



Full Power Mode

CGSM2_Ant4												
Tx Channel	Burst Average Power (dBm)				Tune-up Limit	Frame Average Power (dBm)				Tune-up Limit		
	128	160	201	Limit		128	160	201	Limit			
Frequency (MHz)	32.12	32.14	32.16	32.18	32.12	32.14	32.16	32.18	32.12	32.14	32.16	32.18
CGSM1 Tx slot	32.08	32.08	32.76	33.50	32.08	32.08	32.76	33.50	32.08	32.08	32.76	33.50
GPSS 1 Tx slot	32.99	32.96	32.68	33.50	32.99	32.96	32.68	33.50	32.99	32.96	32.68	33.50
GPSS 2 Tx slots	30.86	30.86	30.89	31.50	30.86	30.86	30.89	31.50	30.86	30.86	30.89	31.50
GPSS 3 Tx slots	29.46	29.84	29.91	31.50	29.46	29.84	29.91	31.50	29.46	29.84	29.91	31.50
GPSS 4 Tx slots	26.57	26.40	26.23	27.50	26.57	26.40	26.23	27.50	26.57	26.40	26.23	27.50
EDGE 1 Tx slots	20.33	20.55	20.48	21.50	20.33	20.55	20.48	21.50	20.33	20.55	20.48	21.50
EDGE 2 Tx slots	24.81	24.45	24.89	25.50	24.81	24.45	24.89	25.50	24.81	24.45	24.89	25.50
EDGE 3 Tx slots	22.71	22.51	22.98	23.00	22.71	22.51	22.98	23.00	22.71	22.51	22.98	23.00
EDGE 4 Tx slots	20.77	20.55	20.75	21.50	20.77	20.55	20.75	21.50	20.77	20.55	20.75	21.50

CGSM100_Ant4												
Tx Channel	Burst Average Power (dBm)				Tune-up Limit	Frame Average Power (dBm)				Tune-up Limit		
	512	561	610	Limit		512	561	610	Limit			
Frequency (MHz)	153.02	153.0	153.0	153.0	153.02	153.0	153.0	153.0	153.02	153.0	153.0	153.0
CGSM1 Tx slot	29.99	30.02	30.30	30.50	29.99	30.02	30.30	30.50	29.99	30.02	30.30	30.50
GPSS 1 Tx slot	27.82	27.85	27.91	28.50	27.82	27.85	27.91	28.50	27.82	27.85	27.91	28.50
GPSS 2 Tx slots	24.96	25.37	25.44	26.00	24.96	25.37	25.44	26.00	24.96	25.37	25.44	26.00
GPSS 3 Tx slots	23.81	24.03	24.03	24.50	23.81	24.03	24.03	24.50	23.81	24.03	24.03	24.50
EDGE 1 Tx slots	23.14	23.47	23.72	24.00	23.14	23.47	23.72	24.00	23.14	23.47	23.72	24.00
EDGE 2 Tx slots	22.77	23.34	23.29	24.00	22.77	23.34	23.29	24.00	22.77	23.34	23.29	24.00
EDGE 3 Tx slots	21.92	22.37	22.58	23.00	21.92	22.37	22.58	23.00	21.92	22.37	22.58	23.00
EDGE 4 Tx slots	20.36	20.68	20.62	21.00	20.36	20.68	20.62	21.00	20.36	20.68	20.62	21.00

WCDMA												
Tx Channel	WCDMA II_Ant4				Tune-up Limit	WCDMA IV_Ant4				Tune-up Limit		
	5922	5903	5938	Limit		1312	1313	1513	Limit			
Frequency (MHz)	1532.1	1530	1527.6	1532.1	1532.1	1533	1527.6	1532.1	1532.1	1532	1533	1527.6
3GPP Rel 99	23.19	23.24	23.21	24.00	23.40	23.45	23.43	24.00	23.37	23.42	23.41	24.00
3GPP Rel 99	23.27	23.30	23.24	24.00	23.44	23.47	23.44	24.00	23.39	23.46	23.42	24.00
3GPP Rel 6	22.41	22.46	22.48	23.00	22.27	22.48	22.45	23.00	22.20	22.17	22.07	23.00
3GPP Rel 6	22.42	22.47	22.49	23.00	22.34	22.51	22.48	23.00	22.19	22.10	22.08	23.00
3GPP Rel 6	21.92	22.00	21.94	22.50	21.81	21.98	21.98	22.50	21.72	21.68	21.54	22.50
3GPP Rel 6	21.89	22.01	21.96	22.50	21.87	21.97	21.96	22.50	21.71	21.67	21.59	22.50
3GPP Rel 8	22.28	22.33	22.36	23.00	22.19	22.45	22.44	23.00	22.15	22.03	21.96	23.00
3GPP Rel 8	22.33	22.41	22.38	23.00	22.32	22.48	22.40	23.00	22.08	21.99	21.94	23.00
3GPP Rel 8	21.91	21.95	21.85	22.50	21.74	21.98	21.98	22.50	21.56	21.67	21.44	22.50
3GPP Rel 8	21.81	21.95	21.85	22.50	21.86	21.89	21.89	22.50	21.54	21.60	21.48	22.50
3GPP Rel 8	22.32	22.41	22.42	23.00	22.15	22.36	22.40	23.00	22.12	22.10	22.04	23.00
3GPP Rel 6	20.35	20.51	20.38	21.00	20.14	20.41	20.38	21.00	20.13	20.14	20.06	21.00
3GPP Rel 6	21.26	21.39	21.41	22.00	21.15	21.33	21.37	22.00	21.14	21.15	21.02	22.00
3GPP Rel 6	20.31	20.44	20.45	21.00	20.13	20.37	20.38	21.00	20.13	20.15	20.04	21.00
3GPP Rel 6	22.30	22.40	22.37	23.00	22.12	22.40	22.48	23.00	22.10	22.12	22.08	23.00
3GPP Rel 7	19.86	19.92	19.84	20.50	19.56	19.90	19.80	20.50	19.61	19.78	19.70	20.50



Band 41_Ant1 (HPUE)

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power (Low Ch. Freq., Low Middle Ch. Freq., Middle Ch. Freq., High Middle Ch. Freq., Power Ch. Freq.), Tune-up limit (dBm), MPR (dB). Includes Channel and Channel Frequency (MHz) sub-sections.

Band 48_Ant5_For FCC

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power (Low Ch. Freq., Low Middle Ch. Freq., High Middle Ch. Freq., Power Ch. Freq.), Tune-up limit (dBm), MPR (dB). Includes Channel and Channel Frequency (MHz) sub-sections.



Reduced Power Mode for DSI 2

<GSM>

Table with 5 columns: TX Channel, Burst Average Power (dBm), Tune-up Limit, Frame Average Power (dBm), and Tune-up Limit. Includes rows for GSM1900_Ant0 and GSM1900_Ant1.

Table with 5 columns: TX Channel, Burst Average Power (dBm), Tune-up Limit, Frame Average Power (dBm), and Tune-up Limit. Includes rows for GSM1900_Ant0 and GSM1900_Ant1.

Table with 5 columns: TX Channel, Burst Average Power (dBm), Tune-up Limit, Frame Average Power (dBm), and Tune-up Limit. Includes rows for GSM1900_Ant0 and GSM1900_Ant1.

Table with 5 columns: TX Channel, Burst Average Power (dBm), Tune-up Limit, Frame Average Power (dBm), and Tune-up Limit. Includes rows for GSM1900_Ant0 and GSM1900_Ant1.

<WCDMA>

Table with 12 columns: Band, Tx Channel, Rx Channel, WCDMA IV_Ant0, WCDMA IV_Ant1, WCDMA IV_Ant0, WCDMA IV_Ant1, WCDMA V_Ant0, WCDMA V_Ant1, WCDMA V_Ant0, WCDMA V_Ant1, and Tune-up Limit. Includes rows for 3GPP Rel 99, 3GPP Rel 6, 3GPP Rel 8, and 3GPP Rel 7.

Table with 12 columns: Band, Tx Channel, Rx Channel, WCDMA IV_Ant0, WCDMA IV_Ant1, WCDMA IV_Ant0, WCDMA IV_Ant1, WCDMA V_Ant0, WCDMA V_Ant1, WCDMA V_Ant0, WCDMA V_Ant1, and Tune-up Limit. Includes rows for 3GPP Rel 99, 3GPP Rel 6, 3GPP Rel 8, and 3GPP Rel 7.



Band 38_Ant1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power (Low Ch. Freq, Mid Ch. Freq, High Ch. Freq), Tune-up limit (dBm), MPR (dB). Rows include Channel Frequency (MHz) and Channel Frequency (MHz) sections.

Band 41_Ant1

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power (Low Ch. Freq, Mid Ch. Freq, High Ch. Freq), Tune-up limit (dBm), MPR (dB). Rows include Channel Frequency (MHz) and Channel Frequency (MHz) sections.



Band 26_Ant4										
Bölge	İlçe	MSL No	MSL Adı	Yapı Tipleri	Yapı Türleri	Yapı No	Kapalı Alan (m ²)	Yeni Yapı	Yapı Durumu	Yazın İçinde
İstanbul	Etiler	2010	01				2010	01		
		2011	02				2011	02		
		2012	03				2012	03		
		2013	04				2013	04		
		2014	05				2014	05		
		2015	06				2015	06		
		2016	07				2016	07		
		2017	08				2017	08		
		2018	09				2018	09		
		2019	10				2019	10		
		2020	11				2020	11		
		2021	12				2021	12		
		2022	13				2022	13		
		2023	14				2023	14		
		2024	15				2024	15		
		2025	16				2025	16		
		2026	17				2026	17		
		2027	18				2027	18		
		2028	19				2028	19		
		2029	20				2029	20		
		2030	21				2030	21		

Band 30_Ant1										
Bölge	İlçe	MSL No	MSL Adı	Yapı Tipleri	Yapı Türleri	Yapı No	Kapalı Alan (m ²)	Yeni Yapı	Yapı Durumu	Yazın İçinde
İstanbul	Etiler	2010	01				2010	01		
		2011	02				2011	02		
		2012	03				2012	03		
		2013	04				2013	04		
		2014	05				2014	05		
		2015	06				2015	06		
		2016	07				2016	07		
		2017	08				2017	08		
		2018	09				2018	09		
		2019	10				2019	10		
		2020	11				2020	11		
		2021	12				2021	12		
		2022	13				2022	13		
		2023	14				2023	14		
		2024	15				2024	15		
		2025	16				2025	16		
		2026	17				2026	17		
		2027	18				2027	18		
		2028	19				2028	19		
		2029	20				2029	20		
		2030	21				2030	21		

Band 30_Ant4(ENDC)										
Bölge	İlçe	MSL No	MSL Adı	Yapı Tipleri	Yapı Türleri	Yapı No	Kapalı Alan (m ²)	Yeni Yapı	Yapı Durumu	Yazın İçinde
İstanbul	Etiler	2010	01				2010	01		
		2011	02				2011	02		
		2012	03				2012	03		
		2013	04				2013	04		
		2014	05				2014	05		
		2015	06				2015	06		
		2016	07				2016	07		
		2017	08				2017	08		
		2018	09				2018	09		
		2019	10				2019	10		
		2020	11				2020	11		
		2021	12				2021	12		
		2022	13				2022	13		
		2023	14				2023	14		
		2024	15				2024	15		
		2025	16				2025	16		
		2026	17				2026	17		
		2027	18				2027	18		
		2028	19				2028	19		
		2029	20				2029	20		
		2030	21				2030	21		



Band 41_Ant1 (HPUE)

BW (MHz)	Modulation	RB Size	RB Offset	Power					Turn-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Low Middle Ch. Freq.	Power Malloc. Ch. Freq.	High Middle Ch. Freq.	High Ch. Freq.		
				30720	40185	40560	41005	41460		
20	QPSK	1	0	23.73	23.85	23.92	24.05	24.08	25.1	0
20	QPSK	1	24	23.73	23.85	23.92	24.05	24.08	25.1	0
20	QPSK	50	0	23.02	23.02	23.11	23.17	23.20	25.1	0
20	QPSK	50	24	23.02	23.02	23.02	23.11	23.18	25.1	0
20	QPSK	50	50	22.92	23.05	23.03	23.11	23.25	25.1	0
20	QPSK	50	0	22.92	23.04	23.02	23.13	23.25	25.1	0
20	HQAM	1	0	23.19	23.29	23.25	23.49	23.55	25.1	0
20	HQAM	1	48	23.19	23.29	23.25	23.49	23.55	25.1	0
20	HQAM	1	99	23.17	23.34	23.45	23.43	23.47	25.1	0
20	HQAM	5	0	23.19	23.19	23.19	23.19	23.19	25.1	0
20	HQAM	5	24	23.07	24.11	24.10	24.05	24.14	25	0.1
20	HQAM	50	0	23.07	24.10	24.06	24.20	24.08	25.1	0
20	HQAM	50	24	23.20	22.13	22.10	22.07	22.18	25.1	0
20	HQAM	1	0	23.76	23.95	23.94	24.05	24.08	25	0.1
20	HQAM	5	0	22.97	22.97	22.97	23.07	23.11	25	0.1
20	HQAM	1	99	23.05	23.07	24.13	24.13	24.22	25	0.1
20	HQAM	50	24	22.97	23.08	23.05	23.15	23.11	24	1.1
20	HQAM	50	50	23.01	23.02	23.14	23.16	23.13	25.1	0
20	HQAM	50	0	23.04	23.02	23.15	23.05	23.12	25.1	0
20	SSBAM	1	0	20.67	20.66	20.79	20.72	20.73	22	3.1
20	SSBAM	5	0	20.65	20.67	20.81	20.74	20.75	22	3.1
20	SSBAM	11	0	20.69	20.73	20.69	20.70	20.75	22	3.1
20	SSBAM	50	0	20.76	20.66	20.62	20.75	20.76	22	3.1
20	SSBAM	50	24	20.65	20.67	20.66	20.69	20.75	22	3.1
20	SSBAM	50	50	20.68	20.64	20.65	20.74	20.61	22	3.1
20	SSBAM	100	0	20.73	20.62	20.74	20.80	20.60	22	3.1

Band 48_Ant5_For FCC

BW (MHz)	Modulation	RB Size	RB Offset	Power					Turn-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Low Middle Ch. Freq.	Power Malloc. Ch. Freq.	High Middle Ch. Freq.	High Ch. Freq.		
				56460	56930	57400	57870	58340		
20	QPSK	1	0	19.26	19.26	19.26	19.07	19.05	20	0
20	QPSK	1	48	19.26	19.26	19.26	19.07	19.05	20	0
20	QPSK	50	0	19.03	19.05	19.04	19.04	19.04	20	0
20	QPSK	50	24	19.12	19.03	19.01	19.01	19.01	20	0
20	QPSK	50	50	19.22	19.10	19.08	19.05	19.05	20	0
20	QPSK	50	0	19.11	19.09	19.09	19.09	19.09	20	0
20	HQAM	1	0	19.09	19.03	19.03	19.02	19.02	20	0
20	HQAM	1	48	19.21	19.26	19.26	19.26	19.26	20	0
20	HQAM	1	99	19.04	19.05	19.05	19.05	19.05	20	0
20	HQAM	5	0	19.02	19.02	19.02	19.02	19.02	20	0
20	HQAM	5	24	19.12	19.03	19.02	19.02	19.02	20	0
20	HQAM	50	0	19.15	19.03	19.02	19.02	19.02	20	0
20	HQAM	50	24	19.02	19.02	19.02	19.02	19.02	20	0
20	HQAM	1	0	19.09	19.12	19.14	19.09	19.09	20	0
20	HQAM	1	48	19.04	19.06	19.06	19.06	19.06	20	0
20	SSBAM	1	0	17.05	17.03	17.05	17.05	17.04	19	1
20	SSBAM	5	0	17.00	17.02	17.02	17.07	17.02	19	1
20	SSBAM	11	0	17.08	17.07	17.05	17.05	17.05	19	1
20	SSBAM	50	0	17.04	17.06	17.06	17.16	17.24	19	1
20	SSBAM	50	24	17.25	17.07	17.16	17.16	17.24	19	1
20	SSBAM	50	50	17.22	17.16	17.22	17.22	17.22	19	1
20	SSBAM	100	0	17.32	17.07	17.22	17.22	17.22	19	1



Band 25_Ant0

MS-NO	MS-NAME	MS-STATUS	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE
100001

Band 25_Ant4

MS-NO	MS-NAME	MS-STATUS	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE
100001

Band 26_Ant0

MS-NO	MS-NAME	MS-STATUS	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE	MS-CLASS	MS-LEVEL	MS-ADDRESS	MS-CITY	MS-COUNTRY	MS-STATE	MS-ZIP	MS-TIMEZONE
100001



Band 41_Ant1 (HPUE)

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power (Low Ch, Low Freq, Low Mid, High Mid, High Ch, High Freq), Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel, Frequency (MHz), and Channel.

Band 48_Ant5_For FCC

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power (Low Ch, Low Freq, Low Mid, High Mid, High Ch, High Freq), Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel, Frequency (MHz), and Channel.



Band 41_Ant1 (HPUE)

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. [Freq], Power Low Middle Ch. [Freq], Power High Middle Ch. [Freq], Power High Ch. [Freq], Tune-up limit (dBm), MPR (dB). Rows include channels like DQSSK, HSDMA, and ZSSDAM with various parameters.

Band 48_Ant5_For FCC

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. [Freq], Power Low Middle Ch. [Freq], Power High Middle Ch. [Freq], Power High Ch. [Freq], Tune-up limit (dBm), MPR (dB). Rows include channels like DQSSK, HSDMA, and ZSSDAM with various parameters.



Band 38_Ant1

Table with 12 columns: BW [MHz], Modulation, RS Size, RE Offset, Power Low Ch. [Freq], Power Mid Ch. [Freq], Power High Ch. [Freq], Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).

Band 41_Ant1

Table with 12 columns: BW [MHz], Modulation, RS Size, RE Offset, Power Low Ch. [Freq], Power Low-Mid Ch. [Freq], Power Mid-High Ch. [Freq], Power High Ch. [Freq], Tune-up limit (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz).



Band 41_Ant1 (HPUE)

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power (Low Ch. Freq., Low Middle Ch. Freq., Middle Ch. Freq., High Middle Ch. Freq., Power Ch. Freq.), Tune-up limit (dBm), MPR (dB). Includes Channel and Channel Frequency (MHz) sub-sections.

Band 48_Ant5_For FCC

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power (Low Ch. Freq., Low Middle Ch. Freq., High Middle Ch. Freq., Power Ch. Freq.), Tune-up limit (dBm), MPR (dB). Includes Channel and Channel Frequency (MHz) sub-sections.



Uplink CA Power

CA_5B_Ant0											
Combination 10MHz+10MHz (50RB+50RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state
			RB Size	RB offset	RB Size	RB offset					
20450	20549	QPSK	1	0	0	0	1	0	22.83	24.00	DSI2
20575	20476	QPSK	1	0	0	0	1	0	22.93	24.00	DSI2
20600	20501	QPSK	1	0	0	0	1	0	22.71	24.00	DSI2
20450	20549	QPSK	1	0	0	0	1	0	22.83	24.00	DSI2 Sim
20575	20476	QPSK	1	0	0	0	1	0	22.93	24.00	DSI2 Sim
20600	20501	QPSK	1	0	0	0	1	0	22.71	24.00	DSI2 Sim
20450	20549	QPSK	1	0	0	0	1	0	21.21	22.30	DSI3
20575	20476	QPSK	1	0	0	0	1	0	21.23	22.30	DSI3
20600	20501	QPSK	1	0	0	0	1	0	21.16	22.30	DSI3
20450	20549	QPSK	1	0	0	0	1	0	21.21	22.30	DSI3Sim
20575	20476	QPSK	1	0	0	0	1	0	21.23	22.30	DSI3Sim
20600	20501	QPSK	1	0	0	0	1	0	21.16	22.30	DSI3Sim
20450	20549	QPSK	1	0	0	0	1	0	22.23	23.30	DSI6
20575	20476	QPSK	1	0	0	0	1	0	22.25	23.30	DSI6
20600	20501	QPSK	1	0	0	0	1	0	22.08	23.30	DSI6
20450	20549	QPSK	1	0	0	0	1	0	22.83	24.00	Full
20575	20476	QPSK	1	0	0	0	1	0	22.93	24.00	Full
20600	20501	QPSK	1	0	0	0	1	0	22.71	24.00	Full

CA_5B_Ant4											
Combination 10MHz+10MHz (50RB+50RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state
			RB Size	RB offset	RB Size	RB offset					
20450	20549	QPSK	1	0	0	0	1	0	21.13	22.70	DSI2
20575	20476	QPSK	1	0	0	0	1	0	21.14	22.70	DSI2
20600	20501	QPSK	1	0	0	0	1	0	21.00	22.70	DSI2
20450	20549	QPSK	1	0	0	0	1	0	20.27	21.50	DSI2 Sim
20575	20476	QPSK	1	0	0	0	1	0	20.31	21.50	DSI2 Sim
20600	20501	QPSK	1	0	0	0	1	0	20.26	21.50	DSI2 Sim
20450	20549	QPSK	1	0	0	0	1	0	21.84	23.20	DSI3
20575	20476	QPSK	1	0	0	0	1	0	21.86	23.20	DSI3
20600	20501	QPSK	1	0	0	0	1	0	21.73	23.20	DSI3
20450	20549	QPSK	1	0	0	0	1	0	20.68	22.00	DSI3Sim
20575	20476	QPSK	1	0	0	0	1	0	20.71	22.00	DSI3Sim
20600	20501	QPSK	1	0	0	0	1	0	20.53	22.00	DSI3Sim
20450	20549	QPSK	1	0	0	0	1	0	22.46	24.00	DSI6
20575	20476	QPSK	1	0	0	0	1	0	22.53	24.00	DSI6
20600	20501	QPSK	1	0	0	0	1	0	22.32	24.00	DSI6
20450	20549	QPSK	1	0	0	0	1	0	22.46	24.00	Full
20575	20476	QPSK	1	0	0	0	1	0	22.53	24.00	Full
20600	20501	QPSK	1	0	0	0	1	0	22.32	24.00	Full



CA_7C_Ant1											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state
			RB Size	RB offset	RB Size	RB offset					
20850	21048	QPSK	1	0	0	0	1	0	20.83	22.00	DS12
21100	20902	QPSK	1	0	0	0	1	0	20.77	22.00	DS12
21350	21152	QPSK	1	0	0	0	1	0	20.89	22.00	DS12
20850	21048	QPSK	1	0	0	0	1	0	20.83	22.00	DS12 Sim
21100	20902	QPSK	1	0	0	0	1	0	20.77	22.00	DS12 Sim
21350	21152	QPSK	1	0	0	0	1	0	20.89	22.00	DS12 Sim
20850	21048	QPSK	1	0	0	0	1	0	16.64	17.80	DS13
21100	20902	QPSK	1	0	0	0	1	0	16.73	17.80	DS13
21350	21152	QPSK	1	0	0	0	1	0	16.73	17.80	DS13
20850	21048	QPSK	1	0	0	0	1	0	16.64	17.80	DS13Sim
21100	20902	QPSK	1	0	0	0	1	0	16.76	17.80	DS13Sim
21350	21152	QPSK	1	0	0	0	1	0	16.73	17.80	DS13Sim
20850	21048	QPSK	1	0	0	0	1	0	18.08	19.40	DS16
21100	20902	QPSK	1	0	0	0	1	0	18.22	19.40	DS16
21350	21152	QPSK	1	0	0	0	1	0	18.16	19.40	DS16
20850	21048	QPSK	1	0	0	0	1	0	22.82	24.00	full
21100	20902	QPSK	1	0	0	0	1	0	22.76	24.00	full
21350	21152	QPSK	1	0	0	0	1	0	22.98	24.00	full

CA_66B_Ant0											
Combination 15MHz+5MHz (75RB+25RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state
			RB Size	RB offset	RB Size	RB offset					
132047	132140	QPSK	1	0	0	0	1	0	22.89	24.00	DS12
132322	132229	QPSK	1	0	0	0	1	0	23.00	24.00	DS12
132597	132504	QPSK	1	0	0	0	1	0	23.04	24.00	DS12
132047	132140	QPSK	1	0	0	0	1	0	22.89	24.00	DS12 Sim
132322	132229	QPSK	1	0	0	0	1	0	23.00	24.00	DS12 Sim
132597	132504	QPSK	1	0	0	0	1	0	23.04	24.00	DS12 Sim
132047	132140	QPSK	1	0	0	0	1	0	17.00	18.00	DS13
132322	132229	QPSK	1	0	0	0	1	0	17.11	18.00	DS13
132597	132504	QPSK	1	0	0	0	1	0	16.95	18.00	DS13
132047	132140	QPSK	1	0	0	0	1	0	16.01	17.00	DS13Sim
132322	132229	QPSK	1	0	0	0	1	0	16.09	17.00	DS13Sim
132597	132504	QPSK	1	0	0	0	1	0	15.94	17.00	DS13Sim
132047	132140	QPSK	1	0	0	0	1	0	20.42	21.50	DS16
132322	132229	QPSK	1	0	0	0	1	0	20.43	21.50	DS16
132597	132504	QPSK	1	0	0	0	1	0	20.39	21.50	DS16
132047	132140	QPSK	1	0	0	0	1	0	22.89	24.00	full
132322	132229	QPSK	1	0	0	0	1	0	23.00	24.00	full
132597	132504	QPSK	1	0	0	0	1	0	23.04	24.00	full



CA_66C_Ant0												
Combination 20MHz+20MHz (100RB+100RB)												
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state	
			RB Size	RB offset	RB Size	RB offset						
132072	132270	QPSK	1	0	0	0	1	0	22.81	24.00	DS12	
132322	132124	QPSK	1	0	0	0	1	0	22.85	24.00	DS12	
132572	132374	QPSK	1	0	0	0	1	0	22.93	24.00	DS12	
132072	132270	QPSK	1	0	0	0	1	0	22.81	24.00	DS12 Sim	
132322	132124	QPSK	1	0	0	0	1	0	22.85	24.00	DS12 Sim	
132572	132374	QPSK	1	0	0	0	1	0	22.93	24.00	DS12 Sim	
132072	132270	QPSK	1	0	0	0	1	0	16.97	18.00	DS13	
132322	132124	QPSK	1	0	0	0	1	0	17.21	18.00	DS13	
132572	132374	QPSK	1	0	0	0	1	0	17.20	18.00	DS13	
132072	132270	QPSK	1	0	0	0	1	0	15.96	17.00	DS13Sim	
132322	132124	QPSK	1	0	0	0	1	0	16.05	17.00	DS13Sim	
132572	132374	QPSK	1	0	0	0	1	0	15.91	17.00	DS13Sim	
132072	132270	QPSK	1	0	0	0	1	0	20.67	21.50	DS16	
132322	132124	QPSK	1	0	0	0	1	0	20.88	21.50	DS16	
132572	132374	QPSK	1	0	0	0	1	0	20.64	21.50	DS16	
132072	132270	QPSK	1	0	0	0	1	0	22.81	24.00	full	
132322	132124	QPSK	1	0	0	0	1	0	22.85	24.00	full	
132572	132374	QPSK	1	0	0	0	1	0	22.93	24.00	full	

CA_66B_Ant4												
Combination 15MHz+5MHz (75RB+25RB)												
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state	
			RB Size	RB offset	RB Size	RB offset						
132047	132140	QPSK	1	0	0	0	1	0	19.17	20.00	DS12	
132322	132229	QPSK	1	0	0	0	1	0	19.24	20.00	DS12	
132597	132504	QPSK	1	0	0	0	1	0	18.99	20.00	DS12	
132047	132140	QPSK	1	0	0	0	1	0	18.24	19.00	DS12 Sim	
132322	132229	QPSK	1	0	0	0	1	0	18.31	19.00	DS12 Sim	
132597	132504	QPSK	1	0	0	0	1	0	18.18	19.00	DS12 Sim	
132047	132140	QPSK	1	0	0	0	1	0	20.99	22.00	DS13	
132322	132229	QPSK	1	0	0	0	1	0	21.17	22.00	DS13	
132597	132504	QPSK	1	0	0	0	1	0	20.91	22.00	DS13	
132047	132140	QPSK	1	0	0	0	1	0	18.47	19.50	DS13Sim	
132322	132229	QPSK	1	0	0	0	1	0	18.55	19.50	DS13Sim	
132597	132504	QPSK	1	0	0	0	1	0	18.24	19.50	DS13Sim	
132047	132140	QPSK	1	0	0	0	1	0	20.55	21.50	DS16	
132322	132229	QPSK	1	0	0	0	1	0	20.67	21.50	DS16	
132597	132504	QPSK	1	0	0	0	1	0	20.50	21.50	DS16	
132047	132140	QPSK	1	0	0	0	1	0	23.08	24.00	full	
132322	132229	QPSK	1	0	0	0	1	0	23.09	24.00	full	
132597	132504	QPSK	1	0	0	0	1	0	22.96	24.00	full	



CA_66C_Ant4											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state
			RB Size	RB offset	RB Size	RB offset					
132072	132270	QPSK	1	0	0	0	1	0	19.23	20.00	DS12
132222	132124	QPSK	1	0	0	0	1	0	19.26	20.00	DS12
132572	132374	QPSK	1	0	0	0	1	0	19.11	20.00	DS12
132072	132270	QPSK	1	0	0	0	1	0	18.18	19.00	DS12 Sim
132322	132124	QPSK	1	0	0	0	1	0	18.23	19.00	DS12 Sim
132572	132374	QPSK	1	0	0	0	1	0	18.09	19.00	DS12 Sim
132072	132270	QPSK	1	0	0	0	1	0	21.17	22.00	DS13
132322	132124	QPSK	1	0	0	0	1	0	21.22	22.00	DS13
132572	132374	QPSK	1	0	0	0	1	0	21.09	22.00	DS13
132072	132270	QPSK	1	0	0	0	1	0	18.54	19.50	DS13Sim
132322	132124	QPSK	1	0	0	0	1	0	18.62	19.50	DS13Sim
132572	132374	QPSK	1	0	0	0	1	0	18.32	19.50	DS13Sim
132072	132270	QPSK	1	0	0	0	1	0	20.73	21.50	DS16
132322	132124	QPSK	1	0	0	0	1	0	20.81	21.50	DS16
132572	132374	QPSK	1	0	0	0	1	0	20.55	21.50	DS16
132072	132270	QPSK	1	0	0	0	1	0	23.09	24.00	full
132322	132124	QPSK	1	0	0	0	1	0	23.13	24.00	full
132572	132374	QPSK	1	0	0	0	1	0	23.01	24.00	full

CA_41C_Ant1											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state
			RB Size	RB offset	RB Size	RB offset					
39750	39948	QPSK	1	0	0	0	1	0	22.14	23.50	DS12
39750	39948	QPSK	1	0	0	0	1	0	22.04	23.50	DS12
40185	39987	QPSK	1	0	0	0	1	0	22.18	23.50	DS12
40620	40422	QPSK	1	0	0	0	1	0	22.38	23.50	DS12
41055	40857	QPSK	1	0	0	0	1	0	22.35	23.50	DS12
41490	41292	QPSK	1	0	0	0	1	0	22.47	23.50	DS12
39750	39948	QPSK	1	0	0	0	1	0	22.14	23.50	DS12 Sim
39750	39948	QPSK	1	0	0	0	1	0	22.04	23.50	DS12 Sim
40185	39987	QPSK	1	0	0	0	1	0	22.18	23.50	DS12 Sim
40620	40422	QPSK	1	0	0	0	1	0	22.38	23.50	DS12 Sim
41055	40857	QPSK	1	0	0	0	1	0	22.35	23.50	DS12 Sim
41490	41292	QPSK	1	0	0	0	1	0	22.47	23.50	DS12 Sim
39750	39948	QPSK	1	0	0	0	1	0	17.98	19.10	DS13
39750	39948	QPSK	1	0	0	0	1	0	17.97	19.10	DS13
40185	39987	QPSK	1	0	0	0	1	0	17.98	19.10	DS13
40620	40422	QPSK	1	0	0	0	1	0	18.18	19.10	DS13
41055	40857	QPSK	1	0	0	0	1	0	18.21	19.10	DS13
41490	41292	QPSK	1	0	0	0	1	0	18.35	19.10	DS13
39750	39948	QPSK	1	0	0	0	1	0	20.44	21.60	DS16
39750	39948	QPSK	1	0	0	0	1	0	20.55	21.60	DS16
40185	39987	QPSK	1	0	0	0	1	0	20.47	21.60	DS16
40620	40422	QPSK	1	0	0	0	1	0	20.56	21.60	DS16
41055	40857	QPSK	1	0	0	0	1	0	20.61	21.60	DS16
41490	41292	QPSK	1	0	0	0	1	0	20.63	21.60	DS16
39750	39948	QPSK	1	0	0	0	1	0	22.56	24.00	full
39750	39948	QPSK	1	0	0	0	1	0	22.57	24.00	full
40185	39987	QPSK	1	0	0	0	1	0	22.62	24.00	full
40620	40422	QPSK	1	0	0	0	1	0	22.88	24.00	full
41055	40857	QPSK	1	0	0	0	1	0	22.85	24.00	full
41490	41292	QPSK	1	0	0	0	1	0	23.04	24.00	full



CA_48C For FCC_Ant5											
Combination 20MHz+20MHz (100RB+100RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)	state
			RB Size	RB offset	RB Size	RB offset					
55340	55538	QPSK	1	0	0	0	1	0	20.17	21.00	DS12
55830	55632	QPSK	1	0	0	0	1	0	20.25	21.00	DS12
56150	55952	QPSK	1	0	0	0	1	0	20.14	21.00	DS12
56640	56442	QPSK	1	0	0	0	1	0	20.09	21.00	DS12
55340	55538	QPSK	1	0	0	0	1	0	19.17	20.00	DS12 Sim
55830	55632	QPSK	1	0	0	0	1	0	19.21	20.00	DS12 Sim
56150	55952	QPSK	1	0	0	0	1	0	19.05	20.00	DS12 Sim
56640	56442	QPSK	1	0	0	0	1	0	19.11	20.00	DS12 Sim
55340	55538	QPSK	1	0	0	0	1	0	19.17	20.00	DS13
55830	55632	QPSK	1	0	0	0	1	0	19.21	20.00	DS13
56150	55952	QPSK	1	0	0	0	1	0	19.05	20.00	DS13
56640	56442	QPSK	1	0	0	0	1	0	19.11	20.00	DS13
55340	55538	QPSK	1	0	0	0	1	0	18.27	19.00	DS13Sim
55830	55632	QPSK	1	0	0	0	1	0	18.35	19.00	DS13Sim
56150	55952	QPSK	1	0	0	0	1	0	18.24	19.00	DS13Sim
56640	56442	QPSK	1	0	0	0	1	0	18.29	19.00	DS13Sim
55340	55538	QPSK	1	0	0	0	1	0	22.31	24.00	DS16
55830	55632	QPSK	1	0	0	0	1	0	22.42	24.00	DS16
56150	55952	QPSK	1	0	0	0	1	0	22.24	24.00	DS16
56640	56442	QPSK	1	0	0	0	1	0	22.29	24.00	DS16
55340	55538	QPSK	1	0	0	0	1	0	22.31	24.00	full
55830	55632	QPSK	1	0	0	0	1	0	22.42	24.00	full
56150	55952	QPSK	1	0	0	0	1	0	22.24	24.00	full
56640	56442	QPSK	1	0	0	0	1	0	22.29	24.00	full



Downlink CA Power

Full Power		2CC													
Configure	CA Configuration (BCS)	PCC							SCC				Power		
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)	
	CA_12A-48A	12	10M	707.5	23095	QPSK	1	0	48	5M	3625	55990	22.63	23.14	
	CA_12A-66A	12	10M	707.5	23095	QPSK	1	0	66	20M	2155	66886	22.46	23.14	
	CA_13A-66A	13	10M	782	23230	QPSK	1	0	66	20M	2155	66886	22.61	23.02	
	CA_25A-41A	25	15M	1880	26340	QPSK	1	0	41	20M	2593	40620	23.09	23.35	
	CA_26A-41A	26	15M	831.5	26865	QPSK	1	0	41	20M	2593	40620	22.97	23.13	
	CA_41A-41A	41	20M	2680	41490	QPSK	1	0	41	5M	2498.5	39675	22.85	23.35	
	CA_4A-17A	4	10M	1732.5	20175	QPSK	1	0	17	10M	740	5790	23.01	23.33	
	CA_4A-48A	4	20M	1732.5	20175	QPSK	1	0	48	20	3690	56640	23.12	23.33	
	CA_5A-41A	5	10M	836.5	20525	QPSK	1	0	41	20M	2593	40620	23.03	23.11	
Intra-Band	Contiguous	CA_7B	7	15M	2535	21100	QPSK	1	0	7	5M	2664.30	3193	22.74	23.13

