

| Link Parameters                               | Units | 614KG7W |
|-----------------------------------------------|-------|---------|
| Uplink frequency                              | GHz   | 14.25   |
| Downlink frequency                            | GHz   | 11.95   |
| Carrier bandwidth                             | kHz   | 614.0   |
| <b>Uplink:</b>                                |       |         |
| Nominal E/S e.i.r.p. per carrier              | dBW   | 55.7    |
| Earth station diameter                        | m     | 4.5     |
| Earth station gain                            | dBi   | 54.7    |
| Uplink input power per carrier                | dBW   | 1.0     |
| Atmospheric loss                              | dB    | 0.3     |
| Free space path loss                          | dB    | 207.2   |
| G/T satellite (-3dB contour)                  | dB/K  | 1.0     |
| C/N thermal uplink                            | dB    | 19.9    |
| C/I XPOL, ACI, IM, ASI                        | dB    | 20.1    |
| C/(N+I) uplink                                | dB    | 17.0    |
| <b>Downlink:</b>                              |       |         |
| Satellite e.i.r.p. per carrier (-3dB contour) | dBW   | 29.0    |
| Atmospheric loss                              | dB    | 0.2     |
| Free space path loss                          | dB    | 205.7   |
| Earth station diameter                        | m     | 1.8     |
| Earth station gain                            | dBi   | 45.2    |
| Noise temperature                             | K     | 105.0   |
| Earth station G/T                             | dB/K  | 25.0    |
| C/N thermal downlink                          | dB    | 18.8    |
| C/I XPOL, ACI, IM, ASI                        | dB    | 16.4    |
| C/(N+I) downlink                              | dB    | 13.0    |
| <b>Overall:</b>                               |       |         |
| C/(N+I) overall                               | dB    | 11.5    |
| C/(N+I) required                              | dB    | 5.7     |
| System Margin                                 | dB    | 5.8     |