



Annex A

Output Power



Output Power for 6 dBi PtoMP Antenna

Bandwidth	Test Frequency	Data Rate	TP	J7 Level	J13 Level	J7 Level	J8 Level	Combined output power	Limit	Margin
MHz	MHz			dBm	dBm	mW	mW	dBm	dBm	dB
10	5165	vt0	18	16.9	19.3	49.0	85.1	21.3	30	-8.7
10	5200	vt0	18	17	19.4	50.1	87.1	21.4	30	-8.6
10	5245	vt0	18	16.8	18.7	47.9	74.1	20.9	30	-9.1
20	5165	vt0	1	1.1	2.1	1.3	1.6	4.6	30	-25.4
20	5170	vt0	10	9.7	10.1	9.3	10.2	12.9	30	-17.1
20	5175	vt0	17	16.4	18.4	43.7	69.2	20.5	30	-9.5
20	5180	vt0	19	19.7	20.9	93.3	123.0	23.4	30	-6.6
20	5200	vt0	19	19.6	20.1	91.2	102.3	22.9	30	-7.1
20	5240	vt0	19	19.2	19.6	83.2	91.2	22.4	30	-7.6
30	5170	vt0	-7	-2	-1.1	0.6	0.8	1.5	30	-28.5
30	5175	vt0	6	6.7	7.3	4.7	5.4	10.0	30	-20.0
30	5180	vt0	11	10.5	11.9	11.2	15.5	14.3	30	-15.7
30	5185	vt0	14	14	14.7	25.1	29.5	17.4	30	-12.6
30	5190	vt0	18	17.3	19.4	53.7	87.1	21.5	30	-8.5
30	5200	vt0	18	17.1	19.5	51.3	89.1	21.5	30	-8.5
30	5235	vt0	18	17	18.9	50.1	77.6	21.1	30	-8.9
40	5175	vf0	-6	-2.2	-0.8	0.6	0.8	1.6	30	-28.4
40	5180	vf0	5	5.2	5.2	3.3	3.3	8.2	30	-21.8
40	5185	vf0	9	8.3	8.9	6.8	7.8	11.6	30	-18.4
40	5190	vf0	11	9.7	10.6	9.3	11.5	13.2	30	-16.8
40	5195	vf0	13	12	12.4	15.8	17.4	15.2	30	-14.8
40	5200	vf0	15	13.7	14.8	23.4	30.2	17.3	30	-12.7
40	5230	vf0	15	13.6	14.1	22.9	25.7	16.9	30	-13.1
50	5180	vf0	-7	-2.5	-1.5	0.6	0.7	1.0	30	-29.0
50	5185	vf0	3	3.1	4	2.0	2.5	6.6	30	-23.4
50	5190	vf0	8	7.3	8.1	5.4	6.5	10.7	30	-19.3
50	5195	vf0	10	9.1	9.6	8.1	9.1	12.4	30	-17.6
50	5200	vf0	12	11	11.6	12.6	14.5	14.3	30	-15.7
50	5205	vf0	13	11.8	12.4	15.1	17.4	15.1	30	-14.9
50	5225	vf0	13	11.7	12.1	14.8	16.2	14.9	30	-15.1
60	5185	vf0	-7	-2.5	-1.7	0.6	0.7	0.9	30	-29.1
60	5190	vf0	-4	0.1	1.6	1.0	1.4	3.9	30	-26.1
60	5195	vf0	7	6.3	6.9	4.3	4.9	9.6	30	-20.4
60	5200	vf0	9	8.3	8.8	6.8	7.6	11.6	30	-18.4
60	5220	vf0	9	8.1	8.6	6.5	7.2	11.4	30	-18.6
80	5190	ve00	-10	-5.8	-5.2	0.3	0.3	-2.5	30	-32.5
80	5195	ve00	-6	-2.2	-1.3	0.6	0.7	1.3	30	-28.7
80	5200	ve00	2	1.7	2.5	1.5	1.8	5.1	30	-24.9
