

| <b>Link Parameters</b>                        | <b>Units</b> | <b>346KG7W</b> | <b>461KG7W</b> | <b>1M84G7W</b> | <b>8M25G7W</b> |
|---|--------------|----------------|----------------|----------------|----------------|
| Uplink Frequency                              | GHz          | 6.050          | 6.050          | 6.050          | 6.050          |
| Downlink Frequency                            | GHz          | 3.825          | 3.825          | 3.825          | 3.825          |
| Carrier Allocated Bandwidth                   | kHz          | 346.0          | 461.0          | 1840.0         | 8250.0         |
| <b>Uplink:</b>                                |              |                |                |                |                |
| Noise BW (or energy dispersal for TV/FM)      | kHz          | 256            | 341.3          | 1365.3         | 6111.3         |
| Nominal E/S e.i.r.p. per carrier              | dBW          | 49.6           | 52.2           | 58.2           | 63.4           |
| Earth Station Diameter                        | m            | 4.5            | 7.2            | 11.0           | 4.5            |
| Earth Station Gain                            | dBi          | 47.2           | 51.3           | 55.0           | 47.2           |
| Uplink Input Power per Carrier                | dBW          | 2.4            | 0.9            | 3.2            | 16.2           |
| Free Space Loss                               | dB           | 199.8          | 199.9          | 199.9          | 199.9          |
| G/T Satellite                                 | dB/K         | -8.0           | -8.0           | -8.0           | -8.0           |
| C/N Thermal Uplink                            | dB           | 16.3           | 17.6           | 17.5           | 16.2           |
| C/I XPOL, ACI, IM, ASI                        | dB           | 15.6           | 16.9           | 16.9           | 15.6           |
| C/(N+I) uplink                                | dB           | 12.9           | 14.2           | 14.2           | 12.9           |
| <b>Downlink:</b>                              |              |                |                |                |                |
| Satellite e.i.r.p. per carrier (-4dB contour) | dBW          | 11.0           | 13.6           | 19.6           | 24.8           |
| Max e.i.r.p. Density                          | dBW/4KHz     | -3.1           | -1.7           | -1.8           | -3.1           |
| Max PFD                                       | dBW/m2/4kHz  | -165.2         | -163.8         | -163.9         | -165.2         |
| Free Space Loss                               | dB           | 195.5          | 195.5          | 195.5          | 195.5          |
| Earth Station Diameter                        | m            | 3.8            | 4.5            | 4.5            | 3.8            |
| Earth Station Gain                            | dBi          | 42.3           | 43.8           | 43.8           | 42.3           |
| Noise Temperature                             | kHz          | 95.0           | 95.0           | 95.0           | 95.0           |
| Earth Station G/T                             | dB/K         | 22.6           | 24.0           | 24.0           | 22.5           |
| C/N Thermal Downlink                          | dB           | 12.6           | 15.4           | 15.4           | 12.5           |
| C/I XPOL, ACI, IM, ASI                        | dB           | 15.3           | 18.1           | 18.1           | 15.3           |
| C/(N+I) downlink                              | dB           | 10.7           | 13.5           | 13.5           | 10.7           |
| <b>Adjacent satellite interference:</b>       |              |                |                |                |                |
| uplink input power dens @ 2 deg               | dBW/Hz       | -44            | -44            | -44            | -44            |
| downlink eirp dens @ 2 deg                    | dBW/Hz       | -37            | -37            | -37            | -37            |
| C/I up  | dB           | 18.57          | 19.92          | 19.90          | 18.59          |
| C/I dn  | dB           | 18.27          | 21.12          | 21.10          | 18.29          |
| Aggregate C/I up                              | dB           | 15.57          | 16.92          | 16.90          | 15.59          |
| Aggregate C/I dn                              | dB           | 15.27          | 18.12          | 18.10          | 15.29          |
| <b>Overall:</b>                               |              |                |                |                |                |
| C/(N+I) overall                               | dB           | 8.7            | 10.9           | 10.8           | 8.6            |
| C/(N+I) required                              | dB           | 6.0            | 9.3            | 9.3            | 6.9            |
| System Margin                                 | dB           | 2.7            | 1.6            | 1.5            | 1.7            |

| <b>36M0G7W</b> | <b>36M0F3F</b> |
|----------------|----------------|
| 6.280          | 6.050          |
| 4.055          | 3.825          |
| 36000.0        | 36000.0        |
|                |                |
| 30000          | 2000.0         |
| 77.0           | 73.1           |
| 13.0           | 13.0           |
| 56.8           | 56.3           |
| 20.2           | 16.8           |
| 200.6          | 199.9          |
| -11.5          | -7.0           |
| 18.7           | 19.2           |
| 22.3           | 17.6           |
| 17.1           | 15.3           |
|                |                |
| 33.6           | 33.3           |
| -1.2           | 10.3           |
| -163.3         | -151.8         |
| 196.0          | 195.5          |
| 3.8            | 4.5            |
| 42.3           | 43.8           |
| 95.0           | 95.0           |
| 22.5           | 24.0           |
| 14.0           | 14.9           |
| 17.2           | 17.6           |
| 12.3           | 13.0           |
|                |                |
| -44            | -44            |
| -37            | -37            |
| 25.28          | 20.59          |
| 20.18          | 20.59          |
| 22.28          | 17.59          |
| 17.18          | 17.59          |
|                |                |
| 11.0           | 11.0           |
| 6.9            | 10.0           |
| 4.1            | 1.0            |