

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

Maximum peak output power at device output terminals (MIMO):	20.59 dBm
Cable and Jumper loss:	1.0 dB
Maximum peak output power at antenna input terminals:	19.59 dBm
	90.99132726 mW
Uncorrelated MIMO total Antenna gain:	11 dBi
	12.58925412 (numeric)
Prediction distance:	40 cm
Prediction frequency:	470 MHz
MPE limit for uncontrolled exposure at prediction frequency:	0.313333333 mW/cm ²
Power density at prediction frequency:	0.056973 mW/cm²
	0.569731 W/m ²
Tx On time:	1.000000 ms
Tx period time:	1.000000 ms
Average Factor:	100.000000 %
Average Power density at prediction frequency:	0.569731 W/m ²
Maximum allowable antenna gain:	18.40336446 dBi
Margin of Compliance:	7.403364456 dB