

General:	Units	Clear Sky	Faded
Emission Designator		110MG7D	110MG7D
Data Rate	Mbit/s	121.8	121.8
Modulation		QPSK	QPSK
Coding Rate		0.7970	0.7970
Carrier Bandwidth	MHz	110	110
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	19.2	192.2
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	0.3	5.1
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	0.67	0.67
Rx E/S Antenna Gain	dBi	41.0	41.0
Rx E/S G/T	dB/K	17.5	15.7
System Noise Temp (LNA+Sky)	K	224	343
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	dB	28.6	28.6
C/N - Thermal Downlink	dB	13.8	7.1
C/I Down - ASI	dB	12.7	12.7
C/(N+I) - Total Actual	dB	8.9	5.5
C/N - Required	dB	5.1	5.1
Excess Margin	dB	3.8	0.4