



<b>Edge of coverage AOR (dB)</b>	4.0	4.0	4.0	4.0	4.0	4.0	4.0
<b>(C/I)<sub>Up-Intrasystem</sub> (dB)</b>	30.0	30.0	30.0	30.0	30.0	30.0	30.0
<b>(C/I)<sub>Up-ASI</sub> (dBW)</b>	32.2	24.2	20.7	26.7	26.7	32.2	36.0
<b>Boltzmanns constant</b>	-228.6	-228.6	228.6	-228.6	-228.6	-228.6	-228.6
<b>(C/N)<sub>Uplink Thermal</sub> (dB)</b>	26.5	18.6	15.1	21.1	21.1	26.5	30.4
<b>C/(N<sub>thermal</sub>+N<sub>ASI</sub>+N<sub>Intrasystem</sub>) (dB)</b>	24.2	17.3	13.9	19.6	19.6	24.2	26.6

**Downlink parameters**

	<b>D1</b>	<b>D2</b>	<b>D3</b>	<b>D4</b>	<b>D5</b>	<b>D6</b>	<b>D7</b>
<b>Downlink Frequency (MHz)</b>	12000	12000	12000	12000	12000	12000	12000
<b>Beam peak EIRP density (dBW/Hz)</b>	-26	-26	-26	-26	-26	-26	-26
<b>Downlink EIRP/Carrier (dBW)</b>	21.48	29.29	34.25	36.55	42.67	49.56	51.22
<b>Edge of coverage USA (dB)</b>	3.0	6.0	6.0	6.0	6.0	3.0	6.0
<b>Downlink EIRP/Carrier at EOC (dBW)</b>	18.48	23.29	28.25	30.55	36.67	46.56	45.22
<b>Rx E/S Antenna Diameter (Metres)</b>	0.90	1.80	4.50	1.80	2.40	0.90	1.80
<b>Rx Antenna Efficiency</b>	0.65	0.65	0.65	0.65	0.65	0.65	0.65
<b>Rx Antenna Gain (dB)</b>	39.2	45.2	53.2	45.2	47.7	39.2	45.2
<b>Rx System Noise temp (K)</b>	110.0	110.0	110.0	110.0	110.0	110.0	110.0
<b>Rx E/S G/T (dB/K)</b>	18.8	24.8	32.8	24.8	27.3	18.8	24.8
<b>Antenna mispointing error (dB)</b>	0.5	0.5	0.5	0.5	0.5	0.5	0.5
<b>Atmospheric loss (dB)</b>	0.3	0.3	0.3	0.3	0.3	0.3	0.3
<b>Downlink Path loss (dB)</b>	206.4	206.4	206.4	206.4	206.4	206.4	206.4
<b>Downlink Rain Attenuation (dB)</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>(C/I)<sub>Dn Intra-system</sub> (dB)</b>	30.0	30.0	30.0	30.0	30.0	30.0	30.0
<b>(C/I)<sub>Down-ASI</sub> (dB)</b>	16.9	22.9	30.9	22.9	25.4	16.9	22.9
<b>Boltzmanns constant</b>	-228.6	-228.6	228.6	-228.6	-228.6	-228.6	-228.6

$(C/N)_{\text{Downlink Thermal}}$	11.1	14.2	22.1	14.2	16.7	11.2	14.2
$C/(N_{\text{thermal}}+N_{\text{ASI}}+N_{\text{intrasystem}})$	10.1	13.5	21.0	13.5	15.9	10.1	13.5

**End-to-End**

	<b>D1</b>	<b>D2</b>	<b>D3</b>	<b>D4</b>	<b>D5</b>	<b>D6</b>	<b>D7</b>
<b>(C/N+I) - Total Actual (dB)</b>	9.9	12.0	13.1	12.6	14.4	9.9	13.3
<b>(C/N+I) - Total Required(dB)</b>	7.4	7.4	10.8	7.4	9.9	5.6	8.7
<b>Margin (dB)</b>	2.5	4.6	2.3	5.2	4.5	4.3	4.6