

MSAT DATA1 Carrier EOC Link Budget			
PARAMETER	UNITS	FORWARD (Hub to User)	RETURN (User to Hub)
Noise Bandwidth	kHz	168	168
Boltzmann's constant	dBW/Hz·K	-228.6	-228.6
UPLINK			
Frequency	GHz	Clear	Clear
Earth Station EIRP	dBW	13	1.64
Body Shielding Loss	dB	55.4	6.5
Polarization Loss	dB	x	0
Free Space Loss	dB	x	-0.5
Uplink Fade	dB	-206.7	-188.8
Satellite Antenna Gain, EOC	dB	0	0
Received Carrier Power	dBW	29	29
Satellite G/T	dB/K	-122.3	-153.78
Intersystem Interference Allowance	dB	-1	5
C/No	dB·Hz	0.5	1
C/No	dB·Hz	75.8	49.82
C/Imo	dB·Hz	74.3	76.3
Satellite C/(No+Io)	dB·Hz	71.9	49.8
DOWNLINK			
Frequency	GHz	1.55	11
Satellite Active Gain	dB	123.3	122
Satellite Antenna Gain, EOC	dB	29	29
Satellite EOC EIRP	dBW	30	-2.78
Free Space Loss	dB	-188.5	-205.2
Downlink Fade	dB	x	0
Earth Station G/T	dB/K	-25.3	36.5
Interference Allowance	dB	1	0.5
C/No	dB·Hz	43.8	56.62
LINK			
Link C/(No+Io)	dB·Hz	43.8	49.0
Required C/No	dB·Hz	41.2	41.2
Margin	dB	2.6	7.8