



REPORT No.: SZ23120090S01

Annex E Conducted Power

Note:

Conducted power unit: dBm

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

Full Power for ANT 1 & ANT 2 & ANT 5 & ANT 7 & ANT 8 & ANT 10

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	RMC 12.2Kbps	23.28	23.32	23.17	24.00	23.92	23.94	23.86	24.50	23.29	23.47	23.45	24.00
3GPP Rel 5	HSDPA Subtest-1	22.44	22.44	22.41	23.00	22.63	22.70	22.73	23.00	22.31	22.50	22.59	23.00
3GPP Rel 5	HSDPA Subtest-2	22.43	22.46	22.32	23.00	22.69	22.65	22.70	23.00	22.38	22.51	22.55	23.00
3GPP Rel 5	HSDPA Subtest-3	21.91	21.91	21.89	22.50	22.14	22.27	22.20	22.50	21.90	21.93	22.08	22.50
3GPP Rel 5	HSDPA Subtest-4	21.88	21.95	21.79	22.50	22.15	22.22	22.27	22.50	21.89	22.06	22.12	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.38	22.36	22.35	23.00	22.66	22.68	22.72	23.00	22.37	22.52	22.59	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.34	22.33	22.31	23.00	22.71	22.70	22.69	23.00	22.38	22.51	22.61	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.89	21.89	21.87	22.50	22.16	22.17	22.21	22.50	21.87	22.09	22.06	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.82	21.95	21.89	22.50	22.15	22.16	22.14	22.50	21.90	21.98	22.10	22.50
3GPP Rel 6	HSUPA Subtest-1	22.29	22.38	22.21	23.00	22.60	22.75	22.68	23.00	22.83	22.53	22.59	23.00
3GPP Rel 6	HSUPA Subtest-2	21.91	21.86	21.68	22.50	22.11	22.20	22.10	22.50	21.90	22.07	22.04	22.50
3GPP Rel 6	HSUPA Subtest-3	22.32	22.33	22.25	23.00	22.55	22.72	22.64	23.00	22.35	22.60	22.58	23.00
3GPP Rel 6	HSUPA Subtest-4	22.34	22.40	22.25	23.00	22.61	22.69	22.68	23.00	22.39	22.55	22.61	23.00
3GPP Rel 6	HSUPA Subtest-5	22.28	22.32	22.22	23.00	22.64	22.68	22.66	23.00	22.47	22.56	22.60	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	21.80	21.85	21.66	22.50	22.07	22.11	22.22	22.50	22.33	22.55	22.62	23.00
Attenuator		Cable Loss			0.8	Cable Loss			0.8	Cable Loss			0.6
Mode		Max.			23.32	Max.			23.94	Max.			23.47

Band 2 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	22.87	22.91	22.85	
20	QPSK	1	49	22.77	22.85	22.79	24
20	QPSK	1	99	22.75	22.81	22.76	
20	QPSK	50	0	21.86	21.90	21.83	
20	QPSK	50	24	21.79	21.84	21.77	23
20	QPSK	50	50	21.75	21.79	21.74	
20	QPSK	100	0	21.77	21.82	21.76	
20	16QAM	1	0	22.03	22.10	22.05	23
20	16QAM	1	49	21.94	22.03	21.92	
20	16QAM	1	99	21.98	21.99	21.96	
20	16QAM	50	0	20.91	20.95	20.90	22
20	16QAM	50	24	20.86	20.91	20.79	
20	16QAM	50	50	20.84	20.89	20.88	
20	16QAM	100	0	20.87	20.92	20.89	22
20	64QAM	1	0	21.00	21.02	20.97	
20	64QAM	1	49	20.92	20.96	20.93	
20	64QAM	1	99	20.95	20.90	20.89	21
20	64QAM	50	0	19.91	19.97	19.92	
20	64QAM	50	24	19.82	19.94	19.81	
20	64QAM	50	50	19.85	19.86	19.80	20
20	64QAM	100	0	19.86	19.90	19.84	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	22.82	22.88	22.86	
15	QPSK	1	37	22.65	22.85	22.77	24
15	QPSK	1	74	22.80	22.77	22.71	
15	QPSK	36	0	21.93	21.98	21.79	
15	QPSK	36	20	21.84	21.91	21.70	23
15	QPSK	36	39	21.82	21.75	21.84	
15	QPSK	75	0	21.68	21.90	21.82	
15	16QAM	1	0	22.00	22.00	22.01	23
15	16QAM	1	37	21.84	22.10	21.88	
15	16QAM	1	74	21.94	21.85	22.00	
15	16QAM	36	0	20.78	20.88	20.82	22
15	16QAM	36	20	20.92	20.90	20.78	
15	16QAM	36	39	20.84	20.74	20.81	
15	16QAM	75	0	20.91	20.79	20.90	22
15	64QAM	1	0	21.04	20.89	20.99	
15	64QAM	1	37	20.88	20.82	20.82	
15	64QAM	1	74	20.86	20.93	20.89	21
15	64QAM	36	0	19.80	20.01	19.99	
15	64QAM	36	20	19.73	20.00	19.91	
15	64QAM	36	39	19.71	19.75	19.67	20
15	64QAM	75	0	19.93	19.80	19.88	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.85	22.89	22.78	
10	QPSK	1	25	22.74	22.79	22.71	24
10	QPSK	1	49	22.64	22.80	22.74	
10	QPSK	25	0	21.80	21.83	21.72	
10	QPSK	25	12	21.78	21.85	21.67	23
10	QPSK	25	25	21.65	21.78	21.62	
10	QPSK	50	0	21.85	21.87	21.69	
10	16QAM	1	0	21.90	22.02	21.96	23
10	16QAM	1	25	21.79	22.04	21.80	
10	16QAM	1	49	21.97	22.03	21.85	
10	16QAM	25	0	20.96	20.93	20.98	22
10	16QAM	25	12	20.90	20.77	20.71	
10	16QAM	25	25	20.71	20.80	20.78	
10	16QAM	50	0	20.72	20.92	20.83	22
10	64QAM	1	0	21.00	20.95	20.84	
10	64QAM	1	25	20.98	21.05	21.03	
10	64QAM	1	49	21.01	20.93	20.86	21
10	64QAM	25	0	19.91	19.82	19.96	
10	64QAM	25	12	19.75	19.90	19.90	
10	64QAM	25	25	19.79	19.84	19.86	20
10	64QAM	50	0	19.71	19.87	19.88	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	22.82	22.86	22.84	
5	QPSK	1	12	22.80	22.76	22.77	24
5	QPSK	1	24	22.76	22.82	22.67	
5	QPSK	12	0	21.81	21.86	21.68	
5	QPSK	12	7	21.88	21.83	21.75	23
5	QPSK	12	13	21.82	21.80	21.82	
5	QPSK	25	0	21.76	21.76	21.74	
5	16QAM	1	0	22.05	22.09	22.12	23
5	16QAM	1	12	21.85	22.01	21.97	
5	16QAM	1	24	21.90	21.97	21.98	
5	16QAM	12	0	20.84	20.92	20.89	22
5	16QAM	12	7	20.72	20.91	20.81	
5	16QAM	12	13	20.76	20.86	20.76	
5	16QAM	25	0	20.77	20.96	20.78	22
5	64QAM	1	0	21.06	21.00	21.04	
5	64QAM	1	12	20.95	20.82	20.98	
5	64QAM	1	24	20.99	20.98	20.76	21
5	64QAM	12	0	19.88	19.95	19.95	
5	64QAM	12	7	19.69	19.79	19.90	
5	64QAM	12	13	19.82	19.88	19.65	20
5	64QAM	25	0	19.77	19.78	19.78	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.79	22.87	22.83	
3	QPSK	1	8	22.72	22.86	22.82	24
3	QPSK	1	14	22.68	22.76	22.63	
3	QPSK	8	0	21.91	21.92	21.92	
3	QPSK	8	4	21.81	21.73	21.71	23
3	QPSK	8	7	21.78	21.68	21.76	

Band 4 (AWS Band) (dBm)							
Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	23.28	23.36	23.33	
20	QPSK	1	49	23.04	23.35	23.22	24
20	QPSK	1	99	23.13	23.19	23.19	
20	QPSK	50	0	22.26	22.33	22.32	
20	QPSK	50	24	22.06	22.17	22.26	23
20	QPSK	50	50	22.24	22.09	22.07	
20	QPSK	100	0	22.17	22.31	22.09	
20	16QAM	1	0	22.38	22.42	22.48	23
20	16QAM	1	49	22.32	22.30	22.25	
20	16QAM	1	99	22.28	22.31	22.43	
20	16QAM	50	0	21.25	21.27	21.19	22
20	16QAM	50	24	21.14	21.30	21.05	
20	16QAM	50	50	21.10	21.32	21.35	
20	16QAM	100	0	21.33	21.23	21.29	22
20	64QAM	1	0	21.42	21.36	21.38	
20	64QAM	1	49	21.36	21.34	21.22	
20	64QAM	1	99	21.33	21.26	21.27	22
20	64QAM	50	0	20.18	20.25	20.18	
20	64QAM	50	24	20.18	20.32	20.06	
20	64QAM	50	50	20.33	20.27	20.20	21
20	64QAM	100	0	20.15	20.19	20.10	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	23.23	23.33	23.30	24
15	QPSK	1	37	23.22	23.19	23.27	
15	QPSK	1	74	23.13	23.26	23.21	
15	QPSK	36	0	22.26	22.31	22.31	23
15	QPSK	36	20	22.15	22.16	22.04	
15	QPSK	36	39	22.21	22.27	22.02	
15	QPSK	75	0	22.10	22.14	22.21	23
15	16QAM	1	0	22.30	22.42	22.42	
15	16QAM	1	37	22.38	22.37	22.42	
15	16QAM	1	74	22.26	22.45	22.40	22
15	16QAM	36	0	21.35	21.34	21.22	
15	16QAM	36	20	21.18	21.23	21.07	
15	16QAM	36	39	21.34	21.34	21.21	22
15	16QAM	75	0	21.33	21.17	21.32	
15	64QAM	1	0	21.49	21.44	21.35	
15	64QAM	1	37	21.24	21.30	21.43	22
15	64QAM	1	74	21.21	21.16	21.20	
15	64QAM	36	0	20.38	20.46	20.31	
15	64QAM	36	20	20.27	20.30	20.25	21
15	64QAM	36	39	20.23	20.15	20.17	
15	64QAM	75	0	20.13	20.31	20.22	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	23.27	23.31	23.29	24
10	QPSK	1	25	23.24	23.25	23.26	
10	QPSK	1	49	23.17	23.21	23.14	
10	QPSK	25	0	22.15	22.40	22.10	23
10	QPSK	25	12	22.19	22.16	22.22	
10	QPSK	25	25	22.07	22.13	22.19	
10	QPSK	50	0	22.19	22.32	22.20	23
10	16QAM	1	0	22.38	22.51	22.48	
10	16QAM	1	25	22.23	22.31	22.29	
10	16QAM	1	49	22.29	22.44	22.31	22
10	16QAM	25	0	21.26	21.20	21.17	
10	16QAM	25	12	21.28	21.27	21.21	
10	16QAM	25	25	21.30	21.23	21.25	22
10	16QAM	50	0	21.36	21.37	21.33	
10	64QAM	1	0	21.47	21.51	21.26	
10	64QAM	1	25	21.24	21.22	21.33	22
10	64QAM	1	49	21.21	21.20	21.17	
10	64QAM	25	0	20.39	20.31	20.24	
10	64QAM	25	12	20.28	20.32	20.17	21
10	64QAM	25	25	20.31	20.36	20.10	
10	64QAM	50	0	20.36	20.16	20.32	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.24	23.30	23.29	24
5	QPSK	1	12	23.18	23.11	23.20	
5	QPSK	1	24	23.18	23.26	23.12	
5	QPSK	12	0	22.27	22.39	22.15	23
5	QPSK	12	7	22.22	22.19	22.05	
5	QPSK	12	13	22.01	22.17	22.04	
5	QPSK	25	0	22.13	22.16	22.08	23
5	16QAM	1	0	22.34	22.40	22.48	
5	16QAM	1	12	22.32	22.31	22.32	
5	16QAM	1	24	22.40	22.43	22.34	22
5	16QAM	12	0	21.21	21.33	21.39	
5	16QAM	12	7	21.20	21.20	21.07	
5	16QAM	12	13	21.24	21.20	21.19	22
5	16QAM	25	0	21.14	21.34	21.37	
5	64QAM	1	0	21.30	21.39	21.39	
5	64QAM	1	12	21.22	21.23	21.37	21
5	64QAM	1	24	21.40	21.21	21.35	
5	64QAM	12	0	20.29	20.30	20.27	
5	64QAM	12	7	20.16	20.43	20.28	21
5	64QAM	12	13	20.22	20.28	20.15	
5	64QAM	25	0	20.32	20.39	20.13	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	23.17	23.32	23.31	24
3	QPSK	1	8	23.18	23.12	23.26	
3	QPSK	1	14	23.19	23.30	23.11	
3	QPSK	8	0	22.12	22.25	22.29	23
3	QPSK	8	4	22.10	22.16	22.26	
3	QPSK	8	7	22.04	22.27	22.06	



3	QPSK	15	0	21.83	21.89	21.71	23
3	16QAM	1	0	22.10	22.20	22.00	
3	16QAM	1	8	21.95	21.88	21.82	
3	16QAM	1	14	21.92	21.87	21.94	22
3	16QAM	8	0	20.98	20.95	20.90	
3	16QAM	8	4	20.85	20.92	20.81	
3	16QAM	8	7	20.86	20.96	20.76	22
3	16QAM	15	0	20.76	20.86	20.83	
3	64QAM	1	0	21.01	21.06	20.92	
3	64QAM	1	8	21.02	20.87	20.93	22
3	64QAM	1	14	20.95	20.81	20.76	
3	64QAM	8	0	19.83	19.90	19.78	
3	64QAM	8	4	19.68	19.99	19.86	21
3	64QAM	8	7	19.89	19.78	19.70	
3	64QAM	15	0	19.75	19.85	19.88	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	22.82	22.85	22.82	24
1.4	QPSK	1	3	22.67	22.80	22.80	
1.4	QPSK	1	5	22.64	22.78	22.61	
1.4	QPSK	3	0	21.92	21.93	21.74	
1.4	QPSK	3	1	21.70	21.93	21.74	
1.4	QPSK	3	3	21.68	21.70	21.84	
1.4	QPSK	6	0	21.66	21.70	21.63	23
1.4	16QAM	1	0	22.11	22.12	22.07	23
1.4	16QAM	1	3	21.85	22.12	21.97	
1.4	16QAM	1	5	21.93	21.95	21.92	
1.4	16QAM	3	0	20.80	20.86	20.99	
1.4	16QAM	3	1	20.88	20.76	20.87	
1.4	16QAM	3	3	20.72	20.88	20.85	
1.4	16QAM	6	0	20.97	20.84	20.74	22
1.4	64QAM	1	0	21.07	21.02	21.02	22
1.4	64QAM	1	3	20.81	21.03	20.80	
1.4	64QAM	1	5	20.80	20.91	20.91	
1.4	64QAM	3	0	19.83	19.89	19.82	
1.4	64QAM	3	1	19.67	19.95	19.68	
1.4	64QAM	3	3	19.84	19.75	19.67	
1.4	64QAM	6	0	19.72	19.76	19.88	21

3	QPSK	15	0	22.20	22.13	22.09	23
3	16QAM	1	0	22.39	22.48	22.50	
3	16QAM	1	8	22.24	22.52	22.21	
3	16QAM	1	14	22.27	22.42	22.30	22
3	16QAM	8	0	21.34	21.29	21.33	
3	16QAM	8	4	21.28	21.29	21.04	
3	16QAM	8	7	21.16	21.30	21.28	22
3	16QAM	15	0	21.30	21.28	21.37	
3	64QAM	1	0	21.30	21.28	21.28	
3	64QAM	1	8	21.42	21.32	21.39	21
3	64QAM	1	14	21.38	21.30	21.23	
3	64QAM	8	0	20.34	20.42	20.33	
3	64QAM	8	4	20.16	20.29	20.16	21
3	64QAM	8	7	20.24	20.11	20.25	
3	64QAM	15	0	20.32	20.36	20.15	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.20	23.29	23.23	24
1.4	QPSK	1	3	23.21	23.15	23.22	
1.4	QPSK	1	5	23.21	23.16	23.16	
1.4	QPSK	3	0	22.21	22.28	22.15	
1.4	QPSK	3	1	22.22	22.26	22.04	
1.4	QPSK	3	3	22.13	22.06	22.11	
1.4	QPSK	6	0	22.15	22.26	22.19	23
1.4	16QAM	1	0	22.33	22.39	22.31	23
1.4	16QAM	1	3	22.30	22.45	22.36	
1.4	16QAM	1	5	22.30	22.27	22.34	
1.4	16QAM	3	0	21.38	21.33	21.40	
1.4	16QAM	3	1	21.11	21.26	21.21	
1.4	16QAM	3	3	21.33	21.36	21.20	
1.4	16QAM	6	0	21.35	21.27	21.34	22
1.4	64QAM	1	0	21.29	21.37	21.25	22
1.4	64QAM	1	3	21.24	21.44	21.18	
1.4	64QAM	1	5	21.29	21.29	21.31	
1.4	64QAM	3	0	20.31	20.44	20.38	
1.4	64QAM	3	1	20.31	20.22	20.19	
1.4	64QAM	3	3	20.22	20.33	20.12	
1.4	64QAM	6	0	20.20	20.38	20.27	21

