

### 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:	22.40	(dBm)	
Cable and Jumper loss	0.0	(dB)	
Maximum peak output power at antenna input terminal:	22.40	(dBm)	
Maximum peak output power at antenna input terminal:	173.7800829	(mW)	
Single Antenna gain(typical):	7.2	(dBi)	See note below
Number of Antennae	1		
Total Antenna gain(typical):	7.2	(dBi)	
Maximum antenna gain:	5.248074602	(numeric)	
Prediction distance:	20	(cm)	
Prediction frequency:	5270	(MHz)	
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)	
Power density at prediction frequency:	0.181439	(mW/cm^2)	
	1.814388	(W/m^2)	
Tx On time:	1.000000		
Tx period time:	1.000000		
Average Factor:	100.000000		
Average Power density at prediction frequency:	1.814388	(W/m^2)	
Maximum allowable antenna gain:	14.61269855	(dBi)	
Margin of Compliance:	7.412698554	dB	

Note: (Directional gain for MIMO cross-polarized 2 × 2 is 7.2 dBi. No summation of gain is needed for cross-polarized antennas as per manufacturer's definition of the cross-polarized MIMO type.)

