



REPORT No.: SZ24060193S01

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 V (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		4132	4182	4233	
Rx Channel		9662	9800	9938		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		826.4	836.4	846.6	
3GPP Rel 99	RMC 12.2Kbps	22.99	23.01	22.97	24.50	23.15	23.21	23.08	24.50
3GPP Rel 5	HSDPA Subtest-1	22.21	22.26	22.23	23.00	22.58	22.56	22.57	23.00
3GPP Rel 5	HSDPA Subtest-2	22.22	22.29	22.27	23.00	22.66	22.64	22.60	23.00
3GPP Rel 5	HSDPA Subtest-3	21.72	21.76	21.75	22.50	22.09	22.13	22.15	22.50
3GPP Rel 5	HSDPA Subtest-4	21.70	21.69	21.73	22.50	22.07	22.02	22.13	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.23	22.25	22.22	23.00	22.58	22.58	22.57	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.20	22.24	22.24	23.00	22.56	22.56	22.57	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.69	21.73	21.76	22.50	22.04	22.08	22.06	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	21.71	21.77	21.77	22.50	22.07	22.06	22.07	23.00
3GPP Rel 6	HSUPA Subtest-1	22.22	22.21	22.28	23.00	22.60	22.59	22.68	23.00
3GPP Rel 6	HSUPA Subtest-2	21.71	21.72	21.81	22.50	22.08	22.04	22.14	23.00
3GPP Rel 6	HSUPA Subtest-3	22.23	22.21	22.22	23.00	22.61	22.62	22.64	23.00
3GPP Rel 6	HSUPA Subtest-4	22.20	22.25	22.28	23.00	22.64	22.57	22.57	23.00
3GPP Rel 6	HSUPA Subtest-5	22.25	22.29	22.25	23.00	22.62	22.69	22.72	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	21.64	21.72	21.73	22.50	22.05	22.00	22.10	22.50
Attenuator		Cable Loss				Cable Loss			
Mode		Max.				Max.			

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)				18600	18800	19000	
20	QPSK	1	0	23.15	23.24	23.10	
20	QPSK	1	49	23.09	23.16	23.09	24.5
20	QPSK	1	99	23.04	23.12	23.02	
20	QPSK	50	0	22.25	22.42	22.40	
20	QPSK	50	24	22.24	22.41	22.38	23.5
20	QPSK	50	50	22.24	22.40	22.34	
20	QPSK	100	0	22.17	22.28	22.22	
20	16QAM	1	0	22.56	22.64	22.64	23.5
20	16QAM	1	49	22.49	22.53	22.55	
20	16QAM	1	99	22.45	22.39	22.50	
20	16QAM	50	0	21.69	21.60	21.71	22.5
20	16QAM	50	24	21.66	21.58	21.70	
20	16QAM	50	50	21.65	21.56	21.69	
20	16QAM	100	0	21.54	21.50	21.65	22.5
20	64QAM	1	0	22.02	22.03	22.10	
20	64QAM	1	49	21.94	22.03	21.98	
20	64QAM	1	99	21.80	22.01	21.92	21.5
20	64QAM	50	0	20.91	21.11	21.14	
20	64QAM	50	24	20.91	21.10	21.12	
20	64QAM	50	50	20.90	21.06	21.11	21.5
20	64QAM	100	0	20.81	20.94	21.11	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	23.11	23.05	23.09	
15	QPSK	1	37	23.03	22.99	22.85	24.5
15	QPSK	1	74	23.03	22.94	22.87	
15	QPSK	36	0	22.46	22.31	22.30	
15	QPSK	36	20	22.37	22.25	22.27	23.5
15	QPSK	36	39	22.42	22.19	22.29	
15	QPSK	75	0	22.28	22.19	22.20	
15	16QAM	1	0	22.64	22.63	22.50	23.5
15	16QAM	1	37	22.68	22.51	22.40	
15	16QAM	1	74	22.59	22.40	22.30	
15	16QAM	36	0	21.89	21.85	21.63	22.5
15	16QAM	36	20	21.84	21.73	21.48	
15	16QAM	36	39	21.79	21.71	21.55	
15	16QAM	75	0	21.74	21.63	21.50	22.5
15	64QAM	1	0	22.19	22.25	21.79	
15	64QAM	1	37	22.09	22.17	21.78	
15	64QAM	1	74	21.97	22.07	21.84	21.5
15	64QAM	36	0	21.30	21.21	20.98	
15	64QAM	36	20	21.14	21.23	20.89	
15	64QAM	36	39	21.09	21.23	20.93	21.5
15	64QAM	75	0	21.10	21.09	20.89	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	QPSK	1	0	23.18	23.13	23.01	
10	QPSK	1	25	23.09	22.97	22.99	24.5
10	QPSK	1	49	23.02	22.90	22.93	
10	QPSK	25	0	22.33	22.20	22.27	
10	QPSK	25	12	22.38	22.31	22.28	23.5
10	QPSK	25	25	22.36	22.15	22.23	
10	QPSK	50	0	22.27	22.16	22.11	
10	16QAM	1	0	22.75	22.65	22.58	23.5
10	16QAM	1	25	22.70	22.56	22.47	
10	16QAM	1	49	22.63	22.45	22.37	
10	16QAM	25	0	21.84	21.80	21.60	22.5
10	16QAM	25	12	21.75	21.77	21.60	
10	16QAM	25	25	21.83	21.67	21.50	
10	16QAM	50	0	21.78	21.70	21.38	22.5
10	64QAM	1	0	22.13	22.19	21.82	
10	64QAM	1	25	22.12	22.23	21.90	
10	64QAM	1	49	21.99	22.09	21.77	21.5
10	64QAM	25	0	21.31	21.23	20.97	
10	64QAM	25	12	21.13	21.24	20.96	
10	64QAM	25	25	21.15	21.12	20.95	21.5
10	64QAM	50	0	21.19	21.09	20.85	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	QPSK	1	0	23.13	23.09	23.12	
5	QPSK	1	12	23.07	22.95	22.88	24.5
5	QPSK	1	24	23.04	22.89	22.85	
5	QPSK	12	0	22.32	22.23	22.28	
5	QPSK	12	7	22.43	22.17	22.24	23.5
5	QPSK	12	13	22.30	22.19	22.20	
5	QPSK	25	0	22.30	22.11	22.20	
5	16QAM	1	0	22.73	22.68	22.45	23.5
5	16QAM	1	12	22.65	22.50	22.42	
5	16QAM	1	24	22.67	22.46	22.40	
5	16QAM	12	0	21.88	21.82	21.59	22.5
5	16QAM	12	7	21.84	21.69	21.56	
5	16QAM	12	13	21.75	21.74	21.50	
5	16QAM	25	0	21.73	21.72	21.49	22.5
5	64QAM	1	0	22.11	22.20	21.87	
5	64QAM	1	12	22.09	22.23	21.85	
5	64QAM	1	24	21.97	22.04	21.81	21.5
5	64QAM	12	0	21.29	21.30	21.04	
5	64QAM	12	7	21.17	21.26	21.01	
5	64QAM	12	13	21.11	21.20	20.99	21.5
5	64QAM	25	0	21.21	21.13	20.94	
Channel				18615	18900	19165	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	23.14	23.09	23.02	
3	QPSK	1	8	23.08	22.91	22.88	24.5
3	QPSK	1	14	23.03	22.89	22.96	
3	QPSK	8	0	22.34	22.25	22.28	
3	QPSK	8	4	22.32	22.27	22.29	23.5

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	23.27	23.32	23.28	24.5
20	QPSK	1	49	23.19	23.27	23.20	
20	QPSK	1	99	23.16	23.19	23.10	
20	QPSK	50	0	22.31	22.42	22.35	
20	QPSK	50	24	22.27	22.37	22.33	23.5
20	QPSK	50	50	22.27	22.33	22.40	
20	QPSK	100	0	22.20	22.39	22.29	
20	16QAM	1	0	22.58	22.51	22.90	
20	16QAM	1	49	22.53	22.41	22.80	23.5
20	16QAM	1	99	22.53	22.40	22.68	
20	16QAM	50	0	21.87	21.67	21.87	
20	16QAM	50	24	21.84	21.65	21.86	
20	16QAM	50	50	21.82	21.63	21.83	22.5
20	16QAM	100	0	21.68	21.48	21.79	
20	64QAM	1	0	22.22	22.03	22.21	
20	64QAM	1	49	22.10	21.89	22.12	
20	64QAM	1	99	22.05	21.80	21.98	22.5
20	64QAM	50	0	21.27	20.99	21.31	
20	64QAM	50	24	21.24	20.96	21.27	
20	64QAM	50	50	21.21	20.94	21.26	
20	64QAM	100	0	21.20	20.90	21.21	21.5
Channel				20025	20175	20325	
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	23.16	23.23	23.23	
15	QPSK	1	37	23.03	23.10	22.98	24.5
15	QPSK	1	74	23.06	23.13	22.89	
15	QPSK	36	0	22.43	22.41	22.38	
15	QPSK	36	20	22.42	22.32	22.32	
15	QPSK	36	39	22.36	22.42	22.44	23.5
15	QPSK	75	0	22.24	22.38	22.23	
15	16QAM	1	0	22.65	22.77	22.61	
15	16QAM	1	37	22.68	22.76	22.56	
15	16QAM	1	74	22.59	22.67	22.53	23.5
15	16QAM	36	0	21.84	21.90	21.82	
15	16QAM	36	20	21.82	21.92	21.86	
15	16QAM	36	39	21.66	21.96	21.84	
15	16QAM	75	0	21.67	21.84	21.74	22.5
15	64QAM	1	0	22.34	22.32	22.24	
15	64QAM	1	37	22.32	22.24	22.23	
15	64QAM	1	74	22.12	22.07	22.20	
15	64QAM	36	0	21.40	21.33	21.43	22.5
15	64QAM	36	20	21.34	21.37	21.33	
15	64QAM	36	39	21.31	21.27	21.33	
15	64QAM	75	0	21.18	21.22	21.36	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	23.22	23.28	23.17	
10	QPSK	1	25	23.03	23.07	22.98	24.5
10	QPSK	1	49	22.99	23.14	22.94	
10	QPSK	25	0	22.51	22.33	22.45	
10	QPSK	25	12	22.44	22.39	22.45	
10	QPSK	25	25	22.44	22.39	22.35	23.5
10	QPSK	50	0	22.36	22.37	22.24	
10	16QAM	1	0	22.75	22.85	22.71	
10	16QAM	1	25	22.71	22.73	22.61	
10	16QAM	1	49	22.60	22.72	22.51	23.5
10	16QAM	25	0	21.73	21.95	21.89	
10	16QAM	25	12	21.75	21.87	21.79	
10	16QAM	25	25	21.68	21.91	21.80	
10	16QAM	50	0	21.71	21.80	21.60	22.5
10	64QAM	1	0	22.37	22.35	22.34	
10	64QAM	1	25	22.27	22.21	22.21	
10	64QAM	1	49	22.16	22.11	22.09	
10	64QAM	25	0	21.46	21.32	21.37	21.5
10	64QAM	25	12	21.44	21.34	21.37	
10	64QAM	25	25	21.35	21.28	21.30	
10	64QAM	50	0	21.19	21.14	21.34	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	23.22	23.26	23.22	
5	QPSK	1	12	23.13	23.13	22.97	24.5
5	QPSK	1	24	23.10	23.01	22.93	
5	QPSK	12	0	22.46	22.41	22.45	
5	QPSK	12	7	22.39	22.31	22.35	
5	QPSK	12	13	22.37	22.42	22.32	23.5
5	QPSK	25	0	22.36	22.35	22.20	
5	16QAM	1	0	22.76	22.81	22.73	
5	16QAM	1	12	22.68	22.72	22.50	
5	16QAM	1	24	22.55	22.69	22.46	23.5
5	16QAM	12	0	21.79	21.87	21.89	
5	16QAM	12	7	21.72	21.87	21.76	
5	16QAM	12	13	21.79	21.89	21.72	
5	16QAM	25	0	21.73	21.90	21.72	22.5
5	64QAM	1	0	22.39	22.30	22.28	
5	64QAM	1	12	22.32	22.19	22.15	
5	64QAM	1	24	22.25	22.15	22.10	
5	64QAM	12	0	21.45	21.31	21.42	21.5
5	64QAM	12	7	21.42	21.24	21.34	
5	64QAM	12	13	21.27	21.23	21.31	
5	64QAM	25	0	21.29	21.29	21.40	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	23.21	23.19	23.26	
3	QPSK	1	8	23.14	23.12	23.06	24.5
3	QPSK	1	14	23.03	23.07	22.91	
3	QPSK	8	0	22.43	22.34	22.48	
3	QPSK	8	4	22.48	22.45	22.38	

3	QPSK	8	7	22.33	22.16	22.26	23.5
3	QPSK	15	0	22.27	22.06	22.13	
3	16QAM	1	0	22.75	22.63	22.52	
3	16QAM	1	8	22.65	22.55	22.52	22.5
3	16QAM	1	14	22.63	22.52	22.34	
3	16QAM	8	0	21.76	21.76	21.65	
3	16QAM	8	4	21.84	21.79	21.57	22.5
3	16QAM	8	7	21.84	21.70	21.49	
3	16QAM	15	0	21.71	21.67	21.52	
3	64QAM	1	0	22.17	22.29	21.92	22.5
3	64QAM	1	8	22.01	22.21	21.81	
3	64QAM	1	14	21.97	22.09	21.79	
3	64QAM	8	0	21.21	21.32	20.93	21.5
3	64QAM	8	4	21.19	21.24	21.00	
3	64QAM	8	7	21.13	21.23	21.01	
3	64QAM	15	0	21.19	21.09	20.91	Tune-up limit
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	23.20	23.07	22.99	24.5
1.4	QPSK	1	3	23.04	22.89	22.86	
1.4	QPSK	1	5	23.05	22.92	22.89	
1.4	QPSK	3	0	22.55	22.40	22.42	23.5
1.4	QPSK	3	1	22.55	22.27	22.28	
1.4	QPSK	3	3	22.40	22.27	22.39	
1.4	QPSK	6	0	22.34	22.07	22.13	23.5
1.4	16QAM	1	0	22.70	22.57	22.57	
1.4	16QAM	1	3	22.60	22.56	22.51	
1.4	16QAM	1	5	22.67	22.49	22.35	23.5
1.4	16QAM	3	0	21.89	21.81	21.55	
1.4	16QAM	3	1	21.74	21.69	21.61	
1.4	16QAM	3	3	21.76	21.78	21.56	22.5
1.4	16QAM	6	0	21.78	21.65	21.37	
1.4	64QAM	1	0	22.19	22.18	21.79	
1.4	64QAM	1	3	22.01	22.16	21.85	22.5
1.4	64QAM	1	5	22.00	22.09	21.83	
1.4	64QAM	3	0	21.28	21.25	20.93	
1.4	64QAM	3	1	21.25	21.27	20.97	21.5
1.4	64QAM	3	3	21.19	21.22	20.98	
1.4	64QAM	6	0	21.08	21.19	20.94	

3	QPSK	8	7	22.46	22.37	22.34	23.5
3	QPSK	15	0	22.33	22.37	22.20	
3	16QAM	1	0	22.70	22.86	22.68	
3	16QAM	1	8	22.58	22.78	22.50	22.5
3	16QAM	1	14	22.56	22.72	22.40	
3	16QAM	8	0	21.76	21.97	21.85	
3	16QAM	8	4	21.75	21.86	21.79	22.5
3	16QAM	8	7	21.69	21.86	21.77	
3	16QAM	15	0	21.66	21.78	21.69	
3	64QAM	1	0	22.30	22.26	22.24	22.5
3	64QAM	1	8	22.29	22.17	22.25	
3	64QAM	1	14	22.14	22.07	22.13	
3	64QAM	8	0	21.45	21.29	21.32	21.5
3	64QAM	8	4	21.33	21.26	21.42	
3	64QAM	8	7	21.30	21.23	21.32	
3	64QAM	15	0	21.32	21.24	21.29	Tune-up limit
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	23.20	23.27	23.16	24.5
1.4	QPSK	1	3	23.14	23.16	23.10	
1.4	QPSK	1	5	23.10	23.00	22.90	
1.4	QPSK	3	0	22.43	22.39	22.41	23.5
1.4	QPSK	3	1	22.46	22.45	22.43	
1.4	QPSK	3	3	22.44	22.35	22.41	
1.4	QPSK	6	0	22.35	22.43	22.21	23.5
1.4	16QAM	1	0	22.79	22.83	22.68	
1.4	16QAM	1	3	22.58	22.82	22.54	
1.4	16QAM	1	5	22.47	22.74	22.41	23.5
1.4	16QAM	3	0	21.86	21.96	21.88	
1.4	16QAM	3	1	21.70	21.91	21.74	
1.4	16QAM	3	3	21.77	21.93	21.80	22.5
1.4	16QAM	6	0	21.68	21.77	21.72	
1.4	64QAM	1	0	22.37	22.30	22.33	
1.4	64QAM	1	3	22.34	22.12	22.20	22.5
1.4	64QAM	1	5	22.12	22.07	22.21	
1.4	64QAM	3	0	21.43	21.34	21.39	
1.4	64QAM	3	1	21.33	21.33	21.36	21.5
1.4	64QAM	3	3	21.28	21.32	21.32	
1.4	64QAM	6	0	21.27	21.15	21.36	

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	23.34	23.40	23.38	24.5
10	QPSK	1	25	23.33	23.38	23.35	
10	QPSK	1	49	23.19	23.37	23.25	
10	QPSK	25	0	22.57	22.59	22.52	23.5
10	QPSK	25	12	22.52	22.56	22.51	
10	QPSK	25	25	22.49	22.54	22.46	
10	QPSK	50	0	22.36	22.51	22.38	23.5
10	16QAM	1	0	22.72	22.94	22.88	
10	16QAM	1	25	22.71	22.92	22.73	
10	16QAM	1	49	22.71	22.88	22.62	22.5
10	16QAM	25	0	21.87	22.10	21.79	
10	16QAM	25	12	21.85	22.09	21.74	
10	16QAM	25	25	21.84	22.09	21.73	22.5
10	16QAM	50	0	21.77	22.00	21.73	
10	64QAM	1	0	21.68	22.01	21.85	
10	64QAM	1	25	21.68	21.89	21.80	21.5
10	64QAM	1	49	21.64	21.81	21.69	
10	64QAM	25	0	20.92	21.14	20.95	
10	64QAM	25	12	20.89	21.10	20.91	21.5
10	64QAM	25	25	20.88	21.06	20.86	
10	64QAM	50	0	20.78	21.01	20.83	
Channel				20425	20525	20625	24.5
Frequency (MHz)				826.5	836.5	846.5	
5	QPSK	1	0	23.26	23.34	23.23	24.5
5	QPSK	1	12	23.24	23.20	23.20	
5	QPSK	1	24	23.10	23.11	23.09	
5	QPSK	12	0	22.58	22.28	22.49	23.5
5	QPSK	12	7	22.44	22.25	22.37	
5	QPSK	12	13	22.41	22.31	22.40	
5	QPSK	25	0	22.40	22.24	22.27	23.5
5	16QAM	1	0	22.79	22.60	22.66	
5	16QAM	1	12	22.81	22.56	22.50	
5	16QAM	1	24	22.67	22.41	22.37	22.5
5	16QAM	12	0	21.86	21.83	21.77	
5	16QAM	12	7	21.89	21.82	21.76	
5	16QAM	12	13	21.89	21.74	21.73	22.5
5	16QAM	25	0	21.80	21.74	21.51	
5	64QAM	1	0	21.84	21.88	21.60	
5	64QAM	1	12	21.77	21.82	21.55	22.5
5	64QAM	1	24	21.70	21.81	21.50	
5	64QAM	12	0	20.92	21.09	20.65	
5	64QAM	12	7	20.97	21.05	20.72	21.5
5	64QAM	12	13	20.82	20.99	20.60	
5	64QAM	25	0	20.83	20.89	20.59	
Channel				20415	20525	20635	24.5
Frequency (MHz)				825.5	836.5	847.5	
3	QPSK	1	0	23.35	23.31	23.21	24.5
3	QPSK	1	8	23.20	23.27	23.24	
3	QPSK	1	14	23.12	23.08	23.15	
3	QPSK	8	0	22.47	22.35	22.37	23.5
3	QPSK	8	4	22.45	22.22	22.45	
3	QPSK	8	7	22.43	22.32	22.43	
3	QPSK	15	0	22.37	22.25	22.28	23.5
3	16QAM	1	0	22.82	22.65	22.52	
3	16QAM	1	8	22.77	22.59	22.45	
3	16QAM	1	14	22.71	22.48	22.42	22.5
3	16QAM	8	0	21.99	21.79	21.78	
3	16QAM	8	4	21.94	21.73	21.66	
3	16QAM	8	7	21.85	21.81	21.62	22.5
3	16QAM	15	0	21.80	21.69	21.63	
3	64QAM	1	0	21.95	21.89	21.60	
3	64QAM	1	8	21.78	21.76	21.56	21.5
3	64QAM	1	14	21.66	21.80	21.51	
3	64QAM	8	0	20.97	21.15	20.68	
3	64QAM	8	4	20.96	21.13	20.69	21.5
3	64QAM	8	7	20.88	20.99	20.68	
3	64QAM	15	0	20.93	21.02	20.48	
Channel				20407	20525	20643	24.5
Frequency (MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	23.34	23.23	23.28	24.5
1.4	QPSK	1	3	23.26	23.24	23.22	
1.4	QPSK	1	5	23.06	23.13	23.16	
1.4	QPSK	3	0	22.56	22.27	22.42	23.5
1.4	QPSK	3	1	22.51	22.33	22.43	
1.4	QPSK	3	3	22.39	22.28	22.41	
1.4	QPSK	6	0	22.41	22.26	22.26	23.5
1.4	16QAM	1	0	22.79	22.62	22.52	
1.4	16QAM	1	3	22.75	22.60	22.46	
1.4	16QAM	1	5	22.68	22.51	22.42	22.5
1.4	16QAM	3	0	21.94	21.75	21.79	
1.4	16QAM	3	1	21.90	21.75	21.75	
1.4	16QAM	3	3	21.81	21.80	21.69	22.5
1.4	16QAM	6	0	21.80	21.69	21.57	
1.4	64QAM	1	0	21.86	21.86	21.55	
1.4	64QAM	1	3	21.80	21.84	21.51	22.5
1.4	64QAM	1	5	21.72	21.70	21.53	
1.4	64QAM	3	0	20.94	21.02	20.75	
1.4	64QAM	3	1	20.91	21.10	20.62	21.5
1.4	64QAM	3	3	20.83	21.11	20.63	
1.4	64QAM	6	0	20.95	20.90	20.51	

