



REPORT No.: SZ22010020S01

## Annex E Conducted Power

### Full Power

GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	128	189	251		128	189	251		
TX Channel	824.2	836.4	848.8		824.2	836.4	848.8		
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8		
GSM 1 Tx slot	32.45	32.48	32.46	33.50	23.45	23.48	23.46	24.50	0.05
GPRS 1 Tx slot	32.44	32.49	32.47	33.50	23.44	23.49	23.47	24.50	
GPRS 2 Tx slots	30.14	30.19	30.15	31.00	24.14	24.19	24.15	25.00	0.05
GPRS 3 Tx slots	28.09	28.11	28.04	29.00	23.83	23.85	23.78	24.74	0.07
GPRS 4 Tx slots	27.11	27.14	27.13	28.00	24.11	24.14	24.13	25.00	0.03
EDGE 1 Tx slot	27.08	27.10	27.18	28.00	18.08	18.10	18.18	19.00	0.10
EDGE 2 Tx slots	24.06	24.05	24.02	25.00	18.06	18.05	18.02	19.00	0.04
EDGE 3 Tx slots	22.34	22.22	22.26	23.00	18.08	17.96	18.00	18.74	0.12
EDGE 4 Tx slots	21.69	21.54	21.68	22.50	18.69	18.54	18.68	19.50	0.15
Mode		Max.	32.49			Max.	24.19		
Attenuator	Cable Loss : 0.6								
Date	2022.1.17								

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)	Ch Delta > 0.5
	512	661	810		512	661	810		
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8		
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8		
GSM 1 Tx slot	29.45	29.57	29.48	30.50	20.45	20.57	20.48	21.50	0.13
GPRS 1 Tx slot	29.47	29.58	29.50	30.50	20.47	20.58	20.50	21.50	
GPRS 2 Tx slots	27.18	27.21	27.16	28.00	21.18	21.21	21.16	22.00	0.05
GPRS 3 Tx slots	25.10	25.13	25.10	26.00	20.84	20.87	20.84	21.74	0.03
GPRS 4 Tx slots	24.13	24.19	24.16	25.00	21.13	21.19	21.16	22.00	0.06
EDGE 1 Tx slot	26.22	26.23	26.19	27.00	17.22	17.23	17.19	18.00	0.04
EDGE 2 Tx slots	23.26	23.15	23.24	24.00	17.26	17.15	17.24	18.00	0.11
EDGE 3 Tx slots	21.14	21.19	21.15	22.00	16.88	16.93	16.89	17.74	0.05
EDGE 4 Tx slots	20.56	20.53	20.41	21.50	17.56	17.53	17.41	18.50	0.15
Mode		Max.	29.58			Max.	21.21		
Attenuator	Cable Loss : 0.8								
Date	2022.1.17								

Band	WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			Tune-up Limit (dBm)	WCDMA Band V			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel	9662	9800	9938		1537	1638	1738		4357	4407	4458	
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	23.14	23.16	23.11	24.00	23.12	23.15	23.13	24.00	23.55	23.57	23.51	24.50
3GPP Rel 6 HSDPA Subtest-1	21.59	21.57	21.53	22.50	21.87	21.80	21.85	22.50	22.37	22.45	22.34	23.50
3GPP Rel 6 HSDPA Subtest-2	21.72	21.59	21.54	22.50	21.88	21.82	21.86	22.50	22.39	22.47	22.54	23.50
3GPP Rel 6 HSDPA Subtest-3	21.24	21.20	21.17	22.00	21.50	21.45	21.38	22.50	21.71	21.99	22.03	23.00
3GPP Rel 6 HSDPA Subtest-4	21.25	21.22	21.18	22.00	21.60	21.33	21.35	22.50	21.72	21.91	21.95	23.00
3GPP Rel 8 DC-HSDPA Subtest-1	21.99	21.89	21.89	22.50	22.22	22.09	22.20	23.00	22.61	22.60	22.53	23.50
3GPP Rel 8 DC-HSDPA Subtest-2	22.01	21.91	21.90	22.50	22.21	22.10	22.16	23.00	22.63	22.60	22.51	23.50
3GPP Rel 8 DC-HSDPA Subtest-3	21.24	21.36	21.38	22.00	21.71	21.58	21.67	22.50	22.13	22.18	22.17	23.00
3GPP Rel 8 DC-HSDPA Subtest-4	21.23	21.41	21.38	22.00	21.72	21.58	21.68	22.50	22.13	22.19	22.17	23.00
3GPP Rel 6 HSUPA Subtest-1	21.61	21.63	21.56	22.50	21.96	21.92	21.90	22.50	22.44	22.53	22.62	23.50
3GPP Rel 6 HSUPA Subtest-2	21.05	21.17	21.01	22.00	21.45	21.38	21.40	22.50	21.90	21.99	21.96	22.50
3GPP Rel 6 HSUPA Subtest-3	21.80	21.76	21.67	22.50	22.09	21.94	21.92	22.50	22.47	22.52	22.49	23.50
3GPP Rel 6 HSUPA Subtest-4	21.63	21.68	21.60	22.50	21.96	21.89	21.92	22.50	22.41	22.50	22.43	23.50
3GPP Rel 6 HSUPA Subtest-5	21.77	21.72	21.63	22.50	22.07	22.01	21.91	23.00	22.44	22.50	22.56	23.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	21.74	21.66	21.70	22.50	21.66	21.57	21.55	22.50	22.23	22.30	22.52	23.50
Attenuator	Cable Loss 0.8				Cable Loss 0.8				Cable Loss 0.6			
Mode		Max.	23.16			Max.	23.15			Max.	23.57	
Date	2022.1.17				2022.1.17				2022.1.17			

Band 2 (1900MHz Band)							
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	22.50	22.53	22.47	23.5
20	QPSK	1	49	22.48	22.42	22.35	
20	QPSK	1	99	22.42	22.38	22.36	
20	QPSK	50	0	21.58	21.67	21.60	22.5
20	QPSK	50	24	21.59	21.64	21.64	
20	QPSK	50	50	21.64	21.60	21.66	
20	QPSK	100	0	21.57	21.66	21.62	22.5
20	16QAM	1	0	21.63	21.63	21.65	
20	16QAM	1	49	21.47	21.77	21.73	
20	16QAM	1	99	21.72	21.57	21.97	22.5
20	16QAM	50	0	21.65	21.62	21.60	
20	16QAM	50	24	21.61	21.66	21.67	
20	16QAM	50	50	21.69	21.66	21.73	22.5
20	16QAM	100	0	21.72	21.73	21.60	
20	64QAM	1	0	20.67	20.86	20.60	
20	64QAM	1	49	20.62	20.80	20.71	21.5
20	64QAM	1	99	20.57	20.90	20.90	
20	64QAM	50	0	20.67	20.59	20.64	
20	64QAM	50	24	20.70	20.64	20.69	21.5
20	64QAM	50	50	20.69	20.70	20.64	
20	64QAM	100	0	20.57	20.54	20.55	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	22.31	22.34	22.25	23.5
15	QPSK	1	37	22.10	22.46	22.34	
15	QPSK	1	74	22.47	22.39	22.47	
15	QPSK	36	0	21.44	21.53	21.52	22.5
15	QPSK	36	20	21.43	21.62	21.59	
15	QPSK	36	39	21.55	21.56	21.53	
15	QPSK	75	0	21.47	21.53	21.49	22.5
15	16QAM	1	0	21.56	21.64	21.58	
15	16QAM	1	37	21.69	21.72	21.58	
15	16QAM	1	74	21.64	21.76	21.76	22.5
15	16QAM	36	0	21.43	21.48	21.51	
15	16QAM	36	20	21.52	21.45	21.58	
15	16QAM	36	39	21.57	21.66	21.63	22.5
15	16QAM	75	0	21.44	21.46	21.55	
15	64QAM	1	0	20.64	20.40	20.46	
15	64QAM	1	37	20.63	20.44	20.86	21.5
15	64QAM	1	74	20.52	20.56	20.71	
15	64QAM	36	0	20.37	20.54	20.42	
15	64QAM	36	20	20.57	20.59	20.49	21.5
15	64QAM	36	39	20.45	20.50	20.59	
15	64QAM	75	0	20.44	20.51	20.50	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.35	22.34	22.44	23.5
10	QPSK	1	25	22.39	22.42	22.37	
10	QPSK	1	49	22.35	22.36	22.35	
10	QPSK	25	0	21.62	21.63	21.59	22.5
10	QPSK	25	12	21.58	21.70	21.63	
10	QPSK	25	25	21.49	21.62	21.58	
10	QPSK	50	0	21.55	21.64	21.62	22.5
10	16QAM	1	0	22.03	21.96	21.95	
10	16QAM	1	25	21.72	21.68	21.75	
10	16QAM	1	49	21.67	21.75	21.54	22.5
10	16QAM	25	0	21.57	21.56	21.53	
10	16QAM	25	12	21.73	21.53	21.53	
10	16QAM	25	25	21.53	21.73	21.83	22.5
10	16QAM	50	0	22.10	22.03	22.07	
10	64QAM	1	0	20.61	20.66	20.66	
10	64QAM	1	25	20.64	20.69	20.73	21.5
10	64QAM	1	49	20.31	20.44	20.41	
10	64QAM	25	0	20.61	20.65	20.66	
10	64QAM	25	12	20.64	20.62	20.63	21.5
10	64QAM	25	25	20.57	20.35	20.57	
10	64QAM	50	0	20.58	20.58	20.55	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	22.35	22.40	22.34	23.5
5	QPSK	1	12	22.34	22.29	22.32	
5	QPSK	1	24	22.30	22.38	22.39	
5	QPSK	12	0	21.47	21.38	21.45	22.5
5	QPSK	12	7	21.48	21.53	21.45	
5	QPSK	12	13	21.47	21.46	21.49	
5	QPSK	25	0	21.46	21.44	21.46	22.5
5	16QAM	1	0	21.59	21.49	21.87	
5	16QAM	1	12	21.57	21.50	21.87	
5	16QAM	1	24	21.60	21.47	21.86	22.5
5	16QAM	12	0	21.69	21.83	21.69	
5	16QAM	12	7	21.59	21.59	21.39	
5	16QAM	12	13	21.39	21.72	21.49	22.5
5	16QAM	25	0	21.49	21.95	21.93	
5	64QAM	1	0	20.69	20.41	20.46	
5	64QAM	1	12	20.85	20.51	20.62	21.5
5	64QAM	1	24	20.86	20.50	20.52	
5	64QAM	12	0	20.51	20.44	20.43	
5	64QAM	12	7	20.57	20.41	20.41	21.5
5	64QAM	12	13	20.54	20.50	20.48	
5	64QAM	25	0	20.61	20.41	20.48	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.29	22.36	22.28	23.5
3	QPSK	1	8	22.39	22.42	22.25	
3	QPSK	1	14	22.40	22.27	22.27	
3	QPSK	8	0	21.35	21.30	21.32	22.5
3	QPSK	8	4	21.41	21.35	21.36	
3	QPSK	8	7	21.41	21.35	21.31	
3	QPSK	15	0	21.33	21.41	21.34	22.5
3	16QAM	1	0	21.49	21.40	21.34	
3	16QAM	1	8	21.53	21.47	21.43	
3	16QAM	1	14	21.46	21.43	21.31	

Band 4 (AWS Band)							
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	22.48	22.56	22.55	23.5
20	QPSK	1	49	22.34	22.42	22.41	
20	QPSK	1	99	22.26	22.39	22.51	
20	QPSK	50	0	21.64	21.68	21.65	22.5
20	QPSK	50	24	21.55	21.63	21.63	
20	QPSK	50	50	21.44	21.55	21.56	
20	QPSK	100	0	21.54	21.58	21.65	22.5
20	16QAM	1	0	21.41	21.71	21.58	
20	16QAM	1	49	21.56	21.33	21.47	
20	16QAM	1	99	21.35	21.57	21.41	22.5
20	16QAM	50	0	21.54	21.47	21.61	
20	16QAM	50	24	21.80	21.91	21.80	
20	16QAM	50	50	21.76	21.77	21.77	22.5
20	16QAM	100	0	21.78	21.86	21.87	
20	64QAM	1	0	20.52	20.63	20.85	
20	64QAM	1	49	20.56	20.49	20.37	21.5
20	64QAM	1	99	20.83	20.40	20.87	
20	64QAM	50	0	20.53	20.62	20.57	
20	64QAM	50	24	20.55	20.66	20.60	21.5
20	64QAM	50	50	20.59	20.54	20.56	
20	64QAM	100	0	20.62	20.60	20.69	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.35	22.39	22.49	23.5
15	QPSK	1	37	22.39	22.48	22.40	
15	QPSK	1	74	22.26	22.48	22.51	
15	QPSK	36	0	21.49	21.56	21.59	22.5
15	QPSK	36	20	21.53	21.66	21.62	
15	QPSK	36	39	21.58	21.57	21.66	
15	QPSK	75	0	21.53	21.55	21.56	22.5
15	16QAM	1	0	21.47	21.69	21.41	
15	16QAM	1	37	21.55	21.55	21.39	
15	16QAM	1	74	21.41	21.71	21.50	22.5
15	16QAM	36	0	21.42	21.44	21.63	
15	16QAM	36	20	21.37	21.44	21.50	
15	16QAM	36	39	21.33	21.42	21.48	22.5
15	16QAM	75	0	21.44	21.45	21.54	
15	64QAM	1	0	20.39	20.70	20.75	
15	64QAM	1	37	20.81	20.57	20.63	21.5
15	64QAM	1	74	20.85	20.56	20.60	
15	64QAM	36	0	20.50	20.57	20.61	
15	64QAM	36	20	20.56	20.58	20.60	21.5
15	64QAM	36	39	20.59	20.55	20.57	
15	64QAM	75	0	20.52	20.63	20.56	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.47	22.46	22.29	23.5
10	QPSK	1	25	22.45	22.38	22.39	
10	QPSK	1	49	22.33	22.16	22.39	
10	QPSK	25	0	21.32	21.54	21.56	22.5
10	QPSK	25	12	21.44	21.50	21.54	
10	QPSK	25	25	21.33	21.44	21.51	
10	QPSK	50	0	21.39	21.49	21.41	22.5
10	16QAM	1	0	21.38	21.53	21.29	
10	16QAM	1	25	21.65	21.39	21.71	
10	16QAM	1	49	21.72	21.62	21.61</	

3	16QAM	8	0	21.89	22.02	21.94	22.5
3	16QAM	8	4	21.96	21.93	21.99	
3	16QAM	8	7	21.86	21.91	21.94	
3	16QAM	15	0	21.89	21.93	21.88	
3	64QAM	1	0	20.42	20.35	20.38	21.5
3	64QAM	1	8	20.84	20.83	20.43	
3	64QAM	1	14	20.45	20.81	20.45	21.5
3	64QAM	8	0	20.37	20.39	20.23	
3	64QAM	8	4	20.47	20.37	20.37	
3	64QAM	8	7	20.57	20.46	20.32	
3	64QAM	15	0	20.42	20.42	20.40	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.35	22.38	22.33	23.5
1.4	QPSK	1	3	22.25	22.23	22.22	
1.4	QPSK	1	5	22.22	22.20	22.18	
1.4	QPSK	3	0	22.22	22.22	22.18	
1.4	QPSK	3	1	22.26	22.23	22.21	
1.4	QPSK	3	3	22.28	22.32	22.21	
1.4	QPSK	6	0	21.31	21.29	21.28	22.5
1.4	16QAM	1	0	21.34	21.34	21.28	22.5
1.4	16QAM	1	3	21.30	21.50	21.48	
1.4	16QAM	1	5	21.18	21.38	21.06	
1.4	16QAM	3	0	21.20	21.25	21.22	
1.4	16QAM	3	1	21.38	21.20	21.25	
1.4	16QAM	3	3	21.40	21.37	21.11	
1.4	16QAM	6	0	21.41	21.34	21.29	22.5
1.4	64QAM	1	0	20.29	20.21	20.24	21
1.4	64QAM	1	3	20.31	20.52	20.40	
1.4	64QAM	1	5	20.29	20.64	20.23	
1.4	64QAM	3	0	20.32	20.38	20.39	
1.4	64QAM	3	1	20.41	20.38	20.59	
1.4	64QAM	3	3	20.33	20.47	20.24	
1.4	64QAM	6	0	20.38	20.41	20.30	21.5

3	16QAM	8	0	21.40	21.41	21.50	22.5
3	16QAM	8	4	21.50	21.50	21.51	
3	16QAM	8	7	21.72	21.80	21.84	
3	16QAM	15	0	21.72	21.70	21.77	
3	64QAM	1	0	20.39	20.48	20.46	21.5
3	64QAM	1	8	20.58	20.46	20.62	
3	64QAM	1	14	20.39	20.46	20.29	21.5
3	64QAM	8	0	20.37	20.41	20.35	
3	64QAM	8	4	20.49	20.47	20.51	
3	64QAM	8	7	20.43	20.50	20.62	
3	64QAM	15	0	20.39	20.47	20.38	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.6	1754.3	
1.4	QPSK	1	0	22.44	22.49	22.47	23.5
1.4	QPSK	1	3	22.38	22.38	22.42	
1.4	QPSK	1	5	22.24	22.33	22.35	
1.4	QPSK	3	0	22.32	22.29	22.28	
1.4	QPSK	3	1	22.28	22.38	22.43	
1.4	QPSK	3	3	22.27	22.34	22.33	
1.4	QPSK	6	0	21.43	21.45	21.41	22.5
1.4	16QAM	1	0	21.37	21.84	21.50	22.5
1.4	16QAM	1	3	21.50	21.58	21.62	
1.4	16QAM	1	5	21.56	21.72	21.52	
1.4	16QAM	3	0	21.59	21.63	21.54	
1.4	16QAM	3	1	21.60	21.63	21.65	
1.4	16QAM	3	3	21.59	21.71	21.60	
1.4	16QAM	6	0	21.50	21.51	21.42	22.5
1.4	64QAM	1	0	20.28	20.22	20.36	21.5
1.4	64QAM	1	3	20.54	20.52	20.64	
1.4	64QAM	1	5	20.45	20.41	20.25	
1.4	64QAM	3	0	20.36	20.34	20.53	
1.4	64QAM	3	1	20.27	20.42	20.39	
1.4	64QAM	3	3	20.33	20.50	20.38	
1.4	64QAM	6	0	20.32	20.33	20.40	21.5

Band 5 (Cellular Band)									
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	23.47	23.48	23.40	24.5		
10	QPSK	1	25	23.33	23.36	23.16			
10	QPSK	1	49	23.25	23.37	23.05			
10	QPSK	25	0	22.56	22.58	22.39	23.5		
10	QPSK	25	12	22.32	22.34	22.39			
10	QPSK	25	25	22.32	22.43	22.48			
10	QPSK	50	0	22.38	22.26	22.40	23.5		
10	16QAM	1	0	22.42	22.61	22.32			
10	16QAM	1	25	22.65	22.68	22.36			
10	16QAM	1	49	22.48	22.54	22.61	23.5		
10	16QAM	25	0	22.57	22.58	22.40			
10	16QAM	25	12	22.51	22.59	22.37			
10	16QAM	25	25	22.54	22.47	22.50	23.5		
10	16QAM	50	0	22.55	22.46	22.36			
10	84QAM	1	0	21.51	21.61	21.49			
10	84QAM	1	25	21.48	21.68	21.48	22.5		
10	84QAM	1	49	21.37	21.59	21.50			
10	84QAM	25	0	21.48	21.59	21.26			
10	84QAM	25	12	21.47	21.64	21.35	22.5		
10	84QAM	25	25	21.59	21.48	21.18			
10	84QAM	50	0	21.55	21.51	21.37			
Channel				20425	20525	20625	Tune-up limit (dBm)		
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	0	23.42	23.38	23.36	24.5		
5	QPSK	1	12	23.32	23.43	23.27			
5	QPSK	1	24	23.32	23.27	23.27			
5	QPSK	12	0	22.47	22.52	22.38	23.5		
5	QPSK	12	7	22.54	22.55	22.47			
5	QPSK	12	13	22.59	22.43	22.38			
5	QPSK	25	0	22.50	22.46	22.38	23.5		
5	16QAM	1	0	22.79	22.72	22.48			
5	16QAM	1	12	22.49	22.71	22.47			
5	16QAM	1	24	22.36	22.71	22.54	23.5		
5	16QAM	12	0	22.45	22.54	22.53			
5	16QAM	12	7	22.52	22.55	22.37			
5	16QAM	12	13	22.52	22.43	22.48	23.5		
5	16QAM	25	0	22.53	22.58	22.53			
5	84QAM	1	0	21.60	21.48	21.59			
5	84QAM	1	12	21.48	21.42	21.56	22.5		
5	84QAM	1	24	21.62	21.46	21.40			
5	84QAM	12	0	21.34	21.48	21.28			
5	84QAM	12	7	21.38	21.54	21.32	22.5		
5	84QAM	12	13	21.56	21.51	21.08			
5	84QAM	25	0	21.44	21.51	21.12			
Channel				20415	20525	20635	Tune-up limit (dBm)		
Frequency (MHz)				825.5	836.5	847.5			
3	QPSK	1	0	23.41	23.42	23.27	24.5		
3	QPSK	1	8	23.37	23.38	23.29			
3	QPSK	1	14	23.38	23.36	23.10			
3	QPSK	8	0	22.40	22.53	22.51	23.5		
3	QPSK	8	4	22.54	22.60	22.57			
3	QPSK	8	7	22.49	22.51	22.38			
3	QPSK	15	0	22.47	22.53	22.52	23.5		
3	16QAM	1	0	22.49	22.60	22.67			
3	16QAM	1	8	22.42	22.68	22.52			
3	16QAM	1	14	22.47	22.73	22.48	23.5		
3	16QAM	8	0	22.43	22.52	22.26			
3	16QAM	8	4	22.59	22.70	22.27			
3	16QAM	8	7	22.51	22.57	22.31	23.5		
3	16QAM	15	0	22.45	22.47	22.02			
3	84QAM	1	0	21.40	21.28	21.49			
3	84QAM	1	8	21.28	21.52	21.28	22.5		
3	84QAM	1	14	21.30	21.48	21.29			
3	84QAM	8	0	21.40	21.50	21.48			
3	84QAM	8	4	21.62	21.46	21.40	22.5		
3	84QAM	8	7	21.57	21.49	21.46			
3	84QAM	15	0	21.46	21.56	21.36			
Channel				20407	20525	20643	Tune-up limit (dBm)		
Frequency (MHz)				824.7	836.5	848.3			
1.4	QPSK	1	0	23.42	23.39	23.43	24.5		
1.4	QPSK	1	3	23.45	23.38	23.45			
1.4	QPSK	1	5	23.34	23.28	23.29			
1.4	QPSK	3	0	23.35	23.41	23.37	23.5		
1.4	QPSK	3	1	23.41	23.28	23.38			
1.4	QPSK	3	3	23.42	23.34	23.34			
1.4	QPSK	6	0	22.45	22.44	22.43	23.5		
1.4	16QAM	1	0	22.58	22.39	22.56			
1.4	16QAM	1	3	22.38	22.62	22.51			
1.4	16QAM	1	5	22.77	22.45	22.51	23.5		
1.4	16QAM	3	0	22.30	22.28	22.42			
1.4	16QAM	3	1	22.33	22.60	22.46			
1.4	16QAM	3	3	22.41	22.52	22.40	23.5		
1.4	16QAM	6	0	22.60	22.47	22.51			
1.4	84QAM	1	0	21.13	21.30	21.32			
1.4	84QAM	1	3	21.44	21.45	21.40	22.5		
1.4	84QAM	1	5	21.39	21.38	21.26			
1.4	84QAM	3	0	21.05	21.32	21.33			
1.4	84QAM	3	1	21.33	21.27	21.28	22.5		
1.4	84QAM	3	3	21.23	21.40	21.44			
1.4	84QAM	6	0	21.44	21.56	21.45			

