



<FR1 n66_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				346000	349000	352000	
Frequency (MHz)				1730	1745	1760	
40	PI/2 BPSK	1	1	22.97	23.02	22.95	24.0
40	PI/2 BPSK	1	108	22.89	22.95	22.87	
40	PI/2 BPSK	1	214	22.85	22.89	22.83	
40	PI/2 BPSK	108	0	22.61	22.71	22.66	23.5
40	PI/2 BPSK	108	54	22.88	22.94	22.84	24.0
40	PI/2 BPSK	108	108	22.54	22.63	22.56	23.5
40	PI/2 BPSK	216	0	22.57	22.63	22.57	
40	QPSK	1	1	22.82	22.91	22.83	24.0
40	QPSK	1	108	22.77	22.85	22.77	
40	QPSK	1	214	22.73	22.79	22.71	
40	QPSK	108	0	22.16	22.23	22.16	23.0
40	QPSK	108	54	22.83	22.90	22.81	24.0
40	QPSK	108	108	22.04	22.14	22.04	23.0
40	QPSK	216	0	22.06	22.12	22.06	
40	16QAM	1	1	21.69	21.75	21.67	23.0
40	64QAM	1	1	20.56	20.65	20.59	21.5
40	256QAM	1	1	18.76	18.84	18.77	19.5
Channel				345000	349000	353000	Tune-up limit (dBm)
Frequency (MHz)				1725	1745	1765	
30	PI/2 BPSK	1	1	22.87	22.92	22.86	24.0
Channel				344500	349000	353500	Tune-up limit (dBm)
Frequency (MHz)				1722.5	1745	1767.5	
25	PI/2 BPSK	1	1	22.87	22.95	22.89	24.0
Channel				342000	349000	356000	Tune-up limit (dBm)
Frequency (MHz)				1710	1745	1780	
20	PI/2 BPSK	1	1	22.88	22.92	22.89	24.0
Channel				343500	349000	354500	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	22.90	22.97	22.88	24.0
Channel				343000	349000	355000	Tune-up limit (dBm)
Frequency (MHz)				1715	1745	1775	
10	PI/2 BPSK	1	1	22.92	22.90	22.90	24.0
Channel				342500	349000	355500	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	22.87	22.93	22.80	24.0



<FR1 n66_Main Ant_Reduced Power>

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel	346000	349000	352000	18.5
Frequency (MHz)	1730	1745	1760	
40	PI/2 BPSK	1	1	18.05
40	PI/2 BPSK	1	108	18.00
40	PI/2 BPSK	1	214	17.92
40	PI/2 BPSK	108	0	17.99
40	PI/2 BPSK	108	54	18.01
40	PI/2 BPSK	108	108	17.91
40	PI/2 BPSK	216	0	17.99
40	QPSK	1	1	17.98
40	QPSK	1	108	18.00
40	QPSK	1	214	17.89
40	QPSK	108	0	17.99
40	QPSK	108	54	18.00
40	QPSK	108	108	17.95
40	QPSK	216	0	18.03
40	16QAM	1	1	18.04
40	64QAM	1	1	18.02
40	256QAM	1	1	18.04
Channel	345000	349000	353000	18.5
Frequency (MHz)	1725	1745	1765	
30	PI/2 BPSK	1	1	17.99
Channel	344500	349000	353500	18.5
Frequency (MHz)	1722.5	1745	1767.5	
25	PI/2 BPSK	1	1	17.99
Channel	344000	349000	354000	18.5
Frequency (MHz)	1720	1745	1770	
20	PI/2 BPSK	1	1	17.98
Channel	343500	349000	354500	18.5
Frequency (MHz)	1717.5	1745	1772.5	
15	PI/2 BPSK	1	1	17.96
Channel	343000	349000	355000	18.5
Frequency (MHz)	1715	1745	1775	
10	PI/2 BPSK	1	1	17.96
Channel	342500	349000	355500	18.5
Frequency (MHz)	1712.5	1745	1777.5	
5	PI/2 BPSK	1	1	17.98



<FR1 n66_MIMO2 Ant_Reduced Power>

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)			
Channel	346000	349000	352000	17.0			
Frequency (MHz)	1730	1745	1760				
40	PI/2 BPSK	1	1	16.62	16.67	16.65	17.0
40	PI/2 BPSK	1	108	16.56	16.61	16.59	
40	PI/2 BPSK	1	214	16.54	16.59	16.57	
40	PI/2 BPSK	108	0	16.58	16.63	16.61	17.0
40	PI/2 BPSK	108	54	16.60	16.65	16.63	17.0
40	PI/2 BPSK	108	108	16.57	16.62	16.60	17.0
40	PI/2 BPSK	216	0	16.59	16.64	16.62	
40	QPSK	1	1	16.47	16.52	16.50	17.0
40	QPSK	1	108	16.56	16.61	16.59	
40	QPSK	1	214	16.53	16.58	16.56	
40	QPSK	108	0	16.60	16.65	16.63	17.0
40	QPSK	108	54	16.56	16.61	16.59	17.0
40	QPSK	108	108	16.52	16.57	16.55	17.0
40	QPSK	216	0	16.58	16.63	16.61	
40	16QAM	1	1	16.03	16.08	16.06	17.0
40	64QAM	1	1	16.60	16.65	16.63	17.0
40	256QAM	1	1	16.61	16.66	16.64	17.0
Channel	345000	349000	353000	Tune-up limit (dBm)			
Frequency (MHz)	1725	1745	1765	17.0			
30	PI/2 BPSK	1	1		16.55	16.58	16.57
Channel	344500	349000	353500	Tune-up limit (dBm)			
Frequency (MHz)	1722.5	1745	1767.5	17.0			
25	PI/2 BPSK	1	1		16.56	16.61	16.59
Channel	341900	348900	355900	Tune-up limit (dBm)			
Frequency (MHz)	1709.5	1744.5	1779.5	17.0			
20	PI/2 BPSK	1	1		16.56	16.61	16.59
Channel	343500	349000	354500	Tune-up limit (dBm)			
Frequency (MHz)	1717.5	1745	1772.5	17.0			
15	PI/2 BPSK	1	1		16.54	16.60	16.58
Channel	343000	349000	355000	Tune-up limit (dBm)			
Frequency (MHz)	1715	1745	1775	17.0			
10	PI/2 BPSK	1	1		16.54	16.58	16.57
Channel	342500	349000	355500	Tune-up limit (dBm)			
Frequency (MHz)	1712.5	1745	1777.5	17.0			
5	PI/2 BPSK	1	1		16.55	16.60	16.59



<FR1 n71_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	24.33	24.37	24.35	25.0
20	PI/2 BPSK	1	53	24.21	24.30	24.24	
20	PI/2 BPSK	1	104	24.12	24.20	24.14	
20	PI/2 BPSK	50	0	23.92	23.97	23.91	24.5
20	PI/2 BPSK	50	28	24.20	24.30	24.20	25.0
20	PI/2 BPSK	50	56	23.70	23.76	23.69	24.5
20	PI/2 BPSK	100	0	23.81	23.91	23.82	
20	QPSK	1	1	24.23	24.31	24.23	25.0
20	QPSK	1	53	24.16	24.25	24.20	
20	QPSK	1	104	24.12	24.17	24.10	
20	QPSK	50	0	23.35	23.43	23.36	24.0
20	QPSK	50	28	24.20	24.28	24.23	25.0
20	QPSK	50	56	23.20	23.30	23.22	24.0
20	QPSK	100	0	23.31	23.39	23.29	
20	16QAM	1	1	22.83	22.91	22.83	24.0
20	64QAM	1	1	22.33	22.43	22.34	22.5
20	256QAM	1	1	19.91	19.96	19.91	20.5
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	24.24	24.27	24.29	25.0
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	24.27	24.30	24.28	25.0
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	24.23	24.29	24.25	25.0



<FR1 n71_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				134600	136100	137600	
Frequency (MHz)				673	680.5	688	
20	PI/2 BPSK	1	1	21.75	21.78	21.77	22.0
20	PI/2 BPSK	1	53	21.72	21.75	21.74	
20	PI/2 BPSK	1	104	21.64	21.67	21.66	
20	PI/2 BPSK	50	0	21.68	21.71	21.70	22.0
20	PI/2 BPSK	50	28	21.71	21.74	21.73	22.0
20	PI/2 BPSK	50	56	21.56	21.59	21.58	22.0
20	PI/2 BPSK	100	0	21.67	21.70	21.69	
20	QPSK	1	1	21.69	21.72	21.71	22.0
20	QPSK	1	53	21.59	21.62	21.61	
20	QPSK	1	104	21.54	21.57	21.56	
20	QPSK	50	0	21.71	21.74	21.73	22.0
20	QPSK	50	28	21.69	21.72	21.71	22.0
20	QPSK	50	56	21.65	21.68	21.67	22.0
20	QPSK	100	0	21.62	21.65	21.64	
20	16QAM	1	1	21.64	21.67	21.66	22.0
20	64QAM	1	1	21.74	21.77	21.76	22.0
20	256QAM	1	1	19.85	19.90	19.88	20.5
Channel				134100	136100	138100	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	PI/2 BPSK	1	1	21.66	21.71	21.69	22.0
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	PI/2 BPSK	1	1	21.69	21.69	21.69	22.0
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	PI/2 BPSK	1	1	21.66	21.72	21.69	22.0



<FR1 n38_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518000	519000	520000	
Frequency (MHz)				2590	2595	2600	
40	PI/2 BPSK	1	1	24.39	24.41	24.38	25.0
40	PI/2 BPSK	1	53	24.27	24.34	24.27	
40	PI/2 BPSK	1	104	24.24	24.30	24.26	
40	PI/2 BPSK	50	0	23.74	23.83	23.78	24.5
40	PI/2 BPSK	50	28	24.26	24.28	24.21	25.0
40	PI/2 BPSK	50	56	23.81	23.86	23.79	24.5
40	PI/2 BPSK	100	0	23.77	23.83	23.74	
40	QPSK	1	1	24.32	24.36	24.26	25.0
40	QPSK	1	53	24.22	24.27	24.25	
40	QPSK	1	104	24.13	24.21	24.14	
40	QPSK	50	0	23.33	23.35	23.30	25.0
40	QPSK	50	28	24.21	24.25	24.17	
40	QPSK	50	56	23.33	23.36	23.28	
40	QPSK	100	0	23.24	23.32	23.25	24.0
40	16QAM	1	1	23.42	23.47	23.42	24.0
40	64QAM	1	1	22.11	22.13	22.04	22.5
40	256QAM	1	1	19.77	19.81	19.79	20.5
Channel				517000	519000	521000	Tune-up limit (dBm)
Frequency (MHz)				2585	2595	2605	
30	PI/2 BPSK	1	1	24.36	24.38	24.32	25.0
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	24.34	24.35	24.37	25.0
Channel				515500	519000	522500	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	PI/2 BPSK	1	1	24.29	24.35	24.32	25.0
Channel				515000	519000	523000	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	PI/2 BPSK	1	1	24.31	24.32	24.34	25.0



<FR1 n38_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518000	519000	520000	
Frequency (MHz)				2590	2595	2600	
40	PI/2 BPSK	1	1	23.13	23.19	23.15	24.0
40	PI/2 BPSK	1	53	23.08	23.14	23.05	
40	PI/2 BPSK	1	104	23.01	23.10	23.05	
40	PI/2 BPSK	50	0	22.51	22.57	22.50	23.5
40	PI/2 BPSK	50	28	23.02	23.08	23.03	24.0
40	PI/2 BPSK	50	56	22.59	22.64	22.59	23.5
40	PI/2 BPSK	100	0	22.50	22.54	22.51	
40	QPSK	1	1	23.03	23.10	23.08	24.0
40	QPSK	1	53	23.01	23.06	23.05	
40	QPSK	1	104	23.09	23.12	23.10	
40	QPSK	50	0	22.06	22.08	22.09	24.0
40	QPSK	50	28	23.01	23.05	23.02	
40	QPSK	50	56	22.02	22.06	22.03	
40	QPSK	100	0	22.01	22.03	22.04	23.0
40	16QAM	1	1	22.13	22.18	22.13	23.0
40	64QAM	1	1	21.01	21.04	21.00	21.5
40	256QAM	1	1	18.70	18.80	18.72	19.5
Channel				517000	519000	521000	Tune-up limit (dBm)
Frequency (MHz)				2585	2595	2605	
30	PI/2 BPSK	1	1	23.08	23.12	23.10	24.0
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	23.03	23.10	23.08	24.0
Channel				515500	519000	522500	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	PI/2 BPSK	1	1	23.07	23.10	23.09	24.0
Channel				515000	519000	523000	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	PI/2 BPSK	1	1	23.03	23.12	23.07	24.0



<FR1 n38_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518000	519000	520000	
Frequency (MHz)				2590	2595	2600	
40	PI/2 BPSK	1	1	14.41	14.42	14.43	
40	PI/2 BPSK	1	53	14.39	14.40	14.41	14.5
40	PI/2 BPSK	1	104	14.38	14.39	14.40	14.5
40	PI/2 BPSK	50	0	14.35	14.36	14.37	
40	PI/2 BPSK	50	28	14.38	14.37	14.37	14.5
40	PI/2 BPSK	50	56	14.34	14.35	14.36	14.5
40	PI/2 BPSK	100	0	14.33	14.34	14.35	
40	QPSK	1	1	14.32	14.33	14.34	14.5
40	QPSK	1	53	14.40	14.41	14.42	
40	QPSK	1	104	14.37	14.38	14.39	
40	QPSK	50	0	14.39	14.40	14.41	14.5
40	QPSK	50	28	14.30	14.31	14.32	
40	QPSK	50	56	14.38	14.39	14.40	
40	QPSK	100	0	14.37	14.38	14.39	14.5
40	16QAM	1	1	14.39	14.40	14.41	14.5
40	64QAM	1	1	14.40	14.41	14.42	14.5
40	256QAM	1	1	14.38	14.39	14.40	14.5
Channel				517000	519000	521000	Tune-up limit (dBm)
Frequency (MHz)				2585	2595	2605	14.5
30	PI/2 BPSK	1	1	14.39	14.33	14.41	
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	14.5
20	PI/2 BPSK	1	1	14.28	14.32	14.29	
Channel				515500	519000	522500	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	14.5
15	PI/2 BPSK	1	1	14.36	14.31	14.33	
Channel				515000	519000	523000	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	14.5
10	PI/2 BPSK	1	1	14.32	14.39	14.37	



<FR1 n38_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518000	519000	520000	
Frequency (MHz)				2590	2595	2600	
40	PI/2 BPSK	1	1	23.48	23.56	23.52	
40	PI/2 BPSK	1	53	23.36	23.42	23.41	25.0
40	PI/2 BPSK	1	104	23.36	23.40	23.35	
40	PI/2 BPSK	50	0	22.87	22.91	22.87	24.5
40	PI/2 BPSK	50	28	23.20	23.24	23.18	25.0
40	PI/2 BPSK	50	56	22.87	22.90	22.85	24.5
40	PI/2 BPSK	100	0	22.74	22.84	22.81	
40	QPSK	1	1	23.18	23.28	23.24	25.0
40	QPSK	1	53	23.15	23.19	23.04	
40	QPSK	1	104	23.21	23.24	23.21	
40	QPSK	50	0	23.04	23.07	23.01	25.0
40	QPSK	50	28	23.44	23.50	23.51	
40	QPSK	50	56	23.08	23.06	23.12	
40	QPSK	100	0	22.41	22.44	22.35	24.0
40	16QAM	1	1	23.00	22.91	22.87	24.0
40	64QAM	1	1	21.16	21.18	21.15	22.5
40	256QAM	1	1	19.24	19.29	19.21	20.5
Channel				517000	519000	521000	Tune-up limit (dBm)
Frequency (MHz)				2585	2595	2605	
30	PI/2 BPSK	1	1	23.41	23.48	23.38	25.0
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	23.42	23.47	23.44	25.0
Channel				515500	519000	522500	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	PI/2 BPSK	1	1	23.46	23.51	23.48	25.0
Channel				515000	519000	523000	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	PI/2 BPSK	1	1	23.36	23.41	23.38	25.0



<FR1 n38_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518000	519000	520000	
Frequency (MHz)				2590	2595	2600	
40	PI/2 BPSK	1	1	14.20	14.22	14.21	14.5
40	PI/2 BPSK	1	53	14.17	14.19	14.18	
40	PI/2 BPSK	1	104	14.15	14.17	14.16	
40	PI/2 BPSK	50	0	14.18	14.20	14.19	14.5
40	PI/2 BPSK	50	28	14.19	14.21	14.20	14.5
40	PI/2 BPSK	50	56	14.17	14.19	14.18	14.5
40	PI/2 BPSK	100	0	14.15	14.17	14.16	
40	QPSK	1	1	14.18	14.20	14.19	14.5
40	QPSK	1	53	14.15	14.17	14.16	
40	QPSK	1	104	14.16	14.18	14.17	
40	QPSK	50	0	14.14	14.16	14.15	14.5
40	QPSK	50	28	14.13	14.15	14.14	
40	QPSK	50	56	14.15	14.17	14.16	
40	QPSK	100	0	14.16	14.18	14.17	14.5
40	16QAM	1	1	14.14	14.16	14.15	14.5
40	64QAM	1	1	14.19	14.21	14.20	14.5
40	256QAM	1	1	14.18	14.20	14.19	14.5
Channel				517000	519000	521000	Tune-up limit (dBm)
Frequency (MHz)				2585	2595	2605	
30	PI/2 BPSK	1	1	14.11	14.15	14.15	14.5
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	14.12	14.16	14.14	14.5
Channel				515500	519000	522500	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	PI/2 BPSK	1	1	14.14	14.14	14.13	14.5
Channel				515000	519000	523000	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	PI/2 BPSK	1	1	14.11	14.15	14.13	14.5



<FR1 n38_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518000	519000	520000	
Frequency (MHz)				2590	2595	2600	
40	PI/2 BPSK	1	1	14.13	14.15	14.05	14.5
40	PI/2 BPSK	1	53	14.10	14.12	14.02	
40	PI/2 BPSK	1	104	14.09	14.11	14.01	
40	PI/2 BPSK	50	0	14.10	14.12	14.02	14.5
40	PI/2 BPSK	50	28	14.11	14.13	14.03	14.5
40	PI/2 BPSK	50	56	14.06	14.08	13.98	14.5
40	PI/2 BPSK	100	0	14.05	14.07	13.97	
40	QPSK	1	1	14.12	14.14	14.04	14.5
40	QPSK	1	53	14.11	14.13	14.03	
40	QPSK	1	104	14.09	14.11	14.01	
40	QPSK	50	0	14.10	14.12	14.02	14.5
40	QPSK	50	28	14.07	14.09	13.99	
40	QPSK	50	56	14.03	14.05	13.95	
40	QPSK	100	0	14.09	14.11	14.01	14.5
40	16QAM	1	1	13.93	13.95	13.85	14.5
40	64QAM	1	1	14.12	14.14	14.04	14.5
40	256QAM	1	1	14.11	14.13	14.03	14.5
Channel				517000	519000	521000	Tune-up limit (dBm)
Frequency (MHz)				2585	2595	2605	
30	PI/2 BPSK	1	1	14.04	14.09	13.98	14.5
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	14.04	14.07	13.96	14.5
Channel				515500	519000	522500	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	PI/2 BPSK	1	1	14.06	14.09	13.97	14.5
Channel				515000	519000	523000	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	PI/2 BPSK	1	1	14.04	14.07	13.97	14.5



<FR1 n38_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				518000	519000	520000	
Frequency (MHz)				2590	2595	2600	
40	PI/2 BPSK	1	1	14.28	14.31	14.29	14.5
40	PI/2 BPSK	1	53	14.26	14.29	14.27	
40	PI/2 BPSK	1	104	14.25	14.28	14.26	
40	PI/2 BPSK	50	0	14.23	14.26	14.24	14.5
40	PI/2 BPSK	50	28	14.27	14.30	14.28	14.5
40	PI/2 BPSK	50	56	14.25	14.28	14.26	14.5
40	PI/2 BPSK	100	0	14.24	14.27	14.25	
40	QPSK	1	1	14.23	14.26	14.24	14.5
40	QPSK	1	53	14.22	14.25	14.23	
40	QPSK	1	104	14.21	14.24	14.22	
40	QPSK	50	0	14.27	14.30	14.28	14.5
40	QPSK	50	28	14.23	14.26	14.24	
40	QPSK	50	56	14.27	14.30	14.28	
40	QPSK	100	0	14.24	14.27	14.25	14.5
40	16QAM	1	1	14.23	14.26	14.24	14.5
40	64QAM	1	1	14.27	14.30	14.28	14.5
40	256QAM	1	1	14.25	14.28	14.26	14.5
Channel				517000	519000	521000	Tune-up limit (dBm)
Frequency (MHz)				2585	2595	2605	
30	PI/2 BPSK	1	1	14.21	14.25	14.23	14.5
Channel				516000	519000	522000	Tune-up limit (dBm)
Frequency (MHz)				2580	2595	2610	
20	PI/2 BPSK	1	1	14.19	14.25	14.22	14.5
Channel				515500	519000	522500	Tune-up limit (dBm)
Frequency (MHz)				2577.5	2595	2612.5	
15	PI/2 BPSK	1	1	14.20	14.25	14.23	14.5
Channel				515000	519000	523000	Tune-up limit (dBm)
Frequency (MHz)				2575	2595	2615	
10	PI/2 BPSK	1	1	14.21	14.23	14.23	14.5



<FR1 n41_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	25.0
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.48	23.68	23.49	
100	PI/2 BPSK	1	137	23.31	23.50	23.32	24.5
100	PI/2 BPSK	1	271	23.42	23.65	23.46	
100	PI/2 BPSK	135	0	23.04	23.23	23.05	
100	PI/2 BPSK	135	69	23.41	23.63	23.41	24.5
100	PI/2 BPSK	135	138	23.05	23.22	23.00	
100	PI/2 BPSK	270	0	23.01	23.20	23.03	
100	QPSK	1	1	23.33	23.51	23.33	25.0
100	QPSK	1	137	23.31	23.54	23.31	
100	QPSK	1	271	23.52	23.50	23.59	
100	QPSK	135	0	23.49	23.01	23.55	25.0
100	QPSK	135	69	23.44	23.61	23.41	
100	QPSK	135	138	23.06	23.07	23.57	
100	QPSK	270	0	22.51	22.70	22.48	24.0
100	16QAM	1	1	22.33	22.54	22.36	24.0
100	64QAM	1	1	20.92	21.11	20.95	22.5
100	256QAM	1	1	18.85	19.02	18.85	20.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.30	23.54	23.32	25.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.28	23.48	23.28	25.0
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	23.25	23.49	23.31	25.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.33	23.52	23.29	25.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.35	23.57	23.38	25.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.31	23.56	23.37	25.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.34	23.48	23.31	25.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.28	23.50	23.33	25.0



<FR1 n41_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	Tune-up limit (dBm)
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	22.70	22.88	22.72	24.0
100	PI/2 BPSK	1	137	22.58	22.79	22.56	
100	PI/2 BPSK	1	271	22.65	22.82	22.69	
100	PI/2 BPSK	135	0	22.21	22.40	22.26	23.5
100	PI/2 BPSK	135	69	22.62	22.84	22.70	24.0
100	PI/2 BPSK	135	138	22.24	22.48	22.34	23.5
100	PI/2 BPSK	270	0	22.20	22.39	22.22	
100	QPSK	1	1	22.47	22.66	22.49	24.0
100	QPSK	1	137	22.51	22.75	22.56	
100	QPSK	1	271	22.79	22.80	22.81	
100	QPSK	135	0	22.04	22.03	22.27	24.0
100	QPSK	135	69	22.66	22.85	22.75	
100	QPSK	135	138	22.06	22.16	22.19	
100	QPSK	270	0	21.75	21.94	21.75	23.0
100	16QAM	1	1	21.41	21.67	21.51	23.0
100	64QAM	1	1	20.40	20.58	20.43	21.5
100	256QAM	1	1	18.15	18.32	18.15	19.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	22.51	22.62	22.52	24.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	22.50	22.66	22.57	24.0
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	22.56	22.61	22.58	24.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	22.49	22.69	22.52	24.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	22.47	22.73	22.60	24.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	22.52	22.74	22.51	24.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	22.48	22.68	22.49	24.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	22.54	22.64	22.55	24.0



