



Annex A

Output Power



Output Power for 10dBi Gain PtoMP Antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	TP	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	20	17.5	18.7	56.5	74.1	21.2	26	-4.8
10	5800	vt0	20	16.8	18.8	47.9	75.9	20.9	26	-5.1
10	5840	vt0	20	16.5	17.7	44.7	58.9	20.2	26	-5.8
20	5740	vt0	19	16.5	16.5	44.7	44.7	19.5	26	-6.5
20	5800	vt0	20	16.8	18.8	47.9	75.9	20.9	26	-5.1
20	5835	vt0	20	16.3	18.1	42.7	64.6	20.3	26	-5.7
30	5745	vt0	18	15.5	15.1	35.5	32.4	18.3	26	-7.7
30	5800	vt0	20	15.8	19.0	38.0	79.4	20.7	26	-5.3
30	5830	vt0	19	14.7	17.3	29.5	53.7	19.2	26	-6.8
40	5750	vf0	17	13.2	13.9	20.9	24.5	16.6	26	-9.4
40	5800	vf0	20	16.8	17.3	47.9	53.7	20.1	26	-5.9
40	5825	vf0	19	15.4	17.1	34.7	51.3	19.3	26	-6.7

Output Power for 13dBi gain PtoMP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	14.5	15.7	28.3	37.2	18.2	23	-4.8
10	5800	vt0	13.8	15.8	24.0	38.0	17.9	23	-5.1
10	5840	vt0	13.5	14.7	22.4	29.5	17.2	23	-5.8
20	5740	vt0	13.5	13.5	22.4	22.4	16.5	23	-6.5
20	5800	vt0	13.8	15.8	24.0	38.0	17.9	23	-5.1
20	5835	vt0	13.3	15.1	21.4	32.4	17.3	23	-5.7
30	5745	vt0	12.5	12.1	17.8	16.2	15.3	23	-7.7
30	5800	vt0	12.8	16.0	19.1	39.8	17.7	23	-5.3
30	5830	vt0	11.7	14.3	14.8	26.9	16.2	23	-6.8
40	5750	vf0	10.2	10.9	10.5	12.3	13.6	23	-9.4
40	5800	vf0	13.8	14.3	24.0	26.9	17.1	23	-5.9
40	5825	vf0	12.4	14.1	17.4	25.7	16.3	23	-6.7



Output Power for 16dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	11.5	12.7	14.2	18.6	15.2	30	-26.1
10	5800	vt0	10.8	12.8	12.0	19.1	14.9	30	-26.1
10	5840	vt0	10.5	11.7	11.2	14.8	14.2	30	-27.0
20	5740	vt0	10.5	10.5	11.2	11.2	13.5	30	-30.9
20	5800	vt0	10.8	12.8	12.0	19.1	14.9	30	-29.0
20	5835	vt0	10.3	12.1	10.7	16.2	14.3	30	-29.6
30	5745	vt0	9.5	9.1	8.9	8.1	12.3	30	-33.6
30	5800	vt0	9.8	13.0	9.5	20.0	14.7	30	-30.8
30	5830	vt0	8.7	11.3	7.4	13.5	13.2	30	-32.5
40	5750	vf0	7.2	7.9	5.2	6.2	10.6	30	-36.5
40	5800	vf0	10.8	11.3	12.0	13.5	14.1	30	-32.7
40	5825	vf0	9.4	11.1	8.7	12.9	13.3	30	-33.6

Output Power for 17dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	10.5	11.7	11.3	14.8	14.2	30	-27.1
10	5800	vt0	9.8	11.8	9.5	15.1	13.9	30	-27.1
10	5840	vt0	9.5	10.7	8.9	11.7	13.2	30	-28.0
20	5740	vt0	9.5	9.5	8.9	8.9	12.5	30	-31.9
20	5800	vt0	9.8	11.8	9.5	15.1	13.9	30	-30.0
20	5835	vt0	9.3	11.1	8.5	12.9	13.3	30	-30.6
30	5745	vt0	8.5	8.1	7.1	6.5	11.3	30	-34.6
30	5800	vt0	8.8	12.0	7.6	15.8	13.7	30	-31.8
30	5830	vt0	7.7	10.3	5.9	10.7	12.2	30	-33.5
40	5750	vf0	6.2	6.9	4.2	4.9	9.6	30	-37.5
40	5800	vf0	9.8	10.3	9.5	10.7	13.1	30	-33.7
40	5825	vf0	8.4	10.1	6.9	10.2	12.3	30	-34.6



