



REPORT No.: SZ25100429S01

Annex E Conducted Power

Note:

Conducted power unit: dBm

The target power was recorded in the manufacturer's 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	24.25	24.37	24.28	25.00	24.15	24.18	24.07	25.00	24.02	24.13	24.11	25.00
3GPP Rel 5	HSDPA Subtest-1	23.38	23.66	23.68	24.50	23.32	23.36	23.33	24.00	23.40	23.51	23.44	24.50
3GPP Rel 5	HSDPA Subtest-2	23.42	23.77	23.73	24.50	23.36	23.42	23.34	24.00	23.32	23.54	23.31	24.50
3GPP Rel 5	HSDPA Subtest-3	23.03	23.21	23.20	24.00	22.89	22.94	22.86	23.50	22.87	23.06	22.96	24.00
3GPP Rel 5	HSDPA Subtest-4	23.04	23.17	23.21	24.00	22.92	22.96	22.88	23.50	22.88	23.08	23.07	24.00
3GPP Rel 8	DC-HSDPA Subtest-1	23.45	23.41	23.46	24.50	23.12	23.25	23.13	24.00	23.49	23.56	23.46	24.50
3GPP Rel 8	DC-HSDPA Subtest-2	23.33	23.52	23.48	24.50	23.20	23.24	23.12	24.00	23.44	23.55	23.42	24.50
3GPP Rel 8	DC-HSDPA Subtest-3	22.78	22.93	22.99	24.00	22.61	22.72	22.71	23.50	23.01	22.95	22.92	24.00
3GPP Rel 8	DC-HSDPA Subtest-4	22.76	22.89	22.95	24.00	22.67	22.71	22.50	23.50	22.97	23.01	22.91	24.00
3GPP Rel 6	HSUPA Subtest-1	23.22	23.36	23.37	24.50	23.23	23.35	23.26	24.00	23.42	23.53	23.41	24.50
3GPP Rel 6	HSUPA Subtest-2	22.90	22.89	22.97	24.00	22.68	22.91	22.75	24.00	22.93	23.02	22.94	24.50
3GPP Rel 6	HSUPA Subtest-3	23.30	23.45	23.46	23.50	23.19	23.42	23.21	24.00	23.40	23.53	23.49	24.50
3GPP Rel 6	HSUPA Subtest-4	23.26	23.29	23.44	24.50	23.23	23.22	23.20	24.00	23.43	23.43	23.41	24.50
3GPP Rel 6	HSUPA Subtest-5	23.29	23.35	23.48	24.50	23.16	23.39	23.30	24.00	23.40	23.53	23.38	24.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	23.45	23.60	23.52	24.50	23.37	23.35	23.24	24.00	23.34	23.52	23.44	24.50
Attenuator		Cable Loss			0.8	Cable Loss			0.8	Cable Loss			0.6
Mode		Max.			24.37	Max.			24.18	Max.			24.13
Date		2026.1.6				2026.1.6				2026.1.6			

Band 2 (1900MHz Band) (dBm) Part 24E								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	23.61	23.71	23.55	24.5	
20	QPSK	1	49	23.59	23.63	23.56		
20	QPSK	1	99	23.53	23.60	23.57		
20	QPSK	50	0	22.80	22.82	22.76	23.5	
20	QPSK	50	24	22.75	22.69	22.67		
20	QPSK	50	50	22.72	22.75	22.68		
20	QPSK	100	0	22.75	22.76	22.65	23.5	
20	16QAM	1	0	22.78	22.69	22.52		
20	16QAM	1	49	22.66	22.75	22.70		
20	16QAM	1	99	22.76	22.53	22.80	22.5	
20	16QAM	50	0	21.26	21.21	21.25		
20	16QAM	50	24	21.47	21.32	21.31		
20	16QAM	50	50	21.34	21.37	21.39	22.5	
20	16QAM	100	0	21.32	21.34	21.30		
20	64QAM	1	0	21.42	21.56	21.51		
20	64QAM	1	49	21.45	21.71	21.39	22.5	
20	64QAM	1	99	21.55	21.43	21.39		
20	64QAM	50	0	21.01	20.90	20.90		
20	64QAM	50	24	20.84	20.85	20.92	21.5	
20	64QAM	50	50	20.97	20.90	20.95		
20	64QAM	100	0	20.89	20.92	20.91		
Channel				18675	18900	19125	Tune-up limit (dBm)	
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	23.57	23.67	23.51	24.5	
15	QPSK	1	37	23.55	23.59	23.52		
15	QPSK	1	74	23.49	23.56	23.53		
15	QPSK	36	0	22.76	22.78	22.72	23.5	
15	QPSK	36	20	22.71	22.65	22.63		
15	QPSK	36	39	22.68	22.71	22.64		
15	QPSK	75	0	22.71	22.72	22.61	23.5	
15	16QAM	1	0	22.74	22.65	22.48		
15	16QAM	1	37	22.62	22.71	22.66		
15	16QAM	1	74	22.72	22.49	22.76	22.5	
15	16QAM	36	0	21.22	21.17	21.21		
15	16QAM	36	20	21.43	21.28	21.27		
15	16QAM	36	39	21.30	21.33	21.35	22.5	
15	16QAM	75	0	21.28	21.30	21.26		
15	64QAM	1	0	21.38	21.52	21.47		
15	64QAM	1	37	21.41	21.67	21.35	22.5	
15	64QAM	1	74	21.51	21.39	21.35		
15	64QAM	36	0	20.97	20.86	20.86		
15	64QAM	36	20	20.80	20.81	20.88	21.5	
15	64QAM	36	39	20.93	20.86	20.91		
15	64QAM	75	0	20.85	20.88	20.87		
Channel				18650	18900	19150	Tune-up limit (dBm)	
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	23.54	23.64	23.48	24.5	
10	QPSK	1	25	23.52	23.56	23.49		
10	QPSK	1	49	23.46	23.53	23.50		
10	QPSK	25	0	22.73	22.75	22.69	23.5	
10	QPSK	25	12	22.68	22.62	22.60		
10	QPSK	25	25	22.65	22.68	22.61		
10	QPSK	50	0	22.68	22.69	22.58	23.5	
10	16QAM	1	0	22.71	22.62	22.45		
10	16QAM	1	25	22.59	22.68	22.63		
10	16QAM	1	49	22.69	22.46	22.73	22.5	
10	16QAM	25	0	21.19	21.14	21.18		
10	16QAM	25	12	21.40	21.25	21.24		
10	16QAM	25	25	21.27	21.30	21.32	22.5	
10	16QAM	50	0	21.25	21.27	21.23		
10	64QAM	1	0	21.35	21.49	21.44		
10	64QAM	1	25	21.38	21.64	21.32	22.5	
10	64QAM	1	49	21.48	21.36	21.32		
10	64QAM	25	0	20.94	20.83	20.83		
10	64QAM	25	12	20.77	20.78	20.85	21.5	
10	64QAM	25	25	20.90	20.83	20.88		
10	64QAM	50	0	20.82	20.85	20.84		
Channel				18625	18900	19175	Tune-up limit (dBm)	
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	23.51	23.61	23.45	24.5	
5	QPSK	1	12	23.49	23.53	23.46		
5	QPSK	1	24	23.43	23.50	23.47		
5	QPSK	12	0	22.70	22.72	22.66	23.5	
5	QPSK	12	7	22.65	22.59	22.57		
5	QPSK	12	13	22.62	22.65	22.58		
5	QPSK	25	0	22.65	22.66	22.55	23.5	
5	16QAM	1	0	22.68	22.59	22.42		
5	16QAM	1	12	22.56	22.65	22.60		
5	16QAM	1	24	22.66	22.43	22.70	22.5	
5	16QAM	12	0	21.16	21.11	21.15		
5	16QAM	12	7	21.37	21.22	21.21		
5	16QAM	12	13	21.24	21.27	21.29	22.5	
5	16QAM	25	0	21.22	21.24	21.20		
5	64QAM	1	0	21.32	21.46	21.41		
5	64QAM	1	12	21.35	21.61	21.29	22.5	
5	64QAM	1	24	21.45	21.33	21.29		
5	64QAM	12	0	20.91	20.80	20.80		
5	64QAM	12	7	20.74	20.75	20.82	21.5	
5	64QAM	12	13	20.87	20.80	20.85		
5	64QAM	25	0	20.79	20.82	20.81		
Channel				18615	18900	19185	Tune-up limit (dBm)	
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	23.48	23.58	23.42	24.5	
3	QPSK	1	8	23.46	23.50	23.43		
3	QPSK	1	14	23.40	23.47	23.44		
3	QPSK	8	0	22.67	22.69	22.63		

Band 4 (AWS Band) (dBm) Part 27L (only on channel required)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)		
Channel				20050	20175	20300			
Frequency (MHz)				1720	1732.5	1745			
20	QPSK	1	0	23.55	23.61	23.58	24.5		
20	QPSK	1	49	23.29	23.30	23.40			
20	QPSK	1	99	23.21	23.23	23.35			
20	QPSK	50	0	22.79	22.83	22.81	23.5		
20	QPSK	50	24	22.73	22.76	22.71			
20	QPSK	50	50	22.70	22.73	22.69			
20	QPSK	100	0	22.67	22.76	22.66	23.5		
20	16QAM	1	0	22.40	22.65	22.60			
20	16QAM	1	49	22.65	22.71	22.65			
20	16QAM	1	99	22.72	22.71	22.63	22.5		
20	16QAM	50	0	21.76	21.72	21.86			
20	16QAM	50	24	21.79	21.68	21.81			
20	16QAM	50	50	21.84	21.70	21.80	22.5		
20	16QAM	100	0	21.76	21.75	21.82			
20	64QAM	1	0	21.88	21.82	21.95			
20	64QAM	1	49	21.68	21.70	21.95	22.5		
20	64QAM	1	99	21.78	21.79	21.99			
20	64QAM	50	0	20.92	20.89	20.99			
20	64QAM	50	24	20.91	20.93	21.15	21.5		

3	QPSK	8	4	22.62	22.56	22.54	23.5
3	QPSK	8	7	22.59	22.62	22.55	
3	QPSK	15	0	22.62	22.63	22.52	
3	16QAM	1	0	22.65	22.56	22.39	23.5
3	16QAM	1	8	22.53	22.62	22.57	
3	16QAM	1	14	22.63	22.40	22.67	
3	16QAM	8	0	21.13	21.08	21.12	22.5
3	16QAM	8	4	21.34	21.19	21.18	
3	16QAM	8	7	21.21	21.24	21.26	
3	16QAM	15	0	21.19	21.21	21.17	22.5
3	64QAM	1	0	21.29	21.43	21.38	
3	64QAM	1	8	21.32	21.58	21.26	
3	64QAM	1	14	21.42	21.30	21.26	21.5
3	64QAM	8	0	20.88	20.77	20.77	
3	64QAM	8	4	20.71	20.72	20.79	
3	64QAM	8	7	20.84	20.77	20.82	21.5
3	64QAM	15	0	20.76	20.79	20.78	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.44	23.54	23.38	24.5
1.4	QPSK	1	3	23.42	23.46	23.39	
1.4	QPSK	1	5	23.36	23.43	23.40	
1.4	QPSK	3	0	22.63	22.65	22.59	23.5
1.4	QPSK	3	1	22.58	22.52	22.50	
1.4	QPSK	3	3	22.55	22.58	22.51	
1.4	QPSK	6	0	22.58	22.59	22.48	23.5
1.4	16QAM	1	0	22.61	22.52	22.35	
1.4	16QAM	1	3	22.49	22.58	22.53	
1.4	16QAM	1	5	22.59	22.36	22.63	23.5
1.4	16QAM	3	0	21.09	21.04	21.08	
1.4	16QAM	3	1	21.30	21.15	21.14	
1.4	16QAM	3	3	21.17	21.20	21.22	22.5
1.4	16QAM	6	0	21.15	21.17	21.13	
1.4	64QAM	1	0	21.25	21.39	21.34	
1.4	64QAM	1	3	21.28	21.54	21.22	22.5
1.4	64QAM	1	5	21.36	21.26	21.22	
1.4	64QAM	3	0	20.84	20.73	20.73	
1.4	64QAM	3	1	20.67	20.68	20.75	21.5
1.4	64QAM	3	3	20.80	20.73	20.78	
1.4	64QAM	6	0	20.72	20.75	20.74	

3	QPSK	8	4	22.57	22.60	22.68	23.5
3	QPSK	8	7	22.54	22.57	22.72	
3	QPSK	15	0	22.51	22.60	22.64	
3	16QAM	1	0	22.24	22.49	22.44	23.5
3	16QAM	1	8	22.49	22.55	22.49	
3	16QAM	1	14	22.56	22.55	22.47	
3	16QAM	8	0	21.60	21.56	21.70	22.5
3	16QAM	8	4	21.63	21.52	21.65	
3	16QAM	8	7	21.68	21.54	21.64	
3	16QAM	15	0	21.60	21.59	21.66	22.5
3	64QAM	1	0	21.72	21.66	21.79	
3	64QAM	1	8	21.52	21.54	21.79	
3	64QAM	1	14	21.62	21.63	21.83	21.5
3	64QAM	8	0	20.76	20.73	20.83	
3	64QAM	8	4	20.75	20.77	20.99	
3	64QAM	8	7	20.79	20.76	21.03	21.5
3	64QAM	15	0	20.77	20.74	20.94	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.37	23.43	23.40	24.5
1.4	QPSK	1	3	23.11	23.12	23.22	
1.4	QPSK	1	5	23.03	23.05	23.17	
1.4	QPSK	3	0	22.59	22.62	22.63	23.5
1.4	QPSK	3	1	22.55	22.58	22.66	
1.4	QPSK	3	3	22.52	22.55	22.70	
1.4	QPSK	6	0	22.49	22.58	22.62	23.5
1.4	16QAM	1	0	22.22	22.47	22.42	
1.4	16QAM	1	3	22.47	22.53	22.47	
1.4	16QAM	1	5	22.54	22.53	22.45	22.5
1.4	16QAM	3	0	21.58	21.54	21.68	
1.4	16QAM	3	1	21.61	21.50	21.63	
1.4	16QAM	3	3	21.66	21.52	21.62	22.5
1.4	16QAM	6	0	21.58	21.57	21.64	
1.4	64QAM	1	0	21.70	21.64	21.77	
1.4	64QAM	1	3	21.50	21.52	21.77	22.5
1.4	64QAM	1	5	21.60	21.61	21.81	
1.4	64QAM	3	0	20.74	20.71	20.81	
1.4	64QAM	3	1	20.73	20.75	20.97	21.5
1.4	64QAM	3	3	20.77	20.74	21.01	
1.4	64QAM	6	0	20.75	20.72	20.92	

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	24.5
Frequency (MHz)				829	836.5	844	
10	QPSK	1	0	23.25	23.37	23.36	24.5
10	QPSK	1	25	23.22	23.25	23.14	
10	QPSK	1	49	23.12	23.18	23.06	
10	QPSK	25	0	22.35	22.42	22.40	
10	QPSK	25	12	22.36	22.33	22.28	23.5
10	QPSK	25	25	22.28	22.24	22.27	
10	QPSK	50	0	22.17	22.19	22.16	
10	16QAM	1	0	22.26	22.16	22.12	
10	16QAM	1	25	22.25	22.43	22.29	23.5
10	16QAM	1	49	22.22	22.23	22.15	
10	16QAM	25	0	21.00	20.91	20.88	
10	16QAM	25	12	20.92	20.88	20.85	
10	16QAM	25	25	21.00	20.96	20.91	22.5
10	16QAM	50	0	21.04	20.90	20.87	
10	64QAM	1	0	21.06	21.13	21.02	
10	64QAM	1	25	20.93	20.91	20.97	
10	64QAM	1	49	21.08	20.88	21.04	22.5
10	64QAM	25	0	20.55	20.48	20.43	
10	64QAM	25	12	20.63	20.43	20.48	
10	64QAM	25	25	20.47	20.48	20.43	
10	64QAM	50	0	20.48	20.45	20.47	21.5
Channel				20425	20525	20625	
Frequency (MHz)				826.5	836.5	846.5	Tune-up limit (dBm)
5	QPSK	1	0	23.21	23.33	23.32	24.5
5	QPSK	1	12	23.18	23.21	23.10	
5	QPSK	1	24	23.08	23.14	23.02	
5	QPSK	12	0	22.31	22.38	22.36	
5	QPSK	12	7	22.32	22.29	22.24	23.5
5	QPSK	12	13	22.24	22.20	22.23	
5	QPSK	25	0	22.13	22.15	22.12	
5	16QAM	1	0	22.22	22.12	22.08	
5	16QAM	1	12	22.21	22.39	22.25	23.5
5	16QAM	1	24	22.18	22.19	22.11	
5	16QAM	12	0	20.96	20.87	20.84	
5	16QAM	12	7	20.88	20.84	20.81	
5	16QAM	12	13	20.96	20.92	20.87	22.5
5	16QAM	25	0	21.00	20.86	20.83	
5	64QAM	1	0	21.02	21.09	20.98	
5	64QAM	1	12	20.89	20.87	20.93	
5	64QAM	1	24	21.04	20.84	21.00	21.5
5	64QAM	12	0	20.51	20.44	20.39	
5	64QAM	12	7	20.59	20.39	20.44	
5	64QAM	12	13	20.43	20.44	20.39	
5	64QAM	25	0	20.44	20.41	20.43	Tune-up limit (dBm)
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	Tune-up limit (dBm)
3	QPSK	1	0	23.16	23.28	23.27	24.5
3	QPSK	1	8	23.13	23.16	23.05	
3	QPSK	1	14	23.03	23.09	22.97	
3	QPSK	8	0	22.26	22.33	22.31	
3	QPSK	8	4	22.27	22.24	22.19	23.5
3	QPSK	8	7	22.19	22.15	22.18	
3	QPSK	15	0	22.08	22.10	22.07	
3	16QAM	1	0	22.17	22.07	22.03	
3	16QAM	1	8	22.16	22.34	22.20	23.5
3	16QAM	1	14	22.13	22.14	22.06	
3	16QAM	8	0	20.91	20.82	20.79	
3	16QAM	8	4	20.83	20.79	20.76	
3	16QAM	8	7	20.91	20.87	20.82	22.5
3	16QAM	15	0	20.95	20.81	20.78	
3	64QAM	1	0	20.97	21.04	20.93	
3	64QAM	1	8	20.84	20.82	20.88	
3	64QAM	1	14	20.99	20.79	20.95	22.5
3	64QAM	8	0	20.46	20.39	20.34	
3	64QAM	8	4	20.54	20.34	20.39	
3	64QAM	8	7	20.38	20.39	20.34	
3	64QAM	15	0	20.39	20.36	20.38	Tune-up limit (dBm)
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	Tune-up limit (dBm)
1.4	QPSK	1	0	23.10	23.22	23.21	24.5
1.4	QPSK	1	3	23.07	23.10	22.99	
1.4	QPSK	1	5	22.97	23.03	22.91	
1.4	QPSK	3	0	22.20	22.27	22.25	
1.4	QPSK	3	1	22.21	22.18	22.13	23.5
1.4	QPSK	3	3	22.13	22.09	22.12	
1.4	QPSK	6	0	22.02	22.04	22.01	
1.4	16QAM	1	0	22.11	22.01	21.97	
1.4	16QAM	1	3	22.10	22.28	22.14	23.5
1.4	16QAM	1	5	22.07	22.08	22.00	
1.4	16QAM	3	0	20.85	20.76	20.73	
1.4	16QAM	3	1	20.77	20.73	20.70	
1.4	16QAM	3	3	20.85	20.81	20.76	22.5
1.4	16QAM	6	0	20.89	20.75	20.72	
1.4	64QAM	1	0	20.91	20.98	20.87	
1.4	64QAM	1	3	20.78	20.76	20.82	
1.4	64QAM	1	5	20.93	20.73	20.89	22.5
1.4	64QAM	3	0	20.40	20.33	20.28	
1.4	64QAM	3	1	20.48	20.28	20.33	
1.4	64QAM	3	3	20.32	20.33	20.28	
1.4	64QAM	6	0	20.33	20.30	20.32	21.5

Band 7 (2600MHz Band) (dBm) Part 27							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	QPSK	1	0	22.43	22.52	22.46	23.5
20	QPSK	1	49	22.31	22.38	22.43	
20	QPSK	1	99	22.42	22.43	22.44	
20	QPSK	50	0	21.18	21.20	21.15	
20	QPSK	50	24	21.14	21.19	21.18	22.5
20	QPSK	50	50	21.09	21.16	21.18	
20	QPSK	100	0	21.12	21.14	21.09	
20	16QAM	1	0	21.08	21.02	21.07	
20	16QAM	1	49	21.15	21.14	21.06	22.5
20	16QAM	1	99	21.16	21.21	21.17	
20	16QAM	50	0	20.06	20.21	20.27	
20	16QAM	50	24	20.10	20.15	20.07	
20	16QAM	50	50	20.09	20.20	20.05	21.5
20	16QAM	100	0	20.08	20.13	20.18	
20	64QAM	1	0	20.11	20.15	20.19	
20	64QAM	1	49	20.15	20.21	19.96	
20	64QAM	1	99	20.10	19.97	19.87	21.5
20	64QAM	50	0	19.69	19.73	19.77	
20	64QAM	50	24	19.69	19.82	19.61	
20	64QAM	50	50	19.66	19.81	19.75	
20	64QAM	100	0	19.74	19.73	19.63	20.5
Channel				20825	21100	21375	
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)
15	QPSK	1	0	22.38	22.47	22.41	23.5
15	QPSK	1	37	22.26	22.33	22.38	
15	QPSK	1	74	22.37	22.38	22.39	
15	QPSK	36	0	21.13	21.15	21.10	
15	QPSK	36	20	21.09	21.14	21.13	22.5
15	QPSK	36	39	21.04	21.11	21.13	
15	QPSK	75	0	21.07	21.09	21.04	
15	16QAM	1	0	21.03	20.97	21.02	
15	16QAM	1	37	21.10	21.09	21.01	22.5
15	16QAM	1	74	21.11	21.16	21.12	
15	16QAM	36	0	20.01	20.16	20.22	
15	16QAM	36	20	20.05	20.10	20.02	
15	16QAM	36	39	20.04	20.15	20.00	21.5
15	16QAM	75	0	20.03	20.08	20.13	
15	64QAM	1	0	20.06	20.10	20.14	
15	64QAM	1	37	20.10	20.16	19.91	
15	64QAM	1	74	20.05	19.92	19.82	21.5
15	64QAM	36	0	19.64	19.68	19.72	
15	64QAM	36	20	19.64	19.77	19.56	
15	64QAM	36	39	19.61	19.76	19.70	
15	64QAM	75	0	19.69	19.68	19.58	20.5
Channel				20800	21100	21400	
Frequency (MHz)				2505	2535	2565	Tune-up limit (dBm)
10	QPSK	1	0	22.32	22.41	22.35	23.5
10	QPSK	1	25	22.20	22.27	22.32	
10	QPSK	1	49	22.31	22.32	22.33	
10	QPSK	25	0	21.07	21.09	21.04	
10	QPSK	25	12	21.03	21.08	21.07	22.5
10	QPSK	25	25	20.98	21.05	21.07	
10	QPSK	50	0	21.01	21.03	20.98	
10	16QAM	1	0	20.97	20.91	20.96	
10	16QAM	1	25	21.04	21.03	20.95	22.5
10	16QAM	1	49	21.05	21.10	21.06	
10	16QAM	25	0	19.95	20.10	20.16	
10	16QAM	25	12	19.99	20.04	19.96	
10	16QAM	25	25	19.98	20.09	19.94	21.5
10	16QAM	50	0	19.97	20.02	20.07	
10	64QAM	1	0	20.00	20.04	20.08	
10	64QAM	1	25	20.04	20.10	19.85	
10	64QAM	1	49	19.99	19.86	19.76	21.5
10	64QAM	25	0	19.58	19.62	19.66	
10	64QAM	25	12	19.58	19.71	19.50	
10	64QAM	25	25	19.55	19.70	19.64	
10	64QAM	50	0	19.63	19.62	19.52	20.5
Channel				20775	21100	21425	
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)
5	QPSK	1	0	22.29	22.38	22.32	23.5
5	QPSK	1	12	22.17	22.24	22.29	
5	QPSK	1	24	22.28	22.29	22.30	
5	QPSK	12	0	21.04	21.06	21.01	
5	QPSK	12	7	21.00	21.05	21.04	22.5
5	QPSK	12	13	20.95	21.02	21.04	
5	QPSK	25	0	20.98	21.00	20.95	
5	16QAM	1	0	20.94	20.88	20.93	
5	16QAM	1	12	21.01	21.00	20.92	22.5
5	16QAM	1	24	21.02	21.07	21.03	
5	16QAM	12	0	19.92	20.07	20.13	
5	16QAM	12	7	19.96	20.01	19.93	
5	16QAM	12	13	19.95	20.06	19.91	21.5
5	16QAM	25	0	19.94	19.99	20.04	
5	64QAM	1	0	19.97	20.01	20.05	
5	64QAM	1	12	20.01	20.07	19.82	
5	64QAM	1	24	19.96	19.83	19.73	20.5
5	64QAM	12	0	19.55	19.59	19.63	
5	64QAM	12	7	19.55	19.68	19.47	
5	64QAM	12	13	19.52	19.67	19.61	
5	64QAM	25	0	19.60	19.59	19.49	

Band 12 (700MHz Low Band) (dBm) Part 27F(only on channel required)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23060	23095	23130	
Frequency (MHz)				704	707.5	711	24.5
10	QPSK	1	0	23.31	23.36	23.34	
10	QPSK	1	25	23.26	23.29	23.30	
10	QPSK	1	49	23.16	23.31	23.33	
10	QPSK	25	0	22.46	22.49	22.43	23.5
10	QPSK	25	12	22.45	22.36	22.43	
10	QPSK	25	25	22.45	22.40	22.37	
10	QPSK	50	0	22.39	22.38	22.30	
10	16QAM	1	0	22.63	22.60	22.47	23.5
10	16QAM	1	25	22.38	22.45	22.45	
10	16QAM	1	49	22.43	22.38	22.49	
10	16QAM	25	0	21.41	21.43	21.54	
10	16QAM	25	12	21.39	21.44	21.41	22.5
10	16QAM	25	25	21.51	21.48	21.50	
10	16QAM	50	0	21.55	21.49	21.46	
10	64QAM	1	0	21.55	21.50	21.40	
10	64QAM	1	25	21.61	21.56	21.54	22.5
10	64QAM	1	49	21.67	21.69	21.63	
10	64QAM	25	0	20.51	20.71	20.55	
10	64QAM	25	12	20.58	20.64	20.66	
10	64QAM	25	25	20.53	20.60	20.54	21.5
10	64QAM	50	0	20.57	20.55	20.58	
Channel				23035	23095	23155	Tune-up limit (dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.26	23.31	23.29	24.5
5	QPSK	1	12	23.21	23.24	23.25	
5	QPSK	1	24	23.11	23.26	23.28	
5	QPSK	12	0	22.41	22.44	22.38	
5	QPSK	12	7	22.40	22.31	22.38	23.5
5	QPSK	12	13	22.40	22.35	22.32	
5	QPSK	25	0	22.34	22.33	22.25	
5	16QAM	1	0	22.58	22.55	22.42	
5	16QAM	1	12	22.33	22.40	22.40	23.5
5	16QAM	1	24	22.38	22.33	22.44	
5	16QAM	12	0	21.36	21.38	21.49	
5	16QAM	12	7	21.34	21.39	21.36	
5	16QAM	12	13	21.46	21.43	21.45	22.5
5	16QAM	25	0	21.50	21.44	21.41	
5	64QAM	1	0	21.50	21.45	21.35	
5	64QAM	1	12	21.56	21.51	21.49	
5	64QAM	1	24	21.62	21.64	21.58	21.5
5	64QAM	12	0	20.46	20.66	20.50	
5	64QAM	12	7	20.53	20.59	20.61	
5	64QAM	12	13	20.48	20.55	20.49	
5	64QAM	25	0	20.52	20.50	20.53	Tune-up limit (dBm)
Channel				23025	23095	23165	
Frequency (MHz)				700.5	707.5	714.5	Tune-up limit (dBm)
3	QPSK	1	0	23.22	23.27	23.25	
3	QPSK	1	8	23.17	23.20	23.21	24.5
3	QPSK	1	14	23.07	23.22	23.24	
3	QPSK	8	0	22.37	22.40	22.34	
3	QPSK	8	4	22.36	22.27	22.34	23.5
3	QPSK	8	7	22.36	22.31	22.28	
3	QPSK	15	0	22.30	22.29	22.21	
3	16QAM	1	0	22.54	22.51	22.36	
3	16QAM	1	8	22.29	22.36	22.36	23.5
3	16QAM	1	14	22.34	22.29	22.40	
3	16QAM	8	0	21.32	21.34	21.45	
3	16QAM	8	4	21.30	21.35	21.32	
3	16QAM	8	7	21.42	21.39	21.41	22.5
3	16QAM	15	0	21.46	21.40	21.37	
3	64QAM	1	0	21.46	21.41	21.31	
3	64QAM	1	8	21.52	21.47	21.45	
3	64QAM	1	14	21.58	21.60	21.54	21.5
3	64QAM	8	0	20.42	20.62	20.46	
3	64QAM	8	4	20.49	20.55	20.57	
3	64QAM	8	7	20.44	20.51	20.45	
3	64QAM	15	0	20.48	20.46	20.49	Tune-up limit (dBm)
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	Tune-up limit (dBm)
1.4	QPSK	1	0	23.19	23.24	23.22	
1.4	QPSK	1	3	23.14	23.17	23.18	24.5
1.4	QPSK	1	5	23.04	23.19	23.21	
1.4	QPSK	3	0	22.34	22.37	22.31	
1.4	QPSK	3	1	22.33	22.24	22.31	23.5
1.4	QPSK	3	3	22.33	22.28	22.25	
1.4	QPSK	6	0	22.27	22.26	22.18	
1.4	16QAM	1	0	22.51	22.48	22.35	
1.4	16QAM	1	3	22.26	22.33	22.33	23.5
1.4	16QAM	1	5	22.31	22.26	22.37	
1.4	16QAM	3	0	21.29	21.31	21.42	
1.4	16QAM	3	1	21.27	21.32	21.29	
1.4	16QAM	3	3	21.39	21.36	21.38	22.5
1.4	16QAM	6	0	21.43	21.37	21.34	
1.4	64QAM	1	0	21.43	21.38	21.28	
1.4	64QAM	1	3	21.49	21.44	21.42	
1.4	64QAM	1	5	21.55	21.57	21.51	22.5
1.4	64QAM	3	0	20.39	20.59	20.43	
1.4	64QAM	3	1	20.46	20.52	20.54	
1.4	64QAM	3	3	20.41	20.48	20.42	
1.4	64QAM	6	0	20.45	20.43	20.46	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	23230		
Frequency (MHz)				782	782		24.5
10	QPSK	1	0		23.34		
10	QPSK	1	25		23.26		
10	QPSK	1	49		23.12		
10	QPSK	25	0		22.28		23.5
10	QPSK	25	12		22.14		
10	QPSK	25	25		22.12		
10	QPSK	50	0		22.15		
10	16QAM	1	0		22.27		23.5
10	16QAM	1	25		22.32		
10	16QAM	1	49		22.03		
10	16QAM	25	0		21.20		
10	16QAM	25	12		21.07		22.5
10	16QAM	25	25		21.19		
10	16QAM	50	0		21.30		
10	64QAM	1	0		22.28		
10	64QAM	1	25		22.19		22.5
10	64QAM	1	49		22.11		
10	64QAM	25	0		21.12		
10	64QAM	25	12		21.02		
10	64QAM	25	25		21.08		21.5
10	64QAM	50	0		21.07		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.10	23.16	23.16	24.5
5	QPSK	1	12	23.08	23.11	23.12	
5	QPSK	1	24	22.98	23.13	23.15	
5	QPSK	12	0	22.31	22.28	22.25	
5	QPSK	12	7	22.27	22.18	22.25	23.5
5	QPSK	12	13	22.27	22.22	22.19	
5	QPSK	25	0	22.21	22.20	22.26	
5	16QAM	1	0	22.45	22.42	22.29	
5	16QAM	1	12	22.20	22.27	22.27	23.5
5	16QAM	1	24	22.25	22.20	22.31	
5	16QAM	12	0	21.23	21.25	21.36	
5	16QAM	12	7	21.21	21.26	21.23	
5	16QAM	12	13	21.33	21.30	21.32	22.5
5	16QAM	25	0	21.37	21.31	21.28	
5	64QAM	1	0	21.37	21.32	21.22	
5	64QAM	1	12	21.43	21.38	21.36	
5	64QAM	1	24	21.49	21.51	21.45	21.5
5	64QAM	12	0	21.21	20.89	21.25	
5	64QAM	12	7	21.28	21.34	21.36	
5	64QAM	12	13	21.23	21.30	21.24	
5	64QAM	25	0	21.27	21.25	21.28	

Band 14 (700MHz Band) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23330			24.5
Frequency (MHz)				793			
10	QPSK	1	0		23.29		24.5
10	QPSK	1	25		23.18		
10	QPSK	1	49		23.12		
10	QPSK	25	0		22.27		23.5
10	QPSK	25	12		22.20		
10	QPSK	25	25		22.14		
10	QPSK	50	0		22.11		23.5
10	16QAM	1	0		22.17		
10	16QAM	1	25		22.08		
10	16QAM	1	49		22.14		22.5
10	16QAM	25	0		21.20		
10	16QAM	25	12		21.31		
10	16QAM	25	25		21.11		22.5
10	16QAM	50	0		21.27		
10	64QAM	1	0		22.38		
10	64QAM	1	25		22.16		22.5
10	64QAM	1	49		22.24		
10	64QAM	25	0		21.09		
10	64QAM	25	12		21.00		21.5
10	64QAM	25	25		20.95		
10	64QAM	50	0		20.89		
Channel				23305	23330	23355	24.5
Frequency (MHz)				790.5	793	795.5	
5	QPSK	1	0	23.09	23.22	23.14	24.5
5	QPSK	1	12	23.08	23.11	23.12	
5	QPSK	1	24	22.98	23.13	23.15	
5	QPSK	12	0	22.09	22.12	22.03	23.5
5	QPSK	12	7	22.31	22.22	22.29	
5	QPSK	12	13	22.31	22.26	22.23	
5	QPSK	25	0	22.25	22.24	22.30	23.5
5	16QAM	1	0	22.49	22.46	22.33	
5	16QAM	1	12	22.24	22.31	22.31	
5	16QAM	1	24	22.29	22.24	22.35	22.5
5	16QAM	12	0	20.97	20.99	21.10	
5	16QAM	12	7	20.95	21.00	20.97	
5	16QAM	12	13	21.07	21.04	21.06	22.5
5	16QAM	25	0	21.11	21.05	21.02	
5	64QAM	1	0	21.11	21.06	20.96	
5	64QAM	1	12	21.17	21.12	21.10	22.5
5	64QAM	1	24	21.23	21.25	21.19	
5	64QAM	12	0	20.95	21.15	20.99	
5	64QAM	12	7	21.02	21.08	21.10	21.5
5	64QAM	12	13	20.97	21.04	20.98	
5	64QAM	25	0	21.01	20.99	21.02	