<FR1 n41_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	14.5
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	14.39	14.47	14.48	
100	PI/2 BPSK	1	137	14.38	14.48	14.47	14.5
100	PI/2 BPSK	1	271	14.37	14.49	14.46	
100	PI/2 BPSK	135	0	14.38	14.46	14.47	14.5
100	PI/2 BPSK	135	69	14.36	14.48	14.45	14.5
100	PI/2 BPSK	135	138	14.37	14.47	14.46	14.5
100	PI/2 BPSK	270	0	14.36	14.46	14.45	
100	QPSK	1	1	14.38	14.48	14.47	14.5
100	QPSK	1	137	14.37	14.47	14.46	
100	QPSK	1	271	14.36	14.46	14.45	
100	QPSK	135	0	14.35	14.45	14.44	14.5
100	QPSK	135	69	14.37	14.47	14.46	
100	QPSK	135	138	14.38	14.48	14.47	
100	QPSK	270	0	14.36	14.46	14.45	14.5
100	16QAM	1	1	14.37	14.47	14.46	14.5
100	64QAM	1	1	14.38	14.48	14.47	14.5
100	256QAM	1	1	14.36	14.46	14.45	14.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	14.29	14.33	14.34	14.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	14.23	14.31	14.38	14.5
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	14.24	14.37	14.29	14.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	14.26	14.28	14.31	14.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	14.19	14.32	14.35	14.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	14.25	14.35	14.32	14.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	14.19	14.32	14.33	14.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	14.27	14.32	14.35	14.5



<FR1 n41_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	25.0
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	23.65	23.70	23.48	
100	PI/2 BPSK	1	137	23.66	23.70	23.51	24.5
100	PI/2 BPSK	1	271	24.02	23.76	23.53	
100	PI/2 BPSK	135	0	23.29	23.31	23.17	24.5
100	PI/2 BPSK	135	69	23.68	23.70	23.51	25.0
100	PI/2 BPSK	135	138	23.33	23.34	23.21	24.5
100	PI/2 BPSK	270	0	23.30	23.29	23.18	
100	QPSK	1	1	23.31	23.29	23.14	24.0
100	QPSK	1	137	23.76	23.76	23.54	
100	QPSK	1	271	23.77	23.77	23.74	
100	QPSK	135	0	22.85	22.83	22.74	24.0
100	QPSK	135	69	23.75	23.74	23.64	
100	QPSK	135	138	22.95	22.84	22.74	
100	QPSK	270	0	22.74	22.80	22.64	
100	16QAM	1	1	22.85	22.81	22.61	24.0
100	64QAM	1	1	22.23	22.21	22.18	22.5
100	256QAM	1	1	19.34	19.33	19.18	20.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	23.75	23.80	23.50	25.0
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	23.71	23.71	23.46	25.0
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	23.72	23.72	23.48	25.0
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	23.86	23.88	23.67	25.0
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	23.84	23.83	23.61	25.0
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	23.96	23.98	23.60	25.0
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	23.87	23.92	23.68	25.0
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	23.99	24.01	23.72	25.0



<FR1 n41_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	14.5
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	14.45	14.46	14.41	
100	PI/2 BPSK	1	137	14.44	14.45	14.40	14.5
100	PI/2 BPSK	1	271	14.43	14.44	14.39	
100	PI/2 BPSK	135	0	14.42	14.43	14.38	14.5
100	PI/2 BPSK	135	69	14.44	14.45	14.40	14.5
100	PI/2 BPSK	135	138	14.41	14.42	14.37	14.5
100	PI/2 BPSK	270	0	14.37	14.38	14.33	
100	QPSK	1	1	14.40	14.41	14.36	14.5
100	QPSK	1	137	14.43	14.44	14.39	
100	QPSK	1	271	14.44	14.45	14.40	
100	QPSK	135	0	14.41	14.42	14.37	14.5
100	QPSK	135	69	14.40	14.41	14.36	
100	QPSK	135	138	14.43	14.44	14.39	
100	QPSK	270	0	14.37	14.38	14.33	14.5
100	16QAM	1	1	14.05	14.06	14.01	14.5
100	64QAM	1	1	14.44	14.45	14.40	14.5
100	256QAM	1	1	14.43	14.44	14.39	14.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	14.35	14.37	14.32	14.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	14.34	14.35	14.29	14.5
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	14.36	14.36	14.29	14.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	14.36	14.38	14.31	14.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	14.35	14.37	14.32	14.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	14.36	14.36	14.32	14.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	14.34	14.36	14.31	14.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	14.34	14.36	14.32	14.5



<FR1 n41_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	14.14	14.19	14.18	14.5
100	PI/2 BPSK	1	137	14.12	14.17	14.16	
100	PI/2 BPSK	1	271	14.13	14.18	14.17	
100	PI/2 BPSK	135	0	14.11	14.16	14.15	14.5
100	PI/2 BPSK	135	69	14.12	14.17	14.16	14.5
100	PI/2 BPSK	135	138	14.10	14.15	14.14	14.5
100	PI/2 BPSK	270	0	14.13	14.18	14.17	
100	QPSK	1	1	14.08	14.13	14.12	14.5
100	QPSK	1	137	14.12	14.17	14.16	
100	QPSK	1	271	14.13	14.18	14.17	
100	QPSK	135	0	14.11	14.16	14.15	14.5
100	QPSK	135	69	14.10	14.15	14.14	
100	QPSK	135	138	14.11	14.16	14.15	
100	QPSK	270	0	14.08	14.13	14.12	14.5
100	16QAM	1	1	14.10	14.15	14.14	14.5
100	64QAM	1	1	14.11	14.16	14.15	14.5
100	256QAM	1	1	14.13	14.18	14.17	14.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	14.08	14.14	14.12	14.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	14.06	14.12	14.11	14.5
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	14.06	14.11	14.12	14.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	14.05	14.10	14.11	14.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	14.07	14.11	14.12	14.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	14.05	14.12	14.09	14.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	14.06	14.13	14.12	14.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	14.06	14.12	14.12	14.5



<FR1 n41_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	14.42	14.43	14.39	14.5
100	PI/2 BPSK	1	137	14.43	14.46	14.38	
100	PI/2 BPSK	1	271	14.44	14.49	14.37	
100	PI/2 BPSK	135	0	14.40	14.37	14.42	14.5
100	PI/2 BPSK	135	69	14.41	14.43	14.36	14.5
100	PI/2 BPSK	135	138	14.39	14.36	14.34	14.5
100	PI/2 BPSK	270	0	14.40	14.42	14.35	
100	QPSK	1	1	14.43	14.40	14.38	14.5
100	QPSK	1	137	14.42	14.39	14.37	
100	QPSK	1	271	14.40	14.37	14.35	
100	QPSK	135	0	14.38	14.35	14.33	14.5
100	QPSK	135	69	14.36	14.33	14.31	
100	QPSK	135	138	14.35	14.32	14.30	
100	QPSK	270	0	14.38	14.35	14.33	14.5
100	16QAM	1	1	14.37	14.34	14.32	14.5
100	64QAM	1	1	14.42	14.39	14.37	14.5
100	256QAM	1	1	14.43	14.40	14.38	14.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	14.35	14.32	14.32	14.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	14.36	14.33	14.33	14.5
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	14.36	14.34	14.33	14.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	14.36	14.32	14.33	14.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	14.36	14.32	14.33	14.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	14.34	14.33	14.30	14.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	14.35	14.34	14.31	14.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	14.36	14.33	14.32	14.5



<FR1 n41_HPUE_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	27.5
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	26.04	26.08	26.17	
100	PI/2 BPSK	1	137	26.03	26.03	26.13	24.5
100	PI/2 BPSK	1	271	26.02	26.01	26.10	
100	PI/2 BPSK	135	0	23.70	23.68	23.77	24.5
100	PI/2 BPSK	135	69	26.03	26.05	26.12	27.5
100	PI/2 BPSK	135	138	23.54	23.56	23.62	24.5
100	PI/2 BPSK	270	0	23.65	23.61	23.70	
100	QPSK	1	1	26.10	26.06	26.15	27.5
100	QPSK	1	137	26.06	26.06	26.11	
100	QPSK	1	271	26.00	25.98	26.08	
100	QPSK	135	0	23.18	23.18	23.26	24.5
100	QPSK	135	69	26.04	26.02	26.11	27.5
100	QPSK	135	138	23.07	23.04	23.12	24.5
100	QPSK	270	0	23.12	23.10	23.19	24.5
100	16QAM	1	1	25.01	24.99	25.06	26.5
100	64QAM	1	1	23.87	23.87	23.96	25.0
100	256QAM	1	1	21.82	21.78	21.87	23.0
Channel				508200	518598	528996	27.5
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	25.95	25.99	26.11	27.5
Channel				507204	518598	529998	27.5
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	25.94	25.98	26.07	27.5
Channel				506202	518598	531000	27.5
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	25.99	26.03	26.06	27.5
Channel				505200	518598	531996	27.5
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	25.99	26.02	26.10	27.5
Channel				504204	518598	532998	27.5
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	25.90	26.01	26.08	27.5
Channel				503202	518598	534000	27.5
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	25.98	25.96	26.02	27.5
Channel				502200	518598	534996	27.5
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	25.98	26.03	26.03	27.5
Channel				501204	518598	535998	27.5
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	25.92	25.94	26.07	27.5



<FR1 n41_HPUE_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	26.07	26.20	26.32	
100	PI/2 BPSK	1	137	26.19	26.22	26.28	27.5
100	PI/2 BPSK	1	271	26.11	26.13	26.20	24.5
100	PI/2 BPSK	135	0	23.99	23.97	24.04	
100	PI/2 BPSK	135	69	26.20	26.19	26.28	27.5
100	PI/2 BPSK	135	138	23.82	23.83	23.88	24.5
100	PI/2 BPSK	270	0	23.88	23.87	23.96	
100	QPSK	1	1	26.23	26.22	26.31	27.5
100	QPSK	1	137	25.92	25.95	26.00	
100	QPSK	1	271	26.23	26.21	26.28	
100	QPSK	135	0	23.39	23.41	23.48	24.5
100	QPSK	135	69	26.17	26.19	26.26	27.5
100	QPSK	135	138	23.28	23.51	23.33	24.5
100	QPSK	270	0	23.41	23.39	23.46	24.5
100	16QAM	1	1	25.77	25.79	25.82	26.5
100	64QAM	1	1	24.02	24.00	24.12	25.0
100	256QAM	1	1	22.17	22.15	22.23	23.0
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	27.5
90	PI/2 BPSK	1	1	25.86	26.05	26.27	
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	27.5
80	PI/2 BPSK	1	1	25.86	26.13	26.27	
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	27.5
70	PI/2 BPSK	1	1	25.85	26.07	26.21	
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	27.5
60	PI/2 BPSK	1	1	25.84	26.07	26.22	
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	27.5
50	PI/2 BPSK	1	1	25.85	26.05	26.26	
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	27.5
40	PI/2 BPSK	1	1	25.87	26.14	26.25	
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	27.5
30	PI/2 BPSK	1	1	25.81	26.12	26.27	
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	27.5
20	PI/2 BPSK	1	1	25.86	26.09	26.21	



<FR1 n41_HPUE_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	16.52	16.51	16.49	17.5
100	PI/2 BPSK	1	137	16.57	16.56	16.54	
100	PI/2 BPSK	1	271	16.59	16.60	16.56	
100	PI/2 BPSK	135	0	16.55	16.54	16.52	17.5
100	PI/2 BPSK	135	69	16.56	16.55	16.57	17.5
100	PI/2 BPSK	135	138	16.54	16.53	16.51	17.5
100	PI/2 BPSK	270	0	16.56	16.55	16.53	
100	QPSK	1	1	16.43	16.42	16.40	17.5
100	QPSK	1	137	16.53	16.52	16.50	
100	QPSK	1	271	15.57	15.56	15.54	
100	QPSK	135	0	16.55	16.54	16.52	17.5
100	QPSK	135	69	16.54	16.53	16.51	
100	QPSK	135	138	16.53	16.52	16.50	
100	QPSK	270	0	16.57	16.56	16.54	17.5
100	16QAM	1	1	16.44	16.43	16.41	17.5
100	64QAM	1	1	16.58	16.57	16.55	17.5
100	256QAM	1	1	16.54	16.53	16.51	17.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	16.33	16.39	16.30	17.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	16.36	16.34	16.34	17.5
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	16.38	16.35	16.38	17.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	16.40	16.40	16.34	17.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	16.39	16.35	16.31	17.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	16.39	16.37	16.30	17.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	16.35	16.41	16.32	17.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	16.34	16.41	16.29	17.5



<FR1 n41_HPUE_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	27.5
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	25.92	26.47	26.06	
100	PI/2 BPSK	1	137	26.13	26.15	26.07	24.5
100	PI/2 BPSK	1	271	26.20	26.23	26.14	
100	PI/2 BPSK	135	0	23.77	23.80	23.77	27.5
100	PI/2 BPSK	135	69	26.19	26.24	26.09	24.5
100	PI/2 BPSK	135	138	23.85	23.87	23.77	
100	PI/2 BPSK	270	0	23.87	23.86	23.66	27.5
100	QPSK	1	1	26.20	26.19	26.04	
100	QPSK	1	137	26.20	26.21	26.14	24.5
100	QPSK	1	271	26.23	26.25	26.14	
100	QPSK	135	0	23.30	23.31	23.10	27.5
100	QPSK	135	69	26.15	26.22	26.03	24.5
100	QPSK	135	138	23.34	23.37	23.17	
100	QPSK	270	0	23.39	23.40	23.34	27.5
100	16QAM	1	1	25.64	25.66	25.49	24.5
100	64QAM	1	1	23.44	23.49	23.34	
100	256QAM	1	1	21.74	21.78	21.59	25.0
Channel				508200	518598	528996	23.0
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	26.23	26.19	26.09	27.5
Channel				507204	518598	529998	27.5
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	26.35	26.31	26.30	27.5
Channel				506202	518598	531000	27.5
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	26.19	26.21	26.16	27.5
Channel				505200	518598	531996	27.5
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	26.30	26.32	26.22	27.5
Channel				504204	518598	532998	27.5
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	26.31	26.36	26.19	27.5
Channel				503202	518598	534000	27.5
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	26.44	26.46	26.37	27.5
Channel				502200	518598	534996	27.5
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	26.40	26.39	26.31	27.5
Channel				501204	518598	535998	27.5
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	26.44	26.38	26.19	27.5



<FR1 n41_HPUE_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	17.5
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	16.93	16.88	16.94	
100	PI/2 BPSK	1	137	16.91	16.86	16.92	17.5
100	PI/2 BPSK	1	271	16.90	16.85	16.91	
100	PI/2 BPSK	135	0	16.90	16.85	16.91	17.5
100	PI/2 BPSK	135	69	16.92	16.87	16.93	17.5
100	PI/2 BPSK	135	138	16.91	16.86	16.92	17.5
100	PI/2 BPSK	270	0	16.90	16.85	16.91	
100	QPSK	1	1	16.90	16.85	16.91	17.5
100	QPSK	1	137	16.91	16.86	16.92	
100	QPSK	1	271	16.92	16.87	16.93	
100	QPSK	135	0	16.88	16.83	16.89	17.5
100	QPSK	135	69	16.90	16.85	16.91	
100	QPSK	135	138	16.88	16.83	16.89	
100	QPSK	270	0	16.91	16.86	16.92	17.5
100	16QAM	1	1	16.68	16.63	16.69	17.5
100	64QAM	1	1	16.92	16.87	16.93	17.5
100	256QAM	1	1	16.91	16.86	16.92	17.5
Channel				508200	518598	528996	17.5
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	16.87	16.81	16.86	17.5
Channel				507204	518598	529998	17.5
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	16.84	16.81	16.86	17.5
Channel				506202	518598	531000	17.5
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	16.84	16.80	16.87	17.5
Channel				505200	518598	531996	17.5
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	16.86	16.79	16.87	17.5
Channel				504204	518598	532998	17.5
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	16.86	16.82	16.86	17.5
Channel				503202	518598	534000	17.5
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	16.85	16.80	16.86	17.5
Channel				502200	518598	534996	17.5
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	16.87	16.82	16.85	17.5
Channel				501204	518598	535998	17.5
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	16.85	16.82	16.85	17.5



<FR1 n41_HPUE_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	16.78	16.73	16.89	17.5
100	PI/2 BPSK	1	137	16.78	16.72	16.88	
100	PI/2 BPSK	1	271	16.68	16.62	16.78	
100	PI/2 BPSK	135	0	16.67	16.61	16.77	17.5
100	PI/2 BPSK	135	69	16.73	16.67	16.83	17.5
100	PI/2 BPSK	135	138	16.62	16.56	16.72	17.5
100	PI/2 BPSK	270	0	16.71	16.65	16.81	
100	QPSK	1	1	16.55	16.49	16.65	17.5
100	QPSK	1	137	16.72	16.66	16.82	
100	QPSK	1	271	16.61	16.55	16.71	
100	QPSK	135	0	16.68	16.62	16.78	17.5
100	QPSK	135	69	16.74	16.68	16.84	
100	QPSK	135	138	16.58	16.52	16.68	
100	QPSK	270	0	16.71	16.65	16.81	17.5
100	16QAM	1	1	16.70	16.64	16.80	17.5
100	64QAM	1	1	16.69	16.63	16.79	17.5
100	256QAM	1	1	16.72	16.66	16.82	17.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	16.71	16.67	16.81	17.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	16.71	16.67	16.81	17.5
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	16.71	16.66	16.82	17.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	16.69	16.65	16.80	17.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	16.70	16.65	16.81	17.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	16.69	16.67	16.82	17.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	16.72	16.64	16.83	17.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	16.71	16.65	16.80	17.5



<FR1 n41_HPUE_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				509202	518598	528000	
Frequency (MHz)				2546.01	2592.99	2640	
100	PI/2 BPSK	1	1	16.95	16.99	16.94	17.5
100	PI/2 BPSK	1	137	16.90	16.94	16.89	
100	PI/2 BPSK	1	271	16.91	16.95	16.90	
100	PI/2 BPSK	135	0	16.88	16.92	16.87	17.5
100	PI/2 BPSK	135	69	16.92	16.96	16.91	17.5
100	PI/2 BPSK	135	138	16.92	16.96	16.91	17.5
100	PI/2 BPSK	270	0	16.86	16.90	16.85	
100	QPSK	1	1	16.81	16.85	16.80	17.5
100	QPSK	1	137	16.79	16.83	16.78	
100	QPSK	1	271	16.86	16.90	16.85	
100	QPSK	135	0	16.85	16.89	16.84	17.5
100	QPSK	135	69	16.88	16.92	16.87	
100	QPSK	135	138	16.89	16.93	16.88	
100	QPSK	270	0	16.84	16.88	16.83	17.5
100	16QAM	1	1	16.85	16.89	16.84	17.5
100	64QAM	1	1	16.94	16.98	16.93	17.5
100	256QAM	1	1	16.93	16.97	16.92	17.5
Channel				508200	518598	528996	Tune-up limit (dBm)
Frequency (MHz)				2541	2592.99	2644.98	
90	PI/2 BPSK	1	1	16.86	16.92	16.87	17.5
Channel				507204	518598	529998	Tune-up limit (dBm)
Frequency (MHz)				2536.02	2592.99	2649.99	
80	PI/2 BPSK	1	1	16.86	16.92	16.88	17.5
Channel				506202	518598	531000	Tune-up limit (dBm)
Frequency (MHz)				2531.01	2592.99	2655	
70	PI/2 BPSK	1	1	16.88	16.91	16.88	17.5
Channel				505200	518598	531996	Tune-up limit (dBm)
Frequency (MHz)				2526	2592.99	2659.98	
60	PI/2 BPSK	1	1	16.87	16.92	16.88	17.5
Channel				504204	518598	532998	Tune-up limit (dBm)
Frequency (MHz)				2521.02	2592.99	2664.99	
50	PI/2 BPSK	1	1	16.88	16.90	16.88	17.5
Channel				503202	518598	534000	Tune-up limit (dBm)
Frequency (MHz)				2516.01	2592.99	2670	
40	PI/2 BPSK	1	1	16.87	16.90	16.88	17.5
Channel				502200	518598	534996	Tune-up limit (dBm)
Frequency (MHz)				2511	2592.99	2674.98	
30	PI/2 BPSK	1	1	16.86	16.92	16.85	17.5
Channel				501204	518598	535998	Tune-up limit (dBm)
Frequency (MHz)				2506.02	2592.99	2679.99	
20	PI/2 BPSK	1	1	16.88	16.90	16.87	17.5



<FR1 n48_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	21.64	21.71	21.60	22.0
40	PI/2 BPSK	1	53	21.53	21.63	21.50	
40	PI/2 BPSK	1	104	21.47	21.58	21.44	
40	PI/2 BPSK	50	0	21.40	21.50	21.45	21.5
40	PI/2 BPSK	50	28	21.50	21.63	21.53	22.0
40	PI/2 BPSK	50	56	21.38	21.42	21.39	21.5
40	PI/2 BPSK	100	0	21.48	21.49	21.46	
40	QPSK	1	1	21.50	21.63	21.48	22.0
40	QPSK	1	53	21.47	21.60	21.50	
40	QPSK	1	104	21.44	21.58	21.48	
40	QPSK	50	0	20.95	21.10	20.95	22.0
40	QPSK	50	28	21.49	21.62	21.51	
40	QPSK	50	56	20.93	21.05	20.94	
40	QPSK	100	0	20.88	20.98	20.92	21.0
40	16QAM	1	1	20.99	20.91	21.00	21.0
40	64QAM	1	1	19.40	19.50	19.32	19.5
40	256QAM	1	1	17.25	17.50	17.32	17.5
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	21.58	21.61	21.57	22.0
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	21.61	21.61	21.53	22.0
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	21.60	21.63	21.58	22.0



<FR1 n48_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	20.46	20.58	20.43	
40	PI/2 BPSK	1	53	20.30	20.45	20.31	22.0
40	PI/2 BPSK	1	104	20.25	20.36	20.22	
40	PI/2 BPSK	50	0	19.78	19.91	19.81	21.5
40	PI/2 BPSK	50	28	20.29	20.40	20.25	22.0
40	PI/2 BPSK	50	56	19.90	19.95	19.91	
40	PI/2 BPSK	100	0	19.80	19.91	19.81	21.5
40	QPSK	1	1	20.38	20.50	20.39	21.0
40	QPSK	1	53	20.33	20.45	20.35	
40	QPSK	1	104	20.26	20.39	20.24	
40	QPSK	50	0	19.25	19.38	19.28	21.0
40	QPSK	50	28	20.23	20.34	20.23	
40	QPSK	50	56	20.14	20.29	20.14	
40	QPSK	100	0	19.23	19.36	19.26	21.0
40	16QAM	1	1	19.61	19.71	19.59	21.0
40	64QAM	1	1	18.11	18.25	18.10	19.5
40	256QAM	1	1	15.94	16.06	15.95	17.5
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	20.41	20.52	20.35	22.0
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	20.38	20.53	20.35	22.0
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	20.40	20.50	20.35	22.0



