

Digital Modulation ID	ALG1
Emission Designator	36M0F9F
Emission BW [kHz]	36000
Modulation type	FM
Uplink Frequency [GHz]	14
Uplink ES antenna diameter [m]	9.1
Uplink ES antenna gain [dBi]	60.6
Uplink Antenna feed flange power [dBW]	14.6
Uplink ES to Satellite Distance [km]	38000
Uplink Free-Space Loss [dB]	207.0
Satellite RX antenna gain [dBi]	31.9
Satellite Rx system noise temperature [K]	400
Uplink Rain Atten. [dB]	3.3
Uplink Cloud Atten. [dB]	0.7
Uplink Noise temp. increase due to rain and cloud [K]	174.5
Uplink Thermal C/N [dB]	21.6
Uplink C/I (ASI) [dB]	22.3
Uplink C/I (Xpol) [dB]	30
Uplink C/I (IM) [dB]	27
Uplink C/(N+I) [dB]	18.0
Downlink Frequency (GHz)	11.7
Downlink EIRP [dBW]	48.5
Downlink ES to Satellite Distance [km]	38000
Downlink Free-Space Loss [dB]	205.4
RX ES antenna diameter [m]	2.4
RX ES antenna gain [dBi]	47.5
RX ES system noise temperature [K]	200
Downlink Rain Atten. [dB]	2.3
Downlink Cloud Atten. [dB]	0.5
Downlink Noise temp. increase due to rain and cloud [deg K]	137.8
Downlink Thermal C/N [dB]	15.5
Downlink C/I (ASI) [dB]	22.3
Downlink C/I (Xpol) [dB]	30
Downlink C/I (IM) [dB]	27
Downlink C/(N+I) [dB]	14.3
Total C/(N+I) [dB]	12.79
Required C/(N+I) [dB]	12.00
Margin [dB]	0.79