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	24.5
Frequency (MHz)				709	710	711	
10	QPSK	1	0	23.24	23.27	23.21	24.5
10	QPSK	1	25	23.13	23.16	23.17	
10	QPSK	1	49	23.03	23.18	23.20	
10	QPSK	25	0	22.34	22.38	22.33	23.5
10	QPSK	25	12	22.33	22.27	22.22	
10	QPSK	25	25	22.31	22.31	22.28	
10	QPSK	50	0	22.20	22.22	22.19	23.5
10	16QAM	1	0	22.54	22.51	22.38	
10	16QAM	1	25	22.29	22.36	22.36	
10	16QAM	1	49	22.34	22.29	22.40	22.5
10	16QAM	25	0	21.02	21.04	21.15	
10	16QAM	25	12	21.00	21.05	21.02	
10	16QAM	25	25	21.12	21.09	21.11	22.5
10	16QAM	50	0	21.16	21.10	21.07	
10	64QAM	1	0	21.16	21.11	21.01	22.5
10	64QAM	1	25	21.22	21.17	21.15	
10	64QAM	1	49	21.28	21.30	21.24	
10	64QAM	25	0	21.00	21.20	21.04	21.5
10	64QAM	25	12	21.07	21.13	21.15	
10	64QAM	25	25	21.02	21.09	21.03	
10	64QAM	50	0	21.06	21.04	21.07	21.5
Channel				23755	23790	23825	
Frequency (MHz)				706.5	710	713.5	24.5
5	QPSK	1	0	23.20	23.23	23.17	
5	QPSK	1	12	23.09	23.12	23.13	24.5
5	QPSK	1	24	22.99	23.14	23.16	
5	QPSK	12	0	22.30	22.34	22.29	
5	QPSK	12	7	22.29	22.23	22.18	23.5
5	QPSK	12	13	22.27	22.27	22.24	
5	QPSK	25	0	22.16	22.18	22.15	
5	16QAM	1	0	22.50	22.47	22.34	23.5
5	16QAM	1	12	22.25	22.32	22.32	
5	16QAM	1	24	22.30	22.25	22.36	
5	16QAM	12	0	20.98	21.00	21.11	22.5
5	16QAM	12	7	20.96	21.01	20.98	
5	16QAM	12	13	21.08	21.05	21.07	
5	16QAM	25	0	21.12	21.06	21.03	22.5
5	64QAM	1	0	21.12	21.07	20.97	
5	64QAM	1	12	21.18	21.13	21.11	
5	64QAM	1	24	21.24	21.26	21.20	21.5
5	64QAM	12	0	20.96	21.16	21.00	
5	64QAM	12	7	21.03	21.09	21.11	
5	64QAM	12	13	20.98	21.05	20.99	21.5
5	64QAM	25	0	21.02	21.00	21.03	

Band 18 (835MHz Band) (dBm)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					23925		24.5
Frequency (MHz)					822.5		
15	QPSK	1	0		23.37		23.5
15	QPSK	1	37		23.31		
15	QPSK	1	74		23.28		
15	QPSK	36	0		22.34		23.5
15	QPSK	36	20		22.29		
15	QPSK	36	39		22.22		
15	QPSK	75	0		22.18		23.5
15	16QAM	1	0		22.64		
15	16QAM	1	37		22.62		
15	16QAM	1	74		22.67		22.5
15	16QAM	36	0		22.35		
15	16QAM	36	20		22.41		
15	16QAM	36	39		22.31		22.5
15	16QAM	75	0		22.40		
15	64QAM	1	0		22.41		
15	64QAM	1	25		22.34		22.5
15	64QAM	1	49		22.40		
15	64QAM	25	0		21.94		
15	64QAM	25	12		21.84		21.5
15	64QAM	25	25		21.90		
15	64QAM	50	0		21.81		
Channel				23900	23925	23950	24.5
Frequency (MHz)				820	822.5	825	
10	QPSK	1	0	23.30	23.32	23.25	23.5
10	QPSK	1	25	23.22	23.25	23.14	
10	QPSK	1	49	23.12	23.18	23.06	
10	QPSK	25	0	22.66	22.73	22.71	23.5
10	QPSK	25	12	22.67	22.64	22.59	
10	QPSK	25	25	22.59	22.55	22.58	
10	QPSK	50	0	22.48	22.50	22.47	23.5
10	16QAM	1	0	22.75	22.65	22.61	
10	16QAM	1	25	22.74	22.92	22.78	
10	16QAM	1	49	22.71	22.72	22.64	22.5
10	16QAM	25	0	21.18	21.09	21.06	
10	16QAM	25	12	21.10	21.06	21.03	
10	16QAM	25	25	21.18	21.14	21.09	22.5
10	16QAM	50	0	21.22	21.08	21.05	
10	64QAM	1	0	21.24	21.31	21.20	
10	64QAM	1	25	21.11	21.09	21.15	22.5
10	64QAM	1	49	21.26	21.06	21.22	
10	64QAM	25	0	20.85	20.78	20.73	
10	64QAM	25	12	20.93	20.73	20.78	21.5
10	64QAM	25	25	20.77	20.78	20.73	
10	64QAM	50	0	20.78	20.75	20.77	
Channel				23875	23925	23975	24.5
Frequency (MHz)				817.5	822.5	827.5	
5	QPSK	1	0	23.26	23.28	23.21	23.5
5	QPSK	1	12	23.18	23.21	23.10	
5	QPSK	1	24	23.08	23.14	23.02	
5	QPSK	12	0	22.62	22.69	22.67	23.5
5	QPSK	12	7	22.63	22.60	22.55	
5	QPSK	12	13	22.55	22.51	22.54	
5	QPSK	25	0	22.44	22.46	22.43	23.5
5	16QAM	1	0	22.71	22.61	22.57	
5	16QAM	1	12	22.70	22.88	22.74	
5	16QAM	1	24	22.67	22.68	22.60	22.5
5	16QAM	12	0	21.14	21.05	21.02	
5	16QAM	12	7	21.06	21.02	20.99	
5	16QAM	12	13	21.14	21.10	21.05	22.5
5	16QAM	25	0	21.18	21.04	21.01	
5	64QAM	1	0	21.20	21.27	21.16	
5	64QAM	1	12	21.07	21.05	21.11	22.5
5	64QAM	1	24	21.22	21.02	21.18	
5	64QAM	12	0	20.81	20.74	20.69	
5	64QAM	12	7	20.89	20.69	20.74	21.5
5	64QAM	12	13	20.73	20.74	20.69	
5	64QAM	25	0	20.74	20.71	20.73	

Band 19 (835MHz Band) (dBm)

BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					24075		24.5
Frequency (MHz)					837.5		
15	QPSK	1	0		23.26		23.5
15	QPSK	1	37		23.09		
15	QPSK	1	74		23.12		
15	QPSK	36	0		22.27		23.5
15	QPSK	36	20		22.21		
15	QPSK	36	39		22.18		
15	QPSK	75	0		22.13		23.5
15	16QAM	1	0		22.58		
15	16QAM	1	37		22.44		
15	16QAM	1	74		22.31		22.5
15	16QAM	36	0		22.28		
15	16QAM	36	20		22.36		
15	16QAM	36	39		22.21		22.5
15	16QAM	75	0		22.25		
15	64QAM	1	0		22.38		
15	64QAM	1	25		22.32		22.5
15	64QAM	1	49		22.30		
15	64QAM	25	0		21.87		
15	64QAM	25	12		21.84		21.5
15	64QAM	25	25		21.78		
15	64QAM	50	0		21.76		
Channel				24050	24075	24100	24.5
Frequency (MHz)				835	837.5	840	
10	QPSK	1	0	23.13	23.23	23.17	23.5
10	QPSK	1	25	23.10	23.11	23.12	
10	QPSK	1	49	23.02	23.04	23.07	
10	QPSK	25	0	22.58	22.61	22.53	23.5
10	QPSK	25	12	22.54	22.57	22.56	
10	QPSK	25	25	22.51	22.54	22.60	
10	QPSK	50	0	22.48	22.57	22.52	23.5
10	16QAM	1	0	22.21	22.46	22.52	
10	16QAM	1	25	22.46	22.52	22.37	
10	16QAM	1	49	22.53	22.52	22.63	22.5
10	16QAM	25	0	21.57	21.53	21.58	
10	16QAM	25	12	21.60	21.49	21.53	
10	16QAM	25	25	21.65	21.51	21.52	22.5
10	16QAM	50	0	21.57	21.56	21.54	
10	64QAM	1	0	21.69	21.63	21.67	
10	64QAM	1	25	21.49	21.51	21.67	22.5
10	64QAM	1	49	21.59	21.60	21.71	
10	64QAM	25	0	20.93	20.90	20.91	
10	64QAM	25	12	20.92	20.94	21.07	21.5
10	64QAM	25	25	20.96	20.93	21.11	
10	64QAM	50	0	20.94	20.91	21.02	
Channel				24025	24075	24125	24.5
Frequency (MHz)				832.5	837.5	842.5	
5	QPSK	1	0	23.09	23.19	23.13	23.5
5	QPSK	1	12	23.06	23.07	23.06	
5	QPSK	1	24	22.98	23.00	23.03	
5	QPSK	12	0	22.54	22.57	22.49	23.5
5	QPSK	12	7	22.50	22.53	22.52	
5	QPSK	12	13	22.47	22.50	22.56	
5	QPSK	25	0	22.44	22.53	22.48	23.5
5	16QAM	1	0	22.17	22.42	22.48	
5	16QAM	1	12	22.42	22.48	22.33	
5	16QAM	1	24	22.49	22.48	22.59	22.5
5	16QAM	12	0	21.53	21.49	21.54	
5	16QAM	12	7	21.56	21.45	21.49	
5	16QAM	12	13	21.61	21.47	21.48	22.5
5	16QAM	25	0	21.53	21.52	21.50	
5	64QAM	1	0	21.65	21.59	21.63	
5	64QAM	1	12	21.45	21.47	21.63	22.5
5	64QAM	1	24	21.55	21.56	21.67	
5	64QAM	12	0	20.89	20.86	20.87	
5	64QAM	12	7	20.88	20.90	21.03	21.5
5	64QAM	12	13	20.92	20.89	21.07	
5	64QAM	25	0	20.90	20.87	20.96	

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	23.75	23.80	23.72	24.5	
20	QPSK	1	49	23.66	23.69	23.70		
20	QPSK	1	99	23.56	23.71	23.73		
20	QPSK	50	0	22.82	22.86	22.81	23.5	
20	QPSK	50	24	22.79	22.80	22.73		
20	QPSK	50	50	22.75	22.71	22.65		
20	QPSK	100	0	22.72	22.82	22.80	23.5	
20	16QAM	1	0	23.07	23.04	22.91		
20	16QAM	1	49	22.82	22.89	22.89		
20	16QAM	1	99	22.87	22.82	22.93	22.5	
20	16QAM	50	0	21.55	21.57	21.68		
20	16QAM	50	24	21.53	21.58	21.55		
20	16QAM	50	50	21.65	21.62	21.64	22.5	
20	16QAM	100	0	21.69	21.63	21.60		
20	64QAM	1	0	21.69	21.64	21.54		
20	64QAM	1	49	21.75	21.70	21.68	22.5	
20	64QAM	1	99	21.81	21.83	21.77		
20	64QAM	50	0	21.03	21.23	21.07		
20	64QAM	50	24	21.10	21.16	21.18	21.5	
20	64QAM	50	50	21.05	21.12	21.06		
20	64QAM	100	0	21.09	21.07	21.10		
Channel				26115	26365	26615	Tune-up limit (dBm)	
Frequency (MHz)				1857.5	1882.5	1907.5		
15	QPSK	1	0	23.64	23.77	23.69	24.5	
15	QPSK	1	37	23.63	23.66	23.67		
15	QPSK	1	74	23.53	23.68	23.70		
15	QPSK	36	0	22.79	22.83	22.78	23.5	
15	QPSK	36	20	22.76	22.77	22.70		
15	QPSK	36	39	22.72	22.81	22.78		
15	QPSK	75	0	22.69	22.79	22.77	23.5	
15	16QAM	1	0	23.04	23.01	22.88		
15	16QAM	1	37	22.79	22.86	22.86		
15	16QAM	1	74	22.84	22.79	22.90	22.5	
15	16QAM	36	0	21.52	21.54	21.65		
15	16QAM	36	20	21.50	21.55	21.52		
15	16QAM	36	39	21.62	21.59	21.61	22.5	
15	16QAM	75	0	21.66	21.60	21.57		
15	64QAM	1	0	21.66	21.61	21.51		
15	64QAM	1	37	21.72	21.67	21.65	22.5	
15	64QAM	1	74	21.78	21.80	21.74		
15	64QAM	36	0	21.00	21.20	21.04		
15	64QAM	36	20	21.07	21.13	21.15	21.5	
15	64QAM	36	39	21.02	21.09	21.03		
15	64QAM	75	0	21.06	21.04	21.07		
Channel				26090	26365	26640	Tune-up limit (dBm)	
Frequency (MHz)				1855	1882.5	1910		
10	QPSK	1	0	23.60	23.73	23.65	24.5	
10	QPSK	1	25	23.59	23.62	23.63		
10	QPSK	1	49	23.49	23.64	23.66		
10	QPSK	25	0	22.75	22.79	22.74	23.5	
10	QPSK	25	12	22.72	22.73	22.66		
10	QPSK	25	25	22.68	22.77	22.74		
10	QPSK	50	0	22.65	22.75	22.73	23.5	
10	16QAM	1	0	23.00	22.97	22.84		
10	16QAM	1	25	22.75	22.82	22.82		
10	16QAM	1	49	22.80	22.75	22.86	22.5	
10	16QAM	25	0	21.48	21.50	21.61		
10	16QAM	25	12	21.46	21.51	21.48		
10	16QAM	25	25	21.58	21.55	21.57	22.5	
10	16QAM	50	0	21.62	21.56	21.53		
10	64QAM	1	0	21.62	21.57	21.47		
10	64QAM	1	25	21.68	21.63	21.61	22.5	
10	64QAM	1	49	21.74	21.76	21.70		
10	64QAM	25	0	20.96	21.16	21.00		
10	64QAM	25	12	21.03	21.09	21.11	21.5	
10	64QAM	25	25	20.98	21.05	20.99		
10	64QAM	50	0	21.02	21.00	21.03		
Channel				26055	26365	26665	Tune-up limit (dBm)	
Frequency (MHz)				1852.5	1882.5	1912.5		
5	QPSK	1	0	23.57	23.70	23.62	24.5	
5	QPSK	1	12	23.56	23.59	23.60		
5	QPSK	1	24	23.46	23.61	23.63		
5	QPSK	12	0	22.72	22.76	22.71	23.5	
5	QPSK	12	7	22.69	22.70	22.63		
5	QPSK	12	13	22.65	22.74	22.71		
5	QPSK	25	0	22.62	22.72	22.70	23.5	
5	16QAM	1	0	22.97	22.94	22.81		
5	16QAM	1	12	22.72	22.79	22.79		
5	16QAM	1	24	22.77	22.72	22.83	22.5	
5	16QAM	12	0	21.45	21.47	21.58		
5	16QAM	12	7	21.43	21.48	21.45		
5	16QAM	12	13	21.55	21.52	21.54	22.5	
5	16QAM	25	0	21.59	21.53	21.50		
5	64QAM	1	0	21.59	21.54	21.44		
5	64QAM	1	12	21.65	21.60	21.58	22.5	
5	64QAM	1	24	21.71	21.73	21.67		
5	64QAM	12	0	20.93	21.13	20.97		
5	64QAM	12	7	21.00	21.06	21.08	21.5	
5	64QAM	12	13	20.95	21.02	20.96		
5	64QAM	25	0	20.99	20.97	21.00		
Channel				26055	26365	26675	Tune-up limit (dBm)	
Frequency (MHz)				1851.5	1882.5	1913.5		
3	QPSK	1	0	23.53	23.66	23.58	24.5	
3	QPSK	1	8	23.52	23.55	23.56		
3	QPSK	1	14	23.42	23.57	23.59		
3	QPSK	8	0	22.68	22.72	22.67	23.5	

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	23.37	23.43	23.32	24.5
15	QPSK	1	37	23.16	23.19	23.20	
15	QPSK	1	74	23.06	23.21	23.23	
15	QPSK	36	0	22.15	22.19	22.16	23.5
15	QPSK	36	20	22.02	22.08	22.15	
15	QPSK	36	39	22.17	22.12	22.09	
15	QPSK	75	0	22.04	22.11	22.08	23.5
15	16QAM	1	0	22.35	22.32	22.19	
15	16QAM	1	37	22.10	22.17	22.17	
15	16QAM	1	74	22.15	22.10	22.21	23.5
15	16QAM	36	0	21.13	21.15	21.26	
15	16QAM	36	20	21.11	21.16	21.13	
15	16QAM	36	39	21.23	21.20	21.22	22.5
15	16QAM	75	0	21.27	21.21	21.18	
15	64QAM	1	0	21.27	21.22	21.12	
15	64QAM	1	37	21.33	21.28	21.26	22.5
15	64QAM	1	74	21.39	21.41	21.35	
15	64QAM	36	0	20.81	21.01	20.85	
15	64QAM	36	20	20.88	20.94	20.96	21.5
15	64QAM	36	39	20.83	20.90	20.84	
15	64QAM	75	0	20.87	20.85	20.88	
Channel				26740	26865	26990	Tune-up limit (dBm)
Frequency (MHz)				819	831.5	844	
10	QPSK	1	0	23.34	23.40	23.29	24.5
10	QPSK	1	25	23.13	23.16	23.17	
10	QPSK	1	49	23.03	23.18	23.20	
10	QPSK	25	0	22.12	22.16	22.13	23.5
10	QPSK	25	12	21.99	22.05	22.12	
10	QPSK	25	25	22.14	22.09	22.06	
10	QPSK	50	0	22.01	22.08	22.05	23.5
10	16QAM	1	0	22.32	22.29	22.16	
10	16QAM	1	25	22.07	22.14	22.14	
10	16QAM	1	49	22.12	22.07	22.18	22.5
10	16QAM	25	0	21.10	21.12	21.23	
10	16QAM	25	12	21.08	21.13	21.10	
10	16QAM	25	25	21.20	21.17	21.19	22.5
10	16QAM	50	0	21.24	21.18	21.15	
10	64QAM	1	0	21.24	21.19	21.09	
10	64QAM	1	25	21.30	21.25	21.23	22.5
10	64QAM	1	49	21.36	21.38	21.32	
10	64QAM	25	0	20.78	20.98	20.82	
10	64QAM	25	12	20.85	20.91	20.93	21.5
10	64QAM	25	25	20.80	20.87	20.81	
10	64QAM	50	0	20.84	20.82	20.85	
Channel				26715	26865	27015	Tune-up limit (dBm)
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	0	23.29	23.35	23.24	24.5
5	QPSK	1	12	23.08	23.11	23.12	
5	QPSK	1	24	22.98	23.13	23.15	
5	QPSK	12	0	22.07	22.11	22.08	23.5
5	QPSK	12	7	21.94	22.00	22.07	
5	QPSK	12	13	22.09	22.04	22.01	
5	QPSK	25	0	21.96	22.03	22.00	23.5
5	16QAM	1	0	22.27	22.24	22.11	
5	16QAM	1	12	22.02	22.09	22.09	
5	16QAM	1	24	22.07	22.02	22.13	22.5
5	16QAM	12	0	21.05	21.07	21.18	
5	16QAM	12	7	21.03	21.08	21.05	
5	16QAM	12	13	21.15	21.12	21.14	22.5
5	16QAM	25	0	21.19	21.13	21.10	
5	64QAM	1	0	21.19	21.14	21.04	
5	64QAM	1	12	21.25	21.20	21.18	22.5
5	64QAM	1	24	21.31	21.33	21.27	
5	64QAM	12	0	20.73	20.93	20.77	
5	64QAM	12	7	20.80	20.86	20.88	21.5
5	64QAM	12	13	20.75	20.82	20.76	
5	64QAM	25	0	20.79	20.77	20.80	
Channel				26705	26865	27025	Tune-up limit (dBm)
Frequency (MHz)				815.5	831.5	847.5	
3	QPSK	1	0	23.24	23.30	23.19	24.5
3	QPSK	1	8	23.03	23.06	23.07	
3	QPSK	1	14	22.93	23.08	23.10	
3	QPSK	8	0	22.02	22.06	22.03	23.5
3	QPSK	8	4	21.89	21.95	22.02	
3	QPSK	8	7	22.04	21.99	21.96	
3	QPSK	15	0	21.91	21.98	21.95	23.5
3	16QAM	1	0	22.22	22.19	22.06	
3	16QAM	1	8	21.97	22.04	22.04	
3	16QAM	1	14	22.02	21.97	22.08	22.5
3	16QAM	8	0	21.00	21.02	21.13	
3	16QAM	8	4	20.98	21.03	21.00	
3	16QAM	8	7	21.10	21.07	21.09	22.5
3	16QAM	15	0	21.14	21.08	21.05	
3	64QAM	1	0	21.14	21.09	20.99	
3	64QAM	1	8	21.20	21.15	21.13	22.5
3	64QAM	1	14	21.26	21.28	21.22	
3	64QAM	8	0	20.68	20.88	20.72	
3	64QAM	8	4	20.75	20.81	20.83	21.5
3	64QAM	8	7	20.70	20.77	20.71	
3	64QAM	15	0	20.74	20.72	20.75	
Channel				26697	26865	27033	Tune-up limit (dBm)
Frequency (MHz)				814.7	831.5	848.3	
1.4	QPSK	1	0	23.18	23.24	23.13	24.5
1.4	QPSK	1	3	22.97	23.00	23.01	
1.4	QPSK	1	5	22.87	23.02	23.04	
1.4	QPSK	3	0	21.96	22.00	21.97	

3	QPSK	8	4	22.65	22.66	22.59	23.5
3	QPSK	8	7	22.61	22.70	22.67	
3	QPSK	15	0	22.58	22.68	22.66	
3	16QAM	1	0	22.93	22.90	22.77	23.5
3	16QAM	1	8	22.68	22.75	22.75	
3	16QAM	1	14	22.73	22.68	22.79	
3	16QAM	8	0	21.41	21.43	21.54	22.5
3	16QAM	8	4	21.39	21.44	21.41	
3	16QAM	8	7	21.51	21.48	21.50	
3	16QAM	15	0	21.55	21.49	21.48	22.5
3	64QAM	1	0	21.55	21.50	21.40	
3	64QAM	1	8	21.61	21.56	21.54	
3	64QAM	1	14	21.67	21.69	21.63	21.5
3	64QAM	8	0	20.89	21.09	20.93	
3	64QAM	8	4	20.96	21.02	21.04	
3	64QAM	8	7	20.91	20.98	20.92	21.5
3	64QAM	15	0	20.95	20.93	20.96	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	23.48	23.61	23.53	24.5
1.4	QPSK	1	3	23.47	23.50	23.51	
1.4	QPSK	1	5	23.37	23.52	23.54	
1.4	QPSK	3	0	22.63	22.67	22.62	
1.4	QPSK	3	1	22.60	22.61	22.54	
1.4	QPSK	3	3	22.56	22.65	22.62	
1.4	QPSK	6	0	22.53	22.63	22.61	23.5
1.4	16QAM	1	0	22.88	22.85	22.72	22.5
1.4	16QAM	1	3	22.63	22.70	22.70	
1.4	16QAM	1	5	22.68	22.63	22.74	
1.4	16QAM	3	0	21.36	21.38	21.49	
1.4	16QAM	3	1	21.34	21.39	21.36	
1.4	16QAM	3	3	21.46	21.43	21.45	
1.4	16QAM	6	0	21.50	21.44	21.41	21.5
1.4	64QAM	1	0	21.50	21.45	21.35	22.5
1.4	64QAM	1	3	21.56	21.51	21.49	
1.4	64QAM	1	5	21.62	21.64	21.58	
1.4	64QAM	3	0	20.84	21.04	20.88	
1.4	64QAM	3	1	20.91	20.97	20.99	
1.4	64QAM	3	3	20.86	20.93	20.87	
1.4	64QAM	6	0	20.90	20.88	20.91	21.5

1.4	QPSK	3	1	21.83	21.89	21.96	23.5
1.4	QPSK	3	3	21.98	21.93	21.90	
1.4	QPSK	6	0	21.85	21.92	21.89	
1.4	16QAM	1	0	22.16	22.13	22.00	23.5
1.4	16QAM	1	3	21.91	21.98	21.98	
1.4	16QAM	1	5	21.96	21.91	22.02	
1.4	16QAM	3	0	20.94	20.96	21.07	
1.4	16QAM	3	1	20.92	20.97	20.94	
1.4	16QAM	3	3	21.04	21.01	21.03	
1.4	16QAM	6	0	21.08	21.02	20.99	22.5
1.4	64QAM	1	0	21.08	21.03	20.93	22.5
1.4	64QAM	1	3	21.14	21.09	21.07	
1.4	64QAM	1	5	21.20	21.22	21.16	
1.4	64QAM	3	0	20.62	20.82	20.66	
1.4	64QAM	3	1	20.69	20.75	20.77	
1.4	64QAM	3	3	20.64	20.71	20.65	
1.4	64QAM	6	0	20.68	20.66	20.69	21.5

Band 30 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				27710			
Frequency (MHz)				2310			
10	QPSK	1	0		23.33		24.5
10	QPSK	1	25		23.28		
10	QPSK	1	49		23.22		
10	QPSK	25	0		22.46		23.5
10	QPSK	25	12		22.33		
10	QPSK	25	25		22.29		
10	QPSK	50	0		22.18		23.5
10	16QAM	1	0		22.26		
10	16QAM	1	25		22.17		
10	16QAM	1	49		22.20		22.5
10	16QAM	25	0		21.22		
10	16QAM	25	12		21.33		
10	16QAM	25	25		21.29		22.5
10	16QAM	50	0		20.97		
10	64QAM	1	0		21.75		
10	64QAM	1	25		21.69		22.5
10	64QAM	1	49		21.55		
10	64QAM	25	0		20.88		
10	64QAM	25	12		21.02		21.5
10	64QAM	25	25		20.80		
10	64QAM	50	0		20.82		
Channel				27685	27710	27735	Tune-up limit (dBm)
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	0	23.11	23.17	23.06	24.5
5	QPSK	1	12	22.90	22.93	22.94	
5	QPSK	1	24	22.80	22.95	22.97	
5	QPSK	12	0	21.89	21.93	21.90	23.5
5	QPSK	12	7	21.76	21.82	21.89	
5	QPSK	12	13	21.91	21.86	21.83	
5	QPSK	25	0	21.85	21.84	21.90	23.5
5	16QAM	1	0	22.09	22.06	21.93	
5	16QAM	1	12	21.84	21.91	21.91	
5	16QAM	1	24	21.89	21.84	21.95	22.5
5	16QAM	12	0	20.87	20.89	21.00	
5	16QAM	12	7	20.85	20.90	20.87	
5	16QAM	12	13	20.97	20.94	20.96	22.5
5	16QAM	25	0	21.01	20.95	20.92	
5	64QAM	1	0	21.01	20.96	20.86	
5	64QAM	1	12	21.07	21.02	21.00	22.5
5	64QAM	1	24	21.13	21.15	21.09	
5	64QAM	12	0	20.65	20.85	20.69	
5	64QAM	12	7	20.72	20.78	20.80	21.5
5	64QAM	12	13	20.67	20.74	20.68	
5	64QAM	25	0	20.71	20.69	20.72	

Band 38(only on channel required) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37860	38000	38150	24.5
Frequency (MHz)				2560	2595	2610	
20	QPSK	1	0	23.32	23.35	23.30	23.5
20	QPSK	1	49	23.24	23.27	23.28	
20	QPSK	1	99	23.05	23.20	23.22	
20	QPSK	50	0	22.41	22.44	22.38	
20	QPSK	50	24	22.33	22.24	22.31	23.5
20	QPSK	50	50	22.33	22.28	22.25	
20	QPSK	100	0	22.27	22.33	22.30	
20	16QAM	1	0	22.51	22.48	22.35	
20	16QAM	1	49	22.26	22.33	22.33	22.5
20	16QAM	1	99	22.31	22.28	22.37	
20	16QAM	50	0	21.29	21.31	21.42	
20	16QAM	50	24	21.27	21.32	21.29	
20	16QAM	50	50	21.39	21.36	21.38	22.5
20	16QAM	100	0	21.43	21.37	21.34	
20	64QAM	1	0	21.43	21.38	21.38	
20	64QAM	1	49	21.49	21.44	21.42	
20	64QAM	1	99	21.55	21.57	21.51	21.5
20	64QAM	50	0	20.79	20.99	20.83	
20	64QAM	50	24	20.86	20.92	20.94	
20	64QAM	50	50	20.81	20.88	20.82	
20	64QAM	100	0	20.85	20.83	20.86	21.5
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	24.5
15	QPSK	1	0	23.28	23.31	23.26	
15	QPSK	1	37	23.20	23.23	23.24	23.5
15	QPSK	1	74	23.01	23.16	23.18	
15	QPSK	36	0	22.37	22.35	22.32	
15	QPSK	36	20	22.29	22.20	22.27	
15	QPSK	36	39	22.29	22.24	22.21	23.5
15	QPSK	75	0	22.23	22.22	22.28	
15	16QAM	1	0	22.47	22.44	22.31	
15	16QAM	1	37	22.22	22.29	22.29	
15	16QAM	1	74	22.27	22.22	22.33	22.5
15	16QAM	36	0	21.25	21.27	21.38	
15	16QAM	36	20	21.23	21.28	21.25	
15	16QAM	36	39	21.35	21.32	21.34	
15	16QAM	75	0	21.39	21.33	21.30	22.5
15	64QAM	1	0	21.39	21.34	21.34	
15	64QAM	1	37	21.45	21.40	21.38	
15	64QAM	1	74	21.51	21.53	21.47	
15	64QAM	36	0	20.75	20.95	20.79	21.5
15	64QAM	36	20	20.82	20.88	20.90	
15	64QAM	36	39	20.77	20.84	20.78	
15	64QAM	75	0	20.81	20.79	20.82	
Channel				37860	38000	38200	24.5
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	23.23	23.26	23.21	23.5
10	QPSK	1	25	23.15	23.18	23.19	
10	QPSK	1	49	22.96	23.11	23.13	
10	QPSK	25	0	22.32	22.30	22.27	
10	QPSK	25	12	22.24	22.15	22.22	23.5
10	QPSK	25	25	22.24	22.19	22.16	
10	QPSK	50	0	22.18	22.17	22.23	
10	16QAM	1	0	22.42	22.39	22.26	
10	16QAM	1	25	22.17	22.24	22.24	22.5
10	16QAM	1	49	22.22	22.17	22.28	
10	16QAM	25	0	21.20	21.22	21.33	
10	16QAM	25	12	21.18	21.23	21.20	
10	16QAM	25	25	21.30	21.27	21.29	22.5
10	16QAM	50	0	21.34	21.28	21.25	
10	64QAM	1	0	21.34	21.29	21.19	
10	64QAM	1	25	21.40	21.35	21.33	
10	64QAM	1	49	21.46	21.48	21.42	21.5
10	64QAM	25	0	20.70	20.90	20.74	
10	64QAM	25	12	20.77	20.83	20.85	
10	64QAM	25	25	20.72	20.79	20.73	
10	64QAM	50	0	20.76	20.74	20.77	21.5
Channel				37775	38000	38225	
Frequency (MHz)				2572.5	2595	2617.5	24.5
5	QPSK	1	0	23.19	23.22	23.17	
5	QPSK	1	12	23.11	23.14	23.15	23.5
5	QPSK	1	24	22.92	23.07	23.09	
5	QPSK	12	0	22.28	22.26	22.23	
5	QPSK	12	7	22.20	22.11	22.18	
5	QPSK	12	13	22.20	22.15	22.12	23.5
5	QPSK	25	0	22.14	22.13	22.19	
5	16QAM	1	0	22.38	22.35	22.22	
5	16QAM	1	12	22.13	22.20	22.20	
5	16QAM	1	24	22.18	22.13	22.24	22.5
5	16QAM	12	0	21.16	21.18	21.29	
5	16QAM	12	7	21.14	21.19	21.16	
5	16QAM	12	13	21.26	21.23	21.25	
5	16QAM	25	0	21.30	21.24	21.21	22.5
5	64QAM	1	0	21.30	21.25	21.15	
5	64QAM	1	12	21.36	21.51	21.29	
5	64QAM	1	24	21.42	21.41	21.38	
5	64QAM	12	0	20.68	20.86	20.70	21.5
5	64QAM	12	7	20.73	20.79	20.81	
5	64QAM	12	13	20.68	20.75	20.69	
5	64QAM	25	0	20.72	20.70	20.73	

Band 41 (2496~2690MHz) (dBm)_HPUE											
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)		
Channel				36750	40185	40620	41055	41490			
Frequency (MHz)				2506	2549.5	2593	2636.5	2680			
20	QPSK	1	0	26.30	26.25	26.33	26.17	26.14	27.5		
20	QPSK	1	49	25.96	25.97	25.88	25.89	25.91			
20	QPSK	1	99	25.88	25.89	25.76	25.81	25.83			
20	QPSK	50	0	25.11	25.19	25.21	25.20	25.19			
20	QPSK	50	24	25.15	25.13	25.14	25.11	25.01	26.5		
20	QPSK	50	50	25.19	25.14	25.08	24.98	24.88			
20	QPSK	100	0	25.13	25.10	25.16	25.08	24.98			
20	16QAM	1	0	25.40	25.34	25.28	25.29	25.19			
20	16QAM	1	49	25.18	25.28	25.21	25.24	25.14	26.5		
20	16QAM	1	99	25.10	25.33	25.19	25.21	25.11			
20	16QAM	50	0	24.35	24.21	24.15	24.06	23.96			
20	16QAM	50	24	24.18	24.24	24.12	24.09	23.99			
20	16QAM	50	50	24.06	24.09	24.01	24.05	23.95	25.5		
20	16QAM	100	0	24.18	24.24	24.18	24.19	24.09			
20	64QAM	1	0	24.36	24.27	24.17	24.21	24.11			
20	64QAM	1	49	24.00	24.18	24.09	24.11	24.01			
20	64QAM	1	99	24.13	24.22	24.13	24.16	24.06	24.5		
20	64QAM	50	0	23.89	23.76	23.69	23.53	23.43			
20	64QAM	50	24	23.80	23.79	23.67	23.71	23.61			
20	64QAM	50	50	23.73	23.74	23.63	23.65	23.55			
20	64QAM	100	0	23.86	23.90	23.81	23.80	23.70			
Channel				36725	40173	40620	41068	41515			Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5			
15	QPSK	1	0	26.25	26.20	26.28	26.12	26.09	27.5		
15	QPSK	1	37	25.81	25.92	25.83	25.84	25.96			
15	QPSK	1	74	25.83	25.84	25.71	25.76	25.78			
15	QPSK	36	0	25.06	25.14	25.16	25.15	25.14			
15	QPSK	36	20	25.10	25.08	25.09	25.06	24.96	26.5		
15	QPSK	36	39	25.14	25.09	25.03	24.93	24.83			
15	QPSK	75	0	25.08	25.09	25.15	25.03	24.93			
15	16QAM	1	0	25.35	25.29	25.23	25.24	25.14			
15	16QAM	1	37	25.13	25.23	25.16	25.19	25.09	26.5		
15	16QAM	1	74	25.05	25.26	25.14	25.16	25.06			
15	16QAM	36	0	24.30	24.16	24.10	24.01	23.91			
15	16QAM	36	20	24.13	24.19	24.07	24.04	23.94		25.5	
15	16QAM	36	39	24.01	24.04	23.96	24.00	23.90			
15	16QAM	75	0	24.13	24.19	24.13	24.14	24.04			
15	64QAM	1	0	24.31	24.22	24.12	24.16	24.06		25.5	
15	64QAM	1	37	23.85	24.13	24.04	24.06	23.96			
15	64QAM	1	74	24.08	24.17	24.08	24.11	24.01			
15	64QAM	36	0	23.84	23.71	23.64	23.48	23.38		24.5	
15	64QAM	36	20	23.75	23.74	23.62	23.66	23.56			
15	64QAM	36	39	23.68	23.69	23.58	23.60	23.50			
15	64QAM	75	0	23.81	23.85	23.76	23.75	23.65			
Channel				36700	40160	40620	41086	41540	Tune-up limit (dBm)		
Frequency (MHz)				2501	2547	2593	2638	2685			
10	QPSK	1	0	26.22	26.17	26.25	26.09	26.06	27.5		
10	QPSK	1	49	25.88	25.89	25.80	25.81	25.83			
10	QPSK	1	99	25.80	25.81	25.68	25.73	25.75			
10	QPSK	25	0	25.03	25.11	25.13	25.12	25.11			
10	QPSK	25	12	25.07	25.05	25.06	25.03	24.93	26.5		
10	QPSK	25	26	25.11	25.06	25.00	24.90	24.80			
10	QPSK	50	0	25.05	25.06	25.12	25.00	24.90			
10	16QAM	1	0	25.32	25.26	25.20	25.21	25.11			
10	16QAM	1	25	25.10	25.20	25.13	25.16	25.06	26.5		
10	16QAM	1	49	25.02	25.25	25.11	25.15	25.03			
10	16QAM	25	0	24.27	24.13	24.07	23.98	23.88			
10	16QAM	25	12	24.10	24.16	24.04	24.01	23.91			
10	16QAM	25	25	23.88	24.01	23.93	23.97	23.87	25.5		
10	16QAM	50	0	24.10	24.16	24.10	24.11	24.01			
10	16QAM	50	1	24.28	24.19	24.09	24.13	24.03			
10	64QAM	1	25	23.92	24.10	24.01	24.03	23.93			
10	64QAM	1	49	24.05	24.14	24.05	24.08	23.98	25.5		
10	64QAM	25	0	23.81	23.68	23.61	23.45	23.35			
10	64QAM	25	12	23.72	23.71	23.59	23.68	23.57			
10	64QAM	25	25	23.65	23.68	23.55	23.57	23.47			
10	64QAM	50	0	23.78	23.82	23.73	23.72	23.62	24.5		
Channel				36675	40148	40620	41063	41565			Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5			
5	QPSK	1	0	26.18	26.13	26.21	26.05	26.02	27.5		
5	QPSK	1	12	25.84	25.85	25.76	25.77	25.79			
5	QPSK	1	24	25.76	25.77	25.64	25.69	25.71			
5	QPSK	1	49	25.49	25.07	25.09	25.06	25.07			
5	QPSK	12	7	25.03	25.01	25.02	24.99	24.99	26.5		
5	QPSK	12	13	25.07	25.02	24.96	24.86	24.76			
5	QPSK	25	0	25.01	25.02	25.08	24.96	24.86			
5	16QAM	1	0	25.28	25.22	25.16	25.17	25.07			
5	16QAM	1	12	25.06	25.16	25.09	25.12	25.02	26.5		
5	16QAM	1	24	24.98	25.21	25.07	25.09	24.99			
5	16QAM	12	0	24.23	24.09	24.03	23.94	23.84			
5	16QAM	12	13	24.08	24.08	24.02	23.97	23.87			
5	16QAM	12	13	23.94	23.97	23.89	23.93	23.83	25.5		
5	16QAM	25	0	24.06	24.12	24.06	24.07	23.97			
5	64QAM	1	0	24.24	24.15	24.05	24.09	23.99			
5	64QAM	1	12	23.88	24.06	23.97	23.99	23.89			
5	64QAM	1	24	24.01	24.10	24.01	24.04	23.94	25.5		
5	64QAM	12	0	23.77	23.84	23.87	23.81	23.71			
5	64QAM	12	7	23.68	23.67	23.55	23.59	23.49			
5	64QAM	12	13	23.61	23.62	23.51	23.53	23.43			
5	64QAM	25	0	23.67	23.68	23.56	23.58	23.48	24.5		

