



REPORT No.: SZ23040082S01

Annex E Conducted Power

Note:

Conducted power unit: dBm.

The target power was recorded in the manufacture document.



Full Power

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	23.19	23.22	23.16	23.70	23.24	23.30	23.17	23.70	23.13	23.22	23.17	23.70
3GPP Rel 6	HSDPA Subtest-1	21.94	22.07	22.01	23.00	22.61	22.52	22.40	23.50	22.44	22.34	22.46	23.00
3GPP Rel 6	HSDPA Subtest-2	20.66	21.81	21.74	22.50	21.25	22.23	21.94	23.50	22.11	22.14	22.19	23.00
3GPP Rel 6	HSDPA Subtest-3	19.37	20.87	20.67	21.50	21.10	21.49	21.13	22.50	21.10	21.21	21.16	22.50
3GPP Rel 6	HSDPA Subtest-4	18.26	20.56	20.60	21.50	21.20	21.42	21.40	22.50	20.71	20.79	20.95	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.49	22.54	22.49	23.50	22.97	22.93	22.91	23.50	22.83	22.76	22.87	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	22.48	22.54	22.54	23.50	22.88	22.83	22.98	23.50	22.83	22.77	22.90	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	22.00	22.05	22.03	23.50	22.69	22.64	22.52	23.50	22.32	22.28	22.35	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.90	22.05	22.05	23.50	22.70	22.62	22.49	23.50	22.33	22.30	22.37	23.50
3GPP Rel 6	HSUPA Subtest-1	21.95	22.03	22.05	23.50	22.60	22.52	22.61	23.50	22.45	22.39	22.54	23.50
3GPP Rel 6	HSUPA Subtest-2	19.97	20.02	19.92	21.00	20.65	20.40	20.36	21.50	22.44	22.54	22.54	23.50
3GPP Rel 6	HSUPA Subtest-3	20.89	21.00	20.97	22.00	21.56	21.53	21.29	22.50	22.42	22.54	22.54	23.50
3GPP Rel 6	HSUPA Subtest-4	19.98	20.00	20.05	21.00	20.66	20.40	20.40	21.50	22.14	22.54	22.54	23.50
3GPP Rel 6	HSUPA Subtest-5	21.98	22.01	21.93	23.00	22.65	22.44	22.39	23.00	22.57	22.54	22.54	23.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	22.51	22.41	22.50	23.50	22.61	22.63	22.44	23.00	22.66	22.71	22.63	23.00
Attenuator			Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.6	
Mode			Max.	23.22			Max.	23.30			Max.	23.22	



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	22.71	22.82	22.70	23.5
20	QPSK	1	49	22.65	22.71	22.70	
20	QPSK	1	99	22.38	22.42	22.40	
20	QPSK	50	0	21.75	21.82	21.80	22.5
20	QPSK	50	24	21.70	21.75	21.66	
20	QPSK	50	50	21.59	21.66	21.64	
20	QPSK	100	0	21.38	21.49	21.42	22.5
20	16QAM	1	0	22.21	22.23	22.20	
20	16QAM	1	49	22.10	22.18	22.09	
20	16QAM	1	99	22.08	22.11	22.04	21.5
20	16QAM	50	0	20.94	21.00	20.89	
20	16QAM	50	24	20.73	20.87	20.69	
20	16QAM	50	50	20.58	20.69	20.57	21.5
20	16QAM	100	0	20.36	20.54	20.50	
20	64QAM	1	0	21.08	21.10	21.03	
20	64QAM	1	49	21.00	21.03	21.00	21.5
20	64QAM	1	99	21.00	21.00	20.88	
20	64QAM	50	0	19.79	19.88	19.73	
20	64QAM	50	24	19.66	19.72	19.69	20.5
20	64QAM	50	50	19.45	19.59	19.41	
20	64QAM	100	0	19.38	19.43	19.36	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	22.65	22.79	22.58	23.5
15	QPSK	1	37	22.62	22.61	22.58	
15	QPSK	1	74	22.32	22.41	22.30	
15	QPSK	36	0	21.63	21.81	21.75	22.5
15	QPSK	36	20	21.60	21.69	21.61	
15	QPSK	36	39	21.52	21.65	21.62	
15	QPSK	75	0	21.29	21.46	21.31	22.5
15	16QAM	1	0	22.20	22.12	22.17	
15	16QAM	1	37	22.07	22.05	22.02	
15	16QAM	1	74	22.01	21.98	22.02	21.5
15	16QAM	36	0	20.89	20.89	20.86	
15	16QAM	36	20	20.63	20.77	20.68	
15	16QAM	36	39	20.47	20.60	20.47	21.5
15	16QAM	75	0	20.33	20.46	20.47	
15	64QAM	1	0	21.01	20.98	21.02	
15	64QAM	1	37	20.87	21.00	20.93	20.5
15	64QAM	1	74	20.93	20.89	20.78	
15	64QAM	36	0	19.71	19.75	19.66	
15	64QAM	36	20	19.57	19.61	19.62	20.5
15	64QAM	36	39	19.35	19.50	19.28	
15	64QAM	75	0	19.29	19.37	19.35	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	22.60	22.75	22.59	23.5
10	QPSK	1	25	22.64	22.60	22.64	
10	QPSK	1	49	22.31	22.33	22.28	
10	QPSK	25	0	21.66	21.77	21.77	22.5
10	QPSK	25	12	21.69	21.73	21.56	
10	QPSK	25	25	21.54	21.54	21.63	
10	QPSK	50	0	21.26	21.37	21.36	22.5
10	16QAM	1	0	22.14	22.10	22.18	
10	16QAM	1	25	22.04	22.05	22.00	
10	16QAM	1	49	21.98	22.08	21.93	21.5
10	16QAM	25	0	20.90	20.87	20.86	
10	16QAM	25	12	20.65	20.80	20.57	
10	16QAM	25	25	20.50	20.68	20.53	21.5
10	16QAM	50	0	20.35	20.53	20.48	
10	64QAM	1	0	20.95	20.97	20.95	
10	64QAM	1	25	20.99	20.96	20.90	20.5
10	64QAM	1	49	20.93	20.93	20.80	
10	64QAM	25	0	19.74	19.78	19.66	
10	64QAM	25	12	19.64	19.67	19.64	20.5
10	64QAM	25	25	19.34	19.51	19.40	
10	64QAM	50	0	19.31	19.41	19.28	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	22.69	22.75	22.69	23.5
5	QPSK	1	12	22.54	22.60	22.58	
5	QPSK	1	24	22.37	22.37	22.36	
5	QPSK	12	0	21.72	21.79	21.73	22.5
5	QPSK	12	7	21.62	21.67	21.59	
5	QPSK	12	13	21.50	21.58	21.52	
5	QPSK	25	0	21.28	21.41	21.36	22.5
5	16QAM	1	0	22.15	22.16	22.07	
5	16QAM	1	12	22.08	22.08	22.04	
5	16QAM	1	24	22.06	21.99	21.97	21.5
5	16QAM	12	0	20.81	20.93	20.86	
5	16QAM	12	7	20.66	20.81	20.56	
5	16QAM	12	13	20.53	20.62	20.47	21.5
5	16QAM	25	0	20.29	20.50	20.48	
5	64QAM	1	0	21.01	21.09	20.90	
5	64QAM	1	12	20.96	20.92	20.95	20.5
5	64QAM	1	24	20.93	20.94	20.77	
5	64QAM	12	0	19.76	19.79	19.67	
5	64QAM	12	7	19.60	19.71	19.62	20.5
5	64QAM	12	13	19.38	19.48	19.37	
5	64QAM	25	0	19.36	19.42	19.24	
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	22.63	22.69	22.64	23.5
3	QPSK	1	8	22.64	22.62	22.69	
3	QPSK	1	14	22.29	22.37	22.27	
3	QPSK	8	0	21.73	21.79	21.67	22.5
3	QPSK	8	4	21.65	21.72	21.59	
3	QPSK	8	7	21.50	21.57	21.59	

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	22.58	22.78	22.63	23.5
20	QPSK	1	49	22.61	22.62	22.66	
20	QPSK	1	99	22.30	22.29	22.32	
20	QPSK	50	0	21.69	21.74	21.71	22.5
20	QPSK	50	24	21.68	21.71	21.54	
20	QPSK	50	50	21.49	21.53	21.55	
20	QPSK	100	0	21.34	21.37	21.34	22.5
20	16QAM	1	0	22.11	22.17	22.18	
20	16QAM	1	49	22.08	22.15	22.08	
20	16QAM	1	99	22.06	22.00	21.94	21.5
20	16QAM	50	0	20.86	20.96	20.79	
20	16QAM	50	24	20.61	20.74	20.64	
20	16QAM	50	50	20.48	20.60	20.46	21.5
20	16QAM	100	0	20.35	20.50	20.39	
20	64QAM	1	0	20.99	21.01	20.95	
20	64QAM	1	49	20.99	20.98	20.98	21.5
20	64QAM	1	99	20.90	20.96	20.87	
20	64QAM	50	0	19.68	19.81	19.68	20.5
20	64QAM	50	24	19.53	19.60	19.57	
20	64QAM	50	50	19.39	19.52	19.31	
20	64QAM	100	0	19.25	19.37	19.23	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	22.52	22.70	22.62	23.5
15	QPSK	1	37	22.49	22.60	22.58	
15	QPSK	1	74	22.23	22.20	22.29	
15	QPSK	36	0	21.59	21.67	21.66	22.5
15	QPSK	36	20	21.58	21.64	21.44	
15	QPSK	36	39	21.43	21.40	21.52	
15	QPSK	75	0	21.31	21.27	21.23	22.5
15	16QAM	1	0	22.00	22.08	22.06	
15	16QAM	1	37	22.05	22.10	22.04	
15	16QAM	1	74	21.96	21.93	21.87	21.5
15	16QAM	36	0	20.79	20.86	20.76	
15	16QAM	36	20	20.56	20.71	20.59	
15	16QAM	36	39	20.40	20.55	20.41	21.5
15	16QAM	75	0	20.24	20.37	20.30	
15	64QAM	1	0	20.96	20.88	20.93	
15	64QAM	1	37	20.98	20.97	20.88	21.5
15	64QAM	1	74	20.87	20.84	20.78	
15	64QAM	36	0	19.61	19.76	19.55	
15	64QAM	36	20	19.40	19.55	19.56	20.5
15	64QAM	36	39	19.29	19.46	19.30	
15	64QAM	75	0	19.16	19.32	19.10	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	22.56	22.57	22.55	23.5
10	QPSK	1	25	22.55	22.61	22.61	
10	QPSK	1	49	22.17	22.18	22.21	
10	QPSK	25	0	21.60	21.67	21.59	22.5
10	QPSK	25	12	21.57	21.63	21.52	
10	QPSK	25	25	21.42	21.50	21.48	
10	QPSK	50	0	21.28	21.36	21.22	22.5
10	16QAM	1	0	22.03	22.07	22.09	
10	16QAM	1	25	22.01	22.14	22.06	
10	16QAM	1	49	22.05	21.87	21.93	21.5
10	16QAM	25	0	20.81	20.90	20.74	
10	16QAM	25	12	20.54	20.67	20.52	
10	16QAM	25	25	20.41	20.53	20.44	21.5
10	16QAM	50	0	20.32	20.46	20.32	
10	64QAM	1	0	20.97	20.92	20.87	
10	64QAM	1	25	20.91	20.88	20.87	21.5
10	64QAM	1	49	20.85	20.86	20.84	
10	64QAM	25	0	19.55	19.71	19.65	
10	64QAM	25	12	19.43	19.59	19.47	20.5
10	64QAM	25	25	19.28	19.48	19.28	
10	64QAM	50	0	19.21	19.36	19.14	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	22.49	22.67	22.50	23.5
5	QPSK	1	12	22.58	22.56	22.64	
5	QPSK	1	24	22.25	22.18	22.23	
5	QPSK	12	0	21.65	21.73	21.60	22.5
5	QPSK	12	7	21.67	21.69	21.52	
5	QPSK	12	13	21.48	21.44	21.51	
5	QPSK	25	0	21.28	21.30	21.29	22.5
5	16QAM	1	0	22.07	22.08	22.07	
5	16QAM	1	12	22.04	22.10	21.98	
5	16QAM	1	24	22.04	21.89	21.88	21.5
5	16QAM	12	0	20.78	20.88	20.76	
5	16QAM	12	7	20.59	20.63	20.56	
5	16QAM	12	13	20.46	20.47	20.41	21.5
5	16QAM	25	0	20.30	20.38	20.38	
5	64QAM	1	0	20.89	20.88	20.82	
5	64QAM	1	12	20.90	20.87	20.86	21.5
5	64QAM	1	24	20.79	20.84	20.83	
5	64QAM	12	0	19.66	19.72	19.61	
5	64QAM	12	7	19.50	19.48	19.54	20.5
5	64QAM	12	13	19.26	19.40	19.22	
5	64QAM	25	0	19.22	19.27	19.12	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	22.55	22.61	22.51	23.5
3	QPSK	1	8	22.52	22.58	22.53	
3	QPSK	1	14	22.26	22.23	22.30	
3	QPSK	8	0	21.62	21.63	21.63	22.5
3	QPSK	8	4	21.62	21.66	21.42	
3	QPSK	8	7	21.47	21.48	21.54	



3	QPSK	15	0	21.30	21.47	21.31	22.5
3	16QAM	1	0	22.20	22.11	22.16	
3	16QAM	1	8	22.03	22.14	22.08	
3	16QAM	1	14	21.95	22.06	21.99	
3	16QAM	8	0	20.85	20.90	20.84	21.5
3	16QAM	8	4	20.67	20.74	20.67	
3	16QAM	8	7	20.51	20.67	20.54	
3	16QAM	15	0	20.25	20.48	20.47	
3	64QAM	1	0	21.02	20.97	20.99	21.5
3	64QAM	1	8	20.93	20.98	20.91	
3	64QAM	1	14	20.98	20.91	20.78	
3	64QAM	8	0	19.66	19.78	19.60	
3	64QAM	8	4	19.64	19.71	19.58	20.5
3	64QAM	8	7	19.43	19.52	19.33	
3	64QAM	15	0	19.35	19.42	19.31	
Channel				18607	18900	19193	Tune-up limit
Frequency (MHz)				1850.7	1880	1909.3	(dBm)
1.4	QPSK	1	0	22.66	22.75	22.59	23.5
1.4	QPSK	1	3	22.53	22.65	22.58	
1.4	QPSK	1	5	22.35	22.32	22.29	
1.4	QPSK	3	0	22.71	22.70	22.68	
1.4	QPSK	3	1	22.63	22.69	22.60	
1.4	QPSK	3	3	22.54	22.57	22.59	
1.4	QPSK	6	0	21.35	21.42	21.41	22.5
1.4	16QAM	1	0	22.12	22.12	22.08	22.5
1.4	16QAM	1	3	22.00	22.16	21.97	
1.4	16QAM	1	5	21.98	22.01	21.96	
1.4	16QAM	3	0	21.83	21.91	21.87	
1.4	16QAM	3	1	21.67	21.76	21.57	
1.4	16QAM	3	3	21.49	21.59	21.50	
1.4	16QAM	6	0	20.31	20.52	20.45	21.5
1.4	64QAM	1	0	20.99	21.08	20.92	21.5
1.4	64QAM	1	3	20.98	20.98	20.92	
1.4	64QAM	1	5	20.97	20.90	20.84	
1.4	64QAM	3	0	20.68	20.86	20.66	
1.4	64QAM	3	1	20.61	20.70	20.62	
1.4	64QAM	3	3	20.43	20.46	20.37	
1.4	64QAM	6	0	19.33	19.40	19.24	20.5

3	QPSK	15	0	21.21	21.34	21.30	22.5
3	16QAM	1	0	21.99	22.14	22.05	
3	16QAM	1	8	21.96	22.13	21.99	
3	16QAM	1	14	21.96	21.99	21.89	
3	16QAM	8	0	20.80	20.84	20.77	21.5
3	16QAM	8	4	20.58	20.62	20.54	
3	16QAM	8	7	20.46	20.56	20.40	
3	16QAM	15	0	20.26	20.41	20.26	
3	64QAM	1	0	20.90	20.97	20.85	21.5
3	64QAM	1	8	20.90	20.92	20.92	
3	64QAM	1	14	20.77	20.93	20.85	
3	64QAM	8	0	19.55	19.74	19.67	
3	64QAM	8	4	19.47	19.56	19.50	20.5
3	64QAM	8	7	19.28	19.47	19.28	
3	64QAM	15	0	19.12	19.28	19.10	
Channel				19957	20175	20393	Tune-up limit
Frequency (MHz)				1710.7	1732.5	1754.3	(dBm)
1.4	QPSK	1	0	22.57	22.69	22.59	23.5
1.4	QPSK	1	3	22.59	22.52	22.63	
1.4	QPSK	1	5	22.25	22.19	22.27	
1.4	QPSK	3	0	21.59	21.63	21.69	
1.4	QPSK	3	1	21.57	21.68	21.51	
1.4	QPSK	3	3	21.56	21.53	21.53	
1.4	QPSK	6	0	21.31	21.26	21.32	22.5
1.4	16QAM	1	0	22.00	22.08	22.10	22.5
1.4	16QAM	1	3	22.07	22.08	22.00	
1.4	16QAM	1	5	21.94	21.95	21.88	
1.4	16QAM	3	0	21.84	21.92	21.74	
1.4	16QAM	3	1	21.58	21.68	21.58	
1.4	16QAM	3	3	21.47	21.48	21.45	
1.4	16QAM	6	0	21.23	21.37	21.26	21.5
1.4	64QAM	1	0	20.87	20.98	20.87	21.5
1.4	64QAM	1	3	20.92	20.92	20.91	
1.4	64QAM	1	5	20.83	20.90	20.77	
1.4	64QAM	3	0	19.58	19.71	19.56	
1.4	64QAM	3	1	19.62	19.56	19.55	
1.4	64QAM	3	3	19.53	19.51	19.50	
1.4	64QAM	6	0	19.19	19.28	19.17	20.5



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	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	23.26	23.27	23.19	23.5
10	QPSK	1	25	23.05	23.18	23.22	
10	QPSK	1	49	22.98	22.85	22.88	
10	QPSK	25	0	22.37	22.41	22.27	22.5
10	QPSK	25	12	22.36	22.27	22.10	
10	QPSK	25	25	22.17	22.09	22.11	
10	QPSK	50	0	22.02	22.05	21.90	22.5
10	16QAM	1	0	21.79	21.73	21.74	
10	16QAM	1	25	21.76	21.71	21.64	
10	16QAM	1	49	21.74	21.56	21.50	21.5
10	16QAM	25	0	21.33	21.40	21.35	
10	16QAM	25	12	21.29	21.30	21.20	
10	16QAM	25	25	21.16	21.16	21.11	21.5
10	16QAM	50	0	21.03	21.06	20.95	
10	64QAM	1	0	20.67	20.57	20.51	
10	64QAM	1	25	20.67	20.54	20.54	20.5
10	64QAM	1	49	20.58	20.52	20.43	
10	64QAM	25	0	19.36	19.37	19.24	
10	64QAM	25	12	19.21	19.16	19.13	20.5
10	64QAM	25	25	19.07	19.08	18.87	
10	64QAM	50	0	18.93	18.93	18.79	
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				828.5	836.5	846.5	
5	QPSK	1	0	23.13	23.14	23.10	23.5
5	QPSK	1	12	23.02	23.17	23.09	
5	QPSK	1	24	22.92	22.74	22.86	
5	QPSK	12	0	22.35	22.29	22.23	22.5
5	QPSK	12	7	22.23	22.18	22.08	
5	QPSK	12	13	22.12	22.07	22.00	
5	QPSK	25	0	21.90	21.89	21.84	22.5
5	16QAM	1	0	21.72	21.69	21.67	
5	16QAM	1	12	21.72	21.62	21.55	
5	16QAM	1	24	21.68	21.45	21.41	21.5
5	16QAM	12	0	21.41	21.42	21.31	
5	16QAM	12	7	21.20	21.24	21.17	
5	16QAM	12	13	21.11	21.04	20.94	21.5
5	16QAM	25	0	20.90	20.99	20.91	
5	64QAM	1	0	20.64	20.55	20.50	
5	64QAM	1	12	20.63	20.53	20.46	21.5
5	64QAM	1	24	20.49	20.48	20.42	
5	64QAM	12	0	19.24	19.33	19.16	
5	64QAM	12	7	19.08	19.13	19.11	20.5
5	64QAM	12	13	19.01	19.07	19.11	
5	64QAM	25	0	18.89	18.82	18.74	
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.17	23.26	23.10	23.5
3	QPSK	1	8	23.01	23.06	23.10	
3	QPSK	1	14	22.91	22.84	22.80	
3	QPSK	8	0	22.31	22.26	22.14	22.5
3	QPSK	8	4	22.29	22.17	22.03	
3	QPSK	8	7	22.09	22.07	22.05	
3	QPSK	15	0	21.98	21.80	21.84	22.5
3	16QAM	1	0	21.71	21.60	21.65	
3	16QAM	1	8	21.71	21.62	21.57	
3	16QAM	1	14	21.65	21.55	21.41	21.5
3	16QAM	8	0	21.46	21.50	21.31	
3	16QAM	8	4	21.27	21.24	21.09	
3	16QAM	8	7	21.09	21.07	21.02	21.5
3	16QAM	15	0	20.97	20.98	20.85	
3	64QAM	1	0	20.54	20.56	20.45	
3	64QAM	1	8	20.63	20.43	20.43	21.5
3	64QAM	1	14	20.47	20.46	20.34	
3	64QAM	8	0	19.24	19.36	19.22	
3	64QAM	8	4	19.12	19.09	19.11	20.5
3	64QAM	8	7	19.01	19.01	18.90	
3	64QAM	15	0	18.84	18.83	18.73	
Channel				20407	20525	20943	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.24	23.15	23.12	23.5
1.4	QPSK	1	3	22.99	23.12	23.10	
1.4	QPSK	1	5	22.94	22.83	22.79	
1.4	QPSK	3	0	22.26	22.20	22.21	22.5
1.4	QPSK	3	1	22.31	22.25	22.07	
1.4	QPSK	3	3	22.10	22.05	22.08	
1.4	QPSK	6	0	21.89	21.83	21.85	22.5
1.4	16QAM	1	0	21.76	21.67	21.72	
1.4	16QAM	1	3	21.65	21.58	21.52	
1.4	16QAM	1	5	21.67	21.47	21.41	22.5
1.4	16QAM	3	0	21.43	21.44	21.25	
1.4	16QAM	3	1	21.22	21.18	21.16	
1.4	16QAM	3	3	21.13	21.08	21.01	21.5
1.4	16QAM	6	0	20.93	20.93	20.94	
1.4	64QAM	1	0	20.63	20.54	20.40	
1.4	64QAM	1	3	20.58	20.48	20.48	21.5
1.4	64QAM	1	5	20.47	20.51	20.33	
1.4	64QAM	3	0	19.73	19.74	19.69	
1.4	64QAM	3	1	19.60	19.65	19.58	20.5
1.4	64QAM	3	3	19.51	19.55	19.54	
1.4	64QAM	6	0	18.83	18.92	18.69	

