23.07	22.75	22.81	23.5
1.4	16QAM	3	0	22.60	22.58	22.72	
1.4	16QAM	3	1	22.63	22.90	22.70	
1.4	16QAM	3	3	22.71	22.82	22.76	23.5
1.4	16QAM	6	0	22.90	22.77	22.81	
1.4	64QAM	1	0	22.43	22.60	22.62	
1.4	64QAM	1	3	22.74	22.75	22.70	23.5
1.4	64QAM	1	5	22.69	22.68	22.56	
1.4	64QAM	3	0	22.35	22.62	22.63	
1.4	64QAM	3	1	22.63	22.57	22.58	23.5
1.4	64QAM	3	3	22.53	22.70	22.74	
1.4	64QAM	6	0	22.74	22.86	22.75	

Band 7 (2600MHz Band) Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	Tune-up limit (dBm)
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	23.10	23.11	23.03	24
20	QPSK	1	49	23.05	23.09	22.98	
20	QPSK	1	99	23.00	22.95	23.00	
20	QPSK	50	0	22.17	22.24	22.21	23
20	QPSK	50	24	22.14	22.11	22.01	
20	QPSK	50	50	22.16	22.20	22.16	
20	QPSK	100	0	22.19	22.21	22.18	23
20	16QAM	1	0	22.00	22.10	22.28	
20	16QAM	1	49	22.15	22.01	22.29	
20	16QAM	1	99	22.09	22.40	22.05	23
20	16QAM	50	0	21.94	22.04	21.97	
20	16QAM	50	24	21.99	21.91	22.02	
20	16QAM	50	50	22.07	22.12	21.95	23
20	16QAM	100	0	21.95	22.07	22.05	
20	64QAM	1	0	22.43	22.27	22.00	
20	64QAM	1	49	22.37	22.34	22.39	23
20	64QAM	1	99	22.35	22.40	22.31	
20	64QAM	50	0	22.09	22.10	22.15	
20	64QAM	50	24	22.14	22.15	22.15	23
20	64QAM	50	50	22.18	22.25	22.10	
20	64QAM	100	0	22.11	22.08	22.20	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.93	23.02	23.02	24
15	QPSK	1	37	23.03	23.00	23.04	
15	QPSK	1	74	22.97	23.04	23.04	
15	QPSK	36	0	21.96	22.05	22.07	23
15	QPSK	36	20	22.04	22.11	22.06	
15	QPSK	36	39	22.07	22.10	22.14	
15	QPSK	75	0	22.13	22.06	22.08	23
15	16QAM	1	0	22.29	22.40	22.47	
15	16QAM	1	37	22.11	22.22	22.20	
15	16QAM	1	74	22.15	22.15	22.37	23
15	16QAM	36	0	21.95	22.06	22.08	
15	16QAM	36	20	22.02	22.05	22.04	
15	16QAM	36	39	22.08	22.06	21.95	23
15	16QAM	75	0	22.03	22.11	22.03	
15	64QAM	1	0	22.33	22.30	22.18	
15	64QAM	1	37	22.23	22.38	22.47	23
15	64QAM	1	74	22.22	22.34	22.40	
15	64QAM	36	0	22.07	22.15	22.14	
15	64QAM	36	20	22.18	22.17	22.24	23
15	64QAM	36	39	22.22	22.13	22.15	
15	64QAM	75	0	22.07	22.17	22.12	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.93	23.02	23.02	24
10	QPSK	1	25	23.03	23.00	23.04	
10	QPSK	1	49	22.97	23.04	23.04	
10	QPSK	25	0	21.96	22.05	22.07	23
10	QPSK	25	12	22.04	22.11	22.06	
10	QPSK	25	25	22.07	22.10	22.14	
10	QPSK	50	0	22.13	22.06	22.08	23
10	16QAM	1	0	22.29	22.40	22.47	
10	16QAM	1	25	22.11	22.22	22.20	
10	16QAM	1	49	22.15	22.15	22.37	23
10	16QAM	25	0	21.95	22.06	22.08	
10	16QAM	25	12	22.02	22.05	22.04	
10	16QAM	25	25	22.08	22.06	21.95	23
10	16QAM	50	0	22.03	22.11	22.03	
10	64QAM	1	0	22.12	22.09	21.97	
10	64QAM	1	25	22.02	22.17	22.26	23
10	64QAM	1	49	22.01	22.13	22.19	
10	64QAM	25	0	22.07	22.15	22.14	
10	64QAM	25	12	22.18	22.17	22.24	23
10	64QAM	25	25	22.22	22.13	22.15	
10	64QAM	50	0	22.07	22.17	22.12	
Channel							

Band 12 (700MHz Low Band) 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	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	2340	2356	2345	24.5
10	QPSK	1	25	2326	2339	2342	
10	QPSK	1	49	2336	2337	2336	
10	QPSK	25	0	22.65	22.75	22.66	23.5
10	QPSK	25	12	22.62	22.56	22.35	
10	QPSK	25	25	22.67	22.73	22.66	
10	QPSK	50	0	22.68	22.70	22.61	23.5
10	16QAM	1	0	22.61	22.16	22.29	
10	16QAM	1	25	22.36	22.31	22.45	
10	16QAM	1	49	22.45	22.50	22.39	23.5
10	16QAM	25	0	22.34	22.36	22.30	
10	16QAM	25	12	22.38	22.42	22.31	
10	16QAM	25	25	22.43	22.44	22.38	23.5
10	16QAM	50	0	22.33	22.41	22.46	
10	64QAM	1	0	22.18	22.30	22.64	
10	64QAM	1	25	22.62	22.68	22.27	23.5
10	64QAM	1	49	22.64	22.32	22.25	
10	64QAM	25	0	22.15	22.09	22.06	
10	64QAM	25	12	22.20	22.23	22.15	23.5
10	64QAM	25	25	22.25	22.22	22.22	
10	64QAM	50	0	22.17	22.10	22.21	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	Tune-up limit (dBm)
5	QPSK	1	0	23.15	23.48	23.26	
5	QPSK	1	12	23.31	23.47	23.31	24.5
5	QPSK	1	24	23.27	23.46	23.32	
5	QPSK	12	0	22.38	22.45	22.44	
5	QPSK	12	7	22.49	22.51	22.48	23.5
5	QPSK	12	13	22.44	22.47	22.44	
5	QPSK	25	0	22.40	22.52	22.48	
5	16QAM	1	0	22.41	22.43	22.45	23.5
5	16QAM	1	12	22.58	22.53	22.54	
5	16QAM	1	24	22.54	22.52	22.48	
5	16QAM	12	0	22.28	22.25	22.28	23.5
5	16QAM	12	7	22.42	22.47	22.31	
5	16QAM	12	13	22.37	22.34	22.39	
5	16QAM	25	0	22.38	22.34	22.36	23.5
5	64QAM	1	0	22.16	22.17	22.22	
5	64QAM	1	12	22.61	22.31	22.24	
5	64QAM	1	24	22.59	22.28	22.33	23.5
5	64QAM	12	0	22.13	22.15	22.10	
5	64QAM	12	7	22.23	22.11	22.17	
5	64QAM	12	13	22.10	22.20	22.25	23.5
5	64QAM	25	0	22.25	22.21	22.18	
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	Tune-up limit (dBm)
3	QPSK	1	0	23.23	23.50	23.17	
3	QPSK	1	8	23.41	23.40	23.30	24.5
3	QPSK	1	14	23.35	23.46	23.41	
3	QPSK	8	0	22.46	22.44	22.44	
3	QPSK	8	4	22.49	22.52	22.53	23.5
3	QPSK	8	7	22.44	22.52	22.46	
3	QPSK	15	0	22.22	22.30	22.16	
3	16QAM	1	0	22.23	22.59	22.18	23.5
3	16QAM	1	8	22.43	22.41	22.36	
3	16QAM	1	14	22.26	22.31	22.17	
3	16QAM	8	0	22.23	22.12	22.15	23.5
3	16QAM	8	4	22.28	22.25	22.36	
3	16QAM	8	7	22.12	22.15	22.21	
3	16QAM	15	0	22.31	22.24	22.23	23.5
3	64QAM	1	0	22.17	22.51	22.50	
3	64QAM	1	8	22.46	22.36	22.37	
3	64QAM	1	14	22.39	22.24	22.35	23.5
3	64QAM	8	0	22.06	22.14	22.05	
3	64QAM	8	4	22.15	22.19	22.18	
3	64QAM	8	7	22.14	22.06	22.21	23.5
3	64QAM	15	0	22.13	22.15	22.07	
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	Tune-up limit (dBm)
1.4	QPSK	1	0	23.26	23.43	23.23	
1.4	QPSK	1	3	23.37	23.36	23.38	24.5
1.4	QPSK	1	5	23.26	23.31	23.27	
1.4	QPSK	3	0	23.21	23.34	23.32	
1.4	QPSK	3	1	23.42	23.42	23.09	23.5
1.4	QPSK	3	3	23.37	23.39	23.35	
1.4	QPSK	6	0	22.43	22.40	22.38	
1.4	16QAM	1	0	22.47	22.41	22.26	23.5
1.4	16QAM	1	3	22.28	22.71	22.38	
1.4	16QAM	1	5	22.40	22.41	22.40	
1.4	16QAM	3	0	22.24	22.27	22.28	23.5
1.4	16QAM	3	1	22.40	22.48	22.32	
1.4	16QAM	3	3	22.23	22.37	22.37	
1.4	16QAM	6	0	22.16	22.36	22.26	23.5
1.4	64QAM	1	0	22.01	22.16	22.00	
1.4	64QAM	1	3	22.13	22.06	22.11	
1.4	64QAM	1	5	22.29	22.32	22.28	23.5
1.4	64QAM	3	0	22.19	22.20	22.03	
1.4	64QAM	3	1	22.17	22.41	22.26	
1.4	64QAM	3	3	22.19	22.03	22.19	23.5
1.4	64QAM	6	0	22.15	22.16	22.03	

