

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 terminal:	<u>25.25</u>	(dBm)	
Cable and Jumper loss	<u>0.0</u>	(dB)	
Maximum peak output power at antenna input terminal:	<u>25.25</u>	(dBm)	
Maximum peak output power at antenna input terminal:	<u>334.9654392</u>	(mW)	
Single Antenna gain(typical):	<u>7.7</u>	(dBi)	See note below
Number of Antennae	<u>2</u>		
Total Antenna gain(typical):	<u>10.71029996</u>	(dBi)	
Maximum antenna gain:	<u>11.77687311</u>	(numeric)	
Prediction distance:	<u>20</u>	(cm)	
Prediction frequency:	<u>2437</u>	(MHz)	
MPE limit for uncontrolled exposure at prediction frequency:	<u>1</u>	(mW/cm ²)	
Power density at prediction frequency:	<u>0.784802</u>	(mW/cm ²)	
	<u>7.848021</u>	(W/m ²)	
Tx On time:	<u>1.000000</u>		
Tx period time:	<u>1.000000</u>		
Average Factor:	<u>100.000000</u>		
Average Power density at prediction frequency:	<u>7.848021</u>	(W/m ²)	
Maximum allowable antenna gain:	<u>11.76269855</u>	(dBi)	
Margin of Compliance:	<u>1.052398597</u>	dB	

Note: Antenna gain: 7.7 dBi + 10 × log₁₀ (2) dB = 10.7 dBi
(MIMO 3×3 combined, one uncorrelated and two cross polarized correlated antennas)

