

<b>General:</b>	<b>Units</b>	<b>Clear Sky</b>	<b>Faded</b>
Emission Designator		612KG7W	612KG7W
Data Rate	Mbit/s	0.24	0.24
Modulation		BPSK	BPSK
Coding Rate		0.5000	0.5000
Carrier Bandwidth	MHz	0.6	0.6
Uplink Frequency	GHz	29.75	29.75
Downlink Frequency	GHz	19.95	19.95
Uplink Elevation Angle	degrees	35	35
Downlink Elevation Angle	degrees	35	35
<b>Uplink:</b>			
Tx E/S Antenna Diameter	m	0.74	0.74
Tx E/S Power to Antenna	W	1.0	1.0
Tx E/S Antenna Gain	dBi	45.6	45.6
Tx E/S EIRP per Carrier	dBW	45.6	45.6
Tx E/S Antenna Pointing Loss	dB	0.5	0.5
Atmospheric and Rain Losses	dB	0.5	14
Free Space Loss	dB	213.6	213.6
G/T toward Tx E/S	dB/K	19	19
C/I - Intra-system	dB	15.7	15.7
<b>Downlink:</b>			
EIRP per Carrier towards Rx E/S	dBW	35.8	22.3
Atmospheric and Rain Losses	dB	0.5	12
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	3.5	3.5
Rx E/S Antenna Gain	dBi	55.3	55.3
Rx E/S G/T	dB/K	31.3	28.2
System Noise Temp (LNA+Sky)	K	250	512
C/I - Intra-system	dB	14.4	14.4
<b>End-to-End:</b>			
C/N - Thermal Uplink	dB	21.8	8.3
C/I Up - ASI	dB	19.4	19.4
C/N - Thermal Downlink	dB	27.8	-0.3
C/I Down - ASI	dB	28.4	14.9
C/(N+I) - Total Actual	dB	10.7	-1.2
C/N - Required	dB	-1.2	-1.2
Excess Margin	dB	12.0	0.0