

General:	Units	Clear Sky	Faded
Emission Designator		110MG7D	110MG7D
Data Rate	Mbit/s	1217.7	1217.7
Modulation		QPSK	QPSK
Coding Rate		0.7970	0.7970
Carrier Bandwidth	MHz	110	110
Uplink Frequency	GHz	28.4	28.4
Downlink Frequency	GHz	18.6	18.6
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	21.1	210.9
Tx E/S Antenna Gain	dBi	64.9	64.9
Tx E/S EIRP per Carrier	dBW	78.1	88.1
Tx E/S Antenna Pointing Loss	dB	1.2	1.2
Atmospheric and Rain Losses	dB	0.5	10.5
Free Space Loss	dB	213.2	213.2
G/T toward Tx E/S (-3 dB)	dB/K	3.5	3.5
C/I - Intra-system	dB	30.0	30.0
Downlink:			
EIRP per Carrier towards Rx E/S (-3 dB)	dBW	58.2	58.2
Atmospheric and Rain Losses	dB	0.3	5.1
Free Space Loss	dB	209.5	209.5
Rx E/S Antenna Pointing Loss	dB	0.5	0.5
Rx E/S Antenna Diameter	m	0.67	0.67
Rx E/S Antenna Gain	dBi	40.4	40.4
Rx E/S G/T	dB/K	18.4	15.1
System Noise Temp (LNA+Sky)	K	160	343
C/I - Intra-system	dB	30.0	30.0
End-to-End:			
C/N - Thermal Uplink	dB	15.7	15.7
C/I Up - ASI	dB	29.0	29.0
C/N - Thermal Downlink	dB	15.2	7.1
C/I Down - ASI	dB	10.7	10.7
C/(N+I) - Total Actual	dB	8.4	5.1
C/N - Required	dB	5.1	5.1
Excess Margin	dB	3.3	0.0