

MSAT QPSK V Carrier EOC Link Budget			
		FORWARD	RETURN
PARAMETER	UNITS	(Hub to User)	(User to Hub)
Noise Bandwidth	kHz	4	4
Boltzmann's constant	dBW/Hz·°K	-228.6	-228.6
UPLINK		Clear	Clear
Frequency	GHz	13	1.64
Earth Station EIRP	dBW	52.5	12
Body Shielding Loss	dB	x	0
Polarization Loss	dB	x	-0.5
Free Space Loss	dB	-206.7	-188.8
Uplink Fade	dB	0	x
Satellite Antenna Gain, EOC	dBi	27	32
Received Carrier Power	dBW	-127.2	-145.3
Satellite G/T	dB/°K	-1	5
Intersystem Interference Allowance	dB	0.5	1
C/No	dB·Hz	72.9	55.3
C/Imo	dB·Hz	58	60
Frequency Reuse Allowance	dB	1	1
Satellite C/(No+Io)	dB·Hz	56.9	53.0
DOWNLINK			
Frequency	GHz	1.55	11
Satellite Active Gain	dB	123.3	122
Satellite Antenna Gain, EOC	dBi	32	27
Power Loss and Scan Loss	dB	0	x
Satellite EOC EIRP	dBW	28.1	3.7
Free Space Loss	dB	-188.5	-205.2
Downlink Fade	dB	x	0
Earth Station G/T	dB/°K	-16	38
Interference Allowance	dB	1	0.5
C/No	dB·Hz	51.2	64.6
LINK			
Link C/(No+Io)	dB·Hz	50.2	52.7
Required C/No	dB·Hz	45.0	45.0
Margin	dB	5.2	7.7