Band 7 (2600MHz Band)									
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	22.53	22.54	22.46	23.5		
20	QPSK	1	49	22.48	22.52	22.41			
20	QPSK	1	99	22.43	22.38	22.43			
20	QPSK	50	0	21.59	21.66	21.63	22.5		
20	QPSK	50	24	21.35	21.32	21.22			
20	QPSK	50	50	21.45	21.48	21.45			
20	QPSK	100	0	21.40	21.42	21.39	22.5		
20	16QAM	1	0	21.21	21.31	21.49			
20	16QAM	1	49	21.36	21.22	21.50			
20	16QAM	1	99	21.30	21.61	21.26	22.5		
20	16QAM	50	0	21.15	21.25	21.18			
20	16QAM	50	24	21.20	21.12	21.23			
20	16QAM	50	50	21.28	21.33	21.16	22.5		
20	16QAM	100	0	21.16	21.28	21.26			
20	84QAM	1	0	20.04	20.20	20.22			
20	84QAM	1	49	20.32	20.29	20.34	21.5		
20	84QAM	1	99	20.30	20.35	20.26			
20	84QAM	50	0	20.24	20.25	20.30			
20	84QAM	50	24	20.29	20.30	20.30	21.5		
20	84QAM	50	50	20.33	20.40	20.25			
20	84QAM	100	0	20.26	20.23	20.35			
Channel				20825	21100	21375	Tune-up limit (dBm)		
Frequency (MHz)				2507.5	2535	2562.5			
15	QPSK	1	0	22.36	22.45	22.45	23.5		
15	QPSK	1	37	22.46	22.43	22.47			
15	QPSK	1	74	22.40	22.47	22.47			
15	QPSK	36	0	21.18	21.27	21.29	22.5		
15	QPSK	36	20	21.26	21.33	21.28			
15	QPSK	36	39	21.29	21.32	21.36			
15	QPSK	75	0	21.35	21.28	21.30	22.5		
15	16QAM	1	0	21.71	21.82	21.89			
15	16QAM	1	37	21.53	21.64	21.62			
15	16QAM	1	74	21.57	21.57	21.79	22.5		
15	16QAM	36	0	21.16	21.27	21.29			
15	16QAM	36	20	21.23	21.26	21.25			
15	16QAM	36	39	21.29	21.27	21.16	22.5		
15	16QAM	75	0	21.24	21.32	21.24			
15	84QAM	1	0	20.14	20.11	19.99			
15	84QAM	1	37	20.04	20.19	20.28	21.5		
15	84QAM	1	74	20.03	20.15	20.21			
15	84QAM	36	0	20.22	20.30	20.29			
15	84QAM	36	20	20.33	20.32	20.39	21.5		
15	84QAM	36	39	20.37	20.28	20.30			
15	84QAM	75	0	20.22	20.32	20.27			
Channel				20800	21100	21400	Tune-up limit (dBm)		
Frequency (MHz)				2505	2535	2565			
10	QPSK	1	0	22.35	22.22	22.25	23.5		
10	QPSK	1	25	22.38	22.28	22.30			
10	QPSK	1	49	22.31	22.28	22.30			
10	QPSK	25	0	21.10	21.10	21.09	22.5		
10	QPSK	25	12	21.06	21.18	21.23			
10	QPSK	25	25	20.99	21.1				

Band 12 (700MHz Low Band)									
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	23.42	23.58	23.47	24.5		
10	QPSK	1	25	23.28	23.41	23.44			
10	QPSK	1	49	23.38	23.39	23.38			
10	QPSK	25	0	22.67	22.77	22.68	23.5		
10	QPSK	25	12	22.64	22.58	22.37			
10	QPSK	25	25	22.69	22.75	22.68			
10	QPSK	50	0	22.70	22.72	22.63	23.5		
10	16QAM	1	0	22.63	22.18	22.31			
10	16QAM	1	25	22.38	22.33	22.47			
10	16QAM	1	49	22.47	22.52	22.41	23.5		
10	16QAM	25	0	22.36	22.38	22.32			
10	16QAM	25	12	22.40	22.44	22.33			
10	16QAM	25	25	22.45	22.46	22.40	23.5		
10	16QAM	50	0	22.35	22.43	22.48			
10	84QAM	1	0	21.20	21.32	21.66			
10	84QAM	1	25	21.64	21.70	21.29	22.5		
10	84QAM	1	49	21.66	21.34	21.27			
10	84QAM	25	0	21.17	21.11	21.08			
10	84QAM	25	12	21.22	21.25	21.17	22.5		
10	84QAM	25	25	21.27	21.24	21.24			
10	84QAM	50	0	21.19	21.12	21.23			
Channel				23035	23095	23155	Tune-up limit (dBm)		
Frequency (MHz)				701.5	707.5	713.5			
5	QPSK	1	0	23.17	23.50	23.28	24.5		
5	QPSK	1	12	23.33	23.49	23.33			
5	QPSK	1	24	23.29	23.48	23.34			
5	QPSK	12	0	22.40	22.47	22.46	23.5		
5	QPSK	12	7	22.51	22.53	22.50			
5	QPSK	12	13	22.46	22.49	22.46			
5	QPSK	25	0	22.42	22.54	22.50	23.5		
5	16QAM	1	0	22.43	22.45	22.47			
5	16QAM	1	12	22.60	22.55	22.56			
5	16QAM	1	24	22.56	22.54	22.50	23.5		
5	16QAM	12	0	22.30	22.27	22.30			
5	16QAM	12	7	22.44	22.49	22.33			
5	16QAM	12	13	22.39	22.36	22.41	23.5		
5	16QAM	25	0	22.40	22.36	22.38			
5	84QAM	1	0	21.18	21.19	21.24			
5	84QAM	1	12	21.63	21.33	21.26	22.5		
5	84QAM	1	24	21.61	21.30	21.35			
5	84QAM	12	0	21.15	21.17	21.12			
5	84QAM	12	7	21.25	21.13	21.19	22.5		
5	84QAM	12	13	21.12	21.22	21.27			
5	84QAM	25	0	21.27	21.23	21.20			
Channel				23025	23095	23165	Tune-up limit (dBm)		
Frequency (MHz)				700.5	707.5	714.5			
3	QPSK	1	0	23.25	23.52	23.19	24.5		
3	QPSK	1	8	23.43	23.42	23.32			
3	QPSK	1	14	23.37	23.48	23.43			
3	QPSK	8	0	22.48	22.46	22.46	23.5		
3	QPSK	8	4	22.51	22.54	22.55			
3	QPSK	8	7	22.46	22.54	22.48			
3	QPSK	15	0	22.45	22.53	22.39	23.5		
3	16QAM	1	0	22.46	22.82	22.41			
3	16QAM	1	8	22.66	22.64	22.59			
3	16QAM	1	14	22.49	22.54	22.40	23.5		
3	16QAM	8	0	22.46	22.35	22.38			
3	16QAM	8	4	22.51	22.48	22.59			
3	16QAM	8	7	22.35	22.38	22.44	23.5		
3	16QAM	15	0	22.33	22.26	22.25			
3	84QAM	1	0	21.19	21.53	21.52			
3	84QAM	1	8	21.48	21.38	21.39	22.5		
3	84QAM	1	14	21.41	21.26	21.37			
3	84QAM	8	0	21.08	21.16	21.07			
3	84QAM	8	4	21.17	21.21	21.20	22.5		
3	84QAM	8	7	21.16	21.08	21.23			
3	84QAM	15	0	21.15	21.17	21.09			
Channel				23017	23095	23173	Tune-up limit (dBm)		
Frequency (MHz)				699.7	707.5	715.3			
1.4	QPSK	1	0	23.28	23.45	23.25	24.5		
1.4	QPSK	1	3	23.39	23.38	23.40			
1.4	QPSK	1	5	23.28	23.33	23.29			
1.4	QPSK	3	0	23.23	23.36	23.34	23.5		
1.4	QPSK	3	1	23.44	23.44	23.11			
1.4	QPSK	3	3	23.39	23.41	23.37			
1.4	QPSK	6	0	22.45	22.42	22.40	23.5		
1.4	16QAM	1	0	22.49	22.43	22.28			
1.4	16QAM	1	3	22.30	22.73	22.40			
1.4	16QAM	1	5	22.42	22.43	22.42	23.5		
1.4	16QAM	3	0	22.26	22.29	22.30			
1.4	16QAM	3	1	22.42	22.50	22.34			
1.4	16QAM	3	3	22.25	22.39	22.39	23.5		
1.4	16QAM	6	0	22.18	22.38	22.28			
1.4	84QAM	1	0	21.03	21.18	21.02			
1.4	84QAM	1	3	21.15	21.08	21.13	22.5		
1.4	84QAM	1	5	21.31	21.34	21.30			
1.4	84QAM	3	0	21.21	21.22	21.05			
1.4	84QAM	3	1	21.19	21.43	21.28	22.5		
1.4	84QAM	3	3	21.21	21.05	21.21			
1.4	84QAM	6	0	21.17	21.18	21.05			

Band 17 (700MHz Band)									
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	23.48	23.51	23.48	24.5		
10	QPSK	1	25	23.36	23.32	23.38			
10	QPSK	1	49	23.29	23.32	23.27			
10	QPSK	25	0	22.59	22.65	22.57	23.5		
10	QPSK	25	12	22.44	22.38	22.52			
10	QPSK	25	25	22.42	22.42	22.51			
10	QPSK	50	0	22.55	22.42	22.43	23.5		
10	16QAM	1	0	22.28	22.47	22.61			
10	16QAM	1	25	22.49	22.78	22.62			
10	16QAM	1	49	22.45	22.70	22.75	23.5		
10	16QAM	25	0	22.39	22.63	22.62			
10	16QAM	25	12	22.45	22.60	22.58			
10	16QAM	25	25	22.28	22.54	22.59	23.5		
10	16QAM	50	0	22.32	22.61	22.58			
10	84QAM	1	0	21.29	21.62	21.30			
10	84QAM	1	25	21.52	21.42	21.32	22.5		
10	84QAM	1	49	21.26	21.29	21.29			
10	84QAM	25	0	21.44	21.61	21.59			
10	84QAM	25	12	21.36	21.44	21.61	22.5		
10	84QAM	25	25	21.30	21.51	21.67			
10	84QAM	50	0	21.37	21.60	21.61			
Channel				23755	23790	23825	Tune-up limit (dBm)		
Frequency (MHz)				706.5	710	713.5			
5	QPSK	1	0	23.42	23.38	23.34	24.5		
5	QPSK	1	12	23.41	23.37	23.36			
5	QPSK	1	24	23.33	23.39	23.38			
5	QPSK	12	0	22.49	22.67	22.83	23.5		
5	QPSK	12	7	22.61	22.70	22.78			
5	QPSK	12	13	22.44	22.72	22.78			
5	QPSK	25	0	22.47	22.64	22.77	23.5		
5	16QAM	1	0	22.95	23.00	22.72			
5	16QAM	1	12	23.12	22.68	23.05			
5	16QAM	1	24	22.96	23.01	23.17	23.5		
5	16QAM	12	0	22.40	22.43	22.64			
5	16QAM	12	7	22.40	22.47	22.59			
5	16QAM	12	13	22.31	22.56	22.59	23.5		
5	16QAM	25	0	22.41	22.53	22.57			
5	84QAM	1	0	21.21	21.22	21.22			
5	84QAM	1	12	21.25	21.22	21.30	22.5		
5	84QAM	1	24	21.30	21.30	21.22			
5	84QAM	12	0	21.36	21.41	21.65			
5	84QAM	12	7	21.49	21.57	21.51	22.5		
5	84QAM	12	13	21.34	21.52	21.54			
5	84QAM	25	0	21.31	21.50	21.66			

Band 26 for FCC									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)		
Channel				26765	26865	26965	24		
Frequency (MHz)				821.5	831.5	841.5			
15	QPSK	1	0	23.05	23.09	23.06	24		
15	QPSK	1	37	23.03	23.00	23.06			
15	QPSK	1	74	23.01	22.99	23.01			
15	QPSK	36	0	22.37	22.45	22.33	23		
15	QPSK	36	20	22.28	22.20	22.05			
15	QPSK	36	39	22.28	22.07	22.13			
15	QPSK	75	0	22.34	22.08	22.15	23		
15	16QAM	1	0	22.06	22.21	22.49			
15	16QAM	1	37	22.02	22.13	22.27			
15	16QAM	1	74	22.17	22.06	22.07	23		
15	16QAM	36	0	22.17	22.03	22.06			
15	16QAM	36	20	22.12	21.92	22.07			
15	16QAM	36	39	22.19	21.99	22.07	23		
15	16QAM	75	0	22.07	22.09	22.09			
15	84QAM	1	0	21.49	21.36	21.18			
15	84QAM	1	37	21.14	21.18	21.28	22		
15	84QAM	1	74	21.18	21.14	21.46			
15	84QAM	36	0	21.54	21.35	21.34			
15	84QAM	36	20	21.63	21.35	21.26	22		
15	84QAM	36	39	21.61	21.41	21.17			
15	84QAM	75	0	21.55	21.38	21.31			
Channel				26740	26865	26990	24		
Frequency (MHz)				819	831.5	844			
10	QPSK	1	0	22.97	23.01	22.98	24		
10	QPSK	1	25	23.00	22.99	22.92			
10	QPSK	1	49	22.86	22.99	22.91			
10	QPSK	25	0	22.39	22.20	22.06	23		
10	QPSK	25	12	22.35	22.17	21.98			
10	QPSK	25	25	22.34	22.18	22.03			
10	QPSK	50	0	22.35	22.23	22.05	23		
10	16QAM	1	0	22.07	22.39	22.16			
10	16QAM	1	25	22.16	22.25	22.30			
10	16QAM	1	49	22.10	22.09	22.07	23		
10	16QAM	25	0	22.11	22.25	22.54			
10	16QAM	25	12	22.12	22.28	22.36			
10	16QAM	25	25	22.29	22.17	22.23	23		
10	16QAM	50	0	22.46	22.33	22.35			
10	84QAM	1	0	21.44	21.44	21.26			
10	84QAM	1	25	21.54	21.26	21.28	22		
10	84QAM	1	49	21.26	21.25	21.25			
10	84QAM	25	0	21.61	21.38	21.33			
10	84QAM	25	12	21.37	21.39	21.32	22		
10	84QAM	25	25	21.27	21.40	21.15			
10	84QAM	50	0	21.57	21.36	21.29			
Channel				26715	26865	27015	24		
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	0	22.96	23.01	22.97	24		
5	QPSK	1	12	22.91	22.95	22.97			
5	QPSK	1	24	22.87	22.99	22.99			
5	QPSK	12	0	22.33	22.15	22.04	23		
5	QPSK	12	7	22.43	22.14	22.14			
5	QPSK	12	13	22.32	22.09	22.03			
5	QPSK	25	0	22.36	22.17	22.22	23		
5	16QAM	1	0	22.07	22.07	22.08			
5	16QAM	1	12	22.11	22.01	21.98			
5	16QAM	1	24	22.16	22.16	22.21	23		
5	16QAM	12	0	22.44	22.26	22.24			
5	16QAM	12	7	22.29	22.31	22.00			
5	16QAM	12	13	22.41	22.26	22.05	23		
5	16QAM	25	0	21.96	22.10	22.07			
5	84QAM	1	0	21.45	21.27	21.25			
5	84QAM	1	12	21.34	21.45	21.26	22		
5	84QAM	1	24	21.28	21.25	21.25			
5	84QAM	12	0	21.55	21.33	21.16			
5	84QAM	12	7	21.14	21.46	21.17	22		
5	84QAM	12	13	21.54	21.43	21.09			
5	84QAM	25	0	21.54	21.33	21.15			
Channel				26705	26865	27025	24		
Frequency (MHz)				815.5	831.5	847.5			
3	QPSK	1	0	23.00	22.97	23.02	24		
3	QPSK	1	8	22.91	22.99	22.91			
3	QPSK	1	14	22.96	22.92	22.98			
3	QPSK	8	0	22.23	22.07	22.26	23		
3	QPSK	8	4	22.40	22.14	22.03			
3	QPSK	8	7	22.40	22.13	22.24			
3	QPSK	15	0	22.25	22.05	22.15	23		
3	16QAM	1	0	22.36	22.30	22.31			
3	16QAM	1	8	22.35	22.24	22.27			
3	16QAM	1	14	22.33	22.18	22.18	23		
3	16QAM	8	0	22.42	22.05	22.12			
3	16QAM	8	4	22.36	22.03	22.07			
3	16QAM	8	7	22.12	22.09	22.03	23		
3	16QAM	15	0	22.19	22.06	22.16			
3	84QAM	1	0	21.14	21.58	21.37			
3	84QAM	1	8	21.44	21.54	21.28	22		
3	84QAM	1	14	21.38	21.54	21.44			
3	84QAM	8	0	21.27	21.32	21.22			
3	84QAM	8	4	21.27	21.36	21.22	22		
3	84QAM	8	7	21.54	21.42	21.21			
3	84QAM	15	0	21.54	21.40	21.19			
Channel				26697	26865	27033	24		
Frequency (MHz)				814.7	831.5	848.3			
1.4	QPSK	1	0	22.87	22.97	22.97	24		
1.4	QPSK	1	3	22.86	22.97	22.89			
1.4	QPSK	1	5	22.86	22.88	22.88			
1.4	QPSK	3	0	23.00	22.88	22.90	23		
1.4	QPSK	3	1	22.91	22.91	22.96			
1.4	QPSK	3	3	22.91	22.97	22.99			
1.4	QPSK	6	0	22.01	22.23	22.26	23		
1.4	16QAM	1	0	22.06	22.13	22.13			
1.4	16QAM	1	3	22.13	22.07	22.07			
1.4	16QAM	1	5	22.22	22.36	22.17	23		

Band 66									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)		
Channel				132072	132322	132572	24		
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	0	23.00	23.06	23.04	24		
20	QPSK	1	49	22.85	22.84	22.80			
20	QPSK	1	99	22.78	22.77	22.80			
20	QPSK	50	0	22.23	22.30	22.26	23		
20	QPSK	50	24	22.04	22.06	22.19			
20	QPSK	50	50	22.08	22.16	22.04			
20	QPSK	100	0	22.06	22.06	21.98	23		
20	16QAM	1	0	22.11	21.87	22.15			
20	16QAM	1	49	22.16	21.90	21.96			
20	16QAM	1	99	22.16	22.34	22.13	23		
20	16QAM	50	0	22.28	22.25	22.22			
20	16QAM	50	24	22.17	22.17	22.18			
20	16QAM	50	50	22.14	22.06	22.02	23		
20	16QAM	100	0	22.10	22.13	22.19			
20	84QAM	1	0	21.43	21.20	21.53			
20	84QAM	1	49	21.20	21.53	21.52	22		
20	84QAM	1	99	21.43	21.55	21.63			
20	84QAM	50	0	21.39	21.29	21.42			
20	84QAM	50	24	21.33	21.27	21.39	22		
20	84QAM	50	50	21.35	21.23	21.29			
20	84QAM	100	0	21.34	21.34	21.32			
Channel				132047	132322	132597	24		
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	0	22.98	23.02	23.00	24		
15	QPSK	1	37	23.02	22.98	22.96			
15	QPSK	1	74	22.96	22.92	22.90			
15	QPSK	36	0	22.17	22.14	22.18	23		
15	QPSK	36	20	22.17	22.09	22.19			
15	QPSK	36	39	22.03	22.08	22.05			
15	QPSK	75	0	22.12	22.16	22.09	23		
15	16QAM	1	0	22.11	21.98	22.28			
15	16QAM	1	37	21.98	22.28	22.21			
15	16QAM	1	74	22.08	21.98	21.98	23		
15	16QAM	36	0	22.29	22.29	22.20			
15	16QAM	36	20	22.32	22.31	22.37			
15	16QAM	36	39	22.24	22.39	22.33	23		
15	16QAM	75	0	22.34	22.32	22.28			
15	84QAM	1	0	21.65	21.55	21.65			
15	84QAM	1	37	21.67	21.45	21.55	22		
15	84QAM	1	74	21.32	21.58	21.65			
15	84QAM	36	0	21.44	21.43	21.56			

1.4	16QAM	3	0	22.23	21.99	22.24	23
1.4	16QAM	3	1	22.23	22.02	22.15	
1.4	16QAM	3	3	22.23	22.00	21.96	
1.4	16QAM	6	0	22.59	22.56	22.54	23
1.4	64QAM	1	0	21.48	21.45	21.50	
1.4	64QAM	1	3	21.54	21.54	21.54	22
1.4	64QAM	1	5	21.44	21.47	21.58	
1.4	64QAM	3	0	21.53	21.54	21.54	
1.4	64QAM	3	1	21.58	21.46	21.50	
1.4	64QAM	3	3	21.50	21.54	21.45	
1.4	64QAM	6	0	21.57	21.50	21.21	22