3CC		3CC																	
Configure	CA Configuration (BCS)	PCC							SCC1				SCC2				Power		
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)	
	CA_12A-48C	12	10M	707.5	23095	QPSK	1	0	48	20	3625	55990	48	20	3644.8	56188	22.89	23.14	
	CA_13A-48A-48A	13	10M	782	23230	QPSK	1	0	48	5	3625	55990	48	20	3690	56640	22.84	23.02	
	CA_13A-48A-66A	13	10M	782	23230	QPSK	1	0	48	5	3625	55990	66	20	2155	66886	22.96	23.02	
	CA_25A-25A-26A	25	15M	1880	26340	QPSK	1	0	25	5	1992.5	8665	26	5	876.5	8865	22.99	23.35	
	CA_25A-41C	25	15M	1880	26340	QPSK	1	0	41	20	2593	40620	41	20	2612.8	40818	23.24	23.35	
	CA_26A-41C	26	15M	831.5	26865	QPSK	1	0	41	20	2590.5	40595	41	5	2802.2	40712	22.97	23.13	
	CA_2A-13A-48A	2	20M	1880	18900	QPSK	1	0	13	10	751	5230	48	20	3560	55340	23.11	23.35	
	CA_2A-29A-66A	2	20M	1880	18900	QPSK	1	0	29	10	722.5	9715	66	20	2155	66886	23.09	23.35	
	CA_2A-2A-71A	2	20M	1880	18900	QPSK	1	0	2	20	1979.8	1098	71	20	634.5	68786	23.15	23.35	
	CA_2A-48A-48A	2	20M	1880	18900	QPSK	1	0	48	5	3625	55990	48	20	3690	56640	23.08	23.35	
	CA_2A-4A-13A	2	20M	1880	18900	QPSK	1	0	4	20	2132.5	2175	13	10	751	5230	23.16	23.35	
	CA_2A-4A-30A	2	20M	1880	18900	QPSK	1	0	4	20	2132.5	2175	30	10	2355	9820	23.14	23.35	
	CA_2A-5A-48A	2	20M	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3625	55990	23.14	23.35	
	CA_2A-5A-7A	2	20M	1880	18900	QPSK	1	0	5	10	881.5	2525	7	20	2680	3350	23.25	23.35	
	CA_2A-7A-13A	2	20M	1880	18900	QPSK	1	0	7	20	2655	3100	13	10	751	5230	23.21	23.35	
	CA_2C-12A	2	20M	1880	18900	QPSK	1	0	2	20	1979.8	1098	12	10	737.5	5095	23.33	23.35	
	CA_41A-41C	41	20M	2680	41490	QPSK	1	0	41	20	2660.2	41292	41	20	2680	41490	23.02	23.35	
	CA_48A-48A-48A	48	20M	3560	55340	QPSK	1	0	48	5	3625	55990	48	20	3690	56640	22.03	22.25	
	CA_4A-12A-30A	4	20M	1732.5	20175	QPSK	1	0	12	10	737.5	5095	30	10	2355	9820	23.06	23.33	
	CA_4A-48C	4	20M	1732.5	20175	QPSK	1	0	48	20	3625	55990	48	20	3644.5	56188	23.07	23.33	
	CA_4A-4A-13A	4	20M	1732.5	20175	QPSK	1	0	4	5	2152.5	2375	13	10	751	5230	23.11	23.33	
	CA_4A-4A-71A	4	20M	1732.5	20175	QPSK	1	0	4	5	2152.5	2375	71	20	634.5	68786	23.16	23.33	
	CA_4A-4A-7A	4	20M	1732.5	20175	QPSK	1	0	4	5	2152.5	2375	7	20	2680	3350	23.24	23.33	
	CA_4A-5A-30A	4	20M	1732.5	20175	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	23.08	23.33	
	CA_4A-7A-12A	4	20M	1732.5	20175	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	23.13	23.33	
	CA_5A-48A-66A	5	10M	836.5	20525	QPSK	1	0	48	20	3625	55990	66	20	2155	66886	22.89	23.11	
	CA_5A-7A-7A	5	10M	836.5	20525	QPSK	1	0	7	20	2630	2850	7	20	2680	3350	22.87	23.11	
	CA_66A-66C	66	20M	1745	132322	QPSK	1	0	66	20	2170.2	67038	66	20	2190	67236	23.05	23.38	
	CA_7A-12A-66A	7	20M	2535	21100	QPSK	1	0	12	10	737.5	5095	66	20	2155	66886	22.84	23.13	
	CA_7A-13A-66A	7	20M	2535	21100	QPSK	1	0	13	10	751	5230	66	20	2155	66886	23.01	23.13	



n71_Ant 0								
BV (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. 1 Freq.	Power Mod. Ch. 1 Freq.	Power Pch. Ch. 1 Freq.	Power-up Time (dBm)	APR (%)
	Channel	100KHz	1	18000	1	18000		
	Frequency (MHz)			872	881.5	888		
20	PV2 BPSK	1	1	22.14	22.02	22.00	24.0	0.0
20	PV2 BPSK	1	13	22.07	22.09	22.08	24.0	0.0
20	PV2 BPSK	1	104	22.07	22.06	22.03	24.0	0.0
20	PV2 BPSK	50	10	22.02	22.00	22.53	23.5	0.5
20	PV2 BPSK	50	38	22.02	22.04	22.08	24.0	0.0
20	PV2 BPSK	50	56	22.02	22.01	22.38	23.5	0.5
20	PV2 BPSK	100	5	22.08	22.09	22.48	23.5	0.5
20	QPSK	1	1	22.10	22.02	22.14	24.0	0.0
20	QPSK	1	101	22.07	22.08	22.00	24.0	0.0
20	QPSK	1	104	22.02	22.02	22.05	24.0	0.0
20	QPSK	50	10	22.00	22.00	21.00	23.0	1.0
20	QPSK	50	38	22.02	22.03	22.01	24.0	0.0
20	QPSK	50	56	21.99	21.99	21.92	23.0	1.0
20	QPSK	100	5	21.87	21.87	21.98	23.0	1.0
20	VSBAM	1	1	21.95	22.07	21.96	23.0	1.0
20	WDM	1	1	22.02	22.07	22.00	23.5	2.0
20	WDMAM	1	1	18.12	18.16	18.04	19.5	0.5
	Channel	100KHz	1	18000	18000	18000	Turn-up 104 (dBm)	APR (%)
15	QPSK	1	1	22.01	22.03	22.09	24.0	0.0
	Channel	100KHz	1	18000	18000	18000	Turn-up 104 (dBm)	APR (%)
10	QPSK	1	1	22.02	22.10	22.09	24.0	0.0
	Channel	100KHz	1	18000	18000	18000	Turn-up 104 (dBm)	APR (%)
5	QPSK	1	1	22.01	22.15	22.02	24.0	0.0

n71_Ant 4								
BV (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. 1 Freq.	Power Mod. Ch. 1 Freq.	Power Pch. Ch. 1 Freq.	Power-up Time (dBm)	APR (%)
	Channel	100KHz	1	18000	18000	18000		
	Frequency (MHz)			872	881.5	888		
20	PV2 BPSK	1	1	22.11	22.08	22.07		
20	PV2 BPSK	1	13	22.04	22.06	22.03	24.0	0.0
20	PV2 BPSK	1	104	22.07	22.01	22.03	23.5	0.5
20	PV2 BPSK	50	10	22.01	22.00	22.46	23.5	0.5
20	PV2 BPSK	50	38	22.02	22.04	22.02	24.0	0.0
20	PV2 BPSK	50	56	22.02	22.01	22.44	23.5	0.5
20	PV2 BPSK	100	5	22.08	22.07	22.45	23.5	0.5
20	QPSK	1	1	22.09	22.12	22.08		
20	QPSK	1	101	22.07	22.08	22.07	24.0	0.0
20	QPSK	1	104	22.02	22.05	22.03	24.0	0.0
20	QPSK	50	10	22.00	22.11	22.06	24.0	0.0
20	QPSK	50	38	22.02	22.02	22.00	23.5	0.0
20	QPSK	50	56	21.99	22.00	22.02	23.0	1.0
20	QPSK	100	5	21.78	21.82	21.74	23.0	1.0
20	VSBAM	1	1	22.05	22.02	22.02	23.0	1.0
20	WDM	1	1	22.02	22.06	22.06	23.5	2.0
20	WDMAM	1	1	18.12	18.10	18.00	19.5	0.5
	Channel	100KHz	1	18000	18000	18000	Turn-up 104 (dBm)	APR (%)
15	QPSK	1	1	22.05	22.05	22.09	24.0	0.0
	Channel	100KHz	1	18000	18000	18000	Turn-up 104 (dBm)	APR (%)
10	QPSK	1	1	22.02	22.11	22.08	24.0	0.0
	Channel	100KHz	1	18000	18000	18000	Turn-up 104 (dBm)	APR (%)
5	QPSK	1	1	22.09	22.08	22.08	24.0	0.0



n41_FCC_Ant 1									
DIV (MHz)	Modulation	RIS Size	RIS Offset	Power Low (25.17MHz)	Power Med (25.175MHz)	Power High (25.178MHz)	Time-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
150	PSS-SSBSC	1	1	22.63	22.72	22.68			
150	PSS-SSBSC	1	157	22.63	22.65	22.68	24.0	0.0	
150	PSS-SSBSC	1	271	22.74	22.74	22.67			
150	PSS-SSBSC	155	6	22.74	22.74	22.65	23.5	0.5	
150	PSS-SSBSC	155	68	22.67	22.69	22.68	24.0	0.0	
150	PSS-SSBSC	155	118	22.67	22.71	22.62			
150	PSS-SSBSC	250	3	22.63	22.65	22.52	23.5	0.5	
150	CPFSK	1	1	22.67	22.74	22.67			
150	CPFSK	1	157	22.67	22.61	22.67	24.0	0.0	
150	CPFSK	1	271	22.69	22.65	22.67			
150	CPFSK	155	6	22.69	22.69	22.61			
150	CPFSK	155	68	22.69	22.72	22.68	24.0	0.0	
150	CPFSK	155	118	22.69	22.61	22.61			
150	CPFSK	155	159	22.61	22.61	22.61	23.5	1.0	
150	SSB-QAM	1	1	21.67	21.65	21.71	23.5	1.0	
150	SSB-QAM	1	1	21.61	21.74	21.74	21.5	2.5	
150	SSB-QAM	1	1	18.78	18.54	18.80	18.5	4.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	22.74	22.83	22.73	24.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	22.73	22.73	22.76	24.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	22.63	22.74	22.74	24.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	22.69	22.68	22.68	24.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	22.77	22.73	22.81	24.0	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	22.60	22.73	22.69	24.0	0.0	

n41_FCC_Ant 1_HPUE									
DIV (MHz)	Modulation	RIS Size	RIS Offset	Power Low (25.17MHz)	Power Med (25.175MHz)	Power High (25.178MHz)	Time-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
150	PSS-SSBSC	1	1	25.54	25.63	25.70			
150	PSS-SSBSC	1	157	25.54	25.59	25.59	27.0	0.0	
150	PSS-SSBSC	1	271	25.66	25.56	25.70			
150	PSS-SSBSC	155	6	25.70	25.67	25.70	26.5	0.0	
150	PSS-SSBSC	155	68	25.70	25.66	25.74	27.0	0.0	
150	PSS-SSBSC	155	118	25.77	25.69	25.62			
150	PSS-SSBSC	250	6	25.63	25.74	25.63	26.5	0.0	
150	CPFSK	1	1	25.60	25.69	25.60			
150	CPFSK	1	157	25.60	25.57	25.60	27.0	0.0	
150	CPFSK	1	271	25.62	25.66	25.74			
150	CPFSK	155	6	25.62	25.70	25.61			
150	CPFSK	155	68	25.66	25.61	25.59	27.0	0.0	
150	CPFSK	155	118	25.66	25.66	25.60			
150	CPFSK	155	159	25.61	25.65	25.52	26.5	1.0	
150	SSB-QAM	1	1	24.77	24.82	24.72	26.0	1.0	
150	SSB-QAM	1	1	23.45	23.41	23.29	24.5	2.0	
150	SSB-QAM	1	1	21.32	21.21	21.09	22.0	4.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	25.75	25.79	25.61	27.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	25.50	25.54	25.70	27.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	25.70	25.70	25.69	27.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	25.76	25.79	25.61	27.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	25.80	25.82	25.70	27.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	25.78	25.80	25.70	27.0	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	25.74	25.72	25.72	27.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	25.76	25.54	25.70	27.0	0.0	



n41_FCC_Ant 7											
BW (MHz)	Multicast	RIS Size	RIS Class	Power Class (W)	Power Class (W)	Power Class (W)	Power Class (W)	Power Class (W)	Turn-up time (min)	MFR (dB)	
Channel											
Frequency (MHz)				100	100	100	100	100			
100	P102-BPSK	1	1	20.00	20.00	20.76					
100	P102-BPSK	1	100	20.00	20.97	20.85	22.0	0.0			
100	P102-BPSK	1	201	20.00	21.01	21.00					
100	P102-BPSK	100	0	20.00	20.94	20.76	21.5	0.5			
100	P102-BPSK	100	00	20.76	20.92	20.76	22.0	0.0			
100	P102-BPSK	100	00	20.76	20.94	20.90					
100	P102-BPSK	200	0	20.76	20.76	20.85	21.5	0.5			
100	QPSK	1	1	20.76	20.76	20.85					
100	QPSK	1	100	21.00	21.00	21.00	22.0	0.0			
100	QPSK	1	201	21.00	21.01	20.96					
100	QPSK	100	0	20.97	20.94	20.76					
100	QPSK	100	00	20.85	20.98	20.80	22.0	0.0			
100	QPSK	100	00	20.85	20.97	20.94					
100	QPSK	200	0	20.76	20.76	20.85	21.0	0.0			
100	QPSK	1	1	18.00	18.00	18.00	21.0	1.0			
100	QPSK	1	1	18.00	18.00	18.00	19.5	2.5			
100	256QAM	1	1	16.50	16.50	16.52	17.5	4.5			
Channel											
Frequency (MHz)				2000	2000	2000	Turn-up time (min)	MFR (dB)			
Channel				200	200	2000	204	0.0			
Channel											
Frequency (MHz)				2010	2010	2010	Turn-up time (min)	MFR (dB)			
Channel				200	200	2010	204	0.0			
Channel											
Frequency (MHz)				2020	2020	2020	Turn-up time (min)	MFR (dB)			
Channel				200	200	2020	204	0.0			
Channel											
Frequency (MHz)				2030	2030	2030	Turn-up time (min)	MFR (dB)			
Channel				200	200	2030	204	0.0			
Channel											
Frequency (MHz)				2040	2040	2040	Turn-up time (min)	MFR (dB)			
Channel				200	200	2040	204	0.0			
Channel											
Frequency (MHz)				2050	2050	2050	Turn-up time (min)	MFR (dB)			
Channel				200	200	2050	204	0.0			
Channel											
Frequency (MHz)				2060	2060	2060	Turn-up time (min)	MFR (dB)			
Channel				200	200	2060	204	0.0			

n41_FCC_Ant 7_HPUE											
BW (MHz)	Multicast	RIS Size	RIS Class	Power Class (W)	Power Class (W)	Power Class (W)	Power Class (W)	Power Class (W)	Turn-up time (min)	MFR (dB)	
Channel											
Frequency (MHz)				100	100	100	100	100			
100	P102-BPSK	1	1	20.00	20.00	20.76					
100	P102-BPSK	1	100	20.00	20.20	20.11	25.0	0.0			
100	P102-BPSK	1	201	20.00	20.10	20.04					
100	P102-BPSK	100	0	20.00	20.75	20.00	24.5	0.5			
100	P102-BPSK	100	00	20.00	20.22	20.00	25.0	0.0			
100	P102-BPSK	100	00	20.00	20.00	20.00					
100	P102-BPSK	200	0	20.76	20.75	20.00	24.5	0.5			
100	QPSK	1	1	20.00	20.00	20.00					
100	QPSK	1	100	20.00	20.00	20.00	25.0	0.0			
100	QPSK	1	201	20.00	20.00	20.00					
100	QPSK	100	0	20.00	20.00	20.00					
100	QPSK	100	00	20.00	20.22	20.00	25.0	0.0			
100	QPSK	100	00	20.00	20.00	20.00					
100	QPSK	200	0	20.76	20.00	20.00	24.5	0.5			
100	QPSK	1	1	20.14	20.00	20.00	24.0	1.0			
100	QPSK	1	1	20.00	20.00	20.00	22.5	2.5			
100	256QAM	1	1	18.00	18.00	18.00	20.5	4.5			
Channel											
Frequency (MHz)				2000	2000	2000	Turn-up time (min)	MFR (dB)			
Channel				200	200	2000	204	0.0			
Channel											
Frequency (MHz)				2010	2010	2010	Turn-up time (min)	MFR (dB)			
Channel				200	200	2010	204	0.0			
Channel											
Frequency (MHz)				2020	2020	2020	Turn-up time (min)	MFR (dB)			
Channel				200	200	2020	204	0.0			
Channel											
Frequency (MHz)				2030	2030	2030	Turn-up time (min)	MFR (dB)			
Channel				200	200	2030	204	0.0			
Channel											
Frequency (MHz)				2040	2040	2040	Turn-up time (min)	MFR (dB)			
Channel				200	200	2040	204	0.0			
Channel											
Frequency (MHz)				2050	2050	2050	Turn-up time (min)	MFR (dB)			
Channel				200	200	2050	204	0.0			
Channel											
Frequency (MHz)				2060	2060	2060	Turn-up time (min)	MFR (dB)			
Channel				200	200	2060	204	0.0			



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n48_FCC_Part96_Ant 5										
Dist (MHz)	Modulation	FD Size	FD Offset	Power Low (mW)	Power High (mW)	Power Ch. Freq. (MHz)	Power Ch. Freq. (MHz)	Power Ch. Freq. (MHz)	Time-to-Acquire (s)	MFR (dB)
Channel				33000	34000	34000	34000	34000		
Frequency (MHz)										
48	FSK	1	1	22.01	22.01	22.01	22.01	22.01		
48	FSK	1	33	22.15	22.37	22.22	22.22	22.22	24.0	0.0
48	FSK	1	100	22.37	22.68	22.52	22.52	22.52		
48	FSK	30	30	22.51	22.71	22.61	22.61	22.61	24.0	0.0
48	FSK	30	30	22.71	22.95	22.83	22.83	22.83	24.0	0.0
48	FSK	30	30	22.95	23.21	23.08	23.08	23.08	24.0	0.0
48	FSK	100	1	22.75	22.85	22.75	22.75	22.75	24.0	0.0
48	FSK	1	1	22.85	22.95	22.90	22.90	22.90		
48	FSK	1	33	22.90	23.04	22.97	22.97	22.97	24.0	0.0
48	FSK	1	100	22.90	22.99	22.95	22.95	22.95		
48	FSK	30	30	22.94	23.05	22.99	22.99	22.99	24.0	0.0
48	FSK	30	30	22.99	23.14	23.07	23.07	23.07	24.0	0.0
48	FSK	30	30	23.14	23.30	23.22	23.22	23.22	24.0	0.0
48	FSK	100	1	21.91	21.98	21.95	21.95	21.95	24.0	1.5
48	FSK	1	1	22.00	22.09	22.05	22.05	22.05	24.0	0.0
48	FSK	1	1	22.04	22.19	22.12	22.12	22.12	24.0	0.0
48	FSK	1	1	18.25	18.37	18.31	18.31	18.31	24.0	4.2
Channel										
Frequency (MHz)				34000	34000	34000	34000	34000		
70	FSK	1	1	23.19	23.29	23.24	23.24	23.24	24.0	0.0
Channel										
Frequency (MHz)				35000	35000	35000	35000	35000		
70	FSK	1	1	24.11	24.19	24.15	24.15	24.15	24.0	0.0



n71_Ant 0									
SV (MHz)	Modulation	RB Size	RB Offset	Power Level Ch. 1 Freq.	Power Level Ch. 2 Freq.	Power Level Ch. 3 Freq.	Power Level Ch. 4 Freq.	Turn-up time (min)	MFR (dB)
Channel									
Channel				1	180.0	1	180.0		
Frequency (MHz)				875	880.5	885			
20	PSS-SSB	1	1	23.14	23.08	23.08			
20	PSS-SSB	1	33	23.15	23.08	23.08	24.0	0.0	
20	PSS-SSB	1	104	23.07	22.96	22.93			
20	PSS-SSB	50	1	22.93	22.93	22.93	23.5	0.5	
20	PSS-SSB	50	28	22.93	22.96	22.98	24.5	0.0	
20	PSS-SSB	50	50	22.93	22.93	22.93	23.5	0.5	
20	PSS-SSB	50	50	22.93	22.93	22.93	23.5	0.5	
20	CPSS	1	1	23.16	23.09	23.14			
20	CPSS	1	33	23.17	23.09	23.09	24.0	0.0	
20	CPSS	1	104	23.02	22.92	22.93			
20	CPSS	50	1	22.93	22.93	22.93	23.0	1.0	
20	CPSS	50	28	22.93	22.96	22.93	23.0	0.0	
20	CPSS	50	50	22.93	22.93	22.93	23.0	1.0	
20	CPSS	100	1	23.07	23.07	23.06			
20	HS-SM	1	1	21.26	21.27	21.26	23.0	1.0	
20	HS-SM	1	1	21.26	21.27	21.26	23.0	1.0	
20	HS-SM	1	1	18.75	18.85	18.84	19.5	4.5	
Channel									
Channel				134.00	133.00	133.00	Turn-up time (min)	MFR (dB)	
Frequency (MHz)				875.5	880.5	885.5	24.0	0.0	
15	CPSS	1	1	22.01	22.03	22.09	24.0	0.0	
Channel									
Channel				180.0	180.0	180.0	Turn-up time (min)	MFR (dB)	
Frequency (MHz)				885	885.5	890	24.0	0.0	
10	CPSS	1	1	22.02	22.10	22.09	24.0	0.0	
Channel									
Channel				180.0	180.0	180.0	Turn-up time (min)	MFR (dB)	
Frequency (MHz)				885.5	885.5	885.5	24.0	0.0	
5	CPSS	1	1	22.08	22.15	22.03	24.0	0.0	

n71_Ant 4									
SV (MHz)	Modulation	RB Size	RB Offset	Power Level Ch. 1 Freq.	Power Level Ch. 2 Freq.	Power Level Ch. 3 Freq.	Power Level Ch. 4 Freq.	Turn-up time (min)	MFR (dB)
Channel									
Channel				1	180.0	1	180.0		
Frequency (MHz)				875	880.5	885			
20	PSS-SSB	1	1	23.11	23.08	23.07			
20	PSS-SSB	1	33	23.11	23.08	23.07	24.0	0.0	
20	PSS-SSB	1	104	22.73	22.81	22.73			
20	PSS-SSB	50	1	22.81	22.81	22.81	23.5	0.5	
20	PSS-SSB	50	28	22.81	22.84	22.82	24.5	0.0	
20	PSS-SSB	50	50	22.81	22.81	22.81	23.5	0.5	
20	PSS-SSB	50	50	22.81	22.81	22.81	23.5	0.5	
20	CPSS	1	1	23.09	23.12	23.08			
20	CPSS	1	33	23.07	23.08	23.07	24.0	0.0	
20	CPSS	1	104	22.83	22.85	22.73			
20	CPSS	50	1	22.81	22.81	22.81	24.0	1.0	
20	CPSS	50	28	22.81	22.84	22.81	24.5	0.0	
20	CPSS	50	50	22.81	22.81	22.81	23.0	1.0	
20	CPSS	100	1	22.92	22.92	22.92	23.0	1.0	
20	HS-SM	1	1	20.29	20.22	20.25	23.0	1.0	
20	HS-SM	1	1	18.84	18.84	18.84	19.5	4.5	
20	HS-SM	1	1	18.84	18.84	18.84	19.5	4.5	
Channel									
Channel				134.00	133.00	133.00	Turn-up time (min)	MFR (dB)	
Frequency (MHz)				875.5	880.5	885.5	24.0	0.0	
15	CPSS	1	1	22.85	22.85	22.89	24.0	0.0	
Channel									
Channel				180.0	180.0	180.0	Turn-up time (min)	MFR (dB)	
Frequency (MHz)				890	885.5	890	24.0	0.0	
10	CPSS	1	1	22.02	22.11	22.09	24.0	0.0	
Channel									
Channel				180.0	180.0	180.0	Turn-up time (min)	MFR (dB)	
Frequency (MHz)				885.5	885.5	885.5	24.0	0.0	
5	CPSS	1	1	22.08	22.08	22.09	24.0	0.0	



n41_FCC_Ant 1									
DIV (MHz)	Modulation	RF Size	RF Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Turn-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PV2-BPSK	1	1	18.83	18.72	18.88			
100	PV2-BPSK	1	137	18.83	18.85	18.88	21.0	0.0	
100	PV2-BPSK	1	271	18.78	18.74	18.87			
100	PV2-BPSK	135	8	18.78	18.74	18.87	21.0	0.0	
100	PV2-BPSK	135	88	18.87	18.89	18.88	21.0	0.0	
100	PV2-BPSK	135	138	18.87	18.71	18.82			
100	PV2-BPSK	270	8	18.83	18.85	18.82	21.0	0.0	
100	CPFSK	1	1	18.87	18.78	18.87			
100	CPFSK	1	137	18.87	18.81	18.87	21.0	0.0	
100	CPFSK	1	271	18.80	18.85	18.87			
100	CPFSK	135	8	18.84	18.84	18.81			
100	CPFSK	135	88	18.78	18.82	18.78	21.0	0.0	
100	CPFSK	135	138	18.87	18.84	18.81			
100	CPFSK	135	138	18.84	18.81	18.81	21.0	0.0	
100	16QAM	1	1	18.71	18.85	18.80	21.0	0.0	
100	16QAM	1	1	18.77	18.84	18.86	21.0	0.0	
100	256QAM	1	1	18.40	18.58	18.55	18.5	1.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	18.74	18.83	18.73	21.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	18.73	18.73	18.78	21.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	18.83	18.74	18.78	21.0	0.0	
Channel									
Frequency (MHz)									
50	CPFSK	1	1	18.80	18.78	18.81	21.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	18.71	18.83	18.73	21.0	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	18.77	18.73	18.81	21.0	0.0	
Channel									
Frequency (MHz)									
20	CPFSK	1	1	18.80	18.73	18.80	21.0	0.0	

n41_FCC_Ant 1_HPUE									
DIV (MHz)	Modulation	RF Size	RF Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Turn-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PV2-BPSK	1	1	22.84	22.83	22.75			
100	PV2-BPSK	1	137	22.84	22.88	22.88	24.0	0.0	
100	PV2-BPSK	1	271	22.86	22.86	22.86			
100	PV2-BPSK	135	8	22.86	22.86	22.86	24.0	0.0	
100	PV2-BPSK	135	88	22.79	22.88	22.74	24.0	0.0	
100	PV2-BPSK	135	138	22.77	22.85	22.48			
100	PV2-BPSK	270	8	22.76	22.87	22.52	24.0	0.0	
100	CPFSK	1	1	22.88	22.84	22.88			
100	CPFSK	1	137	22.87	22.84	22.88	24.0	0.0	
100	CPFSK	1	271	22.82	22.88	22.74			
100	CPFSK	135	8	22.85	22.85	22.81			
100	CPFSK	135	88	22.78	22.87	22.48	24.0	0.0	
100	CPFSK	135	138	22.77	22.88	22.48			
100	CPFSK	270	8	22.76	22.84	22.51	24.0	0.0	
100	16QAM	1	1	22.79	22.88	22.52	24.0	0.0	
100	16QAM	1	1	22.76	22.88	22.27	24.0	0.0	
100	256QAM	1	1	21.32	21.21	21.08	22.0	1.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	22.73	22.88	22.52	24.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	22.73	22.88	22.54	24.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	22.74	22.87	22.58	24.0	0.0	
Channel									
Frequency (MHz)									
50	CPFSK	1	1	22.76	22.81	22.52	24.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	22.77	22.86	22.58	24.0	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	22.71	22.88	22.52	24.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	22.71	22.87	22.48	24.0	0.0	



n41_FCC_Ant 2										
DIV (MHz)	Modulation	RB Size	RB Offset	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Time-up time (dBm)	MFR (dB)		
Channel										
Frequency (MHz)										
100	PSS-SSB	1	1	21.77	21.74	21.60				
100	PSS-SSB	1	107	21.78	21.88	21.73	23.0	0.0		
100	PSS-SSB	1	211	21.66	21.67	21.76				
100	PSS-SSB	135	6	21.76	21.69	21.67	20.5	0.5		
100	PSS-SSB	135	66	21.69	21.64	21.53	23.0	0.0		
100	PSS-SSB	135	138	21.69	21.74	21.60				
100	PSS-SSB	203	0	21.55	21.62	21.58	23.5	6.5		
100	CPSC	1	1	21.67	21.66	21.64				
100	CPSC	1	137	21.67	21.61	21.66	23.0	0.0		
100	CPSC	1	271	21.76	21.67	21.61				
100	CPSC	135	6	21.65	21.62	21.62				
100	CPSC	135	66	21.60	21.70	21.60	23.0	0.0		
100	CPSC	135	138	21.54	21.64	21.64				
100	CPSC	135	138	21.54	21.69	21.66	20.0	1.0		
100	ISDM	1	1	20.69	20.65	20.60	20.0	1.0		
100	ISDM	1	1	19.29	19.31	19.28	20.0	2.5		
100	ZM-QAM	1	1	17.23	17.37	17.23	18.5	4.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	21.64	21.72	21.67	23.0	0.0		
Channel										
Frequency (MHz)										
60	CPSC	1	1	21.67	21.63	21.64	23.0	0.0		
Channel										
Frequency (MHz)										
60	CPSC	1	1	21.63	21.72	21.63	23.0	0.0		
Channel										
Frequency (MHz)										
60	CPSC	1	1	21.61	21.63	21.65	23.0	0.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	21.63	21.72	21.62	23.0	0.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	21.61	21.70	21.68	23.0	0.0		

n41_FCC_Ant 2_HPUE										
DIV (MHz)	Modulation	RB Size	RB Offset	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Time-up time (dBm)	MFR (dB)		
Channel										
Frequency (MHz)										
100	PSS-SSB	1	1	24.52	24.79	24.72				
100	PSS-SSB	1	107	24.44	24.56	24.47	26.0	0.0		
100	PSS-SSB	1	211	24.38	24.36	24.36				
100	PSS-SSB	135	6	24.36	24.36	24.36	20.5	0.0		
100	PSS-SSB	135	66	24.33	24.44	24.33	26.0	0.0		
100	PSS-SSB	135	138	24.31	24.39	24.31				
100	PSS-SSB	210	0	24.00	24.15	24.12	26.5	0.0		
100	CPSC	1	1	24.07	24.06	24.04				
100	CPSC	1	137	24.07	24.06	24.07	26.0	0.0		
100	CPSC	1	271	24.51	24.65	24.65				
100	CPSC	135	6	24.06	24.09	24.09				
100	CPSC	135	66	24.07	24.29	24.07	26.0	0.0		
100	CPSC	135	138	24.04	24.04	24.04				
100	CPSC	135	138	24.04	24.04	24.04	20.0	1.0		
100	ISDM	1	1	22.78	22.83	22.82	20.0	1.0		
100	ISDM	1	1	21.31	21.62	21.45	21.5	2.5		
100	ZM-QAM	1	1	18.39	18.32	18.39	21.0	4.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	24.00	24.79	24.72	26.0	0.0		
Channel										
Frequency (MHz)										
60	CPSC	1	1	24.04	24.79	24.72	26.0	0.0		
Channel										
Frequency (MHz)										
60	CPSC	1	1	24.77	24.74	24.73	26.0	0.0		
Channel										
Frequency (MHz)										
60	CPSC	1	1	24.76	24.78	24.72	26.0	0.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	24.00	24.79	24.72	26.0	0.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	24.00	24.79	24.72	26.0	0.0		



n41_FCC_Ant 4										
BW (MHz)	Modulation	FE Size	FE Offset	Power Low Ch. (dBm)	Power Max Ch. (dBm)	Power High Ch. (dBm)	Turn-up time (min)	APR1 (dB)	APR2 (dB)	
Channel										
Frequency (MHz)										
100	PSS-SSB	1	1	15.28	15.23	15.36				
100	PSS-SSB	1	137	15.70	15.65	15.75				
100	PSS-SSB	1	271	16.02	15.97	16.07	17.0	0.0		
100	PSS-SSB	135	0	15.52	15.47	15.57	17.0	0.0		
100	PSS-SSB	135	89	15.67	15.62	15.72	17.0	0.0		
100	PSS-SSB	135	135	15.82	15.77	15.87	17.0	0.0		
100	PSS-SSB	270	0	15.27	15.17	15.35	17.0	0.0		
100	QPSK	1	1	15.28	15.23	15.36				
100	QPSK	1	137	15.70	15.65	15.75	17.0	0.0		
100	QPSK	1	271	15.71	15.59	15.84				
100	QPSK	135	0	15.48	15.38	15.57	17.0	0.0		
100	QPSK	135	89	15.70	15.55	15.85	17.0	0.0		
100	QPSK	135	135	15.85	15.77	16.01	17.0	0.0		
100	QPSK	270	0	15.28	15.17	15.35	17.0	0.0		
100	SSB-QAM	1	1	15.60	15.19	15.95	17.0	0.0		
100	SSB-QAM	1	1	15.43	14.74	15.79	18.0	1.0		
100	SSB-QAM	1	1	15.24	15.43	15.34	14.0	3.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	15.45	15.54	15.37	17.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	15.27	15.79	15.51	17.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	15.43	15.70	15.53	17.0	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	15.23	15.79	15.51	17.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	15.27	15.80	15.54	17.0	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	15.27	15.79	15.50	17.0	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	15.41	15.72	15.55	17.0	0.0		

n41_FCC_Ant 4_HPUE										
BW (MHz)	Modulation	FE Size	FE Offset	Power Low Ch. (dBm)	Power Max Ch. (dBm)	Power High Ch. (dBm)	Turn-up time (min)	APR1 (dB)	APR2 (dB)	
Channel										
Frequency (MHz)										
100	PSS-SSB	1	1	17.84	18.36	18.73				
100	PSS-SSB	1	137	18.47	18.84	19.23	20.0	0.0		
100	PSS-SSB	1	271	18.88	19.26	19.78				
100	PSS-SSB	135	0	18.05	18.32	18.65	20.0	0.0		
100	PSS-SSB	135	89	18.34	18.32	18.18	20.0	0.0		
100	PSS-SSB	135	135	18.52	18.60	18.71	20.0	0.0		
100	PSS-SSB	270	0	18.09	18.54	18.93				
100	QPSK	1	1	18.01	18.49	18.88				
100	QPSK	1	137	18.51	18.94	19.25	20.0	0.0		
100	QPSK	1	271	18.93	19.42	19.75				
100	QPSK	135	0	18.18	18.60	19.12				
100	QPSK	135	89	18.42	18.88	19.21	20.0	0.0		
100	QPSK	135	135	18.64	18.84	19.16				
100	QPSK	270	0	18.28	18.91	19.25	20.0	0.0		
100	SSB-QAM	1	1	17.83	18.27	18.74	20.0	0.0		
100	SSB-QAM	1	1	17.62	17.80	17.81	18.0	1.0		
100	SSB-QAM	1	1	18.03	18.32	18.60	17.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	18.45	18.78	19.21	20.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	18.24	18.84	19.24	20.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	18.43	18.84	19.21	20.0	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	18.38	18.78	19.20	20.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	18.34	18.79	19.20	20.0	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	18.35	18.82	19.28	20.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	18.48	18.87	19.24	20.0	0.0		



n48_FCC_Part96_Ant 5

SW (MHz)	Modulation	FD Size	FD Offset	Channel Low (MHz)	Channel High (MHz)	Channel Spacing (MHz)	Power (dBm)	MPE (dB)
Channel								
Frequency (MHz)				15000	15100	100		
48	FD-SSB	1	1	1500	1511	11.0	0.0	
48	FD-SSB	1	10	1506	1516	10.0	0.0	
48	FD-SSB	1	100	1506	1516	10.0	0.0	
48	FD-SSB	10	0	1500	1510	10.0	0.0	
48	FD-SSB	10	10	1506	1516	10.0	0.0	
48	FD-SSB	100	0	1500	1510	10.0	0.0	
48	FD-SSB	100	10	1506	1516	10.0	0.0	
48	FD-SSB	1	1	1500	1510	10.0	0.0	
48	FD-SSB	1	10	1506	1516	10.0	0.0	
48	FD-SSB	10	0	1500	1510	10.0	0.0	
48	FD-SSB	10	10	1506	1516	10.0	0.0	
48	FD-SSB	100	0	1500	1510	10.0	0.0	
48	FD-SSB	100	10	1506	1516	10.0	0.0	
48	FD-SSB	1	1	1500	1510	10.0	0.0	
48	FD-SSB	1	10	1506	1516	10.0	0.0	
48	FD-SSB	10	0	1500	1510	10.0	0.0	
48	FD-SSB	10	10	1506	1516	10.0	0.0	
48	FD-SSB	100	0	1500	1510	10.0	0.0	
48	FD-SSB	100	10	1506	1516	10.0	0.0	
Channel								
Frequency (MHz)				15000	15100	100		
20	QPSK	1	1	1500	1510	10.0	0.0	
Channel								
Frequency (MHz)				15000	15100	100		
40	QPSK	1	1	1500	1510	10.0	0.0	



Par27Q n77_FCC_Ant 5

SV [MHz]	Modulation	SS Size	SS Offset	Power [dBm]	Power Mask [dB]	Power Temp Co. [dB/100m]	Transmit Band [MHz]	SNR [dB]
Channel								
190	PSK256Q	1	1					
190	PSK256Q	1	1				17.8	0.0
190	PSK256Q	1	20					
190	PSK256Q	1	20				17.2	0.0
190	PSK256Q	100	0				17.2	0.0
190	PSK256Q	100	0				17.2	0.0
190	PSK256Q	200	0				17.2	0.0
190	QPSK	1	1					
190	QPSK	1	107				17.8	0.0
190	QPSK	100	0					
190	QPSK	100	0				17.8	0.0
190	QPSK	200	0					
190	QPSK	200	0				17.2	0.0
190	QPSK	100	100				17.2	0.0
190	QPSK	1	1				17.2	0.0
190	QPSK	1	1				17.2	0.0
Channel								
90	QPSK	1	1	18.20	18.40	18.60	17.2	0.0
Frequency [MHz]								
90	QPSK	1	1	18.20	18.40	18.60	17.2	0.0
Channel								
70	QPSK	1	1	18.40	18.60	18.80	17.2	0.0
Frequency [MHz]								
70	QPSK	1	1	18.40	18.60	18.80	17.2	0.0
Channel								
50	QPSK	1	1	18.60	18.80	19.00	17.2	0.0
Frequency [MHz]								
50	QPSK	1	1	18.60	18.80	19.00	17.2	0.0
Channel								
30	QPSK	1	1	18.80	19.00	19.20	17.2	0.0
Frequency [MHz]								
30	QPSK	1	1	18.80	19.00	19.20	17.2	0.0
Channel								
10	QPSK	1	1	19.00	19.20	19.40	17.2	0.0
Frequency [MHz]								
10	QPSK	1	1	19.00	19.20	19.40	17.2	0.0

Par27Q n77 HPUE_FCC_Ant 5

SV [MHz]	Modulation	SS Size	SS Offset	Power [dBm]	Power Mask [dB]	Power Temp Co. [dB/100m]	Transmit Band [MHz]	SNR [dB]
Channel								
190	PSK256Q	1	1					
190	PSK256Q	1	1				18.0	0.0
190	PSK256Q	1	20					
190	PSK256Q	1	20				17.2	0.0
190	PSK256Q	100	0				17.2	0.0
190	PSK256Q	100	0				17.2	0.0
190	PSK256Q	200	0				17.2	0.0
190	QPSK	1	1					
190	QPSK	1	107				18.0	0.0
190	QPSK	100	0					
190	QPSK	100	0				18.0	0.0
190	QPSK	200	0					
190	QPSK	200	0				17.2	0.0
190	QPSK	100	100				17.2	0.0
190	QPSK	1	1				17.2	0.0
190	QPSK	1	1				17.2	0.0
Channel								
90	QPSK	1	1	18.10	18.30	18.50	17.2	0.0
Frequency [MHz]								
90	QPSK	1	1	18.10	18.30	18.50	17.2	0.0
Channel								
70	QPSK	1	1	18.30	18.50	18.70	17.2	0.0
Frequency [MHz]								
70	QPSK	1	1	18.30	18.50	18.70	17.2	0.0
Channel								
50	QPSK	1	1	18.50	18.70	18.90	17.2	0.0
Frequency [MHz]								
50	QPSK	1	1	18.50	18.70	18.90	17.2	0.0
Channel								
30	QPSK	1	1	18.70	18.90	19.10	17.2	0.0
Frequency [MHz]								
30	QPSK	1	1	18.70	18.90	19.10	17.2	0.0
Channel								
10	QPSK	1	1	18.90	19.10	19.30	17.2	0.0
Frequency [MHz]								
10	QPSK	1	1	18.90	19.10	19.30	17.2	0.0



Par27Q n77_FCC_Ant 1									
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (dBm)	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/100kHz)	Transmission Rate (Mbps)	MFR (dB)	MFR (dB)
Channel									
Channel 1									
Channel 2									
Channel 3									
Channel 4									
Channel 5									
Channel 6									
Channel 7									
Channel 8									
Channel 9									
Channel 10									
Channel 11									
Channel 12									
Channel 13									
Channel 14									
Channel 15									
Channel 16									
Channel 17									
Channel 18									
Channel 19									
Channel 20									
Channel 21									
Channel 22									
Channel 23									
Channel 24									
Channel 25									
Channel 26									
Channel 27									
Channel 28									
Channel 29									
Channel 30									
Channel 31									
Channel 32									
Channel 33									
Channel 34									
Channel 35									
Channel 36									
Channel 37									
Channel 38									
Channel 39									
Channel 40									
Channel 41									
Channel 42									
Channel 43									
Channel 44									
Channel 45									
Channel 46									
Channel 47									
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Channel 49									
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Channel 62									
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Channel 64									
Channel 65									
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Channel 67									
Channel 68									
Channel 69									
Channel 70									
Channel 71									
Channel 72									
Channel 73									
Channel 74									
Channel 75									
Channel 76									
Channel 77									
Channel 78									
Channel 79									
Channel 80									
Channel 81									
Channel 82									
Channel 83									
Channel 84									
Channel 85									
Channel 86									
Channel 87									
Channel 88									
Channel 89									
Channel 90									
Channel 91									
Channel 92									
Channel 93									
Channel 94									
Channel 95									
Channel 96									
Channel 97									
Channel 98									
Channel 99									
Channel 100									

Par27Q n77 HPUE_FCC_Ant 1									
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (dBm)	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/100kHz)	Transmission Rate (Mbps)	MFR (dB)	MFR (dB)
Channel									
Channel 1									
Channel 2									
Channel 3									
Channel 4									
Channel 5									
Channel 6									
Channel 7									
Channel 8									
Channel 9									
Channel 10									
Channel 11									
Channel 12									
Channel 13									
Channel 14									
Channel 15									
Channel 16									
Channel 17									
Channel 18									
Channel 19									
Channel 20									
Channel 21									
Channel 22									
Channel 23									
Channel 24									
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Channel 26									
Channel 27									
Channel 28									
Channel 29									
Channel 30									
Channel 31									
Channel 32									
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Channel 38									
Channel 39									
Channel 40									
Channel 41									
Channel 42									
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Channel 71									
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Channel 73									
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Channel 75									
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Channel 77									
Channel 78									
Channel 79									
Channel 80									
Channel 81									
Channel 82									
Channel 83									
Channel 84									
Channel 85									
Channel 86									
Channel 87									
Channel 88									
Channel 89									
Channel 90									
Channel 91									
Channel 92									
Channel 93									
Channel 94									
Channel 95									
Channel 96									
Channel 97									
Channel 98									
Channel 99									
Channel 100									



Par27Q n77_FCC_Ant 2									
EV (Hz)	Modulation	RB Size	RB Offset	Power Type (Ch. 1/2/3)	Power Rate (Ch. 1/2/3)	Power Type (Ch. 1/2/3)	Throughput (Mbps)	SNR (dB)	
Channel									
Frequency (MHz)									
180	PPM-QPSK	1	1		21.57				
180	PPM-QPSK	1	1		21.57		23.0	0.0	
180	PPM-QPSK	1	271		21.57				
180	PPM-QPSK	100	0		21.57		23.0	0.0	
180	PPM-QPSK	100	88		21.57		23.0	0.0	
180	PPM-QPSK	100	158		21.57		23.0	0.0	
180	PPM-QPSK	270	0		21.57		23.0	0.0	
180	QPSK	1	1		21.58				
180	QPSK	1	107		21.58		23.0	0.0	
180	QPSK	100	0		21.58				
180	QPSK	100	87		21.58		23.0	0.0	
180	QPSK	100	158		21.58		23.0	1.0	
180	QPSK	270	0		21.58		23.0	1.0	
180	QPSK	1	1		21.59				
180	QPSK	1	1		21.59				
Channel									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Channel									
70	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Channel									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Channel									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Channel									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0

Par27Q n77 HPUE_FCC_Ant 2									
EV (Hz)	Modulation	RB Size	RB Offset	Power Type (Ch. 1/2/3)	Power Rate (Ch. 1/2/3)	Power Type (Ch. 1/2/3)	Throughput (Mbps)	SNR (dB)	
Channel									
Frequency (MHz)									
180	PPM-QPSK	1	1		21.57				
180	PPM-QPSK	1	107		21.57		23.0	0.0	
180	PPM-QPSK	1	271		21.57				
180	PPM-QPSK	100	0		21.57		23.0	0.0	
180	PPM-QPSK	100	88		21.57		23.0	0.0	
180	PPM-QPSK	100	158		21.57		23.0	0.0	
180	PPM-QPSK	270	0		21.57		23.0	0.0	
180	QPSK	1	1		21.58				
180	QPSK	1	107		21.58		23.0	0.0	
180	QPSK	100	0		21.58				
180	QPSK	100	87		21.58		23.0	0.0	
180	QPSK	100	158		21.58		23.0	1.0	
180	QPSK	270	0		21.58		23.0	1.0	
180	QPSK	1	1		21.59				
180	QPSK	1	1		21.59				
Channel									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Channel									
70	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Channel									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Channel									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Channel									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0
Frequency (MHz)									
60	QPSK	1	1		21.52	21.52	21.52	21.0	0.0