Output Power for 19dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	8.5	9.7	7.1	9.3	12.2	30	-29.1
10	5800	vt0	7.8	9.8	6.0	9.5	11.9	30	-29.1
10	5840	vt0	7.5	8.7	5.6	7.4	11.2	30	-30.0
20	5740	vt0	7.5	7.5	5.6	5.6	10.5	30	-33.9
20	5800	vt0	7.8	9.8	6.0	9.5	11.9	30	-32.0
20	5835	vt0	7.3	9.1	5.4	8.1	11.3	30	-32.6
30	5745	vt0	6.5	6.1	4.5	4.1	9.3	30	-36.6
30	5800	vt0	6.8	10.0	4.8	10.0	11.7	30	-33.8
30	5830	vt0	5.7	8.3	3.7	6.8	10.2	30	-35.5
40	5750	vf0	4.2	4.9	2.6	3.1	7.6	30	-39.5
40	5800	vf0	7.8	8.3	6.0	6.8	11.1	30	-35.7
40	5825	vf0	6.4	8.1	4.4	6.5	10.3	30	-36.6

Output Power for 20dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	7.5	8.7	5.6	7.4	11.2	30	-30.1
10	5800	vt0	6.8	8.8	4.8	7.6	10.9	30	-30.1
10	5840	vt0	6.5	7.7	4.5	5.9	10.2	30	-31.0
20	5740	vt0	6.5	6.5	4.5	4.5	9.5	30	-34.9
20	5800	vt0	6.8	8.8	4.8	7.6	10.9	30	-33.0
20	5835	vt0	6.3	8.1	4.3	6.5	10.3	30	-33.6
30	5745	vt0	5.5	5.1	3.5	3.2	8.3	30	-37.6
30	5800	vt0	5.8	9.0	3.8	7.9	10.7	30	-34.8
30	5830	vt0	4.7	7.3	3.0	5.4	9.2	30	-36.5
40	5750	vf0	3.2	3.9	2.1	2.5	6.6	30	-40.5
40	5800	vf0	6.8	7.3	4.8	5.4	10.1	30	-36.7
40	5825	vf0	5.4	7.1	3.5	5.1	9.3	30	-37.6



Output Power for 21dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	6.5	7.7	4.5	5.9	10.2	30	-31.1
10	5800	vt0	5.8	7.8	3.8	6.0	9.9	30	-31.1
10	5840	vt0	5.5	6.7	3.5	4.7	9.2	30	-32.0
20	5740	vt0	5.5	5.5	3.5	3.5	8.5	30	-35.9
20	5800	vt0	5.8	7.8	3.8	6.0	9.9	30	-34.0
20	5835	vt0	5.3	7.1	3.4	5.1	9.3	30	-34.6
30	5745	vt0	4.5	4.1	2.8	2.6	7.3	30	-38.6
30	5800	vt0	4.8	8.0	3.0	6.3	9.7	30	-35.8
30	5830	vt0	3.7	6.3	2.3	4.3	8.2	30	-37.5
40	5750	vf0	2.2	2.9	1.7	1.9	5.6	30	-41.5
40	5800	vf0	5.8	6.3	3.8	4.3	9.1	30	-37.7
40	5825	vf0	4.4	6.1	2.8	4.1	8.3	30	-38.6

Output Power for 22dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	5.5	6.7	3.6	4.7	9.2	30	-32.1
10	5800	vt0	4.8	6.8	3.0	4.8	8.9	30	-32.1
10	5840	vt0	4.5	5.7	2.8	3.7	8.2	30	-33.0
20	5740	vt0	4.5	4.5	2.8	2.8	7.5	30	-36.9
20	5800	vt0	4.8	6.8	3.0	4.8	8.9	30	-35.0
20	5835	vt0	4.3	6.1	2.7	4.1	8.3	30	-35.6
30	5745	vt0	3.5	3.1	2.2	2.0	6.3	30	-39.6
30	5800	vt0	3.8	7.0	2.4	5.0	8.7	30	-36.8
30	5830	vt0	2.7	5.3	1.9	3.4	7.2	30	-38.5
40	5750	vf0	1.2	1.9	1.3	1.5	4.6	30	-42.5
40	5800	vf0	4.8	5.3	3.0	3.4	8.1	30	-38.7
40	5825	vf0	3.4	5.1	2.2	3.2	7.3	30	-39.6