3	16QAM	8	0	22.20	22.20	22.11	23
3	16QAM	8	4	22.23	22.22	22.28	
3	16QAM	8	7	22.15	22.30	22.24	
3	16QAM	15	0	22.25	22.23	22.19	22
3	64QAM	1	0	21.56	21.46	21.56	
3	64QAM	1	8	21.58	21.36	21.46	
3	64QAM	1	14	21.23	21.49	21.56	22
3	64QAM	8	0	21.35	21.34	21.47	
3	64QAM	8	4	21.45	21.41	21.42	
3	64QAM	8	7	21.34	21.28	21.32	
3	64QAM	15	0	21.36	21.38	21.35	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	22.91	22.82	22.83	24
1.4	QPSK	1	3	22.97	22.99	22.99	
1.4	QPSK	1	5	22.89	22.77	22.93	
1.4	QPSK	3	0	22.88	22.81	22.88	
1.4	QPSK	3	1	22.85	22.91	22.82	
1.4	QPSK	3	3	22.86	22.82	22.74	
1.4	QPSK	6	0	22.46	22.31	22.50	23
1.4	16QAM	1	0	22.33	22.33	22.53	23
1.4	16QAM	1	3	22.33	22.42	22.54	
1.4	16QAM	1	5	22.16	22.36	22.24	
1.4	16QAM	3	0	22.11	22.08	22.34	
1.4	16QAM	3	1	22.20	22.10	22.22	
1.4	16QAM	3	3	22.21	22.22	22.16	
1.4	16QAM	6	0	22.10	22.01	22.02	23
1.4	64QAM	1	0	21.61	21.46	21.62	22
1.4	64QAM	1	3	21.34	21.43	21.43	
1.4	64QAM	1	5	21.31	21.31	21.42	
1.4	64QAM	3	0	21.40	21.38	21.40	
1.4	64QAM	3	1	21.39	21.43	21.47	
1.4	64QAM	3	3	21.39	21.32	21.34	
1.4	64QAM	6	0	21.29	21.39	21.40	22



Band 38(only on channel required)								
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	22.97	23.04	23.01		
20	QPSK	1	49	22.96	22.98	22.98		24
20	QPSK	1	99	22.88	22.94	22.91		
20	QPSK	50	0	22.08	22.30	22.16		
20	QPSK	50	24	22.01	22.08	22.04		
20	QPSK	50	50	22.05	22.10	22.04		23
20	QPSK	100	0	21.83	22.04	22.07		
20	16QAM	1	0	22.05	22.05	21.88		
20	16QAM	1	49	22.04	21.64	22.04		
20	16QAM	1	99	22.20	22.19	22.30		
20	16QAM	50	0	22.05	22.19	21.80		
20	16QAM	50	24	22.16	21.98	21.89		
20	16QAM	50	50	22.15	21.79	21.83		
20	16QAM	100	0	22.16	22.19	21.85		
20	64QAM	1	0	21.32	21.60	21.63		
20	64QAM	1	49	21.32	21.51	21.61		
20	64QAM	1	99	21.34	21.61	21.65		
20	64QAM	50	0	21.33	21.32	21.21		
20	64QAM	50	24	21.35	21.31	21.30		
20	64QAM	50	50	21.33	21.10	21.32		22
20	64QAM	100	0	21.33	21.29	21.20		
Channel				37825	38000	38175		
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	22.94	22.94	22.95		
15	QPSK	1	37	22.95	22.87	22.98		24
15	QPSK	1	74	22.76	22.98	22.95		
15	QPSK	36	0	22.07	22.32	22.36		
15	QPSK	36	20	22.21	22.30	22.28		
15	QPSK	36	39	22.28	22.26	22.19		23
15	QPSK	75	0	22.16	22.16	22.17		
15	16QAM	1	0	22.24	22.26	22.16		
15	16QAM	1	37	22.26	22.30	21.98		
15	16QAM	1	74	22.27	22.17	21.97		
15	16QAM	36	0	22.04	22.00	21.89		
15	16QAM	36	20	22.02	22.16	21.93		
15	16QAM	36	39	22.04	22.06	21.91		
15	16QAM	75	0	22.00	21.95	21.89		
15	64QAM	1	0	21.46	21.35	21.51		
15	64QAM	1	37	21.34	21.35	21.33		
15	64QAM	1	74	21.29	21.37	21.54		
15	64QAM	36	0	21.21	21.36	21.29		
15	64QAM	36	20	21.49	21.35	21.23		
15	64QAM	36	39	21.33	21.33	21.34		22
15	64QAM	75	0	21.51	21.33	21.37		
Channel				37800	38000	38200		
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	22.97	22.98	22.98		
10	QPSK	1	25	22.97	22.77	22.97		24
10	QPSK	1	49	22.91	22.93	22.96		
10	QPSK	25	0	22.06	21.92	21.92		
10	QPSK	25	12	22.26	22.22	21.93		
10	QPSK	25	25	22.27	22.29	21.89		23
10	QPSK	50	0	22.28	22.20	21.92		
10	16QAM	1	0	22.14	21.91	22.22		
10	16QAM	1	25	22.02	21.92	22.32		
10	16QAM	1	49	22.39	21.95	22.04		
10	16QAM	25	0	21.89	22.00	21.96		
10	16QAM	25	12	22.19	21.89	22.02		
10	16QAM	25	25	21.89	22.03	22.08		
10	16QAM	50	0	22.01	22.05	21.97		
10	64QAM	1	0	21.36	21.39	21.32		
10	64QAM	1	25	21.27	21.52	21.42		22
10	64QAM	1	49	21.63	21.37	21.42		
10	64QAM	25	0	21.22	21.22	21.32		
10	64QAM	25	12	21.22	21.42	21.43		
10	64QAM	25	25	21.18	21.38	21.34		
10	64QAM	50	0	21.24	21.40	21.30		
Channel				37775	38000	38225		
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	22.92	22.93	22.96		
5	QPSK	1	12	22.77	22.98	22.96		24
5	QPSK	1	24	22.77	22.76	22.75		
5	QPSK	12	0	22.19	22.67	22.26		
5	QPSK	12	7	22.33	22.32	22.32		
5	QPSK	12	13	22.21	22.23	22.25		23
5	QPSK	25	0	22.25	22.26	21.92		
5	16QAM	1	0	22.43	22.54	22.44		
5	16QAM	1	12	22.04	22.22	21.92		
5	16QAM	1	24	22.04	22.05	22.04		
5	16QAM	12	0	22.05	22.10	22.04		
5	16QAM	12	7	22.04	22.06	22.04		
5	16QAM	12	13	21.95	22.07	22.04		23
5	16QAM	25	0	22.22	21.94	22.12		
5	64QAM	1	0	21.33	21.66	21.27		
5	64QAM	1	12	21.60	21.60	21.67		
5	64QAM	1	24	21.60	21.60	21.57		
5	64QAM	12	0	21.28	21.40	21.36		
5	64QAM	12	7	21.37	21.38	21.29		
5	64QAM	12	13	21.36	21.39	21.26		22
5	64QAM	25	0	21.40	21.42	21.33		

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	22.95	23.05	23.07	23.00	23.01	
20	QPSK	1	49	22.91	23.00	23.00	23.01	23.01	24
20	QPSK	1	99	22.85	23.01	22.96	23.06	22.81	
20	QPSK	50	0	22.11	22.13	22.17	22.15	22.10	
20	QPSK	50	24	22.11	22.09	21.94	21.91	21.91	
20	QPSK	50	50	22.14	22.07	21.99	21.98	22.05	23
20	QPSK	100	0	22.11	22.14	22.05	21.99	21.95	
20	16QAM	1	0	22.15	22.31	21.88	22.05	21.95	
20	16QAM	1	49	22.14	22.19	21.98	21.93	21.95	23
20	16QAM	1	99	22.21	22.11	22.05	22.03	22.05	
20	16QAM	50	0	22.12	22.21	21.98	22.28	21.95	
20	16QAM	50	24	22.10	22.42	21.95	22.05	21.95	23
20	16QAM	50	50	22.16	22.48	22.41	22.02	22.05	
20	16QAM	100	0	22.10	22.41	22.36	22.05	21.94	
20	64QAM	1	0	21.53	21.44	21.44	21.27	21.23	
20	64QAM	1	49	21.46	21.56	21.26	21.55	21.23	22
20	64QAM	1	99	21.36	21.31	21.22	21.31	21.19	
20	64QAM	50	0	21.32	21.28	21.25	21.20	21.29	
20	64QAM	50	24	21.17	21.44	21.32	21.29	21.22	
20	64QAM	50	50	21.27	21.43	21.46	21.35	21.28	22
20	64QAM	100	0	21.25	21.53	21.49	21.17	21.29	
Channel				40115	40378	40640	40903	41165	
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5	
15	QPSK	1	0	22.61	22.77	22.97	22.84	22.83	
15	QPSK	1	37	22.60	22.95	23.01	22.84	22.94	24
15	QPSK	1	74	22.60	22.93	22.94	22.77	22.74	
15	QPSK	36	0	21.77	22.11	21.96	22.16	22.77	
15	QPSK	36	20	22.02	22.16	21.86	22.12	22.84	
15	QPSK	36	39	22.18	22.19	21.95	22.15	22.79	23
15	QPSK	75	0	21.96	22.21	21.98	22.18	22.76	
15	16QAM	1	0	21.90	22.02	22.35	21.96	22.15	
15	16QAM	1	37	22.11	22.19	21.92	22.02	22.16	23
15	16QAM	1	74	22.07	22.11	21.49	21.86	21.78	
15	16QAM	36	0	21.94	22.18	21.89	22.05	22.23	
15	16QAM	36	20	21.99	22.12	21.85	22.01	22.25	23
15	16QAM	36	39	22.06	22.25	22.35	22.05	22.01	
15	16QAM	75	0	21.97	22.26	21.83	22.05	21.61	
15	64QAM	1	0	21.35	21.25	21.49	21.13	21.63	
15	64QAM	1	37	21.63	21.39	21.63	21.26	20.75	22
15	64QAM	1	74	21.60	21.32	21.42	21.60	20.48	
15	64QAM	36	0	21.04	21.38	21.20	21.34	21.12	
15	64QAM	36	20	21.19	21.49	21.64	21.27	21.13	
15	64QAM	36	39	21.14	21.48	21.61	21.33	21.22	2
15	64QAM	75	0	21.12	21.49	21.61	21.37	21.14	
Channel				40990	40365	40640	40915		

2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	18.50	20.00	18.00	98.79
		CH 6	2437	17.67	19.00	18.00	
		CH 11	2462	18.77	20.00	18.00	
	802.11g 6Mbps	CH 1	2412	17.20	19.00	17.00	97.58
		CH 6	2437	16.49	18.00	17.00	
		CH 11	2462	17.62	19.00	17.00	
	802.11n-HT20 MCS0	CH 1	2412	17.02	19.00	17.00	97.92
		CH 6	2437	16.54	18.00	17.00	
		CH 11	2462	17.36	19.00	17.00	
802.11n-HT40 MCS0	CH 3	2422	17.12	19.00	17.00	97.66	
	CH 6	2437	17.89	19.00	17.00		
	CH 9	2452	17.56	19.00	17.00		
802.11ac-VHT20 MCS0	CH 1	2412	17.04	19.00	17.00	97.68	
	CH 6	2437	16.55	18.00	17.00		
	CH 11	2462	17.44	19.00	17.00		
802.11ac-VHT40 MCS0	CH 3	2422	17.14	19.00	17.00	89.50	
	CH 6	2437	17.91	19.00	17.00		
	CH 9	2452	17.67	19.00	17.00		

5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	16.45	18.00	17.5	97.82
		CH 44	5220	16.94	18.00	17.5	
		CH 48	5240	16.62	18.00	17.5	
	802.11n-HT20 MCS0	CH 36	5180	16.49	18.00	17.5	97.92
		CH 44	5220	16.63	18.00	17.5	
		CH 48	5240	16.51	18.00	17.5	
	802.11n-HT40 MCS0	CH 38	5190	16.71	18.00	17.5	90.31
		CH 46	5230	16.88	18.00	17.5	
	802.11ac-VHT20 MCS0	CH 36	5180	16.36	18.00	17.5	97.93
		CH 44	5220	16.47	18.00	17.5	
		CH 48	5240	16.41	18.00	17.5	
	802.11ac-VHT40 MCS0	CH 38	5190	16.87	18.00	17.5	91.75
CH 46		5230	16.91	18.00	17.5		
802.11ac-VHT80 MCS0	CH 42	5210	16.92	18.00	17.5	95.36	

5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	16.93	18.00	17.5	97.82
		CH 60	5300	17.80	19.00	17.5	
		CH 64	5320	17.95	19.00	17.5	
	802.11n-HT20 MCS0	CH 52	5260	16.77	18.00	17.5	97.92
		CH 60	5300	17.54	19.00	17.5	
		CH 64	5320	17.72	19.00	17.5	
	802.11n-HT40 MCS0	CH 54	5270	17.32	19.00	17.5	90.31
		CH 62	5310	17.84	19.00	17.5	
	802.11ac-VHT20 MCS0	CH 52	5260	16.67	18.00	17.5	97.93
		CH 60	5300	17.46	19.00	17.5	
		CH 64	5320	17.69	19.00	17.5	
	802.11ac-VHT40 MCS0	CH 54	5270	17.25	19.00	17.5	91.75
CH 62		5310	17.89	19.00	17.5		
802.11ac-VHT80 MCS0	CH 58	5290	17.59	19.00	17.5	95.36	

5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	17.93	19.00	17.5	97.82
		CH 120	5600	16.90	18.00	17.5	
		CH 144	5720	17.22	19.00	17.5	
	802.11n-HT20 MCS0	CH 100	5500	17.81	19.00	17.5	97.92
		CH 120	5600	16.77	18.00	17.5	
		CH 144	5720	17.11	19.00	17.5	
	802.11n-HT40 MCS0	CH 102	5510	17.75	19.00	17.5	90.31
		CH 126	5630	16.96	18.00	17.5	
CH 142		5710	17.36	19.00	17.5		

	802.11ac-VHT20 MCS0	CH 100	5500	17.66	19.00	17.5	97.93
		CH 120	5600	16.62	18.00	17.5	
		CH 144	5720	17.08	19.00	17.5	
	802.11ac-VHT40 MCS0	CH 102	5510	17.69	19.00	17.5	91.75
		CH 126	5630	16.64	18.00	17.5	
		CH 142	5710	17.44	19.00	17.5	
	802.11ac-VHT80 MCS0	CH 106	5530	17.43	19.00	17.5	95.36
		CH 122	5610	16.73	18.00	17.5	
		CH 138	5690	17.30	19.00	17.5	

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps		CH 149	5745	17.48	19.00	17.5
CH 157			5785	17.26	19.00	17.5	
CH 165			5825	16.39	18.00	17.5	
802.11n-HT20 MCS0		CH 149	5745	17.34	19.00	17.5	97.92
		CH 157	5785	17.13	19.00	17.5	
		CH 165	5825	16.16	18.00	17.5	
802.11n-HT40 MCS0		CH 151	5755	17.25	19.00	17.5	90.31
		CH 159	5795	17.11	19.00	17.5	
802.11ac-VHT20 MCS0		CH 149	5745	17.28	19.00	17.5	97.93
		CH 157	5785	17.06	19.00	17.5	
		CH 165	5825	16.23	18.00	17.5	
802.11ac-VHT40 MCS0		CH 151	5755	17.31	19.00	17.5	91.75
		CH 159	5795	17.14	19.00	17.5	
802.11ac-VHT80 MCS0		CH 155	5775	17.34	19.00	17.5	95.36

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	9.98	7.02	6.88
	CH 39	2441	9.39	6.22	6.18
	CH 78	2480	9.46	6.34	6.37
Tune-up Limit			11	9	8
Duty Cycle %			77.07	76.8	76.67

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
LE	CH 00	2402	3.59	0.94	N/A
	CH 19	2440	3.72	1.01	N/A
	CH 39	2480	4.38	1.66	N/A
Tune-up Limit			6	3	N/A
Duty Cycle %			62.4	32	N/A

### Reduced Power Level 1

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	29.45	29.48	29.46	30.50	20.45	20.48	20.46	21.50	0.05
GPRS 1 Tx slot	29.44	29.49	29.47	30.50	20.44	20.49	20.47	21.50	
GPRS 2 Tx slots	27.14	27.19	27.15	28.00	21.14	21.19	21.15	22.00	0.05
GPRS 3 Tx slots	25.09	25.11	25.04	26.00	20.83	20.85	20.78	21.74	0.07
GPRS 4 Tx slots	24.11	24.14	24.13	25.00	21.11	21.14	21.13	22.00	0.03
EDGE 1 Tx slot	24.08	24.10	24.18	25.00	15.08	15.10	15.18	16.00	0.10
EDGE 2 Tx slots	21.06	21.05	21.02	22.00	15.06	15.05	15.02	16.00	0.04
EDGE 3 Tx slots	19.34	19.22	19.26	20.00	15.08	14.96	15.00	15.74	0.12
EDGE 4 Tx slots	18.69	18.54	18.68	19.50	15.69	15.54	15.68	16.50	0.15
Mode		Max.	29.49			Max.	21.19		
Attenuator	Cable Loss : 0.6								
Date	2022.1.17								

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	25.95	26.07	25.98	27.00	16.95	17.07	16.98	18.00	0.13
GPRS 1 Tx slot	25.97	26.08	26.00	27.00	16.97	17.08	17.00	18.00	
GPRS 2 Tx slots	23.68	23.71	23.66	24.50	17.68	17.71	17.66	18.50	0.05
GPRS 3 Tx slots	21.60	21.63	21.60	22.50	17.34	17.37	17.34	18.24	0.03
GPRS 4 Tx slots	20.63	20.69	20.66	21.50	17.63	17.69	17.66	18.50	0.06
EDGE 1 Tx slot	22.72	22.73	22.69	23.50	13.72	13.73	13.69	14.50	0.04
EDGE 2 Tx slots	19.76	19.65	19.74	20.50	13.76	13.65	13.74	14.50	0.11
EDGE 3 Tx slots	17.64	17.69	17.65	18.50	13.38	13.43	13.39	14.24	0.05
EDGE 4 Tx slots	17.06	17.03	16.91	18.00	14.06	14.03	13.91	15.00	0.15
Mode		Max.	26.08			Max.	17.71		
Attenuator	Cable Loss : 0.8								
Date	2022.1.17								

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		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	16.14	16.16	16.11	17.00	16.12	16.15	16.13	17.00	21.55	21.57	21.51	22.50
3GPP Rel 6	HSDPA Subtest-1	14.59	14.57	14.53	15.50	14.87	14.80	14.85	15.50	20.37	20.45	20.34	21.50
3GPP Rel 6	HSDPA Subtest-2	14.72	14.59	14.54	15.50	14.88	14.82	14.86	15.50	20.39	20.47	20.54	21.50
3GPP Rel 6	HSDPA Subtest-3	14.24	14.20	14.17	15.00	14.50	14.45	14.38	15.50	19.71	19.99	20.03	21.00
3GPP Rel 6	HSDPA Subtest-4	14.25	14.22	14.18	15.00	14.60	14.33	14.35	15.50	19.72	19.91	19.95	21.00
3GPP Rel 8	DC-HSDPA Subtest-1	14.99	14.89	14.89	15.50	15.22	15.09	15.20	16.00	20.61	20.60	20.53	21.50
3GPP Rel 8	DC-HSDPA Subtest-2	15.01	14.91	14.90	16.00	15.21	15.10	15.16	16.00	20.63	20.60	20.51	21.50
3GPP Rel 8	DC-HSDPA Subtest-3	14.24	14.36	14.38	15.00	14.71	14.58	14.67	15.50	20.13	20.18	20.17	21.00
3GPP Rel 8	DC-HSDPA Subtest-4	14.23	14.41	14.38	15.00	14.72	14.58	14.68	15.50	20.13	20.19	20.17	21.00
3GPP Rel 6	HSUPA Subtest-1	14.61	14.63	14.56	15.50	14.96	14.92	14.90	15.50	20.44	20.53	20.62	21.50
3GPP Rel 6	HSUPA Subtest-2	14.05	14.17	14.01	15.00	14.45	14.38	14.40	15.50	19.90	19.99	19.96	20.50
3GPP Rel 6	HSUPA Subtest-3	14.80	14.76	14.67	15.50	15.09	14.94	14.92	15.50	20.47	20.52	20.49	21.50
3GPP Rel 6	HSUPA Subtest-4	14.63	14.68	14.60	15.50	14.96	14.89	14.92	15.50	20.41	20.50	20.43	21.50
3GPP Rel 6	HSUPA Subtest-5	14.77	14.72	14.63	15.50	15.07	15.01	14.91	16.00	20.44	20.50	20.56	21.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	14.74	14.66	14.70	15.50	14.66	14.57	14.55	15.50	20.23	20.30	20.52	21.50
Attenuator		Cable Loss		0.8		Cable Loss		0.8		Cable Loss		0.6	
Mode		Max.	16.16			Max.	16.15			Max.	21.57		
Date	2022.1.17				2022.1.17				2022.1.17				

