

		CLEAR SKY	FADED
General	Unit		
Data rate (kbps)	(kbps)	4112	3616
Coding rate	-	0.68	0.60
Modulation	-	QPSK	QPSK
Carrier bandwidth	(kHz)	3780	3780
Uplink			
Frequency	(GHz)	29.75	29.75
User Terminal EIRP	(dBW)	49.3	54.1
Antenna diameter	m	0.60	0.60
Antenna tx gain	dBi	43.6	43.6
Uplink power	(dBW)	5.7	10.5
Uplink p.s.d.	(dBW/Hz)	-60.0	-55.2
Path loss	(dB)	213.6	213.6
Rain loss	(dB)	0.0	4.8
Mean Atmospheric loss	(dB)	0.4	0.4
Satellite G/T (EOC)	(dB/K)	9.0	9.0
Boltzmann Constant	(dBW/K/Hz)	-228.6	-228.6
Up-path C/No	(dBHz)	72.9	72.9
Downlink			
Frequency	(GHz)	18.8	18.8
Satellite EIRP (EOC)	(dBW)	33.8	33.8
Path loss	(dB)	209.6	209.6
Rain loss	(dB)	0.0	8.6
Mean Atmospheric loss	(dB)	0.4	0.4
Earth Station G/T	(dB/K)	36.2	36.2
T (clear sky)	K	300.0	300.0
G/T degradation due to rain	(dB)	0.0	2.4
Boltzmann Constant	(dBW/K/Hz)	-228.6	-228.6
Rx terminal Pointing loss	(dB)	0.1	0.1
Down-path C/No	(dBHz)	88.5	77.5
Total			
Mean satellite C/Imo	(dBHz)	90.8	90.8
Co-Channel Interference	(dBHz)	84.0	84.0
Other system interference allocation	(dB)	1.0	1.0
Mean Overall C/No	(dBHz)	71.4	70.3
Mean Overall C/N	(dB)	5.6	4.5
Margin			
C/N required	(dB)	4.0	2.9
Margin	(dB)	1.6	1.7
Availability	(%)	n/a	99.0%