Band 41 (2496~2690MHz) (dBm)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39760	40165	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	23.39	23.34	23.42	23.26	23.23	24.5	
20	QPSK	1	49	23.05	23.06	22.97	22.98	23.00		
20	QPSK	1	99	22.97	22.98	22.85	22.90	22.92		
20	QPSK	50	0	22.20	22.28	22.30	22.29	22.28		
20	QPSK	50	24	22.24	22.22	22.23	22.20	22.10	23.5	
20	QPSK	50	50	22.28	22.23	22.17	22.07	21.97		
20	QPSK	100	0	22.22	22.23	22.29	22.17	22.07		
20	16QAM	1	0	22.58	22.52	22.46	22.47	22.37		
20	16QAM	1	49	22.36	22.46	22.39	22.42	22.32	23.5	
20	16QAM	1	99	22.28	22.51	22.37	22.39	22.29		
20	16QAM	50	0	21.53	21.39	21.33	21.24	21.14		
20	16QAM	50	24	21.36	21.42	21.30	21.27	21.17		
20	16QAM	50	50	21.24	21.27	21.19	21.23	21.13	22.5	
20	16QAM	100	0	21.36	21.42	21.36	21.37	21.27		
20	64QAM	1	0	21.54	21.45	21.35	21.39	21.29		
20	64QAM	1	49	21.18	21.36	21.27	21.29	21.19		
20	64QAM	1	99	21.31	21.40	21.31	21.34	21.24	21.5	
20	64QAM	50	0	21.07	20.94	20.87	20.71	20.61		
20	64QAM	50	24	20.98	20.97	20.85	20.89	20.79		
20	64QAM	50	50	20.91	20.92	20.81	20.83	20.73		
20	64QAM	100	0	21.04	21.08	20.99	20.98	20.88	Tune-up limit (dBm)	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2543.3	2593	2637.8	2682.5		
15	QPSK	1	0	23.35	23.30	23.38	23.22	23.19	24.5	
15	QPSK	1	37	23.01	23.02	22.93	22.94	22.96		
15	QPSK	1	74	22.93	22.94	22.81	22.96	22.88		
15	QPSK	36	0	22.16	22.24	22.26	22.25	22.24		
15	QPSK	36	20	22.20	22.18	22.19	22.16	22.06	23.5	
15	QPSK	36	39	22.24	22.19	22.13	22.03	21.93		
15	QPSK	75	0	22.18	22.19	22.25	22.13	22.03		
15	16QAM	1	0	22.54	22.48	22.42	22.43	22.33		
15	16QAM	1	37	22.32	22.42	22.35	22.38	22.28	23.5	
15	16QAM	1	74	22.24	22.47	22.35	22.35	22.25		
15	16QAM	36	0	21.49	21.35	21.29	21.20	21.10		
15	16QAM	36	20	21.32	21.38	21.26	21.23	21.13		
15	16QAM	36	39	21.20	21.23	21.15	21.19	21.09	22.5	
15	16QAM	75	0	21.32	21.38	21.32	21.33	21.23		
15	64QAM	1	0	21.50	21.41	21.31	21.35	21.25		
15	64QAM	1	37	21.14	21.32	21.23	21.25	21.15		
15	64QAM	1	74	21.27	21.36	21.27	21.30	21.20	22.5	
15	64QAM	36	0	21.03	20.90	20.83	20.67	20.57		
15	64QAM	36	20	20.94	20.93	20.81	20.85	20.75		
15	64QAM	36	39	20.87	20.88	20.77	20.79	20.69		
15	64QAM	75	0	21.00	21.04	20.95	20.94	20.84	Tune-up limit (dBm)	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	23.30	23.25	23.33	23.17	23.14	24.5	
10	QPSK	1	25	22.86	22.97	22.88	22.89	22.91		
10	QPSK	1	49	22.88	22.89	22.76	22.81	22.83		
10	QPSK	25	0	22.11	22.19	22.21	22.20	22.19		
10	QPSK	25	12	22.15	22.13	22.14	22.11	22.01	23.5	
10	QPSK	25	25	22.19	22.14	22.08	21.98	21.88		
10	QPSK	50	0	22.13	22.14	22.20	22.08	21.98		
10	16QAM	1	0	22.49	22.43	22.37	22.36	22.26		
10	16QAM	1	25	22.27	22.37	22.30	22.33	22.23	23.5	
10	16QAM	1	49	22.19	22.42	22.28	22.30	22.20		
10	16QAM	25	0	21.44	21.30	21.24	21.15	21.05		
10	16QAM	25	12	21.27	21.33	21.21	21.18	21.08		
10	16QAM	25	25	21.15	21.18	21.10	21.14	21.04	22.5	
10	16QAM	50	0	21.27	21.33	21.27	21.28	21.18		
10	64QAM	1	0	21.45	21.36	21.26	21.30	21.20		
10	64QAM	1	25	21.09	21.27	21.18	21.20	21.10		
10	64QAM	1	49	21.22	21.31	21.22	21.25	21.15	21.5	
10	64QAM	25	0	20.98	20.85	20.78	20.62	20.52		
10	64QAM	25	12	20.89	20.88	20.76	20.80	20.70		
10	64QAM	25	25	20.82	20.83	20.72	20.74	20.64		
10	64QAM	50	0	20.95	20.99	20.90	20.89	20.79	Tune-up limit (dBm)	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	23.27	23.22	23.30	23.14	23.11	24.5	
5	QPSK	1	12	22.93	22.94	22.85	22.86	22.88		
5	QPSK	1	24	22.85	22.86	22.73	22.78	22.80		
5	QPSK	12	0	22.08	22.16	22.18	22.17	22.16		
5	QPSK	12	7	22.12	22.10	22.11	22.08	21.98	23.5	
5	QPSK	12	13	22.16	22.11	22.05	21.95	21.85		
5	QPSK	25	0	22.10	22.11	22.17	22.05	21.95		
5	16QAM	1	0	22.46	22.40	22.34	22.35	22.25		
5	16QAM	1	12	22.24	22.34	22.27	22.30	22.20	23.5	
5	16QAM	1	24	22.16	22.39	22.25	22.27	22.17		
5	16QAM	12	0	21.41	21.27	21.21	21.12	21.02		
5	16QAM	12	7	21.24	21.30	21.18	21.15	21.05		
5	16QAM	12	13	21.12	21.15	21.07	21.11	21.01	22.5	
5	16QAM	25	0	21.24	21.30	21.24	21.25	21.15		
5	64QAM	1	0	21.42	21.33	21.23	21.27	21.17		
5	64QAM	1	12	21.06	21.24	21.15	21.17	21.07		
5	64QAM	1	24	21.19	21.28	21.19	21.22	21.12	22.5	
5	64QAM	12	0	20.95	20.82	20.75	20.59	20.49		
5	64QAM	12	7	20.86	20.85	20.73	20.77	20.67		
5	64QAM	12	13	20.79	20.80	20.69	20.71	20.61		
5	64QAM	25	0	20.92	20.96	20.87	20.86	20.76	Tune-up limit (dBm)	

Band 48 (3.5G Band) (dBm)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel		Tune-up limit (dBm)
Channel				55340	55830	55990	56150	56640		
Frequency (MHz)				3600	3609	3625	3641	3690		
20	QPSK	1	0	23.55	23.54	23.59	23.44	23.52	24.5	
20	QPSK	1	49	23.35	23.38	23.39	23.16	23.31		
20	QPSK	1	99	23.28	23.31	23.32	23.09	23.24		
20	QPSK	50	0	22.50	22.58	22.62	22.53	22.52		
20	QPSK	50	24	22.49	22.46	22.40	22.25	22.22	23.5	
20	QPSK	50	50	22.51	22.40	22.36	22.19	22.13		
20	QPSK	100	0	22.41	22.46	22.50	22.31	22.38		
20	16QAM	1	0	22.58	22.60	22.54	22.48	22.49		
20	16QAM	1	49	22.51	22.38	22.48	22.41	22.44	23.5	
20	16QAM	1	99	22.44	22.30	22.53	22.39	22.41		
20	16QAM	50	0	21.59	21.55	21.41	21.35	21.28		
20	16QAM	50	24	21.53	21.38	21.44	21.32	21.29		
20	16QAM	50	50	21.50	21.26	21.29	21.21	21.25	22.5	
20	16QAM	100	0	21.41	21.38	21.44	21.38	21.39		
20	64QAM	1	0	21.49	21.56	21.47	21.37	21.41		
20	64QAM	1	49	21.48	21.20	21.38	21.29	21.31		
20	64QAM	1	99	21.42	21.33	21.42	21.33	21.38	21.5	
20	64QAM	50	0	21.35	21.29	21.16	21.09	20.93		
20	64QAM	50	24	21.25	21.20	21.19	21.07	21.11		
20	64QAM	50	50	21.12	21.13	21.14	21.03	21.05		
20	64QAM	100	0	21.31	21.26	21.30	21.21	21.20		Tune-up limit (dBm)
Channel				55315	55820	55990	56160	56665		
Frequency (MHz)				3557.5	3608	3625	3642	3692.5		
15	QPSK	1	0	23.49	23.48	23.53	23.38	23.48	24.5	
15	QPSK	1	37	23.29	23.32	23.33	23.10	23.26		
15	QPSK	1	74	23.22	23.25	23.26	23.03	23.18		
15	QPSK	36	20	22.44	22.53	22.54	22.47	22.46		
15	QPSK	36	20	22.43	22.40	22.34	22.16	22.16	23.5	
15	QPSK	36	39	22.45	22.34	22.30	22.13	22.07		
15	QPSK	75	0	22.44	22.40	22.35	22.25	22.23		
15	16QAM	1	0	22.52	22.54	22.48	22.42	22.43		
15	16QAM	1	37	22.45	22.32	22.42	22.35	22.38	23.5	
15	16QAM	1	74	22.38	22.24	22.47	22.23	22.35		
15	16QAM	36	0	21.53	21.49	21.35	21.29	21.20		
15	16QAM	36	20	21.47	21.32	21.38	21.26	21.23		
15	16QAM	36	39	21.44	21.20	21.23	21.15	21.19	22.5	
15	16QAM	75	0	21.35	21.32	21.38	21.32	21.33		
15	64QAM	1	0	21.43	21.50	21.41	21.31	21.35		
15	64QAM	1	37	21.42	21.14	21.32	21.23	21.25		
15	64QAM	1	74	21.36	21.27	21.36	21.27	21.33	21.5	
15	64QAM	36	0	21.29	21.23	21.10	21.03	20.87		
15	64QAM	36	20	21.19	21.14	21.13	21.01	21.05		
15	64QAM	36	39	21.08	21.07	20.99	20.97	20.99		
15	64QAM	75	0	21.25	21.20	21.24	21.15	21.14		Tune-up limit (dBm)
Channel				55260	55815	55990	56165	56690		
Frequency (MHz)				3550	3607.5	3625	3642.5	3695		
10	QPSK	1	0	23.45	23.44	23.49	23.34	23.42	24.5	
10	QPSK	1	25	23.25	23.28	23.29	23.06	23.21		
10	QPSK	1	49	23.18	23.21	23.22	22.99	23.14		
10	QPSK	25	0	22.40	22.48	22.52	22.43	22.42		
10	QPSK	25	12	22.39	22.36	22.30	22.15	22.12	23.5	
10	QPSK	25	25	22.41	22.30	22.26	22.09	22.03		
10	QPSK	50	0	22.40	22.36	22.31	22.21	22.09		
10	16QAM	1	0	22.48	22.50	22.44	22.38	22.39		
10	16QAM	1	25	22.41	22.28	22.38	22.31	22.34	23.5	
10	16QAM	1	49	22.34	22.20	22.43	22.29	22.31		
10	16QAM	25	0	21.49	21.45	21.31	21.25	21.26		
10	16QAM	25	12	21.43	21.28	21.34	21.22	21.19		
10	16QAM	25	25	21.40	21.16	21.19	21.11	21.15	22.5	
10	16QAM	50	0	21.31	21.28	21.34	21.28	21.29		
10	64QAM	1	0	21.39	21.46	21.37	21.27	21.31		
10	64QAM	1	25	21.38	21.10	21.28	21.19	21.21		
10	64QAM	1	49	21.32	21.23	21.25	21.21	21.26	21.5	
10	64QAM	25	0	21.25	21.19	21.09	20.99	20.93		
10	64QAM	25	12	21.15	21.10	21.09	20.97	21.01		
10	64QAM	25	25	21.02	21.03	21.04	20.93	20.95		
10	64QAM	50	0	21.21	21.16	21.20	21.11	21.10		Tune-up limit (dBm)
Channel				55265	55810	55990	56170	56175		
Frequency (MHz)				3552.5	3607	3625	3643	3697.5		
5	QPSK	1	0	23.42	23.41	23.46	23.31	23.39	24.5	
5	QPSK	1	0	23.32	23.35	23.36	23.25	23.16		
5	QPSK	1	24	23.15	23.18	23.19	22.96	23.11		
5	QPSK	12	0	22.37	22.45	22.46	22.40	22.38		
5	QPSK	12	7	22.36	22.33	22.27	22.12	22.09	23.5	
5	QPSK	12	13	22.38	22.27	22.23	22.06	22.00		
5	QPSK	25	0	22.37	22.33	22.28	22.18	22.06		
5	16QAM	1	0	22.45	22.47	22.41	22.35	22.36		
5	16QAM	1	12	22.38	22.25	22.35	22.28	22.31	23.5	
5	16QAM	1	24	22.31	21.22	22.17	22.05	22.26		
5	16QAM	12	0	21.46	21.42	21.29	21.22	21.13		
5	16QAM	12	7	21.40	21.25	21.31	21.19	21.16		
5	16QAM	12	13	21.37	21.13	21.16	21.08	21.12	22.5	
5	16QAM	25	0	21.28	21.25	21.31	21.25	21.26		
5	64QAM	1	0	21.36	21.43	21.34	21.24	21.28		
5	64QAM	1	12	21.35	21.07	21.25	21.16	21.18		
5	64QAM	1	24	21.23	21.20	21.15	21.03	21.23	21.5	
5	64QAM	12	0	21.22	21.16	21.03	20.96	20.80		
5	64QAM	12	7	21.12	21.07	21.06	20.94	20.98		
5	64QAM	12	13	20.99	21.06	21.08	20.91	20.92		
5	64QAM	25	0	21.18	21.13	21.17	21.08	21.07		Tune-up limit (dBm)

Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.72	23.75	23.69	24.5
20	QPSK	1	49	23.41	23.35	23.36	
20	QPSK	1	99	23.31	23.37	23.39	
20	QPSK	50	0	22.63	22.64	22.59	23.5
20	QPSK	50	24	22.59	22.52	22.48	
20	QPSK	50	50	22.59	22.45	22.42	
20	QPSK	100	0	22.35	22.42	22.39	23.5
20	16QAM	1	0	22.77	22.65	22.52	
20	16QAM	1	49	22.52	22.50	22.50	
20	16QAM	1	99	22.57	22.43	22.54	22.5
20	16QAM	50	0	21.55	21.48	21.59	
20	16QAM	50	24	21.53	21.49	21.46	
20	16QAM	50	50	21.65	21.53	21.55	22.5
20	16QAM	100	0	21.69	21.54	21.51	
20	64QAM	1	0	21.69	21.55	21.45	
20	64QAM	1	49	21.75	21.61	21.59	22.5
20	64QAM	1	99	21.81	21.74	21.68	
20	64QAM	50	0	21.08	21.11	20.95	21.5
20	64QAM	50	24	21.07	21.04	21.06	
20	64QAM	50	50	21.02	21.00	20.94	
20	64QAM	100	0	21.06	20.95	20.98	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	23.68	23.71	23.65	24.5
15	QPSK	1	37	23.37	23.31	23.32	
15	QPSK	1	74	23.27	23.33	23.35	
15	QPSK	36	0	22.59	22.60	22.55	23.5
15	QPSK	36	20	22.55	22.48	22.44	
15	QPSK	36	39	22.55	22.41	22.38	
15	QPSK	75	0	22.31	22.38	22.35	23.5
15	16QAM	1	0	22.73	22.61	22.48	
15	16QAM	1	37	22.48	22.46	22.46	
15	16QAM	1	74	22.53	22.39	22.50	22.5
15	16QAM	36	0	21.51	21.44	21.55	
15	16QAM	36	20	21.49	21.45	21.42	
15	16QAM	36	39	21.61	21.49	21.51	22.5
15	16QAM	75	0	21.65	21.50	21.47	
15	64QAM	1	0	21.65	21.51	21.41	
15	64QAM	1	37	21.71	21.57	21.55	22.5
15	64QAM	1	74	21.77	21.70	21.64	
15	64QAM	36	0	21.04	21.07	20.91	
15	64QAM	36	20	21.03	21.00	21.02	21.5
15	64QAM	36	39	20.98	20.96	20.90	
15	64QAM	75	0	21.02	20.91	20.94	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.62	23.65	23.59	24.5
10	QPSK	1	25	23.31	23.25	23.26	
10	QPSK	1	49	23.21	23.27	23.29	
10	QPSK	25	0	22.53	22.54	22.49	23.5
10	QPSK	25	12	22.49	22.42	22.38	
10	QPSK	25	25	22.49	22.35	22.32	
10	QPSK	50	0	22.25	22.32	22.29	23.5
10	16QAM	1	0	22.67	22.55	22.42	
10	16QAM	1	25	22.42	22.40	22.40	
10	16QAM	1	49	22.47	22.33	22.44	22.5
10	16QAM	25	0	21.45	21.38	21.49	
10	16QAM	25	12	21.43	21.39	21.38	
10	16QAM	25	25	21.55	21.43	21.45	22.5
10	16QAM	50	0	21.59	21.44	21.41	
10	64QAM	1	0	21.59	21.45	21.35	
10	64QAM	1	25	21.65	21.51	21.49	22.5
10	64QAM	1	49	21.71	21.64	21.58	
10	64QAM	25	0	20.98	21.01	20.85	
10	64QAM	25	12	20.97	20.94	20.96	21.5
10	64QAM	25	25	20.92	20.90	20.84	
10	64QAM	50	0	20.96	20.85	20.88	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.57	23.60	23.54	24.5
5	QPSK	1	12	23.26	23.20	23.21	
5	QPSK	1	24	23.16	23.22	23.24	
5	QPSK	12	0	22.48	22.49	22.44	23.5
5	QPSK	12	7	22.44	22.37	22.33	
5	QPSK	12	13	22.44	22.30	22.27	
5	QPSK	25	0	22.20	22.27	22.24	23.5
5	16QAM	1	0	22.62	22.50	22.37	
5	16QAM	1	12	22.37	22.35	22.35	
5	16QAM	1	24	22.42	22.28	22.39	22.5
5	16QAM	12	0	21.40	21.33	21.44	
5	16QAM	12	7	21.38	21.34	21.31	
5	16QAM	12	13	21.50	21.38	21.40	22.5
5	16QAM	25	0	21.54	21.39	21.36	
5	64QAM	1	0	21.54	21.40	21.30	
5	64QAM	1	12	21.60	21.46	21.44	22.5
5	64QAM	1	24	21.66	21.59	21.53	
5	64QAM	12	0	20.93	20.96	20.80	
5	64QAM	12	7	20.92	20.89	20.91	21.5
5	64QAM	12	13	20.87	20.85	20.79	
5	64QAM	25	0	20.91	20.80	20.83	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.54	23.57	23.51	24.5
3	QPSK	1	8	23.23	23.17	23.18	
3	QPSK	1	14	23.13	23.19	23.21	
3	QPSK	8	0	22.45	22.46	22.41	

3	QPSK	8	4	22.41	22.34	22.30	23.5
3	QPSK	8	7	22.41	22.27	22.24	
3	QPSK	15	0	22.17	22.24	22.21	
3	16QAM	1	0	22.59	22.47	22.34	23.5
3	16QAM	1	8	22.34	22.32	22.32	
3	16QAM	1	14	22.39	22.25	22.36	
3	16QAM	8	0	21.37	21.30	21.41	22.5
3	16QAM	8	4	21.35	21.31	21.28	
3	16QAM	8	7	21.47	21.35	21.37	
3	16QAM	15	0	21.51	21.36	21.33	22.5
3	64QAM	1	0	21.51	21.37	21.27	
3	64QAM	1	8	21.57	21.43	21.41	
3	64QAM	1	14	21.63	21.56	21.50	21.5
3	64QAM	8	0	20.90	20.93	20.77	
3	64QAM	8	4	20.89	20.86	20.88	
3	64QAM	8	7	20.84	20.82	20.76	21.5
3	64QAM	15	0	20.88	20.77	20.80	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.50	23.53	23.47	24.5
1.4	QPSK	1	3	23.19	23.13	23.14	
1.4	QPSK	1	5	23.09	23.15	23.17	
1.4	QPSK	3	0	22.41	22.42	22.37	
1.4	QPSK	3	1	22.37	22.30	22.26	
1.4	QPSK	3	3	22.37	22.23	22.20	
1.4	QPSK	6	0	22.13	22.20	22.17	23.5
1.4	16QAM	1	0	22.55	22.43	22.30	23.5
1.4	16QAM	1	3	22.30	22.28	22.28	
1.4	16QAM	1	5	22.35	22.21	22.32	
1.4	16QAM	3	0	21.33	21.26	21.37	
1.4	16QAM	3	1	21.31	21.27	21.24	
1.4	16QAM	3	3	21.43	21.31	21.33	
1.4	16QAM	6	0	21.47	21.32	21.29	22.5
1.4	64QAM	1	0	21.47	21.33	21.23	22.5
1.4	64QAM	1	3	21.53	21.39	21.37	
1.4	64QAM	1	5	21.59	21.52	21.46	
1.4	64QAM	3	0	20.86	20.89	20.73	
1.4	64QAM	3	1	20.85	20.82	20.84	
1.4	64QAM	3	3	20.80	20.78	20.72	
1.4	64QAM	6	0	20.84	20.73	20.76	21.5

Band 71 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				133222	133322	133372	24.5
Frequency (MHz)				673	683	688	
20	QPSK	1	0	23.49	23.52	23.44	24.5
20	QPSK	1	49	23.38	23.41	23.42	
20	QPSK	1	99	23.28	23.43	23.45	
20	QPSK	50	0	22.54	22.62	22.53	
20	QPSK	50	24	22.44	22.55	22.50	23.5
20	QPSK	50	50	22.26	22.51	22.44	
20	QPSK	100	0	22.39	22.50	22.32	
20	16QAM	1	0	22.79	22.76	22.63	
20	16QAM	1	49	22.54	22.61	22.61	23.5
20	16QAM	1	99	22.59	22.54	22.65	
20	16QAM	50	0	21.27	21.29	21.40	
20	16QAM	50	24	21.25	21.30	21.27	
20	16QAM	50	50	21.37	21.34	21.36	22.5
20	16QAM	100	0	21.41	21.35	21.32	
20	64QAM	1	0	21.41	21.36	21.26	
20	64QAM	1	49	21.47	21.42	21.40	
20	64QAM	1	99	21.53	21.55	21.49	22.5
20	64QAM	50	0	21.25	21.45	21.29	
20	64QAM	50	24	21.32	21.38	21.40	
20	64QAM	50	50	21.27	21.34	21.28	
20	64QAM	100	0	21.31	21.29	21.32	21.5
Channel				133197	133297	133397	24.5
Frequency (MHz)				670.5	680.5	690.5	
15	QPSK	1	0	23.46	23.49	23.41	24.5
15	QPSK	1	37	23.35	23.38	23.39	
15	QPSK	1	74	23.25	23.40	23.42	
15	QPSK	36	0	22.51	22.59	22.50	
15	QPSK	36	20	22.41	22.52	22.47	23.5
15	QPSK	36	39	22.23	22.48	22.41	
15	QPSK	75	0	22.36	22.47	22.29	
15	16QAM	1	0	22.76	22.73	22.60	
15	16QAM	1	37	22.51	22.58	22.58	23.5
15	16QAM	1	74	22.56	22.51	22.62	
15	16QAM	36	0	21.24	21.26	21.37	
15	16QAM	36	20	21.22	21.27	21.24	
15	16QAM	36	39	21.34	21.31	21.33	22.5
15	16QAM	75	0	21.38	21.32	21.29	
15	64QAM	1	0	21.38	21.33	21.23	
15	64QAM	1	37	21.44	21.39	21.37	
15	64QAM	1	74	21.50	21.52	21.46	22.5
15	64QAM	36	0	21.22	21.42	21.26	
15	64QAM	36	20	21.29	21.35	21.37	
15	64QAM	36	39	21.24	21.31	21.25	
15	64QAM	75	0	21.28	21.26	21.29	21.5
Channel				133172	133272	133422	24.5
Frequency (MHz)				668	678	693	
10	QPSK	1	0	23.43	23.46	23.38	24.5
10	QPSK	1	25	23.32	23.35	23.36	
10	QPSK	1	49	23.22	23.37	23.39	
10	QPSK	25	0	22.48	22.56	22.47	
10	QPSK	25	12	22.38	22.49	22.44	23.5
10	QPSK	25	25	22.20	22.45	22.38	
10	QPSK	50	0	22.33	22.44	22.26	
10	16QAM	1	0	22.73	22.70	22.57	
10	16QAM	1	25	22.48	22.55	22.55	23.5
10	16QAM	1	49	22.53	22.48	22.59	
10	16QAM	25	0	21.21	21.23	21.34	
10	16QAM	25	12	21.19	21.24	21.21	
10	16QAM	25	25	21.31	21.28	21.30	22.5
10	16QAM	50	0	21.35	21.29	21.26	
10	64QAM	1	0	21.35	21.30	21.20	
10	64QAM	1	25	21.41	21.36	21.34	
10	64QAM	1	49	21.47	21.49	21.43	22.5
10	64QAM	25	0	21.19	21.39	21.23	
10	64QAM	25	12	21.26	21.32	21.34	
10	64QAM	25	25	21.21	21.28	21.22	
10	64QAM	50	0	21.25	21.23	21.26	21.5
Channel				133147	133247	133447	24.5
Frequency (MHz)				665.5	675.5	695.5	
5	QPSK	1	0	23.39	23.42	23.34	24.5
5	QPSK	1	12	23.28	23.31	23.32	
5	QPSK	1	24	23.18	23.33	23.35	
5	QPSK	12	0	22.44	22.52	22.43	
5	QPSK	12	7	22.34	22.45	22.40	23.5
5	QPSK	12	13	22.16	22.41	22.34	
5	QPSK	25	0	22.29	22.40	22.22	
5	16QAM	1	0	22.69	22.66	22.53	
5	16QAM	1	12	22.44	22.51	22.51	23.5
5	16QAM	1	24	22.49	22.44	22.55	
5	16QAM	12	0	21.17	21.19	21.30	
5	16QAM	12	7	21.15	21.20	21.17	
5	16QAM	12	13	21.27	21.24	21.26	22.5
5	16QAM	25	0	21.31	21.25	21.22	
5	64QAM	1	0	21.31	21.26	21.16	
5	64QAM	1	12	21.37	21.32	21.30	
5	64QAM	1	24	21.43	21.45	21.39	22.5
5	64QAM	12	0	21.15	21.35	21.19	
5	64QAM	12	7	21.22	21.28	21.30	
5	64QAM	12	13	21.17	21.24	21.18	
5	64QAM	25	0	21.21	21.19	21.22	21.5

n2 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	25
Frequency (MHz)				1860	1880	1900	
20	DFT-s-OFDM PI/2 BPSK	1	1	24.37	24.33	24.27	25
20		1	53	24.35	24.35	24.25	
20		1	104	24.42	24.31	24.13	
20		50	1	23.91	24.03	23.89	25
20		50	25	24.40	24.45	24.33	
20		50	50	23.96	23.92	23.78	
20		100	0	23.91	24.02	23.86	
20	DFT-s-OFDM QPSK	1	1	24.44	24.40	24.24	25
20		1	53	24.40	24.38	24.31	
20		1	104	24.57	24.30	24.16	
20		50	1	23.45	23.57	23.38	25
20		50	25	24.48	24.46	24.32	
20		50	50	23.55	23.47	23.28	
20		100	0	23.49	23.46	23.36	24
20	DFT-s-OFDM 16QAM	1	1	23.37	23.39	23.24	24
20	DFT-s-OFDM 64QAM	1	1	21.88	21.90	21.76	23
20	DFT-s-OFDM 256QAM	1	1	19.69	19.75	19.57	20
20	CP-OFDM QPSK	1	1	22.80	22.81	22.68	24
20	CP-OFDM 16QAM	1	1	22.31	22.35	22.20	23
20	CP-OFDM 64QAM	1	1	20.55	20.63	20.40	22
20	CP-OFDM 256QAM	1	1	17.72	17.73	17.57	18
Channel				371500	376000	380500	25
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	24.51	24.49	24.41	25
Channel				371000	376000	381000	25
Frequency (MHz)				1855	1880	1905	
10	DFT-s-OFDM QPSK	1	1	24.49	24.50	24.43	25
Channel				370500	376000	381500	25
Frequency (MHz)				1852.5	1880	1907.5	
5	DFT-s-OFDM QPSK	1	1	24.54	24.55	24.42	25

n5 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				166800	167300	167800	25
Frequency (MHz)				834	836.5	839	
20	DFT-s-OFDM PI/2 BPSK	1	1	23.77	23.76	23.72	25
20		1	53	23.80	23.78	23.79	
20		1	104	23.72	23.57	23.48	
20		50	1	23.49	23.36	23.34	25
20		50	25	23.94	23.92	23.75	
20		50	50	23.29	23.31	23.27	
20		100	0	23.45	23.43	23.29	
20	DFT-s-OFDM QPSK	1	1	23.96	23.71	23.71	25
20		1	53	23.81	23.79	23.76	
20		1	104	23.63	23.58	23.49	
20		50	1	22.87	22.86	22.84	25
20		50	25	23.89	23.81	23.78	
20		50	50	22.82	22.84	22.78	
20		100	0	22.97	22.82	22.77	24
20	DFT-s-OFDM 16QAM	1	1	22.64	22.65	22.71	24
20	DFT-s-OFDM 64QAM	1	1	21.25	21.24	21.20	23
20	DFT-s-OFDM 256QAM	1	1	19.12	19.09	19.06	20
20	CP-OFDM QPSK	1	1	22.24	22.23	22.20	24
20	CP-OFDM 16QAM	1	1	21.71	21.69	21.67	23
20	CP-OFDM 64QAM	1	1	20.09	20.11	20.00	22
20	CP-OFDM 256QAM	1	1	17.15	17.14	17.12	18
Channel				166300	167300	168300	25
Frequency (MHz)				831.5	836.5	841.5	
15	DFT-s-OFDM QPSK	1	1	23.82	23.76	23.81	25
Channel				165800	167300	168800	25
Frequency (MHz)				829	836.5	844	
10	DFT-s-OFDM QPSK	1	1	23.83	23.81	23.86	25
Channel				165300	167300	169300	25
Frequency (MHz)				826.5	836.5	846.5	
5	DFT-s-OFDM QPSK	1	1	23.91	23.88	23.82	25

n7 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				502000	507000	512000	24.5
Frequency (MHz)				2510	2535	2560	
20	DFT-s-OFDM PI/2 BPSK	1	1	23.40	23.52	23.46	24.5
20		1	53	23.49	23.54	23.42	
20		1	104	23.49	23.54	23.53	
20		50	1	22.86	23.01	23.05	24.5
20		50	25	23.40	23.62	23.55	
20		50	50	22.93	23.07	23.06	
20		100	0	22.92	22.98	23.06	
20	DFT-s-OFDM QPSK	1	1	23.47	23.44	23.50	24.5
20		1	53	23.52	23.66	23.44	
20		1	104	23.55	23.57	23.55	
20		50	1	22.43	22.52	22.60	24.5
20		50	25	23.49	23.62	23.51	
20		50	50	22.46	22.48	22.59	
20		100	0	22.43	22.59	22.56	23.5
20	DFT-s-OFDM 16QAM	1	1	22.25	22.41	22.42	23.5
20	DFT-s-OFDM 64QAM	1	1	20.74	20.92	20.98	22.5
20	DFT-s-OFDM 256QAM	1	1	18.59	18.59	18.67	19.5
20	CP-OFDM QPSK	1	1	21.84	22.00	21.99	23.5
20	CP-OFDM 16QAM	1	1	21.35	21.33	21.46	22.5
20	CP-OFDM 64QAM	1	1	19.59	19.77	19.76	21.5
20	CP-OFDM 256QAM	1	1	16.51	16.63	16.64	17.5
Channel				501500	507000	512500	24.5
Frequency (MHz)				2507.5	2535	2562.5	
15	DFT-s-OFDM QPSK	1	1	23.54	23.59	23.63	24.5
Channel				501000	507000	513000	24.5
Frequency (MHz)				2505	2535	2565	
10	DFT-s-OFDM QPSK	1	1	23.31	23.57	23.49	24.5
Channel				500500	507000	513500	24.5
Frequency (MHz)				2502.5	2535	2567.5	
5	DFT-s-OFDM QPSK	1	1	23.43	23.57	23.58	24.5

