

Link Parameters	Units	346KG7W	461KG7W	1M84G7W	8M25G7W
Uplink Frequency	GHz	14.205	14.205	14.205	14.205
Downlink Frequency	GHz	3.905	3.905	3.905	3.905
Carrier Allocated Bandwidth	kHz	346.0	461.0	1840.0	8250.0
<b>Uplink:</b>					
Noise BW (or energy dispersal for TV/FM)	kHz	256	341.3	1365.3	6111.3
Nominal E/S e.i.r.p. per carrier	dBW	49.6	51.1	57.7	63.4
Earth Station Diameter	m	1.8	2.4	3.7	2.4
Earth Station Gain	dBi	49.6	49.1	52.9	49.1
Uplink Input Power per Carrier	dBW	0.0	2.0	4.8	14.3
Free Space Loss	dB	207.7	207.7	207.7	207.7
G/T Satellite	dB/K	5.0	5.0	5.0	5.0
C/N Thermal Uplink	dB	21.4	21.7	22.2	21.4
C/I XPOL, ACI, IM, ASI	dB	21.6	21.8	22.4	21.6
C/(N+I) uplink	dB	18.5	18.7	19.3	18.5
<b>Downlink:</b>					
Satellite e.i.r.p. per carrier (-5dB contour)	dBW	10.6	12.2	18.7	24.4
Max e.i.r.p. Density	dBW/4KHz	-2.5	-2.1	-1.7	-2.5
Max PFD	dBW/m2/4kHz	-164.6	-164.2	-163.8	-164.6
Free Space Loss	dB	196.1	196.1	196.1	196.1
Earth Station Diameter	m	3.8	5.6	5.6	4.5
Earth Station Gain	dBi	42.4	45.9	45.9	43.8
Noise Temperature	kHz	95.0	95.0	95.0	95.0
Earth Station G/T	dB/K	22.6	26.1	26.1	24.0
C/N Thermal Downlink	dB	11.6	15.5	16.0	13.1
C/I XPOL, ACI, IM, ASI	dB	15.0	18.8	19.3	16.4
C/(N+I) downlink	dB	10.0	13.8	14.3	11.4
<b>Adjacent satellite interference:</b>					
uplink input power dens @ 2 deg	dBW/Hz	-50	-50	-50	-50
downlink eirp dens @ 2 deg	dBW/Hz	-37	-37	-37	-37
C/I up	dB	24.57	24.82	25.40	24.59
C/I dn	dB	17.97	21.82	22.30	19.39
Aggregate C/I up	dB	21.57	21.82	22.40	21.59
Aggregate C/I dn	dB	14.97	18.82	19.30	16.39
<b>Overall:</b>					
C/(N+I) overall	dB	9.4	12.6	13.1	10.6
C/(N+I) required	dB	6.0	9.3	9.3	6.9
System Margin	dB	3.4	3.3	3.8	3.7

<b>72M0G7W</b>	<b>36M0F3F</b>
14.205	14.205
3.905	3.905
72000.0	36000.0
63330	2000.0
80.6	72.4
5.6	5.6
56.5	56.5
24.1	15.9
207.7	207.7
5.0	5.0
28.5	22.7
28.6	22.9
25.6	19.8
32.0	28.4
-5.0	6.4
-167.1	-155.7
196.1	196.1
9.0	9.0
50.0	50.0
95.0	95.0
30.2	30.2
16.7	15.6
20.0	18.9
15.1	13.9

-50	-50
-37	-37
31.64	25.89
23.04	21.89
28.64	22.89
20.04	18.89
14.7	12.9
12.7	10.0
2.0	2.9