Band 5 (Celluar Band) (dBm) Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	23.04	23.15	23.11	24
10	QPSK	1	25	22.89	22.94	23.09	
10	QPSK	1	49	22.94	23.04	22.86	
10	QPSK	25	0	21.91	22.04	22.01	23
10	QPSK	25	12	21.97	21.79	21.76	
10	QPSK	25	25	21.77	21.80	21.82	
10	QPSK	50	0	21.72	21.99	21.83	23
10	16QAM	1	0	22.13	22.22	22.18	
10	16QAM	1	25	21.92	22.03	22.12	
10	16QAM	1	49	21.97	21.95	21.95	22
10	16QAM	25	0	21.03	21.07	20.98	
10	16QAM	25	12	20.93	20.89	20.80	
10	16QAM	25	25	21.04	20.96	21.01	22
10	16QAM	50	0	20.90	21.01	20.98	
10	64QAM	1	0	21.10	21.22	21.08	
10	64QAM	1	25	21.10	21.11	20.95	22
10	64QAM	1	49	21.06	20.89	20.96	
10	64QAM	25	0	19.87	19.92	19.91	
10	64QAM	25	12	19.95	20.08	19.96	21
10	64QAM	25	25	19.97	19.93	19.89	
10	64QAM	50	0	19.94	19.92	20.01	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.06	23.11	23.09	24
5	QPSK	1	12	22.83	22.92	22.98	
5	QPSK	1	24	22.90	23.04	22.97	
5	QPSK	12	0	21.92	21.99	21.86	23
5	QPSK	12	7	21.80	21.94	21.86	
5	QPSK	12	13	21.80	21.97	21.69	
5	QPSK	25	0	21.96	21.92	21.73	23
5	16QAM	1	0	22.22	22.28	22.13	
5	16QAM	1	12	22.14	22.08	22.06	
5	16QAM	1	24	22.04	21.98	22.10	22
5	16QAM	12	0	21.05	21.07	20.91	
5	16QAM	12	7	20.90	21.08	20.79	
5	16QAM	12	13	20.89	21.07	21.06	22
5	16QAM	25	0	21.05	21.03	20.94	
5	64QAM	1	0	21.03	21.19	20.92	
5	64QAM	1	12	20.94	21.14	20.91	22
5	64QAM	1	24	20.90	21.09	20.98	
5	64QAM	12	0	19.94	20.03	19.90	
5	64QAM	12	7	19.98	20.10	19.87	21
5	64QAM	12	13	19.82	20.03	19.79	
5	64QAM	25	0	19.84	19.95	19.82	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.06	23.10	23.07	24
3	QPSK	1	8	22.94	22.90	23.02	
3	QPSK	1	14	22.84	23.04	22.85	
3	QPSK	8	0	21.92	21.98	21.90	23
3	QPSK	8	4	21.97	21.91	21.85	
3	QPSK	8	7	21.93	21.89	21.94	
3	QPSK	15	0	21.86	21.84	21.92	23
3	16QAM	1	0	22.03	22.22	22.20	
3	16QAM	1	8	22.03	22.02	22.05	
3	16QAM	1	14	22.13	22.06	22.08	22
3	16QAM	8	0	21.07	21.08	21.05	
3	16QAM	8	4	20.81	21.06	20.80	
3	16QAM	8	7	20.82	20.91	21.03	22
3	16QAM	15	0	21.04	20.96	20.98	
3	64QAM	1	0	20.99	21.16	21.06	
3	64QAM	1	8	21.09	21.15	20.99	22
3	64QAM	1	14	21.07	20.95	21.06	
3	64QAM	8	0	19.95	19.94	19.99	
3	64QAM	8	4	19.89	19.98	20.01	21
3	64QAM	8	7	20.05	19.97	19.75	
3	64QAM	15	0	19.87	20.03	19.95	
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	22.98	23.08	23.00	24
1.4	QPSK	1	3	22.84	22.88	22.93	
1.4	QPSK	1	5	22.74	22.86	22.88	
1.4	QPSK	3	0	21.82	21.98	21.78	23
1.4	QPSK	3	1	21.99	21.79	21.84	
1.4	QPSK	3	3	21.72	21.80	21.70	
1.4	QPSK	6	0	21.95	21.91	21.78	23
1.4	16QAM	1	0	22.11	22.27	22.20	
1.4	16QAM	1	3	22.11	22.23	21.97	
1.4	16QAM	1	5	22.14	22.03	22.04	23
1.4	16QAM	3	0	20.92	21.10	21.02	
1.4	16QAM	3	1	20.90	21.09	20.79	
1.4	16QAM	3	3	21.02	20.97	21.00	22
1.4	16QAM	6	0	20.90	20.88	20.86	
1.4	64QAM	1	0	20.95	21.14	21.02	
1.4	64QAM	1	3	20.93	21.13	21.10	22
1.4	64QAM	1	5	20.98	21.10	21.06	
1.4	64QAM	3	0	19.87	20.08	20.00	
1.4	64QAM	3	1	19.98	19.92	19.81	21
1.4	64QAM	3	3	20.00	20.04	19.80	
1.4	64QAM	6	0	19.94	19.86	19.90	

Band 7 (2600MHz Band) (dBm)							
Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.69	22.77	22.94	24
20	QPSK	1	49	22.61	22.62	22.92	
20	QPSK	1	99	22.59	22.70	22.84	
20	QPSK	50	0	21.67	21.74	21.89	23
20	QPSK	50	24	21.64	21.61	21.75	
20	QPSK	50	50	21.51	21.54	21.75	
20	QPSK	100	0	21.52	21.60	21.78	23
20	16QAM	1	0	21.79	21.88	22.07	
20	16QAM	1	49	21.66	21.74	21.94	
20	16QAM	1	99	21.69	21.66	21.96	22
20	16QAM	50	0	20.70	20.76	20.84	
20	16QAM	50	24	20.74	20.65	20.85	
20	16QAM	50	50	20.69	20.69	20.80	22
20	16QAM	100	0	20.56	20.68	20.77	
20	64QAM	1	0	20.83	20.92	21.04	
20	64QAM	1	49	20.75	20.63	20.99	22
20	64QAM	1	99	20.78	20.70	20.92	
20	64QAM	50	0	19.66	19.78	19.93	
20	64QAM	50	24	19.58	19.61	19.89	21
20	64QAM	50	50	19.58	19.64	19.72	
20	64QAM	100	0	19.68	19.76	19.85	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.71	22.83	22.91	24
15	QPSK	1	37	22.65	22.75	22.90	
15	QPSK	1	74	22.64	22.67	22.86	
15	QPSK	36	0	21.60	21.63	21.77	23
15	QPSK	36	20	21.52	21.50	21.64	
15	QPSK	36	39	21.52	21.59	21.63	
15	QPSK	75	0	21.55	21.69	21.73	23
15	16QAM	1	0	21.88	21.78	22.12	
15	16QAM	1	37	21.80	21.75	21.80	
15	16QAM	1	74	21.77	21.77	21.85	22
15	16QAM	36	0	20.75	20.78	20.93	
15	16QAM	36	20	20.76	20.81	20.87	
15	16QAM	36	39	20.61	20.61	20.84	22
15	16QAM	75	0	20.73	20.73	20.94	
15	64QAM	1	0	20.76	20.73	21.01	
15	64QAM	1	37	20.67	20.75	20.91	22
15	64QAM	1	74	20.77	20.74	20.75	
15	64QAM	36	0	19.63	19.77	19.98	
15	64QAM	36	20	19.69	19.62	19.81	21
15	64QAM	36	39	19.67	19.65	19.77	
15	64QAM	75	0	19.61	19.69	19.80	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.76	22.66	22.92	24
10	QPSK	1	25	22.62	22.74	22.91	
10	QPSK	1	49	22.56	22.61	22.74	
10	QPSK	25	0	21.75	21.69	21.78	23
10	QPSK	25	12	21.56	21.50	21.81	
10	QPSK	25	25	21.61	21.58	21.77	
10	QPSK	50	0	21.61	21.52	21.70	23
10	16QAM	1	0	21.75	21.78	22.13	
10	16QAM	1	25	21.75	21.83	21.87	
10	16QAM	1	49	21.77	21.83	21.93	22
10	16QAM	25	0	20.56	20.61	20.76	
10	16QAM	25	12	20.55	20.70	20.72	
10	16QAM	25	25	20.58	20.60	20.69	22
10	16QAM	50	0	20.56	20.57	20.76	
10	64QAM	1	0	20.80	20.85	20.98	
10	64QAM	1	25	20.62	20.64	20.89	22
10	64QAM	1	49	20.64	20.64	20.88	
10	64QAM	25	0	19.80	19.66	19.77	
10	64QAM	25	12	19.59	19.82	19.69	21
10	64QAM	25	25	19.61	19.56	19.90	
10	64QAM	50	0	19.71	19.56	19.94	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	22.65	22.71	22.90	24
5	QPSK	1	12	22.67	22.65	22.83	
5	QPSK	1	24	22.56	22.81	22.75	
5	QPSK	12	0	21.73	21.55	21.88	23
5	QPSK	12	7	21.54	21.52	21.63	
5	QPSK	12	13	21.58	21.62	21.66	
5	QPSK	25	0	21.51	21.58	21.61	23
5	16QAM	1	0	21.88	21.75	21.90	
5	16QAM	1	12	21.82	21.92	21.81	
5	16QAM	1	24	21.77	21.83	22.05	22
5	16QAM	12	0	20.75	20.85	20.88	
5	16QAM	12	7	20.76	20.64	20.81	
5	16QAM	12	13	20.70	20.69	20.75	22
5	16QAM	25	0	20.76	20.71	20.75	
5	64QAM	1	0	20.77	20.85	20.83	
5	64QAM	1	12	20.81	20.67	20.95	22
5	64QAM	1	24	20.70	20.73	20.86	
5	64QAM	12	0	19.66	19.82	19.83	
5	64QAM	12	7	19.60	19.69	19.84	21
5	64QAM	12	13	19.54	19.71	19.90	
5	64QAM	25	0	19.67	19.72	19.73	

Band 12 (700MHz Low Band) (dBm) Part 27F(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23090	23095	23130	
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	23.88	23.91	23.82	24.5
10	QPSK	1	25	23.66	23.80	23.73	
10	QPSK	1	49	23.64	23.76	23.76	
10	QPSK	25	0	22.82	22.88	22.66	23.5
10	QPSK	25	12	22.70	22.67	22.60	
10	QPSK	25	25	22.71	22.73	22.70	
10	QPSK	50	0	22.77	22.61	22.61	23.5
10	16QAM	1	0	22.88	22.92	22.98	
10	16QAM	1	25	22.80	22.92	22.85	
10	16QAM	1	49	22.94	22.96	22.81	22.5
10	16QAM	25	0	21.85	21.76	21.80	
10	16QAM	25	12	21.79	21.85	21.74	
10	16QAM	25	25	21.84	21.70	21.73	22.5
10	16QAM	50	0	21.86	21.92	21.83	
10	64QAM	1	0	21.94	21.84	21.97	
10	64QAM	1	25	21.85	21.90	21.84	22.5
10	64QAM	1	49	21.96	21.77	21.74	
10	64QAM	25	0	20.88	20.96	20.84	
10	64QAM	25	12	20.78	20.84	20.69	21.5
10	64QAM	25	25	20.72	20.87	20.73	
10	64QAM	50	0	20.79	20.73	20.68	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.86	23.88	23.85	24.5
5	QPSK	1	12	23.64	23.79	23.70	
5	QPSK	1	24	23.65	23.84	23.84	
5	QPSK	12	0	22.75	22.84	22.73	23.5
5	QPSK	12	7	22.81	22.70	22.80	
5	QPSK	12	13	22.68	22.63	22.77	
5	QPSK	25	0	22.80	22.62	22.69	23.5
5	16QAM	1	0	22.92	22.94	22.89	
5	16QAM	1	12	22.95	22.99	22.88	
5	16QAM	1	24	22.90	22.86	22.89	22.5
5	16QAM	12	0	21.84	21.76	21.78	
5	16QAM	12	7	21.71	21.81	21.65	
5	16QAM	12	13	21.67	21.86	21.85	22.5
5	16QAM	25	0	21.76	21.93	21.71	
5	64QAM	1	0	21.84	21.88	21.79	
5	64QAM	1	12	21.87	21.99	21.84	22.5
5	64QAM	1	24	21.90	21.73	21.80	
5	64QAM	12	0	20.91	20.92	20.89	
5	64QAM	12	7	20.67	20.90	20.81	21.5
5	64QAM	12	13	20.74	20.69	20.70	
5	64QAM	25	0	20.86	20.84	20.74	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	23.69	23.87	23.82	24.5
3	QPSK	1	8	23.79	23.86	23.71	
3	QPSK	1	14	23.69	23.82	23.78	
3	QPSK	8	0	22.77	22.80	22.64	23.5
3	QPSK	8	4	22.79	22.76	22.62	
3	QPSK	8	7	22.60	22.74	22.57	
3	QPSK	15	0	22.73	22.86	22.68	23.5
3	16QAM	1	0	22.89	22.92	22.92	
3	16QAM	1	8	22.84	23.01	22.90	
3	16QAM	1	14	22.98	22.92	22.89	22.5
3	16QAM	8	0	21.76	21.90	21.82	
3	16QAM	8	4	21.79	21.91	21.77	
3	16QAM	8	7	21.88	21.90	21.80	22.5
3	16QAM	15	0	21.66	21.89	21.85	
3	64QAM	1	0	21.97	21.89	21.82	
3	64QAM	1	8	21.74	21.79	21.79	22.5
3	64QAM	1	14	21.77	21.69	21.78	
3	64QAM	8	0	20.83	20.89	20.84	
3	64QAM	8	4	20.83	20.94	20.71	21.5
3	64QAM	8	7	20.72	20.66	20.72	
3	64QAM	15	0	20.76	20.88	20.74	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	23.83	23.88	23.85	24.5
1.4	QPSK	1	3	23.67	23.71	23.79	
1.4	QPSK	1	5	23.60	23.79	23.77	
1.4	QPSK	3	0	22.84	22.86	22.81	23.5
1.4	QPSK	3	1	22.75	22.74	22.64	
1.4	QPSK	3	3	22.61	22.82	22.69	
1.4	QPSK	6	0	22.64	22.68	22.66	23.5
1.4	16QAM	1	0	23.05	22.94	23.09	
1.4	16QAM	1	3	22.80	22.93	22.94	
1.4	16QAM	1	5	22.87	22.92	22.98	23.5
1.4	16QAM	3	0	21.70	21.96	21.74	
1.4	16QAM	3	1	21.84	21.75	21.73	
1.4	16QAM	3	3	21.75	21.85	21.80	22.5
1.4	16QAM	6	0	21.73	21.71	21.83	
1.4	64QAM	1	0	21.93	21.99	22.00	
1.4	64QAM	1	3	21.91	21.91	21.81	22.5
1.4	64QAM	1	5	21.75	21.70	21.80	
1.4	64QAM	3	0	20.91	20.91	20.79	
1.4	64QAM	3	1	20.86	20.80	20.60	21.5
1.4	64QAM	3	3	20.77	20.74	20.71	
1.4	64QAM	6	0	20.71	20.74	20.79	

Band 14 (700MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23330			
Frequency (MHz)				793			
10	QPSK	1	0		22.79		24
10	QPSK	1	25		22.75		
10	QPSK	1	49		22.69		
10	QPSK	25	0		21.78		23
10	QPSK	25	12		21.65		
10	QPSK	25	25		21.72		
10	QPSK	50	0		21.75		23
10	16QAM	1	0		21.87		
10	16QAM	1	25		21.84		
10	16QAM	1	49		21.81		22
10	16QAM	25	0		20.74		
10	16QAM	25	12		20.79		
10	16QAM	25	25		20.87		22
10	16QAM	50	0		20.66		
10	64QAM	1	0		20.95		
10	64QAM	1	25		20.75		22
10	64QAM	1	49		20.76		
10	64QAM	25	0		19.84		
10	64QAM	25	12		19.80		21
10	64QAM	25	25		19.82		
10	64QAM	50	0		19.75		
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	22.71	22.76	22.73	24
5	QPSK	1	12	22.66	22.69	22.70	
5	QPSK	1	24	22.66	22.66	22.65	
5	QPSK	12	0	21.66	21.74	21.72	23
5	QPSK	12	7	21.73	21.62	21.70	
5	QPSK	12	13	21.67	21.66	21.67	
5	QPSK	25	0	21.72	21.56	21.80	23
5	16QAM	1	0	21.99	22.02	22.00	
5	16QAM	1	12	21.80	21.90	21.86	
5	16QAM	1	24	21.82	21.88	21.96	22
5	16QAM	12	0	20.70	20.95	20.79	
5	16QAM	12	7	20.68	20.87	20.66	
5	16QAM	12	13	20.74	20.68	20.75	22
5	16QAM	25	0	20.80	20.85	20.89	
5	64QAM	1	0	20.94	20.91	20.97	
5	64QAM	1	12	20.78	20.76	20.76	22
5	64QAM	1	24	20.89	20.88	20.76	
5	64QAM	12	0	19.94	19.95	19.75	
5	64QAM	12	7	19.78	19.81	19.83	21
5	64QAM	12	13	19.84	19.74	19.76	
5	64QAM	25	0	19.76	19.75	19.84	

