

TX ES Location
RX ES Location
Information (bit) rate [kbps]
Modulation type
FEC Rate
Emission BW [kHz]
Number of carriers per transponder
Uplink Frequency [GHz]
Uplink ES antenna diameter [m]
Uplink ES antenna gain [dBi]
Uplink Antenna feed flange power [dBW]
Uplink ES to Satellite Distance [km]
Uplink Free-Space Loss [dB]
Satellite RX antenna gain towards the TX ES [dBi]
Satellite Rx system noise temperature [K]
Uplink Atten. due to Rain, Cloud, and Atmospheric Gases [dB]
Uplink Noise Temp. Increase due to Rain, Cloud, and Atmospheric Gases [K]
Uplink Thermal C/N [dB]
Uplink C/I (ASI) [dB]
Uplink C/I (Xpol) [dB]
Uplink C/I (IM) [dB]
Uplink C/(N+I) [dB]
Downlink Frequency (GHz)
Satellite TX antenna gain towards the RX ES [dBi]
Downlink Antenna feed flange power [dBW]
Downlink ES to Satellite Distance [km]
Downlink Free-Space Loss [dB]
RX ES antenna diameter [m]
RX ES antenna gain [dBi]
RX ES system noise temperature [K]
Downlink Atten. due to Rain, Cloud, and Atmospheric Gases [dB]
Downlink Noise Temp. Increase due to Rain, Cloud, and Atmospheric Gases [K]
Downlink Thermal C/N [dB]
Downlink C/I (ASI) [dB]
Downlink C/I (Xpol) [dB]
Downlink C/I (IM) [dB]
Downlink C/(N+I) [dB]
Overall Link C/(N+I) [dB]
Required C/(N+I) [dB]
Margin [dB]

Buffalo (42.9N, 78.9W)
Detroit (42.3N, 83.1W)
120000
8PSK
0.667
75000
1
29.55
8
66.0
11.8
38925.5
213.7
44.8
662.2
9.1
254.3
20.0
41.4
30.0
30.0
19.2
19.85
40.45
18.5
38660.4
210.1
0.66
40.9
250.0
3.8
169.1
9.5
16.2
30.0
30.0
8.6
8.24
7.92
0.32