

(Excerpted from Technical Appendix, p. 6-7)

Table 5. QPSK Uplink Parameter Examples

Location	LA	NY	Miami	San F.	Seattle	Minn.	Chi	Fargo	Dallas	Houst.
Elevation, deg	45.1	30.5	41.7	44.4	33.5	36.4	37.8	31.5	46.2	49.4
Pwr into Antenna, dBW	7.2	12.8	21.9	10.0	10.2	12.1	14.0	7.9	10.9	15.1
Loss, dB	208.8	209.1	208.8	208.8	209.0	208.9	208.9	209.0	208.8	208.7
Pwr Density, dBW/Hz	-66.6	-61.0	-51.9	-63.8	-63.6	-61.7	-59.8	-65.9	-62.9	-58.7
Pk E.i.r.p, dBW	61.5	67.1	76.2	64.3	64.5	66.4	68.3	62.2	65.2	69.4
E.i.r.p Density, dBW/Hz	-12.3	-6.7	2.40	-9.50	-9.30	-7.40	-5.50	-11.6	-8.6	-4.44
G/T, dBi/K	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
C/N+I, dB	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SFD, dBW/m ²	-90.1	-84.7	-75.4	-87.3	-87.3	-85.3	-83.4	-89.6	-86.3	-82.1

Table 6. QPSK Downlink Parameter Examples

Location	LA	NY	Miami	San F.	Seattle	Minn.	Chi	Fargo	Dallas	Houst.
Pwr into Antenna, dBW	4.50	7.70	11.3	6.1	6.35	7.26	8.15	5.10	6.60	8.50
Loss, dB	205.8	206.1	205.9	205.8	206.0	206.0	205.9	206.0	205.8	205.8
Pwr Density, dBW/Hz	-69.4	-66.1	-62.5	-67.8	-67.5	-66.5	-65.7	-68.8	-67.3	-65.3
Pk E.i.r.p, dBW	53.8	57.1	60.7	55.5	55.8	56.7	57.6	54.5	56.0	57.9
E.i.r.p Density, dBW/Hz	-20.0	-16.7	-13.1	-18.4	-18.1	-17.1	-16.3	-19.4	-17.9	-15.9
Gamma, dB	-19.0	-17.6	-16.5	-18.2	-18.1	-17.7	-17.3	-18.7	-17.9	-17.1
Equiv. Link Temp., K	186.7	256.6	331.9	224.6	227.1	249.9	270.7	195.0	237.3	282.1
PFD, dBW/MHz/m ²	-122.4	-119.5	-115.6	-120.8	-120.7	-119.7	-118.8	-122.0	-120.3	-118.3
Transp Gain, dB	154.9	158.1	161.7	156.4	156.8	157.7	158.6	155.5	157.0	159.0

Table 7. 8PSK Uplink Parameter Examples

Location	LA	NY	Miami	San F.	Seattle	Minn.	Chi	Fargo	Dallas	Houst.
Elevation, deg	45.1	30.5	41.7	44.4	33.5	36.4	37.8	31.5	46.2	49.4
Pwr into Antenna, dBW	7.5	13.13	22.2	10.3	10.5	12.4	14.4	8.25	11.22	15.4
Loss, dB	208.8	209.1	208.8	208.8	209.0	208.9	208.9	209.0	208.8	208.7
Pwr Density, dBW/Hz	-66.65	-61.0	-52.0	-63.85	-63.65	-61.75	-59.8	-65.9	-62.93	-58.7
Pk E.i.r.p, dBW	61.8	67.4	76.5	64.6	64.8	66.70	68.65	62.6	65.5	69.7
E.i.r.p Density, dBW/Hz	-12.35	-6.72	2.35	-9.55	-9.35	-7.45	-5.50	-11.60	-8.63	-4.43
G/T, dBi/K	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
C/N+I, dB	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
SFD, dBW/m ²	-89.8	-84.4	-75.1	-87.0	-87.0	-85.0	-83.0	-89.2	-86.0	-81.8

Table 8. 8PSK Downlink Parameter Examples

Location	LA	NY	Miami	San F.	Seattle	Minn.	Chi	Fargo	Dallas	Houst.
Pwr into Antenna, dBW	7.26	10.5	14.1	8.9	9.15	10.1	11.0	7.81	9.4	11.3
Loss, dB	205.8	206.1	205.9	205.8	206.0	206.0	205.9	206.0	205.8	205.7
Prw Density, dBW/Hz	-66.9	-63.6	-60.1	-65.3	-65.0	-64.1	-63.2	-66.3	-64.8	-62.9
Pk E.i.r.p, dBW	56.7	59.9	63.5	58.3	58.6	59.5	60.4	57.2	58.8	60.7
E.i.r.p Density, dBW/Hz	-17.5	-14.3	-10.7	-15.9	-15.6	-14.7	-13.8	-16.9	-15.4	-13.5
Gamma, dB	-16.5	-15.1	-14.0	-15.7	-15.6	-15.2	-14.9	-16.3	-15.4	-14.7
Equiv Link Temp, K	193.0	265.3	343.1	232.2	234.8	258.4	279.8	201.5	245.3	291.5
PFD, dBW/MHz/m ²	-119.9	-117.0	-113.2	-118.4	-118.3	-117.3	-116.4	-119.6	-117.8	-115.8
Transp Gain, dB	157.4	160.6	164.2	158.9	159.3	160.2	161.1	157.9	159.5	161.4