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	24.5
10	QPSK	1	0	23.80	23.81	23.73	
10	QPSK	1	25	23.59	23.72	23.76	
10	QPSK	1	49	23.52	23.39	23.42	23.5
10	QPSK	25	0	22.91	22.95	22.81	
10	QPSK	25	12	22.90	22.81	22.64	
10	QPSK	25	25	22.71	22.63	22.65	23.5
10	QPSK	50	0	22.56	22.61	22.44	
10	16QAM	1	0	23.33	23.27	23.28	
10	16QAM	1	25	23.30	23.25	23.18	22.5
10	16QAM	1	49	23.28	23.10	23.04	
10	16QAM	25	0	22.08	22.06	21.89	
10	16QAM	25	12	21.83	21.84	21.74	22.5
10	16QAM	25	25	21.70	21.70	21.65	
10	16QAM	50	0	21.57	21.60	21.49	
10	64QAM	1	0	22.21	22.11	22.05	22.5
10	64QAM	1	25	22.21	22.08	22.08	
10	64QAM	1	49	22.12	22.06	21.97	
10	64QAM	25	0	20.90	20.91	20.78	21.5
10	64QAM	25	12	20.75	20.70	20.67	
10	64QAM	25	25	20.61	20.62	20.41	
10	64QAM	50	0	20.47	20.47	20.33	Tune-up limit (dBm)
Channel				23035	23095	23155	
Frequency (MHz)				701.5	707.5	713.5	24.5
5	QPSK	1	0	23.67	23.72	23.63	
5	QPSK	1	12	23.54	23.69	23.74	
5	QPSK	1	24	23.42	23.37	23.30	23.5
5	QPSK	12	0	22.89	22.79	22.74	
5	QPSK	12	7	22.85	22.71	22.58	
5	QPSK	12	13	22.66	22.51	22.52	23.5
5	QPSK	25	0	22.53	22.41	22.43	
5	16QAM	1	0	23.31	23.19	23.25	
5	16QAM	1	12	23.28	23.14	23.11	22.5
5	16QAM	1	24	23.25	23.01	22.97	
5	16QAM	12	0	22.01	21.95	21.78	
5	16QAM	12	7	21.82	21.79	21.68	22.5
5	16QAM	12	13	21.61	21.60	21.54	
5	16QAM	25	0	21.52	21.50	21.44	
5	64QAM	1	0	22.14	21.99	22.02	22.5
5	64QAM	1	12	22.19	22.03	22.02	
5	64QAM	1	24	22.00	22.02	21.85	
5	64QAM	12	0	20.81	20.88	20.73	21.5
5	64QAM	12	7	20.70	20.64	20.59	
5	64QAM	12	13	20.57	20.54	20.46	
5	64QAM	25	0	20.41	20.43	20.22	Tune-up limit (dBm)
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	24.5
3	QPSK	1	0	23.75	23.71	23.65	
3	QPSK	1	8	23.55	23.69	23.66	
3	QPSK	1	14	23.39	23.26	23.39	23.5
3	QPSK	8	0	22.82	22.72	22.75	
3	QPSK	8	4	22.89	22.79	22.58	
3	QPSK	8	7	22.66	22.51	22.56	23.5
3	QPSK	15	0	22.48	22.44	22.41	
3	16QAM	1	0	23.23	23.16	23.16	
3	16QAM	1	8	23.22	23.18	23.10	22.5
3	16QAM	1	14	23.27	23.01	22.94	
3	16QAM	8	0	21.99	22.04	21.83	
3	16QAM	8	4	21.79	21.72	21.61	22.5
3	16QAM	8	7	21.63	21.67	21.63	
3	16QAM	15	0	21.52	21.53	21.40	
3	64QAM	1	0	22.17	21.99	22.03	22.5
3	64QAM	1	8	22.09	22.03	21.98	
3	64QAM	1	14	22.07	22.01	21.85	
3	64QAM	8	0	20.77	20.90	20.67	21.5
3	64QAM	8	4	20.73	20.66	20.60	
3	64QAM	8	7	20.56	20.51	20.42	
3	64QAM	15	0	20.34	20.38	20.29	Tune-up limit (dBm)
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	24.5
1.4	QPSK	1	0	23.67	23.63	23.57	
1.4	QPSK	1	3	23.47	23.61	23.58	
1.4	QPSK	1	5	23.31	23.18	23.31	23.5
1.4	QPSK	3	0	23.54	23.44	23.47	
1.4	QPSK	3	1	23.61	23.51	23.30	
1.4	QPSK	3	3	23.38	23.23	23.28	22.5
1.4	QPSK	6	0	22.40	22.36	22.33	
1.4	16QAM	1	0	23.15	23.08	23.08	
1.4	16QAM	1	3	23.14	23.10	23.02	23.5
1.4	16QAM	1	5	23.19	22.93	22.86	
1.4	16QAM	3	0	22.91	22.96	22.75	
1.4	16QAM	3	1	22.71	22.64	22.53	22.5
1.4	16QAM	3	3	22.55	22.59	22.55	
1.4	16QAM	6	0	22.44	22.45	22.32	
1.4	64QAM	1	0	22.09	21.91	21.95	22.5
1.4	64QAM	1	3	22.01	21.95	21.90	
1.4	64QAM	1	5	21.99	21.93	21.77	
1.4	64QAM	3	0	20.69	20.82	20.59	21.5
1.4	64QAM	3	1	20.65	20.58	20.52	
1.4	64QAM	3	3	20.48	20.43	20.39	
1.4	64QAM	6	0	20.26	20.30	20.21	21.5



Band 13(700MHz Band) (dBm)							
Part 27F							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23230			
Frequency (MHz)				782			
10	QPSK	1	0		23.77		24.5
10	QPSK	1	25		23.68		
10	QPSK	1	49		23.35		
10	QPSK	25	0		22.80		23.5
10	QPSK	25	12		22.77		
10	QPSK	25	25		22.59		
10	QPSK	50	0		22.43		23.5
10	16QAM	1	0		23.23		
10	16QAM	1	25		23.21		
10	16QAM	1	49		23.06		22.5
10	16QAM	25	0		22.02		
10	16QAM	25	12		21.80		
10	16QAM	25	25		21.66		22.5
10	16QAM	50	0		21.56		
10	64QAM	1	0		22.07		
10	64QAM	1	25		22.04		21.5
10	64QAM	1	49		22.02		
10	64QAM	25	0		20.87		
10	64QAM	25	12		20.66		21.5
10	64QAM	25	25		20.58		
10	64QAM	50	0		20.43		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.67	23.68	23.62	24.5
5	QPSK	1	12	23.51	23.61	23.69	
5	QPSK	1	24	23.44	23.26	23.39	
5	QPSK	12	0	22.79	22.72	22.73	23.5
5	QPSK	12	7	22.77	22.76	22.52	
5	QPSK	12	13	22.68	22.48	22.64	
5	QPSK	25	0	22.52	22.34	22.34	23.5
5	16QAM	1	0	23.21	23.10	23.16	
5	16QAM	1	12	23.24	23.14	23.08	
5	16QAM	1	24	23.17	22.98	23.03	22.5
5	16QAM	12	0	22.02	21.92	21.88	
5	16QAM	12	7	21.78	21.73	21.64	
5	16QAM	12	13	21.66	21.55	21.60	22.5
5	16QAM	25	0	21.46	21.51	21.48	
5	64QAM	1	0	22.15	22.00	21.94	
5	64QAM	1	12	22.16	21.91	21.95	22.5
5	64QAM	1	24	22.09	21.98	21.93	
5	64QAM	12	0	20.77	20.75	20.75	
5	64QAM	12	7	20.70	20.61	20.62	21.5
5	64QAM	12	13	20.48	20.46	20.29	
5	64QAM	25	0	20.36	20.39	20.27	

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		23.85		24.5
10	QPSK	1	25		23.76		
10	QPSK	1	49		23.43		
10	QPSK	25	0		22.88		23.5
10	QPSK	25	12		22.85		
10	QPSK	25	25		22.67		
10	QPSK	50	0		22.51		23.5
10	16QAM	1	0		23.31		
10	16QAM	1	25		23.29		
10	16QAM	1	49		23.14		22.5
10	16QAM	25	0		22.10		
10	16QAM	25	12		21.88		
10	16QAM	25	25		21.74		22.5
10	16QAM	50	0		21.64		
10	64QAM	1	0		22.15		
10	64QAM	1	25		22.12		22.5
10	64QAM	1	49		22.10		
10	64QAM	25	0		20.95		
10	64QAM	25	12		20.74		21.5
10	64QAM	25	25		20.66		
10	64QAM	50	0		20.51		
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	23.83	23.84	23.78	24.5
5	QPSK	1	12	23.67	23.77	23.70	
5	QPSK	1	24	23.60	23.42	23.55	
5	QPSK	12	0	22.95	22.88	22.89	23.5
5	QPSK	12	7	22.93	22.92	22.88	
5	QPSK	12	13	22.84	22.64	22.80	
5	QPSK	25	0	22.68	22.50	22.50	23.5
5	16QAM	1	0	23.37	23.26	23.32	
5	16QAM	1	12	23.40	23.30	23.24	
5	16QAM	1	24	23.33	23.14	23.19	22.5
5	16QAM	12	0	22.18	22.08	22.04	
5	16QAM	12	7	21.94	21.89	21.80	
5	16QAM	12	13	21.82	21.71	21.76	22.5
5	16QAM	25	0	21.62	21.67	21.64	
5	64QAM	1	0	22.31	22.16	22.10	
5	64QAM	1	12	22.32	22.07	22.11	22.5
5	64QAM	1	24	22.25	22.14	22.09	
5	64QAM	12	0	20.93	20.91	20.91	
5	64QAM	12	7	20.86	20.77	20.78	21.5
5	64QAM	12	13	20.64	20.62	20.45	
5	64QAM	25	0	20.52	20.55	20.43	



Band 17 (700MHz Band) (dBm)							
Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	23.77	23.78	23.72	
10	QPSK	1	25	23.61	23.71	23.64	24.5
10	QPSK	1	49	23.54	23.36	23.49	
10	QPSK	25	0	22.89	22.91	22.83	
10	QPSK	25	12	22.87	22.86	22.62	23.5
10	QPSK	25	25	22.78	22.58	22.74	
10	QPSK	50	0	22.62	22.68	22.59	
10	16QAM	1	0	23.31	23.20	23.26	23.5
10	16QAM	1	25	23.34	23.24	23.18	
10	16QAM	1	49	23.27	23.08	23.13	
10	16QAM	25	0	22.12	22.02	21.98	22.5
10	16QAM	25	12	21.88	21.83	21.74	
10	16QAM	25	25	21.76	21.65	21.70	
10	16QAM	50	0	21.56	21.61	21.58	22.5
10	64QAM	1	0	22.25	22.10	22.04	
10	64QAM	1	25	22.26	22.01	22.05	
10	64QAM	1	49	22.19	22.08	22.03	21.5
10	64QAM	25	0	20.87	20.85	20.85	
10	64QAM	25	12	20.80	20.71	20.72	
10	64QAM	25	25	20.58	20.56	20.39	21.5
10	64QAM	50	0	20.46	20.49	20.37	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				708.5	710	713.5	
5	QPSK	1	0	23.68	23.73	23.71	
5	QPSK	1	12	23.55	23.67	23.54	24.5
5	QPSK	1	24	23.45	23.27	23.36	
5	QPSK	12	0	22.81	22.81	22.70	
5	QPSK	12	7	22.83	22.77	22.49	23.5
5	QPSK	12	13	22.72	22.50	22.66	
5	QPSK	25	0	22.57	22.43	22.40	
5	16QAM	1	0	23.30	23.07	23.19	23.5
5	16QAM	1	12	23.33	23.23	23.06	
5	16QAM	1	24	23.24	23.06	23.04	
5	16QAM	12	0	20.99	20.99	20.92	22.5
5	16QAM	12	7	20.84	20.81	20.71	
5	16QAM	12	13	20.68	20.53	20.67	
5	16QAM	25	0	20.50	20.55	20.50	22.5
5	64QAM	1	0	22.18	21.97	22.00	
5	64QAM	1	12	22.25	21.93	22.00	
5	64QAM	1	24	22.10	22.03	21.96	21.5
5	64QAM	12	0	20.81	20.84	20.84	
5	64QAM	12	7	20.73	20.59	20.69	
5	64QAM	12	13	20.52	20.50	20.44	21.5
5	64QAM	25	0	20.44	20.37	20.29	

Band 25 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	
20	QPSK	1	0	23.15	23.26	23.19	
20	QPSK	1	49	23.05	23.18	23.22	23.5
20	QPSK	1	99	22.98	22.85	22.88	
20	QPSK	50	0	22.37	22.41	22.27	
20	QPSK	50	24	22.36	22.27	22.10	22.5
20	QPSK	50	50	22.17	22.09	22.11	
20	QPSK	100	0	22.02	22.11	21.90	
20	16QAM	1	0	21.79	21.73	21.74	22.5
20	16QAM	1	49	21.76	21.71	21.64	
20	16QAM	1	99	21.74	21.56	21.50	
20	16QAM	50	0	21.33	21.40	21.35	21.5
20	16QAM	50	24	21.29	21.30	21.20	
20	16QAM	50	50	21.16	21.16	21.11	
20	16QAM	100	0	21.03	21.06	20.95	21.5
20	64QAM	1	0	20.67	20.57	20.51	
20	64QAM	1	49	20.67	20.54	20.54	
20	64QAM	1	99	20.58	20.52	20.43	20.5
20	64QAM	50	0	19.36	19.37	19.24	
20	64QAM	50	24	19.21	19.16	19.13	
20	64QAM	50	50	19.07	19.08	18.87	20.5
20	64QAM	100	0	18.93	18.93	18.79	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	23.06	23.13	23.06	
15	QPSK	1	37	22.93	23.07	23.10	23.5
15	QPSK	1	74	22.87	22.76	22.86	
15	QPSK	36	0	22.32	22.22	22.26	
15	QPSK	36	20	22.26	22.20	22.04	22.5
15	QPSK	36	39	22.16	22.02	22.04	
15	QPSK	75	0	21.97	21.84	21.83	
15	16QAM	1	0	21.78	21.69	21.71	22.5
15	16QAM	1	37	21.66	21.58	21.63	
15	16QAM	1	74	21.64	21.44	21.42	
15	16QAM	36	0	21.23	21.31	21.27	21.5
15	16QAM	36	20	21.28	21.17	21.10	
15	16QAM	36	39	21.07	21.10	20.98	
15	16QAM	75	0	20.98	20.95	20.87	21.5
15	64QAM	1	0	20.64	20.50	20.46	
15	64QAM	1	37	20.63	20.44	20.44	
15	64QAM	1	74	20.49	20.41	20.37	20.5
15	64QAM	36	0	19.23	19.25	19.18	
15	64QAM	36	20	19.16	19.08	19.03	
15	64QAM	36	39	19.06	19.05	18.84	20.5
15	64QAM	75	0	18.89	18.87	18.66	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	23.06	23.23	23.18	
10	QPSK	1	25	23.01	23.12	23.21	23.5
10	QPSK	1	49	22.87	22.85	22.81	
10	QPSK	25	0	22.29	22.18	22.14	
10	QPSK	25	12	22.31	22.24	21.99	22.5
10	QPSK	25	25	22.15	21.96	22.09	
10	QPSK	50	0	21.93	21.88	21.84	
10	16QAM	1	0	21.73	21.64	21.68	22.5
10	16QAM	1	25	21.68	21.66	21.60	
10	16QAM	1	49	21.71	21.51	21.44	
10	16QAM	25	0	21.31	21.37	21.29	21.5
10	16QAM	25	12	21.17	21.23	21.19	
10	16QAM	25	25	21.05	21.06	21.03	
10	16QAM	50	0	20.91	20.95	20.90	21.5
10	64QAM	1	0	20.65	20.55	20.50	
10	64QAM	1	25	20.55	20.49	20.52	
10	64QAM	1	49	20.53	20.43	20.32	20.5
10	64QAM	25	0	19.28	19.28	19.15	
10	64QAM	25	12	19.11	19.13	19.00	
10	64QAM	25	25	19.05	19.07	18.80	20.5
10	64QAM	50	0	18.81	18.82	18.76	
Channel				26085	26365	26685	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	23.05	23.13	23.14	
5	QPSK	1	12	23.01	23.13	23.14	23.5
5	QPSK	1	24	22.93	22.78	22.76	
5	QPSK	12	0	22.26	22.21	22.20	
5	QPSK	12	7	22.34	22.22	21.99	22.5
5	QPSK	12	13	22.05	22.08	22.08	
5	QPSK	25	0	21.89	21.81	21.87	
5	16QAM	1	0	21.74	21.72	21.71	22.5
5	16QAM	1	12	21.71	21.62	21.62	
5	16QAM	1	24	21.73	21.45	21.40	
5	16QAM	12	0	21.20	21.29	21.25	21.5
5	16QAM	12	7	21.17	21.28	21.08	
5	16QAM	12	13	21.03	21.15	20.99	
5	16QAM	25	0	21.00	21.01	20.91	21.5
5	64QAM	1	0	20.57	20.56	20.49	
5	64QAM	1	12	20.54	20.53	20.44	
5	64QAM	1	24	20.46	20.44	20.41	20.5
5	64QAM	12	0	19.33	19.33	19.13	
5	64QAM	12	7	19.18	19.13	19.00	
5	64QAM	12	13	19.02	19.00	18.83	20.5
5	64QAM	25	0	18.85	18.80	18.66	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	23.04	23.19	23.10	
3	QPSK	1	8	22.92	23.06	23.10	23.5
3	QPSK	1	14	22.88	22.80	22.82	
3	QPSK	8	0	22.24	22.21	22.17	
3	QPSK	8	4	22.31	22.14	21.97	22.5
3	QPSK	8	7	22.15	22.02	22.03	



3	QPSK	15	0	21.96	21.81	21.81	22.5
3	16QAM	1	0	21.70	21.69	21.69	
3	16QAM	1	8	21.70	21.60	21.55	
3	16QAM	1	14	21.70	21.47	21.44	21.5
3	16QAM	8	0	21.31	21.35	21.29	
3	16QAM	8	4	21.20	21.25	21.12	
3	16QAM	8	7	21.14	21.14	21.02	21.5
3	16QAM	15	0	20.98	21.02	20.87	
3	64QAM	1	0	20.65	20.49	20.49	
3	64QAM	1	8	20.54	20.51	20.53	20.5
3	64QAM	1	14	20.50	20.40	20.32	
3	64QAM	8	0	19.28	19.36	19.20	
3	64QAM	8	4	19.09	19.12	19.02	20.5
3	64QAM	8	7	18.96	18.96	18.90	
3	64QAM	15	0	18.84	18.80	18.67	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	23.12	23.24	23.16	23.5
1.4	QPSK	1	3	23.00	23.10	23.17	
1.4	QPSK	1	5	22.93	22.79	22.82	
1.4	QPSK	3	0	22.27	22.27	22.17	
1.4	QPSK	3	1	22.31	22.19	22.08	
1.4	QPSK	3	3	22.05	21.99	22.08	22.5
1.4	QPSK	6	0	21.90	21.87	21.86	
1.4	16QAM	1	0	21.73	21.67	21.62	21.5
1.4	16QAM	1	3	21.75	21.58	21.56	
1.4	16QAM	1	5	21.72	21.55	21.42	
1.4	16QAM	3	0	21.32	21.34	21.24	
1.4	16QAM	3	1	21.16	21.19	21.15	
1.4	16QAM	3	3	21.07	21.10	21.08	20.5
1.4	16QAM	6	0	20.96	21.02	20.88	
1.4	64QAM	1	0	20.57	20.53	20.39	21.5
1.4	64QAM	1	3	20.62	20.45	20.52	
1.4	64QAM	1	5	20.48	20.48	20.40	
1.4	64QAM	3	0	19.61	19.65	19.53	
1.4	64QAM	3	1	19.69	19.71	19.62	
1.4	64QAM	3	3	19.59	19.54	19.50	20.5
1.4	64QAM	6	0	18.82	18.85	18.73	



