

| General: | Units | Clear Sky | Faded |
|--|--------------|------------------|--------------|
| Emission Designator | | 250MG7W | 250MG7W |
| Data Rate | Mbit/s | 450 | 450 |
| Modulation | | 8-PSK | 8-PSK |
| Coding Rate | | 0.7470 | 0.7470 |
| Carrier Bandwidth | MHz | 250 | 250 |
| 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 | 3.5 | 3.5 |
| Tx E/S Power to Antenna | W | 20.4 | 512.9 |
| Tx E/S Antenna Gain | dBi | 58.9 | 58.9 |
| Tx E/S EIRP per Carrier | dBW | 72 | 86.0 |
| 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 (-2dB contour) | dB/K | 20 | 20 |
| C/I - Intra-system | dB | 20.8 | 20.8 |
| Downlink: | | | |
| EIRP per Carrier towards Rx E/S (-3dB) | dBW | 64 | 64 |
| Atmospheric and Rain Losses | dB | 0.5 | 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 | 0.74 | 0.74 |
| Rx E/S Antenna Gain | dBi | 42.1 | 42.1 |
| Rx E/S G/T | dB/K | 18.6 | 16.1 |
| System Noise Temp (LNA+Sky) | K | 225 | 397 |
| C/I - Intra-system | dB | 20.1 | 20.1 |
| End-to-End: | | | |
| C/N - Thermal Uplink | dB | 22.8 | 22.8 |
| C/I Up - ASI | dB | 19.6 | 33.6 |
| C/N - Thermal Downlink | dB | 16.9 | 9.8 |
| C/I Down - ASI | dB | 17.2 | 17.2 |
| C/(N+I) - Total Actual | dB | 11.3 | 8.3 |
| C/N - Required | dB | 8.2 | 8.2 |
| Excess Margin | dB | 3.1 | 0.1 |