

| <b>Link Parameters</b>                        | <b>Units</b> | <b>36M0G7W</b> |
|---|--------------|----------------|
| Uplink frequency                              | GHz          | 6.20           |
| Downlink frequency                            | GHz          | 4.00           |
| User data rate                                | kbit/s       | 58200.0        |
| Modulation                                    |              | 8PSK           |
| Total coding rate                             |              | 0.641          |
| Carrier bandwidth                             | kHz          | 36000.0        |
| <b>Uplink:</b>                                |              |                |
| Nominal E/S e.i.r.p. per carrier              | dBW          | 76.0           |
| Earth station diameter                        | m            | 9.0            |
| Earth station gain                            | dBi          | 53.5           |
| Uplink input power per carrier                | dBW          | 22.5           |
| Uplink input power density                    | dBW/Hz       | -53.0          |
| Atmospheric loss                              | dB           | 0.1            |
| Free space path loss                          | dB           | 200.0          |
| G/T satellite (-3dB contour)                  | dB/K         | 1.2            |
| C/N thermal uplink                            | dB           | 30.1           |
| C/I XPOL, ACI, IM, ASI                        | dB           | 21.6           |
| C/(N+I) uplink                                | dB           | 21.0           |
| <b>Downlink:</b>                              |              |                |
| Satellite e.i.r.p. per carrier (-3dB contour) | dBW          | 39.5           |
| Atmospheric loss                              | dB           | 0.1            |
| Free space path loss                          | dB           | 196.2          |
| Earth station diameter                        | m            | 3.7            |
| Earth station gain                            | dBi          | 42.0           |
| Noise temperature                             | K            | 90.0           |
| Earth station G/T                             | dB/K         | 22.4           |
| C/N thermal downlink                          | dB           | 18.6           |
| C/I XPOL, ACI, IM, ASI                        | dB           | 14.2           |
| C/(N+I) downlink                              | dB           | 10.5           |
| <b>Overall:</b>                               |              |                |
| C/(N+I) overall                               | dB           | 10.1           |
| C/(N+I) required                              | dB           | 7.5            |
| System Margin                                 | dB           | 2.6            |