<FR1 n48_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	15.0
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	13.96	14.16	14.15	
40	PI/2 BPSK	1	53	14.04	14.06	14.11	15.0
40	PI/2 BPSK	1	104	14.06	14.14	14.13	
40	PI/2 BPSK	50	0	14.10	14.15	14.14	15.0
40	PI/2 BPSK	50	28	14.06	14.16	14.14	15.0
40	PI/2 BPSK	50	56	14.10	14.05	14.13	15.0
40	PI/2 BPSK	100	0	14.07	14.13	14.15	
40	QPSK	1	1	14.01	14.05	14.05	15.0
40	QPSK	1	53	13.97	13.93	13.98	
40	QPSK	1	104	13.99	13.97	14.00	
40	QPSK	50	0	14.12	14.13	14.14	15.0
40	QPSK	50	28	14.08	14.04	14.11	
40	QPSK	50	56	14.09	14.10	14.14	
40	QPSK	100	0	14.01	13.99	14.05	15.0
40	16QAM	1	1	14.13	14.12	14.13	15.0
40	64QAM	1	1	14.15	14.13	14.12	15.0
40	256QAM	1	1	13.97	14.03	14.04	15.0
Channel				637668	641666	645666	15.0
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	14.21	14.22	14.26	15.0
Channel				637334	641666	646000	15.0
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	14.03	14.09	14.13	15.0
Channel				637000	641666	646332	15.0
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	14.01	14.06	14.10	15.0



<FR1 n48_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	20.79	20.64	20.58	
40	PI/2 BPSK	1	53	20.66	20.48	20.43	22.0
40	PI/2 BPSK	1	104	20.69	20.54	20.45	21.5
40	PI/2 BPSK	50	0	20.20	20.03	19.99	
40	PI/2 BPSK	50	28	20.67	20.52	20.46	22.0
40	PI/2 BPSK	50	56	20.15	19.97	19.94	21.5
40	PI/2 BPSK	100	0	20.19	19.99	19.95	
40	QPSK	1	1	20.74	20.57	20.50	21.0
40	QPSK	1	53	20.65	20.46	20.41	
40	QPSK	1	104	20.57	20.40	20.36	
40	QPSK	50	0	19.73	19.57	19.51	21.0
40	QPSK	50	28	20.66	20.51	20.40	
40	QPSK	50	56	19.64	19.47	19.42	
40	QPSK	100	0	19.68	19.48	19.42	21.0
40	16QAM	1	1	19.99	19.80	19.73	21.0
40	64QAM	1	1	18.50	18.32	18.29	19.5
40	256QAM	1	1	16.30	16.14	16.04	17.5
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	20.64	20.46	20.49	22.0
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	20.67	20.51	20.50	22.0
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	20.67	20.56	20.40	22.0



<FR1 n48_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	14.23	14.34	14.15	15.0
40	PI/2 BPSK	1	53	14.09	14.03	14.01	
40	PI/2 BPSK	1	104	14.24	14.15	14.18	
40	PI/2 BPSK	50	0	14.10	14.03	14.01	15.0
40	PI/2 BPSK	50	28	14.08	14.11	14.06	15.0
40	PI/2 BPSK	50	56	14.06	14.04	13.98	15.0
40	PI/2 BPSK	100	0	14.07	14.07	14.01	
40	QPSK	1	1	14.13	14.06	14.03	15.0
40	QPSK	1	53	14.08	14.08	14.00	
40	QPSK	1	104	14.13	14.12	14.06	
40	QPSK	50	0	14.12	14.10	14.10	15.0
40	QPSK	50	28	14.08	14.06	14.06	
40	QPSK	50	56	14.06	14.01	14.06	
40	QPSK	100	0	14.05	14.03	14.01	15.0
40	16QAM	1	1	14.32	14.31	14.25	15.0
40	64QAM	1	1	14.33	14.30	14.26	15.0
40	256QAM	1	1	14.19	14.13	14.13	15.0
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	14.18	14.12	14.11	15.0
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	14.14	14.14	14.10	15.0
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	14.05	14.02	14.03	15.0



<FR1 n48_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	14.22	14.37	14.00	
40	PI/2 BPSK	1	53	14.15	14.06	14.01	15.0
40	PI/2 BPSK	1	104	14.19	14.19	14.04	15.0
40	PI/2 BPSK	50	0	14.13	14.10	14.02	
40	PI/2 BPSK	50	28	14.09	14.14	14.03	15.0
40	PI/2 BPSK	50	56	14.12	14.09	14.00	15.0
40	PI/2 BPSK	100	0	14.11	14.05	13.96	
40	QPSK	1	1	14.18	14.09	14.09	15.0
40	QPSK	1	53	14.12	14.02	13.97	
40	QPSK	1	104	14.16	14.11	14.02	
40	QPSK	50	0	14.11	14.11	14.00	15.0
40	QPSK	50	28	14.07	14.03	13.94	
40	QPSK	50	56	14.09	14.06	13.99	
40	QPSK	100	0	14.09	14.07	14.03	15.0
40	16QAM	1	1	14.33	14.23	14.25	15.0
40	64QAM	1	1	14.36	14.29	14.19	15.0
40	256QAM	1	1	14.09	14.07	13.94	15.0
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	14.19	14.09	14.01	15.0
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	14.18	14.05	13.99	15.0
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	14.03	13.91	13.88	15.0



<FR1 n48_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				638000	641666	645332	
Frequency (MHz)				3570	3624.99	3679.98	
40	PI/2 BPSK	1	1	14.06	13.96	13.97	15.0
40	PI/2 BPSK	1	53	13.92	13.89	13.89	
40	PI/2 BPSK	1	104	13.98	13.89	13.88	
40	PI/2 BPSK	50	0	13.94	13.93	13.86	15.0
40	PI/2 BPSK	50	28	13.95	13.85	13.86	15.0
40	PI/2 BPSK	50	56	13.86	13.85	13.81	15.0
40	PI/2 BPSK	100	0	13.93	13.90	13.93	
40	QPSK	1	1	14.05	14.02	13.96	15.0
40	QPSK	1	53	13.95	13.88	13.92	
40	QPSK	1	104	14.02	13.99	14.00	
40	QPSK	50	0	13.94	13.88	13.84	15.0
40	QPSK	50	28	13.93	13.84	13.92	
40	QPSK	50	56	13.88	13.78	13.85	
40	QPSK	100	0	13.96	13.89	13.86	15.0
40	16QAM	1	1	13.78	13.74	13.70	15.0
40	64QAM	1	1	13.90	13.82	13.88	15.0
40	256QAM	1	1	13.89	13.87	13.89	15.0
Channel				637668	641666	645666	Tune-up limit (dBm)
Frequency (MHz)				3565.02	3624.99	3684.99	
30	PI/2 BPSK	1	1	14.12	14.01	14.03	15.0
Channel				637334	641666	646000	Tune-up limit (dBm)
Frequency (MHz)				3560.01	3624.99	3690	
20	PI/2 BPSK	1	1	14.11	14.00	14.00	15.0
Channel				637000	641666	646332	Tune-up limit (dBm)
Frequency (MHz)				3555	3624.99	3694.98	
10	PI/2 BPSK	1	1	13.92	13.84	13.84	15.0



<FR1 n77_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	24.28	24.05	23.75	25.0
100	PI/2 BPSK	1	137	24.23	24.01	23.70	
100	PI/2 BPSK	1	271	23.95	23.76	23.45	
100	PI/2 BPSK	135	0	24.16	23.98	23.69	24.5
100	PI/2 BPSK	135	69	24.17	23.97	23.70	25.0
100	PI/2 BPSK	135	138	24.11	23.88	23.59	24.5
100	PI/2 BPSK	270	0	24.10	23.91	23.62	
100	QPSK	1	1	24.23	24.04	23.71	25.0
100	QPSK	1	137	24.25	24.03	23.69	
100	QPSK	1	271	24.03	23.85	23.56	
100	QPSK	135	0	23.77	23.55	23.26	25.0
100	QPSK	135	69	24.16	23.93	23.61	
100	QPSK	135	138	23.62	23.44	23.11	
100	QPSK	270	0	23.74	23.52	23.23	24.0
100	16QAM	1	1	23.84	23.62	23.35	24.0
100	64QAM	1	1	22.50	22.35	22.06	22.5
100	256QAM	1	1	20.43	20.22	19.95	20.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	24.21	24.03	23.73	25.0
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	24.23	23.99	23.72	25.0
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	24.27	23.98	23.77	25.0
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	24.19	23.95	23.79	25.0
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	24.18	24.02	23.69	25.0
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	24.19	24.04	23.74	25.0
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	24.22	23.97	23.75	25.0
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	24.26	24.01	23.71	25.0
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	24.15	24.00	23.76	25.0
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	24.16	23.98	23.74	25.0



<FR1 n77_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	23.23	23.30	23.18	25.0
100	PI/2 BPSK	1	137	23.26	23.28	23.10	
100	PI/2 BPSK	1	271	23.05	23.12	23.09	
100	PI/2 BPSK	135	0	22.73	22.77	22.75	24.5
100	PI/2 BPSK	135	69	23.20	23.22	23.13	25.0
100	PI/2 BPSK	135	138	22.56	22.62	22.55	24.5
100	PI/2 BPSK	270	0	22.69	22.71	22.68	
100	QPSK	1	1	23.10	23.20	23.12	24.0
100	QPSK	1	137	23.17	23.19	23.17	
100	QPSK	1	271	23.01	23.02	23.00	
100	QPSK	135	0	22.20	22.24	22.16	24.0
100	QPSK	135	69	23.15	23.20	23.13	
100	QPSK	135	138	22.05	22.12	22.07	
100	QPSK	270	0	22.14	22.19	22.13	24.0
100	16QAM	1	1	22.29	22.39	22.30	24.0
100	64QAM	1	1	20.86	20.94	20.84	22.5
100	256QAM	1	1	18.83	18.89	18.82	20.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	23.21	23.23	23.12	25.0
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	23.19	23.21	23.02	25.0
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	23.17	23.28	23.14	25.0
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	23.11	23.15	23.06	25.0
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	23.12	23.19	23.11	25.0
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	23.20	23.17	23.09	25.0
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	23.15	23.16	23.13	25.0
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	23.09	23.13	23.07	25.0
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	23.14	23.22	23.05	25.0
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	23.18	23.25	23.01	25.0



<FR1 n77_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	15.07	15.08	14.99	15.5
100	PI/2 BPSK	1	137	15.06	15.07	14.98	
100	PI/2 BPSK	1	271	14.99	15.00	14.91	
100	PI/2 BPSK	135	0	15.05	15.06	14.97	15.5
100	PI/2 BPSK	135	69	15.06	15.07	14.98	15.5
100	PI/2 BPSK	135	138	14.95	14.96	14.87	15.5
100	PI/2 BPSK	270	0	15.04	15.05	14.96	
100	QPSK	1	1	15.02	15.03	14.94	15.5
100	QPSK	1	137	15.05	15.06	14.97	
100	QPSK	1	271	15.01	15.02	14.93	
100	QPSK	135	0	15.04	15.05	14.96	15.5
100	QPSK	135	69	15.03	15.04	14.95	
100	QPSK	135	138	14.91	14.92	14.83	
100	QPSK	270	0	15.02	15.03	14.94	15.5
100	16QAM	1	1	14.98	14.99	14.90	15.5
100	64QAM	1	1	15.06	15.07	14.98	15.5
100	256QAM	1	1	15.04	15.05	14.96	15.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	14.98	15.00	14.89	15.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	14.98	14.97	14.88	15.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	14.97	14.97	14.91	15.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	14.97	14.97	14.88	15.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	14.99	14.97	14.88	15.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	14.96	14.98	14.89	15.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	14.96	14.97	14.88	15.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	14.96	14.99	14.91	15.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	14.99	14.98	14.90	15.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	14.98	14.99	14.88	15.5



<FR1 n77_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	24.36	24.43	24.15	25.0
100	PI/2 BPSK	1	137	24.24	24.32	24.01	
100	PI/2 BPSK	1	271	24.05	24.15	23.86	
100	PI/2 BPSK	135	0	23.79	23.90	23.58	24.5
100	PI/2 BPSK	135	69	24.22	24.30	23.98	25.0
100	PI/2 BPSK	135	138	23.64	23.73	23.44	24.5
100	PI/2 BPSK	270	0	23.70	23.78	23.48	
100	QPSK	1	1	24.14	24.22	23.91	25.0
100	QPSK	1	137	24.03	24.14	23.84	
100	QPSK	1	271	24.00	24.09	23.78	
100	QPSK	135	0	23.35	23.44	23.11	25.0
100	QPSK	135	69	24.11	24.21	23.89	
100	QPSK	135	138	23.18	23.27	23.10	
100	QPSK	270	0	23.21	23.30	23.05	24.0
100	16QAM	1	1	23.19	23.29	23.02	24.0
100	64QAM	1	1	21.96	22.05	21.76	22.5
100	256QAM	1	1	19.86	19.94	19.61	20.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	24.32	24.35	24.06	25.0
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	24.29	24.39	24.13	25.0
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	24.33	24.39	24.09	25.0
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	24.31	24.33	24.12	25.0
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	24.26	24.42	24.08	25.0
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	24.30	24.33	24.10	25.0
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	24.32	24.33	24.11	25.0
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	24.30	24.35	24.08	25.0
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	24.35	24.34	24.09	25.0
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	24.32	24.42	24.05	25.0



<FR1 n77_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	14.47	14.28	14.25	15.5
100	PI/2 BPSK	1	137	14.26	14.26	14.23	
100	PI/2 BPSK	1	271	14.16	14.16	14.07	
100	PI/2 BPSK	135	0	14.21	14.25	14.21	15.5
100	PI/2 BPSK	135	69	14.26	14.23	14.17	15.5
100	PI/2 BPSK	135	138	14.16	14.21	14.12	15.5
100	PI/2 BPSK	270	0	14.13	14.21	14.11	
100	QPSK	1	1	14.19	14.21	14.17	15.5
100	QPSK	1	137	14.12	14.22	14.14	
100	QPSK	1	271	14.06	14.09	14.03	
100	QPSK	135	0	14.11	14.20	14.12	15.5
100	QPSK	135	69	14.11	14.20	14.16	
100	QPSK	135	138	14.10	14.20	14.10	
100	QPSK	270	0	14.18	14.21	14.15	15.5
100	16QAM	1	1	14.01	14.09	14.01	15.5
100	64QAM	1	1	14.31	14.25	14.21	15.5
100	256QAM	1	1	14.21	14.29	14.20	15.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	14.20	14.25	14.22	15.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	14.25	14.33	14.31	15.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	14.23	14.35	14.31	15.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	14.28	14.40	14.37	15.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	14.32	14.43	14.41	15.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	14.33	14.42	14.40	15.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	14.36	14.45	14.43	15.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	14.33	14.44	14.45	15.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	14.37	14.45	14.45	15.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	14.43	14.46	14.44	15.5



<FR1 n77_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	14.69	15.11	14.99	15.5
100	PI/2 BPSK	1	137	14.68	15.10	14.98	
100	PI/2 BPSK	1	271	14.67	15.09	14.97	
100	PI/2 BPSK	135	0	14.67	15.09	14.97	15.5
100	PI/2 BPSK	135	69	14.68	15.10	14.98	15.5
100	PI/2 BPSK	135	138	14.55	14.97	14.85	15.5
100	PI/2 BPSK	270	0	14.62	15.04	14.92	
100	QPSK	1	1	14.66	15.08	14.96	15.5
100	QPSK	1	137	14.67	15.09	14.97	
100	QPSK	1	271	14.65	15.07	14.95	
100	QPSK	135	0	14.67	15.09	14.97	15.5
100	QPSK	135	69	14.64	15.06	14.94	
100	QPSK	135	138	14.58	15.00	14.88	
100	QPSK	270	0	14.60	15.02	14.90	15.5
100	16QAM	1	1	14.68	15.10	14.98	15.5
100	64QAM	1	1	14.56	14.98	14.86	15.5
100	256QAM	1	1	14.66	15.08	14.96	15.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	14.61	15.02	14.93	15.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	14.62	15.02	14.91	15.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	14.61	15.02	14.92	15.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	14.61	15.03	14.91	15.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	14.60	15.03	14.90	15.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	14.62	15.05	14.90	15.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	14.60	15.02	14.93	15.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	14.62	15.05	14.93	15.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	14.63	15.04	14.92	15.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	14.62	15.02	14.92	15.5



<FR1 n77_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	15.19	15.21	15.20	15.5
100	PI/2 BPSK	1	137	15.17	15.19	15.18	
100	PI/2 BPSK	1	271	15.18	15.20	15.19	
100	PI/2 BPSK	135	0	15.15	15.17	15.16	15.5
100	PI/2 BPSK	135	69	15.17	15.19	15.18	15.5
100	PI/2 BPSK	135	138	15.16	15.18	15.17	15.5
100	PI/2 BPSK	270	0	15.15	15.17	15.16	
100	QPSK	1	1	15.02	15.04	15.03	15.5
100	QPSK	1	137	15.12	15.14	15.13	
100	QPSK	1	271	15.16	15.18	15.17	
100	QPSK	135	0	15.11	15.13	15.12	15.5
100	QPSK	135	69	15.14	15.16	15.15	
100	QPSK	135	138	15.14	15.16	15.15	
100	QPSK	270	0	15.13	15.15	15.14	15.5
100	16QAM	1	1	14.92	14.94	14.93	15.5
100	64QAM	1	1	15.18	15.20	15.19	15.5
100	256QAM	1	1	15.17	15.19	15.18	15.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	15.06	15.11	15.12	15.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	15.09	15.13	15.09	15.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	15.07	15.10	15.11	15.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	15.06	15.07	15.12	15.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	15.09	15.09	15.09	15.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	15.09	15.09	15.12	15.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	15.11	15.10	15.05	15.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	15.07	15.10	15.10	15.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	15.08	15.07	15.10	15.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	15.08	15.06	15.08	15.5



<FR1 n77_HPUE_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	26.67	26.75	26.68	27.5
100	PI/2 BPSK	1	137	26.42	26.57	26.45	
100	PI/2 BPSK	1	271	26.28	26.42	26.30	
100	PI/2 BPSK	135	0	26.31	26.44	26.34	27.0
100	PI/2 BPSK	135	69	26.46	26.61	26.47	27.5
100	PI/2 BPSK	135	138	26.17	26.30	26.15	27.0
100	PI/2 BPSK	270	0	26.19	26.31	26.17	
100	QPSK	1	1	26.44	26.58	26.44	27.5
100	QPSK	1	137	26.29	26.44	26.31	
100	QPSK	1	271	26.15	26.30	26.17	
100	QPSK	135	0	25.85	25.98	25.84	27.5
100	QPSK	135	69	26.44	26.59	26.45	
100	QPSK	135	138	25.66	25.78	25.64	
100	QPSK	270	0	25.71	25.82	25.72	26.5
100	16QAM	1	1	25.67	25.77	25.65	26.5
100	64QAM	1	1	24.66	24.80	24.65	25.0
100	256QAM	1	1	22.64	22.74	22.59	23.0
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	26.64	26.70	26.65	27.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	26.64	26.65	26.64	27.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	26.61	26.69	26.58	27.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	26.64	26.72	26.63	27.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	26.63	26.66	26.62	27.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	26.58	26.69	26.60	27.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	26.57	26.72	26.64	27.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	26.65	26.73	26.62	27.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	26.59	26.69	26.60	27.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	26.63	26.69	26.63	27.5



<FR1 n77_HPUE_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	25.87	25.95	25.71	27.5
100	PI/2 BPSK	1	137	25.76	25.87	25.60	
100	PI/2 BPSK	1	271	25.70	25.62	25.52	
100	PI/2 BPSK	135	0	25.21	25.36	25.10	27.0
100	PI/2 BPSK	135	69	25.76	25.78	25.61	27.5
100	PI/2 BPSK	135	138	25.24	25.31	25.11	27.0
100	PI/2 BPSK	270	0	25.17	25.30	25.06	
100	QPSK	1	1	25.72	25.90	25.53	26.5
100	QPSK	1	137	25.78	25.63	25.57	
100	QPSK	1	271	25.70	25.56	25.50	
100	QPSK	135	0	24.67	24.82	24.64	26.5
100	QPSK	135	69	25.70	25.61	25.60	
100	QPSK	135	138	24.63	24.73	24.52	
100	QPSK	270	0	24.64	24.78	24.56	26.5
100	16QAM	1	1	25.01	25.06	24.78	26.5
100	64QAM	1	1	23.49	23.51	23.21	25.0
100	256QAM	1	1	21.22	21.29	21.03	23.0
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	25.82	25.90	25.57	27.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	25.82	25.86	25.56	27.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	25.82	25.89	25.53	27.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	25.77	25.88	25.56	27.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	25.81	25.85	25.57	27.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	25.79	25.90	25.53	27.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	25.81	25.90	25.55	27.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	25.77	25.88	25.57	27.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	25.77	25.88	25.52	27.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	25.81	25.87	25.54	27.5



<FR1 n77_HPUE_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	18.5
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	18.12	18.13	17.94	18.5
100	PI/2 BPSK	1	137	18.06	18.07	17.88	
100	PI/2 BPSK	1	271	17.94	17.95	17.76	
100	PI/2 BPSK	135	0	18.05	18.06	17.87	18.5
100	PI/2 BPSK	135	69	18.10	18.11	17.92	18.5
100	PI/2 BPSK	135	138	17.94	17.95	17.76	18.5
100	PI/2 BPSK	270	0	18.03	18.04	17.85	
100	QPSK	1	1	17.97	17.98	17.79	18.5
100	QPSK	1	137	18.07	18.08	17.89	
100	QPSK	1	271	17.99	18.00	17.81	
100	QPSK	135	0	18.04	18.05	17.86	18.5
100	QPSK	135	69	18.05	18.06	17.87	
100	QPSK	135	138	17.93	17.94	17.75	
100	QPSK	270	0	18.07	18.08	17.89	18.5
100	16QAM	1	1	18.10	18.11	17.92	18.5
100	64QAM	1	1	18.11	18.12	17.93	18.5
100	256QAM	1	1	17.96	17.97	17.78	18.5
Channel				649668	656000	662332	18.5
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	18.00	18.04	17.84	18.5
Channel				649334	656000	662666	18.5
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	18.02	18.03	17.84	18.5
Channel				649000	656000	663000	18.5
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	18.00	18.03	17.82	18.5
Channel				648668	656000	663332	18.5
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	18.04	18.04	17.84	18.5
Channel				648334	656000	663666	18.5
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	18.01	18.03	17.86	18.5
Channel				648000	656000	664000	18.5
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	18.03	18.01	17.85	18.5
Channel				647668	656000	664332	18.5
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	18.01	18.03	17.85	18.5
Channel				647334	656000	664666	18.5
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	18.02	18.03	17.85	18.5
Channel				647168	656000	664832	18.5
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	18.04	18.02	17.84	18.5
Channel				647000	656000	665000	18.5
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	18.01	18.01	17.84	18.5



<FR1 n77_HPUE_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	26.58	26.63	26.40	27.5
100	PI/2 BPSK	1	137	26.38	26.55	26.22	
100	PI/2 BPSK	1	271	26.33	26.46	26.17	
100	PI/2 BPSK	135	0	26.45	26.58	26.30	27.0
100	PI/2 BPSK	135	69	26.42	26.57	26.29	27.5
100	PI/2 BPSK	135	138	26.46	26.55	26.22	27.0
100	PI/2 BPSK	270	0	26.46	26.55	26.23	
100	QPSK	1	1	26.40	26.55	26.22	27.5
100	QPSK	1	137	26.43	26.51	26.23	
100	QPSK	1	271	26.20	26.36	26.06	
100	QPSK	135	0	26.09	26.18	25.93	27.5
100	QPSK	135	69	26.47	26.58	26.30	
100	QPSK	135	138	25.90	25.98	25.72	
100	QPSK	270	0	26.03	26.17	25.92	26.5
100	16QAM	1	1	26.09	26.26	26.01	26.5
100	64QAM	1	1	24.90	24.98	24.74	25.0
100	256QAM	1	1	22.70	22.83	22.52	23.0
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	26.50	26.60	26.39	27.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	26.53	26.59	26.34	27.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	26.52	26.62	26.33	27.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	26.54	26.58	26.37	27.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	26.49	26.60	26.33	27.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	26.52	26.57	26.32	27.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	26.54	26.56	26.35	27.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	26.53	26.60	26.30	27.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	26.55	26.58	26.38	27.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	26.51	26.62	26.35	27.5



