

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
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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	4.8
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	15.8
System Noise Temp (LNA+Sky)	K	160	338
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	7.5
C/I Down - ASI - 2 degree spacings	dB	10.7	10.7
C/I Down - ASI from Intelsat at 89W	dB	24.9	24.9
C/(N+I) - Total Actual	dB	8.0	5.1
C/N - Required	dB	5.1	5.1
Excess Margin	dB	2.9	0.0