Band 17 (700MHz Band) 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	Tune-up limit (dBm)
Frequency (MHz)				709	710	711	
10	QPSK	1	0	23.56	23.59	23.56	24.5
10	QPSK	1	25	23.44	23.40	23.46	
10	QPSK	1	49	23.37	23.40	23.35	
10	QPSK	25	0	22.67	22.73	22.65	23.5
10	QPSK	25	12	22.52	22.46	22.60	
10	QPSK	25	25	22.50	22.50	22.59	
10	QPSK	50	0	22.63	22.50	22.51	23.5
10	16QAM	1	0	22.15	22.34	22.48	
10	16QAM	1	25	22.36	22.65	22.49	
10	16QAM	1	49	22.32	22.57	22.62	23.5
10	16QAM	25	0	22.26	22.50	22.49	
10	16QAM	25	12	22.32	22.47	22.45	
10	16QAM	25	25	22.15	22.41	22.46	23.5
10	16QAM	50	0	22.19	22.48	22.45	
10	64QAM	1	0	22.16	22.49	22.17	
10	64QAM	1	25	22.39	22.29	22.19	23.5
10	64QAM	1	49	22.13	22.16	22.16	
10	64QAM	25	0	22.31	22.48	22.46	
10	64QAM	25	12	22.44	22.52	22.69	23.5
10	64QAM	25	25	22.38	22.59	22.75	
10	64QAM	50	0	22.45	22.68	22.69	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				706.5	710	713.5	Tune-up limit (dBm)
5	QPSK	1	0	23.50	23.46	23.42	
5	QPSK	1	12	23.49	23.45	23.44	24.5
5	QPSK	1	24	23.41	23.47	23.46	
5	QPSK	12	0	22.57	22.75	22.91	
5	QPSK	12	7	22.69	22.78	22.86	23.5
5	QPSK	12	13	22.52	22.80	22.86	
5	QPSK	25	0	22.34	22.51	22.64	
5	16QAM	1	0	22.82	22.87	22.59	23.5
5	16QAM	1	12	22.99	22.55	22.92	
5	16QAM	1	24	22.83	22.88	23.04	
5	16QAM	12	0	22.27	22.30	22.51	23.5
5	16QAM	12	7	22.27	22.34	22.46	
5	16QAM	12	13	22.18	22.43	22.46	
5	16QAM	25	0	22.28	22.40	22.44	23.5
5	64QAM	1	0	22.29	22.30	22.30	
5	64QAM	1	12	22.33	22.30	22.38	
5	64QAM	1	24	22.38	22.38	22.30	23.5
5	64QAM	12	0	22.44	22.49	22.73	
5	64QAM	12	7	22.57	22.65	22.59	
5	64QAM	12	13	22.42	22.60	22.62	23.5
5	64QAM	25	0	22.39	22.58	22.74	

Band 26 for FCC (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26765	26865	26965	Tune-up limit (dBm)
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	23.52	23.56	23.53	24.5
15	QPSK	1	37	23.50	23.47	23.53	
15	QPSK	1	74	23.48	23.46	23.48	
15	QPSK	36	0	22.84	22.92	22.80	23.5
15	QPSK	36	20	22.73	22.67	22.52	
15	QPSK	36	39	22.75	22.54	22.60	
15	QPSK	75	0	22.81	22.55	22.62	23.5
15	16QAM	1	0	22.53	22.68	22.96	
15	16QAM	1	37	22.49	22.60	22.74	
15	16QAM	1	74	22.64	22.53	22.54	23.5
15	16QAM	36	0	22.64	22.50	22.53	
15	16QAM	36	20	22.59	22.39	22.54	
15	16QAM	36	39	22.66	22.46	22.54	23.5
15	16QAM	75	0	22.54	22.56	22.56	
15	64QAM	1	0	22.30	22.17	21.99	
15	64QAM	1	37	21.95	21.99	22.09	23.5
15	64QAM	1	74	21.99	21.95	22.27	
15	64QAM	36	0	22.35	22.16	22.15	
15	64QAM	36	20	22.44	22.16	22.07	23.5
15	64QAM	36	39	22.42	22.22	21.98	
15	64QAM	75	0	22.36	22.19	22.12	
Channel				26740	26855	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	23.44	23.48	23.45	24.5
10	QPSK	1	25	23.47	23.46	23.39	
10	QPSK	1	49	23.33	23.46	23.38	
10	QPSK	25	0	22.86	22.67	22.53	23.5
10	QPSK	25	12	22.82	22.64	22.43	
10	QPSK	25	25	22.81	22.65	22.50	
10	QPSK	50	0	22.48	22.36	22.18	23.5
10	16QAM	1	0	22.20	22.52	22.29	
10	16QAM	1	25	22.29	22.38	22.43	
10	16QAM	1	49	22.23	22.22	22.20	23.5
10	16QAM	25	0	22.24	22.38	22.67	
10	16QAM	25	12	22.25	22.41	22.49	
10	16QAM	25	25	22.42	22.30	22.36	23.5
10	16QAM	50	0	22.93	22.80	22.82	
10	64QAM	1	0	22.25	22.25	22.07	
10	64QAM	1	25	22.35	22.07	22.09	23.5
10	64QAM	1	49	22.07	22.08	22.06	
10	64QAM	25	0	22.42	22.19	22.14	
10	64QAM	25	12	22.18	22.20	22.13	23.5
10	64QAM	25	25	22.08	22.21	21.96	
10	64QAM	50	0	22.38	22.17	22.10	
Channel				26715	26855	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.43	23.48	23.44	24.5
5	QPSK	1	12	23.38	23.42	23.44	
5	QPSK	1	24	23.34	23.46	23.46	
5	QPSK	12	0	22.80	22.62	22.51	23.5
5	QPSK	12	7	22.90	22.61	22.61	
5	QPSK	12	13	22.79	22.56	22.50	
5	QPSK	25	0	22.83	22.64	22.69	23.5
5	16QAM	1	0	22.54	22.54	22.55	
5	16QAM	1	12	22.58	22.48	22.45	
5	16QAM	1	24	22.63	22.63	22.68	23.5
5	16QAM	12	0	22.91	22.73	22.71	
5	16QAM	12	7	22.76	22.78	22.47	
5	16QAM	12	13	22.88	22.73	22.52	23.5
5	16QAM	25	0	22.43	22.57	22.54	
5	64QAM	1	0	22.26	22.08	22.06	
5	64QAM	1	12	22.15	22.26	22.07	23.5
5	64QAM	1	24	22.09	22.06	22.06	
5	64QAM	12	0	22.36	22.14	21.97	
5	64QAM	12	7	21.95	22.27	21.98	23.5
5	64QAM	12	13	22.35	22.24	21.90	
5	64QAM	25	0	22.35	22.14	21.96	
Channel				26705	26855	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.47	23.44	23.49	24.5
3	QPSK	1	8	23.38	23.46	23.38	
3	QPSK	1	14	23.43	23.39	23.45	
3	QPSK	8	0	22.70	22.54	22.73	23.5
3	QPSK	8	4	22.87	22.61	22.50	
3	QPSK	8	7	22.87	22.60	22.71	
3	QPSK	15	0	22.72	22.52	22.62	23.5
3	16QAM	1	0	22.83	22.77	22.78	
3	16QAM	1	8	22.82	22.71	22.74	
3	16QAM	1	14	22.80	22.65	22.65	23.5
3	16QAM	8	0	22.89	22.52	22.59	
3	16QAM	8	4	22.83	22.50	22.54	
3	16QAM	8	7	22.59	22.56	22.50	23.5
3	16QAM	15	0	22.66	22.53	22.63	
3	64QAM	1	0	21.95	22.39	22.18	
3	64QAM	1	8	22.25	22.35	22.09	23.5
3	64QAM	1	14	22.19	22.35	22.25	
3	64QAM	8	0	22.08	22.13	22.03	
3	64QAM	8	4	22.08	22.17	22.02	23.5
3	64QAM	8	7	22.35	22.23	22.02	
3	64QAM	15	0	22.35	22.21	22.00	
Channel				26697	26855	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.34	23.44	23.44	24.5
1.4	QPSK	1	3	23.33	23.44	23.36	
1.4	QPSK	1	5	23.33	23.35	23.35	
1.4	QPSK	3	0	23.11	23.35	23.37	
1.4	QPSK	3	1	23.38	23.38	23.43	
1.4	QPSK	3	3	23.38	23.44	23.16	23.5
1.4	QPSK	6	0	22.48	22.70	22.73	
1.4	16QAM	1	0	22.53	22.60	22.60	

Band 66							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.01	23.07	23.05	24
20	QPSK	1	49	22.86	22.85	22.81	
20	QPSK	1	99	22.79	22.78	22.81	
20	QPSK	50	0	22.24	22.31	22.27	23
20	QPSK	50	24	22.05	22.07	22.20	
20	QPSK	50	50	22.09	22.17	22.05	
20	QPSK	100	0	22.07	22.07	21.99	23
20	16QAM	1	0	22.12	21.88	22.16	
20	16QAM	1	49	22.17	21.91	21.97	
20	16QAM	1	99	22.17	22.35	22.14	23
20	16QAM	50	0	22.29	22.26	22.23	
20	16QAM	50	24	22.18	22.18	22.19	
20	16QAM	50	50	22.15	22.07	22.03	23
20	16QAM	100	0	22.11	22.14	22.20	
20	64QAM	1	0	22.27	22.04	22.37	
20	64QAM	1	49	22.04	22.37	22.38	23
20	64QAM	1	99	22.27	22.39	22.47	
20	64QAM	50	0	22.23	22.13	22.26	
20	64QAM	50	24	22.17	22.11	22.23	23
20	64QAM	50	50	22.19	22.07	22.13	
20	64QAM	100	0	22.18	22.18	22.16	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.87	22.91	22.89	24
15	QPSK	1	37	23.01	22.87	22.85	
15	QPSK	1	74	22.85	22.81	22.79	
15	QPSK	36	0	22.06	22.03	22.07	23
15	QPSK	36	20	22.06	21.98	22.08	
15	QPSK	36	39	21.92	21.97	21.94	
15	QPSK	75	0	22.01	22.05	21.98	23
15	16QAM	1	0	22.00	22.05	22.17	
15	16QAM	1	37	21.87	22.17	22.10	
15	16QAM	1	74	21.97	21.87	21.87	23
15	16QAM	36	0	22.18	22.18	22.09	
15	16QAM	36	20	22.21	22.20	22.26	
15	16QAM	36	39	22.13	22.28	22.22	23
15	16QAM	75	0	22.23	22.21	22.17	
15	64QAM	1	0	22.37	22.27	22.37	
15	64QAM	1	37	22.39	22.17	22.27	23
15	64QAM	1	74	22.04	22.30	22.37	
15	64QAM	36	0	22.16	22.15	22.28	
15	64QAM	36	20	22.26	22.22	22.23	23
15	64QAM	36	39	22.15	22.09	22.13	
15	64QAM	75	0	22.17	22.19	22.16	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.85	22.85	22.86	24
10	QPSK	1	25	22.75	22.73	22.81	
10	QPSK	1	49	22.89	22.77	22.67	
10	QPSK	25	0	22.32	22.25	22.32	23
10	QPSK	25	12	22.29	22.48	22.26	
10	QPSK	25	25	22.30	22.26	22.18	
10	QPSK	50	0	22.38	22.23	22.42	23
10	16QAM	1	0	22.30	22.30	22.50	
10	16QAM	1	25	22.30	22.39	22.51	
10	16QAM	1	49	22.13	22.33	22.21	23
10	16QAM	25	0	22.14	22.31	22.19	
10	16QAM	25	12	22.13	22.33	22.24	
10	16						