80	5210	ve00	9	7.8	8.4	6.0	6.9	11.1	30	-18.9



Output Power for 22 dBi PtoP Antenna									
Bandwidth	Test Frequency	Data Rate	J7 Level	J13 Level	J7 Level	J8 Level	Combined output power	Limit	Margin
MHz	MHz		dBm	dBm	mW	mW	dBm	dBm	dB
10	5165	vt0	0.9	3.3	1.2	2.1	5.3	30	-24.7
10	5200	vt0	1	3.4	1.3	2.2	5.4	30	-24.6
10	5245	vt0	0.8	2.7	1.2	1.9	4.9	30	-25.1
20	5165	vt0	-14.9	-13.9	0.0	0.0	-11.4	30	-41.4
20	5170	vt0	-6.3	-5.9	0.2	0.3	-3.1	30	-33.1
20	5175	vt0	0.4	2.4	1.1	1.7	4.5	30	-25.5
20	5180	vt0	3.7	4.9	2.3	3.1	7.4	30	-22.6
20	5200	vt0	3.6	4.1	2.3	2.6	6.9	30	-23.1
20	5240	vt0	3.2	3.6	2.1	2.3	6.4	30	-23.6
30	5170	vt0	-18	-17.1	0.0	0.0	-14.5	30	-44.5
30	5175	vt0	-9.3	-8.7	0.1	0.1	-6.0	30	-36.0
30	5180	vt0	-5.5	-4.1	0.3	0.4	-1.7	30	-31.7
30	5185	vt0	-2	-1.3	0.6	0.7	1.4	30	-28.6
30	5190	vt0	1.3	3.4	1.3	2.2	5.5	30	-24.5
30	5200	vt0	1.1	3.5	1.3	2.2	5.5	30	-24.5
30	5235	vt0	1	2.9	1.3	1.9	5.1	30	-24.9
40	5175	vf0	-18.2	-16.8	0.0	0.0	-14.4	30	-44.4
40	5180	vf0	-10.8	-10.8	0.1	0.1	-7.8	30	-37.8
40	5185	vf0	-7.7	-7.1	0.2	0.2	-4.4	30	-34.4
40	5190	vf0	-6.3	-5.4	0.2	0.3	-2.8	30	-32.8
40	5195	vf0	-4	-3.6	0.4	0.4	-0.8	30	-30.8
40	5200	vf0	-2.3	-1.2	0.6	0.8	1.3	30	-28.7
40	5230	vf0	-2.4	-1.9	0.6	0.6	0.9	30	-29.1
50	5180	vf0	-18.5	-17.5	0.0	0.0	-15.0	30	-45.0
50	5185	vf0	-12.9	-12	0.1	0.1	-9.4	30	-39.4
50	5190	vf0	-8.7	-7.9	0.1	0.2	-5.3	30	-35.3
50	5195	vf0	-6.9	-6.4	0.2	0.2	-3.6	30	-33.6
50	5200	vf0	-5	-4.4	0.3	0.4	-1.7	30	-31.7
50	5205	vf0	-4.2	-3.6	0.4	0.4	-0.9	30	-30.9
50	5225	vf0	-4.3	-3.9	0.4	0.4	-1.1	30	-31.1
60	5185	vf0	-18.5	-17.7	0.0	0.0	-15.1	30	-45.1
60	5190	vf0	-15.9	-14.4	0.0	0.0	-12.1	30	-42.1
60	5195	vf0	-9.7	-9.1	0.1	0.1	-6.4	30	-36.4
60	5200	vf0	-7.7	-7.2	0.2	0.2	-4.4	30	-34.4
60	5220	vf0	-7.9	-7.4	0.2	0.2	-4.6	30	-34.6
80	5190	ve00	-21.8	-21.2	0.0	0.0	-18.5	30	-48.5
80	5195	ve00	-18.2	-17.3	0.0	0.0	-14.7	30	-44.7
80	5200	ve00	-14.3	-13.5	0.0	0.0	-10.9	30	-40.9
80	5210	ve00	-8.2	-7.6	0.2	0.2	-4.9	30	-34.9