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	23.71	23.82	23.75	
15	QPSK	1	37	23.61	23.74	23.78	24.5
15	QPSK	1	74	23.54	23.41	23.44	
15	QPSK	36	0	22.93	22.95	22.83	
15	QPSK	36	20	22.92	22.83	22.66	23.5
15	QPSK	36	39	22.73	22.65	22.67	
15	QPSK	75	0	22.58	22.61	22.56	
15	16QAM	1	0	22.35	22.29	22.30	23.5
15	16QAM	1	37	22.32	22.27	22.20	
15	16QAM	1	74	22.30	22.12	22.06	
15	16QAM	36	0	21.89	21.96	21.91	22.5
15	16QAM	36	20	21.85	21.86	21.76	
15	16QAM	36	39	21.72	21.72	21.67	
15	16QAM	75	0	21.59	21.62	21.51	22.5
15	64QAM	1	0	21.23	21.13	21.07	
15	64QAM	1	37	21.23	21.10	21.10	
15	64QAM	1	74	21.14	21.08	20.99	21.5
15	64QAM	36	0	19.92	19.93	19.80	
15	64QAM	36	20	19.77	19.72	19.69	
15	64QAM	36	39	19.63	19.64	19.43	
15	64QAM	75	0	19.49	19.49	19.35	
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	23.65	23.79	23.70	
10	QPSK	1	25	23.53	23.61	23.67	24.5
10	QPSK	1	49	23.51	23.34	23.38	
10	QPSK	25	0	22.83	22.78	22.81	
10	QPSK	25	12	22.86	22.72	22.62	23.5
10	QPSK	25	25	22.65	22.60	22.54	
10	QPSK	50	0	22.57	22.42	22.37	
10	16QAM	1	0	22.23	22.22	22.19	23.5
10	16QAM	1	25	22.31	22.15	22.14	
10	16QAM	1	49	22.26	22.03	22.04	
10	16QAM	25	0	21.78	21.94	21.90	22.5
10	16QAM	25	12	21.75	21.85	21.72	
10	16QAM	25	25	21.70	21.68	21.54	
10	16QAM	50	0	21.87	21.86	21.79	22.5
10	64QAM	1	0	21.12	21.07	20.98	
10	64QAM	1	25	21.19	20.97	21.05	
10	64QAM	1	49	21.04	21.05	20.91	21.5
10	64QAM	25	0	19.80	19.92	19.69	
10	64QAM	25	12	19.71	19.61	19.60	
10	64QAM	25	25	19.58	19.58	19.46	
10	64QAM	50	0	19.36	19.48	19.23	
Channel				26715	26865	27015	
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.60	23.74	23.64	
5	QPSK	1	12	23.57	23.62	23.68	24.5
5	QPSK	1	24	23.41	23.36	23.38	
5	QPSK	12	0	22.80	22.78	22.81	
5	QPSK	12	7	22.86	22.80	22.55	23.5
5	QPSK	12	13	22.62	22.63	22.60	
5	QPSK	25	0	22.51	22.38	22.41	
5	16QAM	1	0	22.30	22.26	22.18	23.5
5	16QAM	1	12	22.22	22.14	22.17	
5	16QAM	1	24	22.29	22.01	22.03	
5	16QAM	12	0	21.87	21.87	21.86	22.5
5	16QAM	12	7	21.78	21.80	21.65	
5	16QAM	12	13	21.91	21.91	21.94	
5	16QAM	25	0	21.79	21.81	21.72	22.5
5	64QAM	1	0	21.16	21.04	20.97	
5	64QAM	1	12	21.12	20.97	21.04	
5	64QAM	1	24	21.03	21.03	20.94	21.5
5	64QAM	12	0	19.88	19.83	19.75	
5	64QAM	12	7	19.71	19.63	19.58	
5	64QAM	12	13	19.55	19.58	19.46	
5	64QAM	25	0	19.46	19.37	19.33	
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.62	23.80	23.63	
3	QPSK	1	8	23.51	23.66	23.70	24.5
3	QPSK	1	14	23.48	23.39	23.42	
3	QPSK	8	0	22.89	22.73	22.79	
3	QPSK	8	4	22.86	22.77	22.58	23.5
3	QPSK	8	7	22.67	22.54	22.57	
3	QPSK	15	0	22.50	22.43	22.35	
3	16QAM	1	0	22.28	22.18	22.23	23.5
3	16QAM	1	8	22.25	22.25	22.07	
3	16QAM	1	14	22.28	22.07	21.93	
3	16QAM	8	0	21.82	21.92	21.84	22.5
3	16QAM	8	4	21.75	21.82	21.74	
3	16QAM	8	7	21.61	21.62	21.59	
3	16QAM	15	0	21.83	21.84	21.78	22.5
3	64QAM	1	0	21.17	21.04	21.00	
3	64QAM	1	8	21.18	21.02	21.04	
3	64QAM	1	14	21.05	21.01	20.96	21.5
3	64QAM	8	0	19.84	19.89	19.75	
3	64QAM	8	4	19.76	19.70	19.56	
3	64QAM	8	7	19.52	19.58	19.41	
3	64QAM	15	0	19.40	19.41	19.30	
Channel				26697	26865	27033	
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.66	23.72	23.67	
1.4	QPSK	1	3	23.54	23.72	23.67	24.5
1.4	QPSK	1	5	23.45	23.32	23.40	
1.4	QPSK	3	0	22.83	22.82	22.71	
1.4	QPSK	3	1	22.87	22.80	22.65	
1.4	QPSK	3	3	22.62	22.61	22.63	

Band 30 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				27710	27710	27710	
Frequency (MHz)				2310	2310	2310	
10	QPSK	1	0	23.80	23.72	23.72	
10	QPSK	1	25	23.72	23.39	23.39	24.5
10	QPSK	1	49	23.39	22.84	22.84	
10	QPSK	25	0	22.84	22.81	22.63	
10	QPSK	25	12	22.81	22.63	22.47	23.5
10	QPSK	25	25	22.63	22.47	22.27	
10	QPSK	50	0	22.47	22.27	22.25	
10	16QAM	1	0	22.27	22.25	22.10	23.5
10	16QAM	1	25	22.25	22.10	21.94	
10	16QAM	1	49	22.10	21.84	21.81	
10	16QAM	25	0	21.94	21.81	21.71	22.5
10	16QAM	25	12	21.84	21.68	21.68	
10	16QAM	25	25	21.81	21.68	21.06	
10	16QAM	50	0	21.71	21.11	21.08	22.5
10	64QAM	1	0	21.11	21.08	21.06	
10	64QAM	1	25	21.08	21.06	19.91	
10	64QAM	1	49	21.06	19.91	19.70	21.5
10	64QAM	25	0	19.91	19.70	19.62	
10	64QAM	25	12	19.70	19.62	19.50	
10	64QAM	25	25	19.62	19.50	19.50	
10	64QAM	50	0	19.50	19.50	19.50	
Channel				27685	27710	27735	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	23.64	23.77	23.72	
5	QPSK	1	12	23.60	23.79	23.75	24.5
5	QPSK	1	24	23.50	23.32	23.54	
5	QPSK	12	0	22.98	22.85	22.84	
5	QPSK	12	7	22.91	22.82	22.69	23.5
5	QPSK	12	13	22.66	22.66	22.72	
5	QPSK	25	0	22.47	22.53	22.41	
5	16QAM	1	0	22.39	22.29	22.28	23.5
5	16QAM	1	12	22.27	22.22	22.12	
5	16QAM	1	24	22.37	22.15	22.06	
5	16QAM	12	0	21.99	22.00	21.84	22.5
5	16QAM	12	7	21.84	21.75	21.70	
5	16QAM	12	13	21.77	21.73	21.68	
5	16QAM	25	0	21.63	21.73	21.60	22.5
5	64QAM	1	0	21.25	21.14	21.08	
5	64QAM	1	12	21.26	21.12	21.18	
5	64QAM	1	24	21.15	21.02	21.09	21.5
5	64QAM	12	0	19.94	19.99	19.75	
5	64QAM	12	7	19.82	19.72	19.69	
5	64QAM	12	13	19.63	19.54	19.54	
5	64QAM	25	0	19.48	19.58	19.27	



1.4	QPSK	6	0	22.56	22.48	22.35	23.5
1.4	16QAM	1	0	22.28	22.25	22.26	23.5
1.4	16QAM	1	3	22.27	22.24	22.09	
1.4	16QAM	1	5	22.21	22.10	21.97	
1.4	16QAM	3	0	21.83	21.93	21.82	
1.4	16QAM	3	1	21.84	21.84	21.75	
1.4	16QAM	3	3	21.95	21.89	21.94	
1.4	16QAM	6	0	21.56	21.59	21.45	22.5
1.4	64QAM	1	0	22.02	21.92	21.94	22.5
1.4	64QAM	1	3	22.09	21.87	21.94	
1.4	64QAM	1	5	21.92	21.89	21.77	
1.4	64QAM	3	0	21.00	21.11	20.96	
1.4	64QAM	3	1	20.95	20.82	20.81	
1.4	64QAM	3	3	20.73	20.71	20.62	
1.4	64QAM	6	0	19.77	19.77	19.54	21.5



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	Tune-up limit (dBm)
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	22.70	22.81	22.89	23.5
20	QPSK	1	49	22.64	22.70	22.69	
20	QPSK	1	99	22.37	22.41	22.39	
20	QPSK	50	0	21.58	21.65	21.63	22.5
20	QPSK	50	24	21.53	21.58	21.49	
20	QPSK	50	50	21.42	21.49	21.47	
20	QPSK	100	0	21.21	21.32	21.25	22.5
20	16QAM	1	0	22.04	22.06	22.03	
20	16QAM	1	49	21.93	22.01	21.92	
20	16QAM	1	99	21.91	21.94	21.87	21.5
20	16QAM	50	0	20.42	20.48	20.37	
20	16QAM	50	24	20.21	20.35	20.17	
20	16QAM	50	50	20.06	20.17	20.05	21.5
20	16QAM	100	0	19.84	20.02	19.98	
20	64QAM	1	0	20.56	20.58	20.51	
20	64QAM	1	49	20.48	20.51	20.48	21.5
20	64QAM	1	99	20.48	20.48	20.36	
20	64QAM	50	0	19.27	19.36	19.21	
20	64QAM	50	24	19.14	19.20	19.17	20.5
20	64QAM	50	50	18.93	19.07	18.89	
20	64QAM	100	0	18.86	18.91	18.84	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	22.67	22.72	22.68	23.5
15	QPSK	1	37	22.56	22.63	22.60	
15	QPSK	1	74	22.34	22.35	22.35	
15	QPSK	36	0	21.51	21.61	21.60	22.5
15	QPSK	36	20	21.69	21.68	21.59	
15	QPSK	36	39	21.57	21.57	21.63	
15	QPSK	75	0	21.57	21.69	21.56	22.5
15	16QAM	1	0	21.91	21.93	21.99	
15	16QAM	1	37	21.90	21.93	21.83	
15	16QAM	1	74	21.86	21.88	21.79	21.5
15	16QAM	36	0	20.41	20.44	20.28	
15	16QAM	36	20	20.11	20.22	20.05	
15	16QAM	36	39	19.97	20.14	20.03	21.5
15	16QAM	75	0	19.74	19.92	19.96	
15	64QAM	1	0	20.46	20.53	20.46	
15	64QAM	1	37	20.37	20.45	20.47	21.5
15	64QAM	1	74	20.35	20.39	20.31	
15	64QAM	36	0	19.14	19.24	19.18	
15	64QAM	36	20	19.04	19.17	19.14	20.5
15	64QAM	36	39	18.80	18.95	18.83	
15	64QAM	75	0	18.74	18.83	18.81	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	22.68	22.74	22.56	23.5
10	QPSK	1	25	22.62	22.69	22.62	
10	QPSK	1	49	22.35	22.35	22.34	
10	QPSK	25	0	21.51	21.62	21.51	22.5
10	QPSK	25	12	21.63	21.68	21.60	
10	QPSK	25	25	21.52	21.62	21.59	
10	QPSK	50	0	21.31	21.40	21.35	22.5
10	16QAM	1	0	21.96	21.99	22.00	
10	16QAM	1	25	21.85	21.91	21.88	
10	16QAM	1	49	21.85	21.83	21.79	21.5
10	16QAM	25	0	20.31	20.37	20.32	
10	16QAM	25	12	20.20	20.22	20.04	
10	16QAM	25	25	19.95	20.12	19.95	21.5
10	16QAM	50	0	19.79	20.00	19.85	
10	64QAM	1	0	20.45	20.54	20.38	
10	64QAM	1	25	20.37	20.39	20.44	21.5
10	64QAM	1	49	20.40	20.39	20.29	
10	64QAM	25	0	19.25	19.26	19.19	
10	64QAM	25	12	19.02	19.15	19.14	20.5
10	64QAM	25	25	18.81	18.97	18.84	
10	64QAM	50	0	18.78	18.88	18.73	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	22.61	22.70	22.58	23.5
5	QPSK	1	12	22.54	22.57	22.56	
5	QPSK	1	24	22.34	22.30	22.29	
5	QPSK	12	0	21.14	21.24	21.21	22.5
5	QPSK	12	7	21.13	21.21	21.09	
5	QPSK	12	13	20.98	21.08	21.11	
5	QPSK	25	0	20.74	20.89	20.80	22.5
5	16QAM	1	0	21.67	21.63	21.61	
5	16QAM	1	12	21.53	21.65	21.51	
5	16QAM	1	24	21.49	21.58	21.43	21.5
5	16QAM	12	0	20.35	20.36	20.24	
5	16QAM	12	7	20.14	20.31	20.04	
5	16QAM	12	13	20.00	20.06	19.93	21.5
5	16QAM	25	0	19.77	19.93	19.95	
5	64QAM	1	0	20.49	20.46	20.41	
5	64QAM	1	12	20.43	20.46	20.44	21.5
5	64QAM	1	24	20.46	20.35	20.24	
5	64QAM	12	0	19.18	19.19	19.09	
5	64QAM	12	7	19.08	19.16	19.05	20.5
5	64QAM	12	13	18.90	19.01	18.76	
5	64QAM	25	0	18.76	18.80	18.79	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	22.63	22.70	22.68	23.5
3	QPSK	1	8	22.60	22.66	22.56	
3	QPSK	1	14	22.34	22.29	22.28	
3	QPSK	8	0	21.10	21.20	21.23	22.5
3	QPSK	8	4	21.08	21.17	21.02	
3	QPSK	8	7	20.96	21.06	21.03	

Band 71 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	QPSK	1	0	22.28	22.39	22.27	23.5
20	QPSK	1	49	22.22	22.28	22.27	
20	QPSK	1	99	21.95	21.99	21.97	
20	QPSK	50	0	21.67	21.74	21.72	22.5
20	QPSK	50	24	21.62	21.67	21.58	
20	QPSK	50	50	21.51	21.58	21.56	
20	QPSK	100	0	21.49	21.60	21.53	22.5
20	16QAM	1	0	22.13	22.15	22.12	
20	16QAM	1	49	22.02	22.10	22.01	
20	16QAM	1	99	22.00	22.03	21.96	21.5
20	16QAM	50	0	20.51	20.57	20.46	
20	16QAM	50	24	20.30	20.44	20.26	
20	16QAM	50	50	20.15	20.26	20.14	21.5
20	16QAM	100	0	19.93	20.11	20.07	
20	64QAM	1	0	20.85	20.67	20.60	
20	64QAM	1	49	20.57	20.60	20.57	21.5
20	64QAM	1	99	20.57	20.57	20.45	
20	64QAM	50	0	19.36	19.45	19.30	
20	64QAM	50	24	19.23	19.29	19.26	20.5
20	64QAM	50	50	19.02	19.16	18.98	
20	64QAM	100	0	18.95	19.00	18.93	
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	22.18	22.32	22.26	23.5
15	QPSK	1	37	22.21	22.18	22.26	
15	QPSK	1	74	21.89	21.95	21.91	
15	QPSK	36	0	21.63	21.64	21.59	22.5
15	QPSK	36	20	21.59	21.64	21.50	
15	QPSK	36	39	21.63	21.68	21.67	
15	QPSK	75	0	21.43	21.52	21.44	22.5
15	16QAM	1	0	22.00	22.07	22.09	
15	16QAM	1	37	21.91	22.06	21.97	
15	16QAM	1	74	21.94	21.91	21.83	21.5
15	16QAM	36	0	20.50	20.45	20.33	
15	16QAM	36	20	20.26	20.38	20.18	
15	16QAM	36	39	20.09	20.14	20.08	21.5
15	16QAM	75	0	19.88	20.00	19.94	
15	64QAM	1	0	20.57	20.61	20.52	
15	64QAM	1	37	20.52	20.47	20.51	21.5
15	64QAM	1	74	20.56	20.48	20.32	
15	64QAM	36	0	19.29	19.37	19.22	
15	64QAM	36	20	19.15	19.23	19.15	20.5
15	64QAM	36	39	18.94	19.14	18.91	
15	64QAM	75	0	18.85	18.91	18.83	
Channel				133172	133272	133422	Tune-up limit (dBm)
Frequency (MHz)				668	678	693	
10	QPSK	1	0	22.19	22.33	22.18	23.5
10	QPSK	1	25	22.15	22.17	22.22	
10	QPSK	1	49	21.93	21.94	21.94	
10	QPSK	25	0	21.66	21.68	21.68	22.5
10	QPSK	25	12	21.57	21.63	21.54	
10	QPSK	25	25	21.65	21.68	21.66	
10	QPSK	50	0	21.37	21.59	21.42	22.5
10	16QAM	1	0	22.08	22.14	22.01	
10	16QAM	1	25	21.93	21.98	21.97	
10	16QAM	1	49	21.89	21.94	21.90	21.5
10	16QAM	25	0	20.40	20.41	20.35	
10	16QAM	25	12	20.22	20.40	20.21	
10	16QAM	25	25	20.03	20.21	20.03	21.5
10	16QAM	50	0	19.89	19.98	19.99	
10	64QAM	1	0	20.63	20.57	20.51	
10	64QAM	1	25	20.49	20.57	20.48	21.5
10	64QAM	1	49	20.55	20.44	20.33	
10	64QAM	25	0	19.30	19.31	19.21	
10	64QAM	25	12	19.18	19.26	19.14	20.5
10	64QAM	25	25	19.00	19.11	18.85	
10	64QAM	50	0	18.86	18.91	18.85	
Channel				133147	133247	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	22.22	22.28	22.19	23.5
5	QPSK	1	12	22.18	22.20	22.24	
5	QPSK	1	24	21.83	21.95	21.84	
5	QPSK	12	0	21.55	21.62	21.71	22.5
5	QPSK	12	7	21.50	21.63	21.51	
5	QPSK	12	13	21.63	21.74	21.67	
5	QPSK	25	0	21.38	21.57	21.45	22.5
5	16QAM	1	0	22.03	22.04	22.08	
5	16QAM	1	12	21.95	22.09	21.91	
5	16QAM	1	24	21.91	21.96	21.90	21.5
5	16QAM	12	0	20.41	20.44	20.41	
5	16QAM	12	7	20.21	20.36	20.13	
5	16QAM	12	13	20.02	20.21	20.03	21.5
5	16QAM	25	0	19.84	19.98	20.05	
5	64QAM	1	0	20.62	20.60	20.52	
5	64QAM	1	12	20.49	20.50	20.45	21.5
5	64QAM	1	24	20.44	20.45	20.37	
5	64QAM	12	0	19.23	19.33	19.23	
5	64QAM	12	7	19.22	19.23	19.15	20.5
5	64QAM	12	13	18.89	19.13	18.96	
5	64QAM	25	0	18.88	18.99	18.88	



3	QPSK	15	0	20.82	20.94	20.88	22.5
3	16QAM	1	0	21.60	21.66	21.63	
3	16QAM	1	8	21.51	21.57	21.53	
3	16QAM	1	14	21.51	21.50	21.48	21.5
3	16QAM	8	0	20.41	20.42	20.28	
3	16QAM	8	4	20.12	20.25	20.04	
3	16QAM	8	7	19.93	20.13	19.94	
3	16QAM	15	0	19.80	19.98	19.93	
3	64QAM	1	0	20.45	20.46	20.43	21.5
3	64QAM	1	8	20.46	20.42	20.42	
3	64QAM	1	14	20.46	20.45	20.23	
3	64QAM	8	0	19.24	19.29	19.08	20.5
3	64QAM	8	4	19.02	19.17	19.11	
3	64QAM	8	7	18.81	18.99	18.85	
3	64QAM	15	0	18.83	18.90	18.71	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	22.58	22.65	22.63	23.5
1.4	QPSK	1	3	22.55	22.61	22.51	
1.4	QPSK	1	5	22.29	22.24	22.21	
1.4	QPSK	3	0	22.56	22.66	22.69	
1.4	QPSK	3	1	22.54	22.63	22.48	
1.4	QPSK	3	3	22.42	22.52	22.49	
1.4	QPSK	6	0	20.77	20.89	20.83	22.5
1.4	16QAM	1	0	21.55	21.61	21.58	22.5
1.4	16QAM	1	3	21.46	21.52	21.48	
1.4	16QAM	1	5	21.46	21.45	21.43	
1.4	16QAM	3	0	21.36	21.37	21.23	
1.4	16QAM	3	1	21.07	21.20	20.99	
1.4	16QAM	3	3	20.88	21.08	20.89	
1.4	16QAM	6	0	19.75	19.93	19.88	21.5
1.4	64QAM	1	0	20.40	20.41	20.38	21.5
1.4	64QAM	1	3	20.41	20.37	20.37	
1.4	64QAM	1	5	20.41	20.40	20.18	
1.4	64QAM	3	0	20.19	20.24	20.03	
1.4	64QAM	3	1	19.97	20.12	20.06	
1.4	64QAM	3	3	19.76	19.94	19.80	
1.4	64QAM	6	0	18.78	18.85	18.66	20.5