1.4	16QAM	1	3	22.60	22.54	22.54	23.5
1.4	16QAM	1	5	22.69	22.83	22.64	
1.4	16QAM	3	0	22.36	22.12	22.37	
1.4	16QAM	3	1	22.36	22.15	22.28	
1.4	16QAM	3	3	22.36	22.13	22.09	
1.4	16QAM	6	0	22.72	22.69	22.67	
1.4	64QAM	1	0	21.95	21.92	21.97	23.5
1.4	64QAM	1	3	22.01	22.01	22.01	
1.4	64QAM	1	5	21.91	21.94	22.05	
1.4	64QAM	3	0	22.34	22.35	22.35	
1.4	64QAM	3	1	22.39	22.27	22.31	
1.4	64QAM	3	3	22.31	22.35	22.26	
1.4	64QAM	6	0	22.38	22.31	22.02	23.5

3	16QAM	1	8	22.24	22.18	22.17	23	
3	16QAM	1	14	22.28	22.17	21.87		
3	16QAM	8	0	22.09	22.09	22.00		
3	16QAM	8	4	22.12	22.11	22.17	23	
3	16QAM	8	7	22.04	22.19	22.13		
3	16QAM	15	0	22.14	22.12	22.08		
3	64QAM	1	0	22.28	22.18	22.28	23	
3	64QAM	1	8	22.30	22.08	22.18		
3	64QAM	1	14	21.95	22.21	22.28		
3	64QAM	8	0	22.07	22.06	22.19	23	
3	64QAM	8	4	22.17	22.13	22.14		
3	64QAM	8	7	22.06	22.00	22.04		
3	64QAM	15	0	22.08	22.10	22.07	23	
Channel				131979	132322	132665		Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	22.75	22.66	22.67		
1.4	QPSK	1	3	22.81	22.83	22.83	24	
1.4	QPSK	1	5	22.73	22.61	22.77		
1.4	QPSK	3	0	22.72	22.65	22.72		
1.4	QPSK	3	1	22.69	22.75	22.66		
1.4	QPSK	3	3	22.70	22.66	22.58		
1.4	QPSK	6	0	22.30	22.15	22.34		
1.4	16QAM	1	0	22.22	22.22	22.42	23	
1.4	16QAM	1	3	22.22	22.31	22.43		
1.4	16QAM	1	5	22.05	22.25	22.13		
1.4	16QAM	3	0	22.00	21.97	22.23		
1.4	16QAM	3	1	22.09	21.99	22.11		
1.4	16QAM	3	3	22.10	22.11	22.05		
1.4	16QAM	6	0	21.99	21.90	21.91	23	
1.4	64QAM	1	0	22.33	22.18	22.34		
1.4	64QAM	1	3	22.06	22.15	22.15		
1.4	64QAM	1	5	22.03	22.03	22.14	23	
1.4	64QAM	3	0	22.12	22.10	22.12		
1.4	64QAM	3	1	22.11	22.15	22.19		
1.4	64QAM	3	3	22.11	22.04	22.06		
1.4	64QAM	6	0	22.01	22.11	22.12		



Band 38(only on channel required)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37650	38000	38150	
Frequency (MHz)							
20	QPSK	1	0	23.63	23.65	23.68	24
20	QPSK	1	49	23.58	23.58	23.59	
20	QPSK	1	99	23.59	23.54	23.64	
20	QPSK	50	0	22.74	22.75	22.73	23
20	QPSK	50	24	22.59	22.52	22.49	
20	QPSK	50	50	22.73	22.53	22.52	
20	QPSK	100	0	22.52	22.59	22.53	23
20	16QAM	1	0	22.69	22.52	22.59	
20	16QAM	1	49	22.67	22.52	22.47	
20	16QAM	1	99	22.49	22.59	22.57	23
20	16QAM	50	0	22.59	22.52	22.62	
20	16QAM	50	24	22.80	22.49	22.59	
20	16QAM	50	50	22.88	22.95	22.56	23
20	16QAM	100	0	22.79	22.84	22.83	
20	16QAM	1	0	21.54	21.74	21.57	
20	8QAM	1	49	21.46	21.36	21.65	22
20	8QAM	1	99	21.41	21.32	21.41	
20	8QAM	50	0	21.38	21.35	21.39	
20	8QAM	50	24	21.54	21.42	21.39	22
20	8QAM	50	50	21.53	21.56	21.45	
20	8QAM	100	0	21.83	21.59	21.27	
Channel				37625	38000	38175	
Frequency (MHz)							
15	QPSK	1	0	23.55	23.55	23.42	24
15	QPSK	1	74	23.53	23.59	23.42	
15	QPSK	1	14	23.51	23.62	23.35	
15	QPSK	36	0	22.89	22.54	22.74	23
15	QPSK	36	20	22.74	22.50	22.70	
15	QPSK	36	36	22.77	22.49	22.73	
15	QPSK	75	0	22.79	22.52	22.76	23
15	16QAM	1	0	22.60	22.89	22.54	
15	16QAM	1	37	22.77	22.46	22.60	
15	16QAM	1	74	22.69	22.55	22.44	23
15	16QAM	36	0	22.76	22.43	22.83	
15	16QAM	36	20	22.70	22.39	22.59	
15	16QAM	36	36	22.83	22.93	22.63	23
15	16QAM	75	0	22.84	22.41	22.63	
15	8QAM	1	0	21.35	21.59	21.39	
15	8QAM	1	37	21.49	21.73	21.38	22
15	8QAM	1	74	21.42	21.52	21.70	
15	8QAM	36	0	21.48	21.30	21.44	
15	8QAM	36	20	21.59	21.74	21.37	22
15	8QAM	36	36	21.58	21.51	21.43	
15	8QAM	75	0	21.59	21.71	21.47	
Channel				37600	38000	38000	
Frequency (MHz)							
10	QPSK	1	0	23.44	23.52	23.40	24
10	QPSK	1	25	23.49	23.39	23.35	
10	QPSK	1	49	23.36	23.59	23.59	
10	QPSK	25	0	22.74	22.62	22.58	23
10	QPSK	25	12	22.73	22.51	22.58	
10	QPSK	25	25	22.82	22.46	22.62	
10	QPSK	50	0	22.86	22.54	22.80	23
10	16QAM	1	0	22.21	22.36	22.61	
10	16QAM	1	25	22.30	22.51	22.44	
10	16QAM	1	49	22.26	22.43	22.57	23
10	16QAM	25	0	22.29	22.37	22.76	
10	16QAM	25	12	22.26	22.43	22.69	
10	16QAM	25	25	22.33	22.55	22.82	23
10	16QAM	50	0	22.29	22.53	22.71	
10	8QAM	1	0	21.64	21.24	21.58	
10	8QAM	1	25	21.76	21.41	21.63	22
10	8QAM	1	49	21.65	21.38	21.54	
10	8QAM	25	0	21.79	21.49	21.67	
10	8QAM	25	12	21.76	21.38	21.67	22
10	8QAM	25	25	21.80	21.47	21.64	
10	8QAM	50	0	21.77	21.52	21.73	
Channel				37715	38000	38025	
Frequency (MHz)							
5	QPSK	1	0	23.29	23.52	23.49	24
5	QPSK	1	12	23.44	23.39	23.52	
5	QPSK	1	24	23.35	23.49	23.32	
5	QPSK	12	0	22.67	22.71	22.80	23
5	QPSK	12	7	22.80	22.56	22.86	
5	QPSK	12	13	22.80	22.78	22.92	
5	QPSK	25	0	22.81	22.79	22.84	23
5	16QAM	1	0	22.64	22.80	22.49	
5	16QAM	1	14	22.81	22.97	22.85	
5	16QAM	11	24	22.67	22.78	22.80	23
5	16QAM	12	0	22.44	22.44	22.52	
5	16QAM	12	7	22.39	22.54	22.73	
5	16QAM	15	13	22.52	22.44	22.68	23
5	16QAM	25	0	22.50	22.10	22.20	
5	8QAM	1	0	21.51	21.56	21.31	
5	8QAM	1	37	21.72	21.69	21.40	22
5	8QAM	1	74	21.57	21.62	21.26	
5	8QAM	12	0	21.75	21.22	21.34	
5	8QAM	12	7	21.49	21.50	21.72	22
5	8QAM	12	13	21.42	21.29	21.60	
5	8QAM	25	0	21.42	21.35	21.99	

