

MPE Calculation page

MPE Calculator	Dynastream SDM4	Test Number	081027
MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.			
dBi = dB gain compared to an isotropic radiator.			
S = power density in mW/cm ²		Antenna Gain (dBi)	1
Output Power		dBd + 2.17 = dBi	dBi to dBd 2.17
Tx Frequency (MHz)	2457	(Watts)	0.000465
Cable Loss (dB)		(dBm)	-3.33
Calculated ERP (mw)		0.355	Radiated (EIRP) dBm -2.329
Calculated EIRP (mw)		0.585	Radiated (ERP) dBm -4.499
Occupational Limit	5.00000 mW/cm²	<div style="border: 1px solid black; padding: 5px;"> Power density (S) = EIRP ----- = mW/cm² 4 π r² [r (cm), EIRP (mW)] </div>	
General Public Limit	1.00000 mW/cm²		
FCC radio frequency radiation exposure limits per 1.1310			
Frequency (MHz)		Occupational Limit	Public Limit
300-1,500		f/300	f/1500
1,500-10,000		5	1
FCC radio frequency radiation exposure limits per 1.1310			
Frequency (MHz)		Occupational Limit @ Tx Freq (mW/cm ²)	Public Limit @ Tx Freq (mW/cm ²)
300-1,500		8.19	1.638
1,500-10,000		5	1
EIRP		Distance	Distance
milliwatts		cm	inches
0.585		10.00	3.94
0.585		9.00	3.54
0.585		8.00	3.15
0.585		7.00	2.76
0.585		6.00	2.36
0.585		5.00	1.97
0.585		4.00	1.57
0.585		3.00	1.18
0.585		2.00	0.79
0.585		1.00	0.39
0.585		0.50	0.20
0.585		0.40	0.16
0.585		0.30	0.12
0.585		0.25	0.10
0.585		0.22	0.09
S		mW/cm ²	
0.00047		0.00047	
0.00057		0.00057	
0.00073		0.00073	
0.00095		0.00095	
0.00129		0.00129	
0.00186		0.00186	
0.00291		0.00291	
0.00517		0.00517	
0.01164		0.01164	
0.04655		0.04655	
0.18620		0.18620	
0.29093		0.29093	
0.51721		0.51721	
0.74479		0.74479	
0.96176		0.96176	
Occupational Limit minimum Distance (cm)		Public Limit minimum distance (cm)	
Frequency (MHz)			
300-1,500		N/A	
1,500-10,000		0.22	