Band 2 (1900MHz Band)							
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	16.50	16.53	16.47	17.5
20	QPSK	1	49	16.48	16.42	16.35	
20	QPSK	1	99	16.42	16.38	16.36	
20	QPSK	50	0	15.58	15.67	15.60	16.5
20	QPSK	50	24	15.59	15.64	15.64	
20	QPSK	50	50	15.64	15.60	15.66	
20	QPSK	100	0	15.57	15.66	15.62	16.5
20	16QAM	1	0	15.63	15.63	15.65	
20	16QAM	1	49	15.47	15.77	15.73	
20	16QAM	1	99	15.72	15.57	15.97	16.5
20	16QAM	50	0	15.65	15.62	15.60	
20	16QAM	50	24	15.61	15.66	15.67	
20	16QAM	50	50	15.69	15.66	15.73	16.5
20	16QAM	100	0	15.72	15.73	15.60	
20	64QAM	1	0	14.67	14.86	14.60	
20	64QAM	1	49	14.62	14.80	14.71	15.5
20	64QAM	1	99	14.57	14.90	14.90	
20	64QAM	50	0	14.67	14.59	14.64	
20	64QAM	50	24	14.70	14.64	14.69	15.5
20	64QAM	50	50	14.69	14.70	14.64	
20	64QAM	100	0	14.57	14.54	14.55	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	16.31	16.34	16.25	17.5
15	QPSK	1	37	16.10	16.46	16.34	
15	QPSK	1	74	16.47	16.39	16.47	
15	QPSK	36	0	15.44	15.33	15.52	16.5
15	QPSK	36	20	15.43	15.62	15.59	
15	QPSK	36	39	15.55	15.56	15.53	
15	QPSK	75	0	15.47	15.53	15.49	16.5
15	16QAM	1	0	15.56	15.64	15.58	
15	16QAM	1	37	15.69	15.72	15.58	
15	16QAM	1	74	15.64	15.76	15.76	16.5
15	16QAM	36	0	15.43	15.48	15.51	
15	16QAM	36	20	15.52	15.45	15.58	
15	16QAM	36	39	15.57	15.66	15.63	16.5
15	16QAM	75	0	15.44	15.46	15.55	
15	64QAM	1	0	14.64	14.40	14.46	
15	64QAM	1	37	14.63	14.44	14.86	15.5
15	64QAM	1	74	14.52	14.56	14.71	
15	64QAM	36	0	14.37	14.54	14.42	
15	64QAM	36	20	14.57	14.59	14.49	15.5
15	64QAM	36	39	14.45	14.50	14.59	
15	64QAM	75	0	14.44	14.51	14.50	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	16.35	16.34	16.44	17.5
10	QPSK	1	25	16.39	16.42	16.37	
10	QPSK	1	49	16.35	16.38	16.35	
10	QPSK	25	0	15.62	15.63	15.59	16.5
10	QPSK	25	12	15.58	15.70	15.63	
10	QPSK	25	25	15.49	15.62	15.58	
10	QPSK	50	0	15.55	15.64	15.62	16.5
10	16QAM	1	0	16.03	15.96	15.95	
10	16QAM	1	25	15.72	15.68	15.75	
10	16QAM	1	49	15.67	15.75	15.54	16.5
10	16QAM	25	0	15.57	15.56	15.53	
10	16QAM	25	12	15.73	15.53	15.53	
10	16QAM	25	25	15.53	15.73	15.83	16.5
10	16QAM	50	0	16.10	16.03	16.07	
10	64QAM	1	0	14.61	14.66	14.66	
10	64QAM	1	25	14.64	14.69	14.73	15.5
10	64QAM	1	49	14.31	14.44	14.41	
10	64QAM	25	0	14.61	14.65	14.66	
10	64QAM	25	12	14.64	14.62	14.63	15.5
10	64QAM	25	25	14.57	14.35	14.57	
10	64QAM	50	0	14.58	14.58	14.55	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	16.35	16.40	16.34	17.5
5	QPSK	1	12	16.34	16.29	16.32	
5	QPSK	1	24	16.30	16.38	16.39	
5	QPSK	12	0	15.47	15.38	15.45	16.5
5	QPSK	12	7	15.48	15.53	15.45	
5	QPSK	12	13	15.47	15.46	15.49	
5	QPSK	25	0	15.46	15.44	15.46	16.5
5	16QAM	1	0	15.59	15.49	15.87	
5	16QAM	1	12	15.57	15.50	15.87	
5	16QAM	1	24	15.60	15.47	15.86	16.5
5	16QAM	12	0	15.69	15.83	15.69	
5	16QAM	12	7	15.59	15.59	15.39	
5	16QAM	12	13	15.39	15.72	15.49	16.5
5	16QAM	25	0	15.49	15.95	15.93	
5	64QAM	1	0	14.69	14.41	14.46	
5	64QAM	1	12	14.85	14.51	14.62	15.5
5	64QAM	1	24	14.86	14.50	14.52	
5	64QAM	12	0	14.51	14.44	14.43	
5	64QAM	12	7	14.57	14.41	14.41	15.5
5	64QAM	12	13	14.54	14.50	14.48	
5	64QAM	25	0	14.61	14.41	14.48	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	16.29	16.36	16.28	17.5
3	QPSK	1	8	16.39	16.42	16.25	
3	QPSK	1	14	16.40	16.27	16.27	
3	QPSK	8	0	15.35	15.30	15.32	16.5
3	QPSK	8	4	15.41	15.35	15.36	
3	QPSK	8	7	15.41	15.35	15.31	
3	QPSK	15	0	15.33	15.41	15.34	16.5
3	16QAM	1	0	15.49	15.40	15.34	
3	16QAM	1	8	15.53	15.47	15.43	
3	16QAM	1	14	15.46	15.43	15.31	

Band 4 (AWS Band)							
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	15.48	15.56	15.55	16.5
20	QPSK	1	49	15.34	15.42	15.41	
20	QPSK	1	99	15.26	15.39	15.51	
20	QPSK	50	0	14.64	14.68	14.65	15.5
20	QPSK	50	24	14.55	14.63	14.63	
20	QPSK	50	50	14.44	14.55	14.56	
20	QPSK	100	0	14.54	14.58	14.65	15.5
20	16QAM	1	0	14.41	14.71	14.58	
20	16QAM	1	49	14.56	14.33	14.47	
20	16QAM	1	99	14.35	14.57	14.41	15.5
20	16QAM	50	0	14.54	14.47	14.61	
20	16QAM	50	24	14.80	14.91	14.80	
20	16QAM	50	50	14.76	14.77	14.77	15.5
20	16QAM	100	0	14.78	14.86	14.87	
20	64QAM	1	0	13.52	13.63	13.85	
20	64QAM	1	49	13.56	13.49	13.37	14.5
20	64QAM	1	99	13.83	13.40	13.87	
20	64QAM	50	0	13.53	13.62	13.57	
20	64QAM	50	24	13.55	13.66	13.60	14.5
20	64QAM	50	50	13.59	13.54	13.56	
20	64QAM	100	0	13.62	13.60	13.69	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	15.35	15.39	15.49	16.5
15	QPSK	1	37	15.39	15.48	15.40	
15	QPSK	1	74	15.26	15.48	15.51	
15	QPSK	36	0	14.49	14.56	14.59	15.5
15	QPSK	36	20	14.53	14.66	14.62	
15	QPSK	36	39	14.58	14.57	14.66	
15	QPSK	75	0	14.53	14.55	14.56	15.5
15	16QAM	1	0	14.47	14.69	14.41	
15	16QAM	1	37	14.55	14.55	14.39	
15	16QAM	1	74	14.41	14.71	14.50	15.5
15	16QAM	36	0	14.42	14.44	14.63	
15	16QAM	36	20	14.37	14.44	14.50	
15	16QAM	36	39	14.33	14.42	14.48	15.5
15	16QAM	75	0	14.44	14.45	14.54	
15	64QAM	1	0	13.39	13.70	13.75	
15	64QAM	1	37	13.81	13.57	13.63	14.5
15	64QAM	1	74	13.85	13.56	13.60	
15	64QAM	36	0	13.50	13.57	13.61	
15	64QAM	36	20	13.56	13.58	13.60	14.5
15	64QAM	36	39	13.59	13.55	13.57	
15	64QAM	75	0	13.52	13.63	13.56	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	15.47	15.46	15.29	16.5
10	QPSK	1	25	15.45	15.38	15.39	
10	QPSK	1	49	15.33	15.16	15.39	
10	QPSK	25	0	14.32	14.54	14.56	15.5
10	QPSK	25	12	14.44	14.50	14.54	
10	QPSK	25	25	14.33	14.44	14.51	
10	QPSK	50	0	14.39	14.49	14.41	15.5
10	16QAM	1	0	14.38	14.53	14.29	
10	16QAM	1	25	14.65	14.39	14.71	
10	16QAM	1	49	14.72	14.62	14.61</	

3	16QAM	8	0	15.89	16.02	15.94	16.5
3	16QAM	8	4	15.96	15.93	15.99	
3	16QAM	8	7	15.86	15.91	15.94	
3	16QAM	15	0	15.89	15.93	15.88	
3	64QAM	1	0	14.42	14.35	14.38	
3	64QAM	1	8	14.84	14.83	14.43	
3	64QAM	1	14	14.45	14.81	14.45	
3	64QAM	8	0	14.37	14.39	14.23	
3	64QAM	8	4	14.47	14.37	14.37	
3	64QAM	8	7	14.57	14.46	14.32	
3	64QAM	15	0	14.42	14.42	14.40	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	16.35	16.38	16.33	17.5
1.4	QPSK	1	3	16.25	16.23	16.22	
1.4	QPSK	1	5	16.22	16.20	16.18	
1.4	QPSK	3	0	16.22	16.22	16.18	
1.4	QPSK	3	1	16.26	16.23	16.21	
1.4	QPSK	3	3	16.28	16.32	16.21	
1.4	QPSK	6	0	15.31	15.29	15.28	
1.4	16QAM	1	0	15.34	15.34	15.28	
1.4	16QAM	1	3	15.30	15.50	15.48	
1.4	16QAM	1	5	15.18	15.38	15.06	
1.4	16QAM	3	0	15.20	15.25	15.22	
1.4	16QAM	3	1	15.38	15.20	15.25	
1.4	16QAM	3	3	15.40	15.37	15.11	
1.4	16QAM	6	0	15.41	15.34	15.29	
1.4	64QAM	1	0	14.29	14.21	14.24	
1.4	64QAM	1	3	14.31	14.52	14.40	
1.4	64QAM	1	5	14.29	14.64	14.23	
1.4	64QAM	3	0	14.32	14.38	14.39	
1.4	64QAM	3	1	14.41	14.38	14.59	
1.4	64QAM	3	3	14.33	14.47	14.24	
1.4	64QAM	6	0	14.38	14.41	14.30	
Channel				19607	19900	19993	Tune-up limit (dBm)
Frequency (MHz)				1950.7	1980	1999.3	

3	16QAM	8	0	14.40	14.41	14.50	15.5
3	16QAM	8	4	14.50	14.50	14.51	
3	16QAM	8	7	14.72	14.80	14.84	
3	16QAM	15	0	14.72	14.70	14.77	
3	64QAM	1	0	13.39	13.48	13.46	
3	64QAM	1	8	13.58	13.46	13.62	
3	64QAM	1	14	13.39	13.46	13.29	
3	64QAM	8	0	13.37	13.41	13.35	
3	64QAM	8	4	13.49	13.47	13.51	
3	64QAM	8	7	13.43	13.50	13.62	
3	64QAM	15	0	13.39	13.47	13.38	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.6	1754.3	
1.4	QPSK	1	0	15.44	15.49	15.47	16.5
1.4	QPSK	1	3	15.38	15.38	15.42	
1.4	QPSK	1	5	15.24	15.33	15.35	
1.4	QPSK	3	0	15.32	15.29	15.28	
1.4	QPSK	3	1	15.28	15.38	15.43	
1.4	QPSK	3	3	15.27	15.34	15.33	
1.4	QPSK	6	0	14.43	14.45	14.41	
1.4	16QAM	1	0	14.37	14.84	14.50	
1.4	16QAM	1	3	14.50	14.58	14.62	
1.4	16QAM	1	5	14.56	14.72	14.52	
1.4	16QAM	3	0	14.59	14.63	14.54	
1.4	16QAM	3	1	14.60	14.63	14.65	
1.4	16QAM	3	3	14.59	14.71	14.60	
1.4	16QAM	6	0	14.50	14.51	14.42	
1.4	64QAM	1	0	13.28	13.22	13.36	
1.4	64QAM	1	3	13.54	13.52	13.64	
1.4	64QAM	1	5	13.45	13.41	13.25	
1.4	64QAM	3	0	13.36	13.34	13.53	
1.4	64QAM	3	1	13.27	13.42	13.39	
1.4	64QAM	3	3	13.33	13.50	13.38	
1.4	64QAM	6	0	13.32	13.33	13.40	
Channel				20957	21175	21393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.6	1754.3	

Band 5 (Cellular Band)										
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)			
Channel				20450	20525	20600				
Frequency (MHz)				829	836.5	844				
10	QPSK	1	0	21.47	21.48	21.40	22.5			
10	QPSK	1	25	21.33	21.36	21.16				
10	QPSK	1	49	21.25	21.37	21.05				
10	QPSK	25	0	20.56	20.58	20.39	21.5			
10	QPSK	25	12	20.32	20.34	20.39				
10	QPSK	25	25	20.32	20.43	20.48				
10	QPSK	50	0	20.38	20.26	20.40	21.5			
10	16QAM	1	0	20.42	20.61	20.32				
10	16QAM	1	25	20.65	20.68	20.36				
10	16QAM	1	49	20.48	20.54	20.61	21.5			
10	16QAM	25	0	20.57	20.58	20.40				
10	16QAM	25	12	20.51	20.59	20.37				
10	16QAM	25	25	20.54	20.47	20.50	21.5			
10	16QAM	50	0	20.55	20.46	20.36				
10	64QAM	1	0	19.51	19.61	19.49				
10	64QAM	1	25	19.48	19.68	19.48	20.5			
10	64QAM	1	49	19.37	19.59	19.50				
10	64QAM	25	0	19.48	19.59	19.26				
10	64QAM	25	12	19.47	19.64	19.35	20.5			
10	64QAM	25	25	19.59	19.48	19.18				
10	64QAM	50	0	19.55	19.51	19.37				
Channel				20425	20525	20625	Tune-up limit (dBm)			
Frequency (MHz)				826.5	836.5	846.5				
5	QPSK	1	0	21.42	21.38	21.36	22.5			
5	QPSK	1	12	21.32	21.43	21.27				
5	QPSK	1	24	21.32	21.27	21.27				
5	QPSK	12	0	20.47	20.52	20.38	21.5			
5	QPSK	12	7	20.54	20.55	20.47				
5	QPSK	12	13	20.59	20.43	20.38				
5	QPSK	25	0	20.50	20.46	20.38	21.5			
5	16QAM	1	0	20.79	20.72	20.48				
5	16QAM	1	12	20.49	20.71	20.47				
5	16QAM	1	24	20.36	20.71	20.54	21.5			
5	16QAM	12	0	20.45	20.54	20.53				
5	16QAM	12	7	20.52	20.55	20.37				
5	16QAM	12	13	20.52	20.43	20.48	21.5			
5	16QAM	25	0	20.53	20.58	20.53				
5	64QAM	1	0	19.60	19.48	19.59				
5	64QAM	1	12	19.48	19.42	19.56	20.5			
5	64QAM	1	24	19.62	19.46	19.40				
5	64QAM	12	0	19.34	19.48	19.28				
5	64QAM	12	7	19.38	19.54	19.32	20.5			
5	64QAM	12	13	19.56	19.51	19.08				
5	64QAM	25	0	19.44	19.51	19.12				
Channel				20415	20525	20635	Tune-up limit (dBm)			
Frequency (MHz)				825.5	836.5	847.5				
3	QPSK	1	0	21.41	21.42	21.27	22.5			
3	QPSK	1	8	21.37	21.38	21.29				
3	QPSK	1	14	21.38	21.36	21.10				
3	QPSK	8	0	20.40	20.53	20.51	21.5			
3	QPSK	8	4	20.54	20.60	20.57				
3	QPSK	8	7	20.49	20.51	20.38				
3	QPSK	15	0	20.47	20.53	20.52	21.5			
3	16QAM	1	0	20.49	20.60	20.67				
3	16QAM	1	8	20.42	20.68	20.52				
3	16QAM	1	14	20.47	20.73	20.48	21.5			
3	16QAM	8	0	20.43	20.52	20.26				
3	16QAM	8	4	20.59	20.70	20.27				
3	16QAM	8	7	20.51	20.57	20.31	21.5			
3	16QAM	15	0	20.45	20.47	20.02				
3	64QAM	1	0	19.40	19.28	19.49				
3	64QAM	1	8	19.28	19.52	19.28	20.5			
3	64QAM	1	14	19.30	19.48	19.29				
3	64QAM	8	0	19.40	19.50	19.48				
3	64QAM	8	4	19.62	19.46	19.40	20.5			
3	64QAM	8	7	19.57	19.49	19.46				
3	64QAM	15	0	19.46	19.56	19.36				
Channel				20407	20525	20643	Tune-up limit (dBm)			
Frequency (MHz)				824.7	836.5	848.3				
1.4	QPSK	1	0	21.42	21.39	21.43	22.5			
1.4	QPSK	1	3	21.45	21.38	21.45				
1.4	QPSK	1	5	21.34	21.28	21.29				
1.4	QPSK	3	0	21.35	21.41	21.37	21.5			
1.4	QPSK	3	1	21.41	21.28	21.38				
1.4	QPSK	3	3	21.42	21.34	21.34				
1.4	QPSK	6	0	20.45	20.44	20.43	21.5			
1.4	16QAM	1	0	20.58	20.39	20.56				
1.4	16QAM	1	3	20.38	20.62	20.51				
1.4	16QAM	1	5	20.77	20.45	20.51	21.5			
1.4	16QAM	3	0	20.30	20.28	20.42				
1.4	16QAM	3	1	20.33	20.60	20.46				
1.4	16QAM	3	3	20.41	20.52	20.40	21.5			
1.4	16QAM	6	0	20.60	20.47	20.51				
1.4	64QAM	1	0	19.13	19.30	19.32				
1.4	64QAM	1	3	19.44	19.45	19.40	20.5			
1.4	64QAM	1	5	19.39	19.38	19.26				
1.4	64QAM	3	0	19.05	19.32	19.33				
1.4	64QAM	3	1	19.33	19.27	19.28	20.5			
1.4	64QAM	3	3	19.23	19.40	19.44				
1.4	64QAM	6	0	19.44	19.56	19.45				

Band 7 (2600MHz Band)										
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	15.03	15.04	14.96	16			
20	QPSK	1	49	14.98	15.02	14.91				
20	QPSK	1	99	14.93	14.88	14.93				
20	QPSK	50	0	14.09	14.16	14.13	15			
20	QPSK	50	24	13.85	13.82	13.72				
20	QPSK	50	50	13.95	13.98	13.95				
20	QPSK	100	0	13.90	13.92	13.89	15			
20	16QAM	1	0	13.71	13.81	13.99				
20	16QAM	1	49	13.86	13.72	14.00				
20	16QAM	1	99	13.80	14.11	13.76	15			
20	16QAM	50	0	13.65	13.75	13.68				
20	16QAM	50	24	13.70	13.62	13.73				
20	16QAM	50	50	13.78	13.83	13.66	15			
20	16QAM	100	0	13.66	13.78	13.76				
20	64QAM	1	0	12.54	12.70	12.72				
20	64QAM	1	49	12.82	12.79	12.84	14			
20	64QAM	1	99	12.80	12.85	12.76				
20	64QAM	50	0	12.74	12.75	12.80				
20	64QAM	50	24	12.79	12.80	12.80	14			
20	64QAM	50	50	12.83	12.90	12.75				
20	64QAM	100	0	12.76	12.73	12.85				
Channel				20825	21100	21375	Tune-up limit (dBm)			
Frequency (MHz)				2507.5	2535	2562.5				
15	QPSK	1	0	14.86	14.95	14.95	16			
15	QPSK	1	37	14.96	14.93	14.97				
15	QPSK	1	74	14.90	14.97	14.97				
15	QPSK	36	0	13.68	13.77	13.79	15			
15	QPSK	36	20	13.76	13.83	13.78				
15	QPSK	36	39	13.79	13.82	13.86				
15	QPSK	75	0	13.85	13.78	13.80	15			
15	16QAM	1	0	14.21	14.32	14.39				
15	16QAM	1	37	14.03	14.14	14.12				
15	16QAM	1	74	14.07	14.07	14.29	15			
15	16QAM	36	0	13.66	13.77	13.79				
15	16QAM	36	20	13.73	13.76	13.75				
15	16QAM	36	39	13.79	13.77	13.66	15			
15	16QAM	75	0	13.74	13.82	13.74				
15	64QAM	1	0	12.64	12.61	12.49				
15	64QAM	1	37	12.54	12.69	12.78	14			
15	64QAM	1	74	12.53	12.65	12.71				
15	64QAM	36	0	12.72	12.80	12.79				
15	64QAM	36	20	12.83	12.82	12.89	14			
15	64QAM	36	39	12.87	12.78	12.80				
15	64QAM	75	0	12.72	12.82	12.77				
Channel				20800	21100	21400	Tune-up limit (dBm)			
Frequency (MHz)				2505	2535	2565				
10	QPSK	1	0	14.85	14.72	14.75	16			
10	QPSK	1	25	14.88	14.78	14.80				
10	QPSK	1	49	14.81	14.78	14.80				
10	QPSK	25	0	13.60	13.60	13.59	15			
10	QPSK	25	12	13.56	13.68	13.73				
10	QPSK	25	25	13.49	13.67	13.67				