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	23.06	23.10	23.03	24.5
20	QPSK	1	49	22.93	23.09	23.00	
20	QPSK	1	99	22.91	23.01	22.89	
20	QPSK	50	0	22.07	22.22	22.17	23.5
20	QPSK	50	24	22.06	22.19	22.17	
20	QPSK	50	50	22.03	22.16	22.12	
20	QPSK	100	0	21.93	22.02	22.00	23.5
20	16QAM	1	0	22.37	22.40	22.46	
20	16QAM	1	49	22.37	22.30	22.32	
20	16QAM	1	99	22.27	22.23	22.25	22.5
20	16QAM	50	0	21.42	21.60	21.65	
20	16QAM	50	24	21.37	21.58	21.61	
20	16QAM	50	50	21.32	21.55	21.58	22.5
20	16QAM	100	0	21.21	21.43	21.55	
20	64QAM	1	0	21.62	21.84	22.15	
20	64QAM	1	49	21.58	21.80	22.10	22.5
20	64QAM	1	99	21.47	21.70	22.07	
20	64QAM	50	0	20.67	20.80	21.28	
20	64QAM	50	24	20.63	20.77	21.26	21.5
20	64QAM	50	50	20.62	20.75	21.22	
20	64QAM	100	0	20.49	20.66	21.14	
Channel				20825	21100	21375	Tune-up limit (dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	QPSK	1	0	22.96	22.95	22.85	24.5
15	QPSK	1	37	22.80	22.92	22.88	
15	QPSK	1	74	22.86	22.83	22.79	
15	QPSK	36	0	22.10	21.88	22.22	23.5
15	QPSK	36	20	22.00	21.96	22.07	
15	QPSK	36	39	22.01	21.83	22.09	
15	QPSK	75	0	22.07	21.74	22.06	23.5
15	16QAM	1	0	22.39	22.36	22.36	
15	16QAM	1	37	22.43	22.21	22.39	
15	16QAM	1	74	22.22	22.12	22.26	22.5
15	16QAM	36	0	21.53	21.40	21.53	
15	16QAM	36	20	21.51	21.39	21.57	
15	16QAM	36	39	21.39	21.33	21.55	22.5
15	16QAM	75	0	21.35	21.25	21.49	
15	64QAM	1	0	21.83	21.64	22.03	
15	64QAM	1	37	21.71	21.61	21.83	22.5
15	64QAM	1	74	21.61	21.53	21.82	
15	64QAM	36	0	20.80	20.82	20.95	
15	64QAM	36	20	20.89	20.75	20.96	21.5
15	64QAM	36	39	20.83	20.66	20.94	
15	64QAM	75	0	20.67	20.64	20.96	
Channel				20800	21100	21400	Tune-up limit (dBm)
Frequency (MHz)				2505	2535	2565	
10	QPSK	1	0	22.96	22.99	22.97	24.5
10	QPSK	1	25	22.85	22.95	22.84	
10	QPSK	1	49	22.81	22.73	22.74	
10	QPSK	25	0	22.06	21.96	22.24	23.5
10	QPSK	25	12	22.10	21.95	22.17	
10	QPSK	25	25	21.99	21.96	22.09	
10	QPSK	50	0	22.08	21.83	22.16	23.5
10	16QAM	1	0	22.44	22.27	22.42	
10	16QAM	1	25	22.48	22.13	22.42	
10	16QAM	1	49	22.26	22.17	22.27	22.5
10	16QAM	25	0	21.41	21.42	21.53	
10	16QAM	25	12	21.42	21.38	21.54	
10	16QAM	25	25	21.37	21.42	21.53	22.5
10	16QAM	50	0	21.30	21.32	21.55	
10	64QAM	1	0	21.83	21.76	22.04	
10	64QAM	1	25	21.79	21.70	21.86	22.5
10	64QAM	1	49	21.58	21.63	21.92	
10	64QAM	25	0	20.84	20.76	20.94	
10	64QAM	25	12	20.86	20.79	20.97	21.5
10	64QAM	25	25	20.87	20.77	20.91	
10	64QAM	50	0	20.76	20.67	20.89	
Channel				20775	21100	21425	Tune-up limit (dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	QPSK	1	0	23.00	22.94	22.86	24.5
5	QPSK	1	12	22.91	22.86	22.90	
5	QPSK	1	24	22.81	22.71	22.81	
5	QPSK	12	0	22.06	22.01	22.17	23.5
5	QPSK	12	7	21.98	21.93	22.09	
5	QPSK	12	13	22.07	21.94	22.10	
5	QPSK	25	0	22.08	21.80	22.13	23.5
5	16QAM	1	0	22.47	22.23	22.36	
5	16QAM	1	12	22.49	22.24	22.38	
5	16QAM	1	24	22.23	22.11	22.31	22.5
5	16QAM	12	0	21.52	21.41	21.57	
5	16QAM	12	7	21.43	21.35	21.62	
5	16QAM	12	13	21.36	21.43	21.60	22.5
5	16QAM	25	0	21.34	21.31	21.56	
5	64QAM	1	0	21.80	21.72	21.98	
5	64QAM	1	12	21.70	21.71	21.87	22.5
5	64QAM	1	24	21.64	21.56	21.89	
5	64QAM	12	0	20.84	20.78	20.98	
5	64QAM	12	7	20.81	20.73	21.01	21.5
5	64QAM	12	13	20.86	20.66	20.89	
5	64QAM	25	0	20.69	20.62	20.87	

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	24.5
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	23.26	23.31	23.18	24.5
10	QPSK	1	25	23.14	23.27	23.05	
10	QPSK	1	49	23.13	23.24	23.00	
10	QPSK	25	0	22.40	22.43	22.35	23.5
10	QPSK	25	12	22.37	22.40	22.33	
10	QPSK	25	25	22.33	22.38	22.28	
10	QPSK	50	0	22.38	22.34	22.19	23.5
10	16QAM	1	0	22.89	22.78	22.64	
10	16QAM	1	25	22.76	22.74	22.60	
10	16QAM	1	49	22.73	22.69	22.54	22.5
10	16QAM	25	0	21.91	21.93	21.77	
10	16QAM	25	12	21.90	21.92	21.74	
10	16QAM	25	25	21.86	21.88	21.71	22.5
10	16QAM	50	0	21.78	21.81	21.58	
10	64QAM	1	0	22.26	22.38	22.06	
10	64QAM	1	25	22.23	22.36	22.00	22.5
10	64QAM	1	49	22.09	22.25	21.95	
10	64QAM	25	0	21.38	21.34	21.06	
10	64QAM	25	12	21.38	21.33	21.04	21.5
10	64QAM	25	25	21.35	21.33	21.00	
10	64QAM	50	0	21.34	21.22	20.87	
Channel				23035	23095	23155	24.5
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	23.20	23.18	23.18	24.5
5	QPSK	1	12	23.09	23.14	23.15	
5	QPSK	1	24	23.03	23.06	23.06	
5	QPSK	12	0	22.27	22.33	22.44	23.5
5	QPSK	12	7	22.32	22.37	22.29	
5	QPSK	12	13	22.25	22.24	22.27	
5	QPSK	25	0	22.07	22.22	22.15	23.5
5	16QAM	1	0	22.56	22.49	22.59	
5	16QAM	1	12	22.59	22.44	22.45	
5	16QAM	1	24	22.54	22.24	22.37	22.5
5	16QAM	12	0	21.82	21.64	21.55	
5	16QAM	12	7	21.76	21.58	21.56	
5	16QAM	12	13	21.76	21.65	21.53	22.5
5	16QAM	25	0	21.72	21.43	21.39	
5	64QAM	1	0	22.06	22.01	22.07	
5	64QAM	1	12	21.91	21.89	21.98	22.5
5	64QAM	1	24	21.99	21.80	21.88	
5	64QAM	12	0	21.19	21.01	21.20	
5	64QAM	12	7	21.08	20.95	21.13	21.5
5	64QAM	12	13	21.18	20.92	20.97	
5	64QAM	25	0	21.05	20.92	20.94	
Channel				23025	23095	23165	24.5
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	23.25	23.12	23.16	24.5
3	QPSK	1	8	23.00	23.15	23.17	
3	QPSK	1	14	23.00	23.00	23.02	
3	QPSK	8	0	22.26	22.38	22.38	23.5
3	QPSK	8	4	22.23	22.24	22.37	
3	QPSK	8	7	22.21	22.32	22.34	
3	QPSK	15	0	22.12	22.25	22.13	23.5
3	16QAM	1	0	22.58	22.45	22.55	
3	16QAM	1	8	22.55	22.47	22.43	
3	16QAM	1	14	22.63	22.31	22.34	22.5
3	16QAM	8	0	21.87	21.64	21.58	
3	16QAM	8	4	21.75	21.61	21.55	
3	16QAM	8	7	21.78	21.64	21.47	22.5
3	16QAM	15	0	21.65	21.41	21.46	
3	64QAM	1	0	22.11	22.01	22.04	
3	64QAM	1	8	22.02	21.89	21.94	22.5
3	64QAM	1	14	21.98	21.76	21.90	
3	64QAM	8	0	21.14	21.08	21.06	21.5
3	64QAM	8	4	21.10	21.01	21.05	
3	64QAM	8	7	21.18	20.93	20.99	
3	64QAM	15	0	21.17	20.93	20.89	21.5
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	24.5
1.4	QPSK	1	0	23.17	23.07	23.11	
1.4	QPSK	1	3	22.98	23.10	23.09	24.5
1.4	QPSK	1	5	22.96	23.08	23.03	
1.4	QPSK	3	0	22.25	22.37	22.33	
1.4	QPSK	3	1	22.24	22.24	22.38	23.5
1.4	QPSK	3	3	22.16	22.29	22.33	
1.4	QPSK	6	0	22.02	22.11	22.14	
1.4	16QAM	1	0	22.61	22.44	22.55	23.5
1.4	16QAM	1	3	22.65	22.39	22.52	
1.4	16QAM	1	5	22.53	22.32	22.43	
1.4	16QAM	3	0	21.90	21.55	21.53	22.5
1.4	16QAM	3	1	21.82	21.63	21.62	
1.4	16QAM	3	3	21.76	21.62	21.48	
1.4	16QAM	6	0	21.65	21.37	21.35	22.5
1.4	64QAM	1	0	22.16	22.07	22.10	
1.4	64QAM	1	3	21.92	21.91	22.02	
1.4	64QAM	1	5	21.92	21.80	21.87	22.5
1.4	64QAM	3	0	21.24	21.03	21.16	
1.4	64QAM	3	1	21.15	21.03	21.10	
1.4	64QAM	3	3	21.14	21.00	21.06	21.5
1.4	64QAM	6	0	21.06	20.93	20.93	

Band 13(700MHz Band) (dBm) Part 27F							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23230			
Frequency (MHz)				782			
10	QPSK	1	0		23.44		24.5
10	QPSK	1	25		23.42		
10	QPSK	1	49		23.39		
10	QPSK	25	0		22.58		23.5
10	QPSK	25	12		22.57		
10	QPSK	25	25		22.54		
10	QPSK	50	0		22.52		23.5
10	16QAM	1	0		22.86		
10	16QAM	1	25		22.77		
10	16QAM	1	49		22.67		22.5
10	16QAM	25	0		22.03		
10	16QAM	25	12		22.00		
10	16QAM	25	25		21.96		22.5
10	16QAM	50	0		21.88		
10	64QAM	1	0		22.50		
10	64QAM	1	25		22.47		22.5
10	64QAM	1	49		22.34		
10	64QAM	25	0		21.12		
10	64QAM	25	12		21.07		21.5
10	64QAM	25	25		20.92		
10	64QAM	50	0		21.00		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	23.43	23.35	23.32	24.5
5	QPSK	1	12	23.31	23.34	23.37	
5	QPSK	1	24	23.19	23.21	23.27	
5	QPSK	12	0	22.23	22.17	22.35	23.5
5	QPSK	12	7	22.17	22.21	22.20	
5	QPSK	12	13	22.12	22.19	22.29	
5	QPSK	25	0	22.01	22.08	22.01	23.5
5	16QAM	1	0	22.50	22.48	22.51	
5	16QAM	1	12	22.48	22.24	22.31	
5	16QAM	1	24	22.47	22.20	22.37	22.5
5	16QAM	12	0	21.72	21.49	21.42	
5	16QAM	12	7	21.78	21.51	21.39	
5	16QAM	12	13	21.73	21.49	21.49	22.5
5	16QAM	25	0	21.60	21.27	21.28	
5	64QAM	1	0	22.00	21.89	21.88	
5	64QAM	1	12	21.95	21.76	21.87	22.5
5	64QAM	1	24	21.79	21.80	21.82	
5	64QAM	12	0	21.09	20.99	20.98	
5	64QAM	12	7	21.01	20.88	20.99	21.5
5	64QAM	12	13	21.05	20.91	20.94	
5	64QAM	25	0	20.94	20.91	20.80	

Band 66 (dBm)							
BW (MHz)	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	24.5
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	23.12	23.19	23.14	24.5
20	QPSK	1	49	23.00	23.06	23.05	
20	QPSK	1	99	22.89	22.99	22.91	
20	QPSK	50	0	22.16	22.40	22.31	23.5
20	QPSK	50	24	22.05	22.27	22.35	
20	QPSK	50	50	22.05	22.26	22.31	
20	QPSK	100	0	22.11	22.31	22.27	23.5
20	16QAM	1	0	22.52	22.52	22.61	
20	16QAM	1	49	22.51	22.50	22.55	
20	16QAM	1	99	22.50	22.48	22.42	22.5
20	16QAM	50	0	21.79	21.80	21.73	
20	16QAM	50	24	21.77	21.76	21.73	
20	16QAM	50	50	21.76	21.74	21.70	22.5
20	16QAM	100	0	21.72	21.70	21.60	
20	64QAM	1	0	22.12	22.18	22.21	
20	64QAM	1	49	22.04	22.08	22.18	22.5
20	64QAM	1	99	21.97	21.94	22.10	
20	64QAM	50	0	21.28	21.03	21.22	21.5
20	64QAM	50	24	21.28	21.02	21.22	
20	64QAM	50	50	21.27	21.02	21.21	
20	64QAM	100	0	21.14	20.91	21.09	24.5
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	24.5
15	QPSK	1	0	23.04	23.09	23.21	
15	QPSK	1	37	23.00	22.90	23.22	24.5
15	QPSK	1	74	22.80	22.84	23.10	
15	QPSK	36	0	22.26	22.18	22.54	
15	QPSK	36	20	22.08	22.17	22.51	23.5
15	QPSK	36	39	22.08	22.04	22.33	
15	QPSK	75	0	22.09	21.98	22.36	
15	16QAM	1	0	22.44	22.46	22.75	23.5
15	16QAM	1	37	22.25	22.40	22.77	
15	16QAM	1	74	22.26	22.31	22.68	
15	16QAM	36	0	21.43	21.68	21.89	22.5
15	16QAM	36	20	21.51	21.53	21.81	
15	16QAM	36	39	21.39	21.58	21.84	
15	16QAM	75	0	21.19	21.57	21.77	22.5
15	64QAM	1	0	21.92	22.11	22.31	
15	64QAM	1	37	21.76	22.00	22.18	
15	64QAM	1	74	21.59	21.89	22.12	21.5
15	64QAM	36	0	20.92	21.21	21.32	
15	64QAM	36	20	20.92	21.21	21.31	
15	64QAM	36	39	20.88	21.23	21.28	21.5
15	64QAM	75	0	20.92	21.27	21.19	
Channel				132022	132322	132622	24.5
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	23.00	23.10	23.17	24.5
10	QPSK	1	25	22.96	22.90	23.21	
10	QPSK	1	49	22.93	22.88	23.00	
10	QPSK	25	0	22.15	22.11	22.54	23.5
10	QPSK	25	12	22.14	22.08	22.46	
10	QPSK	25	25	22.11	22.00	22.43	
10	QPSK	50	0	22.09	22.00	22.47	23.5
10	16QAM	1	0	22.39	22.43	22.82	
10	16QAM	1	25	22.24	22.29	22.73	
10	16QAM	1	49	22.28	22.39	22.72	22.5
10	16QAM	25	0	21.50	21.59	21.82	
10	16QAM	25	12	21.37	21.63	21.75	
10	16QAM	25	25	21.34	21.61	21.83	22.5
10	16QAM	50	0	21.30	21.56	21.81	
10	64QAM	1	0	21.82	22.03	22.23	
10	64QAM	1	25	21.82	22.01	22.22	21.5
10	64QAM	1	49	21.69	21.88	22.08	
10	64QAM	25	0	20.92	21.31	21.32	
10	64QAM	25	12	20.94	21.32	21.32	21.5
10	64QAM	25	25	20.89	21.29	21.37	
10	64QAM	50	0	20.97	21.31	21.22	
Channel				131997	132322	132647	24.5
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	23.11	23.06	23.20	24.5
5	QPSK	1	12	22.97	22.99	23.22	
5	QPSK	1	24	22.95	22.87	23.07	
5	QPSK	12	0	22.20	22.14	22.50	23.5
5	QPSK	12	7	22.08	22.12	22.44	
5	QPSK	12	13	22.13	22.09	22.40	
5	QPSK	25	0	21.95	22.07	22.40	23.5
5	16QAM	1	0	22.32	22.46	22.75	
5	16QAM	1	12	22.19	22.35	22.69	
5	16QAM	1	24	22.22	22.30	22.70	22.5
5	16QAM	12	0	21.46	21.56	21.87	
5	16QAM	12	7	21.40	21.60	21.87	
5	16QAM	12	13	21.43	21.61	21.74	22.5
5	16QAM	25	0	21.31	21.61	21.78	
5	64QAM	1	0	21.94	22.13	22.32	
5	64QAM	1	12	21.79	22.08	22.19	21.5
5	64QAM	1	24	21.65	22.02	22.16	
5	64QAM	12	0	21.00	21.26	21.32	
5	64QAM	12	7	20.87	21.30	21.33	21.5
5	64QAM	12	13	20.88	21.33	21.34	
5	64QAM	25	0	20.98	21.24	21.23	
Channel				131987	132322	132657	24.5
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	23.11	23.04	23.22	24.5
3	QPSK	1	8	22.92	22.96	23.10	
3	QPSK	1	14	22.93	22.82	23.01	
3	QPSK	8	0	22.20	22.11	22.51	
3	QPSK	8	4	22.17	22.15	22.45	

3	QPSK	8	7	22.10	22.01	22.36	23.5
3	QPSK	15	0	22.05	22.06	22.35	
3	16QAM	1	0	22.36	22.42	22.70	23.5
3	16QAM	1	8	22.22	22.39	22.71	
3	16QAM	1	14	22.23	22.40	22.68	22.5
3	16QAM	8	0	21.48	21.62	21.87	
3	16QAM	8	4	21.49	21.57	21.89	22.5
3	16QAM	8	7	21.44	21.55	21.86	
3	16QAM	15	0	21.31	21.47	21.76	22.5
3	64QAM	1	0	21.95	22.06	22.30	
3	64QAM	1	8	21.75	22.06	22.10	21.5
3	64QAM	1	14	21.71	21.97	22.12	
3	64QAM	8	0	21.00	21.21	21.40	21.5
3	64QAM	8	4	20.92	21.24	21.36	
3	64QAM	8	7	20.84	21.30	21.30	21.5
3	64QAM	15	0	20.89	21.20	21.13	
Channel				13197.9	13232.2	13266.5	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	23.08	23.01	23.22	24.5
1.4	QPSK	1	3	22.95	22.93	23.21	
1.4	QPSK	1	5	22.90	22.91	23.05	23.5
1.4	QPSK	3	0	22.19	22.10	22.53	
1.4	QPSK	3	1	22.20	22.09	22.42	23.5
1.4	QPSK	3	3	22.12	22.00	22.40	
1.4	QPSK	6	0	21.96	21.98	22.37	22.5
1.4	16QAM	1	0	22.42	22.47	22.68	
1.4	16QAM	1	3	22.23	22.38	22.67	22.5
1.4	16QAM	1	5	22.20	22.29	22.63	
1.4	16QAM	3	0	21.45	21.60	21.87	22.5
1.4	16QAM	3	1	21.37	21.63	21.89	
1.4	16QAM	3	3	21.40	21.66	21.86	22.5
1.4	16QAM	6	0	21.24	21.56	21.74	
1.4	64QAM	1	0	21.95	22.09	22.23	22.5
1.4	64QAM	1	3	21.74	22.01	22.18	
1.4	64QAM	1	5	21.66	21.98	22.13	21.5
1.4	64QAM	3	0	20.92	21.36	21.33	
1.4	64QAM	3	1	20.91	21.27	21.38	21.5
1.4	64QAM	3	3	20.94	21.21	21.30	
1.4	64QAM	6	0	20.95	21.30	21.17	21.5

