

GROUND POWER FLUX DENSITY					
Altitude:	642	km			
Radius of Earth:	6371	km			
Speed of Light:	3.00E+08	m/s			
Radius of Orbit:	7013	km			
Elevation Angle:	5	deg			
Slant Range:	2428.2	km			
Transmit Power:	3	Watts			
	4.8	dBW			
Antenna Gain:	10.52	dB			
Antenna Tx Losses:	-0.01	dB			
Antenna Beam Width:	20	deg			
Antenna Misalignment:	0.5	deg			
Alignment Loss:	-0.01	dB			
Transmit Frequency:	8.125	GHz			
Lambda:	0.04	m			
Occupied Bandwidth:	200.0	MHz			
EIRP:	15.27	dBW			
EIRP density:	-67.74	dBW/Hz			
EIRP in 4 kHz:	-31.72	dBW			
Free Space Loss:	-178.34	dB			
Spreading Loss:	-138.70	dB			
Power Flux Density:	-170.41	dB(W/m^2)/4kHz			
Power Spectral Density:	-123.42	dB(W/m^2)			

Angle (deg)	Slant Range (km)	Spreading Loss (dB)	Power Flux Density (dBW/m^2)/4kHz	ITU Limit (dB(W/m^2)/4kHz)	Compliant
0	2931.3	-140.3	-172.05	-150.0	TRUE
5	2428.2	-138.7	-170.41	-150.0	TRUE
10	2026.8	-137.1	-168.84	-147.5	TRUE
15	1714.3	-135.7	-167.39	-145.0	TRUE
20	1473.5	-134.4	-166.07	-142.5	TRUE
25	1287.7	-133.2	-164.90	-140.0	TRUE
30	1143.5	-132.2	-163.87	-140.0	TRUE
35	1030.4	-131.3	-162.97	-140.0	TRUE
40	941.0	-130.5	-162.18	-140.0	TRUE
45	869.7	-129.8	-161.50	-140.0	TRUE
50	812.6	-129.2	-160.91	-140.0	TRUE
55	766.9	-128.7	-160.40	-140.0	TRUE
60	730.3	-128.3	-159.98	-140.0	TRUE
65	701.5	-127.9	-159.63	-140.0	TRUE
70	679.1	-127.6	-159.35	-140.0	TRUE
75	662.5	-127.4	-159.13	-140.0	TRUE
80	651.0	-127.3	-158.98	-140.0	TRUE
85	644.2	-127.2	-158.89	-140.0	TRUE
90	642.0	-127.1	-158.86	-140.0	TRUE

GEO POWER FLUX DENSITY		
Altitude:	35786	km
Radius of Earth:	6371	km
Speed of Light:	3.00E+08	m/s
Radius of Orbit:	42157	km
Elevation Angle:	90	deg
Dist to Geo Arch:	35786.0	km
Transmit Power:	3	Watts
	4.8	dBW
Antenna Gain:	10.52	dB
Antenna Tx Losses:	-0.01	dB
Antenna Beam Width:	20	deg
Antenna Misalignment:	0.5	deg
Alignment Loss:	-0.01	dB
Transmit Frequency:	8.125	GHz
Lambda:	0.04	m
Occupied Bandwidth:	200.0	MHz
EIRP:	15.27	dBW
EIRP density:	-67.74	dBW/Hz
EIRP in 4 kHz:	-31.72	dBW
Free Space Loss:	-201.71	dB
Spreading Loss:	-162.07	dB
Power Flux Density:	-193.78	dB(W/m^2)/4kHz
ITU LIMIT:	-174	dB(W/m^2)/4kHz