Band 41 (2496~2690MHz) (dBm) PC2											
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	40600	41055	41460	Tune-up limit (dBm)		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680			
20	QPSK	1	0	25.66	25.78	25.81	25.60	25.57	26.3		
20	QPSK	1	49	25.65	25.77	25.89	25.71	25.69			
20	QPSK	1	99	25.52	25.56	25.53	25.45	25.53			
20	QPSK	50	0	24.26	24.49	24.52	24.28	24.22			
20	QPSK	50	24	24.37	24.42	24.30	24.32	24.30	25.3		
20	QPSK	50	50	24.30	24.41	24.26	24.39	24.26			
20	QPSK	100	0	24.43	24.40	24.51	24.45	24.42			
20	16QAM	1	0	24.16	24.38	24.29	24.37	24.29			
20	16QAM	1	49	24.24	24.19	24.00	24.09	24.05	25.3		
20	16QAM	1	99	24.08	24.21	24.33	24.33	24.33			
20	16QAM	50	0	23.79	23.82	23.68	23.65	23.68			
20	16QAM	50	24	24.01	23.98	23.78	23.71	23.78			
20	16QAM	50	50	23.80	24.06	23.63	23.64	23.63	24.3		
20	16QAM	100	0	23.60	23.67	23.51	23.58	23.51			
20	64QAM	1	0	23.31	23.50	23.32	23.33	23.32			
20	64QAM	1	49	23.44	23.43	23.32	23.28	23.32	24.3		
20	64QAM	1	99	23.47	23.44	23.30	23.23	23.30			
20	64QAM	50	0	22.45	22.48	22.36	22.47	22.36			
20	64QAM	50	24	22.51	22.31	22.38	22.28	22.38			
20	64QAM	50	50	22.25	22.20	22.22	22.25	22.22	23.3		
20	64QAM	100	0	22.19	22.33	22.38	22.33	22.38			
Channel				39725	40173	40600	41068	41515	Tune-up limit (dBm)		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5			
15	QPSK	1	0	25.58	25.70	25.73	25.52	25.49	26.3		
15	QPSK	1	37	25.57	25.69	25.61	25.63	25.61			
15	QPSK	1	74	25.44	25.48	25.45	25.37	25.45			
15	QPSK	36	0	24.18	24.41	24.14	24.20	24.14			
15	QPSK	36	20	24.29	24.34	24.22	24.24	24.22	25.3		
15	QPSK	36	39	24.22	24.33	24.18	24.31	24.16			
15	QPSK	75	0	24.35	24.32	24.34	24.37	24.34			
15	16QAM	1	0	24.08	24.30	24.21	24.29	24.21			
15	16QAM	1	37	24.16	24.11	24.00	24.01	24.00	25.3		
15	16QAM	1	74	24.00	24.13	24.25	24.25	24.25			
15	16QAM	36	0	23.71	23.74	23.60	23.57	23.60			
15	16QAM	36	20	23.93	23.90	23.70	23.63	23.70			
15	16QAM	36	39	23.72	23.88	23.55	23.56	23.55	24.3		
15	16QAM	75	0	23.52	23.59	23.43	23.50	23.43			
15	64QAM	1	0	23.23	23.42	23.24	23.25	23.24			
15	64QAM	1	37	23.36	23.35	23.24	23.20	23.24			
15	64QAM	1	74	23.39	23.36	23.22	23.15	23.22	24.3		
15	64QAM	36	0	22.37	22.40	22.28	22.39	22.28			
15	64QAM	36	20	22.43	22.23	22.30	22.20	22.30			
15	64QAM	36	39	22.17	22.12	22.14	22.17	22.14			
15	64QAM	75	0	22.11	22.25	22.30	22.25	22.30	23.3		
Channel				39700	40160	40600	41069	41540			
Frequency (MHz)				2501	2547	2593	2637	2685			
10	QPSK	1	0	25.50	25.62	25.65	25.44	25.41	26.3		
10	QPSK	1	25	25.49	25.61	25.53	25.55	25.53			
10	QPSK	1	49	25.36	25.40	25.37	25.29	25.37			
10	QPSK	25	0	24.10	24.33	24.06	24.12	24.06			
10	QPSK	25	12	24.21	24.26	24.14	24.16	24.14	25.3		
10	QPSK	25	25	24.14	24.25	24.10	24.23	24.10			
10	QPSK	50	0	24.27	24.24	24.26	24.29	24.26			
10	16QAM	1	0	24.00	24.22	24.13	24.21	24.13			
10	16QAM	1	25	24.16	24.11	24.00	24.01	24.00	25.3		
10	16QAM	1	49	24.00	24.13	24.25	24.25	24.25			
10	16QAM	25	0	23.63	23.66	23.52	23.49	23.52			
10	16QAM	25	12	23.85	23.82	23.62	23.55	23.62			
10	16QAM	25	25	23.84	23.90	23.47	23.48	23.47	24.3		
10	16QAM	50	0	23.44	23.51	23.35	23.42	23.35			
10	64QAM	1	0	23.15	23.34	23.16	23.17	23.16			
10	64QAM	1	25	23.28	23.27	23.16	23.12	23.16			
10	64QAM	1	49	23.31	23.28	23.14	23.07	23.14	24.3		
10	64QAM	25	0	22.29	22.32	22.20	22.31	22.20			
10	64QAM	25	12	22.35	22.15	22.22	22.12	22.22			
10	64QAM	25	25	22.09	22.04	22.06	22.09	22.06			
10	64QAM	50	0	22.03	22.17	22.22	22.17	22.22	23.3		
Channel				39675	40148	40600	41063	41565			
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5			
5	QPSK	1	0	25.45	25.57	25.60	25.39	25.36	26.3		
5	QPSK	1	12	25.44	25.56	25.48	25.50	25.48			
5	QPSK	1	24	25.31	25.35	25.32	25.24	25.32			
5	QPSK	12	0	24.05	24.28	24.01	24.07	24.01			
5	QPSK	12	7	24.16	24.21	24.09	24.11	24.09	25.3		
5	QPSK	12	13	24.09	24.20	24.05	24.18	24.05			
5	QPSK	25	0	24.22	24.19	24.21	24.24	24.21			
5	16QAM	1	0	24.01	24.23	24.14	24.22	24.14			
5	16QAM	1	12	24.17	24.12	24.01	24.02	24.01	25.3		
5	16QAM	1	24	24.01	24.08	24.20	24.20	24.20			
5	16QAM	12	0	23.58	23.61	23.47	23.44	23.47			
5	16QAM	12	7	23.80	23.77	23.57	23.50	23.57			
5	16QAM	12	13	23.59	23.85	23.42	23.43	23.42	24.3		
5	16QAM	25	0	23.39	23.46	23.30	23.37	23.30			
5	64QAM	1	0	23.10	23.29	23.11	23.12	23.11			
5	64QAM	1	12	23.23	23.22	23.11	23.07	23.11			
5	64QAM	1	24	23.26	23.23	23.09	23.02	23.09	24.3		
5	64QAM	12	0	22.24	22.27	22.15	22.26	22.15			
5	64QAM	12	7	22.30	22.10	22.17	22.07	22.17			
5	64QAM	12	13	22.04	22.05	22.01	22.04	22.01			
5	64QAM	25	0	22.04	22.12	22.17	22.12	22.17	23.3		

Band 41 (2496~2690MHz) (dBm) PC3										
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	40600	41055	41460		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	23.50	23.65	23.65	23.39	23.44	24.7	
20	QPSK	1	49	23.53	23.65	23.57	23.59	23.57		
20	QPSK	1	99	23.40	23.44	23.41	23.33	23.41		
20	QPSK	50	0	22.77	23.00	23.02	22.79	22.73		
20	QPSK	50	24	22.88	22.93	22.81	22.83	22.81	23.7	
20	QPSK	50	50	22.81	22.92	22.77	22.80	22.77		
20	QPSK	100	0	22.94	22.91	22.99	22.96	22.93		
20	16QAM	1	0	22.67	22.89	22.80	22.88	22.80		
20	16QAM	1	49	22.75	22.70	22.50	22.60	22.50	23.7	
20	16QAM	1	99	22.59	22.72	22.84	22.84	22.84		
20	16QAM	50	0	22.30	22.33	22.19	22.16	22.19		
20	16QAM	50	24	22.52	22.49	22.29	22.22	22.29		
20	16QAM	50	50	22.31	22.57	22.14	22.15	22.14	22.7	
20	16QAM	100	0	22.11	22.18	22.02	22.09	22.02		
20	64QAM	1	0	21.82	22.01	21.83	21.84	21.83		
20	64QAM	1	49	21.95	21.94	21.83	21.79	21.83	22.7	
20	64QAM	1	99	21.98	21.95	21.81	21.74	21.81		
20	64QAM	50	0	20.96	20.99	20.87	20.98	20.87		
20	64QAM	50	24	20.82	20.89	20.79	20.79	20.89		
20	64QAM	50	50	20.76	20.71	20.73	20.76	20.73	21.7	
20	64QAM	100	0	20.70	20.84	20.89	20.84	20.89		
Channel				39725 <th>40173<th>40520<th>41068<th>41515</th></th></th></th>	40173 <th>40520<th>41068<th>41515</th></th></th>	40520 <th>41068<th>41515</th></th>	41068 <th>41515</th>	41515		
Frequency (MHz)				2503.5 <th>2548.3<th>2593<th>2637.8<th>2682.5<th>Tune-up limit (dBm)</th><th></th></th></th></th></th>	2548.3 <th>2593<th>2637.8<th>2682.5<th>Tune-up limit (dBm)</th><th></th></th></th></th>	2593 <th>2637.8<th>2682.5<th>Tune-up limit (dBm)</th><th></th></th></th>	2637.8 <th>2682.5<th>Tune-up limit (dBm)</th><th></th></th>	2682.5 <th>Tune-up limit (dBm)</th> <th></th>	Tune-up limit (dBm)	
15	QPSK	1	0	23.42	23.57	23.58	23.31	23.36	24.7	
15	QPSK	1	74	23.45	23.57	23.47	23.51	23.49		
15	QPSK	1	74	23.32	23.36	23.33	23.25	23.33		
15	QPSK	36	0	22.69	22.92	22.85	22.71	22.65		
15	QPSK	36	20	22.80	22.85	22.73	22.75	22.72	23.7	
15	QPSK	36	36	22.73	22.84	22.69	22.82	22.69		
15	QPSK	75	0	22.86	22.83	22.85	22.88	22.85		
15	16QAM	1	0	22.59	22.81	22.72	22.80	22.72		
15	16QAM	1	37	22.67	22.62	22.42	22.52	22.42	22.7	
15	16QAM	1	74	22.51	22.76	22.63	22.76	22.76		
15	16QAM	36	0	22.22	22.25	22.11	22.08	22.11		
15	16QAM	36	20	22.44	22.41	22.21	22.14	22.21		
15	16QAM	36	39	22.23	22.49	22.06	22.07	22.06	22.7	
15	16QAM	75	0	22.03	22.10	21.94	22.01	21.84		
15	64QAM	1	0	21.74	21.93	21.75	21.76	21.75		
15	64QAM	1	37	21.87	21.86	21.75	21.71	21.75		
15	64QAM	1	74	21.90	21.87	21.73	21.66	21.73	22.7	
15	64QAM	36	0	20.88	20.91	20.79	20.90	20.79		
15	64QAM	36	20	20.94	20.81	20.74	20.71	20.81		
15	64QAM	36	39	20.68	20.83	20.65	20.68	20.65		
15	64QAM	75	0	20.62	20.76	20.81	20.76	20.81	21.7	
Channel				39700 <th>40160<th>40620<th>41080<th>41540</th></th></th></th>	40160 <th>40620<th>41080<th>41540</th></th></th>	40620 <th>41080<th>41540</th></th>	41080 <th>41540</th>	41540		
Frequency (MHz)				2501 <th>2547<th>2593<th>2639<th>2685</th></th></th></th>	2547 <th>2593<th>2639<th>2685</th></th></th>	2593 <th>2639<th>2685</th></th>	2639 <th>2685</th>	2685		
10	QPSK	1	0	23.34	23.49	23.50	23.23	23.28	24.7	
10	QPSK	1	25	23.37	23.49	23.41	23.43	23.41		
10	QPSK	1	49	23.24	23.28	23.25	23.17	23.25		
10	QPSK	25	0	22.61	22.84	22.57	22.63	22.57		
10	QPSK	25	12	22.72	22.77	22.65	22.67	22.65	23.7	
10	QPSK	25	25	22.65	22.76	22.61	22.74	22.61		
10	QPSK	50	0	22.78	22.75	22.71	22.80	22.77		
10	16QAM	1	0	22.51	22.73	22.64	22.72	22.64		
10	16QAM	1	25	22.59	22.54	22.34	22.44	22.34	23.7	
10	16QAM	1	49	22.43	22.56	22.68	22.68	22.68		
10	16QAM	25	0	22.14	22.17	22.03	22.00	22.03		
10	16QAM	25	12	22.36	22.33	22.13	22.06	22.13		
10	16QAM	25	25	22.15	22.41	21.96	21.99	21.96	22.7	
10	16QAM	50	0	21.95	22.02	21.88	21.93	21.86		
10	64QAM	1	0	21.86	21.85	21.75	21.82	21.87		
10	64QAM	1	25	21.79	21.78	21.67	21.63	21.67	22.7	
10	64QAM	1	49	21.82	21.78	21.65	21.58	21.65		
10	64QAM	25	0	20.80	20.83	20.71	20.82	20.71		
10	64QAM	25	12	20.86	20.66	20.73	20.63	20.73		
10	64QAM	25	25	20.60	20.55	20.57	20.60	20.57	21.7	
10	64QAM	50	0	20.54	20.68	20.73	20.68	20.73		
Channel				39675 <th>40148<th>40620<th>41093<th>41595</th></th></th></th>	40148 <th>40620<th>41093<th>41595</th></th></th>	40620 <th>41093<th>41595</th></th>	41093 <th>41595</th>	41595		
Frequency (MHz)				2498.5 <th>2545.8<th>2593<th>2640.30<th>2687.5<th>Tune-up limit (dBm)</th><th></th></th></th></th></th>	2545.8 <th>2593<th>2640.30<th>2687.5<th>Tune-up limit (dBm)</th><th></th></th></th></th>	2593 <th>2640.30<th>2687.5<th>Tune-up limit (dBm)</th><th></th></th></th>	2640.30 <th>2687.5<th>Tune-up limit (dBm)</th><th></th></th>	2687.5 <th>Tune-up limit (dBm)</th> <th></th>	Tune-up limit (dBm)	
5	QPSK	1	0	23.29	23.44	23.45	23.18	23.23	24.7	
5	QPSK	1	24	23.32	23.44	23.37	23.38	23.36		
5	QPSK	1	24	23.19	23.23	23.20	23.12	23.20		
5	QPSK	12	0	22.56	22.79	22.52	22.58	22.52		
5	QPSK	12	7	22.67	22.72	22.60	22.62	22.60	23.7	
5	QPSK	12	13	22.60	22.71	22.56	22.69	22.56		
5	QPSK	25	0	22.73	22.70	22.72	22.75	22.72		
5	16QAM	1	0	22.46	22.68	22.59	22.67	22.59		
5	16QAM	1	24	22.54	22.45	22.45	22.39	22.39	22.7	
5	16QAM	1	24	22.38	22.51	22.63	22.63	22.63		
5	16QAM	12	0	22.09	22.12	21.98	21.95	21.98		
5	16QAM	12	7	22.31	22.28	22.08	22.01	22.08		
5	16QAM	12	13	22.10	22.16	21.94	21.94	21.93	22.7	
5	16QAM	25	0	21.90	21.97	21.81	21.68	21.81		
5	64QAM	1	0	21.61	21.80	21.62	21.63	21.62		
5	64QAM	1	12	21.74	21.73	21.62	21.58	21.62		
5	64QAM	12	0	21.77	21.74	21.62	21.53	21.60	21.7	
5	64QAM	12	0	20.75	20.76	20.66	20.77	20.66		
5	64QAM	12	7	20.81	20.81	20.68	20.58	20.68		
5	64QAM	12	13	20.65	20.50	20.55	20.55	20.52		
5	64QAM	25	0	20.62	20.63	20.65	20.63	20.65	21.7	
5	64QAM	25	0	20.59	20.59	20.55	20.55	20.55		
5	64QAM	25	0	20.58	20.58	20.58	20.58	20.58		

CA_41C											
Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	23.12	24.00
40521	40521	40719	QPSK	1	0	0	0	1	0	23.17	24.00
41292	41292	41490	QPSK	1	0	0	0	1	0	23.10	24.00
39750	39750	39948	16QAM	1	0	0	0	1	0	22.86	23.50
40521	40521	40719	16QAM	1	0	0	0	1	0	22.71	23.50
41292	41292	41490	16QAM	1	0	0	0	1	0	22.54	23.50
39750	39750	39948	64QAM	1	0	0	0	1	0	21.45	22.50
40521	40521	40719	64QAM	1	0	0	0	1	0	21.23	22.50
41292	41292	41490	64QAM	1	0	0	0	1	0	21.15	22.50
39750	39750	39948	QPSK	50	0	0	0	1	0	22.52	23.50
40521	40521	40719	QPSK	50	0	0	0	1	0	22.45	23.50
41292	41292	41490	QPSK	50	0	0	0	1	0	22.06	23.00



2CC LTE Downlink													
Configure	CA Configuration	Ant	PCC					SCC				Power	
			Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	DL Channel	DL Fre. (MHz)	CA TX (dBm)	Rel.8 TX (dBm)
Intra-band & Inter-band	CA_2C	Ant 1	2	20	18801	1870.1	QPSK/1#0	2	20	18999	1889.9	22.85	22.82
	CA_2A-2A	Ant 1	2	20	18700	1860	QPSK/1#0	2	20	19100	1900.0	22.76	22.82
	CA_2A-4A	Ant 1	2	20	18700	1860	QPSK/1#0	4	20	20300	1745.0	22.83	22.82
	CA_2A-5A	Ant 1	2	20	18700	1860	QPSK/1#0	5	10	20600	844.0	22.92	22.82
	CA_2A-12A	Ant 1	2	20	18700	1860	QPSK/1#0	12	10	23095	707.5	22.82	22.82
	CA_2A-13A	Ant 1	2	20	18700	1860	QPSK/1#0	13	10	23230	782.0	23.21	22.82
	CA_2A-66A	Ant 1	2	20	18700	1860	QPSK/1#0	66	20	132572	1770.0	22.81	22.82
	CA_2A-71A	Ant 1	2	20	18700	1860	QPSK/1#0	71	20	133322	683.0	22.79	22.82
	CA_4A-4A	Ant 1	4	20	20050	1720	QPSK/1#0	4	20	20300	1745.0	22.85	22.78
	CA_4A-5A	Ant 1	4	20	20050	1720	QPSK/1#0	5	10	20600	844.0	23.04	22.78
	CA_4A-12A	Ant 1	4	20	20050	1720	QPSK/1#0	12	10	23095	707.5	23.00	22.78
	CA_4A-13A	Ant 1	4	20	20050	1720	QPSK/1#0	13	10	23230	782.0	23.38	22.78
	CA_4A-71A	Ant 1	4	20	20050	1720	QPSK/1#0	71	20	133322	683.0	23.14	22.78
	CA_5A-41A	Ant 1	5	10	20450	829	QPSK/1#0	41	20	41490	2680.0	23.55	23.27
	CA_5A-5A	Ant 1	5	10	20450	829	QPSK/1#0	5	10	20600	844.0	23.43	23.27
	CA_5A-66A	Ant 1	5	10	20450	829	QPSK/1#0	66	20	132572	1770.0	23.21	23.27
	CA_5B	Ant 1	5	10	20476	831.6	QPSK/1#0	5	10	20575	841.5	23.49	23.27
	CA_12A-66A	Ant 1	12	10	23095	707.5	QPSK/1#0	66	20	132572	1770.0	23.02	23.81
	CA_13A-66A	Ant 1	13	10	23230	782	QPSK/1#0	66	20	132572	1770.0	23.14	23.77
	CA_25A-25A	Ant 1	25	20	26140	1860	QPSK/1#0	25	20	26590	1905.0	23.54	23.26
	CA_25A-26A	Ant 1	25	20	26140	1860	QPSK/1#0	26	15	26865	831.5	23.52	23.26
	CA_26A-41A	Ant 1	26	15	26865	831.5	QPSK/1#0	41	20	41490	2680.0	23.10	23.82
	CA_41A-41A	Ant 1	41	20	39750	2506	QPSK/1#0	41	20	41490	2680.0	25.58	25.81
	CA_41C	Ant 1	41	20	40521	2583.1	QPSK/1#0	41	20	40719	2602.9	26.14	25.81
	CA_66A-66A	Ant 1	66	20	132072	1720	QPSK/1#0	66	20	132572	1770.0	23.07	22.30
	CA_66A-71A	Ant 1	66	20	132072	1720	QPSK/1#0	71	20	133322	683.0	22.76	22.30
	CA_66B	Ant 1	66	10	132373	1750.1	QPSK/1#0	66	10	132472	1760.0	22.23	22.30
	CA_66C	Ant 1	66	20	132323	1745.1	QPSK/1#0	66	20	132521	1764.9	22.41	22.30



2.4GHz WLAN ANT 1

2.4GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	10.31	11.00	12.00	98.90
		CH 7	2442	10.33	11.00	12.00	
		CH 13	2472	13.27	14.00	15.00	
	802.11g 6Mbps	CH 1	2412	17.72	18.50	17.00	98.38
		CH 7	2442	17.76	18.50	17.00	
		CH 13	2472	-1.67	0.50	0.00	
	802.11n-HT20 MCS0	CH 1	2412	17.57	18.50	17.00	98.27
		CH 7	2442	17.62	18.50	17.00	
		CH 13	2472	-1.83	0.50	0.00	
	802.11n-HT40 MCS0	CH 1	2412	17.52	18.50	16.50	95.00
		CH 7	2442	17.71	18.50	16.50	
		CH 11	2462	4.37	5.00	6.00	

5GHz WLAN ANT 1

5.2GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	17.51	18.50	18.00	98.10
		CH 44	5220	17.31	18.00	18.00	
		CH 48	5240	17.01	18.00	18.00	
	802.11n-HT20 MCS0	CH 36	5180	16.97	17.50	17.50	98.47
		CH 44	5220	16.66	17.50	17.50	
		CH 48	5240	16.85	17.50	17.50	
	802.11n-HT40 MCS0	CH 38	5190	13.47	14.00	14.00	95.92
		CH 46	5230	16.50	17.50	16.50	
		CH 36	5180	16.95	17.50	17.50	
	802.11ac-VHT20 MCS0	CH 44	5220	16.67	17.50	17.50	98.48
		CH 48	5240	16.86	17.50	17.50	
		CH 38	5190	16.82	17.50	16.50	
	802.11ac-VHT40 MCS0	CH 46	5230	16.57	17.50	16.50	95.92
		CH 42	5210	11.83	12.50	12.50	

