

| General: | Units | Clear Sky | Faded |
|---------------------------------|--------------|------------------|--------------|
| Emission Designator | | 1M22G7W | 1M22G7W |
| Data Rate | Mbit/s | 1.95 | 1.95 |
| Modulation | | 8-PSK | 8-PSK |
| Coding Rate | | 0.6642 | 0.6642 |
| Carrier Bandwidth | MHz | 1.2 | 1.2 |
| 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 |
| Uplink: | | | |
| Tx E/S Antenna Diameter | m | 0.74 | 0.74 |
| Tx E/S Power to Antenna | W | 2.0 | 2.0 |
| Tx E/S Antenna Gain | dBi | 45.6 | 45.6 |
| Tx E/S EIRP per Carrier | dBW | 48.6 | 48.6 |
| Tx E/S Antenna Pointing Loss | dB | 0.5 | 0.5 |
| Atmospheric and Rain Losses | dB | 0.5 | 9.5 |
| Free Space Loss | dB | 213.6 | 213.6 |
| G/T toward Tx E/S | dB/K | 19 | 19 |
| C/I - Intra-system | dB | 20.9 | 20.9 |
| Downlink: | | | |
| EIRP per Carrier towards Rx E/S | dBW | 38.8 | 29.8 |
| Atmospheric and Rain Losses | dB | 0.5 | 6.2 |
| 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 | 28.8 |
| System Noise Temp (LNA+Sky) | K | 250 | 445 |
| C/I - Intra-system | dB | 16.0 | 16.0 |
| End-to-End: | | | |
| C/N - Thermal Uplink | dB | 21.8 | 12.8 |
| C/I Up - ASI | dB | 19.4 | 19.4 |
| C/N - Thermal Downlink | dB | 27.8 | 10.6 |
| C/I Down - ASI | dB | 28.4 | 19.4 |
| C/(N+I) - Total Actual | dB | 12.7 | 7.1 |
| C/N - Required | dB | 7.1 | 7.1 |
| Excess Margin | dB | 5.6 | 0.0 |