Output Power for 30dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	-2.5	-1.3	0.6	0.7	1.2	30	-40.1
10	5800	vt0	-3.2	-1.2	0.5	0.8	0.9	30	-40.1
10	5840	vt0	-3.5	-2.3	0.4	0.6	0.2	30	-41.0
20	5740	vt0	-3.5	-3.5	0.4	0.4	-0.5	30	-44.9
20	5800	vt0	-3.2	-1.2	0.5	0.8	0.9	30	-43.0
20	5835	vt0	-3.7	-1.9	0.4	0.6	0.3	30	-43.6
30	5745	vt0	-4.5	-4.9	0.4	0.3	-1.7	30	-47.6
30	5800	vt0	-4.2	-1.0	0.4	0.8	0.7	30	-44.8
30	5830	vt0	-5.3	-2.7	0.3	0.5	-0.8	30	-46.5
40	5750	vf0	-6.8	-6.1	0.2	0.2	-3.4	30	-50.5
40	5800	vf0	-3.2	-2.7	0.5	0.5	0.1	30	-46.7
40	5825	vf0	-4.6	-2.9	0.3	0.5	-0.7	30	-47.6

Output Power for 31dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	-3.5	-2.3	0.4	0.6	0.2	30	-41.1
10	5800	vt0	-4.2	-2.2	0.4	0.6	-0.1	30	-41.1
10	5840	vt0	-4.5	-3.3	0.4	0.5	-0.8	30	-42.0
20	5740	vt0	-4.5	-4.5	0.4	0.4	-1.5	30	-45.9
20	5800	vt0	-4.2	-2.2	0.4	0.6	-0.1	30	-44.0
20	5835	vt0	-4.7	-2.9	0.3	0.5	-0.7	30	-44.6
30	5745	vt0	-5.5	-5.9	0.3	0.3	-2.7	30	-48.6
30	5800	vt0	-5.2	-2.0	0.3	0.6	-0.3	30	-45.8
30	5830	vt0	-6.3	-3.7	0.2	0.4	-1.8	30	-47.5
40	5750	vf0	-7.8	-7.1	0.2	0.2	-4.4	30	-51.5
40	5800	vf0	-4.2	-3.7	0.4	0.4	-0.9	30	-47.7
40	5825	vf0	-5.6	-3.9	0.3	0.4	-1.7	30	-48.6



Output Power for 34dBi gain PtoP antennas

Bandwidth (MHz)	Frequency (MHz)	Data Rate	J7 Level (dBm)	J8 Level (dBm)	J7 Level (mW)	J8 Level (mW)	Total Summed Power (dBm)	Limit (dBm)	Margin (dB)
10	5735	vt0	-6.5	-5.3	0.2	0.3	-2.8	30	-44.1
10	5800	vt0	-7.2	-5.2	0.2	0.3	-3.1	30	-44.1
10	5840	vt0	-7.5	-6.3	0.2	0.2	-3.8	30	-45.0
20	5740	vt0	-7.5	-7.5	0.2	0.2	-4.5	30	-48.9
20	5800	vt0	-7.2	-5.2	0.2	0.3	-3.1	30	-47.0
20	5835	vt0	-7.7	-5.9	0.2	0.3	-3.7	30	-47.6
30	5745	vt0	-8.5	-8.9	0.1	0.1	-5.7	30	-51.6
30	5800	vt0	-8.2	-5.0	0.2	0.3	-3.3	30	-48.8
30	5830	vt0	-9.3	-6.7	0.1	0.2	-4.8	30	-50.5
40	5750	vf0	-10.8	-10.1	0.1	0.1	-7.4	30	-54.5
40	5800	vf0	-7.2	-6.7	0.2	0.2	-3.9	30	-50.7
40	5825	vf0	-8.6	-6.9	0.1	0.2	-4.7	30	-51.6