

<b>Link Parameters</b>	<b>Units</b>	<b>1M34G7W</b>
Uplink frequency	GHz	14.18
Downlink frequency	GHz	11.88
User data rate	kbit/s	1544
Modulation		QPSK
Total coding rate		0.691
Number of carriers		22
Carrier bandwidth	kHz	1340
<b>Uplink:</b>		
Nominal E/S e.i.r.p. per carrier	dBW	54.8
Earth station diameter	m	1.2
Earth station gain	dBi	43.2
Uplink input power per carrier	dBW	11.6
Uplink input power density	dBW/Hz	-49.6
Atmospheric loss	dB	0.1
Free space path loss	dB	207.2
G/T satellite (-3 dB contour)	dB/K	-0.4
C/N thermal uplink	dB	14.4
<b>Downlink:</b>		
Satellite e.i.r.p. per carrier (-3dB contour)	dBW	29.8
Atmospheric loss	dB	0.1
Free space path loss	dB	205.7
Earth station diameter	m	1.8
Earth station gain	dBi	45.2
Noise temperature	K	120.0
Earth station G/T	dB/K	24.4
C/N thermal downlink	dB	15.7
<b>Adjacent Satellite 1:</b>		
Orbital separation	degrees	1.85
Uplink input power density	dBW/Hz	-45.0
Downlink e.i.r.p. density	dBW/Hz	-23.0
<b>Adjacent Satellite 2:</b>		
Orbital separation	degrees	2.05
Uplink input power density	dBW/Hz	-45.0
Downlink e.i.r.p. density	dBW/Hz	-23.0
<b>Link Degradations:</b>		
C/I IM, XPOL, ACI	dB	16.6
C/I uplink ASI	dB	14.8
C/I downlink ASI	dB	12.9
<b>Overall:</b>		
C/(N+I) overall	dB	7.7
C/(N+I) required	dB	5.7
Margin	dB	2.0