5GHz WLAN ANT 1

5.3GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	17.31	18.00	18.00	98.10
		CH 60	5300	17.60	18.50	18.00	
		CH 64	5320	17.14	18.00	18.00	
	802.11n-HT20 MCS0	CH 52	5260	16.58	17.50	17.50	98.47
		CH 60	5300	17.12	18.00	17.50	
		CH 64	5320	16.54	17.50	17.50	
	802.11n-HT40 MCS0	CH 54	5270	16.76	17.50	17.00	95.92
		CH 62	5310	13.15	14.00	13.50	
		CH 52	5260	16.55	17.50	17.00	
	802.11ac-VHT20 MCS0	CH 60	5300	17.07	18.00	17.00	98.48
		CH 64	5320	16.51	17.50	17.00	
		CH 54	5270	16.74	17.50	17.00	
	802.11ac-VHT40 MCS0	CH 62	5310	17.13	18.00	17.00	95.92
		CH 58	5290	10.90	12.00	11.50	

5GHz WLAN ANT 1

5.5GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	17.18	18.00	17.50	98.10
		CH 120	5600	17.89	18.50	17.50	
		CH 144	5720	17.86	18.50	17.50	
	802.11n-HT20 MCS0	CH 100	5500	16.59	17.50	17.00	98.47
		CH 120	5600	17.26	18.00	17.00	
		CH 144	5720	17.27	18.00	17.00	
	802.11n-HT40 MCS0	CH 102	5510	13.61	14.50	14.50	95.92
		CH 126	5630	17.61	18.50	16.50	
		CH 142	5710	16.80	17.50	16.50	
	802.11ac-VHT20 MCS0	CH 100	5500	16.60	17.50	17.00	98.48
		CH 120	5600	17.24	18.00	17.00	
		CH 144	5720	17.25	18.00	17.00	
	802.11ac-VHT40 MCS0	CH 102	5510	16.56	17.50	16.50	95.92
		CH 126	5630	17.18	18.00	16.50	
		CH 142	5710	17.30	18.00	16.50	
	802.11ac-VHT80 MCS0	CH 106	5630	11.12	12.00	11.50	93.00
		CH 122	5610	16.78	17.50	16.50	
		CH 138	5690	16.63	17.50	16.50	

5GHz WLAN ANT 1

5.8GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	17.71	18.50	16.50	98.10
		CH 157	5785	17.56	18.50	16.50	
		CH 165	5825	17.17	18.00	16.50	
	802.11n-HT20 MCS0	CH 149	5745	16.96	17.50	16.00	98.47
		CH 157	5785	16.99	17.50	16.00	
		CH 165	5825	16.55	17.50	16.00	
	802.11n-HT40 MCS0	CH 151	5755	16.96	17.50	15.00	95.92
		CH 159	5795	16.74	17.50	15.00	
		CH 149	5745	17.03	18.00	16.00	
	802.11ac-VHT20 MCS0	CH 157	5785	16.97	17.50	16.00	98.48
		CH 165	5825	16.61	17.50	16.00	
		CH 151	5755	17.03	18.00	15.00	
	802.11ac-VHT40 MCS0	CH 159	5795	16.76	17.50	15.00	95.92
		CH 155	5775	16.63	17.50	15.00	

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	9.69	7.17	7.52
	CH 39	2441	9.90	7.71	7.82
	CH 78	2480	9.99	6.97	7.15
Tune-up Limit			11	8.5	8.5
Duty Cycle %			77.07	77.07	77.07
Power level settings			9	9	9

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			GFSK		
LE	CH 60	2402	3.97		
	CH 19	2440	4.80		
	CH 59	2480	3.92		
Tune-up Limit			5.5		
Duty Cycle %			63.49		
Power level settings			default		

MORLAB

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Reduced Power

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	13.53	13.57	13.50	14.20	13.30	13.32	13.25	13.70	17.84	17.93	17.90	18.70
3GPP Rel 6	HSDPA Subtest-1	12.29	12.42	12.36	13.50	12.63	12.54	12.42	13.50	17.15	17.05	17.17	18.00
3GPP Rel 6	HSDPA Subtest-2	11.01	12.16	12.09	13.00	11.27	12.25	11.96	13.50	16.82	16.85	16.90	18.00
3GPP Rel 6	HSDPA Subtest-3	9.72	11.22	11.02	12.00	11.12	11.51	11.15	12.50	15.81	15.92	15.87	17.50
3GPP Rel 6	HSDPA Subtest-4	8.61	10.91	10.95	12.00	11.22	11.44	11.42	12.50	15.42	15.50	15.66	17.50
3GPP Rel 8	DC-HSDPA Subtest-1	12.84	12.89	12.84	14.00	12.99	12.95	12.93	13.50	17.54	17.47	17.58	18.50
3GPP Rel 8	DC-HSDPA Subtest-2	12.83	12.89	12.89	14.00	12.90	12.85	13.00	13.50	17.54	17.48	17.61	18.50
3GPP Rel 8	DC-HSDPA Subtest-3	12.35	12.40	12.38	14.00	12.71	12.66	12.54	13.50	17.03	16.99	17.06	18.50
3GPP Rel 8	DC-HSDPA Subtest-4	12.25	12.40	12.40	14.00	12.72	12.64	12.51	13.50	17.04	17.01	17.08	18.50
3GPP Rel 6	HSUPA Subtest-1	12.30	12.38	12.40	14.00	12.62	12.54	12.63	13.50	17.16	17.10	17.25	18.50
3GPP Rel 6	HSUPA Subtest-2	10.32	10.37	10.27	11.50	10.67	10.42	10.38	11.50	17.15	17.25	17.25	18.50
3GPP Rel 6	HSUPA Subtest-3	11.24	11.35	11.32	12.50	11.58	11.55	11.31	12.50	17.13	17.25	17.25	18.50
3GPP Rel 6	HSUPA Subtest-4	10.33	10.35	10.40	11.50	10.68	10.42	10.42	11.50	16.85	17.25	17.25	18.50
3GPP Rel 6	HSUPA Subtest-5	12.33	12.36	12.28	13.50	12.67	12.46	12.41	13.00	17.28	17.25	17.25	18.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	12.86	12.76	12.85	14.00	12.63	12.65	12.46	13.00	17.37	17.42	17.34	18.00
Attenuator			Cable Loss	0.8			Cable Loss	0.8			Cable Loss	0.6	
Mode			Max.	13.57			Max.	13.32			Max.	17.93	



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	14.5
Frequency (MHz)				1860	1880	1900	
20	QPSK	1	0	13.61	13.63	13.77	14.5
20	QPSK	1	49	13.66	13.72	13.71	
20	QPSK	1	99	13.39	13.43	13.41	
20	QPSK	50	0	12.76	12.83	12.81	
20	QPSK	50	24	12.71	12.76	12.67	13.5
20	QPSK	50	50	12.60	12.67	12.65	
20	QPSK	100	0	12.39	12.50	12.43	
20	16QAM	1	0	13.22	13.24	13.21	
20	16QAM	1	49	13.11	13.19	13.10	13.5
20	16QAM	1	99	13.09	13.12	13.05	
20	16QAM	50	0	11.95	12.01	11.90	
20	16QAM	50	24	11.74	11.88	11.70	
20	16QAM	50	50	11.59	11.70	11.58	12.5
20	16QAM	100	0	11.37	11.55	11.51	
20	64QAM	1	0	12.09	12.11	12.04	
20	64QAM	1	49	12.01	12.04	12.01	
20	64QAM	1	99	12.01	12.01	11.89	12.5
20	64QAM	50	0	10.80	10.89	10.74	
20	64QAM	50	24	10.67	10.73	10.70	
20	64QAM	50	50	10.46	10.60	10.42	
20	64QAM	100	0	10.39	10.44	10.37	11.5
Channel				18675	18900	19125	
Frequency (MHz)				1857.5	1880	1902.5	Tune-up limit (dBm)
15	QPSK	1	0	13.66	13.80	13.59	14.5
15	QPSK	1	37	13.63	13.62	13.59	
15	QPSK	1	74	13.33	13.42	13.31	
15	QPSK	36	0	12.64	12.82	12.78	
15	QPSK	36	20	12.61	12.70	12.62	13.5
15	QPSK	36	39	12.53	12.66	12.63	
15	QPSK	75	0	12.30	12.47	12.32	
15	16QAM	1	0	13.21	13.13	13.18	
15	16QAM	1	37	13.08	13.06	13.03	13.5
15	16QAM	1	74	13.02	12.99	13.03	
15	16QAM	36	0	11.90	11.90	11.87	
15	16QAM	36	20	11.64	11.78	11.69	
15	16QAM	36	39	11.48	11.61	11.48	21.5
15	16QAM	75	0	11.34	11.47	11.48	
15	64QAM	1	0	12.02	11.99	12.03	
15	64QAM	1	37	11.88	12.01	11.94	
15	64QAM	1	74	11.94	11.90	11.79	12.5
15	64QAM	36	0	10.72	10.76	10.67	
15	64QAM	36	20	10.58	10.62	10.63	
15	64QAM	36	39	10.36	10.51	10.29	
15	64QAM	75	0	10.30	10.38	10.36	11.5
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	Tune-up limit (dBm)
10	QPSK	1	0	13.61	13.78	13.60	14.5
10	QPSK	1	25	13.65	13.61	13.65	
10	QPSK	1	49	13.32	13.34	13.29	
10	QPSK	25	0	12.67	12.78	12.78	
10	QPSK	25	12	12.70	12.74	12.57	13.5
10	QPSK	25	25	12.55	12.55	12.64	
10	QPSK	50	0	12.27	12.38	12.37	
10	16QAM	1	0	13.15	13.11	13.19	
10	16QAM	1	25	13.05	13.06	13.01	13.5
10	16QAM	1	49	12.99	13.09	12.94	
10	16QAM	25	0	11.91	11.88	11.87	
10	16QAM	25	12	11.66	11.81	11.58	
10	16QAM	25	25	11.51	11.69	11.54	12.5
10	16QAM	50	0	11.36	11.54	11.49	
10	64QAM	1	0	11.96	11.98	11.96	
10	64QAM	1	25	12.00	11.97	11.91	
10	64QAM	1	49	11.94	11.94	11.81	12.5
10	64QAM	25	0	10.75	10.79	10.67	
10	64QAM	25	12	10.65	10.68	10.65	
10	64QAM	25	25	10.35	10.52	10.41	
10	64QAM	50	0	10.32	10.42	10.29	11.5
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	Tune-up limit (dBm)
5	QPSK	1	0	13.70	13.76	13.70	14.5
5	QPSK	1	12	13.55	13.61	13.59	
5	QPSK	1	24	13.38	13.38	13.37	
5	QPSK	12	0	12.73	12.80	12.74	
5	QPSK	12	7	12.63	12.68	12.60	13.5
5	QPSK	12	13	12.51	12.59	12.53	
5	QPSK	25	0	12.29	12.42	12.37	
5	16QAM	1	0	13.16	13.17	13.08	
5	16QAM	1	12	13.09	13.09	13.05	13.5
5	16QAM	1	24	13.07	13.00	12.98	
5	16QAM	12	0	11.82	11.94	11.87	
5	16QAM	12	7	11.67	11.82	11.57	
5	16QAM	12	13	11.54	11.63	11.48	12.5
5	16QAM	25	0	11.30	11.51	11.49	
5	64QAM	1	0	12.02	12.10	11.91	
5	64QAM	1	12	11.97	11.93	11.96	
5	64QAM	1	24	11.94	11.95	11.78	12.5
5	64QAM	12	0	10.77	10.80	10.68	
5	64QAM	12	7	10.61	10.72	10.63	
5	64QAM	12	13	10.39	10.49	10.38	
5	64QAM	25	0	10.37	10.43	10.25	11.5
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	Tune-up limit (dBm)
3	QPSK	1	0	13.64	13.70	13.65	14.5
3	QPSK	1	8	13.65	13.63	13.70	
3	QPSK	1	14	13.30	13.38	13.28	
3	QPSK	8	0	12.74	12.80	12.68	
3	QPSK	8	4	12.66	12.73	12.60	13.5
3	QPSK	8	7	12.51	12.58	12.60	

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	13.5
20	QPSK	1	0	12.71	12.81	12.74	
20	QPSK	1	49	12.64	12.65	12.69	
20	QPSK	1	99	12.33	12.32	12.35	
20	QPSK	50	0	11.72	11.77	11.74	
20	QPSK	50	24	11.71	11.74	11.57	12.5
20	QPSK	50	50	11.52	11.56	11.58	
20	QPSK	100	0	11.37	11.40	11.37	
20	16QAM	1	0	12.14	12.20	12.21	
20	16QAM	1	49	12.11	12.18	12.11	
20	16QAM	1	99	12.09	12.03	11.97	12.5
20	16QAM	50	0	10.89	10.99	10.82	
20	16QAM	50	24	10.64	10.77	10.67	
20	16QAM	50	50	10.51	10.63	10.49	
20	16QAM	100	0	10.38	10.53	10.42	
20	64QAM	1	0	11.02	11.04	10.98	11.5
20	64QAM	1	49	11.02	11.01	11.01	
20	64QAM	1	99	10.93	10.99	10.90	
20	64QAM	50	0	9.71	9.84	9.71	
20	64QAM	50	24	9.56	9.63	9.60	
20	64QAM	50	50	9.42	9.55	9.34	10.5
20	64QAM	100	0	9.28	9.40	9.26	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	12.55	12.73	12.65	13.5
15	QPSK	1	37	12.52	12.63	12.61	
15	QPSK	1	74	12.26	12.23	12.32	
15	QPSK	36	0	11.62	11.70	11.69	
15	QPSK	36	20	11.61	11.67	11.47	
15	QPSK	36	39	11.46	11.43	11.55	12.5
15	QPSK	75	0	11.34	11.30	11.26	
15	16QAM	1	0	12.03	12.11	12.09	
15	16QAM	1	37	12.08	12.13	12.07	
15	16QAM	1	74	11.99	11.96	11.90	
15	16QAM	36	0	10.82	10.89	10.79	11.5
15	16QAM	36	20	10.59	10.74	10.62	
15	16QAM	36	39	10.43	10.58	10.44	
15	16QAM	75	0	10.27	10.40	10.33	
15	64QAM	1	0	10.99	10.91	10.96	
15	64QAM	1	37	11.01	11.00	10.91	11.5
15	64QAM	1	74	10.90	10.87	10.81	
15	64QAM	36	0	9.64	9.79	9.58	
15	64QAM	36	20	9.43	9.58	9.59	
15	64QAM	36	39	9.32	9.49	9.33	
15	64QAM	75	0	9.19	9.35	9.13	10.5
Channel				20000	20175	20350	
Frequency (MHz)				1715	1732.5	1750	Tune-up limit (dBm)
10	QPSK	1	0	12.59	12.60	12.58	13.5
10	QPSK	1	25	12.58	12.64	12.64	
10	QPSK	1	49	12.20	12.21	12.24	
10	QPSK	25	0	11.63	11.70	11.62	
10	QPSK	25	12	11.60	11.66	11.55	
10	QPSK	25	25	11.45	11.53	11.51	12.5
10	QPSK	50	0	11.31	11.39	11.25	
10	16QAM	1	0	12.06	12.10	12.12	
10	16QAM	1	25	12.04	12.17	12.09	
10	16QAM	1	49	12.08	11.90	11.98	
10	16QAM	25	0	10.84	10.93	10.77	11.5
10	16QAM	25	12	10.57	10.70	10.55	
10	16QAM	25	25	10.44	10.56	10.47	
10	16QAM	50	0	10.35	10.49	10.35	
10	64QAM	1	0	11.00	10.95	10.90	
10	64QAM	1	25	10.94	10.91	10.90	11.5
10	64QAM	1	49	10.88	10.89	10.87	
10	64QAM	25	0	9.58	9.74	9.68	
10	64QAM	25	12	9.46	9.62	9.50	
10	64QAM	25	25	9.31	9.51	9.31	
10	64QAM	50	0	9.24	9.39	9.17	10.5
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	Tune-up limit (dBm)
5	QPSK	1	0	12.52	12.70	12.53	13.5
5	QPSK	1	12	12.61	12.59	12.67	
5	QPSK	1	24	12.28	12.21	12.26	
5	QPSK	12	0	11.68	11.76	11.63	
5	QPSK	12	7	11.70	11.72	11.55	
5	QPSK	12	13	11.51	11.47	11.54	12.5
5	QPSK	25	0	11.31	11.33	11.32	
5	16QAM	1	0	12.10	12.11	12.10	
5	16QAM	1	12	12.07	12.13	12.01	
5	16QAM	1	24	12.07	11.92	11.91	
5	16QAM	12	0	10.81	10.91	10.79	11.5
5	16QAM	12	7	10.62	10.66	10.59	
5	16QAM	12	13	10.49	10.50	10.44	
5	16QAM	25	0	10.33	10.41	10.41	
5	64QAM	1	0	10.92	10.91	10.85	
5	64QAM	1	12	10.93	10.90	10.89	11.5
5	64QAM	1	24	10.82	10.87	10.86	
5	64QAM	12	0	9.69	9.75	9.64	
5	64QAM	12	7	9.53	9.51	9.57	
5	64QAM	12	13	9.29	9.43	9.25	
5	64QAM	25	0	9.25	9.30	9.15	10.5
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	Tune-up limit (dBm)
3	QPSK	1	0	12.58	12.64	12.54	13.5
3	QPSK	1	8	12.55	12.61	12.56	
3	QPSK	1	14	12.29	12.26	12.33	
3	QPSK	8	0	11.65	11.66	11.66	
3	QPSK	8	4	11.65	11.69	11.45	
3	QPSK	8	7	11.50	11.51	11.57	12.5



3	QPSK	15	0	12.31	12.48	12.32	13.5
3	16QAM	1	0	13.21	13.12	13.17	
3	16QAM	1	8	13.04	13.15	13.09	
3	16QAM	1	14	12.96	13.07	13.00	12.5
3	16QAM	8	0	11.86	11.91	11.85	
3	16QAM	8	4	11.68	11.75	11.68	
3	16QAM	8	7	11.52	11.68	11.55	12.5
3	16QAM	15	0	11.26	11.49	11.48	
3	64QAM	1	0	12.03	11.98	12.00	
3	64QAM	1	8	11.94	11.99	11.92	11.5
3	64QAM	1	14	11.99	11.92	11.79	
3	64QAM	8	0	10.67	10.79	10.61	
3	64QAM	8	4	10.65	10.72	10.59	11.5
3	64QAM	8	7	10.44	10.53	10.34	
3	64QAM	15	0	10.36	10.43	10.32	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	13.67	13.76	13.60	14.5
1.4	QPSK	1	3	13.54	13.66	13.59	
1.4	QPSK	1	5	13.36	13.33	13.30	
1.4	QPSK	3	0	13.72	13.71	13.69	13.5
1.4	QPSK	3	1	13.64	13.70	13.61	
1.4	QPSK	3	3	13.55	13.58	13.60	
1.4	QPSK	6	0	12.36	12.43	12.42	13.5
1.4	16QAM	1	0	13.13	13.13	13.09	
1.4	16QAM	1	3	13.01	13.17	12.98	
1.4	16QAM	1	5	12.99	13.02	12.97	12.5
1.4	16QAM	3	0	12.84	12.92	12.88	
1.4	16QAM	3	1	12.68	12.77	12.58	
1.4	16QAM	3	3	12.50	12.60	12.51	12.5
1.4	16QAM	6	0	11.32	11.53	11.48	
1.4	64QAM	1	0	12.00	12.09	11.93	
1.4	64QAM	1	3	11.99	11.99	11.93	12.5
1.4	64QAM	1	5	11.98	11.91	11.85	
1.4	64QAM	3	0	11.69	11.87	11.67	
1.4	64QAM	3	1	11.62	11.71	11.63	11.5
1.4	64QAM	3	3	11.44	11.47	11.38	
1.4	64QAM	6	0	10.34	10.41	10.25	

3	QPSK	15	0	11.24	11.37	11.33	12.5
3	16QAM	1	0	12.02	12.17	12.08	
3	16QAM	1	8	11.99	12.16	12.02	
3	16QAM	1	14	11.99	12.02	11.92	11.5
3	16QAM	8	0	10.83	10.87	10.80	
3	16QAM	8	4	10.61	10.65	10.57	
3	16QAM	8	7	10.49	10.59	10.43	11.5
3	16QAM	15	0	10.29	10.44	10.29	
3	64QAM	1	0	10.93	11.00	10.88	
3	64QAM	1	8	10.93	10.95	10.95	10.5
3	64QAM	1	14	10.80	10.96	10.88	
3	64QAM	8	0	9.58	9.77	9.70	
3	64QAM	8	4	9.50	9.59	9.53	10.5
3	64QAM	8	7	9.31	9.50	9.31	
3	64QAM	15	0	9.15	9.31	9.13	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	12.60	12.72	12.62	13.5
1.4	QPSK	1	3	12.62	12.55	12.66	
1.4	QPSK	1	5	12.28	12.22	12.30	
1.4	QPSK	3	0	11.62	11.66	11.72	12.5
1.4	QPSK	3	1	11.60	11.71	11.54	
1.4	QPSK	3	3	11.59	11.56	11.56	
1.4	QPSK	6	0	11.34	11.29	11.35	12.5
1.4	16QAM	1	0	12.03	12.11	12.13	
1.4	16QAM	1	3	12.10	12.11	12.03	
1.4	16QAM	1	5	11.97	11.98	11.91	11.5
1.4	16QAM	3	0	11.87	11.95	11.77	
1.4	16QAM	3	1	11.61	11.71	11.61	
1.4	16QAM	3	3	11.50	11.51	11.48	11.5
1.4	16QAM	6	0	11.26	11.40	11.29	
1.4	64QAM	1	0	10.90	11.01	10.90	
1.4	64QAM	1	3	10.95	10.95	10.94	10.5
1.4	64QAM	1	5	10.86	10.93	10.80	
1.4	64QAM	3	0	9.61	9.74	9.59	
1.4	64QAM	3	1	9.65	9.59	9.58	10.5
1.4	64QAM	3	3	9.56	9.54	9.53	
1.4	64QAM	6	0	9.22	9.31	9.20	