<FR1 n77_HPUE_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	16.69	17.31	16.88	18.5
100	PI/2 BPSK	1	137	16.78	16.86	16.86	
100	PI/2 BPSK	1	271	16.64	16.82	16.77	
100	PI/2 BPSK	135	0	16.72	16.82	16.72	18.5
100	PI/2 BPSK	135	69	16.71	16.83	16.70	18.5
100	PI/2 BPSK	135	138	16.67	16.73	16.64	18.5
100	PI/2 BPSK	270	0	16.64	16.74	16.68	
100	QPSK	1	1	16.69	16.84	16.77	18.5
100	QPSK	1	137	16.73	16.85	16.84	
100	QPSK	1	271	16.70	16.77	16.75	
100	QPSK	135	0	16.78	16.84	16.78	18.5
100	QPSK	135	69	16.71	16.82	16.73	
100	QPSK	135	138	16.56	16.72	16.64	
100	QPSK	270	0	16.67	16.75	16.74	18.5
100	16QAM	1	1	16.68	16.82	16.75	18.5
100	64QAM	1	1	16.62	16.77	16.75	18.5
100	256QAM	1	1	16.85	16.88	16.87	18.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	16.68	16.84	16.78	18.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	16.73	16.85	16.79	18.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	16.71	16.88	16.78	18.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	16.83	16.90	16.80	18.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	16.99	17.12	17.05	18.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	17.14	17.30	17.25	18.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	17.01	17.17	17.12	18.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	16.51	17.13	16.58	18.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	16.55	17.21	16.63	18.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	16.59	17.16	16.59	18.5



<FR1 n77_HPUE_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	18.25	18.28	18.26	18.5
100	PI/2 BPSK	1	137	18.24	18.27	18.25	
100	PI/2 BPSK	1	271	18.22	18.25	18.23	
100	PI/2 BPSK	135	0	18.23	18.26	18.24	18.5
100	PI/2 BPSK	135	69	18.24	18.27	18.25	18.5
100	PI/2 BPSK	135	138	18.15	18.18	18.16	18.5
100	PI/2 BPSK	270	0	18.22	18.25	18.23	
100	QPSK	1	1	18.21	18.24	18.22	18.5
100	QPSK	1	137	18.24	18.27	18.25	
100	QPSK	1	271	18.23	18.26	18.24	
100	QPSK	135	0	18.21	18.24	18.22	18.5
100	QPSK	135	69	18.22	18.25	18.23	
100	QPSK	135	138	18.23	18.26	18.24	
100	QPSK	270	0	18.24	18.27	18.25	18.5
100	16QAM	1	1	18.14	18.17	18.15	18.5
100	64QAM	1	1	18.24	18.27	18.25	18.5
100	256QAM	1	1	18.22	18.25	18.23	18.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	18.16	18.20	18.19	18.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	18.16	18.22	18.17	18.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	18.18	18.19	18.17	18.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	18.16	18.21	18.19	18.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	18.18	18.22	18.20	18.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	18.16	18.22	18.18	18.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	18.16	18.21	18.18	18.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	18.18	18.21	18.17	18.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	18.16	18.22	18.18	18.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	18.17	18.19	18.20	18.5



<FR1 n77_HPUE_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				650000	656000	662000	
Frequency (MHz)				3750	3840	3930	
100	PI/2 BPSK	1	1	18.22	18.25	18.24	18.5
100	PI/2 BPSK	1	137	18.21	18.24	18.23	
100	PI/2 BPSK	1	271	18.19	18.22	18.21	
100	PI/2 BPSK	135	0	18.21	18.24	18.23	18.5
100	PI/2 BPSK	135	69	18.20	18.23	18.22	18.5
100	PI/2 BPSK	135	138	18.18	18.21	18.20	18.5
100	PI/2 BPSK	270	0	18.20	18.23	18.22	
100	QPSK	1	1	18.21	18.24	18.23	18.5
100	QPSK	1	137	18.20	18.23	18.22	
100	QPSK	1	271	18.19	18.22	18.21	
100	QPSK	135	0	18.17	18.20	18.19	18.5
100	QPSK	135	69	18.16	18.19	18.18	
100	QPSK	135	138	18.15	18.18	18.17	
100	QPSK	270	0	18.18	18.21	18.20	18.5
100	16QAM	1	1	18.19	18.22	18.21	18.5
100	64QAM	1	1	18.20	18.23	18.22	18.5
100	256QAM	1	1	18.21	18.24	18.23	18.5
Channel				649668	656000	662332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3840	3934.98	
90	PI/2 BPSK	1	1	18.11	18.16	18.12	18.5
Channel				649334	656000	662666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3840	3939.99	
80	PI/2 BPSK	1	1	18.12	18.17	18.15	18.5
Channel				649000	656000	663000	Tune-up limit (dBm)
Frequency (MHz)				3735	3840	3945	
70	PI/2 BPSK	1	1	18.12	18.12	18.11	18.5
Channel				648668	656000	663332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3840	3949.98	
60	PI/2 BPSK	1	1	18.14	18.12	18.14	18.5
Channel				648334	656000	663666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3840	3954.99	
50	PI/2 BPSK	1	1	18.11	18.12	18.16	18.5
Channel				648000	656000	664000	Tune-up limit (dBm)
Frequency (MHz)				3720	3840	3960	
40	PI/2 BPSK	1	1	18.13	18.15	18.16	18.5
Channel				647668	656000	664332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3840.00	3964.98	
30	PI/2 BPSK	1	1	18.13	18.12	18.12	18.5
Channel				647334	656000	664666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3840	3969.99	
20	PI/2 BPSK	1	1	18.14	18.15	18.13	18.5
Channel				647168	656000	664832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3840	3972.48	
15	PI/2 BPSK	1	1	18.09	18.14	18.14	18.5
Channel				647000	656000	665000	Tune-up limit (dBm)
Frequency (MHz)				3705	3840	3975	
10	PI/2 BPSK	1	1	18.09	18.17	18.12	18.5



<FR1 n77_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		25.0
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		24.25		25.0
100	PI/2 BPSK	1	137		24.02		
100	PI/2 BPSK	1	271		23.82		
100	PI/2 BPSK	135	0		24.16		24.5
100	PI/2 BPSK	135	69		24.07		25.0
100	PI/2 BPSK	135	138		23.84		24.5
100	PI/2 BPSK	270	0		24.05		
100	QPSK	1	1		24.22		25.0
100	QPSK	1	137		24.02		
100	QPSK	1	271		23.80		
100	QPSK	135	0		24.15		25.0
100	QPSK	135	69		24.05		
100	QPSK	135	138		23.80		
100	QPSK	270	0		23.98		24.0
100	16QAM	1	1		24.00		24.0
100	64QAM	1	1		22.94		23.0
100	256QAM	1	1		20.72		21.0
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	24.18	24.21	24.15	25.0
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	24.17	24.11	24.10	25.0
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	24.12	24.14	24.09	25.0
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	24.16	24.20	24.13	25.0
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	24.12	24.20	24.13	25.0
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	24.14	24.15	24.12	25.0
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	24.16	24.16	24.07	25.0
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	24.10	24.20	24.05	25.0
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	24.12	24.16	24.11	25.0
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	24.08	24.16	24.06	25.0



<FR1 n77_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		25.0
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		23.51		25.0
100	PI/2 BPSK	1	137		23.48		
100	PI/2 BPSK	1	271		23.44		
100	PI/2 BPSK	135	0		23.03		24.5
100	PI/2 BPSK	135	69		23.35		25.0
100	PI/2 BPSK	135	138		22.94		24.5
100	PI/2 BPSK	270	0		22.92		
100	QPSK	1	1		23.48		24.0
100	QPSK	1	137		23.41		
100	QPSK	1	271		23.36		
100	QPSK	135	0		22.48		24.0
100	QPSK	135	69		23.36		
100	QPSK	135	138		22.40		
100	QPSK	270	0		22.38		24.0
100	16QAM	1	1		22.61		24.0
100	64QAM	1	1		21.18		22.5
100	256QAM	1	1		19.10		20.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	23.35	23.38	23.32	25.0
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	23.34	23.33	23.29	25.0
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	23.30	23.33	23.32	25.0
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	23.33	23.38	23.22	25.0
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	23.34	23.31	23.23	25.0
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	23.31	23.34	23.30	25.0
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	23.26	23.35	23.23	25.0
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	23.31	23.35	23.32	25.0
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	23.29	23.31	23.29	25.0
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	23.28	23.33	23.26	25.0



<FR1 n77_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		15.27		15.5
100	PI/2 BPSK	1	137		15.13		
100	PI/2 BPSK	1	271		14.98		
100	PI/2 BPSK	135	0		15.25		15.5
100	PI/2 BPSK	135	69		15.24		15.5
100	PI/2 BPSK	135	138		15.18		15.5
100	PI/2 BPSK	270	0		15.22		
100	QPSK	1	1		15.25		15.5
100	QPSK	1	137		15.23		
100	QPSK	1	271		15.14		
100	QPSK	135	0		15.26		15.5
100	QPSK	135	69		15.22		
100	QPSK	135	138		15.18		
100	QPSK	270	0		15.21		15.5
100	16QAM	1	1		15.25		15.5
100	64QAM	1	1		15.26		15.5
100	256QAM	1	1		15.24		15.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	15.19	15.21	15.03	15.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	15.15	15.22	15.03	15.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	15.15	15.20	15.05	15.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	15.15	15.23	15.02	15.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	15.16	15.21	15.03	15.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	15.19	15.23	15.05	15.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	15.19	15.19	15.02	15.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	15.15	15.22	15.02	15.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	15.17	15.20	15.01	15.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	15.17	15.21	15.04	15.5



<FR1 n77_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		24.09		25.0
100	PI/2 BPSK	1	137		23.95		
100	PI/2 BPSK	1	271		23.83		
100	PI/2 BPSK	135	0		23.91		24.5
100	PI/2 BPSK	135	69		23.86		25.0
100	PI/2 BPSK	135	138		23.85		24.5
100	PI/2 BPSK	270	0		23.95		
100	QPSK	1	1		24.07		25.0
100	QPSK	1	137		23.82		
100	QPSK	1	271		23.81		
100	QPSK	135	0		24.02		25.0
100	QPSK	135	69		23.96		
100	QPSK	135	138		23.73		
100	QPSK	270	0		23.72		24.0
100	16QAM	1	1		23.98		24.0
100	64QAM	1	1		22.97		23.0
100	256QAM	1	1		20.94		21.0
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	24.02	24.05	24.00	25.0
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	24.03	24.01	23.98	25.0
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	24.05	24.07	24.06	25.0
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	24.00	24.02	24.03	25.0
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	24.07	23.98	24.06	25.0
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	24.06	24.02	24.05	25.0
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	24.03	24.08	24.02	25.0
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	23.98	23.99	23.97	25.0
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	24.00	24.03	24.05	25.0
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	23.98	23.97	23.95	25.0



<FR1 n77_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		14.75		15.5
100	PI/2 BPSK	1	137		14.30		
100	PI/2 BPSK	1	271		14.30		
100	PI/2 BPSK	135	0		14.32		15.5
100	PI/2 BPSK	135	69		14.27		15.5
100	PI/2 BPSK	135	138		14.18		15.5
100	PI/2 BPSK	270	0		14.28		
100	QPSK	1	1		14.31		15.5
100	QPSK	1	137		14.46		
100	QPSK	1	271		14.23		
100	QPSK	135	0		14.33		15.5
100	QPSK	135	69		14.28		
100	QPSK	135	138		14.18		
100	QPSK	270	0		14.27		15.5
100	16QAM	1	1		14.47		15.5
100	64QAM	1	1		14.47		15.5
100	256QAM	1	1		14.48		15.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	14.46	14.37	14.38	15.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	14.51	14.45	14.46	15.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	14.72	14.53	14.52	15.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	14.70	14.52	14.54	15.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	14.71	14.54	14.55	15.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	14.71	14.54	14.56	15.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	14.73	14.54	14.56	15.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	14.73	14.54	14.56	15.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	14.72	14.55	14.57	15.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	14.74	14.55	14.57	15.5



<FR1 n77_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		15.41		15.5
100	PI/2 BPSK	1	137		15.37		
100	PI/2 BPSK	1	271		15.36		
100	PI/2 BPSK	135	0		15.39		15.5
100	PI/2 BPSK	135	69		15.40		15.5
100	PI/2 BPSK	135	138		15.38		15.5
100	PI/2 BPSK	270	0		15.37		
100	QPSK	1	1		15.40		15.5
100	QPSK	1	137		15.38		
100	QPSK	1	271		15.37		
100	QPSK	135	0		15.40		15.5
100	QPSK	135	69		15.38		
100	QPSK	135	138		15.37		
100	QPSK	270	0		15.36		15.5
100	16QAM	1	1		15.39		15.5
100	64QAM	1	1		15.40		15.5
100	256QAM	1	1		15.38		15.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	15.28	15.30	15.27	15.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	15.26	15.32	15.28	15.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	15.26	15.33	15.27	15.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	15.26	15.33	15.30	15.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	15.25	15.31	15.28	15.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	15.25	15.32	15.30	15.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	15.27	15.31	15.29	15.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	15.26	15.31	15.27	15.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	15.25	15.31	15.29	15.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	15.28	15.30	15.27	15.5



<FR1 n77_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		15.14		15.5
100	PI/2 BPSK	1	137		15.07		
100	PI/2 BPSK	1	271		15.03		
100	PI/2 BPSK	135	0		15.13		15.5
100	PI/2 BPSK	135	69		15.07		15.5
100	PI/2 BPSK	135	138		14.99		15.5
100	PI/2 BPSK	270	0		15.03		
100	QPSK	1	1		15.10		15.5
100	QPSK	1	137		15.11		
100	QPSK	1	271		15.04		
100	QPSK	135	0		15.12		15.5
100	QPSK	135	69		15.03		
100	QPSK	135	138		15.06		
100	QPSK	270	0		15.01		15.5
100	16QAM	1	1		15.00		15.5
100	64QAM	1	1		15.13		15.5
100	256QAM	1	1		15.03		15.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	14.98	15.03	15.05	15.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	14.97	15.05	15.05	15.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	15.00	15.07	15.02	15.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	15.02	15.05	15.01	15.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	15.00	15.07	15.03	15.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	14.97	15.06	15.03	15.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	15.01	15.06	15.06	15.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	14.99	15.03	15.03	15.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	15.00	15.07	15.02	15.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	14.98	15.05	15.05	15.5



<FR1 n77_HPUE_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		26.27		27.5
100	PI/2 BPSK	1	137		25.67		
100	PI/2 BPSK	1	271		25.51		
100	PI/2 BPSK	135	0		25.82		27.0
100	PI/2 BPSK	135	69		25.92		27.5
100	PI/2 BPSK	135	138		25.37		27.0
100	PI/2 BPSK	270	0		25.68		
100	QPSK	1	1		26.23		27.5
100	QPSK	1	137		25.64		
100	QPSK	1	271		25.51		
100	QPSK	135	0		25.86		27.5
100	QPSK	135	69		25.86		
100	QPSK	135	138		25.51		
100	QPSK	270	0		25.28		26.5
100	16QAM	1	1		25.72		26.5
100	64QAM	1	1		24.89		25.5
100	256QAM	1	1		23.41		23.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	26.21	26.25	26.18	27.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	26.13	26.20	26.09	27.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	26.11	26.21	26.15	27.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	26.13	26.17	26.15	27.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	26.16	26.22	26.14	27.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	26.11	26.16	26.11	27.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	26.14	26.24	26.13	27.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	26.15	26.15	26.11	27.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	26.20	26.22	26.10	27.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	26.20	26.23	26.17	27.5



<FR1 n77_HPUE_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		26.07		27.5
100	PI/2 BPSK	1	137		26.01		
100	PI/2 BPSK	1	271		25.95		
100	PI/2 BPSK	135	0		25.58		27.0
100	PI/2 BPSK	135	69		25.96		27.5
100	PI/2 BPSK	135	138		25.51		27.0
100	PI/2 BPSK	270	0		25.61		
100	QPSK	1	1		26.02		26.5
100	QPSK	1	137		25.98		
100	QPSK	1	271		25.97		
100	QPSK	135	0		25.08		26.5
100	QPSK	135	69		26.00		
100	QPSK	135	138		25.00		
100	QPSK	270	0		25.07		26.5
100	16QAM	1	1		24.65		26.5
100	64QAM	1	1		23.72		25.0
100	256QAM	1	1		21.83		23.0
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	26.00	26.05	26.02	27.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	25.98	26.00	25.96	27.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	25.93	26.00	25.92	27.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	25.90	25.97	25.94	27.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	25.93	26.01	25.96	27.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	25.92	26.03	25.99	27.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	25.95	25.95	25.96	27.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	25.96	26.03	25.97	27.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	25.95	25.99	25.95	27.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	25.93	25.96	25.94	27.5



<FR1 n77_HPUE_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		18.25		18.5
100	PI/2 BPSK	1	137		18.03		
100	PI/2 BPSK	1	271		17.95		
100	PI/2 BPSK	135	0		18.04		18.5
100	PI/2 BPSK	135	69		18.05		18.5
100	PI/2 BPSK	135	138		18.00		18.5
100	PI/2 BPSK	270	0		18.06		
100	QPSK	1	1		18.17		18.5
100	QPSK	1	137		17.95		
100	QPSK	1	271		17.89		
100	QPSK	135	0		18.11		18.5
100	QPSK	135	69		18.03		
100	QPSK	135	138		17.99		
100	QPSK	270	0		18.05		18.5
100	16QAM	1	1		18.06		18.5
100	64QAM	1	1		18.05		18.5
100	256QAM	1	1		18.10		18.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	18.15	18.15	18.01	18.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	18.13	18.15	18.04	18.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	18.11	18.19	18.03	18.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	18.13	18.19	18.06	18.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	18.14	18.15	18.02	18.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	18.12	18.16	18.06	18.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	18.14	18.14	18.01	18.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	18.11	18.19	18.05	18.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	18.11	18.17	18.03	18.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	18.11	18.15	18.02	18.5



<FR1 n77_HPUE_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		26.65		27.5
100	PI/2 BPSK	1	137		26.52		
100	PI/2 BPSK	1	271		26.47		
100	PI/2 BPSK	135	0		26.61		27.0
100	PI/2 BPSK	135	69		26.50		27.5
100	PI/2 BPSK	135	138		26.47		27.0
100	PI/2 BPSK	270	0		26.53		
100	QPSK	1	1		26.54		27.5
100	QPSK	1	137		26.39		
100	QPSK	1	271		26.29		
100	QPSK	135	0		26.60		27.5
100	QPSK	135	69		26.55		
100	QPSK	135	138		26.48		
100	QPSK	270	0		26.48		26.5
100	16QAM	1	1		26.44		26.5
100	64QAM	1	1		24.96		25.0
100	256QAM	1	1		22.98		23.0
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	26.58	26.60	26.55	27.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	26.57	26.53	26.48	27.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	26.53	26.58	26.54	27.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	26.54	26.57	26.46	27.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	26.57	26.52	26.54	27.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	26.51	26.54	26.48	27.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	26.56	26.58	26.51	27.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	26.48	26.53	26.47	27.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	26.54	26.50	26.50	27.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	26.57	26.50	26.50	27.5



<FR1 n77_HPUE_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		17.45		18.5
100	PI/2 BPSK	1	137		16.79		
100	PI/2 BPSK	1	271		16.69		
100	PI/2 BPSK	135	0		16.73		18.5
100	PI/2 BPSK	135	69		16.74		18.5
100	PI/2 BPSK	135	138		16.58		18.5
100	PI/2 BPSK	270	0		16.66		
100	QPSK	1	1		16.75		18.5
100	QPSK	1	137		16.67		
100	QPSK	1	271		16.55		
100	QPSK	135	0		16.72		18.5
100	QPSK	135	69		16.69		
100	QPSK	135	138		16.54		
100	QPSK	270	0		16.65		18.5
100	16QAM	1	1		17.14		18.5
100	64QAM	1	1		16.72		18.5
100	256QAM	1	1		16.86		18.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	16.94	17.00	16.91	18.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	17.00	17.05	16.99	18.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	17.01	17.06	16.91	18.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	17.05	17.08	16.93	18.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	17.20	17.23	17.15	18.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	17.32	17.35	17.28	18.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	17.40	17.44	17.32	18.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	17.30	17.32	17.23	18.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	17.15	17.21	17.15	18.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	17.13	17.15	17.05	18.5



<FR1 n77_HPUE_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		18.06		18.5
100	PI/2 BPSK	1	137		18.02		
100	PI/2 BPSK	1	271		17.99		
100	PI/2 BPSK	135	0		17.92		18.5
100	PI/2 BPSK	135	69		17.93		18.5
100	PI/2 BPSK	135	138		17.90		18.5
100	PI/2 BPSK	270	0		17.89		
100	QPSK	1	1		17.96		18.5
100	QPSK	1	137		17.77		
100	QPSK	1	271		17.82		
100	QPSK	135	0		17.92		18.5
100	QPSK	135	69		17.88		
100	QPSK	135	138		17.84		
100	QPSK	270	0		17.85		18.5
100	16QAM	1	1		17.84		18.5
100	64QAM	1	1		18.05		18.5
100	256QAM	1	1		18.02		18.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	17.93	17.98	17.95	18.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	17.91	17.97	17.96	18.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	17.92	17.98	17.94	18.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	17.91	17.97	17.95	18.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	17.92	17.97	17.94	18.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	17.92	17.97	17.94	18.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	17.92	17.97	17.95	18.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	17.91	17.96	17.96	18.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	17.92	17.96	17.94	18.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	17.93	17.96	17.95	18.5



<FR1 n77_HPUE_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		18.18		18.5
100	PI/2 BPSK	1	137		18.09		
100	PI/2 BPSK	1	271		18.00		
100	PI/2 BPSK	135	0		18.10		18.5
100	PI/2 BPSK	135	69		18.09		18.5
100	PI/2 BPSK	135	138		18.01		18.5
100	PI/2 BPSK	270	0		18.04		
100	QPSK	1	1		18.09		18.5
100	QPSK	1	137		17.93		
100	QPSK	1	271		17.89		
100	QPSK	135	0		18.12		18.5
100	QPSK	135	69		18.10		
100	QPSK	135	138		17.98		
100	QPSK	270	0		17.99		18.5
100	16QAM	1	1		18.07		18.5
100	64QAM	1	1		18.16		18.5
100	256QAM	1	1		18.17		18.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	17.99	18.04	18.04	18.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	17.96	18.04	18.03	18.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	17.92	18.05	18.05	18.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	17.93	18.05	18.02	18.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	17.93	18.05	18.03	18.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	17.98	18.09	18.06	18.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	17.98	18.02	18.04	18.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	17.91	18.08	18.07	18.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	17.92	18.08	17.99	18.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	17.96	18.07	18.06	18.5



<FR1 n78_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		24.17		25.0
100	PI/2 BPSK	1	137		24.11		
100	PI/2 BPSK	1	271		24.02		
100	PI/2 BPSK	135	0		24.12		24.5
100	PI/2 BPSK	135	69		24.06		25.0
100	PI/2 BPSK	135	138		24.04		24.5
100	PI/2 BPSK	270	0		24.05		
100	QPSK	1	1		24.14		25.0
100	QPSK	1	137		24.16		
100	QPSK	1	271		24.07		
100	QPSK	135	0		23.75		25.0
100	QPSK	135	69		24.06		
100	QPSK	135	138		23.55		
100	QPSK	270	0		23.60		24.0
100	16QAM	1	1		23.77		24.0
100	64QAM	1	1		22.49		22.5
100	256QAM	1	1		20.36		20.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	24.06	24.10	24.00	25.0
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	24.00	24.15		25.0
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	23.96	24.04	23.97	25.0
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	23.94	24.06	23.94	25.0
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	23.95	24.05	23.92	25.0
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	24.09	24.01	23.90	25.0
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	24.05	23.99	23.97	25.0
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	24.06	24.02	24.01	25.0
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	23.98	24.09	23.98	25.0
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	24.03	24.07	23.94	25.0