Band 40 (2.3G Band-1) Part 27D-1 2305MHz ~ 2315MHz							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750			
Frequency (MHz)							
10	QPSK	1	0	22.72	22.76	22.73	24
10	QPSK	1	25	22.75			
10	QPSK	1	49	22.80			
10	QPSK	25	0	21.92			23
10	QPSK	25	12	21.79			
10	QPSK	25	25	21.87			
10	QPSK	50	0	21.70			23
10	16QAM	1	0	21.82			
10	16QAM	1	25	21.74			
10	16QAM	1	49	22.54			23
10	16QAM	25	0	21.85			
10	16QAM	25	12	21.80			
10	16QAM	25	25	21.93			23
10	16QAM	50	0	21.70			
10	8QAM	1	0	22.00			
10	8QAM	1	25	21.82			23
10	8QAM	1	49	21.79			
10	8QAM	25	0	21.72			
10	8QAM	25	12	21.55			23
10	8QAM	25	25	21.71			
10	8QAM	50	0	21.78			
Channel				38725	38750	38775	
Frequency (MHz)							
5	QPSK	1	0	22.72	22.76	22.73	24
5	QPSK	1	12	22.72	22.74	22.70	
5	QPSK	1	24	22.71	22.69	22.62	
5	QPSK	12	0	21.83	21.71	21.80	23
5	QPSK	12	7	21.70	21.69	21.78	
5	QPSK	12	13	21.82	21.78	21.76	
5	QPSK	25	0	21.69	21.66	21.76	23
5	16QAM	1	0	21.34	21.70	21.49	
5	16QAM	1	12	21.40	21.55	21.43	
5	16QAM	1	24	21.50	21.52	21.53	23
5	16QAM	12	0	21.93	21.90	21.83	
5	16QAM	12	7	21.94	21.83	21.95	
5	16QAM	12	13	21.91	21.90	21.94	23
5	16QAM	25	0	21.70	21.74	21.76	
5	8QAM	1	0	21.92	21.94	21.96	
5	8QAM	1	12	21.92	21.82	21.93	23
5	8QAM	1	24	21.93	21.92	21.92	
5	8QAM	12	0	21.75	21.81	21.88	
5	8QAM	12	7	21.92	21.71	21.81	23
5	8QAM	12	13	21.71	21.82	21.72	
5	8QAM	25	0	21.62	21.73	21.73	

Band 40 (2.3G Band-2) Part 27D-2 2350MHz ~ 2360MHz							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				39000			
Frequency (MHz)							
10	QPSK	1	0	21.99			24
10	QPSK	1	25	22.63			
10	QPSK	1	49	22.61			
10	QPSK	25	0	21.99			23
10	QPSK	25	12	21.80			
10	QPSK	25	25	21.97			
10	QPSK	50	0	21.94			23
10	16QAM	1	0	21.61			
10	16QAM	1	25	21.79			
10	16QAM	1	49	21.65			23
10	16QAM	25	0	21.61			
10	16QAM	25	12	21.87			
10	16QAM	25	25	21.89			23
10	16QAM	50	0	21.95			
10	8QAM	1	0	21.75			
10	8QAM	1	25	22.13			23
10	8QAM	1	49	21.77			
10	8QAM	25	0	21.54			
10	8QAM	25	12	21.46			23
10	8QAM	25	25	21.67			
10	8QAM	50	0	21.55			
Channel				39175	39000	39025	
Frequency (MHz)							
5	QPSK	1	0	22.39	22.72	22.64	24
5	QPSK	1	12	22.55	22.71	22.55	
5	QPSK	1	24	22.51	22.70	22.56	
5	QPSK	12	0	21.83	21.90	21.89	23
5	QPSK	12	7	21.94	21.96	21.93	
5	QPSK	12	13	21.99	21.92	21.89	
5	QPSK	25	0	22.06	22.18	22.14	23
5	16QAM	1	0	22.07	22.09	22.11	
5	16QAM	1	12	22.24	22.19	22.2	

## Band 41 (2535~2655MHz)

BW [MHz]	Modulation	RB Size	RB Offset	Low channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)
Channel				40140	40390	40640	40890	41140	
Frequency (MHz)				2545	2570	2595	2620	2645	
20	QPSK	1	0	23.02	23.12	23.14	23.07	23.08	24
20	QPSK	1	49	22.98	23.07	23.07	23.08	23.08	
20	QPSK	1	99	22.92	23.06	23.03	23.13	22.88	23
20	QPSK	50	0	21.98	22.23	22.24	22.22	22.17	
20	QPSK	50	24	21.98	22.08	22.01	21.98	21.98	23
20	QPSK	50	50	22.01	22.22	22.02	22.01	22.08	
20	QPSK	100	0	21.98	22.01	22.08	22.02	21.98	23
20	16QAM	1	0	22.02	22.18	22.01	22.08	21.98	
20	16QAM	1	49	22.01	22.06	22.01	21.96	21.98	23
20	16QAM	1	99	22.08	21.98	22.08	22.06	22.08	
20	16QAM	50	0	21.99	22.08	22.01	22.31	21.98	23
20	16QAM	50	24	21.97	22.29	21.98	22.08	21.98	
20	16QAM	50	50	22.03	22.35	22.44	22.05	22.08	23
20	16QAM	100	0	21.97	22.28	22.43	22.12	22.01	
20	64QAM	1	0	22.12	22.03	22.23	22.06	22.02	23
20	64QAM	1	49	22.05	22.15	22.05	22.34	22.02	
20	64QAM	1	99	22.15	22.10	22.01	22.10	21.98	23
20	64QAM	50	0	22.11	22.07	22.04	21.99	22.08	
20	64QAM	50	24	21.96	22.23	22.11	22.08	22.01	23
20	64QAM	50	50	22.06	22.22	22.25	22.14	22.07	
20	64QAM	100	0	22.04	22.32	22.28	21.96	22.08	
Channel				40115	40378	40640	40903	41165	
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5	
15	QPSK	1	0	22.68	22.84	23.04	22.91	22.90	24
15	QPSK	1	37	22.67	23.02	23.08	22.91	23.01	
15	QPSK	1	74	22.67	23.00	23.01	22.84	22.81	23
15	QPSK	36	0	22.06	22.18	22.03	22.23	22.84	
15	QPSK	36	20	22.11	22.23	21.99	22.19	22.91	23
15	QPSK	36	39	22.27	22.26	21.98	22.22	22.86	
15	QPSK	75	0	22.05	22.28	22.01	22.25	22.83	23
15	16QAM	1	0	21.99	22.09	22.38	22.03	22.05	
15	16QAM	1	37	22.20	22.26	21.95	22.09	22.14	23
15	16QAM	1	74	22.16	22.18	21.52	21.93	22.07	
15	16QAM	36	0	22.03	22.25	21.92	22.12	22.52	23
15	16QAM	36	20	22.08	22.19	21.88	22.08	22.54	
15	16QAM	36	39	22.15	22.32	22.42	22.12	22.30	23
15	16QAM	75	0	22.06	22.33	21.90	22.12	21.90	
15	64QAM	1	0	22.36	22.04	22.28	21.92	22.64	23
15	64QAM	1	37	22.64	22.18	22.42	22.05	21.76	
15	64QAM	1	74	22.61	22.11	22.21	22.39	21.49	23
15	64QAM	36	0	22.05	22.17	21.99	22.13	22.13	
15	64QAM	36	20	22.20	22.28	22.43	22.06	22.02	23
15	64QAM	36	39	22.15	22.27	22.40	22.12	21.94	
15	64QAM	75	0	22.13	22.28	22.40	22.16	22.02	
Channel				40090	40365	40640	40915	41190	
Frequency (MHz)				2540	2567.5	2595	2622.5	2650	
10	QPSK	1	0	22.72	22.93	23.01	22.89	22.88	24
10	QPSK	1	25	22.92	22.98	22.88	22.84	22.83	
10	QPSK	1	49	22.69	22.85	23.08	23.08	22.84	23
10	QPSK	25	0	22.02	22.45	22.33	22.29	22.30	
10	QPSK	25	12	22.10	22.44	22.22	22.29	22.30	23
10	QPSK	25	25	22.14	22.53	22.17	22.33	22.66	
10	QPSK	50	0	22.19	22.57	22.25	22.31	21.90	23
10	16QAM	1	0	22.05	21.92	22.07	22.32	22.10	
10	16QAM	1	25	22.23	22.01	22.22	22.15	22.14	23
10	16QAM	1	49	22.09	21.97	22.14	22.28	22.29	
10	16QAM	25	0	22.09	22.00	22.28	22.46	21.95	23
10	16QAM	25	12	22.22	21.97	22.14	22.40	21.71	
10	16QAM	25	25	22.19	22.04	22.26	22.53	22.22	23
10	16QAM	50	0	22.17	22.00	22.24	22.42	21.98	
10	64QAM	1	0	21.99	22.35	21.95	22.29	22.35	23
10	64QAM	1	25	22.02	22.47	22.12	22.34	22.30	
10	64QAM	1	49	22.00	22.36	21.99	22.25	22.11	23
10	64QAM	25	0	22.07	22.50	22.20	22.38	22.27	
10	64QAM	25	12	22.10	22.47	22.09	22.38	22.02	23
10	64QAM	25	25	22.19	22.51	22.18	22.35	22.25	
10	64QAM	50	0	22.15	22.48	22.23	22.44	22.31	
Channel				40065	40353	40640	40928	41215	
Frequency (MHz)				2537.5	2566.3	2595	2623.80	2652.5	
5	QPSK	1	0	22.69	22.78	23.01	22.98	22.79	24
5	QPSK	1	12	22.68	22.93	22.88	23.01	22.83	
5	QPSK	1	24	22.81	22.84	22.98	22.71	22.84	23
5	QPSK	12	0	22.04	22.38	22.42	22.51	22.02	
5	QPSK	12	7	22.12	22.51	22.27	22.57	22.24	23
5	QPSK	12	13	22.06	22.51	22.49	22.63	22.30	
5	QPSK	25	0	22.09	22.52	22.50	22.65	22.23	23
5	16QAM	1	0	22.53	22.35	22.51	22.20	22.14	
5	16QAM	1	12	22.14	22.52	22.68	22.36	22.04	23
5	16QAM	1	24	22.00	22.38	22.49	22.21	22.30	
5	16QAM	12	0	21.98	21.93	22.25	22.33	22.10	23
5	16QAM	12	7	22.10	21.88	22.25	22.44	22.23	
5	16QAM	12	13	22.16	22.01	22.15	22.37	22.02	23
5	16QAM	25	0	22.08	21.89	22.23	22.44	22.00	
5	64QAM	1	0	22.35	22.20	22.47	22.22	22.05	23
5	64QAM	1	12	22.55	22.41	22.60	22.31	22.01	
5	64QAM	1	24	22.40	22.26	22.53	22.17	22.34	23
5	64QAM	12	0	22.35	22.44	22.13	22.25	22.21	
5	64QAM	12	7	22.36	21.92	22.21	22.43	22.29	23
5	64QAM	12	13	22.34	21.91	22.00	22.31	22.20	
5	64QAM	25	0	22.08	21.91	22.06	22.40	22.02	

