

| <b>Link Parameters</b>                        | <b>Units</b> | <b>346KG7W</b> | <b>461KG7W</b> | <b>1M84G7W</b> | <b>8M25G7W</b> |
|---|--------------|----------------|----------------|----------------|----------------|
| Uplink Frequency                              | GHz          | 14.205         | 14.205         | 14.205         | 14.205         |
| Downlink Frequency                            | GHz          | 3.905          | 3.905          | 3.905          | 3.905          |
| 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           | 51.1           | 57.7           | 63.4           |
| Earth Station Diameter                        | m            | 1.8            | 2.4            | 3.7            | 2.4            |
| Earth Station Gain                            | dBi          | 49.6           | 49.1           | 52.9           | 49.1           |
| Uplink Input Power per Carrier                | dBW          | 0.0            | 2.0            | 4.8            | 14.3           |
| Free Space Loss                               | dB           | 207.7          | 207.7          | 207.7          | 207.7          |
| G/T Satellite                                 | dB/K         | 5.0            | 5.0            | 5.0            | 5.0            |
| C/N Thermal Uplink                            | dB           | 21.4           | 21.7           | 22.2           | 21.4           |
| C/I XPOL, ACI, IM, ASI                        | dB           | 21.6           | 21.8           | 22.4           | 21.6           |
| C/(N+I) uplink                                | dB           | 18.5           | 18.7           | 19.3           | 18.5           |
| <b>Downlink:</b>                              |              |                |                |                |                |
| Satellite e.i.r.p. per carrier (-5dB contour) | dBW          | 10.6           | 12.2           | 18.7           | 24.4           |
| Max e.i.r.p. Density                          | dBW/4KHz     | -2.5           | -2.1           | -1.7           | -2.5           |
| Max PFD                                       | dBW/m2/4kHz  | -164.6         | -164.2         | -163.8         | -164.6         |
| Free Space Loss                               | dB           | 196.1          | 196.1          | 196.1          | 196.1          |
| Earth Station Diameter                        | m            | 3.8            | 5.6            | 5.6            | 4.5            |
| Earth Station Gain                            | dBi          | 42.4           | 45.9           | 45.9           | 43.8           |
| Noise Temperature                             | kHz          | 95.0           | 95.0           | 95.0           | 95.0           |
| Earth Station G/T                             | dB/K         | 22.6           | 26.1           | 26.1           | 24.0           |
| C/N Thermal Downlink                          | dB           | 11.6           | 15.5           | 16.0           | 13.1           |
| C/I XPOL, ACI, IM, ASI                        | dB           | 15.0           | 18.8           | 19.3           | 16.4           |
| C/(N+I) downlink                              | dB           | 10.0           | 13.8           | 14.3           | 11.4           |
| <b>Adjacent satellite interference:</b>       |              |                |                |                |                |
| uplink input power dens @ 2 deg               | dBW/Hz       | -50            | -50            | -50            | -50            |
| downlink eirp dens @ 2 deg                    | dBW/Hz       | -37            | -37            | -37            | -37            |
| C/I up  | dB           | 24.57          | 24.82          | 25.40          | 24.59          |
| C/I dn  | dB           | 17.97          | 21.82          | 22.30          | 19.39          |
| Aggregate C/I up                              | dB           | 21.57          | 21.82          | 22.40          | 21.59          |
| Aggregate C/I dn                              | dB           | 14.97          | 18.82          | 19.30          | 16.39          |
| <b>Overall:</b>                               |              |                |                |                |                |
| C/(N+I) overall                               | dB           | 9.4            | 12.6           | 13.1           | 10.6           |
| C/(N+I) required                              | dB           | 6.0            | 9.3            | 9.3            | 6.9            |
| System Margin                                 | dB           | 3.4            | 3.3            | 3.8            | 3.7            |

| <b>72M0G7W</b> | <b>36M0F3F</b> |
|----------------|----------------|
| 14.205         | 14.205         |
| 3.905          | 3.905          |
| 72000.0        | 36000.0        |
|                |                |
| 63330          | 2000.0         |
| 80.6           | 72.4           |
| 5.6            | 5.6            |
| 56.5           | 56.5           |
| 24.1           | 15.9           |
| 207.7          | 207.7          |
| 5.0            | 5.0            |
| 28.5           | 22.7           |
| 28.6           | 22.9           |
| 25.6           | 19.8           |
|                |                |
| 32.0           | 28.4           |
| -5.0           | 6.4            |
| -167.1         | -155.7         |
| 196.1          | 196.1          |
| 9.0            | 9.0            |
| 50.0           | 50.0           |
| 95.0           | 95.0           |
| 30.2           | 30.2           |
| 16.7           | 15.6           |
| 20.0           | 18.9           |
| 15.1           | 13.9           |

|       |       |
|-------|-------|
| -50   | -50   |
| -37   | -37   |
| 31.64 | 25.89 |
| 23.04 | 21.89 |
| 28.64 | 22.89 |
| 20.04 | 18.89 |
|       |       |
| 14.7  | 12.9  |
| 12.7  | 10.0  |
| 2.0   | 2.9   |