Par27Q n77_FCC_Ant 8									
EIR (dB)	Modulation	RB Size	RB Offset	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/Hz)	Transmission Rate (Mbps)	SNR (dB)	MCS (QAM)
Channel									
Channel (MHz)									
20.90									
100	PI4PSK	1	1	20.90			20.9	0.0	
100	PI4PSK	1	100	20.90			20.9	0.0	
100	PI4PSK	1	200	20.90			20.9	0.0	
100	PI4PSK	100	0	20.90			20.9	0.0	
100	PI4PSK	100	100	20.90			20.9	0.0	
100	PI4PSK	200	0	20.90			20.9	0.0	
100	QPSK	1	1	20.90			20.9	0.0	
100	QPSK	1	100	20.90			20.9	0.0	
100	QPSK	100	0	20.90			20.9	0.0	
100	QPSK	100	100	20.90			20.9	0.0	
100	QPSK	200	0	20.90			20.9	0.0	
100	QPSK	200	100	20.90			20.9	0.0	
100	16QAM	1	1	20.90			20.9	1.0	
100	16QAM	1	100	20.90			20.9	1.0	
100	16QAM	100	0	20.90			20.9	1.0	
100	16QAM	100	100	20.90			20.9	1.0	
100	16QAM	200	0	20.90			20.9	1.0	
100	16QAM	200	100	20.90			20.9	1.0	
Channel									
Channel (MHz)									
20.90									
80	QPSK	1	1	20.90	20.90	20.90	20.9	0.0	
80	QPSK	1	100	20.90	20.90	20.90	20.9	0.0	
80	QPSK	100	0	20.90	20.90	20.90	20.9	0.0	
80	QPSK	100	100	20.90	20.90	20.90	20.9	0.0	
80	QPSK	200	0	20.90	20.90	20.90	20.9	0.0	
80	QPSK	200	100	20.90	20.90	20.90	20.9	0.0	
Channel									
Channel (MHz)									
20.90									
70	QPSK	1	1	20.90	20.90	20.90	20.9	0.0	
70	QPSK	1	100	20.90	20.90	20.90	20.9	0.0	
70	QPSK	100	0	20.90	20.90	20.90	20.9	0.0	
70	QPSK	100	100	20.90	20.90	20.90	20.9	0.0	
70	QPSK	200	0	20.90	20.90	20.90	20.9	0.0	
70	QPSK	200	100	20.90	20.90	20.90	20.9	0.0	
Channel									
Channel (MHz)									
20.90									
60	QPSK	1	1	20.90	20.90	20.90	20.9	0.0	
60	QPSK	1	100	20.90	20.90	20.90	20.9	0.0	
60	QPSK	100	0	20.90	20.90	20.90	20.9	0.0	
60	QPSK	100	100	20.90	20.90	20.90	20.9	0.0	
60	QPSK	200	0	20.90	20.90	20.90	20.9	0.0	
60	QPSK	200	100	20.90	20.90	20.90	20.9	0.0	
Channel									
Channel (MHz)									
20.90									
50	QPSK	1	1	20.90	20.90	20.90	20.9	0.0	
50	QPSK	1	100	20.90	20.90	20.90	20.9	0.0	
50	QPSK	100	0	20.90	20.90	20.90	20.9	0.0	
50	QPSK	100	100	20.90	20.90	20.90	20.9	0.0	
50	QPSK	200	0	20.90	20.90	20.90	20.9	0.0	
50	QPSK	200	100	20.90	20.90	20.90	20.9	0.0	

Par27Q n77 HPUE_FCC_Ant 8									
EIR (dB)	Modulation	RB Size	RB Offset	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/Hz)	Transmission Rate (Mbps)	SNR (dB)	MCS (QAM)
Channel									
Channel (MHz)									
20.90									
100	PI4PSK	1	1	20.90			20.9	0.0	
100	PI4PSK	1	100	20.90			20.9	0.0	
100	PI4PSK	100	0	20.90			20.9	0.0	
100	PI4PSK	100	100	20.90			20.9	0.0	
100	PI4PSK	200	0	20.90			20.9	0.0	
100	PI4PSK	200	100	20.90			20.9	0.0	
100	QPSK	1	1	20.90			20.9	0.0	
100	QPSK	1	100	20.90			20.9	0.0	
100	QPSK	100	0	20.90			20.9	0.0	
100	QPSK	100	100	20.90			20.9	0.0	
100	QPSK	200	0	20.90			20.9	0.0	
100	QPSK	200	100	20.90			20.9	0.0	
100	16QAM	1	1	20.90			20.9	1.0	
100	16QAM	1	100	20.90			20.9	1.0	
100	16QAM	100	0	20.90			20.9	1.0	
100	16QAM	100	100	20.90			20.9	1.0	
100	16QAM	200	0	20.90			20.9	1.0	
100	16QAM	200	100	20.90			20.9	1.0	
Channel									
Channel (MHz)									
20.90									
80	QPSK	1	1	20.90	20.90	20.90	20.9	0.0	
80	QPSK	1	100	20.90	20.90	20.90	20.9	0.0	
80	QPSK	100	0	20.90	20.90	20.90	20.9	0.0	
80	QPSK	100	100	20.90	20.90	20.90	20.9	0.0	
80	QPSK	200	0	20.90	20.90	20.90	20.9	0.0	
80	QPSK	200	100	20.90	20.90	20.90	20.9	0.0	
Channel									
Channel (MHz)									
20.90									
70	QPSK	1	1	20.90	20.90	20.90	20.9	0.0	
70	QPSK	1	100	20.90	20.90	20.90	20.9	0.0	
70	QPSK	100	0	20.90	20.90	20.90	20.9	0.0	
70	QPSK	100	100	20.90	20.90	20.90	20.9	0.0	
70	QPSK	200	0	20.90	20.90	20.90	20.9	0.0	
70	QPSK	200	100	20.90	20.90	20.90	20.9	0.0	
Channel									
Channel (MHz)									
20.90									
60	QPSK	1	1	20.90	20.90	20.90	20.9	0.0	
60	QPSK	1	100	20.90	20.90	20.90	20.9	0.0	
60	QPSK	100	0	20.90	20.90	20.90	20.9	0.0	
60	QPSK	100	100	20.90	20.90	20.90	20.9	0.0	
60	QPSK	200	0	20.90	20.90	20.90	20.9	0.0	
60	QPSK	200	100	20.90	20.90	20.90	20.9	0.0	
Channel									
Channel (MHz)									
20.90									
50	QPSK	1	1	20.90	20.90	20.90	20.9	0.0	
50	QPSK	1	100	20.90	20.90	20.90	20.9	0.0	
50	QPSK	100	0	20.90	20.90	20.90	20.9	0.0	
50	QPSK	100	100	20.90	20.90	20.90	20.9	0.0	
50	QPSK	200	0	20.90	20.90	20.90	20.9	0.0	
50	QPSK	200	100	20.90	20.90	20.90	20.9	0.0	



n14_Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. (Frac)	Power Mid Ch. (Frac)	Power High Ch. (Frac)	Turn-up Int. (dB)	MPE (dB)	
Channel									
10	PUSC	1	1	23.25					
10	PUSC	1	26	23.24			24.0	0.0	
10	PUSC	1	50	23.26					
10	PUSC	16	0	23.75			23.5	0.5	
10	PUSC	16	16	23.26			24.0	0.0	
10	PUSC	16	27	23.77			23.5	0.5	
10	PUSC	16	0	23.74					
10	QPSK	1	1	23.13					
10	QPSK	1	26	23.23			24.0	0.0	
10	QPSK	1	50	23.25					
10	QPSK	16	0	23.10			23.0	1.0	
10	QPSK	16	16	23.20			24.0	0.0	
10	QPSK	16	27	23.21			23.0	1.0	
10	QPSK	16	0	23.17					
10	QPSK	16	16	23.16			24.0	0.0	
10	QPSK	16	27	23.17			23.0	1.0	
10	QPSK	16	0	23.19					
10	QPSK	16	16	23.21			23.0	1.0	
10	QPSK	16	27	23.21			23.5	2.5	
10	ZSSB	1	1	10.00	10.00	10.00	Turn-up Int. (dB)	MPE (dB)	
Channel									
5	QPSK	1	1	23.27	23.24	23.27	24.0	0.0	

n14_Ant 4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. (Frac)	Power Mid Ch. (Frac)	Power High Ch. (Frac)	Turn-up Int. (dB)	MPE (dB)	
Channel									
10	PUSC	1	1	23.10					
10	PUSC	1	26	23.10			24.0	0.0	
10	PUSC	1	50	23.14					
10	PUSC	16	0	23.76			23.5	0.5	
10	PUSC	16	16	23.26			24.0	0.0	
10	PUSC	16	27	23.81			23.5	0.5	
10	PUSC	16	0	23.80					
10	QPSK	1	1	23.17					
10	QPSK	1	26	23.13			24.0	0.0	
10	QPSK	1	50	23.21					
10	QPSK	16	0	23.23			23.5	1.0	
10	QPSK	16	16	23.10			24.0	0.0	
10	QPSK	16	27	23.16			23.0	1.0	
10	QPSK	16	0	23.19					
10	QPSK	16	16	23.21			23.0	1.0	
10	QPSK	16	27	23.21			23.5	2.5	
10	ZSSB	1	1	10.00	10.00	10.00	Turn-up Int. (dB)	MPE (dB)	
Channel									
5	QPSK	1	1	23.11	23.16	23.16	24.0	0.0	

n25_Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. (Frac)	Power Mid Ch. (Frac)	Power High Ch. (Frac)	Turn-up Int. (dB)	MPE (dB)	
Channel									
40	PUSC	1	1	23.20	23.22	23.12			
40	PUSC	1	106	23.24	23.27	23.14	24.0	0.0	
40	PUSC	1	214	23.27	23.30	23.16			
40	PUSC	168	0	23.74	23.72	23.69	23.5	0.5	
40	PUSC	168	66	23.16	23.13	23.16	24.0	0.0	
40	PUSC	168	128	23.20	23.14	23.21			
40	PUSC	168	0	23.54	23.58	23.57			
40	QPSK	1	1	23.16	23.20	23.20			
40	QPSK	1	106	23.13	23.21	23.11	24.0	0.0	
40	QPSK	1	214	23.14	23.20	23.28			
40	QPSK	168	0	23.13	23.20	23.28	23.0	1.0	
40	QPSK	168	66	23.10	23.17	23.21	24.0	0.0	
40	QPSK	168	128	23.15	23.14	23.25	23.0	1.0	
40	QPSK	168	0	23.19	23.16	23.19	23.0	1.0	
40	QPSK	168	66	23.23	23.20	23.24	23.0	1.0	
40	QPSK	168	128	23.21	23.21	23.22	23.0	2.5	
40	ZSSB	1	1	10.00	10.00	10.00	Turn-up Int. (dB)	MPE (dB)	
Channel									
40	QPSK	1	1	23.24	23.20	23.15	24.0	0.0	
Channel									
20	QPSK	1	1	23.20	23.20	23.20	24.0	0.0	
Channel									
20	QPSK	1	1	23.17	23.12	23.24	24.0	0.0	
Channel									
10	QPSK	1	1	23.22	23.27	23.19	24.0	0.0	
Channel									
10	QPSK	1	1	23.23	23.28	23.26	24.0	0.0	
Channel									
5	QPSK	1	1	23.15	23.13	23.12	24.0	0.0	

n25_Ant 4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. (Frac)	Power Mid Ch. (Frac)	Power High Ch. (Frac)	Turn-up Int. (dB)	MPE (dB)	
Channel									
40	PUSC	1	1	14.53	14.50	14.52			
40	PUSC	1	106	14.56	14.53	14.53	15.5	0.0	
40	PUSC	1	214	14.47	14.57	14.53			
40	PUSC	168	0	14.20	14.51	14.50	15.5	0.0	
40	PUSC	168	66	14.52	14.54	14.51	15.5	0.0	
40	PUSC	168	128	14.52	14.50	14.52			
40	PUSC	168	0	14.58	14.58	14.50			
40	QPSK	1	1	14.40	14.50	14.57			
40	QPSK	1	106	14.79	14.58	14.50	15.5	0.0	
40	QPSK	1	214	14.74	14.71	14.71			
40	QPSK	168	0	14.40	14.41	14.29	15.5	0.0	
40	QPSK	168	66	14.74	14.74	14.50	15.5	0.0	
40	QPSK	168	128	14.74	14.71	14.74	15.5	0.0	
40	QPSK	168	0	14.79	14.50	14.74			
40	QPSK	168	66	14.73	14.50	14.50	15.5	0.0	
40	QPSK	168	128	14.70	14.50	14.51	15.5	0.0	
40	ZSSB	1	1	10.00	10.00	10.00	Turn-up Int. (dB)	MPE (dB)	
Channel									
20	QPSK	1	1	14.57	14.58	14.54	15.5	0.0	
Channel									
20	QPSK	1	1	14.51	14.54	14.51	15.5	0.0	
Channel									
20	QPSK	1	1	14.53	14.51	14.53	15.5	0.0	
Channel									
10	QPSK	1	1	14.51	14.51	14.50	15.5	0.0	
Channel									
10	QPSK	1	1	14.50	14.50	14.50	15.5	0.0	
Channel									
5	QPSK	1	1	14.50	14.50	14.50	15.5	0.0	



n71_Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Type Ch. / Freq.	Power Mask Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Turn-up time (sec)	APR (dB)
Channel									
Frequency (MHz)				1500	1500	1500			
20	PSS-SSB	1	1	23.14	23.08	23.20			
20	PSS-SSB	1	53	22.87	22.88	22.88		24.0	0.0
20	PSS-SSB	1	104	22.61	22.60	22.60			
20	PSS-SSB	50	0	22.50	22.50	22.50	22.5	0.5	
20	PSS-SSB	50	20	22.23	22.20	22.20	24.0	0.5	
20	PSS-SSB	50	50	22.00	22.01	22.00	23.5	0.5	
20	PSS-SSB	100	0	22.00	22.00	22.00			
20	CPSS	1	1	23.14	23.08	23.14		24.0	0.0
20	CPSS	1	53	22.87	22.88	22.87			
20	CPSS	1	104	22.61	22.60	22.61			
20	CPSS	50	0	21.83	21.84	21.85	23.5	1.0	
20	CPSS	50	20	21.56	21.56	21.57	24.0	0.5	
20	CPSS	50	50	21.30	21.30	21.30	23.0	1.0	
20	CPSS	100	0	21.00	21.00	21.00	23.0	1.0	
20	INCHAM	1	1	21.00	21.00	21.00	21.5	1.0	
20	INCHAM	1	1	20.50	20.47	20.50	21.5	2.0	
20	ZCZCH	1	1	18.75	18.80	18.84	18.8	4.0	
Channel									
Frequency (MHz)				1500	1500	1500		Turn-up time (sec)	APR (dB)
15	CPSS	1	1	22.14	22.03	22.00	24.0	1.0	
Channel									
Frequency (MHz)				1500	1500	1500		Turn-up time (sec)	APR (dB)
10	CPSS	1	1	22.00	22.00	22.00	24.0	0.5	
Channel									
Frequency (MHz)				1500	1500	1500		Turn-up time (sec)	APR (dB)
5	CPSS	1	1	23.00	23.00	23.00	24.0	0.0	

n71_Ant 4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Type Ch. / Freq.	Power Mask Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Turn-up time (sec)	APR (dB)
Channel									
Frequency (MHz)				1500	1500	1500			
20	PSS-SSB	1	1	23.11	23.08	23.07			
20	PSS-SSB	1	53	22.81	22.80	22.81		24.0	0.0
20	PSS-SSB	1	104	22.74	22.81	22.75			
20	PSS-SSB	50	0	22.51	22.48	22.45	23.5	0.5	
20	PSS-SSB	50	20	22.26	22.44	22.44	24.0	0.5	
20	PSS-SSB	50	50	22.00	22.01	22.00	23.0	0.5	
20	PSS-SSB	100	0	22.00	22.00	22.00			
20	CPSS	1	1	23.11	23.08	23.11		24.0	0.0
20	CPSS	1	53	22.87	22.86	22.87			
20	CPSS	1	104	22.61	22.60	22.61			
20	CPSS	50	0	22.08	22.11	22.08	23.0	1.0	
20	CPSS	50	20	21.87	21.90	21.87	24.0	0.5	
20	CPSS	50	50	21.55	21.55	21.55	23.0	1.0	
20	CPSS	100	0	21.00	21.00	21.00	23.0	1.0	
20	INCHAM	1	1	21.00	21.00	21.00	23.0	1.0	
20	INCHAM	1	1	20.54	20.48	20.50	23.0	2.0	
20	ZCZCH	1	1	18.78	18.84	18.88	18.8	4.0	
Channel									
Frequency (MHz)				1500	1500	1500		Turn-up time (sec)	APR (dB)
15	CPSS	1	1	22.14	22.03	22.00	24.0	1.0	
Channel									
Frequency (MHz)				1500	1500	1500		Turn-up time (sec)	APR (dB)
10	CPSS	1	1	22.00	22.00	22.00	24.0	0.5	
Channel									
Frequency (MHz)				1500	1500	1500		Turn-up time (sec)	APR (dB)
5	CPSS	1	1	23.00	23.00	23.00	24.0	0.0	



n41_FCC_Ant 1									
DW (MHz)	Modulation	RIS Size	RIS Chant	Power Low (25.17MHz)	Power Mean (25.17MHz)	Power High (25.17MHz)	Time-up time (min)	MFR (dB)	
Channel									
Frequency (MHz)									
150	PSSB-SSB	1	1	18.83	18.72	18.88			
150	PSSB-SSB	1	137	18.83	18.85	18.88	21.0	0.0	
150	PSSB-SSB	1	271	18.74	18.74	18.87			
150	PSSB-SSB	135	2	18.75	18.71	18.95	21.0	0.0	
150	PSSB-SSB	135	88	18.87	18.89	18.88	21.0	0.0	
150	PSSB-SSB	135	138	18.87	18.71	18.82			
150	PSSB-SSB	270	0	18.83	18.85	18.82	21.0	0.0	
150	CPSC	1	1	18.87	18.79	18.87			
150	CPSC	1	137	18.87	18.81	18.87	21.0	0.0	
150	CPSC	1	271	18.80	18.85	18.87			
150	CPSC	135	2	18.84	18.88	18.81			
150	CPSC	135	88	18.78	18.82	18.78	21.0	0.0	
150	CPSC	135	138	18.87	18.81	18.81			
150	CPSC	270	0	18.85	18.81	18.78	21.0	0.0	
150	150QAM	1	1	18.71	18.85	18.80	21.0	0.0	
150	150QAM	1	1	18.77	18.84	18.86	21.0	0.0	
150	250QAM	1	1	18.40	18.58	18.55	18.5	1.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	18.74	18.83	18.73	21.0	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	18.73	18.73	18.79	21.0	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	18.83	18.73	18.74	21.0	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	18.74	18.78	18.81	21.0	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	18.71	18.83	18.73	21.0	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	18.77	18.73	18.81	21.0	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	18.80	18.73	18.82	21.0	0.0	

n41_FCC_Ant 1_HPUE									
DW (MHz)	Modulation	RIS Size	RIS Chant	Power Low (25.17MHz)	Power Mean (25.17MHz)	Power High (25.17MHz)	Time-up time (min)	MFR (dB)	
Channel									
Frequency (MHz)									
150	PSSB-SSB	1	1	22.84	22.83	22.75			
150	PSSB-SSB	1	137	22.84	22.88	22.88	24.0	0.0	
150	PSSB-SSB	1	271	22.86	22.86	22.86			
150	PSSB-SSB	135	2	22.86	22.86	22.86	24.0	0.0	
150	PSSB-SSB	135	88	22.79	22.88	22.74	24.0	0.0	
150	PSSB-SSB	135	138	22.77	22.85	22.85			
150	PSSB-SSB	270	0	22.76	22.87	22.82	24.0	0.0	
150	CPSC	1	1	22.86	22.86	22.86			
150	CPSC	1	137	22.87	22.87	22.85	24.0	0.0	
150	CPSC	1	271	22.82	22.86	22.74			
150	CPSC	135	2	22.82	22.82	22.81			
150	CPSC	135	88	22.78	22.87	22.80	24.0	0.0	
150	CPSC	135	138	22.72	22.86	22.84			
150	CPSC	270	0	22.72	22.88	22.81	24.0	0.0	
150	150QAM	1	1	22.79	22.86	22.82	24.0	0.0	
150	150QAM	1	1	22.76	22.88	22.87	24.0	0.0	
150	250QAM	1	1	21.32	21.21	21.09	22.0	1.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	22.73	22.88	22.82	24.0	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	22.77	22.84	22.84	24.0	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	22.74	22.87	22.84	24.0	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	22.76	22.81	22.82	24.0	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	22.77	22.86	22.88	24.0	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	22.71	22.88	22.82	24.0	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	22.71	22.87	22.84	24.0	0.0	



n41_FCC_Ant 2									
DW (MHz)	Modulation	RIS Size	RIS Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Time-up time (min)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PSS-SSB	1	1	21.77	21.74	21.69			
100	PSS-SSB	1	107	21.78	21.88	21.73	21.0	0.0	
100	PSS-SSB	1	211	21.62	21.67	21.78			
100	PSS-SSB	135	8	21.76	21.85	21.67	20.5	0.5	
100	PSS-SSB	135	88	21.89	21.84	21.53	21.0	0.0	
100	PSS-SSB	135	138	21.69	21.74	21.68			
100	PSS-SSB	210	0	21.50	21.62	21.58	20.5	0.5	
100	CPSS	1	1	21.67	21.66	21.64			
100	CPSS	1	107	21.67	21.61	21.66	21.0	0.0	
100	CPSS	1	211	21.76	21.67	21.81			
100	CPSS	135	8	21.76	21.82	21.82			
100	CPSS	135	88	21.89	21.79	21.80	21.0	0.0	
100	CPSS	135	138	21.69	21.64	21.68			
100	CPSS	210	0	20.55	20.68	20.68	20.0	1.0	
100	ISDM	1	1	20.69	20.65	20.80	20.0	1.0	
100	ISDM	1	1	19.29	19.33	19.38	20.0	2.0	
100	ZSICDM	1	1	17.23	17.37	17.23	18.5	4.0	
Channel									
Frequency (MHz)									
30	CPSS	1	1	21.64	21.72	21.67	20.0	0.0	
Channel									
Frequency (MHz)									
80	CPSS	1	1	21.62	21.64	21.63	21.0	0.0	
Channel									
Frequency (MHz)									
80	CPSS	1	1	21.63	21.72	21.62	20.0	0.0	
Channel									
Frequency (MHz)									
50	CPSS	1	1	21.71	21.63	21.68	20.0	0.0	
Channel									
Frequency (MHz)									
60	CPSS	1	1	21.69	21.63	21.65	20.0	0.0	
Channel									
Frequency (MHz)									
30	CPSS	1	1	21.63	21.72	21.69	20.0	0.0	
Channel									
Frequency (MHz)									
30	CPSS	1	1	21.71	21.76	21.68	21.0	0.0	

n41_FCC_Ant 2_HPUE									
DW (MHz)	Modulation	RIS Size	RIS Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Time-up time (min)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PSS-SSB	1	1	24.52	24.79	24.72			
100	PSS-SSB	1	107	24.84	24.58	24.67	20.0	0.0	
100	PSS-SSB	1	211	24.78	24.88	24.88			
100	PSS-SSB	135	8	24.80	24.85	24.75	20.5	0.0	
100	PSS-SSB	135	88	24.33	24.44	24.33	20.0	0.0	
100	PSS-SSB	135	138	24.31	24.38	24.21			
100	PSS-SSB	210	0	24.00	24.16	24.10	20.5	0.0	
100	CPSS	1	1	24.37	24.38	24.24			
100	CPSS	1	107	24.31	24.30	24.27	20.0	0.0	
100	CPSS	1	211	24.51	24.60	24.60			
100	CPSS	135	8	24.88	24.89	24.80			
100	CPSS	135	88	24.37	24.39	24.37	20.0	0.0	
100	CPSS	135	138	24.30	24.42	24.38			
100	CPSS	210	0	23.41	23.47	23.33	20.0	1.0	
100	ISDM	1	1	22.78	22.13	22.07	20.0	1.0	
100	ISDM	1	1	22.11	22.02	22.40	21.0	2.0	
100	ZSICDM	1	1	18.39	18.12	18.09	21.0	4.0	
Channel									
Frequency (MHz)									
30	CPSS	1	1	24.80	24.79	24.72	20.0	0.0	
Channel									
Frequency (MHz)									
80	CPSS	1	1	24.74	24.76	24.76	20.0	0.0	
Channel									
Frequency (MHz)									
80	CPSS	1	1	24.77	24.74	24.79	20.0	0.0	
Channel									
Frequency (MHz)									
50	CPSS	1	1	24.70	24.70	24.72	20.0	0.0	
Channel									
Frequency (MHz)									
60	CPSS	1	1	24.80	24.78	24.79	20.0	0.0	
Channel									
Frequency (MHz)									
30	CPSS	1	1	24.80	24.72	24.74	20.0	0.0	
Channel									
Frequency (MHz)									
30	CPSS	1	1	24.76	24.80	24.74	20.0	0.0	



n41_FCC_Ant 4									
DIV (MHz)	Modulation	RIS Size	RIS Chnl	Power Low (25.75MHz)	Power Med (25.75MHz)	Power High (25.75MHz)	Turn-up time (min)	MFR (dB)	
Channel									
Frequency (MHz)									
100	P12-BPSK	1	1	14.53	14.59	14.64			
100	P12-BPSK	1	107	14.64	14.70	14.76	15.0	0.0	
100	P12-BPSK	1	211	14.64	14.70	14.76			
100	P12-BPSK	135	0	14.51	14.54	14.57	15.0	0.0	
100	P12-BPSK	135	88	14.61	14.73	14.82	15.0	0.0	
100	P12-BPSK	135	138	14.60	14.64	14.62			
100	P12-BPSK	210	0	14.59	14.60	14.55	15.0	0.0	
100	QPSK	1	1	14.62	14.72	14.60			
100	QPSK	1	107	14.58	14.55	14.61	15.0	0.0	
100	QPSK	1	211	14.60	14.67	14.71			
100	QPSK	135	0	14.57	14.65	14.74			
100	QPSK	135	88	14.60	14.69	14.82	15.0	0.0	
100	QPSK	135	138	14.62	14.61	14.64			
100	QPSK	210	0	14.52	14.51	14.50	15.0	0.0	
100	16QAM	1	1	14.62	14.69	14.73	15.0	0.0	
100	64QAM	1	1	14.61	14.64	14.70	15.0	0.0	
100	256QAM	1	1	14.51	14.52	14.50	14.0	2.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	14.64	14.55	14.50	15.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	14.67	14.74	14.78	15.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	15.04	15.02	15.05	15.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	15.05	15.13	15.13	15.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	14.92	15.00	15.07	15.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	14.69	14.65	14.61	15.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	14.64	14.74	14.84	14.0	0.0	

n41_FCC_Ant 4_HPUE									
DIV (MHz)	Modulation	RIS Size	RIS Chnl	Power Low (25.75MHz)	Power Med (25.75MHz)	Power High (25.75MHz)	Turn-up time (min)	MFR (dB)	
Channel									
Frequency (MHz)									
100	P12-BPSK	1	1	15.00	15.04	15.08			
100	P12-BPSK	1	107	15.30	15.28	15.29	15.0	0.0	
100	P12-BPSK	1	211	15.36	15.36	15.36			
100	P12-BPSK	135	0	15.05	15.05	15.05	15.0	0.0	
100	P12-BPSK	135	88	15.29	15.28	15.12	15.0	0.0	
100	P12-BPSK	135	138	15.11	15.08	15.10			
100	P12-BPSK	210	0	14.94	14.87	14.82	15.0	0.0	
100	QPSK	1	1	15.07	15.06	15.06			
100	QPSK	1	107	15.37	15.36	15.31	15.0	0.0	
100	QPSK	1	211	15.05	15.24	15.05			
100	QPSK	135	0	15.10	15.04	15.02			
100	QPSK	135	88	15.40	15.28	15.27	15.0	0.0	
100	QPSK	135	138	15.26	15.24	15.24			
100	QPSK	210	0	15.20	15.27	15.12	15.0	0.0	
100	16QAM	1	1	15.17	15.18	15.05	15.0	0.0	
100	64QAM	1	1	15.07	15.05	15.07	15.0	0.0	
100	256QAM	1	1	14.94	15.07	15.09	17.0	2.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	15.34	15.21	15.24	15.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	15.32	15.23	15.25	15.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	15.36	15.28	15.28	15.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	15.36	15.28	15.28	15.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	15.33	15.28	15.27	15.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	15.21	15.26	15.27	15.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	15.20	15.21	15.20	15.0	0.0	



n41_FCC_Ant 7										
DIV (MHz)	Modulation	FD Size	FD Chnl	Power Low (dBm)	Power Mid (dBm)	Power High (dBm)	Integration (dB)	MFR (dB)		
Channel										
150	PSSBPSK	1	1	20.55	20.55	20.78				
150	PSSBPSK	1	1	20.82	20.82	20.85	22.0	0.0		
150	PSSBPSK	1	271	20.87	21.07	21.20				
150	PSSBPSK	150	0	20.91	20.98	21.0	21.5	0.5		
150	PSSBPSK	150	80	20.76	20.82	20.78	22.0	0.0		
150	PSSBPSK	150	150	20.84	20.88	20.92				
150	PSSBPSK	220	0	20.70	20.74	20.85			21.5	0.5
150	QPSK	1	1	20.78	20.88	20.88				
150	QPSK	1	157	21.05	21.08	21.07	22.0	0.0		
150	QPSK	1	271	21.00	21.01	20.86				
150	QPSK	150	0	20.81	20.82	20.73				
150	QPSK	150	80	20.83	20.88	20.82	22.0	0.0		
150	QPSK	150	150	20.77	20.87	20.74				
150	QPSK	220	0	19.85	19.71	19.84	21.0	1.0		
150	SCDMA	1	1	19.83	19.99	19.88	21.0	1.0		
150	SCDMA	1	1	19.74	19.84	19.82	19.0	2.0		
150	SCDMA	1	1	19.10	18.20	18.12	17.2	4.0		
Channel										
Frequency (MHz)				20.55	20.85	20.85	20.85	MFR (dB)		
30	QPSK	1	1	20.59	20.94	20.89	22.0	0.0		
Channel										
Frequency (MHz)				20.54	20.84	20.84		MFR (dB)		
60	QPSK	1	1	20.74	20.74	20.76	22.0	0.0		
Channel										
Frequency (MHz)				20.69	20.69	20.69		MFR (dB)		
60	QPSK	1	1	20.69	20.69	20.64	22.0	0.0		
Channel										
Frequency (MHz)				20.64	20.64	20.64		MFR (dB)		
90	QPSK	1	1	20.69	20.69	20.64	22.0	0.0		
Channel										
Frequency (MHz)				20.64	20.64	20.64		MFR (dB)		
120	QPSK	1	1	20.67	20.67	20.67	22.0	0.0		
Channel										
Frequency (MHz)				20.67	20.67	20.67		MFR (dB)		
150	QPSK	1	1	20.67	20.67	20.67	22.0	0.0		
Channel										
Frequency (MHz)				20.67	20.67	20.67		MFR (dB)		
180	QPSK	1	1	20.67	20.67	20.67	22.0	0.0		
Channel										
Frequency (MHz)				20.67	20.67	20.67		MFR (dB)		
210	QPSK	1	1	20.67	20.67	20.67	22.0	0.0		
Channel										
Frequency (MHz)				20.67	20.67	20.67		MFR (dB)		
240	QPSK	0	0	20.68	20.70	20.70	22.0	0.0		

n41_FCC_Ant 7_HPUE										
DIV (MHz)	Modulation	FD Size	FD Chnl	Power Low (dBm)	Power Mid (dBm)	Power High (dBm)	Integration (dB)	MFR (dB)		
Channel										
150	PSSBPSK	1	1	24.69	24.29	24.10				
150	PSSBPSK	1	157	24.20	24.20	24.11	25.0	0.0		
150	PSSBPSK	1	271	24.24	24.10	24.08				
150	PSSBPSK	150	0	23.70	23.70	23.50	24.5	0.5		
150	PSSBPSK	150	80	24.14	24.22	23.69	25.0	0.0		
150	PSSBPSK	150	150	24.42	23.68	23.67			24.5	0.0
150	PSSBPSK	220	0	23.74	23.70	23.61				
150	QPSK	1	1	24.69	24.18	24.08				
150	QPSK	1	157	24.07	24.07	24.00	25.0	0.0		
150	QPSK	1	271	24.16	23.98	23.95				
150	QPSK	150	0	23.77	23.63	23.71				
150	QPSK	150	80	23.58	24.23	23.01	25.0	0.0		
150	QPSK	150	150	23.74	23.70	23.70				
150	QPSK	220	0	23.38	23.35	23.34	24.0	1.0		
150	SCDMA	1	1	23.14	23.20	23.21	24.0	1.0		
150	SCDMA	1	1	23.06	23.72	23.71	23.0	2.0		
150	SCDMA	1	1	19.88	19.87	19.90	20.0	4.0		
Channel										
Frequency (MHz)				24.69	24.08	24.08	24.08	MFR (dB)		
30	QPSK	1	1	23.96	24.09	24.17	25.0	0.0		
Channel										
Frequency (MHz)				23.96	24.09	24.17		MFR (dB)		
60	QPSK	1	1	24.08	24.08	24.20	25.0	0.0		
Channel										
Frequency (MHz)				24.08	24.08	24.20		MFR (dB)		
90	QPSK	1	1	24.01	24.11	24.10	25.0	0.0		
Channel										
Frequency (MHz)				24.00	24.00	24.00		MFR (dB)		
120	QPSK	1	1	23.84	24.00	24.10	25.0	0.0		
Channel										
Frequency (MHz)				23.84	24.00	24.10		MFR (dB)		
150	QPSK	1	1	24.00	24.10	24.22	25.0	0.0		
Channel										
Frequency (MHz)				24.00	24.10	24.22		MFR (dB)		
180	QPSK	1	1	23.56	23.87	24.21	25.0	0.0		



n48_FCC_Part96_Ant 5

Dist (km)	Modulation	FD Size	FD Offset	Channel Type (Ch. ID, Freq.)	Channel Name (Ch. ID, Freq.)	Channel Prop. Ch. ID, Freq.)	Frequency Band (MHz)	MPE (dB)
Channel								
Frequency (MHz)				15700	15700	15700	15700	
40	FD-SSB	1	1	1574	1574	1574	15.65	0.0
40	FD-SSB	1	10	1581	1583	1585	17.0	0.0
40	FD-SSB	1	100	1585	1587	1589	17.0	0.0
40	FD-SSB	10	5	1594	1597	1595	17.0	0.0
40	FD-SSB	10	20	1599	1599	1599	17.0	0.0
40	FD-SSB	10	30	1594	1595	1595	17.0	0.0
40	FD-SSB	100	2	1592	1594	1592	17.0	0.0
40	SSB	1	1	1594	1594	1594	17.0	0.0
40	SSB	1	10	1581	1585	1585	17.0	0.0
40	SSB	1	100	1575	1582	1574	17.0	0.0
40	SSB	10	5	1590	1587	1584	17.0	0.0
40	SSB	10	20	1596	1594	1592	17.0	0.0
40	SSB	100	20	1595	1594	1594	17.0	0.0
40	SSB	100	30	1595	1596	1597	17.0	0.0
40	SSB	1	1	1590	1592	1590	17.0	0.0
40	SSB	1	1	1598	1597	1595	17.0	0.0
40	SSB	1	1	1599	1599	1599	17.0	0.0
Channel								
Frequency (MHz)				15800	15800	15800	15.65	
20	QPSK	1	1	1584	1591	1588	17.0	0.0
Channel								
Frequency (MHz)				15800	15800	15800	15.65	
20	QPSK	1	1	1584	1591	1588	17.0	0.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPP (dB)
Channel								
Frequency (MHz)								
100	Pl2 BPSK	1	1	15.19	15.23	15.01	16.0	0.0
100	Pl2 BPSK	1	137	15.21	15.22	15.11		
100	Pl2 BPSK	1	271	15.10	15.18	15.10	16.0	0.0
100	Pl2 BPSK	135	0	15.07	15.24	14.97		
100	Pl2 BPSK	135	69	15.10	15.18	15.07	16.0	0.0
100	Pl2 BPSK	135	138	15.16	15.09	15.08		
100	Pl2 BPSK	270	0	15.14	15.24	14.98	16.0	0.0
100	QPSK	1	1	15.21	15.24	15.16		
100	QPSK	1	137	15.08	15.21	15.04	16.0	0.0
100	QPSK	135	0	15.01	14.93	14.89		
100	QPSK	135	69	15.03	15.14	15.05	16.0	0.0
100	QPSK	138	138	15.18	15.08	15.08		
100	QPSK	270	0	15.18	15.20	15.04	16.0	0.0
100	8QAM	1	1	15.01	15.05	15.01		
100	8QAM	1	1	15.11	15.17	15.04	16.0	0.0
100	8QAM	1	1	15.13	15.20	15.03		
Channel								
Frequency (MHz)								
90	QPSK	1	1	17.0102	17.01	17.0102	Tune-up limit (dBm)	MPP (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.11	15.21	15.04	16.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.13	15.29	15.14	16.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.04	15.24	14.98	16.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.20	15.16	15.02	16.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.20	15.32	15.11	16.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.19	15.19	15.07	16.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.03	15.19	15.09	16.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPP (dB)
Channel								
Frequency (MHz)								
100	Pl2 BPSK	1	1	18.13	18.19	17.95	19.0	0.0
100	Pl2 BPSK	1	137	18.17	18.18	17.97		
100	Pl2 BPSK	1	271	18.03	18.16	18.03	19.0	0.0
100	Pl2 BPSK	135	0	17.96	18.03	17.70		
100	Pl2 BPSK	135	69	17.96	17.99	17.82	19.0	0.0
100	Pl2 BPSK	135	138	18.18	18.27	17.95		
100	Pl2 BPSK	270	0	17.98	18.17	18.06	19.0	0.0
100	QPSK	1	1	18.16	18.29	18.04		
100	QPSK	1	137	17.90	18.07	17.82	19.0	0.0
100	QPSK	135	0	17.82	17.96	17.68		
100	QPSK	135	69	17.90	18.13	17.76	19.0	0.0
100	QPSK	138	138	18.04	18.08	17.99		
100	QPSK	270	0	17.83	18.04	17.97	19.0	0.0
100	8QAM	1	1	18.02	18.06	17.72		
100	8QAM	1	1	17.98	18.06	18.00	19.0	0.0
100	8QAM	1	1	17.96	18.01	18.12		
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.00	18.20	17.93	Tune-up limit (dBm)	MPP (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	17.98	18.23	18.02	19.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.14	18.14	18.00	19.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.13	18.20	18.01	19.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.13	18.13	17.97	19.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.10	18.14	17.86	19.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.03	18.28	17.93	19.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.99	18.11	17.94	19.0	0.0



