

# Evaluation 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 radiator

R = distance to the center of radiation of the antenna

Maximum peak output power --Conducted	15.35 dBm
	<u>0.034 (W)</u>
Antenna gain(typical):	<u>5.00 (dBi)</u>
Maximum antenna gain:	<u>3.16 (numeric)</u>
Evaluation distance:	<u>20.00 (cm)</u>
Evaluation frequency:	<u>915.60 (MHz)</u>
Limit from table below:	<u>0.610 (mW/cm^2)</u>

Power density at Evaluation frequency: **0.022 (mW/cm^2)**

Maximum peak output power --Conducted	28.49 dBm
	<u>0.706 (W)</u>
Antenna gain(typical):	<u>7.00 (dBi)</u>
Maximum antenna gain:	<u>5.01 (numeric)</u>
Evaluation distance:	<u>20.00 (cm)</u>
Evaluation frequency:	<u>2437.00 (MHz)</u>
Limit from table below:	<u>1.000 (mW/cm^2)</u>

Power density at Evaluation frequency: **0.704 (mW/cm^2)**

EUT complies

FCC/LSGAC Local Official's Guide to RF  
A LOCAL GOVERNMENT OFFICIAL'S GUIDE TO TRANSMITTING ANTENNA RF  
EMISSION SAFETY: RULES, PROCEDURES, AND PRACTICAL GUIDANCE

**(B) Limits for General Population/Uncontrolled Exposure**

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

\*Plane-wave equivalent power density

NOTE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.