Prediction of MPE limit at a given distance

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

$$S = \frac{PG}{4pR^2}$$

WLAN MPE Calculation

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	16.2	dBm
	0.042	(W)
Antenna gain(typical):	5.00	(dBi)
Maximum antenna gain:	3.16	(numeric)
Prediction distance:	20.00	(cm)
Prediction frequency:	2412.0	(MHz)
Limit from table below:	1	(mW/cm^2)
Power density at prediction frequency:	0.026	(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

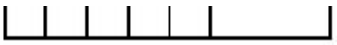
(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $|E|^2$, $|H|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	$(180/f^2)$*	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.



Prediction of MPE limit at a given distance

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

Satellite MPE Calculation

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

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	30.48	dBm
	1.117	(W)
Antenna gain(typical):	8.50	(dBi)
Maximum antenna gain:	7.08	(numeric)
Prediction distance:	100.00	(cm)
Prediction frequency:	1643.50	(MHz)
Limit from table below:	1	(mW/cm^2)
Power density at prediction frequency:	0.063	(mW/cm^2)

EUT complies

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