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	21.32	21.38	21.41	21.34	21.36	22.5
20	QPSK	1	49	21.21	21.20	21.29	21.19	21.21	
20	QPSK	1	99	21.21	21.14	21.22	21.06	21.22	
20	QPSK	50	0	20.50	20.32	20.56	20.42	20.42	21.5
20	QPSK	50	24	20.49	20.32	20.43	20.31	20.56	
20	QPSK	50	50	20.45	20.24	20.36	20.27	20.51	
20	QPSK	100	0	20.49	20.07	20.35	20.16	20.43	21.5
20	16QAM	1	0	20.58	20.36	20.47	20.34	20.94	
20	16QAM	1	49	20.41	20.31	20.29	20.29	20.87	
20	16QAM	1	99	20.49	20.34	20.27	20.25	20.77	20.5
20	16QAM	50	0	19.81	19.49	19.47	19.57	20.16	
20	16QAM	50	24	19.81	19.51	19.46	19.52	20.08	
20	16QAM	50	50	19.75	19.39	19.43	19.49	20.15	20.5
20	16QAM	100	0	19.72	19.38	19.26	19.57	20.08	
20	64QAM	1	0	20.39	19.88	19.89	19.99	20.50	
20	64QAM	1	49	20.42	19.82	19.82	20.02	20.34	20.5
20	64QAM	1	99	20.38	19.67	19.79	19.98	20.30	
20	64QAM	50	0	19.23	18.82	18.76	18.92	19.34	
20	64QAM	50	24	19.25	18.87	18.71	18.96	19.26	19.5
20	64QAM	50	50	19.23	18.85	18.69	18.83	19.31	
20	64QAM	100	0	19.15	18.67	18.67	18.77	19.18	
Channel				55315	55820	55990	56160	56665	Tune-up limit (dBm)
Frequency (MHz)				3557.5	3608	3625	3642	3692.5	
15	QPSK	1	0	21.16	21.24	21.24	21.17	21.15	22.5
15	QPSK	1	37	21.09	21.12	21.18	21.10	21.09	
15	QPSK	1	74	21.09	21.02	21.13	20.94	21.11	
15	QPSK	36	0	20.39	20.27	20.42	20.33	20.38	21.5
15	QPSK	36	20	20.41	20.17	20.39	20.21	20.41	
15	QPSK	36	39	20.31	20.14	20.27	20.23	20.43	
15	QPSK	75	0	20.34	19.98	20.25	20.06	20.30	21.5
15	16QAM	1	0	20.51	20.27	20.36	20.28	20.86	
15	16QAM	1	37	20.33	20.18	20.22	20.18	20.78	
15	16QAM	1	74	20.36	20.23	20.22	20.21	20.69	20.5
15	16QAM	36	0	19.72	19.39	19.43	19.40	20.02	
15	16QAM	36	20	19.70	19.41	19.39	19.40	19.99	
15	16QAM	36	39	19.69	19.32	19.32	19.40	20.03	20.5
15	16QAM	75	0	19.67	19.30	19.16	19.47	19.98	
15	64QAM	1	0	20.29	19.76	19.82	19.91	20.36	
15	64QAM	1	37	20.32	19.72	19.77	19.91	20.24	20.5
15	64QAM	1	74	20.29	19.57	19.69	19.82	20.18	
15	64QAM	36	0	19.11	18.70	18.67	18.85	19.26	
15	64QAM	36	20	19.16	18.71	18.62	18.86	19.13	19.5
15	64QAM	36	39	19.10	18.71	18.63	18.76	19.23	
15	64QAM	75	0	19.08	18.54	18.56	18.65	19.05	
Channel				55290	55815	55990	56165	56690	Tune-up limit (dBm)
Frequency (MHz)				3555	3607.5	3625	3642.5	3695	
10	QPSK	1	0	21.20	21.29	21.22	21.16	21.22	22.5
10	QPSK	1	25	21.12	21.06	21.16	21.12	21.10	
10	QPSK	1	49	21.04	21.02	21.09	20.95	21.14	
10	QPSK	25	0	20.39	20.21	20.43	20.29	20.32	21.5
10	QPSK	25	12	20.43	20.24	20.38	20.20	20.38	
10	QPSK	25	25	20.37	20.18	20.22	20.20	20.41	
10	QPSK	50	0	20.37	19.97	20.22	20.03	20.34	21.5
10	16QAM	1	0	20.44	20.26	20.32	20.28	20.84	
10	16QAM	1	25	20.30	20.15	20.19	20.12	20.81	
10	16QAM	1	49	20.37	20.24	20.19	20.22	20.68	20.5
10	16QAM	25	0	19.76	19.41	19.42	19.40	20.07	
10	16QAM	25	12	19.74	19.37	19.40	19.41	20.02	
10	16QAM	25	25	19.62	19.33	19.38	19.38	20.03	20.5
10	16QAM	50	0	19.62	19.31	19.22	19.42	19.95	
10	64QAM	1	0	20.30	19.76	19.81	19.94	20.38	
10	64QAM	1	25	20.37	19.72	19.74	19.92	20.23	20.5
10	64QAM	1	49	20.24	19.56	19.69	19.82	20.13	
10	64QAM	25	0	19.10	18.70	18.71	18.86	19.24	
10	64QAM	25	12	19.14	18.69	18.67	18.83	19.18	19.5
10	64QAM	25	25	19.15	18.73	18.56	18.76	19.17	
10	64QAM	50	0	19.08	18.53	18.56	18.65	19.09	
Channel				55265	55810	55990	56170	56175	Tune-up limit (dBm)
Frequency (MHz)				3552.5	3607	3625	3643	3697.5	
5	QPSK	1	0	21.20	21.28	21.21	21.18	21.16	22.5
5	QPSK	1	12	21.10	21.05	21.14	21.13	21.09	
5	QPSK	1	24	21.09	21.04	21.07	20.98	21.09	
5	QPSK	12	0	20.41	20.21	20.42	20.31	20.34	21.5
5	QPSK	12	7	20.41	20.16	20.38	20.21	20.39	
5	QPSK	12	13	20.34	20.14	20.24	20.19	20.36	
5	QPSK	25	0	20.36	20.00	20.23	20.04	20.31	21.5
5	16QAM	1	0	20.49	20.31	20.33	20.24	20.84	
5	16QAM	1	12	20.34	20.18	20.21	20.13	20.78	
5	16QAM	1	24	20.35	20.23	20.19	20.16	20.66	20.5
5	16QAM	12	0	19.74	19.40	19.40	19.43	20.06	
5	16QAM	12	7	19.69	19.39	19.39	19.43	20.01	
5	16QAM	12	13	19.69	19.31	19.35	19.42	20.02	20.5
5	16QAM	25	0	19.64	19.35	19.15	19.45	19.96	
5	64QAM	1	0	20.32	19.75	19.84	19.88	20.36	
5	64QAM	1	12	20.36	19.71	19.72	19.94	20.26	20.5
5	64QAM	1	24	20.27	19.62	19.69	19.81	20.17	
5	64QAM	12	0	19.14	18.73	18.65	18.86	19.24	
5	64QAM	12	7	19.14	18.77	18.66	18.80	19.14	19.5
5	64QAM	12	13	19.13	18.70	18.57	18.76	19.19	
5	64QAM	25	0	19.04	18.61	18.58	18.72	19.06	

n2 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit
Channel				373000	376000	379000	(dBm)
Frequency (MHz)				1865	1880	1895	
30	DFT-s-OFDM PI/2 BPSK	1	1	23.33	23.35	23.27	24.00
30		1	80	23.29	23.25	23.17	
30		1	158	23.22	23.23	23.27	
30		80	1	22.90	22.84	22.78	24.00
30		80	40	23.30	23.29	23.21	
30		80	80	22.85	22.72	22.72	
30		160	0	22.86	22.85	22.75	
30	DFT-s-OFDM QPSK	1	1	23.39	23.43	23.38	24.00
30		1	80	23.35	23.32	23.22	
30		1	158	23.32	23.16	22.83	
30		80	1	23.28	23.30	23.29	24.00
30		80	40	23.29	23.17	23.22	
30		80	80	22.32	22.28	22.25	
30		160	0	22.45	22.28	22.31	
30	DFT-s-OFDM 16QAM	1	1	22.43	22.40	22.32	23.00
30	DFT-s-OFDM 64QAM	1	1	20.78	20.84	20.71	21.50
30	DFT-s-OFDM 256QAM	1	1	18.50	18.61	18.47	19.50
30	CP-OFDM QPSK	1	1	21.92	21.97	21.92	23.00
30	CP-OFDM 16QAM	1	1	21.40	21.46	21.32	22.50
30	CP-OFDM 64QAM	1	1	19.48	19.48	19.44	20.50
30	CP-OFDM 256QAM	1	1	16.59	16.61	16.49	17.50
Channel				372500	376000	379500	Tune-up limit
Frequency (MHz)				1862.5	1880	1897.5	(dBm)
25	DFT-s-OFDM QPSK	1	1	23.41	23.33	23.21	24.00
Channel				372000	376000	380000	Tune-up limit
Frequency (MHz)				1860	1880	1900	(dBm)
20	DFT-s-OFDM QPSK	1	1	23.13	23.14	23.01	24.00
Channel				371500	376000	380500	Tune-up limit
Frequency (MHz)				1857.5	1880	1902.5	(dBm)
15	DFT-s-OFDM QPSK	1	1	23.18	23.13	22.96	24.00
Channel				371000	376000	381000	Tune-up limit
Frequency (MHz)				1855	1880	1905	(dBm)
10	DFT-s-OFDM QPSK	1	1	23.11	23.09	22.98	24.00
Channel				370500	376000	381500	Tune-up limit
Frequency (MHz)				1852.5	1880	1907.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	23.20	23.06	23.13	24.00

n5 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit
Channel				166800	167300	167800	(dBm)
Frequency (MHz)				834	836.5	839	
20	DFT-s-OFDM PI/2 BPSK	1	1	23.43	23.44	23.47	24.50
20		1	53	23.38	23.41	23.47	
20		1	104	23.45	23.42	23.39	
20		50	1	22.96	22.94	23.07	24.50
20	DFT-s-OFDM QPSK	50	25	23.43	23.53	23.50	
20		50	50	22.96	22.97	22.98	
20		100	0	23.11	23.08	23.18	
20		1	1	23.52	23.57	23.56	24.50
20	DFT-s-OFDM 16QAM	1	53	23.41	23.52	23.38	
20		1	104	23.39	23.45	23.28	
20		50	1	22.46	22.43	22.46	24.50
20		50	25	23.37	23.34	23.36	
20	DFT-s-OFDM 64QAM	50	50	22.42	22.46	22.50	
20		100	0	22.66	22.58	22.70	
20	DFT-s-OFDM 256QAM	1	1	22.46	22.48	22.48	23.50
20	CP-OFDM QPSK	1	1	20.94	20.87	20.99	22.00
20	CP-OFDM 16QAM	1	1	18.68	18.74	18.73	19.50
20	CP-OFDM 64QAM	1	1	22.03	21.91	22.20	23.50
20	CP-OFDM 256QAM	1	1	21.53	21.40	21.48	22.50
20		1	1	19.51	19.56	19.65	20.50
20		1	1	16.63	16.65	16.71	17.50
Channel				166300	167300	168300	Tune-up limit
Frequency (MHz)				831.5	836.5	841.5	(dBm)
15	DFT-s-OFDM QPSK	1	1	23.42	23.42	23.36	24.50
Channel				165800	167300	168800	Tune-up limit
Frequency (MHz)				829	836.5	844	(dBm)
10	DFT-s-OFDM QPSK	1	1	23.46	23.36	23.39	24.50
Channel				165300	167300	169300	Tune-up limit
Frequency (MHz)				826.5	836.5	846.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	23.37	23.32	23.36	24.50

n48 (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up
Channel				638000	639834	641666	643500	645332	limit
Frequency (MHz)				3570	3597.51	3624.99	3652.5	3679.98	(dBm)
40	DFT-s-OFDM PI/2 BPSK	1	1	21.24	21.26	21.33	21.29	21.17	22.5
40		1	53	21.24	21.38	21.25	21.25	20.99	
40		1	104	21.31	21.34	21.32	21.15	21.11	
40		50	1	20.77	20.85	20.80	20.87	20.68	22.5
40		50	25	21.31	21.40	21.43	21.43	21.29	
40		50	50	20.76	21.00	20.89	20.70	20.56	
40		100	0	20.84	21.04	20.74	20.86	20.67	
40	DFT-s-OFDM QPSK	1	1	21.42	21.46	21.58	21.47	21.48	22.5
40		1	53	21.10	21.41	21.19	21.19	20.94	
40		1	104	21.30	21.31	21.30	21.12	21.07	
40		50	1	21.26	21.32	21.36	20.35	20.18	22.5
40		50	25	21.27	21.31	21.19	21.22	21.08	
40		50	50	20.26	20.50	20.39	20.17	20.05	
40		100	0	20.26	20.54	20.22	20.35	20.17	
40	DFT-s-OFDM 16QAM	1	1	20.14	20.18	20.35	20.21	20.12	21.5
40	DFT-s-OFDM 64QAM	1	1	18.84	18.87	19.04	18.88	18.77	20.5
40	DFT-s-OFDM 256QAM	1	1	16.54	16.59	16.75	16.57	16.44	17.5
40	CP-OFDM QPSK	1	1	19.78	19.80	19.97	19.84	19.72	25
40	CP-OFDM 16QAM	1	1	19.28	19.28	19.46	19.33	19.19	24
40	CP-OFDM 64QAM	1	1	17.35	17.29	17.47	17.32	17.19	18
40	CP-OFDM 256QAM	1	1	14.56	14.60	14.71	14.61	14.46	15.5
Channel				637668	639668	641666	643666	645666	Tune-up
Frequency (MHz)				3565.02	3595.02	3624.99	3654.99	3684.99	limit
30	DFT-s-OFDM QPSK	1	1	21.30	21.32	21.49	21.41	21.20	22.5
Channel				637334	639500	641666	643832	646000	Tune-up
Frequency (MHz)				3560.01	3592.5	3624.99	3657.48	3690	limit
20	DFT-s-OFDM QPSK	1	1	21.20	21.24	21.29	21.28	21.10	22.5
Channel				637168	639418	641666	643916	646166	Tune-up
Frequency (MHz)				3557.52	3591.27	3624.99	3658.74	3692.49	limit
15	DFT-s-OFDM QPSK	1	1	21.16	21.23	21.22	21.24	21.08	22.5
Channel				637000	639334	641666	644000	646332	Tune-up
Frequency (MHz)				3555	3590.01	3624.99	3660	3694.98	limit
10	DFT-s-OFDM QPSK	1	1	21.30	21.43	21.35	21.33	21.21	22.5

n66 (PC3)							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit
Channel				346000	349000	352000	(dBm)
Frequency (MHz)				1730	1745	1760	
40	DFT-s-OFDM PI/2 BPSK	1	1	23.58	23.55	23.54	24.50
40		1	108	23.45	23.33	23.22	
40		1	214	23.48	23.36	23.31	
40		108	1	23.09	23.07	22.93	24.50
40		108	54	23.58	23.47	23.35	
40		108	108	22.99	22.89	22.88	
40		216	0	23.06	23.09	22.98	
40	DFT-s-OFDM QPSK	1	1	23.60	23.69	23.56	24.50
40		1	108	23.46	23.38	23.28	
40		1	214	23.49	23.51	23.37	
40		108	1	23.53	23.55	23.46	24.50
40		108	54	23.33	23.41	23.35	
40		108	108	22.47	22.46	22.39	
40		216	0	22.51	22.67	22.50	
40	DFT-s-OFDM 16QAM	1	1	22.61	22.65	22.46	23.50
40	DFT-s-OFDM 64QAM	1	1	21.01	21.06	20.92	22.00
40	DFT-s-OFDM 256QAM	1	1	18.79	18.81	18.69	19.50
40	CP-OFDM QPSK	1	1	22.23	22.18	22.16	23.00
40	CP-OFDM 16QAM	1	1	21.65	21.61	21.41	22.50
40	CP-OFDM 64QAM	1	1	19.69	19.76	19.68	20.50
40	CP-OFDM 256QAM	1	1	16.79	16.78	16.73	17.50
Channel				345000	349000	353000	Tune-up limit
Frequency (MHz)				1725	1745	1765	(dBm)
30	DFT-s-OFDM QPSK	1	1	23.54	23.52	23.44	24.50
Channel				344500	349000	353500	Tune-up limit
Frequency (MHz)				1722.5	1745	1767.5	(dBm)
25	DFT-s-OFDM QPSK	1	1	23.67	23.61	23.44	24.50
Channel				344000	349000	354000	Tune-up limit
Frequency (MHz)				1720	1745	1770	(dBm)
20	DFT-s-OFDM QPSK	1	1	23.43	23.38	23.20	24.50
Channel				343500	349000	354500	Tune-up limit
Frequency (MHz)				1717.5	1745	1772.5	(dBm)
15	DFT-s-OFDM QPSK	1	1	23.57	23.50	23.21	24.50
Channel				343000	349000	355000	Tune-up limit
Frequency (MHz)				1715	1745	1775	(dBm)
10	DFT-s-OFDM QPSK	1	1	23.39	23.44	23.26	24.50
Channel				342500	349000	355500	Tune-up limit
Frequency (MHz)				1712.5	1745	1777.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	23.37	23.30	23.18	24.50

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			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			26.77			27.50
100		1	136			26.73			
100		1	271			26.82			
100		135	1			26.46			27.50
100		135	67			26.85			
100		135	136			26.02			
100		270	0			26.46			
100	DFT-s-OFDM QPSK	1	1			27.31			28.00
100		1	136			26.74			
100		1	271			26.87			
100		135	1			26.75			27.50
100		135	67			26.58			
100		135	136			26.66			
100		270	0			26.42			
100	DFT-s-OFDM 16QAM	1	1			26.14			27.00
100	DFT-s-OFDM 64QAM	1	1			24.74			25.50
100	DFT-s-OFDM 256QAM	1	1			22.57			23.50
100	CP-OFDM QPSK	1	1			25.86			26.50
100	CP-OFDM 16QAM	1	1			25.30			26.00
100	CP-OFDM 64QAM	1	1			23.34			24.00
100	CP-OFDM 256QAM	1	1			20.59			21.50
Channel				633000	633168	633334	633500	633666	Tune-up limit
Frequency (MHz)				3495	3497.52	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	27.15	27.13	27.08	26.69	27.01	28.00
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	27.14	27.09	27.04	26.66	26.97	28.00
Channel				632334	632668	633334	633832	634332	Tune-up limit
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	27.12	27.03	27.02	26.91	26.43	28.00
Channel				632000	632668	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	27.07	26.57	26.94	26.84	26.82	28.00
Channel				631668	632500	633334	634166	635000	Tune-up limit
Frequency (MHz)				3475.02	3487.5	3500.01	3510	3525	
50	DFT-s-OFDM QPSK	1	1	27.16	26.65	26.97	26.92	26.92	28.00
Channel				631334	632334	633334	634332	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	26.60	26.96	26.87	26.77	26.60	28.00
Channel				631000	632168	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	26.69	26.67	26.98	26.88	26.58	28.00
Channel				630834	632084	633334	634584	635832	Tune-up limit
Frequency (MHz)				3462.51	3481.26	3500.01	3518.76	3537.48	
25	DFT-s-OFDM QPSK	1	1	27.09	26.97	26.89	26.72	26.50	28.00
Channel				630668	632000	633334	634666	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	26.66	26.59	26.45	26.23	25.96	27.50
Channel				630500	631916	633334	634750	636166	Tune-up limit
Frequency (MHz)				3457.5	3478.74	3500.01	3521.25	3542.49	
15	DFT-s-OFDM QPSK	1	1	26.50	26.40	26.31	25.98	25.84	27.50
Channel				630334	631834	633334	634834	636332	Tune-up limit
Frequency (MHz)				3455.01	3477.51	3500.01	3522.51	3544.98	
10	DFT-s-OFDM QPSK	1	1	26.62	26.42	26.41	26.05	26.00	27.50