Output Power for 25 dBi PtoP Antenna									
Bandwidth	Test Frequency	Data Rate	J7 Level	J13 Level	J7 Level	J8 Level	Combined output power	Limit	Margin
MHz	MHz		dBm	dBm	mW	mW	dBm	dBm	dB
10	5165	vt0	-2.1	0.3	0.6	1.1	2.3	28	-25.7
10	5200	vt0	-2	0.4	0.6	1.1	2.4	28	-25.6
10	5245	vt0	-2.2	-0.3	0.6	0.9	1.9	28	-26.1
20	5165	vt0	-17.9	-16.9	0.0	0.0	-14.4	28	-42.4
20	5170	vt0	-9.3	-8.9	0.1	0.1	-6.1	28	-34.1
20	5175	vt0	-2.6	-0.6	0.5	0.9	1.5	28	-26.5
20	5180	vt0	0.7	1.9	1.2	1.5	4.4	28	-23.6
20	5200	vt0	0.6	1.1	1.1	1.3	3.9	28	-24.1
20	5240	vt0	0.2	0.6	1.0	1.1	3.4	28	-24.6
30	5170	vt0	-21	-20.1	0.0	0.0	-17.5	28	-45.5
30	5175	vt0	-12.3	-11.7	0.1	0.1	-9.0	28	-37.0
30	5180	vt0	-8.5	-7.1	0.1	0.2	-4.7	28	-32.7
30	5185	vt0	-5	-4.3	0.3	0.4	-1.6	28	-29.6
30	5190	vt0	-1.7	0.4	0.7	1.1	2.5	28	-25.5
30	5200	vt0	-1.9	0.5	0.6	1.1	2.5	28	-25.5
30	5235	vt0	-2	-0.1	0.6	1.0	2.1	28	-25.9
40	5175	vf0	-21.2	-19.8	0.0	0.0	-17.4	28	-45.4
40	5180	vf0	-13.8	-13.8	0.0	0.0	-10.8	28	-38.8
40	5185	vf0	-10.7	-10.1	0.1	0.1	-7.4	28	-35.4
40	5190	vf0	-9.3	-8.4	0.1	0.1	-5.8	28	-33.8
40	5195	vf0	-7	-6.6	0.2	0.2	-3.8	28	-31.8
40	5200	vf0	-5.3	-4.2	0.3	0.4	-1.7	28	-29.7
40	5230	vf0	-5.4	-4.9	0.3	0.3	-2.1	28	-30.1
50	5180	vf0	-21.5	-20.5	0.0	0.0	-18.0	28	-46.0
50	5185	vf0	-15.9	-15	0.0	0.0	-12.4	28	-40.4
50	5190	vf0	-11.7	-10.9	0.1	0.1	-8.3	28	-36.3
50	5195	vf0	-9.9	-9.4	0.1	0.1	-6.6	28	-34.6
50	5200	vf0	-8	-7.4	0.2	0.2	-4.7	28	-32.7
50	5205	vf0	-7.2	-6.6	0.2	0.2	-3.9	28	-31.9
50	5225	vf0	-7.3	-6.9	0.2	0.2	-4.1	28	-32.1
60	5185	vf0	-21.5	-20.7	0.0	0.0	-18.1	28	-46.1
60	5190	vf0	-18.9	-17.4	0.0	0.0	-15.1	28	-43.1
60	5195	vf0	-12.7	-12.1	0.1	0.1	-9.4	28	-37.4
60	5200	vf0	-10.7	-10.2	0.1	0.1	-7.4	28	-35.4
60	5220	vf0	-10.9	-10.4	0.1	0.1	-7.6	28	-35.6
80	5190	ve00	-24.8	-24.2	0.0	0.0	-21.5	28	-49.5
80	5195	ve00	-21.2	-20.3	0.0	0.0	-17.7	28	-45.7
80	5200	ve00	-17.3	-16.5	0.0	0.0	-13.9	28	-41.9
80	5210	ve00	-11.2	-10.6	0.1	0.1	-7.9	28	-35.9



