

<b>MSAT CW Carrier EOC Link Budget</b>			
<b>PARAMETER</b>	<b>UNITS</b>	<b>FORWARD (Hub to User)</b>	<b>RETURN (User to Hub)</b>
Noise Bandwidth	kHz	1	1
Boltzmann's constant	dBW/Hz·°K	-228.6	-228.6
<b>UPLINK</b>			
Frequency	GHz	Clear 13	Clear 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	0
Satellite Antenna Gain, EOC	dBi	29	29
Received Carrier Power	dBW	-125.2	-148.3
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	52.0	54.0
Satellite C/(No+Io)	dB·Hz	52.0	51.6
<b>DOWNLINK</b>			
Frequency	GHz	1.55	11
Satellite Active Gain	dB	123.3	122
Satellite Antenna Gain, EOC	dBi	29	29
Satellite EOC EIRP	dBW	27.1	2.7
Free Space Loss	dB	-188.5	-205.2
Downlink Fade	dB	x	0
Earth Station G/T	dB/°K	-16	36.5
Interference Allowance	dB	1	0.5
C/No	dB·Hz	50.2	62.1
<b>LINK</b>			
Link C/(No+Io)	dB·Hz	48.0	51.2
Required C/No	dB·Hz	45.0	45.0
Margin	dB	3.0	6.2