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
Channel				650000	653000	656000	659000	662000	limit
Frequency (MHz)				3750	3795	3840	3885	3930	(dBm)
100	DFT-s-OFDM PI/2 BPSK	1	1	26.63	26.80	26.44	26.50	26.69	28.00
100		1	136	26.22	26.19	26.30	26.49	26.30	
100		1	271	26.13	26.40	26.62	26.45	26.57	
100		135	1	26.16	25.90	25.68	25.68	26.02	27.50
100		135	67	26.39	26.30	26.41	26.51	26.47	
100		135	136	25.58	25.65	25.66	25.86	26.17	
100		270	0	25.85	25.88	25.96	26.14	26.09	28.00
100	DFT-s-OFDM QPSK	1	1	26.82	26.91	26.94	26.93	26.90	
100		1	136	26.23	26.15	26.26	26.37	26.25	
100		1	271	26.15	26.42	26.53	26.46	26.46	
100		135	1	26.37	26.35	26.49	26.38	26.44	27.50
100		135	67	26.01	26.05	26.10	26.14	26.11	
100		135	136	25.00	25.14	25.15	25.36	25.69	
100		270	0	25.36	25.39	25.46	25.56	25.59	26.50
100	DFT-s-OFDM 16QAM	1	1	25.51	25.68	25.41	25.45	25.59	
100	DFT-s-OFDM 64QAM	1	1	24.14	24.28	24.00	24.05	24.28	
100	DFT-s-OFDM 256QAM	1	1	21.94	22.03	21.78	21.78	21.99	23.00
100	CP-OFDM QPSK	1	1	25.20	25.32	25.05	25.09	25.30	26.00
100	CP-OFDM 16QAM	1	1	24.58	24.80	24.53	24.56	24.74	25.50
100	CP-OFDM 64QAM	1	1	22.76	22.84	22.55	22.61	22.88	23.50
100	CP-OFDM 256QAM	1	1	19.93	20.07	19.76	19.81	20.12	21.00
Channel				649666	652834	656000	659166	662332	Tune-up
Frequency (MHz)				3744.99	3792.51	3840	3887.49	3934.98	limit
90	DFT-s-OFDM QPSK	1	1	26.52	26.59	26.20	26.28	26.54	27.50
Channel				649334	652668	656000	659332	662666	Tune-up
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	limit
80	DFT-s-OFDM QPSK	1	1	26.40	26.58	26.20	26.22	26.44	27.50
Channel				649000	652500	656000	659500	663000	Tune-up
Frequency (MHz)				3735	3787.5	3840	3892.5	3945	limit
70	DFT-s-OFDM QPSK	1	1	26.46	26.49	26.15	26.15	26.30	27.50
Channel				648668	652334	656000	659666	663332	Tune-up
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	limit
60	DFT-s-OFDM QPSK	1	1	26.36	26.49	26.06	26.16	26.25	27.50
Channel				648334	652168	656000	659832	663666	Tune-up
Frequency (MHz)				3725.01	3782.52	3840	3894.99	3954.99	limit
50	DFT-s-OFDM QPSK	1	1	26.45	26.57	26.19	26.50	26.15	27.50
Channel				648000	652000	656000	660000	664000	Tune-up
Frequency (MHz)				3720	3780	3840	3900	3960	limit
40	DFT-s-OFDM QPSK	1	1	26.38	26.32	26.03	26.37	26.21	27.50
Channel				647668	651834	656000	660166	664332	Tune-up
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	limit
30	DFT-s-OFDM QPSK	1	1	26.45	26.47	26.17	26.61	26.62	27.50
Channel				647500	651750	656000	660250	664500	Tune-up
Frequency (MHz)				3712.5	3776.25	3840	3903.75	3967.5	limit
25	DFT-s-OFDM QPSK	1	1	26.42	26.45	26.17	26.49	26.66	27.50
Channel				647334	651668	656000	660332	664666	Tune-up
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	limit
20	DFT-s-OFDM QPSK	1	1	26.34	26.20	26.14	26.38	26.69	27.50
Channel				647168	651584	656000	660416	664832	Tune-up
Frequency (MHz)				3707.52	3773.76	3840	3906.24	3972.48	limit
15	DFT-s-OFDM QPSK	1	1	26.30	26.16	26.15	26.30	26.76	27.50
Channel				647000	651500	656000	660500	665000	Tune-up
Frequency (MHz)				3705	3772.5	3840	3907.5	3975	limit
10	DFT-s-OFDM QPSK	1	1	26.46	26.30	26.28	26.45	26.97	27.50

n77(3450-3550MHz) (PC3)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			24.45			25
100		1	136			23.93			
100		1	271			23.68			
100		135	1			24.21			25
100		135	67			24.01			
100		135	136			23.57			
100		270	0			24.09			
100	DFT-s-OFDM QPSK	1	1			24.49			25
100		1	136			23.90			
100		1	271			23.71			
100		135	1			24.23			25
100		135	67			23.97			
100		135	136			23.53			
100		270	0			24.09			
100	DFT-s-OFDM 16QAM	1	1			24.27			25
100	DFT-s-OFDM 64QAM	1	1			24.48			25
100	DFT-s-OFDM 256QAM	1	1			22.71			25
100	CP-OFDM QPSK	1	1			24.44			25
100	CP-OFDM 16QAM	1	1			24.35			25
100	CP-OFDM 64QAM	1	1			23.47			24
100	CP-OFDM 256QAM	1	1			20.73			22
Channel				633000	633168	633334	633500	633666	Tune-up limit
Frequency (MHz)				3495	3497.52	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	24.33	24.30	24.29	24.25	24.24	25
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	24.32	24.29	24.26	24.22	24.25	25
Channel				632334	632668	633334	633832	634332	Tune-up limit
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	24.26	24.20	24.27	24.16	24.07	25
Channel				632000	632668	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	24.20	24.25	24.11	24.04	24.04	25
Channel				631668	632500	633334	634166	635000	Tune-up limit
Frequency (MHz)				3475.02	3487.5	3500.01	3510	3525	
50	DFT-s-OFDM QPSK	1	1	24.42	24.34	24.29	24.14	24.13	25
Channel				631334	632334	633334	634332	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	24.27	24.17	24.09	24.04	23.73	25
Channel				631000	632168	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	24.41	24.31	24.13	24.03	23.65	25
Channel				630834	632084	633334	634584	635832	Tune-up limit
Frequency (MHz)				3462.51	3481.26	3500.01	3518.76	3537.48	
25	DFT-s-OFDM QPSK	1	1	24.33	24.27	24.18	23.85	23.47	25
Channel				630668	632000	633334	634666	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	24.28	24.21	24.02	23.73	23.35	25
Channel				630500	631916	633334	634750	636166	Tune-up limit
Frequency (MHz)				3457.5	3478.74	3500.01	3521.25	3542.49	
15	DFT-s-OFDM QPSK	1	1	24.21	24.03	23.94	23.59	23.35	25
Channel				630334	631834	633334	634834	636332	Tune-up limit
Frequency (MHz)				3455.01	3477.51	3500.01	3522.51	3544.98	
10	DFT-s-OFDM QPSK	1	1	24.30	24.21	24.08	23.65	23.43	25

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	23.65	23.84	23.62	23.57	23.59	25
100		1	136	23.36	23.42	23.37	23.37	23.41	
100		1	271	23.29	23.45	23.52	23.59	23.65	
100		135	1	23.74	23.49	23.32	23.26	23.46	
100		135	67	23.41	23.50	23.49	23.42	23.52	
100		135	136	23.21	23.32	23.10	23.40	23.87	
100	DFT-s-OFDM QPSK	270	0	23.50	23.51	23.54	23.58	23.64	25
100		1	1	23.60	23.86	24.07	23.67	23.58	
100		1	136	23.37	23.36	23.31	23.31	23.35	
100		1	271	23.32	23.47	23.52	23.59	24.03	
100		135	1	23.67	23.51	23.91	23.12	23.50	
100		135	67	23.33	23.44	23.43	23.36	23.48	
100	DFT-s-OFDM 16QAM	135	136	23.17	23.33	23.12	23.42	23.88	25
100		270	0	23.43	23.55	23.55	23.53	23.65	
100		1	1	23.53	23.65	23.51	23.47	23.53	
100		1	1	23.76	23.98	23.74	23.67	23.72	
100	DFT-s-OFDM 64QAM	1	1	21.91	22.15	21.98	21.88	21.87	23
100	DFT-s-OFDM 256QAM	1	1	23.70	23.85	23.73	23.68	23.66	25
100	CP-OFDM QPSK	1	1	23.60	23.93	23.60	23.63	23.53	25
100	CP-OFDM 16QAM	1	1	22.73	22.86	22.75	22.70	22.68	24
100	CP-OFDM 64QAM	1	1	19.95	20.17	20.00	19.94	19.92	21
100	CP-OFDM 256QAM	1	1	649666	652834	656000	659166	662332	Tune-up limit (dBm)
Channel				3744.99	3792.51	3840	3887.49	3934.98	25
Frequency (MHz)				23.48	23.64	23.42	23.31	23.39	
90	DFT-s-OFDM QPSK	1	1	649334	652668	656000	659332	662666	Tune-up limit (dBm)
Channel				3740.01	3790.02	3840	3889.98	3939.99	25
Frequency (MHz)				23.46	23.63	23.43	23.24	23.35	
80	DFT-s-OFDM QPSK	1	1	649000	652500	656000	659500	663000	Tune-up limit (dBm)
Channel				3735	3787.5	3840	3892.5	3945	25
Frequency (MHz)				23.49	23.59	23.38	23.13	23.27	
70	DFT-s-OFDM QPSK	1	1	648668	652334	656000	659666	663332	Tune-up limit (dBm)
Channel				3730.02	3785.01	3840	3894.99	3949.98	25
Frequency (MHz)				23.41	23.43	23.31	23.08	23.31	
60	DFT-s-OFDM QPSK	1	1	648334	652168	656000	659832	663666	Tune-up limit (dBm)
Channel				3725.01	3782.52	3840	3894.99	3954.99	25
Frequency (MHz)				23.56	23.65	23.37	23.31	23.28	
50	DFT-s-OFDM QPSK	1	1	648000	652000	656000	660000	664000	Tune-up limit (dBm)
Channel				3720	3780	3840	3900	3960	25
Frequency (MHz)				23.42	23.42	23.21	23.26	23.40	
40	DFT-s-OFDM QPSK	1	1	647668	651834	656000	660166	664332	Tune-up limit (dBm)
Channel				3715.02	3777.51	3840	3902.49	3964.98	25
Frequency (MHz)				23.50	23.58	23.32	23.37	23.81	
30	DFT-s-OFDM QPSK	1	1	647500	651750	656000	660250	664500	Tune-up limit (dBm)
Channel				3712.5	3776.25	3840	3903.75	3967.5	25
Frequency (MHz)				23.41	23.52	23.27	23.44	23.81	
25	DFT-s-OFDM QPSK	1	1	647334	651668	656000	660332	664666	Tune-up limit (dBm)
Channel				3710.01	3775.02	3840	3904.98	3969.99	25
Frequency (MHz)				23.35	23.33	23.22	23.34	23.82	
20	DFT-s-OFDM QPSK	1	1	647168	651584	656000	660416	664832	Tune-up limit (dBm)
Channel				3707.52	3773.76	3840	3906.24	3972.48	25
Frequency (MHz)				23.31	23.28	23.24	23.28	23.89	
15	DFT-s-OFDM QPSK	1	1	647000	651500	656000	660500	665000	Tune-up limit (dBm)
Channel				3705	3772.5	3840	3907.5	3975	25
Frequency (MHz)				23.46	23.43	23.38	23.34	24.02	
10	DFT-s-OFDM QPSK	1	1						

n78(3450-3550MHz) (PC2)									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Low Channel	Low/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			26.89			28.00
100		1	136			26.45			
100		1	271			26.56			
100		135	1			26.08			27.00
100		135	67			26.44			
100		135	136			25.64			
100		270	0			26.05			
100	DFT-s-OFDM QPSK	1	1			26.91			28.00
100		1	136			26.36			
100		1	271			26.51			
100		135	1			26.44			27.50
100		135	67			26.34			
100		135	136			26.30			
100		270	0			26.25			
100	DFT-s-OFDM 16QAM	1	1			25.89			27.00
100	DFT-s-OFDM 64QAM	1	1			24.37			26.00
100	DFT-s-OFDM 256QAM	1	1			22.25			22.00
100	CP-OFDM QPSK	1	1			25.44			25.00
100	CP-OFDM 16QAM	1	1			24.85			24.00
100	CP-OFDM 64QAM	1	1			23.01			23.00
100	CP-OFDM 256QAM	1	1			20.23			19.00
Channel				633000	633166	633334	633500	633666	Tune-up limit
Frequency (MHz)				3495	3497.49	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	26.77	26.86	26.81	26.80	26.75	28.00
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3450	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	26.85	26.79	26.73	26.67	26.58	28.00
Channel				632334	632634	633334	633832	634332	Tune-up limit
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	26.80	26.79	26.66	26.60	26.52	28.00
Channel				632000	632666	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3489.99	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	26.69	26.68	26.64	26.46	26.56	28.00
Channel				631668	632500	633334	634166	635000	Tune-up limit
Frequency (MHz)				3475.02	3487.5	3500.01	3512.48	3525	
50	DFT-s-OFDM QPSK	1	1	26.88	26.79	26.71	26.58	26.60	28.00
Channel				631334	636672	633334	634334	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3515.01	3529.98	
40	DFT-s-OFDM QPSK	1	1	26.72	26.19	26.54	26.48	26.29	28.00
Channel				631000	632166	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.49	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	26.86	26.74	26.64	26.52	26.28	28.00
Channel				630834	632084	633334	634584	635832	Tune-up limit
Frequency (MHz)				3462.51	3481.26	3500.01	3518.76	3537.48	
25	DFT-s-OFDM QPSK	1	1	26.75	26.65	26.58	26.39	26.16	28.00
Channel				630668	632000	633334	634668	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3520.02	3540	
20	DFT-s-OFDM QPSK	1	1	26.73	26.58	26.51	26.26	26.02	28.00
Channel				630500	631916	633334	634750	636166	Tune-up limit
Frequency (MHz)				3457.5	3478.74	3500.01	3521.25	3542.49	
15	DFT-s-OFDM QPSK	1	1	26.61	26.42	26.36	26.10	25.95	26.00
Channel				630334	631834	633334	634834	636332	Tune-up limit
Frequency (MHz)				3455.01	3477.51	3500.01	3522.51	3544.98	
10	DFT-s-OFDM QPSK	1	1	26.82	26.61	26.49	26.18	26.25	24.00

n78(3700-3800MHz) (PC2)										
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Low Channel	Low/High Channel	High Channel	Tune-up	
Channel						650000			limit	
Frequency (MHz)						3750			(dBm)	
100	DFT-s-OFDM PI/2 BPSK	1	1			26.59			27.50	
100		1	136			26.40				
100		1	271			26.24				
100		135	1			26.32			27.00	
100		135	67			26.51				
100		135	136			25.69				
100		270	0			26.04			27.50	
100	DFT-s-OFDM QPSK	1	1			26.67				
100		1	136			26.41				
100		1	271			26.26				
100		135	1			26.38			27.50	
100		135	67			26.30				
100		135	136			26.26				
100		270	0			26.17			27.50	
100	DFT-s-OFDM 16QAM	1	1			25.63				
100	DFT-s-OFDM 64QAM	1	1			24.25				
100	DFT-s-OFDM 256QAM	1	1			21.98			23.00	
100	CP-OFDM QPSK	1	1			25.30			26.00	
100	CP-OFDM 16QAM	1	1			24.78			25.50	
100	CP-OFDM 64QAM	1	1			22.82			23.50	
100	CP-OFDM 256QAM	1	1			20.02			21.00	
Channel				649668	649834	650000	650166	650332	Tune-up	
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	limit	
90	DFT-s-OFDM QPSK	1	1	26.63	26.67	26.59	26.63	26.67	27.50	
Channel				649334	649666	650000	650334	650666	Tune-up	
Frequency (MHz)				3740.01	3744.99	3750	3755.01	3759.99	limit	
80	DFT-s-OFDM QPSK	1	1	26.62	26.59	26.65	26.73	26.78	27.50	
Channel				649000	649500	650000	650500	651000	Tune-up	
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	limit	
70	DFT-s-OFDM QPSK	1	1	26.56	26.58	26.68	26.76	26.75	27.50	
Channel				648668	649334	650000	650666	651332	Tune-up	
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	limit	
60	DFT-s-OFDM QPSK	1	1	26.49	26.64	26.67	26.70	26.58	27.50	
Channel				648334	649166	650000	650834	651666	Tune-up	
Frequency (MHz)				3725.01	3737.49	3750	3762.51	3774.99	limit	
50	DFT-s-OFDM QPSK	1	1	26.58	26.78	26.74	26.66	26.43	27.50	
Channel				648000	649000	650000	651000	652000	Tune-up	
Frequency (MHz)				3720	3735	3750	3765	3780	limit	
40	DFT-s-OFDM QPSK	1	1	26.47	26.70	26.67	26.40	26.23	27.50	
Channel				647668	648834	650000	651166	652332	Tune-up	
Frequency (MHz)				3715.02	3732.51	3750	3767.49	3784.98	limit	
30	DFT-s-OFDM QPSK	1	1	26.53	26.76	26.67	26.36	26.23	27.50	
Channel				647500	648750	650000	651250	652500	Tune-up	
Frequency (MHz)				3712.5	3731.25	3750	3768.75	3787.5	limit	
25	DFT-s-OFDM QPSK	1	1	26.48	26.78	26.55	26.27	25.96	27.50	
Channel				647334	648666	650000	651334	652666	Tune-up	
Frequency (MHz)				3710.01	3729.99	3750	3770.01	3789.99	limit	
20	DFT-s-OFDM QPSK	1	1	26.44	26.67	26.51	26.20	25.90	27.50	
Channel				647168	648584	650000	651416	652832	Tune-up	
Frequency (MHz)				3707.52	3728.76	3750	3771.24	3792.48	limit	
15	DFT-s-OFDM QPSK	1	1	26.38	26.64	26.41	26.13	25.95	25.50	
Channel				647000	648500	650000	651500	653000	Tune-up	
Frequency (MHz)				3705	3727.5	3750	3772.5	3795	limit	
10	DFT-s-OFDM QPSK	1	1	26.54	26.75	26.49	26.24	26.09	25.50	

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			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			24.09			25
100		1	136			23.59			
100		1	271			23.42			
100		135	1			23.86			25
100		135	67			23.72			
100		135	136			23.20			
100	DFT-s-OFDM QPSK	270	0			23.77			25
100		1	1			24.12			
100		1	136			23.61			
100		1	271			23.38			25
100		135	1			23.88			
100		135	67			23.69			
100	DFT-s-OFDM 16QAM	1	1			23.94			25
100	DFT-s-OFDM 64QAM	1	1			24.26			25
100	DFT-s-OFDM 256QAM	1	1			22.42			23
100	CP-OFDM QPSK	1	1			24.15			25
100	CP-OFDM 16QAM	1	1			24.17			25
100	CP-OFDM 64QAM	1	1			23.30			24
100	CP-OFDM 256QAM	1	1			20.41			21
Channel				633000	633166	633334	633500	633666	Tune-up limit
Frequency (MHz)				3495	3497.49	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	24.00	23.99	23.98	24.03	24.02	25
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3450	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	24.06	24.07	24.03	24.00	23.92	25
Channel				632334	632634	633334	633832	634332	Tune-up limit
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	23.94	24.03	23.95	23.85	23.88	25
Channel				632000	632666	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3489.99	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	23.96	23.96	23.94	23.76	23.83	25
Channel				631668	632500	633334	634166	635000	Tune-up limit
Frequency (MHz)				3475.02	3487.5	3500.01	3512.49	3525	
50	DFT-s-OFDM QPSK	1	1	24.07	24.00	23.95	23.85	23.85	25
Channel				631334	636672	633334	634334	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3515.01	3529.98	
40	DFT-s-OFDM QPSK	1	1	24.00	23.19	23.81	23.78	23.55	25
Channel				631000	632166	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.49	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	24.11	24.08	23.90	23.71	23.38	25
Channel				630834	632084	633334	634584	635832	Tune-up limit
Frequency (MHz)				3462.51	3481.26	3500.01	3518.76	3537.48	
25	DFT-s-OFDM QPSK	1	1	24.03	23.99	23.87	23.61	23.21	25
Channel				630668	632000	633334	634668	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3520.02	3540	
20	DFT-s-OFDM QPSK	1	1	24.02	23.93	23.84	23.40	23.12	25
Channel				630500	631916	633334	634750	636166	Tune-up limit
Frequency (MHz)				3457.5	3478.74	3500.01	3521.25	3542.49	
15	DFT-s-OFDM QPSK	1	1	23.84	23.74	23.63	23.24	22.99	25
Channel				630334	631834	633334	634834	636332	Tune-up limit
Frequency (MHz)				3455.01	3477.51	3500.01	3522.51	3544.98	
10	DFT-s-OFDM QPSK	1	1	24.01	23.95	23.78	23.26	23.17	25

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			
Frequency (MHz)						3750			
100	DFT-s-OFDM PI/2 BPSK	1	1			23.77			25
100		1	136			23.48			
100		1	271			23.44			
100		135	1			23.85			25
100		135	67			23.55			
100		135	136			23.34			
100		270	0			23.60			25
100	DFT-s-OFDM QPSK	1	1			23.91			
100		1	136			23.47			
100		1	271			23.46			
100		135	1			23.81			25
100		135	67			23.54			
100		135	136			23.35			
100		270	0			23.52			
100	DFT-s-OFDM 16QAM	1	1			23.65			25
100	DFT-s-OFDM 64QAM	1	1			23.87			25
100	DFT-s-OFDM 256QAM	1	1			22.01			23
100	CP-OFDM QPSK	1	1			23.82			25
100	CP-OFDM 16QAM	1	1			23.81			25
100	CP-OFDM 64QAM	1	1			22.90			24
100	CP-OFDM 256QAM	1	1			20.07			21
Channel				649668	649834	650000	650166	650332	Tune-up limit
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	
90	DFT-s-OFDM QPSK	1	1	23.68	23.69	23.66	23.65	23.70	25
Channel				649334	649666	650000	650334	650666	Tune-up limit
Frequency (MHz)				3740.01	3744.99	3750	3755.01	3759.99	
80	DFT-s-OFDM QPSK	1	1	23.67	23.64	23.68	23.72	23.80	25
Channel				649000	649500	650000	650500	651000	Tune-up limit
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	
70	DFT-s-OFDM QPSK	1	1	23.61	23.62	23.68	23.79	23.78	25
Channel				648668	649334	650000	650666	651332	Tune-up limit
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	
60	DFT-s-OFDM QPSK	1	1	23.54	23.67	23.68	23.72	23.62	25
Channel				648334	649166	650000	650834	651666	Tune-up limit
Frequency (MHz)				3725.01	3737.49	3750	3762.51	3774.99	
50	DFT-s-OFDM QPSK	1	1	23.66	23.79	23.82	23.71	23.51	25
Channel				648000	649000	650000	651000	652000	Tune-up limit
Frequency (MHz)				3720	3735	3750	3765	3780	
40	DFT-s-OFDM QPSK	1	1	23.52	23.73	23.69	23.48	23.38	25
Channel				647668	648834	650000	651166	652332	Tune-up limit
Frequency (MHz)				3715.02	3732.51	3750	3767.49	3784.98	
30	DFT-s-OFDM QPSK	1	1	23.61	23.82	23.70	23.46	23.40	25
Channel				647500	648750	650000	651250	652500	Tune-up limit
Frequency (MHz)				3712.5	3731.25	3750	3768.75	3787.5	
25	DFT-s-OFDM QPSK	1	1	23.54	23.68	23.62	23.39	23.24	25
Channel				647334	648666	650000	651334	652666	Tune-up limit
Frequency (MHz)				3710.01	3729.99	3750	3770.01	3789.99	
20	DFT-s-OFDM QPSK	1	1	23.47	23.66	23.56	23.32	23.16	25
Channel				647168	648584	650000	651416	652832	Tune-up limit
Frequency (MHz)				3707.52	3728.76	3750	3771.24	3792.48	
15	DFT-s-OFDM QPSK	1	1	23.41	23.70	23.46	23.27	23.14	25
Channel				647000	648500	650000	651500	653000	Tune-up limit
Frequency (MHz)				3705	3727.5	3750	3772.5	3795	
10	DFT-s-OFDM QPSK	1	1	23.61	23.74	23.63	23.39	23.30	25

CA_5B(Ant 0)											
Combination:10MHz+10MHz(50RB+50RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
20450	20450	20549	QPSK	1	0	0	0	1	0	22.95	24.00
20525	20476	20575	QPSK	1	0	0	0	1	0	23.02	24.00
20600	20501	20600	QPSK	1	0	0	0	1	0	22.88	24.00
20450	20450	20549	16QAM	1	0	0	0	1	0	22.28	23.00
20525	20476	20575	16QAM	1	0	0	0	1	0	22.31	23.00
20600	20501	20600	16QAM	1	0	0	0	1	0	22.19	23.00
20450	20450	20549	64QAM	1	0	0	0	1	0	21.18	22.00
20525	20476	20575	64QAM	1	0	0	0	1	0	21.33	22.00
20600	20501	20600	64QAM	1	0	0	0	1	0	21.22	22.00
20450	20450	20549	256QAM	1	0	0	0	1	0	18.27	19.00
20525	20476	20575	256QAM	1	0	0	0	1	0	18.31	19.00
20600	20501	20600	256QAM	1	0	0	0	1	0	18.24	19.00
20450	20450	20549	QPSK	25	25	0	0	1	0	22.16	23.00
20525	20476	20575	QPSK	25	25	0	0	1	0	22.22	23.00
20600	20501	20600	QPSK	25	25	0	0	1	0	22.08	23.00