## 2.4GHz WLAN

2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	<b>18.52</b>	19.00	18.00	100.00
		CH 6	2437	18.42	19.00	18.00	
		CH 11	2462	17.52	18.00	18.00	
	802.11g 6Mbps	CH 1	2412	16.38	17.00	18.00	97.10
		CH 6	2437	15.86	16.50	18.00	
		CH 11	2462	15.13	16.00	18.00	
	802.11n-HT20 MCS0	CH 1	2412	16.76	17.50	18.00	96.90
		CH 6	2437	16.31	17.00	18.00	
		CH 11	2462	15.54	16.00	18.00	
802.11n-HT40 MCS0	CH 3	2422	16.63	17.00	18.00	89.92	
	CH 6	2437	16.00	16.50	18.00		
	CH 9	2452	15.85	16.50	18.00		

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	8.36	6.56	6.53
	CH 39	2441	8.82	7.18	7.20
	CH 78	2480	8.69	6.92	6.98
Tune-up Limit			9.5	8.0	8.0
Duty Cycle %			77.33	76.8	76.8

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			GFSK		
LE	CH 00	2402	-2.56	-2.26	N/A
	CH 19	2440	-4.38	-3.92	N/A
	CH 39	2480	-4.30	-3.73	N/A
Tune-up Limit			-2.0	-2.0	N/A
Duty Cycle %			31.6	32.0	N/A

### Reduced Power for Body

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	
	TX Channel	512	661		810	512	661		810
	Frequency (MHz)	1850.2	1880		1909.6	1850.2	1880		1909.6
GSM 1 Tx slot	25.48	25.58	25.45	26.50	16.48	16.58	16.45	17.50	
GPRS 1 Tx slot	25.21	25.59	25.48	26.50	16.21	16.59	16.48	17.50	
GPRS 2 Tx slots	23.32	23.41	23.34	24.50	17.32	17.41	17.34	18.50	
GPRS 3 Tx slots	22.61	22.59	22.38	23.50	18.35	18.33	18.12	19.24	
GPRS 4 Tx slots	19.55	19.63	19.45	20.50	16.55	16.63	16.45	17.50	
EDGE 1 Tx slot	22.38	22.41	22.28	23.50	13.38	13.41	13.28	14.50	
EDGE 2 Tx slots	21.19	21.13	21.19	22.50	15.19	15.13	15.19	16.50	
EDGE 3 Tx slots	18.13	18.32	18.23	19.50	13.87	14.06	13.97	15.24	
EDGE 4 Tx slots	16.43	16.62	16.50	17.50	13.43	13.62	13.50	14.50	
Mode		Max.	25.59		Max.	18.35			
Attenuator	Cable Loss : 0.8								

Band	WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			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	18.38	18.44	18.39	19.50	17.40	17.44	17.42	18.50	
3GPP Rel 6 HSDPA Subtest-1	16.00	15.53	15.57	16.50	14.96	14.94	14.82	15.50	
3GPP Rel 6 HSDPA Subtest-2	16.00	15.56	15.56	16.50	14.92	14.96	14.88	15.50	
3GPP Rel 6 HSDPA Subtest-3	15.97	15.55	16.03	16.50	15.02	14.93	14.87	15.50	
3GPP Rel 6 HSDPA Subtest-4	16.01	15.58	16.10	16.50	15.07	14.95	14.88	16.00	
3GPP Rel 8 DC-HSDPA Subtest-1	16.67	16.67	16.72	17.50	15.71	16.07	15.65	17.00	
3GPP Rel 8 DC-HSDPA Subtest-2	16.67	16.72	16.63	17.50	15.62	16.05	15.60	17.00	
3GPP Rel 8 DC-HSDPA Subtest-3	16.59	16.59	16.52	17.50	15.74	16.05	15.63	17.00	
3GPP Rel 8 DC-HSDPA Subtest-4	16.60	16.58	16.59	17.50	15.64	16.02	15.57	17.00	
3GPP Rel 6 HSUPA Subtest-1	16.74	16.18	16.48	17.50	15.69	16.04	15.62	17.00	
3GPP Rel 6 HSUPA Subtest-2	16.73	16.14	16.43	17.50	16.24	16.14	16.13	17.00	
3GPP Rel 6 HSUPA Subtest-3	16.69	16.12	16.42	17.50	16.14	16.19	16.22	17.00	
3GPP Rel 6 HSUPA Subtest-4	16.73	16.10	16.39	17.50	16.18	16.16	16.22	17.00	
3GPP Rel 6 HSUPA Subtest-5	16.71	16.16	16.42	17.50	16.12	16.20	16.14	17.00	
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	16.71	16.23	16.46	17.50	15.78	16.05	15.66	17.00	
Attenuator		Cable Loss	0.8		Cable Loss	0.8			
Mode		Max.	18.44		Max.	17.44			

Band 2 (1900MHz Band) 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	19.04	19.07	19.01	
20	QPSK	1	49	19.02	18.96	18.89	
20	QPSK	1	99	18.96	18.92	18.90	
20	QPSK	50	0	18.24	18.33	18.26	19
20	QPSK	50	24	18.25	18.30	18.30	
20	QPSK	50	50	18.30	18.26	18.32	
20	QPSK	100	0	18.23	18.32	18.28	19
20	16QAM	1	0	18.29	18.29	18.31	
20	16QAM	1	49	18.13	18.43	18.39	
20	16QAM	1	99	18.38	18.23	18.63	19
20	16QAM	50	0	18.31	18.28	18.26	
20	16QAM	50	24	18.27	18.32	18.33	
20	16QAM	50	50	18.35	18.32	18.39	19
20	16QAM	100	0	18.38	18.39	18.26	
20	64QAM	1	0	18.33	18.52	18.26	
20	64QAM	1	49	18.28	18.46	18.37	19
20	64QAM	1	99	18.23	18.56	18.56	
20	64QAM	50	0	18.33	18.25	18.30	
20	64QAM	50	24	18.36	18.30	18.35	19
20	64QAM	50	50	18.35	18.36	18.30	
20	64QAM	100	0	18.23	18.20	18.21	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	18.85	18.88	18.79	
15	QPSK	1	37	18.64	19.00	18.88	
15	QPSK	1	74	19.01	18.93	19.01	
15	QPSK	36	0	18.10	18.19	18.18	19
15	QPSK	36	20	18.09	18.28	18.25	
15	QPSK	36	39	18.21	18.22	18.19	
15	QPSK	75	0	18.13	18.19	18.15	19
15	16QAM	1	0	18.22	18.30	18.24	
15	16QAM	1	37	18.35	18.38	18.24	
15	16QAM	1	74	18.30	18.42	18.42	19
15	16QAM	36	0	18.09	18.14	18.17	
15	16QAM	36	20	18.18	18.11	18.24	
15	16QAM	36	39	18.23	18.32	18.29	19
15	16QAM	75	0	18.10	18.12	18.21	
15	64QAM	1	0	18.30	18.06	18.12	
15	64QAM	1	37	18.29	18.10	18.52	19
15	64QAM	1	74	18.18	18.22	18.37	
15	64QAM	36	0	18.03	18.20	18.08	
15	64QAM	36	20	18.23	18.25	18.15	19
15	64QAM	36	39	18.11	18.16	18.25	
15	64QAM	75	0	18.10	18.17	18.16	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	18.82	18.81	18.91	
10	QPSK	1	25	18.93	19.03	18.91	
10	QPSK	1	49	18.82	18.90	18.82	
10	QPSK	25	0	18.21	18.22	18.18	19
10	QPSK	25	12	18.17	18.29	18.22	
10	QPSK	25	25	18.08	18.21	18.17	
10	QPSK	50	0	18.14	18.23	18.21	19
10	16QAM	1	0	18.82	18.55	18.54	
10	16QAM	1	25	18.31	18.27	18.34	
10	16QAM	1	49	18.26	18.34	18.13	19
10	16QAM	25	0	18.16	18.15	18.12	
10	16QAM	25	12	18.32	18.12	18.12	
10	16QAM	25	25	18.12	18.32	18.42	19
10	16QAM	50	0	18.69	18.62	18.66	
10	64QAM	1	0	18.20	18.25	18.25	
10	64QAM	1	25	18.23	18.28	18.32	19
10	64QAM	1	49	17.90	18.03	18.00	
10	64QAM	25	0	18.20	18.24	18.25	
10	64QAM	25	12	18.23	18.21	18.22	19
10	64QAM	25	25	18.16	17.94	18.16	
10	64QAM	50	0	18.17	18.17	18.14	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	18.96	19.01	18.95	
5	QPSK	1	12	18.95	18.90	18.93	
5	QPSK	1	24	18.91	18.99	19.00	
5	QPSK	12	0	18.20	18.11	18.18	19
5	QPSK	12	7	18.21	18.26	18.18	
5	QPSK	12	13	18.20	18.19	18.22	
5	QPSK	25	0	18.19	18.17	18.19	19
5	16QAM	1	0	18.32	18.22	18.60	
5	16QAM	1	12	18.30	18.23	18.60	
5	16QAM	1	24	18.33	18.20	18.59	19
5	16QAM	12	0	18.42	18.56	18.42	
5	16QAM	12	7	18.32	18.32	18.12	
5	16QAM	12	13	18.12	18.45	18.22	19
5	16QAM	25	0	18.22	18.68	18.66	
5	64QAM	1	0	18.42	18.14	18.19	
5	64QAM	1	12	18.58	18.24	18.35	19
5	64QAM	1	24	18.59	18.23	18.25	
5	64QAM	12	0	18.24	18.17	18.16	
5	64QAM	12	7	18.30	18.14	18.14	19
5	64QAM	12	13	18.27	18.23	18.21	
5	64QAM	25	0	18.34	18.14	18.21	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	18.90	18.97	18.89	
3	QPSK	1	8	19.00	19.03	18.86	
3	QPSK	1	14	19.01	18.88	18.88	
3	QPSK	8	0	18.08	18.03	18.05	19
3	QPSK	8	4	18.14	18.08	18.09	
3	QPSK	8	7	18.14	18.08	18.04	
3	QPSK	15	0	18.06	18.14	18.07	19
3	16QAM	1	0	18.22	18.13	18.07	