Band 26 for FCC (dBm) (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	22.66	22.75	22.96	
15	QPSK	1	37	22.62	22.65	22.86	24
15	QPSK	1	74	22.57	22.60	22.79	
15	QPSK	36	0	21.63	21.71	21.86	
15	QPSK	36	20	21.53	21.69	21.81	23
15	QPSK	36	39	21.60	21.66	21.84	
15	QPSK	75	0	21.66	21.57	21.85	
15	16QAM	1	0	21.70	21.81	21.97	23
15	16QAM	1	37	21.61	21.75	21.95	
15	16QAM	1	74	21.88	21.65	21.82	
15	16QAM	36	0	20.71	20.67	20.83	22
15	16QAM	36	20	20.63	20.65	20.86	
15	16QAM	36	39	20.64	20.77	20.74	
15	16QAM	75	0	20.59	20.68	20.91	22
15	64QAM	1	0	20.65	20.92	20.99	
15	64QAM	1	37	20.72	20.63	20.88	
15	64QAM	1	74	20.76	20.67	20.87	21
15	64QAM	36	0	19.79	19.74	19.87	
15	64QAM	36	20	19.63	19.75	19.77	
15	64QAM	36	39	19.75	19.52	19.68	21
15	64QAM	75	0	19.62	19.71	19.69	
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	22.74	22.78	22.93	
10	QPSK	1	25	22.69	22.67	22.78	24
10	QPSK	1	49	22.57	22.79	22.81	
10	QPSK	25	0	21.54	21.60	21.68	
10	QPSK	25	12	21.45	21.71	21.79	23
10	QPSK	25	25	21.50	21.48	21.72	
10	QPSK	50	0	21.65	21.51	21.72	
10	16QAM	1	0	21.72	21.83	22.06	23
10	16QAM	1	25	21.80	21.93	21.93	
10	16QAM	1	49	21.71	21.85	21.98	
10	16QAM	25	0	20.62	20.82	20.78	22
10	16QAM	25	12	20.72	20.67	20.79	
10	16QAM	25	25	20.58	20.68	20.87	
10	16QAM	50	0	20.69	20.61	20.89	22
10	64QAM	1	0	20.71	20.81	20.99	
10	64QAM	1	25	20.65	20.69	20.79	
10	64QAM	1	49	20.66	20.72	20.78	21
10	64QAM	25	0	19.62	19.70	19.96	
10	64QAM	25	12	19.70	19.59	19.67	
10	64QAM	25	25	19.71	19.73	19.77	21
10	64QAM	50	0	19.75	19.67	19.94	
Channel				26715	26865	27015	
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	22.64	22.72	22.91	
5	QPSK	1	12	22.66	22.74	22.75	24
5	QPSK	1	24	22.59	22.70	22.83	
5	QPSK	12	0	21.64	21.74	21.87	
5	QPSK	12	7	21.61	21.69	21.78	23
5	QPSK	12	13	21.61	21.62	21.59	
5	QPSK	25	0	21.55	21.57	21.84	
5	16QAM	1	0	21.91	22.00	22.00	23
5	16QAM	1	12	21.75	21.93	21.78	
5	16QAM	1	24	21.85	21.82	21.91	
5	16QAM	12	0	20.59	20.80	20.84	22
5	16QAM	12	7	20.66	20.80	20.82	
5	16QAM	12	13	20.73	20.72	20.90	
5	16QAM	25	0	20.52	20.71	20.77	22
5	64QAM	1	0	20.82	20.78	21.04	
5	64QAM	1	12	20.73	20.69	20.80	
5	64QAM	1	24	20.76	20.74	20.78	21
5	64QAM	12	0	19.80	19.82	19.84	
5	64QAM	12	7	19.47	19.72	19.73	
5	64QAM	12	13	19.58	19.67	19.83	21
5	64QAM	25	0	19.72	19.65	19.93	
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	22.65	22.80	22.93	
3	QPSK	1	8	22.63	22.63	22.87	24
3	QPSK	1	14	22.56	22.59	22.72	
3	QPSK	8	0	21.70	21.70	21.86	
3	QPSK	8	4	21.63	21.66	21.87	23
3	QPSK	8	7	21.61	21.60	21.62	
3	QPSK	15	0	21.60	21.51	21.64	
3	16QAM	1	0	21.82	21.75	21.93	23
3	16QAM	1	8	21.80	21.82	21.89	
3	16QAM	1	14	21.75	21.76	21.90	
3	16QAM	8	0	20.79	20.77	20.82	22
3	16QAM	8	4	20.61	20.64	20.85	
3	16QAM	8	7	20.59	20.73	20.93	
3	16QAM	15	0	20.72	20.82	20.96	22
3	64QAM	1	0	20.77	20.80	20.97	
3	64QAM	1	8	20.71	20.75	20.83	
3	64QAM	1	14	20.62	20.69	20.89	21
3	64QAM	8	0	19.57	19.62	19.89	
3	64QAM	8	4	19.50	19.60	19.82	
3	64QAM	8	7	19.75	19.62	19.68	21
3	64QAM	15	0	19.61	19.79	19.81	
Channel				26697	26865	27033	
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	22.66	22.77	22.90	
1.4	QPSK	1	3	22.52	22.72	22.80	24
1.4	QPSK	1	5	22.64	22.62	22.81	
1.4	QPSK	3	0	21.62	21.71	21.81	
1.4	QPSK	3	1	21.56	21.56	21.65	24
1.4	QPSK	3	3	21.57	21.44	21.71	

Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.39	23.46	23.44	
20	QPSK	1	49	23.22	23.40	23.32	24
20	QPSK	1	99	23.20	23.35	23.23	
20	QPSK	50	0	22.33	22.41	22.36	
20	QPSK	50	24	22.28	22.26	22.29	23
20	QPSK	50	50	22.23	22.16	22.31	
20	QPSK	100	0	22.22	22.28	22.21	
20	16QAM	1	0	22.64	22.62	22.53	23
20	16QAM	1	49	22.49	22.55	22.49	
20	16QAM	1	99	22.46	22.59	22.38	
20	16QAM	50	0	21.43	21.47	21.36	22
20	16QAM	50	24	21.48	21.35	21.33	
20	16QAM	50	50	21.39	21.40	21.49	
20	16QAM	100	0	21.35	21.44	21.32	22
20	64QAM	1	0	21.55	21.63	21.58	
20	64QAM	1	49	21.31	21.42	21.32	
20	64QAM	1	99	21.35	21.41	21.36	21
20	64QAM	50	0	20.37	20.46	20.53	
20	64QAM	50	24	20.30	20.49	20.30	
20	64QAM	50	50	20.42	20.40	20.25	21
20	64QAM	100	0	20.27	20.37	20.36	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.33	23.44	23.39	24
15	QPSK	1	37	23.24	23.34	23.35	
15	QPSK	1	74	23.30	23.36	23.30	
15	QPSK	36	0	22.37	22.40	22.41	23
15	QPSK	36	20	22.32	22.40	22.29	
15	QPSK	36	39	22.37	22.18	22.17	
15	QPSK	75	0	22.33	22.37	22.17	23
15	16QAM	1	0	22.45	22.68	22.47	
15	16QAM	1	37	22.43	22.50	22.46	
15	16QAM	1	74	22.38	22.46	22.41	22
15	16QAM	36	0	21.31	21.36	21.36	
15	16QAM	36	20	21.48	21.38	21.24	
15	16QAM	36	39	21.36	21.39	21.45	22
15	16QAM	75	0	21.46	21.36	21.30	
15	64QAM	1	0	21.46	21.51	21.58	
15	64QAM	1	37	21.31	21.54	21.50	21
15	64QAM	1	74	21.36	21.27	21.29	
15	64QAM	36	0	20.46	20.48	20.50	
15	64QAM	36	20	20.22	20.46	20.27	21
15	64QAM	36	39	20.44	20.24	20.25	
15	64QAM	75	0	20.42	20.32	20.40	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.34	23.41	23.36	24
10	QPSK	1	25	23.22	23.26	23.27	
10	QPSK	1	49	23.37	23.34	23.33	
10	QPSK	25	0	22.25	22.45	22.35	23
10	QPSK	25	12	22.37	22.21	22.14	
10	QPSK	25	25	22.14	22.41	22.15	
10	QPSK	50	0	22.22	22.33	22.36	23
10	16QAM	1	0	22.44	22.55	22.59	
10	16QAM	1	25	22.31	22.59	22.39	
10	16QAM	1	49	22.42	22.52	22.55	22
10	16QAM	25	0	21.30	21.49	21.35	
10	16QAM	25	12	21.36	21.51	21.36	
10	16QAM	25	25	21.43	21.38	21.31	22
10	16QAM	50	0	21.26	21.41	21.37	
10	64QAM	1	0	21.58	21.41	21.39	
10	64QAM	1	25	21.44	21.48	21.36	21
10	64QAM	1	49	21.55	21.37	21.42	
10	64QAM	25	0	20.29	20.41	20.48	
10	64QAM	25	12	20.30	20.40	20.28	21
10	64QAM	25	25	20.33	20.38	20.30	
10	64QAM	50	0	20.27	20.33	20.37	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.35	23.42	23.39	24
5	QPSK	1	12	23.21	23.40	23.33	
5	QPSK	1	24	23.20	23.30	23.32	
5	QPSK	12	0	22.39	22.41	22.38	23
5	QPSK	12	7	22.29	22.37	22.30	
5	QPSK	12	13	22.18	22.17	22.33	
5	QPSK	25	0	22.39	22.20	22.26	23
5	16QAM	1	0	22.46	22.72	22.49	
5	16QAM	1	12	22.35	22.48	22.45	
5	16QAM	1	24	22.48	22.52	22.54	22
5	16QAM	12	0	21.37	21.48	21.46	
5	16QAM	12	7	21.38	21.37	21.29	
5	16QAM	12	13	21.30	21.33	21.31	22
5	16QAM	25	0	21.35	21.37	21.32	
5	64QAM	1	0	21.45	21.63	21.51	
5	64QAM	1	12	21.37	21.55	21.51	21
5	64QAM	1	24	21.33	21.32	21.38	
5	64QAM	12	0	20.33	20.41	20.30	
5	64QAM	12	7	20.26	20.32	20.32	21
5	64QAM	12	13	20.29	20.42	20.33	
5	64QAM	25	0	20.44	20.42	20.28	
Channel				131967	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.33	23.39	23.34	24
3	QPSK	1	8	23.27	23.32	23.31	
3	QPSK	1	14	23.17	23.26	23.29	
3	QPSK	8	0	22.44	22.39	22.43	23
3	QPSK	8	4	22.20	22.34	22.24	
3	QPSK	8	7	22.24	22.38	22.33	



1.4	QPSK	6	0	21.45	21.50	21.78	23
1.4	16QAM	1	0	21.87	21.94	21.96	23
1.4	16QAM	1	3	21.69	21.78	21.78	
1.4	16QAM	1	5	21.68	21.64	21.85	
1.4	16QAM	3	0	20.59	20.79	20.88	
1.4	16QAM	3	1	20.61	20.81	20.81	
1.4	16QAM	3	3	20.49	20.76	20.86	
1.4	16QAM	6	0	20.59	20.71	20.86	22
1.4	64QAM	1	0	20.73	20.75	20.99	22
1.4	64QAM	1	3	20.78	20.85	21.03	
1.4	64QAM	1	5	20.80	20.64	20.80	
1.4	64QAM	3	0	19.76	19.64	19.64	
1.4	64QAM	3	1	19.67	19.83	19.87	
1.4	64QAM	3	3	19.67	19.57	19.65	
1.4	64QAM	6	0	19.54	19.76	19.89	21

3	QPSK	15	0	22.25	22.22	22.25	23
3	16QAM	1	0	22.49	22.61	22.55	
3	16QAM	1	8	22.51	22.41	22.30	
3	16QAM	1	14	22.37	22.49	22.38	22
3	16QAM	8	0	21.39	21.36	21.32	
3	16QAM	8	4	21.44	21.53	21.32	
3	16QAM	8	7	21.39	21.46	21.41	
3	16QAM	15	0	21.40	21.50	21.31	22
3	64QAM	1	0	21.47	21.41	21.49	
3	64QAM	1	8	21.29	21.40	21.30	
3	64QAM	1	14	21.36	21.52	21.32	
3	64QAM	8	0	20.42	20.50	20.38	21
3	64QAM	8	4	20.44	20.38	20.23	
3	64QAM	8	7	20.30	20.28	20.29	
3	64QAM	15	0	20.32	20.37	20.39	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.33	23.40	23.37	24
1.4	QPSK	1	3	23.15	23.30	23.35	
1.4	QPSK	1	5	23.32	23.35	23.23	
1.4	QPSK	3	0	22.33	22.51	22.30	
1.4	QPSK	3	1	22.35	22.39	22.23	
1.4	QPSK	3	3	22.32	22.27	22.21	
1.4	QPSK	6	0	22.36	22.25	22.36	23
1.4	16QAM	1	0	22.44	22.48	22.63	23
1.4	16QAM	1	3	22.43	22.43	22.36	
1.4	16QAM	1	5	22.59	22.38	22.44	
1.4	16QAM	3	0	21.51	21.34	21.51	
1.4	16QAM	3	1	21.25	21.52	21.20	
1.4	16QAM	3	3	21.29	21.41	21.32	
1.4	16QAM	6	0	21.31	21.51	21.43	22
1.4	64QAM	1	0	21.38	21.60	21.54	22
1.4	64QAM	1	3	21.43	21.42	21.47	
1.4	64QAM	1	5	21.42	21.41	21.28	
1.4	64QAM	3	0	20.36	20.41	20.33	
1.4	64QAM	3	1	20.27	20.35	20.21	
1.4	64QAM	3	3	20.40	20.45	20.23	
1.4	64QAM	6	0	20.26	20.43	20.27	21

Band 38(only on channel required) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37850	38000	38150	24
Frequency (MHz)				2580	2595	2610	
20	QPSK	1	0	22.95	23.07	23.02	24
20	QPSK	1	49	22.88	22.92	22.86	
20	QPSK	1	99	22.74	22.87	22.85	
20	QPSK	50	0	21.80	21.92	21.89	23
20	QPSK	50	24	21.71	21.81	21.89	
20	QPSK	50	50	21.75	21.75	21.85	
20	QPSK	100	0	21.67	21.87	21.85	23
20	16QAM	1	0	22.11	22.06	22.11	
20	16QAM	1	49	21.93	22.15	21.88	
20	16QAM	1	99	21.91	21.96	22.10	22
20	16QAM	50	0	21.01	21.07	20.97	
20	16QAM	50	24	20.78	21.05	20.85	
20	16QAM	50	50	20.89	20.95	20.82	22
20	16QAM	100	0	20.80	20.98	20.93	
20	64QAM	1	0	21.04	21.09	20.98	
20	64QAM	1	49	20.90	20.88	20.93	22
20	64QAM	1	99	20.89	20.85	20.78	
20	64QAM	50	0	19.80	19.97	19.96	
20	64QAM	50	24	19.73	20.02	19.79	21
20	64QAM	50	50	19.93	19.76	19.78	
20	64QAM	100	0	19.86	19.79	19.89	
Channel				37825	38000	38175	24
Frequency (MHz)				2577.5	2595	2612.5	
15	QPSK	1	0	22.95	23.04	22.99	24
15	QPSK	1	37	22.72	22.88	22.92	
15	QPSK	1	74	22.80	22.93	22.84	
15	QPSK	36	0	21.77	21.95	21.78	23
15	QPSK	36	20	21.75	21.76	21.71	
15	QPSK	36	39	21.68	21.93	21.70	
15	QPSK	75	0	21.72	21.94	21.90	23
15	16QAM	1	0	21.94	22.09	21.96	
15	16QAM	1	37	22.06	21.94	21.90	
15	16QAM	1	74	21.95	21.90	21.94	22
15	16QAM	36	0	21.02	20.92	21.04	
15	16QAM	36	20	20.76	20.87	20.78	
15	16QAM	36	39	20.98	20.94	20.82	22
15	16QAM	75	0	20.93	20.85	20.92	
15	64QAM	1	0	20.89	20.96	20.88	
15	64QAM	1	37	20.89	20.86	21.03	22
15	64QAM	1	74	20.90	20.86	21.02	
15	64QAM	36	0	19.83	20.02	19.91	
15	64QAM	36	20	19.86	19.88	19.91	21
15	64QAM	36	39	19.83	19.83	19.72	
15	64QAM	75	0	19.76	20.01	19.93	
Channel				37800	38000	38200	24
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	22.79	23.03	23.00	24
10	QPSK	1	25	22.76	22.99	22.96	
10	QPSK	1	49	22.70	23.01	22.91	
10	QPSK	25	0	21.79	21.87	21.89	23
10	QPSK	25	12	21.79	21.75	21.67	
10	QPSK	25	25	21.79	21.70	21.84	
10	QPSK	50	0	21.67	21.80	21.79	23
10	16QAM	1	0	22.05	22.11	22.05	
10	16QAM	1	25	21.97	22.07	21.96	
10	16QAM	1	49	21.87	22.06	22.06	22
10	16QAM	25	0	20.97	20.84	20.90	
10	16QAM	25	12	20.86	20.87	20.88	
10	16QAM	25	25	20.74	20.92	20.91	22
10	16QAM	50	0	20.79	20.94	20.92	
10	64QAM	1	0	20.99	21.00	20.87	
10	64QAM	1	25	21.06	20.98	20.85	22
10	64QAM	1	49	20.84	20.85	20.78	
10	64QAM	25	0	19.99	19.87	19.82	
10	64QAM	25	12	19.89	20.03	19.71	21
10	64QAM	25	25	19.84	19.77	19.80	
10	64QAM	50	0	19.85	20.00	19.88	
Channel				37775	38000	38225	24
Frequency (MHz)				2572.5	2595	2617.5	
5	QPSK	1	0	22.81	23.00	22.95	24
5	QPSK	1	12	22.72	22.94	22.81	
5	QPSK	1	24	22.75	22.89	22.79	
5	QPSK	12	0	22.00	21.79	21.92	23
5	QPSK	12	7	21.71	21.83	21.84	
5	QPSK	12	13	21.81	21.80	21.76	
5	QPSK	25	0	21.71	21.96	21.88	23
5	16QAM	1	0	21.95	22.06	22.04	
5	16QAM	1	12	21.86	22.11	21.82	
5	16QAM	1	24	21.99	22.09	22.06	22
5	16QAM	12	0	21.05	20.92	20.93	
5	16QAM	12	7	20.84	20.86	20.90	
5	16QAM	12	13	20.79	21.02	20.99	22
5	16QAM	25	0	20.80	21.05	20.80	
5	64QAM	1	0	20.96	21.13	21.04	
5	64QAM	1	12	21.01	21.09	20.95	22
5	64QAM	1	24	20.92	20.99	20.90	
5	64QAM	12	0	20.05	20.00	19.89	
5	64QAM	12	7	19.76	20.03	19.95	21
5	64QAM	12	13	19.92	19.91	19.80	
5	64QAM	25	0	19.85	19.84	19.88	

Band 40 (2.3G Band-1) (dBm) Part 27D-1 2305MHz ~ 2315MHz							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				38750			
Frequency (MHz)				2310			
10	QPSK	1	0	23.20			24
10	QPSK	1	25	23.15			
10	QPSK	1	49	23.09			
10	QPSK	25	0	22.11			23
10	QPSK	25	12	22.03			
10	QPSK	25	25	21.95			
10	QPSK	50	0	22.01			23
10	16QAM	1	0	22.25			
10	16QAM	1	25	22.16			
10	16QAM	1	49	22.06			22
10	16QAM	25	0	21.08			
10	16QAM	25	12	21.00			
10	16QAM	25	25	20.98			22
10	16QAM	50	0	21.02			
10	64QAM	1	0	21.24			
10	64QAM	1	25	21.17			22
10	64QAM	1	49	21.13			
10	64QAM	25	0	20.14			
10	64QAM	25	12	20.07			21
10	64QAM	25	25	20.02			
10	64QAM	50	0	20.06			
Channel				38725	38750	38775	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	23.05	23.12	23.04	24
5	QPSK	1	12	22.94	22.95	22.78	
5	QPSK	1	24	22.87	23.05	22.88	
5	QPSK	12	0	21.79	21.81	21.97	23
5	QPSK	12	7	21.87	21.77	21.69	
5	QPSK	12	13	21.85	21.87	21.87	
5	QPSK	25	0	21.73	21.76	21.87	23
5	16QAM	1	0	22.01	22.22	22.11	
5	16QAM	1	12	22.00	21.93	21.95	
5	16QAM	1	24	21.87	21.92	22.07	22
5	16QAM	12	0	20.90	21.02	20.85	
5	16QAM	12	7	21.00	20.95	20.91	
5	16QAM	12	13	20.84	20.95	20.84	22
5	16QAM	25	0	20.91	20.84	20.84	
5	64QAM	1	0	20.92	21.00	20.96	
5	64QAM	1	12	20.96	20.94	20.87	22
5	64QAM	1	24	21.09	20.98	21.00	
5	64QAM	12	0	19.99	19.97	19.82	
5	64QAM	12	7	19.89	19.91	19.92	21
5	64QAM	12	13	19.74	19.79	19.75	
5	64QAM	25	0	19.79	20.00	19.81	