CA_7C(Ant 0)											
Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
20850	20850	21048	QPSK	1	0	0	0	1	0	22.78	24.00
21100	21001	21199	QPSK	1	0	0	0	1	0	22.93	24.00
21350	21152	21350	QPSK	1	0	0	0	1	0	22.82	24.00
20850	20850	21048	16QAM	1	0	0	0	1	0	21.81	23.00
21100	21001	21199	16QAM	1	0	0	0	1	0	21.90	23.00
21350	21152	21350	16QAM	1	0	0	0	1	0	21.83	23.00
20850	20850	21048	64QAM	1	0	0	0	1	0	21.04	22.00
21100	21001	21199	64QAM	1	0	0	0	1	0	21.09	22.00
21350	21152	21350	64QAM	1	0	0	0	1	0	20.95	22.00
20850	20850	21048	256QAM	1	0	0	0	1	0	18.04	19.00
21100	21001	21199	256QAM	1	0	0	0	1	0	18.07	19.00
21350	21152	21350	256QAM	1	0	0	0	1	0	17.89	19.00
20850	20850	21048	QPSK	50	0	0	0	1	0	21.91	23.00
21100	21001	21199	QPSK	50	0	0	0	1	0	22.01	23.00
21350	21152	21350	QPSK	50	0	0	0	1	0	21.86	23.00

CA_48C(Ant 5)											
Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
55340	55340	55538	QPSK	1	0	0	0	1	0	21.03	22.00
55990	55891	56089	QPSK	1	0	0	0	1	0	21.08	22.00
56640	56442	56640	QPSK	1	0	0	0	1	0	20.95	22.00
55340	55340	55538	16QAM	1	0	0	0	1	0	20.11	21.00
55990	55891	56089	16QAM	1	0	0	0	1	0	20.12	21.00
56640	56442	56640	16QAM	1	0	0	0	1	0	20.03	21.00
55340	55340	55538	64QAM	1	0	0	0	1	0	19.14	20.00
55990	55891	56089	64QAM	1	0	0	0	1	0	19.19	20.00
56640	56442	56640	64QAM	1	0	0	0	1	0	19.08	20.00
55340	55340	55538	256QAM	1	0	0	0	1	0	18.19	19.00
55990	55891	56089	256QAM	1	0	0	0	1	0	18.22	19.00
56640	56442	56640	256QAM	1	0	0	0	1	0	18.10	19.00
55340	55340	55538	QPSK	50	0	0	0	1	0	20.05	21.00
55990	55891	56089	QPSK	50	0	0	0	1	0	20.06	21.00
56640	56442	56640	QPSK	50	0	0	0	1	0	19.99	21.00

CA_66B(Ant 0)											
Combination:10MHz+10MHz(50RB+50RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
132072	132022	132121	QPSK	1	0	0	0	1	0	22.88	24.00
132322	132373	132472	QPSK	1	0	0	0	1	0	22.99	24.00
132572	132523	132622	QPSK	1	0	0	0	1	0	22.91	24.00
132072	132022	132121	16QAM	1	0	0	0	1	0	22.18	23.00
132322	132373	132472	16QAM	1	0	0	0	1	0	22.31	23.00
132572	132523	132622	16QAM	1	0	0	0	1	0	22.09	23.00
132072	132022	132121	64QAM	1	0	0	0	1	0	21.96	22.00
132322	132373	132472	64QAM	1	0	0	0	1	0	21.02	22.00
132572	132523	132622	64QAM	1	0	0	0	1	0	21.05	22.00
132072	132022	132121	256QAM	1	0	0	0	1	0	18.16	19.00
132322	132373	132472	256QAM	1	0	0	0	1	0	18.21	19.00
132572	132523	132622	256QAM	1	0	0	0	1	0	18.04	19.00
132072	132022	132121	QPSK	25	0	0	0	1	0	22.05	23.00
132322	132373	132472	QPSK	25	0	0	0	1	0	22.11	23.00
132572	132523	132622	QPSK	25	0	0	0	1	0	22.12	23.00

CA_66C(Ant 0)											
Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
132070	132072	132270	QPSK	1	0	0	0	1	0	22.93	24.00
132322	132323	132521	QPSK	1	0	0	0	1	0	22.85	24.00
132572	132374	132572	QPSK	1	0	0	0	1	0	22.87	24.00
132070	132072	132270	16QAM	1	0	0	0	1	0	21.96	23.00
132322	132323	132521	16QAM	1	0	0	0	1	0	21.85	23.00
132572	132374	132572	16QAM	1	0	0	0	1	0	21.78	23.00
132070	132072	132270	64QAM	1	0	0	0	1	0	21.03	22.00
132322	132323	132521	64QAM	1	0	0	0	1	0	20.95	22.00
132572	132374	132572	64QAM	1	0	0	0	1	0	20.88	22.00
132070	132072	132270	256QAM	1	0	0	0	1	0	18.09	19.00
132322	132323	132521	256QAM	1	0	0	0	1	0	18.02	19.00
132572	132374	132572	256QAM	1	0	0	0	1	0	17.94	19.00
132070	132072	132270	QPSK	50	0	0	0	1	0	21.87	23.00
132322	132323	132521	QPSK	50	0	0	0	1	0	21.85	23.00
132572	132374	132572	QPSK	50	0	0	0	1	0	21.79	23.00

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	23.07	24
	CA_2A-5A	2	20	18700	1860	QPSK/1#0	5	10	20600	844	23.15	24
	CA_2A-7A	2	20	18700	1860	QPSK/1#0	7	20	21350	2560	23.02	24
	CA_2A-13A	2	20	18700	1860	QPSK/1#0	13	10	23230	782	23.14	24
	CA_2A-66A	2	20	18700	1860	QPSK/1#0	66	20	132572	1770	23.06	24
	CA_4A-5A	4	20	20050	1720	QPSK/1#0	5	20	20525	836.5	23.19	24
	CA_4A-13A	4	20	20050	1720	QPSK/1#0	13	10	23230	782	23.22	24
	CA_5A-66A	5	10	20450	829	QPSK/1#0	66	20	132572	1770	23.05	24
	CA_13A-66A	13	10	23230	782	QPSK/1#0	66	20	132572	1770	23.10	24
	CA_7A-13A	7	20	20850	2510	QPSK/1#0	13	10	23230	782	23.01	24
	CA_7A-66A	7	20	20850	2510	QPSK/1#0	66	20	132572	1770	22.95	24

2CC 5G NR Uplink												
Configure	CA Configuration	PCC					SCC				Power	
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation/RB/Off set)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Measured Power(dBm)	Tune-up limit(dBm)
Inter-band	CA_n2A-n48A	n2A	30	37600	1880	DFT-S-OFDM/1#1	n48A	40	641666	3624.99	21.33	22
	CA_n2A-n77A (3450-3550MHz)	n2A	30	37600	1880	DFT-S-OFDM/1#1	n77A	100	633334	3500.1	26.95	27.5
	CA_n2A-n77A (3700-3980MHz)	n2A	30	37600	1880	DFT-S-OFDM/1#1	n77A	100	656000	3840	26.91	27.5
	CA_n5A-n48A	n5A	20	176300	836.5	DFT-S-OFDM/1#1	n48A	40	641666	3624.99	21.22	22
	CA_n5A-n77A (3450-3550MHz)	n5A	20	176300	836.5	DFT-S-OFDM/1#1	n77A	100	633334	3500.1	26.87	27.5
	CA_n5A-n77A (3700-3980MHz)	n5A	20	176300	836.5	DFT-S-OFDM/1#1	n77A	100	656000	3840	26.67	27.5
	CA_n48A-n66A	n48A	40	641666	3624.99	DFT-S-OFDM/1#1	n66A	40	34900	1745	21.35	22
	CA_n66A-n77A (3450-3550MHz)	n66A	40	34900	1745	DFT-S-OFDM/1#1	n77A	100	633334	3500.1	27.26	28
	CA_n66A-n77A (3700-3980MHz)	n66A	40	34900	1745	DFT-S-OFDM/1#1	n77A	100	650000	3750	26.92	27.5

2G LTE Downlink											
Configure	CA Configuration	PCC					SCC			Power	
		Band	BW (MHz)	UL Channel	UL Freq. (MHz)	UL Mode (Modulation/RS/Offset)	Band	BW (MHz)	UL Freq. (MHz)		
Intra-band & Inter-band	CA 4A-13A	4	20	20500	1720	QPSK/16QAM	5	10	1720	23.32	
	CA 4A-5A	4	20	20500	1720	QPSK/16QAM	48	20	56640	3690	25.2
	CA 4A-5A	5	10	20450	829	QPSK/16QAM	5	25	5522	881.2	22.97
	CA 56B	66	10	13223	1750.1	QPSK/16QAM	66	10	13247.2	1780	25.51
	CA 56C	66	20	13223	1745.1	QPSK/16QAM	66	20	13251.5	1764.9	25.48
	CA 56A/5A	66	10	12953	1750.1	QPSK/16QAM	10	13	23270	72.5	23.19
	CA 56A/5A	66	20	12953	1745.1	QPSK/16QAM	10	20	23275	72.2	23.1

Configure		SCC LTE Downlink														Power	
		CA		PCC				SCC1				SCC2					
Configuration	Channel	BW (MHz)	UL Freq (MHz)	UL Freq (MHz)	UL Mode (Modulation/Coding)	Band	BW (MHz)	UL Freq (MHz)	UL Freq (MHz)	Band	BW (MHz)	UL Freq (MHz)	UL Freq (MHz)	CA TX (dBm)	Rel TX (dBm)		
CA_13A-66A-66A	13	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_13A-66A-66A	13	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_13A-66B	13	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_13A-66B	13	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_2A-4A-13A	2	20	18700	1880	QPSK/16QAM	48	20	18700	1880	48	20	18700	1880	23.08	23.11	23.44	
CA_2A-4A-13A	2	20	18700	1880	QPSK/16QAM	48	20	18700	1880	48	20	18700	1880	23.08	23.11	23.44	
CA_2A-4A-5A	2	20	18700	1880	QPSK/16QAM	48	20	20300	1745	5	10	20600	844	23.04	23.24	23.24	
CA_2A-66B	2	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_2A-66C	2	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_66A-66A-66A	48	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_66A-66B	48	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_66A-66C	48	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_4A-48C	4	20	20500	1720	QPSK/16QAM	48	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_4A-4A-13A	4	20	20500	1720	QPSK/16QAM	48	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_4A-4A-5A	4	20	20500	1720	QPSK/16QAM	48	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_4A-4A-66B	4	20	20500	1720	QPSK/16QAM	66	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_5A-66A-66B	5	20	20500	1720	QPSK/16QAM	66	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_5A-66A-66B	5	20	20500	1720	QPSK/16QAM	66	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_5A-66A-66B	5	20	20500	1720	QPSK/16QAM	66	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_5A-66B	5	20	20500	1720	QPSK/16QAM	66	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_5A-66C	5	20	20500	1720	QPSK/16QAM	66	20	20300	1745	5	10	20600	844	23.15	23.24	23.24	
CA_66A-66A-66A	66	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_66A-66B	66	20	18700	1880	QPSK/16QAM	66	20	18700	1880	66	20	18700	1880	23.08	23.11	23.44	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	23.24	23.24	
CA_7A-7A-66A	7	20	20850	2510	QPSK/16QAM	7	20	21350	2560	13	20	22350	762	22.91	2		

[illegible]

Configure	CA Configuration	SCC LTE Downlink																				Power						
		POC				SCC1				SCC2				SCC3				SCC4										
		Band	BW (MHz)	UL Freq. (MHz)	UL Mode (Modulation/Coding)	Band	BW (MHz)	UL Freq. (MHz)	Band	BW (MHz)	UL Freq. (MHz)	Band	BW (MHz)	UL Freq. (MHz)	Band	BW (MHz)	UL Freq. (MHz)	CA TX (MHz)	Rel 8 TX (MHz)									
Intra-band & Inter-band	CA_13A-48A-48C-66A	13	10	23230	782	QPSK190	48	20	53340	3560	48	20	53340	3560	48	20	50689	3615.1	48	20	67236	2190	22.91	23.44				
	CA_13A-48A-48D	13	10	23230	782	QPSK190	48	20	53340	3560	48	20	50592	3605.2	48	20	50680	3625	48	20	56888	3644.8	22.93	23.44				
	CA_13A-48C-48C	13	10	23230	782	QPSK190	48	20	53340	3560	48	20	50689	3634.9	48	20	50681	3615.1	48	20	56989	3634.9	23.01	23.44				
	CA_13A-48C-48D	13	10	23230	782	QPSK190	48	20	53340	3560.2	48	20	50590	3625	48	20	56888	3644.8	66	20	67236	2190	22.96	23.44				
	CA_13A-48E	13	10	23230	782	QPSK190	48	20	53340	3560	48	20	50592	3605.2	48	20	56888	3611.3	66	20	56888	3611.3	23.01	23.44				
	CA_26A-13A-48A-48A-66A	2	20	18700	1860	QPSK190	13	10	5230	751	48	20	53340	3560	48	20	50640	3690	66	20	67236	2190	22.96	23.44				
	CA_2A/13A-48A-48C	2	20	18700	1860	QPSK190	13	10	5230	751	48	20	53340	3560	48	20	50681	3615.1	48	20	66989	3634.9	22.92	23.24				
	CA_2A-13A-48C-66A	2	20	18700	1860	QPSK190	13	10	5230	751	48	20	50591	3615.1	48	20	50689	3634.9	66	20	67236	2190	23	23.24				
	CA_2A-13A-48D	2	20	18700	1860	QPSK190	13	10	5230	751	48	20	50592	3605.2	48	20	50680	3625	48	20	56888	3644.8	22.99	23.44				
	CA_2A-13A-48E-66B	2	20	18700	1860	QPSK190	13	10	5230	751	66	20	50590	3620	66	1750	132373	1750.1	66	20	132472	1760	22.88	23.24				
	CA_2A/2A-13A-66A-66A	2	20	18700	1860	QPSK190	2	20	1100	1860	13	10	5230	751	66	20	66536	2120	66	20	67236	2190	22.93	23.24				
	CA_2A-2A-13A-66B	2	20	18700	1860	QPSK190	2	20	1100	1860	13	10	5230	751	66	10	132373	1750.1	66	10	132472	1760	22.88	23.24				
	CA_2A-2A-5A-66A-66A	2	20	18700	1860	QPSK190	2	20	1100	1860	5	10	20600	844	66	20	66536	2120	66	20	67236	2190	22.91	23.24				
	CA_2A-2A-5A-66B	2	20	18700	1860	QPSK190	2	20	1100	1860	5	10	20600	844	66	10	132373	1750.1	66	10	132472	1760	22.94	23.24				
	CA_2A-5A-5A-66C	2	20	18700	1860	QPSK190	2	20	1100	1860	5	10	20600	844	66	20	132623	1745.1	66	20	132621	1764.9	22.90	23.24				
	CA_2A-48A-48C-66A	2	20	18700	1860	QPSK190	48	20	53340	3560	48	20	50591	3615.1	48	20	50689	3634.9	66	20	67236	2190	22.97	23.24				
	CA_2A-48A-48D	2	20	18700	1860	QPSK190	48	20	53340	3560	48	20	50592	3605.2	48	20	50680	3625	48	20	56888	3644.8	22.95	23.24				
	CA_2A-48C-48C	2	20	18700	1860	QPSK190	48	20	53340	3560	48	20	50689	3634.9	48	20	50681	3615.1	48	20	56989	3634.9	23.01	23.24				
	CA_2A-48C-48D	2	20	18700	1860	QPSK190	48	20	53340	3560.2	48	20	50590	3625	48	20	56888	3644.8	66	20	67236	2190	22.97	23.24				
	CA_2A-5A-5A-66A-66A	2	20	18700	1860	QPSK190	5	10	20476	831.6	5	10	20476	831.6	66	20	66536	2120	66	20	67236	2190	22.97	23.24				
	CA_2A-5A-66B	2	20	18700	1860	QPSK190	5	10	20476	831.6	5	10	20476	831.6	66	10	132373	1750.1	66	10	132472	1760	22.94	23.24				
	CA_2A-5A-66C	2	20	18700	1860	QPSK190	5	10	20476	831.6	5	10	20580	2593	66	10	132623	1745.1	66	20	132621	1764.9	22.97	23.24				
	CA_48A-48C-66B	48	20	53340	3560	QPSK190	48	20	53340	3560	48	20	50681	3615.1	48	20	50689	3634.9	66	10	132373	1750.1	66	10	132472	1760	22.91	23.41
	CA_48A-48C-66C	48	20	53340	3560	QPSK190	48	20	50681	3615.1	48	20	50689	3634.9	66	10	132623	1745.1	66	20	132621	1764.9	22.91	23.41				
CA_48A-48C-66A	48	20	53340	3560	QPSK190	48	20	50591	3615.1	48	20	50592	3605.2	48	20	50680	3625	48	20	56888	3644.8	22.91	23.41					
CA_48A-48E	48	20	53340	3560	QPSK190	48	20	53340	3560	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48C-48C-66B	48	20	53340	3560	QPSK190	48	20	50689	3634.9	48	20	50681	3615.1	48	20	50689	3634.9	66	20	56989	3634.9	23.01	23.41					
CA_48C-48C-66A	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50680	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66A	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66B	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66C	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66D	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66E	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66F	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66G	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66H	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66I	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66J	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66K	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66L	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66M	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66N	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66O	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66P	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66Q	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66R	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66S	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66T	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66U	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66V	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66W	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66X	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66Y	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66Z	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.91	23.41					
CA_48E-66AA	48	20	53340	3560	QPSK190	48	20	50590	3625	48	20	50592	3605.2	48	20	50590	3625	48	20	56888	3644.8	22.						

eCC LTE Downlink																													
Configure	CA Configuration	PCC						SCC1				SCC2				SCC3				SCC4				SCC5				Power	
		Band	BW (MHz)	UL Channel	UL Freq. (MHz)	UL Mode (Modulation/RB Offset)		Band	BW (MHz)	DL Channel	DL Freq. (MHz)	Band	BW (MHz)	DL Channel	DL Freq. (MHz)	Band	BW (MHz)	DL Channel	DL Freq. (MHz)	Band	BW (MHz)	DL Channel	DL Freq. (MHz)	Band	BW (MHz)	DL Channel	DL Freq. (MHz)	CA Tx (dBm)	Rel 8 Tx (dBm)
Inter-band	CA 2+4x4x4x4	7	20				4x	20				4x	20			4x	20			4x	20			4x	20			4x	20



2CC 5G 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)	CA TX (dBm) Rel 8 TX (dBm)
Intra-band & Inter-band	CA_n2(A)	n2A	30	373000	1865	QPSK/1W	n2A	30	376000	1880	23.09 23.43
	CA_n2A-n5A	n2A	30	373000	1865	QPSK/1W	n5A	20	167300	836.5	23.11 23.43
	CA_n2A-n48A	n2A	30	373000	1865	QPSK/1W	n48A	40	641666	3624.99	22.94 23.43
	CA_n2A-n66A	n2A	30	373000	1865	QPSK/1W	n66A	40	349000	1745	23.05 23.43
	CA_n2A-n77A	n2A	30	373000	1865	QPSK/1W	n77A	100	650000	3750	23.08 23.43
	CA_n5(2A)	n5A	20	166800	834	QPSK/1W	n5A	20	167300	836.5	23.14 23.57
	CA_n5B	n5A	15	166300	831.5	QPSK/1W	n5A	5	177220	886.1	23.16 23.57
	CA_n5A-n48A	n5A	20	166800	834	QPSK/1W	n48A	40	641666	3624.99	23.03 23.57
	CA_n5A-n66A	n5A	20	166800	834	QPSK/1W	n66A	40	349000	1745	23.12 23.57
	CA_n5A-n77A	n5A	20	166800	834	QPSK/1W	n77A	100	650000	3750	23.15 23.57
	CA_n48(2A)	n48A	40	638000	3570	QPSK/1W	n48A	40	641666	3624.99	21.07 21.58
	CA_n48A-n66A	n48A	40	638000	3570	QPSK/1W	n66A	40	349000	1745	21.12 21.58
	CA_n66(2A)	n66A	40	346000	1730	QPSK/1W	n66A	40	349000	1745	23.24 23.69
	CA_n66B	n66B	40	346000	1730	QPSK/1W	n66B	10	430860	2154.3	23.2 23.69
	CA_n66A-n77A	n66A	40	346000	1730	QPSK/1W	n77A	100	650000	3750	23.17 23.69
	CA_n77C	n77A	100	623334	3350.1	QPSK/1W	n77A	100	670002	4050.03	24.02 24.49
	CA_n48B	n48B	40	638000	3570	QPSK/1W	n48B	40	640664	3609.96	21.01 21.58
	CA_n48C	n48C	40	638000	3570	QPSK/1W	n48C	40	645332	3679.98	21.06 21.58
	CA_n48A-n77A	n48A	40	638000	3570	QPSK/1W	n77A	100	650000	3750	21.02 21.58