n25 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376500	381000	25
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM PI/2 BPSK	1	1	24.52	24.49	24.37	25
20		1	53	24.51	24.46	24.46	
20		1	104	24.56	24.39	23.26	
20		50	1	24.05	24.02	23.99	25
20		50	25	24.59	24.56	24.43	
20		50	50	24.07	24.10	23.93	
20		100	0	24.09	24.09	23.94	
20	DFT-s-OFDM QPSK	1	1	24.45	24.41	24.33	25
20		1	53	24.47	24.49	24.35	
20		1	104	24.62	24.43	23.19	
20		50	1	23.54	23.56	23.45	25
20		50	25	24.59	24.53	24.44	
20		50	50	23.63	23.52	23.42	
20		100	0	23.58	23.53	23.45	24
20	DFT-s-OFDM 16QAM	1	1	23.51	23.48	23.36	24
20	DFT-s-OFDM 64QAM	1	1	21.99	21.98	21.85	23
20	DFT-s-OFDM 256QAM	1	1	19.64	19.66	19.47	20
20	CP-OFDM QPSK	1	1	22.92	22.91	22.89	24
20	CP-OFDM 16QAM	1	1	22.42	22.42	22.25	23
20	CP-OFDM 64QAM	1	1	20.67	20.65	20.51	22
20	CP-OFDM 256QAM	1	1	17.68	17.66	17.54	18
Channel				371500	376500	381500	25
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	24.60	24.58	24.42	25
Channel				371000	376500	382000	25
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	24.54	24.49	24.42	25
Channel				370500	376500	382500	25
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	24.59	24.60	24.38	25

n26(814-824MHz) (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					163800		
Frequency (MHz)					819		
10	DFT-s-OFDM PI/2 BPSK	1	1		23.36		24.5
10		1	26		23.37		
10		1	50		23.37		
10		25	1		22.94		24.5
10	DFT-s-OFDM QPSK	25	12		23.41		
10		25	25		22.93		
10		50	0		22.90		
10		1	1		23.47		24.5
10	DFT-s-OFDM 16QAM	1	26		23.34		
10		1	50		23.37		
10		25	1		22.52		
10	DFT-s-OFDM 64QAM	25	12		23.45		23.5
10		25	25		22.51		24.5
10		50	0		22.56		23.5
10		1	1		22.51		23.5
10	DFT-s-OFDM 256QAM	1	1		20.95		21.5
10	CP-OFDM QPSK	1	1		18.95		19.5
10	CP-OFDM 16QAM	1	1		21.93		23.5
10	CP-OFDM 64QAM	1	1		21.37		22.5
10	CP-OFDM 256QAM	1	1		20.16		21.5
10		1	1		17.42		18.5
Channel				163300	163800	164300	Tune-up limit
Frequency (MHz)				816.5	819	821.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	23.28	23.33	23.79	24.5

n26(824-849MHz) (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				166300	167300	168300	Tune-up limit (dBm)
Frequency (MHz)				831.5	836.5	841.5	
15	DFT-s-OFDM PI/2 BPSK	1	1	23.26	23.46	23.48	24.5
15		1	39	23.48	23.54	23.44	
15		1	77	23.52	23.47	23.24	
15		36	1	22.99	23.03	23.06	24.5
15		36	18	23.56	23.57	23.51	
15		36	37	23.01	23.00	23.02	
15		75	0	23.06	23.10	23.02	
15	DFT-s-OFDM QPSK	1	1	23.55	23.59	23.56	24.5
15		1	39	23.54	23.55	23.47	
15		1	77	23.55	23.51	23.33	
15		36	1	22.55	22.58	22.66	23.5
15		36	18	23.55	23.58	23.48	24.5
15		36	37	22.63	22.61	22.60	23.5
15		75	0	22.69	22.70	22.60	23.5
15	DFT-s-OFDM 16QAM	1	1	22.73	22.60	22.23	23.5
15	DFT-s-OFDM 64QAM	1	1	21.10	21.34	21.25	22.5
15	DFT-s-OFDM 256QAM	1	1	18.98	19.02	19.10	19.5
15	CP-OFDM QPSK	1	1	21.98	22.01	22.08	22.5
15	CP-OFDM 16QAM	1	1	21.39	21.44	21.64	22
15	CP-OFDM 64QAM	1	1	20.20	20.26	20.32	21.5
15	CP-OFDM 256QAM	1	1	17.40	17.50	17.39	18
Channel				165800	167300	168800	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	DFT-s-OFDM QPSK	1	1	23.36	23.48	23.48	24.5
Channel				165300	167300	169300	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	DFT-s-OFDM QPSK	1	1	23.47	23.54	23.49	24.5

n30 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel					462000		
Frequency (MHz)					2310		
10	DFT-s-OFDM PI/2 BPSK	1	1		23.16		24
10		1	26		23.13		
10		1	50		23.08		
10		25	1		23.18		24
10	DFT-s-OFDM QPSK	25	12		23.14		
10		25	25		23.12		
10		50	0		23.15		
10		1	1		23.23		24
10	DFT-s-OFDM 16QAM	1	26		23.15		
10		1	50		23.07		
10		25	1		22.17		
10		25	12		23.16		23
10	DFT-s-OFDM 64QAM	25	25		22.08		24
10		50	0		22.15		23
10		1	1		22.31		23
10		1	1		20.87		22
10	DFT-s-OFDM 256QAM	1	1		18.56		19
10		1	1		21.71		23
10		1	1		21.07		22
10		1	1		19.96		21
10	CP-OFDM 16QAM	1	1		16.02		17
10		1	1		16.02		17

n41 (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				509202	513900	518598	523296	528000	25
Frequency (MHz)				2546.01	2569.5	2592.99	2616.48	2640	
100	DFT-s-OFDM PI/2 BPSK	1	1	23.22	23.60	23.73	23.80	23.87	25
100		1	136	23.77	23.84	23.89	23.55	23.41	
100		1	271	23.93	23.67	23.52	23.33	23.28	
100		135	1	23.50	23.73	23.89	23.91	23.67	25
100		135	67	23.82	23.96	23.90	23.69	23.57	
100		135	136	23.94	23.86	23.67	23.49	23.31	
100		270	0	23.85	23.96	24.01	23.76	23.53	
100	DFT-s-OFDM QPSK	1	1	23.37	23.49	23.73	23.78	23.86	25
100		1	136	23.71	23.86	23.89	23.54	23.40	
100		1	271	23.93	23.67	24.09	23.19	23.24	
100		135	1	23.53	23.79	23.96	23.92	23.62	25
100		135	67	23.81	23.96	23.89	23.70	23.51	
100		135	136	23.95	23.82	23.70	23.48	23.21	
100		270	0	23.86	23.93	23.97	23.74	23.54	
100	DFT-s-OFDM 16QAM	1	1	23.66	23.82	24.00	24.05	23.49	25
100	DFT-s-OFDM 64QAM	1	1	22.44	23.09	23.25	23.42	23.47	24
100	DFT-s-OFDM 256QAM	1	1	20.80	20.95	21.11	21.19	21.29	22
100	CP-OFDM QPSK	1	1	23.24	23.39	23.67	23.77	23.80	25
100	CP-OFDM 16QAM	1	1	22.53	22.59	22.94	22.93	22.94	24
100	CP-OFDM 64QAM	1	1	21.54	21.87	21.91	22.12	22.11	23
100	CP-OFDM 256QAM	1	1	18.90	19.10	19.17	19.28	19.43	20
Channel				508200	513402	518598	523800	528996	25
Frequency (MHz)				2541	2567.01	2592.99	2619	2644.98	
90	DFT-s-OFDM QPSK	1	1	23.20	23.52	23.68	23.78	23.78	25
Channel				507204	512904	518598	524298	529998	25
Frequency (MHz)				2536.02	2564.52	2592.99	2621.49	2649.99	
80	DFT-s-OFDM QPSK	1	1	23.28	23.63	23.70	23.86	23.66	25
Channel				506202	512400	518598	524796	531000	25
Frequency (MHz)				2531.01	2562	2592.99	2623.98	2655	
70	DFT-s-OFDM QPSK	1	1	23.26	23.64	23.77	24.00	23.69	25
Channel				505200	511902	518598	525798	531996	25
Frequency (MHz)				2526	2559.51	2592.99	2626.5	2659.98	
60	DFT-s-OFDM QPSK	1	1	23.28	23.80	23.90	23.90	23.68	25
Channel				504204	511404	518598	525798	532998	25
Frequency (MHz)				2521.02	2557.02	2592.99	2626.5	2664.99	
50	DFT-s-OFDM QPSK	1	1	23.33	23.90	24.03	23.97	23.70	25
Channel				503202	510900	518598	526296	534000	25
Frequency (MHz)				2516.01	2554.5	2592.99	2631.48	2670	
40	DFT-s-OFDM QPSK	1	1	23.49	23.95	24.07	23.97	23.64	25
Channel				502200	510402	518598	526800	534996	25
Frequency (MHz)				2511	2552.01	2592.99	2634	2674.98	
30	DFT-s-OFDM QPSK	1	1	23.42	23.86	24.06	23.71	23.45	25
Channel				501204	509904	518598	527298	535998	25
Frequency (MHz)				2506.02	2549.52	2592.99	2636.49	2679.99	
20	DFT-s-OFDM QPSK	1	1	23.33	23.85	24.01	23.70	23.43	25

n41 (PC2)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				509202	513900	518598	523296	528000	27
Frequency (MHz)				2546.01	2569.5	2592.99	2616.48	2640	
100	DFT-s-OFDM PI/2 BPSK	1	1	25.06	25.35	25.53	25.80	25.78	27
100		1	136	25.54	25.77	25.75	25.56	25.43	
100		1	271	25.81	25.59	25.44	25.21	25.23	
100		135	1	24.88	25.12	25.32	25.27	25.13	27
100		135	67	25.60	25.83	25.76	25.66	25.48	
100		135	136	25.33	25.24	25.11	24.95	24.67	
100	DFT-s-OFDM QPSK	270	0	25.12	25.33	25.41	25.26	25.00	27
100		1	1	25.30	25.20	25.55	25.78	25.80	
100		1	136	25.53	25.74	25.97	25.57	25.36	
100		1	271	25.47	25.75	25.43	25.22	25.22	27
100		135	1	24.35	24.57	24.83	24.81	24.63	
100		135	67	25.61	25.78	25.82	25.66	25.47	
100	DFT-s-OFDM 16QAM	135	136	24.71	24.77	24.60	24.44	24.16	26
100		270	0	24.65	24.82	24.92	24.77	24.54	
100	DFT-s-OFDM 64QAM	1	1	24.62	24.29	24.54	24.95	25.12	26
100	DFT-s-OFDM 256QAM	1	1	22.36	23.00	23.18	23.43	23.44	25
100	CP-OFDM QPSK	1	1	20.73	20.82	20.97	21.18	21.25	22
100	CP-OFDM 16QAM	1	1	23.69	23.77	24.09	24.14	24.30	25
100	CP-OFDM 64QAM	1	1	22.58	22.68	23.03	22.98	23.16	24
100	CP-OFDM 256QAM	1	1	21.64	21.81	21.95	22.00	22.09	23
100	CP-OFDM 256QAM	1	1	18.78	18.98	19.02	19.31	19.37	20
Channel				508200	513402	518598	523800	528996	27
Frequency (MHz)				2541	2567.01	2592.99	2619	2644.98	
90	DFT-s-OFDM QPSK	1	1	25.08	25.25	25.57	25.70	25.61	27
Channel				507204	512904	518598	524298	529998	27
Frequency (MHz)				2536.02	2564.52	2592.99	2621.49	2649.99	
80	DFT-s-OFDM QPSK	1	1	25.19	25.33	25.65	25.76	25.64	27
Channel				506202	512400	518598	524796	531000	27
Frequency (MHz)				2531.01	2562	2592.99	2623.98	2655	
70	DFT-s-OFDM QPSK	1	1	25.26	25.52	25.67	25.86	24.37	27
Channel				505200	511902	518598	525798	531996	27
Frequency (MHz)				2526	2559.51	2592.99	2626.5	2659.98	
60	DFT-s-OFDM QPSK	1	1	25.41	25.54	25.75	25.80	25.63	27
Channel				504204	511404	518598	525798	532998	27
Frequency (MHz)				2521.02	2557.02	2592.99	2626.5	2664.99	
50	DFT-s-OFDM QPSK	1	1	25.34	25.77	25.92	25.85	25.68	27
Channel				503202	510900	518598	526296	534000	27
Frequency (MHz)				2516.01	2554.5	2592.99	2631.48	2670	
40	DFT-s-OFDM QPSK	1	1	25.50	25.74	25.83	25.81	25.56	27
Channel				502200	510402	518598	526800	534996	27
Frequency (MHz)				2511	2552.01	2592.99	2634	2674.98	
30	DFT-s-OFDM QPSK	1	1	25.42	25.78	25.93	25.70	25.48	27
Channel				501204	509904	518598	527298	535998	27
Frequency (MHz)				2506.02	2549.52	2592.99	2636.49	2679.99	
20	DFT-s-OFDM QPSK	1	1	25.41	25.72	25.93	25.63	25.35	27

n48 (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				638000	639834	641666	643500	645332	26
Frequency (MHz)				3570	3597.51	3624.99	3652.5	3679.98	
40	DFT-s-OFDM PI/2 BPSK	1	1	25.14	24.75	24.11	23.69	23.51	26
40		1	53	24.88	24.41	23.29	23.46	23.39	
40		1	104	24.64	23.72	23.30	23.52	23.76	
40		50	1	24.54	24.10	23.18	23.18	22.96	26
40		50	25	24.94	24.45	23.33	23.54	23.41	
40		50	50	24.20	23.62	22.72	22.87	23.03	
40		100	0	24.44	23.95	22.95	23.06	22.95	
40	DFT-s-OFDM QPSK	1	1	25.16	24.75	24.62	24.75	24.72	26
40		1	53	24.89	24.42	23.49	23.46	23.41	
40		1	104	24.63	23.72	23.51	23.50	23.76	
40		50	1	24.07	23.58	22.87	22.87	22.66	26
40		50	25	24.94	24.63	24.54	24.72	24.61	
40		50	50	23.70	23.11	22.22	22.37	22.54	
40		100	0	23.94	23.63	23.66	23.74	23.65	25
40	DFT-s-OFDM 16QAM	1	1	24.01	23.61	23.08	22.59	22.39	24.5
40	DFT-s-OFDM 64QAM	1	1	22.70	22.28	21.65	21.19	21.06	23.5
40	DFT-s-OFDM 256QAM	1	1	20.42	20.10	19.44	18.99	18.88	20.5
40	CP-OFDM QPSK	1	1	23.67	23.24	22.62	22.18	21.99	24
40	CP-OFDM 16QAM	1	1	23.18	22.78	22.21	21.72	21.60	24
40	CP-OFDM 64QAM	1	1	21.33	20.91	20.22	19.83	19.63	22
40	CP-OFDM 256QAM	1	1	18.48	18.07	17.41	16.97	16.82	19
Channel				637334	639500	641666	643832	646000	26
Frequency (MHz)				3560.01	3592.5	3624.99	3657.48	3690	
20	DFT-s-OFDM QPSK	1	1	25.04	24.51	23.53	23.06	22.93	26

n66 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				344000	349000	354000	25
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM PI/2 BPSK	1	1	24.17	24.13	23.84	25
20		1	53	24.18	24.02	23.75	
20		1	104	24.15	23.81	23.73	
20		50	1	23.67	23.55	23.34	25
20		50	25	24.22	24.07	23.86	
20		50	50	23.58	23.43	23.26	
20		100	0	23.67	23.47	23.31	
20	DFT-s-OFDM QPSK	1	1	24.25	24.05	23.85	25
20		1	53	24.16	23.92	23.73	
20		1	104	24.11	23.86	23.74	
20		50	1	23.17	23.06	22.86	25
20		50	25	24.17	24.03	23.88	
20		50	50	23.13	22.95	22.80	
20		100	0	23.18	23.01	23.00	24
20	DFT-s-OFDM 16QAM	1	1	23.10	23.05	22.82	24
20	DFT-s-OFDM 64QAM	1	1	21.56	21.51	21.28	23
20	DFT-s-OFDM 256QAM	1	1	19.24	19.21	19.02	20
20	CP-OFDM QPSK	1	1	22.50	22.44	22.19	24
20	CP-OFDM 16QAM	1	1	22.00	21.93	21.69	23
20	CP-OFDM 64QAM	1	1	20.23	20.16	19.98	21
20	CP-OFDM 256QAM	1	1	17.29	17.21	17.06	18
Channel				343500	349000	354500	25
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	24.23	24.22	23.88	25
Channel				343000	349000	355000	25
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	24.18	24.15	23.90	25
Channel				342500	349000	355500	25
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	24.19	24.14	23.93	25

n71 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				134600	136100	137600	25
Frequency (MHz)				673	680.5	688	
20	DFT-s-OFDM PI/2 BPSK	1	1	23.71	23.77	23.78	25
20		1	53	23.82	23.83	23.80	
20		1	104	23.81	23.73	23.62	
20		50	1	23.30	23.35	23.29	25
20		50	25	23.80	23.82	23.84	
20		50	50	23.40	23.26	23.20	
20		100	0	23.20	23.28	23.18	
20	DFT-s-OFDM QPSK	1	1	23.72	23.80	23.78	25
20		1	53	23.77	23.97	23.81	
20		1	104	23.80	23.77	23.62	
20		50	1	22.83	22.89	22.81	25
20		50	25	23.84	23.92	23.85	
20		50	50	22.85	22.82	22.71	
20		100	0	22.72	22.77	22.71	24
20	DFT-s-OFDM 16QAM	1	1	22.77	22.86	22.83	24
20	DFT-s-OFDM 64QAM	1	1	21.23	21.23	21.23	23
20	DFT-s-OFDM 256QAM	1	1	18.65	18.70	18.71	20
20	CP-OFDM QPSK	1	1	22.17	22.27	22.21	24
20	CP-OFDM 16QAM	1	1	21.69	21.76	21.78	23
20	CP-OFDM 64QAM	1	1	19.86	19.85	19.88	21
20	CP-OFDM 256QAM	1	1	16.63	16.70	16.69	18
Channel				134100	136100	138100	25
Frequency (MHz)				670.5	680.5	690.5	
15	DFT-s-OFDM QPSK	1	1	23.70	23.74	23.82	25
Channel				133600	136100	138600	25
Frequency (MHz)				668	680.5	693	
10	DFT-s-OFDM QPSK	1	1	23.70	23.79	23.71	25
Channel				133100	136100	139100	25
Frequency (MHz)				665.5	680.5	695.5	
5	DFT-s-OFDM QPSK	1	1	23.71	23.83	23.59	25

n77(3450-3550MHz) (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			26
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			24.80			26
100		1	136			24.48			
100		1	271			24.53			
100		135	1			24.62			
100		135	67			24.57			
100	DFT-s-OFDM QPSK	135	136			24.18			26
100		270	0			24.55			
100		1	1			25.16			
100		1	136			24.51			
100		1	271			24.47			
100	DFT-s-OFDM 16QAM	135	1			24.63			25.5
100		135	67			24.58			
100		135	136			24.22			
100		270	0			24.58			
100	DFT-s-OFDM 64QAM	1	1			24.66			25
100	DFT-s-OFDM 256QAM	1	1			24.38			25
100	CP-OFDM QPSK	1	1			22.11			23
100	CP-OFDM 16QAM	1	1			24.72			25.5
100	CP-OFDM 64QAM	1	1			24.78			25.5
100	CP-OFDM 256QAM	1	1			22.93			23.5
100						20.16			21.5
Channel				632668	633000	633334	633666	634000	26
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	24.81	24.77	24.72	24.70	24.65	26
Channel				632000	632668	633334	634000	634666	26
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	24.78	24.80	24.66	24.64	24.61	26
Channel				631334	632334	633334	634332	635332	26
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	24.90	25.10	24.99	24.99	24.77	26
Channel				631000	632168	633334	634500	635666	26
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	25.13	25.00	24.93	24.87	24.60	26
Channel				630668	632000	633334	634666	636000	26
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	25.04	24.89	24.84	24.65	24.50	26

n77(3450-3550MHz) (PC2)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			28
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			26.78			27
100		1	136			26.51			
100		1	271			26.56			
100		135	1			26.14			
100		135	67			26.57			28
100		135	136			25.70			
100		270	0			26.08			
100	DFT-s-OFDM QPSK	1	1			27.16			27
100		1	136			26.48			
100		1	271			26.43			
100		135	1			25.61			
100		135	67			26.58			26
100		135	136			25.23			
100		270	0			25.55			
100	DFT-s-OFDM 16QAM	1	1			25.71			27
100	DFT-s-OFDM 64QAM	1	1			24.21			26
100	DFT-s-OFDM 256QAM	1	1			21.98			23
100	CP-OFDM QPSK	1	1			25.32			26
100	CP-OFDM 16QAM	1	1			24.78			25.5
100	CP-OFDM 64QAM	1	1			22.83			24
100	CP-OFDM 256QAM	1	1			20.11			21
Channel				632668	633000	633334	633666	634000	28
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	26.79	26.78	26.68	26.74	26.64	28
Channel				632000	632668	633334	634000	634666	28
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	26.79	26.80	26.65	26.62	26.70	28
Channel				631334	632334	633334	634332	635332	28
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	26.79	27.09	26.90	26.92	26.77	28
Channel				631000	632168	633334	634500	635666	28
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	27.12	26.99	26.93	26.86	26.61	28
Channel				630668	632000	633334	634666	636000	28
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	27.03	26.90	26.82	26.62	26.48	28

n77(3700-3980MHz) (PC3)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				650000	653000	656000	659000	662000	25
Frequency (MHz)				3750	3795	3840	3885	3930	
100	DFT-s-OFDM PI/2 BPSK	1	1	23.22	24.13	23.63	23.51	23.83	25
100		1	136	24.12	23.59	23.58	23.87	23.78	
100		1	271	23.82	23.56	23.86	23.76	24.13	
100		135	1	24.00	23.87	23.42	23.43	23.90	25
100		135	67	24.06	23.67	23.64	23.90	23.86	
100		135	136	23.85	23.36	23.43	23.82	24.03	
100		270	0	23.86	23.68	23.69	23.86	23.90	
100	DFT-s-OFDM QPSK	1	1	23.15	24.42	23.55	23.49	23.79	25
100		1	136	24.15	23.58	23.51	23.88	23.77	
100		1	271	23.81	23.56	23.87	23.75	24.12	
100		135	1	23.88	24.04	23.43	23.43	23.88	25
100		135	67	23.96	23.63	23.57	23.91	23.84	
100		135	136	23.87	23.40	23.41	23.82	24.02	
100		270	0	23.76	23.86	23.68	23.84	23.66	
100	DFT-s-OFDM 16QAM	1	1	23.01	24.02	23.43	23.37	23.67	25
100	DFT-s-OFDM 64QAM	1	1	22.70	23.71	23.10	23.07	23.37	24.5
100	DFT-s-OFDM 256QAM	1	1	20.43	21.47	20.83	20.83	21.16	22
100	CP-OFDM QPSK	1	1	23.11	24.15	23.52	23.50	23.76	25
100	CP-OFDM 16QAM	1	1	23.10	24.15	23.59	23.49	23.88	24
100	CP-OFDM 64QAM	1	1	21.20	22.28	21.68	21.64	21.94	23
100	CP-OFDM 256QAM	1	1	18.47	19.49	18.89	18.84	19.13	20
Channel				649334	652668	656000	659332	662666	25
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	
80	DFT-s-OFDM QPSK	1	1	23.29	24.16	23.56	23.42	23.91	25
Channel				648668	652334	656000	659666	663332	25
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	
60	DFT-s-OFDM QPSK	1	1	23.27	24.10	23.48	23.51	23.79	25
Channel				648000	652000	656000	660000	664000	25
Frequency (MHz)				3720	3780	3840	3900	3960	
40	DFT-s-OFDM QPSK	1	1	23.67	24.20	23.83	24.26	24.38	25
Channel				647668	651834	656000	660166	664332	25
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	
30	DFT-s-OFDM QPSK	1	1	23.51	24.25	23.65	24.17	24.34	25
Channel				647334	651668	656000	660332	664666	25
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	
20	DFT-s-OFDM QPSK	1	1	23.46	24.22	23.75	24.26	24.29	25

n77(3700-3980MHz) (PC2)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				650000	653000	656000	659000	662000	27
Frequency (MHz)				3750	3795	3840	3885	3930	
100	DFT-s-OFDM PI/2 BPSK	1	1	25.12	26.11	25.51	25.49	25.76	27
100		1	136	26.10	25.54	25.59	25.85	25.73	
100		1	271	25.78	25.52	25.87	25.68	26.09	
100		135	1	25.48	25.35	24.90	24.91	25.34	27
100		135	67	26.03	25.60	25.64	25.89	25.81	
100		135	136	25.33	24.87	24.91	25.28	25.46	
100		270	0	25.32	25.16	25.17	25.32	25.34	
100	DFT-s-OFDM QPSK	1	1	25.13	26.09	25.49	25.51	25.77	27
100		1	136	26.35	25.73	25.69	25.88	25.92	
100		1	271	25.69	25.53	25.84	25.69	26.08	
100		135	1	25.00	24.88	24.43	24.42	24.87	27
100		135	67	25.93	25.62	25.54	25.90	25.78	
100		135	136	24.75	24.39	24.42	24.81	24.99	
100		270	0	24.84	24.69	24.69	24.83	24.74	26
100	DFT-s-OFDM 16QAM	1	1	24.01	25.06	24.45	24.42	24.73	26
100	DFT-s-OFDM 64QAM	1	1	22.61	23.68	23.04	23.03	23.30	24
100	DFT-s-OFDM 256QAM	1	1	20.42	21.51	20.88	20.86	21.15	22
100	CP-OFDM QPSK	1	1	23.63	24.67	24.07	24.01	24.30	25
100	CP-OFDM 16QAM	1	1	23.18	24.23	23.63	23.60	23.83	24
100	CP-OFDM 64QAM	1	1	21.23	22.30	21.69	21.63	21.93	23
100	CP-OFDM 256QAM	1	1	18.42	19.51	18.89	18.86	19.08	20
Channel				649334	652668	656000	659332	662666	27
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	
80	DFT-s-OFDM QPSK	1	1	25.22	26.11	25.51	25.37	25.84	27
Channel				648668	652334	656000	659666	663332	27
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	
60	DFT-s-OFDM QPSK	1	1	25.20	26.07	25.37	25.58	25.75	27
Channel				648000	652000	656000	660000	664000	27
Frequency (MHz)				3720	3780	3840	3900	3960	
40	DFT-s-OFDM QPSK	1	1	25.65	26.13	25.68	26.23	26.32	27
Channel				647668	651834	656000	660166	664332	27
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	
30	DFT-s-OFDM QPSK	1	1	25.49	26.22	25.64	26.12	26.29	27
Channel				647334	651668	656000	660332	664666	27
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	
20	DFT-s-OFDM QPSK	1	1	25.46	26.12	25.71	26.13	26.22	27

n78(3450-3550MHz) (PC3)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			25
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			24.29			25
100		1	136			24.36			
100		1	271			24.32			
100		135	1			24.29			
100		135	67			24.34			
100	DFT-s-OFDM QPSK	135	136			24.17			25
100		270	0			24.31			
100		1	1			24.31			
100		1	136			24.92			
100		1	271			24.36			
100	DFT-s-OFDM 16QAM	135	1			24.30			25
100		135	67			24.35			
100		135	136			24.06			
100		270	0			24.33			
100		270	0			24.33			
100	DFT-s-OFDM 16QAM	1	1			24.20			25
100	DFT-s-OFDM 64QAM	1	1			23.89			24.5
100	DFT-s-OFDM 256QAM	1	1			21.63			22
100	CP-OFDM QPSK	1	1			24.32			25
100	CP-OFDM 16QAM	1	1			24.43			25
100	CP-OFDM 64QAM	1	1			22.46			23
100	CP-OFDM 256QAM	1	1			19.63			20
Channel				633000	633166	633334	633500	633666	25
Frequency (MHz)				3495	3497.49	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	24.31	24.27	24.38	24.30	24.30	25
Channel				632668	633000	633334	633666	634000	25
Frequency (MHz)				3490.02	3450	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	24.37	24.43	24.36	24.37	24.30	25
Channel				632334	632834	633334	633832	634332	25
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	24.41	24.42	24.45	24.34	24.32	25
Channel				632000	632666	633334	634000	634666	25
Frequency (MHz)				3480	3489.99	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	24.44	24.42	24.30	24.25	24.32	25
Channel				631668	632500	633334	634166	635000	25
Frequency (MHz)				3475.02	3487.5	3500.01	3512.49	3525	
50	DFT-s-OFDM QPSK	1	1	24.43	24.40	24.34	24.30	24.34	25
Channel				631334	636672	633334	634334	635332	25
Frequency (MHz)				3470.01	3485.01	3500.01	3515.01	3529.98	
40	DFT-s-OFDM QPSK	1	1	24.74	24.39	24.66	24.77	24.61	25
Channel				631000	632166	633334	634500	635666	25
Frequency (MHz)				3465	3482.49	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	24.66	24.64	24.64	24.60	24.42	25
Channel				630668	632000	633334	634668	636000	25
Frequency (MHz)				3460.02	3480	3500.01	3520.02	3540	
20	DFT-s-OFDM QPSK	1	1	24.58	24.55	24.59	24.53	24.36	25

n78(3450-3550MHz) (PC2)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			27.5
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			26.29			27
100		1	136			26.36			
100		1	271			26.33			
100		135	1			25.76			
100		135	67			26.35			
100	DFT-s-OFDM QPSK	135	136			25.58			27.5
100		270	0			25.79			
100		1	1			26.30			
100		1	136			26.88			
100		1	271			26.34			
100	DFT-s-OFDM 16QAM	135	1			25.27			27
100		135	67			26.30			
100		135	136			25.15			
100		270	0			25.29			
100		270	0			25.29			
100	DFT-s-OFDM 64QAM	1	1			25.23			26.5
100	DFT-s-OFDM 256QAM	1	1			23.87			25.5
100	CP-OFDM QPSK	1	1			21.63			22
100	CP-OFDM 16QAM	1	1			24.82			25.5
100	CP-OFDM 64QAM	1	1			24.39			25
100	CP-OFDM 256QAM	1	1			22.44			23
100	CP-OFDM 256QAM	1	1			19.60			20
Channel				633000	633166	633334	633500	633666	27.5
Frequency (MHz)				3495	3497.49	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	26.27	26.28	26.32	26.28	26.25	27.5
Channel				632668	633000	633334	633666	634000	27.5
Frequency (MHz)				3490.02	3450	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	26.39	26.39	26.31	26.36	26.27	27.5
Channel				632334	632834	633334	633832	634332	27.5
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	26.36	26.42	26.42	26.31	26.35	27.5
Channel				632000	632666	633334	634000	634666	27.5
Frequency (MHz)				3480	3489.99	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	26.41	26.39	26.29	26.23	26.34	27.5
Channel				631668	632500	633334	634166	635000	27.5
Frequency (MHz)				3475.02	3487.5	3500.01	3512.49	3525	
50	DFT-s-OFDM QPSK	1	1	26.40	26.36	26.30	26.31	26.33	27.5
Channel				631334	636672	633334	634334	635332	27.5
Frequency (MHz)				3470.01	3485.01	3500.01	3515.01	3529.98	
40	DFT-s-OFDM QPSK	1	1	26.80	26.36	26.63	26.74	26.59	27.5
Channel				631000	632166	633334	634500	635666	27.5
Frequency (MHz)				3465	3482.49	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	26.72	26.61	26.65	26.58	26.43	27.5
Channel				630668	632000	633334	634668	636000	27.5
Frequency (MHz)				3460.02	3480	3500.01	3520.02	3540	
20	DFT-s-OFDM QPSK	1	1	26.59	26.55	26.57	26.49	26.34	27.5

n78(3700-3800MHz) (PC3)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						650000			25
Frequency (MHz)						3750			
100	DFT-s-OFDM PI/2 BPSK	1	1			22.85			25
100		1	136			23.77			
100		1	271			23.83			
100		135	1			23.64			
100		135	67			23.78			
100	DFT-s-OFDM QPSK	135	136			23.68			25
100		270	0			23.67			
100		1	1			22.86			
100		1	136			23.78			
100		1	271			23.96			
100	DFT-s-OFDM QPSK	135	1			23.66			25
100		135	67			23.79			
100		135	136			23.67			
100		270	0			23.70			
100	DFT-s-OFDM 16QAM	1	1			22.76			24
100	DFT-s-OFDM 64QAM	1	1			22.43			23
100	DFT-s-OFDM 256QAM	1	1			20.17			21
100	CP-OFDM QPSK	1	1			22.88			24
100	CP-OFDM 16QAM	1	1			22.86			24
100	CP-OFDM 64QAM	1	1			20.93			22
100	CP-OFDM 256QAM	1	1			18.20			19
Channel				649668	649834	650000	650166	650332	25
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	
90	DFT-s-OFDM QPSK	1	1	22.83	22.98	23.01	23.08	23.13	25
Channel				649334	649666	650000	650334	650666	25
Frequency (MHz)				3740.01	3744.99	3750	3755.01	3759.99	
80	DFT-s-OFDM QPSK	1	1	22.87	23.07	23.27	23.37	23.57	25
Channel				649000	649500	650000	650500	651000	25
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	
70	DFT-s-OFDM QPSK	1	1	22.90	23.17	23.41	23.62	23.76	25
Channel				648668	649334	650000	650666	651332	25
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	
60	DFT-s-OFDM QPSK	1	1	22.88	23.22	23.47	23.61	23.67	25
Channel				648334	649166	650000	650834	651666	25
Frequency (MHz)				3725.01	3737.49	3750	3762.51	3774.99	
50	DFT-s-OFDM QPSK	1	1	23.00	23.35	23.73	23.70	23.69	25
Channel				648000	649000	650000	651000	652000	25
Frequency (MHz)				3720	3735	3750	3765	3780	
40	DFT-s-OFDM QPSK	1	1	23.35	23.56	23.90	23.94	23.97	25
Channel				647668	648834	650000	651166	652332	25
Frequency (MHz)				3715.02	3732.51	3750	3767.49	3784.98	
30	DFT-s-OFDM QPSK	1	1	23.26	23.61	23.83	23.82	23.83	25
Channel				647334	648666	650000	651334	652666	25
Frequency (MHz)				3710.01	3729.99	3750	3770.01	3789.99	
20	DFT-s-OFDM QPSK	1	1	23.23	23.61	23.69	23.64	23.74	25

n78(3700-3800MHz) (PC2)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						650000			27
Frequency (MHz)						3750			
100	DFT-s-OFDM PI/2 BPSK	1	1			24.85			26
100		1	136			25.75			
100		1	271			26.01			
100		135	1			25.12			
100		135	67			25.75			
100	DFT-s-OFDM QPSK	135	136			25.16			27
100		270	0			25.18			
100		1	1			24.83			
100		1	136			25.71			
100		1	271			26.12			
100	DFT-s-OFDM 16QAM	135	1			24.61			26.5
100		135	67			25.77			
100		135	136			24.68			
100		270	0			24.69			
100		270	0			24.69			
100	DFT-s-OFDM 64QAM	1	1			23.76			24.5
100	DFT-s-OFDM 256QAM	1	1			22.38			23
100	CP-OFDM QPSK	1	1			20.21			21
100	CP-OFDM 16QAM	1	1			23.34			24
100	CP-OFDM 64QAM	1	1			22.94			24
100	CP-OFDM 256QAM	1	1			20.98			22
100	CP-OFDM 256QAM	1	1			18.22			19
Channel				649668	649834	650000	650166	650332	27
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	
90	DFT-s-OFDM QPSK	1	1	24.79	24.99	25.02	25.06	25.09	27
Channel				649334	649666	650000	650334	650666	27
Frequency (MHz)				3740.01	3744.99	3750	3755.01	3759.99	
80	DFT-s-OFDM QPSK	1	1	24.86	25.08	25.17	25.36	25.56	27
Channel				649000	649500	650000	650500	651000	27
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	
70	DFT-s-OFDM QPSK	1	1	24.87	25.18	25.39	25.62	25.74	27
Channel				648668	649334	650000	650666	651332	27
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	
60	DFT-s-OFDM QPSK	1	1	24.87	25.19	25.48	25.61	25.61	27
Channel				648334	649166	650000	650834	651666	27
Frequency (MHz)				3725.01	3737.49	3750	3762.51	3774.99	
50	DFT-s-OFDM QPSK	1	1	24.99	25.38	25.74	25.73	25.69	27
Channel				648000	649000	650000	651000	652000	27
Frequency (MHz)				3720	3735	3750	3765	3780	
40	DFT-s-OFDM QPSK	1	1	25.34	25.74	26.08	26.10	25.82	27
Channel				647668	648834	650000	651166	652332	27
Frequency (MHz)				3715.02	3732.51	3750	3767.49	3784.98	
30	DFT-s-OFDM QPSK	1	1	25.24	25.80	26.03	26.03	26.02	27
Channel				647334	648666	650000	651334	652666	27
Frequency (MHz)				3710.01	3729.99	3750	3770.01	3789.99	
20	DFT-s-OFDM QPSK	1	1	25.13	25.81	25.85	25.93	25.93	27

