

MPE Calculation page

MPE Calculator	Garmin	Test Number	090728
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 <sup>2</sup>	Antenna Gain (dBi)	1
	Output Power	dBd + 2.17 = dBi	dBi to dBd
			2.17
Tx Frequency (MHz)	2457	(Watts)	0.000703
			-1.17
			Antenna minus cable (dBi)
			1.00
Cable Loss (dB)	0.0	(dBm)	-1.53
	Calculated ERP (mw)	0.537	Radiated (EIRP) dBm
	Calculated EIRP (mw)	0.885	
			Radiated (ERP) dBm
			-2.699
<b>Occupational Limit</b>		Power density (S)	
<b>5.00000</b>	<b>mW/cm<sup>2</sup></b>	EIRP	
		(S) = ----- = mW/cm <sup>2</sup>	
<b>General Public Limit</b>		4 p r <sup>2</sup>	
<b>1.00000</b>	<b>mW/cm<sup>2</sup></b>	[ r (cm), EIRP (mW)]	
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 <sup>2</sup> )	Public Limit @ Tx Freq (mW/cm <sup>2</sup> )
	300-1,500	8.19	1.638
	1,500-10,000	5	1
	EIRP	Distance	Distance
	milliwatts	cm	inches
	0.885	10.00	3.94
	0.885	9.00	3.54
	0.885	8.00	3.15
	0.885	7.00	2.76
	0.885	6.00	2.36
	0.885	5.00	1.97
	0.885	4.00	1.57
	0.885	3.00	1.18
	0.885	2.00	0.79
	0.885	1.00	0.39
	0.885	0.50	0.20
	0.885	0.40	0.16
	0.885	0.30	0.12
	0.885	0.27	0.11
	0.885	0.26	0.10
	0.885		1.04223
	Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
	300-1,500	N/A	N/A
	1,500-10,000	N/A	0.26