Band 40 (2.3G Band-2) (dBm) Part 27D-2 2350MHz ~ 2360MHz							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				39200			
Frequency (MHz)				2355			
10	QPSK	1	0	23.42			24
10	QPSK	1	25	23.35			
10	QPSK	1	49	23.31			
10	QPSK	25	0	22.34			23
10	QPSK	25	12	22.26			
10	QPSK	25	25	22.15			
10	QPSK	50	0	22.20			23
10	16QAM	1	0	22.44			
10	16QAM	1	25	22.36			
10	16QAM	1	49	22.34			22
10	16QAM	25	0	21.29			
10	16QAM	25	12	21.26			
10	16QAM	25	25	21.18			22
10	16QAM	50	0	21.22			
10	64QAM	1	0	21.40			
10	64QAM	1	25	21.27			22
10	64QAM	1	49	21.33			
10	64QAM	25	0	20.35			
10	64QAM	25	12	20.27			21
10	64QAM	25	25	20.32			
10	64QAM	50	0	20.28			
Channel				39175	39200	39225	Tune-up limit (dBm)
Frequency (MHz)				2352.5	2355	2357.5	
5	QPSK	1	0	23.27	23.35	23.30	24
5	QPSK	1	12	23.16	23.27	23.26	
5	QPSK	1	24	23.25	23.21	23.23	
5	QPSK	12	0	22.30	22.33	22.28	23
5	QPSK	12	7	22.19	22.22	22.19	
5	QPSK	12	13	22.13	22.27	22.13	
5	QPSK	25	0	22.09	22.28	22.14	23
5	16QAM	1	0	22.55	22.42	22.56	
5	16QAM	1	12	22.44	22.50	22.36	
5	16QAM	1	24	22.44	22.40	22.48	22
5	16QAM	12	0	21.24	21.32	21.43	
5	16QAM	12	7	21.19	21.42	21.23	
5	16QAM	12	13	21.19	21.36	21.24	22
5	16QAM	25	0	21.20	21.33	21.30	
5	64QAM	1	0	21.44	21.31	21.33	
5	64QAM	1	12	21.37	21.46	21.22	22
5	64QAM	1	24	21.46	21.38	21.34	
5	64QAM	12	0	20.41	20.46	20.29	
5	64QAM	12	7	20.30	20.44	20.23	21
5	64QAM	12	13	20.35	20.33	20.23	
5	64QAM	25	0	20.25	20.37	20.20	

Band 41 (2496~2690MHz) (dBm)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	23.03	23.16	23.29	23.21	23.15	24
20	QPSK	1	49	22.94	23.00	23.12	22.97	22.97	
20	QPSK	1	99	22.85	23.04	23.10	23.04	22.91	
20	QPSK	50	0	22.03	22.09	22.27	22.13	22.06	
20	QPSK	50	24	21.89	22.01	22.19	22.04	21.95	23
20	QPSK	50	50	21.98	22.00	22.07	21.90	21.97	
20	QPSK	100	0	21.92	21.87	22.12	21.92	21.75	
20	16QAM	1	0	22.09	22.14	22.39	22.35	22.05	
20	16QAM	1	49	22.02	22.08	22.35	22.33	22.15	23
20	16QAM	1	99	22.05	22.09	22.29	22.21	21.96	
20	16QAM	50	0	21.06	21.12	21.36	21.15	21.00	
20	16QAM	50	24	20.96	21.14	21.17	21.06	20.99	
20	16QAM	50	50	20.93	20.94	21.20	21.05	21.01	22
20	16QAM	100	0	21.16	21.05	21.28	21.10	21.07	
20	64QAM	1	0	21.23	21.26	21.41	21.16	21.18	
20	64QAM	1	49	20.99	21.26	21.27	21.20	21.17	
20	64QAM	1	99	21.08	21.12	21.28	21.21	21.11	21
20	64QAM	50	0	20.18	20.08	20.22	20.08	20.04	
20	64QAM	50	24	19.87	19.93	20.21	20.24	20.05	
20	64QAM	50	50	19.96	20.15	20.18	20.13	20.03	
20	64QAM	100	0	20.09	20.03	20.31	19.99	20.05	
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	23.11	23.20	23.26	23.20	23.16	24
15	QPSK	1	37	23.06	23.05	23.18	23.18	22.93	
15	QPSK	1	74	22.93	22.97	23.22	23.08	22.94	
15	QPSK	36	0	21.97	22.09	22.17	22.15	21.93	
15	QPSK	36	20	21.92	21.90	22.09	22.03	21.99	23
15	QPSK	36	39	21.82	21.84	22.10	22.13	21.91	
15	QPSK	75	0	22.01	22.08	22.21	21.98	21.97	
15	16QAM	1	0	22.26	22.31	22.41	22.36	22.08	
15	16QAM	1	37	22.21	22.10	22.32	22.25	22.07	23
15	16QAM	1	74	22.19	22.17	22.39	22.10	22.07	
15	16QAM	36	0	21.18	21.10	21.35	21.07	21.14	
15	16QAM	36	20	21.10	20.99	21.23	21.13	20.92	
15	16QAM	36	39	21.07	21.08	21.31	21.20	20.96	22
15	16QAM	75	0	21.12	21.02	21.34	21.11	21.02	
15	64QAM	1	0	21.20	21.15	21.38	21.33	20.98	
15	64QAM	1	37	21.06	21.14	21.43	21.08	21.11	
15	64QAM	1	74	21.00	21.25	21.25	20.99	20.94	21
15	64QAM	36	0	20.07	20.06	20.35	20.20	20.04	
15	64QAM	36	20	20.02	19.95	20.34	20.05	20.02	
15	64QAM	36	39	20.14	20.10	20.21	20.17	19.92	
15	64QAM	75	0	19.93	19.99	20.35	20.05	19.87	
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	23.06	23.15	23.25	23.20	23.13	24
10	QPSK	1	25	22.90	23.06	23.12	23.04	23.04	
10	QPSK	1	49	22.89	23.00	23.23	23.19	23.05	
10	QPSK	25	0	21.95	22.07	22.29	22.09	21.85	
10	QPSK	25	12	21.96	22.06	22.23	22.10	21.97	23
10	QPSK	25	25	21.84	22.08	22.08	22.11	21.94	
10	QPSK	50	0	22.04	22.02	22.29	22.07	21.98	
10	16QAM	1	0	22.14	22.34	22.40	22.31	22.28	
10	16QAM	1	25	22.21	22.26	22.37	22.30	21.98	23
10	16QAM	1	49	22.10	22.08	22.30	22.30	22.11	
10	16QAM	25	0	21.09	21.09	21.35	21.26	21.13	
10	16QAM	25	12	21.01	21.02	21.30	21.06	20.92	
10	16QAM	25	25	20.91	21.04	21.30	20.99	20.93	22
10	16QAM	50	0	21.08	21.01	21.21	21.14	21.02	
10	64QAM	1	0	21.29	21.22	21.40	21.13	21.02	
10	64QAM	1	25	20.05	21.18	21.36	21.09	21.02	
10	64QAM	1	49	21.18	21.04	21.32	21.19	21.08	21
10	64QAM	25	0	20.12	20.17	20.35	20.08	20.03	
10	64QAM	25	12	20.01	20.01	20.11	20.04	19.98	
10	64QAM	25	25	19.93	19.97	20.28	20.11	20.02	
10	64QAM	50	0	19.97	20.02	20.24	20.23	19.93	
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5	
5	QPSK	1	0	23.11	23.09	23.24	23.11	23.07	24
5	QPSK	1	12	23.05	22.89	23.24	23.07	23.06	
5	QPSK	1	24	22.96	22.87	23.18	23.05	23.00	
5	QPSK	12	0	21.94	22.09	22.35	22.20	22.01	
5	QPSK	12	7	21.94	21.99	22.22	22.10	21.91	23
5	QPSK	12	13	21.93	21.95	22.21	21.97	21.90	
5	QPSK	25	0	21.90	21.88	22.21	22.06	21.92	
5	16QAM	1	0	22.27	22.33	22.36	22.29	22.15	
5	16QAM	1	12	22.00	22.13	22.30	22.13	21.91	23
5	16QAM	1	24	22.11	22.24	22.24	22.22	22.02	
5	16QAM	12	0	21.09	21.15	21.30	21.21	21.05	
5	16QAM	12	7	20.94	21.00	21.24	21.03	20.97	
5	16QAM	12	13	21.12	21.03	21.24	21.07	21.00	22
5	16QAM	25	0	20.92	20.99	21.27	21.22	21.08	
5	64QAM	1	0	21.16	21.24	21.34	21.12	21.12	
5	64QAM	1	12	21.20	21.24	21.27	21.18	21.04	
5	64QAM	1	24	21.10	21.22	21.19	21.07	20.92	21
5	64QAM	12	0	20.18	20.10	20.21	20.25	19.99	
5	64QAM	12	7	19.94	20.08	20.35	20.24	19.99	
5	64QAM	12	13	20.14	20.11	20.14	20.08	20.01	
5	64QAM	25	0	19.99	20.08	20.36	19.99	19.96	

2CC LTE Uplink												
Configure	CA Configuration	PCC					SCC				Power	
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)	Tune-up limit(dBm)
Inter-band	CA_12A-66A	12	5	23035	701.5	QPSK/1#0	66	20	67236	2190	23.21	24
	CA_14A-66A	14	10	23330	793	QPSK/1#0	66	20	67236	2190	24.2	24.5
	CA_2A-12A	2	20	18700	1860	QPSK/1#0	12	5	23155	713.5	22.12	23
	CA_2A-14A	2	20	18700	1860	QPSK/1#0	14	10	23330	793	22.1	23
	CA_2A-5A	2	20	18700	1860	QPSK/1#0	5	10	20600	844	22.15	23
	CA_5A-66A	5	10	20450	829	QPSK/1#0	66	20	67236	2190	22.11	23
	CA_2A-66A	2	20	18700	1860	QPSK/1#0	66	20	67236	2190	22.14	23

2CC LTE Downlink											
CA Configuration	PCC					SCC				Power	
	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	CA TX (dBm)	Rel.8 TX (dBm)
CA_5B	5	10	20476	831.6	QPSK/1#0	5	10	20575	841.5	22.24	23.15
CA_66A-66A	66	20	132072	1720	QPSK/1#0	66	20	67236	2190	22.71	23.46
CA_7A-29A	7	20	20850	2510	QPSK/1#0	29	10	9720	723	22.02	22.94
CA_7A-7A	7	20	20850	2510	QPSK/1#0	7	20	21350	2560	22.06	22.94
CA_7C	7	20	21001	2525.1	QPSK/1#0	7	20	21199	2544.9	21.48	22.94
CA_7A-12A	7	20	20850	2510	QPSK/1#0	12	10	23155	713.5	22.01	22.94

3CC LTE Downlink															
CA Configuration	PCC					SCC1				SCC2				Power	
	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	CA TX (dBm)	Rel.8 TX (dBm)
CA_12A-66A-66A	12	10	23035	701.5	QPSK/1#0	66	20	66536	2120	66	20	67236	2190	23.26	23.91
CA_14A-66A-66A	14	10	23330	793	QPSK/1#0	66	20	66536	2120	66	20	67236	2190	22.42	22.79
CA_2A-12A-66A	2	20	18700	1860	QPSK/1#0	12	10	23155	713.5	66	20	67236	2190	22.16	22.91
CA_2A-14A-66A	2	20	18700	1860	QPSK/1#0	14	10	23330	793	66	20	67236	2190	22.23	22.91
CA_2A-2A-12A	2	20	18700	1860	QPSK/1#0	2	20	19100	1900	12	10	23155	713.5	22.11	22.91
CA_2A-2A-14A	2	20	18700	1860	QPSK/1#0	2	20	19100	1900	14	10	23330	793	22.12	22.91
CA_2A-2A-66A	2	20	18700	1860	QPSK/1#0	2	20	19100	1900	66	10	67236	2190	22.15	22.91
CA_2A-5A-66A	2	20	18700	1860	QPSK/1#0	5	10	20600	844	66	20	67236	2190	22.22	22.91
CA_2A-66A-66A	2	20	18700	1860	QPSK/1#0	66	20	66536	2120	66	10	67236	2190	22.17	22.91
CA_5A-66A-66A	5	10	20450	829	QPSK/1#0	66	20	66536	2120	66	10	67236	2190	22.03	23.15
CA_2A-29A-66A	2	20	18700	1860	QPSK/1#0	29	10	9720	723	66	10	67236	2190	22.29	22.91
CA_2A-2A-4A	2	20	18700	1860	QPSK/1#0	2	20	19100	1900	5	10	20600	844	22.13	22.91
CA_5A-7A-7A	5	10	20450	829	QPSK/1#0	7	20	20850	2510	7	20	21350	2560	22.79	23.15

n2 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit
Channel				372000	376000	380000	(dBm)
Frequency (MHz)				1860	1880	1900	
20	DFT-s-OFDM PI/2 BPSK	1	1	22.70	22.78	22.59	24
20		1	53	22.74	22.63	22.58	
20		1	104	22.74	22.68	22.65	
20		50	1	22.83	22.80	22.59	24
20	DFT-s-OFDM QPSK	50	25	22.85	22.87	22.65	
20		50	50	22.82	22.82	22.69	
20		100	0	22.88	23.04	22.70	
20		1	1	22.97	23.17	23.10	24
20	DFT-s-OFDM 16QAM	1	53	22.71	22.73	22.60	
20		1	104	22.70	22.59	22.69	
20		50	1	22.81	22.96	22.78	24
20		50	25	22.81	22.86	22.70	
20		50	50	22.85	22.74	22.61	
20		100	0	22.82	22.73	22.72	
20	DFT-s-OFDM 64QAM	1	1	22.80	22.85	22.65	24
20	DFT-s-OFDM 256QAM	1	1	21.22	21.25	21.07	22
20	CP-OFDM QPSK	1	1	18.93	19.00	19.02	20
20	CP-OFDM 16QAM	1	1	22.18	22.13	22.00	23
20	CP-OFDM 64QAM	1	1	21.66	21.62	21.51	22.5
20	CP-OFDM 256QAM	1	1	19.73	19.79	19.73	20.5
20	CP-OFDM 256QAM	1	1	17.00	17.04	16.97	18
Channel				371500	376000	380500	Tune-up limit
Frequency (MHz)				1857.5	1880	1902.5	(dBm)
15	DFT-s-OFDM QPSK	1	1	22.79	22.80	22.67	24
Channel				371000	376000	381000	Tune-up limit
Frequency (MHz)				1855	1880	1905	(dBm)
10	DFT-s-OFDM QPSK	1	1	22.82	22.80	22.66	24
Channel				370500	376000	381500	Tune-up limit
Frequency (MHz)				1852.5	1880	1907.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	22.80	22.83	22.78	24

n5 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit
Channel				166800	167300	167800	(dBm)
Frequency (MHz)				834	836.5	839	
20	DFT-s-OFDM PI/2 BPSK	1	1	22.89	22.85	22.85	24
20		1	53	22.83	22.97	22.95	
20		1	104	22.96	22.85	22.81	
20		50	1	22.97	22.98	22.97	24
20	DFT-s-OFDM QPSK	50	25	22.93	22.96	22.92	
20		50	50	22.97	23.01	22.97	
20		100	0	22.98	22.99	22.94	
20		1	1	22.84	23.03	22.92	24
20	DFT-s-OFDM 16QAM	1	53	22.81	22.87	22.92	
20		1	104	22.90	22.83	22.83	
20		50	1	22.88	22.99	22.95	24
20		50	25	22.96	22.98	22.97	
20	DFT-s-OFDM 64QAM	50	50	22.90	22.98	22.95	
20		100	0	22.91	22.90	22.98	
20	DFT-s-OFDM 256QAM	1	1	22.86	22.90	22.89	23
20	CP-OFDM QPSK	1	1	21.34	21.35	21.36	22
20	CP-OFDM 16QAM	1	1	19.23	19.18	19.16	19
20	CP-OFDM 64QAM	1	1	22.26	22.24	22.26	23
20	CP-OFDM 256QAM	1	1	21.79	21.80	21.83	22.5
20		1	1	19.91	19.90	19.91	20.5
20		1	1	17.30	17.20	17.31	18
Channel				166300	167300	168300	Tune-up limit
Frequency (MHz)				831.5	836.5	841.5	(dBm)
15	DFT-s-OFDM QPSK	1	1	22.89	22.90	22.86	24
Channel				165800	167300	168800	Tune-up limit
Frequency (MHz)				829	836.5	844	(dBm)
10	DFT-s-OFDM QPSK	1	1	22.86	22.80	22.91	24
Channel				165300	167300	169300	Tune-up limit
Frequency (MHz)				826.5	836.5	846.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	22.90	22.96	22.91	24

n66 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	iddle Channel	High Channel	Tune-up
Channel				344000	349000	354000	limit
Frequency (MHz)				1720	1745	1770	(dBm)
20	DFT-s-OFDM PI/2 BPSK	1	1	23.37	23.41	23.35	24.5
20		1	53	23.44	23.34	23.30	
20		1	104	23.38	23.31	23.33	
20		50	1	23.42	23.46	23.35	24.5
20		50	25	23.44	23.48	23.40	
20		50	50	23.46	23.44	23.32	
20	DFT-s-OFDM QPSK	100	0	23.45	23.43	23.41	24.5
20		1	1	23.37	23.52	23.33	
20		1	53	23.28	23.29	23.18	
20		1	104	23.34	23.37	23.29	24.5
20		50	1	23.37	23.44	23.31	
20		50	25	23.30	23.39	23.31	
20	DFT-s-OFDM 16QAM	50	50	23.29	23.36	23.31	24.5
20		100	0	23.32	23.35	23.35	
20		1	1	23.42	23.45	23.41	
20	DFT-s-OFDM 64QAM	1	1	21.83	22.03	21.84	23
20	DFT-s-OFDM 256QAM	1	1	19.46	19.61	19.48	20.5
20	CP-OFDM QPSK	1	1	22.77	22.86	22.76	23.5
20	CP-OFDM 16QAM	1	1	22.24	22.35	22.23	23
20	CP-OFDM 64QAM	1	1	20.38	20.51	20.37	21.5
20	CP-OFDM 256QAM	1	1	17.55	17.65	17.56	18.5
Channel				343500	349000	354500	Tune-up
Frequency (MHz)				1717.5	1745	1772.5	limit
15	DFT-s-OFDM QPSK	1	1	23.42	23.43	23.37	24.5
Channel				343000	349000	355000	Tune-up
Frequency (MHz)				1715	1745	1775	limit
10	DFT-s-OFDM QPSK	1	1	23.32	23.38	23.33	24.5
Channel				342500	349000	355500	Tune-up
Frequency (MHz)				1712.5	1745	1777.5	limit
5	DFT-s-OFDM QPSK	1	1	23.42	23.43	23.40	24.5