CA_5B													
Combination: 10MHz+10MHz(50RB+50RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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				
20450	20450	829	20549	838.9	QPSK	1	0	0	0	1	0	22.90	24.00
20525	20476	831.6	20575	841.5	QPSK	1	0	0	0	1	0	23.01	24.00
20600	20501	834.1	20600	844	QPSK	1	0	0	0	1	0	22.93	24.00
20450	20450	829	20549	838.9	16QAM	1	0	0	0	1	0	21.98	23.00
20525	20476	831.6	20575	841.5	16QAM	1	0	0	0	1	0	22.09	23.00
20600	20501	834.1	20600	844	16QAM	1	0	0	0	1	0	22.04	23.00
20450	20450	829	20549	838.9	64QAM	1	0	0	0	1	0	21.14	22.00
20525	20476	831.6	20575	841.5	64QAM	1	0	0	0	1	0	21.11	22.00
20600	20501	834.1	20600	844	64QAM	1	0	0	0	1	0	21.03	22.00
20450	20450	829	20549	838.9	QPSK	50	0	0	0	1	0	21.88	23.00
20525	20476	831.6	20575	841.5	QPSK	50	0	0	0	1	0	21.95	23.00
20600	20501	834.1	20600	844	QPSK	50	0	0	0	1	0	21.94	23.00

CA_41C													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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	2506	39948	2525.8	QPSK	1	0	0	0	1	0	23.11	24.00
40620	40521	2583.1	40719	2602.9	QPSK	1	0	0	0	1	0	23.16	24.00
41490	41292	2660.2	41490	2680	QPSK	1	0	0	0	1	0	23.01	24.00
39750	39750	2506	39948	2525.8	16QAM	1	0	0	0	1	0	22.27	23.00
40620	40521	2583.1	40719	2602.9	16QAM	1	0	0	0	1	0	22.31	23.00
41490	41292	2660.2	41490	2680	16QAM	1	0	0	0	1	0	22.30	23.00
39750	39750	2506	39948	2525.8	64QAM	1	0	0	0	1	0	21.14	22.00
40620	40521	2583.1	40719	2602.9	64QAM	1	0	0	0	1	0	21.13	22.00
41490	41292	2660.2	41490	2680	64QAM	1	0	0	0	1	0	21.24	22.00
39750	39750	2506	39948	2525.8	QPSK	50	0	0	0	1	0	22.17	23.00
40620	40521	2583.1	40719	2602.9	QPSK	50	0	0	0	1	0	22.21	23.00
41490	41292	2660.2	41490	2680	QPSK	50	0	0	0	1	0	22.11	23.00

CA_41C_PC 2													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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	2506	39948	2525.8	QPSK	1	0	0	0	1	0	25.99	27.00
40620	40521	2583.1	40719	2602.9	QPSK	1	0	0	0	1	0	26.02	27.00
41490	41292	2660.2	41490	2680	QPSK	1	0	0	0	1	0	25.93	27.00
39750	39750	2506	39948	2525.8	16QAM	1	0	0	0	1	0	25.15	26.00
40620	40521	2583.1	40719	2602.9	16QAM	1	0	0	0	1	0	25.12	26.00
41490	41292	2660.2	41490	2680	16QAM	1	0	0	0	1	0	25.06	26.00
39750	39750	2506	39948	2525.8	64QAM	1	0	0	0	1	0	24.02	25.00
40620	40521	2583.1	40719	2602.9	64QAM	1	0	0	0	1	0	24.00	25.00
41490	41292	2660.2	41490	2680	64QAM	1	0	0	0	1	0	24.10	25.00
39750	39750	2506	39948	2525.8	QPSK	50	0	0	0	1	0	25.01	26.00
40620	40521	2583.1	40719	2602.9	QPSK	50	0	0	0	1	0	25.00	26.00
41490	41292	2660.2	41490	2680	QPSK	50	0	0	0	1	0	25.07	26.00

CA_48C													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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				
55340	55340	3560	55538	3579.8	QPSK	1	0	0	0	1	0	23.20	24.00
55990	55891	3615.1	56640	3690	QPSK	1	0	0	0	1	0	23.24	24.00
56640	56442	3670.2	56640	3690	QPSK	1	0	0	0	1	0	23.05	24.00
55340	55340	3560	55538	3579.8	16QAM	1	0	0	0	1	0	22.31	23.00
55990	55891	3615.1	56640	3690	16QAM	1	0	0	0	1	0	22.33	23.00
56640	56442	3670.2	56640	3690	16QAM	1	0	0	0	1	0	22.36	23.00
55340	55340	3560	55538	3579.8	64QAM	1	0	0	0	1	0	21.20	22.00
55990	55891	3615.1	56640	3690	64QAM	1	0	0	0	1	0	21.23	22.00
56640	56442	3670.2	56640	3690	64QAM	1	0	0	0	1	0	21.29	22.00
55340	55340	3560	55538	3579.8	QPSK	50	0	0	0	1	0	22.19	23.00
55990	55891	3615.1	56640	3690	QPSK	50	0	0	0	1	0	22.29	23.00
56640	56442	3670.2	56640	3690	QPSK	50	0	0	0	1	0	22.28	23.00

CA_66B													
Combination:10MHz+10MHz(50RB+50RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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				
132072	132022	1715	132121	1724.9	QPSK	1	0	0	0	1	0	23.15	24.00
132322	132373	1750.1	132472	1760	QPSK	1	0	0	0	1	0	23.30	24.00
132572	132523	1765.1	132622	1775	QPSK	1	0	0	0	1	0	23.19	24.00
132072	132022	1715	132121	1724.9	16QAM	1	0	0	0	1	0	22.16	23.00
132322	132373	1750.1	132472	1760	16QAM	1	0	0	0	1	0	22.19	23.00
132572	132523	1765.1	132622	1775	16QAM	1	0	0	0	1	0	22.14	23.00
132072	132022	1715	132121	1724.9	64QAM	1	0	0	0	1	0	21.16	22.00
132322	132373	1750.1	132472	1760	64QAM	1	0	0	0	1	0	21.15	22.00
132572	132523	1765.1	132622	1775	64QAM	1	0	0	0	1	0	21.19	22.00

132072	132022	1715	132121	1724.9	QPSK	25	0	0	0	1	0	22.09	23.00
132322	132373	1750.1	132472	1760	QPSK	25	0	0	0	1	0	22.21	23.00
132572	132523	1765.1	132622	1775	QPSK	25	0	0	0	1	0	22.11	23.00

CA_66C													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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				
132072	132072	1720	132270	1739.8	QPSK	1	0	0	0	1	0	23.20	24.50
132322	132323	1745.1	132521	1764.9	QPSK	1	0	0	0	1	0	23.26	24.50
132572	132374	1750.2	132572	1770	QPSK	1	0	0	0	1	0	23.15	24.50
132072	132072	1720	132270	1739.8	16QAM	1	0	0	0	1	0	22.17	23.50
132322	132323	1745.1	132521	1764.9	16QAM	1	0	0	0	1	0	22.21	23.50
132572	132374	1750.2	132572	1770	16QAM	1	0	0	0	1	0	22.15	23.50
132072	132072	1720	132270	1739.8	64QAM	1	0	0	0	1	0	21.21	22.50
132322	132323	1745.1	132521	1764.9	64QAM	1	0	0	0	1	0	21.25	22.50
132572	132374	1750.2	132572	1770	64QAM	1	0	0	0	1	0	21.22	22.50
132072	132072	1720	132270	1739.8	QPSK	50	0	0	0	1	0	22.16	23.50
132322	132323	1745.1	132521	1764.9	QPSK	50	0	0	0	1	0	22.23	23.50
132572	132374	1750.2	132572	1770	QPSK	50	0	0	0	1	0	22.12	23.50

2CC LTE Uplink												
Configure	CA Configuration	PCC					SCC				Power	
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)	Tune-up limit(dBm)
Inter-band	CA_2A-4A	2	20	18700	1860	QPSK/1#0	4	20	20300	1745	23.38	24.50
	CA_2A-5A	2	20	18700	1860	QPSK/1#0	5	10	20600	844	23.25	24.50
	CA_2A-12A	2	20	18700	1860	QPSK/1#0	12	10	23060	704	23.22	24.50
	CA_2A-13A	2	20	18700	1860	QPSK/1#0	13	10	23230	782	23.29	24.50
	CA_2A-66A	2	20	18700	1860	QPSK/1#0	66	20	132572	1770	23.44	24.50
	CA_4A-5A	4	20	20050	1720	QPSK/1#0	5	10	20600	844	23.50	24.50
	CA_4A-12A	4	20	20050	1720	QPSK/1#0	12	10	23060	704	23.42	24.50
	CA_4A-13A	4	10	20175	1732.5	QPSK/1#0	13	10	23230	782	23.51	24.50
	CA_5A-66A	5	10	20450	829	QPSK/1#0	66	20	132572	1770	23.18	24.50
	CA_12A-66A	12	10	23060	704	QPSK/1#0	66	20	132572	1770	23.20	24.50
	CA_13A-66A	13	10	23230	782	QPSK/1#0	66	20	132572	1770	23.15	24.50

2CC LTE Downlink for Top Antenna												
CA Configuration	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)	
CA_2A-26A	2	20	18700	1860	QPSK/1#0	26	15	26865	831.5	23.42	24.5	
CA_2A-29A	2	20	18700	1860	QPSK/1#0	29	10	9720	723	23.33	24.5	
CA_2A-71A	2	20	18700	1860	QPSK/1#0	71	20	133297	680.5	23.28	24.5	
CA_4A-29A	4	20	20050	1720	QPSK/1#0	29	10	9720	723	23.35	24.5	
CA_4A-48A	4	20	20050	1720	QPSK/1#0	48	20	56640	3690	23.31	24.5	
CA_5A-38A	5	10	20450	829	QPSK/1#0	38	20	38000	2595	23.09	24.5	
CA_5A-41A	5	10	20450	829	QPSK/1#0	41	20	41490	2680	23.15	24.5	
CA_7A-12A	7	20	21100	2535	QPSK/1#0	12	10	23130	711	22.33	23.5	
CA_7A-13A	7	20	21100	2535	QPSK/1#0	13	10	23230	782	23.42	23.5	
CA_7A-26A	7	20	21100	2535	QPSK/1#0	26	15	26865	831.5	23.36	23.5	
CA_7A-29A	7	20	21100	2535	QPSK/1#0	29	10	9720	723	23.34	23.5	
CA_12A-25A	12	10	23060	704	QPSK/1#0	25	20	26590	1905	23.08	24.5	
CA_25A-25A	25	20	26140	1860	QPSK/1#0	25	20	26590	1905	23.52	24.5	
CA_26A-41A	26	15	26865	831.5	QPSK/1#0	41	20	40620	2593	23.15	24.5	
CA_29A-66A	29	10	9720	723	QPSK/1#0	66	20	132422	1755	23.09	24.5	
CA_38C	38	20	37952	2590.2	QPSK/1#0	38	20	38150	2610	23.12	24.5	
CA_41A-41A	41	20	39750	2506	QPSK/1#0	41	20	41490	2680	23.15	24.5	
CA_41A-48A	41	20	40620	2593	QPSK/1#0	48	20	55990	3625	23.2	24.5	
CA_48A-71A	48	20	55340	3560	QPSK/1#0	71	20	133297	680.5	23.33	24.5	
CA_66A-71A	66	20	132422	1755	QPSK/1#0	71	10	133297	680.5	23.28	24.5	
CA_66B	66	10	132373	1750.1	QPSK/1#0	66	10	132472	1760	23.25	24.5	

3CC LTE Downlink for Bottom Antenna												
CA Configuration	PCC					SCC1				SCC2		
	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	DL Channel	DL Fre. (MHz)	Band	BW (MHz)	DL Channel
CA_2A-4A-13A	2	20	19100	1900	QPSK/1#0	4	20	2175	2132.5	13	10	5230
CA_2A-5A-48A	2	20	18700	1860	QPSK/1#0	5	10	20600	844	48	20	56640
CA_2A-2A-71A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	71	20	68768
CA_2A-13A-48A	2	20	18700	1860	QPSK/1#0	13	10	23230	782	48	20	56640
CA_2A-48A-48A	2	20	18700	1860	QPSK/1#0	48	20	55340	3560	48	20	56640
CA_2A-66A-71A	2	20	19100	1900	QPSK/1#0	66	20	66886	2155	71	20	68768
CA_2C-5A	2	20	18902	1880.2	QPSK/1#0	2	20	19100	1900	5	10	20600
CA_4A-4A-12A	4	20	20175	1732.5	QPSK/1#0	4	20	2175	2132.5	12	10	5060
CA_4A-4A-13A	4	20	20175	1732.5	QPSK/1#0	4	20	2175	2132.5	13	10	5230
CA_4A-4A-71A	4	20	20175	1732.5	QPSK/1#0	4	20	2175	2132.5	71	20	68768
CA_4A-48C	4	20	20050	1720	QPSK/1#0	48	20	55891	3615.1	48	20	56089
CA_5A-7A-7A	5	10	20450	829	QPSK/1#0	7	20	20850	2510	7	20	21350
CA_5A-7C	5	10	20450	829	QPSK/1#0	7	20	21152	2540.2	7	20	21350
CA_5A-48A-66A	5	10	20450	829	QPSK/1#0	48	10	56640	3690	66	20	67236
CA_7A-7A-26A	7	20	20850	2510	QPSK/1#0	7	20	21350	2560	26	15	26865
CA_12A-66A-66A	12	10	23060	704	QPSK/1#0	66	20	66886	2155	66	20	67236
CA_12A-66C	12	10	23060	704	QPSK/1#0	66	20	67038	2170.2	66	20	67236
CA_13A-48A-48A	13	10	23230	782	QPSK/1#0	48	20	55340	3560	48	20	56640
CA_13A-48A-66A	13	10	23230	782	QPSK/1#0	48	10	56640	3690	66	20	67236
CA_13A-66A-66A	13	10	23230	782	QPSK/1#0	66	20	66886	2155	66	20	67236
CA_13A-66B	13	10	23230	782	QPSK/1#0	66	10	67187	2185.1	66	10	67286
CA_13A-66C	13	10	23230	782	QPSK/1#0	66	20	67038	2170.2	66	20	67236
CA_41A-41C	41	20	39750	2506	QPSK/1#0	41	20	41292	2660.2	41	20	41490
CA_48A-66B	48	20	55340	3560	QPSK/1#0	66	10	67187	2185.1	66	10	67286
CA_48A-66C	48	20	55340	3560	QPSK/1#0	66	20	67038	2170.2	66	20	67236
CA_48C-71A	48	20	55891	3615.1	QPSK/1#0	48	20	56089	3634.9	71	20	133297

4CC LTE Downlink for Top Antenna												
CA Configuration	PCC					SCC1				SCC2		
	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	DL Channel	DL Fre. (MHz)	Band	BW (MHz)	DL Channel
CA_2A-2A-4A-4A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	4	20	2175
CA_2A-2A-4A-5A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	4	20	2175
CA_2A-2A-5A-66A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	5	10	2450
CA_2A-2A-4A-12A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	4	20	2175
CA_2A-2A-4A-71A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	4	20	2175
CA_2A-2A-12A-66A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	12	10	5060
CA_2A-2A-13A-66A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	13	10	5230
CA_2A-2A-66A-66A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	66	20	66886
CA_2A-2A-66A-71A	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	66	20	66886
CA_2A-4A-4A-5A	2	20	19100	1900	QPSK/1#0	4	20	2175	2132.5	4	20	2175
CA_2A-4A-4A-12A	2	20	19100	1900	QPSK/1#0	4	20	2175	2132.5	12	10	5060
CA_2A-5A-66A-66A	2	20	19100	1900	QPSK/1#0	5	10	2450	874	66	20	66886
CA_2A-12A-66A-66A	2	20	19100	1900	QPSK/1#0	12	10	5060	704	66	20	66886
CA_2A-13A-66A-66A	2	20	19100	1900	QPSK/1#0	13	10	5230	751	66	20	66886
CA_2A-13A-48C	2	20	18700	1860	QPSK/1#0	13	10	23230	782	48	20	56442
CA_2A-48A-48C	2	20	18700	1860	QPSK/1#0	48	20	55340	3560	48	20	55891
CA_2A-48A-66A-66A	2	20	18700	1860	QPSK/1#0	48	20	55340	3560	66	20	66886
CA_2A-48C-66A	2	20	18700	1860	QPSK/1#0	48	20	55891	3615.1	48	20	56089
CA_2A-48D	2	20	18700	1860	QPSK/1#0	48	20	56244	3650.4	48	20	56442
CA_2A-66A-66A-66A	2	20	18700	1860	QPSK/1#0	66	20	132072	1720	66	20	66886
CA_2A-66A-66A-71A	2	20	19100	1900	QPSK/1#0	66	20	66886	2155	66	20	66886
CA_2A-2A-5B	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	5	10	2450
CA_2A-2A-66B	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	66	20	66886
CA_2A-2A-66C	2	20	19100	1900	QPSK/1#0	2	20	1100	1980	66	20	66886
CA_2A-4A-5B	2	20	19100	1900	QPSK/1#0	4	20	2175	2132.5	4	20	2175
CA_2A-5A-66B	2	20	19100	1900	QPSK/1#0	5	10	2450	874	66	20	66886
CA_2A-5A-66C	2	20	19100	1900	QPSK/1#0	5	10	2450	874	66	20	66886
CA_2A-5B-66A	2	20	19100	1900	QPSK/1#0	5	10	2450	874	66	20	66886
CA_2A-5A-48C	2	20	18700	1860	QPSK/1#0	5	10	20600	844	48	20	55891
CA_2A-13A-66B	2	20	19100	1900	QPSK/1#0	13	10	5230	751	66	20	66886
CA_2A-13A-66C	2	20	19100	1900	QPSK/1#0	13	10	5230	751	66	20	66886
CA_2A-66A-66B	2	20	19100	1900	QPSK/1#0	66	20	66886	2155	66	20	66886
CA_2A-66A-66B	2	20	19100	1900	QPSK/1#0	66	20	66886	2155	66	20	66886
CA_2A-66C-71A	2	20	18700	1860	QPSK/1#0	66	20	67038	2170.2	66	20	67236
CA_2A-66D	2	20	18700	1860	QPSK/1#0	66	20	132376	1750.4	66	20	67038
CA_2C-66A-66A	2	20	18902	1880.2	QPSK/1#0	2	20	19100	1900	66	20	66886



CA_4A-4A-5B	4	20	20175	1732.5	QPSK/1#0	4	20	2175	2132.5	5	10	20501	834.1	5	10	20600	844	23.25	24.5
CA_4A-48D	4	20	20050	1720	QPSK/1#0	48	20	56244	3650.4	48	20	56442	3670.2	48	20	56640	3690	23.44	24.5
CA_5A-5A-66A-66A	5	10	20525	836.5	QPSK/1#0	5	10	2450	874	66	20	66886	2155	66	20	66886	2155	23.16	24.5
CA_5A-5A-66B	5	10	20525	836.5	QPSK/1#0	5	10	2450	874	66	20	66886	2155	66	20	66886	2155	23.28	24.5
CA_5A-5A-66C	5	10	20525	836.5	QPSK/1#0	5	10	2450	874	66	20	66886	2155	66	20	66886	2155	23.1	24.5
CA_5A-66A-66B	5	10	20525	836.5	QPSK/1#0	66	20	66886	2155	66	20	66886	2155	66	20	66886	2155	23.2	24.5
CA_5B-66A-66A	5	10	20501	834.1	QPSK/1#0	5	10	20600	844	66	20	66886	2155	66	20	66886	2155	23.17	24.5
CA_5B-66B	5	10	20501	834.1	QPSK/1#0	5	10	20600	844	66	10	67187	2185.1	66	10	67286	2195	23.25	24.5
CA_5B-66C	5	10	20501	834.1	QPSK/1#0	5	10	20600	844	66	20	67038	2170.2	66	20	67236	2190	23.14	24.5
CA_5A-66D	5	10	20525	836.5	QPSK/1#25	66	20	132376	1750.4	66	20	67038	2170.2	66	20	67236	2190	23.29	24.5
CA_5A-48C-66A	5	10	20450	829	QPSK/1#25	48	20	56442	3670.2	48	20	56640	3690	66	20	67236	2190	23.13	24.5
CA_5A-48D	5	10	20450	829	QPSK/1#25	48	20	56244	3650.4	48	20	56442	3670.2	48	20	56640	3690	23.24	24.5
CA_5A-48A-66A-66A	5	10	20450	829	QPSK/1#0	48	20	56640	3690	66	20	66886	2155	66	20	67236	2190	23.12	24.5
CA_12B-66A-66A	12	10	23060	704	QPSK/1#0	66	20	66886	2155	66	20	66886	2155	66	20	66886	2155	23.18	24.5
CA_41A-41D	41	20	40620	2593	QPSK/1#0	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	23.27	24.5
CA_41C-41C	41	20	40620	2593	QPSK/1#0	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	23.28	24.5
CA_41E	41	20	40620	2593	QPSK/1#0	41	20	40620	2593	41	20	40620	2593	41	20	40620	2593	23.29	24.5
CA_48A-48A-66A-66A	48	20	55340	3560	QPSK/1#0	48	20	56640	3690	66	20	66886	2155	66	20	67236	2190	23.35	24.5
CA_48A-48A-66B	48	20	55340	3560	QPSK/1#0	48	20	56640	3690	66	10	67187	2185.1	66	10	67286	2195	23.44	24.5
CA_48A-48A-66C	48	20	55340	3560	QPSK/1#0	48	20	56640	3690	66	20	67038	2170.2	66	20	67236	2190	23.5	24.5
CA_48A-48C-66A	48	20	55340	3560	QPSK/1#0	48	20	55891	3615.1	48	20	56089	3634.9	66	20	67236	2190	23.37	24.5
CA_48A-48D	48	20	55340	3560	QPSK/1#0	48	20	56244	3650.4	48	20	56442	3670.2	48	20	56640	3690	23.33	24.5
CA_48C-48C	48	20	55891	3615.1	QPSK/1#0	48	20	56089	3634.9	48	20	56442	3670.2	48	20	56640	3690	23.32	24.5
CA_48C-66A-66A	48	20	55891	3615.1	QPSK/1#0	48	20	56089	3634.9	66	20	66886	2155	66	20	67236	2190	23.33	24.5
CA_48C-66B	48	20	55891	3615.1	QPSK/1#0	48	20	56089	3634.9	66	10	67187	2185.1	66	10	67286	2195	23.47	24.5
CA_48C-66C	48	20	55891	3615.1	QPSK/1#0	48	20	56089	3634.9	66	20	67038	2170.2	66	20	67236	2190	23.33	24.5
CA_48D-66A	48	20	56244	3650.4	QPSK/1#0	48	20	56442	3670.2	48	20	56640	3690	66	20	67236	2190	23.4	24.5
CA_48E	48	20	55340	3560	QPSK/1#0	48	20	55538	3579.8	48	20	55736	3599.6	48	5	55853	3611.3	23.38	24.5

2CC NR Downlink												
Configure	CA Configuration	PCC					SCC				Power	
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)	Tune-up limit(dBm)
Inter-band	CA_n2(2A)	n2A	20	376000	1880	DFT-S-OFDM QPSK/1#1	n2A	20	380000	1900	24.27	25.00
	CA_n2A-n5A	n2A	20	376000	1880	DFT-S-OFDM QPSK/1#1	n5A	20	167300	836.5	24.26	25.00
	CA_n2A-n66A	n2A	20	376000	1880	DFT-S-OFDM QPSK/1#1	n66A	20	349000	1745	24.3	25.00
	CA_n2A-n77A	n2A	20	376000	1880	DFT-S-OFDM QPSK/1#1	n77A	100	650000	3750	24.15	25.00
	CA_n2A-n78A	n2A	20	376000	1880	DFT-S-OFDM QPSK/1#1	n78A	100	633334	3500.01	23.64	25.00
	CA_n5A-n66A	n5A	20	167300	836.5	DFT-S-OFDM QPSK/1#1	n66A	20	349000	1745	23.8	25.00
	CA_n5A-n77A	n5A	20	167300	836.5	DFT-S-OFDM QPSK/1#1	n77A	100	650000	3750	23.69	25.00
	CA_n5A-n78A	n5A	20	167300	836.5	DFT-S-OFDM QPSK/1#1	n78A	100	633334	3500.01	23.74	25.00
	CA_n5B	n5A	10	175300	876.5	DFT-S-OFDM QPSK/1#1	n5A	10	166300	831.5	2.83	25.00
	CA_n25(2A)	n25A	20	376500	1882.5	DFT-S-OFDM QPSK/1#1	n25A	20	376500	1882.5	24.17	25.00
	n25A_n48A	n25A	20	376500	1882.5	DFT-S-OFDM QPSK/1#1	n48A	40	638000	3570	24.23	25.00
	n25A_n66A	n25A	20	376500	1882.5	DFT-S-OFDM QPSK/1#1	n66A	20	349000	1745	24.16	25.00
	n25A_n71A	n25A	20	376500	1882.5	DFT-S-OFDM QPSK/1#1	n71A	20	136100	680.5	24.27	25.00
	n25A_n77A	n25A	20	376500	1882.5	DFT-S-OFDM QPSK/1#1	n77A	100	650000	3750	24.28	25.00
	n48A_n66A	n48A	40	641666	3624.99	DFT-S-OFDM QPSK/1#1	n66A	20	349000	1745	24.95	26.00
	n48A_n71A	n48A	40	641666	3624.99	DFT-S-OFDM QPSK/1#1	n71A	20	136100	680.5	24.87	26.00
	CA_n66(2A)	n66A	40	346000	1730	DFT-S-OFDM QPSK/1#1	n66A	40	352000	1745	24.04	25.00
	CA_n66B	n66A	20	347500	1737.5	DFT-S-OFDM QPSK/1#1	n66A	15	350920	1656.77	23.98	25.00
	CA_n66A-n71A	n66A	20	349000	1745	DFT-S-OFDM QPSK/1#1	n71A	20	136100	680.5	24.02	25.00
	CA_n66A-n77A	n66A	20	349000	1745	DFT-S-OFDM QPSK/1#1	n77A	100	650000	3750	23.96	25.00
	CA_n66A-n78A	n66A	20	349000	1745	DFT-S-OFDM QPSK/1#1	n78A	100	633334	3500.01	24.02	25.00
	CA_n71(2A)	n71A	20	134600	673	DFT-S-OFDM QPSK/1#1	n71A	20	137600	688	23.68	25.00
	CA_n71B	n71A	20	134600	673	DFT-S-OFDM QPSK/1#1	n71A	20	137600	688	23.85	25.00
	CA_n71A-n77A	n71A	20	136100	680.5	DFT-S-OFDM QPSK/1#1	n77A	100	650000	3750	23.91	25.00

2.4GHz WLAN ANT 9

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
2.4GHz WLAN ANT 9	802.11b 1Mbps	CH 1	2412	15.87	16.50	16.00	98.11
		CH 6	2437	15.31	16.00	16.00	98.25
		CH 11	2462	15.97	16.50	16.00	98.38
	802.11g 6Mbps	CH 1	2412	15.20	16.00	16.00	97.68
		CH 6	2437	14.83	15.50	16.00	97.55
		CH 11	2462	15.59	16.50	16.00	97.55
	802.11n-HT20 MCS0	CH 1	2412	15.04	16.00	16.00	97.53
		CH 6	2437	14.68	15.50	16.00	97.39
		CH 11	2462	15.36	16.00	16.00	97.53
	802.11n-HT40 MCS0	CH 3	2422	15.07	16.00	16.00	93.02
		CH 6	2437	15.49	16.00	16.00	93.02
		CH 9	2452	15.76	16.50	16.00	93.00

5.2GHz WLAN ANT 9

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.2GHz WLAN ANT 9	802.11a 6Mbps	CH 36	5180	15.68	16.50	16.00	98.64
		CH 40	5200	15.52	16.50	16.00	98.64
		CH 48	5240	15.10	16.00	16.00	97.26
	802.11n-HT20 MCS0	CH 36	5180	15.51	16.50	16.00	97.10
		CH 40	5200	15.39	16.00	16.00	98.54
		CH 48	5240	15.02	16.00	16.00	97.10
	802.11n-HT40 MCS0	CH 38	5190	15.80	16.50	16.00	94.29
		CH 46	5230	15.49	16.00	16.00	94.29
		CH 36	5180	15.56	16.50	16.00	97.10
	802.11ac-VHT20 MCS0	CH 44	5220	15.39	16.00	16.00	97.10
		CH 48	5240	15.01	16.00	16.00	97.10
		CH 38	5190	15.80	16.50	16.00	94.29
	802.11ac-VHT40 MCS0	CH 46	5230	15.48	16.00	16.00	94.29
		CH 38	5190	15.80	16.50	16.00	94.29
		CH 42	5210	15.64	16.50	16.00	88.89

5.8GHz WLAN ANT 9

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
5.8GHz WLAN ANT 9	802.11a 6Mbps	CH 149	5745	15.87	16.50	16.00	98.64
		CH 157	5785	16.01	17.00	16.00	97.26
		CH 165	5825	16.38	17.00	16.00	97.30
	802.11n-HT20 MCS0	CH 149	5745	15.68	16.50	16.00	99.03
		CH 157	5785	15.90	16.50	16.00	97.10
		CH 165	5825	16.22	17.00	16.00	97.10
	802.11n-HT40 MCS0	CH 151	5755	16.26	17.00	16.00	94.29
		CH 159	5795	16.23	17.00	16.00	94.29
		CH 149	5745	15.66	16.50	16.00	97.10
	802.11ac-VHT20 MCS0	CH 157	5785	15.88	16.50	16.00	97.10
		CH 165	5825	16.18	17.00	16.00	97.10
		CH 151	5755	16.22	17.00	16.00	94.29
	802.11ac-VHT40 MCS0	CH 159	5795	16.23	17.00	16.00	94.29
		CH 155	5775	16.10	17.00	16.00	88.89

Mode	Channel	Frequency (MHz)	1Mbps			2Mbps			3Mbps		
			Average power (dBm)	Tune-up Limit	Duty Cycle %	Average power (dBm)	Tune-up Limit	Duty Cycle %	Average power (dBm)	Tune-up Limit	Duty Cycle %
BR / EDR	CH 00	2402	6.19	7.00	77.03	3.13	4.00	77.09	2.99	3.50	77.11
	CH 39	2441	6.19	7.00	76.98	2.73	3.50	77.03	2.80	3.50	77.11
	CH 78	2480	7.39	8.00	77.03	4.23	5.00	77.03	4.29	5.00	77.09
Power Setting			8			8			8		

Mode	Channel	Frequency (MHz)	1Mbps			2Mbps		
			Average power (dBm)	Tune-up Limit	Duty Cycle %	Average power (dBm)	Tune-up Limit	Duty Cycle %
LE	CH 00	2402	5.27	6.00	62.88	2.43	3.00	33.28
	CH 19	2440	4.91	5.50	62.88	2.15	3.00	33.28
	CH 39	2480	6.35	7.00	62.96	3.57	4.50	33.33
Power Setting			default			default		



Reduced Power

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)	WCDMA Band IV (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513	
Rx Channel		9662	9800	9938		1537	1638	1738	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99	RMC 12.2Kbps	17.11	17.37	17.28	18.00	17.15	17.18	17.07	18.00
3GPP Rel 5	HSDPA Subtest-1	16.38	16.66	16.68	17.50	16.32	16.36	16.33	17.00
3GPP Rel 5	HSDPA Subtest-2	16.42	16.77	16.73	17.50	16.36	16.42	16.34	17.00
3GPP Rel 5	HSDPA Subtest-3	16.03	16.21	16.20	17.00	15.89	15.94	15.86	16.50
3GPP Rel 5	HSDPA Subtest-4	16.04	16.17	16.21	17.00	15.92	15.96	15.88	16.50
3GPP Rel 8	DC-HSDPA Subtest-1	16.45	16.41	16.46	17.50	16.12	16.25	16.13	17.00
3GPP Rel 8	DC-HSDPA Subtest-2	16.33	16.52	16.48	17.50	16.20	16.24	16.12	17.00
3GPP Rel 8	DC-HSDPA Subtest-3	15.78	15.93	15.99	17.00	15.61	15.72	15.71	16.50
3GPP Rel 8	DC-HSDPA Subtest-4	15.76	15.89	15.95	17.00	15.67	15.71	15.50	16.50
3GPP Rel 6	HSUPA Subtest-1	16.22	16.36	16.37	17.50	16.23	16.35	16.26	17.00
3GPP Rel 6	HSUPA Subtest-2	15.90	15.89	15.97	17.00	15.68	15.91	15.75	17.00
3GPP Rel 6	HSUPA Subtest-3	16.30	16.45	16.46	16.50	16.19	16.42	16.21	17.00
3GPP Rel 6	HSUPA Subtest-4	16.26	16.29	16.44	17.50	16.23	16.22	16.20	17.00
3GPP Rel 6	HSUPA Subtest-5	16.29	16.35	16.48	17.50	16.16	16.39	16.30	17.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	16.45	16.60	16.52	17.50	16.37	16.35	16.24	17.00
Attenuator		Cable Loss			0.8	Cable Loss			0.8
Mode		Max.			17.37	Max.			17.18
Date		2026.1.6				2026.1.6			

