

Typical Link budgets-Hawaii

Parameter	KA_1	KA_2
Carrier designation	1M20G1W	5M50G1W
Throughput rate, Mbps	1.43	4.75
Required bandwidth, MHz	1.20	5.50
Allocated bandwidth, MHz	1.20	5.50
FEC code rate	0.50	0.50
C/N required, dB	4.70	1.28
Faded system margin, dB	0.50	0.50
Uplink		
Transmit Power (dBW)	4.00	10.50
Antenna diameter	9.00	9.00
Antenna Gain (dBi)	65.00	65.00
TxES antenna input power density, dBW/MHz	3.21	3.10
Ground Station EIRP (dBW)	77.50	75.50
Uplink Rain Loss (dB)	0.00	0.00
Satellite G/T (dB/K)	-12.00	-12.00
C/N, dB	22.23	13.24
C/I(X-pol uplink), dB	30.00	30.00
Downlinks:		
Satellite Carrier EIRP (dBW)	31.00	31.00
Ground station antenna dia, m	0.95	1.50
Ground Station G/T (dB/K)	20.90	24.87
C/N(clear weather), dB	11.74	8.72
Min C/N down, dB	7.12	2.88
C/I(ASI), dB	10.00	10.00
C/I(total), dB	9.91	9.91
Margin to min C/N down, dB	4.62	5.84