n77(3450-3550MHz) (PC2)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	High Channel	High/Middle Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			26.55			27.5
100		1	136			26.14			
100		1	271			25.35			
100		135	1			25.92			27.5
100	DFT-s-OFDM QPSK	135	67			26.21			
100		135	136			25.07			
100		270	0			25.60			
100		1	1			26.66			27.5
100	DFT-s-OFDM QPSK	1	136			26.15			
100		1	271			25.35			
100		135	1			26.41			27.5
100		135	67			26.21			
100		135	136			25.57			
100		270	0			24.89			26.5
100	DFT-s-OFDM 16QAM	1	1			26.37			27
100	DFT-s-OFDM 64QAM	1	1			24.56			25.5
100	DFT-s-OFDM 256QAM	1	1			21.84			22.5
100	CP-OFDM QPSK	1	1			24.26			25
100	CP-OFDM 16QAM	1	1			24.53			25.5
100	CP-OFDM 64QAM	1	1			22.63			23.5
100	CP-OFDM 256QAM	1	1			19.83			20.5
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	26.57	26.48	26.44	26.41	26.39	27.5
Channel				632000	632668	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	26.57	26.56	26.42	26.32	26.33	27.5
Channel				631334	632334	633334	634332	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	26.62	26.59	26.58	26.49	26.16	27.5
Channel				631000	632168	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	26.65	26.59	26.61	26.31	25.86	27.5
Channel				630668	632000	633334	634666	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	26.64	26.62	26.49	26.07	25.64	27.5



n77(3450-3550MHz) (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			22.42			24
100		1	136			22.45			
100		1	271			22.25			
100		135	1			22.50			24
100		135	67			22.53			
100		135	136			22.10			
100	DFT-s-OFDM QPSK	270	0			22.47			24
100		1	1			22.54			
100		1	136			22.45			
100		1	271			22.27			24
100		135	1			22.49			
100		135	67			22.42			
100		135	136			22.09			24
100		270	0			22.47			
100	DFT-s-OFDM 16QAM	1	1			22.40			24
100	DFT-s-OFDM 64QAM	1	1			20.91			22
100	DFT-s-OFDM 256QAM	1	1			18.74			19.5
100	CP-OFDM QPSK	1	1			21.94			22.5
100	CP-OFDM 16QAM	1	1			21.48			22.5
100	CP-OFDM 64QAM	1	1			19.57			20.5
100	CP-OFDM 256QAM	1	1			16.78			17.5
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	(dBm)
80	DFT-s-OFDM QPSK	1	1	22.46	22.40	22.40	22.41	22.46	24
Channel				632000	632668	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	(dBm)
60	DFT-s-OFDM QPSK	1	1	22.50	22.50	22.33	22.42	22.49	24
Channel				631334	632334	633334	634332	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	(dBm)
40	DFT-s-OFDM QPSK	1	1	22.51	22.50	22.46	22.52	22.43	24
Channel				631000	632168	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	(dBm)
30	DFT-s-OFDM QPSK	1	1	22.50	22.43	22.43	22.48	22.48	24
Channel				630668	632000	633334	634666	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	(dBm)
20	DFT-s-OFDM QPSK	1	1	22.38	22.36	22.44	22.51	22.30	24

n77(3700-3980MHz) (PC2)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	High Channel	High/Middle Channel	High Channel	Tune-up
Channel				650000	653000	656000	659000	662000	limit
Frequency (MHz)				3750	3795	3840	3885	3930	(dBm)
100	DFT-s-OFDM PI/2 BPSK	1	1	26.60	26.40	26.21	26.60	27.04	28.5
100		1	136	26.42	26.26	26.67	27.06	27.39	
100		1	271	26.26	26.60	27.12	27.39	27.42	
100		135	1	26.29	25.74	25.79	26.14	26.70	28.5
100		135	67	26.37	26.34	26.69	27.14	27.42	
100		135	136	25.58	25.86	26.05	26.73	27.56	
100		270	0	25.91	25.86	26.25	26.62	26.97	
100	DFT-s-OFDM QPSK	1	1	27.39	27.44	27.60	27.43	27.56	28.5
100		1	136	26.36	26.29	26.72	27.07	26.73	
100		1	271	26.18	26.61	27.11	26.59	27.43	
100		135	1	27.05	27.20	27.32	27.23	27.26	28.5
100		135	67	26.39	26.36	26.70	27.12	26.84	
100		135	136	25.10	25.24	25.59	26.05	26.20	
100		270	0	25.43	25.37	25.74	26.15	26.18	27.5
100	DFT-s-OFDM 16QAM	1	1	25.54	25.37	25.16	25.41	26.00	27
100	DFT-s-OFDM 64QAM	1	1	24.20	24.06	24.28	24.17	24.47	25
100	DFT-s-OFDM 256QAM	1	1	21.94	21.79	21.90	21.85	22.32	23
100	CP-OFDM QPSK	1	1	25.13	24.96	25.18	25.06	25.47	26
100	CP-OFDM 16QAM	1	1	24.59	24.47	24.75	24.54	25.09	26
100	CP-OFDM 64QAM	1	1	22.72	22.64	22.86	22.71	23.23	24
100	CP-OFDM 256QAM	1	1	19.88	19.74	19.74	19.84	20.38	21
Channel				649334	652668	656000	659332	662666	Tune-up
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	limit
80	DFT-s-OFDM QPSK	1	1	26.62	26.38	26.37	26.45	27.14	28.5
Channel				648668	652334	656000	659666	663332	Tune-up
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	limit
60	DFT-s-OFDM QPSK	1	1	26.68	26.42	26.27	26.70	27.18	28.5
Channel				648000	652000	656000	660000	664000	Tune-up
Frequency (MHz)				3720	3780	3840	3900	3960	limit
40	DFT-s-OFDM QPSK	1	1	27.08	26.75	26.67	27.42	26.60	28.5
Channel				647668	651834	656000	660166	664332	Tune-up
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	limit
30	DFT-s-OFDM QPSK	1	1	26.93	26.52	26.59	27.32	26.49	28.5
Channel				647334	651668	656000	660332	664666	Tune-up
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	limit
20	DFT-s-OFDM QPSK	1	1	27.01	26.55	26.69	27.37	27.00	28.5



n77(3700-3980MHz) (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				650000	653000	656000	659000	662000	24
Frequency (MHz)				3750	3795	3840	3885	3930	
100	DFT-s-OFDM PI/2 BPSK	1	1	22.50	22.08	21.78	22.32	22.48	24
100		1	136	22.00	21.94	22.43	22.47	21.98	
100		1	271	21.68	22.41	22.49	22.00	22.38	
100		135	1	22.49	21.92	21.96	22.31	22.38	
100		135	67	22.07	21.99	22.42	22.50	22.11	
100		135	136	21.67	21.95	22.27	22.22	22.16	
100	DFT-s-OFDM QPSK	270	0	22.05	22.01	22.32	22.46	22.16	24
100		1	1	22.45	22.37	22.56	22.36	22.46	
100		1	136	21.99	21.87	22.49	22.50	22.00	
100		1	271	21.70	22.42	22.51	22.00	22.39	
100		135	1	22.34	22.30	22.52	22.33	22.38	
100		135	67	22.02	21.91	22.51	22.42	22.08	
100	DFT-s-OFDM 16QAM	135	136	21.66	21.97	22.31	22.14	22.19	24
100		270	0	22.05	22.00	22.38	22.48	22.18	
100		1	1	22.39	22.03	21.75	22.25	22.37	
100		1	1	20.88	20.52	20.32	20.75	20.91	
100	DFT-s-OFDM 64QAM	1	1	18.73	18.38	18.08	18.65	18.76	19.5
100	CP-OFDM QPSK	1	1	21.95	21.62	21.34	21.77	21.97	22.5
100	CP-OFDM 16QAM	1	1	21.49	21.07	20.87	21.35	21.49	22.5
100	CP-OFDM 64QAM	1	1	19.50	19.14	18.92	19.43	19.55	20.5
100	CP-OFDM 256QAM	1	1	16.73	16.40	16.12	16.67	16.76	17.5
Channel				649334	652668	656000	659332	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	24
80	DFT-s-OFDM QPSK	1	1	22.54	22.07	21.89	22.12	22.29	24
Channel				648668	652334	656000	659666	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	24
60	DFT-s-OFDM QPSK	1	1	22.48	21.98	21.95	22.34	21.97	24
Channel				648000	652000	656000	660000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3780	3840	3900	3960	24
40	DFT-s-OFDM QPSK	1	1	22.43	22.29	22.36	22.44	22.49	24
Channel				647668	651834	656000	660166	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	24
30	DFT-s-OFDM QPSK	1	1	22.44	22.07	22.32	22.49	22.36	24
Channel				647334	651668	656000	660332	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	24
20	DFT-s-OFDM QPSK	1	1	22.43	22.08	22.48	22.42	22.39	24



2.4GHz WLAN ANT 7

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
2.4GHz WLAN ANT 7	802.11b 1Mbps	CH 1	2412	16.30	17.00	14.00	99.35
		CH 6	2437	16.20	16.50	14.00	
		CH 11	2462	16.36	17.00	14.00	
	802.11g 6Mbps	CH 1	2412	16.36	17.00	14.50	98.35
		CH 6	2437	16.23	16.50	14.50	
		CH 11	2462	16.42	17.00	14.50	
	802.11n-HT20 MCS0	CH 1	2412	16.22	16.50	14.50	98.13
		CH 6	2437	16.10	16.50	14.50	
		CH 11	2462	16.23	16.50	14.50	
	802.11n-HT40 MCS0	CH 3	2422	16.20	16.50	14.05	94.90
		CH 6	2437	16.12	16.50	14.05	
		CH 9	2452	16.34	17.00	14.00	
	802.11ac-VHT20 MCS0	CH 1	2412	16.14	16.50	14.50	98.24
		CH 6	2437	16.06	16.50	14.50	
		CH 11	2462	16.18	16.50	14.50	
	802.11ac-VHT40 MCS0	CH 3	2422	16.05	16.50	14.00	94.94
		CH 6	2437	16.10	16.50	14.00	
		CH 9	2452	16.28	16.90	14.00	

5GHz WLAN ANT 7

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.2GHz WLAN ANT 7	802.11a 6Mbps	CH 36	5180	16.12	16.50	13.00	98.54
		CH 44	5220	16.46	17.00	13.00	
		CH 48	5240	16.06	16.50	13.00	
	802.11n-HT20 MCS0	CH 36	5180	15.96	16.50	13.00	98.44
		CH 44	5220	16.31	17.00	13.00	
		CH 48	5240	15.90	16.50	13.00	
	802.11n-HT40 MCS0	CH 38	5190	16.28	16.50	12.50	96.88
		CH 46	5230	16.39	17.00	12.50	
		CH 36	5180	16.05	16.50	13.00	
	802.11ac-VHT20 MCS0	CH 44	5220	16.18	16.50	13.00	96.45
		CH 48	5240	15.86	16.50	13.00	
		CH 38	5190	16.24	16.50	12.50	
	802.11ac-VHT40 MCS0	CH 46	5230	16.37	17.00	12.50	96.91
		CH 42	5210	16.34	17.00	12.50	
		CH 42	5210	16.34	17.00	12.50	

5GHz WLAN ANT 7

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.3GHz WLAN ANT 7	802.11a 6Mbps	CH 52	5260	16.42	17.00	13.00	98.54
		CH 60	5300	16.34	17.00	13.00	
		CH 64	5320	15.67	16.00	13.00	
	802.11n-HT20 MCS0	CH 52	5260	16.26	16.50	13.00	98.44
		CH 60	5300	16.16	16.50	13.00	
		CH 64	5320	15.54	16.00	13.00	
	802.11n-HT40 MCS0	CH 54	5270	16.31	17.00	12.50	96.88
		CH 62	5310	16.17	16.50	12.50	
		CH 52	5260	16.29	16.50	13.00	
	802.11ac-VHT20 MCS0	CH 60	5300	16.09	16.50	13.00	96.45
		CH 64	5320	15.53	16.00	13.00	
		CH 54	5270	16.19	16.50	12.50	
	802.11ac-VHT40 MCS0	CH 62	5310	16.16	16.50	12.50	96.91
		CH 58	5290	16.07	16.50	12.50	
		CH 58	5290	16.07	16.50	12.50	

5GHz WLAN ANT 7

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.5GHz WLAN ANT 7	802.11a 6Mbps	CH 100	5600	16.21	16.50	12.00	98.54
		CH 120	5600	16.35	17.00	12.00	
		CH 144	5720	16.21	16.50	12.00	
	802.11n-HT20 MCS0	CH 100	5600	16.07	16.50	12.00	98.44
		CH 120	5600	16.44	17.00	12.00	
		CH 144	5720	16.08	16.50	12.00	
	802.11n-HT40 MCS0	CH 102	5610	16.03	16.50	11.50	96.88
		CH 126	5630	16.56	17.00	11.50	
		CH 142	5710	16.22	16.50	11.50	
	802.11ac-VHT20 MCS0	CH 100	5600	16.03	16.50	12.00	96.45
		CH 120	5600	16.34	17.00	12.00	
		CH 144	5720	16.12	16.50	12.00	
	802.11ac-VHT40 MCS0	CH 102	5610	16.06	16.50	11.50	96.91
		CH 126	5630	16.59	17.00	11.50	
		CH 142	5710	16.41	17.00	11.50	
	802.11ac-VHT80 MCS0	CH 106	5630	16.25	16.50	11.50	93.88
		CH 122	5610	16.41	17.00	11.50	
		CH 138	5690	16.35	17.00	11.50	

5GHz WLAN ANT 7

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN ANT 7	802.11a 6Mbps	CH 149	5745	16.53	17.00	12.00	98.54
		CH 157	5785	16.50	17.00	12.00	
		CH 165	5825	16.76	17.00	12.00	
	802.11n-HT20 MCS0	CH 149	5745	16.42	17.00	12.00	98.44
		CH 157	5785	16.21	17.00	12.00	
		CH 165	5825	16.54	17.00	12.00	
	802.11n-HT40 MCS0	CH 151	5755	16.64	17.00	11.50	96.88
		CH 159	5795	16.38	17.00	11.50	
		CH 149	5745	16.40	17.00	12.00	
	802.11ac-VHT20 MCS0	CH 157	5785	16.24	16.50	12.00	96.45
		CH 165	5825	16.57	17.00	12.00	
		CH 151	5755	16.62	17.00	11.50	
	802.11ac-VHT40 MCS0	CH 159	5795	16.39	17.00	11.50	96.91
		CH 155	5775	16.47	17.00	11.50	
		CH 155	5775	16.47	17.00	11.50	

Mode	Channel	Frequency (MHz)	Average power (dBm)	
LE	2402	CH 00	1Mbps	8.73
			2Mbps	8.73
			5Mbps	8.50
	2480	CH 76	10.38	10.38
Tune-up Limit			10.5	10.5
Duty Cycle %			62.9	33.33
Power Setting			8	8

Mode	Channel	Frequency (MHz)	1Mbps		2Mbps		5Mbps	
			Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit	Average power (dBm)	Tune-up Limit
BR / EDR	CH 00	2402	8.68	9.00	7.91	8.50	8.14	8.50
	CH 39	2441	8.53	9.00	7.66	8.00	8.01	8.50
	CH 78	2480	10.38	10.50	9.65	10.00	9.90	10.50
	Duty Cycle %		76.99		77.07		77.09	
Power Setting			8		8		8	

Reduced Power Level 1 for ANT 1 & ANT 2 & ANT 10

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)	WCDMA Band V (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	RMC 12.2Kbps	16.28	16.32	16.17	17.00	19.42	19.44	19.36	20.00	21.29	21.47	21.45	22.00
3GPP Rel 5	HSDPA Subtest-1	15.44	15.44	15.41	16.00	18.13	18.20	18.23	18.50	19.31	19.50	19.59	20.00
3GPP Rel 5	HSDPA Subtest-2	15.43	15.46	15.32	9.00	18.19	18.15	18.20	14.00	19.38	19.51	19.55	17.00
3GPP Rel 5	HSDPA Subtest-3	14.91	14.91	14.89	8.50	17.64	17.77	17.70	13.50	18.90	18.93	19.08	16.50
3GPP Rel 5	HSDPA Subtest-4	14.88	14.95	14.79	8.50	17.65	17.72	17.77	13.50	18.89	19.06	19.12	16.50
3GPP Rel 8	DC-HSDPA Subtest-1	15.38	15.36	15.35	16.00	18.16	18.18	18.22	18.50	19.37	19.52	19.59	20.00
3GPP Rel 8	DC-HSDPA Subtest-2	15.34	15.33	15.31	9.00	18.21	18.20	18.19	14.00	19.38	19.51	19.61	17.00
3GPP Rel 8	DC-HSDPA Subtest-3	14.89	14.89	14.87	8.50	17.66	17.67	17.71	13.50	18.87	19.09	19.06	16.50
3GPP Rel 8	DC-HSDPA Subtest-4	14.82	14.95	14.89	8.50	17.65	17.66	17.64	13.50	18.90	18.98	19.10	16.50
3GPP Rel 6	HSUPA Subtest-1	15.29	15.38	15.21	16.00	18.10	18.25	18.18	18.50	19.83	19.53	19.59	20.00
3GPP Rel 6	HSUPA Subtest-2	14.91	14.86	14.68	15.50	17.61	17.70	17.60	18.00	18.90	19.07	19.04	19.50
3GPP Rel 6	HSUPA Subtest-3	15.32	15.33	15.25	16.00	18.05	18.22	18.14	18.50	19.35	19.60	19.58	20.00
3GPP Rel 6	HSUPA Subtest-4	15.34	15.40	15.25	16.00	18.11	18.19	18.18	18.50	19.39	19.55	19.61	20.00
3GPP Rel 6	HSUPA Subtest-5	15.28	15.32	15.22	16.00	18.14	18.18	18.16	18.50	19.47	19.56	19.60	20.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	14.80	14.85	14.66	15.50	17.57	17.61	17.72	18.00	19.33	19.55	19.62	20.00
Attenuator		Cable Loss			0.8	Cable Loss			0.8	Cable Loss			0.6
Mode		Max.			16.32	Max.			19.44	Max.			21.47

