

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

<b>General</b>	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
<b>Uplink</b>		
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
<b>Downlink</b>		
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
<b>Total</b>		
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
<b>Margin</b>		
C/N objective	(dB)	12.3
C/N margin	(dB)	1.5