

Prediction of MPE limit at a given distance

Exposure limit according to FCC CFR 47 part 1, §1.1307, §1.1310

Equation from Section 2 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2} \quad \text{or} \quad S = \frac{EIRP}{4\pi R^2}$$

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

EIRP = Equivalent (or effective) isotropically radiated power

R = distance to the center of radiation of the antenna

Max emission at 3m:	69.0 dBuV
EIRP:	69.0 – 95.2 = -26.2 dBm = 0.0024 mW
Time averaging:	100%
Prediction distance:	10 cm
Prediction frequency:	13.56 MHz
MPE limit at prediction frequency:	0.97 mW/cm ²

Power density at prediction frequency: **0.000001909 mW/cm²**

PASS

Margin of compliance: -57 dB

This equates to: 0.00001909 W/m² = 0.0848 V/m