Band 2 (1900MHz Band) (dBm)_ANT 1							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	15.87	15.91	15.85	
20	QPSK	1	49	15.77	15.85	15.79	17
20	QPSK	1	99	15.75	15.81	15.76	
20	QPSK	50	0	14.86	14.90	14.83	
20	QPSK	50	24	14.79	14.84	14.77	16
20	QPSK	50	50	14.75	14.79	14.74	
20	QPSK	100	0	14.77	14.82	14.76	
20	16QAM	1	0	15.03	15.10	15.05	16
20	16QAM	1	49	14.94	15.03	14.92	
20	16QAM	1	99	14.98	14.99	14.96	
20	16QAM	50	0	13.91	13.95	13.90	15
20	16QAM	50	24	13.86	13.91	13.79	
20	16QAM	50	50	13.84	13.89	13.88	
20	16QAM	100	0	13.87	13.92	13.89	15
20	64QAM	1	0	14.00	14.02	13.97	
20	64QAM	1	49	13.92	13.96	13.93	
20	64QAM	1	99	13.95	13.90	13.89	14
20	64QAM	50	0	12.91	12.97	12.92	
20	64QAM	50	24	12.82	12.94	12.81	
20	64QAM	50	50	12.85	12.86	12.80	14
20	64QAM	100	0	12.86	12.90	12.84	
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	15.82	15.88	15.86	
15	QPSK	1	37	15.65	15.85	15.77	17
15	QPSK	1	74	15.80	15.77	15.71	
15	QPSK	36	0	14.93	14.98	14.79	
15	QPSK	36	20	14.84	14.91	14.70	16
15	QPSK	36	39	14.82	14.75	14.84	
15	QPSK	75	0	14.68	14.90	14.82	
15	16QAM	1	0	15.00	15.00	15.01	16
15	16QAM	1	37	14.84	15.10	14.88	
15	16QAM	1	74	14.94	14.85	15.00	
15	16QAM	36	0	13.78	13.88	13.82	15
15	16QAM	36	20	13.92	13.90	13.78	
15	16QAM	36	39	13.84	13.74	13.81	
15	16QAM	75	0	13.91	13.79	13.90	15
15	64QAM	1	0	14.04	13.89	13.99	
15	64QAM	1	37	13.88	13.82	13.82	
15	64QAM	1	74	13.86	13.93	13.89	14
15	64QAM	36	0	12.80	13.01	12.99	
15	64QAM	36	20	12.73	13.00	12.91	
15	64QAM	36	39	12.71	12.75	12.67	14
15	64QAM	75	0	12.93	12.80	12.88	
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	15.85	15.89	15.78	
10	QPSK	1	25	15.74	15.79	15.71	17
10	QPSK	1	49	15.64	15.80	15.74	
10	QPSK	25	0	14.80	14.83	14.72	
10	QPSK	25	12	14.78	14.85	14.67	16
10	QPSK	25	25	14.65	14.78	14.62	
10	QPSK	50	0	14.85	14.87	14.69	
10	16QAM	1	0	14.90	15.02	14.96	16
10	16QAM	1	25	14.79	15.04	14.80	
10	16QAM	1	49	14.97	15.03	14.85	
10	16QAM	25	0	13.96	13.93	13.98	15
10	16QAM	25	12	13.90	13.77	13.71	
10	16QAM	25	25	13.71	13.80	13.78	
10	16QAM	50	0	13.72	13.92	13.83	15
10	64QAM	1	0	14.00	13.95	13.84	
10	64QAM	1	25	13.98	14.05	14.03	
10	64QAM	1	49	14.01	13.93	13.86	14
10	64QAM	25	0	12.91	12.82	12.96	
10	64QAM	25	12	12.75	12.90	12.90	
10	64QAM	25	25	12.79	12.84	12.86	14
10	64QAM	50	0	12.71	12.87	12.88	
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	15.82	15.86	15.84	
5	QPSK	1	12	15.80	15.76	15.77	17
5	QPSK	1	24	15.76	15.82	15.67	
5	QPSK	12	0	14.81	14.86	14.68	
5	QPSK	12	7	14.88	14.83	14.75	16
5	QPSK	12	13	14.62	14.80	14.82	
5	QPSK	25	0	14.76	14.76	14.74	
5	16QAM	1	0	15.05	15.09	15.12	16
5	16QAM	1	12	14.85	15.01	14.97	
5	16QAM	1	24	14.90	14.97	14.98	
5	16QAM	12	0	13.84	13.92	13.89	15
5	16QAM	12	7	13.72	13.91	13.81	
5	16QAM	12	13	13.76	13.86	13.76	
5	16QAM	25	0	13.77	13.96	13.78	15
5	64QAM	1	0	14.06	14.00	14.04	
5	64QAM	1	12	13.95	13.82	13.98	
5	64QAM	1	24	13.99	13.98	13.76	14
5	64QAM	12	0	12.88	12.95	12.95	
5	64QAM	12	7	12.69	12.79	12.90	
5	64QAM	12	13	12.82	12.88	12.65	14
5	64QAM	25	0	12.77	12.78	12.78	
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	15.79	15.87	15.83	
3	QPSK	1	8	15.72	15.86	15.82	17
3	QPSK	1	14	15.68	15.76	15.63	
3	QPSK	8	0	14.91	14.92	14.92	
3	QPSK	8	4	14.81	14.73	14.71	16
3	QPSK	8	7	14.78	14.68	14.76	

Band 4 (AWS Band) (dBm)_ANT 1							
Part 27L (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20050	20175	20300	
Frequency (MHz)				1720	1732.5	1745	
20	QPSK	1	0	19.28	19.36	19.33	20
20	QPSK	1	49	19.04	19.35	19.22	
20	QPSK	1	99	19.13	19.19	19.19	
20	QPSK	50	0	18.26	18.33	18.32	
20	QPSK	50	24	18.06	18.17	18.26	19
20	QPSK	50	50	18.24	18.09	18.07	
20	QPSK	100	0	18.17	18.31	18.09	
20	16QAM	1	0	18.38	18.42	18.48	
20	16QAM	1	49	18.32	18.30	18.25	19
20	16QAM	1	99	18.28	18.31	18.43	
20	16QAM	50	0	17.25	17.27	17.19	
20	16QAM	50	24	17.14	17.30	17.05	
20	16QAM	50	50	17.10	17.32	17.35	18
20	16QAM	100	0	17.33	17.23	17.29	
20	64QAM	1	0	17.42	17.36	17.38	
20	64QAM	1	49	17.36	17.34	17.22	
20	64QAM	1	99	17.33	17.26	17.27	18
20	64QAM	50	0	16.18	16.25	16.18	
20	64QAM	50	24	16.18	16.32	16.06	
20	64QAM	50	50	16.33	16.27	16.20	
20	64QAM	100	0	16.15	16.19	16.10	17
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	19.23	19.33	19.30	20
15	QPSK	1	37	19.22	19.19	19.27	
15	QPSK	1	74	19.13	19.26	19.21	
15	QPSK	36	0	18.26	18.31	18.31	
15	QPSK	36	20	18.15	18.16	18.04	19
15	QPSK	36	39	18.21	18.27	18.02	
15	QPSK	75	0	18.10	18.14	18.21	
15	16QAM	1	0	18.30	18.42	18.42	
15	16QAM	1	37	18.38	18.37	18.42	19
15	16QAM	1	74	18.26	18.45	18.40	
15	16QAM	36	0	17.35	17.34	17.22	
15	16QAM	36	20	17.18	17.23	17.07	
15	16QAM	36	39	17.34	17.34	17.21	18
15	16QAM	75	0	17.33	17.17	17.32	
15	64QAM	1	0	17.49	17.44	17.35	
15	64QAM	1	37	17.24	17.30	17.43	
15	64QAM	1	74	17.21	17.16	17.20	18
15	64QAM	36	0	16.38	16.46	16.31	
15	64QAM	36	20	16.27	16.30	16.25	
15	64QAM	36	39	16.23	16.15	16.17	
15	64QAM	75	0	16.13	16.31	16.22	17
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	19.27	19.31	19.29	20
10	QPSK	1	25	19.24	19.25	19.26	
10	QPSK	1	49	19.17	19.21	19.14	
10	QPSK	25	0	18.15	18.40	18.10	
10	QPSK	25	12	18.19	18.16	18.22	19
10	QPSK	25	25	18.07	18.13	18.19	
10	QPSK	50	0	18.19	18.32	18.20	
10	16QAM	1	0	18.38	18.51	18.48	
10	16QAM	1	25	18.23	18.31	18.29	19
10	16QAM	1	49	18.29	18.44	18.31	
10	16QAM	25	0	17.26	17.20	17.17	
10	16QAM	25	12	17.28	17.27	17.21	
10	16QAM	25	25	17.30	17.23	17.25	18
10	16QAM	50	0	17.36	17.37	17.33	
10	64QAM	1	0	17.47	17.51	17.26	
10	64QAM	1	25	17.24	17.22	17.33	
10	64QAM	1	49	17.21	17.20	17.17	18
10	64QAM	25	0	16.39	16.31	16.24	
10	64QAM	25	12	16.28	16.32	16.17	
10	64QAM	25	25	16.31	16.36	16.10	
10	64QAM	50	0	16.36	16.16	16.32	17
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	19.24	19.30	19.29	20
5	QPSK	1	12	19.18	19.11	19.20	
5	QPSK	1	24	19.18	19.26	19.12	
5	QPSK	12	0	18.27	18.39	18.15	
5	QPSK	12	7	18.22	18.19	18.05	19
5	QPSK	12	13	18.01	18.17	18.04	
5	QPSK	25	0	18.13	18.16	18.08	
5	16QAM	1	0	18.34	18.40	18.48	
5	16QAM	1	12	18.32	18.31	18.32	19
5	16QAM	1	24	18.40	18.43	18.34	
5	16QAM	12	0	17.21	17.33	17.39	
5	16QAM	12	7	17.20	17.20	17.07	
5	16QAM	12	13	17.24	17.20	17.19	18
5	16QAM	25	0	17.14	17.34	17.37	
5	64QAM	1	0	17.30	17.39	17.39	
5	64QAM	1	12	17.22	17.23	17.37	
5	64QAM	1	24	17.40	17.21	17.35	18
5	64QAM	12	0	16.29	16.30	16.27	
5	64QAM	12	7	16.16	16.43	16.28	
5	64QAM	12	13	16.22	16.28	16.15	
5	64QAM	25	0	16.32	16.39	16.13	17
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	19.17	19.32	19.31	20
3	QPSK	1	8	19.18	19.12	19.26	
3	QPSK	1	14	19.19	19.30	19.11	
3	QPSK	8	0	18.12	18.25	18.29	
3	QPSK	8	4	18.10	18.16	18.26	19
3	QPSK	8	7	18.04	18.27	18.06	



3	QPSK	15	0	14.83	14.89	14.71	16
3	16QAM	1	0	15.10	15.20	15.00	
3	16QAM	1	8	14.95	14.88	14.82	
3	16QAM	1	14	14.92	14.87	14.94	15
3	16QAM	8	0	13.98	13.95	13.90	
3	16QAM	8	4	13.85	13.92	13.81	
3	16QAM	8	7	13.86	13.96	13.76	15
3	16QAM	15	0	13.76	13.86	13.83	
3	64QAM	1	0	14.01	14.06	13.92	
3	64QAM	1	8	14.02	13.87	13.93	14
3	64QAM	1	14	13.95	13.81	13.76	
3	64QAM	8	0	12.83	12.90	12.78	
3	64QAM	8	4	12.68	12.99	12.86	14
3	64QAM	8	7	12.89	12.78	12.70	
3	64QAM	15	0	12.75	12.85	12.88	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	15.82	15.85	15.82	17
1.4	QPSK	1	3	15.67	15.80	15.80	
1.4	QPSK	1	5	15.64	15.78	15.61	
1.4	QPSK	3	0	14.92	14.93	14.74	16
1.4	QPSK	3	1	14.70	14.93	14.74	
1.4	QPSK	3	3	14.68	14.70	14.84	
1.4	QPSK	6	0	14.66	14.70	14.63	16
1.4	16QAM	1	0	15.11	15.12	15.07	
1.4	16QAM	1	3	14.85	15.12	14.97	
1.4	16QAM	1	5	14.93	14.95	14.92	15
1.4	16QAM	3	0	13.80	13.86	13.99	
1.4	16QAM	3	1	13.88	13.76	13.87	
1.4	16QAM	3	3	13.72	13.88	13.85	15
1.4	16QAM	6	0	13.97	13.84	13.74	
1.4	64QAM	1	0	14.07	14.02	14.02	
1.4	64QAM	1	3	13.81	14.03	13.80	15
1.4	64QAM	1	5	13.80	13.91	13.91	
1.4	64QAM	3	0	12.83	12.89	12.82	
1.4	64QAM	3	1	12.67	12.95	12.68	14
1.4	64QAM	3	3	12.84	12.75	12.67	
1.4	64QAM	6	0	12.72	12.76	12.88	

3	QPSK	15	0	18.20	18.13	18.09	19
3	16QAM	1	0	18.39	18.48	18.50	
3	16QAM	1	8	18.24	18.52	18.21	
3	16QAM	1	14	18.27	18.42	18.30	18
3	16QAM	8	0	17.34	17.29	17.33	
3	16QAM	8	4	17.28	17.29	17.04	
3	16QAM	8	7	17.16	17.30	17.28	18
3	16QAM	15	0	17.30	17.28	17.37	
3	64QAM	1	0	17.30	17.28	17.28	
3	64QAM	1	8	17.42	17.32	17.39	17
3	64QAM	1	14	17.38	17.30	17.23	
3	64QAM	8	0	16.34	16.42	16.33	
3	64QAM	8	4	16.16	16.29	16.16	20
3	64QAM	8	7	16.24	16.11	16.25	
3	64QAM	15	0	16.32	16.36	16.15	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	19.20	19.29	19.23	19
1.4	QPSK	1	3	19.21	19.15	19.22	
1.4	QPSK	1	5	19.21	19.16	19.16	
1.4	QPSK	3	0	18.21	18.28	18.15	19
1.4	QPSK	3	1	18.22	18.26	18.04	
1.4	QPSK	3	3	18.13	18.06	18.11	
1.4	QPSK	6	0	18.15	18.26	18.19	18
1.4	16QAM	1	0	18.33	18.39	18.31	
1.4	16QAM	1	3	18.30	18.45	18.36	
1.4	16QAM	1	5	18.30	18.27	18.34	18
1.4	16QAM	3	0	17.38	17.33	17.40	
1.4	16QAM	3	1	17.11	17.26	17.21	
1.4	16QAM	3	3	17.33	17.36	17.20	17
1.4	16QAM	6	0	17.35	17.27	17.34	
1.4	64QAM	1	0	17.29	17.37	17.25	
1.4	64QAM	1	3	17.24	17.44	17.18	17
1.4	64QAM	1	5	17.29	17.29	17.31	
1.4	64QAM	3	0	16.31	16.44	16.38	
1.4	64QAM	3	1	16.31	16.22	16.19	17
1.4	64QAM	3	3	16.22	16.33	16.12	
1.4	64QAM	6	0	16.20	16.38	16.27	

Band 5 (Celluar Band) (dBm)_ANT 2 Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	21.04	21.32	21.28	22
10	QPSK	1	25	20.89	20.94	21.09	
10	QPSK	1	49	20.94	21.04	20.86	
10	QPSK	25	0	19.91	20.04	19.84	21
10	QPSK	25	12	19.97	19.79	19.76	
10	QPSK	25	25	19.77	19.80	19.82	
10	QPSK	50	0	19.72	19.99	19.83	21
10	16QAM	1	0	20.13	20.22	20.18	
10	16QAM	1	25	19.92	20.03	20.12	
10	16QAM	1	49	19.97	19.95	19.95	20
10	16QAM	25	0	19.03	19.07	18.98	
10	16QAM	25	12	18.93	18.89	18.80	
10	16QAM	25	25	19.04	18.96	19.01	20
10	16QAM	50	0	18.90	19.01	18.98	
10	64QAM	1	0	19.10	19.22	19.08	
10	64QAM	1	25	19.10	19.11	18.95	20
10	64QAM	1	49	19.06	18.89	18.96	
10	64QAM	25	0	17.87	17.92	17.91	
10	64QAM	25	12	17.95	18.08	17.96	19
10	64QAM	25	25	17.97	17.93	17.89	
10	64QAM	50	0	17.94	17.92	18.01	
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	21.06	21.11	21.09	22
5	QPSK	1	12	20.83	20.92	20.98	
5	QPSK	1	24	20.90	21.04	20.97	
5	QPSK	12	0	19.92	19.99	19.86	21
5	QPSK	12	7	19.80	19.94	19.86	
5	QPSK	12	13	19.80	19.97	19.69	
5	QPSK	25	0	19.96	19.92	19.73	21
5	16QAM	1	0	20.22	20.28	20.13	
5	16QAM	1	12	20.14	20.08	20.06	
5	16QAM	1	24	20.04	19.98	20.10	20
5	16QAM	12	0	19.05	19.07	18.91	
5	16QAM	12	7	18.90	19.08	18.79	
5	16QAM	12	13	18.89	19.07	19.06	20
5	16QAM	25	0	19.05	19.03	18.94	
5	64QAM	1	0	19.03	19.19	18.92	
5	64QAM	1	12	18.94	19.14	18.91	20
5	64QAM	1	24	18.90	19.09	18.98	
5	64QAM	12	0	17.94	18.03	17.90	
5	64QAM	12	7	17.98	18.10	17.87	19
5	64QAM	12	13	17.82	18.03	17.79	
5	64QAM	25	0	17.84	17.95	17.82	
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	21.06	21.10	21.07	22
3	QPSK	1	8	20.94	20.90	21.02	
3	QPSK	1	14	20.84	21.04	20.85	
3	QPSK	8	0	19.92	19.98	19.90	21
3	QPSK	8	4	19.97	19.91	19.85	
3	QPSK	8	7	19.93	19.89	19.94	
3	QPSK	15	0	19.86	19.84	19.92	21
3	16QAM	1	0	20.03	20.22	20.20	
3	16QAM	1	8	20.03	20.02	20.05	
3	16QAM	1	14	20.13	20.06	20.08	20
3	16QAM	8	0	19.07	19.08	19.05	
3	16QAM	8	4	18.81	19.06	18.80	
3	16QAM	8	7	18.82	18.91	19.03	20
3	16QAM	15	0	19.04	18.96	18.98	
3	64QAM	1	0	18.99	19.16	19.06	
3	64QAM	1	8	19.09	19.15	18.99	20
3	64QAM	1	14	19.07	18.95	19.06	
3	64QAM	8	0	17.95	17.94	17.99	
3	64QAM	8	4	17.89	17.98	18.01	19
3	64QAM	8	7	18.05	17.97	17.75	
3	64QAM	15	0	17.87	18.03	17.95	
Channel				20407	20525	20643	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	20.98	21.08	21.00	22
1.4	QPSK	1	3	20.84	20.88	20.93	
1.4	QPSK	1	5	20.74	20.86	20.88	
1.4	QPSK	3	0	19.82	19.98	19.78	21
1.4	QPSK	3	1	19.99	19.79	19.84	
1.4	QPSK	3	3	19.72	19.80	19.70	
1.4	QPSK	6	0	19.95	19.91	19.78	21
1.4	16QAM	1	0	20.11	20.27	20.20	
1.4	16QAM	1	3	20.11	20.23	19.97	
1.4	16QAM	1	5	20.14	20.03	20.04	21
1.4	16QAM	3	0	18.92	19.10	19.02	
1.4	16QAM	3	1	18.90	19.09	18.79	
1.4	16QAM	3	3	19.02	18.97	19.00	20
1.4	16QAM	6	0	18.90	18.88	18.86	
1.4	64QAM	1	0	18.95	19.14	19.02	
1.4	64QAM	1	3	18.93	19.13	19.10	20
1.4	64QAM	1	5	18.98	19.10	19.06	
1.4	64QAM	3	0	17.87	18.08	18.00	
1.4	64QAM	3	1	17.98	17.92	17.81	19
1.4	64QAM	3	3	18.00	18.04	17.80	
1.4	64QAM	6	0	17.94	17.86	17.90	

