

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	29.8	29.8
Downlink Frequency	GHz	20	20
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	19.2	191.5
Tx E/S Antenna Gain	dBi	65.3	65.3
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	213.6	213.6
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	0.5	5.7
Free Space Loss	dB	210.2	210.2
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	41.1	41.1
Rx E/S G/T	dB/K	19.0	15.5
System Noise Temp (LNA+Sky)	K	160	357
C/I - Intra-system	dB	30.0	30.0
End-to-End:			
C/N - Thermal Uplink	dB	15.3	15.3
C/I Up - ASI - 2 degree spacings	dB	29.4	29.4
C/I Up - ASI from Intelsat at 89W	dB	21.4	21.4
C/N - Thermal Downlink	dB	15.0	6.4
C/I Down - ASI - 2 degree spacings	dB	14.7	14.7
C/I Down - ASI from Intelsat at 89W	dB	24.9	24.9
C/(N+I) - Total Actual	dB	9.6	5.1
C/N - Required	dB	5.1	5.1
Excess Margin	dB	4.5	0.0