Band 4 (AWS Band) 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	17.57	17.65	17.64	
20	QPSK	1	49	17.43	17.51	17.50	
20	QPSK	1	99	17.35	17.48	17.60	
20	QPSK	50	0	16.64	16.77	16.74	17.5
20	QPSK	50	24	16.64	16.72	16.72	
20	QPSK	50	50	16.53	16.64	16.65	
20	QPSK	100	0	16.63	16.67	16.74	17.5
20	16QAM	1	0	16.50	16.80	16.67	
20	16QAM	1	49	16.65	16.42	16.56	
20	16QAM	1	99	16.44	16.66	16.50	17.5
20	16QAM	50	0	16.63	16.56	16.70	
20	16QAM	50	24	16.89	17.00	16.89	
20	16QAM	50	50	16.85	16.86	16.86	17.5
20	16QAM	100	0	16.87	16.95	16.96	
20	64QAM	1	0	16.61	16.72	16.94	
20	64QAM	1	49	16.65	16.58	16.46	17.5
20	64QAM	1	99	16.92	16.49	16.96	
20	64QAM	50	0	16.62	16.71	16.66	
20	64QAM	50	24	16.64	16.75	16.69	17.5
20	64QAM	50	50	16.68	16.63	16.65	
20	64QAM	100	0	16.71	16.69	16.78	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	17.44	17.48	17.58	
15	QPSK	1	37	17.48	17.57	17.49	
15	QPSK	1	74	17.35	17.57	17.60	
15	QPSK	36	0	16.58	16.65	16.68	17.5
15	QPSK	36	20	16.62	16.75	16.71	
15	QPSK	36	39	16.67	16.66	16.75	
15	QPSK	75	0	16.62	16.64	16.65	17.5
15	16QAM	1	0	16.56	16.78	16.50	
15	16QAM	1	37	16.64	16.64	16.48	
15	16QAM	1	74	16.50	16.80	16.59	17.5
15	16QAM	36	0	16.51	16.53	16.72	
15	16QAM	36	20	16.46	16.53	16.59	
15	16QAM	36	39	16.42	16.51	16.57	17.5
15	16QAM	75	0	16.53	16.54	16.63	
15	64QAM	1	0	16.48	16.79	16.84	
15	64QAM	1	37	16.90	16.66	16.72	17.5
15	64QAM	1	74	16.94	16.65	16.69	
15	64QAM	36	0	16.59	16.66	16.70	
15	64QAM	36	20	16.65	16.67	16.69	17.5
15	64QAM	36	39	16.68	16.64	16.66	
15	64QAM	75	0	16.61	16.72	16.65	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	17.36	17.55	17.38	
10	QPSK	1	25	17.34	17.47	17.48	
10	QPSK	1	49	17.42	17.25	17.48	
10	QPSK	25	0	16.41	16.63	16.65	17.5
10	QPSK	25	12	16.53	16.59	16.63	
10	QPSK	25	25	16.42	16.53	16.60	
10	QPSK	50	0	16.48	16.58	16.50	17.5
10	16QAM	1	0	16.47	16.62	16.38	
10	16QAM	1	25	16.74	16.48	16.80	
10	16QAM	1	49	16.81	16.71	16.70	17.5
10	16QAM	25	0	16.47	16.46	16.45	
10	16QAM	25	12	16.39	16.49	16.46	
10	16QAM						

3	16QAM	1	8	18.26	18.20	18.16	19	
3	16QAM	1	14	18.19	18.16	18.04		
3	16QAM	8	0	18.62	18.75	18.67		
3	16QAM	8	4	18.69	18.66	18.72	19	
3	16QAM	8	7	18.59	18.64	18.67		
3	16QAM	15	0	18.62	18.66	18.61		
3	64QAM	1	0	18.15	18.08	18.11	19	
3	64QAM	1	8	18.57	18.56	18.16		
3	64QAM	1	14	18.18	18.54	18.18		
3	64QAM	8	0	18.10	18.12	17.96	19	
3	64QAM	8	4	18.20	18.10	18.10		
3	64QAM	8	7	18.30	18.19	18.05		
3	64QAM	15	0	18.15	18.15	18.13	19	
Channel				1807	1890	19193		Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	18.96	18.99	18.94	20	
1.4	QPSK	1	3	18.86	18.84	18.83		
1.4	QPSK	1	5	18.83	18.81	18.79		
1.4	QPSK	3	0	18.83	18.83	18.79		
1.4	QPSK	3	1	18.87	18.84	18.82		
1.4	QPSK	3	3	18.89	18.93	18.82		
1.4	QPSK	6	0	18.04	18.02	18.01	19	
1.4	16QAM	1	0	18.07	18.07	18.01		
1.4	16QAM	1	3	18.03	18.23	18.21		
1.4	16QAM	1	5	17.91	18.11	17.79	19	
1.4	16QAM	3	0	17.93	17.98	17.95		
1.4	16QAM	3	1	18.11	17.93	17.98		
1.4	16QAM	3	3	18.13	18.10	17.84	19	
1.4	16QAM	6	0	18.14	18.07	18.02		
1.4	64QAM	1	0	18.02	17.94	17.97		
1.4	64QAM	1	3	18.04	18.25	18.13	19	
1.4	64QAM	1	5	18.02	18.37	17.96		
1.4	64QAM	3	0	18.05	18.11	18.12		
1.4	64QAM	3	1	18.14	18.11	18.32		
1.4	64QAM	3	3	18.06	18.20	17.97		
1.4	64QAM	6	0	18.11	18.14	18.03		

3	16QAM	1	8	16.79	16.79	16.53	17.5	
3	16QAM	1	14	16.70	16.48	16.56		
3	16QAM	8	0	16.49	16.50	16.59		
3	16QAM	8	4	16.59	16.59	16.60	17.5	
3	16QAM	8	7	16.81	16.89	16.93		
3	16QAM	15	0	16.81	16.79	16.86		
3	64QAM	1	0	16.48	16.57	16.55	17.5	
3	64QAM	1	8	16.67	16.55	16.71		
3	64QAM	1	14	16.48	16.55	16.38		
3	64QAM	8	0	16.46	16.50	16.44	17.5	
3	64QAM	8	4	16.58	16.56	16.60		
3	64QAM	8	7	16.52	16.59	16.71		
3	64QAM	15	0	16.48	16.56	16.47	17.5	
Channel				19957	20175	20393		Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	17.13	17.34	17.35	18.5	
1.4	QPSK	1	3	17.47	17.47	17.51		
1.4	QPSK	1	5	17.33	17.42	17.44		
1.4	QPSK	3	0	17.41	17.38	17.37		
1.4	QPSK	3	1	17.37	17.47	17.52		
1.4	QPSK	3	3	17.36	17.43	17.42		
1.4	QPSK	6	0	16.52	16.54	16.50	17.5	
1.4	16QAM	1	0	16.46	16.93	16.59		
1.4	16QAM	1	3	16.59	16.67	16.71		
1.4	16QAM	1	5	16.65	16.81	16.61	17.5	
1.4	16QAM	3	0	16.68	16.72	16.63		
1.4	16QAM	3	1	16.69	16.72	16.74		
1.4	16QAM	3	3	16.68	16.80	16.69	17.5	
1.4	16QAM	6	0	16.59	16.60	16.51		
1.4	64QAM	1	0	16.37	16.31	16.45		
1.4	64QAM	1	3	16.63	16.61	16.73	17.5	
1.4	64QAM	1	5	16.54	16.50	16.34		
1.4	64QAM	3	0	16.45	16.43	16.62		
1.4	64QAM	3	1	16.36	16.51	16.48		
1.4	64QAM	3	3	16.42	16.59	16.47		
1.4	64QAM	6	0	16.41	16.42	16.49		