Band 14 (700MHz Band) (dBm)_ANT 2							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23330			
Frequency (MHz)				793			
10	QPSK	1	0		20.79		21.5
10	QPSK	1	25		20.75		
10	QPSK	1	49		20.69		
10	QPSK	25	0		19.78		20.5
10	QPSK	25	12		19.65		
10	QPSK	25	25		19.72		
10	QPSK	50	0		19.75		20.5
10	16QAM	1	0		19.87		
10	16QAM	1	25		19.84		
10	16QAM	1	49		19.81		19.5
10	16QAM	25	0		18.74		
10	16QAM	25	12		18.79		
10	16QAM	25	25		18.87		19.5
10	16QAM	50	0		18.66		
10	64QAM	1	0		18.95		
10	64QAM	1	25		18.75		19.5
10	64QAM	1	49		18.76		
10	64QAM	25	0		17.84		
10	64QAM	25	12		17.80		18.5
10	64QAM	25	25		17.82		
10	64QAM	50	0		17.75		
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	20.71	20.76	20.73	21.5
5	QPSK	1	12	20.66	20.69	20.70	
5	QPSK	1	24	20.66	20.66	20.65	
5	QPSK	12	0	19.66	19.74	19.72	20.5
5	QPSK	12	7	19.73	19.62	19.70	
5	QPSK	12	13	19.67	19.66	19.67	
5	QPSK	25	0	19.72	19.56	19.80	20.5
5	16QAM	1	0	19.99	20.02	20.00	
5	16QAM	1	12	19.80	19.90	19.86	
5	16QAM	1	24	19.82	19.88	19.96	19.5
5	16QAM	12	0	18.70	18.95	18.79	
5	16QAM	12	7	18.68	18.87	18.66	
5	16QAM	12	13	18.74	18.68	18.75	19.5
5	16QAM	25	0	18.80	18.85	18.89	
5	64QAM	1	0	18.94	18.91	18.97	
5	64QAM	1	12	18.78	18.76	18.76	19.5
5	64QAM	1	24	18.89	18.88	18.76	
5	64QAM	12	0	17.94	17.95	17.75	
5	64QAM	12	7	17.78	17.81	17.83	18.5
5	64QAM	12	13	17.84	17.74	17.76	
5	64QAM	25	0	17.76	17.75	17.84	

Band 26 for FCC (dBm)_ANT 2 (only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26765	26865	26965	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	0	20.66	20.75	20.96	
15	QPSK	1	37	20.62	20.65	20.86	22
15	QPSK	1	74	20.57	20.60	20.79	
15	QPSK	36	0	19.63	19.71	19.86	
15	QPSK	36	20	19.53	19.69	19.81	21
15	QPSK	36	39	19.60	19.66	19.84	
15	QPSK	75	0	19.66	19.57	19.85	
15	16QAM	1	0	19.70	19.81	19.97	21
15	16QAM	1	37	19.61	19.75	19.95	
15	16QAM	1	74	19.88	19.65	19.82	
15	16QAM	36	0	18.71	18.67	18.93	20
15	16QAM	36	20	18.63	18.65	18.86	
15	16QAM	36	39	18.64	18.77	18.74	
15	16QAM	75	0	18.59	18.68	18.91	20
15	64QAM	1	0	18.65	18.92	18.99	
15	64QAM	1	37	18.72	18.63	18.88	
15	64QAM	1	74	18.76	18.67	18.87	19
15	64QAM	36	0	17.79	17.74	17.87	
15	64QAM	36	20	17.63	17.75	17.77	
15	64QAM	36	39	17.75	17.52	17.68	19
15	64QAM	75	0	17.62	17.71	17.69	
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	20.74	20.78	20.93	
10	QPSK	1	25	20.69	20.67	20.78	22
10	QPSK	1	49	20.57	20.79	20.81	
10	QPSK	25	0	19.54	19.60	19.68	
10	QPSK	25	12	19.45	19.71	19.79	21
10	QPSK	25	25	19.50	19.48	19.72	
10	QPSK	50	0	19.65	19.51	19.72	
10	16QAM	1	0	19.72	19.83	20.06	21
10	16QAM	1	25	19.80	19.93	19.93	
10	16QAM	1	49	19.71	19.85	19.98	
10	16QAM	25	0	18.62	18.82	18.78	20
10	16QAM	25	12	18.72	18.67	18.79	
10	16QAM	25	25	18.58	18.68	18.87	
10	16QAM	50	0	18.69	18.61	18.89	20
10	64QAM	1	0	18.71	18.81	18.99	
10	64QAM	1	25	18.65	18.69	18.79	
10	64QAM	1	49	18.66	18.72	18.78	19
10	64QAM	25	0	17.62	17.70	17.96	
10	64QAM	25	12	17.70	17.59	17.67	
10	64QAM	25	25	17.71	17.73	17.77	19
10	64QAM	50	0	17.75	17.67	17.94	
Channel				26715	26865	27015	
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	20.64	20.72	20.91	
5	QPSK	1	12	20.66	20.74	20.75	22
5	QPSK	1	24	20.59	20.70	20.83	
5	QPSK	12	0	19.64	19.74	19.87	
5	QPSK	12	7	19.61	19.69	19.78	21
5	QPSK	12	13	19.61	19.62	19.59	
5	QPSK	25	0	19.55	19.57	19.84	
5	16QAM	1	0	19.91	20.00	20.00	21
5	16QAM	1	12	19.75	19.93	19.78	
5	16QAM	1	24	19.85	19.82	19.91	
5	16QAM	12	0	18.59	18.80	18.84	20
5	16QAM	12	7	18.66	18.80	18.82	
5	16QAM	12	13	18.73	18.72	18.90	
5	16QAM	25	0	18.52	18.71	18.77	20
5	64QAM	1	0	18.82	18.78	19.04	
5	64QAM	1	12	18.73	18.69	18.80	
5	64QAM	1	24	18.76	18.74	18.78	19
5	64QAM	12	0	17.80	17.82	17.84	
5	64QAM	12	7	17.47	17.72	17.73	
5	64QAM	12	13	17.58	17.67	17.83	19
5	64QAM	25	0	17.72	17.65	17.93	
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	20.65	20.80	20.93	
3	QPSK	1	8	20.63	20.63	20.87	22
3	QPSK	1	14	20.56	20.59	20.72	
3	QPSK	8	0	19.70	19.70	19.86	
3	QPSK	8	4	19.63	19.66	19.87	21
3	QPSK	8	7	19.61	19.60	19.62	
3	QPSK	15	0	19.60	19.51	19.64	
3	16QAM	1	0	19.82	19.75	19.93	21
3	16QAM	1	8	19.80	19.82	19.89	
3	16QAM	1	14	19.75	19.76	19.90	
3	16QAM	8	0	18.79	18.77	18.82	20
3	16QAM	8	4	18.61	18.64	18.85	
3	16QAM	8	7	18.59	18.73	18.93	
3	16QAM	15	0	18.72	18.82	18.96	20
3	64QAM	1	0	18.77	18.80	18.97	
3	64QAM	1	8	18.71	18.75	18.83	
3	64QAM	1	14	18.62	18.69	18.89	19
3	64QAM	8	0	17.57	17.62	17.89	
3	64QAM	8	4	17.50	17.60	17.82	
3	64QAM	8	7	17.75	17.62	17.68	19
3	64QAM	15	0	17.61	17.79	17.81	
Channel				26697	26865	27033	
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	20.66	20.77	20.93	
1.4	QPSK	1	3	20.52	20.72	20.80	22
1.4	QPSK	1	5	20.64	20.62	20.81	
1.4	QPSK	3	0	19.62	19.71	19.81	
1.4	QPSK	3	1	19.56	19.56	19.65	22
1.4	QPSK	3	3	19.57	19.44	19.71	

Band 66 (dBm)_ANT 1							
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	19.39	19.46	19.44	20
20	QPSK	1	49	19.22	19.40	19.32	
20	QPSK	1	99	19.20	19.35	19.23	
20	QPSK	50	0	18.33	18.41	18.36	
20	QPSK	50	24	18.28	18.26	18.29	19
20	QPSK	50	50	18.23	18.16	18.31	
20	QPSK	100	0	18.22	18.28	18.21	
20	16QAM	1	0	18.64	18.62	18.53	
20	16QAM	1	49	18.49	18.55	18.49	19
20	16QAM	1	99	18.46	18.59	18.38	
20	16QAM	50	0	17.43	17.47	17.36	
20	16QAM	50	24	17.48	17.35	17.33	
20	16QAM	50	50	17.39	17.40	17.49	18
20	16QAM	100	0	17.35	17.44	17.32	
20	64QAM	1	0	17.55	17.63	17.58	
20	64QAM	1	49	17.31	17.42	17.32	
20	64QAM	1	99	17.35	17.41	17.36	18
20	64QAM	50	0	16.37	16.46	16.53	
20	64QAM	50	24	16.30	16.49	16.30	
20	64QAM	50	50	16.42	16.40	16.25	
20	64QAM	100	0	16.27	16.37	16.36	17
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	19.33	19.44	19.39	
15	QPSK	1	37	19.24	19.34	19.35	
15	QPSK	1	74	19.30	19.36	19.30	
15	QPSK	36	0	18.37	18.40	18.41	
15	QPSK	36	20	18.32	18.40	18.29	19
15	QPSK	36	39	18.37	18.18	18.17	
15	QPSK	75	0	18.33	18.37	18.17	
15	16QAM	1	0	18.45	18.68	18.47	
15	16QAM	1	37	18.43	18.50	18.46	19
15	16QAM	1	74	18.38	18.46	18.41	
15	16QAM	36	0	17.31	17.36	17.36	
15	16QAM	36	20	17.48	17.38	17.24	
15	16QAM	36	39	17.36	17.39	17.45	18
15	16QAM	75	0	17.46	17.36	17.30	
15	64QAM	1	0	17.46	17.51	17.58	
15	64QAM	1	37	17.31	17.54	17.50	
15	64QAM	1	74	17.36	17.27	17.29	18
15	64QAM	36	0	16.46	16.48	16.50	
15	64QAM	36	20	16.22	16.46	16.27	
15	64QAM	36	39	16.44	16.24	16.25	
15	64QAM	75	0	16.42	16.32	16.40	17
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	19.34	19.41	19.36	
10	QPSK	1	25	19.22	19.26	19.27	
10	QPSK	1	49	19.37	19.34	19.33	
10	QPSK	25	0	18.25	18.45	18.35	
10	QPSK	25	12	18.37	18.21	18.14	19
10	QPSK	25	25	18.14	18.41	18.15	
10	QPSK	50	0	18.22	18.33	18.36	
10	16QAM	1	0	18.44	18.55	18.59	
10	16QAM	1	25	18.31	18.59	18.39	19
10	16QAM	1	49	18.42	18.52	18.55	
10	16QAM	25	0	17.30	17.49	17.35	
10	16QAM	25	12	17.36	17.51	17.36	
10	16QAM	25	25	17.43	17.38	17.31	18
10	16QAM	50	0	17.26	17.41	17.37	
10	64QAM	1	0	17.58	17.41	17.39	
10	64QAM	1	25	17.44	17.48	17.36	
10	64QAM	1	49	17.55	17.37	17.42	18
10	64QAM	25	0	16.29	16.41	16.48	
10	64QAM	25	12	16.30	16.40	16.28	
10	64QAM	25	25	16.33	16.38	16.30	
10	64QAM	50	0	16.27	16.33	16.37	17
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	19.35	19.42	19.39	
5	QPSK	1	12	19.21	19.40	19.33	
5	QPSK	1	24	19.20	19.30	19.32	
5	QPSK	12	0	18.39	18.41	18.38	
5	QPSK	12	7	18.29	18.37	18.30	19
5	QPSK	12	13	18.18	18.17	18.33	
5	QPSK	25	0	18.39	18.20	18.26	
5	16QAM	1	0	18.46	18.72	18.49	
5	16QAM	1	12	18.35	18.48	18.45	19
5	16QAM	1	24	18.48	18.52	18.54	
5	16QAM	12	0	17.37	17.48	17.46	
5	16QAM	12	7	17.38	17.37	17.29	
5	16QAM	12	13	17.30	17.33	17.31	18
5	16QAM	25	0	17.35	17.37	17.32	
5	64QAM	1	0	17.45	17.63	17.51	
5	64QAM	1	12	17.37	17.55	17.51	
5	64QAM	1	24	17.33	17.32	17.38	18
5	64QAM	12	0	16.33	16.41	16.30	
5	64QAM	12	7	16.26	16.32	16.32	
5	64QAM	12	13	16.29	16.42	16.33	
5	64QAM	25	0	16.44	16.42	16.28	17
Channel				131967	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	19.33	19.39	19.34	
3	QPSK	1	8	19.27	19.32	19.31	
3	QPSK	1	14	19.17	19.26	19.29	
3	QPSK	8	0	18.44	18.39	18.43	
3	QPSK	8	4	18.20	18.34	18.24	19
3	QPSK	8	7	18.24	18.38	18.33	



1.4	QPSK	6	0	19.45	19.50	19.78	21
1.4	16QAM	1	0	19.87	19.94	19.96	21
1.4	16QAM	1	3	19.69	19.78	19.78	
1.4	16QAM	1	5	19.68	19.64	19.85	
1.4	16QAM	3	0	18.59	18.79	18.88	
1.4	16QAM	3	1	18.61	18.81	18.81	
1.4	16QAM	3	3	18.49	18.76	18.86	
1.4	16QAM	6	0	18.59	18.71	18.86	20
1.4	64QAM	1	0	18.73	18.75	18.99	20
1.4	64QAM	1	3	18.78	18.85	19.03	
1.4	64QAM	1	5	18.80	18.64	18.80	
1.4	64QAM	3	0	17.76	17.64	17.64	
1.4	64QAM	3	1	17.67	17.83	17.87	
1.4	64QAM	3	3	17.67	17.57	17.65	
1.4	64QAM	6	0	17.54	17.76	17.89	19