<FR1 n78_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		23.23		25.0
100	PI/2 BPSK	1	137		23.18		
100	PI/2 BPSK	1	271		23.14		
100	PI/2 BPSK	135	0		22.63		24.5
100	PI/2 BPSK	135	69		23.13		25.0
100	PI/2 BPSK	135	138		22.59		24.5
100	PI/2 BPSK	270	0		22.59		
100	QPSK	1	1		23.20		24.0
100	QPSK	1	137		23.17		
100	QPSK	1	271		23.13		
100	QPSK	135	0		22.11		24.0
100	QPSK	135	69		23.12		
100	QPSK	135	138		22.09		
100	QPSK	270	0		22.07		24.0
100	16QAM	1	1		22.05		24.0
100	64QAM	1	1		20.80		22.5
100	256QAM	1	1		18.67		20.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	23.16	23.21	23.18	25.0
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	23.09	23.12	23.12	25.0
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	23.11	23.11	23.12	25.0
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	23.09	23.12	23.08	25.0
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	23.06	23.15	23.08	25.0
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	23.10	23.15	23.10	25.0
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	23.11	23.12	23.12	25.0
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	23.06	23.11	23.10	25.0
Channel				647168	24	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	-5999.6355	3792.48	
15	PI/2 BPSK	1	1	23.06	23.13	23.10	25.0
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	23.07	23.19	23.11	25.0



<FR1 n78_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		15.17		15.5
100	PI/2 BPSK	1	137		15.16		
100	PI/2 BPSK	1	271		15.11		
100	PI/2 BPSK	135	0		15.13		15.5
100	PI/2 BPSK	135	69		15.15		15.5
100	PI/2 BPSK	135	138		15.09		15.5
100	PI/2 BPSK	270	0		15.10		
100	QPSK	1	1		15.07		15.5
100	QPSK	1	137		15.16		
100	QPSK	1	271		15.09		
100	QPSK	135	0		15.15		15.5
100	QPSK	135	69		15.12		
100	QPSK	135	138		15.08		
100	QPSK	270	0		15.09		15.5
100	16QAM	1	1		15.01		15.5
100	64QAM	1	1		15.16		15.5
100	256QAM	1	1		15.14		15.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	14.99	15.09	15.06	15.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	15.00	15.09	15.06	15.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	15.00	15.08	15.05	15.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	14.99	15.07	15.04	15.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	15.00	15.07	15.07	15.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	15.02	15.09	15.06	15.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	15.00	15.06	15.07	15.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	15.01	15.08	15.07	15.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	15.00	15.08	15.07	15.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	14.99	15.09	15.04	15.5



<FR1 n78_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		23.41		25.0
100	PI/2 BPSK	1	137		23.37		
100	PI/2 BPSK	1	271		23.26		
100	PI/2 BPSK	135	0		22.81		24.5
100	PI/2 BPSK	135	69		23.39		25.0
100	PI/2 BPSK	135	138		22.75		24.5
100	PI/2 BPSK	270	0		22.86		
100	QPSK	1	1		23.37		24.0
100	QPSK	1	137		23.35		
100	QPSK	1	271		23.23		
100	QPSK	135	0		22.28		24.0
100	QPSK	135	69		23.33		
100	QPSK	135	138		22.19		
100	QPSK	270	0		22.31		24.0
100	16QAM	1	1		22.24		24.0
100	64QAM	1	1		21.24		22.5
100	256QAM	1	1		18.87		20.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	23.35	23.38	23.30	25.0
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	23.34	23.32	23.28	25.0
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	23.30	23.36	23.26	25.0
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	23.26	23.36	23.24	25.0
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	23.34	23.32	23.24	25.0
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	23.32	23.35	23.27	25.0
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	23.30	23.29	23.29	25.0
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	23.34	23.31	23.24	25.0
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	23.29	23.33	23.23	25.0
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	23.33	23.31	23.29	25.0



<FR1 n78_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		14.61		15.5
100	PI/2 BPSK	1	137		14.23		
100	PI/2 BPSK	1	271		14.22		
100	PI/2 BPSK	135	0		14.23		15.5
100	PI/2 BPSK	135	69		14.21		15.5
100	PI/2 BPSK	135	138		14.18		15.5
100	PI/2 BPSK	270	0		14.15		
100	QPSK	1	1		14.28		15.5
100	QPSK	1	137		14.42		
100	QPSK	1	271		14.32		
100	QPSK	135	0		14.25		15.5
100	QPSK	135	69		14.28		
100	QPSK	135	138		14.16		
100	QPSK	270	0		14.16		15.5
100	16QAM	1	1		14.58		15.5
100	64QAM	1	1		14.30		15.5
100	256QAM	1	1		14.10		15.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	14.30	14.25	14.28	15.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	14.29	14.24	14.28	15.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	14.29	14.25	14.25	15.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	14.30	14.29	14.30	15.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	14.41	14.35	14.40	15.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	14.50	14.47	14.48	15.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	14.60	14.56	14.60	15.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	14.56	14.53	14.55	15.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	14.57	14.53	14.53	15.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	14.51	14.50	14.53	15.5



<FR1 n78_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		14.98		15.5
100	PI/2 BPSK	1	137		14.97		
100	PI/2 BPSK	1	271		14.95		
100	PI/2 BPSK	135	0		14.88		15.5
100	PI/2 BPSK	135	69		14.96		15.5
100	PI/2 BPSK	135	138		14.95		15.5
100	PI/2 BPSK	270	0		14.93		
100	QPSK	1	1		14.92		15.5
100	QPSK	1	137		14.97		
100	QPSK	1	271		14.96		
100	QPSK	135	0		14.92		15.5
100	QPSK	135	69		14.95		
100	QPSK	135	138		14.94		
100	QPSK	270	0		14.95		15.5
100	16QAM	1	1		14.96		15.5
100	64QAM	1	1		14.97		15.5
100	256QAM	1	1		14.95		15.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	14.84	14.90	14.87	15.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	14.83	14.89	14.86	15.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	14.82	14.90	14.84	15.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	14.84	14.88	14.85	15.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	14.83	14.90	14.85	15.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	14.85	14.88	14.84	15.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	14.85	14.88	14.84	15.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	14.83	14.90	14.85	15.5
Channel				647168	24	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	-5999.6355	3792.48	
15	PI/2 BPSK	1	1	14.83	14.89	14.86	15.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	14.84	14.90	14.86	15.5



<FR1 n78_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		15.25		15.5
100	PI/2 BPSK	1	137		15.24		
100	PI/2 BPSK	1	271		15.22		
100	PI/2 BPSK	135	0		15.22		15.5
100	PI/2 BPSK	135	69		15.23		15.5
100	PI/2 BPSK	135	138		15.21		15.5
100	PI/2 BPSK	270	0		15.19		
100	QPSK	1	1		15.24		15.5
100	QPSK	1	137		15.23		
100	QPSK	1	271		15.22		
100	QPSK	135	0		15.20		15.5
100	QPSK	135	69		15.19		
100	QPSK	135	138		15.23		
100	QPSK	270	0		15.21		15.5
100	16QAM	1	1		15.24		15.5
100	64QAM	1	1		15.22		15.5
100	256QAM	1	1		15.21		15.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	15.02	15.13	15.13	15.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	15.03	15.17	15.10	15.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	14.98	15.11	15.12	15.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	15.05	15.14	15.11	15.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	14.98	15.16	15.11	15.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	15.05	15.16	15.12	15.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	15.02	15.11	15.12	15.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	15.03	15.10	15.13	15.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	15.04	15.10	15.10	15.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	15.01	15.15	15.12	15.5



<FR1 n78_HPUE_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		27.17		27.5
100	PI/2 BPSK	1	137		27.12		
100	PI/2 BPSK	1	271		27.08		
100	PI/2 BPSK	135	0		26.86		27.0
100	PI/2 BPSK	135	69		27.15		27.5
100	PI/2 BPSK	135	138		26.78		27.0
100	PI/2 BPSK	270	0		26.88		
100	QPSK	1	1		27.13		27.5
100	QPSK	1	137		27.02		
100	QPSK	1	271		26.92		
100	QPSK	135	0		26.45		27.5
100	QPSK	135	69		27.13		
100	QPSK	135	138		26.33		
100	QPSK	270	0		26.32		26.5
100	16QAM	1	1		26.25		26.5
100	64QAM	1	1		24.96		25.0
100	256QAM	1	1		22.96		23.0
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	27.11	27.14	27.08	27.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	27.03	27.04	27.02	27.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	27.05	27.06	27.03	27.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	27.02	27.04	27.03	27.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	27.04	27.07	27.00	27.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	27.03	27.08	26.98	27.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	27.02	27.06	27.02	27.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	27.02	27.09	27.00	27.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	27.04	27.04	27.02	27.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	27.04	27.06	26.99	27.5



<FR1 n78_HPUE_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		25.77		27.5
100	PI/2 BPSK	1	137		25.68		
100	PI/2 BPSK	1	271		25.74		
100	PI/2 BPSK	135	0		25.14		27.0
100	PI/2 BPSK	135	69		25.72		27.5
100	PI/2 BPSK	135	138		25.16		27.0
100	PI/2 BPSK	270	0		25.20		
100	QPSK	1	1		25.53		26.5
100	QPSK	1	137		25.74		
100	QPSK	1	271		25.70		
100	QPSK	135	0		24.61		26.5
100	QPSK	135	69		25.72		
100	QPSK	135	138		24.66		
100	QPSK	270	0		24.70		26.5
100	16QAM	1	1		24.88		26.5
100	64QAM	1	1		23.42		25.0
100	256QAM	1	1		21.15		23.0
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	25.65	25.71	25.68	27.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	25.62	25.63	25.66	27.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	25.55	25.63	25.64	27.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	25.56	25.64	25.63	27.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	25.57	25.70	25.60	27.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	25.62	25.61	25.63	27.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	25.59	25.68	25.64	27.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	25.59	25.68	25.59	27.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	25.62	25.61	25.64	27.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	25.61	25.67	25.65	27.5



<FR1 n78_HPUE_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		18.20		18.5
100	PI/2 BPSK	1	137		18.19		
100	PI/2 BPSK	1	271		18.11		
100	PI/2 BPSK	135	0		18.18		18.5
100	PI/2 BPSK	135	69		18.19		18.5
100	PI/2 BPSK	135	138		18.12		18.5
100	PI/2 BPSK	270	0		18.15		
100	QPSK	1	1		18.18		18.5
100	QPSK	1	137		18.16		
100	QPSK	1	271		18.14		
100	QPSK	135	0		18.19		18.5
100	QPSK	135	69		18.16		
100	QPSK	135	138		18.13		
100	QPSK	270	0		18.12		18.5
100	16QAM	1	1		17.85		18.5
100	64QAM	1	1		17.18		18.5
100	256QAM	1	1		17.19		18.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	17.98	18.15	18.09	18.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	17.98	18.10	18.07	18.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	17.96	18.14	18.09	18.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	18.00	18.11	18.04	18.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	17.98	18.10	18.09	18.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	17.97	18.12	18.05	18.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	17.96	18.10	18.09	18.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	17.97	18.11	18.08	18.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	17.99	18.11	18.05	18.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	17.99	18.10	18.06	18.5



<FR1 n78_HPUE_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		25.91		27.5
100	PI/2 BPSK	1	137		25.89		
100	PI/2 BPSK	1	271		25.85		
100	PI/2 BPSK	135	0		25.37		27.0
100	PI/2 BPSK	135	69		25.84		27.5
100	PI/2 BPSK	135	138		25.38		27.0
100	PI/2 BPSK	270	0		25.43		
100	QPSK	1	1		25.89		27.5
100	QPSK	1	137		25.82		
100	QPSK	1	271		25.76		
100	QPSK	135	0		25.61		27.5
100	QPSK	135	69		25.83		
100	QPSK	135	138		25.53		
100	QPSK	270	0		24.91		26.5
100	16QAM	1	1		24.94		26.5
100	64QAM	1	1		23.68		25.0
100	256QAM	1	1		21.62		23.0
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	25.77	25.90	25.72	27.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	25.68	25.85	25.68	27.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	25.68	25.87	25.65	27.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	25.67	25.81	25.62	27.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	25.75	25.87	25.71	27.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	25.73	25.82	25.63	27.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	25.76	25.84	25.66	27.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	25.68	25.86	25.66	27.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	25.76	25.81	25.69	27.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	25.72	25.79	25.74	27.5



<FR1 n78_HPUE_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		17.65		18.5
100	PI/2 BPSK	1	137		17.39		
100	PI/2 BPSK	1	271		17.34		
100	PI/2 BPSK	135	0		17.24		18.5
100	PI/2 BPSK	135	69		17.31		18.5
100	PI/2 BPSK	135	138		17.16		18.5
100	PI/2 BPSK	270	0		17.27		
100	QPSK	1	1		17.26		18.5
100	QPSK	1	137		17.31		
100	QPSK	1	271		17.25		
100	QPSK	135	0		17.23		18.5
100	QPSK	135	69		17.28		
100	QPSK	135	138		17.16		
100	QPSK	270	0		17.26		18.5
100	16QAM	1	1		17.35		18.5
100	64QAM	1	1		17.35		18.5
100	256QAM	1	1		17.26		18.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	17.30	17.27	17.32	18.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	17.33	17.31	17.36	18.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	17.35	17.35	17.36	18.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	17.44	17.38	17.43	18.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	17.43	17.43	17.44	18.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	17.58	17.53	17.58	18.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	17.62	17.57	17.64	18.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	17.59	17.55	17.60	18.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	17.58	17.52	17.60	18.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	17.57	17.51	17.58	18.5



<FR1 n78_HPUE_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		17.98		18.5
100	PI/2 BPSK	1	137		17.97		
100	PI/2 BPSK	1	271		17.95		
100	PI/2 BPSK	135	0		17.95		18.5
100	PI/2 BPSK	135	69		17.97		18.5
100	PI/2 BPSK	135	138		17.94		18.5
100	PI/2 BPSK	270	0		17.93		
100	QPSK	1	1		17.92		18.5
100	QPSK	1	137		17.96		
100	QPSK	1	271		17.95		
100	QPSK	135	0		17.93		18.5
100	QPSK	135	69		17.92		
100	QPSK	135	138		17.91		
100	QPSK	270	0		17.96		18.5
100	16QAM	1	1		17.85		18.5
100	64QAM	1	1		17.96		18.5
100	256QAM	1	1		17.97		18.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	17.82	17.90	17.88	18.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	17.82	17.90	17.85	18.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	17.82	17.89	17.86	18.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	17.81	17.87	17.88	18.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	17.84	17.90	17.84	18.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	17.84	17.88	17.87	18.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	17.80	17.89	17.88	18.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	17.81	17.89	17.87	18.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	17.82	17.87	17.85	18.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	17.81	17.90	17.88	18.5



<FR1 n78_HPUE_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					650000		
Frequency (MHz)					3750		
100	PI/2 BPSK	1	1		18.39		18.5
100	PI/2 BPSK	1	137		18.38		
100	PI/2 BPSK	1	271		18.31		
100	PI/2 BPSK	135	0		18.34		18.5
100	PI/2 BPSK	135	69		18.37		18.5
100	PI/2 BPSK	135	138		18.35		18.5
100	PI/2 BPSK	270	0		18.36		
100	QPSK	1	1		18.33		18.5
100	QPSK	1	137		18.38		
100	QPSK	1	271		18.36		
100	QPSK	135	0		18.35		18.5
100	QPSK	135	69		18.34		
100	QPSK	135	138		18.37		
100	QPSK	270	0		18.36		18.5
100	16QAM	1	1		18.19		18.5
100	64QAM	1	1		18.38		18.5
100	256QAM	1	1		18.35		18.5
Channel				649668	650000	650332	Tune-up limit (dBm)
Frequency (MHz)				3745.02	3750	3754.98	
90	PI/2 BPSK	1	1	18.12	18.25	18.21	18.5
Channel				649334	650000	650666	Tune-up limit (dBm)
Frequency (MHz)				3740.01	3750	3759.99	
80	PI/2 BPSK	1	1	18.19	18.22	18.22	18.5
Channel				649000	650000	651000	Tune-up limit (dBm)
Frequency (MHz)				3735	3750	3765	
70	PI/2 BPSK	1	1	18.12	18.26	18.20	18.5
Channel				648668	650000	651332	Tune-up limit (dBm)
Frequency (MHz)				3730.02	3750	3769.98	
60	PI/2 BPSK	1	1	18.19	18.28	18.21	18.5
Channel				648334	650000	651666	Tune-up limit (dBm)
Frequency (MHz)				3725.01	3750	3774.99	
50	PI/2 BPSK	1	1	18.13	18.23	18.19	18.5
Channel				648000	650000	652000	Tune-up limit (dBm)
Frequency (MHz)				3720	3750	3780	
40	PI/2 BPSK	1	1	18.14	18.23	18.18	18.5
Channel				647668	650000	652332	Tune-up limit (dBm)
Frequency (MHz)				3715.02	3750.00	3784.98	
30	PI/2 BPSK	1	1	18.19	18.24	18.23	18.5
Channel				647334	650000	652666	Tune-up limit (dBm)
Frequency (MHz)				3710.01	3750	3789.99	
20	PI/2 BPSK	1	1	18.14	18.26	18.20	18.5
Channel				647168	650000	652832	Tune-up limit (dBm)
Frequency (MHz)				3707.52	3750	3792.48	
15	PI/2 BPSK	1	1	18.19	18.25	18.24	18.5
Channel				647000	650000	653000	Tune-up limit (dBm)
Frequency (MHz)				3705	3750	3795	
10	PI/2 BPSK	1	1	18.18	18.22	18.22	18.5



<FR1 n78_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		24.06		25.0
100	PI/2 BPSK	1	137		23.92		
100	PI/2 BPSK	1	271		23.64		
100	PI/2 BPSK	135	0		23.94		24.5
100	PI/2 BPSK	135	69		23.85		25.0
100	PI/2 BPSK	135	138		23.65		24.5
100	PI/2 BPSK	270	0		23.85		
100	QPSK	1	1		23.97		25.0
100	QPSK	1	137		23.81		
100	QPSK	1	271		23.55		
100	QPSK	135	0		23.93		25.0
100	QPSK	135	69		23.89		
100	QPSK	135	138		23.66		
100	QPSK	270	0		23.88		24.0
100	16QAM	1	1		23.75		24.0
100	64QAM	1	1		22.82		23.0
100	256QAM	1	1		20.77		21.0
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	24.01	24.05	23.99	25.0
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	23.97	24.03	24.02	25.0
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	24.03	23.98	23.95	25.0
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	23.99	23.97	24.00	25.0
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	23.94	24.02	24.01	25.0
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	23.98	24.01	23.92	25.0
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	24.02	23.97	24.03	25.0
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	24.05	23.95	23.99	25.0
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	23.98	24.03	23.96	25.0
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	23.99	24.01	24.02	25.0



<FR1 n78_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		23.34		25.0
100	PI/2 BPSK	1	137		23.30		
100	PI/2 BPSK	1	271		23.11		
100	PI/2 BPSK	135	0		22.80		24.5
100	PI/2 BPSK	135	69		23.31		25.0
100	PI/2 BPSK	135	138		22.70		24.5
100	PI/2 BPSK	270	0		22.74		
100	QPSK	1	1		23.24		24.0
100	QPSK	1	137		23.20		
100	QPSK	1	271		23.10		
100	QPSK	135	0		22.28		24.0
100	QPSK	135	69		23.27		
100	QPSK	135	138		22.16		
100	QPSK	270	0		22.20		24.0
100	16QAM	1	1		22.01		24.0
100	64QAM	1	1		21.04		22.5
100	256QAM	1	1		18.81		20.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	23.21	23.27	23.25	25.0
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	23.16	23.19	23.16	25.0
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	23.16	23.19	23.16	25.0
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	23.15	23.22	23.15	25.0
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	23.13	23.18	23.16	25.0
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	23.14	23.20	23.15	25.0
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	23.11	23.23	23.18	25.0
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	23.12	23.19	23.19	25.0
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	23.11	23.22	23.19	25.0
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	23.11	23.22	23.21	25.0



<FR1 n78_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		14.62		15.5
100	PI/2 BPSK	1	137		14.61		
100	PI/2 BPSK	1	271		14.36		
100	PI/2 BPSK	135	0		14.55		15.5
100	PI/2 BPSK	135	69		14.56		15.5
100	PI/2 BPSK	135	138		14.47		15.5
100	PI/2 BPSK	270	0		14.49		
100	QPSK	1	1		14.55		15.5
100	QPSK	1	137		14.54		
100	QPSK	1	271		14.30		
100	QPSK	135	0		14.57		15.5
100	QPSK	135	69		14.52		
100	QPSK	135	138		14.49		
100	QPSK	270	0		14.48		15.5
100	16QAM	1	1		14.38		15.5
100	64QAM	1	1		14.61		15.5
100	256QAM	1	1		14.59		15.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	14.60	14.59	14.57	15.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	14.44	14.49	14.44	15.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	14.49	14.41	14.47	15.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	14.50	14.45	14.42	15.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	14.40	14.45	14.37	15.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	14.43	14.39	14.46	15.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	14.41	14.45	14.45	15.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	14.45	14.40	14.38	15.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	14.41	14.47	14.41	15.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	14.40	14.47	14.45	15.5



<FR1 n78_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		23.63		25.0
100	PI/2 BPSK	1	137		23.58		
100	PI/2 BPSK	1	271		23.40		
100	PI/2 BPSK	135	0		23.18		24.5
100	PI/2 BPSK	135	69		23.60		25.0
100	PI/2 BPSK	135	138		22.95		24.5
100	PI/2 BPSK	270	0		23.11		
100	QPSK	1	1		23.62		24.0
100	QPSK	1	137		23.55		
100	QPSK	1	271		23.48		
100	QPSK	135	0		22.68		24.0
100	QPSK	135	69		23.53		
100	QPSK	135	138		22.43		
100	QPSK	270	0		22.51		24.0
100	16QAM	1	1		22.61		24.0
100	64QAM	1	1		21.29		22.5
100	256QAM	1	1		19.19		20.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	23.58	23.61	23.55	25.0
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	23.50	23.52	23.52	25.0
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	23.51	23.57	23.51	25.0
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	23.52	23.51	23.54	25.0
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	23.49	23.51	23.52	25.0
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	23.48	23.59	23.53	25.0
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	23.55	23.55	23.46	25.0
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	23.49	23.55	23.52	25.0
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	23.53	23.55	23.53	25.0
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	23.51	23.59	23.53	25.0



<FR1 n78_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		14.92		15.5
100	PI/2 BPSK	1	137		14.85		
100	PI/2 BPSK	1	271		14.62		
100	PI/2 BPSK	135	0		14.83		15.5
100	PI/2 BPSK	135	69		14.79		15.5
100	PI/2 BPSK	135	138		14.65		15.5
100	PI/2 BPSK	270	0		14.72		
100	QPSK	1	1		14.76		15.5
100	QPSK	1	137		14.73		
100	QPSK	1	271		14.52		
100	QPSK	135	0		14.83		15.5
100	QPSK	135	69		14.76		
100	QPSK	135	138		14.66		
100	QPSK	270	0		14.72		15.5
100	16QAM	1	1		14.37		15.5
100	64QAM	1	1		14.79		15.5
100	256QAM	1	1		14.69		15.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	14.88	14.90	14.87	15.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	14.76	14.73	14.67	15.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	14.68	14.74	14.72	15.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	14.72	14.77	14.74	15.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	14.75	14.73	14.67	15.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	14.70	14.73	14.76	15.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	14.74	14.72	14.71	15.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	14.76	14.75	14.68	15.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	14.78	14.71	14.74	15.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	14.70	14.76	14.70	15.5