Band 5 (Cellular Band) 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	22.51	22.52	22.44	23.5
10	QPSK	1	25	22.37	22.40	22.20	
10	QPSK	1	49	22.29	22.41	22.09	
10	QPSK	25	0	21.82	21.84	21.65	22.5
10	QPSK	25	12	21.58	21.60	21.65	
10	QPSK	25	25	21.58	21.69	21.74	
10	QPSK	50	0	21.84	21.52	21.66	22.5
10	16QAM	1	0	21.68	21.87	21.58	
10	16QAM	1	25	21.91	21.94	21.62	
10	16QAM	1	49	21.74	21.80	21.87	22.5
10	16QAM	25	0	21.83	21.84	21.66	
10	16QAM	25	12	21.77	21.85	21.63	
10	16QAM	25	25	21.80	21.73	21.76	22.5
10	16QAM	50	0	21.81	21.72	21.62	
10	64QAM	1	0	21.77	21.87	21.75	
10	64QAM	1	25	21.74	21.94	21.74	22.5
10	64QAM	1	49	21.63	21.85	21.76	
10	64QAM	25	0	21.74	21.85	21.52	
10	64QAM	25	12	21.73	21.90	21.61	22.5
10	64QAM	25	25	21.85	21.74	21.44	
10	64QAM	50	0	21.81	21.77	21.63	
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	22.46	22.42	22.40	23.5
5	QPSK	1	12	22.36	22.47	22.31	
5	QPSK	1	24	22.36	22.31	22.31	
5	QPSK	12	0	21.73	21.78	21.64	22.5
5	QPSK	12	7	21.80	21.81	21.73	
5	QPSK	12	13	21.85	21.69	21.64	
5	QPSK	25	0	21.76	21.72	21.64	22.5
5	16QAM	1	0	22.05	21.98	21.74	
5	16QAM	1	12	21.75	21.97	21.73	
5	16QAM	1	24	21.62	21.97	21.80	22.5
5	16QAM	12	0	21.71	21.80	21.79	
5	16QAM	12	7	21.78	21.81	21.63	
5	16QAM	12	13	21.78	21.69	21.74	22.5
5	16QAM	25	0	21.79	21.84	21.79	
5	64QAM	1	0	21.86	21.74	21.85	
5	64QAM	1	12	21.74	21.68	21.82	22.5
5	64QAM	1	24	21.88	21.72	21.66	
5	64QAM	12	0	21.80	21.74	21.54	
5	64QAM	12	7	21.84	21.80	21.58	22.5
5	64QAM	12	13	21.82	21.77	21.34	
5	64QAM	25	0	21.70	21.77	21.38	
Channel				20415	20525	20635	
Frequency (MHz)				826.5	836.5	847.5	
3	QPSK	1	0	22.15	22.46	22.31	23.5
3	QPSK	1	8	22.41	22.42	22.33	
3	QPSK	1	14	22.42	22.40	22.14	
3	QPSK	8	0	21.66	21.79	21.77	22.5
3	QPSK	8	4	21.80	21.86	21.83	
3	QPSK	8	7	21.75	21.77	21.64	
3	QPSK	15	0	21.73	21.79	21.78	22.5
3	16QAM	1	0	21.75	21.86	21.93	
3	16QAM	1	8	21.68	21.94	21.78	
3	16QAM	1	14	21.73	21.99	21.74	22.5
3	16QAM	8	0	21.69	21.78	21.52	
3	16QAM	8	4	21.85	21.96	21.53	
3	16QAM	8	7	21.77	21.83	21.57	22.5
3	16QAM	15	0	21.71	21.73	21.28	
3	64QAM	1	0	21.66	21.54	21.75	
3	64QAM	1	8	21.54	21.78	21.54	22.5
3	64QAM	1	14	21.56	21.74	21.55	
3	64QAM	8	0	21.66	21.76	21.74	
3	64QAM	8	4	21.88	21.72	21.66	22.5
3	64QAM	8	7	21.83	21.75	21.72	
3	64QAM	15	0	21.72	21.82	21.62	
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	22.36	22.43	22.47	23.5
1.4	QPSK	1	3	22.49	22.42	22.49	
1.4	QPSK	1	5	22.38	22.32	22.33	
1.4	QPSK	3	0	22.39	22.45	22.41	22.5
1.4	QPSK	3	1	22.45	22.32	22.42	
1.4	QPSK	3	3	22.46	22.38	22.38	
1.4	QPSK	6	0	21.71	21.70	21.69	22.5
1.4	16QAM	1	0	21.84	21.65	21.82	
1.4	16QAM	1	3	21.84	21.88	21.77	
1.4	16QAM	1	5	22.03	21.71	21.77	22.5
1.4	16QAM	3	0	21.56	21.54	21.68	
1.4	16QAM	3	1	21.59	21.86	21.72	
1.4	16QAM	3	3	21.67	21.78	21.66	22.5
1.4	16QAM	6	0	21.86	21.73	21.77	
1.4	64QAM	1	0	21.39	21.56	21.58	
1.4	64QAM	1	3	21.70	21.71	21.66	22.5
1.4	64QAM	1	5	21.65	21.64	21.52	
1.4	64QAM	3	0	21.31	21.58	21.59	
1.4	64QAM	3	1	21.59	21.53	21.54	22.5
1.4	64QAM	3	3	21.49	21.66	21.70	
1.4	64QAM	6	0	21.70	21.82	21.71	

Band 7 (2600MHz Band) 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	20.06	20.07	19.99	21
20	QPSK	1	49	20.01	20.05	19.94	
20	QPSK	1	99	19.96	19.91	19.96	
20	QPSK	50	0	19.13	19.20	19.17	20
20	QPSK	50	24	19.10	19.07	19.97	
20	QPSK	50	50	19.12	19.16	19.12	
20	QPSK	100	0	19.15	19.17	19.14	20
20	16QAM	1	0	18.96	19.06	19.24	
20	16QAM	1	49	19.11	18.97	19.25	
20	16QAM	1	99	19.05	19.36	19.01	20
20	16QAM	50	0	18.90	19.00	18.93	
20	16QAM	50	24	18.95	18.87	18.98	
20	16QAM	50	50	19.03	19.08	18.91	20
20	16QAM	100	0	18.91	19.03	19.01	
20	64QAM	1	0	19.39	19.23	18.96	
20	64QAM	1	49	19.33	19.30	19.35	20
20	64QAM	1	99	19.31	19.36	19.27	
20	64QAM	50	0	19.05	19.06	19.11	
20	64QAM	50	24	19.10	19.11	19.11	20
20	64QAM	50	50	19.14	19.21	19.06	
20	64QAM	100	0	19.07	19.04	19.16	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	19.89	19.98	19.98	21
15	QPSK	1	37	19.99	19.96	20.00	
15	QPSK	1	74	19.93	20.00	20.00	
15	QPSK	36	0	18.92	19.01	19.03	20
15	QPSK	36	20	19.00	19.07	19.02	
15	QPSK	36	39	19.03	19.06	19.10	
15	QPSK	75	0	19.09	19.02	19.04	20
15	16QAM	1	0	19.25	19.36	19.43	
15	16QAM	1	37	19.07	19.18	19.16	
15	16QAM	1	74	19.11	19.11	19.33	20
15	16QAM	36	0	18.91	19.02	19.04	
15	16QAM	36	20	18.98	19.01	19.00	
15	16QAM	36	39	19.04	19.02	18.91	20
15	16QAM	75	0	18.99	19.07	18.99	
15	64QAM	1	0	19.29	19.26	19.14	
15	64QAM	1	37	19.19	19.34	19.43	20
15	64QAM	1	74	19.18	19.30	19.36	
15	64QAM	36	0	19.03	19.11	19.10	
15	64QAM	36	20	19.14	19.13	19.20	20
15	64QAM	36	39	19.18	19.09	19.11	
15	64QAM	75	0	19.03	19.13	19.08	
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	19.89	19.98	19.98	21
10	QPSK	1	25	19.99	19.96	20.00	
10	QPSK	1	49	19.93	20.00	20.00	
10	QPSK	25	0	18.92	19.01	19.03	20
10	QPSK	25	12	19.00	19.07	19.02	
10	QPSK	25	25	19.03	19.06	19.10	
10	QPSK	50	0	19.09	19.02	19.04	20
10	16QAM	1	0	19.25	19.36	19.43	
10	16QAM	1	25	19.07	19.18	19.16	
10	16QAM	1	49	19.11	19.11	19.33	20
10	16QAM	25	0	18.91	19.02	19.04	
10	16QAM	25	12	18.98	19.01	19.00	
10	16QAM	25	25	19.04	19.02	18.91	20
10	16QAM	50	0	18.99	19.07	18.99	
10	64QAM	1	0	19.08	19.05	18.93	
10	64QAM	1	25	18.98	19.13	19.22	20
10	64QAM	1	49	18.97	19.09	19.15	
10	64QAM	25	0	19.03	19.11	19.10	
10	64QAM	25	12	19.14	19.13	19.20	20
10	64QAM	25	25	19.18	19.09	19.11	
10	64QAM	50	0	19.03	19.13	19.08	
Channel				20775	21100	21425	
Frequency (							

## Band 66

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	17.98	18.04	18.02	19
20	QPSK	1	49	17.83	17.82	17.78	
20	QPSK	1	99	17.76	17.75	17.78	
20	QPSK	50	0	17.21	17.28	17.24	18
20	QPSK	50	24	17.02	17.04	17.17	
20	QPSK	50	50	17.06	17.14	17.02	
20	QPSK	100	0	17.04	17.04	16.96	18
20	16QAM	1	0	17.09	16.85	17.13	
20	16QAM	1	49	17.14	16.88	16.94	
20	16QAM	1	99	17.14	17.32	17.11	18
20	16QAM	50	0	17.26	17.23	17.20	
20	16QAM	50	24	17.15	17.15	17.16	
20	16QAM	50	50	17.12	17.04	17.00	18
20	16QAM	100	0	17.08	17.11	17.17	
20	64QAM	1	0	17.24	17.01	17.34	
20	64QAM	1	49	17.01	17.34	17.33	18
20	64QAM	1	99	17.24	17.36	17.44	
20	64QAM	50	0	17.20	17.10	17.23	
20	64QAM	50	24	17.14	17.08	17.20	18
20	64QAM	50	50	17.16	17.04	17.10	
20	64QAM	100	0	17.15	17.15	17.13	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	17.84	17.88	17.86	19
15	QPSK	1	37	17.98	17.84	17.82	
15	QPSK	1	74	17.82	17.78	17.76	
15	QPSK	36	0	17.03	17.00	17.04	18
15	QPSK	36	20	17.03	16.95	17.05	
15	QPSK	36	39	16.89	16.94	16.91	
15	QPSK	75	0	16.98	17.02	16.95	18
15	16QAM	1	0	16.97	16.84	17.14	
15	16QAM	1	37	16.84	17.14	17.07	
15	16QAM	1	74	16.94	16.84	16.84	18
15	16QAM	36	0	17.15	17.15	17.06	
15	16QAM	36	20	17.18	17.17	17.23	
15	16QAM	36	39	17.10	17.25	17.19	18
15	16QAM	75	0	17.20	17.18	17.14	
15	64QAM	1	0	17.34	17.24	17.34	
15	64QAM	1	37	17.36	17.14	17.24	18
15	64QAM	1	74	17.01	17.27	17.34	
15	64QAM	36	0	17.13	17.12	17.25	
15	64QAM	36	20	17.23	17.19	17.20	18
15	64QAM	36	39	17.12	17.06	17.10	
15	64QAM	75	0	17.14	17.16	17.13	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	17.82	17.82	17.83	19
10	QPSK	1	25	17.72	17.70	17.78	
10	QPSK	1	49	17.86	17.74	17.64	
10	QPSK	25	0	17.29	17.22	17.29	18
10	QPSK	25	12	17.26	17.45	17.23	
10	QPSK	25	25	17.27	17.23	17.15	
10	QPSK	50	0	17.35	17.20	17.39	18
10	16QAM	1	0	17.27	17.27	17.47	
10	16QAM	1	25	17.27	17.36	17.48	
10	16QAM	1	49	17.10	17.30	17.18	18
10	16QAM	25	0	17.11	17.28	17.16	
10	16QAM	25	12	17.10	17.30	17.21	
10	16QAM	25	25	17.01	17.06	17.06	18
10	16QAM	50	0	17.17	17.21	17.22	
10	64QAM	1	0	17.17	17.17	16.84	
10	64QAM	1	25	16.84	16.97	16.87	18
10	64QAM	1	49	16.84	16.84	16.84	
10	64QAM	25	0	17.17	17.15	17.17	
10	64QAM	25	12	17.16	17.20	17.24	18
10	64QAM	25	25	17.16	17.09	17.11	
10	64QAM	50	0	17.06	17.16	17.17	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	17.71	17.74	17.79	19
5	QPSK	1	12	17.74	17.74	17.73	
5	QPSK	1	24	17.82	17.72	17.78	
5	QPSK	12	0	16.98	17.00	16.96	18
5	QPSK	12	7	17.00	17.08	17.01	
5	QPSK	12	13	16.91	16.97	16.98	
5	QPSK	25	0	17.01	17.02	17.01	18
5	16QAM	1	0	17.50	17.19	17.20	
5	16QAM	1	12	17.13	17.42	17.37	
5	16QAM	1	24	17.25	17.14	17.49	18
5	16QAM	12	0	17.14	17.25	17.21	
5	16QAM	12	7	17.31	17.23	17.35	
5	16QAM	12	13	17.22	17.16	17.23	18
5	16QAM	25	0	17.23	17.25	17.17	
5	64QAM	1	0	16.84	17.24	17.04	
5	64QAM	1	12	17.14	17.14	17.14	18
5	64QAM	1	24	16.97	17.01	16.97	
5	64QAM	12	0	17.21	16.96	17.17	
5	64QAM	12	7	17.29	16.88	17.19	18
5	64QAM	12	13	17.12	17.24	17.19	
5	64QAM	25	0	17.19	17.27	17.14	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	17.78	17.69	17.68	19
3	QPSK	1	8	17.65	17.66	17.74	
3	QPSK	1	14	17.56	17.37	17.67	
3	QPSK	8	0	17.24	17.21	17.25	18
3	QPSK	8	4	17.24	17.16	17.26	
3	QPSK	8	7	17.10	17.15	17.12	
3	QPSK	15	0	17.19	17.23	17.16	18
3	16QAM	1	0	16.88	17.29	17.05	