3CC 5G Downlink																
Configure	CA Configuration	PCC					SCC				SCC			Power		
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	CA TX (dBm)	Rel 8 TX (dBm)
Intra-band & Inter-band	CA_n2A-n5A-n66A	n2A	30	373000	1865	QPSK/1W	n5A	20	167300	836.5	n66A	40	349000	1745	23.11	23.43
	CA_n2(2A)-n66A	n2A	30	373000	1865	QPSK/1W	n2A	30	376000	1880	n66A	40	349000	1745	23.05	23.43
	CA_n2A-n66(2A)	n2A	30	373000	1865	QPSK/1W	n66A	40	346000	1730	n66A	40	349000	1745	23.08	23.43
	CA_n5A-n66(2A)	n5A	20	166800	834	QPSK/1W	n66A	40	346000	1730	n66A	40	349000	1745	23.15	23.57
	CA_n2A-n77(2A)	n2A	30	373000	1865	QPSK/1W	n77A	100	623334	3350.1	n77A	100	650000	3750	23.01	23.43
	CA_n5A-n77(2A)	n5A	20	166800	834	QPSK/1W	n77A	100	623334	3350.1	n77A	100	650000	3750	23.1	23.57
	CA_n66A-n77(2A)	n66A	40	346000	1730	QPSK/1W	n77A	100	623334	3350.1	n77A	100	650000	3750	23.17	23.69
	CA_n2A-n5A-n77A	n2A	30	373000	1865	QPSK/1W	n5A	20	167300	836.5	n77A	100	650000	3750	22.96	23.43
	CA_n2A-n66A-n77A	n2A	30	373000	1865	QPSK/1W	n66A	40	349000	1745	n77A	100	650000	3750	22.93	23.43
	CA_n5A-n66A-n77A	n5A	20	166800	834	QPSK/1W	n66A	40	349000	1745	n77A	100	650000	3750	23.08	23.57
	CA_n2(2A)-n77A	n2A	30	373000	1865	QPSK/1W	n2A	30	376000	1880	n77A	100	650000	3750	23.98	23.43
	CA_n66(2A)-n77A	n66A	40	346000	1730	QPSK/1W	n66A	40	349000	1745	n77A	100	650000	3750	23.09	23.69
	CA_n2A-n5B	n2A	30	373000	1865	QPSK/1W	n5A	15	166300	831.5	n5A	5	177220	886.1	23.01	23.43
	CA_n2A-n66B	n2A	30	373000	1865	QPSK/1W	n66B	40	346000	1730	n66B	10	430860	2154.3	22.97	23.43
	CA_n5B-n66A	n5A	15	166300	831.5	QPSK/1W	n5A	5	177220	886.1	n66A	40	349000	1745	23.12	23.57
	CA_n66(A-B)	n66A	40	346000	1730	QPSK/1W	n66B	40	346000	1730	n66B	10	430860	2154.3	23.16	23.69
	CA_n48(A-C)	n48A	40	638000	3570	QPSK/1W	n48C	40	638000	3570	n48C	40	645332	3679.98	21.19	21.58
	CA_n2A-n48(2A)	n2A	30	373000	1865	QPSK/1W	n48A	40	638000	3570	n48A	40	641666	3624.99	22.99	23.43
	CA_n2A-n48C	n2A	30	373000	1865	QPSK/1W	n48C	40	638000	3570	n48C	40	645332	3679.98	23.04	23.43
	CA_n48(2A)-n66A	n48A	40	638000	3570	QPSK/1W	n48A	40	641666	3624.99	n66A	40	349000	1745	21.08	21.58
	CA_n48C-n66A	n48C	40	638000	3570	QPSK/1W	n48C	40	645332	3679.98	n66A	40	349000	1745	21.13	21.58
	CA_n5A-n48(2A)	n5A	20	166800	834	QPSK/1W	n48A	40	638000	3570	n48A	40	641666	3624.99	23.15	23.57
	CA_n48(3A)	n48A	40	638000	3570	QPSK/1W	n48A	40	641666	3624.99	n48A	40	641666	3624.99	21.19	21.58
	CA_n5A-n48C	n5A	20	166800	834	QPSK/1W	n48C	40	638000	3570	n48C	40	645332	3679.98	23.11	23.57
	CA_n48B-n66A	n48B	40	638000	3570	QPSK/1W	n48B	40	640664	3609.96	n66A	40	349000	1745	21.14	21.58
	CA_n2A-n48A-n66A	n2A	30	373000	1865	QPSK/1W	n48A	40	641666	3624.99	n66A	40	349000	1745	23.05	23.43
	CA_n2A-n48A-n77A	n2A	30	373000	1865	QPSK/1W	n48A	40	641666	3624.99	n77A	100	650000	3750	22.96	23.43
	CA_n2A-n48B	n2A	30	373000	1865	QPSK/1W	n48B	40	638000	3570	n48B	40	640664	3609.96	23.01	23.43
	CA_n2A-n5A-n48A	n2A	30	373000	1865	QPSK/1W	n5A	20	167300	836.5	n48A	40	641666	3624.99	22.98	23.43
	CA_n2A-n77C	n2A	30	373000	1865	QPSK/1W	n77A	100	623334	3350.1	n77A	100	670002	4050.03	22.94	23.43
	CA_n48A-n66A-n77A	n48A	40	638000	3570	QPSK/1W	n66A	40	349000	1745	n77A	100	650000	3750	21.17	21.58
	CA_n5(2A)-n77A	n5A	20	166800	834	QPSK/1W	n5A	20	167300	836.5	n77A	100	650000	3750	23.16	23.57
	CA_n5A-n48A-n66A	n5A	20	166800	834	QPSK/1W	n48A	40	641666	3624.99	n66A	40	349000	1745	23.19	23.57
	CA_n5A-n48A-n77A	n5A	20	166800	834	QPSK/1W	n48A	40	641666	3624.99	n77A	100	650000	3750	23.08	23.57
	CA_n5A-n48B	n5A	20	166800	834	QPSK/1W	n48B	40	638000	3570	n48B	40	640664	3609.96	23.1	23.57
	CA_n5A-n77C	n5A	20	166800	834	QPSK/1W	n77A	100	623334	3350.1	n77A	100	670002	4050.03	23.14	23.57
	CA_n5B-n77A	n5A	15	166300	831.5	QPSK/1W	n5A	5	177220	886.1	n77A	100	650000	3750	23.13	23.57
	CA_n66A-n77C	n66A	40	346000	1730	QPSK/1W	n77A	100	623334	3350.1	n77A	100	670002	4050.03	23.14	23.69
	CA_n66B-n77A	n66B	40	346000	1730	QPSK/1W	n66B	10	430860	2154.3	n77A	100	650000	3750	23.16	23.69
	CA_n48(2A)-n77A	n48A	40	638000	3570	QPSK/1W	n48A	40	641666	3624.99	n77A	100	650000	3750	21.17	21.58
	CA_n48(A-B)	n48A	40	638000	3570	QPSK/1W	n48B	40	638000	3570	n48B	40	640664	3609.96	21.11	21.58
	CA_n48A-n77C	n48A	40	638000	3570	QPSK/1W	n77A	100	623334	3350.1	n77A	100	670002	4050.03	21.08	21.58
	CA_n48B-n77A	n48B	40	638000	3570	QPSK/1W	n48B	40	640664	3609.96	n77A	100	650000	3750	21.09	21.58

4CC 5G Downlink															
Configure	CA Configuration	PCC				SCC				SCC				Power	
		Band	BW (MHz)	UL Channel	UL Fre. (MHz)	UL Mode (Modulation RB/Offset)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	Band	BW (MHz)	UL Channel	UL Fre. (MHz)	CA TX (dBm) Rel 8 TX (dBm)
Intra-band & Inter-band	CA_n2A-n5A-n66A-n77A	n2A	30	373000	1865	QPSK/1W	n5A	20	167300	836.5	n66A	40	349000	1745	n77A 100 650000 3750 23.08 23.43
	CA_n2A-n48(A-C)	n2A	30	373000	1865	QPSK/1W	n48A	40	641666	3624.99	n48C	40	638000	3570	n48C 40 645332 3679.98 23.12 23.43
	CA_n48(A-C)-n66A	n48A	40	638000	3570	QPSK/1W	n48C	40	638000	3570	n48C	40	645332	3679.98	n66A 40 349000 1745 21.21 21.58
	CA_n2(2A)-n77C	n2A	30	373000	1865	QPSK/1W	n2A	30	376000	1880	n77A	100	623334	3350.1	n77A 100 670002 4050.03 23.04 23.43
	CA_n2A-n48(2A)-n66A	n2A	30	373000	1865	QPSK/1W	n48A	40	638000	3570	n48A	40	641666	3624.99	n66A 40 349000 1745 22.99 23.43
	CA_n2A-n48(2A)-n77A	n2A	30	373000	1865	QPSK/1W	n48A	40	638000	3570	n48A	40	641666	3624.99	n77A 100 650000 3750 22.97 23.43
	CA_n2A-n48A-n77C	n2A	30	373000	1865	QPSK/1W	n48A	40	641666	3624.99	n77A	100	623334	3350.1	n77A 100 670002 4050.03 23.01 23.43
	CA_n2A-n48B-n66A	n2A	30	373000	1865	QPSK/1W	n48B	40	638000	3570	n48B	40	640664	3609.96	n66A 40 349000 1745 23.02 23.43
	CA_n2A-n48B-n77A	n2A	30	373000	1865	QPSK/1W	n48B	40	638000	3570	n48B	40	640664	3609.96	n77A 100 650000 3750 22.99 23.43</

MORLAB

Reduced Power

Band		WCDMA Band II (dBm)			Tune-up Limit (dBm)
TX Channel		9262	9400	9538	
Rx Channel		9662	9800	9938	
Frequency (MHz)		1852.4	1880	1907.6	
3GPP Rel 99	RMC 12.2Kbps	20.99	21.01	20.97	22.50
3GPP Rel 5	HSDPA Subtest-1	20.21	20.26	20.23	21.00
3GPP Rel 5	HSDPA Subtest-2	20.22	20.29	20.27	21.00
3GPP Rel 5	HSDPA Subtest-3	19.72	19.76	19.75	20.50
3GPP Rel 5	HSDPA Subtest-4	19.70	19.69	19.73	20.50
3GPP Rel 8	DC-HSDPA Subtest-1	20.23	20.25	20.22	21.00
3GPP Rel 8	DC-HSDPA Subtest-2	20.20	20.24	20.24	21.00
3GPP Rel 8	DC-HSDPA Subtest-3	19.69	19.73	19.76	20.50
3GPP Rel 8	DC-HSDPA Subtest-4	19.71	19.77	19.77	20.50
3GPP Rel 6	HSUPA Subtest-1	20.22	20.21	20.28	21.00
3GPP Rel 6	HSUPA Subtest-2	19.71	19.72	19.81	20.50
3GPP Rel 6	HSUPA Subtest-3	20.23	20.21	20.22	21.00
3GPP Rel 6	HSUPA Subtest-4	20.20	20.25	20.28	21.00
3GPP Rel 6	HSUPA Subtest-5	20.25	20.29	20.25	21.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.64	19.72	19.73	20.50
Attenuator		Cable Loss			0.8
Mode		Max.			21.01

Band 2 (1900MHz Band) (dBm) ANT 0							
Part 24E							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				18600	18800	19000	
20	QPSK	1	0	21.65	21.74	21.60	
20	QPSK	1	49	21.59	21.66	21.59	23
20	QPSK	1	99	21.54	21.62	21.52	
20	QPSK	50	0	20.75	20.92	20.90	
20	QPSK	50	24	20.74	20.91	20.88	22
20	QPSK	50	50	20.74	20.90	20.84	
20	QPSK	100	0	20.67	20.78	20.72	
20	16QAM	1	0	21.06	21.14	21.14	22
20	16QAM	1	49	20.99	21.03	21.05	
20	16QAM	1	99	20.95	20.89	21.00	
20	16QAM	50	0	20.19	20.10	20.21	21
20	16QAM	50	24	20.16	20.08	20.20	
20	16QAM	50	50	20.15	20.06	20.19	
20	16QAM	100	0	20.04	20.00	20.15	21
20	64QAM	1	0	20.52	20.53	20.60	
20	64QAM	1	49	20.44	20.53	20.48	
20	64QAM	1	99	20.30	20.51	20.42	20
20	64QAM	50	0	19.41	19.61	19.64	
20	64QAM	50	24	19.41	19.60	19.62	
20	64QAM	50	50	19.40	19.56	19.61	20
20	64QAM	100	0	19.31	19.44	19.61	
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	18800	1902.5	
15	QPSK	1	0	21.61	21.55	21.59	
15	QPSK	1	37	21.53	21.49	21.35	23
15	QPSK	1	74	21.53	21.44	21.37	
15	QPSK	36	0	20.96	20.81	20.80	
15	QPSK	36	20	20.87	20.75	20.77	22
15	QPSK	36	39	20.92	20.69	20.79	
15	QPSK	75	0	20.78	20.69	20.70	
15	16QAM	1	0	21.14	21.13	21.00	22
15	16QAM	1	37	21.18	21.01	20.90	
15	16QAM	1	74	21.09	20.90	20.80	
15	16QAM	36	0	20.39	20.35	20.13	21
15	16QAM	36	20	20.34	20.23	19.98	
15	16QAM	36	39	20.29	20.21	20.05	
15	16QAM	75	0	20.24	20.13	20.00	21
15	64QAM	1	0	20.69	20.75	20.29	
15	64QAM	1	37	20.59	20.67	20.28	
15	64QAM	1	74	20.47	20.57	20.34	20
15	64QAM	36	0	19.80	19.71	19.48	
15	64QAM	36	20	19.64	19.73	19.39	
15	64QAM	36	39	19.59	19.73	19.43	20
15	64QAM	75	0	19.60	19.59	19.39	
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	18800	1905	
10	QPSK	1	0	21.68	21.63	21.51	
10	QPSK	1	25	21.59	21.47	21.49	23
10	QPSK	1	49	21.52	21.40	21.43	
10	QPSK	25	0	20.83	20.70	20.77	
10	QPSK	25	12	20.88	20.81	20.78	22
10	QPSK	25	25	20.86	20.65	20.73	
10	QPSK	50	0	20.77	20.66	20.61	
10	16QAM	1	0	21.25	21.15	21.08	22
10	16QAM	1	25	21.20	21.06	20.97	
10	16QAM	1	49	21.13	20.95	20.87	
10	16QAM	25	0	20.34	20.30	20.10	21
10	16QAM	25	12	20.25	20.27	20.10	
10	16QAM	25	25	20.33	20.17	20.00	
10	16QAM	50	0	20.28	20.20	19.88	21
10	64QAM	1	0	20.63	20.69	20.32	
10	64QAM	1	25	20.62	20.73	20.40	
10	64QAM	1	49	20.49	20.59	20.27	20
10	64QAM	25	0	19.81	19.73	19.47	
10	64QAM	25	12	19.63	19.74	19.46	
10	64QAM	25	25	19.65	19.62	19.45	20
10	64QAM	50	0	19.69	19.59	19.35	
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	18800	1907.5	
5	QPSK	1	0	21.63	21.59	21.62	
5	QPSK	1	12	21.57	21.45	21.38	23
5	QPSK	1	24	21.54	21.39	21.35	
5	QPSK	12	0	20.82	20.73	20.78	
5	QPSK	12	7	20.93	20.67	20.74	22
5	QPSK	12	13	20.80	20.69	20.70	
5	QPSK	25	0	20.80	20.61	20.70	
5	16QAM	1	0	21.23	21.18	20.95	22
5	16QAM	1	12	21.15	21.00	20.92	
5	16QAM	1	24	21.17	20.96	20.90	
5	16QAM	12	0	20.38	20.32	20.09	21
5	16QAM	12	7	20.34	20.19	20.06	
5	16QAM	12	13	20.25	20.24	20.00	
5	16QAM	25	0	20.23	20.22	19.99	21
5	64QAM	1	0	20.61	20.70	20.37	
5	64QAM	1	12	20.59	20.73	20.35	
5	64QAM	1	24	20.47	20.54	20.31	20
5	64QAM	12	0	19.79	19.80	19.54	
5	64QAM	12	7	19.67	19.76	19.51	
5	64QAM	12	13	19.61	19.70	19.49	20
5	64QAM	25	0	19.71	19.63	19.44	
Channel				18615	18900	19165	Tune-up limit (dBm)
Frequency (MHz)				1851.5	18800	1908.5	
3	QPSK	1	0	21.64	21.59	21.52	
3	QPSK	1	8	21.58	21.41	21.38	23
3	QPSK	1	14	21.53	21.39	21.46	
3	QPSK	8	0	20.84	20.75	20.78	
3	QPSK	8	4	20.82	20.77	20.79	??

Band 4 (AWS Band) (dBm) ANT 0							
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	21.77	21.82	21.78	23
20	QPSK	1	49	21.69	21.77	21.70	
20	QPSK	1	99	21.66	21.69	21.60	
20	QPSK	50	0	20.81	20.92	20.85	
20	QPSK	50	24	20.77	20.87	20.83	
20	QPSK	50	50	20.77	20.83	20.90	22
20	QPSK	100	0	20.70	20.89	20.79	
20	16QAM	1	0	21.08	21.01	21.40	
20	16QAM	1	49	21.03	20.91	21.30	22
20	16QAM	1	99	21.03	20.90	21.18	
20	16QAM	50	0	20.37	20.17	20.37	
20	16QAM	50	24	20.34	20.15	20.36	21
20	16QAM	50	50	20.32	20.13	20.33	
20	16QAM	100	0	20.18	19.98	20.29	
20	64QAM	1	0	20.72	20.53	20.71	21
20	64QAM	1	49	20.60	20.39	20.62	
20	64QAM	1	99	20.55	20.30	20.48	
20	64QAM	50	0	19.77	19.49	19.81	
20	64QAM	50	24	19.74	19.46	19.77	
20	64QAM	50	50	19.71	19.44	19.76	20
20	64QAM	100	0	19.70	19.40	19.71	
Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5	
15	QPSK	1	0	21.66	21.73	21.73	
15	QPSK	1	37	21.53	21.60	21.48	
15	QPSK	1	74	21.56	21.63	21.39	
15	QPSK	36	0	20.93	20.91	20.88	
15	QPSK	36	20	20.92	20.82	20.82	
15	QPSK	36	39	20.86	20.92	20.94	22
15	QPSK	75	0	20.74	20.88	20.73	
15	16QAM	1	0	21.15	21.27	21.11	
15	16QAM	1	37	21.18	21.26	21.06	22
15	16QAM	1	74	21.09	21.17	21.03	
15	16QAM	36	0	20.34	20.40	20.32	
15	16QAM	36	20	20.32	20.42	20.36	21
15	16QAM	36	39	20.16	20.46	20.34	
15	16QAM	75	0	20.17	20.34	20.24	
15	64QAM	1	0	20.84	20.82	20.74	21
15	64QAM	1	37	20.82	20.74	20.73	
15	64QAM	1	74	20.62	20.57	20.70	
15	64QAM	36	0	19.90	19.83	19.93	
15	64QAM	36	20	19.84	19.87	19.83	
15	64QAM	36	39	19.81	19.77	19.83	20
15	64QAM	75	0	19.68	19.72	19.86	
Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750	
10	QPSK	1	0	21.72	21.78	21.67	
10	QPSK	1	25	21.53	21.57	21.48	
10	QPSK	1	49	21.49	21.64	21.44	
10	QPSK	25	0	21.01	20.83	20.95	
10	QPSK	25	12	20.94	20.89	20.95	
10	QPSK	25	25	20.94	20.89	20.85	22
10	QPSK	50	0	20.86	20.87	20.74	
10	16QAM	1	0	21.25	21.35	21.21	
10	16QAM	1	25	21.21	21.23	21.11	22
10	16QAM	1	49	21.10	21.22	21.01	
10	16QAM	25	0	20.23	20.45	20.39	
10	16QAM	25	12	20.25	20.37	20.29	21
10	16QAM	25	25	20.18	20.41	20.30	
10	16QAM	50	0	20.21	20.30	20.10	
10	64QAM	1	0	20.87	20.85	20.84	21
10	64QAM	1	25	20.77	20.71	20.71	
10	64QAM	1	49	20.66	20.61	20.59	
10	64QAM	25	0	19.96	19.82	19.87	
10	64QAM	25	12	19.94	19.84	19.87	
10	64QAM	25	25	19.85	19.78	19.80	20
10	64QAM	50	0	19.69	19.64	19.84	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	
5	QPSK	1	0	21.72	21.76	21.72	
5	QPSK	1	12	21.63	21.63	21.47	
5	QPSK	1	24	21.60	21.51	21.43	
5	QPSK	12	0	20.96	20.91	20.95	
5	QPSK	12	7	20.89	20.81	20.85	
5	QPSK	12	13	20.87	20.92	20.82	22
5	QPSK	25	0	20.86	20.85	20.70	
5	16QAM	1	0	21.26	21.31	21.23	
5	16QAM	1	12	21.18	21.22	21.00	22
5	16QAM	1	24	21.05	21.19	20.96	
5	16QAM	12	0	20.29	20.37	20.39	
5	16QAM	12	7	20.22	20.37	20.26	21
5	16QAM	12	13	20.29	20.39	20.22	
5	16QAM	25	0	20.23	20.40	20.22	
5	64QAM	1	0	20.89	20.80	20.78	21
5	64QAM	1	12	20.82	20.69	20.65	
5	64QAM	1	24	20.75	20.65	20.60	
5	64QAM	12	0	19.95	19.81	19.92	
5	64QAM	12	7	19.92	19.74	19.84	
5	64QAM	12	13	19.77	19.73	19.81	20
5	64QAM	25	0	19.79	19.79	19.90	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	
3	QPSK	1	0	21.71	21.69	21.76	
3	QPSK	1	8	21.64	21.62	21.56	
3	QPSK	1	14	21.53	21.57	21.41	
3	QPSK	8	0	20.93	20.84	20.98	
3	QPSK	8	4	20.98	20.95	20.88	