### 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	15.50	15.56	15.54	16.5
20	QPSK	1	49	15.35	15.34	15.30	
20	QPSK	1	99	15.28	15.27	15.30	
20	QPSK	50	0	14.73	14.80	14.76	15.5
20	QPSK	50	24	14.54	14.56	14.69	
20	QPSK	50	50	14.58	14.66	14.54	
20	QPSK	100	0	14.56	14.56	14.48	15.5
20	16QAM	1	0	14.61	14.37	14.65	
20	16QAM	1	49	14.66	14.40	14.46	
20	16QAM	1	99	14.66	14.84	14.63	15.5
20	16QAM	50	0	14.78	14.75	14.72	
20	16QAM	50	24	14.67	14.67	14.68	
20	16QAM	50	50	14.64	14.56	14.52	15.5
20	16QAM	100	0	14.60	14.63	14.69	
20	64QAM	1	0	13.93	13.70	14.03	
20	64QAM	1	49	13.70	14.03	14.02	14.5
20	64QAM	1	99	13.93	14.05	14.13	
20	64QAM	50	0	13.89	13.79	13.92	
20	64QAM	50	24	13.83	13.77	13.89	14.5
20	64QAM	50	50	13.85	13.73	13.79	
20	64QAM	100	0	13.84	13.84	13.82	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	15.48	15.52	15.50	16.5
15	QPSK	1	37	15.52	15.48	15.46	
15	QPSK	1	74	15.46	15.42	15.40	
15	QPSK	36	0	14.67	14.64	14.68	15.5
15	QPSK	36	20	14.67	14.59	14.69	
15	QPSK	36	39	14.53	14.58	14.55	
15	QPSK	75	0	14.62	14.66	14.59	15.5
15	16QAM	1	0	14.61	14.48	14.78	
15	16QAM	1	37	14.48	14.78	14.71	
15	16QAM	1	74	14.58	14.48	14.48	15.5
15	16QAM	36	0	14.79	14.79	14.70	
15	16QAM	36	20	14.82	14.81	14.87	
15	16QAM	36	39	14.74	14.89	14.83	15.5
15	16QAM	75	0	14.84	14.82	14.78	
15	64QAM	1	0	14.15	14.05	14.15	
15	64QAM	1	37	14.17	13.95	14.05	14.5
15	64QAM	1	74	13.82	14.08	14.15	
15	64QAM	36	0	13.94	13.93	14.06	
15	64QAM	36	20	14.04	14.00	14.01	14.5
15	64QAM	36	39	13.93	13.87	13.91	
15	64QAM	75	0	13.95	13.97	13.94	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	15.51	15.51	15.52	16.5
10	QPSK	1	25	15.41	15.39	15.47	
10	QPSK	1	49	15.55	15.43	15.33	
10	QPSK	25	0	14.98	14.91	14.98	15.5
10	QPSK	25	12	14.95	15.14	14.92	
10	QPSK	25	25	14.91	14.87	14.79	
10	QPSK	50	0	14.99	14.84	15.03	15.5
10	16QAM	1	0	14.91	14.91	15.11	
10	16QAM	1	25	14.91	15.00	15.12	
10	16QAM	1	49	14.74	14.94	14.82	15.5
10	16QAM	25	0	14.75	14.92	14.80	
10	16QAM	25	12	14.74	14.94	14.85	
10	16QAM	25	25	14.65	14.70	14.70	15.5
10	16QAM	50	0	14.81	14.65	14.86	
10	64QAM	1	0	13.98	13.98	13.65	
10	64QAM	1	25	13.65	13.78	13.68	14.5
10	64QAM	1	49	13.65	13.65	13.65	
10	64QAM	25	0	13.98	13.96	13.98	
10	64QAM	25	12	13.97	14.01	14.05	14.5
10	64QAM	25	25	13.97	13.90	13.92	
10	64QAM	50	0	13.87	13.97	13.98	
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	15.40	15.43	15.48	16.5
5	QPSK	1	12	15.43	15.43	15.42	
5	QPSK	1	24	15.51	15.41	15.47	
5	QPSK	12	0	14.67	14.69	14.65	15.5
5	QPSK	12	7	14.69	14.77	14.70	
5	QPSK	12	13	14.55	14.61	14.62	
5	QPSK	25	0	14.65	14.66	14.65	15.5
5	16QAM	1	0	15.14	14.83	14.84	
5	16QAM	1	12	14.77	15.06	15.01	
5	16QAM	1	24	14.89	14.78	15.13	15.5
5	16QAM	12	0	14.78	14.89	14.85	
5	16QAM	12	7	14.95	14.87	14.99	
5	16QAM	12	13	14.86	14.80	14.87	15.5
5	16QAM	25	0	14.87	14.89	14.81	
5	64QAM	1	0	13.65	14.05	13.85	
5	64QAM	1	12	13.95	13.95	13.95	14.5
5	64QAM	1	24	13.78	13.82	13.78	
5	64QAM	12	0	14.02	13.77	13.98	
5	64QAM	12	7	14.10	13.69	14.00	14.5
5	64QAM	12	13	13.93	14.05	14.00	
5	64QAM	25	0	14.00	14.08	13.95	
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1776.5	
3	QPSK	1	0	15.47	15.38	15.37	16.5
3	QPSK	1	8	15.34	15.35	15.43	
3	QPSK	1	14	15.25	15.06	15.36	
3	QPSK	8	0	14.93	14.90	14.94	15.5
3	QPSK	8	4	14.88	14.80	14.90	
3	QPSK	8	7	14.74	14.79	14.76	
3	QPSK	15	0	14.83	14.87	14.80	15.5
3	16QAM	1	0	14.52	14.93	14.69	
3	16QAM	1	8	14.85	14.79	14.78	
3	16QAM	1	14	14.89	14.78	14.48	



3	16QAM	8	0	14.70	14.70	14.61	15.5
3	16QAM	8	4	14.73	14.72	14.78	
3	16QAM	8	7	14.65	14.80	14.74	
3	16QAM	15	0	14.75	14.73	14.69	14.5
3	64QAM	1	0	14.06	13.96	14.06	
3	64QAM	1	8	14.08	13.86	13.96	
3	64QAM	1	14	13.73	13.99	14.06	14.5
3	64QAM	8	0	13.85	13.84	13.97	
3	64QAM	8	4	13.95	13.91	13.92	
3	64QAM	8	7	13.84	13.78	13.82	14.5
3	64QAM	15	0	13.86	13.88	13.85	
Channel				131979	132322	132685	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	15.41	15.32	15.33	16.5
1.4	QPSK	1	3	15.47	15.49	15.49	
1.4	QPSK	1	5	15.39	15.27	15.43	
1.4	QPSK	3	0	15.38	15.31	15.38	
1.4	QPSK	3	1	15.35	15.41	15.32	
1.4	QPSK	3	3	15.36	15.32	15.24	
1.4	QPSK	6	0	14.96	14.81	15.00	15.5
1.4	16QAM	1	0	14.83	14.83	15.03	15.5
1.4	16QAM	1	3	14.83	14.92	15.04	
1.4	16QAM	1	5	14.66	14.86	14.74	
1.4	16QAM	3	0	14.61	14.58	14.84	
1.4	16QAM	3	1	14.70	14.60	14.72	
1.4	16QAM	3	3	14.71	14.72	14.66	
1.4	16QAM	6	0	14.60	14.51	14.52	15.5
1.4	64QAM	1	0	14.11	13.96	14.12	14.5
1.4	64QAM	1	3	13.84	13.93	13.93	
1.4	64QAM	1	5	13.81	13.81	13.92	
1.4	64QAM	3	0	13.90	13.88	13.90	
1.4	64QAM	3	1	13.89	13.93	13.97	
1.4	64QAM	3	3	13.89	13.82	13.84	
1.4	64QAM	6	0	13.79	13.89	13.90	14.5

Band 38(only on channel required)								
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	18.97	19.04	19.01	20	
20	QPSK	1	49	18.96	18.98	18.98		
20	QPSK	1	99	18.88	18.94	18.91		
20	QPSK	50	0	18.08	18.30	18.16	19	
20	QPSK	50	24	18.01	18.08	18.04		
20	QPSK	50	50	18.05	18.10	18.04		
20	QPSK	100	0	17.93	18.04	18.07	19	
20	16QAM	1	0	18.05	18.05	17.98		
20	16QAM	1	49	18.04	17.64	18.04		
20	16QAM	1	99	18.20	18.19	18.30	19	
20	16QAM	50	0	18.05	18.19	17.80		
20	16QAM	50	24	18.16	17.98	17.89		
20	16QAM	50	50	18.15	17.79	17.83	19	
20	16QAM	100	0	18.16	18.19	17.85		
20	64QAM	1	0	17.32	17.60	17.63		
20	64QAM	1	49	17.32	17.51	17.61	18	
20	64QAM	1	99	17.34	17.61	17.65		
20	64QAM	50	0	17.33	17.32	17.21		
20	64QAM	50	24	17.35	17.31	17.30	18	
20	64QAM	50	50	17.33	17.10	17.32		
20	64QAM	100	0	17.33	17.29	17.20		
Channel				37825	38000	38175	Tune-up limit (dBm)	
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	18.94	18.94	18.95	20	
15	QPSK	1	37	18.95	18.87	18.98		
15	QPSK	1	74	18.76	18.98	18.95		
15	QPSK	36	0	18.07	18.32	18.36	19	
15	QPSK	36	20	18.21	18.30	18.28		
15	QPSK	36	39	18.28	18.26	18.19		
15	QPSK	75	0	18.16	18.16	18.17	19	
15	16QAM	1	0	18.24	18.26	18.16		
15	16QAM	1	37	18.26	18.30	17.98		
15	16QAM	1	74	18.27	18.17	17.97	19	
15	16QAM	36	0	18.04	18.00	17.89		
15	16QAM	36	20	18.02	18.16	17.93		
15	16QAM	36	39	18.04	18.06	17.91	19	
15	16QAM	75	0	18.00	17.95	17.89		
15	64QAM	1	0	17.46	17.35	17.51		
15	64QAM	1	37	17.34	17.35	17.33	18	
15	64QAM	1	74	17.29	17.37	17.54		
15	64QAM	36	0	17.21	17.36	17.29		
15	64QAM	36	20	17.49	17.35	17.23	18	
15	64QAM	36	39	17.33	17.33	17.34		
15	64QAM	75	0	17.51	17.33	17.37		
Channel				37800	38000	38200	Tune-up limit (dBm)	
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	18.97	18.98	18.98	20	
10	QPSK	1	25	18.97	18.77	18.97		
10	QPSK	1	49	18.91	18.93	18.96		
10	QPSK	25	0	18.06	17.92	17.92	19	
10	QPSK	25	12	18.26	18.22	17.93		
10	QPSK	25	25	18.27	18.29	17.89		
10	QPSK	50	0	18.28	18.20	17.92	19	
10	16QAM	1	0	18.14	17.91	18.22		
10	16QAM	1	25	18.02	17.92	18.32		
10	16QAM	1	49	18.39	17.95	18.04	19	
10	16QAM	25	0	17.89	18.00	17.96		
10	16QAM	25	12	18.19	17.89	18.02		
10	16QAM	25	25	17.89	18.03	18.08	19	
10	16QAM	50	0	18.01	18.05	17.97		
10	64QAM	1	0	17.36	17.39	17.32		
10	64QAM	1	25	17.27	17.52	17.42	18	
10	64QAM	1	49	17.63	17.37	17.42		
10	64QAM	25	0	17.22	17.22	17.32		
10	64QAM	25	12	17.22	17.42	17.43	18	
10	64QAM	25	25	17.18	17.38	17.34		
10	64QAM	50	0	17.24	17.40	17.30		
Channel				37775	38000	38225	Tune-up limit (dBm)	
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	18.92	18.93	18.96	20	
5	QPSK	1	12	18.77	18.98	18.96		
5	QPSK	1	24	18.77	18.76	18.75		
5	QPSK	12	0	18.19	18.67	18.26	19	
5	QPSK	12	7	18.33	18.32	18.32		
5	QPSK	12	13	18.21	18.23	18.25		
5	QPSK	25	0	18.25	18.26	17.92	19	
5	16QAM	1	0	18.43	18.54	18.44		
5	16QAM	1	12	18.04	18.22	17.92		
5	16QAM	1	24	18.04	18.05	18.04	19	
5	16QAM	12	0	18.05	18.10	18.04		
5	16QAM	12	7	18.04	18.06	18.04		
5	16QAM	12	13	17.95	18.07	18.04	19	
5	16QAM	25	0	18.22	17.94	18.12		
5	64QAM	1	0	17.33	17.66	17.27		
5	64QAM	1	12	17.60	17.60	17.67	18	
5	64QAM	1	24	17.60	17.60	17.57		
5	64QAM	12	0	17.28	17.40	17.36		
5	64QAM	12	7	17.37	17.38	17.29	18	
5	64QAM	12	13	17.36	17.39	17.26		
5	64QAM	25	0	17.40	17.42	17.33		

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	18.95	19.05	19.07	19.00	19.01	20
20	QPSK	1	49	18.91	19.00	19.00	19.01	19.01	
20	QPSK	1	99	18.85	19.01	18.96	19.06	18.81	
20	QPSK	50	0	18.11	18.13	18.17	18.15	18.10	19
20	QPSK	50	24	18.11	18.09	17.94	17.91	17.91	
20	QPSK	50	50	18.14	18.07	17.99	17.98	18.05	
20	QPSK	100	0	18.11	18.14	18.05	17.99	17.95	19
20	16QAM	1	0	18.15	18.31	17.98	18.05	17.95	
20	16QAM	1	49	18.14	18.19	17.98	17.93	17.95	
20	16QAM	1	99	18.21	18.11	18.05	18.03	18.05	19
20	16QAM	50	0	18.12	18.21	17.98	18.28	17.95	
20	16QAM	50	24	18.10	18.42	17.95	18.05	17.95	
20	16QAM	50	50	18.16	18.48	18.41	18.02	18.05	19
20	16QAM	100	0	18.10	18.11	18.36	18.05	17.94	
20	64QAM	1	0	17.53	17.44	17.44	17.27	17.23	
20	64QAM	1	49	17.46	17.56	17.26	17.55	17.23	18
20	64QAM	1	99	17.36	17.31	17.22	17.31	17.19	
20	64QAM	50	0	17.32	17.28	17.25	17.20	17.29	
20	64QAM	50	24	17.17	17.44	17.32	17.29	17.22	18
20	64QAM	50	50	17.27	17.43	17.46	17.35	17.28	
20	64QAM	100	0	17.25	17.53	17.49	17.17	17.29	
Channel				40115	40378	40640	40903	41165	Tune-up limit (dBm)
Frequency (MHz)				2542.5	2568.8	2595	2621.3	2647.5	
15	QPSK	1	0	18.61	18.77	18.97	18.84	18.83	20
15	QPSK	1	37	18.60	18.95	19.01	18.84	18.94	
15	QPSK	1	74	18.60	18.93	18.94	18.77	18.74	
15	QPSK	36	0	17.77	18.11	17.96	18.16	18.77	19
15	QPSK	36	20	18.02	18.16	17.96	18.12	18.84	
15	QPSK	36	39	18.18	18.19	17.95	18.15	18.79	
15	QPSK	75	0	17.96	18.21	17.98	18.18	18.76	19
15	16QAM	1	0	17.90	18.02	18.35	17.96	18.15	
15	16QAM	1	37	18.11	18.19	17.92	18.02	18.16	
15	16QAM	1	74	18.07	18.11	17.49	17.86	17.78	19
15	16QAM	36	0	17.94	18.18	17.89	18.05	18.23	
15	16QAM	36	20	17.99	18.12	17.85	18.01	18.25	
15	16QAM	36	39	18.06	18.25	18.35	18.05	18.01	19
15	16QAM	75	0	17.97	18.26	17.83	18.05	17.61	
15	64QAM	1	0	17.35	17.25	17.49	17.13	17.63	
15	64QAM	1	37	17.63	17.39	17.63	17.26	16.75	18
15	64QAM	1	74	17.60	17.32	17.42	17.60	16.48	
15	64QAM	36	0	17.04	17.38	17.20	17.34	17.12	
15	64QAM	36	20	17.19	17.49	17.64	17.27	17.13	18
15	64QAM	36	39	17.14	17.48	17.61	17.33	17.22	
15	64QAM	75	0	17.12	17.49	17.61	17.37	17.14	
Channel				40990	40965	40640	40915	41190	Tune-up limit (dBm)
Frequency (MHz)				2540	2567.5	2595	2622.5	2650	
10	QPSK	1	0	18.65	18.86	18.94	18.82	18.81	20
10	QPSK	1	25	18.85	18.91	18.81	18.77	18.76	
10	QPSK	1	49	18.62	18.78	19.01	19.01	18.77	
10	QPSK	25							

2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	15.50	17.00	15.00	98.79
		CH 6	2437	14.67	16.00	15.00	
		CH 11	2462	15.77	17.00	15.00	
	802.11g 6Mbps	CH 1	2412	14.20	16.00	14.00	97.58
		CH 6	2437	13.49	15.00	14.00	
		CH 11	2462	14.62	16.00	14.00	
	802.11n-HT20 MCS0	CH 1	2412	14.02	16.00	14.00	97.92
		CH 6	2437	13.54	15.00	14.00	
		CH 11	2462	14.36	16.00	14.00	
802.11n-HT40 MCS0	CH 3	2422	14.12	16.00	14.00	97.66	
	CH 6	2437	14.89	16.00	14.00		
	CH 9	2452	14.56	16.00	14.00		
802.11ac-VHT20 MCS0	CH 1	2412	14.04	16.00	14.00	97.68	
	CH 6	2437	13.55	15.00	14.00		
	CH 11	2462	14.44	16.00	14.00		
802.11ac-VHT40 MCS0	CH 3	2422	14.14	16.00	14.00	89.50	
	CH 6	2437	14.91	16.00	14.00		
	CH 9	2452	14.67	16.00	14.00		

5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	10.95	12.50	12.0	97.82
		CH 44	5220	11.44	12.50	12.0	
		CH 48	5240	11.12	12.50	12.0	
	802.11n-HT20 MCS0	CH 36	5180	10.99	12.50	12.0	97.92
		CH 44	5220	11.13	12.50	12.0	
		CH 48	5240	11.01	12.50	12.0	
	802.11n-HT40 MCS0	CH 38	5190	11.21	12.50	12.0	90.31
		CH 46	5230	11.38	12.50	12.0	
	802.11ac-VHT20 MCS0	CH 36	5180	10.86	12.50	12.0	97.93
CH 44		5220	10.97	12.50	12.0		
CH 48		5240	10.91	12.50	12.0		
802.11ac-VHT40 MCS0	CH 38	5190	11.37	12.50	12.0	91.75	
	CH 46	5230	11.41	12.50	12.0		
802.11ac-VHT80 MCS0	CH 42	5210	11.42	12.50	12.0	95.36	

5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	11.43	12.50	12.0	97.82
		CH 60	5300	12.30	13.50	12.0	
		CH 64	5320	12.45	13.50	12.0	
	802.11n-HT20 MCS0	CH 52	5260	11.27	12.50	12.0	97.92
		CH 60	5300	12.04	13.50	12.0	
		CH 64	5320	12.22	13.50	12.0	
	802.11n-HT40 MCS0	CH 54	5270	11.82	13.50	12.0	90.31
		CH 62	5310	12.34	13.50	12.0	
	802.11ac-VHT20 MCS0	CH 52	5260	11.17	12.50	12.0	97.93
CH 60		5300	11.96	13.50	12.0		
CH 64		5320	12.19	13.50	12.0		
802.11ac-VHT40 MCS0	CH 54	5270	11.75	13.50	12.0	91.75	
	CH 62	5310	12.39	13.50	12.0		
802.11ac-VHT80 MCS0	CH 58	5290	12.09	13.50	12.0	95.36	

5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	12.43	13.50	12.0	97.82
		CH 120	5600	11.40	12.50	12.0	
		CH 144	5720	11.72	13.50	12.0	
	802.11n-HT20 MCS0	CH 100	5500	12.31	13.50	12.0	97.92
		CH 120	5600	11.27	12.50	12.0	
		CH 144	5720	11.61	13.50	12.0	
	802.11n-HT40 MCS0	CH 102	5510	12.25	13.50	12.0	90.31
		CH 126	5630	11.46	12.50	12.0	
		CH 142	5710	11.86	13.50	12.0	

	802.11ac-VHT20 MCS0	CH 100	5500	<b>12.16</b>	13.50	12.0	97.93
		CH 120	5600	11.12	12.50	12.0	
		CH 144	5720	11.58	13.50	12.0	
	802.11ac-VHT40 MCS0	CH 102	5510	<b>12.19</b>	13.50	12.0	91.75
		CH 126	5630	11.14	12.50	12.0	
		CH 142	5710	11.94	13.50	12.0	
	802.11ac-VHT80 MCS0	CH 106	5530	<b>11.93</b>	13.50	12.0	95.36
		CH 122	5610	11.23	12.50	12.0	
		CH 138	5690	11.80	13.50	12.0	

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	<b>10.98</b>	12.50	11.0	97.82
		CH 157	5785	10.76	12.50	11.0	
		CH 165	5825	9.89	11.50	11.0	
	802.11n-HT20 MCS0	CH 149	5745	<b>10.84</b>	12.50	11.0	97.92
		CH 157	5785	10.63	12.50	11.0	
		CH 165	5825	9.66	11.50	11.0	
	802.11n-HT40 MCS0	CH 151	5755	<b>10.75</b>	12.50	11.0	90.31
		CH 159	5795	10.61	12.50	11.0	
	802.11ac-VHT20 MCS0	CH 149	5745	<b>10.78</b>	12.50	11.0	97.93
CH 157		5785	10.56	12.50	11.0		
CH 165		5825	9.73	11.50	11.0		
802.11ac-VHT40 MCS0	CH 151	5755	<b>10.81</b>	12.50	11.0	91.75	
	CH 159	5795	10.64	12.50	11.0		
802.11ac-VHT80 MCS0	CH 155	5775	<b>10.84</b>	12.50	11.0	95.36	

## Reduced Power Level 2

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	28.45	28.57	28.48	29.50	19.45	19.57	19.48	20.50
GPRS 1 Tx slot	28.47	28.58	28.50	29.50	19.47	19.58	19.50	20.50
GPRS 2 Tx slots	26.18	26.21	26.16	27.00	20.18	20.21	20.16	21.00
GPRS 3 Tx slots	24.10	24.13	24.10	25.00	19.84	19.87	19.84	20.74
GPRS 4 Tx slots	23.13	23.19	23.16	24.00	20.13	20.19	20.16	21.00
EDGE 1 Tx slot	25.22	25.23	25.19	26.00	16.22	16.23	16.19	17.00
EDGE 2 Tx slots	22.26	22.15	22.24	23.00	16.26	16.15	16.24	17.00
EDGE 3 Tx slots	20.14	20.19	20.15	21.00	15.88	15.93	15.89	16.74
EDGE 4 Tx slots	19.56	19.53	19.41	20.50	16.56	16.53	16.41	17.50
Mode		Max.	28.58			Max.	20.21	
Attenuator	Cable Loss : 0.8							
Date	2022.1.17							