Band 5 (Cellular Band) (dBm) Part 22H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20450	20525	20600	
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	18.71	18.74	18.84	19
10	QPSK	1	25	18.52	18.65	18.69	
10	QPSK	1	49	18.45	18.32	18.35	
10	QPSK	25	0	17.84	17.88	17.74	18
10	QPSK	25	12	17.83	17.74	17.57	
10	QPSK	25	25	17.64	17.56	17.58	
10	QPSK	50	0	17.49	17.52	17.37	18
10	16QAM	1	0	17.26	17.20	17.21	
10	16QAM	1	25	17.23	17.18	17.11	
10	16QAM	1	49	17.21	17.03	16.97	17
10	16QAM	25	0	16.80	16.87	16.82	
10	16QAM	25	12	16.76	16.77	16.67	
10	16QAM	25	25	16.63	16.63	16.58	17
10	16QAM	50	0	16.50	16.53	16.42	
10	64QAM	1	0	16.14	16.04	15.98	
10	64QAM	1	25	16.14	16.01	16.01	17
10	64QAM	1	49	16.05	15.99	15.90	
10	64QAM	25	0	14.83	14.84	14.71	
10	64QAM	25	12	14.68	14.63	14.60	16
10	64QAM	25	25	14.54	14.55	14.34	
10	64QAM	50	0	14.40	14.40	14.26	
Channel				20425	20525	20625	
Frequency (MHz)				828.5	836.5	846.5	
5	QPSK	1	0	18.60	18.61	18.57	19
5	QPSK	1	12	18.49	18.64	18.56	
5	QPSK	1	24	18.39	18.21	18.33	
5	QPSK	12	0	17.82	17.76	17.70	18
5	QPSK	12	7	17.70	17.65	17.55	
5	QPSK	12	13	17.59	17.54	17.47	
5	QPSK	25	0	17.37	17.36	17.31	18
5	16QAM	1	0	17.19	17.16	17.14	
5	16QAM	1	12	17.19	17.09	17.02	
5	16QAM	1	24	17.15	16.92	16.88	17
5	16QAM	12	0	16.88	16.89	16.78	
5	16QAM	12	7	16.87	16.71	16.64	
5	16QAM	12	13	16.58	16.51	16.41	17
5	16QAM	25	0	16.37	16.46	16.38	
5	64QAM	1	0	16.11	16.02	15.97	
5	64QAM	1	12	16.10	16.00	15.93	16
5	64QAM	1	24	15.96	15.95	15.89	
5	64QAM	12	0	14.71	14.80	14.63	
5	64QAM	12	7	14.55	14.60	14.58	16
5	64QAM	12	13	14.48	14.54	14.58	
5	64QAM	25	0	14.36	14.29	14.21	
Channel				20415	20525	20635	
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	18.64	18.73	18.57	19
3	QPSK	1	8	18.48	18.53	18.57	
3	QPSK	1	14	18.38	18.31	18.27	
3	QPSK	8	0	17.78	17.73	17.61	18
3	QPSK	8	4	17.76	17.64	17.50	
3	QPSK	8	7	17.56	17.54	17.52	
3	QPSK	15	0	17.45	17.27	17.31	18
3	16QAM	1	0	17.18	17.07	17.12	
3	16QAM	1	8	17.18	17.09	17.04	
3	16QAM	1	14	17.12	17.02	16.88	17
3	16QAM	8	0	16.93	16.97	16.78	
3	16QAM	8	4	16.74	16.71	16.56	
3	16QAM	8	7	16.56	16.54	16.49	17
3	16QAM	15	0	16.44	16.45	16.32	
3	64QAM	1	0	16.01	16.03	15.92	
3	64QAM	1	8	16.10	15.90	15.90	16
3	64QAM	1	14	15.94	15.93	15.81	
3	64QAM	8	0	14.71	14.83	14.69	
3	64QAM	8	4	14.59	14.56	14.58	16
3	64QAM	8	7	14.48	14.48	14.37	
3	64QAM	15	0	14.31	14.30	14.20	
Channel				20407	20525	20943	
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	18.71	18.62	18.59	19
1.4	QPSK	1	3	18.46	18.59	18.57	
1.4	QPSK	1	5	18.41	18.30	18.26	
1.4	QPSK	3	0	17.73	17.67	17.68	18
1.4	QPSK	3	1	17.78	17.72	17.54	
1.4	QPSK	3	3	17.57	17.52	17.55	
1.4	QPSK	6	0	17.36	17.30	17.32	18
1.4	16QAM	1	0	17.23	17.14	17.19	
1.4	16QAM	1	3	17.12	17.05	16.99	
1.4	16QAM	1	5	17.14	16.94	16.88	18
1.4	16QAM	3	0	16.90	16.91	16.72	
1.4	16QAM	3	1	16.69	16.65	16.63	
1.4	16QAM	3	3	16.60	16.55	16.48	17
1.4	16QAM	6	0	16.40	16.40	16.41	
1.4	64QAM	1	0	16.10	16.01	15.87	
1.4	64QAM	1	3	16.05	15.95	15.95	17
1.4	64QAM	1	5	15.94	15.98	15.80	
1.4	64QAM	3	0	15.20	15.21	15.16	
1.4	64QAM	3	1	15.07	15.12	15.05	16
1.4	64QAM	3	3	14.98	15.02	15.01	
1.4	64QAM	6	0	14.30	14.39	14.16	

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	19.20	19.21	19.13	20
10	QPSK	1	25	18.99	19.12	19.16	
10	QPSK	1	49	18.92	18.79	18.82	
10	QPSK	25	0	18.31	18.35	18.21	19
10	QPSK	25	12	18.30	18.21	18.04	
10	QPSK	25	25	18.11	18.03	18.05	
10	QPSK	50	0	17.96	18.01	17.84	19
10	16QAM	1	0	18.73	18.67	18.68	
10	16QAM	1	25	18.70	18.65	18.58	
10	16QAM	1	49	18.68	18.50	18.44	18
10	16QAM	25	0	17.48	17.46	17.29	
10	16QAM	25	12	17.23	17.24	17.14	
10	16QAM	25	25	17.10	17.10	17.05	18
10	16QAM	50	0	16.97	17.00	16.89	
10	64QAM	1	0	17.61	17.51	17.45	
10	64QAM	1	25	17.61	17.48	17.48	18
10	64QAM	1	49	17.52	17.46	17.37	
10	64QAM	25	0	16.30	16.31	16.18	
10	64QAM	25	12	16.15	16.10	16.07	17
10	64QAM	25	25	16.01	16.02	15.81	
10	64QAM	50	0	15.87	15.87	15.73	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	19.07	19.12	19.03	20
5	QPSK	1	12	18.94	19.09	19.14	
5	QPSK	1	24	18.82	18.77	18.70	
5	QPSK	12	0	18.29	18.19	18.14	19
5	QPSK	12	7	18.25	18.11	17.98	
5	QPSK	12	13	18.06	17.91	17.92	
5	QPSK	25	0	17.93	17.81	17.83	19
5	16QAM	1	0	18.71	18.59	18.65	
5	16QAM	1	12	18.68	18.54	18.51	
5	16QAM	1	24	18.65	18.41	18.37	18
5	16QAM	12	0	17.41	17.35	17.18	
5	16QAM	12	7	17.22	17.19	17.08	
5	16QAM	12	13	17.01	17.00	16.94	18
5	16QAM	25	0	16.92	16.90	16.84	
5	64QAM	1	0	17.54	17.39	17.42	
5	64QAM	1	12	17.59	17.43	17.42	18
5	64QAM	1	24	17.40	17.42	17.25	
5	64QAM	12	0	16.21	16.28	16.13	
5	64QAM	12	7	16.10	16.04	15.99	17
5	64QAM	12	13	15.97	15.94	15.86	
5	64QAM	25	0	15.81	15.83	15.62	
Channel				23025	23095	23165	Tune-up limit (dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	19.15	19.11	19.05	20
3	QPSK	1	8	18.95	19.09	19.06	
3	QPSK	1	14	18.79	18.66	18.79	
3	QPSK	8	0	18.22	18.12	18.15	19
3	QPSK	8	4	18.29	18.19	17.98	
3	QPSK	8	7	18.06	17.91	17.96	
3	QPSK	15	0	17.88	17.84	17.81	19
3	16QAM	1	0	18.63	18.56	18.56	
3	16QAM	1	8	18.62	18.58	18.50	
3	16QAM	1	14	18.67	18.41	18.34	18
3	16QAM	8	0	17.39	17.44	17.23	
3	16QAM	8	4	17.19	17.12	17.01	
3	16QAM	8	7	17.03	17.07	17.03	18
3	16QAM	15	0	16.92	16.93	16.80	
3	64QAM	1	0	17.57	17.39	17.43	
3	64QAM	1	8	17.49	17.43	17.38	18
3	64QAM	1	14	17.47	17.41	17.25	
3	64QAM	8	0	16.17	16.30	16.07	
3	64QAM	8	4	16.13	16.06	16.00	17
3	64QAM	8	7	15.96	15.91	15.82	
3	64QAM	15	0	15.74	15.78	15.69	
Channel				23017	23095	23173	Tune-up limit (dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	QPSK	1	0	19.07	19.03	18.97	20
1.4	QPSK	1	3	18.87	19.01	18.98	
1.4	QPSK	1	5	18.71	18.58	18.71	
1.4	QPSK	3	0	18.94	18.84	18.67	
1.4	QPSK	3	1	19.01	18.91	18.70	19
1.4	QPSK	3	3	18.78	18.63	18.68	
1.4	QPSK	6	0	17.80	17.76	17.73	
1.4	16QAM	1	0	18.55	18.48	18.48	
1.4	16QAM	1	3	18.54	18.50	18.42	19
1.4	16QAM	1	5	18.59	18.33	18.26	
1.4	16QAM	3	0	18.31	18.36	18.15	
1.4	16QAM	3	1	18.11	18.04	17.93	
1.4	16QAM	3	3	17.95	17.99	17.95	18
1.4	16QAM	6	0	17.84	17.85	17.72	
1.4	64QAM	1	0	17.49	17.31	17.35	
1.4	64QAM	1	3	17.41	17.35	17.30	
1.4	64QAM	1	5	17.39	17.33	17.17	18
1.4	64QAM	3	0	16.09	16.22	15.99	
1.4	64QAM	3	1	16.05	15.98	15.92	
1.4	64QAM	3	3	15.88	15.83	15.79	
1.4	64QAM	6	0	15.66	15.70	15.61	17



Band 13(700MHz Band) (dBm) Part 27F								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				23230				
Frequency (MHz)				782			19.5	
10	QPSK	1	0		18.85			
10	QPSK	1	25		18.76			
10	QPSK	1	49		18.43			
10	QPSK	25	0		17.88			
10	QPSK	25	12		17.85		18.5	
10	QPSK	25	25		17.67			
10	QPSK	50	0		17.51			
10	16QAM	1	0		18.31			
10	16QAM	1	25		18.29			
10	16QAM	1	49		18.14		18.5	
10	16QAM	25	0		17.10			
10	16QAM	25	12		16.88			
10	16QAM	25	25		16.74			
10	16QAM	50	0		16.64			
10	64QAM	1	0		17.15		17.5	
10	64QAM	1	25		17.12			
10	64QAM	1	49		17.10			
10	64QAM	25	0		15.95			
10	64QAM	25	12		15.74			
10	64QAM	25	25		15.66		16.5	
10	64QAM	50	0		15.51			
Channel				23205	23230	23255		Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	18.75	18.76	18.70		19.5
5	QPSK	1	12	18.59	18.69	18.77		
5	QPSK	1	24	18.52	18.34	18.47		
5	QPSK	12	0	17.87	17.80	17.81		
5	QPSK	12	7	17.85	17.84	17.60		
5	QPSK	12	13	17.76	17.56	17.72	18.5	
5	QPSK	25	0	17.60	17.42	17.42		
5	16QAM	1	0	18.29	18.18	18.24		
5	16QAM	1	12	18.32	18.22	18.16		
5	16QAM	1	24	18.25	18.06	18.11		
5	16QAM	12	0	17.10	17.00	16.96	18.5	
5	16QAM	12	7	16.86	16.81	16.72		
5	16QAM	12	13	16.74	16.63	16.68		
5	16QAM	25	0	16.54	16.59	16.56		
5	64QAM	1	0	17.23	17.08	17.02		
5	64QAM	1	12	17.24	16.99	17.03	17.5	
5	64QAM	1	24	17.17	17.06	17.01		
5	64QAM	12	0	15.85	15.83	15.83		
5	64QAM	12	7	15.78	15.69	15.70		
5	64QAM	12	13	15.56	15.54	15.37		
5	64QAM	25	0	15.44	15.47	15.35	16.5	

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		18.76		19.5
10	QPSK	1	25		18.67		
10	QPSK	1	49		18.34		
10	QPSK	25	0		17.79		18.5
10	QPSK	25	12		17.76		
10	QPSK	25	25		17.58		
10	QPSK	50	0		17.42		18.5
10	16QAM	1	0		18.22		
10	16QAM	1	25		18.20		
10	16QAM	1	49		18.05		17.5
10	16QAM	25	0		17.01		
10	16QAM	25	12		16.79		
10	16QAM	25	25		16.65		17.5
10	16QAM	50	0		16.55		
10	64QAM	1	0		17.06		
10	64QAM	1	25		17.03		17.5
10	64QAM	1	49		17.01		
10	64QAM	25	0		15.86		
10	64QAM	25	12		15.65		16.5
10	64QAM	25	25		15.57		
10	64QAM	50	0		15.42		
Channel				23305	23330	23355	Tune-up limit (dBm)
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	18.74	18.75	18.69	19.5
5	QPSK	1	12	18.58	18.68	18.61	
5	QPSK	1	24	18.51	18.33	18.46	
5	QPSK	12	0	17.86	17.79	17.80	18.5
5	QPSK	12	7	17.84	17.83	17.59	
5	QPSK	12	13	17.75	17.55	17.71	
5	QPSK	25	0	17.59	17.41	17.41	18.5
5	16QAM	1	0	18.28	18.17	18.23	
5	16QAM	1	12	18.31	18.21	18.15	
5	16QAM	1	24	18.24	18.05	18.10	18.5
5	16QAM	12	0	17.09	16.99	16.95	
5	16QAM	12	7	16.85	16.80	16.71	
5	16QAM	12	13	16.73	16.62	16.67	17.5
5	16QAM	25	0	16.53	16.58	16.55	
5	64QAM	1	0	17.22	17.07	17.01	
5	64QAM	1	12	17.23	16.98	17.02	17.5
5	64QAM	1	24	17.16	17.05	17.00	
5	64QAM	12	0	15.84	15.82	15.82	
5	64QAM	12	7	15.77	15.68	15.69	16.5
5	64QAM	12	13	15.55	15.53	15.36	
5	64QAM	25	0	15.43	15.46	15.34	



Band 17 (700MHz Band) (dBm)							
Part 27H(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	QPSK	1	0	19.23	19.26	19.18	
10	QPSK	1	25	19.11	19.21	19.14	20
10	QPSK	1	49	19.04	18.86	18.99	
10	QPSK	25	0	18.39	18.41	18.33	
10	QPSK	25	12	18.37	18.36	18.12	19
10	QPSK	25	25	18.28	18.08	18.24	
10	QPSK	50	0	18.12	18.18	18.09	
10	16QAM	1	0	18.81	18.70	18.76	19
10	16QAM	1	25	18.84	18.74	18.68	
10	16QAM	1	49	18.77	18.58	18.63	
10	16QAM	25	0	17.62	17.52	17.48	18
10	16QAM	25	12	17.38	17.33	17.24	
10	16QAM	25	25	17.26	17.15	17.20	
10	16QAM	50	0	17.06	17.11	17.08	18
10	64QAM	1	0	17.75	17.60	17.54	
10	64QAM	1	25	17.76	17.51	17.55	
10	64QAM	1	49	17.69	17.58	17.53	17
10	64QAM	25	0	16.37	16.35	16.35	
10	64QAM	25	12	16.30	16.21	16.22	
10	64QAM	25	25	16.08	16.06	15.89	17
10	64QAM	50	0	15.96	15.99	15.87	
Channel				23755	23790	23825	Tune-up limit (dBm)
Frequency (MHz)				708.5	710	713.5	
5	QPSK	1	0	19.18	19.23	19.21	
5	QPSK	1	12	19.05	19.17	19.04	20
5	QPSK	1	24	18.95	18.77	18.86	
5	QPSK	12	0	18.31	18.31	18.20	
5	QPSK	12	7	18.33	18.27	17.99	19
5	QPSK	12	13	18.22	18.00	18.16	
5	QPSK	25	0	18.07	17.93	17.90	
5	16QAM	1	0	18.80	18.57	18.69	19
5	16QAM	1	12	18.83	18.73	18.56	
5	16QAM	1	24	18.74	18.56	18.54	
5	16QAM	12	0	16.49	16.49	16.42	18
5	16QAM	12	7	16.34	16.31	16.21	
5	16QAM	12	13	16.18	16.03	16.17	
5	16QAM	25	0	16.00	16.05	16.00	18
5	64QAM	1	0	17.68	17.47	17.50	
5	64QAM	1	12	17.75	17.43	17.50	
5	64QAM	1	24	17.60	17.53	17.46	17
5	64QAM	12	0	16.31	16.34	16.34	
5	64QAM	12	7	16.23	16.09	16.19	
5	64QAM	12	13	16.02	16.00	15.94	17
5	64QAM	25	0	20.44	20.37	20.29	

Band 25 (1900MHz Band) (dBm)							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				26140	26365	26590	
Frequency (MHz)				1860	1882.5	1905	
20	QPSK	1	0	14.24	14.35	14.28	
20	QPSK	1	49	14.14	14.27	14.31	14.5
20	QPSK	1	99	14.07	13.94	13.97	
20	QPSK	50	0	13.16	13.20	13.06	
20	QPSK	50	24	13.15	13.06	12.89	13.5
20	QPSK	50	50	12.96	12.88	12.90	
20	QPSK	100	0	12.81	12.90	12.69	
20	16QAM	1	0	12.58	12.52	12.53	13.5
20	16QAM	1	49	12.55	12.50	12.43	
20	16QAM	1	99	12.53	12.35	12.29	
20	16QAM	50	0	12.12	12.19	12.14	12.5
20	16QAM	50	24	12.08	12.09	11.99	
20	16QAM	50	50	11.95	11.95	11.90	
20	16QAM	100	0	11.82	11.85	11.74	12.5
20	64QAM	1	0	11.76	11.66	11.60	
20	64QAM	1	49	11.76	11.63	11.63	
20	64QAM	1	99	11.67	11.61	11.52	11.5
20	64QAM	50	0	10.45	10.46	10.33	
20	64QAM	50	24	10.30	10.25	10.22	
20	64QAM	50	50	10.16	10.17	9.96	11.5
20	64QAM	100	0	10.02	10.02	9.88	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	14.15	14.22	14.15	
15	QPSK	1	37	14.02	14.16	14.19	14.5
15	QPSK	1	74	13.96	13.85	13.95	
15	QPSK	36	0	13.11	13.01	13.05	
15	QPSK	36	20	13.05	12.99	12.83	13.5
15	QPSK	36	39	12.95	12.81	12.83	
15	QPSK	75	0	12.76	12.63	12.62	
15	16QAM	1	0	12.57	12.48	12.50	13.5
15	16QAM	1	37	12.45	12.37	12.42	
15	16QAM	1	74	12.43	12.23	12.21	
15	16QAM	36	0	12.02	12.10	12.06	12.5
15	16QAM	36	20	12.07	11.96	11.89	
15	16QAM	36	39	11.86	11.89	11.77	
15	16QAM	75	0	11.77	11.74	11.66	12.5
15	64QAM	1	0	11.43	11.29	11.25	
15	64QAM	1	37	11.42	11.23	11.23	
15	64QAM	1	74	11.28	11.20	11.16	11.5
15	64QAM	36	0	10.32	10.34	10.27	
15	64QAM	36	20	10.25	10.17	10.12	
15	64QAM	36	39	10.15	10.14	9.93	11.5
15	64QAM	75	0	9.98	9.96	9.75	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	14.15	14.32	14.27	
10	QPSK	1	25	14.10	14.21	14.30	14.5
10	QPSK	1	49	13.96	13.94	13.90	
10	QPSK	25	0	13.08	12.97	12.93	
10	QPSK	25	12	13.10	13.03	12.78	13.5
10	QPSK	25	25	12.94	12.75	12.88	
10	QPSK	50	0	12.72	12.67	12.63	
10	16QAM	1	0	12.52	12.43	12.47	13.5
10	16QAM	1	25	12.47	12.45	12.39	
10	16QAM	1	49	12.50	12.30	12.23	
10	16QAM	25	0	12.10	12.16	12.08	12.5
10	16QAM	25	12	11.96	12.02	11.96	
10	16QAM	25	25	11.84	11.85	11.82	
10	16QAM	50	0	11.70	11.74	11.69	12.5
10	64QAM	1	0	11.44	11.34	11.29	
10	64QAM	1	25	11.34	11.28	11.31	
10	64QAM	1	49	11.32	11.22	11.11	11.5
10	64QAM	25	0	10.37	10.37	10.24	
10	64QAM	25	12	10.20	10.22	10.09	
10	64QAM	25	25	10.14	10.16	9.89	11.5
10	64QAM	50	0	9.90	9.91	9.85	
Channel				26085	26365	26685	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	14.14	14.22	14.23	
5	QPSK	1	12	14.10	14.22	14.23	14.5
5	QPSK	1	24	14.02	13.87	13.85	
5	QPSK	12	0	13.05	13.00	12.99	
5	QPSK	12	7	13.13	13.01	12.78	13.5
5	QPSK	12	13	12.84	12.87	12.87	
5	QPSK	25	0	12.68	12.60	12.66	
5	16QAM	1	0	12.53	12.51	12.50	13.5
5	16QAM	1	12	12.50	12.41	12.41	
5	16QAM	1	24	12.52	12.24	12.19	
5	16QAM	12	0	11.99	12.08	12.04	12.5
5	16QAM	12	7	11.96	12.07	11.87	
5	16QAM	12	13	11.82	11.94	11.78	
5	16QAM	25	0	11.79	11.80	11.70	12.5
5	64QAM	1	0	11.36	11.35	11.28	
5	64QAM	1	12	11.33	11.32	11.23	
5	64QAM	1	24	11.25	11.23	11.20	11.5
5	64QAM	12	0	10.42	10.42	10.22	
5	64QAM	12	7	10.27	10.22	10.09	
5	64QAM	12	13	10.11	10.09	9.92	13.5
5	64QAM	25	0	9.94	9.89	9.75	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	14.13	14.28	14.19	
3	QPSK	1	8	14.01	14.15	14.19	14.5
3	QPSK	1	14	13.97	13.89	13.91	
3	QPSK	8	0	13.03	13.00	12.96	
3	QPSK	8	4	13.10	12.93	12.76	13.5
3	QPSK	8	7	12.94	12.81	12.82	