3	QPSK	8	7	20.83	20.66	20.76	22
3	QPSK	15	0	20.77	20.56	20.63	
3	16QAM	1	0	21.25	21.13	21.02	
3	16QAM	1	8	21.15	21.05	21.02	21
3	16QAM	1	14	21.13	21.02	20.84	
3	16QAM	8	0	20.26	20.26	20.15	
3	16QAM	8	4	20.34	20.29	20.07	21
3	16QAM	8	7	20.34	20.20	19.99	
3	16QAM	15	0	20.21	20.17	20.02	
3	64QAM	1	0	20.67	20.79	20.42	21
3	64QAM	1	8	20.51	20.71	20.31	
3	64QAM	1	14	20.47	20.59	20.29	
3	64QAM	8	0	19.71	19.82	19.43	20
3	64QAM	8	4	19.69	19.74	19.50	
3	64QAM	8	7	19.63	19.73	19.51	
3	64QAM	15	0	19.69	19.59	19.41	Tune-up limit
Channel				18607	18900	19193	
Frequency (MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	21.70	21.57	21.49	23
1.4	QPSK	1	3	21.54	21.39	21.36	
1.4	QPSK	1	5	21.55	21.42	21.39	
1.4	QPSK	3	0	21.05	20.90	20.92	22
1.4	QPSK	3	1	21.05	20.77	20.78	
1.4	QPSK	3	3	20.90	20.77	20.89	
1.4	QPSK	6	0	20.84	20.57	20.63	22
1.4	16QAM	1	0	21.20	21.07	21.07	
1.4	16QAM	1	3	21.10	21.06	21.01	
1.4	16QAM	1	5	21.17	20.99	20.85	22
1.4	16QAM	3	0	20.39	20.31	20.05	
1.4	16QAM	3	1	20.24	20.19	20.11	
1.4	16QAM	3	3	20.26	20.28	20.06	21
1.4	16QAM	6	0	20.28	20.15	19.87	
1.4	64QAM	1	0	20.69	20.68	20.29	
1.4	64QAM	1	3	20.51	20.66	20.35	21
1.4	64QAM	1	5	20.50	20.59	20.33	
1.4	64QAM	3	0	19.78	19.75	19.43	
1.4	64QAM	3	1	19.75	19.77	19.47	20
1.4	64QAM	3	3	19.69	19.72	19.48	
1.4	64QAM	6	0	19.58	19.69	19.44	

3	QPSK	8	7	20.96	20.87	20.84	22
3	QPSK	15	0	20.83	20.87	20.70	
3	16QAM	1	0	21.20	21.36	21.18	
3	16QAM	1	8	21.08	21.28	21.00	21
3	16QAM	1	14	21.06	21.22	20.90	
3	16QAM	8	0	20.26	20.47	20.35	
3	16QAM	8	4	20.25	20.36	20.29	21
3	16QAM	8	7	20.19	20.36	20.27	
3	16QAM	15	0	20.16	20.28	20.19	
3	64QAM	1	0	20.80	20.76	20.74	21
3	64QAM	1	8	20.79	20.67	20.75	
3	64QAM	1	14	20.64	20.57	20.63	
3	64QAM	8	0	19.95	19.79	19.82	20
3	64QAM	8	4	19.83	19.76	19.92	
3	64QAM	8	7	19.80	19.73	19.82	
3	64QAM	15	0	19.82	19.74	19.79	Tune-up limit
Channel				19957	20175	20393	
Frequency (MHz)				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	21.70	21.77	21.66	23
1.4	QPSK	1	3	21.64	21.66	21.60	
1.4	QPSK	1	5	21.60	21.50	21.40	
1.4	QPSK	3	0	20.93	20.89	20.91	22
1.4	QPSK	3	1	20.96	20.95	20.93	
1.4	QPSK	3	3	20.94	20.85	20.91	
1.4	QPSK	6	0	20.85	20.93	20.71	22
1.4	16QAM	1	0	21.29	21.33	21.18	
1.4	16QAM	1	3	21.08	21.32	21.04	
1.4	16QAM	1	5	20.97	21.24	20.91	22
1.4	16QAM	3	0	20.36	20.46	20.38	
1.4	16QAM	3	1	20.20	20.41	20.24	
1.4	16QAM	3	3	20.27	20.43	20.30	21
1.4	16QAM	6	0	20.18	20.27	20.22	
1.4	64QAM	1	0	20.87	20.80	20.63	
1.4	64QAM	1	3	20.84	20.62	20.70	21
1.4	64QAM	1	5	20.62	20.57	20.71	
1.4	64QAM	3	0	19.93	19.84	19.89	
1.4	64QAM	3	1	19.83	19.83	19.86	20
1.4	64QAM	3	3	19.78	19.82	19.82	
1.4	64QAM	6	0	19.77	19.65	19.86	

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	23.5
Frequency (MHz)				704	707.5	711	
10	QPSK	1	0	22.26	22.31	22.18	23.5
10	QPSK	1	25	22.14	22.27	22.05	
10	QPSK	1	49	22.13	22.24	22.00	
10	QPSK	25	0	21.40	21.43	21.35	22.5
10	QPSK	25	12	21.37	21.40	21.33	
10	QPSK	25	25	21.33	21.38	21.28	
10	QPSK	50	0	21.38	21.34	21.19	22.5
10	16QAM	1	0	21.89	21.78	21.64	
10	16QAM	1	25	21.76	21.74	21.60	
10	16QAM	1	49	21.73	21.69	21.54	21.5
10	16QAM	25	0	20.91	20.93	20.77	
10	16QAM	25	12	20.90	20.92	20.74	
10	16QAM	25	25	20.86	20.88	20.71	21.5
10	16QAM	50	0	20.78	20.81	20.58	
10	64QAM	1	0	21.26	21.38	21.06	
10	64QAM	1	25	21.23	21.36	21.00	21.5
10	64QAM	1	49	21.09	21.25	20.95	
10	64QAM	25	0	20.38	20.34	20.06	
10	64QAM	25	12	20.38	20.33	20.04	20.5
10	64QAM	25	25	20.35	20.33	20.00	
10	64QAM	50	0	20.34	20.22	19.87	
Channel				23035	23095	23155	23.5
Frequency (MHz)				701.5	707.5	713.5	
5	QPSK	1	0	22.20	22.18	22.18	23.5
5	QPSK	1	12	22.09	22.14	22.15	
5	QPSK	1	24	22.03	22.06	22.06	
5	QPSK	12	0	21.27	21.33	21.44	22.5
5	QPSK	12	7	21.32	21.37	21.29	
5	QPSK	12	13	21.25	21.24	21.27	
5	QPSK	25	0	21.07	21.22	21.15	22.5
5	16QAM	1	0	21.56	21.49	21.59	
5	16QAM	1	12	21.59	21.44	21.45	
5	16QAM	1	24	21.54	21.24	21.37	21.5
5	16QAM	12	0	20.82	20.64	20.55	
5	16QAM	12	7	20.76	20.58	20.56	
5	16QAM	12	13	20.76	20.65	20.53	21.5
5	16QAM	25	0	20.72	20.43	20.39	
5	64QAM	1	0	21.06	21.01	21.07	
5	64QAM	1	12	20.91	20.89	20.98	21.5
5	64QAM	1	24	20.99	20.80	20.88	
5	64QAM	12	0	20.19	20.01	20.20	
5	64QAM	12	7	20.08	19.95	20.13	20.5
5	64QAM	12	13	20.18	19.92	19.97	
5	64QAM	25	0	20.05	19.92	19.94	
Channel				23025	23095	23165	23.5
Frequency (MHz)				700.5	707.5	714.5	
3	QPSK	1	0	22.25	22.17	22.16	23.5
3	QPSK	1	8	22.00	22.15	22.17	
3	QPSK	1	14	22.00	22.00	22.02	
3	QPSK	8	0	21.26	21.38	21.38	22.5
3	QPSK	8	4	21.23	21.24	21.37	
3	QPSK	8	7	21.21	21.32	21.34	
3	QPSK	15	0	21.12	21.25	21.13	22.5
3	16QAM	1	0	21.58	21.45	21.55	
3	16QAM	1	8	21.55	21.47	21.43	
3	16QAM	1	14	21.63	21.31	21.34	21.5
3	16QAM	8	0	20.87	20.64	20.58	
3	16QAM	8	4	20.75	20.61	20.55	
3	16QAM	8	7	20.78	20.64	20.47	21.5
3	16QAM	15	0	20.65	20.41	20.46	
3	64QAM	1	0	21.11	21.01	21.04	
3	64QAM	1	8	21.02	20.89	20.94	21.5
3	64QAM	1	14	20.98	20.76	20.90	
3	64QAM	8	0	20.14	20.08	20.06	20.5
3	64QAM	8	4	20.10	20.01	20.05	
3	64QAM	8	7	20.18	19.93	19.99	
3	64QAM	15	0	20.17	19.93	19.89	20.5
Channel				23017	23095	23173	
Frequency (MHz)				699.7	707.5	715.3	23.5
1.4	QPSK	1	0	22.17	22.07	22.11	
1.4	QPSK	1	3	21.98	22.10	22.09	23.5
1.4	QPSK	1	5	21.96	22.08	22.03	
1.4	QPSK	3	0	21.25	21.37	21.33	
1.4	QPSK	3	1	21.24	21.24	21.38	22.5
1.4	QPSK	3	3	21.16	21.29	21.33	
1.4	QPSK	6	0	21.02	21.11	21.14	
1.4	16QAM	1	0	21.61	21.44	21.55	22.5
1.4	16QAM	1	3	21.65	21.39	21.52	
1.4	16QAM	1	5	21.53	21.32	21.43	
1.4	16QAM	3	0	20.90	20.55	20.53	21.5
1.4	16QAM	3	1	20.82	20.63	20.62	
1.4	16QAM	3	3	20.76	20.62	20.48	
1.4	16QAM	6	0	20.65	20.37	20.35	21.5
1.4	64QAM	1	0	21.16	21.07	21.10	
1.4	64QAM	1	3	20.92	20.91	21.02	
1.4	64QAM	1	5	20.92	20.80	20.87	21.5
1.4	64QAM	3	0	20.24	20.03	20.16	
1.4	64QAM	3	1	20.15	20.03	20.10	
1.4	64QAM	3	3	20.14	20.00	20.06	20.5
1.4	64QAM	6	0	20.06	19.93	19.93	

Band 13(700MHz Band) (dBm) Part 27F							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				23230			
Frequency (MHz)				782			
10	QPSK	1	0		22.44		23.5
10	QPSK	1	25		22.42		
10	QPSK	1	49		22.39		
10	QPSK	25	0		21.58		22.5
10	QPSK	25	12		21.57		
10	QPSK	25	25		21.54		
10	QPSK	50	0		21.52		22.5
10	16QAM	1	0		21.86		
10	16QAM	1	25		21.77		
10	16QAM	1	49		21.67		21.5
10	16QAM	25	0		21.03		
10	16QAM	25	12		21.00		
10	16QAM	25	25		20.96		21.5
10	16QAM	50	0		20.88		
10	64QAM	1	0		21.50		
10	64QAM	1	25		21.47		21.5
10	64QAM	1	49		21.34		
10	64QAM	25	0		20.12		20.5
10	64QAM	25	12		20.07		
10	64QAM	25	25		19.92		
10	64QAM	50	0		20.00		
Channel				23205	23230	23255	Tune-up limit (dBm)
Frequency (MHz)				779.5	782	784.5	
5	QPSK	1	0	22.43	22.35	22.32	23.5
5	QPSK	1	12	22.31	22.34	22.37	
5	QPSK	1	24	22.19	22.21	22.27	
5	QPSK	12	0	21.23	21.17	21.35	22.5
5	QPSK	12	7	21.17	21.21	21.20	
5	QPSK	12	13	21.12	21.19	21.29	
5	QPSK	25	0	21.01	21.08	21.01	22.5
5	16QAM	1	0	21.50	21.48	21.51	
5	16QAM	1	12	21.48	21.24	21.31	
5	16QAM	1	24	21.47	21.20	21.37	21.5
5	16QAM	12	0	20.72	20.49	20.42	
5	16QAM	12	7	20.78	20.51	20.39	
5	16QAM	12	13	20.73	20.49	20.49	21.5
5	16QAM	25	0	20.60	20.27	20.28	
5	64QAM	1	0	21.00	20.89	20.88	
5	64QAM	1	12	20.95	20.76	20.87	21.5
5	64QAM	1	24	20.79	20.80	20.82	
5	64QAM	12	0	20.09	19.99	19.98	
5	64QAM	12	7	20.01	19.88	19.99	20.5
5	64QAM	12	13	20.05	19.91	19.94	
5	64QAM	25	0	19.94	19.91	19.80	

Band 66 (dBm) ANT 0							
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel	Middle Channel	High Channel	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	0	21.62	21.69	21.64	23
20	QPSK	1	49	21.50	21.56	21.55	
20	QPSK	1	99	21.39	21.49	21.41	
20	QPSK	50	0	20.66	20.90	20.81	
20	QPSK	50	24	20.55	20.77	20.85	22
20	QPSK	50	50	20.55	20.76	20.81	
20	QPSK	100	0	20.61	20.81	20.77	
20	16QAM	1	0	21.02	21.02	21.11	
20	16QAM	1	49	21.01	21.00	21.05	22
20	16QAM	1	99	21.00	20.98	20.92	
20	16QAM	50	0	20.29	20.30	20.23	
20	16QAM	50	24	20.27	20.26	20.23	
20	16QAM	50	50	20.26	20.24	20.20	21
20	16QAM	100	0	20.22	20.20	20.10	
20	64QAM	1	0	20.62	20.68	20.71	
20	64QAM	1	49	20.54	20.58	20.68	
20	64QAM	1	99	20.47	20.44	20.60	21
20	64QAM	50	0	19.78	19.53	19.72	
20	64QAM	50	24	19.78	19.52	19.72	
20	64QAM	50	50	19.77	19.52	19.71	
20	64QAM	100	0	19.64	19.41	19.59	20
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	0	21.54	21.59	21.61	23
15	QPSK	1	37	21.50	21.40	21.62	
15	QPSK	1	74	21.30	21.34	21.60	
15	QPSK	36	0	20.76	20.68	21.04	
15	QPSK	36	20	20.58	20.67	21.01	22
15	QPSK	36	39	20.58	20.54	20.83	
15	QPSK	75	0	20.59	20.48	20.86	
15	16QAM	1	0	20.94	20.96	21.25	
15	16QAM	1	37	20.75	20.90	21.27	22
15	16QAM	1	74	20.76	20.81	21.18	
15	16QAM	36	0	19.93	20.18	20.39	
15	16QAM	36	20	20.01	20.03	20.31	
15	16QAM	36	39	19.89	20.08	20.34	21
15	16QAM	75	0	19.69	20.07	20.27	
15	64QAM	1	0	20.42	20.61	20.81	
15	64QAM	1	37	20.26	20.50	20.68	
15	64QAM	1	74	20.09	20.39	20.62	21
15	64QAM	36	0	19.42	19.71	19.82	
15	64QAM	36	20	19.42	19.71	19.81	
15	64QAM	36	39	19.38	19.73	19.78	
15	64QAM	75	0	19.42	19.77	19.69	20
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	0	21.50	21.60	21.67	23
10	QPSK	1	25	21.46	21.40	21.54	
10	QPSK	1	49	21.43	21.38	21.50	
10	QPSK	25	0	20.65	20.61	21.04	
10	QPSK	25	12	20.64	20.58	20.96	22
10	QPSK	25	25	20.61	20.50	20.93	
10	QPSK	50	0	20.59	20.50	20.97	
10	16QAM	1	0	20.89	20.93	21.32	
10	16QAM	1	25	20.74	20.79	21.23	22
10	16QAM	1	49	20.78	20.89	21.22	
10	16QAM	25	0	20.00	20.09	20.32	
10	16QAM	25	12	19.87	20.13	20.25	
10	16QAM	25	25	19.84	20.11	20.33	21
10	16QAM	50	0	19.80	20.06	20.31	
10	64QAM	1	0	20.32	20.53	20.73	
10	64QAM	1	25	20.32	20.51	20.72	
10	64QAM	1	49	20.19	20.38	20.58	21
10	64QAM	25	0	19.42	19.81	19.82	
10	64QAM	25	12	19.44	19.82	19.82	
10	64QAM	25	25	19.39	19.79	19.87	
10	64QAM	50	0	19.47	19.61	19.72	20
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	21.61	21.56	21.60	23
5	QPSK	1	12	21.47	21.49	21.62	
5	QPSK	1	24	21.45	21.37	21.57	
5	QPSK	12	0	20.70	20.64	21.00	
5	QPSK	12	7	20.58	20.62	20.94	22
5	QPSK	12	13	20.63	20.59	20.90	
5	QPSK	25	0	20.45	20.57	20.90	
5	16QAM	1	0	20.82	20.96	21.25	
5	16QAM	1	12	20.69	20.85	21.19	22
5	16QAM	1	24	20.72	20.80	21.20	
5	16QAM	12	0	19.96	20.06	20.37	
5	16QAM	12	7	19.90	20.10	20.37	
5	16QAM	12	13	19.93	20.11	20.24	21
5	16QAM	25	0	19.81	20.11	20.28	
5	64QAM	1	0	20.44	20.63	20.82	
5	64QAM	1	12	20.29	20.58	20.69	
5	64QAM	1	24	20.15	20.52	20.66	21
5	64QAM	12	0	19.50	19.76	19.82	
5	64QAM	12	7	19.37	19.80	19.83	
5	64QAM	12	13	19.38	19.83	19.84	
5	64QAM	25	0	19.48	19.74	19.73	20
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	QPSK	1	0	21.61	21.54	21.62	23
3	QPSK	1	8	21.42	21.46	21.60	
3	QPSK	1	14	21.43	21.32	21.51	
3	QPSK	8	0	20.70	20.61	21.01	
3	QPSK	8	4	20.67	20.65	20.95	22
Channel				131987	132322	132657	

3	QPSK	8	7	20.60	20.51	20.86	22
3	QPSK	15	0	20.55	20.56	20.85	
3	16QAM	1	0	20.86	20.92	21.20	21
3	16QAM	1	8	20.72	20.89	21.21	
3	16QAM	1	14	20.73	20.90	21.18	21
3	16QAM	8	0	19.98	20.12	20.37	
3	16QAM	8	4	19.99	20.07	20.39	21
3	16QAM	8	7	19.94	20.05	20.36	
3	16QAM	15	0	19.81	19.97	20.28	21
3	64QAM	1	0	20.45	20.56	20.80	
3	64QAM	1	8	20.25	20.56	20.60	21
3	64QAM	1	14	20.21	20.47	20.62	
3	64QAM	8	0	19.50	19.71	19.90	20
3	64QAM	8	4	19.42	19.74	19.86	
3	64QAM	8	7	19.34	19.80	19.80	20
3	64QAM	15	0	19.39	19.70	19.63	
Channel				131979	132322	132665	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1745	1779.3	
1.4	QPSK	1	0	21.58	21.51	21.59	23
1.4	QPSK	1	3	21.45	21.43	21.51	
1.4	QPSK	1	5	21.40	21.41	21.55	23
1.4	QPSK	3	0	20.69	20.60	21.03	
1.4	QPSK	3	1	20.70	20.59	20.92	22
1.4	QPSK	3	3	20.62	20.50	20.90	
1.4	QPSK	6	0	20.46	20.48	20.87	22
1.4	16QAM	1	0	20.92	20.97	21.18	
1.4	16QAM	1	3	20.73	20.88	21.17	22
1.4	16QAM	1	5	20.70	20.79	21.13	
1.4	16QAM	3	0	19.95	20.10	20.37	21
1.4	16QAM	3	1	19.87	20.13	20.39	
1.4	16QAM	3	3	19.90	20.16	20.36	21
1.4	16QAM	6	0	19.74	20.06	20.24	
1.4	64QAM	1	0	20.45	20.59	20.73	21
1.4	64QAM	1	3	20.24	20.51	20.68	
1.4	64QAM	1	5	20.16	20.48	20.63	21
1.4	64QAM	3	0	19.42	19.86	19.83	
1.4	64QAM	3	1	19.41	19.77	19.88	20
1.4	64QAM	3	3	19.44	19.71	19.80	
1.4	64QAM	6	0	19.45	19.80	19.67	20

n2 (PC3)_ANT 0							
Channel				373000	376000	379000	Tune-up limit
Frequency (MHz)				1865	1880	1895	(dBm)
30	DFT-s-OFDM PI/2 BPSK	1	1	22.33	22.35	22.27	23.00
30		1	80	22.29	22.25	22.17	
30		1	158	22.22	22.23	22.27	
30		80	1	21.90	21.84	21.78	23.00
30		80	40	22.30	22.29	22.21	
30		80	80	21.85	21.72	21.72	
30		160	0	21.86	21.85	21.75	
30	DFT-s-OFDM QPSK	1	1	22.39	22.43	22.38	23.00
30		1	80	22.35	22.32	22.22	
30		1	158	22.32	22.16	21.83	
30		80	1	22.28	22.30	22.29	23.00
30		80	40	22.29	22.17	22.22	
30		80	80	21.32	21.28	21.25	
30		160	0	21.45	21.28	21.31	
30	DFT-s-OFDM 16QAM	1	1	21.43	21.40	21.32	22.00
30	DFT-s-OFDM 64QAM	1	1	19.78	19.84	19.71	20.50
30	DFT-s-OFDM 256QAM	1	1	17.50	17.61	17.47	18.50
30	CP-OFDM QPSK	1	1	20.92	20.97	20.92	22.00
30	CP-OFDM 16QAM	1	1	20.40	20.46	20.32	21.50
30	CP-OFDM 64QAM	1	1	18.48	18.48	18.44	19.50
30	CP-OFDM 256QAM	1	1	15.59	15.61	15.49	16.50
Channel				372500	376000	379500	Tune-up limit
Frequency (MHz)				1862.5	1880	1897.5	(dBm)
25	DFT-s-OFDM QPSK	1	1	22.41	22.33	22.21	23.00
Channel				372000	376000	380000	Tune-up limit
Frequency (MHz)				1860	1880	1900	(dBm)
20	DFT-s-OFDM QPSK	1	1	22.13	22.14	22.01	23.00
Channel				371500	376000	380500	Tune-up limit
Frequency (MHz)				1857.5	1880	1902.5	(dBm)
15	DFT-s-OFDM QPSK	1	1	22.18	22.13	21.96	23.00
Channel				371000	376000	381000	Tune-up limit
Frequency (MHz)				1855	1880	1905	(dBm)
10	DFT-s-OFDM QPSK	1	1	22.11	22.09	21.98	23.00
Channel				370500	376000	381500	Tune-up limit
Frequency (MHz)				1852.5	1880	1907.5	(dBm)
5	DFT-s-OFDM QPSK	1	1	22.20	22.06	22.13	23.00

