

Link Parameters	Units	48K6G7W
Uplink frequency	GHz	6.18
Downlink frequency	GHz	3.96
User data rate	kbit/s	56
Modulation		QPSK
Total coding rate		0.691
Number of carriers		617
Carrier bandwidth	kHz	48.6
Uplink:		
Nominal E/S e.i.r.p. per carrier	dBW	39.6
Earth station diameter	m	4.5
Earth station gain	dBi	47.4
Uplink input power per carrier	dBW	-7.8
Uplink input power density	dBW/Hz	-54.7
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	21.6
Downlink:		
Satellite e.i.r.p. per carrier (-3dB contour)	dBW	8.0
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	15.4
Adjacent Satellite 1:		
Orbital separation	degrees	1.85
Uplink input power density	dBW/Hz	-41.8
Downlink e.i.r.p. density	dBW/Hz	-35.0
Adjacent Satellite 2:		
Orbital separation	degrees	2.05
Uplink input power density	dBW/Hz	-41.8
Downlink e.i.r.p. density	dBW/Hz	-35.0
Link Degradations:		
C/I IM, XPOL, ACI	dB	14.7
C/I uplink ASI	dB	10.8
C/I downlink ASI	dB	14.2
Overall:		
C/(N+I) overall	dB	7.2
C/(N+I) required	dB	5.7
Margin	dB	1.5