3	QPSK	15	0	12.75	12.60	12.60	13.5
3	16QAM	1	0	12.49	12.48	12.48	
3	16QAM	1	8	12.49	12.39	12.34	
3	16QAM	1	14	12.49	12.26	12.23	12.5
3	16QAM	8	0	12.10	12.14	12.08	
3	16QAM	8	4	11.99	12.04	11.91	
3	16QAM	8	7	11.93	11.93	11.81	12.5
3	16QAM	15	0	11.77	11.81	11.66	
3	64QAM	1	0	11.44	11.28	11.28	
3	64QAM	1	8	11.33	11.30	11.32	11.5
3	64QAM	1	14	11.29	11.19	11.11	
3	64QAM	8	0	10.37	10.45	10.29	
3	64QAM	8	4	10.18	10.21	10.11	11.5
3	64QAM	8	7	10.05	10.05	9.99	
3	64QAM	15	0	9.93	9.89	9.76	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (Mhz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	14.10	14.25	14.16	14.5
1.4	QPSK	1	3	13.98	14.12	14.16	
1.4	QPSK	1	5	13.94	13.86	13.88	
1.4	QPSK	3	0	13.00	12.97	12.93	
1.4	QPSK	3	1	13.07	12.90	12.73	
1.4	QPSK	3	3	12.91	12.78	12.79	13.5
1.4	QPSK	6	0	12.72	12.57	12.57	
1.4	16QAM	1	0	12.46	12.45	12.45	
1.4	16QAM	1	3	12.46	12.36	12.31	12.5
1.4	16QAM	1	5	12.46	12.23	12.20	
1.4	16QAM	3	0	12.07	12.11	12.05	
1.4	16QAM	3	1	11.96	12.01	11.88	
1.4	16QAM	3	3	11.90	11.90	11.78	
1.4	16QAM	6	0	11.74	11.78	11.63	11.5
1.4	64QAM	1	0	11.41	11.25	11.25	
1.4	64QAM	1	3	11.30	11.27	11.29	
1.4	64QAM	1	5	11.26	11.16	11.08	
1.4	64QAM	3	0	10.34	10.42	10.26	
1.4	64QAM	3	1	10.15	10.18	10.08	12.5
1.4	64QAM	3	3	10.02	10.02	9.96	
1.4	64QAM	6	0	9.90	9.86	9.73	
1.4	64QAM	6	0	9.90	9.86	9.73	11.5



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	18.56	18.67	18.60	
15	QPSK	1	37	18.46	18.59	18.63	19.5
15	QPSK	1	74	18.39	18.26	18.29	
15	QPSK	36	0	17.78	17.80	17.68	
15	QPSK	36	20	17.77	17.68	17.51	18.5
15	QPSK	36	39	17.58	17.50	17.52	
15	QPSK	75	0	17.43	17.46	17.41	
15	16QAM	1	0	17.20	17.14	17.15	18.5
15	16QAM	1	37	17.17	17.12	17.05	
15	16QAM	1	74	17.15	16.97	16.91	
15	16QAM	36	0	16.74	16.81	16.76	17.5
15	16QAM	36	20	16.70	16.71	16.61	
15	16QAM	36	39	16.57	16.57	16.52	
15	16QAM	75	0	16.44	16.47	16.36	17.5
15	64QAM	1	0	16.08	15.98	15.92	
15	64QAM	1	37	16.08	15.95	15.95	
15	64QAM	1	74	15.99	15.93	15.84	16.5
15	64QAM	36	0	14.77	14.78	14.65	
15	64QAM	36	20	14.62	14.57	14.54	
15	64QAM	36	39	14.48	14.49	14.28	16.5
15	64QAM	75	0	14.34	14.34	14.20	
Channel				26740	26865	26990	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	18.50	18.64	18.55	
10	QPSK	1	25	18.38	18.46	18.52	19.5
10	QPSK	1	49	18.36	18.19	18.23	
10	QPSK	25	0	17.68	17.63	17.66	
10	QPSK	25	12	17.71	17.57	17.47	18.5
10	QPSK	25	25	17.50	17.45	17.39	
10	QPSK	50	0	17.42	17.27	17.22	
10	16QAM	1	0	17.08	17.07	17.04	18.5
10	16QAM	1	25	17.16	17.00	16.99	
10	16QAM	1	49	17.11	16.88	16.89	
10	16QAM	25	0	16.63	16.79	16.75	17.5
10	16QAM	25	12	16.60	16.70	16.57	
10	16QAM	25	25	16.55	16.53	16.39	
10	16QAM	50	0	16.72	16.71	16.64	17.5
10	64QAM	1	0	15.97	15.92	15.83	
10	64QAM	1	25	16.04	15.82	15.90	
10	64QAM	1	49	15.89	15.90	15.76	16.5
10	64QAM	25	0	14.65	14.77	14.54	
10	64QAM	25	12	14.56	14.46	14.45	
10	64QAM	25	25	14.43	14.43	14.33	16.5
10	64QAM	50	0	14.21	14.33	14.08	
Channel				26715	26865	27015	
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	18.45	18.59	18.49	
5	QPSK	1	12	18.42	18.47	18.53	19.5
5	QPSK	1	24	18.26	18.21	18.23	
5	QPSK	12	0	17.65	17.63	17.66	
5	QPSK	12	7	17.71	17.65	17.40	18.5
5	QPSK	12	13	17.47	17.48	17.45	
5	QPSK	25	0	17.36	17.23	17.26	
5	16QAM	1	0	17.15	17.11	17.03	18.5
5	16QAM	1	12	17.07	16.99	17.02	
5	16QAM	1	24	17.14	16.86	16.88	
5	16QAM	12	0	16.72	16.72	16.71	17.5
5	16QAM	12	7	16.63	16.65	16.50	
5	16QAM	12	13	16.76	16.76	16.79	
5	16QAM	25	0	16.64	16.66	16.57	17.5
5	64QAM	1	0	16.01	15.89	15.82	
5	64QAM	1	12	15.97	15.82	15.89	
5	64QAM	1	24	15.88	15.88	15.79	16.5
5	64QAM	12	0	14.73	14.68	14.60	
5	64QAM	12	7	14.56	14.48	14.43	
5	64QAM	12	13	14.40	14.43	14.31	16.5
5	64QAM	25	0	14.31	14.22	14.18	
Channel				26705	26865	27025	
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	18.47	18.65	18.48	
3	QPSK	1	8	18.36	18.51	18.55	19.5
3	QPSK	1	14	18.33	18.24	18.27	
3	QPSK	8	0	17.74	17.58	17.64	
3	QPSK	8	4	17.71	17.62	17.43	18.5
3	QPSK	8	7	17.52	17.39	17.42	
3	QPSK	15	0	17.35	17.28	17.20	
3	16QAM	1	0	17.13	17.03	17.08	18.5
3	16QAM	1	8	17.10	17.10	16.92	
3	16QAM	1	14	17.13	16.92	16.78	
3	16QAM	8	0	16.67	16.77	16.69	17.5
3	16QAM	8	4	16.60	16.67	16.59	
3	16QAM	8	7	16.46	16.47	16.44	
3	16QAM	15	0	16.68	16.69	16.63	17.5
3	64QAM	1	0	16.02	15.89	15.85	
3	64QAM	1	8	16.03	15.87	15.89	
3	64QAM	1	14	15.90	15.86	15.81	16.5
3	64QAM	8	0	14.69	14.74	14.60	
3	64QAM	8	4	14.61	14.55	14.41	
3	64QAM	8	7	14.37	14.43	14.26	16.5
3	64QAM	15	0	14.25	14.26	14.15	
Channel				26697	26865	27033	
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	18.51	18.57	18.52	
1.4	QPSK	1	3	18.39	18.57	18.52	19.5
1.4	QPSK	1	5	18.30	18.17	18.25	
1.4	QPSK	3	0	17.68	17.67	17.56	
1.4	QPSK	3	1	17.72	17.65	17.50	
1.4	QPSK	3	3	17.47	17.46	17.48	

Band 30 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				27710	27710		
Frequency (MHz)				2310			
10	QPSK	1	0		12.27		13
10	QPSK	1	25		12.19		
10	QPSK	1	49		11.86		
10	QPSK	25	0		11.31		12
10	QPSK	25	12		11.28		
10	QPSK	25	25		11.10		
10	QPSK	50	0		11.28		12
10	16QAM	1	0		10.74		
10	16QAM	1	25		10.72		
10	16QAM	1	49		10.57		11
10	16QAM	25	0		10.41		
10	16QAM	25	12		10.31		
10	16QAM	25	25		10.28		11
10	16QAM	50	0		10.18		
10	64QAM	1	0		10.08		
10	64QAM	1	25		10.05		11
10	64QAM	1	49		10.03		
10	64QAM	25	0		9.58		
10	64QAM	25	12		9.37		10
10	64QAM	25	25		9.29		
10	64QAM	50	0		9.17		
Channel				27685	27710	27735	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	12.11	12.24	12.19	
5	QPSK	1	12	12.07	12.26	12.22	13
5	QPSK	1	24	11.97	11.79	12.01	
5	QPSK	12	0	11.45	11.32	11.31	
5	QPSK	12	7	11.38	11.29	11.16	12
5	QPSK	12	13	11.13	11.13	11.19	
5	QPSK	25	0	10.94	11.00	10.88	
5	16QAM	1	0	10.86	10.76	10.75	12
5	16QAM	1	12	10.74	10.69	10.59	
5	16QAM	1	24	10.84	10.62	10.53	
5	16QAM	12	0	10.46	10.47	10.31	11
5	16QAM	12	7	10.31	10.22	10.17	
5	16QAM	12	13	10.24	10.20	10.15	
5	16QAM	25	0	10.10	10.20	10.07	11
5	64QAM	1	0	10.22	10.11	10.05	
5	64QAM	1	12	10.23	10.09	10.15	
5	64QAM	1	24	10.12	9.99	10.06	10
5	64QAM	12	0	9.31	9.36	9.12	
5	64QAM	12	7	9.19	9.09	9.06	
5	64QAM	12	13	9.00	8.91	8.91	10
5	64QAM	25	0	8.85	8.95	8.64	



1.4	QPSK	6	0	17.41	17.33	17.20	18.5
1.4	16QAM	1	0	17.13	17.10	17.11	18.5
1.4	16QAM	1	3	17.12	17.09	16.94	
1.4	16QAM	1	5	17.06	16.95	16.82	
1.4	16QAM	3	0	16.68	16.78	16.67	
1.4	16QAM	3	1	16.69	16.69	16.60	
1.4	16QAM	3	3	16.80	16.74	16.79	
1.4	16QAM	6	0	16.41	16.44	16.30	17.5
1.4	64QAM	1	0	16.87	16.77	16.79	17.5
1.4	64QAM	1	3	16.94	16.72	16.79	
1.4	64QAM	1	5	16.77	16.74	16.62	
1.4	64QAM	3	0	15.85	15.96	15.81	
1.4	64QAM	3	1	15.80	15.67	15.66	
1.4	64QAM	3	3	15.58	15.56	15.47	
1.4	64QAM	6	0	14.62	14.62	14.39	16.5



Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	13.5
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	13.07	13.18	13.06	12.5
20	QPSK	1	49	13.01	13.07	13.06	
20	QPSK	1	99	12.74	12.78	12.76	
20	QPSK	50	0	11.95	12.02	12.00	12.5
20	QPSK	50	24	11.90	11.95	11.86	
20	QPSK	50	50	11.79	11.86	11.84	
20	QPSK	100	0	11.58	11.69	11.62	12.5
20	16QAM	1	0	12.41	12.43	12.40	
20	16QAM	1	49	12.30	12.38	12.29	
20	16QAM	1	99	12.28	12.31	12.24	11.5
20	16QAM	50	0	10.79	10.85	10.74	
20	16QAM	50	24	10.58	10.72	10.54	
20	16QAM	50	50	10.43	10.54	10.42	11.5
20	16QAM	100	0	10.21	10.39	10.35	
20	64QAM	1	0	10.93	10.95	10.88	
20	64QAM	1	49	10.85	10.88	10.85	10.5
20	64QAM	1	99	10.85	10.85	10.73	
20	64QAM	50	0	9.64	9.73	9.58	
20	64QAM	50	24	9.51	9.57	9.54	10.5
20	64QAM	50	50	9.30	9.44	9.26	
20	64QAM	100	0	9.23	9.28	9.21	
Channel				132047	132322	132597	13.5
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	13.04	13.15	13.03	12.5
15	QPSK	1	37	12.98	13.04	13.03	
15	QPSK	1	74	12.71	12.75	12.73	
15	QPSK	36	0	11.92	11.99	11.97	12.5
15	QPSK	36	20	11.87	11.92	11.83	
15	QPSK	36	39	11.76	11.83	11.81	
15	QPSK	75	0	11.55	11.66	11.59	12.5
15	16QAM	1	0	12.38	12.40	12.37	
15	16QAM	1	37	12.27	12.35	12.26	
15	16QAM	1	74	12.25	12.28	12.21	11.5
15	16QAM	36	0	10.76	10.82	10.71	
15	16QAM	36	20	10.55	10.69	10.51	
15	16QAM	36	39	10.40	10.51	10.39	11.5
15	16QAM	75	0	10.18	10.36	10.32	
15	64QAM	1	0	10.90	10.92	10.85	
15	64QAM	1	37	10.82	10.85	10.82	10.5
15	64QAM	1	74	10.82	10.82	10.70	
15	64QAM	36	0	9.61	9.70	9.55	
15	64QAM	36	20	9.48	9.54	9.51	10.5
15	64QAM	36	39	9.27	9.41	9.23	
15	64QAM	75	0	9.20	9.25	9.18	
Channel				132022	132322	132622	13.5
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	13.02	13.13	13.01	12.5
10	QPSK	1	25	12.96	13.02	13.01	
10	QPSK	1	49	12.69	12.73	12.71	
10	QPSK	25	0	11.90	11.97	11.95	12.5
10	QPSK	25	12	11.85	11.90	11.81	
10	QPSK	25	25	11.74	11.81	11.79	
10	QPSK	50	0	11.53	11.64	11.57	12.5
10	16QAM	1	0	12.36	12.38	12.35	
10	16QAM	1	25	12.25	12.33	12.24	
10	16QAM	1	49	12.23	12.26	12.19	11.5
10	16QAM	25	0	10.74	10.80	10.69	
10	16QAM	25	12	10.53	10.67	10.49	
10	16QAM	25	25	10.38	10.49	10.37	11.5
10	16QAM	50	0	10.16	10.34	10.30	
10	64QAM	1	0	10.88	10.90	10.83	
10	64QAM	1	25	10.80	10.83	10.80	10.5
10	64QAM	1	49	10.80	10.80	10.68	
10	64QAM	25	0	9.59	9.68	9.53	
10	64QAM	25	12	9.46	9.52	9.49	10.5
10	64QAM	25	25	9.25	9.39	9.21	
10	64QAM	50	0	9.18	9.23	9.16	
Channel				131997	132322	132647	13.5
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	13.00	13.11	12.99	12.5
5	QPSK	1	12	12.94	13.00	12.99	
5	QPSK	1	24	12.67	12.71	12.69	
5	QPSK	12	0	11.88	11.95	11.93	12.5
5	QPSK	12	7	11.83	11.88	11.79	
5	QPSK	12	13	11.72	11.79	11.77	
5	QPSK	25	0	11.51	11.62	11.55	12.5
5	16QAM	1	0	12.34	12.36	12.33	
5	16QAM	1	12	12.23	12.31	12.22	
5	16QAM	1	24	12.21	12.24	12.17	11.5
5	16QAM	12	0	10.72	10.78	10.67	
5	16QAM	12	7	10.51	10.65	10.47	
5	16QAM	12	13	10.36	10.47	10.35	11.5
5	16QAM	25	0	10.14	10.32	10.28	
5	64QAM	1	0	10.86	10.88	10.81	
5	64QAM	1	12	10.78	10.81	10.78	10.5
5	64QAM	1	24	10.78	10.78	10.66	
5	64QAM	12	0	9.57	9.66	9.51	
5	64QAM	12	7	9.44	9.50	9.47	10.5
5	64QAM	12	13	9.23	9.37	9.19	
5	64QAM	25	0	9.16	9.21	9.14	
Channel				131987	132322	132657	13.5
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	12.98	13.09	12.97	12.5
3	QPSK	1	8	12.92	12.98	12.97	
3	QPSK	1	14	12.65	12.69	12.67	
3	QPSK	8	0	11.86	11.93	11.91	12.5
3	QPSK	8	4	11.81	11.86	11.77	
3	QPSK	8	7	11.70	11.77	11.75	

Band 71 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				133222	133322	133372	13.5
Frequency (MHz)				673	683	688	
20	QPSK	1	0	18.92	19.03	18.91	20
20	QPSK	1	49	18.86	18.92	18.91	
20	QPSK	1	99	18.59	18.63	18.61	
20	QPSK	50	0	18.31	18.38	18.36	19
20	QPSK	50	24	18.26	18.31	18.22	
20	QPSK	50	50	18.15	18.22	18.20	
20	QPSK	100	0	18.13	18.24	18.17	19
20	16QAM	1	0	18.77	18.79	18.76	
20	16QAM	1	49	18.66	18.74	18.65	
20	16QAM	1	99	18.64	18.67	18.60	18
20	16QAM	50	0	17.15	17.21	17.10	
20	16QAM	50	24	16.94	17.08	16.90	
20	16QAM	50	50	16.79	16.90	16.78	18
20	16QAM	100	0	16.57	16.75	16.71	
20	64QAM	1	0	17.29	17.31	17.24	
20	64QAM	1	49	17.21	17.24	17.21	17
20	64QAM	1	99	17.21	17.21	17.09	
20	64QAM	50	0	16.00	16.09	15.94	
20	64QAM	50	24	15.87	15.93	15.90	17
20	64QAM	50	50	15.66	15.80	15.62	
20	64QAM	100	0	15.59	15.64	15.57	
Channel				133197	133297	133397	13.5
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	18.82	18.96	18.90	20
15	QPSK	1	37	18.85	18.82	18.90	
15	QPSK	1	74	18.53	18.59	18.55	
15	QPSK	36	0	18.27	18.28	18.23	19
15	QPSK	36	20	18.23	18.28	18.14	
15	QPSK	36	39	18.27	18.32	18.31	
15	QPSK	75	0	18.07	18.16	18.08	19
15	16QAM	1	0	18.64	18.71	18.73	
15	16QAM	1	37	18.55	18.70	18.61	
15	16QAM	1	74	18.58	18.55	18.47	18
15	16QAM	36	0	17.14	17.09	16.97	
15	16QAM	36	20	16.90	17.02	16.82	
15	16QAM	36	39	16.73	16.78	16.72	18
15	16QAM	75	0	16.52	16.64	16.58	
15	64QAM	1	0	17.21	17.25	17.16	
15	64QAM	1	37	17.16	17.11	17.15	18
15	64QAM	1	74	17.20	17.12	16.96	
15	64QAM	36	0	15.93	16.01	15.86	
15	64QAM	36	20	15.79	15.87	15.79	17
15	64QAM	36	39	15.58	15.78	15.55	
15	64QAM	75	0	15.49	15.55	15.47	
Channel				133172	133272	133422	13.5
Frequency (MHz)				668	678	693	
10	QPSK	1	0	18.83	18.97	18.82	20
10	QPSK	1	25	18.79	18.81	18.86	
10	QPSK	1	49	18.57	18.58	18.58	
10	QPSK	25	0	18.30	18.32	18.32	19
10	QPSK	25	12	18.21	18.27	18.18	
10	QPSK	25	25	18.29	18.32	18.30	
10	QPSK	50	0	18.01	18.23	18.06	19
10	16QAM	1	0	18.72	18.78	18.65	
10	16QAM	1	25	18.57	18.62	18.61	
10	16QAM	1	49	18.53	18.58	18.54	18
10	16QAM	25	0	17.04	17.05	16.99	