n66 (PC3)_ANT 0							
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel	Tune-up limit
Channel				346000	349000	352000	(dBm)
Frequency (MHz)				1730	1745	1760	
40	DFT-s-OFDM PI/2 BPSK	1	1	21.58	21.55	21.54	22.50
40		1	108	21.45	21.33	21.22	
40		1	214	21.48	21.36	21.31	
40		108	1	21.09	21.07	20.93	22.50
40		108	54	21.58	21.47	21.35	
40		108	108	20.99	20.89	20.88	
40		216	0	21.06	21.09	20.98	
40	DFT-s-OFDM QPSK	1	1	21.60	21.69	21.56	22.50
40		1	108	21.46	21.38	21.28	
40		1	214	21.49	21.51	21.37	
40		108	1	21.53	21.55	21.46	22.50
40		108	54	21.33	21.41	21.35	
40		108	108	20.47	20.46	20.39	
40		216	0	20.51	20.67	20.50	
40	DFT-s-OFDM 16QAM	1	1	20.61	20.65	20.46	21.50
40	DFT-s-OFDM 64QAM	1	1	19.01	19.06	18.92	20.00
40	DFT-s-OFDM 256QAM	1	1	16.79	16.81	16.69	17.50
40	CP-OFDM QPSK	1	1	20.23	20.18	20.16	21.00
40	CP-OFDM 16QAM	1	1	19.65	19.61	19.41	20.50
40	CP-OFDM 64QAM	1	1	17.69	17.76	17.68	18.50
40	CP-OFDM 256QAM	1	1	14.79	14.78	14.73	15.50
Channel				345000	349000	353000	Tune-up limit
Frequency (MHz)				1725	1745	1765	
30	DFT-s-OFDM QPSK	1	1	21.54	21.52	21.44	22.50
Channel				344500	349000	353500	Tune-up limit
Frequency (MHz)				1722.5	1745	1767.5	
25	DFT-s-OFDM QPSK	1	1	21.67	21.61	21.44	22.50
Channel				344000	349000	354000	Tune-up limit
Frequency (MHz)				1720	1745	1770	
20	DFT-s-OFDM QPSK	1	1	21.43	21.38	21.20	22.50
Channel				343500	349000	354500	Tune-up limit
Frequency (MHz)				1717.5	1745	1772.5	
15	DFT-s-OFDM QPSK	1	1	21.57	21.50	21.21	22.50
Channel				343000	349000	355000	Tune-up limit
Frequency (MHz)				1715	1745	1775	
10	DFT-s-OFDM QPSK	1	1	21.39	21.44	21.26	22.50
Channel				342500	349000	355500	Tune-up limit
Frequency (MHz)				1712.5	1745	1777.5	
5	DFT-s-OFDM QPSK	1	1	21.37	21.30	21.18	22.50

n77(3450-3550MHz) (PC2) _ANT 2									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	Middle/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			23.77			24.50
100		1	136			23.73			
100		1	271			23.82			
100		135	1			23.46			24.50
100		135	67			23.85			
100		135	136			23.02			
100		270	0			23.46			
100	DFT-s-OFDM QPSK	1	1			24.31			25.00
100		1	136			23.74			
100		1	271			23.87			
100		135	1			23.75			24.50
100		135	67			23.58			
100		135	136			23.66			
100		270	0			23.42			
100	DFT-s-OFDM 16QAM	1	1			23.14			24.00
100	DFT-s-OFDM 64QAM	1	1			21.74			22.50
100	DFT-s-OFDM 256QAM	1	1			19.57			20.50
100	CP-OFDM QPSK	1	1			22.86			23.50
100	CP-OFDM 16QAM	1	1			22.30			23.00
100	CP-OFDM 64QAM	1	1			20.34			21.00
100	CP-OFDM 256QAM	1	1			17.59			18.50
Channel				633000	633168	633334	633500	633666	Tune-up limit
Frequency (MHz)				3495	3497.52	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	24.15	24.13	24.08	23.69	24.01	25.00
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3495	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	24.14	24.09	24.04	23.66	23.97	25.00
Channel				632334	632668	633334	633832	634332	Tune-up limit
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	24.12	24.03	24.02	23.91	23.43	25.00
Channel				632000	632668	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3490.02	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	24.07	23.57	23.94	23.84	23.82	25.00
Channel				631668	632500	633334	634166	635000	Tune-up limit
Frequency (MHz)				3475.02	3487.5	3500.01	3510	3525	
50	DFT-s-OFDM QPSK	1	1	24.16	23.65	23.97	23.92	23.92	25.00
Channel				631334	632334	633334	634332	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3514.98	3529.98	
40	DFT-s-OFDM QPSK	1	1	23.60	23.96	23.87	23.77	23.60	25.00
Channel				631000	632168	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.52	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	23.69	23.67	23.98	23.88	23.58	25.00
Channel				630834	632084	633334	634584	635832	Tune-up limit
Frequency (MHz)				3462.51	3481.26	3500.01	3518.76	3537.48	
25	DFT-s-OFDM QPSK	1	1	24.09	23.97	23.89	23.72	23.50	25.00
Channel				630668	632000	633334	634666	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3519.99	3540	
20	DFT-s-OFDM QPSK	1	1	23.66	23.59	23.45	23.23	22.96	24.50
Channel				630500	631916	633334	634750	636166	Tune-up limit
Frequency (MHz)				3457.5	3478.74	3500.01	3521.25	3542.49	
15	DFT-s-OFDM QPSK	1	1	23.50	23.40	23.31	22.98	22.84	24.50
Channel				630334	631834	633334	634834	636332	Tune-up limit
Frequency (MHz)				3455.01	3477.51	3500.01	3522.51	3544.98	
10	DFT-s-OFDM QPSK	1	1	23.62	23.42	23.41	23.05	23.00	24.50

n77(3700-3980MHz) (PC2)_ANT 2 & ANT 5									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Middle Channel	High/Middle Channel	High Channel	Tune-up
Channel				650000	653000	656000	659000	662000	limit
Frequency (MHz)				3750	3795	3840	3885	3930	(dBm)
100	DFT-s-OFDM PI/2 BPSK	1	1	23.63	23.80	23.44	23.50	23.69	24.50
100		1	136	23.22	23.19	23.30	23.49	23.30	
100		1	271	23.13	23.40	23.62	23.45	23.57	
100		135	1	23.16	22.90	22.68	22.68	23.02	24.50
100		135	67	23.39	23.30	23.41	23.51	23.47	
100		135	136	22.58	22.65	22.66	22.86	23.17	
100	DFT-s-OFDM QPSK	270	0	22.85	22.88	22.96	23.14	23.09	25.00
100		1	1	23.82	23.91	23.94	23.93	23.90	
100		1	136	23.23	23.15	23.26	23.37	23.25	
100		1	271	23.15	23.42	23.53	23.46	23.46	24.50
100		135	1	23.37	23.35	23.49	23.38	23.44	
100		135	67	23.01	23.05	23.10	23.14	23.11	
100	DFT-s-OFDM 16QAM	135	136	22.00	22.14	22.15	22.36	22.69	24.50
100		270	0	22.36	22.39	22.46	22.56	22.59	
100		1	1	22.51	22.68	22.41	22.45	22.59	23.50
100	DFT-s-OFDM 64QAM	1	1	21.14	21.28	21.00	21.05	21.28	22.00
100	DFT-s-OFDM 256QAM	1	1	18.94	19.03	18.78	18.78	18.99	20.00
100	CP-OFDM QPSK	1	1	22.20	22.32	22.05	22.09	22.30	23.00
100	CP-OFDM 16QAM	1	1	21.58	21.80	21.53	21.56	21.74	22.50
100	CP-OFDM 64QAM	1	1	19.76	19.84	19.55	19.61	19.88	20.50
100	CP-OFDM 256QAM	1	1	16.93	17.07	16.76	16.81	17.12	18.00
Channel				649666	652834	656000	659166	662332	Tune-up
Frequency (MHz)				3744.99	3792.51	3840	3887.49	3934.98	limit
90	DFT-s-OFDM QPSK	1	1	23.52	23.59	23.20	23.28	23.54	24.50
Channel				649334	652668	656000	659332	662666	Tune-up
Frequency (MHz)				3740.01	3790.02	3840	3889.98	3939.99	limit
80	DFT-s-OFDM QPSK	1	1	23.40	23.58	23.20	23.22	23.44	24.50
Channel				649000	652500	656000	659500	663000	Tune-up
Frequency (MHz)				3735	3787.5	3840	3892.5	3945	limit
70	DFT-s-OFDM QPSK	1	1	23.46	23.49	23.15	23.15	23.30	24.50
Channel				648668	652334	656000	659666	663332	Tune-up
Frequency (MHz)				3730.02	3785.01	3840	3894.99	3949.98	limit
60	DFT-s-OFDM QPSK	1	1	23.36	23.49	23.06	23.16	23.25	24.50
Channel				648334	652168	656000	659832	663666	Tune-up
Frequency (MHz)				3725.01	3782.52	3840	3894.99	3954.99	limit
50	DFT-s-OFDM QPSK	1	1	23.45	23.57	23.19	23.50	23.15	24.50
Channel				648000	652000	656000	660000	664000	Tune-up
Frequency (MHz)				3720	3780	3840	3900	3960	limit
40	DFT-s-OFDM QPSK	1	1	23.38	23.32	23.03	23.37	23.21	24.50
Channel				647668	651834	656000	660166	664332	Tune-up
Frequency (MHz)				3715.02	3777.51	3840	3902.49	3964.98	limit
30	DFT-s-OFDM QPSK	1	1	23.45	23.47	23.17	23.61	23.62	24.50
Channel				647500	651750	656000	660250	664500	Tune-up
Frequency (MHz)				3712.5	3776.25	3840	3903.75	3967.5	limit
25	DFT-s-OFDM QPSK	1	1	23.42	23.45	23.17	23.49	23.66	24.50
Channel				647334	651668	656000	660332	664666	Tune-up
Frequency (MHz)				3710.01	3775.02	3840	3904.98	3969.99	limit
20	DFT-s-OFDM QPSK	1	1	23.34	23.20	23.14	23.38	23.69	24.50
Channel				647168	651584	656000	660416	664832	Tune-up
Frequency (MHz)				3707.52	3773.76	3840	3906.24	3972.48	limit
15	DFT-s-OFDM QPSK	1	1	23.30	23.16	23.15	23.30	23.76	24.50
Channel				647000	651500	656000	660500	665000	Tune-up
Frequency (MHz)				3705	3772.5	3840	3907.5	3975	limit
10	DFT-s-OFDM QPSK	1	1	23.46	23.30	23.28	23.45	23.97	24.50

n78(3450-3550MHz) (PC2)_ANT 2									
BW [MHz]	Modulation	RB num	RB start	Low Channel	Low/Middle Channel	Low Channel	Low/High Channel	High Channel	Tune-up limit (dBm)
Channel						633334			
Frequency (MHz)						3500.01			
100	DFT-s-OFDM PI/2 BPSK	1	1			23.89			25.00
100		1	136			23.45			
100		1	271			23.56			
100		135	1			23.08			24.50
100		135	67			23.44			
100		135	136			22.64			
100		270	0			23.05			25.00
100	DFT-s-OFDM QPSK	1	1			23.91			
100		1	136			23.36			
100		1	271			23.51			
100		135	1			23.44			
100		135	67			23.34			
100		135	136			23.30			
100		270	0			23.25			24.50
100	DFT-s-OFDM 16QAM	1	1			22.89			
100	DFT-s-OFDM 64QAM	1	1			21.37			
100	DFT-s-OFDM 256QAM	1	1			19.25			
100	CP-OFDM QPSK	1	1			22.44			
100	CP-OFDM 16QAM	1	1			21.85			
100	CP-OFDM 64QAM	1	1			20.01			21.00
100	CP-OFDM 256QAM	1	1			17.23			18.00
Channel				633000	633166	633334	633500	633666	Tune-up limit
Frequency (MHz)				3495	3497.49	3500.01	3502.5	3504.99	
90	DFT-s-OFDM QPSK	1	1	23.77	23.86	23.81	23.80	23.75	25.00
Channel				632668	633000	633334	633666	634000	Tune-up limit
Frequency (MHz)				3490.02	3450	3500.01	3504.99	3510	
80	DFT-s-OFDM QPSK	1	1	23.85	23.79	23.73	23.67	23.58	25.00
Channel				632334	632634	633334	633832	634332	Tune-up limit
Frequency (MHz)				3485.01	3492.51	3500.01	3507.48	3514.98	
70	DFT-s-OFDM QPSK	1	1	23.80	23.79	23.66	23.60	23.52	25.00
Channel				632000	632666	633334	634000	634666	Tune-up limit
Frequency (MHz)				3480	3489.99	3500.01	3510	3519.99	
60	DFT-s-OFDM QPSK	1	1	23.69	23.68	23.64	23.46	23.56	25.00
Channel				631668	632500	633334	634166	635000	Tune-up limit
Frequency (MHz)				3475.02	3487.5	3500.01	3512.48	3525	
50	DFT-s-OFDM QPSK	1	1	23.88	23.79	23.71	23.58	23.60	25.00
Channel				631334	636672	633334	634334	635332	Tune-up limit
Frequency (MHz)				3470.01	3485.01	3500.01	3515.01	3529.98	
40	DFT-s-OFDM QPSK	1	1	23.72	23.19	23.54	23.48	23.29	25.00
Channel				631000	632166	633334	634500	635666	Tune-up limit
Frequency (MHz)				3465	3482.49	3500.01	3517.5	3534.99	
30	DFT-s-OFDM QPSK	1	1	23.86	23.74	23.64	23.52	23.28	25.00
Channel				630834	632084	633334	634584	635832	Tune-up limit
Frequency (MHz)				3462.51	3481.26	3500.01	3518.76	3537.48	
25	DFT-s-OFDM QPSK	1	1	23.75	23.65	23.58	23.39	23.16	25.00
Channel				630668	632000	633334	634668	636000	Tune-up limit
Frequency (MHz)				3460.02	3480	3500.01	3520.02	3540	
20	DFT-s-OFDM QPSK	1	1	23.73	23.58	23.51	23.26	23.02	25.00
Channel				630500	631916	633334	634750	636166	Tune-up limit
Frequency (MHz)				3457.5	3478.74	3500.01	3521.25	3542.49	
15	DFT-s-OFDM QPSK	1	1	23.61	23.42	23.36	23.10	22.95	25.00
Channel				630334	631834	633334	634834	636332	Tune-up limit
Frequency (MHz)				3455.01	3477.51	3500.01	3522.51	3544.98	
10	DFT-s-OFDM QPSK	1	1	23.82	23.61	23.49	23.18	23.25	25.00

n78(3700-3800MHz) (PC2)_ANT 2									
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			
Frequency (MHz)						3750			
100	DFT-s-OFDM PI/2 BPSK	1	1			23.59			24.50
100		1	136			23.40			
100		1	271			23.24			
100		135	1			23.32			24.50
100		135	67			23.51			
100		135	136			22.69			
100		270	0			23.04			
100	DFT-s-OFDM QPSK	1	1			23.67			24.50
100		1	136			23.41			
100		1	271			23.26			
100		135	1			23.38			24.50
100		135	67			23.30			
100		135	136			23.26			
100		270	0			23.17			
100	DFT-s-OFDM 16QAM	1	1			22.63			23.50
100	DFT-s-OFDM 64QAM	1	1			21.25			22.50
100	DFT-s-OFDM 256QAM	1	1			18.98			20.00
100	CP-OFDM QPSK	1	1			22.30			23.00
100	CP-OFDM 16QAM	1	1			21.78			22.50
100	CP-OFDM 64QAM	1	1			19.82			20.50
100	CP-OFDM 256QAM	1	1			17.02			18.00
Channel				649668	649834	650000	650166	650332	Tune-up limit
Frequency (MHz)				3745.02	3747.51	3750	3752.49	3754.98	
90	DFT-s-OFDM QPSK	1	1	23.63	23.67	23.59	23.63	23.67	24.50
Channel				649334	649666	650000	650334	650666	Tune-up limit
Frequency (MHz)				3740.01	3744.99	3750	3755.01	3759.99	
80	DFT-s-OFDM QPSK	1	1	23.62	23.59	23.65	23.73	23.78	24.50
Channel				649000	649500	650000	650500	651000	Tune-up limit
Frequency (MHz)				3735	3742.5	3750	3757.5	3765	
70	DFT-s-OFDM QPSK	1	1	23.56	23.58	23.68	23.76	23.75	24.50
Channel				648668	649334	650000	650666	651332	Tune-up limit
Frequency (MHz)				3730.02	3740.01	3750	3759.99	3769.98	
60	DFT-s-OFDM QPSK	1	1	23.49	23.64	23.67	23.70	23.58	24.50
Channel				648334	649166	650000	650834	651666	Tune-up limit
Frequency (MHz)				3725.01	3737.49	3750	3762.51	3774.99	
50	DFT-s-OFDM QPSK	1	1	23.58	23.78	23.74	23.66	23.43	24.50
Channel				648000	649000	650000	651000	652000	Tune-up limit
Frequency (MHz)				3720	3735	3750	3765	3780	
40	DFT-s-OFDM QPSK	1	1	23.47	23.70	23.67	23.40	23.23	24.50
Channel				647668	648834	650000	651166	652332	Tune-up limit
Frequency (MHz)				3715.02	3732.51	3750	3767.49	3784.98	
30	DFT-s-OFDM QPSK	1	1	23.53	23.76	23.67	23.36	23.23	24.50
Channel				647500	648750	650000	651250	652500	Tune-up limit
Frequency (MHz)				3712.5	3731.25	3750	3768.75	3787.5	
25	DFT-s-OFDM QPSK	1	1	23.48	23.78	23.55	23.27	22.96	24.50
Channel				647334	648666	650000	651334	652666	Tune-up limit
Frequency (MHz)				3710.01	3729.99	3750	3770.01	3789.99	
20	DFT-s-OFDM QPSK	1	1	23.44	23.67	23.51	23.20	22.90	24.50
Channel				647168	648584	650000	651416	652832	Tune-up limit
Frequency (MHz)				3707.52	3728.76	3750	3771.24	3792.48	
15	DFT-s-OFDM QPSK	1	1	23.38	23.64	23.41	23.13	22.95	24.50
Channel				647000	648500	650000	651500	653000	Tune-up limit
Frequency (MHz)				3705	3727.5	3750	3772.5	3795	
10	DFT-s-OFDM QPSK	1	1	23.54	23.75	23.49	23.24	23.09	24.50

CA_66B(Ant 0)											
Combination:10MHz+10MHz(50RB+50RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
132072	132022	132121	QPSK	1	0	0	0	1	0	21.38	22.50
132322	132373	132472	QPSK	1	0	0	0	1	0	21.49	22.50
132572	132523	132622	QPSK	1	0	0	0	1	0	21.41	22.50
132072	132022	132121	16QAM	1	0	0	0	1	0	20.68	21.50
132322	132373	132472	16QAM	1	0	0	0	1	0	20.81	21.50
132572	132523	132622	16QAM	1	0	0	0	1	0	20.59	21.50
132072	132022	132121	64QAM	1	0	0	0	1	0	20.46	20.50
132322	132373	132472	64QAM	1	0	0	0	1	0	19.52	20.50
132572	132523	132622	64QAM	1	0	0	0	1	0	19.55	20.50
132072	132022	132121	256QAM	1	0	0	0	1	0	16.66	17.50
132322	132373	132472	256QAM	1	0	0	0	1	0	16.71	17.50
132572	132523	132622	256QAM	1	0	0	0	1	0	16.54	17.50
132072	132022	132121	QPSK	25	0	0	0	1	0	20.55	21.50
132322	132373	132472	QPSK	25	0	0	0	1	0	20.61	21.50
132572	132523	132622	QPSK	25	0	0	0	1	0	20.62	21.50

CA_66C(Ant 0)											
Combination:20MHz+20MHz(100RB+100RB)											
PCC Channel	PCC Channel (3GPP)	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level(dB)	Measured Power(dBm)	Tune-up limit(dBm)
				RB Size	RB Offset	RB Size	RB Offset				
132070	132072	132270	QPSK	1	0	0	0	1	0	21.43	22.50
132322	132323	132521	QPSK	1	0	0	0	1	0	21.35	22.50
132572	132374	132572	QPSK	1	0	0	0	1	0	21.37	22.50
132070	132072	132270	16QAM	1	0	0	0	1	0	20.46	21.50
132322	132323	132521	16QAM	1	0	0	0	1	0	20.35	21.50
132572	132374	132572	16QAM	1	0	0	0	1	0	20.28	21.50
132070	132072	132270	64QAM	1	0	0	0	1	0	19.53	20.50
132322	132323	132521	64QAM	1	0	0	0	1	0	19.45	20.50
132572	132374	132572	64QAM	1	0	0	0	1	0	19.38	20.50
132070	132072	132270	256QAM	1	0	0	0	1	0	16.59	17.50
132322	132323	132521	256QAM	1	0	0	0	1	0	16.52	17.50
132572	132374	132572	256QAM	1	0	0	0	1	0	16.44	17.50
132070	132072	132270	QPSK	50	0	0	0	1	0	20.37	21.50
132322	132323	132521	QPSK	50	0	0	0	1	0	20.35	21.50
132572	132374	132572	QPSK	50	0	0	0	1	0	20.29	21.50

ABC 13 AIR LOG - 2018							
Date	Channel	Program	Program Length	Start Time	End Time	Total Minutes	Notes
08/11/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/12/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/13/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/14/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/15/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/16/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/17/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/18/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/19/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/20/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13
	ABC 13 News @ 6:30a	6:30a-7:00a	:30	6:30a	7:00a	30	ABC 13
	ABC 13 News @ 7:00a	7:00a-7:30a	:30	7:00a	7:30a	30	ABC 13
	ABC 13 News @ 7:30a	7:30a-8:00a	:30	7:30a	8:00a	30	ABC 13
08/21/2018	ABC 13 News @ 6:00a	6:00a-6:30a	:30	6:00a	6:30a	30	ABC 13

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الصفحة رقم 1 من 1											
No	Name	English		Math		Science		Arabic		Total	Grade
		1st	2nd	1st	2nd	1st	2nd	1st	2nd		
الصفحة رقم 1 من 1	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0
	Abdullah Al-Muray	75.00	75.00	80.00	80.00	85.00	85.00	80.00	80.00	320.00	8.0

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