Output Power for 28 dBi PtoP Antenna									
Bandwidth	Test Frequency	Data Rate	J7 Level	J13 Level	J7 Level	J8 Level	Combined output power	Limit	Margin
MHz	MHz		dBm	dBm	mW	mW	dBm	dBm	dB
10	5165	vt0	-5.1	-2.7	0.3	0.5	-0.7	25	-25.7
10	5200	vt0	-5	-2.6	0.3	0.5	-0.6	25	-25.6
10	5245	vt0	-5.2	-3.3	0.3	0.5	-1.1	25	-26.1
20	5165	vt0	-20.9	-19.9	0.0	0.0	-17.4	25	-42.4
20	5170	vt0	-12.3	-11.9	0.1	0.1	-9.1	25	-34.1
20	5175	vt0	-5.6	-3.6	0.3	0.4	-1.5	25	-26.5
20	5180	vt0	-2.3	-1.1	0.6	0.8	1.4	25	-23.6
20	5200	vt0	-2.4	-1.9	0.6	0.6	0.9	25	-24.1
20	5240	vt0	-2.8	-2.4	0.5	0.6	0.4	25	-24.6
30	5170	vt0	-24	-23.1	0.0	0.0	-20.5	25	-45.5
30	5175	vt0	-15.3	-14.7	0.0	0.0	-12.0	25	-37.0
30	5180	vt0	-11.5	-10.1	0.1	0.1	-7.7	25	-32.7
30	5185	vt0	-8	-7.3	0.2	0.2	-4.6	25	-29.6
30	5190	vt0	-4.7	-2.6	0.3	0.5	-0.5	25	-25.5
30	5200	vt0	-4.9	-2.5	0.3	0.6	-0.5	25	-25.5
30	5235	vt0	-5	-3.1	0.3	0.5	-0.9	25	-25.9
40	5175	vf0	-24.2	-22.8	0.0	0.0	-20.4	25	-45.4
40	5180	vf0	-16.8	-16.8	0.0	0.0	-13.8	25	-38.8
40	5185	vf0	-13.7	-13.1	0.0	0.0	-10.4	25	-35.4
40	5190	vf0	-12.3	-11.4	0.1	0.1	-8.8	25	-33.8
40	5195	vf0	-10	-9.6	0.1	0.1	-6.8	25	-31.8
40	5200	vf0	-8.3	-7.2	0.1	0.2	-4.7	25	-29.7
40	5230	vf0	-8.4	-7.9	0.1	0.2	-5.1	25	-30.1
50	5180	vf0	-24.5	-23.5	0.0	0.0	-21.0	25	-46.0
50	5185	vf0	-18.9	-18	0.0	0.0	-15.4	25	-40.4
50	5190	vf0	-14.7	-13.9	0.0	0.0	-11.3	25	-36.3
50	5195	vf0	-12.9	-12.4	0.1	0.1	-9.6	25	-34.6
50	5200	vf0	-11	-10.4	0.1	0.1	-7.7	25	-32.7
50	5205	vf0	-10.2	-9.6	0.1	0.1	-6.9	25	-31.9
50	5225	vf0	-10.3	-9.9	0.1	0.1	-7.1	25	-32.1
60	5185	vf0	-24.5	-23.7	0.0	0.0	-21.1	25	-46.1
60	5190	vf0	-21.9	-20.4	0.0	0.0	-18.1	25	-43.1
60	5195	vf0	-15.7	-15.1	0.0	0.0	-12.4	25	-37.4
60	5200	vf0	-13.7	-13.2	0.0	0.0	-10.4	25	-35.4
60	5220	vf0	-13.9	-13.4	0.0	0.0	-10.6	25	-35.6
80	5190	ve00	-27.8	-27.2	0.0	0.0	-24.5	25	-49.5
80	5195	ve00	-24.2	-23.3	0.0	0.0	-20.7	25	-45.7
80	5200	ve00	-20.3	-19.5	0.0	0.0	-16.9	25	-41.9
80	5210	ve00	-14.2	-13.6	0.0	0.0	-10.9	25	-35.9



