

<b>TX ES Location</b>
<b>RX ES Location</b>
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]

<b>Detroit (42.3N, 83.1W)</b>
<b>Buffalo (42.9N, 78.9W)</b>
1600
QPSK
0.5
2000
37
29.55
0.66
44.3
2.0
38660.4
213.6
41.6
662.2
7.8
241.9
2.5
19.7
30.0
30.0
2.4
19.85
31.4
2.8
38925.5
210.2
8.0
62.5
250.0
4.3
182.3
21.4
37.9
30.0
30.0
20.3
2.35
1.80
0.55