

**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