Band TX Channel	WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99 RMC 12.2Kbps	20.14	20.16	20.11	21.00	21.12	21.15	21.13	22.00
3GPP Rel 6 HSDPA Subtest-1	18.59	18.57	18.53	19.50	19.87	19.80	19.85	20.50
3GPP Rel 6 HSDPA Subtest-2	18.72	18.59	18.54	19.50	19.88	19.82	19.86	20.50
3GPP Rel 6 HSDPA Subtest-3	18.24	18.20	18.17	19.00	19.50	19.45	19.38	20.50
3GPP Rel 6 HSDPA Subtest-4	18.25	18.22	18.18	19.00	19.60	19.33	19.35	20.50
3GPP Rel 8 DC-HSDPA Subtest-1	18.99	18.89	18.89	19.50	20.22	20.09	20.20	21.00
3GPP Rel 8 DC-HSDPA Subtest-2	19.01	18.91	18.90	19.50	20.21	20.10	20.16	21.00
3GPP Rel 8 DC-HSDPA Subtest-3	18.24	18.36	18.38	19.00	19.71	19.58	19.67	20.50
3GPP Rel 8 DC-HSDPA Subtest-4	18.23	18.41	18.38	19.00	19.72	19.58	19.68	20.50
3GPP Rel 6 HSUPA Subtest-1	18.61	18.63	18.56	19.50	19.96	19.92	19.90	20.50
3GPP Rel 6 HSUPA Subtest-2	18.05	18.17	18.01	19.00	19.45	19.38	19.40	20.50
3GPP Rel 6 HSUPA Subtest-3	18.80	18.76	18.67	19.50	20.09	19.94	19.92	20.50
3GPP Rel 6 HSUPA Subtest-4	18.63	18.68	18.60	19.50	19.96	19.89	19.92	20.50
3GPP Rel 6 HSUPA Subtest-5	18.77	18.72	18.63	19.50	20.07	20.01	19.91	21.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	18.74	18.66	18.70	19.50	19.66	19.57	19.55	20.50
Attenuator		Cable Loss	0.8			Cable Loss	0.8	
Mode		Max.	20.16			Max.	21.15	
Date	2022.1.17				2022.1.17			

Band 2 (1900MHz Band)							
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	19.50	19.53	19.47	20.5
20	QPSK	1	49	19.48	19.42	19.35	
20	QPSK	1	99	19.42	19.38	19.36	
20	QPSK	50	0	18.58	18.67	18.60	19.5
20	QPSK	50	24	18.59	18.64	18.64	
20	QPSK	50	50	18.64	18.60	18.66	
20	QPSK	100	0	18.57	18.66	18.62	19.5
20	16QAM	1	0	18.63	18.63	18.65	
20	16QAM	1	49	18.47	18.77	18.73	
20	16QAM	1	99	18.72	18.57	18.97	19.5
20	16QAM	50	0	18.65	18.62	18.60	
20	16QAM	50	24	18.61	18.66	18.67	
20	16QAM	50	50	18.69	18.66	18.73	19.5
20	16QAM	100	0	18.72	18.73	18.60	
20	64QAM	1	0	17.67	17.86	17.60	
20	64QAM	1	49	17.62	17.80	17.71	18.5
20	64QAM	1	99	17.57	17.90	17.90	
20	64QAM	50	0	17.67	17.59	17.64	
20	64QAM	50	24	17.70	17.64	17.69	18.5
20	64QAM	50	50	17.69	17.70	17.64	
20	64QAM	100	0	17.57	17.54	17.55	
Channel				18875	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	19.31	19.34	19.25	20.5
15	QPSK	1	37	19.10	19.46	19.34	
15	QPSK	1	74	19.47	19.39	19.47	
15	QPSK	36	0	18.44	18.53	18.52	19.5
15	QPSK	36	20	18.43	18.62	18.59	
15	QPSK	36	39	18.55	18.56	18.53	
15	QPSK	75	0	18.47	18.53	18.49	19.5
15	16QAM	1	0	18.56	18.64	18.58	
15	16QAM	1	37	18.69	18.72	18.58	
15	16QAM	1	74	18.64	18.76	18.76	19.5
15	16QAM	36	0	18.43	18.48	18.51	
15	16QAM	36	20	18.52	18.45	18.58	
15	16QAM	36	39	18.57	18.66	18.63	19.5
15	16QAM	75	0	18.44	18.46	18.55	
15	64QAM	1	0	17.64	17.40	17.46	
15	64QAM	1	37	17.63	17.44	17.86	18.5
15	64QAM	1	74	17.52	17.56	17.71	
15	64QAM	36	0	17.37	17.54	17.42	
15	64QAM	36	20	17.57	17.59	17.49	18.5
15	64QAM	36	39	17.45	17.50	17.59	
15	64QAM	75	0	17.44	17.51	17.50	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	19.35	19.34	19.44	20.5
10	QPSK	1	25	19.39	19.42	19.37	
10	QPSK	1	49	19.35	19.36	19.35	
10	QPSK	25	0	18.62	18.63	18.59	19.5
10	QPSK	25	12	18.58	18.70	18.63	
10	QPSK	25	25	18.49	18.62	18.58	
10	QPSK	50	0	18.55	18.64	18.62	19.5
10	16QAM	1	0	19.03	18.96	18.95	
10	16QAM	1	25	18.72	18.68	18.75	
10	16QAM	1	49	18.67	18.75	18.54	19.5
10	16QAM	25	0	18.57	18.56	18.53	
10	16QAM	25	12	18.73	18.53	18.53	
10	16QAM	25	25	18.53	18.73	18.83	19.5
10	16QAM	50	0	19.10	19.03	19.07	
10	64QAM	1	0	17.61	17.66	17.66	
10	64QAM	1	25	17.64	17.69	17.73	18.5
10	64QAM	1	49	17.31	17.44	17.41	
10	64QAM	25	0	17.61	17.65	17.66	
10	64QAM	25	12	17.64	17.62	17.63	18.5
10	64QAM	25	25	17.57	17.35	17.57	
10	64QAM	50	0	17.58	17.58	17.55	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	19.35	19.40	19.34	20.5
5	QPSK	1	12	19.34	19.29	19.32	
5	QPSK	1	24	19.30	19.38	19.39	
5	QPSK	12	0	18.47	18.38	18.45	19.5
5	QPSK	12	7	18.48	18.53	18.45	
5	QPSK	12	13	18.47	18.46	18.49	
5	QPSK	25	0	18.46	18.44	18.46	19.5
5	16QAM	1	0	18.59	18.49	18.87	
5	16QAM	1	12	18.57	18.50	18.87	
5	16QAM	1	24	18.60	18.47	18.86	19.5
5	16QAM	12	0	18.69	18.83	18.69	
5	16QAM	12	7	18.59	18.59	18.39	
5	16QAM	12	13	18.39	18.72	18.49	19.5
5	16QAM	25	0	18.49	18.95	18.93	
5	64QAM	1	0	17.69	17.41	17.46	
5	64QAM	1	12	17.85	17.51	17.62	18.5
5	64QAM	1	24	17.86	17.50	17.52	
5	64QAM	12	0	17.51	17.44	17.43	
5	64QAM	12	7	17.57	17.41	17.41	18.5
5	64QAM	12	13	17.54	17.50	17.48	
5	64QAM	25	0	17.61	17.41	17.48	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	19.29	19.36	19.28	20.5
3	QPSK	1	8	19.39	19.42	19.25	
3	QPSK	1	14	19.40	19.27	19.27	
3	QPSK	8	0	18.35	18.30	18.32	19.5
3	QPSK	8	4	18.41	18.35	18.36	
3	QPSK	8	7	18.41	18.35	18.31	
3	QPSK	15	0	18.33	18.41	18.34	19.5
3	16QAM	1	0	18.49	18.40	18.34	
3	16QAM	1	8	18.53	18.47	18.43	
3	16QAM	1	14	18.46	18.43	18.31	

Band 4 (AWS Band)							
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	20.48	20.56	20.55	21.5
20	QPSK	1	49	20.34	20.42	20.41	
20	QPSK	1	99	20.26	20.39	20.51	
20	QPSK	50	0	19.64	19.68	19.65	20.5
20	QPSK	50	24	19.55	19.63	19.63	
20	QPSK	50	50	19.44	19.55	19.56	
20	QPSK	100	0	19.54	19.58	19.65	20.5
20	16QAM	1	0	19.41	19.71	19.58	
20	16QAM	1	49	19.56	19.33	19.47	
20	16QAM	1	99	19.35	19.57	19.41	20.5
20	16QAM	50	0	19.54	19.47	19.61	
20	16QAM	50	24	19.80	19.91	19.80	
20	16QAM	50	50	19.76	19.77	19.77	19.5
20	16QAM	100	0	19.78	19.86	19.87	
20	64QAM	1	0	18.52	18.63	18.85	
20	64QAM	1	49	18.56	18.49	18.37	19.5
20	64QAM	1	99	18.83	18.40	18.87	
20	64QAM	50	0	18.53	18.62	18.57	
20	64QAM	50	24	18.55	18.66	18.60	19.5
20	64QAM	50	50	18.59	18.54	18.56	
20	64QAM	100	0	18.62	18.60	18.69	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	20.35	20.39	20.49	21.5
15	QPSK	1	37	20.39	20.48	20.40	
15	QPSK	1	74	20.26	20.48	20.51	
15	QPSK	36	0	19.49	19.56	19.59	20.5
15	QPSK	36	20	19.53	19.66	19.62	
15	QPSK	36	39	19.58	19.57	19.66	
15	QPSK	75	0	19.53	19.55	19.56	20.5
15	16QAM	1	0	19.47	19.69	19.41	
15	16QAM	1	37	19.55	19.55	19.39	
15	16QAM	1	74	19.41	19.71	19.50	20.5
15	16QAM	36	0	19.42	19.44	19.63	
15	16QAM	36	20	19.37	19.44	19.50	
15	16QAM	36	39	19.33	19.42	19.48	19.5
15	16QAM	75	0	19.44	19.45	19.54	
15	64QAM	1	0	18.39	18.70	18.75	
15	64QAM	1	37	18.81	18.57	18.63	19.5
15	64QAM	1	74	18.85	18.56	18.60	
15	64QAM	36	0	18.50	18.57	18.61	
15	64QAM	36	20	18.56	18.58	18.60	19.5
15	64QAM	36	39	18.59	18.55	18.57	
15	64QAM	75	0	18.52	18.63	18.56	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	20.47	20.46	20.29	21.5
10	QPSK	1	25	20.45	20.38	20.39	
10	QPSK	1	49	20.33	20.16	20.39	
10	QPSK	25	0	19.32	19.54	19.56	20.5
10	QPSK	25	12	19.44	19.50	19.54	
10	QPSK	25	25	19.33	19.44	19.51	
10	QPSK	50	0	19.39	19.49	19.41	20.5
10	16QAM	1	0	19.38	19.53	19.29	
10	16QAM	1	25	19.65	19.39	19.71	
10	16QAM	1	49	19.72	19.62	19.61</	

3	16QAM	8	0	18.89	19.02	18.94	19.5
3	16QAM	8	4	18.96	18.93	18.99	
3	16QAM	8	7	18.86	18.91	18.94	
3	16QAM	15	0	18.89	18.93	18.88	18.5
3	64QAM	1	0	17.42	17.35	17.38	
3	64QAM	1	8	17.84	17.83	17.43	
3	64QAM	1	14	17.45	17.81	17.45	18.5
3	64QAM	8	0	17.37	17.39	17.23	
3	64QAM	8	4	17.47	17.37	17.37	
3	64QAM	8	7	17.57	17.46	17.32	18.5
3	64QAM	15	0	17.42	17.42	17.40	
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	19.35	19.38	19.33	20.5
1.4	QPSK	1	3	19.25	19.23	19.22	
1.4	QPSK	1	5	19.22	19.20	19.18	
1.4	QPSK	3	0	19.22	19.22	19.18	
1.4	QPSK	3	1	19.26	19.23	19.21	
1.4	QPSK	3	3	19.28	19.32	19.21	
1.4	QPSK	6	0	18.31	18.29	18.28	19.5
1.4	16QAM	1	0	18.34	18.34	18.28	19.5
1.4	16QAM	1	3	18.30	18.50	18.48	
1.4	16QAM	1	5	18.18	18.38	18.06	
1.4	16QAM	3	0	18.20	18.25	18.22	
1.4	16QAM	3	1	18.38	18.20	18.25	
1.4	16QAM	3	3	18.40	18.37	18.11	
1.4	16QAM	6	0	18.41	18.34	18.29	19.5
1.4	64QAM	1	0	17.29	17.21	17.24	18.5
1.4	64QAM	1	3	17.31	17.52	17.40	
1.4	64QAM	1	5	17.29	17.64	17.23	
1.4	64QAM	3	0	17.32	17.38	17.39	
1.4	64QAM	3	1	17.41	17.38	17.59	
1.4	64QAM	3	3	17.33	17.47	17.24	
1.4	64QAM	6	0	17.38	17.41	17.30	18.5

3	16QAM	8	0	19.40	19.41	19.50	20.5
3	16QAM	8	4	19.50	19.50	19.51	
3	16QAM	8	7	19.72	19.80	19.84	
3	16QAM	15	0	19.72	19.70	19.77	19.5
3	64QAM	1	0	18.39	18.48	18.46	
3	64QAM	1	8	18.58	18.46	18.62	
3	64QAM	1	14	18.39	18.46	18.29	19.5
3	64QAM	8	0	18.37	18.41	18.35	
3	64QAM	8	4	18.49	18.47	18.51	
3	64QAM	8	7	18.43	18.50	18.62	19.5
3	64QAM	15	0	18.39	18.47	18.38	
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.6	1754.3	
1.4	QPSK	1	0	20.44	20.49	20.47	21.5
1.4	QPSK	1	3	20.38	20.38	20.42	
1.4	QPSK	1	5	20.24	20.33	20.35	
1.4	QPSK	3	0	20.32	20.29	20.28	
1.4	QPSK	3	1	20.28	20.38	20.43	
1.4	QPSK	3	3	20.27	20.34	20.33	
1.4	QPSK	6	0	19.43	19.45	19.41	20.5
1.4	16QAM	1	0	19.37	19.84	19.50	20.5
1.4	16QAM	1	3	19.50	19.58	19.62	
1.4	16QAM	1	5	19.56	19.72	19.52	
1.4	16QAM	3	0	19.59	19.63	19.54	
1.4	16QAM	3	1	19.60	19.63	19.65	
1.4	16QAM	3	3	19.59	19.71	19.60	
1.4	16QAM	6	0	19.50	19.51	19.42	20.5
1.4	64QAM	1	0	18.28	18.22	18.36	19.5
1.4	64QAM	1	3	18.54	18.52	18.64	
1.4	64QAM	1	5	18.45	18.41	18.25	
1.4	64QAM	3	0	18.36	18.34	18.53	
1.4	64QAM	3	1	18.27	18.42	18.39	
1.4	64QAM	3	3	18.33	18.50	18.38	
1.4	64QAM	6	0	18.32	18.33	18.40	19.5

Band 7 (2600MHz Band)							
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	16.53	16.54	16.46	17.5
20	QPSK	1	49	16.48	16.52	16.41	
20	QPSK	1	99	16.43	16.38	16.43	
20	QPSK	50	0	15.59	15.66	15.63	16.5
20	QPSK	50	24	15.35	15.32	15.22	
20	QPSK	50	50	15.45	15.48	15.45	
20	QPSK	100	0	15.40	15.42	15.39	16.5
20	16QAM	1	0	15.21	15.31	15.49	
20	16QAM	1	49	15.36	15.22	15.50	
20	16QAM	1	99	15.30	15.61	15.26	16.5
20	16QAM	50	0	15.15	15.25	15.18	
20	16QAM	50	24	15.20	15.12	15.23	
20	16QAM	50	50	15.28	15.33	15.16	16.5
20	16QAM	100	0	15.16	15.28	15.26	
20	64QAM	1	0	14.04	14.20	14.22	
20	64QAM	1	49	14.32	14.29	14.34	15.5
20	64QAM	1	99	14.30	14.35	14.26	
20	64QAM	50	0	14.24	14.25	14.30	
20	64QAM	50	24	14.29	14.30	14.30	15.5
20	64QAM	50	50	14.33	14.40	14.25	
20	64QAM	100	0	14.26	14.23	14.35	
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	16.36	16.45	16.45	17.5
15	QPSK	1	37	16.46	16.43	16.47	
15	QPSK	1	74	16.40	16.47	16.47	
15	QPSK	36	0	15.18	15.27	15.29	16.5
15	QPSK	36	20	15.26	15.33	15.28	
15	QPSK	36	39	15.29	15.32	15.36	
15	QPSK	75	0	15.35	15.28	15.30	16.5
15	16QAM	1	0	15.71	15.82	15.89	
15	16QAM	1	37	15.53	15.64	15.62	
15	16QAM	1	74	15.57	15.57	15.79	16.5
15	16QAM	36	0	15.16	15.27	15.29	
15	16QAM	36	20	15.23	15.26	15.25	
15	16QAM	36	39	15.29	15.27	15.16	16.5
15	16QAM	75	0	15.24	15.32	15.24	
15	64QAM	1	0	14.14	14.11	13.99	
15	64QAM	1	37	14.04	14.19	14.28	15.5
15	64QAM	1	74	14.03	14.15	14.21	
15	64QAM	36	0	14.22	14.30	14.29	
15	64QAM	36	20	14.33	14.32	14.39	15.5
15	64QAM	36	39	14.37	14.28	14.30	
15	64QAM	75	0	14.22	14.32	14.27	
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	16.35	16.22	16.25	17.5
10	QPSK	1	25	16.38	16.28	16.30	
10	QPSK	1	49	16.31	16.28	16.30	
10	QPSK	25	0	15.10	15.10	15.09	16.5
10	QPSK	25	12	15.06	15.18	15.23	
10	QPSK	25	25	14.99	15.17	15.17	
10	QPSK	50	0	15.08	15.20	15.19	16.5
10	16QAM	1	0	15.33	15.51	15.36	
10	16QAM	1	25	15.32	15.34	15.39	
10	16QAM	1	49	15.79	15.69	15.60	16.5
10	16QAM	25	0	15.22	15.10	15.18	
10	16QAM	25	12	15.04	15.21	15.14	
10	16QAM	25	25	15.09	15.12	15.04	16.5
10	16QAM	50	0	15.12	15.21	15.06	
10	64QAM	1	0	14.14	14.10	14.08	
10	64QAM	1	25	14.17	14.42	14.25	15.5
10	64QAM	1	49	14.28	14.52	14.33	
10	64QAM	25	0	14.14	14.12	14.16	
10	64QAM	25	12	14.16	14.27	14.20	15.5
10	64QAM	25	25	14.09	13.99	13.98	
10	64QAM	50	0	14.03	14.09	14.01	
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	16.39	16.30	16.20	17.5
5	QPSK	1	12	16.26	16.19	16.27	
5	QPSK	1	24	16.20	16.26	16.30	
5	QPSK	12	0	14.90	14.98	14.90	16.5
5	QPSK	12	7	14.97	15.12	15.04	
5	QPSK	12	13	14.99	15.15	15.00	
5	QPSK	25	0	15.00	15.01	14.96	16.5
5	16QAM	1	0	15.18	15.16	15.22	
5	16QAM	1	12	15.23	15.45	15.35	
5	16QAM	1	24	15.29	15.48	15.30	16.5
5	16QAM	12	0	15.20	15.26	15.17	
5	16QAM	12	7	15.09	15.11	15.07	
5	16QAM	12	13	15.09	15.15	15.28	16.5
5	16QAM	25	0	15.06	15.11	15.13	
5	64QAM	1	0	14.24	14.29	14.25	
5	64QAM	1	12	14.29	14.41	14.29	15.5
5	64QAM	1	24	14.33	14.43	14.39	
5	64QAM	12	0	14.04	14.01	14.06	
5	64QAM	12	7	14.13	14.18	13.97	15.5
5	64QAM	12	13	14.08	14.17	14.03	
5	64QAM	25	0	14.03	14.02	14.07	

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	21.00	21.06	21.04	22
20	QPSK	1	49	20.85	20.84	20.80	
20	QPSK	1	99	20.78	20.77	20.80	
20	QPSK	50	0	20.23	20.30	20.26	21
20	QPSK	50	24	20.04	20.06	20.19	
20	QPSK	50	50	20.08	20.16	20.04	
20	QPSK	100	0	20.06	20.06	19.98	21
20	16QAM	1	0	20.11	19.87	20.15	
20	16QAM	1	49	20.16	19.90	19.96	
20	16QAM	1	99	20.16	20.34	20.13	21
20	16QAM	50	0	20.28	20.25	20.22	
20	16QAM	50	24	20.17	20.17	20.18	
20	16QAM	50	50	20.14	20.06	20.02	21
20	16QAM	100	0	20.10	20.13	20.19	
20	64QAM	1	0	19.43	19.20	19.53	
20	64QAM	1	49	19.20	19.53	19.52	20
20	64QAM	1	99	19.43	19.55	19.63	
20	64QAM	50	0	19.39	19.29	19.42	
20	64QAM	50	24	19.33	19.27	19.39	20
20	64QAM	50	50	19.35	19.23	19.29	
20	64QAM	100	0	19.34	19.34	19.32	
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	20.98	21.02	21.00	22
15	QPSK	1	37	21.02	20.98	20.96	
15	QPSK	1	74	20.96	20.92	20.90	
15	QPSK	36	0	20.17	20.14	20.18	21
15	QPSK	36	20	20.17	20.09	20.19	
15	QPSK	36	39	20.03	20.08	20.05	
15	QPSK	75	0	20.12	20.16	20.09	21
15	16QAM	1	0	20.11	19.98	20.28	
15	16QAM	1	37	19.98	20.28	20.21	
15	16QAM	1	74	20.08	19.98	19.98	21
15	16QAM	36	0	20.29	20.29	20.20	
15	16QAM	36	20	20.32	20.31	20.37	
15	16QAM	36	39	20.24	20.39	20.33	21
15	16QAM	75	0	20.34	20.32	20.28	
15	64QAM	1	0	19.65	19.55	19.65	
15	64QAM	1	37	19.67	19.45	19.55	20
15	64QAM	1	74	19.32	19.58	19.65	
15	64QAM	36	0	19.44	19.43	19.56	
15	64QAM	36	20	19.54	19.50	19.51	20
15	64QAM	36	39	19.43	19.37	19.41	
15	64QAM	75	0	19.45	19.47	19.44	
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	21.01	21.01	21.02	22
10	QPSK	1	25	20.91	20.89	20.97	
10	QPSK	1	49	21.05	20.93	20.83	
10	QPSK	25	0	20.48	20.41	20.48	21
10	QPSK	25	12	20.45	20.64	20.42	
10	QPSK	25	25	20.41	20.37	20.29	
10	QPSK	50	0	20.49	20.34	20.53	21
10	16QAM	1	0	20.41	20.41	20.61	
10	16QAM	1	25	20.41	20.50	20.62	
10	16QAM	1	49	20.24	20.44	20.32	21
10	16QAM	25	0	20.25	20.42	20.30	
10	16QAM	25	12	20.24	20.44	20.35	
10	16QAM	25	25	20.15	20.20	20.20	21
10	16QAM	50	0	20.31	20.35	20.36	
10	64QAM	1	0	19.48	19.48	19.15	
10	64QAM	1	25	19.15	19.28	19.18	20
10	64QAM	1	49	19.15	19.15	19.15	
10	64QAM	25	0	19.48	19.46	19.48	
10	64QAM	25	12	19.47	19.51	19.55	20
10	64QAM	25	25	19.47	19.40	19.42	
10	64QAM	50	0	19.37	19.47	19.48	
Channel				131997	132322		