Par27Q n77_FCC_Ant 5

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				63332			6469.98	
Frequency (MHz)				63332			6469.98	
100	PI2 BPSK	1	1	15.05	15.05	15.05	16.0	0.0
100	PI2 BPSK	1	137	15.04	15.04	15.04	16.0	0.0
100	PI2 BPSK	1	271	15.14	15.14	15.14	16.0	0.0
100	PI2 BPSK	135	0	15.07	15.07	15.07	16.0	0.0
100	PI2 BPSK	135	69	15.16	15.16	15.16	16.0	0.0
100	PI2 BPSK	135	138	14.94	14.94	14.94	16.0	0.0
100	PI2 BPSK	270	0	15.12	15.12	15.12	16.0	0.0
100	QPSK	1	1	15.23	15.23	15.23	16.0	0.0
100	QPSK	1	137	15.14	15.14	15.14	16.0	0.0
100	QPSK	1	271	15.15	15.15	15.15	16.0	0.0
100	QPSK	135	0	14.99	14.99	14.99	16.0	0.0
100	QPSK	135	69	15.08	15.08	15.08	16.0	0.0
100	QPSK	135	138	15.06	15.06	15.06	16.0	0.0
100	QPSK	270	0	15.02	15.02	15.02	16.0	0.0
100	16QAM	1	1	15.03	15.03	15.03	16.0	0.0
100	16QAM	1	1	15.16	15.16	15.16	16.0	0.0
100	256QAM	1	1	15.05	15.05	15.05	16.0	0.0
Channel				63300			63366	
Frequency (MHz)				63300			63366	
90	QPSK	1	1	15.09	15.21	15.08	16.0	0.0
Channel				63068			63332	
Frequency (MHz)				63068			63332	
80	QPSK	1	1	15.06	15.10	14.93	16.0	0.0
Channel				63234			63432	
Frequency (MHz)				63234			63432	
70	QPSK	1	1	15.15	15.20	14.98	16.0	0.0
Channel				63200			63466	
Frequency (MHz)				63200			63466	
60	QPSK	1	1	14.95	15.11	15.07	16.0	0.0
Channel				63168			63300	
Frequency (MHz)				63168			63300	
50	QPSK	1	1	15.01	15.18	15.03	16.0	0.0
Channel				63134			63332	
Frequency (MHz)				63134			63332	
40	QPSK	1	1	14.93	15.12	15.02	16.0	0.0
Channel				63100			63366	
Frequency (MHz)				63100			63366	
30	QPSK	1	1	15.07	15.03	14.91	16.0	0.0
Channel				63068			63000	
Frequency (MHz)				63068			63000	
20	QPSK	1	1	15.02	15.06	15.02	16.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel				63332			6469.98	
Frequency (MHz)				63332			6469.98	
100	PI2 BPSK	1	1	18.05	18.05	18.05	19.0	0.0
100	PI2 BPSK	1	137	18.05	18.05	18.05	19.0	0.0
100	PI2 BPSK	1	271	18.09	18.09	18.09	19.0	0.0
100	PI2 BPSK	135	0	17.97	17.97	17.97	19.0	0.0
100	PI2 BPSK	135	69	17.84	17.84	17.84	19.0	0.0
100	PI2 BPSK	135	138	18.24	18.24	18.24	19.0	0.0
100	PI2 BPSK	270	0	18.05	18.05	18.05	19.0	0.0
100	QPSK	1	1	18.25	18.25	18.25	19.0	0.0
100	QPSK	1	137	17.90	17.90	17.90	19.0	0.0
100	QPSK	1	271	17.87	17.87	17.87	19.0	0.0
100	QPSK	135	0	17.90	17.90	17.90	19.0	0.0
100	QPSK	135	69	18.03	18.03	18.03	19.0	0.0
100	QPSK	135	138	18.03	18.03	18.03	19.0	0.0
100	QPSK	270	0	18.03	18.03	18.03	19.0	0.0
100	16QAM	1	1	18.01	18.01	18.01	19.0	0.0
100	16QAM	1	1	17.85	17.85	17.85	19.0	0.0
Channel				63000			63366	
Frequency (MHz)				63000			63366	
90	QPSK	1	1	17.89	18.11	17.80	19.0	0.0
Channel				63068			63332	
Frequency (MHz)				63068			63332	
80	QPSK	1	1	17.88	18.10	17.90	19.0	0.0
Channel				63234			63432	
Frequency (MHz)				63234			63432	
70	QPSK	1	1	17.87	18.24	17.90	19.0	0.0
Channel				63200			63466	
Frequency (MHz)				63200			63466	
60	QPSK	1	1	17.92	18.21	17.88	19.0	0.0
Channel				63168			63300	
Frequency (MHz)				63168			63300	
50	QPSK	1	1	17.90	18.19	17.90	19.0	0.0
Channel				63134			63332	
Frequency (MHz)				63134			63332	
40	QPSK	1	1	17.84	18.24	17.90	19.0	0.0
Channel				63100			63366	
Frequency (MHz)				63100			63366	
30	QPSK	1	1	17.97	18.12	17.75	19.0	0.0
Channel				63068			63000	
Frequency (MHz)				63068			63000	
20	QPSK	1	1	17.97	18.18	17.79	19.0	0.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	1750	1850	1900		
100	PI2 BPSK	1	137	2278	2291	2278	24.0	0.0
100	PI2 BPSK	1	271	2278	2278	2274		
100	PI2 BPSK	135	0	2270	2272	2270	23.5	0.5
100	PI2 BPSK	135	69	2269	2276	2270	24.0	0.0
100	PI2 BPSK	135	138	2268	2267	2263	23.5	0.5
100	PI2 BPSK	270	0	2268	2262	2268		
100	QPSK	1	1	2292	2300	2297		
100	QPSK	1	137	2261	2272	2264	24.0	0.0
100	QPSK	1	271	2216	2218	2215		
100	QPSK	135	0	2219	2221	2219	24.0	0.0
100	QPSK	135	69	2237	2238	2234		
100	QPSK	135	138	2134	2138	2127	24.0	1.0
100	QPSK	135	138	2134	2147	2133	23.0	1.0
100	16QAM	1	1	2161	2169	2168	23.0	1.0
100	16QAM	1	1	2024	2029	2028	21.5	2.5
100	256QAM	1	1	1944	1936	1934	19.5	4.5
Channel								
Frequency (MHz)								
65600								
65600								
65600								
90	QPSK	1	1	2292	2293	2275	24.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
80	QPSK	1	1	2284	2289	2270	24.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
70	QPSK	1	1	2292	2289	2265	24.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
60	QPSK	1	1	2292	2288	2264	24.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
50	QPSK	1	1	2288	2287	2269	24.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
40	QPSK	1	1	2290	2290	2271	24.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
30	QPSK	1	1	2291	2284	2265	24.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
20	QPSK	1	1	2291	2292	2267	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60000								
60000								
60000								
100	PI2 BPSK	1	1	2529	2530	2515		
100	PI2 BPSK	1	137	2576	2477	2544	27.0	0.0
100	PI2 BPSK	1	271	2430	2401	2386		
100	PI2 BPSK	135	0	2440	2445	2441	26.5	0.5
100	PI2 BPSK	135	69	2476	2478	2463	27.0	0.0
100	PI2 BPSK	135	138	2374	2388	2377	26.5	0.5
100	PI2 BPSK	270	0	2421	2428	2416		
100	QPSK	1	1	2598	2598	2595		
100	QPSK	1	137	2565	2556	2553	27.0	0.0
100	QPSK	1	271	2463	2470	2468		
100	QPSK	135	0	2587	2588	2574	27.0	0.0
100	QPSK	135	69	2599	2594	2592		
100	QPSK	135	138	2504	2504	2500	26.0	1.0
100	QPSK	270	0	2516	2523	2522	26.0	1.0
100	16QAM	1	1	2427	2438	2434	26.0	1.0
100	16QAM	1	1	2398	2398	2397	24.5	2.5
100	256QAM	1	1	2173	2177	2162	22.5	4.5
Channel								
Frequency (MHz)								
65600								
65600								
65600								
90	QPSK	1	1	2593	2590	2581	27.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
80	QPSK	1	1	2589	2592	2586	27.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
70	QPSK	1	1	2587	2587	2584	27.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
60	QPSK	1	1	2591	2594	2587	27.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
50	QPSK	1	1	2591	2595	2593	27.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
40	QPSK	1	1	2583	2596	2582	27.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
30	QPSK	1	1	2596	2586	2586	27.0	0.0
Channel								
Frequency (MHz)								
65600								
65600								
65600								
20	QPSK	1	1	2584	2591	2589	27.0	0.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)							3499.98	
100	Pl2 BPSK	1	1	22.72	22.72	22.72	24.0	0.0
100	Pl2 BPSK	1	137	22.50	22.50	22.50		
100	Pl2 BPSK	1	271	22.91	22.91	22.91	23.5	0.5
100	Pl2 BPSK	135	0	21.82	21.82	21.82		
100	Pl2 BPSK	135	69	22.65	22.65	22.65	23.5	0.5
100	Pl2 BPSK	135	138	21.86	21.86	21.86		
100	Pl2 BPSK	270	0	21.82	21.82	21.82	24.0	0.0
100	QPSK	1	1	23.25	23.25	23.25		
100	QPSK	1	137	23.15	23.15	23.15	24.0	0.0
100	QPSK	1	271	23.09	23.09	23.09		
100	QPSK	135	0	23.34	23.34	23.34	24.0	0.0
100	QPSK	135	69	23.15	23.15	23.15		
100	QPSK	135	138	22.69	22.69	22.69	23.0	1.0
100	QPSK	135	138	22.97	22.97	22.97		
100	QPSK	270	0	22.97	22.97	22.97	23.0	1.0
100	16QAM	1	1	21.26	21.26	21.26		
100	16QAM	1	1	19.88	19.88	19.88	21.5	2.5
100	16QAM	1	1	18.73	18.73	18.73		
Channel							63300	
Frequency (MHz)							63332	
90	QPSK	1	1	22.87	22.87	22.87	24.0	0.0
Channel								
Frequency (MHz)							63332	
80	QPSK	1	1	22.92	22.92	22.92	24.0	0.0
Channel								
Frequency (MHz)							63332	
70	QPSK	1	1	22.87	22.87	22.87	24.0	0.0
Channel								
Frequency (MHz)							63332	
60	QPSK	1	1	22.90	22.90	22.90	24.0	0.0
Channel								
Frequency (MHz)							63332	
50	QPSK	1	1	22.87	22.87	22.87	24.0	0.0
Channel								
Frequency (MHz)							63332	
40	QPSK	1	1	22.95	22.95	22.95	24.0	0.0
Channel								
Frequency (MHz)							63332	
30	QPSK	1	1	22.92	22.92	22.92	24.0	0.0
Channel								
Frequency (MHz)							63332	
20	QPSK	1	1	22.92	22.92	22.92	24.0	0.0
Channel								
Frequency (MHz)							63332	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)							3499.98	
100	Pl2 BPSK	1	1	25.23	25.23	25.23	27.0	0.0
100	Pl2 BPSK	1	137	25.41	25.41	25.41		
100	Pl2 BPSK	1	271	24.92	24.92	24.92	26.5	0.5
100	Pl2 BPSK	135	0	24.47	24.47	24.47		
100	Pl2 BPSK	135	69	25.21	25.21	25.21	26.5	0.5
100	Pl2 BPSK	135	138	24.23	24.23	24.23		
100	Pl2 BPSK	270	0	24.44	24.44	24.44	27.0	0.0
100	QPSK	1	1	25.93	25.93	25.93		
100	QPSK	1	137	25.55	25.55	25.55	27.0	0.0
100	QPSK	1	271	25.26	25.26	25.26		
100	QPSK	135	0	25.25	25.25	25.25	27.0	0.0
100	QPSK	135	69	25.88	25.88	25.88		
100	QPSK	135	138	25.45	25.45	25.45	28.0	1.0
100	QPSK	135	138	25.92	25.92	25.92		
100	16QAM	1	1	24.30	24.30	24.30	28.0	1.0
100	16QAM	1	1	22.72	22.72	22.72		
100	16QAM	1	1	21.62	21.62	21.62	24.5	4.5
Channel								
Frequency (MHz)							63332	
90	QPSK	1	1	25.57	25.57	25.57	27.0	0.0
Channel								
Frequency (MHz)							63332	
80	QPSK	1	1	25.05	25.05	25.05	27.0	0.0
Channel								
Frequency (MHz)							63332	
70	QPSK	1	1	25.50	25.50	25.50	27.0	0.0
Channel								
Frequency (MHz)							63332	
60	QPSK	1	1	25.51	25.51	25.51	27.0	0.0
Channel								
Frequency (MHz)							63332	
50	QPSK	1	1	25.80	25.80	25.80	27.0	0.0
Channel								
Frequency (MHz)							63332	
40	QPSK	1	1	25.51	25.51	25.51	27.0	0.0
Channel								
Frequency (MHz)							63332	
30	QPSK	1	1	25.64	25.64	25.64	27.0	0.0
Channel								
Frequency (MHz)							63332	
20	QPSK	1	1	25.58	25.58	25.58	27.0	0.0
Channel								
Frequency (MHz)							63332	



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P1/2 BPSK	1	1	21.07	21.53	21.92	23.0	0.0
100	P1/2 BPSK	1	137	21.06	21.01	20.34		
100	P1/2 BPSK	1	271	20.85	20.86	19.88	22.5	0.5
100	P1/2 BPSK	135	0	20.37	20.23	19.84		
100	P1/2 BPSK	135	69	21.04	20.91	20.27	22.5	0.5
100	P1/2 BPSK	135	138	19.85	19.76	19.17		
100	P1/2 BPSK	270	0	20.09	19.97	19.37	23.0	0.0
100	QPSK	1	1	22.31	22.23	21.88		
100	QPSK	1	137	21.80	21.73	21.21	23.0	0.0
100	QPSK	1	271	21.44	21.33	21.12		
100	QPSK	135	0	22.01	21.88	21.22	23.0	0.0
100	QPSK	135	69	22.06	21.81	21.29		
100	QPSK	138	138	21.18	21.09	21.17	22.0	1.0
100	QPSK	270	0	21.41	21.24	20.71		
100	HDAM	1	1	20.41	20.27	20.83	20.0	2.5
100	HDAM	1	1	19.11	18.84	18.26		
100	SSBAM	1	1	17.38	17.32	16.87	20.0	4.5
100	SSBAM	1	1	17.38	17.32	16.87		
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.23	22.18	21.93	23.0	0.0
90	QPSK	1	137	22.23	22.18	21.93		
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.25	22.15	21.93	23.0	0.0
80	QPSK	1	137	22.25	22.15	21.93		
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.16	22.13	21.90	23.0	0.0
70	QPSK	1	137	22.16	22.13	21.90		
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.28	22.19	21.91	23.0	0.0
60	QPSK	1	137	22.28	22.19	21.91		
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.25	22.08	21.59	23.0	0.0
50	QPSK	1	137	22.25	22.08	21.59		
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.24	22.22	21.51	23.0	0.0
40	QPSK	1	137	22.24	22.22	21.51		
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.25	22.20	21.51	23.0	0.0
30	QPSK	1	137	22.25	22.20	21.51		
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.29	22.20	21.66	23.0	0.0
20	QPSK	1	137	22.29	22.20	21.66		

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P1/2 BPSK	1	1	24.18	23.52	23.35	28.0	0.0
100	P1/2 BPSK	1	137	23.96	23.18	23.08		
100	P1/2 BPSK	1	271	23.07	22.43	22.31	25.5	0.5
100	P1/2 BPSK	135	0	23.17	22.53	22.49		
100	P1/2 BPSK	135	69	23.72	23.07	22.92	25.5	0.5
100	P1/2 BPSK	135	138	22.71	21.98	21.97		
100	P1/2 BPSK	270	0	23.04	22.31	22.17	28.0	0.0
100	QPSK	1	1	25.06	24.37	24.19		
100	QPSK	1	137	24.51	23.82	23.78	28.0	0.0
100	QPSK	1	271	24.13	23.41	23.33		
100	QPSK	135	0	24.34	23.58	23.43	28.0	0.0
100	QPSK	135	69	24.52	23.87	23.74		
100	QPSK	138	138	23.80	23.15	23.14	28.0	1.0
100	QPSK	270	0	24.15	23.51	23.34		
100	HDAM	1	1	23.92	22.40	23.11	25.0	2.5
100	HDAM	1	1	21.82	20.92	20.91		
100	SSBAM	1	1	20.49	19.85	19.89	25.0	4.5
100	SSBAM	1	1	20.49	19.85	19.89		
Channel								
Frequency (MHz)								
90	QPSK	1	1	24.34	24.34	24.18	28.0	0.0
90	QPSK	1	137	24.34	24.34	24.18		
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.01	24.27	24.08	28.0	0.0
80	QPSK	1	137	24.01	24.27	24.08		
Channel								
Frequency (MHz)								
70	QPSK	1	1	24.00	24.33	24.08	28.0	0.0
70	QPSK	1	137	24.00	24.33	24.08		
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.99	24.24	24.04	28.0	0.0
60	QPSK	1	137	24.99	24.24	24.04		
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.58	24.25	24.07	28.0	0.0
50	QPSK	1	137	24.58	24.25	24.07		
Channel								
Frequency (MHz)								
40	QPSK	1	1	25.01	24.28	24.14	28.0	0.0
40	QPSK	1	137	25.01	24.28	24.14		
Channel								
Frequency (MHz)								
30	QPSK	1	1	24.99	24.29	24.11	28.0	0.0
30	QPSK	1	137	24.99	24.29	24.11		
Channel								
Frequency (MHz)								
20	QPSK	1	1	24.98	24.30	24.04	28.0	0.0
20	QPSK	1	137	24.98	24.30	24.04		



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				633332				
100	P12 BPSK	1	1	21.17	21.17	21.17	23.0	0.0
100	P12 BPSK	1	137	20.65	20.65	20.65		
100	P12 BPSK	1	271	20.11	20.11	20.11		
100	P12 BPSK	135	0	19.78	19.78	19.78	22.5	0.5
100	P12 BPSK	135	69	20.69	20.69	20.69		
100	P12 BPSK	135	138	19.37	19.37	19.37	22.5	0.5
100	P12 BPSK	270	0	19.54	19.54	19.54		
100	QPSK	1	1	21.86	21.86	21.86		
100	QPSK	1	137	21.30	21.30	21.30	23.0	0.0
100	QPSK	1	271	20.87	20.87	20.87		
100	QPSK	135	0	21.50	21.50	21.50		
100	QPSK	135	69	21.44	21.44	21.44	23.0	0.0
100	QPSK	135	138	20.60	20.60	20.60		
100	QPSK	270	0	20.87	20.87	20.87	22.0	1.0
100	16QAM	1	1	20.57	20.57	20.57	22.0	1.0
100	16QAM	1	1	18.63	18.63	18.63	20.0	3.0
100	16QAM	1	1	17.15	17.15	17.15	18.5	4.5
Channel								
Frequency (MHz)				633001				
90	QPSK	1	1	21.24	21.24	21.24	23.0	0.0
Channel								
Frequency (MHz)				633668				
80	QPSK	1	1	21.29	21.29	21.29	23.0	0.0
Channel								
Frequency (MHz)				633332				
70	QPSK	1	1	21.26	21.26	21.26	23.0	0.0
Channel								
Frequency (MHz)				633000				
60	QPSK	1	1	21.18	21.18	21.18	23.0	0.0
Channel								
Frequency (MHz)				633668				
50	QPSK	1	1	21.21	21.21	21.21	23.0	0.0
Channel								
Frequency (MHz)				633332				
40	QPSK	1	1	21.33	21.33	21.33	23.0	0.0
Channel								
Frequency (MHz)				633000				
30	QPSK	1	1	21.35	21.35	21.35	23.0	0.0
Channel								
Frequency (MHz)				633668				
20	QPSK	1	1	21.22	21.22	21.22	23.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				633332				
100	P12 BPSK	1	1	23.92	23.92	23.92	28.0	0.0
100	P12 BPSK	1	137	23.68	23.68	23.68		
100	P12 BPSK	1	271	22.83	22.83	22.83		
100	P12 BPSK	135	0	22.97	22.97	22.97	25.5	0.5
100	P12 BPSK	135	69	23.48	23.48	23.48		
100	P12 BPSK	135	138	22.37	22.37	22.37	25.5	0.5
100	P12 BPSK	270	0	22.66	22.66	22.66		
100	QPSK	1	1	24.70	24.70	24.70		
100	QPSK	1	137	24.24	24.24	24.24	28.0	0.0
100	QPSK	1	271	23.81	23.81	23.81		
100	QPSK	135	0	24.21	24.21	24.21		
100	QPSK	135	69	24.26	24.26	24.26	28.0	0.0
100	QPSK	135	138	23.82	23.82	23.82	28.0	0.0
100	QPSK	270	0	23.95	23.95	23.95	25.0	1.0
100	16QAM	1	1	22.74	22.74	22.74	25.0	1.0
100	16QAM	1	1	21.27	21.27	21.27	23.5	2.5
100	16QAM	1	1	20.72	20.72	20.72	21.5	4.5
Channel								
Frequency (MHz)				633000				
90	QPSK	1	1	24.69	24.69	24.69	28.0	0.0
Channel								
Frequency (MHz)				633668				
80	QPSK	1	1	24.57	24.57	24.57	28.0	0.0
Channel								
Frequency (MHz)				633332				
70	QPSK	1	1	24.52	24.52	24.52	28.0	0.0
Channel								
Frequency (MHz)				633000				
60	QPSK	1	1	24.65	24.65	24.65	28.0	0.0
Channel								
Frequency (MHz)				633668				
50	QPSK	1	1	24.53	24.53	24.53	28.0	0.0
Channel								
Frequency (MHz)				633332				
40	QPSK	1	1	24.57	24.57	24.57	28.0	0.0
Channel								
Frequency (MHz)				633000				
30	QPSK	1	1	24.55	24.55	24.55	28.0	0.0
Channel								
Frequency (MHz)				633668				
20	QPSK	1	1	24.64	24.64	24.64	28.0	0.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
100	Pl2 BPSK	1	1	22.11	22.03	21.35	23.0	0.0		
100	Pl2 BPSK	1	137	22.25	22.13	21.53				
100	Pl2 BPSK	1	271	21.71	21.57	20.89				
100	Pl2 BPSK	135	0	22.04	21.96	21.43	22.5	0.5		
100	Pl2 BPSK	135	69	21.83	21.73	21.06				
100	Pl2 BPSK	135	138	21.58	21.58	20.95				
100	Pl2 BPSK	270	0	21.76	21.72	21.37	22.5	0.5		
100	QPSK	1	1	22.34	22.25	21.71				
100	QPSK	1	137	22.14	22.09	21.40				
100	QPSK	1	271	21.18	21.07	20.51	23.0	0.0		
100	QPSK	135	0	21.47	21.29	20.87				
100	QPSK	135	69	21.88	21.76	21.12				
100	QPSK	138	138	20.98	20.91	20.08	23.0	0.0		
100	QPSK	270	0	21.88	21.51	20.70				
100	16QAM	1	1	21.76	21.61	21.04				
100	16QAM	1	1	20.28	20.11	19.57	20.5	2.5		
100	16QAM	1	1	18.90	18.75	18.12				
100	16QAM	1	1	18.90	18.75	18.12				
Channel										
Frequency (MHz)										
90	QPSK	1	1	22.33	22.09	21.62	23.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	22.20	22.13	21.63	23.0	0.0		
Channel										
Frequency (MHz)										
70	QPSK	1	1	22.28	22.23	21.62	23.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	22.25	22.19	21.60	23.0	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	22.28	22.22	21.60	23.0	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	22.16	22.14	21.54	23.0	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	22.24	22.16	21.57	23.0	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	22.20	22.23	21.58	23.0	0.0		
Channel										
Frequency (MHz)										

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
100	Pl2 BPSK	1	1	24.50	24.53	23.40	28.0	0.0		
100	Pl2 BPSK	1	137	24.76	24.32	23.25				
100	Pl2 BPSK	1	271	24.30	24.12	22.95				
100	Pl2 BPSK	135	0	24.02	23.85	22.86	25.5	0.5		
100	Pl2 BPSK	135	69	24.54	24.17	23.11				
100	Pl2 BPSK	135	138	23.28	22.83	21.70				
100	Pl2 BPSK	270	0	24.69	24.22	23.15	25.5	0.5		
100	QPSK	1	1	25.07	24.91	23.47				
100	QPSK	1	137	24.27	23.90	22.81				
100	QPSK	1	271	23.44	23.05	21.93	28.0	0.0		
100	QPSK	135	0	23.14	23.37	22.34				
100	QPSK	135	69	24.44	24.06	22.93				
100	QPSK	138	138	23.28	22.77	21.74	28.0	0.0		
100	QPSK	270	0	23.61	23.58	22.19				
100	16QAM	1	1	24.14	23.70	22.81				
100	16QAM	1	1	22.42	22.08	21.36	23.5	2.5		
100	16QAM	1	1	20.70	20.67	20.00				
100	16QAM	1	1	20.70	20.67	20.00				
Channel										
Frequency (MHz)										
90	QPSK	1	1	24.56	24.51	23.35	28.0	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	25.05	24.47	23.35	28.0	0.0		
Channel										
Frequency (MHz)										
70	QPSK	1	1	24.89	24.63	23.32	28.0	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	24.95	24.43	23.46	28.0	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	25.06	24.45	23.38	28.0	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	24.95	24.54	23.29	28.0	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	24.96	24.54	23.44	28.0	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	25.03	24.45	23.35	28.0	0.0		
Channel										
Frequency (MHz)										



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
3499.98										
100	P12 BPSK	1	1		22.39		23.0	0.0		
100	P12 BPSK	1	137		22.45					
100	P12 BPSK	1	271		21.88					
100	P12 BPSK	135	0		22.24		22.5	0.5		
100	P12 BPSK	135	69		21.97		23.0	0.0		
100	P12 BPSK	135	138		21.70		22.5	0.5		
100	P12 BPSK	270	0		22.02					
100	QPSK	1	1		22.55					
100	QPSK	1	137		22.32		23.0	0.0		
100	QPSK	1	271		21.40					
100	QPSK	135	0		21.58					
100	QPSK	135	69		22.07		23.0	0.0		
100	QPSK	135	138		20.83					
100	QPSK	270	0		21.56		22.0	1.0		
100	16QAM	1	1		22.02		22.0	1.0		
100	16QAM	1	1		20.42		20.5	2.5		
100	256QAM	1	1		18.55		18.5	4.5		
Channel										
Frequency (MHz)										
63300										
90	QPSK	1	1		63393	63366	Tune-up limit (dBm)	MPR (dB)		
					22.43	22.44	23.0	0.0		
Channel										
Frequency (MHz)										
63699										
80	QPSK	1	1		63698	63400	Tune-up limit (dBm)	MPR (dB)		
					22.51	22.51	23.0	0.0		
Channel										
Frequency (MHz)										
63234										
70	QPSK	1	1		63332	63432	Tune-up limit (dBm)	MPR (dB)		
					22.39	22.40	23.0	0.0		
Channel										
Frequency (MHz)										
63200										
60	QPSK	1	1		63332	63666	Tune-up limit (dBm)	MPR (dB)		
					22.63	22.51	23.0	0.0		
Channel										
Frequency (MHz)										
63168										
50	QPSK	1	1		63332	63000	Tune-up limit (dBm)	MPR (dB)		
					22.43	22.51	23.0	0.0		
Channel										
Frequency (MHz)										
63134										
40	QPSK	1	1		63332	63532	Tune-up limit (dBm)	MPR (dB)		
					22.44	22.44	23.0	0.0		
Channel										
Frequency (MHz)										
63100										
30	QPSK	1	1		63332	63666	Tune-up limit (dBm)	MPR (dB)		
					22.40	22.45	23.0	0.0		
Channel										
Frequency (MHz)										
63065										
20	QPSK	1	1		63332	63000	Tune-up limit (dBm)	MPR (dB)		
					22.48	22.53	23.0	0.0		

Par27Q n77 HPUE_FCC_Ant 8										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
3499.98										
100	P12 BPSK	1	1		24.82					
100	P12 BPSK	1	137		24.83				28.0	0.0
100	P12 BPSK	1	271		24.26					
100	P12 BPSK	135	0		23.85				25.5	0.5
100	P12 BPSK	135	69		24.42				28.0	0.0
100	P12 BPSK	135	138		23.03				25.5	0.5
100	P12 BPSK	270	0		24.41					
100	QPSK	1	1		24.97					
100	QPSK	1	137		24.07				28.0	0.0
100	QPSK	1	271		23.28					
100	QPSK	135	0		23.58					
100	QPSK	135	69		24.32				28.0	0.0
100	QPSK	135	138		23.95					
100	QPSK	270	0		23.37				28.0	1.0
100	16QAM	1	1		24.03				25.0	1.0
100	16QAM	1	1		22.28				23.5	2.5
100	256QAM	1	1		20.57				21.5	4.5
Channel										
Frequency (MHz)										
63000										
90	QPSK	1	1		63393	63666	Tune-up limit (dBm)	MPR (dB)		
					24.70	24.73	24.83	28.0	0.0	
Channel										
Frequency (MHz)										
63699										
80	QPSK	1	1		63698	63400	Tune-up limit (dBm)	MPR (dB)		
					24.73	24.83	24.73	28.0	0.0	
Channel										
Frequency (MHz)										
63234										
70	QPSK	1	1		63332	63432	Tune-up limit (dBm)	MPR (dB)		
					24.61	24.70	24.85	28.0	0.0	
Channel										
Frequency (MHz)										
63200										
60	QPSK	1	1		63332	63666	Tune-up limit (dBm)	MPR (dB)		
					24.81	24.78	24.71	28.0	0.0	
Channel										
Frequency (MHz)										
63168										
50	QPSK	1	1		63332	63000	Tune-up limit (dBm)	MPR (dB)		
					24.74	24.71	24.76	28.0	0.0	
Channel										
Frequency (MHz)										
63134										
40	QPSK	1	1		63332	63532	Tune-up limit (dBm)	MPR (dB)		
					24.79	24.81	24.76	28.0	0.0	
Channel										
Frequency (MHz)										
63100										
30	QPSK	1	1		63332	63666	Tune-up limit (dBm)	MPR (dB)		
					24.81	24.78	24.81	28.0	0.0	
Channel										
Frequency (MHz)										
63065										
20	QPSK	1	1		63332	63000	Tune-up limit (dBm)	MPR (dB)		
					24.74	24.75	24.85	28.0	0.0	



Part270 n78_FCC_Ant 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	Pi2 BPSK	1	1	15.10	15.10	15.10	18.0	0.0
100	Pi2 BPSK	1	137	15.23	15.23	15.23	18.0	0.0
100	Pi2 BPSK	1	271	15.24	15.24	15.24	18.0	0.0
100	Pi2 BPSK	135	0	15.15	15.15	15.15	18.0	0.0
100	Pi2 BPSK	135	69	14.95	14.95	14.95	18.0	0.0
100	Pi2 BPSK	135	138	15.35	15.35	15.35	18.0	0.0
100	Pi2 BPSK	270	0	15.11	15.11	15.11	18.0	0.0
100	QPSK	1	1	15.27	15.27	15.27	18.0	0.0
100	QPSK	1	137	15.09	15.09	15.09	18.0	0.0
100	QPSK	11	271	15.21	15.21	15.21	18.0	0.0
100	QPSK	135	0	15.25	15.25	15.25	18.0	0.0
100	QPSK	135	69	15.25	15.25	15.25	18.0	0.0
100	QPSK	135	138	15.14	15.14	15.14	18.0	0.0
100	QPSK	270	0	15.15	15.15	15.15	18.0	0.0
100	16QAM	1	1	15.02	15.02	15.02	18.0	0.0
100	16QAM	1	1	15.16	15.16	15.16	18.0	0.0
100	256QAM	1	1	15.19	15.19	15.19	18.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.32	15.32	15.32	18.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.33	15.34	15.25	18.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.33	15.20	15.34	18.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.20	15.35	15.32	18.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.19	15.38	15.33	18.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.34	15.28	15.25	18.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.24	15.34	15.27	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.20	15.35	15.30	18.0	0.0

Part27Q n78_FCC Ant_5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	Pi2 BPSK	1	1	15.05	15.05	15.05	18.0	0.0
100	Pi2 BPSK	1	137	15.15	15.15	15.15	18.0	0.0
100	Pi2 BPSK	1	271	15.21	15.21	15.21	18.0	0.0
100	Pi2 BPSK	135	0	15.09	15.09	15.09	18.0	0.0
100	Pi2 BPSK	135	69	14.77	14.77	14.77	18.0	0.0
100	Pi2 BPSK	135	138	15.19	15.19	15.19	18.0	0.0
100	Pi2 BPSK	270	0	15.06	15.06	15.06	18.0	0.0
100	QPSK	1	1	15.28	15.28	15.28	18.0	0.0
100	QPSK	1	137	15.05	15.05	15.05	18.0	0.0
100	QPSK	11	271	15.12	15.12	15.12	18.0	0.0
100	QPSK	135	0	15.07	15.07	15.07	18.0	0.0
100	QPSK	135	69	15.08	15.08	15.08	18.0	0.0
100	QPSK	135	138	15.06	15.06	15.06	18.0	0.0
100	QPSK	270	0	14.98	14.98	14.98	18.0	0.0
100	16QAM	1	1	14.88	14.88	14.88	18.0	0.0
100	16QAM	1	1	15.19	15.19	15.19	18.0	0.0
100	256QAM	1	1	15.17	15.17	15.17	18.0	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	15.26	15.17	15.10	18.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.18	15.17	15.12	18.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.23	15.15	15.18	18.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.27	15.19	15.19	18.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.23	15.20	15.11	18.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.23	15.25	15.15	18.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.21	15.27	15.09	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.24	15.27	15.21	18.0	0.0



n71_Ant 0							
BW (MHz)	Modulation	FE Size	FE Offset	Power Low Ch. 1 (mW)	Power High Ch. 1 (mW)	Turn-up time (min)	APRS (dB)
Channel							
Frequency (MHz)							
20	P12 BPSK	1	1	23.14	23.98	23.60	
20	P12 BPSK	1	53	22.87	22.98	22.98	24.0
20	P12 BPSK	1	104	22.67	22.98	22.93	
20	P12 BPSK	50	5	22.50	22.90	22.50	23.5
20	P12 BPSK	50	38	22.33	22.90	22.38	24.1
20	P12 BPSK	50	56	22.20	22.41	22.38	23.0
20	P12 BPSK	100	0	22.38	22.45	22.48	
20	QPSK	1	1	23.18	23.99	23.14	24.0
20	QPSK	1	53	22.87	22.99	22.90	
20	QPSK	1	104	22.61	22.99	22.93	
20	QPSK	50	0	21.83	22.94	21.95	23.0
20	QPSK	50	38	21.65	22.93	21.83	24.0
20	QPSK	50	56	21.58	21.94	21.82	23.0
20	QPSK	100	0	21.87	21.97	21.96	
20	INQAM	1	1	21.13	22.07	21.96	23.0
20	INQAM	1	1	20.82	20.87	20.85	21.5
20	ZS3QAM	1	1	12.77	18.90	18.94	15.8
Channel							
Frequency (MHz)							
15	QPSK	1	1	22.18	22.93	22.55	24.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	23.02	23.10	23.08	24.0
Channel							
Frequency (MHz)							
5	QPSK	1	1	23.00	23.15	23.07	24.0

n71_Ant 4							
BW (MHz)	Modulation	FE Size	FE Offset	Power Low Ch. 1 (mW)	Power High Ch. 1 (mW)	Turn-up time (min)	APRS (dB)
Channel							
Frequency (MHz)							
20	P12 BPSK	1	1	22.11	22.98	22.97	
20	P12 BPSK	1	53	22.81	22.98	22.91	24.0
20	P12 BPSK	1	104	22.72	22.91	22.72	
20	P12 BPSK	50	0	22.51	22.48	22.45	23.5
20	P12 BPSK	50	38	22.35	22.44	22.39	24.0
20	P12 BPSK	50	56	22.35	22.41	22.44	23.0
20	P12 BPSK	100	0	22.58	22.47	22.47	
20	QPSK	1	1	22.80	22.92	22.86	
20	QPSK	1	53	22.87	22.96	22.87	24.0
20	QPSK	1	104	22.81	22.92	22.73	
20	QPSK	50	0	22.66	22.11	22.08	23.0
20	QPSK	50	38	22.67	22.06	22.01	24.0
20	QPSK	50	56	21.95	21.95	21.95	23.0
20	QPSK	100	0	22.70	22.20	22.14	
20	INQAM	1	1	22.08	22.02	22.05	23.0
20	INQAM	1	1	20.54	20.48	20.50	21.0
20	ZS3QAM	1	1	12.78	18.84	18.80	14.7
Channel							
Frequency (MHz)							
10	QPSK	1	1	22.83	22.95	22.89	24.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	23.02	23.11	23.06	24.0
Channel							
Frequency (MHz)							
5	QPSK	1	1	22.98	23.06	23.03	24.0



n41_FCC_Ant 1										
DW (MHz)	Modulation	RIS Size	RIS Chnl	Power Low (W)	Power Max (W)	Power High (W)	Power Avg (W)	Power Spk (W)	Power Spk (dBm)	MFR (dB)
Channel										
Frequency (MHz)										
180	P25 GFSK	1	1	15.24	15.87	15.76				
180	P25 GFSK	1	137	15.73	16.13	16.04		17.5		0.0
180	P25 GFSK	1	271	16.05	16.68	16.66				
180	P25 GFSK	135	6	15.71	15.83	15.71		17.5		0.0
180	P25 GFSK	135	88	15.77	15.76	15.73		17.5		0.0
180	P25 GFSK	135	136	15.24	15.76	15.80				
180	P25 GFSK	270	0	15.73	16.04	16.07		17.5		0.0
180	CPFSK	1	1	16.05	16.14	16.05				
180	CPFSK	1	137	16.05	16.14	16.14		17.5		0.0
180	CPFSK	1	271	16.05	16.05	16.05				
180	CPFSK	135	6	16.05	16.14	16.02				
180	CPFSK	135	88	16.12	16.19	16.12		17.5		0.0
180	CPFSK	135	136	16.05	16.05	16.05				
180	CPFSK	270	0	16.05	16.12	16.08		17.5		0.0
180	16QAM	1	1	16.04	16.05	16.76		17.5		0.0
180	16QAM	1	1	16.04	16.10	16.01		17.5		0.0
180	25QPSK	1	1	16.05	16.11	16.08		17.5		0.0
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.07	16.05	16.13		17.5		0.0
Channel										
Frequency (MHz)										
90	CPFSK	1	1	16.07	16.05	16.13		17.5		0.0
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.08	16.11	16.05		17.5		0.0
Channel										
Frequency (MHz)										
50	CPFSK	1	1	16.08	16.11	16.08		17.5		0.0
Channel										
Frequency (MHz)										
40	CPFSK	1	1	16.08	16.11	16.08		17.5		0.0
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.05	16.06	16.12		17.5		0.0
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.05	16.06	16.12		17.5		0.0

n41_FCC_Ant 1_HPUE										
DW (MHz)	Modulation	RIS Size	RIS Chnl	Power Low (W)	Power Max (W)	Power High (W)	Power Avg (W)	Power Spk (W)	Power Spk (dBm)	MFR (dB)
Channel										
Frequency (MHz)										
180	P25 GFSK	1	1	15.53	16.21	16.22				
180	P25 GFSK	1	137	16.17	16.28	16.22		20.5		0.0
180	P25 GFSK	1	271	16.40	16.46	16.46				
180	P25 GFSK	135	6	16.08	16.25	16.17		20.5		0.0
180	P25 GFSK	135	88	16.16	16.23	16.21		20.5		0.0
180	P25 GFSK	135	136	16.21	16.24	16.22				
180	P25 GFSK	270	0	16.04	16.12	16.07		20.5		0.0
180	CPFSK	1	1	16.16	16.16	16.16				
180	CPFSK	1	137	16.30	16.45	16.25		20.5		0.0
180	CPFSK	1	271	16.16	16.31	16.21				
180	CPFSK	135	6	16.24	16.29	16.17				
180	CPFSK	135	88	16.27	16.38	16.22		20.5		0.0
180	CPFSK	135	136	16.20	16.26	16.17				
180	CPFSK	270	0	16.05	16.17	16.12		20.5		0.0
180	16QAM	1	1	16.13	16.40	16.28		20.5		0.0
180	16QAM	1	1	16.16	16.44	16.27		20.5		0.0
180	25QPSK	1	1	16.27	16.34	16.28		20.5		0.0
Channel										
Frequency (MHz)										
90	CPFSK	1	1	16.25	16.29	16.10		20.5		0.0
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.16	16.26	16.16		20.5		0.0
Channel										
Frequency (MHz)										
40	CPFSK	1	1	16.12	16.26	16.18		20.5		0.0
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.10	16.25	16.11		20.5		0.0
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.09	16.20	16.10		20.5		0.0
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.09	16.20	16.10		20.5		0.0



n41_FCC_Ant 2										
DW (MHz)	Modulation	RIS Size	RIS Chant	Power Low (24.75MHz)	Power Mid (24.75MHz)	Power High (24.75MHz)	Time-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
150	P25 GFSK	1	1	17.03	17.03	17.03				
150	P25 GFSK	1	137	17.03	17.03	17.03	18.5	0.0		
150	P25 GFSK	1	271	17.03	17.03	17.03				
150	P25 GFSK	135	6	16.95	17.05	16.98	18.5	0.0		
150	P25 GFSK	135	66	16.85	16.95	16.79	18.5	0.0		
150	P25 GFSK	135	134	16.95	17.05	16.91				
150	P25 GFSK	270	0	16.85	16.94	16.84	18.5	0.0		
150	CPFSK	1	1	17.03	17.03	17.03				
150	CPFSK	1	137	17.03	17.03	17.03	18.5	0.0		
150	CPFSK	1	271	16.97	17.23	17.03				
150	CPFSK	135	6	17.04	17.04	17.07				
150	CPFSK	135	66	16.97	17.15	17.02	18.5	0.0		
150	CPFSK	135	134	16.95	17.15	16.94				
150	CPFSK	270	0	16.95	17.15	16.98	18.5	0.0		
150	16QAM	1	1	17.03	17.03	17.03	18.5	0.0		
150	16QAM	1	1	16.97	17.04	16.92	18.5	0.0		
150	25QAM	1	1	16.98	17.04	16.98	18.5	0.0		
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.03	17.23	17.07	18.5	0.0		
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.07	17.23	17.04	18.5	0.0		
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.03	17.23	16.99	18.5	0.0		
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.04	17.11	17.11	18.5	0.0		
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.03	17.10	17.02	18.5	0.0		
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.04	17.11	17.09	18.5	0.0		
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.04	17.12	17.11	18.5	0.0		

n41_FCC_Ant 2_HPUE										
DW (MHz)	Modulation	RIS Size	RIS Chant	Power Low (24.75MHz)	Power Mid (24.75MHz)	Power High (24.75MHz)	Time-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
150	P25 GFSK	1	1	16.95	16.15	16.11				
150	P25 GFSK	1	137	16.17	16.21	16.18	21.5	0.0		
150	P25 GFSK	1	271	16.07	16.07	16.06				
150	P25 GFSK	135	6	16.08	16.27	16.14	21.5	0.0		
150	P25 GFSK	135	66	16.09	16.11	16.10	21.5	0.0		
150	P25 GFSK	135	134	16.07	16.28	16.15				
150	P25 GFSK	270	0	16.04	16.27	16.06	21.5	0.0		
150	CPFSK	1	1	16.03	16.03	16.03				
150	CPFSK	1	137	16.16	16.23	16.19	21.5	0.0		
150	CPFSK	1	271	16.16	16.16	16.15				
150	CPFSK	135	61	16.04	16.18	16.05				
150	CPFSK	135	66	16.14	16.22	16.07	21.5	0.0		
150	CPFSK	135	134	16.05	16.27	16.04				
150	CPFSK	270	0	16.05	16.28	16.14	21.5	0.0		
150	16QAM	1	1	16.21	16.31	16.24	21.5	0.0		
150	16QAM	1	1	16.03	16.12	16.02	21.5	0.0		
150	25QAM	1	1	16.22	16.31	16.12	21.5	0.0		
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.19	16.41	16.27	21.5	0.0		
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.22	16.26	16.24	21.5	0.0		
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.17	16.41	16.18	21.5	0.0		
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.26	16.40	16.27	21.5	0.0		
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.21	16.40	16.22	21.5	0.0		
Channel										
Frequency (MHz)										
30	CPFSK	1	1	16.23	16.28	16.24	21.5	0.0		
Channel										
Frequency (MHz)										
60	CPFSK	1	1	16.23	16.28	16.19	21.5	0.0		



n41_FCC_Ant 7										
DW (MHz)	Modulation	RIS Size	RIS Chant	Power Low (W)	Power Max (W)	Power High (W)	Time-up (min)	MFR (dB)		
Channel				20000	20000	20000				
Frequency (MHz)										
100	P12-BPSK	1	1	16.25	16.25	17.90				
100	P12-BPSK	1	107	17.27	16.15	17.81	10.0	0.0		
100	P12-BPSK	1	211	17.27	16.15	17.81				
100	P12-BPSK	100	6	17.55	16.55	17.84	18.0	0.0		
100	P12-BPSK	100	68	17.55	16.55	17.81	18.0	0.0		
100	P12-BPSK	100	136	17.55	16.55	17.80				
100	P12-BPSK	200	0	17.81	16.71	17.71	18.0	0.0		
100	QPSK	1	1	17.81	16.71	17.71				
100	QPSK	1	107	16.57	16.17	17.82	10.0	0.0		
100	QPSK	1	211	17.62	16.95	17.80				
100	QPSK	100	6	17.84	16.71	17.72				
100	QPSK	100	68	17.84	16.95	17.82	10.0	0.0		
100	QPSK	100	136	17.84	16.95	17.81				
100	QPSK	200	0	17.85	17.00	17.75	18.0	0.0		
100	16QAM	1	1	17.85	17.55	17.80	18.0	0.0		
100	64QAM	1	1	17.87	17.84	17.76	18.0	0.0		
100	256QAM	1	1	16.42	16.50	16.31	17.5	1.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
30	QPSK	1	1	17.05	16.11	17.78	18.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
60	QPSK	1	1	17.05	16.27	17.71	18.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
60	QPSK	1	1	17.05	16.12	17.63	18.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
60	QPSK	1	1	17.05	16.10	17.77	18.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
60	QPSK	1	1	17.05	16.14	17.67	18.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
30	QPSK	1	1	17.05	16.14	17.78	18.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
30	QPSK	1	1	17.05	16.09	17.66	18.0	0.0		

n41_FCC_Ant 7_HPUE										
DW (MHz)	Modulation	RIS Size	RIS Chant	Power Low (W)	Power Max (W)	Power High (W)	Time-up (min)	MFR (dB)		
Channel				20000	20000	20000				
Frequency (MHz)										
100	P12-BPSK	1	1	20.54	21.02	20.50				
100	P12-BPSK	1	107	20.56	21.04	20.50	22.0	0.0		
100	P12-BPSK	1	211	20.56	21.06	20.50				
100	P12-BPSK	100	6	20.53	20.95	20.50	22.0	0.0		
100	P12-BPSK	100	68	20.52	20.88	20.50	22.0	0.0		
100	P12-BPSK	100	136	20.51	20.84	20.50				
100	P12-BPSK	200	0	20.52	20.86	20.70	22.0	0.0		
100	QPSK	1	1	20.51	20.86	20.50				
100	QPSK	1	107	21.05	21.17	20.50	22.0	0.0		
100	QPSK	1	211	20.77	20.87	20.74				
100	QPSK	100	6	20.81	20.83	20.75				
100	QPSK	100	68	20.82	21.02	20.75	22.0	0.0		
100	QPSK	100	136	20.81	20.87	20.75				
100	QPSK	200	0	20.81	20.87	20.75	22.0	0.0		
100	16QAM	1	1	20.81	20.85	20.85	22.0	0.0		
100	64QAM	1	1	20.82	20.82	20.85	22.0	0.0		
100	256QAM	1	1	18.54	18.46	18.53	18.0	1.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
30	QPSK	1	1	20.99	21.00	20.95	22.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
60	QPSK	1	1	20.54	21.00	20.50	22.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
60	QPSK	1	1	20.52	21.15	20.80	22.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
60	QPSK	1	1	20.56	21.15	20.75	22.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
60	QPSK	1	1	21.02	21.15	20.80	22.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
30	QPSK	1	1	20.99	20.99	20.85	22.0	0.0		
Channel				20000	20000	20000				
Frequency (MHz)				20000	20000	20000				
30	QPSK	1	1	21.04	21.04	20.90	22.0	0.0		



n48_FCC_Part96_Ant 5

Dist (km)	Modulation	FSR Size	FSR Offset	Channel Low (MHz)	Channel High (MHz)	Channel Power (dBm)	Antenna Gain (dBi)	MPEL (dB)
Frequency (MHz)								
48	F3/4QAM	1	1	1620	1711	18.0		0.0
48	F3/4QAM	1	32	1620	1718	18.0		0.0
48	F3/4QAM	1	64	1620	1805	18.0		0.0
48	F3/4QAM	32	32	1620	1732	18.0		0.0
48	F3/4QAM	64	64	1620	1765	18.0		0.0
48	F3/4QAM	128	128	1620	1800	18.0		0.0
48	GFSK	1	1	1620	1630	18.0		0.0
48	GFSK	1	32	1620	1632	18.0		0.0
48	GFSK	1	64	1620	1636	18.0		0.0
48	GFSK	32	32	1620	1648	18.0		0.0
48	GFSK	64	64	1620	1660	18.0		0.0
48	GFSK	128	128	1620	1672	18.0		0.0
48	GFSK	256	256	1620	1692	18.0		0.0
48	MSK	1	1	1620	1624	18.0		0.0
48	MSK	1	32	1620	1632	18.0		0.0
48	MSK	1	64	1620	1636	18.0		0.0
48	MSK	32	32	1620	1648	18.0		0.0
48	MSK	64	64	1620	1660	18.0		0.0
48	MSK	128	128	1620	1672	18.0		0.0
48	MSK	256	256	1620	1692	18.0		0.0
48	MSK	512	512	1620	1704	18.0		0.0
Frequency (MHz)								
24	GFSK	1	1	1620	1709	18.0		0.0
Channel								
24	F3/4QAM	1	1	1620	1709	18.0		0.0
Frequency (MHz)								
24	GFSK	1	1	1620	1709	18.0		0.0