3	QPSK	15	0	18.25	18.22	18.25	19
3	16QAM	1	0	18.49	18.61	18.55	
3	16QAM	1	8	18.51	18.41	18.30	
3	16QAM	1	14	18.37	18.49	18.38	18
3	16QAM	8	0	17.39	17.36	17.32	
3	16QAM	8	4	17.44	17.53	17.32	
3	16QAM	8	7	17.39	17.46	17.41	
3	16QAM	15	0	17.40	17.50	17.31	18
3	64QAM	1	0	17.47	17.41	17.49	
3	64QAM	1	8	17.29	17.40	17.30	
3	64QAM	1	14	17.36	17.52	17.32	
3	64QAM	8	0	16.42	16.50	16.38	17
3	64QAM	8	4	16.44	16.38	16.23	
3	64QAM	8	7	16.30	16.28	16.29	
3	64QAM	15	0	16.32	16.37	16.39	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	19.33	19.40	19.37	20
1.4	QPSK	1	3	19.15	19.30	19.35	
1.4	QPSK	1	5	19.32	19.35	19.23	
1.4	QPSK	3	0	18.33	18.51	18.30	
1.4	QPSK	3	1	18.35	18.39	18.23	
1.4	QPSK	3	3	18.32	18.27	18.21	
1.4	QPSK	6	0	18.36	18.25	18.36	19
1.4	16QAM	1	0	18.44	18.48	18.63	19
1.4	16QAM	1	3	18.43	18.43	18.36	
1.4	16QAM	1	5	18.59	18.38	18.44	
1.4	16QAM	3	0	17.51	17.34	17.51	
1.4	16QAM	3	1	17.25	17.52	17.20	
1.4	16QAM	3	3	17.29	17.41	17.32	
1.4	16QAM	6	0	17.31	17.51	17.43	18
1.4	64QAM	1	0	17.38	17.60	17.54	18
1.4	64QAM	1	3	17.43	17.42	17.47	
1.4	64QAM	1	5	17.42	17.41	17.28	
1.4	64QAM	3	0	16.36	16.41	16.33	
1.4	64QAM	3	1	16.27	16.35	16.21	
1.4	64QAM	3	3	16.40	16.45	16.23	
1.4	64QAM	6	0	16.26	16.43	16.27	17

n2 (PC3)_ANT 1							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit
Channel				372000	376000	380000	(dBm)
Frequency (MHz)				1860	1880	1900	
20	DFT-s-OFDM PI/2 BPSK	1	1	17.70	17.78	17.59	19
20		1	53	17.74	17.63	17.58	
20		1	104	17.74	17.68	17.65	
20		50	1	17.83	17.80	17.59	19
20	DFT-s-OFDM QPSK	50	25	17.85	17.87	17.65	
20		50	50	17.82	17.82	17.69	
20		100	0	17.88	18.04	17.70	
20		1	1	17.97	18.17	18.10	19
20	DFT-s-OFDM 16QAM	1	53	17.71	17.73	17.60	
20		1	104	17.70	17.59	17.69	
20		50	1	17.81	17.96	17.78	19
20		50	25	17.81	17.86	17.70	
20	DFT-s-OFDM 64QAM	50	50	17.85	17.74	17.61	
20		100	0	17.82	17.73	17.72	
20	DFT-s-OFDM 256QAM	1	1	17.80	17.85	17.65	19
20	CP-OFDM QPSK	1	1	16.22	16.25	16.07	17
20	CP-OFDM 16QAM	1	1	13.93	14.00	14.02	15
20	CP-OFDM 64QAM	1	1	17.18	17.13	17.00	18
20	CP-OFDM 256QAM	1	1	16.66	16.62	16.51	17.5
20		1	1	14.73	14.79	14.73	15.5
20		1	1	12.00	12.04	11.97	18
Channel				371500	376000	380500	Tune-up limit
Frequency (MHz)				1857.5	1880	1902.5	(dBm)
15	DFT-s-OFDM QPSK	1	1	17.79	17.80	17.67	19
Channel				371000	376000	381000	Tune-up limit
Frequency (MHz)				1855	1880	1905	(dBm)
10	DFT-s-OFDM QPSK	1	1	17.82	17.80	17.66	19
Channel				370500	376000	381500	Tune-up limit
Frequency (MHz)				1852.5	1880	1907.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	17.80	17.83	17.78	19

n5 (PC3)_ANT 2							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit
Channel				166800	167300	167800	(dBm)
Frequency (MHz)				834	836.5	839	
20	DFT-s-OFDM PI/2 BPSK	1	1	18.89	18.85	18.85	20
20		1	53	18.83	18.97	18.95	
20		1	104	18.96	18.85	18.81	
20		50	1	18.97	18.98	18.97	20
20	DFT-s-OFDM QPSK	50	25	18.93	18.96	18.92	
20		50	50	18.97	19.01	18.97	
20		100	0	18.98	18.99	18.94	
20		1	1	18.84	19.03	18.92	20
20	DFT-s-OFDM QPSK	1	53	18.81	18.87	18.92	
20		1	104	18.90	18.83	18.83	
20		50	1	18.88	18.99	18.95	20
20		50	25	18.96	18.98	18.97	
20		50	50	18.90	18.98	18.95	
20		100	0	18.91	18.90	18.98	
20	DFT-s-OFDM 16QAM	1	1	18.86	18.90	18.89	19
20	DFT-s-OFDM 64QAM	1	1	17.34	17.35	17.36	18
20	DFT-s-OFDM 256QAM	1	1	14.60	14.55	14.53	15
20	CP-OFDM QPSK	1	1	18.26	18.24	18.26	19
20	CP-OFDM 16QAM	1	1	17.79	17.80	17.83	18.5
20	CP-OFDM 64QAM	1	1	15.91	15.90	15.91	16.5
20	CP-OFDM 256QAM	1	1	13.30	13.20	13.31	14
Channel				166300	167300	168300	Tune-up limit
Frequency (MHz)				831.5	836.5	841.5	(dBm)
15	DFT-s-OFDM QPSK	1	1	18.89	18.90	18.86	20
Channel				165800	167300	168800	Tune-up limit
Frequency (MHz)				829	836.5	844	(dBm)
10	DFT-s-OFDM QPSK	1	1	18.86	18.80	18.91	20
Channel				165300	167300	169300	Tune-up limit
Frequency (MHz)				826.5	836.5	846.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	18.90	18.96	18.91	20

n66 (PC3)_ANT 1							
BW [MHz]	Modulation	RB num	RB start	Low Channel	iddle Channel	High Channel	Tune-up
Channel				344000	349000	354000	limit
Frequency (MHz)				1720	1745	1770	(dBm)
20	DFT-s-OFDM PI/2 BPSK	1	1	17.87	17.91	17.85	19
20		1	53	17.94	17.84	17.80	
20		1	104	17.88	17.81	17.83	
20		50	1	17.92	17.96	17.85	19
20		50	25	17.94	17.98	17.90	
20		50	50	17.96	17.94	17.82	
20	DFT-s-OFDM QPSK	100	0	17.95	17.93	17.91	19
20		1	1	17.87	18.02	17.83	
20		1	53	17.72	17.79	17.68	
20		1	104	17.67	17.87	17.79	19
20		50	1	17.70	17.94	17.81	
20		50	25	17.72	17.89	17.81	
20	DFT-s-OFDM 16QAM	50	50	17.71	17.86	17.81	19
20		100	0	17.74	17.85	17.85	
20	DFT-s-OFDM 64QAM	1	1	17.92	17.95	17.91	19
20	DFT-s-OFDM 256QAM	1	1	16.33	16.53	16.34	17.5
20	CP-OFDM QPSK	1	1	13.96	14.11	13.98	15
20	CP-OFDM 16QAM	1	1	17.27	17.36	17.26	18
20	CP-OFDM 64QAM	1	1	16.74	16.85	16.73	17.5
20	CP-OFDM 256QAM	1	1	14.88	15.01	14.87	16
20	CP-OFDM 256QAM	1	1	12.05	12.15	12.06	13
Channel				343500	349000	354500	Tune-up
Frequency (MHz)				1717.5	1745	1772.5	limit
15	DFT-s-OFDM QPSK	1	1	17.92	17.93	17.87	19
Channel				343000	349000	355000	Tune-up
Frequency (MHz)				1715	1745	1775	limit
10	DFT-s-OFDM QPSK	1	1	17.82	17.88	17.83	19
Channel				342500	349000	355500	Tune-up
Frequency (MHz)				1712.5	1745	1777.5	limit
5	DFT-s-OFDM QPSK	1	1	17.92	17.93	17.90	19

n77(3450-3550MHz) (PC2)_ANT10									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			23.05			24
100		1	136			22.64			
100		1	271			21.85			
100		135	1			22.42			24
100	DFT-s-OFDM QPSK	135	67			22.71			
100		135	136			21.57			
100		270	0			22.10			
100		1	1			23.16			24
100	DFT-s-OFDM 16QAM	1	136			22.65			
100		1	271			21.85			
100		135	1			22.91			24
100		135	67			22.71			
100		135	136			22.07			
100		270	0			21.39			23
100	DFT-s-OFDM 64QAM	1	1			22.87			23.5
100	DFT-s-OFDM 256QAM	1	1			21.06			22
100	CP-OFDM QPSK	1	1			18.34			19
100	CP-OFDM 16QAM	1	1			20.76			21.5
100	CP-OFDM 64QAM	1	1			21.03			22
100	CP-OFDM 256QAM	1	1			19.13			20
100		1	1			16.33			17
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	23.07	22.98	22.94	22.91	22.89	24
Channel				632000	632668	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	23.07	23.06	22.92	22.82	22.83	24
Channel				631334	632334	633334	634332	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	23.12	23.09	23.08	22.99	22.66	24
Channel				631000	632168	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	23.15	23.09	23.11	22.81	22.36	24
Channel				630668	632000	633334	634666	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	23.14	23.12	22.99	22.57	22.14	24

Reduced Power Level 2 for ANT 5 & ANT 10

n66 (PC3)_ANT 5							
BW [MHz]	Modulation	RB num	RB start	Low Channel	middle Channel	high Channel	Tune-up
Channel				344000	349000	354000	limit
Frequency (MHz)				1720	1745	1770	(dBm)
20	DFT-s-OFDM PI/2 BPSK	1	1	22.87	22.91	22.85	24
20		1	53	22.94	22.84	22.80	
20		1	104	22.88	22.81	22.83	
20		50	1	22.92	22.96	22.85	24
20	DFT-s-OFDM QPSK	50	25	22.94	22.98	22.90	
20		50	50	22.96	22.94	22.82	
20		100	0	22.95	22.93	22.91	24
20		1	1	22.87	23.02	22.83	
20	DFT-s-OFDM 16QAM	1	53	22.72	22.79	22.68	24
20		1	104	22.67	22.87	22.79	
20		50	1	22.70	22.94	22.81	
20		50	25	22.72	22.89	22.81	24
20	DFT-s-OFDM 64QAM	50	50	22.71	22.86	22.81	
20		100	0	22.74	22.85	22.85	
20		1	1	22.92	22.95	22.91	24
20	DFT-s-OFDM 256QAM	1	1	21.33	21.53	21.34	22.5
20	CP-OFDM QPSK	1	1	18.96	19.11	18.98	20
20	CP-OFDM 16QAM	1	1	22.27	22.36	22.26	23
20	CP-OFDM 64QAM	1	1	21.74	21.85	21.73	22.5
20	CP-OFDM 256QAM	1	1	19.88	20.01	19.87	21
20	CP-OFDM 256QAM	1	1	17.05	17.15	17.06	18
Channel				343500	349000	354500	Tune-up
Frequency (MHz)				1717.5	1745	1772.5	limit
15	DFT-s-OFDM QPSK	1	1	22.92	22.93	22.87	24
Channel				343000	349000	355000	Tune-up
Frequency (MHz)				1715	1745	1775	limit
10	DFT-s-OFDM QPSK	1	1	22.82	22.88	22.83	24
Channel				342500	349000	355500	Tune-up
Frequency (MHz)				1712.5	1745	1777.5	limit
5	DFT-s-OFDM QPSK	1	1	22.92	22.93	22.90	24

n77(3450-3550MHz) (PC2)_ANT 10									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	High Channel	High/Middle Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			15.05			16
100		1	136			14.64			
100		1	271			13.85			
100		135	1			14.42			16
100	DFT-s-OFDM QPSK	135	67			14.71			
100		135	136			13.57			
100		270	0			14.10			
100		1	1			15.30			16
100	DFT-s-OFDM QPSK	1	136			14.65			
100		1	271			13.85			
100		135	1			14.91			16
100		135	67			14.71			
100		135	136			14.07			
100		270	0			13.39			15
100	DFT-s-OFDM 16QAM	1	1			14.87			15.5
100	DFT-s-OFDM 64QAM	1	1			13.06			14
100	DFT-s-OFDM 256QAM	1	1			10.34			11
100	CP-OFDM QPSK	1	1			12.76			13.5
100	CP-OFDM 16QAM	1	1			13.03			14
100	CP-OFDM 64QAM	1	1			11.13			12
100	CP-OFDM 256QAM	1	1			8.33			9
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	15.07	14.98	14.94	14.91	14.89	16
Channel				632000	632668	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	15.07	15.06	14.92	14.82	14.83	16
Channel				631334	632334	633334	634332	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	15.12	15.09	15.08	14.99	14.66	16
Channel				631000	632168	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.62	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	15.15	15.09	15.11	14.81	14.36	16
Channel				630668	632000	633334	634666	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	15.14	15.12	14.99	14.57	14.14	16

n77(3450-3550MHz) (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	ow/Middle Channel	iddle Chann	iddle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			14.92			16
100		1	136			14.95			
100		1	271			14.75			
100		135	1			15.00			
100	DFT-s-OFDM QPSK	135	67			15.03			15
100		135	136			14.60			
100		270	0			14.97			
100		1	1			15.30			
100	DFT-s-OFDM 16QAM	1	136			14.95			16
100		1	271			14.77			
100		135	1			14.99			
100		135	67			14.92			
100	DFT-s-OFDM 64QAM	135	136			14.59			16
100		270	0			14.97			
100		1	1			14.90			
100		1	1			13.41			
100	DFT-s-OFDM 256QAM	1	1			11.24			12
100	CP-OFDM QPSK	1	1			14.44			15
100	CP-OFDM 16QAM	1	1			13.98			15
100	CP-OFDM 64QAM	1	1			12.07			5.5
100	CP-OFDM 256QAM	1	1			9.28			2.5
Channel				632668	633000	633334	633666	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	14.96	14.90	14.90	14.91	14.96	16
Channel				632000	632668	633334	634000	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	15.00	15.00	14.83	14.92	14.99	16
Channel				631334	632334	633334	634332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	15.01	15.00	14.96	15.02	14.93	16
Channel				631000	632168	633334	634500	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	15.00	14.93	14.93	14.98	14.98	16
Channel				630668	632000	633334	634666	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	14.88	14.86	14.94	15.01	14.80	16

n77(3700-3980MHz) (PC2)_ANT 10									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	High Channel	High/Middle Channel	High Channel	Tune-up
Channel				650000	653000	656000	659000	662000	limit
Frequency (MHz)				3750	3795	3840	3885	3930	(dBm)
100	DFT-s-OFDM PI/2 BPSK	1	1	15.10	14.90	14.71	15.10	15.54	17
100		1	136	14.92	14.76	15.17	15.56	15.89	
100		1	271	14.76	15.10	15.62	15.89	15.92	
100		135	1	14.79	14.24	14.29	14.64	15.20	17
100		135	67	14.87	14.84	15.19	15.64	15.92	
100		135	136	14.08	14.36	14.55	15.23	16.06	
100		270	0	14.41	14.36	14.75	15.12	15.47	
100	DFT-s-OFDM QPSK	1	1	15.89	15.94	16.10	15.93	16.06	17
100		1	136	14.86	14.79	15.22	15.57	15.23	
100		1	271	14.68	15.11	15.61	15.09	15.93	
100		135	1	15.55	15.70	15.82	15.73	15.76	17
100		135	67	14.89	14.86	15.20	15.62	15.34	
100		135	136	13.60	13.74	14.09	14.55	14.70	
100		270	0	13.93	13.87	14.24	14.65	14.68	16
100	DFT-s-OFDM 16QAM	1	1	14.04	13.87	13.66	13.91	14.50	15.5
100	DFT-s-OFDM 64QAM	1	1	12.70	12.56	12.78	12.67	12.97	13.5
100	DFT-s-OFDM 256QAM	1	1	10.44	10.29	10.40	10.35	10.82	11.5
100	CP-OFDM QPSK	1	1	13.63	13.46	13.68	13.56	13.97	14.5
100	CP-OFDM 16QAM	1	1	13.09	12.97	13.25	13.04	13.59	14.5
100	CP-OFDM 64QAM	1	1	11.22	11.14	11.36	11.21	11.73	12.5
100	CP-OFDM 256QAM	1	1	8.38	8.24	8.24	8.34	8.88	9.5
Channel				649334	652668	656000	659332	662666	Tune-up
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	limit
80	DFT-s-OFDM QPSK	1	1	15.12	14.88	14.87	14.95	15.64	17
Channel				648668	652334	656000	659666	663332	Tune-up
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	limit
60	DFT-s-OFDM QPSK	1	1	15.18	14.92	14.77	15.20	15.68	17
Channel				648000	652000	656000	660000	664000	Tune-up
Frequency (MHz)				3720	3780	3840	3900	3960	limit
40	DFT-s-OFDM QPSK	1	1	15.58	15.25	15.17	15.92	15.10	17
Channel				647668	651834	656000	660166	664332	Tune-up
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	limit
30	DFT-s-OFDM QPSK	1	1	15.43	15.02	15.09	15.82	14.99	17
Channel				647334	651668	656000	660332	664666	Tune-up
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	limit
20	DFT-s-OFDM QPSK	1	1	15.51	15.05	15.19	15.87	15.50	17

n77(3700-3980MHz) (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up
Channel				650000	653000	656000	659000	662000	limit
Frequency (MHz)				3750	3795	3840	3885	3930	(dBm)
100	DFT-s-OFDM PI/2 BPSK	1	1	16.00	15.58	15.28	15.82	15.98	17
100		1	136	15.50	15.44	15.93	15.97	15.48	
100		1	271	15.18	15.91	15.99	15.50	15.88	
100		135	1	15.99	15.42	15.46	15.81	15.88	17
100		135	67	15.57	15.49	15.92	16.00	15.61	
100		135	136	15.17	15.45	15.77	15.72	15.66	
100	DFT-s-OFDM QPSK	270	0	15.55	15.51	15.82	15.96	15.66	17
100		1	1	15.95	15.87	16.06	15.86	15.96	
100		1	136	15.49	15.37	15.99	16.00	15.50	
100		1	271	15.20	15.92	16.01	15.50	15.89	17
100		135	1	15.84	15.80	16.02	15.83	15.88	
100		135	67	15.52	15.41	16.01	15.92	15.58	
100	DFT-s-OFDM 16QAM	135	136	15.16	15.47	15.81	15.64	15.69	17
100		270	0	15.55	15.50	15.88	15.98	15.68	
100		1	1	15.89	15.53	15.25	15.75	15.87	
100		1	1	14.38	14.02	13.82	14.25	14.41	
100	DFT-s-OFDM 64QAM	1	1	12.23	11.88	11.58	12.15	12.26	13
100	DFT-s-OFDM 256QAM	1	1	12.23	11.88	11.58	12.15	12.26	13
100	CP-OFDM QPSK	1	1	15.45	15.12	14.84	15.27	15.47	16
100	CP-OFDM 16QAM	1	1	14.99	14.57	14.37	14.85	14.99	16
100	CP-OFDM 64QAM	1	1	13.00	12.64	12.42	12.93	13.05	14
100	CP-OFDM 256QAM	1	1	10.23	9.90	9.62	10.17	10.26	11
Channel				649334	652668	656000	659332	662666	Tune-up
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	limit
80	DFT-s-OFDM QPSK	1	1	16.04	15.57	15.39	15.62	15.79	17
Channel				648668	652334	656000	659666	663332	Tune-up
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	limit
60	DFT-s-OFDM QPSK	1	1	15.98	15.48	15.45	15.84	15.47	17
Channel				648000	652000	656000	660000	664000	Tune-up
Frequency (MHz)				3720	3780	3840	3900	3960	limit
40	DFT-s-OFDM QPSK	1	1	15.93	15.79	15.86	15.94	15.99	17
Channel				647668	651834	656000	660166	664332	Tune-up
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	limit
30	DFT-s-OFDM QPSK	1	1	15.94	15.57	15.82	15.99	15.86	17
Channel				647334	651668	656000	660332	664666	Tune-up
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	limit
20	DFT-s-OFDM QPSK	1	1	15.93	15.58	15.98	15.92	15.89	17