3	QPSK	15	0	11.49	11.60	11.53	12.5
3	16QAM	1	0	12.32	12.34	12.31	
3	16QAM	1	8	12.21	12.29	12.20	
3	16QAM	1	14	12.19	12.22	12.15	11.5
3	16QAM	8	0	10.70	10.76	10.65	
3	16QAM	8	4	10.49	10.63	10.45	
3	16QAM	8	7	10.34	10.45	10.33	11.5
3	16QAM	15	0	10.12	10.30	10.26	
3	64QAM	1	0	10.84	10.86	10.79	
3	64QAM	1	8	10.76	10.79	10.76	10.5
3	64QAM	1	14	10.76	10.76	10.64	
3	64QAM	8	0	9.55	9.64	9.49	
3	64QAM	8	4	9.42	9.48	9.45	10.5
3	64QAM	8	7	9.21	9.35	9.17	
3	64QAM	15	0	9.14	9.19	9.12	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	12.95	13.06	12.94	13.5
1.4	QPSK	1	3	12.89	12.95	12.94	
1.4	QPSK	1	5	12.62	12.66	12.64	
1.4	QPSK	3	0	11.83	11.90	11.88	
1.4	QPSK	3	1	11.78	11.83	11.74	
1.4	QPSK	3	3	11.67	11.74	11.72	12.5
1.4	QPSK	6	0	11.46	11.57	11.50	
1.4	16QAM	1	0	12.29	12.31	12.28	12.5
1.4	16QAM	1	3	12.18	12.26	12.17	
1.4	16QAM	1	5	12.16	12.19	12.12	
1.4	16QAM	3	0	10.67	10.73	10.62	
1.4	16QAM	3	1	10.46	10.60	10.42	
1.4	16QAM	3	3	10.31	10.42	10.30	11.5
1.4	16QAM	6	0	10.09	10.27	10.23	
1.4	64QAM	1	0	10.81	10.83	10.76	11.5
1.4	64QAM	1	3	10.73	10.76	10.73	
1.4	64QAM	1	5	10.73	10.73	10.61	
1.4	64QAM	3	0	9.52	9.61	9.46	
1.4	64QAM	3	1	9.39	9.45	9.42	
1.4	64QAM	3	3	9.18	9.32	9.14	10.5
1.4	64QAM	6	0	9.11	9.16	9.09	



Band 41 (2496~2690MHz) (dBm) PC2											
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low 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	13.56	13.68	13.71	13.50	13.47	14.5		
20	QPSK	1	49	13.35	13.67	13.59	13.01	13.59			
20	QPSK	1	99	13.42	13.46	13.43	13.35	13.43			
20	QPSK	50	0	12.16	12.39	12.42	12.18	12.12			
20	QPSK	50	34	12.27	12.32	12.30	12.22	12.20	13.5		
20	QPSK	50	50	12.20	12.31	12.16	12.29	12.16			
20	QPSK	100	0	12.33	12.30	12.41	12.35	12.32			
20	16QAM	1	0	12.06	12.28	12.19	12.27	12.19			
20	16QAM	1	49	12.14	12.09	11.90	11.99	11.95	13.5		
20	16QAM	1	99	11.98	12.11	12.23	12.23	12.23			
20	16QAM	50	0	11.89	11.72	11.38	11.55	11.55			
20	16QAM	50	24	11.91	11.88	11.68	11.81	11.68			
20	16QAM	50	50	11.70	11.96	11.53	11.54	11.63	12.5		
20	16QAM	100	0	11.50	11.57	11.41	11.48	11.41			
20	64QAM	1	0	11.21	11.40	11.22	11.23	11.22			
20	64QAM	1	49	11.34	11.33	11.22	11.18	11.22			
20	64QAM	1	99	11.37	11.34	11.20	11.13	11.20	12.5		
20	64QAM	50	0	10.35	10.38	10.26	10.37	10.26			
20	64QAM	50	24	10.41	10.21	10.28	10.18	10.28			
20	64QAM	50	50	10.15	10.10	10.12	10.15	10.12			
20	64QAM	100	0	10.09	10.23	10.28	10.23	10.28	11.5		
Channel				39725	40173	40620	41068	41515			
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5			
15	QPSK	1	0	13.48	13.60	13.63	13.42	13.39	14.5		
15	QPSK	1	37	13.47	13.59	13.51	13.53	13.51			
15	QPSK	1	74	13.34	13.38	13.35	13.27	13.35			
15	QPSK	36	0	12.08	12.31	12.04	12.10	12.04			
15	QPSK	36	20	12.19	12.24	12.12	12.14	12.12	13.5		
15	QPSK	36	39	12.12	12.23	12.08	12.21	12.08			
15	QPSK	75	0	12.25	12.22	12.24	12.27	12.24			
15	16QAM	1	0	11.98	12.20	12.11	12.19	12.11			
15	16QAM	1	37	12.06	12.01	11.90	11.91	11.90	13.5		
15	16QAM	1	74	11.90	12.03	12.15	12.15	12.15			
15	16QAM	36	0	11.61	11.64	11.50	11.47	11.50			
15	16QAM	36	20	11.83	11.80	11.60	11.53	11.60			
15	16QAM	36	39	11.62	11.88	11.45	11.46	11.45	12.5		
15	16QAM	75	0	11.42	11.46	11.33	11.40	11.33			
15	64QAM	1	0	11.13	11.32	11.14	11.15	11.14			
15	64QAM	1	37	11.26	11.25	11.14	11.10	11.14			
15	64QAM	1	74	11.29	11.28	11.12	11.05	11.12	12.5		
15	64QAM	36	0	10.27	10.30	10.18	10.29	10.18			
15	64QAM	36	20	10.33	10.13	10.20	10.10	10.20			
15	64QAM	36	39	10.07	10.02	10.04	10.07	10.04			
15	64QAM	75	0	10.01	10.15	10.20	10.15	10.20	11.5		
Channel				39700	40160	40620	41089	41540			
Frequency (MHz)				2501	2547	2593	2640	2685			
10	QPSK	1	0	13.40	13.52	13.55	13.34	13.31	14.5		
10	QPSK	1	25	13.39	13.51	13.43	13.45	13.43			
10	QPSK	1	49	13.26	13.30	13.27	13.19	13.27			
10	QPSK	25	0	12.00	12.23	11.96	12.02	11.96			
10	QPSK	25	12	12.11	12.16	12.04	12.06	12.04	13.5		
10	QPSK	25	25	12.04	12.15	12.00	12.13	12.00			
10	QPSK	50	0	12.17	12.14	12.16	12.19	12.16			
10	16QAM	1	0	11.90	12.12	12.03	12.11	12.03			
10	16QAM	1	25	12.06	12.01	11.90	11.91	11.90	13.5		
10	16QAM	1	49	11.90	12.03	12.15	12.15	12.15			
10	16QAM	25	0	11.53	11.56	11.42	11.39	11.42			
10	16QAM	25	12	11.75	11.72	11.52	11.45	11.52			
10	16QAM	25	25	11.54	11.80	11.37	11.38	11.37	12.5		
10	16QAM	50	0	11.34	11.41	11.25	11.32	11.25			
10	64QAM	1	0	11.05	11.24	11.06	11.07	11.06			
10	64QAM	1	25	11.18	11.17	11.06	11.02	11.06			
10	64QAM	1	49	11.21	11.18	11.04	10.97	11.04	12.5		
10	64QAM	25	0	10.19	10.22	10.10	10.21	10.10			
10	64QAM	25	12	10.25	10.05	10.12	10.02	10.12			
10	64QAM	25	25	9.99	9.94	9.96	9.99	9.96			
10	64QAM	50	0	9.93	10.07	10.12	10.07	10.12	11.5		
Channel				39675	40148	40620	41093	41545			
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5			
5	QPSK	1	0	13.35	13.47	13.50	13.29	13.26	14.5		
5	QPSK	1	12	13.34	13.46	13.38	13.40	13.38			
5	QPSK	1	24	13.21	13.25	13.22	13.14	13.22			
5	QPSK	12	0	11.95	12.18	11.91	11.97	11.91			
5	QPSK	12	7	12.06	12.11	11.99	12.01	11.99	13.5		
5	QPSK	12	13	11.99	12.10	11.95	12.08	11.95			
5	QPSK	25	0	12.12	12.09	12.11	12.14	12.11			
5	16QAM	1	0	11.91	12.13	12.04	12.12	12.04			
5	16QAM	1	12	12.07	12.02	11.91	11.92	11.91	13.5		
5	16QAM	1	24	11.91	11.99	12.10	12.10	12.10			
5	16QAM	12	0	11.48	11.51	11.37	11.34	11.37			
5	16QAM	12	7	11.70	11.67	11.47	11.40	11.47			
5	16QAM	12	13	11.49	11.75	11.32	11.33	11.32	12.5		
5	16QAM	25	0	11.29	11.36	11.20	11.27	11.20			
5	64QAM	1	0	11.00	11.19	11.01	11.02	11.01			
5	64QAM	1	12	11.13	11.12	11.01	10.97	11.01			
5	64QAM	1	24	11.16	11.13	10.99	10.92	10.99	12.5		
5	64QAM	12	0	10.14	10.17	10.05	10.16	10.05			
5	64QAM	12	7	10.20	10.00	10.07	9.97	10.07			
5	64QAM	12	13	9.94	9.95	9.91	9.94	9.91			
5	64QAM	25	0	9.94	10.02	10.07	10.02	10.07	11.5		

Band 41 (2496~2690MHz) (dBm) PC3									
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	Tune-up limit (dBm)
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	13.50	13.65	13.66	13.39	13.44	14.5
20	QPSK	1	49	13.53	13.65	13.57	13.59	13.57	
20	QPSK	1	99	13.40	13.44	13.41	13.33	13.41	
20	QPSK	50	0	12.77	13.00	13.02	12.79	12.73	
20	QPSK	50	24	12.88	12.93	12.81	12.83	12.81	13.5
20	QPSK	50	50	12.81	12.92	12.77	12.80	12.77	
20	QPSK	100	0	12.94	12.91	12.99	12.96	12.93	
20	16QAM	1	0	12.67	12.89	12.80	12.88	12.80	
20	16QAM	1	49	12.75	12.70	12.50	12.60	12.50	13.5
20	16QAM	1	99	12.59	12.72	12.84	12.84	12.84	
20	16QAM	50	0	12.30	12.33	12.19	12.16	12.19	
20	16QAM	50	24	12.52	12.49	12.29	12.22	12.29	
20	16QAM	50	50	12.31	12.57	12.14	12.15	12.14	12.5
20	16QAM	100	0	12.11	12.16	11.82	12.08	12.02	
20	64QAM	1	11.82	11.82	12.01	11.83	11.84	11.83	
20	64QAM	1	49	11.95	11.94	11.83	11.79	11.83	
20	64QAM	1	99	11.98	11.95	11.81	11.74	11.81	12.5
20	64QAM	50	0	10.96	10.99	10.87	10.98	10.87	
20	64QAM	50	24	11.02	10.82	10.89	10.79	10.89	
20	64QAM	50	50	10.76	10.71	10.73	10.76	10.73	
20	64QAM	100	0	10.70	10.84	10.89	10.84	10.89	11.5
Channel				39728	40173	40620	41048	41015	
Frequency (MHz)				2503.5	2548.3	2592.5	2637.3	2682.3	
15	QPSK	1	0	13.42	13.57	13.58	13.31	13.36	14.5
15	QPSK	1	37	13.45	13.57	13.49	13.51	13.49	
15	QPSK	1	74	13.32	13.36	13.33	13.25	13.33	
15	QPSK	36	0	12.69	12.92	12.65	12.71	12.65	
15	QPSK	36	20	12.80	12.85	12.73	12.75	12.73	13.5
15	QPSK	36	39	12.73	12.84	12.69	12.82	12.69	
15	QPSK	75	0	12.86	12.83	12.85	12.88	12.85	
15	16QAM	1	0	12.59	12.81	12.72	12.80	12.72	
15	16QAM	1	37	12.67	12.62	12.42	12.52	12.42	13.5
15	16QAM	1	74	12.51	12.64	12.54	12.78	12.78	
15	16QAM	36	0	12.22	12.25	12.11	12.08	12.11	
15	16QAM	36	20	12.44	12.41	12.21	12.14	12.21	
15	16QAM	36	39	12.23	12.49	12.06	12.07	12.06	12.5
15	16QAM	75	0	12.03	12.10	11.94	12.01	11.94	
15	64QAM	1	0	11.74	11.93	11.75	11.76	11.75	
15	64QAM	1	37	11.87	11.86	11.75	11.71	11.75	
15	64QAM	1	74	11.90	11.87	11.73	11.68	11.73	12.5
15	64QAM	36	0	10.81	10.81	10.79	10.78	10.79	
15	64QAM	36	20	10.94	10.74	10.81	10.71	10.81	
15	64QAM	36	39	10.68	10.63	10.65	10.68	10.65	
15	64QAM	75	0	10.62	10.76	10.81	10.76	10.81	11.5
Channel				39700	40160	40620	41080	41540	
Frequency (MHz)				2501	2547	2593	2639	2685	
10	QPSK	1	0	13.34	13.49	13.50	13.23	13.28	14.5
10	QPSK	1	25	13.37	13.49	13.41	13.43	13.41	
10	QPSK	1	49	13.24	13.28	13.25	13.17	13.25	
10	QPSK	25	0	12.61	12.84	12.57	12.63	12.57	
10	QPSK	25	12	12.72	12.77	12.65	12.67	12.65	13.5
10	QPSK	25	25	12.65	12.74	12.61	12.74	12.61	
10	QPSK	50	0	12.78	12.77	12.75	12.80	12.77	
10	16QAM	1	0	12.51	12.73	12.64	12.72	12.64	
10	16QAM	1	25	12.59	12.54	12.34	12.44	12.34	13.5
10	16QAM	1	49	12.43	12.56	12.68	12.68	12.68	
10	16QAM	25	0	12.14	12.17	12.03	12.00	12.03	
10	16QAM	25	12	12.36	12.33	12.13	12.06	12.13	
10	16QAM	25	25	12.15	12.41	11.98	11.99	11.98	12.5
10	16QAM	50	0	11.95	12.02	11.86	11.93	11.86	
10	64QAM	1	11.86	11.85	11.85	11.87	11.88	11.87	
10	64QAM	1	25	11.79	11.78	11.67	11.63	11.67	
10	64QAM	1	49	11.82	11.79	11.65	11.58	11.65	12.5
10	64QAM	25	0	10.80	10.83	10.71	10.82	10.71	
10	64QAM	25	12	10.86	10.66	10.73	10.63	10.73	
10	64QAM	25	25	10.60	10.55	10.57	10.60	10.57	
10	64QAM	50	0	10.54	10.68	10.73	10.68	10.73	11.5
Channel				39675	40148	40620	41091	41595	
Frequency (MHz)				2498.5	2545.8	2593	2640.3	2697.5	
5	QPSK	1	0	13.29	13.44	13.45	13.18	13.23	14.5
5	QPSK	1	13	13.37	13.44	13.43	13.38	13.36	
5	QPSK	1	24	13.19	13.23	13.20	13.12	13.20	
5	QPSK	12	0	12.56	12.79	12.52	12.58	12.52	
5	QPSK	12	7	12.67	12.72	12.60	12.62	12.60	13.5
5	QPSK	12	13	12.60	12.71	12.56	12.69	12.56	
5	QPSK	25	0	12.73	12.70	12.72	12.75	12.72	
5	16QAM	1	0	12.46	12.68	12.59	12.67	12.59	
5	16QAM	1	13	12.54	12.49	12.29	12.39	12.29	13.5
5	16QAM	1	24	12.38	12.51	12.63	12.63	12.63	
5	16QAM	12	0	12.09	12.12	11.98	11.91	11.98	
5	16QAM	12	7	12.31	12.28	12.08	12.05	12.08	
5	16QAM	25	0	12.10	12.38	11.93	11.94	11.93	12.5
5	16QAM	25	0	11.90	11.97	11.81	11.88	11.81	
5	64QAM	1	0	11.81	11.80	11.62	11.63	11.62	
5	64QAM	1	12	11.74	11.73	11.62	11.58	11.62	
5	64QAM	12	0	11.77	11.74	11.60	11.53	11.60	12.5
5	64QAM	12	0	10.75	10.78	10.66	10.77	10.66	
5	64QAM	12	7	10.81	10.61	10.68	10.58	10.68	
5	64QAM	12	13	10.55	10.50	10.52	10.55	10.52	
5	64QAM	25	0	10.49	10.63	10.68	10.63	10.68	11.5
Channel				39650	40123	40620	41065	41580	

CA_41C											
Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
39750	39750	39948	QPSK	1	0	0	0	1	0	13.12	14.00
40521	40521	40719	QPSK	1	0	0	0	1	0	13.17	14.00
41292	41292	41490	QPSK	1	0	0	0	1	0	13.10	14.00
39750	39750	39948	16QAM	1	0	0	0	1	0	12.86	13.50
40521	40521	40719	16QAM	1	0	0	0	1	0	12.71	13.50
41292	41292	41490	16QAM	1	0	0	0	1	0	12.54	13.50
39750	39750	39948	64QAM	1	0	0	0	1	0	11.45	12.50
40521	40521	40719	64QAM	1	0	0	0	1	0	11.23	12.50
41292	41292	41490	64QAM	1	0	0	0	1	0	11.15	12.50
39750	39750	39948	QPSK	50	0	0	0	1	0	12.52	13.50
40521	40521	40719	QPSK	50	0	0	0	1	0	12.45	13.50
41292	41292	41490	QPSK	50	0	0	0	1	0	12.06	13.00

**2.4GHz WLAN ANT 1**

2.4GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11b 1Mbps	CH 1	2412	10.31	11.00	12.00	98.90
		CH 7	2442	10.33	11.00	12.00	
		CH 13	2472	12.33	13.00	13.00	
	802.11g 6Mbps	CH 1	2412	13.53	14.50	13.00	98.38
		CH 7	2442	13.74	14.50	13.00	
		CH 13	2472	-1.67	0.50	0.00	
	802.11n-HT20 MCS0	CH 1	2412	13.40	14.00	13.00	98.27
		CH 7	2442	13.65	14.50	13.00	
		CH 13	2472	-1.83	0.50	0.00	
	802.11n-HT40 MCS0	CH 1	2412	13.10	14.00	12.50	95.00
		CH 7	2442	13.41	14.00	12.50	
		CH 11	2462	4.37	5.00	6.00	

5GHz WLAN ANT 1

5GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	11.38	12.00	12.50	98.10
		CH 44	5220	11.28	12.00	12.50	
		CH 48	5240	11.33	12.00	12.50	
	802.11n-HT20 MCS0	CH 36	5180	11.17	12.00	12.00	98.47
		CH 44	5220	11.16	12.00	12.00	
		CH 48	5240	11.15	12.00	12.00	
	802.11n-HT40 MCS0	CH 38	5190	10.47	11.00	11.00	95.92
		CH 46	5230	11.00	12.00	11.00	
		CH 36	5180	10.98	11.50	12.00	
	802.11ac-VHT20 MCS0	CH 44	5220	11.17	12.00	12.00	98.48
		CH 48	5240	11.16	12.00	12.00	
		CH 38	5190	11.32	12.00	11.00	
	802.11ac-VHT40 MCS0	CH 46	5230	11.07	12.00	11.00	95.92
		CH 42	5210	10.33	11.00	11.00	
		CH 42	5210	10.33	11.00	11.00	93.00

5GHz WLAN ANT 1

5GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 52	5260	11.28	12.00	12.50	98.10
		CH 60	5300	11.81	12.50	12.50	
		CH 64	5320	11.37	12.00	12.50	
	802.11n-HT20 MCS0	CH 52	5260	11.08	12.00	12.00	98.47
		CH 60	5300	11.62	12.50	12.00	
		CH 64	5320	11.04	12.00	12.00	
	802.11n-HT40 MCS0	CH 54	5270	11.26	12.00	11.50	95.92
		CH 62	5310	11.15	12.00	11.50	
		CH 52	5260	11.05	12.00	11.50	
	802.11ac-VHT20 MCS0	CH 60	5300	11.57	12.50	11.50	98.48
		CH 64	5320	11.01	12.00	11.50	
		CH 54	5270	11.24	12.00	11.50	
	802.11ac-VHT40 MCS0	CH 62	5310	11.63	12.50	11.50	95.92
		CH 58	5290	10.90	11.50	11.50	
		CH 58	5290	10.90	11.50	11.50	93.00

5GHz WLAN ANT 1

5GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 100	5500	10.24	11.00	10.00	98.10
		CH 120	5600	10.71	11.50	10.00	
		CH 144	5720	10.59	11.50	10.00	
	802.11n-HT20 MCS0	CH 100	5500	9.09	10.00	9.50	98.47
		CH 120	5600	9.76	10.50	9.50	
		CH 144	5720	9.77	10.50	9.50	
	802.11n-HT40 MCS0	CH 102	5510	8.11	9.00	9.00	95.92
		CH 126	5630	10.11	11.00	9.00	
		CH 142	5710	9.30	10.00	9.00	
	802.11ac-VHT20 MCS0	CH 100	5500	9.10	10.00	9.50	98.48
		CH 120	5600	9.74	10.50	9.50	
		CH 144	5720	9.75	10.50	9.50	
	802.11ac-VHT40 MCS0	CH 102	5510	9.06	10.00	9.00	95.92
		CH 126	5630	9.68	10.50	9.00	
		CH 142	5710	9.80	10.50	9.00	
	802.11ac-VHT80 MCS0	CH 106	5530	8.62	9.50	9.00	93.00
		CH 122	5610	9.28	10.00	9.00	
		CH 138	5690	9.33	10.00	9.00	

5GHz WLAN ANT 1

5GHz WLAN ANT 1	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	10.63	11.50	10.00	98.10
		CH 157	5785	10.55	11.50	10.00	
		CH 165	5825	10.45	11.00	10.00	
	802.11n-HT20 MCS0	CH 149	5745	10.46	11.00	9.50	98.47
		CH 157	5785	10.49	11.00	9.50	
		CH 165	5825	10.05	11.00	9.50	
	802.11n-HT40 MCS0	CH 151	5755	10.46	11.00	8.50	95.92
		CH 159	5795	10.24	11.00	8.50	
		CH 149	5745	10.53	11.50	9.50	
	802.11ac-VHT20 MCS0	CH 157	5785	10.47	11.00	9.50	98.48
		CH 165	5825	10.11	11.00	9.50	
		CH 151	5755	10.53	11.50	8.50	
	802.11ac-VHT40 MCS0	CH 159	5795	10.26	11.00	8.50	95.92
		CH 155	5775	10.13	11.00	8.50	
		CH 155	5775	10.13	11.00	8.50	93.00