Par270 n77 FCC_Ant 1

EIRP (dBm)	Modulation	SS Size	SS Offset	Power		Power Spectral Density (dBm/Hz)	Tuning (MHz)	MNF (MHz)
				Max (dBm)	Min (dBm)			
Channel								
100	PSK256QAM	1	1	16.98	16.98	16.97	17.4	0.0
100	PSK256QAM	1	300	16.97	16.97	16.96	17.4	0.0
100	PSK256QAM	1	390	16.97	16.96	16.96	17.4	0.0
100	PSK256QAM	100	0	16.94	16.93	16.93	17.4	0.0
100	PSK256QAM	100	50	16.94	16.93	16.93	17.4	0.0
100	PSK256QAM	100	100	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	150	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	200	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	250	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	300	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	350	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	400	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	450	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	500	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	550	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	600	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	650	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	700	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	750	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	800	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	850	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	900	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	950	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	1000	16.93	16.92	16.92	17.4	0.0

Par270 n77 HPUE FCC_Ant 1

EIRP (dBm)	Modulation	SS Size	SS Offset	Power		Power Spectral Density (dBm/Hz)	Tuning (MHz)	MNF (MHz)
				Max (dBm)	Min (dBm)			
Channel								
100	PSK256QAM	1	1	16.98	16.98	16.97	17.4	0.0
100	PSK256QAM	1	100	16.98	16.97	16.96	17.4	0.0
100	PSK256QAM	1	200	16.98	16.97	16.96	17.4	0.0
100	PSK256QAM	100	0	16.94	16.93	16.93	17.4	0.0
100	PSK256QAM	100	50	16.94	16.93	16.93	17.4	0.0
100	PSK256QAM	100	100	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	150	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	200	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	250	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	300	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	350	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	400	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	450	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	500	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	550	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	600	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	650	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	700	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	750	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	800	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	850	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	900	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	950	16.93	16.92	16.92	17.4	0.0
100	PSK256QAM	100	1000	16.93	16.92	16.92	17.4	0.0



Par27Q n77_FCC_Ant 1									
EV (Hz)	Modulation	RB Size	RB Offset	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/Hz)	Transmission Rate (Mbps)	SNR (dB)	MCS (QAM)
Channel									
Channel 1 (MHz)									
180	PSK64QAM	1	1				17.5	0.0	
180	PSK64QAM	1	137				17.5	0.0	
180	PSK64QAM	1	271				17.5	0.0	
180	PSK64QAM	156	0				17.5	0.0	
180	PSK64QAM	156	36				17.5	0.0	
180	PSK64QAM	156	72				17.5	0.0	
180	QPSK	1	1				17.5	0.0	
180	QPSK	1	137				17.5	0.0	
180	QPSK	156	0				17.5	0.0	
180	QPSK	156	36				17.5	0.0	
180	QPSK	156	72				17.5	0.0	
180	QAM64	1	1				17.5	0.0	
180	QAM64	1	1				17.5	0.0	
Channel 2 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 3 (MHz)									
70	QPSK	1	1				17.5	0.0	
Channel 4 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 5 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 6 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 7 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 8 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 9 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 10 (MHz)									
80	QPSK	1	1				17.5	0.0	

Par27Q n77 HPUE_FCC_Ant 1									
EV (Hz)	Modulation	RB Size	RB Offset	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/Hz)	Power Spectral Density (dBm/Hz)	Transmission Rate (Mbps)	SNR (dB)	MCS (QAM)
Channel									
Channel 1 (MHz)									
180	PSK64QAM	1	1				17.5	0.0	
180	PSK64QAM	1	137				17.5	0.0	
180	PSK64QAM	1	271				17.5	0.0	
180	PSK64QAM	156	0				17.5	0.0	
180	PSK64QAM	156	36				17.5	0.0	
180	PSK64QAM	156	72				17.5	0.0	
180	QPSK	1	1				17.5	0.0	
180	QPSK	1	137				17.5	0.0	
180	QPSK	156	0				17.5	0.0	
180	QPSK	156	36				17.5	0.0	
180	QPSK	156	72				17.5	0.0	
180	QAM64	1	1				17.5	0.0	
180	QAM64	1	1				17.5	0.0	
Channel 2 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 3 (MHz)									
70	QPSK	1	1				17.5	0.0	
Channel 4 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 5 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 6 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 7 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 8 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 9 (MHz)									
80	QPSK	1	1				17.5	0.0	
Channel 10 (MHz)									
80	QPSK	1	1				17.5	0.0	



Par270 n77_FCC_Ant 8										
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (dBm)	Power Level (dBm)	Power Level (dBm)	Transmission (dB)	APR (dB)		
Channel										
Channel 1										
192	PIRPSK	1	1	15.0	15.0	15.0				
192	PIRPSK	1	100	15.0	15.0	15.0	17.0	0.0		
192	PIRPSK	1	200	15.0	15.0	15.0				
192	PIRPSK	100	0	15.0	15.0	15.0	17.0	0.0		
192	PIRPSK	100	100	15.0	15.0	15.0	17.0	0.0		
192	PIRPSK	100	200	15.0	15.0	15.0				
192	QPSK	1	1	15.0	15.0	15.0				
192	QPSK	1	100	15.0	15.0	15.0	17.0	0.0		
192	QPSK	100	0	15.0	15.0	15.0				
192	QPSK	100	100	15.0	15.0	15.0	17.0	0.0		
192	QPSK	100	200	15.0	15.0	15.0				
192	PSK	1	1	15.0	15.0	15.0				
192	PSK	1	100	15.0	15.0	15.0	17.0	0.0		
192	PSK	100	0	15.0	15.0	15.0				
192	PSK	100	100	15.0	15.0	15.0	17.0	0.0		
192	PSK	100	200	15.0	15.0	15.0				
Channel										
80	QPSK	1	1	15.0	15.0	15.0	17.0	0.0		
Channel										
80	QPSK	1	1	15.0	15.0	15.0				
Channel										
70	QPSK	1	1	15.0	15.0	15.0	17.0	0.0		
Channel										
60	QPSK	1	1	15.0	15.0	15.0				
Channel										
50	QPSK	1	1	15.0	15.0	15.0	17.0	0.0		
Channel										
40	QPSK	1	1	15.0	15.0	15.0				
Channel										
30	QPSK	1	1	15.0	15.0	15.0	17.0	0.0		
Channel										
20	QPSK	1	1	15.0	15.0	15.0				

Par270 n77 HPUE_FCC_Ant 8										
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (dBm)	Power Level (dBm)	Power Level (dBm)	Transmission (dB)	APR (dB)		
Channel										
Channel 1										
192	PIRPSK	1	1	15.0	15.0	15.0				
192	PIRPSK	1	100	15.0	15.0	15.0	19.0	0.0		
192	PIRPSK	1	200	15.0	15.0	15.0				
192	PIRPSK	100	0	15.0	15.0	15.0	19.0	0.0		
192	PIRPSK	100	100	15.0	15.0	15.0	19.0	0.0		
192	PIRPSK	100	200	15.0	15.0	15.0				
192	QPSK	1	1	15.0	15.0	15.0				
192	QPSK	1	100	15.0	15.0	15.0	19.0	0.0		
192	QPSK	100	0	15.0	15.0	15.0				
192	QPSK	100	100	15.0	15.0	15.0	19.0	0.0		
192	QPSK	100	200	15.0	15.0	15.0				
192	PSK	1	1	15.0	15.0	15.0				
192	PSK	1	100	15.0	15.0	15.0	19.0	0.0		
192	PSK	100	0	15.0	15.0	15.0				
192	PSK	100	100	15.0	15.0	15.0	19.0	0.0		
192	PSK	100	200	15.0	15.0	15.0				
Channel										
80	QPSK	1	1	15.0	15.0	15.0	19.0	0.0		
Channel										
80	QPSK	1	1	15.0	15.0	15.0				
Channel										
70	QPSK	1	1	15.0	15.0	15.0	19.0	0.0		
Channel										
60	QPSK	1	1	15.0	15.0	15.0				
Channel										
50	QPSK	1	1	15.0	15.0	15.0	19.0	0.0		
Channel										
40	QPSK	1	1	15.0	15.0	15.0				
Channel										
30	QPSK	1	1	15.0	15.0	15.0	19.0	0.0		
Channel										
20	QPSK	1	1	15.0	15.0	15.0				



Part270 n78_FCC_Ant_5									
RF (MHz)	Modulation	RF Size	RF Offset	Power Type (Ch. 1/Freq.)	Power Rate (Ch. 1/Freq.)	Power Type (Ch. 2/Freq.)	Power Rate (Ch. 2/Freq.)	Transmit (dB)	Gain (dB)
Channel									
180	PPMSSK	1	1		10.0				
180	PPMSSK	1	1	10.0	10.0			14.5	0.0
180	PPMSSK	1	211	10.0	10.0			14.5	0.0
180	PPMSSK	100	0	10.0	10.0			14.5	0.0
180	PPMSSK	100	80	10.0	10.0			14.5	0.0
180	PPMSSK	100	160	10.0	10.0			14.5	0.0
180	PPMSSK	100	240	10.0	10.0			14.5	0.0
180	OFDM	1	1	10.0	10.0			14.5	0.0
180	OFDM	1	211	10.0	10.0			14.5	0.0
180	OFDM	100	0	10.0	10.0			14.5	0.0
180	OFDM	100	80	10.0	10.0			14.5	0.0
180	OFDM	100	160	10.0	10.0			14.5	0.0
180	OFDM	100	240	10.0	10.0			14.5	0.0
180	PSK20	1	1	10.0	10.0			14.5	0.0
Channel									
180	PSK20	1	1	10.0	10.0	10.0	10.0	Transmit (dB)	Gain (dB)
90	OFDM	1	1	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	1	211	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	100	0	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	100	80	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	100	160	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	100	240	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	1	1	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	1	211	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	0	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	80	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	160	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	240	10.0	10.0	10.0	10.0	14.5	0.0
Channel									
90	PSK20	1	1	10.0	10.0	10.0	10.0	Transmit (dB)	Gain (dB)
90	PSK20	1	211	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	0	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	80	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	160	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	240	10.0	10.0	10.0	10.0	14.5	0.0

Part27Q n78_FCC_Ant_5									
RF (MHz)	Modulation	RF Size	RF Offset	Power Type (Ch. 1/Freq.)	Power Rate (Ch. 1/Freq.)	Power Type (Ch. 2/Freq.)	Power Rate (Ch. 2/Freq.)	Transmit (dB)	Gain (dB)
Channel									
180	PPMSSK	1	1		10.0				
180	PPMSSK	1	1	10.0	10.0			14.5	0.0
180	PPMSSK	1	711	10.0	10.0			14.5	0.0
180	PPMSSK	100	0	10.0	10.0			14.5	0.0
180	PPMSSK	100	80	10.0	10.0			14.5	0.0
180	PPMSSK	100	160	10.0	10.0			14.5	0.0
180	PPMSSK	100	240	10.0	10.0			14.5	0.0
180	OFDM	1	1	10.0	10.0			14.5	0.0
180	OFDM	1	711	10.0	10.0			14.5	0.0
180	OFDM	100	0	10.0	10.0			14.5	0.0
180	OFDM	100	80	10.0	10.0			14.5	0.0
180	OFDM	100	160	10.0	10.0			14.5	0.0
180	OFDM	100	240	10.0	10.0			14.5	0.0
180	PSK20	1	1	10.0	10.0			14.5	0.0
180	PSK20	1	711	10.0	10.0			14.5	0.0
180	PSK20	100	0	10.0	10.0			14.5	0.0
180	PSK20	100	80	10.0	10.0			14.5	0.0
180	PSK20	100	160	10.0	10.0			14.5	0.0
180	PSK20	100	240	10.0	10.0			14.5	0.0
Channel									
90	OFDM	1	1	10.0	10.0	10.0	10.0	Transmit (dB)	Gain (dB)
90	OFDM	1	711	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	100	0	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	100	80	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	100	160	10.0	10.0	10.0	10.0	14.5	0.0
90	OFDM	100	240	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	1	1	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	1	711	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	0	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	80	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	160	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	240	10.0	10.0	10.0	10.0	14.5	0.0
Channel									
90	PSK20	1	1	10.0	10.0	10.0	10.0	Transmit (dB)	Gain (dB)
90	PSK20	1	711	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	0	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	80	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	160	10.0	10.0	10.0	10.0	14.5	0.0
90	PSK20	100	240	10.0	10.0	10.0	10.0	14.5	0.0



n26_Ant 0									
SV (MHz)	Modulation	RB Size	RB Offset	Power (W)	Power (dBm)	Power (dBm)	Power (dBm)	Time-up Int. (min)	MFR (dB)
Channel									
Frequency (MHz)									
20	PUSC BPSK	1	1	21.25	21.24	21.25		22.0	0.0
20	PUSC BPSK	1	15	21.11	21.11	21.10		22.0	0.0
20	PUSC BPSK	1	104	21.05	21.05	21.05		22.0	0.0
20	PUSC BPSK	20	0	21.05	21.05	21.04		22.0	0.0
20	PUSC BPSK	20	38	21.05	21.05	21.07		22.0	0.0
20	PUSC BPSK	20	56	20.99	21.05	21.03		22.0	0.0
20	PUSC BPSK	20	5	20.99	21.05	20.97		22.0	0.0
20	CPFSK	1	1	21.22	21.42	21.27		22.0	0.0
20	CPFSK	1	15	21.17	21.18	21.18		22.0	0.0
20	CPFSK	1	104	21.14	21.14	21.14		22.0	0.0
20	CPFSK	20	0	21.01	21.12	21.01		22.0	0.0
20	CPFSK	20	38	21.02	21.02	21.02		22.0	0.0
20	CPFSK	20	56	20.98	21.02	20.95		22.0	0.0
20	CPFSK	20	5	20.95	20.98	21.02		22.0	0.0
20	HCQAM	1	1	20.96	21.10	20.94		22.0	0.0
20	HCQAM	1	1	20.97	20.71	20.93		21.5	0.5
20	HCQAM	1	1	20.47	18.95	18.97		18.5	2.5
Channel									
Frequency (MHz)									
15	CPFSK	1	1	21.16	21.17	21.22		22.0	0.0
Channel									
Frequency (MHz)									
10	CPFSK	1	1	21.21	21.17	21.18		22.0	0.0
Channel									
Frequency (MHz)									
1	CPFSK	1	1	21.24	21.17	21.15		22.0	0.0

n26_Ant 4									
SV (MHz)	Modulation	RB Size	RB Offset	Power (W)	Power (dBm)	Power (dBm)	Power (dBm)	Time-up Int. (min)	MFR (dB)
Channel									
Frequency (MHz)									
20	PUSC BPSK	1	1	21.25	21.16	21.05		22.0	0.0
20	PUSC BPSK	1	15	20.98	21.11	21.10		22.0	0.0
20	PUSC BPSK	1	104	21.02	21.02	21.02		22.0	0.0
20	PUSC BPSK	20	0	21.02	21.04	21.05		22.0	0.0
20	PUSC BPSK	20	38	21.07	21.05	21.06		22.0	0.0
20	PUSC BPSK	20	56	20.95	21.05	21.00		22.0	0.0
20	PUSC BPSK	20	5	20.95	20.79	20.90		22.0	0.0
20	CPFSK	1	1	21.20	21.40	21.15		22.0	0.0
20	CPFSK	1	15	21.15	21.15	21.15		22.0	0.0
20	CPFSK	1	104	21.09	21.09	21.09		22.0	0.0
20	CPFSK	20	0	21.00	21.12	21.00		22.0	0.0
20	CPFSK	20	38	21.01	21.01	21.02		22.0	0.0
20	CPFSK	20	56	20.97	21.01	20.96		22.0	0.0
20	CPFSK	20	5	20.93	20.98	21.01		22.0	0.0
20	HCQAM	1	1	20.94	21.12	20.92		22.0	0.0
20	HCQAM	1	1	20.95	20.90	20.94		21.5	0.5
20	HCQAM	1	1	18.95	18.70	18.91		18.5	2.5
Channel									
Frequency (MHz)									
15	CPFSK	1	1	20.99	21.04	21.03		22.0	0.0
Channel									
Frequency (MHz)									
10	CPFSK	1	1	20.93	21.10	21.00		22.0	0.0
Channel									
Frequency (MHz)									
1	CPFSK	1	1	20.96	21.04	20.98		22.0	0.0

n30_Ant 1									
SV (MHz)	Modulation	RB Size	RB Offset	Power (W)	Power (dBm)	Power (dBm)	Power (dBm)	Time-up Int. (min)	MFR (dB)
Channel									
Frequency (MHz)									
10	PUSC BPSK	1	1	18.70				18.5	0.0
10	PUSC BPSK	1	26	18.41				18.5	0.0
10	PUSC BPSK	1	100	18.38				18.5	0.0
10	PUSC BPSK	20	0	18.40				18.5	0.0
10	PUSC BPSK	20	14	18.38				18.5	0.0
10	PUSC BPSK	20	27	18.40				18.5	0.0
10	PUSC BPSK	20	5	18.40				18.5	0.0
10	CPFSK	1	1	18.70				18.5	0.0
10	CPFSK	1	26	18.41				18.5	0.0
10	CPFSK	1	100	18.40				18.5	0.0
10	CPFSK	20	0	18.40				18.5	0.0
10	CPFSK	20	14	18.38				18.5	0.0
10	CPFSK	20	27	18.40				18.5	0.0
10	CPFSK	20	5	18.40				18.5	0.0
10	HCQAM	1	1	18.38				18.5	0.0
10	HCQAM	1	1	18.47				18.5	0.0
10	HCQAM	1	1	18.44				18.5	0.0
Channel									
Frequency (MHz)									
0	CPFSK	1	1	18.54	18.48	18.61		18.5	0.0

n30_Ant 4(ENDC)									
SV (MHz)	Modulation	RB Size	RB Offset	Power (W)	Power (dBm)	Power (dBm)	Power (dBm)	Time-up Int. (min)	MFR (dB)
Channel									
Frequency (MHz)									
10	PUSC BPSK	1	1	18.56				18.0	0.0
10	PUSC BPSK	1	26	18.28				18.0	0.0
10	PUSC BPSK	1	100	18.26				18.0	0.0
10	PUSC BPSK	20	0	18.27				18.0	0.0
10	PUSC BPSK	20	14	18.25				18.0	0.0
10	PUSC BPSK	20	27	18.27				18.0	0.0
10	PUSC BPSK	20	5	18.27				18.0	0.0
10	CPFSK	1	1	18.56				18.0	0.0
10	CPFSK	1	26	18.28				18.0	0.0
10	CPFSK	1	100	18.24				18.0	0.0
10	CPFSK	20	0	18.27				18.0	0.0
10	CPFSK	20	14	18.25				18.0	0.0
10	CPFSK	20	27	18.27				18.0	0.0
10	CPFSK	20	5	18.27				18.0	0.0
10	HCQAM	1	1	18.24				18.0	0.0
10	HCQAM	1	1	18.47				18.0	0.0
10	HCQAM	1	1	18.44				18.0	0.0
Channel									
Frequency (MHz)									
1	CPFSK	1	1	18.56	18.50	18.62		18.0	0.0



n66_Ant 0									
DV (MHz)	Modulation	IS Size	IS Offset	Power Twp. Ch. / Freq.	Power Mod. Ch. / Freq.	Power Twp. Ch. / Freq.	Turn-up Int. (dB)	MPTI (dB)	
Channel									
Frequency (MHz)									
40	PFD BRFC	1	1	18.80	17.15	18.85	18.0	0.0	
40	PFD BRFC	1	10	17.92	16.30	18.50	18.0	0.0	
40	PFD BRFC	1	204	18.36	17.20	17.57	18.0	0.0	
40	PFD BRFC	100	0	17.92	17.92	18.50	18.0	0.0	
40	PFD BRFC	100	64	17.92	17.13	18.53	18.0	0.0	
40	PFD BRFC	100	108	18.80	18.80	17.41	18.0	0.0	
40	PFD BRFC	200	0	18.80	17.15	18.50	18.0	0.0	
40	QPSK	1	1	17.70	17.40	17.20			
40	QPSK	1	100	17.30	17.30	17.20	18.0	0.0	
40	QPSK	1	204	17.21	17.10	17.43			
40	QPSK	100	0	17.10	18.30	17.41	18.0	0.0	
40	QPSK	100	64	17.92	17.10	17.52	18.0	0.0	
40	QPSK	100	108	18.00	18.00	17.20	18.0	0.0	
40	QPSK	200	0	18.00	18.00	17.20	18.0	0.0	
40	HQDM	1	1	17.00	17.00	17.43	18.0	0.0	
40	HQDM	1	1	18.50	17.00	17.43	18.0	0.0	
40	HQDM	1	1	17.90	17.90	17.00	18.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	17.40	17.20	16.99	18.0	0.0	
30	QPSK	1	100	18.000	18.000	18.000	Turn-up Int (dB)	MPTI (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.11	17.42	17.20	18.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.42	18.30	18.20	18.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.50	18.50	18.50	Turn-up Int (dB)	MPTI (dB)	
Channel									
Frequency (MHz)									
5	QPSK	1	1	17.76	18.20	18.50	18.0	0.0	

n66_Ant 4									
DV (MHz)	Modulation	IS Size	IS Offset	Power Twp. Ch. / Freq.	Power Mod. Ch. / Freq.	Power Twp. Ch. / Freq.	Turn-up Int. (dB)	MPTI (dB)	
Channel									
Frequency (MHz)									
40	PFD BRFC	1	1	18.50	18.70	18.50			
40	PFD BRFC	1	100	18.20	18.20	18.50	18.0	0.0	
40	PFD BRFC	1	204	18.50	18.57	18.54			
40	PFD BRFC	100	0	18.20	18.70	18.40	18.0	0.0	
40	PFD BRFC	100	64	18.47	18.51	18.42	18.0	0.0	
40	PFD BRFC	100	108	18.50	18.70	18.54	18.0	0.0	
40	PFD BRFC	200	0	18.70	18.64	18.50			
40	QPSK	1	1	18.71	18.70	18.70			
40	QPSK	1	100	18.20	18.70	18.50	18.0	0.0	
40	QPSK	1	204	18.50	18.45	18.57			
40	QPSK	100	0	18.20	18.42	18.44	18.0	0.0	
40	QPSK	100	64	18.40	18.50	18.45	18.0	0.0	
40	QPSK	100	108	18.40	18.40	18.40	18.0	1.0	
40	QPSK	200	0	18.40	18.40	18.40			
40	HQDM	1	1	18.20	18.42	18.40	18.0	1.0	
40	HQDM	1	1	18.50	18.57	18.54	17.0	2.0	
40	HQDM	1	1	18.41	18.20	18.20	17.0	4.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.00	18.00	18.00	Turn-up Int (dB)	MPTI (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.50	18.70	18.61	18.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.20	18.00	18.00	18.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.10	18.40	18.50	18.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	18.50	18.30	18.50	18.0	0.0	

n70_Ant 0									
DV (MHz)	Modulation	IS Size	IS Offset	Power Twp. Ch. / Freq.	Power Mod. Ch. / Freq.	Power Twp. Ch. / Freq.	Turn-up Int. (dB)	MPTI (dB)	
Channel									
Frequency (MHz)									
15	PFD BRFC	1	1	18.31		18.31			
15	PFD BRFC	1	40	18.30		18.30	18.0	0.0	
15	PFD BRFC	1	70	18.20		18.20			
15	PFD BRFC	36	0	18.42		18.42	18.0	0.0	
15	PFD BRFC	36	20	18.20		18.20	18.0	0.0	
15	PFD BRFC	36	40	18.20		18.20	18.0	0.0	
15	PFD BRFC	70	0	18.21		18.21			
15	QPSK	1	1	18.44		18.44			
15	QPSK	1	40	18.50		18.50	18.0	0.0	
15	QPSK	1	70	18.20		18.20			
15	QPSK	36	0	18.10		18.10	18.0	0.0	
15	QPSK	36	20	18.30		18.30	18.0	0.0	
15	QPSK	36	40	18.10		18.10	18.0	0.0	
15	QPSK	70	0	18.51		18.51			
15	HQDM	1	1	18.30		18.30	18.0	0.0	
15	HQDM	1	1	18.24		18.24	18.0	0.0	
15	HQDM	1	1	18.27		18.27	18.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.28	18.34	18.27	24.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	18.08	18.37	18.34	24.0	0.0	

n70_Ant 4									
DV (MHz)	Modulation	IS Size	IS Offset	Power Twp. Ch. / Freq.	Power Mod. Ch. / Freq.	Power Twp. Ch. / Freq.	Turn-up Int. (dB)	MPTI (dB)	
Channel									
Frequency (MHz)									
15	PFD BRFC	1	1	18.30		18.30			
15	PFD BRFC	1	40	18.30		18.30	20.0	0.0	
15	PFD BRFC	1	70	18.20		18.20			
15	PFD BRFC	36	0	18.42		18.42	20.0	0.0	
15	PFD BRFC	36	20	18.20		18.20	20.0	0.0	
15	PFD BRFC	36	40	18.20		18.20	20.0	0.0	
15	PFD BRFC	70	0	18.21		18.21			
15	QPSK	1	1	18.44		18.44			
15	QPSK	1	40	18.50		18.50	20.0	0.0	
15	QPSK	1	70	18.20		18.20			
15	QPSK	36	0	18.10		18.10	20.0	0.0	
15	QPSK	36	20	18.30		18.30	20.0	0.0	
15	QPSK	36	40	18.10		18.10	20.0	0.0	
15	QPSK	70	0	18.51		18.51			
15	HQDM	1	1	18.21		18.21	20.0	0.0	
15	HQDM	1	1	18.15		18.15	20.0	0.0	
15	HQDM	1	1	18.25		18.25	18.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	18.35	18.31	18.24	24.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	19.20	19.31	19.20	24.0	0.0	



n71_Ant 0											
SRV (MHz)	Modulation	SRV Size	SRV Offset	Power Type	Power Min (Ch. 1 Freq.)	Power Max (Ch. 1 Freq.)	Power Type	Power Min (Ch. 2 Freq.)	Power Max (Ch. 2 Freq.)	Time-up time (min)	MFR (dB)
Channel				134.000	134.000	134.000	Time-up time (min)		MFR (dB)		
Frequency (MHz)											
20	PSS-SSB	1	1	23.14	23.09	23.20				24.0	0.0
20	PSS-SSB	1	10	22.97	22.94	22.98					
20	PSS-SSB	1	100	22.87	22.95	22.83					
20	PSS-SSB	50	0	22.95	22.95	22.95				24.0	0.0
20	PSS-SSB	50	24	22.83	22.94	22.88				24.0	0.0
20	PSS-SSB	50	50	22.95	22.91	22.28				23.5	0.5
20	PSS-SSB	100	0	22.98	22.94	22.94					
20	CPSS	1	1	22.79	22.72	22.74					
20	CPSS	1	10	22.77	22.84	22.81				24.0	0.0
20	CPSS	1	100	22.62	22.62	22.68					
20	CPSS	50	0	22.81	22.84	22.86				23.0	0.0
20	CPSS	50	24	22.65	22.65	22.62				24.0	0.0
20	CPSS	50	50	22.89	22.90	22.82				23.0	1.0
20	CPSS	100	0	22.97	22.84	22.84				23.0	1.0
20	ISDM	1	1	21.65	22.07	21.96				23.0	1.0
20	ISDM	1	1	20.62	20.67	20.60				23.5	2.5
20	ISDM	1	1	19.77	19.80	19.84				19.5	4.5
Channel				134.100	134.100	134.100	Time-up time (min)		MFR (dB)		
Frequency (MHz)											
10	CPSS	1	1	22.61	22.63	22.66				24.0	0.0
Channel				134.200	134.200	134.200	Time-up time (min)		MFR (dB)		
Frequency (MHz)											
10	CPSS	1	1	22.52	22.516	22.59				24.0	0.0
Channel				134.300	134.300	134.300	Time-up time (min)		MFR (dB)		
Frequency (MHz)											
0	CPSS	1	1	22.68	22.63	22.67				24.0	0.0

n71_Ant 4											
SRV (MHz)	Modulation	SRV Size	SRV Offset	Power Type	Power Min (Ch. 1 Freq.)	Power Max (Ch. 1 Freq.)	Power Type	Power Min (Ch. 2 Freq.)	Power Max (Ch. 2 Freq.)	Time-up time (min)	MFR (dB)
Channel				134.400	134.400	134.400	Time-up time (min)		MFR (dB)		
Frequency (MHz)											
20	PSS-SSB	1	1	22.11	22.09	22.07				24.0	0.0
20	PSS-SSB	1	10	22.01	22.00	22.01					
20	PSS-SSB	1	100	22.72	22.81	22.72					
20	PSS-SSB	50	0	22.71	22.68	22.68				23.5	0.5
20	PSS-SSB	50	24	22.90	22.91	22.93				24.0	0.0
20	PSS-SSB	50	50	22.95	22.81	22.64				23.5	0.5
20	PSS-SSB	100	0	22.98	22.97	22.95					
20	CPSS	1	1	22.00	22.12	22.00					
20	CPSS	1	10	22.07	22.06	22.05				24.0	0.0
20	CPSS	1	100	22.83	22.85	22.74					
20	CPSS	50	0	22.00	22.11	22.00				23.0	1.0
20	CPSS	50	24	22.87	22.85	22.87				24.0	0.0
20	CPSS	50	50	22.95	22.83	22.82				23.0	1.0
20	CPSS	100	0	22.70	22.62	22.64				23.0	1.0
20	ISDM	1	1	22.00	22.02	22.00				23.0	1.0
20	ISDM	1	1	20.54	20.48	20.50				23.5	2.5
20	ISDM	1	1	19.00	19.03	19.05				19.5	4.5
Channel				134.500	134.500	134.500	Time-up time (min)		MFR (dB)		
Frequency (MHz)											
10	CPSS	1	1	22.85	22.85	22.89				24.0	0.0
Channel				134.600	134.600	134.600	Time-up time (min)		MFR (dB)		
Frequency (MHz)											
10	CPSS	1	1	22.92	22.91	22.90				24.0	0.0
Channel				134.700	134.700	134.700	Time-up time (min)		MFR (dB)		
Frequency (MHz)											
0	CPSS	1	1	22.50	22.50	22.50				24.0	0.0



n41_FCC_Ant 1									
DIV (MHz)	Modulation	RF Size	RF Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Turn-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PV2-BPSK	1	1	15.24	15.27	15.76			
100	PV2-BPSK	1	107	15.72	15.73	15.84	17.5	0.0	
100	PV2-BPSK	1	211	15.80	15.80	15.86			
100	PV2-BPSK	135	0	15.71	15.71	15.71	17.5	0.0	
100	PV2-BPSK	135	88	15.77	15.76	15.73	17.5	0.0	
100	PV2-BPSK	135	138	15.74	15.74	15.80			
100	PV2-BPSK	210	0	15.75	15.84	15.87	17.5	0.0	
100	CPFSK	1	1	15.24	15.24	15.60			
100	CPFSK	1	137	15.74	15.74	15.74	17.5	0.0	
100	CPFSK	1	211	15.80	15.80	15.85			
100	CPFSK	135	0	15.81	15.74	15.82			
100	CPFSK	135	88	15.72	15.73	15.75	17.5	0.0	
100	CPFSK	135	138	15.74	15.74	15.80			
100	CPFSK	135	0	15.74	15.72	15.76	17.5	0.0	
100	CPFSK	210	0	15.75	15.75	15.81	17.5	0.0	
100	CPFSK	1	1	15.84	15.85	15.76	17.5	0.0	
100	CPFSK	1	1	15.84	15.72	15.81	17.5	0.0	
100	ZSOFDM	1	1	15.59	15.11	15.58	17.5	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	15.57	15.55	15.53	17.5	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	15.27	15.28	15.58	17.5	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	15.27	15.28	15.58	17.5	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	15.27	15.28	15.58	17.5	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	15.57	15.55	15.52	17.5	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	15.57	15.55	15.52	17.5	0.0	

n41_FCC_Ant 1_HPUE									
DIV (MHz)	Modulation	RF Size	RF Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Turn-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PV2-BPSK	1	1	15.53	15.51	15.22			
100	PV2-BPSK	1	107	15.17	15.28	15.22	20.5	0.0	
100	PV2-BPSK	1	211	15.42	15.26	15.46			
100	PV2-BPSK	135	0	15.18	15.25	15.17	20.5	0.0	
100	PV2-BPSK	135	88	15.19	15.23	15.22	20.5	0.0	
100	PV2-BPSK	135	138	15.21	15.24	15.22			
100	PV2-BPSK	210	0	15.38	15.12	15.37	20.5	0.0	
100	CPFSK	1	1	15.18	15.17	15.16			
100	CPFSK	1	137	15.16	15.17	15.15	20.5	0.0	
100	CPFSK	1	211	15.16	15.31	15.21			
100	CPFSK	135	0	15.24	15.20	15.17			
100	CPFSK	135	88	15.27	15.38	15.22	20.5	0.0	
100	CPFSK	135	138	15.27	15.26	15.15			
100	CPFSK	210	0	15.25	15.27	15.12	20.5	0.0	
100	CPFSK	1	1	15.13	15.42	15.28	20.5	0.0	
100	CPFSK	1	1	15.16	15.44	15.27	20.5	0.0	
100	ZSOFDM	1	1	15.27	15.34	15.28	20.5	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	15.23	15.28	15.12	20.5	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	15.18	15.24	15.20	20.5	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	15.18	15.24	15.20	20.5	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	15.12	15.28	15.18	20.5	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	15.12	15.23	15.11	20.5	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	15.09	15.20	15.14	20.5	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	15.20	15.26	15.18	20.5	0.0	



n41_FCC_Ant 2								
DIV (MHz)	Modulation	RIS Size	RIS Chisel	Power Low (25.7 MHz)	Power Med (26.57 MHz)	Power High (26.97 MHz)	Turn-up time (dBm)	MFR (dB)
Channel							26455	16.94
Frequency (MHz)							26455	16.94
100	PV2 BPSK	1	1	15.23	15.82	15.84		
100	PV2 BPSK	1	107	15.92	15.82	15.86	17.0	0.0
100	PV2 BPSK	1	211	15.74	15.76	15.89		
100	PV2 BPSK	135	9	15.81	15.85	15.91	17.0	0.0
100	PV2 BPSK	135	88	15.48	15.55	15.45	17.0	0.0
100	PV2 BPSK	135	138	15.21	15.81	15.56		
100	PV2 BPSK	210	9	15.49	15.89	15.53	17.0	0.0
100	QPSK	1	1	15.76	15.7	15.89		
100	QPSK	1	137	15.74	15.77	15.89	17.0	0.0
100	QPSK	1	211	15.65	15.60	15.63		
100	QPSK	135	9	15.81	15.81	15.85		
100	QPSK	135	88	15.51	15.58	15.52	17.0	0.0
100	QPSK	135	138	15.24	15.24	15.41		
100	QPSK	210	9	15.59	15.55	15.55	17.0	0.0
100	16QAM	1	1	15.66	15.77	15.67	17.0	0.0
100	16QAM	1	1	15.81	15.84	15.85	17.0	0.0
100	256QAM	1	1	15.53	15.56	15.52	17.0	0.0
Channel							26500	16.98
Frequency (MHz)							26500	16.98
90	QPSK	1	1	15.62	15.75	15.61	17.0	0.0
Channel							26545	16.99
Frequency (MHz)							26545	16.99
90	QPSK	1	1	15.28	15.72	15.56	17.0	0.0
Channel							26590	16.99
Frequency (MHz)							26590	16.99
90	QPSK	1	1	15.83	15.74	15.54	17.0	0.0
Channel							26635	16.99
Frequency (MHz)							26635	16.99
90	QPSK	1	1	15.78	15.76	15.65	17.0	0.0
Channel							26680	16.99
Frequency (MHz)							26680	16.99
90	QPSK	1	1	15.81	15.78	15.59	17.0	0.0
Channel							26725	16.99
Frequency (MHz)							26725	16.99
90	QPSK	1	1	15.75	15.63	15.58	17.0	0.0
Channel							26770	16.99
Frequency (MHz)							26770	16.99
90	QPSK	1	1	15.85	15.75	15.59	17.0	0.0

n41_FCC_Ant 2_HPUE								
DIV (MHz)	Modulation	RIS Size	RIS Chisel	Power Low (25.7 MHz)	Power Med (26.57 MHz)	Power High (26.97 MHz)	Turn-up time (dBm)	MFR (dB)
Channel							26455	16.76
Frequency (MHz)							26455	16.76
100	PV2 BPSK	1	1	15.92	15.76	15.72		
100	PV2 BPSK	1	107	15.82	15.86	15.72	20.0	0.0
100	PV2 BPSK	1	211	15.42	15.71	15.89		
100	PV2 BPSK	135	9	15.98	15.81	15.73	20.0	0.0
100	PV2 BPSK	135	88	15.56	15.72	15.73	20.0	0.0
100	PV2 BPSK	135	138	15.79	15.83	15.72		
100	PV2 BPSK	210	9	15.55	15.79	15.59	20.0	0.0
100	QPSK	1	1	15.86	15.84	15.89		
100	QPSK	1	137	15.81	15.84	15.87	20.0	0.0
100	QPSK	1	211	15.87	15.81	15.87		
100	QPSK	135	9	15.86	15.79	15.82		
100	QPSK	135	88	15.70	15.85	15.89	20.0	0.0
100	QPSK	135	138	15.87	15.88	15.88		
100	QPSK	210	9	15.85	15.83	15.78	20.0	0.0
100	16QAM	1	1	15.73	15.87	15.82	20.0	0.0
100	16QAM	1	1	15.86	15.89	15.79	20.0	0.0
100	256QAM	1	1	15.52	15.86	15.82	20.0	0.0
Channel							26500	16.98
Frequency (MHz)							26500	16.98
90	QPSK	1	1	15.77	15.82	15.70	20.0	0.0
Channel							26545	16.99
Frequency (MHz)							26545	16.99
90	QPSK	1	1	15.56	15.84	15.82	20.0	0.0
Channel							26590	16.99
Frequency (MHz)							26590	16.99
90	QPSK	1	1	15.87	15.79	15.81	20.0	0.0
Channel							26635	16.99
Frequency (MHz)							26635	16.99
90	QPSK	1	1	15.88	15.84	15.80	20.0	0.0
Channel							26680	16.99
Frequency (MHz)							26680	16.99
90	QPSK	1	1	15.90	15.79	15.81	20.0	0.0
Channel							26725	16.99
Frequency (MHz)							26725	16.99
90	QPSK	1	1	15.76	15.82	15.82	20.0	0.0
Channel							26770	16.99
Frequency (MHz)							26770	16.99
90	QPSK	1	1	15.82	15.86	15.82	20.0	0.0



n41_FCC_Ant 7											
SW (MHz)	Modulation	RF Size	RF Offset	Power Low Ch. (Watt)	Power Max Ch. (Watt)	Power High Ch. (Watt)	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
Channel											
Frequency (MHz)											
150	P13-EPSC	1	1	17.00	17.00	18.50					
150	P13-EPSC	1	137	17.00	17.11	18.74	18.0	0.0			
150	P13-EPSC	1	271	17.00	17.00	18.00					
150	P13-EPSC	135	0	17.00	18.07	18.75	18.0	0.0			
150	P13-EPSC	135	89	17.00	17.04	18.00	18.0	0.0			
150	P13-EPSC	135	135	17.00	18.00	18.77	18.0	0.0			
150	P13-EPSC	270	0	18.00	17.00	18.00	18.0	0.0			
150	CPSC	1	1	18.00	18.00	18.00					
150	CPSC	1	137	17.00	17.10	18.78	18.0	0.0			
150	CPSC	1	271	18.00	17.10	18.00					
150	CPSC	135	0	18.04	18.04	18.57					
150	CPSC	135	89	17.00	17.00	18.00	18.0	0.0			
150	CPSC	135	135	18.00	18.00	18.00	18.0	0.0			
150	CPSC	270	0	18.00	17.00	18.00	18.0	0.0			
150	ISDM	1	1	18.00	18.00	18.75	18.0	0.0			
150	ISDM	1	1	18.00	17.04	18.77	18.0	0.0			
150	250kHz	1	1	18.00	18.00	18.00	17.5	0.0			
Channel											
Frequency (MHz)											
30	CPSC	1	1	18.00	17.00	18.00	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
30	CPSC	1	1	18.00	17.00	18.00					
Channel											
Frequency (MHz)											
80	CPSC	1	1	18.00	18.00	18.00	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
80	CPSC	1	1	18.00	18.00	18.00					
Channel											
Frequency (MHz)											
80	CPSC	1	1	18.00	17.11	18.00	18.0	0.0			
Channel											
Frequency (MHz)											
50	CPSC	1	1	18.00	17.00	18.74	18.0	0.0			
Channel											
Frequency (MHz)											
80	CPSC	1	1	18.00	17.00	18.04	18.0	0.0			
Channel											
Frequency (MHz)											
30	CPSC	1	1	18.20	17.10	18.07	18.0	0.0			
Channel											
Frequency (MHz)											
30	CPSC	1	1	18.00	18.00	18.00	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
30	CPSC	1	1	18.00	17.00	18.00					

n41_FCC_Ant 7_HPUE											
SW (MHz)	Modulation	RF Size	RF Offset	Power Low Ch. (Watt)	Power Max Ch. (Watt)	Power High Ch. (Watt)	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
Channel											
Frequency (MHz)											
150	P13-EPSC	1	1	18.00	18.00	18.00					
150	P13-EPSC	1	137	18.00	18.00	18.75	21.0	0.0			
150	P13-EPSC	1	271	18.00	18.00	18.00					
150	P13-EPSC	135	0	18.00	18.00	18.00	21.0	0.0			
150	P13-EPSC	135	89	18.75	18.07	18.00	21.0	0.0			
150	P13-EPSC	135	135	18.74	18.00	18.75	21.0	0.0			
150	P13-EPSC	270	0	18.78	18.78	18.78	21.0	0.0			
150	CPSC	1	1	18.00	18.00	18.00					
150	CPSC	1	137	18.00	18.10	18.80	21.0	0.0			
150	CPSC	1	271	18.00	18.00	18.00					
150	CPSC	135	0	18.00	18.00	18.00	21.0	0.0			
150	CPSC	135	89	18.78	18.00	18.74	21.0	0.0			
150	CPSC	135	135	18.00	18.00	18.00	21.0	0.0			
150	CPSC	270	0	18.04	18.01	18.00	21.0	0.0			
150	ISDM	1	1	18.75	18.78	18.00	21.0	0.0			
150	ISDM	1	1	18.74	18.00	18.00	21.0	0.0			
150	250kHz	1	1	18.00	18.00	18.00	20.0	0.0			
Channel											
Frequency (MHz)											
80	CPSC	1	1	18.00	18.00	18.00	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
80	CPSC	1	1	18.00	18.00	18.00					
Channel											
Frequency (MHz)											
80	CPSC	1	1	18.00	18.00	18.00	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
80	CPSC	1	1	18.00	18.00	18.00					
Channel											
Frequency (MHz)											
80	CPSC	1	1	18.00	18.00	18.00	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
80	CPSC	1	1	18.00	18.00	18.00					
Channel											
Frequency (MHz)											
30	CPSC	1	1	18.00	18.00	18.00	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
30	CPSC	1	1	18.00	18.00	18.00					
Channel											
Frequency (MHz)											
80	CPSC	1	1	18.00	18.00	18.00	Turn-up time (s)	APR1 (dB)	APR2 (dB)		
80	CPSC	1	1	18.00	18.00	18.00					



n48_FCC_Part96_Ant 5

SW (MHz)	Modulation	FE Size	FE Offset	Channel Low (MHz)	Channel High (MHz)	Channel Spacing (MHz)	Power (dBm)	MPE (dB)
Channel								
Frequency (MHz)				15600	15600	15600		
48	FSK-SSB	1	1	1563	1563	1563		
48	FSK-SSB	1	10	1581	1586	1576	17.0	0.0
48	FSK-SSB	1	100	1574	1583	1586		
48	FSK-SSB	10	5	1575	1583	1582	17.0	0.1
48	FSK-SSB	10	20	1571	1583	1576	17.0	0.0
48	FSK-SSB	10	50	1568	1583	1582		
48	FSK-SSB	100	5	1577	1583	1571	17.0	0.0
48	FSK-SSB	1	5	1568	1571	1568		
48	FSK-SSB	1	10	1578	1587	1575	17.0	0.0
48	FSK-SSB	1	100	1586	1589	1589		
48	FSK-SSB	10	5	1579	1589	1581		
48	FSK-SSB	10	20	1586	1590	1583	17.0	0.0
48	FSK-SSB	10	50	1577	1597	1588		
48	FSK-SSB	100	5	1578	1593	1578	17.0	0.1
48	FSK-SSB	1	1	1583	1587	1576	17.0	0.0
48	FSK-SSB	1	1	1584	1591	1586	17.0	0.0
48	FSK-SSB	1	1	1586	1596	1583	16.0	0.0
Channel								
Frequency (MHz)				15600	15600	15600		
20	QPSK	1	1	1580	1584	1577	17.0	0.0
Channel								
Frequency (MHz)				15600	15600	15600		
40	QPSK	1	1	1585	1589	1584	17.0	0.0



Par27Q n77_FCC_Ant 5

Table with 11 columns: SV [MHz], Modulation, SS Size, SS Offset, Power (Ch. Total), Power (Mk), Power (Sp. Total), Tuning (MHz), and S/N1 (dB). Rows include various Modulation and SS Size combinations with their corresponding power and S/N1 values.

