

General:	Units	Clear Sky	Faded
Emission Designator		500MG7D	500MG7D
Data Rate	Mbit/s	1107.0	1107.0
Modulation		16-APSK	16-APSK
Coding Rate		0.6642	0.6642
Carrier Bandwidth	MHz	500	500
Uplink Frequency	GHz	29.75	29.75
Downlink Frequency	GHz	19.95	19.95
Elevation Angle	degrees	35	35
Elevation Angle	degrees	35	35
Uplink:			
Tx E/S Antenna Diameter	m	7.3	7.3
Tx E/S Power to Antenna	W	10.2	257.0
Tx E/S Antenna Gain	dBi	64.9	64.9
Tx E/S EIRP per Carrier	dBW	75	89.0
Tx E/S Antenna Pointing Loss	dB	1.2	1.2
Atmospheric and Rain Losses	dB	0.5	14.5
Free Space Loss	dB	213.6	213.6
G/T (peak)	dB/K	16.1	16.1
C/I - Intra-system	dB	25.5	25.5
Downlink:			
EIRP per Carrier towards Rx E/S	dBW	62	62
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	1.8	1.8
Rx E/S Antenna Gain	dBi	49.7	49.7
Rx E/S G/T	dB/K	26.0	23.6
System Noise Temp (LNA+Sky)	K	235	407
C/I - Intra-system	dB	18.7	18.7
End-to-End:			
C/N - Thermal Uplink	dB	18.2	18.2
C/I Up - ASI	dB	18.9	32.9
C/N - Thermal Downlink	dB	19.3	12.9
C/I Down - ASI	dB	19.8	19.8
C/(N+I) - Total Actual	dB	11.8	10.3
C/N - Required	dB	10.3	10.3
Excess Margin	dB	1.5	0.0