

<b>General:</b>	<b>Units</b>	<b>Clear Sky</b>	<b>Faded</b>
Emission Designator		3M67G7W	3M67G7W
Data Rate	Mbit/s	6.67	6.67
Modulation		8-PSK	8-PSK
Coding Rate		0.7470	0.7470
Carrier Bandwidth	MHz	3.7	3.7
Uplink Frequency	GHz	29.75	29.75
Downlink Frequency	GHz	19.95	19.95
Uplink Elevation Angle	degrees	35	35
Downlink Elevation Angle	degrees	35	35
<b>Uplink:</b>			
Tx E/S Antenna Diameter	m	0.74	0.74
Tx E/S Power to Antenna	W	2.0	2.0
Tx E/S Antenna Gain	dBi	45.6	45.6
Tx E/S EIRP per Carrier	dBW	48.6	48.6
Tx E/S Antenna Pointing Loss	dB	0.5	0.5
Atmospheric and Rain Losses	dB	0.5	3.7
Free Space Loss	dB	213.6	213.6
G/T toward Tx E/S (-3 dB)	dB/K	19	19
C/I - Intra-system	dB	22.3	22.3
<b>Downlink:</b>			
EIRP per Carrier towards Rx E/S	dBW	43.7	40.5
Atmospheric and Rain Losses	dB	0.5	4.5
Free Space Loss	dB	210.1	210.1
Rx E/S Antenna Pointing Loss	dB	0.5	0.5
Rx E/S Antenna Diameter	m	3.5	3.5
Rx E/S Antenna Gain	dBi	55.3	55.3
Rx E/S G/T	dB/K	31.3	29.2
System Noise Temp (LNA+Sky)	K	250	405
C/I - Intra-system	dB	16.3	16.3
<b>End-to-End:</b>			
C/N - Thermal Uplink	dB	16.8	13.6
C/I Up - ASI	dB	15.4	12.2
C/N - Thermal Downlink	dB	27.6	18.3
C/I Down - ASI	dB	29.2	26.0
C/(N+I) - Total Actual	dB	10.8	8.2
C/N - Required	dB	8.2	8.2
Excess Margin	dB	2.6	0.0