

<b>Link Parameters</b>	<b>Units</b>	<b>1M34G7W</b>
Uplink frequency	GHz	6.18
Downlink frequency	GHz	3.96
User data rate	kbit/s	1544
Modulation		QPSK
Total coding rate		0.691
Number of carriers		9
Carrier bandwidth	kHz	1340
<b>Uplink:</b>		
Nominal E/S e.i.r.p. per carrier	dBW	54.9
Earth station diameter	m	4.5
Earth station gain	dBi	47.4
Uplink input power per carrier	dBW	7.5
Uplink input power density	dBW/Hz	-53.8
Atmospheric loss	dB	0.1
Free space path loss	dB	200.0
G/T satellite (-3 dB contour)	dB/K	0.3
C/N thermal uplink	dB	22.4
<b>Downlink:</b>		
Satellite e.i.r.p. per carrier (-3dB contour)	dBW	26.3
Atmospheric loss	dB	0.1
Free space path loss	dB	196.1
Earth station diameter	m	3.7
Earth station gain	dBi	41.9
Noise temperature	K	100.0
Earth station G/T	dB/K	21.9
C/N thermal downlink	dB	19.3
<b>Adjacent Satellite 1:</b>		
Orbital separation	degrees	1.85
Uplink input power density	dBW/Hz	-41.8
Downlink e.i.r.p. density	dBW/Hz	-35.0
<b>Adjacent Satellite 2:</b>		
Orbital separation	degrees	2.05
Uplink input power density	dBW/Hz	-41.8
Downlink e.i.r.p. density	dBW/Hz	-35.0
<b>Link Degradations:</b>		
C/I IM, XPOL, ACI	dB	16.6
C/I uplink ASI	dB	11.7
C/I downlink ASI	dB	18.1
<b>Overall:</b>		
C/(N+I) overall	dB	9.1
C/(N+I) required	dB	5.7
Margin	dB	3.4