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	18.5
20	QPSK	1	0	17.61	17.71	17.55	
20	QPSK	1	49	17.59	17.63	17.56	
20	QPSK	1	99	17.53	17.60	17.57	
20	QPSK	50	0	16.80	16.82	16.76	17.5
20	QPSK	50	24	16.75	16.69	16.67	
20	QPSK	50	50	16.72	16.75	16.68	
20	QPSK	100	0	16.75	16.76	16.65	
20	16QAM	1	0	16.78	16.69	16.52	17.5
20	16QAM	1	49	16.66	16.75	16.70	
20	16QAM	1	99	16.76	16.53	16.80	
20	16QAM	50	0	15.26	15.21	15.25	
20	16QAM	50	24	15.47	15.32	15.31	16.5
20	16QAM	50	50	15.34	15.37	15.39	
20	16QAM	100	0	15.32	15.34	15.30	
20	64QAM	1	0	15.42	15.56	15.51	
20	64QAM	1	49	15.45	15.71	15.39	16.5
20	64QAM	1	99	15.55	15.43	15.39	
20	64QAM	50	0	15.01	14.90	14.90	
20	64QAM	50	24	14.84	14.85	14.92	
20	64QAM	50	50	14.97	14.90	14.95	15.5
20	64QAM	100	0	14.89	14.92	14.91	
Channel				18875	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	17.57	17.67	17.51	18.5
15	QPSK	1	37	17.55	17.59	17.52	
15	QPSK	1	74	17.49	17.56	17.53	
15	QPSK	36	0	16.76	16.78	16.72	
15	QPSK	36	20	16.71	16.65	16.63	17.5
15	QPSK	36	39	16.68	16.71	16.64	
15	QPSK	75	0	16.71	16.72	16.61	
15	16QAM	1	0	16.74	16.65	16.48	
15	16QAM	1	37	16.62	16.71	16.66	17.5
15	16QAM	1	74	16.72	16.49	16.76	
15	16QAM	36	0	15.22	15.17	15.21	
15	16QAM	36	20	15.43	15.28	15.27	
15	16QAM	36	39	15.30	15.33	15.35	16.5
15	16QAM	75	0	15.28	15.30	15.26	
15	64QAM	1	0	15.38	15.52	15.47	
15	64QAM	1	37	15.41	15.67	15.35	
15	64QAM	1	74	15.51	15.39	15.35	15.5
15	64QAM	36	0	14.97	14.86	14.88	
15	64QAM	36	20	14.80	14.81	14.88	
15	64QAM	36	39	14.93	14.86	14.91	
15	64QAM	75	0	14.85	14.88	14.87	Tune-up limit (dBm)
Channel				18650	18900	19150	
Frequency (MHz)				1855	1880	1905	Tune-up limit (dBm)
10	QPSK	1	0	17.54	17.64	17.48	
10	QPSK	1	25	17.52	17.56	17.49	18.5
10	QPSK	1	49	17.46	17.53	17.50	
10	QPSK	25	0	16.73	16.75	16.69	
10	QPSK	25	12	16.68	16.62	16.60	17.5
10	QPSK	25	25	16.65	16.68	16.61	
10	QPSK	50	0	16.68	16.69	16.58	
10	16QAM	1	0	16.71	16.62	16.45	
10	16QAM	1	25	16.59	16.68	16.63	17.5
10	16QAM	1	49	16.69	16.46	16.73	
10	16QAM	25	0	15.19	15.14	15.18	
10	16QAM	25	12	15.40	15.25	15.24	
10	16QAM	25	25	15.27	15.30	15.32	16.5
10	16QAM	50	0	15.25	15.27	15.23	
10	64QAM	1	0	15.35	15.49	15.44	
10	64QAM	1	25	15.38	15.64	15.32	
10	64QAM	1	49	15.48	15.36	15.32	16.5
10	64QAM	25	0	14.94	14.83	14.83	
10	64QAM	25	12	14.77	14.78	14.85	
10	64QAM	25	25	14.90	14.83	14.88	
10	64QAM	50	0	14.82	14.85	14.84	Tune-up limit (dBm)
Channel				18625	18900	19175	
Frequency (MHz)				1852.5	1880	1907.5	Tune-up limit (dBm)
5	QPSK	1	0	17.51	17.61	17.45	
5	QPSK	1	12	17.49	17.53	17.46	18.5
5	QPSK	1	24	17.43	17.50	17.47	
5	QPSK	12	0	16.70	16.72	16.66	
5	QPSK	12	7	16.65	16.59	16.57	17.5
5	QPSK	12	13	16.62	16.65	16.58	
5	QPSK	25	0	16.65	16.66	16.55	
5	16QAM	1	0	16.68	16.59	16.42	
5	16QAM	1	12	16.56	16.65	16.60	17.5
5	16QAM	1	24	16.66	16.43	16.70	
5	16QAM	12	0	15.16	15.11	15.15	
5	16QAM	12	7	15.37	15.22	15.21	
5	16QAM	12	13	15.24	15.27	15.29	16.5
5	16QAM	25	0	15.22	15.24	15.20	
5	64QAM	1	0	15.32	15.46	15.41	
5	64QAM	1	12	15.35	15.61	15.29	
5	64QAM	1	24	15.45	15.33	15.29	15.5
5	64QAM	12	0	14.91	14.80	14.80	
5	64QAM	12	7	14.74	14.75	14.82	
5	64QAM	12	13	14.87	14.80	14.85	
5	64QAM	25	0	14.79	14.82	14.81	Tune-up limit (dBm)
Channel				18615	18900	19185	
Frequency (MHz)				1851.5	1880	1908.5	Tune-up limit (dBm)
3	QPSK	1	0	17.48	17.58	17.42	
3	QPSK	1	8	17.46	17.50	17.43	18.5
3	QPSK	1	14	17.40	17.47	17.44	
3	QPSK	8	0	16.67	16.69	16.63	

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	17.05	17.11	17.08	18
20	QPSK	1	49	16.79	16.80	16.90	
20	QPSK	1	99	16.71	16.73	16.85	
20	QPSK	50	0	16.29	16.33	16.31	
20	QPSK	50	24	16.23	16.26	16.21	17
20	QPSK	50	50	16.20	16.23	16.19	
20	QPSK	100	0	16.17	16.26	16.16	
20	16QAM	1	0	15.90	16.15	16.10	
20	16QAM	1	49	16.15	16.21	16.15	17
20	16QAM	1	99	16.22	16.21	16.13	
20	16QAM	50	0	15.26	15.22	15.36	
20	16QAM	50	24	15.29	15.18	15.31	
20	16QAM	50	50	15.34	15.20	15.30	16
20	16QAM	100	0	15.26	15.25	15.32	
20	64QAM	1	0	15.38	15.32	15.45	
20	64QAM	1	49	15.18	15.20	15.45	
20	64QAM	1	99	15.28	15.29	15.49	16
20	64QAM	50	0	14.42	14.39	14.49	
20	64QAM	50	24	14.41	14.43	14.65	
20	64QAM	50	50	14.45	14.42	14.69	
20	64QAM	100	0	14.43	14.40	14.60	15
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	Tune-up limit (dBm)
15	QPSK	1	0	17.01	17.07	17.04	18
15	QPSK	1	37	16.75	16.76	16.86	
15	QPSK	1	74	16.67	16.69	16.81	
15	QPSK	36	0	16.23	16.26	16.27	
15	QPSK	36	20	16.19	16.22	16.30	17
15	QPSK	36	39	16.16	16.19	16.34	
15	QPSK	75	0	16.13	16.22	16.26	
15	16QAM	1	0	15.86	16.11	16.06	
15	16QAM	1	37	16.11	16.17	16.11	17
15	16QAM	1	74	16.18	16.17	16.09	
15	16QAM	36	0	15.22	15.18	15.32	
15	16QAM	36	20	15.25	15.14	15.27	
15	16QAM	36	39	15.30	15.16	15.26	16
15	16QAM	75	0	15.22	15.21	15.28	
15	64QAM	1	0	15.34	15.28	15.41	
15	64QAM	1	37	15.14	15.16	15.41	
15	64QAM	1	74	15.24	15.25	15.45	15
15	64QAM	36	0	14.38	14.35	14.45	
15	64QAM	36	20	14.37	14.39	14.61	
15	64QAM	36	39	14.41	14.38	14.65	
15	64QAM	75	0	14.39	14.36	14.56	Tune-up limit (dBm)
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	Tune-up limit (dBm)
10	QPSK	1	0	16.95	17.01	16.98	18
10	QPSK	1	25	16.69	16.70	16.80	
10	QPSK	1	49	16.61	16.63	16.75	
10	QPSK	25	0	16.17	16.20	16.21	
10	QPSK	25	12	16.13	16.16	16.24	17
10	QPSK	25	25	16.10	16.13	16.28	
10	QPSK	50	0	16.07	16.16	16.20	
10	16QAM	1	0	15.80	16.05	16.00	
10	16QAM	1	25	16.05	16.11	16.05	17
10	16QAM	1	49	16.12	16.11	16.03	
10	16QAM	25	0	15.16	15.12	15.26	
10	16QAM	25	12	15.19	15.08	15.21	
10	16QAM	25	25	15.24	15.10	15.20	16
10	16QAM	50	0	15.16	15.15	15.22	
10	64QAM	1	0	15.28	15.22	15.35	
10	64QAM	1	25	15.08	15.10	15.35	
10	64QAM	1	49	15.18	15.19	15.39	16
10	64QAM	25	0	14.32	14.29	14.39	
10	64QAM	25	12	14.31	14.33	14.55	
10	64QAM	25	25	14.35	14.32	14.59	
10	64QAM	50	0	14.33	14.30	14.50	15
Channel				19975	20175	20375	
Frequency (MHz)				1712.5	1732.5	1752.5	Tune-up limit (dBm)
5	QPSK	1	0	16.92	16.96	16.95	18
5	QPSK	1	12	16.66	16.67	16.77	
5	QPSK	1	24	16.58	16.60	16.72	
5	QPSK	12	0	16.14	16.17	16.18	
5	QPSK	12	7	16.10	16.13	16.21	17
5	QPSK	12	13	16.07	16.10	16.25	
5	QPSK	25	0	16.04	16.13	16.17	
5	16QAM	1	0	15.77	16.02	15.97	
5	16QAM	1	12	16.02	16.08	16.02	17
5	16QAM	1	24	16.09	16.08	16.00	
5	16QAM	12	0	15.13	15.09	15.23	
5	16QAM	12	7	15.16	15.05	15.18	
5	16QAM	12	13	15.21	15.07	15.17	16
5	16QAM	25	0	15.13	15.12	15.19	
5	64QAM	1	0	15.25	15.19	15.32	
5	64QAM	1	12	15.05	15.07	15.32	
5	64QAM	1	24	15.15	15.16	15.36	16
5	64QAM	12	0	14.29	14.26	14.36	
5	64QAM	12	7	14.28	14.30	14.52	
5	64QAM	12	13	14.32	14.29	14.56	
5	64QAM	25	0	14.30	14.27	14.47	15
Channel				19965	20175	20385	
Frequency (MHz)				1711.5	1732.5	1753.5	Tune-up limit (dBm)
3	QPSK	1	0	16.89	16.95	16.92	18
3	QPSK	1	8	16.63	16.64	16.74	
3	QPSK	1	14	16.55	16.57	16.69	
3	QPSK	8	0	16.11	16.14	16.15	

3	QPSK	8	4	16.62	16.56	16.54	17.5
3	QPSK	8	7	16.59	16.62	16.55	
3	QPSK	15	0	16.62	16.63	16.52	
3	16QAM	1	0	16.65	16.56	16.39	17.5
3	16QAM	1	8	16.53	16.62	16.57	
3	16QAM	1	14	16.63	16.40	16.67	
3	16QAM	8	0	15.13	15.08	15.12	16.5
3	16QAM	8	4	15.34	15.19	15.18	
3	16QAM	8	7	15.21	15.24	15.26	
3	16QAM	15	0	15.19	15.21	15.17	16.5
3	64QAM	1	0	15.29	15.43	15.38	
3	64QAM	1	8	15.32	15.58	15.26	
3	64QAM	1	14	15.42	15.30	15.26	15.5
3	64QAM	8	0	14.88	14.77	14.77	
3	64QAM	8	4	14.71	14.72	14.79	
3	64QAM	8	7	14.84	14.77	14.82	15.5
3	64QAM	15	0	14.76	14.79	14.78	
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	17.44	17.54	17.38	18.5
1.4	QPSK	1	3	17.42	17.46	17.39	
1.4	QPSK	1	5	17.36	17.43	17.40	
1.4	QPSK	3	0	16.63	16.65	16.59	17.5
1.4	QPSK	3	1	16.58	16.52	16.50	
1.4	QPSK	3	3	16.55	16.58	16.51	
1.4	QPSK	6	0	16.58	16.59	16.48	17.5
1.4	16QAM	1	0	16.61	16.52	16.35	
1.4	16QAM	1	3	16.49	16.58	16.53	
1.4	16QAM	1	5	16.59	16.36	16.63	16.5
1.4	16QAM	3	0	15.09	15.04	15.08	
1.4	16QAM	3	1	15.30	15.15	15.14	
1.4	16QAM	3	3	15.17	15.20	15.22	16.5
1.4	16QAM	6	0	15.15	15.17	15.13	
1.4	64QAM	1	0	15.25	15.39	15.34	
1.4	64QAM	1	3	15.28	15.54	15.22	16.5
1.4	64QAM	1	5	15.38	15.26	15.22	
1.4	64QAM	3	0	14.84	14.73	14.73	
1.4	64QAM	3	1	14.67	14.68	14.75	15.5
1.4	64QAM	3	3	14.80	14.73	14.78	
1.4	64QAM	6	0	14.72	14.75	14.74	

3	QPSK	8	4	16.07	16.10	16.18	17
3	QPSK	8	7	16.04	16.07	16.22	
3	QPSK	15	0	16.01	16.10	16.14	
3	16QAM	1	0	15.74	15.99	15.94	17
3	16QAM	1	8	15.99	16.05	15.99	
3	16QAM	1	14	16.06	16.05	15.97	
3	16QAM	8	0	15.10	15.06	15.20	16
3	16QAM	8	4	15.13	15.02	15.15	
3	16QAM	8	7	15.18	15.04	15.14	
3	16QAM	15	0	15.10	15.09	15.16	16
3	64QAM	1	0	15.22	15.16	15.29	
3	64QAM	1	8	15.02	15.04	15.29	
3	64QAM	1	14	15.12	15.13	15.33	15
3	64QAM	8	0	14.26	14.23	14.33	
3	64QAM	8	4	14.25	14.27	14.49	
3	64QAM	8	7	14.29	14.26	14.53	15
3	64QAM	15	0	14.27	14.24	14.44	
Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	16.87	16.93	16.90	18
1.4	QPSK	1	3	16.61	16.62	16.72	
1.4	QPSK	1	5	16.53	16.55	16.67	
1.4	QPSK	3	0	16.09	16.12	16.13	17
1.4	QPSK	3	1	16.05	16.08	16.16	
1.4	QPSK	3	3	16.02	16.05	16.20	
1.4	QPSK	6	0	15.99	16.08	16.12	17
1.4	16QAM	1	0	15.72	15.97	15.92	
1.4	16QAM	1	3	15.97	16.03	15.97	
1.4	16QAM	1	5	16.04	16.03	15.95	16
1.4	16QAM	3	0	15.08	15.04	15.18	
1.4	16QAM	3	1	15.11	15.00	15.13	
1.4	16QAM	3	3	15.16	15.02	15.12	16
1.4	16QAM	6	0	15.08	15.07	15.14	
1.4	64QAM	1	0	15.20	15.14	15.27	
1.4	64QAM	1	3	15.00	15.02	15.27	16
1.4	64QAM	1	5	15.10	15.11	15.31	
1.4	64QAM	3	0	14.24	14.21	14.31	
1.4	64QAM	3	1	14.23	14.25	14.47	15
1.4	64QAM	3	3	14.27	14.24	14.51	
1.4	64QAM	6	0	14.25	14.22	14.42	

Band 7 (2600MHz Band) (dBm) Part 27								
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)	
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	18.43	18.52	18.46	19.5	
20	QPSK	1	49	18.31	18.38	18.43		
20	QPSK	1	99	18.42	18.43	18.44		
20	QPSK	50	0	17.18	17.20	17.15	18.5	
20	QPSK	50	24	17.14	17.19	17.18		
20	QPSK	50	50	17.09	17.16	17.18		
20	QPSK	100	0	17.12	17.14	17.09	18.5	
20	16QAM	1	0	17.08	17.02	17.07		
20	16QAM	1	49	17.15	17.14	17.06		
20	16QAM	1	99	17.16	17.21	17.17	17.5	
20	16QAM	50	0	16.06	16.21	16.27		
20	16QAM	50	24	16.10	16.15	16.07		
20	16QAM	50	50	16.09	16.20	16.05	17.5	
20	16QAM	100	0	16.08	16.13	16.18		
20	64QAM	1	0	16.11	16.15	16.19		
20	64QAM	1	49	16.15	16.21	15.96	17.5	
20	64QAM	1	99	16.10	15.97	15.87		
20	64QAM	50	0	15.69	15.73	15.77		
20	64QAM	50	24	15.69	15.82	15.61	16.5	
20	64QAM	50	50	15.66	15.81	15.75		
20	64QAM	100	0	15.74	15.73	15.63		
Channel				20925	21100	21375		
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	18.36	18.47	18.41	19.5	
15	QPSK	1	37	18.26	18.33	18.38		
15	QPSK	1	74	18.37	18.38	18.39		
15	QPSK	36	0	17.13	17.15	17.10	18.5	
15	QPSK	36	20	17.09	17.14	17.13		
15	QPSK	36	39	17.04	17.11	17.13		
15	QPSK	75	0	17.07	17.09	17.04	18.5	
15	16QAM	1	0	17.03	16.97	17.02		
15	16QAM	1	37	17.10	17.09	17.01		
15	16QAM	1	74	17.11	17.16	17.12	17.5	
15	16QAM	36	0	16.01	16.16	16.22		
15	16QAM	36	20	16.05	16.10	16.02		
15	16QAM	36	39	16.04	16.15	16.00	17.5	
15	16QAM	75	0	16.03	16.08	16.13		
15	64QAM	1	0	16.06	16.10	16.14		
15	64QAM	1	37	16.10	16.16	15.91	17.5	
15	64QAM	1	74	16.05	15.92	15.82		
15	64QAM	36	0	15.64	15.68	15.72		
15	64QAM	36	20	15.64	15.77	15.56	16.5	
15	64QAM	36	39	15.61	15.76	15.70		
15	64QAM	75	0	15.69	15.68	15.58		
Channel				20800	21100	21400		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	18.32	18.41	18.35	19.5	
10	QPSK	1	25	18.20	18.27	18.32		
10	QPSK	1	49	18.31	18.32	18.33		
10	QPSK	25	0	17.07	17.09	17.04	18.5	
10	QPSK	25	12	17.03	17.08	17.07		
10	QPSK	25	25	16.98	17.05	17.07		
10	QPSK	50	0	17.01	17.03	16.98	18.5	
10	16QAM	1	0	16.97	17.01	16.96		
10	16QAM	1	25	17.04	17.03	16.95		
10	16QAM	1	49	17.05	17.10	17.06	17.5	
10	16QAM	25	0	15.95	16.10	16.16		
10	16QAM	25	12	15.99	16.04	15.96		
10	16QAM	25	25	15.98	16.09	15.94	17.5	
10	16QAM	50	0	15.97	16.02	16.07		
10	64QAM	1	0	16.00	16.04	16.08		
10	64QAM	1	25	16.04	16.10	15.85	17.5	
10	64QAM	1	49	15.99	15.86	15.76		
10	64QAM	25	0	15.58	15.62	15.66		
10	64QAM	25	12	15.58	15.71	15.50	16.5	
10	64QAM	25	25	15.55	15.70	15.64		
10	64QAM	50	0	15.63	15.62	15.52		
Channel				20775	21100	21425		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	18.29	18.36	18.32	19.5	
5	QPSK	1	12	18.17	18.24	18.29		
5	QPSK	1	24	18.28	18.29	18.30		
5	QPSK	12	0	17.04	17.06	17.01	18.5	
5	QPSK	12	7	17.00	17.05	17.04		
5	QPSK	12	13	16.95	17.02	17.04		
5	QPSK	25	0	16.98	17.00	16.95	18.5	
5	16QAM	1	0	16.94	16.88	16.93		
5	16QAM	1	12	17.01	17.00	16.92		
5	16QAM	1	24	17.02	17.07	17.03	17.5	
5	16QAM	12	0	15.92	16.07	16.13		
5	16QAM	12	7	15.96	16.01	15.93		
5	16QAM	12	13	15.95	16.06	15.91	17.5	
5	16QAM	25	0	15.94	15.99	16.04		
5	64QAM	1	0	15.97	16.01	16.05		
5	64QAM	1	12	16.01	16.07	15.82	17.5	
5	64QAM	1	24	15.96	15.83	15.73		
5	64QAM	12	0	15.55	15.59	15.63		
5	64QAM	12	7	15.55	15.68	15.47	16.5	
5	64QAM	12	13	15.52	15.67	15.61		
5	64QAM	25	0	15.60	15.59	15.49		

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	17.75	17.80	17.72	18.5
20	QPSK	1	49	17.66	17.69	17.70	
20	QPSK	1	99	17.56	17.71	17.73	
20	QPSK	50	0	16.82	16.86	16.81	17.5
20	QPSK	50	24	16.79	16.80	16.73	
20	QPSK	50	50	16.75	16.71	16.65	
20	QPSK	100	0	16.72	16.82	16.80	17.5
20	16QAM	1	0	17.07	17.04	16.91	
20	16QAM	1	49	16.82	16.89	16.89	
20	16QAM	1	99	16.87	16.82	16.93	17.5
20	16QAM	50	0	15.55	15.57	15.68	
20	16QAM	50	24	15.53	15.58	15.55	
20	16QAM	50	50	15.65	15.62	15.64	16.5
20	16QAM	100	0	15.69	15.63	15.60	
20	64QAM	1	0	15.69	15.64	15.54	
20	64QAM	1	49	15.75	15.70	15.68	16.5
20	64QAM	1	99	15.81	15.83	15.77	
20	64QAM	50	0	15.03	15.23	15.07	
20	64QAM	50	24	15.10	15.16	15.18	15.5
20	64QAM	50	50	15.05	15.12	15.06	
20	64QAM	100	0	15.09	15.07	15.10	
Channel				26115	26365	26615	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1882.5	1907.5	
15	QPSK	1	0	17.64	17.77	17.69	18.5
15	QPSK	1	37	17.63	17.66	17.67	
15	QPSK	1	74	17.53	17.68	17.70	
15	QPSK	36	0	16.79	16.83	16.78	17.5
15	QPSK	36	20	16.76	16.77	16.70	
15	QPSK	36	39	16.72	16.81	16.78	
15	QPSK	75	0	16.69	16.79	16.77	17.5
15	16QAM	1	0	17.04	17.01	16.88	
15	16QAM	1	37	16.79	16.86	16.86	
15	16QAM	1	74	16.84	16.79	16.90	16.5
15	16QAM	36	0	15.52	15.54	15.65	
15	16QAM	36	20	15.50	15.55	15.52	
15	16QAM	36	39	15.62	15.59	15.61	16.5
15	16QAM	75	0	15.66	15.60	15.57	
15	64QAM	1	0	15.66	15.61	15.51	
15	64QAM	1	37	15.72	15.67	15.65	16.5
15	64QAM	1	74	15.78	15.80	15.74	
15	64QAM	36	0	15.00	15.20	15.04	
15	64QAM	36	20	15.07	15.13	15.15	15.5
15	64QAM	36	39	15.02	15.09	15.03	
15	64QAM	75	0	15.06	15.04	15.07	
Channel				26090	26365	26640	Tune-up limit (dBm)
Frequency (MHz)				1855	1882.5	1910	
10	QPSK	1	0	17.60	17.73	17.65	18.5
10	QPSK	1	25	17.59	17.62	17.63	
10	QPSK	1	49	17.49	17.64	17.66	
10	QPSK	25	0	16.75	16.79	16.74	17.5
10	QPSK	25	12	16.72	16.73	16.66	
10	QPSK	25	25	16.68	16.77	16.74	
10	QPSK	50	0	16.65	16.75	16.73	17.5
10	16QAM	1	0	17.00	16.97	16.84	
10	16QAM	1	25	16.75	16.82	16.82	16.5
10	16QAM	1	49	16.80	16.75	16.86	
10	16QAM	25	0	15.48	15.50	15.61	
10	16QAM	25	12	15.46	15.51	15.48	16.5
10	16QAM	25	25	15.58	15.55	15.57	
10	16QAM	50	0	15.62	15.56	15.53	
10	64QAM	1	0	15.62	15.57	15.47	16.5
10	64QAM	1	25	15.68	15.63	15.61	
10	64QAM	1	49	15.74	15.76	15.70	
10	64QAM	25	0	14.96	15.16	15.00	15.5
10	64QAM	25	12	15.03	15.09	15.11	
10	64QAM	25	25	14.98	15.05	14.99	
10	64QAM	50	0	15.02	15.00	15.03	
Channel				26065	26365	26665	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1882.5	1912.5	
5	QPSK	1	0	17.57	17.70	17.62	18.5
5	QPSK	1	12	17.56	17.59	17.60	
5	QPSK	1	24	17.46	17.61	17.63	
5	QPSK	12	0	16.72	16.76	16.71	17.5
5	QPSK	12	7	16.69	16.70	16.63	
5	QPSK	12	13	16.65	16.74	16.71	
5	QPSK	25	0	16.62	16.72	16.70	17.5
5	16QAM	1	0	16.97	16.94	16.81	
5	16QAM	1	12	16.72	16.79	16.79	
5	16QAM	1	24	16.77	16.72	16.83	16.5
5	16QAM	12	0	15.45	15.47	15.58	
5	16QAM	12	7	15.43	15.48	15.45	
5	16QAM	12	13	15.55	15.52	15.54	16.5
5	16QAM	25	0	15.59	15.53	15.50	
5	64QAM	1	0	15.59	15.54	15.44	
5	64QAM	1	12	15.65	15.60	15.58	16.5
5	64QAM	1	24	15.71	15.73	15.67	
5	64QAM	12	0	14.93	15.13	14.97	
5	64QAM	12	7	15.00	15.06	15.08	15.5
5	64QAM	12	13	14.95	15.02	14.96	
5	64QAM	25	0	14.99	14.97	15.00	
Channel				26055	26365	26675	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1882.5	1913.5	
3	QPSK	1	0	17.53	17.66	17.58	18.5
3	QPSK	1	8	17.52	17.56	17.56	
3	QPSK	1	14	17.42	17.57	17.59	
3	QPSK	8	0	16.68	16.72	16.67	

3	QPSK	8	4	16.65	16.66	16.59	17.5
3	QPSK	8	7	16.61	16.70	16.67	
3	QPSK	15	0	16.58	16.68	16.66	
3	16QAM	1	0	16.93	16.90	16.77	17.5
3	16QAM	1	8	16.68	16.75	16.75	
3	16QAM	1	14	16.73	16.68	16.79	
3	16QAM	8	0	15.41	15.43	15.54	16.5
3	16QAM	8	4	15.39	15.44	15.41	
3	16QAM	8	7	15.51	15.48	15.50	
3	16QAM	15	0	15.55	15.49	15.46	16.5
3	64QAM	1	0	15.55	15.50	15.40	
3	64QAM	1	8	15.61	15.56	15.54	
3	64QAM	1	14	15.67	15.69	15.63	15.5
3	64QAM	8	0	14.89	15.09	14.93	
3	64QAM	8	4	14.96	15.02	15.04	
3	64QAM	8	7	14.91	14.98	14.92	15.5
3	64QAM	15	0	14.95	14.93	14.96	
Channel				26047	26365	26683	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1882.5	1914.3	
1.4	QPSK	1	0	17.48	17.61	17.53	18.5
1.4	QPSK	1	3	17.47	17.50	17.51	
1.4	QPSK	1	5	17.37	17.52	17.54	
1.4	QPSK	3	0	16.63	16.67	16.62	
1.4	QPSK	3	1	16.60	16.61	16.54	
1.4	QPSK	3	3	16.56	16.65	16.62	
1.4	QPSK	6	0	16.53	16.63	16.61	17.5
1.4	16QAM	1	0	16.88	16.85	16.72	16.5
1.4	16QAM	1	3	16.63	16.70	16.70	
1.4	16QAM	1	5	16.68	16.63	16.74	
1.4	16QAM	3	0	15.36	15.38	15.49	
1.4	16QAM	3	1	15.34	15.39	15.36	
1.4	16QAM	3	3	15.46	15.43	15.45	
1.4	16QAM	6	0	15.50	15.44	15.41	15.5
1.4	64QAM	1	0	15.50	15.45	15.35	16.5
1.4	64QAM	1	3	15.56	15.51	15.49	
1.4	64QAM	1	5	15.62	15.64	15.58	
1.4	64QAM	3	0	14.84	15.04	14.88	
1.4	64QAM	3	1	14.91	14.97	14.99	
1.4	64QAM	3	3	14.86	14.93	14.87	
1.4	64QAM	6	0	14.90	14.88	14.91	15.5

Band 38(only on channel required) (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				37860	38000	38150	24.5
Frequency (MHz)				2560	2595	2610	
20	QPSK	1	0	23.32	23.35	23.30	23.5
20	QPSK	1	49	23.24	23.27	23.28	
20	QPSK	1	99	23.05	23.20	23.22	
20	QPSK	50	0	22.41	22.44	22.38	
20	QPSK	50	24	22.33	22.24	22.31	23.5
20	QPSK	50	50	22.33	22.28	22.25	
20	QPSK	100	0	22.27	22.33	22.30	
20	16QAM	1	0	22.51	22.48	22.35	
20	16QAM	1	49	22.26	22.33	22.33	22.5
20	16QAM	1	99	22.31	22.28	22.37	
20	16QAM	50	0	21.29	21.31	21.42	
20	16QAM	50	24	21.27	21.32	21.29	
20	16QAM	50	50	21.39	21.36	21.38	22.5
20	16QAM	100	0	21.43	21.37	21.34	
20	64QAM	1	0	21.43	21.38	21.28	
20	64QAM	1	49	21.49	21.44	21.42	
20	64QAM	1	99	21.55	21.57	21.51	21.5
20	64QAM	50	0	20.79	20.99	20.83	
20	64QAM	50	24	20.86	20.92	20.94	
20	64QAM	50	50	20.81	20.88	20.82	
20	64QAM	100	0	20.85	20.83	20.86	24.5
Channel				37825	38000	38175	
Frequency (MHz)				2577.5	2595	2612.5	23.5
15	QPSK	1	0	23.28	23.31	23.26	
15	QPSK	1	37	23.20	23.23	23.24	23.5
15	QPSK	1	74	23.01	23.16	23.18	
15	QPSK	36	0	22.37	22.35	22.32	
15	QPSK	36	20	22.29	22.20	22.27	
15	QPSK	36	39	22.29	22.24	22.21	23.5
15	QPSK	75	0	22.23	22.22	22.28	
15	16QAM	1	0	22.47	22.44	22.31	
15	16QAM	1	37	22.22	22.29	22.29	
15	16QAM	1	74	22.27	22.22	22.33	22.5
15	16QAM	36	0	21.25	21.27	21.38	
15	16QAM	36	20	21.23	21.28	21.25	
15	16QAM	36	39	21.35	21.32	21.34	
15	16QAM	75	0	21.39	21.33	21.30	22.5
15	64QAM	1	0	21.39	21.34	21.34	
15	64QAM	1	37	21.45	21.40	21.38	
15	64QAM	1	74	21.51	21.53	21.47	
15	64QAM	36	0	20.75	20.95	20.79	21.5
15	64QAM	36	20	20.82	20.88	20.90	
15	64QAM	36	39	20.77	20.84	20.78	
15	64QAM	75	0	20.81	20.79	20.82	
Channel				37800	38000	38200	24.5
Frequency (MHz)				2575	2595	2615	
10	QPSK	1	0	23.23	23.26	23.21	23.5
10	QPSK	1	25	23.15	23.18	23.19	
10	QPSK	1	49	22.96	23.11	23.13	
10	QPSK	25	0	22.32	22.30	22.27	
10	QPSK	25	12	22.24	22.15	22.22	23.5
10	QPSK	25	25	22.24	22.19	22.16	
10	QPSK	50	0	22.18	22.17	22.23	
10	16QAM	1	0	22.42	22.39	22.26	
10	16QAM	1	25	22.17	22.24	22.24	22.5
10	16QAM	1	49	22.22	22.17	22.28	
10	16QAM	25	0	21.20	21.22	21.33	
10	16QAM	25	12	21.18	21.23	21.20	
10	16QAM	25	25	21.30	21.27	21.29	22.5
10	16QAM	50	0	21.34	21.28	21.25	
10	64QAM	1	0	21.34	21.29	21.19	
10	64QAM	1	25	21.40	21.35	21.33	
10	64QAM	1	49	21.46	21.48	21.42	21.5
10	64QAM	25	0	20.70	20.90	20.74	
10	64QAM	25	12	20.77	20.83	20.85	
10	64QAM	25	25	20.72	20.79	20.73	
10	64QAM	50	0	20.76	20.74	20.77	24.5
Channel				37775	38000	38225	
Frequency (MHz)				2572.5	2595	2617.5	23.5
5	QPSK	1	0	23.19	23.22	23.17	
5	QPSK	1	12	23.11	23.14	23.15	23.5
5	QPSK	1	24	22.92	23.07	23.09	
5	QPSK	12	0	22.28	22.26	22.23	
5	QPSK	12	7	22.20	22.11	22.18	23.5
5	QPSK	12	13	22.20	22.15	22.12	
5	QPSK	25	0	22.14	22.13	22.19	
5	16QAM	1	0	22.38	22.35	22.22	
5	16QAM	1	12	22.13	22.20	22.20	22.5
5	16QAM	1	24	22.18	22.13	22.24	
5	16QAM	12	0	21.16	21.18	21.29	
5	16QAM	12	7	21.14	21.19	21.16	
5	16QAM	12	13	21.26	21.23	21.25	22.5
5	16QAM	25	0	21.30	21.24	21.21	
5	64QAM	1	0	21.30	21.25	21.15	
5	64QAM	1	12	21.36	21.31	21.29	
5	64QAM	1	24	21.42	21.41	21.38	21.5
5	64QAM	12	0	20.68	20.86	20.70	
5	64QAM	12	7	20.73	20.79	20.81	
5	64QAM	12	13	20.68	20.75	20.69	
5	64QAM	25	0	20.72	20.70	20.73	24.5
Channel				37750	38000	38250	