<FR1 n78_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		15.03		15.5
100	PI/2 BPSK	1	137		14.99		
100	PI/2 BPSK	1	271		14.91		
100	PI/2 BPSK	135	0		14.84		15.5
100	PI/2 BPSK	135	69		14.85		15.5
100	PI/2 BPSK	135	138		14.79		15.5
100	PI/2 BPSK	270	0		14.80		
100	QPSK	1	1		14.77		15.5
100	QPSK	1	137		14.89		
100	QPSK	1	271		14.79		
100	QPSK	135	0		14.80		15.5
100	QPSK	135	69		14.81		
100	QPSK	135	138		14.78		
100	QPSK	270	0		14.82		15.5
100	16QAM	1	1		14.50		15.5
100	64QAM	1	1		15.02		15.5
100	256QAM	1	1		15.01		15.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	14.80	14.94	14.84	15.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	14.79	14.93	14.84	15.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	14.85	14.92	14.86	15.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	14.83	14.93	14.88	15.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	14.81	14.90	14.83	15.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	14.80	14.90	14.90	15.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	14.83	14.87	14.90	15.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	14.84	14.90	14.89	15.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	14.83	14.91	14.89	15.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	14.82	14.87	14.85	15.5



<FR1 n78_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		14.71		15.5
100	PI/2 BPSK	1	137		14.70		
100	PI/2 BPSK	1	271		14.65		
100	PI/2 BPSK	135	0		14.62		15.5
100	PI/2 BPSK	135	69		14.68		15.5
100	PI/2 BPSK	135	138		14.66		15.5
100	PI/2 BPSK	270	0		14.68		
100	QPSK	1	1		14.70		15.5
100	QPSK	1	137		14.69		
100	QPSK	1	271		14.68		
100	QPSK	135	0		14.66		15.5
100	QPSK	135	69		14.70		
100	QPSK	135	138		14.64		
100	QPSK	270	0		14.64		15.5
100	16QAM	1	1		14.60		15.5
100	64QAM	1	1		14.69		15.5
100	256QAM	1	1		14.69		15.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	14.70	14.69	14.66	15.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	14.58	14.53	14.54	15.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	14.51	14.56	14.47	15.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	14.50	14.58	14.50	15.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	14.58	14.54	14.54	15.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	14.52	14.52	14.49	15.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	14.57	14.50	14.50	15.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	14.50	14.56	14.48	15.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	14.60	14.50	14.50	15.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	14.54	14.54	14.46	15.5



<FR1 n78_HPUE_Main Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		26.21		27.5
100	PI/2 BPSK	1	137		26.08		
100	PI/2 BPSK	1	271		25.82		
100	PI/2 BPSK	135	0		26.07		27.0
100	PI/2 BPSK	135	69		25.94		27.5
100	PI/2 BPSK	135	138		25.80		27.0
100	PI/2 BPSK	270	0		25.97		
100	QPSK	1	1		26.08		27.5
100	QPSK	1	137		25.82		
100	QPSK	1	271		25.73		
100	QPSK	135	0		26.06		27.5
100	QPSK	135	69		25.93		
100	QPSK	135	138		25.87		
100	QPSK	270	0		25.64		26.5
100	16QAM	1	1		25.94		26.5
100	64QAM	1	1		25.31		25.5
100	256QAM	1	1		23.17		23.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	26.15	26.18	26.11	27.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	26.10	26.08	26.04	27.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	26.06	26.11	26.06	27.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	26.07	26.11	26.05	27.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	26.07	26.10	26.01	27.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	26.05	26.11	26.02	27.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	26.07	26.13	26.04	27.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	26.05	26.11	26.06	27.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	26.10	26.11	26.02	27.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	26.10	26.12	26.06	27.5



<FR1 n78_HPUE_MIMO2 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		26.05		27.5
100	PI/2 BPSK	1	137		25.99		
100	PI/2 BPSK	1	271		25.89		
100	PI/2 BPSK	135	0		25.57		27.0
100	PI/2 BPSK	135	69		26.02		27.5
100	PI/2 BPSK	135	138		25.50		27.0
100	PI/2 BPSK	270	0		25.55		
100	QPSK	1	1		26.01		26.5
100	QPSK	1	137		25.93		
100	QPSK	1	271		25.82		
100	QPSK	135	0		25.09		26.5
100	QPSK	135	69		26.01		
100	QPSK	135	138		24.88		
100	QPSK	270	0		25.08		26.5
100	16QAM	1	1		24.89		26.5
100	64QAM	1	1		23.76		25.0
100	256QAM	1	1		21.67		23.0
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	25.98	26.02	25.94	27.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	25.97	25.96	25.93	27.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	25.94	25.93	25.92	27.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	25.93	25.98	25.87	27.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	25.95	25.94	25.93	27.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	25.97	25.98	25.85	27.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	25.96	25.97	25.91	27.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	25.90	25.94	25.89	27.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	25.91	25.95	25.91	27.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	25.92	25.98	25.93	27.5



<FR1 n78_HPUE_MIMO1 Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		17.67		18.5
100	PI/2 BPSK	1	137		17.55		
100	PI/2 BPSK	1	271		17.36		
100	PI/2 BPSK	135	0		17.65		18.5
100	PI/2 BPSK	135	69		17.51		18.5
100	PI/2 BPSK	135	138		17.43		18.5
100	PI/2 BPSK	270	0		17.52		
100	QPSK	1	1		17.58		18.5
100	QPSK	1	137		17.51		
100	QPSK	1	271		17.35		
100	QPSK	135	0		17.65		18.5
100	QPSK	135	69		17.52		
100	QPSK	135	138		17.40		
100	QPSK	270	0		17.51		18.5
100	16QAM	1	1		17.61		18.5
100	64QAM	1	1		17.66		18.5
100	256QAM	1	1		17.62		18.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	17.64	17.66	17.65	18.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	17.46	17.52	17.52	18.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	17.46	17.50	17.49	18.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	17.46	17.56	17.47	18.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	17.47	17.48	17.45	18.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	17.46	17.49	17.49	18.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	17.46	17.55	17.55	18.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	17.45	17.56	17.45	18.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	17.44	17.55	17.47	18.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	17.49	17.52	17.52	18.5



<FR1 n78_HPUE_AUX Ant_Default Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		26.35		27.5
100	PI/2 BPSK	1	137		26.31		
100	PI/2 BPSK	1	271		26.11		
100	PI/2 BPSK	135	0		25.91		27.0
100	PI/2 BPSK	135	69		26.30		27.5
100	PI/2 BPSK	135	138		25.78		27.0
100	PI/2 BPSK	270	0		25.91		
100	QPSK	1	1		26.17		27.5
100	QPSK	1	137		26.15		
100	QPSK	1	271		25.96		
100	QPSK	135	0		25.52		27.5
100	QPSK	135	69		26.24		
100	QPSK	135	138		25.52		
100	QPSK	270	0		25.37		26.5
100	16QAM	1	1		25.32		26.5
100	64QAM	1	1		24.04		25.0
100	256QAM	1	1		22.01		23.0
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	26.28	26.32	26.25	27.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	26.24	26.24	26.23	27.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	26.22	26.25	26.23	27.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	26.27	26.23	26.17	27.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	26.26	26.30	26.15	27.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	26.18	26.24	26.21	27.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	26.22	26.22	26.22	27.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	26.22	26.22	26.19	27.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	26.26	26.31	26.15	27.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	26.22	26.27	26.24	27.5



<FR1 n78_HPUE_Main Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		17.94		18.5
100	PI/2 BPSK	1	137		17.55		
100	PI/2 BPSK	1	271		17.38		
100	PI/2 BPSK	135	0		17.57		18.5
100	PI/2 BPSK	135	69		17.47		18.5
100	PI/2 BPSK	135	138		17.44		18.5
100	PI/2 BPSK	270	0		17.49		
100	QPSK	1	1		17.46		18.5
100	QPSK	1	137		17.44		
100	QPSK	1	271		17.28		
100	QPSK	135	0		17.55		18.5
100	QPSK	135	69		17.47		
100	QPSK	135	138		17.37		
100	QPSK	270	0		17.49		18.5
100	16QAM	1	1		17.55		18.5
100	64QAM	1	1		17.72		18.5
100	256QAM	1	1		17.64		18.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	17.58	17.57	17.53	18.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	17.53	17.63	17.60	18.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	17.65	17.65	17.63	18.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	17.73	17.71	17.66	18.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	17.80	17.78	17.75	18.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	17.85	17.84	17.82	18.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	17.93	17.93	17.87	18.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	17.86	17.83	17.80	18.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	17.80	17.77	17.76	18.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	17.86	17.74	17.70	18.5



<FR1 n78_HPUE_MIMO2 Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		18.12		18.5
100	PI/2 BPSK	1	137		18.08		
100	PI/2 BPSK	1	271		18.00		
100	PI/2 BPSK	135	0		18.04		18.5
100	PI/2 BPSK	135	69		18.07		18.5
100	PI/2 BPSK	135	138		18.02		18.5
100	PI/2 BPSK	270	0		18.06		
100	QPSK	1	1		18.05		18.5
100	QPSK	1	137		18.07		
100	QPSK	1	271		18.02		
100	QPSK	135	0		18.07		18.5
100	QPSK	135	69		18.08		
100	QPSK	135	138		18.01		
100	QPSK	270	0		18.03		18.5
100	16QAM	1	1		17.73		18.5
100	64QAM	1	1		18.08		18.5
100	256QAM	1	1		18.03		18.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	18.07	18.11	18.10	18.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	17.89	17.95	17.95	18.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	17.91	17.93	17.90	18.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	17.90	17.93	17.92	18.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	17.90	17.92	17.92	18.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	17.91	17.94	17.92	18.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	17.88	17.94	17.99	18.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	17.95	17.96	17.95	18.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	17.88	17.99	17.96	18.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	17.96	17.92	18.00	18.5



<FR1 n78_HPUE_AUX Ant_Reduced Power>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel					633332		
Frequency (MHz)					3499.98		
100	PI/2 BPSK	1	1		17.77		18.5
100	PI/2 BPSK	1	137		17.76		
100	PI/2 BPSK	1	271		17.73		
100	PI/2 BPSK	135	0		17.75		18.5
100	PI/2 BPSK	135	69		17.75		18.5
100	PI/2 BPSK	135	138		17.75		18.5
100	PI/2 BPSK	270	0		17.76		
100	QPSK	1	1		17.73		18.5
100	QPSK	1	137		17.75		
100	QPSK	1	271		17.74		
100	QPSK	135	0		17.75		18.5
100	QPSK	135	69		17.74		
100	QPSK	135	138		17.73		
100	QPSK	270	0		17.76		18.5
100	16QAM	1	1		17.66		18.5
100	64QAM	1	1		17.72		18.5
100	256QAM	1	1		17.69		18.5
Channel				633000	633332	633666	Tune-up limit (dBm)
Frequency (MHz)				3495	3499.98	3504.99	
90	PI/2 BPSK	1	1	17.74	17.75	17.72	18.5
Channel				632668	633332	634000	Tune-up limit (dBm)
Frequency (MHz)				3490.02	3499.98	3510	
80	PI/2 BPSK	1	1	17.58	17.63	17.53	18.5
Channel				632334	633332	634332	Tune-up limit (dBm)
Frequency (MHz)				3485.01	3499.98	3514.98	
70	PI/2 BPSK	1	1	17.62	17.55	17.57	18.5
Channel				632000	633332	634666	Tune-up limit (dBm)
Frequency (MHz)				3480	3499.98	3519.99	
60	PI/2 BPSK	1	1	17.60	17.63	17.54	18.5
Channel				631668	633332	635000	Tune-up limit (dBm)
Frequency (MHz)				3475.02	3499.98	3525	
50	PI/2 BPSK	1	1	17.61	17.56	17.52	18.5
Channel				631334	633332	635332	Tune-up limit (dBm)
Frequency (MHz)				3470.01	3499.98	3529.98	
40	PI/2 BPSK	1	1	17.59	17.59	17.55	18.5
Channel				631000	633332	635666	Tune-up limit (dBm)
Frequency (MHz)				3465	3499.98	3534.99	
30	PI/2 BPSK	1	1	17.58	17.62	17.53	18.5
Channel				630668	633332	636000	Tune-up limit (dBm)
Frequency (MHz)				3460.02	3499.98	3540	
20	PI/2 BPSK	1	1	17.58	17.64	17.58	18.5
Channel				630500	633332	636166	Tune-up limit (dBm)
Frequency (MHz)				3457.5	3499.98	3542.49	
15	PI/2 BPSK	1	1	17.61	17.62	17.53	18.5
Channel				630334	633332	636332	Tune-up limit (dBm)
Frequency (MHz)				3455.01	3499.98	3544.98	
10	PI/2 BPSK	1	1	17.63	17.64	17.62	18.5



13. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - c. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.

UMTS Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is $\leq 1/4$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA, DC-HSDPA) are less than $1/4$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is $>$ not $1/2$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $1/2$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4/B5/B12/B17/B26/B38/B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE band 2/4/5/17/38 SAR test was covered by Band 25/66/26/12/41; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. The maximum output power, including tolerance, for the smaller band is \leq the larger band to qualify for the SAR test exclusion.
 - b. The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.



5G NR Note:

1. Referencing the procedure in KDB 941225, the test procedures are outlined as below:
 - a. To start SAR test for the largest channel bandwidth for PI/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. Also do SAR test for 50% RB allocation for PI/2 BPSK SAR testing using 1RB PI/2 BPSK allocation procedure
 - b. For PI/2 BPSK with 100% RB allocation, SAR test is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
 - c. For higher modulation QPSK/16QAM/64QAM/256QAM, according to tune-up document the power level is not $\frac{1}{2}$ dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
 - d. Smaller bandwidth output power for each RB allocation configuration for this device is not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
 - e. For 5G FR1 n5/n12/n41/n71/n77, the maximum channel bandwidth does not support three non-overlapping channels in the frequency band, the middle channel of the group of overlapping channels were selected for testing.
 - f. Due to test setup limitations, SAR testing for TDD NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission. And only for TDD power class2 was performed using Factory Test Mode software to establish the connection and perform SAR with 50% transmission.
 - g. For NR FDD was establishing connections via a base station simulator to use for output power measurement and SAR testing
 - h. 5G FR1 n2/5/38/78 SAR test was covered by 5G FR1 n25//26/41; due to the maximum output power, including tolerance, for the smaller band is \leq the larger band, and the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

13.1 Body SAR

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	9400	1880	AWAN	17.96	18.50	1.132	-0.08	0.968	1.096
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	9262	1852.4	AWAN	17.94	18.50	1.138	0.13	0.903	1.027
01	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	9538	1907.6	AWAN	17.95	18.50	1.135	-0.14	0.998	1.133
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	9538	1907.6	AMP	17.95	18.50	1.135	0.12	0.878	0.997
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	9262	1852.4	AMP	17.94	18.50	1.138	0.03	0.723	0.823
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	9400	1880	AMP	17.96	18.50	1.132	0.18	0.745	0.844
	WCDMA II	RMC 12.2Kbps	Bottom of Laptop	20mm	Main	OFF	9400	1880	AWAN	23.48	25.00	1.419	0.03	0.282	0.400
02	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	1413	1732.6	AWAN	18.49	18.50	1.002	-0.06	1.070	1.072
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	1312	1712.4	AWAN	18.47	18.50	1.007	-0.1	1.040	1.047
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	1513	1752.6	AWAN	18.48	18.50	1.005	0.07	1.010	1.015
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	1413	1732.6	AMP	18.49	18.50	1.002	0.18	0.854	0.856
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	1312	1712.4	AMP	18.47	18.50	1.007	-0.1	0.789	0.794
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	1513	1752.6	AMP	18.48	18.50	1.005	0.01	0.859	0.863
	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	20mm	Main	OFF	1413	1732.6	AWAN	23.40	25.00	1.445	-0.01	0.363	0.525
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	4182	836.4	AWAN	19.70	20.00	1.072	-0.15	0.546	0.585
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	4132	826.4	AWAN	19.67	20.00	1.079	0.19	0.536	0.579
03	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	4233	846.6	AWAN	19.66	20.00	1.081	0.01	0.590	0.638
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	4233	846.6	AMP	19.66	20.00	1.081	-0.18	0.492	0.532
	WCDMA V	RMC 12.2Kbps	Bottom of Laptop	20mm	Main	OFF	4182	836.4	AWAN	23.92	25.00	1.282	0.06	0.131	0.168



<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	21100	2535	AWAN	14.86	15.00	1.033	-0.12	0.676	0.698
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	21100	2535	AWAN	13.90	14.00	1.023	0.03	0.492	0.503
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	21100	2535	AMP	14.86	15.00	1.033	0.12	0.564	0.582
	LTE Band 7C	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	21350+21152	2560	AWAN	14.80	15.00	1.047	0.05	0.655	0.686
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	21100	2535	AWAN	23.38	25.00	1.452	0.02	0.169	0.245
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	20mm	Main	OFF	21100	2535	AWAN	22.46	24.00	1.426	0.08	0.147	0.210
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	21100	2535	AWAN	17.20	17.50	1.072	0.08	0.959	1.028
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	20850	2510	AWAN	17.16	17.50	1.081	-0.17	0.829	0.897
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	21350	2560	AWAN	17.18	17.50	1.076	-0.03	0.815	0.877
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	21100	2535	AWAN	17.06	17.50	1.107	0.14	0.815	0.902
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	20850	2510	AWAN	17.02	17.50	1.117	0.11	0.823	0.919
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	21350	2560	AWAN	17.04	17.50	1.112	-0.05	0.795	0.884
	LTE Band 7	20M	QPSK	100	0	Bottom of Laptop	0mm	MIMO2	ON	21100	2535	AWAN	17.05	17.50	1.109	0.18	0.809	0.897
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	21100	2535	AMP	17.20	17.50	1.072	0.14	1.010	1.082
04	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	20850	2510	AMP	17.16	17.50	1.081	-0.09	1.040	1.125
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	21350	2560	AMP	17.18	17.50	1.076	-0.17	0.912	0.982
	LTE Band 7	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	21100	2535	AWAN	23.23	24.00	1.194	0.12	0.660	0.788
	LTE Band 7	20M	QPSK	50	0	Bottom of Laptop	10mm	MIMO2	OFF	21100	2535	AWAN	22.31	23.00	1.172	0.04	0.512	0.600
05	LTE Band 12	10M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	23095	707.5	AWAN	21.38	21.50	1.028	-0.14	0.641	0.659
	LTE Band 12	10M	QPSK	25	0	Bottom of Laptop	0mm	Main	ON	23095	707.5	AWAN	20.39	20.50	1.026	0.08	0.520	0.533
	LTE Band 12	10M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	23095	707.5	AWAN	20.38	20.50	1.028	0.01	0.528	0.543
	LTE Band 12	10M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	23095	707.5	AMP	21.38	21.50	1.028	0.03	0.617	0.634
	LTE Band 12	10M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	23095	707.5	AWAN	23.55	25.00	1.396	0.05	0.108	0.151
	LTE Band 12	10M	QPSK	25	0	Bottom of Laptop	20mm	Main	OFF	23095	707.5	AWAN	22.64	24.00	1.368	0.11	0.087	0.119



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
06	LTE Band 13	10M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	23230	782	AWAN	21.35	21.50	1.035	-0.09	1.030	1.066
	LTE Band 13	10M	QPSK	25	0	Bottom of Laptop	0mm	Main	ON	23230	782	AWAN	20.43	20.50	1.016	-0.08	0.823	0.836
	LTE Band 13	10M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	23230	782	AWAN	20.49	20.50	1.002	-0.08	0.823	0.825
	LTE Band 13	10M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	23230	782	AMP	21.35	21.50	1.035	0.1	0.921	0.953
	LTE Band 13	10M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	23230	782	AWAN	23.56	25.00	1.393	-0.06	0.169	0.235
	LTE Band 13	10M	QPSK	25	0	Bottom of Laptop	20mm	Main	OFF	23230	782	AWAN	22.60	24.00	1.380	0.18	0.138	0.190
07	LTE Band 14	10M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	23330	793	AWAN	21.36	21.50	1.033	-0.04	0.983	1.015
	LTE Band 14	10M	QPSK	25	0	Bottom of Laptop	0mm	Main	ON	23330	793	AWAN	20.38	20.50	1.028	-0.18	0.766	0.787
	LTE Band 14	10M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	23330	793	AWAN	20.32	20.50	1.042	0.1	0.755	0.787
	LTE Band 14	10M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	23330	793	AMP	21.36	21.50	1.033	0.12	0.853	0.881
	LTE Band 14	10M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	23330	793	AWAN	23.59	25.00	1.384	0.13	0.172	0.238
	LTE Band 14	10M	QPSK	25	0	Bottom of Laptop	20mm	Main	OFF	23330	793	AWAN	22.61	24.00	1.377	-0.06	0.136	0.187
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	26140	1860	AWAN	17.74	18.00	1.062	0.03	0.835	0.887
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	26340	1880	AWAN	17.70	18.00	1.072	-0.15	0.912	0.977
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	26590	1905	AWAN	17.72	18.00	1.067	-0.05	0.934	0.996
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	26140	1860	AWAN	16.86	17.00	1.033	-0.15	0.700	0.723
	LTE Band 25	20M	QPSK	100	0	Bottom of Laptop	0mm	Main	ON	26140	1860	AWAN	16.79	17.00	1.050	-0.17	0.719	0.755
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	26590	1905	AMP	17.72	18.00	1.067	-0.08	0.793	0.846
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	26140	1860	AMP	17.74	18.00	1.062	-0.04	0.714	0.758
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	26340	1880	AMP	17.70	18.00	1.072	-0.08	0.725	0.777
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	26140	1860	AWAN	23.33	25.00	1.469	0.01	0.250	0.367
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	20mm	Main	OFF	26140	1860	AWAN	22.39	24.00	1.449	0.06	0.222	0.322
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	26140	1860	AWAN	17.75	18.00	1.059	0.17	1.030	1.091
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	26340	1880	AWAN	17.70	18.00	1.072	0.18	0.983	1.053
LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	26590	1905	AWAN	17.69	18.00	1.074	-0.04	0.918	0.986	
LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	26140	1860	AWAN	17.74	18.00	1.062	-0.08	1.010	1.072	
LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	26340	1880	AWAN	17.69	18.00	1.074	-0.13	0.989	1.062	
LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	26590	1905	AWAN	17.68	18.00	1.076	-0.13	0.949	1.022	
LTE Band 25	20M	QPSK	100	0	Bottom of Laptop	0mm	MIMO2	ON	26140	1860	AWAN	17.72	18.00	1.067	0.06	0.960	1.024	
08	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	26140	1860	AMP	17.75	18.00	1.059	-0.08	1.060	1.123
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	26340	1880	AMP	17.70	18.00	1.072	-0.03	1.030	1.104
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	26590	1905	AMP	17.69	18.00	1.074	0.08	0.960	1.031
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	26140	1860	AWAN	23.30	24.00	1.175	0.12	0.833	0.979
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	26340	1880	AWAN	23.25	24.00	1.189	0.16	0.787	0.935
	LTE Band 25	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	26590	1905	AWAN	23.28	24.00	1.180	0.03	0.719	0.849
	LTE Band 25	20M	QPSK	50	0	Bottom of Laptop	10mm	MIMO2	OFF	26140	1860	AWAN	22.34	23.00	1.164	-0.18	0.661	0.769
	LTE Band 25	20M	QPSK	100	0	Bottom of Laptop	10mm	MIMO2	OFF	26140	1860	AWAN	22.30	23.00	1.175	0.11	0.666	0.782
09	LTE Band 26	15M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	26865	831.5	AWAN	20.87	21.00	1.030	-0.19	0.728	0.750
	LTE Band 26	15M	QPSK	36	0	Bottom of Laptop	0mm	Main	ON	26865	831.5	AWAN	19.91	20.00	1.021	0.08	0.592	0.604
	LTE Band 26	15M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	26865	831.5	AMP	20.87	21.00	1.030	-0.03	0.613	0.632
	LTE Band 26	15M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	26865	831.5	AWAN	23.56	25.00	1.393	0.03	0.137	0.191
	LTE Band 26	15M	QPSK	36	0	Bottom of Laptop	20mm	Main	OFF	26865	831.5	AWAN	22.67	24.00	1.358	-0.08	0.106	0.144