Par27Q n77 HPUE_FCC_Ant 5

Table with 11 columns: SV [MHz], Modulation, SS Size, SS Offset, Power (Ch. Total), Power (Mk), Power (Sp. Total), Tuning (MHz), and S/N1 (dB). Rows include various Modulation and SS Size combinations with their corresponding power and S/N1 values.



Par27Q n77_FCC_Ant 1

EV (Hz)	Modulation	RB Size	RB Offset	Power Spectral Density (dBm/30KHz)	Power Spectral Density (dBm/30KHz)	Power Spectral Density (dBm/30KHz)	Transmit Power (dBm)	SMR (dB)
Channel 1								
Frequency (MHz)								
180	PSK256QAM	1	1	18.0	18.0	18.0	17.5	0.0
180	PSK256QAM	1	101	18.0	18.0	18.0	17.5	0.0
180	PSK256QAM	100	0	18.0	18.0	18.0	17.5	0.0
180	PSK256QAM	100	100	18.0	18.0	18.0	17.5	0.0
180	PSK256QAM	100	200	18.0	18.0	18.0	17.5	0.0
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
180	QPSK	1	101	18.0	18.0	18.0	17.5	0.0
180	QPSK	100	0	18.0	18.0	18.0	17.5	0.0
180	QPSK	100	100	18.0	18.0	18.0	17.5	0.0
180	QPSK	100	200	18.0	18.0	18.0	17.5	0.0
180	16QAM	1	1	18.0	18.0	18.0	17.5	0.0
180	16QAM	1	101	18.0	18.0	18.0	17.5	0.0
180	256QAM	1	1	18.0	18.0	18.0	17.5	0.0
Channel 2								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 3								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 4								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 5								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 6								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 7								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 8								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 9								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 10								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0

Par27Q n77 HPUE_FCC_Ant 1

EV (Hz)	Modulation	RB Size	RB Offset	Power Spectral Density (dBm/30KHz)	Power Spectral Density (dBm/30KHz)	Power Spectral Density (dBm/30KHz)	Transmit Power (dBm)	SMR (dB)
Channel 1								
Frequency (MHz)								
180	PSK256QAM	1	1	18.0	18.0	18.0	17.5	0.0
180	PSK256QAM	1	101	18.0	18.0	18.0	17.5	0.0
180	PSK256QAM	100	0	18.0	18.0	18.0	17.5	0.0
180	PSK256QAM	100	100	18.0	18.0	18.0	17.5	0.0
180	PSK256QAM	100	200	18.0	18.0	18.0	17.5	0.0
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
180	QPSK	1	101	18.0	18.0	18.0	17.5	0.0
180	QPSK	100	0	18.0	18.0	18.0	17.5	0.0
180	QPSK	100	100	18.0	18.0	18.0	17.5	0.0
180	QPSK	100	200	18.0	18.0	18.0	17.5	0.0
180	16QAM	1	1	18.0	18.0	18.0	17.5	0.0
180	16QAM	1	101	18.0	18.0	18.0	17.5	0.0
180	256QAM	1	1	18.0	18.0	18.0	17.5	0.0
Channel 2								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 3								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 4								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 5								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 6								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 7								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 8								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 9								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0
Channel 10								
180	QPSK	1	1	18.0	18.0	18.0	17.5	0.0



Par270 n77_FCC_Ant 2								
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (dBm)	Power Level (dBm)	Power Level (dBm)	Temperature (dBm)	Gain (dB)
Channel								
Frequency (MHz)								
Bandwidth (MHz)								
Power Spectral Density (dBm/Hz)								
Spectrum Mask								
Adjacent Channel Power (dBc)								
Spurious Emission								
Harmonic Distortion								
Intermodulation Distortion								
Phase Noise								
Modulation Accuracy								
Bit Error Rate								
Packet Error Rate								
Throughput								
Latency								
Jitter								
Emissions								
Compliance								
Test Results								
Pass/Fail								
Date								
Time								
Location								
Operator								
Notes								

Par270 n77 HPUE_FCC_Ant 2								
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (dBm)	Power Level (dBm)	Power Level (dBm)	Temperature (dBm)	Gain (dB)
Channel								
Frequency (MHz)								
Bandwidth (MHz)								
Power Spectral Density (dBm/Hz)								
Spectrum Mask								
Adjacent Channel Power (dBc)								
Spurious Emission								
Harmonic Distortion								
Intermodulation Distortion								
Phase Noise								
Modulation Accuracy								
Bit Error Rate								
Packet Error Rate								
Throughput								
Latency								
Jitter								
Emissions								
Compliance								
Test Results								
Pass/Fail								
Date								
Time								
Location								
Operator								
Notes								



Par27Q n77_FCC_Ant 2									
EV (Hz)	Modulation	RB Size	RB Offset	Power Level (mW)	Power Spectrum (dBm)	Power Spectrum (dBm)	Transmission Rate (Mbps)	SRB (dB)	SRB (dB)
Channel									
Channel (MHz)									
3330									
Channel									
100	PAPR-SC	1	1	100	100				
100	PAPR-SC	1	1	100	100		14.5	0.0	
100	PAPR-SC	1	20	100	100				
100	PAPR-SC	100	0	100	100		14.5	0.0	
100	PAPR-SC	100	80	100	100		14.5	0.0	
100	PAPR-SC	100	160	100	100				
100	PAPR-SC	200	0	100	100		14.5	0.0	
100	QPSK	1	1	100	100				
100	QPSK	1	100	100	100		14.5	0.0	
100	QPSK	100	0	100	100				
100	QPSK	100	80	100	100		14.5	0.0	
100	QPSK	100	160	100	100				
100	QPSK	200	0	100	100		14.5	0.0	
100	QPSK	200	80	100	100				
100	QPSK	200	160	100	100				
100	QPSK	400	0	100	100		14.5	0.0	
100	QPSK	400	80	100	100				
100	QPSK	400	160	100	100				
100	QPSK	800	0	100	100		14.5	0.0	
100	QPSK	800	80	100	100				
100	QPSK	800	160	100	100				
100	QPSK	1600	0	100	100		14.5	0.0	
100	QPSK	1600	80	100	100				
100	QPSK	1600	160	100	100				
100	QPSK	3200	0	100	100		14.5	0.0	
100	QPSK	3200	80	100	100				
100	QPSK	3200	160	100	100				
100	QPSK	6400	0	100	100		14.5	0.0	
100	QPSK	6400	80	100	100				
100	QPSK	6400	160	100	100				
100	QPSK	12800	0	100	100		14.5	0.0	
100	QPSK	12800	80	100	100				
100	QPSK	12800	160	100	100				
100	QPSK	25600	0	100	100		14.5	0.0	
100	QPSK	25600	80	100	100				
100	QPSK	25600	160	100	100				
100	QPSK	51200	0	100	100		14.5	0.0	
100	QPSK	51200	80	100	100				
100	QPSK	51200	160	100	100				
100	QPSK	102400	0	100	100		14.5	0.0	
100	QPSK	102400	80	100	100				
100	QPSK	102400	160	100	100				
100	QPSK	204800	0	100	100		14.5	0.0	
100	QPSK	204800	80	100	100				
100	QPSK	204800	160	100	100				
100	QPSK	409600	0	100	100		14.5	0.0	
100	QPSK	409600	80	100	100				
100	QPSK	409600	160	100	100				
100	QPSK	819200	0	100	100		14.5	0.0	
100	QPSK	819200	80	100	100				
100	QPSK	819200	160	100	100				
100	QPSK	1638400	0	100	100		14.5	0.0	
100	QPSK	1638400	80	100	100				
100	QPSK	1638400	160	100	100				
100	QPSK	3276800	0	100	100		14.5	0.0	
100	QPSK	3276800	80	100	100				
100	QPSK	3276800	160	100	100				

Par27Q n77_HPUE_FCC_Ant 2									
EV (Hz)	Modulation	RB Size	RB Offset	Power Level (mW)	Power Spectrum (dBm)	Power Spectrum (dBm)	Transmission Rate (Mbps)	SRB (dB)	SRB (dB)
Channel									
Channel (MHz)									
3330									
Channel									
100	PAPR-SC	1	1	100	100				
100	PAPR-SC	1	100	100	100		15.5	0.0	
100	PAPR-SC	1	200	100	100				
100	PAPR-SC	100	0	100	100		15.5	0.0	
100	PAPR-SC	100	80	100	100				
100	PAPR-SC	100	160	100	100				
100	PAPR-SC	200	0	100	100		15.5	0.0	
100	QPSK	1	1	100	100				
100	QPSK	1	100	100	100		15.5	0.0	
100	QPSK	100	0	100	100				
100	QPSK	100	80	100	100		15.5	0.0	
100	QPSK	100	160	100	100				
100	QPSK	200	0	100	100		15.5	0.0	
100	QPSK	200	80	100	100				
100	QPSK	200	160	100	100				
100	QPSK	400	0	100	100		15.5	0.0	
100	QPSK	400	80	100	100				
100	QPSK	400	160	100	100				
100	QPSK	800	0	100	100		15.5	0.0	
100	QPSK	800	80	100	100				
100	QPSK	800	160	100	100				
100	QPSK	1600	0	100	100		15.5	0.0	
100	QPSK	1600	80	100	100				
100	QPSK	1600	160	100	100				
100	QPSK	3200	0	100	100		15.5	0.0	
100	QPSK	3200	80	100	100				
100	QPSK	3200	160	100	100				
100	QPSK	6400	0	100	100		15.5	0.0	
100	QPSK	6400	80	100	100				
100	QPSK	6400	160	100	100				
100	QPSK	12800	0	100	100		15.5	0.0	
100	QPSK	12800	80	100	100				
100	QPSK	12800	160	100	100				
100	QPSK	25600	0	100	100		15.5	0.0	
100	QPSK	25600	80	100	100				
100	QPSK	25600	160	100	100				
100	QPSK	51200	0	100	100		15.5	0.0	
100	QPSK	51200	80	100	100				
100	QPSK	51200	160	100	100				
100	QPSK	102400	0	100	100		15.5	0.0	
100	QPSK	102400	80	100	100				
100	QPSK	102400	160	100	100				
100	QPSK	204800	0	100	100		15.5	0.0	
100	QPSK	204800	80	100	100				
100	QPSK	204800	160	100	100				
100	QPSK	409600	0	100	100		15.5	0.0	
100	QPSK	409600	80	100	100				
100	QPSK	409600	160	100	100				
100	QPSK	819200	0	100	100		15.5	0.0	
100	QPSK	819200	80	100	100				
100	QPSK	819200	160	100	100				
100	QPSK	1638400	0	100	100		15.5	0.0	
100	QPSK	1638400	80	100	100				
100	QPSK	1638400	160	100	100				
100	QPSK	3276800	0	100	100		15.5	0.0	
100	QPSK	3276800	80	100	100				
100	QPSK	3276800	160	100	100				



Par270 n77_FCC_Ant 8									
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (dBm)	Power Level (dBm)	Power Level (dBm)	Transmission Rate (Mbps)	Antenna Gain (dBi)	Antenna Gain (dBi)
Channel 1									
Channel 2									
Channel 3									
Channel 4									
Channel 5									
Channel 6									
Channel 7									
Channel 8									
Channel 9									
Channel 10									
Channel 11									
Channel 12									
Channel 13									
Channel 14									
Channel 15									
Channel 16									
Channel 17									
Channel 18									
Channel 19									
Channel 20									
Channel 21									
Channel 22									
Channel 23									
Channel 24									
Channel 25									
Channel 26									
Channel 27									
Channel 28									
Channel 29									
Channel 30									
Channel 31									
Channel 32									
Channel 33									
Channel 34									
Channel 35									
Channel 36									
Channel 37									
Channel 38									
Channel 39									
Channel 40									
Channel 41									
Channel 42									
Channel 43									
Channel 44									
Channel 45									
Channel 46									
Channel 47									
Channel 48									
Channel 49									
Channel 50									
Channel 51									
Channel 52									
Channel 53									
Channel 54									
Channel 55									
Channel 56									
Channel 57									
Channel 58									
Channel 59									
Channel 60									
Channel 61									
Channel 62									
Channel 63									
Channel 64									
Channel 65									
Channel 66									
Channel 67									
Channel 68									
Channel 69									
Channel 70									
Channel 71									
Channel 72									
Channel 73									
Channel 74									
Channel 75									
Channel 76									
Channel 77									
Channel 78									
Channel 79									
Channel 80									
Channel 81									
Channel 82									
Channel 83									
Channel 84									
Channel 85									
Channel 86									
Channel 87									
Channel 88									
Channel 89									
Channel 90									
Channel 91									
Channel 92									
Channel 93									
Channel 94									
Channel 95									
Channel 96									
Channel 97									
Channel 98									
Channel 99									
Channel 100									

Par270 n77 HPUE_FCC_Ant 8									
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (dBm)	Power Level (dBm)	Power Level (dBm)	Transmission Rate (Mbps)	Antenna Gain (dBi)	Antenna Gain (dBi)
Channel 1									
Channel 2									
Channel 3									
Channel 4									
Channel 5									
Channel 6									
Channel 7									
Channel 8									
Channel 9									
Channel 10									
Channel 11									
Channel 12									
Channel 13									
Channel 14									
Channel 15									
Channel 16									
Channel 17									
Channel 18									
Channel 19									
Channel 20									
Channel 21									
Channel 22									
Channel 23									
Channel 24									
Channel 25									
Channel 26									
Channel 27									
Channel 28									
Channel 29									
Channel 30									
Channel 31									
Channel 32									
Channel 33									
Channel 34									
Channel 35									
Channel 36									
Channel 37									
Channel 38									
Channel 39									
Channel 40									
Channel 41									
Channel 42									
Channel 43									
Channel 44									
Channel 45									
Channel 46									
Channel 47									
Channel 48									
Channel 49									
Channel 50									
Channel 51									
Channel 52									
Channel 53									
Channel 54									
Channel 55									
Channel 56									
Channel 57									
Channel 58									
Channel 59									
Channel 60									
Channel 61									
Channel 62									
Channel 63									
Channel 64									
Channel 65									
Channel 66									
Channel 67									
Channel 68									
Channel 69									
Channel 70									
Channel 71									
Channel 72									
Channel 73									
Channel 74									
Channel 75									
Channel 76									
Channel 77									
Channel 78									
Channel 79									
Channel 80									
Channel 81									
Channel 82									
Channel 83									
Channel 84									
Channel 85									
Channel 86									
Channel 87									
Channel 88									
Channel 89									
Channel 90									
Channel 91									
Channel 92									
Channel 93									
Channel 94									
Channel 95									
Channel 96									
Channel 97									
Channel 98									
Channel 99									
Channel 100									



Part270 n78_FCC_Ant_5									
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (mW)	Power Level (dBm)	Power Level (dBm)	Transmit (dBm)	Gain (dB)	Gain (dB)
Channel									
Channel (MHz)									
180	PSK256Q	1	1	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	1	10F	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	1	20F	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	10C	0	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	10C	80	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	10C	160	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	200	0	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	1	10F	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	10C	0	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	10C	80	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	10C	160	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	200	0	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
60	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
60	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
70	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
70	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
80	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
80	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0

Part27Q n78_FCC_Ant_5									
RF (MHz)	Modulation	RF Size	RF Offset	Power Level (mW)	Power Level (dBm)	Power Level (dBm)	Transmit (dBm)	Gain (dB)	Gain (dB)
Channel									
Channel (MHz)									
180	PSK256Q	1	1	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	1	10F	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	1	20F	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	10C	0	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	10C	80	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	10C	160	18.00	18.00	18.00	18.00	0.0	0.0
180	PSK256Q	200	0	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	1	10F	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	10C	0	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	10C	80	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	10C	160	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	200	0	18.00	18.00	18.00	18.00	0.0	0.0
180	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
60	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
60	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
70	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
70	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
80	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
80	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0
Channel (MHz)									
90	QPSK	1	1	18.00	18.00	18.00	18.00	0.0	0.0



n7_Ant 1										
SV (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. (F/Hz)	Power Line Ch. (F/Hz)	Power Line Ch. (F/Hz)	Time-avg. Int. (dBm)	EMF (dB)	EMF (dB)	
Channel										
Frequency (MHz)										
40	PI2-BPSK	1	1	17.13	17.20	17.27				
40	PI2-BPSK	1	108	17.89	17.97	17.97	18.0	0.0		
40	PI2-BPSK	1	216	17.88	17.91	17.93				
40	PI2-BPSK	108	5	17.91	17.92	17.92	18.0	0.0		
40	PI2-BPSK	108	54	17.88	17.90	17.91	18.0	0.0		
40	PI2-BPSK	108	108	17.91	17.91	17.91	18.0	0.0		
40	PI2-BPSK	216	0	17.92	17.92	17.92	18.0	0.0		
40	QPSK	1	1	17.97	18.00	17.96				
40	QPSK	1	108	17.92	17.92	17.92	18.0	0.0		
40	QPSK	1	216	17.78	17.72	17.67				
40	QPSK	108	5	18.76	18.73	18.71	18.5	0.0		
40	QPSK	108	54	17.98	17.92	17.85	18.0	0.0		
40	QPSK	108	108	17.87	17.82	17.81	18.0	0.0		
40	QPSK	216	0	17.92	17.92	17.92	18.0	0.0		
40	ISDB-T	1	1	17.82	17.80	17.81	18.0	0.0		
40	ISDB-T	1	17.84	17.71	17.54	18.0	0.0			
40	ISDB-T	1	17.82	17.82	17.77	18.0	0.0			
Channel										
Frequency (MHz)										
30	QPSK	1	1	17.77	17.80	17.79	18.0	0.0		
Channel										
Frequency (MHz)										
25	QPSK	1	1	17.66	17.67	17.69	18.0	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	17.51	17.52	17.52	18.0	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	17.36	17.38	17.37	18.0	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	17.24	17.20	17.22	18.0	0.0		
Channel										
Frequency (MHz)										
5	QPSK	1	1	17.12	17.02	17.03	18.0	0.0		

n7_Ant 4(ENDC)										
SV (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. (F/Hz)	Power Line Ch. (F/Hz)	Power Line Ch. (F/Hz)	Time-avg. Int. (dBm)	EMF (dB)	EMF (dB)	
Channel										
Frequency (MHz)										
40	PI2-BPSK	1	1	18.40	18.51	18.50				
40	PI2-BPSK	1	108	18.39	18.37	18.39	18.0	0.0		
40	PI2-BPSK	1	216	18.42	18.39	18.39				
40	PI2-BPSK	108	5	18.42	18.40	18.39	18.0	0.0		
40	PI2-BPSK	108	54	17.97	18.31	17.97	18.0	0.0		
40	PI2-BPSK	108	108	17.94	18.24	17.94	18.0	0.0		
40	PI2-BPSK	216	0	17.92	17.17	17.92	18.0	0.0		
40	QPSK	1	1	17.15	17.21	17.28				
40	QPSK	1	108	17.53	17.12	18.38	18.0	0.0		
40	QPSK	1	216	17.25	17.18	18.33				
40	QPSK	108	5	17.94	17.95	18.53	18.0	0.0		
40	QPSK	108	54	17.68	17.15	17.83	18.0	0.0		
40	QPSK	108	108	17.65	17.09	18.41	18.0	0.0		
40	QPSK	216	0	17.67	17.18	17.82	18.0	0.0		
40	ISDB-T	1	1	17.52	17.16	18.39	18.0	0.0		
40	ISDB-T	1	1	18.09	17.36	18.52	18.0	0.0		
40	ISDB-T	1	1	17.63	17.16	18.39	18.0	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	17.27	17.12	17.60	18.0	0.0		
Channel										
Frequency (MHz)										
25	QPSK	1	1	17.27	17.18	18.38	18.0	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	17.28	17.16	17.60	18.0	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	17.25	17.13	18.38	18.0	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	17.12	17.14	17.23	18.0	0.0		
Channel										
Frequency (MHz)										
5	QPSK	1	1	17.11	17.18	17.50	18.0	0.0		

n12_Ant 0										
SV (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. (F/Hz)	Power Line Ch. (F/Hz)	Power Line Ch. (F/Hz)	Time-avg. Int. (dBm)	EMF (dB)	EMF (dB)	
Channel										
Frequency (MHz)										
10	PI2-BPSK	1	1	22.74	22.79	22.82				
10	PI2-BPSK	1	40	22.86	22.84	22.81	24.0	0.0		
10	PI2-BPSK	1	77	22.82	22.83	22.78				
10	PI2-BPSK	36	5	22.78	22.79	22.78	23.5	0.5		
10	PI2-BPSK	36	22	22.82	22.78	22.80	24.0	0.0		
10	PI2-BPSK	36	43	22.72	22.78	22.78	23.5	0.5		
10	PI2-BPSK	72	0	22.78	22.78	22.78	24.0	0.0		
10	QPSK	1	1	22.82	22.82	22.82				
10	QPSK	1	40	22.79	22.80	22.78	24.0	0.0		
10	QPSK	1	77	22.86	22.87	22.82				
10	QPSK	36	5	22.75	22.80	22.82	23.0	0.0		
10	QPSK	36	22	22.74	22.81	22.80	24.0	0.0		
10	QPSK	36	43	21.74	21.76	21.88	23.0	1.0		
10	ISDB-T	1	1	21.74	21.84	21.78	23.0	1.0		
10	ISDB-T	1	1	21.86	22.11	22.88	23.0	1.0		
10	ISDB-T	1	1	22.81	22.86	22.81	23.5	0.5		
10	ISDB-T	1	1	18.66	18.67	18.68	18.5	4.5		
Channel										
Frequency (MHz)										
10	QPSK	1	1	22.86	22.82	22.82	24.0	0.0		
Channel										
Frequency (MHz)										
5	QPSK	1	1	22.81	22.84	22.84	24.0	0.0		

n12_Ant 4										
SV (MHz)	Modulation	RB Size	RB Offset	Power Line Ch. (F/Hz)	Power Line Ch. (F/Hz)	Power Line Ch. (F/Hz)	Time-avg. Int. (dBm)	EMF (dB)	EMF (dB)	
Channel										
Frequency (MHz)										
10	PI2-BPSK	1	1	21.78	21.78	21.78				
10	PI2-BPSK	1	40	21.88	21.88	21.88	24.0	0.0		
10	PI2-BPSK	1	77	21.83	21.86	21.81				
10	PI2-BPSK	36	5	21.87	21.82	21.78	23.5	0.5		
10	PI2-BPSK	36	22	21.82	21.81	21.80	24.0	0.0		
10	PI2-BPSK	36	43	21.84	21.77	21.80	23.5	0.5		
10	PI2-BPSK	72	0	21.82	21.78	21.81	24.0	0.0		
10	QPSK	1	1	21.87	21.82	21.84				
10	QPSK	1	40	21.77	21.82	21.77	24.0	0.0		
10	QPSK	1	77	21.79	21.72	21.81				
10	QPSK	36	5	21.81	21.84	21.88	23.0	1.0		
10	QPSK	36	22	21.78	21.81	21.87	24.0	0.0		
10	QPSK	36	43	21.79	21.84	21.82	23.0	1.0		
10	ISDB-T	1	1	21.81	21.81	21.86	23.0	1.0		
10	ISDB-T	1	1	21.84	21.81	21.81	23.5	0.5		
10	ISDB-T	1	1	18.79	18.82	18.86	18.5	4.5		
Channel										
Frequency (MHz)										
10	QPSK	1	1	21.81	21.81	21.82	24.0	0.0		
Channel										
Frequency (MHz)										
5	QPSK	1	1	21.84	21.82	21.82	24.0	0.0		



n14_Ant 0								
SW (MHz)	Modulation	RS Size	RS Offset	Power Line Ch. / Freq.	Power Main Ch. / Freq.	Power Pilot Ch. / Freq.	Through Band (MHz)	MRB (dB)
Channel								
Frequency (MHz)								
10	PUSC BPSK	1	1	23.25				
10	PUSC BPSK	1	36	23.25			24.0	0.0
10	PUSC BPSK	1	50	23.25				
10	PUSC BPSK	25	5	23.75			23.5	0.5
10	PUSC BPSK	25	14	23.25			24.0	0.0
10	PUSC BPSK	25	27	23.75				
10	PUSC BPSK	50	0	23.75			23.5	0.5
10	QPSK	1	1	23.11				
10	QPSK	1	36	23.11			24.0	0.0
10	QPSK	1	50	23.11				
10	QPSK	25	5	23.61			23.0	1.0
10	QPSK	25	14	23.11			24.0	0.0
10	QPSK	25	27	23.61				
10	QPSK	50	0	23.61			23.0	1.0
10	16QAM	1	1	23.21			23.0	1.0
10	16QAM	1	1	23.61			23.5	0.5
10	DSSSS	1	1	18.85			18.5	4.5
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.27	23.24	23.27	23.0	0.0

n14_Ant 4								
SW (MHz)	Modulation	RS Size	RS Offset	Power Line Ch. / Freq.	Power Main Ch. / Freq.	Power Pilot Ch. / Freq.	Through Band (MHz)	MRB (dB)
Channel								
Frequency (MHz)								
10	PUSC BPSK	1	1	23.75				
10	PUSC BPSK	1	36	23.75			24.0	0.0
10	PUSC BPSK	1	50	23.75				
10	PUSC BPSK	25	5	23.74			23.5	0.5
10	PUSC BPSK	25	14	23.75			24.0	0.0
10	PUSC BPSK	25	27	23.74				
10	PUSC BPSK	50	0	23.74			23.5	0.5
10	QPSK	1	1	23.11				
10	QPSK	1	36	23.11			24.0	0.0
10	QPSK	1	50	23.11				
10	QPSK	25	5	23.61			23.0	1.0
10	QPSK	25	14	23.11			24.0	0.0
10	QPSK	25	27	23.61				
10	QPSK	50	0	23.61			23.0	1.0
10	16QAM	1	1	23.21			23.0	1.0
10	16QAM	1	1	23.61			23.5	0.5
10	DSSSS	1	1	18.85			18.5	4.5
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.11	23.18	23.10	24.0	0.0

n25_Ant 0								
SW (MHz)	Modulation	RS Size	RS Offset	Power Line Ch. / Freq.	Power Main Ch. / Freq.	Power Pilot Ch. / Freq.	Through Band (MHz)	MRB (dB)
Channel								
Frequency (MHz)								
40	PUSC BPSK	1	1	20.75	20.64	20.75		
40	PUSC BPSK	1	108	20.75	20.68	20.68	21.5	0.0
40	PUSC BPSK	1	214	20.75	20.62	20.67		
40	PUSC BPSK	108	0	20.75	20.60	20.67	21.0	0.0
40	PUSC BPSK	108	54	20.75	20.68	20.68	21.0	0.0
40	PUSC BPSK	108	108	20.75	20.62	20.68		
40	PUSC BPSK	216	0	20.67	20.71	20.68	21.5	0.0
40	QPSK	1	1	20.37	20.38	20.38		
40	QPSK	1	108	20.48	20.48	20.52	21.5	0.0
40	QPSK	1	214	20.71	20.71	20.78		
40	QPSK	108	0	20.61	20.61	20.68	21.0	0.0
40	QPSK	108	54	20.64	20.67	20.64	21.0	0.0
40	QPSK	108	108	20.61	20.58	20.58		
40	QPSK	216	0	20.57	20.67	20.63	21.0	0.0
40	16QAM	1	1	18.92	18.93	18.93	18.5	0.0
40	16QAM	1	1	18.94	18.94	18.94	18.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.39	18.37	18.35	18.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.39	18.41	18.41	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.39	18.41	18.41	18.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.39	18.41	18.41	18.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.37	18.32	18.32	18.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.60	20.77	20.48	21.0	0.0

n25_Ant 4								
SW (MHz)	Modulation	RS Size	RS Offset	Power Line Ch. / Freq.	Power Main Ch. / Freq.	Power Pilot Ch. / Freq.	Through Band (MHz)	MRB (dB)
Channel								
Frequency (MHz)								
40	PUSC BPSK	1	1	18.47	18.32	18.47		
40	PUSC BPSK	1	108	18.43	18.37	18.37	19.5	0.0
40	PUSC BPSK	1	214	18.33	18.31	18.31		
40	PUSC BPSK	108	0	18.48	18.38	18.38	19.5	0.0
40	PUSC BPSK	108	54	18.42	18.37	18.37	19.5	0.0
40	PUSC BPSK	108	108	18.37	18.31	18.31		
40	PUSC BPSK	216	0	18.30	18.37	18.37	19.5	0.0
40	QPSK	1	1	18.74	18.67	18.67		
40	QPSK	1	108	18.80	18.74	18.74	19.5	0.0
40	QPSK	1	214	18.62	18.64	18.64		
40	QPSK	108	0	18.70	18.70	18.70	19.5	0.0
40	QPSK	108	54	18.68	18.68	18.74	19.5	0.0
40	QPSK	108	108	18.68	18.70	18.74	19.5	0.0
40	QPSK	216	0	18.72	18.65	18.65	19.5	0.0
40	16QAM	1	1	18.60	18.72	18.69	18.5	0.0
40	16QAM	1	1	18.66	18.76	18.73	18.5	0.0
40	DSSSS	1	1	18.86	18.80	18.74	18.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.39	18.35	18.35	18.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.39	18.41	18.41	18.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.39	18.41	18.41	18.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.39	18.41	18.41	18.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.46	18.50	18.29	18.5	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.38	18.36	18.38	18.5	0.0



n26_Ant 0							
BW (MHz)	Modulation	RIS Size	RIS Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq. (dBm)	MFR (dB)
Channel							
Frequency (MHz)							
10	FDX	1	1	23.0	23.0	23.0	0.0
20	FDX	1	1	22.97	23.0	23.0	0.0
30	FDX	1	1	22.95	23.0	23.0	0.0
40	FDX	1	1	22.93	23.0	23.0	0.0
50	FDX	1	1	22.91	23.0	23.0	0.0
60	FDX	1	1	22.89	23.0	23.0	0.0
70	FDX	1	1	22.87	23.0	23.0	0.0
80	FDX	1	1	22.85	23.0	23.0	0.0
90	FDX	1	1	22.83	23.0	23.0	0.0
100	FDX	1	1	22.81	23.0	23.0	0.0
110	FDX	1	1	22.79	23.0	23.0	0.0
120	FDX	1	1	22.77	23.0	23.0	0.0
130	FDX	1	1	22.75	23.0	23.0	0.0
140	FDX	1	1	22.73	23.0	23.0	0.0
150	FDX	1	1	22.71	23.0	23.0	0.0
160	FDX	1	1	22.69	23.0	23.0	0.0
170	FDX	1	1	22.67	23.0	23.0	0.0
180	FDX	1	1	22.65	23.0	23.0	0.0
190	FDX	1	1	22.63	23.0	23.0	0.0
200	FDX	1	1	22.61	23.0	23.0	0.0
210	FDX	1	1	22.59	23.0	23.0	0.0
220	FDX	1	1	22.57	23.0	23.0	0.0
230	FDX	1	1	22.55	23.0	23.0	0.0
240	FDX	1	1	22.53	23.0	23.0	0.0
250	FDX	1	1	22.51	23.0	23.0	0.0
260	FDX	1	1	22.49	23.0	23.0	0.0
270	FDX	1	1	22.47	23.0	23.0	0.0
280	FDX	1	1	22.45	23.0	23.0	0.0
290	FDX	1	1	22.43	23.0	23.0	0.0
300	FDX	1	1	22.41	23.0	23.0	0.0
310	FDX	1	1	22.39	23.0	23.0	0.0
320	FDX	1	1	22.37	23.0	23.0	0.0
330	FDX	1	1	22.35	23.0	23.0	0.0
340	FDX	1	1	22.33	23.0	23.0	0.0
350	FDX	1	1	22.31	23.0	23.0	0.0
360	FDX	1	1	22.29	23.0	23.0	0.0
370	FDX	1	1	22.27	23.0	23.0	0.0
380	FDX	1	1	22.25	23.0	23.0	0.0
390	FDX	1	1	22.23	23.0	23.0	0.0
400	FDX	1	1	22.21	23.0	23.0	0.0
410	FDX	1	1	22.19	23.0	23.0	0.0
420	FDX	1	1	22.17	23.0	23.0	0.0
430	FDX	1	1	22.15	23.0	23.0	0.0
440	FDX	1	1	22.13	23.0	23.0	0.0
450	FDX	1	1	22.11	23.0	23.0	0.0
460	FDX	1	1	22.09	23.0	23.0	0.0
470	FDX	1	1	22.07	23.0	23.0	0.0
480	FDX	1	1	22.05	23.0	23.0	0.0
490	FDX	1	1	22.03	23.0	23.0	0.0
500	FDX	1	1	22.01	23.0	23.0	0.0
510	FDX	1	1	21.99	23.0	23.0	0.0
520	FDX	1	1	21.97	23.0	23.0	0.0
530	FDX	1	1	21.95	23.0	23.0	0.0
540	FDX	1	1	21.93	23.0	23.0	0.0
550	FDX	1	1	21.91	23.0	23.0	0.0
560	FDX	1	1	21.89	23.0	23.0	0.0
570	FDX	1	1	21.87	23.0	23.0	0.0
580	FDX	1	1	21.85	23.0	23.0	0.0
590	FDX	1	1	21.83	23.0	23.0	0.0
600	FDX	1	1	21.81	23.0	23.0	0.0
610	FDX	1	1	21.79	23.0	23.0	0.0
620	FDX	1	1	21.77	23.0	23.0	0.0
630	FDX	1	1	21.75	23.0	23.0	0.0
640	FDX	1	1	21.73	23.0	23.0	0.0
650	FDX	1	1	21.71	23.0	23.0	0.0
660	FDX	1	1	21.69	23.0	23.0	0.0
670	FDX	1	1	21.67	23.0	23.0	0.0
680	FDX	1	1	21.65	23.0	23.0	0.0
690	FDX	1	1	21.63	23.0	23.0	0.0
700	FDX	1	1	21.61	23.0	23.0	0.0
710	FDX	1	1	21.59	23.0	23.0	0.0
720	FDX	1	1	21.57	23.0	23.0	0.0
730	FDX	1	1	21.55	23.0	23.0	0.0
740	FDX	1	1	21.53	23.0	23.0	0.0
750	FDX	1	1	21.51	23.0	23.0	0.0
760	FDX	1	1	21.49	23.0	23.0	0.0
770	FDX	1	1	21.47	23.0	23.0	0.0
780	FDX	1	1	21.45	23.0	23.0	0.0
790	FDX	1	1	21.43	23.0	23.0	0.0
800	FDX	1	1	21.41	23.0	23.0	0.0
810	FDX	1	1	21.39	23.0	23.0	0.0
820	FDX	1	1	21.37	23.0	23.0	0.0
830	FDX	1	1	21.35	23.0	23.0	0.0
840	FDX	1	1	21.33	23.0	23.0	0.0
850	FDX	1	1	21.31	23.0	23.0	0.0
860	FDX	1	1	21.29	23.0	23.0	0.0
870	FDX	1	1	21.27	23.0	23.0	0.0
880	FDX	1	1	21.25	23.0	23.0	0.0
890	FDX	1	1	21.23	23.0	23.0	0.0
900	FDX	1	1	21.21	23.0	23.0	0.0
910	FDX	1	1	21.19	23.0	23.0	0.0
920	FDX	1	1	21.17	23.0	23.0	0.0
930	FDX	1	1	21.15	23.0	23.0	0.0
940	FDX	1	1	21.13	23.0	23.0	0.0
950	FDX	1	1	21.11	23.0	23.0	0.0
960	FDX	1	1	21.09	23.0	23.0	0.0
970	FDX	1	1	21.07	23.0	23.0	0.0
980	FDX	1	1	21.05	23.0	23.0	0.0
990	FDX	1	1	21.03	23.0	23.0	0.0
1000	FDX	1	1	21.01	23.0	23.0	0.0
Channel							
Frequency (MHz)							
10	OPUS	1	1	23.0	23.0	23.0	0.0