Band 41 (2496~2690MHz) (dBm)_HPUE										
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				36750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	22.80	22.75	22.78	22.63	22.64	24	23
20	QPSK	1	49	22.46	22.47	22.38	22.39	22.41		
20	QPSK	1	99	22.38	22.39	22.26	22.31	22.33		
20	QPSK	50	0	21.61	21.69	21.71	21.70	21.69		
20	QPSK	50	24	21.65	21.63	21.64	21.61	21.51	23	23
20	QPSK	50	50	21.69	21.64	21.58	21.48	21.38		
20	QPSK	100	0	21.63	21.60	21.66	21.58	21.48		
20	16QAM	1	0	21.90	21.84	21.78	21.79	21.69		
20	16QAM	1	49	21.68	21.78	21.71	21.74	21.64	22	22
20	16QAM	1	99	21.60	21.83	21.69	21.71	21.61		
20	16QAM	50	0	20.85	20.71	20.65	20.56	20.46		
20	16QAM	50	24	20.68	20.74	20.62	20.59	20.49		
20	16QAM	50	50	20.56	20.59	20.51	20.55	20.45	22	22
20	16QAM	100	0	20.68	20.74	20.68	20.69	20.59		
20	64QAM	1	0	20.86	20.77	20.67	20.71	20.61		
20	64QAM	1	49	20.50	20.68	20.59	20.61	20.51		
20	64QAM	1	99	20.63	20.72	20.63	20.66	20.56	21	21
20	64QAM	50	0	20.39	20.26	20.19	20.03	19.93		
20	64QAM	50	24	20.30	20.29	20.17	20.21	20.11		
20	64QAM	50	50	20.23	20.24	20.13	20.15	20.05		
20	64QAM	100	0	20.36	20.40	20.31	20.30	20.20		
Channel				36725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	22.75	22.70	22.78	22.62	22.59	24	24
15	QPSK	1	37	22.41	22.42	22.33	22.34	22.36		
15	QPSK	1	74	22.33	22.34	22.21	22.26	22.28		
15	QPSK	36	0	21.56	21.64	21.66	21.65	21.64		
15	QPSK	36	20	21.60	21.58	21.59	21.56	21.46	23	23
15	QPSK	36	39	21.64	21.59	21.53	21.43	21.33		
15	QPSK	75	0	21.58	21.59	21.65	21.53	21.43		
15	16QAM	1	0	21.85	21.79	21.73	21.74	21.64		
15	16QAM	1	37	21.63	21.73	21.66	21.69	21.59	23	23
15	16QAM	1	74	21.65	21.76	21.64	21.66	21.56		
15	16QAM	36	0	20.80	20.66	20.60	20.51	20.41		
15	16QAM	36	20	20.83	20.69	20.57	20.54	20.44		
15	16QAM	36	39	20.51	20.54	20.46	20.50	20.40	22	22
15	16QAM	75	0	20.63	20.69	20.63	20.64	20.54		
15	64QAM	1	0	20.81	20.72	20.62	20.66	20.56		
15	64QAM	1	37	20.45	20.63	20.54	20.56	20.46		
15	64QAM	1	74	20.58	20.67	20.58	20.61	20.51	22	22
15	64QAM	36	0	20.34	20.21	20.14	19.98	19.88		
15	64QAM	36	20	20.25	20.24	20.12	20.16	20.06		
15	64QAM	36	39	20.18	20.19	20.06	20.09	20.00		
15	64QAM	75	0	20.31	20.35	20.26	20.25	20.15	21	21
Channel				36750	40185	40620	41068	41490		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	22.72	22.67	22.75	22.59	22.56		
10	QPSK	1	26	22.38	22.39	22.30	22.31	22.33		
10	QPSK	1	49	22.30	22.31	22.18	22.23	22.25		
10	QPSK	25	0	21.53	21.61	21.63	21.62	21.61		
10	QPSK	25	12	21.57	21.55	21.56	21.53	21.43	23	23
10	QPSK	25	25	21.61	21.56	21.50	21.40	21.30		
10	QPSK	50	0	21.55	21.56	21.62	21.50	21.40		
10	16QAM	1	0	21.82	21.75	21.70	21.71	21.61		
10	16QAM	1	26	21.60	21.70	21.63	21.68	21.56	23	23
10	16QAM	1	49	21.52	21.75	21.61	21.63	21.53		
10	16QAM	25	0	20.77	20.63	20.57	20.48	20.38		
10	16QAM	25	12	20.80	20.66	20.54	20.51	20.41		
10	16QAM	25	25	20.48	20.51	20.43	20.47	20.37	22	22
10	16QAM	50	0	20.60	20.66	20.60	20.61	20.51		
10	64QAM	1	0	20.78	20.69	20.59	20.63	20.53		
10	64QAM	1	25	20.42	20.60	20.51	20.53	20.43		
10	64QAM	1	49	20.55	20.64	20.55	20.58	20.48	22	22
10	64QAM	25	0	20.31	20.16	20.16	19.85	19.85		
10	64QAM	25	12	20.22	20.21	20.09	20.13	20.03		
10	64QAM	25	25	20.15	20.16	20.05	20.07	19.97		
10	64QAM	50	0	20.28	20.32	20.23	20.22	20.12	21	21
Channel				36675	40148	40620	41063	41465		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	22.68	22.63	22.71	22.55	22.52		
5	QPSK	1	12	22.34	22.35	22.26	22.27	22.29		
5	QPSK	1	24	22.28	22.27	22.14	22.18	22.21		
5	QPSK	12	0	21.42	21.57	21.59	21.58	21.57		
5	QPSK	12	7	21.53	21.51	21.52	21.49	21.39	23	23
5	QPSK	12	13	21.57	21.52	21.46	21.36	21.26		
5	QPSK	25	0	21.51	21.52	21.58	21.46	21.36		
5	16QAM	1	0	21.78	21.72	21.66	21.67	21.57		
5	16QAM	1	12	21.56	21.66	21.59	21.62	21.52	23	23
5	16QAM	1	24	21.48	21.71	21.57	21.59	21.49		
5	16QAM	12	7	20.73	20.59	20.53	20.44	20.34		
5	16QAM	12	7	20.56	20.62	20.50	20.47	20.37		
5	16QAM	12	13	20.44	20.47	20.39	20.43	20.33	22	22
5	16QAM	25	0	20.56	20.62	20.56	20.57	20.47		
5	64QAM	1	0	20.74	20.65	20.55	20.59	20.49		
5	64QAM	1	12	20.38	20.56	20.47	20.49	20.39		
5	64QAM	1	24	20.51	20.60	20.51	20.52	20.44	22	22
5	64QAM	12	0	20.27	20.14	20.07	19.91	19.81		
5	64QAM	12	7	20.18	20.17	20.05	20.09	19.99		
5	64QAM	12	13	20.11	20.12	20.01	20.03	19.93		
5	64QAM	12	13	20.25	20.26	20.15	20.16	20.08	21	21

Band 41 (2496~2690MHz) (dBm)										
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Low Channel	Middle Channel	Middle High Channel	High Channel	Tune-up limit (dBm)	
Channel				39790	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	19.89	19.84	19.92	19.76	19.73	21	
20	QPSK	1	49	19.55	19.56	19.47	19.48	19.50		
20	QPSK	1	99	19.47	19.48	19.35	19.40	19.42		
20	QPSK	50	0	18.70	18.78	18.80	18.79	18.78		
20	QPSK	50	24	18.74	18.72	18.73	18.70	18.60	20	
20	QPSK	50	50	18.78	18.73	18.67	18.57	18.47		
20	QPSK	100	0	18.72	18.73	18.79	18.67	18.57		
20	16QAM	1	0	19.08	19.02	18.96	18.97	18.87		
20	16QAM	1	49	18.86	18.96	18.89	18.92	18.82	20	
20	16QAM	1	99	18.78	19.01	18.87	18.89	18.79		
20	16QAM	50	0	18.03	17.89	17.83	17.74	17.64		
20	16QAM	50	24	17.86	17.92	17.80	17.77	17.67		
20	16QAM	50	50	17.74	17.77	17.69	17.73	17.63	19	
20	16QAM	100	0	17.86	17.92	17.86	17.87	17.77		
20	64QAM	1	0	18.04	17.96	17.85	17.89	17.79		
20	64QAM	1	49	17.68	17.86	17.77	17.79	17.69		
20	64QAM	1	99	17.81	17.90	17.81	17.84	17.74	19	
20	64QAM	50	0	17.57	17.44	17.37	17.21	17.11		
20	64QAM	50	24	17.48	17.47	17.35	17.39	17.29		
20	64QAM	50	50	17.41	17.42	17.31	17.33	17.23		
20	64QAM	100	0	17.54	17.58	17.49	17.48	17.38	18	
Channel				39725	40173	40620	41068	41515		
Frequency (MHz)				2503.5	2543.3	2593	2637.8	2682.5		
15	QPSK	1	0	19.85	19.80	19.88	19.72	19.69	21	
15	QPSK	1	37	19.51	19.52	19.43	19.44	19.46		
15	QPSK	1	74	19.43	19.44	19.31	19.36	19.38		
15	QPSK	36	0	18.66	18.74	18.76	18.75	18.74		
15	QPSK	36	20	18.70	18.68	18.69	18.66	18.56	20	
15	QPSK	36	39	18.74	18.69	18.63	18.53	18.43		
15	QPSK	75	0	18.68	18.69	18.75	18.63	18.53		
15	16QAM	1	0	19.04	18.98	18.92	18.93	18.83		
15	16QAM	1	37	18.82	18.92	18.85	18.88	18.78	20	
15	16QAM	1	74	18.74	18.97	18.83	18.85	18.75		
15	16QAM	36	0	17.99	17.85	17.79	17.70	17.60		
15	16QAM	36	20	17.82	17.88	17.76	17.73	17.63		
15	16QAM	36	39	17.70	17.73	17.65	17.69	17.59	19	
15	16QAM	75	0	17.82	17.88	17.82	17.83	17.73		
15	64QAM	1	0	18.00	17.91	17.81	17.85	17.75		
15	64QAM	1	37	17.64	17.82	17.73	17.75	17.65		
15	64QAM	1	74	17.77	17.86	17.77	17.80	17.70	19	
15	64QAM	36	0	17.53	17.40	17.33	17.17	17.07		
15	64QAM	36	20	17.44	17.43	17.31	17.35	17.25		
15	64QAM	36	39	17.37	17.38	17.27	17.29	17.19		
15	64QAM	75	0	17.50	17.54	17.45	17.44	17.34	18	
Channel				39700	40160	40620	41080	41540		
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	19.80	19.75	19.83	19.67	19.64	21	
10	QPSK	1	25	19.46	19.47	19.38	19.39	19.41		
10	QPSK	1	49	19.38	19.39	19.26	19.31	19.33		
10	QPSK	25	0	18.61	18.69	18.71	18.70	18.69		
10	QPSK	25	12	18.65	18.63	18.64	18.61	18.51	20	
10	QPSK	25	25	18.69	18.64	18.58	18.48	18.38		
10	QPSK	50	0	18.63	18.64	18.70	18.59	18.48		
10	16QAM	1	0	18.99	18.93	18.87	18.88	18.78		
10	16QAM	1	25	18.77	18.87	18.80	18.83	18.73	20	
10	16QAM	1	49	18.69	18.92	18.78	18.80	18.70		
10	16QAM	25	0	17.94	17.80	17.74	17.65	17.55		
10	16QAM	25	12	17.77	17.83	17.71	17.68	17.58		
10	16QAM	25	25	17.65	17.68	17.60	17.64	17.54	19	
10	16QAM	50	0	17.77	17.83	17.77	17.78	17.68		
10	64QAM	1	0	17.95	17.86	17.76	17.80	17.70		
10	64QAM	1	25	17.59	17.77	17.68	17.70	17.60		
10	64QAM	1	49	17.72	17.81	17.72	17.75	17.65	19	
10	64QAM	25	0	17.48	17.35	17.28	17.12	17.02		
10	64QAM	25	12	17.39	17.38	17.26	17.30	17.20		
10	64QAM	25	25	17.32	17.33	17.22	17.24	17.14		
10	64QAM	50	0	17.45	17.49	17.40	17.39	17.29	18	
Channel				39675	40148	40620	41093	41565		
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	19.77	19.72	19.80	19.64	19.61	21	
5	QPSK	1	12	19.43	19.44	19.35	19.36	19.38		
5	QPSK	1	24	19.35	19.36	19.23	19.28	19.30		
5	QPSK	12	0	18.58	18.66	18.68	18.67	18.66		
5	QPSK	12	7	18.62	18.60	18.61	18.58	18.48	20	
5	QPSK	12	13	18.66	18.61	18.55	18.45	18.35		
5	QPSK	25	0	18.60	18.61	18.67	18.55	18.45		
5	16QAM	1	0	18.96	18.90	18.84	18.85	18.75		
5	16QAM	1	12	18.74	18.84	18.77	18.80	18.70	20	
5	16QAM	1	24	18.66	18.99	18.75	18.77	18.67		
5	16QAM	12	0	17.91	17.77	17.71	17.62	17.52		
5	16QAM	12	7	17.74	17.80	17.68	17.65	17.55		
5	16QAM	12	13	17.62	17.65	17.57	17.61	17.51	19	
5	16QAM	25	0	17.74	17.80	17.74	17.75	17.65		
5	64QAM	1	0	17.92	17.83	17.73	17.77	17.67		
5	64QAM	1	12	17.56	17.74	17.65	17.67	17.57		
5	64QAM	1	24	17.69	17.78	17.69	17.72	17.62	19	
5	64QAM	12	0	17.45	17.32	17.25	17.09	16.99		
5	64QAM	12	7	17.36	17.35	17.23	17.27	17.17		
5	64QAM	12	13	17.29	17.30	17.19	17.21	17.11		
5	64QAM	25	0	17.42	17.46	17.37	17.36	17.26	18	

Band 48 (3.5G Band) (dBm)										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Middle-Low Channel	Middle-Low Channel	Middle-High Channel	High Channel	Tune-up limit (dBm)	
Channel				55340	55830	55990	56150	56640		
Frequency (MHz)				3560	3609	3625	3641	3690		
20	QPSK	1	0	20.05	20.04	20.09	19.94	20.02	21	
20	QPSK	1	49	19.85	19.88	19.89	19.86	19.81		
20	QPSK	1	99	19.78	19.81	19.82	19.59	19.74		
20	QPSK	50	0	19.00	19.08	19.12	19.03	19.02		
20	QPSK	50	24	18.99	18.96	18.90	18.75	18.72	20	
20	QPSK	50	50	19.01	18.90	18.86	18.89	18.63		
20	QPSK	100	0	18.91	18.96	19.00	18.81	18.88		
20	16QAM	1	0	19.08	19.10	19.04	18.98	18.99		
20	16QAM	1	49	19.01	18.88	18.98	18.91	18.94	20	
20	16QAM	1	99	18.94	18.80	19.03	18.89	18.91		
20	16QAM	50	0	18.09	18.05	17.91	17.85	17.76		
20	16QAM	50	24	18.03	17.88	17.94	17.82	17.79		
20	16QAM	50	50	18.00	17.76	17.79	17.71	17.75	19	
20	16QAM	100	0	17.91	17.88	17.94	17.88	17.89		
20	64QAM	1	0	17.99	18.06	17.97	17.87	17.91		
20	64QAM	1	49	17.98	17.70	17.88	17.79	17.81		
20	64QAM	1	99	17.82	17.83	17.92	17.83	17.86	19	
20	64QAM	50	0	17.85	17.79	17.86	17.59	17.63		
20	64QAM	50	24	17.75	17.70	17.69	17.57	17.41		
20	64QAM	50	50	17.82	17.63	17.64	17.53	17.55		
20	64QAM	100	0	17.81	17.76	17.80	17.71	17.70	18	
Channel				55315	55820	55990	56160	56655		
Frequency (MHz)				3557.5	3608	3625	3642	3692.5		
15	QPSK	1	0	19.99	19.98	20.03	19.88	19.96		
15	QPSK	1	37	19.79	19.82	19.83	19.60	19.75		
15	QPSK	1	74	19.72	19.75	19.76	19.53	19.68		
15	QPSK	36	0	18.94	19.02	19.08	18.79	18.96		
15	QPSK	36	20	18.93	18.90	18.94	18.69	18.66	20	
15	QPSK	36	39	18.95	18.84	18.80	18.63	18.57		
15	QPSK	75	0	18.94	18.90	18.85	18.75	18.63		
15	16QAM	1	0	19.02	19.04	18.98	18.92	18.93		
15	16QAM	1	37	18.95	18.82	18.92	18.85	18.88	20	
15	16QAM	1	74	18.88	18.74	18.97	18.83	18.85		
15	16QAM	36	0	18.03	17.99	17.85	17.79	17.70		
15	16QAM	36	20	17.97	17.82	17.88	17.74	17.72		
15	16QAM	36	39	17.94	17.70	17.73	17.65	17.69	19	
15	16QAM	75	0	17.85	17.82	17.88	17.82	17.83		
15	64QAM	1	0	17.83	18.00	17.91	17.81	17.85		
15	64QAM	1	37	17.92	17.64	17.82	17.73	17.75		
15	64QAM	1	74	17.86	17.77	17.86	17.77	17.80	19	
15	64QAM	36	0	17.79	17.73	17.80	17.53	17.77		
15	64QAM	36	20	17.89	17.66	17.63	17.51	17.55		
15	64QAM	36	39	17.86	17.58	17.57	17.41	17.49		
15	64QAM	75	0	17.75	17.70	17.74	17.65	17.64	18	
Channel				55290	55815	55990	56165	56695		
Frequency (MHz)				35265	3607.5	3625	3642.5	3690		
10	QPSK	1	0	19.95	19.94	19.99	19.84	19.92		
10	QPSK	1	25	19.75	19.78	19.79	19.56	19.71		
10	QPSK	1	49	19.68	19.71	19.72	19.49	19.64		
10	QPSK	25	0	18.90	18.98	19.02	18.93	18.92		
10	QPSK	25	12	18.89	18.86	18.80	18.65	18.62	20	
10	QPSK	25	25	18.91	18.80	18.76	18.59	18.53		
10	QPSK	50	0	18.90	18.86	18.81	18.71	18.59		
10	16QAM	1	0	18.98	19.00	18.94	18.88	18.89		
10	16QAM	1	25	18.91	18.78	18.98	18.81	18.94	20	
10	16QAM	1	49	18.84	18.70	18.93	18.79	18.91		
10	16QAM	25	0	17.99	17.95	17.81	17.75	17.66		
10	16QAM	25	12	17.93	17.78	17.84	17.72	17.69		
10	16QAM	25	25	17.90	17.66	17.69	17.61	17.65	19	
10	16QAM	50	0	17.81	17.78	17.84	17.78	17.79		
10	64QAM	1	0	17.89	17.96	17.87	17.77	17.81		
10	64QAM	1	25	17.88	17.60	17.78	17.69	17.71		
10	64QAM	1	49	17.82	17.73	17.82	17.73	17.76	19	
10	64QAM	25	0	17.75	17.69	17.59	17.47	17.53		
10	64QAM	25	12	17.65	17.60	17.59	17.47	17.51		
10	64QAM	25	25	17.52	17.53	17.54	17.43	17.45		
10	64QAM	50	0	17.71	17.66	17.70	17.61	17.60	18	
Channel				55265	55810	55990	56170	56175		
Frequency (MHz)				3552.5	3607	3625	3643	3697.5		
5	QPSK	1	0	19.92	19.91	19.96	19.81	19.89		
5	QPSK	1	13	19.72	19.75	19.76	19.53	19.66		
5	QPSK	1	24	19.65	19.68	19.69	19.46	19.61		
5	QPSK	12	0	18.87	18.95	18.99	18.90	18.88		
5	QPSK	12	7	18.86	18.83	18.77	18.62	18.59	20	
5	QPSK	12	13	18.88	18.77	18.73	18.56	18.50		
5	QPSK	18	0	18.87	18.83	18.78	18.68	18.66		
5	16QAM	1	0	18.95	18.97	18.91	18.85	18.86		
5	16QAM	1	12	18.88	18.75	18.85	18.78	18.61	20	
5	16QAM	1	24	18.81	18.67	18.80	18.70	18.76		
5	16QAM	12	0	17.96	17.92	17.78	17.72	17.63		
5	16QAM	12	7	17.90	17.75	17.81	17.69	17.66		
5	16QAM	12	13	17.87	17.63	17.66	17.58	17.62	19	
5	16QAM	25	0	17.78	17.75	17.81	17.75	17.76		
5	64QAM	1	0	17.86	17.83	17.84	17.74	17.78		
5	64QAM	1	12	17.85	17.57	17.75	17.66	17.68		
5	64QAM	1	24	17.79	17.69	17.79	17.67	17.73	19	
5	64QAM	12	0	17.72	17.66	17.53	17.46	17.30		
5	64QAM	12	12	17.62	17.57	17.56	17.44	17.48		
5	64QAM	12	13	17.49	17.58	17.51	17.42	17.42		
5	64QAM	25	0	17.68	17.63	17.67	17.58	17.57	18	

Band 66 (dBm)							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	17.22	17.25	17.19	18
20	QPSK	1	49	16.91	16.85	16.86	
20	QPSK	1	99	16.81	16.87	16.89	
20	QPSK	50	0	16.13	16.14	16.09	17
20	QPSK	50	24	16.09	16.02	15.98	
20	QPSK	50	50	16.09	15.95	15.92	
20	QPSK	100	0	15.85	15.92	15.89	17
20	16QAM	1	0	16.27	16.15	16.02	
20	16QAM	1	49	16.02	16.00	16.00	
20	16QAM	1	99	16.07	15.93	16.04	16
20	16QAM	50	0	15.05	14.98	15.09	
20	16QAM	50	24	15.03	14.99	14.96	
20	16QAM	50	50	15.15	15.03	15.05	16
20	16QAM	100	0	15.19	15.04	15.01	
20	64QAM	1	0	15.19	15.05	14.95	
20	64QAM	1	49	15.25	15.11	15.09	16
20	64QAM	1	99	15.31	15.24	15.18	
20	64QAM	50	0	14.58	14.61	14.45	
20	64QAM	50	24	14.57	14.54	14.56	15
20	64QAM	50	50	14.52	14.50	14.44	
20	64QAM	100	0	14.56	14.45	14.48	
Channel				132047	132322	132597	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	17.18	17.21	17.15	18
15	QPSK	1	37	16.87	16.81	16.82	
15	QPSK	1	74	16.77	16.83	16.85	
15	QPSK	36	0	16.09	16.10	16.05	17
15	QPSK	36	20	16.05	15.98	15.94	
15	QPSK	36	39	16.05	15.91	15.88	
15	QPSK	75	0	15.81	15.88	15.85	17
15	16QAM	1	0	16.23	16.11	15.98	
15	16QAM	1	37	15.98	15.96	15.96	
15	16QAM	1	74	16.03	15.89	16.00	16
15	16QAM	36	0	15.01	14.94	15.05	
15	16QAM	36	20	14.99	14.95	14.92	
15	16QAM	36	39	15.11	14.99	15.01	16
15	16QAM	75	0	15.15	15.00	14.97	
15	64QAM	1	0	15.15	15.01	14.91	
15	64QAM	1	37	15.21	15.07	15.05	16
15	64QAM	1	74	15.27	15.20	15.14	
15	64QAM	36	0	14.54	14.57	14.41	
15	64QAM	36	20	14.53	14.50	14.52	15
15	64QAM	36	39	14.48	14.46	14.40	
15	64QAM	75	0	14.52	14.41	14.44	
Channel				132022	132322	132622	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	17.12	17.15	17.09	18
10	QPSK	1	25	16.81	16.75	16.76	
10	QPSK	1	49	16.71	16.77	16.79	
10	QPSK	25	0	16.03	16.04	15.99	17
10	QPSK	25	12	15.99	15.92	15.88	
10	QPSK	25	25	15.99	15.85	15.82	
10	QPSK	50	0	15.75	15.82	15.79	17
10	16QAM	1	0	16.17	16.05	15.92	
10	16QAM	1	25	15.92	15.90	15.90	
10	16QAM	1	49	15.97	15.83	15.94	16
10	16QAM	25	0	14.95	14.88	14.99	
10	16QAM	25	12	14.93	14.89	14.88	
10	16QAM	25	25	15.05	14.93	14.95	16
10	16QAM	50	0	15.09	14.94	14.91	
10	64QAM	1	0	15.09	14.95	14.85	
10	64QAM	1	25	15.15	15.01	14.99	16
10	64QAM	1	49	15.21	15.14	15.08	
10	64QAM	25	0	14.48	14.51	14.35	
10	64QAM	25	12	14.47	14.44	14.46	15
10	64QAM	25	25	14.42	14.40	14.34	
10	64QAM	50	0	14.46	14.35	14.38	
Channel				131997	132322	132647	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	17.07	17.10	17.04	18
5	QPSK	1	12	16.76	16.70	16.71	
5	QPSK	1	24	16.66	16.72	16.74	
5	QPSK	12	0	15.98	15.99	15.94	17
5	QPSK	12	7	15.94	15.87	15.83	
5	QPSK	12	13	15.94	15.80	15.77	
5	QPSK	25	0	15.70	15.77	15.74	17
5	16QAM	1	0	16.12	16.00	15.87	
5	16QAM	1	12	15.87	15.85	15.85	
5	16QAM	1	24	15.92	15.78	15.89	16
5	16QAM	12	0	14.90	14.83	14.94	
5	16QAM	12	7	14.88	14.84	14.81	
5	16QAM	12	13	15.00	14.88	14.90	16
5	16QAM	25	0	15.04	14.89	14.86	
5	64QAM	1	0	15.04	14.90	14.80	
5	64QAM	1	12	15.10	14.96	14.94	16
5	64QAM	1	24	15.16	15.09	15.03	
5	64QAM	12	0	14.43	14.46	14.30	
5	64QAM	12	7	14.42	14.39	14.41	15
5	64QAM	12	13	14.37	14.35	14.29	
5	64QAM	25	0	14.41	14.30	14.33	
Channel				131987	132322	132657	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	17.04	17.07	17.01	18
3	QPSK	1	8	16.73	16.67	16.68	
3	QPSK	1	14	16.63	16.69	16.71	
3	QPSK	8	0	15.95	15.96	15.91	

3	QPSK	8	4	15.91	15.84	15.80	17
3	QPSK	8	7	15.91	15.77	15.74	
3	QPSK	15	0	15.67	15.74	15.71	
3	16QAM	1	0	16.09	15.97	15.84	17
3	16QAM	1	8	15.84	15.82	15.82	
3	16QAM	1	14	15.89	15.75	15.86	
3	16QAM	8	0	14.87	14.80	14.91	16
3	16QAM	8	4	14.85	14.81	14.78	
3	16QAM	8	7	14.97	14.85	14.87	
3	16QAM	15	0	15.01	14.86	14.83	16
3	64QAM	1	0	15.01	14.87	14.77	
3	64QAM	1	8	15.07	14.93	14.91	
3	64QAM	1	14	15.13	15.06	15.00	15
3	64QAM	8	0	14.40	14.43	14.27	
3	64QAM	8	4	14.39	14.36	14.38	
3	64QAM	8	7	14.34	14.32	14.28	15
3	64QAM	15	0	14.38	14.27	14.30	
Channel				1319.9	1323.22	1326.5	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	17.00	17.03	16.97	18
1.4	QPSK	1	3	16.69	16.63	16.64	
1.4	QPSK	1	5	16.59	16.65	16.67	
1.4	QPSK	3	0	15.91	15.92	15.87	
1.4	QPSK	3	1	15.87	15.80	15.76	
1.4	QPSK	3	3	15.87	15.73	15.70	17
1.4	QPSK	6	0	15.63	15.70	15.67	
1.4	16QAM	1	0	16.05	15.93	15.80	17
1.4	16QAM	1	3	15.80	15.78	15.78	
1.4	16QAM	1	5	15.85	15.71	15.82	
1.4	16QAM	3	0	14.83	14.76	14.87	
1.4	16QAM	3	1	14.81	14.77	14.74	
1.4	16QAM	3	3	14.93	14.81	14.83	16
1.4	16QAM	6	0	14.97	14.82	14.79	
1.4	64QAM	1	0	14.97	14.83	14.73	16
1.4	64QAM	1	3	15.03	14.89	14.87	
1.4	64QAM	1	5	15.09	15.02	14.96	
1.4	64QAM	3	0	14.36	14.39	14.23	
1.4	64QAM	3	1	14.35	14.32	14.34	
1.4	64QAM	3	3	14.30	14.28	14.22	15
1.4	64QAM	6	0	14.34	14.23	14.28	

n2 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376000	380000	18
Frequency (MHz)				1860	1880	1900	
20	DFT-s-OFDM PI/2 BPSK	1	1	17.37	17.33	17.27	18
20		1	53	17.35	17.35	17.25	
20		1	104	17.42	17.31	17.13	
20		50	1	16.91	17.03	16.89	18
20		50	25	17.40	17.45	17.33	
20		50	50	16.96	16.92	16.78	
20		100	0	16.91	17.02	16.86	
20	DFT-s-OFDM QPSK	1	1	17.44	17.40	17.24	18
20		1	53	17.40	17.38	17.31	
20		1	104	17.57	17.30	17.16	
20		50	1	16.45	16.57	16.38	18
20		50	25	17.48	17.46	17.32	
20		50	50	16.55	16.47	16.28	
20		100	0	16.49	16.46	16.36	
20	DFT-s-OFDM 16QAM	1	1	16.37	16.39	16.24	17
20	DFT-s-OFDM 64QAM	1	1	14.88	14.90	14.76	16
20	DFT-s-OFDM 256QAM	1	1	12.69	12.75	12.57	13
20	CP-OFDM QPSK	1	1	15.80	15.81	15.68	17
20	CP-OFDM 16QAM	1	1	15.31	15.35	15.20	16
20	CP-OFDM 64QAM	1	1	13.55	13.63	13.40	15
20	CP-OFDM 256QAM	1	1	10.72	10.73	10.57	11
Channel				371500	376000	380500	18
Frequency (MHz)				1857.5	1880	1902.5	
15	DFT-s-OFDM QPSK	1	1	17.51	17.49	17.41	18
Channel				371000	376000	381000	18
Frequency (MHz)				1855	1880	1905	
10	DFT-s-OFDM QPSK	1	1	17.49	17.50	17.43	18
Channel				370500	376000	381500	18
Frequency (MHz)				1852.5	1880	1907.5	
5	DFT-s-OFDM QPSK	1	1	17.54	17.55	17.42	18

n7 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				502000	507000	512000	19.5
Frequency (MHz)				2510	2535	2560	
20	DFT-s-OFDM PI/2 BPSK	1	1	18.40	18.52	18.46	19.5
20		1	53	18.49	18.54	18.42	
20		1	104	18.49	18.54	18.53	
20		50	1	17.86	18.01	18.05	19.5
20		50	25	18.40	18.62	18.55	
20		50	50	17.93	18.07	18.06	
20		100	0	17.92	17.98	18.06	
20	DFT-s-OFDM QPSK	1	1	18.47	18.44	18.50	19.5
20		1	53	18.52	18.66	18.44	
20		1	104	18.55	18.57	18.55	
20		50	1	17.43	17.52	17.60	19.5
20		50	25	18.49	18.62	18.51	
20		50	50	17.46	17.48	17.59	
20		100	0	17.43	17.59	17.56	
20	DFT-s-OFDM 16QAM	1	1	17.25	17.41	17.42	18.5
20	DFT-s-OFDM 64QAM	1	1	15.74	15.92	15.98	17.5
20	DFT-s-OFDM 256QAM	1	1	13.59	13.59	13.67	14.5
20	CP-OFDM QPSK	1	1	16.84	17.00	16.99	18.5
20	CP-OFDM 16QAM	1	1	16.35	16.33	16.46	17.5
20	CP-OFDM 64QAM	1	1	14.59	14.77	14.76	16.5
20	CP-OFDM 256QAM	1	1	11.51	11.63	11.64	12.5
Channel				501500	507000	512500	19.5
Frequency (MHz)				2507.5	2535	2562.5	
15	DFT-s-OFDM QPSK	1	1	18.54	18.59	18.63	19.5
Channel				501000	507000	513000	19.5
Frequency (MHz)				2505	2535	2565	
10	DFT-s-OFDM QPSK	1	1	18.31	18.57	18.49	19.5
Channel				500500	507000	513500	19.5
Frequency (MHz)				2502.5	2535	2567.5	
5	DFT-s-OFDM QPSK	1	1	18.43	18.57	18.58	19.5

n25 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				372000	376500	381000	18
Frequency (MHz)				1860	1882.5	1905	
20	DFT-s-OFDM PI/2 BPSK	1	1	17.52	17.49	17.37	18
20		1	53	17.51	17.46	17.46	
20		1	104	17.56	17.39	16.26	
20		50	1	17.05	17.02	16.99	18
20		50	25	17.59	17.56	17.43	
20		50	50	17.07	17.10	16.93	
20		100	0	17.09	17.09	16.94	
20	DFT-s-OFDM QPSK	1	1	17.45	17.41	17.33	18
20		1	53	17.47	17.49	17.35	
20		1	104	17.62	17.43	16.19	
20		50	1	16.54	16.56	16.45	18
20		50	25	17.59	17.53	17.44	
20		50	50	16.63	16.52	16.42	
20		100	0	16.58	16.53	16.45	17
20	DFT-s-OFDM 16QAM	1	1	16.51	16.48	16.36	17
20	DFT-s-OFDM 64QAM	1	1	14.99	14.98	14.85	16
20	DFT-s-OFDM 256QAM	1	1	12.64	12.66	12.47	13
20	CP-OFDM QPSK	1	1	15.92	15.91	15.89	17
20	CP-OFDM 16QAM	1	1	15.42	15.42	15.25	16
20	CP-OFDM 64QAM	1	1	13.67	13.65	13.51	15
20	CP-OFDM 256QAM	1	1	10.68	10.66	10.54	11
Channel				371500	376500	381500	18
Frequency (MHz)				1857.5	1882.5	1907.5	
15	DFT-s-OFDM QPSK	1	1	17.60	17.58	17.42	18
Channel				371000	376500	382000	18
Frequency (MHz)				1855	1882.5	1910	
10	DFT-s-OFDM QPSK	1	1	17.54	17.49	17.42	18
Channel				370500	376500	382500	18
Frequency (MHz)				1852.5	1882.5	1912.5	
5	DFT-s-OFDM QPSK	1	1	17.59	17.60	17.38	18

n41 (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				509202	513900	518598	523296	528000	22
Frequency (MHz)				2546.01	2569.5	2592.99	2616.48	2640	
100	DFT-s-OFDM PI/2 BPSK	1	1	20.22	20.60	20.73	20.80	20.87	22
100		1	136	20.77	20.84	20.89	20.55	20.41	
100		1	271	20.93	20.67	20.52	20.33	20.28	
100		135	1	20.50	20.73	20.89	20.91	20.67	22
100		135	67	20.82	20.96	20.90	20.69	20.57	
100		135	136	20.94	20.86	20.67	20.49	20.31	
100		270	0	20.85	20.96	21.01	20.76	20.53	
100	DFT-s-OFDM QPSK	1	1	20.37	20.49	20.73	20.78	20.86	22
100		1	136	20.71	20.86	20.89	20.54	20.40	
100		1	271	20.93	20.67	21.09	20.19	20.24	
100		135	1	20.53	20.79	20.96	20.92	20.62	22
100		135	67	20.81	20.96	20.89	20.70	20.51	
100		135	136	20.95	20.82	20.70	20.48	20.21	
100		270	0	20.86	20.93	20.97	20.74	20.54	
100	DFT-s-OFDM 16QAM	1	1	20.66	20.82	21.00	21.05	20.49	22
100	DFT-s-OFDM 64QAM	1	1	19.44	20.09	20.25	20.42	20.47	21
100	DFT-s-OFDM 256QAM	1	1	17.80	17.95	18.11	18.19	18.29	19
100	CP-OFDM QPSK	1	1	20.24	20.39	20.67	20.77	20.80	22
100	CP-OFDM 16QAM	1	1	19.53	19.59	19.94	19.93	19.94	21
100	CP-OFDM 64QAM	1	1	18.54	18.87	18.91	19.12	19.11	20
100	CP-OFDM 256QAM	1	1	15.90	16.10	16.17	16.28	16.43	17
Channel				508200	513402	518598	523800	528996	22
Frequency (MHz)				2541	2567.01	2592.99	2619	2644.98	
90	DFT-s-OFDM QPSK	1	1	23.20	23.52	23.68	23.78	23.78	22
Channel				507204	512904	518598	524298	529998	22
Frequency (MHz)				2536.02	2564.52	2592.99	2621.49	2649.99	
80	DFT-s-OFDM QPSK	1	1	23.28	23.63	23.70	23.86	23.66	22
Channel				506202	512400	518598	524796	531000	22
Frequency (MHz)				2531.01	2562	2592.99	2623.98	2655	
70	DFT-s-OFDM QPSK	1	1	23.26	23.64	23.77	24.00	23.69	22
Channel				505200	511902	518598	525798	531996	22
Frequency (MHz)				2526	2559.51	2592.99	2626.5	2659.98	
60	DFT-s-OFDM QPSK	1	1	23.28	23.80	23.90	23.90	23.68	22
Channel				504204	511404	518598	525798	532998	22
Frequency (MHz)				2521.02	2557.02	2592.99	2626.5	2664.99	
50	DFT-s-OFDM QPSK	1	1	23.33	23.90	24.03	23.97	23.70	22
Channel				503202	510900	518598	526296	534000	22
Frequency (MHz)				2516.01	2554.5	2592.99	2631.48	2670	
40	DFT-s-OFDM QPSK	1	1	23.49	23.95	24.07	23.97	23.64	22
Channel				502200	510402	518598	526800	534996	22
Frequency (MHz)				2511	2552.01	2592.99	2634	2674.98	
30	DFT-s-OFDM QPSK	1	1	23.42	23.86	24.06	23.71	23.45	22
Channel				501204	509904	518598	527298	535998	22
Frequency (MHz)				2506.02	2549.52	2592.99	2636.49	2679.99	
20	DFT-s-OFDM QPSK	1	1	23.33	23.85	24.01	23.70	23.43	22

