

**Table A.12-1 – Link Budget for Communication Forward Link to
Class-1 User Terminal (200 kHz carrier; Spot Beam)**

| General | Unit | |
|--|------------|---------------|
| User terminal type | - | Class1 |
| Modulation ID / Designator | - | C1F2/ 200KD7W |
| Data rate (kbps) | (kbps) | 492 |
| Coding rate | - | 0.822 |
| Modulation | - | 16-QAM |
| Carrier bandwidth | (kHz) | 189 |
| Allocated bandwidth | (kHz) | 200 |
| Uplink | | |
| Frequency | (GHz) | 6.5 |
| SAS elevation angle | (deg) | 5.0 |
| SAS EIRP towards satellite | (dBW) | 57.3 |
| Path loss | (dB) | 200.9 |
| Mean Atmospheric loss | (dB) | 0.4 |
| Satellite G/T | (dB/K) | -10.4 |
| Boltzmann Constant | (dBW/K/Hz) | -228.6 |
| Up-path C/No | (dBHz) | 74.2 |
| Downlink | | |
| Frequency | (GHz) | 1.5 |
| User terminal elevation angle | (deg) | 90.0 |
| Satellite EIRP | (dBW) | 44.5 |
| Path loss | (dB) | 188.4 |
| Mean Atmospheric loss | (dB) | 0.1 |
| User terminal G/T | (dB/K) | -9.7 |
| Boltzmann Constant | (dBW/K/Hz) | -228.6 |
| Down-path C/No | (dBHz) | 74.9 |
| Total | | |
| Mean satellite C/IMo | (dBHz) | 71.9 |
| Co-Channel Interference | (dBHz) | 74.0 |
| Adjacent satellite interference allocation | (dB) | 1.0 |
| Mean Overall C/No | (dBHz) | 66.6 |
| Mean Overall C/N | (dB) | 13.8 |
| Margin | | |
| C/N objective | (dB) | 12.3 |
| C/N margin | (dB) | 1.5 |