n26_Ant 4							
BW (MHz)	Modulation	RIS Size	RIS Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq. (dBm)	MFR (dB)
Channel							
Frequency (MHz)							
10	FDX	1	1	22.5	22.5	22.5	0.0
20	FDX	1	1	22.5	22.5	22.5	0.0
30	FDX	1	1	22.5	22.5	22.5	0.0
40	FDX	1	1	22.5	22.5	22.5	0.0
50	FDX	1	1	22.5	22.5	22.5	0.0
60	FDX	1	1	22.5	22.5	22.5	0.0
70	FDX	1	1	22.5	22.5	22.5	0.0
80	FDX	1	1	22.5	22.5	22.5	0.0
90	FDX	1	1	22.5	22.5	22.5	0.0
100	FDX	1	1	22.5	22.5	22.5	0.0
110	FDX	1	1	22.5	22.5	22.5	0.0
120	FDX	1	1	22.5	22.5	22.5	0.0
130	FDX	1	1	22.5	22.5	22.5	0.0
140	FDX	1	1	22.5	22.5	22.5	0.0
150	FDX	1	1	22.5	22.5	22.5	0.0
160	FDX	1	1	22.5	22.5	22.5	0.0
170	FDX	1	1	22.5	22.5	22.5	0.0
180	FDX	1	1	22.5	22.5	22.5	0.0
190	FDX	1	1	22.5	22.5	22.5	0.0
200	FDX	1	1	22.5	22.5	22.5	0.0
210	FDX	1	1	22.5	22.5	22.5	0.0
220	FDX	1	1	22.5	22.5	22.5	0.0
230	FDX	1	1	22.5	22.5	22.5	0.0
240	FDX	1	1	22.5	22.5	22.5	0.0
250	FDX	1	1	22.5	22.5	22.5	0.0
260	FDX	1	1	22.5	22.5	22.5	0.0
270	FDX	1	1	22.5	22.5	22.5	0.0
280	FDX	1	1	22.5	22.5	22.5	0.0
290	FDX	1	1	22.5	22.5	22.5	0.0
300	FDX	1	1	22.5	22.5	22.5	0.0
310	FDX	1	1	22.5	22.5	22.5	0.0
320	FDX	1	1	22.5	22.5	22.5	0.0
330	FDX	1	1	22.5	22.5	22.5	0.0
340	FDX	1	1	22.5	22.5	22.5	0.0
350	FDX	1	1	22.5	22.5	22.5	0.0
360	FDX	1	1	22.5	22.5	22.5	0.0
370	FDX	1	1	22.5	22.5	22.5	0.0
380	FDX	1	1	22.5	22.5	22.5	0.0
390	FDX	1	1	22.5	22.5	22.5	0.0
400	FDX	1	1	22.5	22.5	22.5	0.0
410	FDX	1	1	22.5	22.5	22.5	0.0
420	FDX	1	1	22.5	22.5	22.5	0.0
430	FDX	1	1	22.5	22.5	22.5	0.0
440	FDX	1	1	22.5	22.5	22.5	0.0
450	FDX	1	1	22.5	22.5	22.5	0.0
460	FDX	1	1	22.5	22.5	22.5	0.0
470	FDX	1	1	22.5	22.5	22.5	0.0
480	FDX	1	1	22.5	22.5	22.5	0.0
490	FDX	1	1	22.5	22.5	22.5	0.0
500	FDX	1	1	22.5	22.5	22.5	0.0
Channel							
Frequency (MHz)							
10	OPUS	1	1	22.5	22.5	22.5	0.0

n30_Ant 1							



n71_Ant 0									
DIV (MHz)	Modulation	RIS Size	RIS Chiral	Power Line Ch. 1 (Watt)	Power Line Ch. 2 (Watt)	Power Line Ch. 3 (Watt)	Time-up time (min)	EMF (V/m)	MFR (dB)
Channel									
Frequency (MHz)									
20	P12-BPSK	1	1	22.87	22.87	22.87	24.0	0.0	
20	P12-BPSK	1	53	22.87	22.88	22.88	24.0	0.0	
20	P12-BPSK	1	104	22.87	22.86	22.89	24.0	0.0	
20	P12-BPSK	50	2	22.90	22.90	22.93	23.5	0.5	
20	P12-BPSK	50	28	22.93	22.95	22.88	24.0	0.0	
20	P12-BPSK	50	106	22.93	22.91	22.90	24.0	0.0	
20	P12-BPSK	100	0	22.93	22.89	22.48	23.5	0.5	
20	QPSK	1	1	23.16	23.20	23.14	24.0	0.0	
20	QPSK	1	53	23.07	23.08	23.00	24.0	0.0	
20	QPSK	1	104	23.05	23.04	23.03	24.0	0.0	
20	QPSK	50	0	23.03	23.04	23.00	23.5	1.0	
20	QPSK	50	28	23.05	23.06	23.03	24.0	0.0	
20	QPSK	50	106	23.05	23.03	23.02	23.0	1.0	
20	QPSK	100	0	23.07	23.07	23.00	23.0	1.0	
20	HQDM	1	1	23.05	23.07	23.05	23.0	1.0	
20	HQDM	1	1	23.03	23.04	23.03	23.0	1.0	
20	2DQDM	1	1	18.17	18.86	18.84	18.5	4.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.91	22.93	22.89	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	23.12	23.10	23.09	24.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	23.08	23.15	23.17	24.0	0.0	

n71_Ant 4									
DIV (MHz)	Modulation	RIS Size	RIS Chiral	Power Line Ch. 1 (Watt)	Power Line Ch. 2 (Watt)	Power Line Ch. 3 (Watt)	Time-up time (min)	EMF (V/m)	MFR (dB)
Channel									
Frequency (MHz)									
20	P12-BPSK	1	1	22.91	22.90	22.91	24.0	0.0	
20	P12-BPSK	1	53	22.91	22.90	22.91	24.0	0.0	
20	P12-BPSK	1	104	22.93	22.81	22.72	24.0	0.0	
20	P12-BPSK	50	0	22.91	22.88	22.91	23.5	0.5	
20	P12-BPSK	50	28	22.90	22.94	22.88	24.0	0.0	
20	P12-BPSK	50	106	22.90	22.87	22.86	23.5	0.5	
20	P12-BPSK	100	0	22.90	22.87	22.86	23.5	0.5	
20	QPSK	1	1	23.00	23.02	23.00	24.0	0.0	
20	QPSK	1	53	22.97	22.96	22.97	24.0	0.0	
20	QPSK	1	104	22.80	22.83	22.72	23.0	1.0	
20	QPSK	50	0	22.90	22.71	22.68	23.0	1.0	
20	QPSK	50	28	22.87	22.95	22.81	24.0	0.0	
20	QPSK	50	106	22.90	22.83	22.82	23.0	1.0	
20	QPSK	100	0	22.90	22.92	22.91	23.0	1.0	
20	HQDM	1	1	22.90	23.02	23.00	23.0	1.0	
20	HQDM	1	1	23.04	23.04	23.00	23.0	1.0	
20	2DQDM	1	1	18.86	18.81	18.60	18.5	4.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.80	22.80	22.80	24.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	23.02	23.11	23.07	24.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	22.90	23.00	23.03	24.0	0.0	



n41_FCC_Ant 1										
DW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq. (dBm)	Power Main Ch./Freq. (dBm)	Power High Ch./Freq. (dBm)	Time-up Int. (sec)	MPT (dB)		
Channel										
Frequency (MHz)										
100	PSS-BPSK	1	1	17.28	17.21	17.24				
100	PSS-BPSK	1	107	17.28	17.81	17.18	10.0	0.0		
100	PSS-BPSK	1	211	17.28	17.97	17.18				
100	PSS-BPSK	135	9	17.28	17.18	17.18	10.0	0.0		
100	PSS-BPSK	135	89	17.28	17.24	17.27	10.0	0.0		
100	PSS-BPSK	135	108	17.28	17.14	17.14				
100	PSS-BPSK	270	0	17.27	17.17	17.36	10.0	0.0		
100	CPSS	1	1	17.24	17.24	17.24				
100	CPSS	1	107	17.24	17.16	17.36	10.0	0.0		
100	CPSS	1	211	17.40	17.40	17.28				
100	CPSS	135	9	17.27	17.04	17.48				
100	CPSS	135	89	17.40	17.50	17.24	10.0	0.0		
100	CPSS	135	108	17.4	17.4	17.4				
100	CPSS	135	108	17.4	17.4	17.4	10.0	0.0		
100	SCSSM	1	1	17.16	17.20	17.25	10.0	0.0		
100	SCSSM	1	1	17.24	17.27	17.41	10.0	0.0		
100	SCSSM	1	1	17.40	17.40	17.41	10.0	0.0		
Channel										
Frequency (MHz)										
30	CPSS	1	1	17.24	17.20	17.28	10.0	0.0		
Channel										
Frequency (MHz)										
80	CPSS	1	1	17.40	17.27	17.30	10.0	0.0		
Channel										
Frequency (MHz)										
60	CPSS	1	1	17.24	17.27	17.37	10.0	0.0		
Channel										
Frequency (MHz)										
50	CPSS	1	1	17.51	17.58	17.39	10.0	0.0		
Channel										
Frequency (MHz)										
80	CPSS	1	1	17.40	17.39	17.32	10.0	0.0		
Channel										
Frequency (MHz)										
30	CPSS	1	1	17.40	17.30	17.37	10.0	0.0		
Channel										
Frequency (MHz)										
30	CPSS	1	1	17.24	17.20	17.28	10.0	0.0		

n41_FCC_Ant 1_HPUE										
DW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq. (dBm)	Power Main Ch./Freq. (dBm)	Power High Ch./Freq. (dBm)	Time-up Int. (sec)	MPT (dB)		
Channel										
Frequency (MHz)										
100	PSS-BPSK	1	1	20.84	20.80	20.88				
100	PSS-BPSK	1	107	20.84	20.83	20.87	20.0	0.0		
100	PSS-BPSK	1	211	20.84	20.72	20.84				
100	PSS-BPSK	135	9	20.84	20.70	20.80	20.0	0.0		
100	PSS-BPSK	135	89	20.86	20.58	20.82	20.0	0.0		
100	PSS-BPSK	135	108	20.84	20.70	20.87				
100	PSS-BPSK	270	0	20.86	20.46	20.30				
100	CPSS	1	1	20.84	20.84	20.84				
100	CPSS	1	107	20.84	20.84	20.84	20.0	0.0		
100	CPSS	1	211	20.46	20.63	20.87				
100	CPSS	135	9	20.84	20.61	20.84				
100	CPSS	135	89	20.84	20.84	20.84	20.0	0.0		
100	CPSS	135	108	20.84	20.84	20.84				
100	CPSS	135	108	20.84	20.84	20.84	20.0	0.0		
100	SCSSM	1	1	20.58	20.63	20.70	20.0	0.0		
100	SCSSM	1	1	20.72	20.83	20.70	20.0	0.0		
100	SCSSM	1	1	19.72	19.78	19.87	20.0	0.0		
Channel										
Frequency (MHz)										
80	CPSS	1	1	20.77	20.77	20.84	20.0	0.0		
Channel										
Frequency (MHz)										
60	CPSS	1	1	20.74	20.74	20.84	20.0	0.0		
Channel										
Frequency (MHz)										
40	CPSS	1	1	20.84	20.84	20.84	20.0	0.0		
Channel										
Frequency (MHz)										
50	CPSS	1	1	20.81	20.81	20.80	20.0	0.0		
Channel										
Frequency (MHz)										
60	CPSS	1	1	20.84	20.84	20.84	20.0	0.0		
Channel										
Frequency (MHz)										
30	CPSS	1	1	20.15	20.84	20.80	20.0	0.0		
Channel										
Frequency (MHz)										
40	CPSS	1	1	20.16	20.88	20.84	20.0	0.0		



n41_FCC_Ant 2									
DIV (MHz)	Modulation	RB Size	RB Offset	Power Low (E-IRMS)	Power Max (E-IRMS)	Power High (E-IRMS)	Time-avg lim (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
180	PSS-SSB	1	1	18.821	20.074	20.900			
180	PSS-SSB	1	1	18.821	20.074	20.900	21.5	0.0	
Channel									
Frequency (MHz)									
180	PSS-SSB	1	1	18.821	20.074	20.900			
180	PSS-SSB	1	1	18.821	20.074	20.900	21.5	0.0	
Channel									
Frequency (MHz)									
180	PSS-SSB	135	88	18.775	18.859	18.937			
180	PSS-SSB	135	88	18.775	18.859	18.937	21.5	0.0	
Channel									
Frequency (MHz)									
180	PSS-SSB	270	0	18.770	18.930	20.011			
180	PSS-SSB	270	0	18.770	18.930	20.011	21.5	0.0	
Channel									
Frequency (MHz)									
180	CPSC	1	1	18.821	20.074	20.900			
180	CPSC	1	1	18.821	20.074	20.900	21.5	0.0	
Channel									
Frequency (MHz)									
180	CPSC	135	88	18.821	18.934	19.047			
180	CPSC	135	88	18.821	18.934	19.047	21.5	0.0	
Channel									
Frequency (MHz)									
180	CPSC	270	0	18.821	18.934	19.047			
180	CPSC	270	0	18.821	18.934	19.047	21.5	0.0	
Channel									
Frequency (MHz)									
180	SSB-QM	1	1	18.821	19.014	19.302			
180	SSB-QM	1	1	18.821	19.014	19.302	20.5	1.0	
Channel									
Frequency (MHz)									
180	SSB-QM	1	1	18.821	19.014	19.302			
180	SSB-QM	1	1	18.821	19.014	19.302	18.5	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	30.020	30.050	30.060			
30	CPSC	1	1	30.020	30.050	30.060	21.5	0.0	
Channel									
Frequency (MHz)									
90	CPSC	1	1	30.020	30.050	30.060			
90	CPSC	1	1	30.020	30.050	30.060	21.5	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	30.020	30.050	30.060			
60	CPSC	1	1	30.020	30.050	30.060	21.5	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	30.020	30.050	30.060			
30	CPSC	1	1	30.020	30.050	30.060	21.5	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	30.020	30.050	30.060			
30	CPSC	1	1	30.020	30.050	30.060	21.5	0.0	

n41_FCC_Ant 2_HPUE									
DIV (MHz)	Modulation	RB Size	RB Offset	Power Low (E-IRMS)	Power Max (E-IRMS)	Power High (E-IRMS)	Time-avg lim (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
180	PSS-SSB	1	1	20.020	20.130	20.220			
180	PSS-SSB	1	1	20.020	20.130	20.220	24.5	0.0	
Channel									
Frequency (MHz)									
180	PSS-SSB	135	88	20.020	20.130	20.220			
180	PSS-SSB	135	88	20.020	20.130	20.220	24.5	0.0	
Channel									
Frequency (MHz)									
180	PSS-SSB	270	0	20.020	20.130	20.220			
180	PSS-SSB	270	0	20.020	20.130	20.220	24.5	0.0	
Channel									
Frequency (MHz)									
180	CPSC	1	1	20.020	20.130	20.220			
180	CPSC	1	1	20.020	20.130	20.220	24.5	0.0	
Channel									
Frequency (MHz)									
180	CPSC	135	88	20.020	20.130	20.220			
180	CPSC	135	88	20.020	20.130	20.220	24.5	0.0	
Channel									
Frequency (MHz)									
180	CPSC	270	0	20.020	20.130	20.220			
180	CPSC	270	0	20.020	20.130	20.220	24.5	0.0	
Channel									
Frequency (MHz)									
180	SSB-QM	1	1	20.020	20.090	20.150			
180	SSB-QM	1	1	20.020	20.090	20.150	21.5	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	30.020	30.050	30.060			
30	CPSC	1	1	30.020	30.050	30.060	24.5	0.0	
Channel									
Frequency (MHz)									
90	CPSC	1	1	30.020	30.050	30.060			
90	CPSC	1	1	30.020	30.050	30.060	24.5	0.0	
Channel									
Frequency (MHz)									
60	CPSC	1	1	30.020	30.050	30.060			
60	CPSC	1	1	30.020	30.050	30.060	24.5	0.0	
Channel									
Frequency (MHz)									
30	CPSC	1	1	30.020	30.050	30.060			
30	CPSC	1	1	30.020	30.050	30.060	24.5	0.0	
Channel									
Frequency (MHz)									
90	CPSC	1	1	30.020	30.050	30.060			
90	CPSC	1	1	30.020	30.050	30.060	24.5	0.0	



n48_FCC_Part96_Ant 5

Dist (km)	Modulation	FE Size	FE Offset	Channel Low Freq. (GHz)	Channel High Freq. (GHz)	Channel High Rate (Mbps)	Throughput (Mbps)	MPE (dB)
Channel								
Frequency (MHz)				20.50	20.50	20.50	20.50	
40	PSK-QAM	1	1	20.51	20.55	20.54	21.5	0.0
40	PSK-QAM	1	100	20.50	20.50	20.50	21.5	0.1
40	PSK-QAM	10	20	20.45	20.51	20.49	21.5	0.0
40	PSK-QAM	10	50	20.38	20.40	20.39	21.5	0.0
40	PSK-QAM	100	1	20.50	20.52	20.52	21.5	0.0
40	QPSK	1	1	20.50	20.50	20.50	21.5	0.0
40	QPSK	1	100	20.37	20.52	20.50	21.5	0.0
40	QPSK	10	5	20.47	20.53	20.50	21.5	0.0
40	QPSK	10	20	20.54	20.52	20.53	21.5	0.0
40	QPSK	10	50	20.51	20.51	20.51	21.5	0.1
40	QPSK	100	5	20.45	20.50	20.50	21.5	0.0
40	QPSK	1	1	20.41	20.50	20.47	21.5	0.0
40	QPSK-QAM	1	1	18.34	18.40	18.40	18.0	2.0
Channel								
Frequency (MHz)				20.50	20.50	20.50	20.50	
20	QPSK	1	1	20.51	20.53	20.52	21.5	0.0
Channel								
Frequency (MHz)				20.50	20.50	20.50	20.50	
40	QPSK	1	1	20.50	20.50	20.50	21.5	0.0



Reduced Power Mode for DSI 4

n2_Ant 0											
DP (MHz)	Modulation	IS Size	IS Offset	Power Top Ch. / Freq.	Power Middle Ch. / Freq.	Power Top Ch. / Freq.	Turn-up time (ms)	MFR (dB)			
Channel											
Frequency (MHz)											
20	PI2-BPSK	1	1	23.14	23.10	23.11	24.0	0.0			
20	PI2-BPSK	1	50	23.08	23.13	23.09	24.0	0.0			
20	PI2-BPSK	1	104	23.02	23.17	23.14	24.0	0.0			
20	PI2-BPSK	50	0	23.40	23.24	23.34	23.5	0.5			
20	PI2-BPSK	50	50	23.15	23.15	23.05	24.0	0.0			
20	PI2-BPSK	50	100	23.26	23.09	23.08	23.5	0.5			
20	QPSK	1	1	23.08	23.13	23.10	24.0	0.0			
20	QPSK	1	50	23.06	23.06	23.08	24.0	0.0			
20	QPSK	1	104	23.07	23.12	23.09	24.0	0.0			
20	QPSK	50	0	23.08	23.23	23.17	23.0	1.0			
20	QPSK	50	50	23.08	23.13	23.10	24.0	0.0			
20	QPSK	50	100	23.10	23.13	23.09	23.0	1.0			
20	QPSK	100	0	23.15	23.22	23.20	23.0	1.0			
20	HQDM	1	1	20.40	20.57	20.42	21.5	2.5			
20	HQDM	1	1	18.07	18.00	18.00	18.0	4.5			
Channel											
Frequency (MHz)											
15	QPSK	1	1	23.07	23.12	23.09	24.0	0.0			
Channel											
Frequency (MHz)											
10	QPSK	1	1	23.02	23.28	23.17	24.0	0.0			
Channel											
Frequency (MHz)											
5	QPSK	1	1	23.24	23.30	23.27	24.0	0.0			

n2_Ant 4											
DP (MHz)	Modulation	IS Size	IS Offset	Power Top Ch. / Freq.	Power Middle Ch. / Freq.	Power Top Ch. / Freq.	Turn-up time (ms)	MFR (dB)			
Channel											
Frequency (MHz)											
20	PI2-BPSK	1	1	23.07	23.17	23.12	24.0	0.0			
20	PI2-BPSK	1	50	23.16	23.11	23.06	24.0	0.0			
20	PI2-BPSK	1	104	23.18	23.08	23.21	24.0	0.0			
20	PI2-BPSK	50	0	23.04	23.07	23.10	23.5	0.5			
20	PI2-BPSK	50	50	23.11	23.05	23.12	24.0	0.0			
20	PI2-BPSK	50	100	23.15	23.17	23.13	23.5	0.5			
20	QPSK	1	1	23.10	23.08	23.17	24.0	0.0			
20	QPSK	1	50	23.05	23.07	23.04	24.0	0.0			
20	QPSK	1	104	23.14	23.05	23.32	24.0	0.0			
20	QPSK	50	0	23.09	23.17	23.30	23.0	1.0			
20	QPSK	50	50	23.17	23.04	23.23	24.0	0.0			
20	QPSK	50	100	23.21	23.08	23.34	23.0	1.0			
20	QPSK	100	0	23.26	23.04	23.30	23.0	1.0			
20	HQDM	1	1	20.40	20.55	20.70	21.5	2.5			
20	HQDM	1	1	18.70	18.74	18.74	18.5	4.5			
Channel											
Frequency (MHz)											
15	QPSK	1	1	23.10	23.05	23.20	24.0	0.0			
Channel											
Frequency (MHz)											
10	QPSK	1	1	23.21	23.24	23.22	24.0	0.0			
Channel											
Frequency (MHz)											
5	QPSK	1	1	23.10	23.23	23.13	24.0	0.0			

n5_Ant 0											
DP (MHz)	Modulation	IS Size	IS Offset	Power Top Ch. / Freq.	Power Middle Ch. / Freq.	Power Top Ch. / Freq.	Turn-up time (ms)	MFR (dB)			
Channel											
Frequency (MHz)											
20	PI2-BPSK	1	1	23.12	23.08	23.10	24.0	0.0			
20	PI2-BPSK	1	50	23.06	23.06	23.06	24.0	0.0			
20	PI2-BPSK	1	104	23.02	23.01	23.09	24.0	0.0			
20	PI2-BPSK	50	0	23.40	23.04	23.04	24.0	0.0			
20	PI2-BPSK	50	50	23.07	23.05	23.05	24.0	0.0			
20	PI2-BPSK	50	100	23.20	23.42	23.42	23.5	0.5			
20	QPSK	1	1	23.06	23.05	23.04	24.0	0.0			
20	QPSK	1	50	23.06	23.06	23.04	24.0	0.0			
20	QPSK	1	104	23.05	23.06	23.04	24.0	0.0			
20	QPSK	50	0	23.07	23.10	23.07	23.0	1.0			
20	QPSK	50	50	23.06	23.07	23.04	24.0	0.0			
20	QPSK	50	100	23.08	23.01	23.78	23.0	1.0			
20	QPSK	100	0	23.07	23.06	23.06	24.0	0.0			
20	HQDM	1	1	20.40	20.57	20.50	21.5	2.5			
20	HQDM	1	1	18.00	18.70	18.60	18.5	4.5			
Channel											
Frequency (MHz)											
15	QPSK	1	1	23.08	23.13	23.11	24.0	0.0			
Channel											
Frequency (MHz)											
10	QPSK	1	1	23.01	23.04	23.00	24.0	0.0			
Channel											
Frequency (MHz)											
5	QPSK	1	1	23.00	23.17	23.04	24.0	0.0			

n5_Ant 4											
DP (MHz)	Modulation	IS Size	IS Offset	Power Top Ch. / Freq.	Power Middle Ch. / Freq.	Power Top Ch. / Freq.	Turn-up time (ms)	MFR (dB)			
Channel											
Frequency (MHz)											
20	PI2-BPSK	1	1	23.14	23.10	23.09	24.0	0.0			
20	PI2-BPSK	1	50	23.05	23.10	23.08	24.0	0.0			
20	PI2-BPSK	1	104	23.02	23.00	23.02	24.0	0.0			
20	PI2-BPSK	50	0	23.40	23.11	23.11	23.5	0.5			
20	PI2-BPSK	50	50	23.07	23.05	23.05	24.0	0.0			
20	PI2-BPSK	50	100	23.20	23.20	23.20	23.5	0.5			
20	QPSK	1	1	23.02	23.28	23.02	24.0	0.0			
20	QPSK	1	50	23.04	23.04	23.04	24.0	0.0			
20	QPSK	1	104	23.02	23.02	23.02	24.0	0.0			
20	QPSK	50	0	23.01	23.06	23.05	23.0	1.0			
20	QPSK	50	50	23.02	23.04	23.04	24.0	0.0			
20	QPSK	50	100	23.02	23.00	23.00	23.0	1.0			
20	QPSK	100	0	23.04	23.04	23.04	24.0	0.0			
20	HQDM	1	1	20.40	20.57	20.50	21.5	2.5			
20	HQDM	1	1	18.00	18.70	18.61	18.5	4.5			
Channel											
Frequency (MHz)											
15	QPSK	1	1	23.10	23.05	23.00	24.0	0.0			
Channel											
Frequency (MHz)											
10	QPSK	1	1	23.10	23.10	23.10	24.0	0.0			
Channel											
Frequency (MHz)											
5	QPSK	1	1	23.10	23.10	23.07	24.0	0.0			



n7_Ant 1										
RF Band	Modulation	RF Size	RF Offset	Power Type Ch. / Freq.	Power Mod. Ch. / Freq.	Power Type Ch. / Freq.	Turn-up Time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
40	PI2-BPSK	1	1	23.00	23.00	23.00				
10	PI2-BPSK	1	108	23.06	23.06	23.06	24.0	0.0		
40	PI2-BPSK	1	214	23.04	23.01	23.04				
40	PI2-BPSK	108	0	23.06	23.06	23.06		0.5		
40	PI2-BPSK	108	0	23.05	23.01	23.05		0.0		
40	PI2-BPSK	108	108	23.06	23.00	23.01	23.5	0.5		
40	PI2-BPSK	216	0	23.04	23.00	23.04				
40	QPSK	1	1	23.00	23.00	23.00				
40	QPSK	1	108	23.06	23.06	23.06	24.0	0.0		
40	QPSK	1	214	23.02	23.00	23.01				
40	QPSK	108	0	23.06	23.06	23.06		1.0		
40	QPSK	108	0	23.06	23.06	23.06		0.0		
40	QPSK	108	108	23.06	23.00	23.00	23.0	1.0		
40	QPSK	216	0	23.04	23.00	23.04				
40	HSK4M	1	1	23.00	23.00	23.00				
40	HSK4M	1	1	23.01	23.00	23.01		2.5		
40	HSK4M	1	1	23.00	23.00	23.00		2.5		
40	HSK4M	1	1	23.00	23.00	23.00		4.5		
Channel										
Frequency (MHz)										
30	QPSK	1	1	23.00	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
25	QPSK	1	1	23.00	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	1	23.00	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
15	QPSK	1	1	23.04	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	1	23.00	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
5	QPSK	1	1	23.04	23.00	23.00	Turn-up time (min)	MFR (dB)		

n7_Ant 4(ENDC)										
RF Band	Modulation	RF Size	RF Offset	Power Type Ch. / Freq.	Power Mod. Ch. / Freq.	Power Type Ch. / Freq.	Turn-up Time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
40	PI2-BPSK	1	1	23.00	23.00	23.00				
40	PI2-BPSK	1	108	23.06	23.04	23.06	24.0	0.0		
40	PI2-BPSK	1	214	23.07	23.07	23.06				
40	PI2-BPSK	108	0	23.06	23.06	23.06		0.5		
40	PI2-BPSK	108	0	23.05	23.01	23.05		0.0		
40	PI2-BPSK	108	108	23.06	23.00	23.00	23.5	0.5		
40	PI2-BPSK	216	0	23.04	23.00	23.04				
40	QPSK	1	1	23.00	23.00	23.00				
40	QPSK	1	108	23.06	23.06	23.06	24.0	0.0		
40	QPSK	1	214	23.01	23.01	23.01				
40	QPSK	108	0	23.06	23.06	23.06		1.0		
40	QPSK	108	0	23.06	23.06	23.06		0.0		
40	QPSK	108	108	23.06	23.00	23.00	23.0	1.0		
40	QPSK	216	0	23.04	23.00	23.04				
40	HSK4M	1	1	23.04	23.00	23.04				
40	HSK4M	1	1	23.04	23.00	23.04		2.5		
40	HSK4M	1	1	23.04	23.00	23.04		4.5		
Channel										
Frequency (MHz)										
30	QPSK	1	1	23.07	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
25	QPSK	1	1	23.07	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	1	23.00	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
15	QPSK	1	1	23.04	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	1	23.00	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
5	QPSK	1	1	23.01	23.00	23.00	Turn-up time (min)	MFR (dB)		

n12_Ant 0										
RF Band	Modulation	RF Size	RF Offset	Power Type Ch. / Freq.	Power Mod. Ch. / Freq.	Power Type Ch. / Freq.	Turn-up Time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
15	PI2-BPSK	1	1	23.11	23.08	23.11				
15	PI2-BPSK	1	40	23.05	23.04	23.05	24.0	0.0		
15	PI2-BPSK	1	77	23.02	23.03	23.01				
15	PI2-BPSK	40	0	23.06	23.06	23.06		0.5		
15	PI2-BPSK	40	0	23.05	23.01	23.05		0.0		
15	PI2-BPSK	40	40	23.06	23.00	23.01	23.5	0.5		
15	PI2-BPSK	76	0	23.01	23.00	23.01				
15	QPSK	1	1	23.00	23.00	23.00				
15	QPSK	1	40	23.06	23.06	23.06	24.0	0.0		
15	QPSK	1	77	23.00	23.00	23.00				
15	QPSK	40	0	23.06	23.06	23.06		1.0		
15	QPSK	40	0	23.04	23.01	23.04		0.0		
15	QPSK	40	40	23.06	23.00	23.00	23.0	1.0		
15	QPSK	76	0	23.04	23.00	23.04				
15	HSK4M	1	1	23.06	23.00	23.06				
15	HSK4M	1	1	23.05	23.00	23.05		2.5		
15	HSK4M	1	1	23.06	23.00	23.06		4.5		
Channel										
Frequency (MHz)										
10	QPSK	1	1	23.05	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
5	QPSK	1	1	23.00	23.00	23.00	Turn-up time (min)	MFR (dB)		

n12_Ant 4										
RF Band	Modulation	RF Size	RF Offset	Power Type Ch. / Freq.	Power Mod. Ch. / Freq.	Power Type Ch. / Freq.	Turn-up Time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
15	PI2-BPSK	1	1	23.08	23.11	23.05				
15	PI2-BPSK	1	40	23.08	23.08	23.08	24.0	0.0		
15	PI2-BPSK	1	77	23.01	23.00	23.01				
15	PI2-BPSK	40	0	23.09	23.06	23.09		0.5		
15	PI2-BPSK	40	0	23.05	23.01	23.05		0.0		
15	PI2-BPSK	40	40	23.06	23.00	23.00	23.5	0.5		
15	PI2-BPSK	76	0	23.00	23.00	23.00				
15	QPSK	1	1	23.00	23.00	23.00				
15	QPSK	1	40	23.06	23.06	23.06	24.0	0.0		
15	QPSK	1	77	23.00	23.00	23.00				
15	QPSK	40	0	23.06	23.06	23.06		1.0		
15	QPSK	40	0	23.04	23.01	23.04		0.0		
15	QPSK	40	40	23.06	23.00	23.00	23.0	1.0		
15	QPSK	76	0	23.04	23.00	23.04				
15	HSK4M	1	1	23.06	23.00	23.06				
15	HSK4M	1	1	23.05	23.00	23.05		2.5		
15	HSK4M	1	1	23.06	23.00	23.06		4.5		
Channel										
Frequency (MHz)										
10	QPSK	1	1	23.01	23.00	23.00	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
5	QPSK	1	1	23.04	23.00	23.00	Turn-up time (min)	MFR (dB)		



n14_Ant 0								
SW (MHz)	Modulation	RF Size	RF Offset	Power Low Ch / Freq	Power Med Ch / Freq	Power High Ch / Freq	Turn-up Int (min)	MFR (dB)
Channel								
Frequency (MHz)								
10	P14 BPSK	1	1	23.23			24.0	0.0
10	P14 BPSK	1	10	23.24				
10	P14 BPSK	1	50	23.25				
10	P14 BPSK	25	0	23.26				
10	P14 BPSK	25	10	23.27				
10	P14 BPSK	25	27	23.27			23.5	0.5
10	P14 BPSK	50	0	23.27				
10	QPSK	1	1	23.17				
10	QPSK	1	10	23.18			24.0	0.0
10	QPSK	1	50	23.19				
10	QPSK	25	0	23.19			23.0	1.0
10	QPSK	25	10	23.20				
10	QPSK	25	27	23.20			23.0	1.0
10	QPSK	50	0	23.21				
10	HQDM	1	1	23.22			23.0	1.0
10	HQDM	1	1	23.23			23.5	2.5
10	HQDM	1	1	18.00			18.1	4.5
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.27	23.24	23.21	24.0	0.0

n14_Ant 4								
SW (MHz)	Modulation	RF Size	RF Offset	Power Low Ch / Freq	Power Med Ch / Freq	Power High Ch / Freq	Turn-up Int (min)	MFR (dB)
Channel								
Frequency (MHz)								
10	P14 BPSK	1	1	23.10				
10	P14 BPSK	1	10	23.11			24.0	0.0
10	P14 BPSK	1	50	23.14				
10	P14 BPSK	25	0	23.16			23.5	0.5
10	P14 BPSK	25	10	23.16			23.0	0.0
10	P14 BPSK	25	27	23.16			23.5	0.5
10	P14 BPSK	50	0	23.16				
10	QPSK	1	1	23.17				
10	QPSK	1	10	23.17			24.0	0.0
10	QPSK	1	50	23.17				
10	QPSK	25	0	23.17			23.0	1.0
10	QPSK	25	10	23.17			24.0	0.0
10	QPSK	25	27	23.18			23.0	1.0
10	QPSK	50	0	23.18			23.0	1.0
10	HQDM	1	1	23.21			23.0	1.0
10	HQDM	1	1	23.24			23.5	2.5
10	HQDM	1	1	18.00			18.5	4.5
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.17	23.16	23.16	24.0	0.0

n25_Ant 0								
SW (MHz)	Modulation	RF Size	RF Offset	Power Low Ch / Freq	Power Med Ch / Freq	Power High Ch / Freq	Turn-up Int (min)	MFR (dB)
Channel								
Frequency (MHz)								
60	P14 BPSK	1	1	23.20	23.22	23.12		
60	P14 BPSK	1	10	23.24	23.27	23.14	24.0	0.0
60	P14 BPSK	1	214	23.27	23.30	23.15		
60	P14 BPSK	100	0	23.04	23.02	23.04	23.5	0.0
60	P14 BPSK	100	50	23.04	23.01	23.15	23.5	0.5
60	P14 BPSK	100	100	23.05	23.04	23.01	23.5	0.5
60	P14 BPSK	214	0	23.04	23.00	23.07		
60	QPSK	1	1	23.26	23.28	23.22		
60	QPSK	1	10	23.27	23.31	23.18	24.0	0.0
60	QPSK	1	214	23.31	23.30	23.28		
60	QPSK	100	0	23.15	23.20	23.09	23.0	1.0
60	QPSK	100	50	23.14	23.27	23.21	24.0	0.0
60	QPSK	100	100	23.09	23.14	23.05	23.0	1.0
60	QPSK	214	0	23.31	23.34	23.28		
60	HQDM	1	1	23.25	23.26	23.28	23.0	1.0
60	HQDM	1	1	23.71	23.81	23.72	21.5	2.5
60	HQDM	1	1	18.10	18.12	18.04	18.1	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.24	23.30	23.00	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.20	23.33	23.22	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.17	23.32	23.24	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.12	23.27	23.19	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.09	23.19	23.09	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.17	23.34	23.27	24.0	0.0

n25_Ant 4								
SW (MHz)	Modulation	RF Size	RF Offset	Power Low Ch / Freq	Power Med Ch / Freq	Power High Ch / Freq	Turn-up Int (min)	MFR (dB)
Channel								
Frequency (MHz)								
60	P14 BPSK	1	1	23.26	23.11	23.09		
60	P14 BPSK	1	10	23.05	23.02	23.04	24.0	0.0
60	P14 BPSK	1	214	23.32	23.09	23.09		
60	P14 BPSK	100	0	23.04	23.14	23.10	23.5	0.0
60	P14 BPSK	100	50	23.07	23.01	23.15	23.0	0.0
60	P14 BPSK	100	100	23.12	23.11	23.16	23.5	0.5
60	P14 BPSK	214	0	23.07	23.21	23.04		
60	QPSK	1	1	23.30	23.40	23.40		
60	QPSK	1	10	23.31	23.34	23.29	24.0	0.0
60	QPSK	1	214	23.35	23.19	23.19		
60	QPSK	100	0	23.04	23.07	23.10	23.0	1.0
60	QPSK	100	50	23.05	23.02	23.04	24.0	0.0
60	QPSK	100	100	23.06	23.14	23.09	23.0	1.0
60	QPSK	214	0	23.30	23.34	23.29		
60	HQDM	1	1	23.27	23.14	23.07	23.0	1.0
60	HQDM	1	1	23.31	23.41	23.32	23.5	2.5
60	HQDM	1	1	18.00	18.00	18.01	18.1	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.27	23.33	23.02	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.21	23.28	23.24	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.16	23.21	23.05	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.12	23.19	23.10	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.09	23.20	23.09	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.16	23.32	23.19	24.0	0.0



n26_Ant 0									
SW ID/MS	Modulation	RB Size	RB Offset	Power Tx Ch / Freq	Power Mntr Ch / Freq	Power Tgt Ch / Freq	Turn-up Int (Sec)	MPT (dB)	
Channel									
Frequency (MHz)									
20	PUSC BPSK	1	1	23.05	23.13	23.11		24.0	0.0
20	PUSC BPSK	1	10	23.07	23.15	23.09			
20	PUSC BPSK	1	104	23.30	23.38	23.34			
20	PUSC BPSK	50	0	23.31	23.39	23.35			
20	PUSC BPSK	50	28	23.33	23.41	23.37			
20	PUSC BPSK	50	56	23.35	23.43	23.40		23.5	0.5
20	PUSC BPSK	100	0	23.40	23.48	23.44			
20	QPSK	1	1	23.17	23.22	23.17			
20	QPSK	1	10	23.18	23.24	23.21		24.0	0.0
20	QPSK	1	104	23.37	23.42	23.39			
20	QPSK	50	0	23.38	23.43	23.40			
20	QPSK	50	28	23.40	23.45	23.42			
20	QPSK	50	56	23.41	23.46	23.43		23.0	1.0
20	QPSK	100	0	23.44	23.49	23.46			
20	WCDMA	1	1	21.90	21.95	21.92		23.0	1.0
20	WCDMA	1	1	20.30	20.35	20.32		23.5	2.5
20	WCDMA	1	1	18.77	18.82	18.79		19.5	4.5
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.07	23.14	23.05		24.0	0.0
Channel									
Frequency (MHz)									
10	QPSK	1	1	23.08	23.09	23.13		24.0	0.0
Channel									
Frequency (MHz)									
5	QPSK	1	1	23.03	23.13	23.02		24.0	0.0

n26_Ant 4									
SW ID/MS	Modulation	RB Size	RB Offset	Power Tx Ch / Freq	Power Mntr Ch / Freq	Power Tgt Ch / Freq	Turn-up Int (Sec)	MPT (dB)	
Channel									
Frequency (MHz)									
20	PUSC BPSK	1	1	22.80	22.92	22.89			
20	PUSC BPSK	1	10	22.82	22.91	22.86		24.0	0.0
20	PUSC BPSK	1	104	23.00	23.07	23.04			
20	PUSC BPSK	50	0	22.99	23.06	23.02		23.5	0.5
20	PUSC BPSK	50	28	23.01	23.08	23.04		23.0	0.0
20	PUSC BPSK	50	56	23.04	23.11	23.08		23.5	0.5
20	PUSC BPSK	100	0	23.04	23.04	23.01			
20	QPSK	1	1	23.10	23.14	23.12			
20	QPSK	1	10	23.1	23.14	23.08		24.0	0.0
20	QPSK	1	104	23.33	23.37	23.35			
20	QPSK	50	0	23.31	23.37	23.34		23.0	1.0
20	QPSK	50	28	23.31	23.35	23.34		24.0	0.0
20	QPSK	50	56	23.32	23.37	23.33		23.0	1.0
20	QPSK	100	0	23.34	23.38	23.36		23.0	1.0
20	WCDMA	1	1	21.28	21.32	21.30		23.0	1.0
20	WCDMA	1	1	20.40	20.55	20.59		23.5	2.5
20	WCDMA	1	1	19.00	19.00	19.00		19.5	4.5
Channel									
Frequency (MHz)									
15	QPSK	1	1	22.82	22.94	22.88		24.0	0.0
Channel									
Frequency (MHz)									
10	QPSK	1	1	22.80	22.88	23.01		24.0	0.0
Channel									
Frequency (MHz)									
5	QPSK	1	1	22.80	22.91	22.91		24.0	0.0

n30_Ant 1									
SW ID/MS	Modulation	RB Size	RB Offset	Power Tx Ch / Freq	Power Mntr Ch / Freq	Power Tgt Ch / Freq	Turn-up Int (Sec)	MPT (dB)	
Channel									
Frequency (MHz)									
10	PUSC BPSK	1	1	23.34					
10	PUSC BPSK	1	28	23.32				24.0	0.0
10	PUSC BPSK	1	56	23.22					
10	PUSC BPSK	25	0	23.40				23.5	0.5
10	PUSC BPSK	25	14	23.30				23.5	0.5
10	PUSC BPSK	25	27	23.20				23.5	0.5
10	PUSC BPSK	50	0	23.42					
10	QPSK	1	1	23.28					
10	QPSK	1	28	23.27				24.0	0.0
10	QPSK	1	56	23.25					
10	QPSK	25	0	23.28				23.0	1.0
10	QPSK	25	14	23.20				24.0	0.0
10	QPSK	25	27	23.15				23.0	1.0
10	QPSK	50	0	23.40				23.0	1.0
10	QPSK	50	14	23.30				24.0	0.0
10	QPSK	50	27	23.25				23.0	1.0
10	WCDMA	1	1	21.30				23.0	1.0
10	WCDMA	1	1	20.80				21.5	2.5
10	WCDMA	1	1	19.80				19.5	4.5
Channel									
Frequency (MHz)									
5	QPSK	1	1	23.28	23.35	23.33		24.0	0.0