3	16QAM	8	0	20.20	20.20	20.11	21
3	16QAM	8	4	20.23	20.22	20.28	
3	16QAM	8	7	20.15	20.30	20.24	
3	16QAM	15	0	20.25	20.23	20.19	
3	64QAM	1	0	19.56	19.46	19.56	20
3	64QAM	1	8	19.58	19.36	19.46	
3	64QAM	1	14	19.23	19.49	19.56	
3	64QAM	8	0	19.35	19.34	19.47	20
3	64QAM	8	4	19.45	19.41	19.42	
3	64QAM	8	7	19.34	19.28	19.32	
3	64QAM	15	0	19.36	19.38	19.35	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	20.91	20.82	20.83	22
1.4	QPSK	1	3	20.97	20.99	20.99	
1.4	QPSK	1	5	20.89	20.77	20.93	
1.4	QPSK	3	0	20.88	20.81	20.88	
1.4	QPSK	3	1	20.85	20.91	20.82	
1.4	QPSK	3	3	20.86	20.82	20.74	
1.4	QPSK	6	0	20.46	20.31	20.50	21
1.4	16QAM	1	0	20.33	20.33	20.53	21
1.4	16QAM	1	3	20.33	20.42	20.54	
1.4	16QAM	1	5	20.16	20.36	20.24	
1.4	16QAM	3	0	20.11	20.08	20.34	
1.4	16QAM	3	1	20.20	20.10	20.22	
1.4	16QAM	3	3	20.21	20.22	20.16	
1.4	16QAM	6	0	20.10	20.01	20.02	21
1.4	64QAM	1	0	19.61	19.46	19.62	20
1.4	64QAM	1	3	19.34	19.43	19.43	
1.4	64QAM	1	5	19.31	19.31	19.42	
1.4	64QAM	3	0	19.40	19.38	19.40	
1.4	64QAM	3	1	19.39	19.43	19.47	
1.4	64QAM	3	3	19.39	19.32	19.34	
1.4	64QAM	6	0	19.29	19.39	19.40	20

### Reduced Power Level 3

GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
TX Channel	1850.2	1880	1909.8		1850.2	1880	1909.8	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	26.45	26.57	26.48	27.50	17.45	17.57	17.48	18.50
GPRS 1 Tx slot	26.47	26.58	26.50	27.50	17.47	17.58	17.50	18.50
GPRS 2 Tx slots	24.18	24.21	24.16	25.00	18.18	18.21	18.16	19.00
GPRS 3 Tx slots	22.10	22.13	22.10	23.00	17.84	17.87	17.84	18.74
GPRS 4 Tx slots	21.13	21.19	21.16	22.00	18.13	18.19	18.16	19.00
EDGE 1 Tx slot	23.22	23.23	23.19	24.00	14.22	14.23	14.19	15.00
EDGE 2 Tx slots	20.26	20.15	20.24	21.00	14.26	14.15	14.24	15.00
EDGE 3 Tx slots	18.14	18.19	18.15	19.00	13.88	13.93	13.89	14.74
EDGE 4 Tx slots	17.56	17.53	17.41	18.50	14.56	14.53	14.41	15.50
Mode		Max.	26.58			Max.	18.21	
Attenuator	Cable Loss : 0.8							
Date	2022.1.17							

Band	WCDMA Band II			Tune-up Limit (dBm)	WCDMA Band IV			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		
TX Channel	9662	9800	9938		1537	1638	1738		
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	20.14	20.16	20.11	21.00	20.12	20.15	20.13	21.00
3GPP Rel 6	HSDPA Subtest-1	18.59	18.57	18.53	19.50	18.87	18.80	18.85	19.50
3GPP Rel 6	HSDPA Subtest-2	18.72	18.59	18.54	19.50	18.88	18.82	18.86	19.50
3GPP Rel 6	HSDPA Subtest-3	18.24	18.20	18.17	19.00	18.50	18.45	18.38	19.50
3GPP Rel 6	HSDPA Subtest-4	18.25	18.22	18.18	19.00	18.60	18.33	18.35	19.50
3GPP Rel 8	DC-HSDPA Subtest-1	18.99	18.89	18.89	19.50	19.22	19.09	19.20	20.00
3GPP Rel 8	DC-HSDPA Subtest-2	19.01	18.91	18.90	19.50	19.21	19.10	19.16	20.00
3GPP Rel 8	DC-HSDPA Subtest-3	18.24	18.36	18.38	19.00	18.71	18.58	18.67	19.50
3GPP Rel 8	DC-HSDPA Subtest-4	18.23	18.41	18.38	19.00	18.72	18.58	18.68	19.50
3GPP Rel 6	HSUPA Subtest-1	18.61	18.63	18.56	19.50	18.96	18.92	18.90	19.50
3GPP Rel 6	HSUPA Subtest-2	18.05	18.17	18.01	19.00	18.45	18.38	18.40	19.50
3GPP Rel 6	HSUPA Subtest-3	18.80	18.76	18.67	19.50	19.09	18.94	18.92	19.50
3GPP Rel 6	HSUPA Subtest-4	18.63	18.68	18.60	19.50	18.96	18.89	18.92	19.50
3GPP Rel 6	HSUPA Subtest-5	18.77	18.72	18.63	19.50	19.07	19.01	18.91	20.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	18.74	18.66	18.70	19.50	18.66	18.57	18.55	19.50
Attenuator		Cable Loss	0.8			Cable Loss	0.8		
Mode		Max.	20.16			Max.	20.15		
Date	2022.1.17				2022.1.17				

Band 2 (1900MHz Band)							
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	19.50	19.53	19.47	20.5
20	QPSK	1	49	19.48	19.42	19.35	
20	QPSK	1	99	19.42	19.38	19.36	
20	QPSK	50	0	18.59	18.67	18.60	19.5
20	QPSK	50	24	18.59	18.64	18.64	
20	QPSK	50	50	18.64	18.60	18.66	
20	QPSK	100	0	18.57	18.66	18.62	19.5
20	16QAM	1	0	18.63	18.63	18.65	
20	16QAM	1	49	18.47	18.77	18.73	
20	16QAM	1	99	18.72	18.57	18.97	19.5
20	16QAM	50	0	18.65	18.62	18.60	
20	16QAM	50	24	18.61	18.66	18.67	
20	16QAM	50	50	18.69	18.66	18.73	19.5
20	16QAM	100	0	18.72	18.73	18.60	
20	64QAM	1	0	17.67	17.86	17.60	
20	64QAM	1	49	17.62	17.80	17.71	18.5
20	64QAM	1	99	17.57	17.90	17.90	
20	64QAM	50	0	17.67	17.59	17.64	
20	64QAM	50	24	17.70	17.64	17.69	18.5
20	64QAM	50	50	17.69	17.70	17.64	
20	64QAM	100	0	17.57	17.54	17.55	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	19.31	19.34	19.25	20.5
15	QPSK	1	37	19.10	19.46	19.34	
15	QPSK	1	74	19.47	19.39	19.47	
15	QPSK	36	0	18.44	18.33	18.52	19.5
15	QPSK	36	20	18.43	18.62	18.59	
15	QPSK	36	39	18.55	18.56	18.53	
15	QPSK	75	0	18.47	18.53	18.49	19.5
15	16QAM	1	0	18.56	18.64	18.58	
15	16QAM	1	37	18.69	18.72	18.58	
15	16QAM	1	74	18.64	18.76	18.76	19.5
15	16QAM	36	0	18.43	18.48	18.51	
15	16QAM	36	20	18.52	18.45	18.58	
15	16QAM	36	39	18.57	18.66	18.63	19.5
15	16QAM	75	0	18.44	18.46	18.55	
15	64QAM	1	0	17.64	17.40	17.46	
15	64QAM	1	37	17.63	17.44	17.86	18.5
15	64QAM	1	74	17.52	17.56	17.71	
15	64QAM	36	0	17.37	17.54	17.42	
15	64QAM	36	20	17.57	17.59	17.49	18.5
15	64QAM	36	39	17.45	17.50	17.59	
15	64QAM	75	0	17.44	17.51	17.50	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	19.35	19.34	19.44	20.5
10	QPSK	1	25	19.39	19.42	19.37	
10	QPSK	1	49	19.35	19.36	19.35	
10	QPSK	25	0	18.62	18.63	18.59	19.5
10	QPSK	25	12	18.58	18.70	18.63	
10	QPSK	25	25	18.49	18.62	18.58	
10	QPSK	50	0	18.55	18.64	18.62	19.5
10	16QAM	1	0	19.03	18.96	18.95	
10	16QAM	1	25	18.72	18.68	18.75	
10	16QAM	1	49	18.67	18.75	18.54	19.5
10	16QAM	25	0	18.57	18.56	18.53	
10	16QAM	25	12	18.73	18.53	18.53	
10	16QAM	25	25	18.53	18.73	18.83	19.5
10	16QAM	50	0	19.10	19.03	19.07	
10	64QAM	1	0	17.61	17.66	17.66	
10	64QAM	1	25	17.64	17.69	17.73	18.5
10	64QAM	1	49	17.31	17.44	17.41	
10	64QAM	25	0	17.61	17.65	17.66	
10	64QAM	25	12	17.64	17.62	17.63	18.5
10	64QAM	25	25	17.57	17.35	17.57	
10	64QAM	50	0	17.58	17.58	17.55	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	19.35	19.40	19.34	20.5
5	QPSK	1	12	19.34	19.29	19.32	
5	QPSK	1	24	19.30	19.38	19.39	
5	QPSK	12	0	18.47	18.38	18.45	19.5
5	QPSK	12	7	18.48	18.53	18.45	
5	QPSK	12	13	18.47	18.46	18.49	
5	QPSK	25	0	18.46	18.44	18.46	19.5
5	16QAM	1	0	18.59	18.49	18.87	
5	16QAM	1	12	18.57	18.50	18.87	
5	16QAM	1	24	18.60	18.47	18.86	19.5
5	16QAM	12	0	18.69	18.83	18.69	
5	16QAM	12	7	18.59	18.59	18.39	
5	16QAM	12	13	18.39	18.72	18.49	19.5
5	16QAM	25	0	18.49	18.95	18.93	
5	64QAM	1	0	17.69	17.41	17.46	
5	64QAM	1	12	17.85	17.51	17.62	18.5
5	64QAM	1	24	17.86	17.50	17.52	
5	64QAM	12	0	17.51	17.44	17.43	
5	64QAM	12	7	17.57	17.41	17.41	18.5
5	64QAM	12	13	17.54	17.50	17.48	
5	64QAM	25	0	17.61	17.41	17.48	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	19.29	19.36	19.28	20.5
3	QPSK	1	8	19.39	19.42	19.25	
3	QPSK	1	14	19.40	19.27	19.27	
3	QPSK	8	0	18.35	18.30	18.32	19.5
3	QPSK	8	4	18.41	18.35	18.36	
3	QPSK	8	7	18.41	18.35	18.31	
3	QPSK	15	0	18.33	18.41	18.34	19.5
3	16QAM	1	0	18.49	18.40	18.34	
3	16QAM	1	8	18.53	18.47	18.43	
3	16QAM	1	14	18.46	18.43	18.31	

Band 4 (AWS Band)							
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	19.48	19.56	19.55	20.5
20	QPSK	1	49	19.34	19.42	19.41	
20	QPSK	1	99	19.26	19.39	19.51	
20	QPSK	50	0	18.64	18.68	18.65	19.5
20	QPSK	50	24	18.55	18.63	18.63	
20	QPSK	50	50	18.44	18.55	18.56	
20	QPSK	100	0	18.54	18.58	18.65	19.5
20	16QAM	1	0	18.41	18.71	18.58	
20	16QAM	1	49	18.56	18.33	18.47	
20	16QAM	1	99	18.35	18.57	18.41	19.5
20	16QAM	50	0	18.54	18.47	18.61	
20	16QAM	50	24	18.80	18.91	18.80	
20	16QAM	50	50	18.76	18.77	18.77	19.5
20	16QAM	100	0	18.78	18.86	18.87	
20	64QAM	1	0	17.52	17.63	17.85	
20	64QAM	1	49	17.56	17.49	17.37	18.5
20	64QAM	1	99	17.83	17.40	17.87	
20	64QAM	50	0	17.53	17.62	17.57	
20	64QAM	50	24	17.55	17.66	17.60	18.5
20	64QAM	50	50	17.59	17.54	17.56	
20	64QAM	100	0	17.62	17.60	17.69	
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	19.35	19.39	19.49	20.5
15	QPSK	1	37	19.39	19.48	19.40	
15	QPSK	1	74	19.26	19.48	19.51	
15	QPSK	36	0	18.49	18.56	18.59	19.5
15	QPSK	36	20	18.53	18.66	18.62	
15	QPSK	36	39	18.58	18.57	18.66	
15	QPSK	75	0	18.53	18.55	18.56	19.5
15	16QAM	1	0	18.47	18.69	18.41	
15	16QAM	1	37	18.55	18.55	18.39	
15	16QAM	1	74	18.41	18.71	18.50	19.5
15	16QAM	36	0	18.42	18.44	18.63	
15	16QAM	36	20	18.37	18.44	18.50	
15	16QAM	36	39	18.33	18.42	18.48	19.5
15	16QAM	75	0	18.44	18.45	18.54	
15	64QAM	1	0	17.39	17.70	17.75	
15	64QAM	1	37	17.81	17.57	17.63	18.5
15	64QAM	1	74	17.85	17.56	17.60	
15	64QAM	36	0	17.50	17.57	17.61	
15	64QAM	36	20	17.56	17.58	17.60	18.5
15	64QAM	36	39	17.59	17.55	17.57	
15	64QAM	75	0	17.52	17.63	17.56	
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	19.47	19.46	19.29	20.5
10	QPSK	1	25	19.45	19.38	19.39	
10	QPSK	1	49	19.33	19.16	19.39	
10	QPSK	25	0	18.32	18.54	18.56	19.5
10	QPSK	25	12	18.44	18.50	18.54	
10	QPSK	25	25	18.33	18.44	18.51	
10	QPSK	50	0	18.39	18.49	18.41	19.5
10	16QAM	1	0	18.38	18.53	18.29	
10	16QAM	1	25	18.65	18.39	18.71	
10	16QAM	1	49	18.72	18.62	18.61</	

3	16QAM	8	0	18.89	19.02	18.94	19.5
3	16QAM	8	4	18.96	18.93	18.99	
3	16QAM	8	7	18.86	18.91	18.94	
3	16QAM	15	0	18.89	18.93	18.88	
3	64QAM	1	0	17.42	17.35	17.38	
3	64QAM	1	8	17.84	17.83	17.43	
3	64QAM	1	14	17.45	17.81	17.45	
3	64QAM	8	0	17.37	17.39	17.23	
3	64QAM	8	4	17.47	17.37	17.37	
3	64QAM	8	7	17.57	17.46	17.32	
3	64QAM	15	0	17.42	17.42	17.40	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	19.35	19.38	19.33	20.5
1.4	QPSK	1	3	19.25	19.23	19.22	
1.4	QPSK	1	5	19.22	19.20	19.18	
1.4	QPSK	3	0	19.22	19.22	19.18	
1.4	QPSK	3	1	19.26	19.23	19.21	
1.4	QPSK	3	3	19.28	19.32	19.21	
1.4	QPSK	6	0	18.31	18.29	18.28	19.5
1.4	16QAM	1	0	18.34	18.34	18.28	19.5
1.4	16QAM	1	3	18.30	18.50	18.48	
1.4	16QAM	1	5	18.18	18.38	18.06	
1.4	16QAM	3	0	18.20	18.25	18.22	
1.4	16QAM	3	1	18.38	18.20	18.25	
1.4	16QAM	3	3	18.40	18.37	18.11	
1.4	16QAM	6	0	18.41	18.34	18.29	19.5
1.4	64QAM	1	0	17.29	17.21	17.24	18.5
1.4	64QAM	1	3	17.31	17.52	17.40	
1.4	64QAM	1	5	17.29	17.64	17.23	
1.4	64QAM	3	0	17.32	17.38	17.39	
1.4	64QAM	3	1	17.41	17.38	17.59	
1.4	64QAM	3	3	17.33	17.47	17.24	
1.4	64QAM	6	0	17.38	17.41	17.30	18.5

3	16QAM	8	0	18.40	18.41	18.50	19.5
3	16QAM	8	4	18.50	18.50	18.51	
3	16QAM	8	7	18.72	18.80	18.84	
3	16QAM	15	0	18.72	18.70	18.77	18.5
3	64QAM	1	0	17.39	17.48	17.46	
3	64QAM	1	8	17.58	17.46	17.62	
3	64QAM	1	14	17.39	17.46	17.29	18.5
3	64QAM	8	0	17.37	17.41	17.35	
3	64QAM	8	4	17.49	17.47	17.51	
3	64QAM	8	7	17.43	17.50	17.62	18.5
3	64QAM	15	0	17.39	17.47	17.38	
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.6	1754.3	
1.4	QPSK	1	0	19.44	19.49	19.47	20.5
1.4	QPSK	1	3	19.38	19.38	19.42	
1.4	QPSK	1	5	19.24	19.33	19.35	
1.4	QPSK	3	0	19.32	19.29	19.28	
1.4	QPSK	3	1	19.28	19.38	19.43	
1.4	QPSK	3	3	19.27	19.34	19.33	
1.4	QPSK	6	0	18.43	18.45	18.41	19.5
1.4	16QAM	1	0	18.37	18.84	18.50	19.5
1.4	16QAM	1	3	18.50	18.58	18.62	
1.4	16QAM	1	5	18.56	18.72	18.52	
1.4	16QAM	3	0	18.59	18.63	18.54	
1.4	16QAM	3	1	18.60	18.63	18.65	
1.4	16QAM	3	3	18.59	18.71	18.60	
1.4	16QAM	6	0	18.50	18.51	18.42	19.5
1.4	64QAM	1	0	17.28	17.22	17.36	18.5
1.4	64QAM	1	3	17.54	17.52	17.64	
1.4	64QAM	1	5	17.45	17.41	17.25	
1.4	64QAM	3	0	17.36	17.34	17.53	
1.4	64QAM	3	1	17.27	17.42	17.39	
1.4	64QAM	3	3	17.33	17.50	17.38	
1.4	64QAM	6	0	17.32	17.33	17.40	18.5

Band 7 (2600MHz Band)									
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	Tune-up limit (dBm)		
20	QPSK	1	0	20.53	20.54	20.46	21.5		
20	QPSK	1	49	20.48	20.52	20.41	21.5		
20	QPSK	1	99	20.43	20.38	20.43	21.5		
20	QPSK	50	0	19.59	19.66	19.63	20.5		
20	QPSK	50	24	19.35	19.32	19.22	20.5		
20	QPSK	50	50	19.45	19.48	19.45	20.5		
20	QPSK	100	0	19.40	19.42	19.39	20.5		
20	16QAM	1	0	19.21	19.31	19.46	20.5		
20	16QAM	1	49	19.36	19.22	19.50	20.5		
20	16QAM	1	99	19.30	19.61	19.26	20.5		
20	16QAM	50	0	19.15	19.25	19.18	20.5		
20	16QAM	50	24	19.20	19.12	19.23	20.5		
20	16QAM	50	50	19.28	19.33	19.16	20.5		
20	16QAM	100	0	19.16	19.28	19.26	20.5		
20	64QAM	1	0	18.04	18.20	18.22	19.5		
20	64QAM	1	49	18.32	18.29	18.34	19.5		
20	64QAM	1	99	18.30	18.35	18.26	19.5		
20	64QAM	50	0	18.24	18.25	18.30	19.5		
20	64QAM	50	24	18.29	18.30	18.30	19.5		
20	64QAM	50	50	18.33	18.40	18.25	19.5		
20	64QAM	100	0	18.26	18.23	18.35	19.5		
Channel				20825	21100	21375	Tune-up limit (dBm)		
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)		
15	QPSK	1	0	20.36	20.45	20.45	21.5		
15	QPSK	1	37	20.46	20.43	20.47	21.5		
15	QPSK	1	74	20.40	20.47	20.47	21.5		
15	QPSK	36	0	19.18	19.27	19.29	20.5		
15	QPSK	36	20	19.26	19.33	19.28	20.5		
15	QPSK	36	39	19.29	19.32	19.36	20.5		
15	QPSK	75	0	19.35	19.28	19.30	20.5		
15	16QAM	1	0	19.71	19.82	19.89	20.5		
15	16QAM	1	37	19.53	19.64	19.62	20.5		
15	16QAM	1	74	19.57	19.57	19.79	20.5		
15	16QAM	36	0	19.16	19.27	19.29	20.5		
15	16QAM	36	20	19.23	19.26	19.25	20.5		
15	16QAM	36	39	19.29	19.27	19.16	20.5		
15	16QAM	75	0	19.24	19.32	19.24	20.5		
15	64QAM	1	0	18.14	18.11	17.99	19.5		
15	64QAM	1	37	18.04	18.19	18.28	19.5		
15	64QAM	1	74	18.03	18.15	18.21	19.5		
15	64QAM	36	0	18.22	18.30	18.29	19.5		
15	64QAM	36	20	18.33	18.32	18.39	19.5		
15	64QAM	36	39	18.37	18.28	18.30	19.5		
15	64QAM	75	0	18.22	18.32	18.27	19.5		
Channel				20900	21100	21400	Tune-up limit (dBm)		
Frequency (MHz)				2505	2535	2565	Tune-up limit (dBm)		
10	QPSK	1	0	20.35	20.22	20.25	21.5		
10	QPSK	1	25	20.38	20.28	20.30	21.5		
10	QPSK	1	49	20.31	20.28	20.30	21.5		
10	QPSK	25	0	19.10	19.10	19.09	20.5		
10	QPSK	25	12	19.06	19.18	19.23	20.5		
10	QPSK	25	25	18.99	19.17	19.17	20.5		
10	QPSK	50	0	19.08	19.20	19.19	20.5		
10	16QAM	1	0	19.33	19.51	19.36	20.5		
10	16QAM	1	25	19.32	19.34	19.39	20.5		
10	16QAM	1	49	19.79	19.69	19.60	20.5		
10	16QAM	25	0	19.22	19.10	19.18	20.5		
10	16QAM	25	12	19.04	19.21	19.14	20.5		
10	16QAM	25	25	19.09	19.12	19.04	20.5		
10	16QAM	50	0	19.12	19.21	19.06	20.5		
10	64QAM	1	0	18.14	18.10	18.08	19.5		
10	64QAM	1	25	18.17	18.42	18.25	19.5		
10	64QAM	1	49	18.28	18.52	18.33	19.5		
10	64QAM	25	0	18.14	18.12	18.16	19.5		
10	64QAM	25	12	18.16	18.27	18.20	19.5		
10	64QAM	25	25	18.09	17.99	17.98	19.5		
10	64QAM	50	0	18.03	18.09	18.01	19.5		
Channel				20775	21100	21425	Tune-up limit (dBm)		
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)		
5	QPSK	1	0	20.39	20.30	20.20	21.5		
5	QPSK	1	12	20.26	20.19	20.27	21.5		
5	QPSK	1	24	20.20	20.26	20.30	21.5		
5	QPSK	12	0	18.90	18.98	18.90	20.5		
5	QPSK	12	7	18.97	19.12	19.04	20.5		
5	QPSK	12	13	18.99	19.15	19.00	20.5		
5	QPSK	25	0	19.00	19.01	18.96	20.5		
5	16QAM	1	0	19.18	19.16	19.22	20.5		
5	16QAM	1	12	19.23	19.45	19.35	20.5		
5	16QAM	1	24	19.29	19.48	19.30	20.5		
5	16QAM	12	0	19.20	19.26	19.17	20.5		
5	16QAM	12	7	19.09	19.11	19.07	20.5		
5	16QAM	12	13	19.09	19.15	19.28	20.5		
5	16QAM	25	0	19.06	19.11	19.13	20.5		
5	64QAM	1	0	18.24	18.29	18.25	19.5		
5	64QAM	1	12	18.29	18.41	18.29	19.5		
5	64QAM	1	24	18.33	18.43	18.39	19.5		
5	64QAM	12	0	18.04	18.01	18.06	19.5		
5	64QAM	12	7	18.13	18.18	17.97	19.5		
5	64QAM	12	13	18.08	18.17	18.03	19.5		
5	64QAM	25	0	18.03	18.02	18.07	19.5		

