Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radia

R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal:		4.50) (dBm)	
Maximum peak output power at antenna input terminal:		2.818382931	(mW)	
Antenna gain(typical):		1	(dBi)	
Maximum antenna gain:		1.258925412	(numeric)	
Time Averaging:		100	(%)	
Prediction distance:		1	(cm)	
Prediction frequency:		2450	(MHz)	
MPE limit for uncontrolled exposure at prediction frequency:		1	(mW/cm	^2)
Power density at prediction frequency:		0.282352	(mW/cm	^2)
	Margin of compliance:	-5.5	(dB)	
	This equates to	2.823515239	W/m^2	Complies
For information	This equates to	32.62614358	V/m	

Note: This device does not exceed the 60 / f (GHz) in mW limit as per FCC KDB 447498 2(a)(i), so it is allowable to be used in portable exposure conditions with no restrictions on host platforms

Malhotra

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