



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 radiator

R = distance to the center of radiation of the antenna

Fundamental transmit (prediction) frequency: 2402 MHz

Maximum measured conducted peak output power: 4.80 dBm

Cable and/or jumper loss: 0.0 dB

Maximum peak power at antenna input terminal: 4.80 dBm

Tx On time: 100.000 ms

Tx period time: 100.000 ms

Average factor: 100 %

Maximum calculated average power at antenna input terminal: 3.020 mW

Single Antenna gain (typical): 1.43 dBi

Number of antennae: 1

Total system gain (typical): 1.430 dBi

MPE limit for uncontrolled exposure at prediction frequency: 1 mW/cm²

10 W/m²

Minimum calculated prediction distance for compliance: 1 cm

Typical (declared) distance: 20 cm

Average power density at prediction frequency: 0.000835 mW/cm²

0.00835 W/m²

Margin of Compliance: 30.78270 dB

Maximum allowable antenna gain: 32.21270 dBi

Note 1: No simultaneous transmission between the WLAN and LTE Radios due to the antenna separation distance ≥ 20cm

Note 2: EUT does not support simultaneous transmission between the 2.4 and 5 GHz WLAN Radios

