

| <b>Link Parameters</b>                        | <b>Units</b> | <b>346KG7W</b> | <b>1M84G7W</b> | <b>8M25G7W</b> | <b>36M0G7W</b> |
|---|--------------|----------------|----------------|----------------|----------------|
| Uplink Frequency                              | GHz          | 6.280          | 6.280          | 6.280          | 6.280          |
| Downlink Frequency                            | GHz          | 4.055          | 4.055          | 4.055          | 4.055          |
| Carrier Allocated Bandwidth                   | kHz          | 346.0          | 1840.0         | 8250.0         | 36000.0        |
| <b>Uplink:</b>                                |              |                |                |                |                |
| Noise BW (or energy dispersal for TV/FM)      | kHz          | 256            | 1365.3         | 6111.3         | 30000          |
| Nominal E/S e.i.r.p. per carrier              | dBW          | 49.7           | 58.7           | 64.4           | 77.0           |
| Earth Station Diameter                        | m            | 4.5            | 11.0           | 4.5            | 13.0           |
| Earth Station Gain                            | dBi          | 47.5           | 55.3           | 47.5           | 56.8           |
| Uplink Input Power per Carrier                | dBW          | 2.2            | 3.4            | 16.9           | 20.2           |
| Free Space Loss                               | dB           | 200.6          | 200.6          | 200.6          | 200.6          |
| G/T Satellite                                 | dB/K         | -11.5          | -11.5          | -11.5          | -11.5          |
| C/N Thermal Uplink                            | dB           | 12.1           | 13.8           | 13.0           | 18.7           |
| C/I XPOL, ACI, IM, ASI                        | dB           | 15.7           | 17.4           | 16.6           | 22.3           |
| C/(N+I) uplink                                | dB           | 10.5           | 12.3           | 11.5           | 17.1           |
| <b>Downlink:</b>                              |              |                |                |                |                |
| Satellite e.i.r.p. per carrier (-4dB contour) | dBW          | 12.2           | 21.3           | 27.0           | 34.6           |
| Max e.i.r.p. Density                          | dBW/4KHz     | -1.9           | -0.1           | -0.9           | -0.2           |
| Max PFD                                       | dBW/m2/4kHz  | -164.0         | -162.2         | -163.0         | -162.3         |
| Free Space Loss                               | dB           | 196.0          | 196.0          | 196.0          | 196.0          |
| Earth Station Diameter                        | m            | 3.8            | 4.5            | 3.8            | 3.8            |
| Earth Station Gain                            | dBi          | 42.3           | 43.8           | 42.3           | 42.3           |
| Noise Temperature                             | kHz          | 95.0           | 95.0           | 95.0           | 95.0           |
| Earth Station G/T                             | dB/K         | 22.5           | 24.0           | 22.5           | 22.5           |
| C/N Thermal Downlink                          | dB           | 13.2           | 16.6           | 14.3           | 15.0           |
| C/I XPOL, ACI, IM, ASI                        | dB           | 16.5           | 19.8           | 17.5           | 18.2           |
| C/(N+I) downlink                              | dB           | 11.6           | 14.9           | 12.6           | 13.3           |
| <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           | 18.67          | 20.40          | 19.59          | 25.28          |
| C/I dn  | dB           | 19.47          | 22.80          | 20.49          | 21.18          |
| Aggregate C/I up                              | dB           | 15.67          | 17.40          | 16.59          | 22.28          |
| Aggregate C/I dn                              | dB           | 16.47          | 19.80          | 17.49          | 18.18          |
| <b>Overall:</b>                               |              |                |                |                |                |
| C/(N+I) overall                               | dB           | 8.0            | 10.4           | 9.0            | 11.8           |
| C/(N+I) required                              | dB           | 6.0            | 9.3            | 6.9            | 6.9            |
| System Margin                                 | dB           | 2.0            | 1.1            | 2.1            | 4.9            |

|                |
|----------------|
| <b>36M0F3F</b> |
| 5.97           |
| 3.75           |
| 36000.0        |
|                |
| 2000.0         |
| 78.6           |
| 13.0           |
| 56.8           |
| 21.8           |
| 200.6          |
| -9.5           |
| 21.5           |
| 23.1           |
| 19.2           |
|                |
| 34.2           |
| 11.2           |
| -150.9         |
| 195.5          |
| 4.5            |
| 43.8           |
| 95.0           |
| 24.0           |
| 15.8           |
| 18.5           |
| 13.9           |
|                |
| -44            |
| -37            |
| 26.09          |
| 21.49          |
| 23.09          |
| 18.49          |
|                |
| 12.8           |
| 10.0           |
| 2.8            |