3	16QAM	1	8	17.21	17.15	17.14	18
3	16QAM	1	14	17.25	17.14	16.84	
3	16QAM	8	0	17.06	17.06	16.97	
3	16QAM	8	4	17.09	17.08	17.14	18
3	16QAM	8	7	17.01	17.16	17.10	
3	16QAM	15	0	17.11	17.09	17.05	
3	64QAM	1	0	17.25	17.15	17.25	
3	64QAM	1	8	17.27	17.05	17.15	18
3	64QAM	1	14	16.92	17.18	17.25	
3	64QAM	8	0	17.04	17.03	17.16	
3	64QAM	8	4	17.14	17.10	17.11	18
3	64QAM	8	7	17.03	16.97	17.01	
3	64QAM	15	0	17.05	17.07	17.04	
Channel				131979	132322	132665	Tune-Up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	17.72	17.63	17.64	19
1.4	QPSK	1	3	17.78	17.80	17.80	
1.4	QPSK	1	5	17.70	17.58	17.74	
1.4	QPSK	3	0	17.89	17.82	17.89	
1.4	QPSK	3	1	17.66	17.72	17.63	
1.4	QPSK	3	3	17.67	17.63	17.55	
1.4	QPSK	6	0	17.27	17.12	17.31	18
1.4	16QAM	1	0	17.19	17.19	17.39	18
1.4	16QAM	1	3	17.19	17.28	17.40	
1.4	16QAM	1	5	17.02	17.22	17.10	
1.4	16QAM	3	0	16.97	16.94	17.20	
1.4	16QAM	3	1	17.06	16.96	17.08	
1.4	16QAM	3	3	17.07	17.08	17.02	
1.4	16QAM	6	0	16.96	16.87	16.88	18
1.4	64QAM	1	0	17.30	17.15	17.31	18
1.4	64QAM	1	3	17.03	17.12	17.12	
1.4	64QAM	1	5	17.00	17.00	17.11	
1.4	64QAM	3	0	17.09	17.07	17.09	
1.4	64QAM	3	1	17.08	17.12	17.16	
1.4	64QAM	3	3	17.08	17.01	17.03	
1.4	64QAM	6	0	16.98	17.08	17.09	18

Band 40 (2.3G Band-1) Part 27D-1 2305MHz ~ 2315MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750			21
Frequency (MHz)				2310			
10	QPSK	1	0		19.81		21
10	QPSK	1	25		19.73		
10	QPSK	1	49		19.78		
10	QPSK	25	0		18.90		20
10	QPSK	25	12		18.71		
10	QPSK	25	25		18.65		
10	QPSK	50	0		18.68		20
10	16QAM	1	0		18.80		
10	16QAM	1	25		18.72		
10	16QAM	1	49		19.02		20
10	16QAM	25	0		18.83		
10	16QAM	25	12		18.78		
10	16QAM	25	25		18.91		20
10	16QAM	50	0		18.68		
10	64QAM	1	0		18.98		
10	64QAM	1	25		18.80		20
10	64QAM	1	49		18.77		
10	64QAM	25	0		18.70		
10	64QAM	25	12		18.63		20
10	64QAM	25	25		18.69		
10	64QAM	50	0		18.76		
Channel				38725	38750	38775	21
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	19.70	19.73	19.71	21
5	QPSK	1	12	19.70	19.72	19.68	
5	QPSK	1	24	19.69	19.67	19.60	
5	QPSK	12	0	18.61	18.69	18.78	20
5	QPSK	12	7	18.68	18.67	18.76	
5	QPSK	12	13	18.60	18.76	18.74	
5	QPSK	25	0	18.67	18.64	18.74	20
5	16QAM	1	0	18.32	18.68	18.47	
5	16QAM	1	12	18.38	18.53	18.41	
5	16QAM	1	24	18.48	18.30	18.31	20
5	16QAM	12	0	18.91	18.88	18.81	
5	16QAM	12	7	18.92	18.81	18.93	
5	16QAM	12	13	18.89	18.88	18.92	20
5	16QAM	25	0	18.68	18.72	18.74	
5	64QAM	1	0	18.94	18.92	18.84	
5	64QAM	1	12	18.90	18.80	18.93	20
5	64QAM	1	24	18.91	18.90	18.90	
5	64QAM	12	0	18.73	18.79	18.86	
5	64QAM	12	7	18.90	18.69	18.79	20
5	64QAM	12	13	18.69	18.80	18.70	
5	64QAM	25	0	18.60	18.71	18.71	

Band 40 (2.3G Band-2) Part 27D-2 2350MHz ~ 2360MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				39200			21
Frequency (MHz)				2355			
10	QPSK	1	0		19.75		21
10	QPSK	1	25		19.58		
10	QPSK	1	49		19.56		
10	QPSK	25	0		18.94		20
10	QPSK	25	12		18.75		
10	QPSK	25	25		18.92		
10	QPSK	50	0		18.89		20
10	16QAM	1	0		18.56		
10	16QAM	1	25		18.71		
10	16QAM	1	49		18.90		20
10	16QAM	25	0		18.76		
10	16QAM	25	12		18.82		
10	16QAM	25	25		18.84		20
10	16QAM	50	0		18.81		
10	64QAM	1	0		18.70		
10	64QAM	1	25		19.08		20
10	64QAM	1	49		18.72		
10	64QAM	25	0		18.49		
10	64QAM	25	12		18.63		20
10	64QAM	25	25		18.62		
10	64QAM	50	0		18.50		
Channel				39175	39200	39225	21
Frequency (MHz)				2352.5	2355	2357.5	
5	QPSK	1	0	19.34	19.67	19.45	21
5	QPSK	1	12	19.50	19.66	19.50	
5	QPSK	1	24	19.46	19.65	19.51	
5	QPSK	12	0	18.78	18.85	18.84	20
5	QPSK	12	7	18.89	18.91	18.88	
5	QPSK	12	13	18.84	18.87	18.84	
5	QPSK	25	0	19.01	19.13	19.09	20
5	16QAM	1	0	19.02	19.04	19.06	
5	16QAM	1	12	19.19	19.14	19.15	
5	16QAM	1	24	19.15	19.13	19.09	20
5	16QAM	12	0	18.89	18.86	18.89	
5	16QAM	12	7	19.03	19.08	18.92	
5	16QAM	12	13	18.98	18.95	19.00	20
5	16QAM	25	0	18.99	18.95	18.97	
5	64QAM	1	0	18.77	18.78	18.83	
5	64QAM	1	12	19.22	18.92	18.85	20
5	64QAM	1	24	19.20	18.89	18.94	
5	64QAM	12	0	18.74	18.76	18.71	
5	64QAM	12	7	18.84	18.72	18.78	20
5	64QAM	12	13	18.71	18.81	18.86	
5	64QAM	25	0	18.86	18.82	18.79	

**2.4GHz WLAN****Reduced Power for Head**

2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	CH 1	2412	<b>14.52</b>	16.00	18.00	100.00
		CH 6	2437	14.42	16.00	18.00	
		CH 11	2462	13.52	15.00	18.00	
	802.11g 6Mbps	CH 1	2412	12.38	14.00	18.00	97.10
		CH 6	2437	11.86	13.00	18.00	
		CH 11	2462	11.13	13.00	18.00	
	802.11n-HT20 MCS0	CH 1	2412	12.76	14.00	18.00	96.90
		CH 6	2437	12.31	14.00	18.00	
		CH 11	2462	11.54	13.00	18.00	
	802.11n-HT40 MCS0	CH 3	2422	12.63	14.00	18.00	89.92
		CH 6	2437	12.00	14.00	18.00	
		CH 9	2452	11.85	13.50	18.00	