

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
Uplink:			
Tx E/S Antenna Diameter	m	7.3	7.3
Tx E/S Power to Antenna	W	10.2	91.2
Tx E/S Antenna Gain	dBi	64.9	64.9
Tx E/S EIRP per Carrier	dBW	75.0	84.5
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	dB/K	20.2	20.2
C/I - Intra-system	dB	25.5	25.5
Downlink:			
EIRP per Carrier towards Rx E/S	dBW	63.3	63.3
Atmospheric and Rain Losses	dB	0.4	2.1
Free Space Loss	dB	210	210
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	24.5
System Noise Temp (LNA+Sky)	K	235	328
C/I - Intra-system	dB	18.7	18.7
End-to-End:			
C/N - Thermal Uplink	dB	22.3	17.8
C/I Up - ASI	dB	18.9	14.4
C/N - Thermal Downlink	dB	20.8	17.7
C/I Down - ASI	dB	21.2	21.2
C/(N+I) - Total Actual	dB	12.9	10.3
C/N - Required	dB	10.3	10.3
Excess Margin	dB	2.7	0.0