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30	10M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	27710	2310	AWAN	15.78	16.00	1.052			-0.03	0.671	0.706
	LTE Band 30	10M	QPSK	25	0	Bottom of Laptop	0mm	Main	ON	27710	2310	AWAN	14.80	15.00	1.047			0.11	0.538	0.563
	LTE Band 30	10M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	27710	2310	AMP	15.78	16.00	1.052			0.18	0.658	0.692
	LTE Band 30	10M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	27710	2310	AWAN	21.39	23.00	1.449			0.02	0.105	0.152
	LTE Band 30	10M	QPSK	25	0	Bottom of Laptop	20mm	Main	OFF	27710	2310	AWAN	20.46	22.00	1.426			0.06	0.084	0.120
	LTE Band 30	10M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	27710	2310	AWAN	18.32	18.50	1.042			0.14	0.887	0.925
	LTE Band 30	10M	QPSK	25	0	Bottom of Laptop	0mm	MIMO2	ON	27710	2310	AWAN	18.31	18.50	1.045			-0.17	0.864	0.903
	LTE Band 30	10M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	27710	2310	AWAN	18.30	18.50	1.047			0.17	0.859	0.899
10	LTE Band 30	10M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	27710	2310	AMP	18.32	18.50	1.042			-0.08	1.150	1.199
	LTE Band 30	10M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	27710	2310	AWAN	21.93	23.00	1.279			0.06	0.402	0.514
	LTE Band 30	10M	QPSK	25	0	Bottom of Laptop	10mm	MIMO2	OFF	27710	2310	AWAN	20.88	22.00	1.294			0.12	0.334	0.432
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	40620	2593	AWAN	17.39	17.50	1.026	62.9	1.006	-0.04	0.720	0.743
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	39750	2506	AWAN	17.26	17.50	1.057	62.9	1.006	-0.13	0.468	0.498
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	40185	2549.5	AWAN	17.23	17.50	1.064	62.9	1.006	0.06	0.571	0.611
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	41055	2636.5	AWAN	17.33	17.50	1.040	62.9	1.006	-0.03	0.558	0.584
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	41490	2680	AWAN	17.18	17.50	1.076	62.9	1.006	-0.03	0.491	0.532
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	40620	2593	AWAN	16.39	16.50	1.026	62.9	1.006	-0.03	0.544	0.561
	LTE Band 41	20M	QPSK	100	0	Bottom of Laptop	0mm	Main	ON	40620	2593	AWAN	16.35	16.50	1.035	62.9	1.006	0.03	0.525	0.547
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	40620	2593	AMP	17.39	17.50	1.026	62.9	1.006	0.08	0.632	0.652
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	39750	2506	AMP	17.26	17.50	1.057	62.9	1.006	-0.16	0.454	0.483
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	40185	2549.5	AMP	17.23	17.50	1.064	62.9	1.006	0.15	0.521	0.558
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	41055	2636.5	AMP	17.33	17.50	1.040	62.9	1.006	-0.09	0.519	0.543
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	41490	2680	AMP	17.18	17.50	1.076	62.9	1.006	0.11	0.472	0.511
11	LTE Band 41_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	40620	2593	AWAN	18.92	19.50	1.143	42.9	1.009	-0.1	0.746	0.860
	LTE Band 41_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	39750	2506	AWAN	18.74	19.50	1.191	42.9	1.009	0.08	0.536	0.644
	LTE Band 41_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	40185	2549.5	AWAN	18.76	19.50	1.186	42.9	1.009	0.03	0.615	0.736
	LTE Band 41_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	41055	2636.5	AWAN	18.82	19.50	1.169	42.9	1.009	-0.08	0.612	0.722
	LTE Band 41_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	41490	2680	AWAN	18.69	19.50	1.205	42.9	1.009	-0.08	0.555	0.675
	LTE Band 41C_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	40620+40422	2593	AWAN	19.50	19.50	1.000	42.9	1.009	-0.04	0.765	0.772
	LTE Band 41C_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	39750+39948	2506	AWAN	18.62	19.50	1.225	42.9	1.009	-0.13	0.487	0.602
	LTE Band 41C_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	40185+39987	2549.5	AWAN	19.45	19.50	1.012	42.9	1.009	0.06	0.601	0.613
	LTE Band 41C_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	41055+40857	2636.5	AWAN	19.46	19.50	1.009	42.9	1.009	-0.03	0.593	0.604
	LTE Band 41C_HPUE	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	41490+41292	2680	AWAN	19.43	19.50	1.016	42.9	1.009	-0.03	0.531	0.544
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	40620	2593	AWAN	23.54	25.00	1.400	62.9	1.006	0.01	0.115	0.162
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	20mm	Main	OFF	40620	2593	AWAN	22.59	24.00	1.384	62.9	1.006	0.06	0.091	0.127
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	40620	2593	AWAN	17.18	17.50	1.076	62.9	1.006	0.06	0.513	0.556
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	40620	2593	AWAN	17.08	17.50	1.102	62.9	1.006	-0.17	0.490	0.543
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	40620	2593	AMP	17.18	17.50	1.076	62.9	1.006	0.08	0.505	0.547
	LTE Band 41	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	40620	2593	AWAN	23.32	24.00	1.169	62.9	1.006	0.06	0.257	0.302
	LTE Band 41	20M	QPSK	50	0	Bottom of Laptop	10mm	MIMO2	OFF	40620	2593	AWAN	22.45	23.00	1.135	62.9	1.006	-0.19	0.193	0.220



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
12	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	42190	3460	AWAN	16.73	17.00	1.064	62.9	1.006	-0.05	0.779	0.834
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	42590	3500	AWAN	16.53	17.00	1.114	62.9	1.006	-0.1	0.801	0.898
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	42990	3540	AWAN	16.55	17.00	1.109	62.9	1.006	0.18	0.679	0.758
	LTE Band 42	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	42190	3460	AWAN	16.72	17.00	1.067	62.9	1.006	0.14	0.766	0.822
	LTE Band 42	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	42590	3500	AWAN	16.45	17.00	1.135	62.9	1.006	-0.17	0.744	0.850
	LTE Band 42	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	42990	3540	AWAN	16.46	17.00	1.132	62.9	1.006	0.17	0.649	0.739
	LTE Band 42	20M	QPSK	100	0	Bottom of Laptop	0mm	Main	ON	42190	3460	AWAN	16.70	17.00	1.072	62.9	1.006	-0.05	0.757	0.816
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	42590	3500	AMP	16.53	17.00	1.114	62.9	1.006	0.01	0.727	0.815
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	42190	3460	AMP	16.73	17.00	1.064	62.9	1.006	0.1	0.636	0.681
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	42990	3540	AMP	16.55	17.00	1.109	62.9	1.006	-0.17	0.596	0.665
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	42190	3460	AWAN	20.34	22.00	1.466	62.9	1.006	0.01	0.085	0.125
	LTE Band 42	20M	QPSK	50	0	Bottom of Laptop	20mm	Main	OFF	42190	3460	AWAN	19.50	21.00	1.413	62.9	1.006	0.05	0.068	0.097
13	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	42190	3460	AWAN	18.43	19.00	1.140	62.9	1.006	0.04	0.399	0.458
	LTE Band 42	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	42190	3460	AWAN	17.52	18.00	1.117	62.9	1.006	0.05	0.323	0.363
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	42190	3460	AMP	18.43	19.00	1.140	62.9	1.006	-0.07	0.551	0.632
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	42590	3500	AMP	18.32	19.00	1.169	62.9	1.006	0.13	0.504	0.593
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	42990	3540	AMP	18.27	19.00	1.183	62.9	1.006	0.12	0.480	0.571
	LTE Band 42C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	42190+42388	3460	AMP	18.35	19.00	1.161	62.9	1.006	0.03	0.524	0.612
	LTE Band 42C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	42392+42590	3480.2	AMP	18.30	19.00	1.175	62.9	1.006	0.05	0.511	0.604
	LTE Band 42C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	42792+42990	3520.2	AMP	18.06	19.00	1.242	62.9	1.006	0.1	0.496	0.620
	LTE Band 42	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	42190	3460	AWAN	20.25	22.00	1.496	62.9	1.006	0.02	0.159	0.239
	LTE Band 42	20M	QPSK	50	0	Bottom of Laptop	10mm	MIMO2	OFF	42190	3460	AWAN	19.33	21.00	1.469	62.9	1.006	0.03	0.130	0.192
	LTE Band 43	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	45090	3750	AWAN	19.09	20.00	1.233	62.9	1.006	0.02	0.848	1.052
	LTE Band 43	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	44690	3710	AWAN	19.08	20.00	1.236	62.9	1.006	-0.13	0.873	1.085
LTE Band 43	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	45490	3790	AWAN	19.02	20.00	1.253	62.9	1.006	0.17	0.731	0.922	
LTE Band 43	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	45090	3750	AWAN	18.11	19.00	1.227	62.9	1.006	0.06	0.658	0.813	
LTE Band 43	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	44690	3710	AWAN	17.97	19.00	1.268	62.9	1.006	0	0.709	0.904	
LTE Band 43	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	45490	3790	AWAN	18.05	19.00	1.245	62.9	1.006	-0.04	0.565	0.707	
LTE Band 43	20M	QPSK	100	0	Bottom of Laptop	0mm	MIMO2	ON	45090	3750	AWAN	18.07	19.00	1.239	62.9	1.006	-0.15	0.664	0.827	
LTE Band 43	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	44690	3710	AMP	19.08	20.00	1.236	62.9	1.006	0.05	0.948	1.179	
LTE Band 43	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	45090	3750	AMP	19.09	20.00	1.233	62.9	1.006	-0.02	0.881	1.093	
LTE Band 43	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	45490	3790	AMP	19.02	20.00	1.253	62.9	1.006	0.1	0.761	0.959	
LTE Band 43C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	45090+44892	3750	AMP	19.62	20.00	1.091	62.9	1.006	-0.08	0.973	1.068	
LTE Band 43C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	44690+44888	3710	AMP	19.30	20.00	1.175	62.9	1.006	0.12	0.925	1.093	
LTE Band 43C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	45490+45292	3790	AMP	19.52	20.00	1.117	62.9	1.006	0.03	0.964	1.083	
LTE Band 43	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	45090	3750	AWAN	20.28	22.00	1.486	62.9	1.006	-0.06	0.234	0.350	
LTE Band 43	20M	QPSK	50	0	Bottom of Laptop	10mm	MIMO2	OFF	45090	3750	AWAN	19.36	21.00	1.459	62.9	1.006	0.09	0.179	0.263	



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	56640	3690	AWAN	17.63	18.00	1.089	62.9	1.006	0	0.690	0.756
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	55340	3560	AWAN	17.28	18.00	1.180	62.9	1.006	-0.11	0.550	0.653
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	55830	3609	AWAN	17.28	18.00	1.180	62.9	1.006	-0.06	0.550	0.653
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	56150	3641	AWAN	17.37	18.00	1.156	62.9	1.006	-0.15	0.639	0.743
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	56640	3690	AWAN	17.48	18.00	1.127	62.9	1.006	0.03	0.651	0.738
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	55340	3560	AWAN	17.42	18.00	1.143	62.9	1.006	-0.13	0.541	0.622
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	55830	3609	AWAN	17.35	18.00	1.161	62.9	1.006	0.16	0.533	0.623
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	56150	3641	AWAN	17.40	18.00	1.148	62.9	1.006	-0.15	0.609	0.703
	LTE Band 48	20M	QPSK	100	0	Bottom of Laptop	0mm	Main	ON	56640	3690	AWAN	17.46	18.00	1.132	62.9	1.006	-0.02	0.618	0.704
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	56640	3690	AMP	17.63	18.00	1.089	62.9	1.006	-0.05	0.698	0.765
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	55340	3560	AMP	17.28	18.00	1.180	62.9	1.006	-0.09	0.503	0.597
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	55830	3609	AMP	17.28	18.00	1.180	62.9	1.006	0.14	0.516	0.613
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	56150	3641	AMP	17.37	18.00	1.156	62.9	1.006	0.1	0.630	0.733
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	56640	3690	AWAN	20.70	22.00	1.349	62.9	1.006	0.02	0.075	0.102
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	20mm	Main	OFF	56640	3690	AWAN	19.70	21.00	1.349	62.9	1.006	0.06	0.056	0.076
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	56640	3690	AWAN	19.16	20.00	1.213	62.9	1.006	0.04	0.889	1.085
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	55340	3560	AWAN	19.00	20.00	1.259	62.9	1.006	0.13	0.502	0.636
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	55830	3609	AWAN	19.04	20.00	1.247	62.9	1.006	-0.18	0.577	0.724
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	56150	3641	AWAN	19.03	20.00	1.250	62.9	1.006	-0.11	0.698	0.878
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	56640	3690	AWAN	18.19	19.00	1.205	62.9	1.006	-0.16	0.730	0.885
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	55340	3560	AWAN	18.08	19.00	1.236	62.9	1.006	-0.15	0.407	0.506
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	55830	3609	AWAN	18.05	19.00	1.245	62.9	1.006	-0.06	0.477	0.597
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	56150	3641	AWAN	17.99	19.00	1.262	62.9	1.006	-0.14	0.573	0.727
	LTE Band 48	20M	QPSK	100	0	Bottom of Laptop	0mm	MIMO2	ON	56640	3690	AWAN	18.18	19.00	1.208	62.9	1.006	-0.19	0.736	0.894
14	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	56640	3690	AMP	19.16	20.00	1.213	62.9	1.006	0.09	0.974	1.189
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	55340	3560	AMP	19.00	20.00	1.259	62.9	1.006	0.01	0.678	0.859
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	55830	3609	AMP	19.04	20.00	1.247	62.9	1.006	0.06	0.779	0.978
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	56150	3641	AMP	19.03	20.00	1.250	62.9	1.006	0.02	0.880	1.107
	LTE Band 48C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	56442+56640	3690.2	AMP	19.23	20.00	1.194	62.9	1.006	0.09	0.925	1.111
	LTE Band 48C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	55340+55538	3560	AMP	19.21	20.00	1.199	62.9	1.006	0.01	0.644	0.777
	LTE Band 48C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	55632+55830	3589.2	AMP	19.11	20.00	1.227	62.9	1.006	0.06	0.740	0.914
	LTE Band 48C	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	55952+56150	3621.2	AMP	19.03	20.00	1.250	62.9	1.006	0.02	0.836	1.051
	LTE Band 48	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	56640	3690	AWAN	20.30	22.00	1.479	62.9	1.006	0.13	0.258	0.384
	LTE Band 48	20M	QPSK	50	0	Bottom of Laptop	10mm	MIMO2	OFF	56640	3690	AWAN	19.38	21.00	1.452	62.9	1.006	0.02	0.210	0.307



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132322	1745	AWAN	17.77	18.50	1.183	-0.18	0.882	1.043
15	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132072	1720	AWAN	17.68	18.50	1.208	0.06	0.889	1.074
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132572	1770	AWAN	17.65	18.50	1.216	0.02	0.813	0.989
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	132322	1745	AWAN	16.79	17.50	1.178	0.16	0.691	0.814
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	132072	1720	AWAN	16.73	17.50	1.194	0.01	0.706	0.843
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	132572	1770	AWAN	16.69	17.50	1.205	-0.04	0.652	0.786
	LTE Band 66	20M	QPSK	100	0	Bottom of Laptop	0mm	Main	ON	132322	1745	AWAN	16.64	17.50	1.219	0.13	0.694	0.846
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132072	1720	AMP	17.68	18.50	1.208	0.12	0.703	0.849
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132322	1745	AMP	17.77	18.00	1.054	0.07	0.745	0.786
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132572	1770	AMP	17.65	18.00	1.084	0.08	0.738	0.800
	LTE Band 66B	15M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132504+132597	1763.2	AWAN	17.22	18.50	1.343	0.02	0.754	1.012
	LTE Band 66B	15M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132047+132140	1717.5	AWAN	17.12	18.50	1.374	0.02	0.750	1.031
	LTE Band 66B	15M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132229+132322	1735.7	AWAN	17.19	18.50	1.352	0.02	0.682	0.922
	LTE Band 66C	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132572+132374	1770	AWAN	17.75	18.50	1.189	0.05	0.783	0.931
	LTE Band 66C	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132072+132270	1720	AWAN	17.03	18.50	1.403	0.05	0.689	0.967
	LTE Band 66C	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	132322+132124	1745	AWAN	17.73	18.50	1.194	0.05	0.821	0.980
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	132322	1745	AWAN	23.42	25.00	1.439	0.02	0.310	0.446
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	20mm	Main	OFF	132322	1745	AWAN	22.42	24.00	1.439	0.01	0.249	0.358
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	132322	1745	AWAN	16.12	16.50	1.091	-0.15	0.922	1.006
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	132072	1720	AWAN	16.08	16.50	1.102	0.16	0.861	0.948
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	132572	1770	AWAN	16.05	16.50	1.109	0.06	0.960	1.065
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	132322	1745	AWAN	16.07	16.50	1.104	0.05	0.894	0.987
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	132072	1720	AWAN	16.03	16.50	1.114	-0.06	0.836	0.932
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	132572	1770	AWAN	16.00	16.50	1.122	-0.13	0.916	1.028
	LTE Band 66	20M	QPSK	100	0	Bottom of Laptop	0mm	MIMO2	ON	132322	1745	AWAN	16.06	16.50	1.107	-0.01	0.898	0.994
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	132572	1770	AMP	16.05	16.50	1.109	-0.11	0.814	0.903
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	132072	1720	AMP	16.08	16.50	1.102	0.19	0.717	0.790
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	0mm	MIMO2	ON	132322	1745	AMP	16.12	16.50	1.091	-0.14	0.768	0.838
	LTE Band 66	20M	QPSK	1	0	Bottom of Laptop	10mm	MIMO2	OFF	132322	1745	AWAN	23.28	24.00	1.180	0.08	0.641	0.757
	LTE Band 66	20M	QPSK	50	0	Bottom of Laptop	10mm	MIMO2	OFF	132322	1745	AWAN	22.31	23.00	1.172	-0.06	0.499	0.585
16	LTE Band 71	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	133297	680.5	AWAN	21.95	22.00	1.012	-0.15	0.638	0.645
	LTE Band 71	20M	QPSK	50	0	Bottom of Laptop	0mm	Main	ON	133297	680.5	AWAN	20.83	21.00	1.040	-0.17	0.504	0.524
	LTE Band 71	20M	QPSK	1	0	Bottom of Laptop	0mm	Main	ON	133297	680.5	AMP	21.95	22.00	1.012	0.01	0.589	0.596
	LTE Band 71	20M	QPSK	1	0	Bottom of Laptop	20mm	Main	OFF	133297	680.5	AWAN	23.33	25.00	1.469	0.05	0.106	0.156
	LTE Band 71	20M	QPSK	50	0	Bottom of Laptop	20mm	Main	OFF	133297	680.5	AWAN	22.49	24.00	1.416	0.1	0.086	0.122



<5G NR SAR>

Table with 18 columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Test Position, Gap (mm), Antenna, Power Reduction, Ch., Freq. (MHz), Antenna Vendor, Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows include test data for various bands (FR1 n7, FR1 n12, FR1 n13, FR1 n14, FR1 n25, FR1 n26) and configurations.



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n30	10M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	462000	2310	AWAN	15.73	16.00	1.064	-0.08	0.675	0.718
	FR1 n30	10M	BPSK	25	14	Bottom of Laptop	0mm	Main	ON	462000	2310	AWAN	15.65	16.00	1.084	-0.02	0.691	0.749
	FR1 n30	10M	BPSK	25	14	Bottom of Laptop	0mm	Main	ON	462000	2310	AMP	15.65	16.00	1.084	0.12	0.625	0.677
	FR1 n30	10M	BPSK	1	1	Bottom of Laptop	20mm	Main	OFF	462000	2310	AWAN	21.81	23.00	1.315	0.03	0.116	0.153
	FR1 n30	10M	BPSK	25	14	Bottom of Laptop	20mm	Main	OFF	462000	2310	AWAN	21.74	23.00	1.337	0.02	0.115	0.154
	FR1 n30	10M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	462000	2310	AWAN	17.49	17.50	1.002	0.03	0.934	0.936
	FR1 n30	10M	BPSK	25	14	Bottom of Laptop	0mm	MIMO2	ON	462000	2310	AWAN	17.46	17.50	1.009	0.18	0.942	0.951
	FR1 n30	10M	BPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	462000	2310	AWAN	17.45	17.50	1.012	0.16	0.929	0.940
	FR1 n30	10M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	462000	2310	AWAN	17.49	17.50	1.002	-0.11	0.814	0.816
23	FR1 n30	10M	BPSK	25	14	Bottom of Laptop	0mm	MIMO2	ON	462000	2310	AMP	17.46	17.50	1.009	-0.11	1.030	1.040
	FR1 n30	10M	BPSK	50	0	Bottom of Laptop	0mm	MIMO2	ON	462000	2310	AMP	17.45	17.50	1.012	0.15	0.824	0.834
	FR1 n30	10M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	462000	2310	AWAN	21.69	23.00	1.352	0.06	0.423	0.572
	FR1 n30	10M	BPSK	25	14	Bottom of Laptop	10mm	MIMO2	OFF	462000	2310	AWAN	21.62	23.00	1.374	0.05	0.433	0.595
	FR1 n41	100M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	518598	2592.99	AWAN	14.46	14.50	1.009	0.12	0.646	0.652
24	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	0mm	Main	ON	518598	2592.99	AWAN	14.45	14.50	1.012	0.02	0.709	0.717
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	0mm	Main	ON	518598	2592.99	AMP	14.45	14.50	1.012	-0.02	0.704	0.712
	FR1 n41_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	518598	2592.99	AWAN	16.88	17.50	1.153	0.15	0.561	0.647
	FR1 n41	100M	BPSK	1	1	Bottom of Laptop	20mm	Main	OFF	518598	2592.99	AWAN	23.68	25.00	1.355	0.12	0.170	0.230
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	20mm	Main	OFF	518598	2592.99	AWAN	23.63	25.00	1.371	0.01	0.168	0.230
	FR1 n41	100M	BPSK	1	271	Bottom of Laptop	0mm	MIMO1	OFF	518598	2592.99	AWAN	14.49	14.50	1.002	0.12	0.472	0.473
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	0mm	MIMO1	OFF	518598	2592.99	AWAN	14.48	14.50	1.005	-0.09	0.578	0.581
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	0mm	MIMO1	OFF	518598	2592.99	AMP	14.48	14.50	1.005	0.17	0.470	0.472
	FR1 n41_HPUE	100M	BPSK	1	271	Bottom of Laptop	0mm	MIMO1	OFF	518598	2592.99	AWAN	16.60	17.50	1.230	0.05	0.445	0.547
	FR1 n41	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	518598	2592.99	AWAN	14.19	14.50	1.074	-0.18	0.474	0.509
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	0mm	MIMO2	ON	518598	2592.99	AWAN	14.17	14.50	1.079	0.1	0.453	0.489
	FR1 n41	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	518598	2592.99	AMP	14.19	14.50	1.074	0.08	0.521	0.560
	FR1 n41_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	518598	2592.99	AMP	16.73	17.50	1.194	-0.15	0.451	0.538
	FR1 n41	100M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	518598	2592.99	AWAN	22.88	24.00	1.294	0.02	0.425	0.550
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	10mm	MIMO2	OFF	518598	2592.99	AWAN	22.84	24.00	1.306	0.09	0.364	0.475
	FR1 n41	100M	BPSK	1	271	Bottom of Laptop	0mm	AUX	ON	518598	2592.99	AWAN	14.49	14.50	1.002	0.06	0.353	0.354
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	0mm	AUX	ON	518598	2592.99	AWAN	14.43	14.50	1.016	-0.02	0.462	0.470
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	0mm	AUX	ON	518598	2592.99	AMP	14.43	14.50	1.016	0.15	0.411	0.418
	FR1 n41_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	AUX	ON	518598	2592.99	AWAN	16.99	17.50	1.125	0.14	0.405	0.455
	FR1 n41	100M	BPSK	1	271	Bottom of Laptop	25mm	AUX	OFF	518598	2592.99	AWAN	23.76	25.00	1.330	0.06	0.219	0.291
	FR1 n41	100M	BPSK	135	69	Bottom of Laptop	25mm	AUX	OFF	518598	2592.99	AWAN	23.70	25.00	1.349	0.01	0.128	0.173



