

**Table A.12-12 – Link Budget for Signaling Return Link from Class-3 User Terminal  
(25 kHz bandwidth; Regional Beam)**

<b>General</b>	Unit	
User terminal type	-	Class-3
Modulation ID / Designator	-	C3R3 / 25K0G7W
Data rate (kbps)	(kbps)	20
Coding rate	-	0.73
Modulation	-	pi/4 QPSK
Carrier bandwidth	(kHz)	21
Allocated bandwidth	(kHz)	25
<b>Uplink</b>		
Frequency	(GHz)	1.6
User terminal elevation angle	(deg)	90
User terminal EIRP towards satellite	(dBW)	11.0
Path loss	(dB)	188.9
Atmospheric loss	(dB)	0.1
Satellite G/T	(dB/K)	2.2
Boltzmann Constant	(dBW/K/Hz)	-228.6
Adjacent Channel Interference	(dB)	0.2
Up-path C/No	(dBHz)	52.6
<b>Downlink</b>		
Frequency	(GHz)	3.6
SAS elevation angle	(deg)	5
Satellite EIRP	(dBW)	-3.5
Path loss	(dB)	195.7
Atmospheric loss	(dB)	0.4
SAS G/T	(dB/K)	32.3
Boltzmann Constant	(dBW/K/Hz)	-228.6
Random Loss (99%)	(dB)	0.5
Down-path C/No	(dBHz)	60.8
<b>Total</b>		
Mean satellite C/IMo	(dBHz)	65.0
Co-Channel Interference	(dBHz)	63.2
Adjacent satellite interference allocation	(dB)	1.0
Mean Overall C/No	(dBHz)	50.5
Mean Overall C/N	(dB)	7.3
<b>Margin</b>		
C/N objective	(dB)	4.4
C/N margin	(dB)	2.8