Output Power for 30 dBi PtoMP Antenna									
Bandwidth	Test Frequency	Data Rate	J7 Level	J13 Level	J7 Level	J8 Level	Combined output power	Limit	Margin
MHz	MHz		dBm	dBm	mW	mW	dBm	dBm	dB
10	5165	vt0	-7.1	-4.7	0.2	0.3	-2.7	23	-25.7
10	5200	vt0	-7	-4.6	0.2	0.3	-2.6	23	-25.6
10	5245	vt0	-7.2	-5.3	0.2	0.3	-3.1	23	-26.1
20	5165	vt0	-22.9	-21.9	0.0	0.0	-19.4	23	-42.4
20	5170	vt0	-14.3	-13.9	0.0	0.0	-11.1	23	-34.1
20	5175	vt0	-7.6	-5.6	0.2	0.3	-3.5	23	-26.5
20	5180	vt0	-4.3	-3.1	0.4	0.5	-0.6	23	-23.6
20	5200	vt0	-4.4	-3.9	0.4	0.4	-1.1	23	-24.1
20	5240	vt0	-4.8	-4.4	0.3	0.4	-1.6	23	-24.6
30	5170	vt0	-26	-25.1	0.0	0.0	-22.5	23	-45.5
30	5175	vt0	-17.3	-16.7	0.0	0.0	-14.0	23	-37.0
30	5180	vt0	-13.5	-12.1	0.0	0.1	-9.7	23	-32.7
30	5185	vt0	-10	-9.3	0.1	0.1	-6.6	23	-29.6
30	5190	vt0	-6.7	-4.6	0.2	0.3	-2.5	23	-25.5
30	5200	vt0	-6.9	-4.5	0.2	0.4	-2.5	23	-25.5
30	5235	vt0	-7	-5.1	0.2	0.3	-2.9	23	-25.9
40	5175	vf0	-26.2	-24.8	0.0	0.0	-22.4	23	-45.4
40	5180	vf0	-18.8	-18.8	0.0	0.0	-15.8	23	-38.8
40	5185	vf0	-15.7	-15.1	0.0	0.0	-12.4	23	-35.4
40	5190	vf0	-14.3	-13.4	0.0	0.0	-10.8	23	-33.8
40	5195	vf0	-12	-11.6	0.1	0.1	-8.8	23	-31.8
40	5200	vf0	-10.3	-9.2	0.1	0.1	-6.7	23	-29.7
40	5230	vf0	-10.4	-9.9	0.1	0.1	-7.1	23	-30.1
50	5180	vf0	-26.5	-25.5	0.0	0.0	-23.0	23	-46.0
50	5185	vf0	-20.9	-20	0.0	0.0	-17.4	23	-40.4
50	5190	vf0	-16.7	-15.9	0.0	0.0	-13.3	23	-36.3
50	5195	vf0	-14.9	-14.4	0.0	0.0	-11.6	23	-34.6
50	5200	vf0	-13	-12.4	0.1	0.1	-9.7	23	-32.7
50	5205	vf0	-12.2	-11.6	0.1	0.1	-8.9	23	-31.9
50	5225	vf0	-12.3	-11.9	0.1	0.1	-9.1	23	-32.1
60	5185	vf0	-26.5	-25.7	0.0	0.0	-23.1	23	-46.1
60	5190	vf0	-23.9	-22.4	0.0	0.0	-20.1	23	-43.1
60	5195	vf0	-17.7	-17.1	0.0	0.0	-14.4	23	-37.4
60	5200	vf0	-15.7	-15.2	0.0	0.0	-12.4	23	-35.4
60	5220	vf0	-15.9	-15.4	0.0	0.0	-12.6	23	-35.6
80	5190	ve00	-29.8	-29.2	0.0	0.0	-26.5	23	-49.5
80	5195	ve00	-26.2	-25.3	0.0	0.0	-22.7	23	-45.7
80	5200	ve00	-22.3	-21.5	0.0	0.0	-18.9	23	-41.9
80	5210	ve00	-16.2	-15.6	0.0	0.0	-12.9	23	-35.9