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	641666	3624.99	AWAN	14.34	15.00	1.164	-0.01	0.517	0.602
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	638000	3570	AWAN	14.23	15.00	1.194	0	0.490	0.585
25	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	645332	3679.98	AWAN	14.15	15.00	1.216	-0.04	0.595	0.724
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	0mm	Main	ON	641666	3624.99	AWAN	14.11	15.00	1.227	-0.06	0.524	0.643
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	0mm	Main	ON	638000	3570	AWAN	14.08	15.00	1.236	-0.15	0.440	0.544
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	0mm	Main	ON	645332	3679.98	AWAN	14.06	15.00	1.242	0.03	0.558	0.693
	FR1 n48	40M	BPSK	100	0	Bottom of Laptop	0mm	Main	ON	641666	3624.99	AWAN	14.07	15.00	1.239	0.03	0.543	0.673
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	645332	3679.98	AMP	14.15	15.00	1.216	-0.13	0.583	0.709
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	641666	3624.99	AMP	14.34	15.00	1.164	0.16	0.450	0.524
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	638000	3570	AMP	14.23	15.00	1.194	-0.15	0.425	0.507
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	20mm	Main	OFF	641666	3624.99	AWAN	21.71	22.00	1.069	0.06	0.183	0.196
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	20mm	Main	OFF	641666	3624.99	AWAN	21.63	22.00	1.089	0.05	0.231	0.252
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	MIMO1	OFF	641666	3624.99	AWAN	14.16	15.00	1.213	-0.06	0.304	0.369
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	0mm	MIMO1	OFF	641666	3624.99	AWAN	14.16	15.00	1.213	0.1	0.169	0.205
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	MIMO1	OFF	641666	3624.99	AMP	14.16	15.00	1.213	-0.16	0.232	0.282
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	641666	3624.99	AWAN	14.37	15.00	1.156	-0.07	0.338	0.391
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	0mm	MIMO2	ON	641666	3624.99	AWAN	14.14	15.00	1.219	-0.1	0.352	0.429
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	0mm	MIMO2	ON	641666	3624.99	AMP	14.14	15.00	1.219	0.06	0.417	0.508
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	641666	3624.99	AWAN	20.58	22.00	1.387	0.06	0.276	0.383
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	10mm	MIMO2	OFF	641666	3624.99	AWAN	20.40	22.00	1.445	0.08	0.295	0.426
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	AUX	ON	638000	3570	AWAN	14.06	15.00	1.242	-0.11	0.435	0.540
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	0mm	AUX	ON	638000	3570	AWAN	13.95	15.00	1.274	0.1	0.423	0.539
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	0mm	AUX	ON	638000	3570	AMP	14.06	15.00	1.242	0.12	0.450	0.559
	FR1 n48	40M	BPSK	1	1	Bottom of Laptop	25mm	AUX	OFF	638000	3570	AWAN	20.79	22.00	1.321	0.01	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Bottom of Laptop	25mm	AUX	OFF	638000	3570	AWAN	20.67	22.00	1.358	0	0.001	0.001
	FR1 n66	40M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	349000	1745	AWAN	18.18	18.50	1.076	-0.02	0.950	1.023
	FR1 n66	40M	BPSK	108	54	Bottom of Laptop	0mm	Main	ON	349000	1745	AWAN	18.14	18.50	1.086	0.07	0.908	0.986
	FR1 n66	40M	BPSK	216	0	Bottom of Laptop	0mm	Main	ON	349000	1745	AWAN	18.12	18.50	1.091	0.07	0.903	0.986
	FR1 n66	40M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	349000	1745	AMP	18.18	18.50	1.076	0.18	0.759	0.817
	FR1 n66	40M	BPSK	1	1	Bottom of Laptop	20mm	Main	OFF	349000	1745	AWAN	24.22	25.00	1.197	-0.05	0.436	0.522
	FR1 n66	40M	BPSK	108	54	Bottom of Laptop	20mm	Main	OFF	349000	1745	AWAN	24.13	25.00	1.222	-0.11	0.390	0.477
	FR1 n66	40M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	349000	1745	AWAN	16.67	17.00	1.079	-0.1	0.949	1.024
26	FR1 n66	40M	BPSK	108	54	Bottom of Laptop	0mm	MIMO2	ON	349000	1745	AWAN	16.65	17.00	1.084	0.02	1.030	1.116
	FR1 n66	40M	BPSK	216	0	Bottom of Laptop	0mm	MIMO2	ON	349000	1745	AWAN	16.64	17.00	1.086	-0.1	0.943	1.024
	FR1 n66	40M	BPSK	108	54	Bottom of Laptop	0mm	MIMO2	ON	349000	1745	AMP	16.65	17.00	1.084	-0.15	0.971	1.052
	FR1 n66	40M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	349000	1745	AWAN	23.02	24.00	1.253	0.02	0.704	0.882
	FR1 n66	40M	BPSK	108	54	Bottom of Laptop	10mm	MIMO2	OFF	349000	1745	AWAN	22.94	24.00	1.276	0.11	0.741	0.946
	FR1 n66	40M	BPSK	216	0	Bottom of Laptop	10mm	MIMO2	OFF	349000	1745	AWAN	22.63	23.50	1.222	0.11	0.703	0.859
27	FR1 n71	20M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	136100	680.5	AWAN	21.78	22.00	1.052	-0.12	0.576	0.606
	FR1 n71	20M	BPSK	50	28	Bottom of Laptop	0mm	Main	ON	136100	680.5	AWAN	21.74	22.00	1.062	0.05	0.566	0.601
	FR1 n71	20M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	136100	680.5	AMP	21.78	22.00	1.052	0.01	0.556	0.585
	FR1 n71	20M	BPSK	1	1	Bottom of Laptop	20mm	Main	OFF	136100	680.5	AWAN	24.37	25.00	1.156	0.06	0.130	0.150
	FR1 n71	20M	BPSK	50	28	Bottom of Laptop	20mm	Main	OFF	136100	680.5	AWAN	24.30	25.00	1.175	0.04	0.126	0.148



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	656000	3840	AWAN	14.28	15.50	1.324	-0.03	0.434	0.575
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	Main	ON	656000	3840	AWAN	14.23	15.50	1.340	0.17	0.454	0.608
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	Main	ON	656000	3840	AMP	14.23	15.50	1.340	-0.08	0.469	0.628
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	656000	3840	AMP	17.31	18.50	1.315	-0.06	0.449	0.591
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	20mm	Main	OFF	656000	3840	AWAN	24.05	25.00	1.245	0.05	0.312	0.388
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	20mm	Main	OFF	656000	3840	AWAN	23.97	25.00	1.268	0.1	0.304	0.385
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO1	OFF	656000	3840	AWAN	15.08	15.50	1.102	-0.13	0.246	0.271
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	MIMO1	OFF	656000	3840	AWAN	15.07	15.50	1.104	-0.01	0.205	0.226
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO1	OFF	656000	3840	AMP	15.08	15.50	1.102	-0.08	0.252	0.278
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO1	OFF	656000	3840	AMP	18.13	18.50	1.089	-0.14	0.238	0.259
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	656000	3840	AWAN	15.11	15.50	1.094	-0.18	0.317	0.347
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	MIMO2	ON	656000	3840	AWAN	15.10	15.50	1.096	-0.06	0.309	0.339
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	656000	3840	AWAN	23.30	25.00	1.479	0.05	0.532	0.787
28	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	10mm	MIMO2	OFF	656000	3840	AWAN	23.22	25.00	1.507	-0.13	0.647	0.975
	FR1 n77	100M	BPSK	270	0	Bottom of Laptop	10mm	MIMO2	OFF	656000	3840	AWAN	22.71	24.50	1.510	-0.13	0.585	0.883
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	10mm	MIMO2	OFF	656000	3840	AMP	23.22	25.00	1.507	0.11	0.593	0.893
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	656000	3840	AWAN	25.95	27.50	1.429	0.05	0.556	0.794
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	AUX	ON	656000	3840	AWAN	15.21	15.50	1.069	0.13	0.307	0.328
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	AUX	ON	656000	3840	AWAN	15.19	15.50	1.074	-0.1	0.331	0.355
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	AUX	ON	656000	3840	AMP	15.19	15.50	1.074	0.07	0.288	0.309
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	AUX	ON	656000	3840	AWAN	18.25	18.50	1.059	0.08	0.318	0.337
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	25mm	AUX	OFF	656000	3840	AWAN	24.43	25.00	1.140	0.11	0.268	0.306
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	25mm	AUX	OFF	656000	3840	AWAN	24.30	25.00	1.175	0.08	0.282	0.331
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	633332	3499.98	AWAN	14.75	15.50	1.189	0	0.665	0.790
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	Main	ON	633332	3499.98	AWAN	14.27	15.50	1.327	0.04	0.672	0.892
	FR1 n77	100M	BPSK	270	0	Bottom of Laptop	0mm	Main	ON	633332	3499.98	AWAN	14.28	15.50	1.324	-0.12	0.643	0.852
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	Main	ON	633332	3499.98	AMP	14.27	15.50	1.327	-0.12	0.665	0.883
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	Main	ON	633332	3499.98	AWAN	17.45	18.50	1.274	-0.03	0.670	0.853
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	20mm	Main	OFF	633332	3499.98	AWAN	24.25	25.00	1.189	0.06	0.385	0.458
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	20mm	Main	OFF	633332	3499.98	AWAN	24.07	25.00	1.239	0.11	0.353	0.437
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO1	OFF	633332	3499.98	AWAN	15.27	15.50	1.054	-0.07	0.257	0.271
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	MIMO1	OFF	633332	3499.98	AWAN	15.24	15.50	1.062	0.02	0.222	0.236
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO1	OFF	633332	3499.98	AMP	15.27	15.50	1.054	-0.03	0.202	0.213
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO1	OFF	633332	3499.98	AWAN	18.25	18.50	1.059	0	0.239	0.253
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	MIMO2	ON	633332	3499.98	AWAN	15.41	15.50	1.021	0.05	0.367	0.375
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	MIMO2	ON	633332	3499.98	AWAN	15.40	15.50	1.023	0	0.268	0.274
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	633332	3499.98	AWAN	23.51	25.00	1.409	0.01	0.507	0.715
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	10mm	MIMO2	OFF	633332	3499.98	AWAN	23.35	25.00	1.462	0.02	0.373	0.545
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	633332	3499.98	AMP	23.51	25.00	1.409	0.01	0.487	0.686
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom of Laptop	10mm	MIMO2	OFF	633332	3499.98	AWAN	26.07	27.50	1.390	0.02	0.475	0.660
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	AUX	ON	633332	3499.98	AWAN	15.14	15.50	1.086	-0.16	0.468	0.508
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	0mm	AUX	ON	633332	3499.98	AWAN	15.07	15.50	1.104	-0.08	0.361	0.399
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	0mm	AUX	ON	633332	3499.98	AMP	15.14	15.50	1.086	-0.13	0.407	0.442
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom of Laptop	0mm	AUX	ON	633332	3499.98	AWAN	18.18	18.50	1.076	0.01	0.437	0.470
	FR1 n77	100M	BPSK	1	1	Bottom of Laptop	25mm	AUX	OFF	633332	3499.98	AWAN	24.09	25.00	1.233	-0.05	0.076	0.094
	FR1 n77	100M	BPSK	135	69	Bottom of Laptop	25mm	AUX	OFF	633332	3499.98	AWAN	23.86	25.00	1.300	0.13	0.072	0.094



13.2 Repeated SAR Measurement

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Antenna Vendor	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	1413	1732.6	AWAN	18.49	18.50	1.002			-0.06	1.070	-	1.072
2nd	WCDMA IV	RMC 12.2Kbps	Bottom of Laptop	0mm	Main	ON	1413	1732.6	AWAN	18.49	18.50	1.002			0.11	1.030	1.04	1.032
1st	LTE Band 30	10M_QPSK_1_0	Bottom of Laptop	0mm	MIMO2	ON	27710	2310	AMP	18.32	18.50	1.042			-0.08	1.150	-	1.199
2nd	LTE Band 30	10M_QPSK_1_0	Bottom of Laptop	0mm	MIMO2	ON	27710	2310	AMP	18.32	18.50	1.042			-0.08	1.110	1.04	1.157
1st	LTE Band 42	20M_QPSK_1_0	Bottom of Laptop	0mm	Main	ON	42590	3500	AWAN	16.53	17.00	1.114	62.9	1.006	-0.1	0.801	-	0.898
2nd	LTE Band 42	20M_QPSK_1_0	Bottom of Laptop	0mm	Main	ON	42590	3500	AWAN	16.53	17.00	1.114	62.9	1.006	0.15	0.798	1.00	0.895
1st	LTE Band 48	20M_QPSK_1_0	Bottom of Laptop	0mm	MIMO2	ON	56640	3690	AMP	19.16	20.00	1.213	62.9	1.006	0.09	0.974	-	1.189
2nd	LTE Band 48	20M_QPSK_1_0	Bottom of Laptop	0mm	MIMO2	ON	56640	3690	AMP	19.16	20.00	1.213	62.9	1.006	0.18	0.929	1.05	1.134
1st	FR1 n7	40M_BPSK_1_1	Bottom of Laptop	0mm	MIMO2	ON	507000	2535	AMP	17.48	17.50	1.005			0.06	1.170	-	1.175
2nd	FR1 n7	40M_BPSK_1_1	Bottom of Laptop	0mm	MIMO2	ON	507000	2535	AMP	17.48	17.50	1.005			0.12	1.130	1.04	1.135
1st	FR1 n13	10M_BPSK_1_1	Bottom of Laptop	0mm	Main	ON	156400	782	AWAN	21.78	22.00	1.052			-0.17	1.060	-	1.115
2nd	FR1 n13	10M_BPSK_1_1	Bottom of Laptop	0mm	Main	ON	156400	782	AWAN	21.78	22.00	1.052			-0.15	1.010	1.05	1.062
1st	FR1 n25	40M_BPSK_1_1	Bottom of Laptop	0mm	MIMO2	ON	376500	1882.5	AWAN	17.65	18.00	1.084			-0.06	1.080	-	1.171
2nd	FR1 n25	40M_BPSK_1_1	Bottom of Laptop	0mm	MIMO2	ON	376500	1882.5	AWAN	17.65	18.00	1.084			-0.12	1.050	1.03	1.138

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8W/kg$.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR $< 1.45W/kg$, only one repeated measurement is required.
3. The ratio is the difference in percentage between original and repeated *measured* SAR.
4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

13.3 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with $< 10\%$ discrepancy between power classes and all reported SAR are $< 1.4 W/kg$, Separate SAR testing for Power Class 2 is not required

Use PC3 power level and SAR to estimated PC2 SAR linearly, and check if the deviation from the measured PC2 SAR is $< 10\%$

	LTE Band 41_Main (Power Class 3)	LTE Band 41_Main (Power Class 2)
Maximum Tune up Power (dBm)	17.5	19.5
Reported 1g SAR (W/kg)	0.743	0.86
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	35.60	38.59
Linearity SAR(W/kg)	0.81	
% deviation from expected linearity		6.76%



13.4 FR1 n41/n77 Power Class 2 and Power Class 3 Linearity

This device support Power Class 2 and Power Class 3 operations for FR1 n41/n77. The highest available duty cycle for Power Class 2 operation is 50%. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each FR1 configuration and exposure condition combination, according to the highest time averaged power for Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg, Separate SAR testing for Power Class 2 is not required. Use PC3 power level and SAR to estimated PC2 SAR linearly, and check if the deviation from the measured PC2 SAR is <10%

	FR1 n41_Main (Power Class 3)	FR1 n41_Main (Power Class 2)
Maximum Tune up Power (dBm)	14.5	17.5
Reported 1g SAR (W/kg)	0.717	0.647
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	28.18	28.12
Linearity SAR(W/kg)	0.72	
% deviation from expected linearity		-9.55%

	FR1 n41_MIMO1 (Power Class 3)	FR1 n41_MIMO1 (Power Class 2)
Maximum Tune up Power (dBm)	14.5	17.5
Reported 1g SAR (W/kg)	0.581	0.547
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	28.18	28.12
Linearity SAR(W/kg)	0.58	
% deviation from expected linearity		-5.63%

	FR1 n41_MIMO2 (Power Class 3)	FR1 n41_MIMO2 (Power Class 2)
Maximum Tune up Power (dBm)	14.5	17.5
Reported 1g SAR (W/kg)	0.56	0.538
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	28.18	28.12
Linearity SAR(W/kg)	0.56	
% deviation from expected linearity		-3.70%

	FR1 n41_AUX (Power Class 3)	FR1 n41_AUX (Power Class 2)
Maximum Tune up Power (dBm)	14.5	17.5
Reported 1g SAR (W/kg)	0.47	0.455
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	28.18	28.12
Linearity SAR(W/kg)	0.47	
% deviation from expected linearity		-2.96%



	FR1 n77_MIMO1	FR1 n77_MIMO1
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	15.5	18.5
Reported 1g SAR (W/kg)	0.278	0.259
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	35.48	35.40
Linearity SAR(W/kg)	0.28	
% deviation from expected linearity		-6.61%

	FR1 n77_MIMO2	FR1 n77_MIMO2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25	27.5
Reported 1g SAR (W/kg)	0.975	0.794
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	316.23	281.17
Linearity SAR(W/kg)	0.87	
% deviation from expected linearity		-8.41%

	FR1 n77_Main	FR1 n77_Main
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	15.5	18.5
Reported 1g SAR (W/kg)	0.892	0.853
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	35.48	35.40
Linearity SAR(W/kg)	0.89	
% deviation from expected linearity		-4.15%

	FR1 n77_AUX	FR1 n77_AUX
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	15.5	18.5
Reported 1g SAR (W/kg)	0.508	0.47
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	35.48	35.40
Linearity SAR(W/kg)	0.51	
% deviation from expected linearity		-7.26%



	FR1 n77/78_Main	FR1 n77/78_Main
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	15.5	18.5
Reported 1g SAR (W/kg)	0.736	0.722
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	35.48	35.40
Linearity SAR(W/kg)	0.73	
% deviation from expected linearity		-1.67%

	FR1 n77/78_MIMO1	FR1 n77/78_MIMO1
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	15.5	18.5
Reported 1g SAR (W/kg)	0.317	0.298
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	35.48	35.40
Linearity SAR(W/kg)	0.32	
% deviation from expected linearity		-5.77%

	FR1 n77/78_MIMO2	FR1 n77/78_MIMO2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	15.5	18.5
Reported 1g SAR (W/kg)	0.394	0.393
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	35.48	35.40
Linearity SAR(W/kg)	0.39	
% deviation from expected linearity		-0.02%

	FR1 n77/78_AUX	FR1 n77/78_AUX
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	15.5	18.5
Reported 1g SAR (W/kg)	0.368	0.344
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	35.48	35.40
Linearity SAR(W/kg)	0.37	
% deviation from expected linearity		-6.30%

14. Simultaneous Transmission Analysis

NO.	Simultaneous Transmission Configurations	Body
1.	WWAN Main + WWAN MIMO2 + WLAN Main	Yes
2.	WWAN Main + WWAN MIMO2 + WLAN Aux	Yes
3.	WWAN Main + WWAN MIMO2 + Bluetooth Aux	Yes
4.	WWAN MIMO1 + WLAN Main	Yes
5.	WWAN MIMO1 + WLAN Aux	Yes
6.	WWAN MIMO1 + Bluetooth Aux	Yes
7.	WWAN AUX + WLAN Main	Yes
8.	WWAN AUX + WLAN Aux	Yes
9.	WWAN AUX + Bluetooth Aux	Yes

General Note:

1. The Intel AX211D2W WLAN/BT module (FCC ID: PD9AX211D2) is integrated into this host.
2. The Intel BE200D2W WLAN/BT module (FCC ID: PD9BE200D2) is also integrated into this host.
3. The WiFi/BT SAR of 1.6 W/kg was used conservatively for the purpose of simultaneous transmission analysis. For the WLAN main and WLAN Aux Sim-Tx analysis include in WLAN modular SAR report. In this report only assessment WWAN to each WLAN/BT antenna.
4. The worst case WWAN SAR is using for Sim-Tx analysis.
5. The Scaled SAR summation is calculated based on the same configuration and test position.
6. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - i) Scalar SAR summation < 1.6W/kg.
 - ii) $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.
 - v) The SPLSR calculated results please refer to section 14.2.



14.1 Body Exposure Conditions

Exposure Position	1	2	3	4	5	1+2+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No
	Maximum WWAN Main	Maximum WWAN MIMO2	WLAN Main	WLAN Aux	Bluetooth Aux					
Bottom of Laptop at 0mm	1.133	1.199	1.600	1.600	1.600	3.932	3.932	3.932	0.030	Case 1

Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
	Maximum WWAN MIMO1	WLAN Main	WLAN Aux	Bluetooth Aux					
Bottom of Laptop at 0mm	0.581	1.600	1.600	1.600	2.181	2.181	2.181	0.020	Case 2

Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
	Maximum WWAN AUX	WLAN Main	WLAN Aux	Bluetooth Aux					
Bottom of Laptop at 0mm	0.559	1.600	1.600	1.600	2.159	2.159	2.159	0.020	Case 3

14.2 SPLSR Evaluation and Analysis

General Note:

1. According to antenna location the minimum distance between each transmit antenna is using for SPLSR analysis
2. $SPLSR = (SAR_1 + SAR_2)^{1.5} / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary

	Band	Position	SAR (W/kg)	Gap	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)				
Case 1	Maximum WWAN Main	Bottom of Laptop	1.133	0mm	218.9	2.33	0.02	Not required
	Maximum WWAN MIMO2		1.199	0mm				
	Maximum WWAN Main	Bottom of Laptop	1.133	0mm	196.6	2.73	0.02	Not required
	WLAN_Main		1.6	0mm				
	Maximum WWAN Main	Bottom of Laptop	1.133	0mm	208.7	2.73	0.02	Not required
	WLAN_AUX		1.6	0mm				
	Maximum WWAN Main	Bottom of Laptop	1.133	0mm	208.7	2.73	0.02	Not required
	Bluetooth_AUX		1.6	0mm				
	Maximum WWAN MIMO2	Bottom of Laptop	1.199	0mm	205.0	2.80	0.02	Not required
	WLAN_Main		1.6	0mm				
	Maximum WWAN MIMO2	Bottom of Laptop	1.199	0mm	173.5	2.80	0.03	Not required
	WLAN_AUX		1.6	0mm				
Maximum WWAN MIMO2	Bottom of Laptop	1.199	0mm	173.5	2.80	0.03	Not required	
Bluetooth_AUX		1.6	0mm					
	Band	Position	SAR (W/kg)	Gap	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)				
Case 2	Maximum WWAN MIMO1	Bottom of Laptop	0.581	0mm	173.5	2.18	0.02	Not required
	WLAN_Main		1.6	0mm				
	Maximum WWAN MIMO1	Bottom of Laptop	0.581	0mm	205.0	2.18	0.02	Not required
	WLAN_AUX		1.6	0mm				
	Maximum WWAN MIMO1	Bottom of Laptop	0.581	0mm	205.0	2.18	0.02	Not required
	Bluetooth_AUX		1.6	0mm				
Case 3	Maximum WWAN AUX	Bottom of Laptop	0.559	0mm	212.6	2.16	0.01	Not required
	WLAN_Main		1.6	0mm				
	Maximum WWAN AUX	Bottom of Laptop	0.559	0mm	197.5	2.16	0.02	Not required
	WLAN_AUX		1.6	0mm				
	Maximum WWAN AUX	Bottom of Laptop	0.559	0mm	197.5	2.16	0.02	Not required
	Bluetooth_AUX		1.6	0mm				

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15. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg. Therefore, the measurement uncertainty table is not required in this report.

Declaration of Conformity:

The test results with all measurement uncertainty excluded is presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

16. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [6] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [7] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [8] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [9] FCC KDB 616217 D04 v01r02, "SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers", Oct 2015
- [10] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [11] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.