

<b>General:</b>	<b>Units</b>	<b>Clear Sky</b>	<b>Faded</b>
Emission Designator		250MG7W	250MG7W
Data Rate	Mbit/s	450	450
Modulation		8-PSK	8-PSK
Coding Rate		0.7470	0.7470
Carrier Bandwidth	MHz	250	250
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	3.5	3.5
Tx E/S Power to Antenna	W	20.4	512.9
Tx E/S Antenna Gain	dBi	58.9	58.9
Tx E/S EIRP per Carrier	dBW	72	86.0
Tx E/S Antenna Pointing Loss	dB	0.5	0.5
Atmospheric and Rain Losses	dB	0.5	14.5
Free Space Loss	dB	213.6	213.6
G/T (-2dB contour)	dB/K	20	20
C/I - Intra-system	dB	25.0	25.0
<b>Downlink:</b>			
EIRP per Carrier towards Rx E/S (-3dB)	dBW	64	64
Atmospheric and Rain Losses	dB	0.5	5.1
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	0.74	0.74
Rx E/S Antenna Gain	dBi	42.1	42.1
Rx E/S G/T	dB/K	18.6	16.1
System Noise Temp (LNA+Sky)	K	225	397
C/I - Intra-system	dB	20.1	20.1
<b>End-to-End:</b>			
C/N - Thermal Uplink	dB	22.8	22.8
C/I Up - ASI	dB	20.4	20.4
C/N - Thermal Downlink	dB	16.9	9.8
C/I Down - ASI	dB	18.0	18.0
C/(N+I) - Total Actual	dB	12.0	8.3
C/N - Required	dB	8.2	8.2
Excess Margin	dB	3.8	0.1