15.1. MPE PREDICTION (EDR MODE)

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$S=PG/4\pi R^2$

Where: S = Power density

P = Power input to 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 antenna input terminal:	1.63	(dBm)
Maximum peak output power at antenna input terminal:	1.455459081	(mW)
Duty cycle:	77	(%)
Maximum Pav :	1.120703492	(mW)
Antenna gain (typical):	-1.37	(dBi)
Maximum antenna gain:	0.72945751	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	2480	(MHz)
MPE limit for uncontrolled exposure at prediction	1	(mW/cm2)
Power density at predication frequency at 20 (cm)	0.000163	(mW/cm^2)

Measurement Result

The predicted power density level at 20 cm is 0.000163 mW/cm^2. This is below the uncontrolled exposure limit of $1mW/cm^2$ at 2480MHz.

Note: In comparison with BDR, and EDR, EDR results highest emission of power, and further produces higher value of Maximum Permissible Exposure at 20cm. Hence, only the derivation of MPR on the basis of EDR mode is present in this given test report.