

<b>General:</b>	<b>Units</b>	<b>Clear Sky</b>	<b>Faded</b>
Emission Designator		2M75G7D	2M75G7D
Data Rate	kbit/s	2853.0	2853.0
Modulation		QPSK	QPSK
Coding Rate		0.7470	0.7470
Carrier Bandwidth	kHz	2750	2750
Uplink Frequency	GHz	29.75	29.75
Downlink Frequency	GHz	19.95	19.95
<b>Uplink:</b>			
Tx E/S Antenna Diameter	m	0.95	0.95
Tx E/S Power to Antenna	W	5.0	5.0
Tx E/S Antenna Gain	dBi	47.6	47.6
Tx E/S EIRP per Carrier	dBW	54.5	54.5
Tx E/S Antenna Pointing Loss	dB	0.5	0.5
Atmospheric and Rain Losses	dB	0.5	3.7
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
<b>Downlink:</b>			
EIRP per Carrier towards Rx E/S (-3 dB)	dBW	37.9	34.7
Atmospheric and Rain Losses	dB	0.3	8
Free Space Loss	dB	210.1	210.1
Rx E/S Antenna Pointing Loss	dB	0.8	0.8
Rx E/S Antenna Diameter	m	7.3	7.3
Rx E/S Antenna Gain	dBi	61.8	61.8
Rx E/S G/T	dB/K	37.8	35.3
System Noise Temp (LNA+Sky)	K	250	442
C/I - Intra-system	dB	16.0	16.0
<b>End-to-End:</b>			
C/N - Thermal Uplink	dB	8.4	5.2
C/I Up - ASI	dB	22.5	19.3
C/N - Thermal Downlink	dB	29.5	16.1
C/I Down - ASI	dB	28.8	28.8
C/(N+I) - Total Actual	dB	7.5	4.4
C/N - Required	dB	4.4	4.4
Excess Margin	dB	3.1	0.0