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	Tune-up limit (dBm)		
20	QPSK	1	0	20.00	20.06	20.04	21		
20	QPSK	1	49	19.85	19.84	19.80	21		
20	QPSK	1	99	19.78	19.77	19.80	21		
20	QPSK	50	0	19.23	19.30	19.26	20		
20	QPSK	50	24	19.04	19.06	19.19	20		
20	QPSK	50	50	19.08	19.16	19.04	20		
20	QPSK	100	0	19.06	19.06	18.98	20		
20	16QAM	1	0	19.11	18.87	19.15	20		
20	16QAM	1	49	19.16	18.90	18.96	20		
20	16QAM	1	99	19.16	19.34	19.13	20		
20	16QAM	50	0	19.28	19.25	19.22	20		
20	16QAM	50	24	19.17	19.17	19.18	20		
20	16QAM	50	50	19.14	19.06	19.02	20		
20	16QAM	100	0	19.10	19.13	19.19	20		
20	64QAM	1	0	18.43	18.20	18.53	19		
20	64QAM	1	49	18.20	18.53	18.52	19		
20	64QAM	1	99	18.43	18.55	18.63	19		
20	64QAM	50	0	18.39	18.29	18.42	19		
20	64QAM	50	24	18.33	18.27	18.39	19		
20	64QAM	50	50	18.35	18.23	18.29	19		
20	64QAM	100	0	18.34	18.34	18.32	19		
Channel				132047	132322	132597	Tune-up limit (dBm)		
Frequency (MHz)				1717.5	1745	1772.5	Tune-up limit (dBm)		
15	QPSK	1	0	19.98	20.02	20.00	21		
15	QPSK	1	37	20.02	19.98	19.96	21		
15	QPSK	1	74	19.96	19.92	19.90	21		
15	QPSK	36	0	19.17	19.14	19.18	20		
15	QPSK	36	20	19.17	19.09	19.19	20		
15	QPSK	36	39	19.03	19.08	19.05	20		
15	QPSK	75	0	19.12	19.16	19.09	20		
15	16QAM	1	0	19.11	18.98	19.28	20		
15	16QAM	1	37	18.98	19.28	19.21	20		
15	16QAM	1	74	19.08	18.98	18.98	20		
15	16QAM	36	0	19.29	19.29	19.20	20		
15	16QAM	36	20	19.32	19.31	19.37	20		
15	16QAM	36	39	19.24	19.39	19.33	20		
15	16QAM	75	0	19.34	19.32	19.28	20		
15	64QAM	1	0	18.65	18.55	18.65	19		
15	64QAM	1	37	18.67	18.45	18.55	19		
15	64QAM	1	74	18.32	18.58	18.65	19		
15	64QAM	36	0	18.44	18.43	18.56	19		
15	64QAM	36	20	18.54	18.50	18.51	19		
15	64QAM	36	39	18.43	18.37	18.41	19		
15	64QAM	75	0	18.45	18.47	18.44	19		
Channel				132022	132322	132622	Tune-up limit (dBm)		
Frequency (MHz)				1715	1745	1775	Tune-up limit (dBm)		
10	QPSK	1	0	20.01	20.01	20.02	21		
10	QPSK	1	25	19.91	19.89	19.97	21		
10	QPSK	1	49	20.05	19.93	19.83	21		
10	QPSK	25	0	19.48	19.41	19.48	20		
10	QPSK	25	12	19.45	19.64	19.42	20		
10	Q								

3	16QAM	8	0	19.20	19.20	19.11	20
3	16QAM	8	4	19.23	19.22	19.28	
3	16QAM	8	7	19.15	19.30	19.24	
3	16QAM	15	0	19.25	19.23	19.19	19
3	64QAM	1	0	18.56	18.46	18.56	
3	64QAM	1	8	18.58	18.36	18.46	
3	64QAM	1	14	18.23	18.49	18.56	19
3	64QAM	8	0	18.35	18.34	18.47	
3	64QAM	8	4	18.45	18.41	18.42	
3	64QAM	8	7	18.34	18.28	18.32	19
3	64QAM	15	0	18.36	18.38	18.35	
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	19.91	19.82	19.83	21
1.4	QPSK	1	3	19.97	19.99	19.99	
1.4	QPSK	1	5	19.89	19.77	19.93	
1.4	QPSK	3	0	19.88	19.81	19.88	
1.4	QPSK	3	1	19.85	19.91	19.82	
1.4	QPSK	3	3	19.86	19.82	19.74	20
1.4	QPSK	6	0	19.46	19.31	19.50	
1.4	16QAM	1	0	19.33	19.33	19.53	20
1.4	16QAM	1	3	19.33	19.42	19.54	
1.4	16QAM	1	5	19.16	19.36	19.24	
1.4	16QAM	3	0	19.11	19.08	19.34	
1.4	16QAM	3	1	19.20	19.10	19.22	
1.4	16QAM	3	3	19.21	19.22	19.16	20
1.4	16QAM	6	0	19.10	19.01	19.02	
1.4	64QAM	1	0	18.61	18.46	18.62	19
1.4	64QAM	1	3	18.34	18.43	18.43	
1.4	64QAM	1	5	18.31	18.31	18.42	
1.4	64QAM	3	0	18.40	18.38	18.40	
1.4	64QAM	3	1	18.39	18.43	18.47	
1.4	64QAM	3	3	18.39	18.32	18.34	
1.4	64QAM	6	0	18.29	18.39	18.40	19

### Reduced Power Level 4

5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	14.45	16.00	15.5	97.82
		CH 44	5220	<b>14.94</b>	16.00	15.5	
		CH 48	5240	14.62	16.00	15.5	
	802.11n-HT20 MCS0	CH 36	5180	14.49	16.00	15.5	97.92
		CH 44	5220	<b>14.63</b>	16.00	15.5	
		CH 48	5240	14.51	16.00	15.5	
	802.11n-HT40 MCS0	CH 38	5190	14.71	16.00	15.5	90.31
		CH 46	5230	<b>14.88</b>	16.00	15.5	
802.11ac-VHT20 MCS0	CH 36	5180	14.36	16.00	15.5	97.93	
	CH 44	5220	<b>14.47</b>	16.00	15.5		
	CH 48	5240	14.41	16.00	15.5		
802.11ac-VHT40 MCS0	CH 38	5190	14.87	16.00	15.5	91.75	
	CH 46	5230	<b>14.91</b>	16.00	15.5		
802.11ac-VHT80 MCS0	CH 42	5210	<b>14.92</b>	16.00	15.5	95.36	

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	<b>14.48</b>	16.00	14.5	97.82
		CH 157	5785	14.26	16.00	14.5	
		CH 165	5825	13.39	15.00	14.5	
	802.11n-HT20 MCS0	CH 149	5745	<b>14.34</b>	16.00	14.5	97.92
		CH 157	5785	14.13	16.00	14.5	
		CH 165	5825	13.16	15.00	14.5	
	802.11n-HT40 MCS0	CH 151	5755	<b>14.25</b>	16.00	14.5	90.31
		CH 159	5795	14.11	16.00	14.5	
	802.11ac-VHT20 MCS0	CH 149	5745	<b>14.28</b>	16.00	14.5	97.93
		CH 157	5785	14.06	16.00	14.5	
		CH 165	5825	13.23	15.00	14.5	
	802.11ac-VHT40 MCS0	CH 151	5755	<b>14.31</b>	16.00	14.5	91.75
CH 159		5795	14.14	16.00	14.5		
802.11ac-VHT80 MCS0	CH 155	5775	<b>14.34</b>	16.00	14.5	95.36	

### Band 38(Reduced Power Level 5)

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	21.97	22.04	22.01	23
20	QPSK	1	49	21.96	21.98	21.98	
20	QPSK	1	99	21.88	21.94	21.91	
20	QPSK	50	0	21.08	21.30	21.16	22
20	QPSK	50	24	21.01	21.08	21.04	
20	QPSK	50	50	21.05	21.10	21.04	
20	QPSK	100	0	20.93	21.04	21.07	22
20	16QAM	1	0	21.05	21.05	20.98	
20	16QAM	1	49	21.04	20.64	21.04	
20	16QAM	1	99	21.20	21.19	21.30	22
20	16QAM	50	0	21.05	21.19	20.80	
20	16QAM	50	24	21.16	20.98	20.89	
20	16QAM	50	50	21.15	20.79	20.83	22
20	16QAM	100	0	21.16	21.19	20.85	
20	64QAM	1	0	20.32	20.60	20.63	
20	64QAM	1	49	20.32	20.51	20.61	21
20	64QAM	1	99	20.34	20.61	20.65	
20	64QAM	50	0	20.33	20.32	20.21	
20	64QAM	50	24	20.35	20.31	20.30	21
20	64QAM	50	50	20.33	20.10	20.32	
20	64QAM	100	0	20.33	20.29	20.20	
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	21.94	21.94	21.95	23
15	QPSK	1	37	21.95	21.87	21.98	
15	QPSK	1	74	21.76	21.98	21.95	
15	QPSK	36	0	21.07	21.32	21.36	22
15	QPSK	36	20	21.21	21.30	21.26	
15	QPSK	36	39	21.28	21.26	21.19	
15	QPSK	75	0	21.16	21.16	21.17	22
15	16QAM	1	0	21.24	21.26	21.16	
15	16QAM	1	37	21.26	21.30	20.98	
15	16QAM	1	74	21.27	21.17	20.97	22
15	16QAM	36	0	21.04	21.00	20.89	
15	16QAM	36	20	21.02	21.16	20.93	
15	16QAM	36	39	21.04	21.06	20.91	22
15	16QAM	75	0	21.00	20.95	20.89	
15	64QAM	1	0	20.46	20.35	20.51	
15	64QAM	1	37	20.34	20.35	20.33	21
15	64QAM	1	74	20.29	20.37	20.54	
15	64QAM	36	0	20.21	20.36	20.29	
15	64QAM	36	20	20.49	20.35	20.23	21
15	64QAM	36	39	20.33	20.33	20.34	
15	64QAM	75	0	20.51	20.33	20.37	
Channel				37800	38000	38200	
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	21.97	21.98	21.98	23
10	QPSK	1	25	21.97	21.77	21.97	
10	QPSK	1	49	21.91	21.93	21.96	
10	QPSK	25	0	21.06	20.92	20.82	22
10	QPSK	25	12	21.26	21.22	20.93	
10	QPSK	25	25	21.27	21.29	20.89	
10	QPSK	50	0	21.28	21.20	20.92	22
10	16QAM	1	0	21.14	20.91	21.22	
10	16QAM	1	25	21.02	20.92	21.32	
10	16QAM	1	49	21.39	20.95	21.04	22
10	16QAM	25	0	20.89	21.00	20.96	
10	16QAM	25	12	21.19	20.89	21.02	
10	16QAM	25	25	20.89	21.03	21.08	22
10	16QAM	50	0	21.01	21.05	20.97	
10	64QAM	1	0	20.36	20.39	20.32	
10	64QAM	1	25	20.27	20.52	20.42	21
10	64QAM	1	49	20.63	20.37	20.42	
10	64QAM	25	0	20.22	20.22	20.32	
10	64QAM	25	12	20.22	20.42	20.43	21
10	64QAM	25	25	20.18	20.38	20.34	
10	64QAM	50	0	20.24	20.40	20.30	
Channel				37775	38000	38225	
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	21.92	21.93	21.96	23
5	QPSK	1	12	21.77	21.98	21.96	
5	QPSK	1	24	21.77	21.76	21.75	
5	QPSK	12	0	21.19	21.67	21.26	22
5	QPSK	12	7	21.33	21.32	21.32	
5	QPSK	12	13	21.21	21.23	21.25	
5	QPSK	25	0	21.25	21.26	20.92	22
5	16QAM	1	0	21.43	21.54	21.44	
5	16QAM	1	12	21.04	21.22	20.92	
5	16QAM	1	24	21.04	21.05	21.04	22
5	16QAM	12	0	21.05	21.10	21.04	
5	16QAM	12	7	21.04	21.06	21.04	
5	16QAM	12	13	20.95	21.07	21.04	22
5	16QAM	25	0	21.22	20.94	21.12	
5	64QAM	1	0	20.33	20.66	20.27	
5	64QAM	1	12	20.60	20.60	20.67	21
5	64QAM	1	24	20.60	20.60	20.67	
5	64QAM	12	0	20.28	20.40	20.36	
5	64QAM	12	7	20.37	20.38	20.29	21
5	64QAM	12	13	20.36	20.39	20.26	
5	64QAM	25	0	20.40	20.42	20.33	



Reduced Power Level 6

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	CH 1	2412	13.50	15.00	13.00	98.79
		CH 6	2437	12.67	14.00	13.00	
		CH 11	2462	13.77	15.00	13.00	
	802.11g 6Mbps	CH 1	2412	12.20	14.00	12.00	97.58
		CH 6	2437	11.49	13.00	12.00	
		CH 11	2462	12.62	14.00	12.00	
	802.11n-HT20 MCS0	CH 1	2412	12.02	14.00	12.00	97.92
		CH 6	2437	11.54	13.00	12.00	
		CH 11	2462	12.36	14.00	12.00	
	802.11n-HT40 MCS0	CH 3	2422	12.12	14.00	12.00	97.66
		CH 6	2437	12.89	14.00	12.00	
		CH 9	2452	12.56	14.00	12.00	
	802.11ac-VHT20 MCS0	CH 1	2412	12.04	14.00	12.00	97.68
		CH 6	2437	11.55	13.00	12.00	
		CH 11	2462	12.44	14.00	12.00	
802.11ac-VHT40 MCS0	CH 3	2422	12.14	14.00	12.00	89.50	
	CH 6	2437	12.91	14.00	12.00		
	CH 9	2452	12.67	14.00	12.00		

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	CH 36	5180	8.95	10.50	10.0	97.82
		CH 44	5220	9.44	10.50	10.0	
		CH 48	5240	9.12	10.50	10.0	
	802.11n-HT20 MCS0	CH 36	5180	8.99	10.50	10.0	97.92
		CH 44	5220	9.13	10.50	10.0	
		CH 48	5240	9.01	10.50	10.0	
	802.11n-HT40 MCS0	CH 38	5190	9.21	10.50	10.0	90.31
		CH 46	5230	9.38	10.50	10.0	
	802.11ac-VHT20 MCS0	CH 36	5180	8.86	10.50	10.0	97.93
		CH 44	5220	8.97	10.50	10.0	
	802.11ac-VHT40 MCS0	CH 38	5190	9.37	10.50	10.0	91.75
		CH 46	5230	9.41	10.50	10.0	
	802.11ac-VHT80 MCS0	CH 42	5210	9.42	10.50	10.0	95.36

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	CH 52	5260	9.43	10.50	10.0	97.82
		CH 60	5300	10.30	11.50	10.0	
		CH 64	5320	10.45	11.50	10.0	
	802.11n-HT20 MCS0	CH 52	5260	9.27	10.50	10.0	97.92
		CH 60	5300	10.04	11.50	10.0	
		CH 64	5320	10.22	11.50	10.0	
	802.11n-HT40 MCS0	CH 54	5270	9.82	11.50	10.0	90.31
		CH 62	5310	10.34	11.50	10.0	
	802.11ac-VHT20 MCS0	CH 52	5260	9.17	10.50	10.0	97.93
		CH 60	5300	9.96	11.50	10.0	
		CH 64	5320	10.19	11.50	10.0	
	802.11ac-VHT40 MCS0	CH 54	5270	9.75	11.50	10.0	91.75
		CH 62	5310	10.39	11.50	10.0	
	802.11ac-VHT80 MCS0	CH 58	5290	10.09	11.50	10.0	95.36

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	CH 100	5500	10.43	11.50	10.0	97.82
		CH 120	5600	9.40	10.50	10.0	
		CH 144	5720	9.72	11.50	10.0	
	802.11n-HT20 MCS0	CH 100	5500	10.31	11.50	10.0	97.92
		CH 120	5600	9.27	10.50	10.0	
		CH 144	5720	9.61	11.50	10.0	
	802.11n-HT40 MCS0	CH 102	5510	10.25	11.50	10.0	90.31
		CH 126	5630	9.46	10.50	10.0	
	802.11ac-VHT20 MCS0	CH 142	5710	9.86	11.50	10.0	97.93
		CH 100	5500	10.16	11.50	10.0	
		CH 120	5600	9.12	10.50	10.0	
	802.11ac-VHT40 MCS0	CH 144	5720	9.58	11.50	10.0	91.75
		CH 102	5510	10.19	11.50	10.0	
		CH 126	5630	9.14	10.50	10.0	
	802.11ac-VHT80 MCS0	CH 142	5710	9.94	11.50	10.0	95.36
CH 106		5530	9.93	11.50	10.0		
CH 122		5610	9.23	10.50	10.0		
CH 138	5690	9.80	11.50	10.0			

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	CH 149	5745	8.98	10.50	9.0	97.82
		CH 157	5785	8.76	10.50	9.0	
		CH 165	5825	7.89	9.50	9.0	
	802.11n-HT20 MCS0	CH 149	5745	8.84	10.50	9.0	97.92
		CH 157	5785	8.63	10.50	9.0	
		CH 165	5825	7.66	9.50	9.0	
	802.11n-HT40 MCS0	CH 151	5755	8.75	10.50	9.0	90.31
		CH 159	5795	8.61	10.50	9.0	
	802.11ac-VHT20 MCS0	CH 149	5745	8.78	10.50	9.0	97.93
		CH 157	5785	8.56	10.50	9.0	
		CH 165	5825	7.73	9.50	9.0	
	802.11ac-VHT40 MCS0	CH 151	5755	8.81	10.50	9.0	91.75
		CH 159	5795	8.64	10.50	9.0	
	802.11ac-VHT80 MCS0	CH 155	5775	8.84	10.50	9.0	95.36

### Reduced Power Level 7

5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	11.95	13.50	13.0	97.82
		CH 44	5220	<b>12.44</b>	13.50	13.0	
		CH 48	5240	12.12	13.50	13.0	
	802.11n-HT20 MCS0	CH 36	5180	11.99	13.50	13.0	97.92
		CH 44	5220	<b>12.13</b>	13.50	13.0	
		CH 48	5240	12.01	13.50	13.0	
	802.11n-HT40 MCS0	CH 38	5190	12.21	13.50	13.0	90.31
		CH 46	5230	<b>12.38</b>	13.50	13.0	
802.11ac-VHT20 MCS0	CH 36	5180	11.86	13.50	13.0	97.93	
	CH 44	5220	<b>11.97</b>	13.50	13.0		
	CH 48	5240	11.91	13.50	13.0		
802.11ac-VHT40 MCS0	CH 38	5190	12.37	13.50	13.0	91.75	
	CH 46	5230	<b>12.41</b>	13.50	13.0		
802.11ac-VHT80 MCS0	CH 42	5210	<b>12.42</b>	13.50	13.0	95.36	

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	<b>11.98</b>	13.50	12.0	97.82
		CH 157	5785	11.76	13.50	12.0	
		CH 165	5825	10.89	12.50	12.0	
	802.11n-HT20 MCS0	CH 149	5745	<b>11.84</b>	13.50	12.0	97.92
		CH 157	5785	11.63	13.50	12.0	
		CH 165	5825	10.66	12.50	12.0	
	802.11n-HT40 MCS0	CH 151	5755	<b>11.75</b>	13.50	12.0	90.31
		CH 159	5795	11.61	13.50	12.0	
	802.11ac-VHT20 MCS0	CH 149	5745	<b>11.78</b>	13.50	12.0	97.93
		CH 157	5785	11.56	13.50	12.0	
		CH 165	5825	10.73	12.50	12.0	
	802.11ac-VHT40 MCS0	CH 151	5755	<b>11.81</b>	13.50	12.0	91.75
CH 159		5795	11.64	13.50	12.0		
802.11ac-VHT80 MCS0	CH 155	5775	<b>11.84</b>	13.50	12.0	95.36	