

<b>General:</b>	<b>Units</b>	<b>Clear Sky</b>	<b>Faded</b>
Emission Designator		782KG7D	782KG7D
Data Rate	kbit/s	312.5	312.5
Modulation		BPSK	BPSK
Coding Rate		0.5000	0.5000
Carrier Bandwidth	kHz	781.25	781.25
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	0.67	0.67
Tx E/S Power to Antenna	W	1.7	1.7
Tx E/S Antenna Gain	dBi	44.4	44.4
Tx E/S EIRP per Carrier	dBW	46.7	46.7
Tx E/S Antenna Pointing Loss	dB	0.5	0.5
Atmospheric and Rain Losses	dB	0.5	14.5
Free Space Loss	dB	213.6	213.6
G/T toward Tx E/S	dB/K	19.5	19.5
C/I - Intra-system	dB	14.3	14.3
<b>Downlink:</b>			
EIRP per Carrier towards Rx E/S	dBW	30.1	16.1
Atmospheric and Rain Losses	dB	0.5	11.1
Free Space Loss	dB	210.1	210.1
Rx E/S Antenna Pointing Loss	dB	0.55	0.55
Rx E/S Antenna Diameter	m	7.3	7.3
Rx E/S Antenna Gain	dBi	61.5	61.5
Rx E/S G/T	dB/K	38.0	34.5
System Noise Temp (LNA+Sky)	K	250	506
C/I - Intra-system	dB	13.3	13.3
<b>End-to-End:</b>			
C/N - Thermal Uplink	dB	22.2	8.2
C/I Up - ASI	dB	19.4	19.4
C/N - Thermal Downlink	dB	27.6	-0.5
C/I Down - ASI	dB	27.8	27.8
C/(N+I) - Total Actual	dB	9.8	-1.4
C/N - Required	dB	-1.3	-1.3
Excess Margin	dB	11.1	0.0