n41 (PC2)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				509202	513900	518598	523296	528000	24
Frequency (MHz)				2546.01	2569.5	2592.99	2616.48	2640	
100	DFT-s-OFDM PI/2 BPSK	1	1	22.06	22.35	22.53	22.80	22.78	24
100		1	136	22.54	22.77	22.75	22.56	22.43	
100		1	271	22.81	22.59	22.44	22.21	22.23	
100		135	1	21.88	22.12	22.32	22.27	22.13	
100		135	67	22.60	22.83	22.76	22.66	22.48	24
100		135	136	22.33	22.24	22.11	21.95	21.67	
100		270	0	22.12	22.33	22.41	22.26	22.00	
100	DFT-s-OFDM QPSK	1	1	22.30	22.20	22.55	22.78	22.80	24
100		1	136	22.53	22.74	22.97	22.57	22.36	
100		1	271	22.47	22.75	22.43	22.22	22.22	
100		135	1	21.35	21.57	21.83	21.81	21.63	
100		135	67	22.61	22.78	22.82	22.66	22.47	24
100		135	136	21.71	21.77	21.60	21.44	21.16	
100		270	0	21.65	21.82	21.92	21.77	21.54	23
100	DFT-s-OFDM 16QAM	1	1	21.62	21.29	21.54	21.95	22.12	23
100	DFT-s-OFDM 64QAM	1	1	19.36	20.00	20.18	20.43	20.44	22
100	DFT-s-OFDM 256QAM	1	1	17.73	17.82	17.97	18.18	18.25	19
100	CP-OFDM QPSK	1	1	20.69	20.77	21.09	21.14	21.30	22
100	CP-OFDM 16QAM	1	1	19.58	19.68	20.03	19.98	20.16	21
100	CP-OFDM 64QAM	1	1	18.64	18.81	18.95	19.00	19.09	20
100	CP-OFDM 256QAM	1	1	15.78	15.98	16.02	16.31	16.37	17
Channel				508200	513402	518598	523800	528996	24
Frequency (MHz)				2541	2567.01	2592.99	2619	2644.98	
90	DFT-s-OFDM QPSK	1	1	22.08	22.25	22.57	22.70	22.61	24
Channel				507204	512904	518598	524298	529998	24
Frequency (MHz)				2536.02	2564.52	2592.99	2621.49	2649.99	
80	DFT-s-OFDM QPSK	1	1	22.19	22.33	22.65	22.76	22.64	24
Channel				506202	512400	518598	524796	531000	24
Frequency (MHz)				2531.01	2562	2592.99	2623.98	2655	
70	DFT-s-OFDM QPSK	1	1	22.26	22.52	22.67	22.86	21.37	24
Channel				505200	511902	518598	525798	531996	24
Frequency (MHz)				2526	2559.51	2592.99	2626.5	2659.98	
60	DFT-s-OFDM QPSK	1	1	22.41	22.54	22.75	22.80	22.63	24
Channel				504204	511404	518598	525798	532998	24
Frequency (MHz)				2521.02	2557.02	2592.99	2626.5	2664.99	
50	DFT-s-OFDM QPSK	1	1	22.34	22.77	22.92	22.85	22.68	24
Channel				503202	510900	518598	526296	534000	24
Frequency (MHz)				2516.01	2554.5	2592.99	2631.48	2670	
40	DFT-s-OFDM QPSK	1	1	22.50	22.74	22.83	22.81	22.56	24
Channel				502200	510402	518598	526800	534996	24
Frequency (MHz)				2511	2552.01	2592.99	2634	2674.98	
30	DFT-s-OFDM QPSK	1	1	22.42	22.78	22.93	22.70	22.48	24
Channel				501204	509904	518598	527298	535998	24
Frequency (MHz)				2506.02	2549.52	2592.99	2636.49	2679.99	
20	DFT-s-OFDM QPSK	1	1	22.41	22.72	22.93	22.63	22.35	24

n48 (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				638000	639834	641666	643500	645332	19
Frequency (MHz)				3570	3597.51	3624.99	3652.5	3679.98	
40	DFT-s-OFDM PI/2 BPSK	1	1	18.14	17.75	17.11	16.69	16.51	19
40		1	53	17.88	17.41	16.29	16.46	16.39	
40		1	104	17.64	16.72	16.30	16.52	16.76	
40		50	1	17.54	17.10	16.18	16.18	15.96	19
40		50	25	17.94	17.45	16.33	16.54	16.41	
40		50	50	17.20	16.62	15.72	15.87	16.03	
40		100	0	17.44	16.95	15.95	16.06	15.95	
40	DFT-s-OFDM QPSK	1	1	18.16	17.75	17.62	17.75	17.72	19
40		1	53	17.89	17.42	16.49	16.46	16.41	
40		1	104	17.63	16.72	16.51	16.50	16.76	
40		50	1	17.07	16.58	15.87	15.87	15.66	19
40		50	25	17.94	17.63	17.54	17.72	17.61	
40		50	50	16.70	16.11	15.22	15.37	15.54	
40		100	0	16.94	16.63	16.66	16.74	16.65	18
40	DFT-s-OFDM 16QAM	1	1	17.01	16.61	16.08	15.59	15.39	17.5
40	DFT-s-OFDM 64QAM	1	1	15.70	15.28	14.65	14.19	14.06	16.5
40	DFT-s-OFDM 256QAM	1	1	13.42	13.10	12.44	11.99	11.88	13.5
40	CP-OFDM QPSK	1	1	16.67	16.24	15.62	15.18	14.99	17
40	CP-OFDM 16QAM	1	1	16.18	15.78	15.21	14.72	14.60	17
40	CP-OFDM 64QAM	1	1	14.33	13.91	13.22	12.83	12.63	15
40	CP-OFDM 256QAM	1	1	11.48	11.07	10.41	9.97	9.82	12
Channel				637334	639500	641666	643832	646000	19
Frequency (MHz)				3560.01	3592.5	3624.99	3657.48	3690	
20	DFT-s-OFDM QPSK	1	1	18.04	17.51	16.53	16.06	15.93	19

n66 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				344000	349000	354000	18
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM PI/2 BPSK	1	1	17.17	17.13	16.84	18
20		1	53	17.18	17.02	16.75	
20		1	104	17.15	16.81	16.73	
20		50	1	16.67	16.55	16.34	18
20		50	25	17.22	17.07	16.86	
20		50	50	16.58	16.43	16.26	
20		100	0	16.67	16.47	16.31	
20	DFT-s-OFDM QPSK	1	1	17.25	17.05	16.85	18
20		1	53	17.16	16.92	16.73	
20		1	104	17.11	16.86	16.74	
20		50	1	16.17	16.06	15.86	18
20		50	25	17.17	17.03	16.88	
20		50	50	16.13	15.95	15.80	
20		100	0	16.18	16.01	16.00	17
20	DFT-s-OFDM 16QAM	1	1	16.10	16.05	15.82	17
20	DFT-s-OFDM 64QAM	1	1	14.56	14.51	14.28	16
20	DFT-s-OFDM 256QAM	1	1	12.24	12.21	12.02	13
20	CP-OFDM QPSK	1	1	15.50	15.44	15.19	17
20	CP-OFDM 16QAM	1	1	15.00	14.93	14.69	16
20	CP-OFDM 64QAM	1	1	13.23	13.16	12.98	14
20	CP-OFDM 256QAM	1	1	10.29	10.21	10.06	11
Channel				343500	349000	354500	18
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	17.23	17.22	16.88	18
Channel				343000	349000	355000	18
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	17.18	17.15	16.90	18
Channel				342500	349000	355500	18
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	17.19	17.14	16.93	18

n77(3450-3550MHz) (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			19.5
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			18.30			19.5
100		1	136			17.98			
100		1	271			18.03			
100		135	1			18.12			
100		135	67			18.07			
100	DFT-s-OFDM QPSK	135	136			17.68			19.5
100		270	0			18.05			
100		1	1			18.66			
100		1	136			18.01			
100		1	271			17.97			
100	DFT-s-OFDM 16QAM	135	1			18.13			19
100		135	67			18.08			
100		135	136			17.72			
100		270	0			18.08			
100	DFT-s-OFDM 64QAM	1	1			18.16			18.5
100	DFT-s-OFDM 256QAM	1	1			17.88			18.5
100	CP-OFDM QPSK	1	1			15.61			16.5
100	CP-OFDM 16QAM	1	1			18.22			19
100	CP-OFDM 64QAM	1	1			18.28			19
100	CP-OFDM 256QAM	1	1			16.43			17
100	CP-OFDM 256QAM	1	1			13.66			15
Channel				632668	633000	633334	633666	634000	19.5
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	18.31	18.27	18.22	18.20	18.15	19.5
Channel				632000	632668	633334	634000	634666	19.5
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	18.28	18.30	18.16	18.14	18.11	19.5
Channel				631334	632334	633334	634332	635332	19.5
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	18.40	18.60	18.49	18.49	18.27	19.5
Channel				631000	632168	633334	634500	635666	19.5
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	18.63	18.50	18.43	18.37	18.10	19.5
Channel				630668	632000	633334	634666	636000	19.5
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	18.54	18.39	18.34	18.15	18.00	19.5

n77(3450-3550MHz) (PC2)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			21.5
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			20.28			21.5
100		1	136			20.01			
100		1	271			20.06			
100		135	1			19.64			
100		135	67			20.07			20.5
100		135	136			19.20			
100		270	0			19.58			
100	DFT-s-OFDM QPSK	1	1			20.66			21.5
100		1	136			19.98			
100		1	271			19.93			
100		135	1			19.11			20.5
100		135	67			20.08			
100		135	136			18.73			
100		270	0			19.05			19.5
100	DFT-s-OFDM 16QAM	1	1			19.21			20.5
100	DFT-s-OFDM 64QAM	1	1			17.71			19.5
100	DFT-s-OFDM 256QAM	1	1			15.48			16.5
100	CP-OFDM QPSK	1	1			18.82			19.5
100	CP-OFDM 16QAM	1	1			18.28			19
100	CP-OFDM 64QAM	1	1			16.33			17.5
100	CP-OFDM 256QAM	1	1			13.61			14.5
Channel				632668	633000	633334	633666	634000	21.5
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	20.29	20.28	20.18	20.24	20.14	21.5
Channel				632000	632668	633334	634000	634666	21.5
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	20.29	20.30	20.15	20.12	20.20	21.5
Channel				631334	632334	633334	634332	635332	21.5
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	20.29	20.59	20.40	20.42	20.27	21.5
Channel				631000	632168	633334	634500	635666	21.5
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	20.62	20.49	20.43	20.36	20.11	21.5
Channel				630668	632000	633334	634666	636000	21.5
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	20.53	20.40	20.32	20.12	19.98	21.5

n77(3700-3980MHz) (PC3)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				650000	653000	656000	659000	662000	18.5
Frequency (MHz)				3750	3795	3840	3885	3930	
100	DFT-s-OFDM PI/2 BPSK	1	1	16.72	17.63	17.13	17.01	17.33	18.5
100		1	136	17.62	17.09	17.08	17.37	17.28	
100		1	271	17.32	17.06	17.36	17.26	17.63	
100		135	1	17.50	17.37	16.92	16.93	17.40	18.5
100		135	67	17.56	17.17	17.14	17.40	17.36	
100		135	136	17.35	16.86	16.93	17.32	17.53	
100		270	0	17.36	17.18	17.19	17.36	17.40	
100	DFT-s-OFDM QPSK	1	1	16.65	17.92	17.05	16.99	17.29	18.5
100		1	136	17.65	17.08	17.01	17.38	17.27	
100		1	271	17.31	17.06	17.37	17.25	17.62	
100		135	1	17.38	17.54	16.93	16.93	17.38	18.5
100		135	67	17.46	17.13	17.07	17.41	17.34	
100		135	136	17.37	16.90	16.91	17.32	17.52	
100		270	0	17.26	17.36	17.18	17.34	17.16	
100	DFT-s-OFDM 16QAM	1	1	16.51	17.52	16.93	16.87	17.17	18.5
100	DFT-s-OFDM 64QAM	1	1	16.20	17.21	16.60	16.57	16.87	18
100	DFT-s-OFDM 256QAM	1	1	13.93	14.97	14.33	14.33	14.66	15.5
100	CP-OFDM QPSK	1	1	16.61	17.65	17.02	17.00	17.26	18.5
100	CP-OFDM 16QAM	1	1	16.60	17.65	17.09	16.99	17.38	17.5
100	CP-OFDM 64QAM	1	1	14.70	15.78	15.18	15.14	15.44	16.5
100	CP-OFDM 256QAM	1	1	11.97	12.99	12.39	12.34	12.63	13.5
Channel				649334	652668	656000	659332	662666	18.5
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	
80	DFT-s-OFDM QPSK	1	1	16.79	17.66	17.06	16.92	17.41	18.5
Channel				648668	652334	656000	659666	663332	18.5
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	
60	DFT-s-OFDM QPSK	1	1	16.77	17.60	16.98	17.01	17.29	18.5
Channel				648000	652000	656000	660000	664000	18.5
Frequency (MHz)				3720	3780	3840	3900	3960	
40	DFT-s-OFDM QPSK	1	1	17.17	17.70	17.33	17.76	17.88	18.5
Channel				647668	651834	656000	660166	664332	18.5
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	
30	DFT-s-OFDM QPSK	1	1	17.01	17.75	17.15	17.67	17.84	18.5
Channel				647334	651668	656000	660332	664666	18.5
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	
20	DFT-s-OFDM QPSK	1	1	16.96	17.72	17.25	17.76	17.79	18.5

n77(3700-3980MHz) (PC2)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel				650000	653000	656000	659000	662000	20.5
Frequency (MHz)				3750	3795	3840	3885	3930	
100	DFT-s-OFDM PI/2 BPSK	1	1	18.62	19.61	19.01	18.99	19.26	20.5
100		1	136	19.60	19.04	19.09	19.35	19.23	
100		1	271	19.28	19.02	19.37	19.18	19.59	
100		135	1	18.98	18.85	18.40	18.41	18.84	20.5
100		135	67	19.53	19.10	19.14	19.39	19.31	
100		135	136	18.83	18.37	18.41	18.78	18.96	
100		270	0	18.82	18.66	18.67	18.82	18.84	
100	DFT-s-OFDM QPSK	1	1	18.63	19.59	18.99	19.01	19.27	20.5
100		1	136	19.85	19.23	19.19	19.38	19.42	
100		1	271	19.19	19.03	19.34	19.19	19.58	
100		135	1	18.50	18.38	17.93	17.92	18.37	20.5
100		135	67	19.43	19.12	19.04	19.40	19.28	
100		135	136	18.25	17.89	17.92	18.31	18.49	
100		270	0	18.34	18.19	18.19	18.33	18.24	19.5
100	DFT-s-OFDM 16QAM	1	1	17.51	18.56	17.95	17.92	18.23	19.5
100	DFT-s-OFDM 64QAM	1	1	16.11	17.18	16.54	16.53	16.80	17.5
100	DFT-s-OFDM 256QAM	1	1	13.92	15.01	14.38	14.36	14.65	15.5
100	CP-OFDM QPSK	1	1	17.13	18.17	17.57	17.51	17.80	18.5
100	CP-OFDM 16QAM	1	1	16.68	17.73	17.13	17.10	17.33	17.5
100	CP-OFDM 64QAM	1	1	14.73	15.80	15.19	15.13	15.43	16.5
100	CP-OFDM 256QAM	1	1	11.92	13.01	12.39	12.36	12.58	13.5
Channel				649334	652668	656000	659332	662666	20.5
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	
80	DFT-s-OFDM QPSK	1	1	18.72	19.61	19.01	18.87	19.34	20.5
Channel				648668	652334	656000	659666	663332	20.5
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	
60	DFT-s-OFDM QPSK	1	1	18.70	19.57	18.87	19.08	19.25	20.5
Channel				648000	652000	656000	660000	664000	20.5
Frequency (MHz)				3720	3780	3840	3900	3960	
40	DFT-s-OFDM QPSK	1	1	19.15	19.63	19.18	19.73	19.82	20.5
Channel				647668	651834	656000	660166	664332	20.5
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	
30	DFT-s-OFDM QPSK	1	1	18.99	19.72	19.14	19.62	19.79	20.5
Channel				647334	651668	656000	660332	664666	20.5
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	
20	DFT-s-OFDM QPSK	1	1	18.96	19.62	19.21	19.63	19.72	20.5

n78(3450-3550MHz) (PC3)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			18.5
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			17.79			18.5
100		1	136			17.86			
100		1	271			17.82			
100		135	1			17.79			
100		135	67			17.84			
100	DFT-s-OFDM QPSK	135	136			17.67			18.5
100		270	0			17.81			
100		1	1			17.81			
100		1	136			18.42			
100		1	271			17.86			
100	DFT-s-OFDM 16QAM	135	1			17.80			18.5
100		135	67			17.85			
100		135	136			17.56			
100		270	0			17.83			
100		270	0			17.83			
100	DFT-s-OFDM 64QAM	1	1			17.70			18.5
100	DFT-s-OFDM 256QAM	1	1			17.39			18
100	CP-OFDM QPSK	1	1			15.13			15.5
100	CP-OFDM 16QAM	1	1			17.82			18.5
100	CP-OFDM 64QAM	1	1			17.93			18.5
100	CP-OFDM 256QAM	1	1			15.96			16.5
100	CP-OFDM 256QAM	1	1			13.13			13.5
Channel				633000	633166	633334	633500	633666	18.5
Frequency (MHz)				3495	3497.49	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	17.81	17.77	17.88	17.80	17.80	18.5
Channel				632668	633000	633334	633666	634000	18.5
Frequency (MHz)				3490.02	3450	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	17.87	17.93	17.86	17.87	17.80	18.5
Channel				632334	632834	633334	633832	634332	18.5
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	17.91	17.92	17.95	17.84	17.82	18.5
Channel				632000	632666	633334	634000	634666	18.5
Frequency (MHz)				3480	3489.99	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	17.94	17.92	17.80	17.75	17.82	18.5
Channel				631668	632500	633334	634166	635000	18.5
Frequency (MHz)				3475.02	3487.5	3500.01	3512.49	3525	
50	DFT-s-OFDM QPSK	1	1	17.93	17.90	17.84	17.80	17.84	18.5
Channel				631334	636672	633334	634334	635332	18.5
Frequency (MHz)				3470.01	3485.01	3500.01	3515.01	3529.98	
40	DFT-s-OFDM QPSK	1	1	18.24	17.89	18.16	18.27	18.11	18.5
Channel				631000	632166	633334	634500	635666	18.5
Frequency (MHz)				3465	3482.49	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	18.16	18.14	18.14	18.10	17.92	18.5
Channel				630668	632000	633334	634668	636000	18.5
Frequency (MHz)				3460.02	3480	3500.01	3520.02	3540	
20	DFT-s-OFDM QPSK	1	1	18.08	18.05	18.09	18.03	17.86	18.5

n78(3450-3550MHz) (PC2)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			21
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			19.79			20.5
100		1	136			19.86			
100		1	271			19.83			
100		135	1			19.26			
100		135	67			19.85			
100	DFT-s-OFDM QPSK	135	136			19.08			21
100		270	0			19.29			
100		1	1			19.80			
100		1	136			20.38			
100		1	271			19.84			
100	DFT-s-OFDM 16QAM	135	1			18.77			20.5
100		135	67			19.80			
100		135	136			18.65			
100		270	0			18.79			
100		270	0			18.79			
100	DFT-s-OFDM 64QAM	1	1			18.73			20
100	DFT-s-OFDM 256QAM	1	1			17.37			19
100	CP-OFDM QPSK	1	1			15.13			15.5
100	CP-OFDM 16QAM	1	1			18.32			19
100	CP-OFDM 64QAM	1	1			17.89			18.5
100	CP-OFDM 256QAM	1	1			15.94			16.5
100	CP-OFDM 256QAM	1	1			13.10			13.5
Channel				633000	633166	633334	633500	633666	21
Frequency (MHz)				3495	3497.49	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	19.77	19.78	19.82	19.78	19.75	21
Channel				632668	633000	633334	633666	634000	21
Frequency (MHz)				3490.02	3450	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	19.89	19.89	19.81	19.86	19.77	21
Channel				632334	632834	633334	633832	634332	21
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	19.86	19.92	19.92	19.81	19.85	21
Channel				632000	632666	633334	634000	634666	21
Frequency (MHz)				3480	3489.99	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	19.91	19.89	19.79	19.73	19.84	21
Channel				631668	632500	633334	634166	635000	21
Frequency (MHz)				3475.02	3487.5	3500.01	3512.49	3525	
50	DFT-s-OFDM QPSK	1	1	19.90	19.86	19.80	19.81	19.83	21
Channel				631334	636672	633334	634334	635332	21
Frequency (MHz)				3470.01	3485.01	3500.01	3515.01	3529.98	
40	DFT-s-OFDM QPSK	1	1	20.30	19.86	20.13	20.24	20.09	21
Channel				631000	632166	633334	634500	635666	21
Frequency (MHz)				3465	3482.49	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	20.22	20.11	20.15	20.08	19.93	21
Channel				630668	632000	633334	634668	636000	21
Frequency (MHz)				3460.02	3480	3500.01	3520.02	3540	
20	DFT-s-OFDM QPSK	1	1	20.09	20.05	20.07	19.99	19.84	21

n78(3700-3800MHz) (PC3)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						650000			18.5
Frequency (MHz)						3750			
100	DFT-s-OFDM PI/2 BPSK	1	1			16.35			18.5
100		1	136			17.27			
100		1	271			17.33			
100		135	1			17.14			
100		135	67			17.28			
100	DFT-s-OFDM QPSK	135	136			17.18			18.5
100		270	0			17.17			
100		1	1			16.36			
100		1	136			17.28			
100		1	271			17.46			
100	DFT-s-OFDM QPSK	135	1			17.16			18.5
100		135	67			17.29			
100		135	136			17.17			
100		270	0			17.20			
100	DFT-s-OFDM 16QAM	1	1			16.26			17.5
100	DFT-s-OFDM 64QAM	1	1			15.93			16.5
100	DFT-s-OFDM 256QAM	1	1			13.67			14.5
100	CP-OFDM QPSK	1	1			16.38			17.5
100	CP-OFDM 16QAM	1	1			16.36			17.5
100	CP-OFDM 64QAM	1	1			14.43			15.5
100	CP-OFDM 256QAM	1	1			11.70			12.5
Channel				649668	649834	650000	650166	650332	18.5
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	
90	DFT-s-OFDM QPSK	1	1	16.33	16.48	16.51	16.58	16.63	18.5
Channel				649334	649666	650000	650334	650666	18.5
Frequency (MHz)				3740.01	3744.99	3750	3755.01	3759.99	
80	DFT-s-OFDM QPSK	1	1	16.37	16.57	16.77	16.87	17.07	18.5
Channel				649000	649500	650000	650500	651000	18.5
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	
70	DFT-s-OFDM QPSK	1	1	16.40	16.67	16.91	17.12	17.26	18.5
Channel				648668	649334	650000	650666	651332	18.5
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	
60	DFT-s-OFDM QPSK	1	1	16.38	16.72	16.97	17.11	17.17	18.5
Channel				648334	649166	650000	650834	651666	18.5
Frequency (MHz)				3725.01	3737.49	3750	3762.51	3774.99	
50	DFT-s-OFDM QPSK	1	1	16.50	16.85	17.23	17.20	17.19	18.5
Channel				648000	649000	650000	651000	652000	18.5
Frequency (MHz)				3720	3735	3750	3765	3780	
40	DFT-s-OFDM QPSK	1	1	16.85	17.06	17.40	17.44	17.47	18.5
Channel				647668	648834	650000	651166	652332	18.5
Frequency (MHz)				3715.02	3732.51	3750	3767.49	3784.98	
30	DFT-s-OFDM QPSK	1	1	16.76	17.11	17.33	17.32	17.33	18.5
Channel				647334	648666	650000	651334	652666	18.5
Frequency (MHz)				3710.01	3729.99	3750	3770.01	3789.99	
20	DFT-s-OFDM QPSK	1	1	16.73	17.11	17.19	17.14	17.24	18.5

n78(3700-3800MHz) (PC2)

BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						650000			20.5
Frequency (MHz)						3750			
100	DFT-s-OFDM PI/2 BPSK	1	1			18.35			19.5
100		1	136			19.25			
100		1	271			19.51			
100		135	1			18.62			
100		135	67			19.25			
100	DFT-s-OFDM QPSK	135	136			18.66			20.5
100		270	0			18.68			
100		1	1			18.33			
100		1	136			19.21			
100		1	271			19.62			
100	DFT-s-OFDM 16QAM	135	1			18.11			20
100		135	67			19.27			
100		135	136			18.18			
100		270	0			18.19			
100	DFT-s-OFDM 64QAM	1	1			17.26			18
100	DFT-s-OFDM 256QAM	1	1			15.88			16.5
100	CP-OFDM QPSK	1	1			13.71			14.5
100	CP-OFDM 16QAM	1	1			16.84			17.5
100	CP-OFDM 64QAM	1	1			16.44			17.5
100	CP-OFDM 256QAM	1	1			14.48			15.5
100	CP-OFDM 256QAM	1	1			11.72			12.5
Channel				649668	649834	650000	650166	650332	20.5
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	
90	DFT-s-OFDM QPSK	1	1	18.29	18.49	18.52	18.56	18.59	20.5
Channel				649334	649666	650000	650334	650666	20.5
Frequency (MHz)				3740.01	3744.99	3750	3755.01	3759.99	
80	DFT-s-OFDM QPSK	1	1	18.36	18.58	18.67	18.86	19.06	20.5
Channel				649000	649500	650000	650500	651000	20.5
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	
70	DFT-s-OFDM QPSK	1	1	18.37	18.68	18.89	19.12	19.24	20.5
Channel				648668	649334	650000	650666	651332	20.5
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	
60	DFT-s-OFDM QPSK	1	1	18.37	18.69	18.98	19.11	19.11	20.5
Channel				648334	649166	650000	650834	651666	20.5
Frequency (MHz)				3725.01	3737.49	3750	3762.51	3774.99	
50	DFT-s-OFDM QPSK	1	1	18.49	18.88	19.24	19.23	19.19	20.5
Channel				648000	649000	650000	651000	652000	20.5
Frequency (MHz)				3720	3735	3750	3765	3780	
40	DFT-s-OFDM QPSK	1	1	18.84	19.24	19.58	19.60	19.32	20.5
Channel				647668	648834	650000	651166	652332	20.5
Frequency (MHz)				3715.02	3732.51	3750	3767.49	3784.98	
30	DFT-s-OFDM QPSK	1	1	18.74	19.30	19.53	19.53	19.52	20.5
Channel				647334	648666	650000	651334	652666	20.5
Frequency (MHz)				3710.01	3729.99	3750	3770.01	3789.99	
20	DFT-s-OFDM QPSK	1	1	18.63	19.31	19.35	19.43	19.43	20.5

CA_5B													
Combination:10MHz+10MHz(50RB+50RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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				
20450	20450	829	20549	838.9	QPSK	1	0	0	0	1	0	22.90	24.00
20525	20476	831.6	20575	841.5	QPSK	1	0	0	0	1	0	23.01	24.00
20600	20501	834.1	20600	844	QPSK	1	0	0	0	1	0	22.93	24.00
20450	20450	829	20549	838.9	16QAM	1	0	0	0	1	0	21.98	23.00
20525	20476	831.6	20575	841.5	16QAM	1	0	0	0	1	0	22.09	23.00
20600	20501	834.1	20600	844	16QAM	1	0	0	0	1	0	22.04	23.00
20450	20450	829	20549	838.9	64QAM	1	0	0	0	1	0	21.14	22.00
20525	20476	831.6	20575	841.5	64QAM	1	0	0	0	1	0	21.11	22.00
20600	20501	834.1	20600	844	64QAM	1	0	0	0	1	0	21.03	22.00
20450	20450	829	20549	838.9	QPSK	50	0	0	0	1	0	21.88	23.00
20525	20476	831.6	20575	841.5	QPSK	50	0	0	0	1	0	21.95	23.00
20600	20501	834.1	20600	844	QPSK	50	0	0	0	1	0	21.94	23.00

CA_41C													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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	2506	39948	2525.8	QPSK	1	0	0	0	1	0	19.61	20.50
40620	40521	2583.1	40719	2602.9	QPSK	1	0	0	0	1	0	19.66	20.50
41490	41292	2660.2	41490	2680	QPSK	1	0	0	0	1	0	19.51	20.50
39750	39750	2506	39948	2525.8	16QAM	1	0	0	0	1	0	18.77	19.50
40620	40521	2583.1	40719	2602.9	16QAM	1	0	0	0	1	0	18.81	19.50
41490	41292	2660.2	41490	2680	16QAM	1	0	0	0	1	0	18.80	19.50
39750	39750	2506	39948	2525.8	64QAM	1	0	0	0	1	0	17.64	18.50
40620	40521	2583.1	40719	2602.9	64QAM	1	0	0	0	1	0	17.63	18.50
41490	41292	2660.2	41490	2680	64QAM	1	0	0	0	1	0	17.74	18.50
39750	39750	2506	39948	2525.8	QPSK	50	0	0	0	1	0	18.67	19.50
40620	40521	2583.1	40719	2602.9	QPSK	50	0	0	0	1	0	18.71	19.50
41490	41292	2660.2	41490	2680	QPSK	50	0	0	0	1	0	18.61	19.50

CA_41C_PC 2													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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	2506	39948	2525.8	QPSK	1	0	0	0	1	0	22.49	23.50
40620	40521	2583.1	40719	2602.9	QPSK	1	0	0	0	1	0	22.52	23.50
41490	41292	2660.2	41490	2680	QPSK	1	0	0	0	1	0	22.43	23.50
39750	39750	2506	39948	2525.8	16QAM	1	0	0	0	1	0	21.65	22.50
40620	40521	2583.1	40719	2602.9	16QAM	1	0	0	0	1	0	21.62	22.50
41490	41292	2660.2	41490	2680	16QAM	1	0	0	0	1	0	21.56	22.50
39750	39750	2506	39948	2525.8	64QAM	1	0	0	0	1	0	20.52	21.50
40620	40521	2583.1	40719	2602.9	64QAM	1	0	0	0	1	0	20.50	21.50
41490	41292	2660.2	41490	2680	64QAM	1	0	0	0	1	0	20.60	21.50
39750	39750	2506	39948	2525.8	QPSK	50	0	0	0	1	0	21.51	22.50
40620	40521	2583.1	40719	2602.9	QPSK	50	0	0	0	1	0	21.50	22.50
41490	41292	2660.2	41490	2680	QPSK	50	0	0	0	1	0	21.57	22.50

CA_48C													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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				
55340	55340	3560	55538	3579.8	QPSK	1	0	0	0	1	0	19.70	20.50
55990	55891	3615.1	56640	3690	QPSK	1	0	0	0	1	0	19.74	20.50
56640	56442	3670.2	56640	3690	QPSK	1	0	0	0	1	0	19.55	20.50
55340	55340	3560	55538	3579.8	16QAM	1	0	0	0	1	0	18.81	19.50
55990	55891	3615.1	56640	3690	16QAM	1	0	0	0	1	0	18.83	19.50
56640	56442	3670.2	56640	3690	16QAM	1	0	0	0	1	0	18.86	19.50
55340	55340	3560	55538	3579.8	64QAM	1	0	0	0	1	0	17.70	18.50
55990	55891	3615.1	56640	3690	64QAM	1	0	0	0	1	0	17.73	18.50
56640	56442	3670.2	56640	3690	64QAM	1	0	0	0	1	0	17.79	18.50
55340	55340	3560	55538	3579.8	QPSK	50	0	0	0	1	0	18.69	19.50
55990	55891	3615.1	56640	3690	QPSK	50	0	0	0	1	0	18.79	19.50
56640	56442	3670.2	56640	3690	QPSK	50	0	0	0	1	0	18.78	19.50

CA_66B													
Combination:10MHz+10MHz(50RB+50RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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				
132072	132022	1715	132121	1724.9	QPSK	1	0	0	0	1	0	16.65	17.50
132322	132373	1750.1	132472	1760	QPSK	1	0	0	0	1	0	16.80	17.50
132572	132523	1765.1	132622	1775	QPSK	1	0	0	0	1	0	16.69	17.50
132072	132022	1715	132121	1724.9	16QAM	1	0	0	0	1	0	15.66	16.50
132322	132373	1750.1	132472	1760	16QAM	1	0	0	0	1	0	15.69	16.50
132572	132523	1765.1	132622	1775	16QAM	1	0	0	0	1	0	15.64	16.50
132072	132022	1715	132121	1724.9	64QAM	1	0	0	0	1	0	14.66	15.50
132322	132373	1750.1	132472	1760	64QAM	1	0	0	0	1	0	14.65	15.50
132572	132523	1765.1	132622	1775	64QAM	1	0	0	0	1	0	14.69	15.50

132072	132022	1715	132121	1724.9	QPSK	25	0	0	0	1	0	15.59	16.50
132322	132373	1750.1	132472	1760	QPSK	25	0	0	0	1	0	15.71	16.50
132572	132523	1765.1	132622	1775	QPSK	25	0	0	0	1	0	15.61	16.50

CA_66C													
Combination:20MHz+20MHz(100RB+100RB)													
PCC Channel	PCC Channel (3GPP)	UL Fre. (MHz)	SCC Channel	UL Fre. (MHz)	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				
132072	132072	1720	132270	1739.8	QPSK	1	0	0	0	1	0	16.70	18.00
132322	132323	1745.1	132521	1764.9	QPSK	1	0	0	0	1	0	16.76	18.00
132572	132374	1750.2	132572	1770	QPSK	1	0	0	0	1	0	16.65	18.00
132072	132072	1720	132270	1739.8	16QAM	1	0	0	0	1	0	15.67	17.00
132322	132323	1745.1	132521	1764.9	16QAM	1	0	0	0	1	0	15.71	17.00
132572	132374	1750.2	132572	1770	16QAM	1	0	0	0	1	0	15.65	17.00
132072	132072	1720	132270	1739.8	64QAM	1	0	0	0	1	0	14.71	16.00
132322	132323	1745.1	132521	1764.9	64QAM	1	0	0	0	1	0	14.75	16.00
132572	132374	1750.2	132572	1770	64QAM	1	0	0	0	1	0	14.72	16.00
132072	132072	1720	132270	1739.8	QPSK	50	0	0	0	1	0	15.66	17.00
132322	132323	1745.1	132521	1764.9	QPSK	50	0	0	0	1	0	15.73	17.00
132572	132374	1750.2	132572	1770	QPSK	50	0	0	0	1	0	15.62	17.00

5.2GHz WLAN ANT 9

5.2GHz WLAN ANT 9	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 36	5180	14.68	15.50	15.00	98.64
		CH 40	5200	14.52	15.50	15.00	98.64
		CH 48	5240	14.10	15.00	15.00	97.26
	802.11n-HT20 MCS0	CH 36	5180	14.51	15.50	15.00	97.10
		CH 40	5200	14.39	15.00	15.00	98.54
		CH 48	5240	14.02	15.00	15.00	97.10
	802.11n-HT40 MCS0	CH 38	5190	14.80	15.50	15.00	94.29
		CH 46	5230	14.49	15.00	15.00	94.29
	802.11ac-VHT20 MCS0	CH 36	5180	14.56	15.50	15.00	97.10
		CH 44	5220	14.39	15.00	15.00	97.10
		CH 48	5240	14.01	15.00	15.00	97.10
	802.11ac-VHT40 MCS0	CH 38	5190	14.80	15.50	15.00	94.29
		CH 46	5230	14.48	15.00	15.00	94.29
	802.11ac-VHT80 MCS0	CH 42	5210	14.64	15.50	15.00	88.89

5.8GHz WLAN ANT 9

5.8GHz WLAN ANT 9	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Power Setting	Duty Cycle %
	802.11a 6Mbps	CH 149	5745	14.87	15.50	15.00	98.64
		CH 157	5785	15.01	16.00	15.00	97.26
		CH 165	5825	15.38	16.00	15.00	97.30
	802.11n-HT20 MCS0	CH 149	5745	14.68	15.50	15.00	99.03
		CH 157	5785	14.90	15.50	15.00	97.10
		CH 165	5825	15.22	16.00	15.00	97.10
	802.11n-HT40 MCS0	CH 151	5755	15.26	16.00	15.00	94.29
		CH 159	5795	15.23	16.00	15.00	94.29
	802.11ac-VHT20 MCS0	CH 149	5745	14.66	15.50	15.00	97.10
		CH 157	5785	14.88	15.50	15.00	97.10
		CH 165	5825	15.18	16.00	15.00	97.10
	802.11ac-VHT40 MCS0	CH 151	5755	15.22	16.00	15.00	94.29
		CH 159	5795	15.23	16.00	15.00	94.29
	802.11ac-VHT80 MCS0	CH 155	5775	15.10	16.00	15.00	88.89