n30_Ant 4(ENDC)									
SW ID/MS	Modulation	RB Size	RB Offset	Power Tx Ch / Freq	Power Mntr Ch / Freq	Power Tgt Ch / Freq	Turn-up Int (Sec)	MPT (dB)	
Channel									
Frequency (MHz)									
10	PUSC BPSK	1	1	23.51					
10	PUSC BPSK	1	28	23.49				24.0	0.0
10	PUSC BPSK	1	56	23.37					
10	PUSC BPSK	25	0	23.45				23.5	0.5
10	PUSC BPSK	25	14	23.35				23.5	0.5
10	PUSC BPSK	25	27	23.25				23.5	0.5
10	PUSC BPSK	50	0	23.47					
10	QPSK	1	1	23.39					
10	QPSK	1	28	23.38				24.0	0.0
10	QPSK	1	56	23.34					
10	QPSK	25	0	23.39				23.0	1.0
10	QPSK	25	14	23.29				24.0	0.0
10	QPSK	25	27	23.20				23.0	1.0
10	QPSK	50	0	23.47				23.0	1.0
10	WCDMA	1	1	21.30				23.0	1.0
10	WCDMA	1	1	20.40				23.5	2.5
10	WCDMA	1	1	19.40				19.5	4.5
Channel									
Frequency (MHz)									
5	QPSK	1	1	23.49	23.55	23.53		24.0	0.0



n71_Ant 0											
BW MHz	Modulation	RF Size	RF Chan	Power Low Ch. / Freq	Power High Ch. / Freq	Power High Ch. / Freq	Turn-up time (min)	MFR (dB)			
Channel											
Frequency (MHz)				12500	13000	13500					
20	P1/2 BPSK	1	1	23.14	23.09	23.00	24.0	0.0			
20	P1/2 BPSK	1	3	22.87	22.84	22.80					
20	P1/2 BPSK	1	104	22.87	22.96	22.93					
20	P1/2 BPSK	30	3	23.56	23.60	23.59	23.5	0.0			
20	P1/2 BPSK	30	26	23.56	23.56	23.50					
20	P1/2 BPSK	30	58	23.25	23.41	23.28	23.5	0.0			
20	P1/2 BPSK	100	2	22.81	22.84	22.80					
20	QPSK	1	1	23.18	23.20	23.14					
20	QPSK	1	3	22.87	22.86	22.80	24.0	0.0			
20	QPSK	1	104	22.81	22.81	22.86					
20	QPSK	30	3	21.65	22.04	21.95	23.0	1.0			
20	QPSK	30	26	22.04	22.04	22.00	24.0	0.0			
20	QPSK	30	58	21.39	21.99	21.82	23.0	1.0			
20	QPSK	100	1	22.87	22.87	22.86					
20	HQDM	1	1	21.55	22.07	21.96	23.0	1.0			
20	HQDM	1	1	20.82	20.87	20.85	21.5	2.5			
20	HQDM	1	1	18.77	18.80	18.84	18.5	4.5			
Channel											
Frequency (MHz)				13810	13900	14000	Turn-up time (min)	MFR (dB)			
Channel				13810	13900	14000	24.0	0.0			
Frequency (MHz)				150	160.5	170					
10	QPSK	1	1	23.02	23.10	22.99	24.0	0.0			
Channel											
Frequency (MHz)				160.5	160.5	160.5	Turn-up time (min)	MFR (dB)			
Channel				160.5	160.5	160.5	24.0	0.0			
5	QPSK	1	1	23.00	23.15	23.07	24.0	0.0			

n71_Ant 4											
BW MHz	Modulation	RF Size	RF Chan	Power Low Ch. / Freq	Power High Ch. / Freq	Power High Ch. / Freq	Turn-up time (min)	MFR (dB)			
Channel											
Frequency (MHz)				13000	13500	14000					
20	P1/2 BPSK	1	1	22.11	22.09	22.01	24.0	0.0			
20	P1/2 BPSK	1	3	22.81	22.80	22.81					
20	P1/2 BPSK	1	104	22.73	22.81	22.73					
20	P1/2 BPSK	30	3	22.81	22.84	22.84	24.0	0.0			
20	P1/2 BPSK	30	26	22.80	22.80	22.80	24.0	0.0			
20	P1/2 BPSK	30	58	22.95	22.81	22.84	23.5	0.5			
20	P1/2 BPSK	100	31	22.80	22.87	22.85					
20	QPSK	1	1	23.00	23.12	23.08					
20	QPSK	1	3	22.87	22.86	22.80	24.0	0.0			
20	QPSK	1	104	22.80	22.87	22.75					
20	QPSK	30	3	22.09	22.11	22.06	23.0	1.0			
20	QPSK	30	26	22.87	22.90	22.91	24.0	0.0			
20	QPSK	30	58	21.96	22.20	22.00	23.0	1.0			
20	QPSK	100	1	22.80	22.86	22.84					
20	HQDM	1	1	22.00	22.07	22.02	22.0	1.0			
20	HQDM	1	1	20.54	20.48	20.50	21.5	2.5			
20	HQDM	1	1	18.68	18.63	18.60	18.5	4.5			
Channel											
Frequency (MHz)				14000	14000	14000	Turn-up time (min)	MFR (dB)			
Channel				14000	14000	14000	24.0	0.0			
Frequency (MHz)				170	180.5	190					
10	QPSK	1	1	23.02	23.11	23.00	24.0	0.0			
Channel											
Frequency (MHz)				180.5	180.5	180.5	Turn-up time (min)	MFR (dB)			
Channel				180.5	180.5	180.5	24.0	0.0			
5	QPSK	1	1	22.99	23.09	23.05	24.0	0.0			



n41_FCC_Ant 1									
DIV (MHz)	Modulation	RF Size	RF Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Time-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PV2-BPSK	1	1	22.83	22.72	22.68			
100	PV2-BPSK	1	107	22.83	22.85	22.88	24.0	0.0	
100	PV2-BPSK	1	211	22.78	22.74	22.67			
100	PV2-BPSK	135	8	22.78	22.74	22.67	23.5	0.5	
100	PV2-BPSK	135	88	22.87	22.89	22.88	24.0	0.0	
100	PV2-BPSK	135	138	22.87	22.71	22.82			
100	PV2-BPSK	210	8	22.83	22.85	22.82	23.5	0.5	
100	QPSK	1	1	22.87	22.78	22.87			
100	QPSK	1	137	22.87	22.81	22.87	24.0	0.0	
100	QPSK	1	211	22.80	22.85	22.87			
100	QPSK	135	8	22.84	22.88	22.81			
100	QPSK	135	88	22.88	22.72	22.88	24.0	0.0	
100	QPSK	135	138	22.88	22.81	22.81			
100	QPSK	135	138	22.88	22.81	22.81	23.5	1.0	
100	QPSK	135	8	21.54	21.72	21.58	23.5	1.0	
100	16QAM	1	1	21.87	21.85	21.71	23.5	1.0	
100	16QAM	1	1	21.81	21.78	21.74	21.5	2.5	
100	256QAM	1	1	18.78	18.84	18.80	18.5	4.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.74	22.83	22.73	24.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.78	22.73	22.78	24.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.83	22.74	22.78	24.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	22.80	22.78	22.81	24.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.71	22.83	22.73	24.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.77	22.73	22.81	24.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.82	22.73	22.82	24.0	0.0	

n41_FCC_Ant 1_HPUE									
DIV (MHz)	Modulation	RF Size	RF Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Time-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PV2-BPSK	1	1	22.84	22.83	22.78			
100	PV2-BPSK	1	107	22.84	22.88	22.88	27.0	0.0	
100	PV2-BPSK	1	211	22.80	22.86	22.78			
100	PV2-BPSK	135	8	22.78	22.87	22.78	26.5	0.0	
100	PV2-BPSK	135	88	22.79	22.86	22.74	27.0	0.0	
100	PV2-BPSK	135	138	22.77	22.88	22.82			
100	PV2-BPSK	210	8	22.83	22.78	22.83	26.5	0.0	
100	QPSK	1	1	22.88	22.88	22.88			
100	QPSK	1	137	22.87	22.81	22.87	27.0	0.0	
100	QPSK	1	211	22.82	22.86	22.74			
100	QPSK	135	8	22.82	22.78	22.81			
100	QPSK	135	88	22.86	22.81	22.86	27.0	0.0	
100	QPSK	135	138	22.86	22.88	22.86			
100	QPSK	135	138	22.86	22.88	22.86	26.5	1.0	
100	QPSK	135	8	21.81	21.85	21.82	26.5	1.0	
100	16QAM	1	1	20.77	20.82	20.72	26.0	1.0	
100	16QAM	1	1	21.45	21.41	21.32	24.5	2.5	
100	256QAM	1	1	17.32	17.21	17.08	22.0	4.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.75	22.78	22.81	22.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	22.78	22.81	22.78	22.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.78	22.79	22.81	22.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	22.80	22.82	22.78	22.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	22.78	22.80	22.79	22.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	22.74	22.72	22.72	22.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	22.78	22.84	22.78	21.0	0.0	



n41_FCC_Ant 2										
DIV (MHz)	Modulation	RB Size	RB Offset	Power Low (2x11MHz)	Power Max (2x11MHz)	Power High (2x11MHz)	Time-up time (dBm)	MFR (dB)		
Channel										
Frequency (MHz)										
100	PSS-SSB	1	1	18.81	20.04	20.00				
100	PSS-SSB	1	197	18.81	18.98	20.02	21.5	0.0		
100	PSS-SSB	1	201	18.89	20.00	18.87				
100	PSS-SSB	135	8	18.76	18.87	18.93	21.5	0.0		
100	PSS-SSB	135	88	18.75	18.89	18.87	21.5	0.0		
100	PSS-SSB	135	138	18.71	18.84	18.82				
100	PSS-SSB	203	8	18.70	18.90	20.01	21.5	0.0		
100	CPSC	1	1	18.84	18.84	18.84				
100	CPSC	1	137	18.84	20.18	18.84	21.5	0.0		
100	CPSC	1	201	18.85	18.81	18.82				
100	CPSC	135	8	18.84	18.84	18.82				
100	CPSC	135	88	18.84	20.21	18.84	21.5	0.0		
100	CPSC	135	138	18.74	18.84	18.84				
100	CPSC	135	138	18.74	18.84	18.84	21.5	0.0		
100	SSB-QM	1	1	18.80	18.83	18.80	21.5	0.0		
100	SSB-QM	1	1	18.81	18.84	18.82	20.5	1.0		
100	SSB-QM	1	1	18.84	18.84	18.84	18.5	0.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	18.82	20.04	18.80	21.5	0.0		
Channel										
Frequency (MHz)										
80	CPSC	1	1	18.87	20.13	20.08	21.5	0.0		
Channel										
Frequency (MHz)										
80	CPSC	1	1	18.83	20.02	18.93	21.5	0.0		
Channel										
Frequency (MHz)										
50	CPSC	1	1	18.83	20.08	20.01	21.5	0.0		
Channel										
Frequency (MHz)										
80	CPSC	1	1	18.91	20.04	20.03	21.5	0.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	18.73	20.04	18.90	21.5	0.0		
Channel										
Frequency (MHz)										
20	CPSC	1	1	18.81	20.02	18.80	21.5	0.0		

n41_FCC_Ant 2_HPUE										
DIV (MHz)	Modulation	RB Size	RB Offset	Power Low (2x11MHz)	Power Max (2x11MHz)	Power High (2x11MHz)	Time-up time (dBm)	MFR (dB)		
Channel										
Frequency (MHz)										
100	PSS-SSB	1	1	20.03	20.03	20.03				
100	PSS-SSB	1	197	20.11	20.24	20.08	24.5	0.0		
100	PSS-SSB	1	201	20.08	20.17	20.08				
100	PSS-SSB	135	8	20.06	20.16	20.11	24.5	0.0		
100	PSS-SSB	135	88	20.09	20.08	20.07	24.0	0.0		
100	PSS-SSB	135	138	20.01	20.07	20.08				
100	PSS-SSB	203	8	20.00	20.07	20.07	24.5	0.0		
100	CPSC	1	1	20.08	20.07	20.08				
100	CPSC	1	137	20.18	20.37	20.17	24.5	0.0		
100	CPSC	1	201	20.06	20.08	20.05				
100	CPSC	135	8	20.07	20.08	20.08				
100	CPSC	135	88	20.02	20.08	20.02	24.5	0.0		
100	CPSC	135	138	20.04	20.14	20.04				
100	CPSC	203	8	20.06	20.17	20.05	24.5	0.0		
100	SSB-QM	1	1	20.05	20.04	20.05	24.0	0.0		
100	SSB-QM	1	1	20.06	20.07	20.06	23.5	1.0		
100	SSB-QM	1	1	20.05	20.05	20.02	21.0	0.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	20.05	20.24	20.04	24.0	0.0		
Channel										
Frequency (MHz)										
80	CPSC	1	1	20.03	20.03	20.03	24.0	0.0		
Channel										
Frequency (MHz)										
80	CPSC	1	1	20.06	20.06	20.06	24.0	0.0		
Channel										
Frequency (MHz)										
50	CPSC	1	1	20.08	20.08	20.08	24.0	0.0		
Channel										
Frequency (MHz)										
80	CPSC	1	1	20.02	20.02	20.02	24.0	0.0		
Channel										
Frequency (MHz)										
30	CPSC	1	1	20.00	20.00	20.00	24.0	0.0		
Channel										
Frequency (MHz)										
80	CPSC	1	1	20.05	20.07	20.04	24.0	0.0		



n41_FCC_Ant 7									
DIV (MHz)	Modulation	RF Size	RF Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Turn-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PV2-BPSK	1	1	20.85	20.84	20.78			
100	PV2-BPSK	1	107	20.82	20.87	20.85	20.0	0.0	
100	PV2-BPSK	1	211	20.87	20.81	20.85			
100	PV2-BPSK	100	8	20.84	20.84	20.78	21.5	0.5	
100	PV2-BPSK	100	88	20.76	20.82	20.78	22.0	0.0	
100	PV2-BPSK	100	178	20.84	20.84	20.80			
100	PV2-BPSK	200	0	20.70	20.78	20.85	21.5	0.5	
100	CPFSK	1	1	20.85	20.85	20.85			
100	CPFSK	1	107	21.14	21.09	21.05	20.0	0.0	
100	CPFSK	1	211	21.05	21.01	20.88			
100	CPFSK	100	8	20.81	20.82	20.78			
100	CPFSK	100	88	20.83	20.88	20.80	20.0	0.0	
100	CPFSK	100	178	20.87	20.87	20.84			
100	CPFSK	100	178	20.84	20.87	20.84	21.0	1.0	
100	CPFSK	1	1	18.85	18.85	18.88	21.0	1.0	
100	SSBQAM	1	1	18.71	18.84	18.80	18.0	2.5	
100	SSBQAM	1	1	18.70	18.75	18.72	17.5	4.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	20.85	20.84	20.89	20.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	20.87	20.83	20.88	20.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	20.83	20.84	20.84	20.0	0.0	
Channel									
Frequency (MHz)									
50	CPFSK	1	1	20.82	20.80	20.87	20.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	20.87	20.84	20.87	20.0	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	20.85	20.80	20.81	20.0	0.0	
Channel									
Frequency (MHz)									
20	CPFSK	1	1	20.85	20.83	20.80	20.0	0.0	

n41_FCC_Ant 7_HPUE									
DIV (MHz)	Modulation	RF Size	RF Chnl	Power Low (25.17MHz)	Power Med (25.17MHz)	Power High (25.17MHz)	Turn-up time (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
100	PV2-BPSK	1	1	24.00	24.20	24.10			
100	PV2-BPSK	1	107	24.20	24.20	24.11	25.0	0.0	
100	PV2-BPSK	1	211	24.00	24.10	24.04			
100	PV2-BPSK	100	8	24.10	24.10	24.05	24.5	0.0	
100	PV2-BPSK	100	88	24.10	24.22	24.05	25.0	0.0	
100	PV2-BPSK	100	178	24.10	24.00	24.05			
100	PV2-BPSK	200	0	23.74	23.73	23.69	24.5	0.0	
100	CPFSK	1	1	24.00	24.10	24.04			
100	CPFSK	1	107	24.07	24.25	24.05	25.0	0.0	
100	CPFSK	1	211	24.10	24.08	24.05			
100	CPFSK	100	8	23.77	23.83	23.75			
100	CPFSK	100	88	23.88	23.23	23.65	25.0	0.0	
100	CPFSK	100	178	24.04	24.07	24.04			
100	CPFSK	100	178	24.04	23.87	24.04	24.5	1.0	
100	SSBQAM	1	1	22.14	22.20	22.21	24.0	1.0	
100	SSBQAM	1	1	21.86	21.72	21.71	22.5	2.5	
100	SSBQAM	1	1	18.80	18.87	18.80	20.0	4.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	23.96	24.00	24.12	20.0	0.0	
Channel									
Frequency (MHz)									
80	CPFSK	1	1	24.00	24.00	24.00	20.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	24.00	24.00	24.00	20.0	0.0	
Channel									
Frequency (MHz)									
50	CPFSK	1	1	24.00	24.11	24.10	20.0	0.0	
Channel									
Frequency (MHz)									
50	CPFSK	1	1	23.94	24.00	24.10	20.0	0.0	
Channel									
Frequency (MHz)									
60	CPFSK	1	1	24.00	24.10	24.00	20.0	0.0	
Channel									
Frequency (MHz)									
30	CPFSK	1	1	24.00	24.00	24.00	20.0	0.0	
Channel									
Frequency (MHz)									
20	CPFSK	1	1	23.96	23.97	24.01	20.0	0.0	



n48_FCC_Part96_Ant 5

SW (MHz)	Modulation	FD Size	FD Offset	Channel Low (MHz)	Channel High (MHz)	Channel Spacing (MHz)	Power (dBm)	MFR (dB)
Channel								
Frequency (MHz)				22000	22100	100	22050	
48	FD-SSB	1	1	2201	2201	2201		
48	FD-SSB	1	10	2215	2207	2207	24.0	0.0
48	FD-SSB	1	100	2217	2204	2204		
48	FD-SSB	10	0	2215	2211	2211	20.5	0.5
48	FD-SSB	10	10	2211	2205	2205	24.0	0.0
48	FD-SSB	10	50	2205	2211	2211	24.0	0.0
48	FD-SSB	100	0	2215	2205	2205	25.5	0.5
48	FD-SSB	100	10	2215	2205	2205		
48	FD-SSB	100	100	2215	2204	2204	24.0	0.0
48	FD-SSB	1	100	2202	2209	2209		
48	FD-SSB	10	0	2204	2202	2202		
48	FD-SSB	10	10	2209	2214	2214	24.0	0.0
48	FD-SSB	10	50	2209	2204	2204		
48	FD-SSB	100	0	2211	2206	2206	20.5	0.5
48	FD-SSB	100	10	2211	2206	2206	24.0	0.0
48	FD-SSB	100	100	2211	2205	2205	20.5	0.5
48	FD-SSB	1	1	2200	2209	2209	20.5	0.5
48	FD-SSB	1	1	2204	2209	2209	21.5	0.5
48	FD-SSB	1	1	18.25	18.37	18.37	18.0	0.0
Channel								
Frequency (MHz)				22000	22100	100	22050	
20	OFDM	1	1	2219	2232	2232	24.0	0.0
Channel								
Frequency (MHz)				22000	22100	100	22050	
40	OFDM	1	1	2211	2219	2219	24.0	0.0



Par270 n77 FCC_Ant 2										
EW (MHz)	Modulation	RB Size	RB Offset	Start Time (MHz)	End Time (MHz)	Channel Power (mW)	Power Spectral Density (dBm/MHz)	Transmission Rate (kbps)	Carrier Modulation	Notes (dB)
				Power (mW)	Power (dBm)	Power (mW)	Power (dBm)			
Channel										
Channel Power										
180	PIPSM	1	1	16.31	16.32	1000	30.0	0.0		
180	PIPSM	1	10P	16.31	16.32	1000	30.0	0.0		
180	PIPSM	1	20P	16.31	16.32	1000	30.0	0.0		
180	PIPSM	10	0	16.31	16.32	1000	30.0	0.0		
180	PIPSM	10	80	16.31	16.32	1000	30.0	0.0		
180	PIPSM	10	16	16.31	16.32	1000	30.0	0.0		
180	PIPSM	20	0	16.31	16.32	1000	30.0	0.0		
180	QPSK	1	1	16.31	16.32	1000	30.0	0.0		
180	QPSK	1	10P	16.31	16.32	1000	30.0	0.0		
180	QPSK	1	20P	16.31	16.32	1000	30.0	0.0		
180	QPSK	10	0	16.31	16.32	1000	30.0	0.0		
180	QPSK	10	80	16.31	16.32	1000	30.0	0.0		
180	QPSK	10	16	16.31	16.32	1000	30.0	0.0		
180	MQAM	1	1	16.31	16.32	1000	30.0	0.0		
180	MQAM	1	1	16.31	16.32	1000	30.0	0.0		
180	MQAM	1	1	16.31	16.32	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	PIPSM	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	PIPSM	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	PIPSM	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	PIPSM	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		

Par270 n77 HPUE FCC_Ant 2										
EW (MHz)	Modulation	RB Size	RB Offset	Start Time (MHz)	End Time (MHz)	Channel Power (mW)	Power Spectral Density (dBm/MHz)	Transmission Rate (kbps)	Carrier Modulation	Notes (dB)
				Power (mW)	Power (dBm)	Power (mW)	Power (dBm)			
Channel										
Channel Power										
180	PIPSM	1	1	16.31	16.32	1000	30.0	0.0		
180	PIPSM	1	10P	16.31	16.32	1000	30.0	0.0		
180	PIPSM	1	20P	16.31	16.32	1000	30.0	0.0		
180	PIPSM	10	0	16.31	16.32	1000	30.0	0.0		
180	PIPSM	10	80	16.31	16.32	1000	30.0	0.0		
180	PIPSM	10	16	16.31	16.32	1000	30.0	0.0		
180	PIPSM	20	0	16.31	16.32	1000	30.0	0.0		
180	QPSK	1	1	16.31	16.32	1000	30.0	0.0		
180	QPSK	1	10P	16.31	16.32	1000	30.0	0.0		
180	QPSK	1	20P	16.31	16.32	1000	30.0	0.0		
180	QPSK	10	0	16.31	16.32	1000	30.0	0.0		
180	QPSK	10	80	16.31	16.32	1000	30.0	0.0		
180	QPSK	10	16	16.31	16.32	1000	30.0	0.0		
180	MQAM	1	1	16.31	16.32	1000	30.0	0.0		
180	MQAM	1	1	16.31	16.32	1000	30.0	0.0		
180	MQAM	1	1	16.31	16.32	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	PIPSM	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	PIPSM	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	PIPSM	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	PIPSM	1	1	16.41	16.42	1000	30.0	0.0		
Channel										
180	QPSK	1	1	16.41	16.42	1000	30.0	0.0		

Par270 n77 FCC_Ant 8									
RF (MHz)	Modulation	RF Size	RF Offset	Power Type Ch. 1 (W)	Power Type Ch. 2 (W)	Power Type Ch. 3 (W)	Temperature (dB)	MFR (dB)	MFR (dB)
Channel									
Frequency (MHz)									
180	PPSPPS	1	1	20.0	20.0	20.0		0.0	
180	PPSPPS	1	100	20.0	20.0	20.0	20.0	0.0	
180	PPSPPS	1	200	20.0	20.0	20.0		0.0	
180	PPSPPS	100	1	20.0	20.0	20.0	20.0	0.0	
180	PPSPPS	100	100	20.0	20.0	20.0		0.0	
180	PPSPPS	100	100	20.0	20.0	20.0		0.0	
180	OPSA	1	1	20.0	20.0	20.0		0.0	
180	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
180	OPSA	100	1	20.0	20.0	20.0		0.0	
180	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
180	OPSA	100	100	20.0	20.0	20.0		0.0	
180	MCSA	1	1	20.0	20.0	20.0		0.0	
180	MCSA	1	1	20.0	20.0	20.0		0.0	
Channel									
90	OPSA	1	1	20.0	20.0	20.0		0.0	
90	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
90	OPSA	100	1	20.0	20.0	20.0		0.0	
90	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
90	OPSA	100	100	20.0	20.0	20.0		0.0	
90	MCSA	1	1	20.0	20.0	20.0		0.0	
90	MCSA	1	1	20.0	20.0	20.0		0.0	
Channel									
45	OPSA	1	1	20.0	20.0	20.0		0.0	
45	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
45	OPSA	100	1	20.0	20.0	20.0		0.0	
45	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
45	OPSA	100	100	20.0	20.0	20.0		0.0	
45	MCSA	1	1	20.0	20.0	20.0		0.0	
45	MCSA	1	1	20.0	20.0	20.0		0.0	
Channel									
30	OPSA	1	1	20.0	20.0	20.0		0.0	
30	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
30	OPSA	100	1	20.0	20.0	20.0		0.0	
30	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
30	OPSA	100	100	20.0	20.0	20.0		0.0	
30	MCSA	1	1	20.0	20.0	20.0		0.0	
30	MCSA	1	1	20.0	20.0	20.0		0.0	
Channel									
15	OPSA	1	1	20.0	20.0	20.0		0.0	
15	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
15	OPSA	100	1	20.0	20.0	20.0		0.0	
15	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
15	OPSA	100	100	20.0	20.0	20.0		0.0	
15	MCSA	1	1	20.0	20.0	20.0		0.0	
15	MCSA	1	1	20.0	20.0	20.0		0.0	

Par270 n77 HPUE FCC_Ant 8									
RF (MHz)	Modulation	RF Size	RF Offset	Power Type Ch. 1 (W)	Power Type Ch. 2 (W)	Power Type Ch. 3 (W)	Temperature (dB)	MFR (dB)	MFR (dB)
Channel									
Frequency (MHz)									
180	PPSPPS	1	1	20.0	20.0	20.0		0.0	
180	PPSPPS	1	100	20.0	20.0	20.0	20.0	0.0	
180	PPSPPS	100	1	20.0	20.0	20.0		0.0	
180	PPSPPS	100	100	20.0	20.0	20.0	20.0	0.0	
180	PPSPPS	100	100	20.0	20.0	20.0		0.0	
180	OPSA	1	1	20.0	20.0	20.0		0.0	
180	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
180	OPSA	100	1	20.0	20.0	20.0		0.0	
180	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
180	OPSA	100	100	20.0	20.0	20.0		0.0	
180	MCSA	1	1	20.0	20.0	20.0		0.0	
180	MCSA	1	1	20.0	20.0	20.0		0.0	
Channel									
90	OPSA	1	1	20.0	20.0	20.0		0.0	
90	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
90	OPSA	100	1	20.0	20.0	20.0		0.0	
90	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
90	OPSA	100	100	20.0	20.0	20.0		0.0	
90	MCSA	1	1	20.0	20.0	20.0		0.0	
90	MCSA	1	1	20.0	20.0	20.0		0.0	
Channel									
45	OPSA	1	1	20.0	20.0	20.0		0.0	
45	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
45	OPSA	100	1	20.0	20.0	20.0		0.0	
45	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
45	OPSA	100	100	20.0	20.0	20.0		0.0	
45	MCSA	1	1	20.0	20.0	20.0		0.0	
45	MCSA	1	1	20.0	20.0	20.0		0.0	
Channel									
30	OPSA	1	1	20.0	20.0	20.0		0.0	
30	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
30	OPSA	100	1	20.0	20.0	20.0		0.0	
30	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
30	OPSA	100	100	20.0	20.0	20.0		0.0	
30	MCSA	1	1	20.0	20.0	20.0		0.0	
30	MCSA	1	1	20.0	20.0	20.0		0.0	
Channel									
15	OPSA	1	1	20.0	20.0	20.0		0.0	
15	OPSA	1	100	20.0	20.0	20.0	20.0	0.0	
15	OPSA	100	1	20.0	20.0	20.0		0.0	
15	OPSA	100	100	20.0	20.0	20.0	20.0	0.0	
15	OPSA	100	100	20.0	20.0	20.0		0.0	
15	MCSA	1	1	20.0	20.0	20.0		0.0	
15	MCSA	1	1	20.0	20.0	20.0		0.0	



Par27Q n77_FCC_Ant 8									
RF (MHz)	Modulation	RF Size	RF Offset	Power Type Ch. 1 (dBm)	Power Rate Ch. 2 (dBm)	Power Type Ch. 3 (dBm)	Transmit (dBm)	Spurs (dB)	Spurs (dB)
Channel									
Channel 1									
190	F3/SSB	1	1		23.33				
190	F3/SSB	1	137		23.33		23.0	60	
190	F3/SSB	1	271		23.33		23.0	60	
190	F3/SSB	162	0		23.33		23.0	60	
190	F3/SSB	162	88		23.33		23.0	60	
190	F3/SSB	162	176		23.33		23.0	60	
190	OFDM	1	1		23.33				
190	OFDM	1	137		23.33		23.0	60	
190	OFDM	162	0		23.33		23.0	60	
190	OFDM	162	88		23.33		23.0	60	
190	OFDM	162	176		23.33		23.0	60	
190	WDM	1	1		23.33		23.0	60	
190	WDM	1	1		23.33		23.0	60	
Channel									
90	OFDM	1	1		23.33		23.0	60	
Channel 2									
Channel 3									
70	OFDM	1	1		23.33		23.0	60	
Channel									
Channel 1									
30	OFDM	1	1		23.33		23.0	60	
Channel 2									
30	OFDM	1	1		23.33		23.0	60	
Channel									
Channel 1									
30	OFDM	1	1		23.33		23.0	60	
Channel 2									
30	OFDM	1	1		23.33		23.0	60	
Channel									
Channel 1									
30	OFDM	1	1		23.33		23.0	60	
Channel 2									
30	OFDM	1	1		23.33		23.0	60	

Par27Q n77 HPUE_FCC_Ant 8									
RF (MHz)	Modulation	RF Size	RF Offset	Power Type Ch. 1 (dBm)	Power Rate Ch. 2 (dBm)	Power Type Ch. 3 (dBm)	Transmit (dBm)	Spurs (dB)	Spurs (dB)
Channel									
Channel 1									
190	F3/SSB	1	1		23.33				
190	F3/SSB	1	137		23.33		23.0	60	
190	F3/SSB	1	271		23.33		23.0	60	
190	F3/SSB	162	0		23.33		23.0	60	
190	F3/SSB	162	88		23.33		23.0	60	
190	F3/SSB	162	176		23.33		23.0	60	
190	OFDM	1	1		23.33				
190	OFDM	1	137		23.33		23.0	60	
190	OFDM	162	0		23.33		23.0	60	
190	OFDM	162	88		23.33		23.0	60	
190	OFDM	162	176		23.33		23.0	60	
190	WDM	1	1		23.33		23.0	60	
190	WDM	1	1		23.33		23.0	60	
Channel									
90	OFDM	1	1		23.33		23.0	60	
Channel 2									
90	OFDM	1	1		23.33		23.0	60	
Channel									
Channel 1									
70	OFDM	1	1		23.33		23.0	60	
Channel									
Channel 1									
30	OFDM	1	1		23.33		23.0	60	
Channel 2									
30	OFDM	1	1		23.33		23.0	60	
Channel									
Channel 1									
30	OFDM	1	1		23.33		23.0	60	
Channel 2									
30	OFDM	1	1		23.33		23.0	60	



<WLAN 2.4GHz FCC>

	Art 6																		
	Full Power				For Head Standalone		For Head Simultaneous		For Body worn Standalone		For Body worn Simultaneous		For Extremity Standalone		For Extremity Simultaneous		For Hotspot Simultaneous		
Mode	Channel	Freqnc y (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Duty Cycle %	
2.4GHz WLAN	802.11a 6Mbps	1	2412	20.62	22.00	18.42	20.00	13.21	15.50	18.42	20.00	12.63	14.00	20.62	22.00	15.23	17.50	12.63	14.00
		6	2437	20.56	22.00	18.54	20.00	14.21	15.50	18.64	20.00	13.17	14.00	20.56	22.00	16.45	17.50	13.21	14.00
		11	2462	20.73	22.00	18.95	20.00	14.92	15.50	18.96	20.00	13.23	14.00	20.73	22.00	16.72	17.50	13.21	14.00
	802.11g 6Mbps	1	2412	20.28	21.50		20.00	15.50	20.00	14.00	20.28	21.50		14.00	20.28	21.50		14.00	
		6	2437	20.52	22.00		20.00	15.50	20.00	14.00	20.52	22.00		14.00	20.52	22.00		14.00	
	802.11n-HT20 MCS0	11	2412	20.72	20.00	Not Required	20.00	15.50	20.00	14.00	20.72	20.00	Not Required	14.00	20.72	20.00	Not Required	14.00	14.00
6		2437	20.68	22.00	Not Required	20.00	15.50	20.00	14.00	20.68	22.00	Not Required	14.00	20.68	22.00	Not Required	14.00	14.00	97.78
802.11n-VHT40 MCS0	3	2422	16.96	17.50		17.50	15.50	17.50	15.50	16.96	17.50		14.00	16.96	17.50		14.00		
	6	2437	20.94	22.00		20.00	15.50	20.00	14.00	20.94	22.00		14.00	20.94	22.00		14.00		
	9	2462	20.97	22.00		20.00	15.50	20.00	14.00	20.97	22.00		14.00	20.97	22.00		14.00	54.89	

<WLAN 5GHz FCC>

	Art 6																		
	Full Power				For Head Standalone		For Head Simultaneous		For Body worn Standalone		For Body worn Simultaneous		For Extremity Standalone		For Extremity Simultaneous		For Hotspot Simultaneous		
Mode	Channel	Freqnc y (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Duty Cycle %	
5.2GHz WLAN	802.11a 6Mbps	36	5158	20.05	21.50	20.05	21.50	17.50	16.50	17.50	16.50	12.50	20.05	21.50	17.50	12.50	17.50	12.50	
		40	5200	20.11	21.50	20.11	21.50	17.50	16.50	17.50	16.50	12.50	20.11	21.50	17.50	12.50	17.50	12.50	98.26
		44	5220	19.75	21.50	19.75	21.50	17.50	16.50	17.50	16.50	12.50	19.75	21.50	17.50	12.50	17.50	12.50	98.26
	802.11n-HT20 MCS0	36	5158	19.61	21.50	19.61	21.50	17.50	16.50	17.50	16.50	12.50	19.61	21.50	17.50	12.50	17.50	12.50	
		40	5200	19.53	21.50	19.53	21.50	17.50	16.50	17.50	16.50	12.50	19.53	21.50	17.50	12.50	17.50	12.50	98.13
		44	5220	19.62	21.50	19.62	21.50	17.50	16.50	17.50	16.50	12.50	19.62	21.50	17.50	12.50	17.50	12.50	98.13
802.11n-VHT40 MCS0	48	5240	19.83	21.50	19.83	21.50	17.50	16.50	17.50	16.50	12.50	19.83	21.50	17.50	12.50	17.50	12.50		
	38	5190	19.57	21.50	19.57	21.50	17.50	16.50	17.50	16.50	12.50	19.57	21.50	17.50	12.50	17.50	12.50	96.30	
	46	5230	19.87	21.50	19.87	21.50	17.50	16.50	17.50	16.50	12.50	19.87	21.50	17.50	12.50	17.50	12.50	96.30	
802.11ac-VHT20 MCS0	36	5180	19.83	21.50	19.83	21.50	17.50	16.50	17.50	16.50	12.50	19.83	21.50	17.50	12.50	17.50	12.50	98.15	
	40	5200	19.80	21.50	19.80	21.50	17.50	16.50	17.50	16.50	12.50	19.80	21.50	17.50	12.50	17.50	12.50	98.15	
802.11ac-VHT40 MCS0	48	5240	20.15	21.50	20.15	21.50	17.50	16.50	17.50	16.50	12.50	20.15	21.50	17.50	12.50	17.50	12.50	96.46	
	36	5180	19.62	21.50	19.62	21.50	17.50	16.50	17.50	16.50	12.50	19.62	21.50	17.50	12.50	17.50	12.50	96.46	
802.11ac-VHT80 MCS0	46	5230	19.73	21.50	19.73	21.50	17.50	16.50	17.50	16.50	12.50	19.73	21.50	17.50	12.50	17.50	12.50		
	42	5210	18.44	20.00	18.44	20.00	15.94	17.50	14.96	16.50	10.94	12.50	18.44	20.00	15.94	17.50	10.94	12.50	92.98

	Art 6																		
	Full Power				For Head Standalone		For Head Simultaneous		For Body worn Standalone		For Body worn Simultaneous		For Extremity Standalone		For Extremity Simultaneous		For Hotspot Simultaneous		
Mode	Channel	Freqnc y (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Duty Cycle %	
5.3GHz WLAN	802.11a 6Mbps	52	5260	19.89	21.50	19.89	21.50	17.50	16.50	17.50	16.50	12.50	19.89	21.50	17.50	12.50	17.50	12.50	
		56	5280	20.08	21.50	20.08	21.50	17.50	16.50	17.50	16.50	12.50	20.08	21.50	17.50	12.50	17.50	12.50	98.26
		60	5300	20.16	21.50	20.16	21.50	17.50	16.50	17.50	16.50	12.50	20.16	21.50	17.50	12.50	17.50	12.50	98.26
	802.11n-HT20 MCS0	52	5260	20.36	21.50	20.36	21.50	17.50	16.50	17.50	16.50	12.50	20.36	21.50	17.50	12.50	17.50	12.50	
		56	5280	19.76	21.50	19.76	21.50	17.50	16.50	17.50	16.50	12.50	19.76	21.50	17.50	12.50	17.50	12.50	98.13
		60	5300	20.23	21.50	20.23	21.50	17.50	16.50	17.50	16.50	12.50	20.23	21.50	17.50	12.50	17.50	12.50	98.13
802.11n-VHT40 MCS0	64	5320	19.86	21.50	19.86	21.50	17.50	16.50	17.50	16.50	12.50	19.86	21.50	17.50	12.50	17.50	12.50		
	54	5270	19.83	21.50	19.83	21.50	17.50	16.50	17.50	16.50	12.50	19.83	21.50	17.50	12.50	17.50	12.50	96.30	
	62	5290	19.79	21.50	19.79	21.50	17.50	16.50	17.50	16.50	12.50	19.79	21.50	17.50	12.50	17.50	12.50	96.30	
802.11ac-VHT20 MCS0	60	5280	20.14	21.50	20.14	21.50	17.50	16.50	17.50	16.50	12.50	20.14	21.50	17.50	12.50	17.50	12.50		
	56	5260	20.40	21.50	20.40	21.50	17.50	16.50	17.50	16.50	12.50	20.40	21.50	17.50	12.50	17.50	12.50	98.15	
802.11ac-VHT40 MCS0	64	5320	20.46	21.50	20.46	21.50	17.50	16.50	17.50	16.50	12.50	20.46	21.50	17.50	12.50	17.50	12.50		
	64	5320	20.22	21.50	20.22	21.50	17.50	16.50	17.50	16.50	12.50	20.22	21.50	17.50	12.50	17.50	12.50	96.46	
802.11ac-VHT80 MCS0	54	5270	19.90	21.50	19.90	21.50	17.50	16.50	17.50	16.50	12.50	19.90	21.50	17.50	12.50	17.50	12.50		
	62	5290	19.62	21.50	19.62	21.50	17.50	16.50	17.50	16.50	12.50	19.62	21.50	17.50	12.50	17.50	12.50	92.98	

	Art 6																		
	Full Power				For Head Standalone		For Head Simultaneous		For Body worn Standalone		For Body worn Simultaneous		For Extremity Standalone		For Extremity Simultaneous		For Hotspot Simultaneous		
Mode	Channel	Freqnc y (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Duty Cycle %	
5.8GHz WLAN	802.11a 6Mbps	100	5550	19.99	21.50	19.99	21.50	19.00	16.50	19.00	16.50	12.50	19.99	21.50	17.50	12.50	17.50	12.50	
		116	5580	20.17	21.50	20.17	21.50	19.00	16.50	19.00	16.50	12.50	20.17	21.50	17.50	12.50	17.50	12.50	98.26
		124	5600	20.21	21.50	20.21	21.50	19.00	16.50	19.00	16.50	12.50	20.21	21.50	17.50	12.50	17.50	12.50	98.26
	802.11n-HT20 MCS0	132	5660	20.11	21.50	20.11	21.50	19.00	16.50	19.00	16.50	12.50	20.11	21.50	17.50	12.50	17.50	12.50	
		140	5700	19.63	21.50	19.63	21.50	19.00	16.50	19.00	16.50	12.50	19.63	21.50	17.50	12.50	17.50	12.50	98.13
		144	5720	19.89	21.50	19.89	21.50	19.00	16.50	19.00	16.50	12.50	19.89	21.50	17.50	12.50	17.50	12.50	98.13
802.11n-VHT40 MCS0	100	5550	19.83	21.50	19.83	21.50	19.00	16.50	19.00	16.50	12.50	19.83	21.50	17.50	12.50	17.50	12.50		
	116	5580	20.36	21.50	20.36	21.50	19.00	16.50	19.00	16.50	12.50	20.36	21.50	17.50	12.50	17.50	12.50	96.30	
	124	5600	20.23	21.50	20.23	21.50	19.00	16.50	19.00	16.50	12.50	20.23	21.50	17.50	12.50	17.50	12.50	96.30	
802.11ac-VHT20 MCS0	142	5740	19.56	21.50	19.56	21.50	19.00	16.50	19.00	16.50	12.50	19.56	21.50	17.50	12.50	17.50	12.50		
	142	5740	19.85	21.50	19.85	21.50	19.00	16.50	19.00	16.50	12.50	19.85	21.50	17.50	12.50	17.50	12.50	98.15	
802.11ac-VHT40 MCS0	100	5550	20.12	21.50	20.12	21.50	19.00	16.50	19.00	16.50									



BR/EDR

Mode	Channel	Frequency (MHz)	Average power (dBm)									Tune-up Limit
			Packet Type									
			DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3DH5	
Bluetooth	CH 0	2402	11.17	11.25	11.61	9.30	9.06	8.90	9.28	9.10	8.87	12.50
	CH 39	2441	11.04	11.09	11.16	8.70	8.27	8.10	8.75	8.32	8.13	
	CH 78	2480	10.52	10.71	10.80	8.48	8.02	7.84	8.45	8.05	7.85	

BLE_1M

Mode	Channel	Frequency (MHz)	Average power (dBm)
LE			LE
	CH 00	2402	2.96
	CH 19	2440	2.64
	CH 39	2480	2.73
Tune-up Limit			4

BLE_2M

Mode	Channel	Frequency (MHz)	Average power (dBm)
LE			LE
	CH 00	2402	2.70
	CH 19	2440	2.63
	CH 39	2480	2.46
Tune-up Limit			4