

Prediction of MPE limit at a given distance

MW-CSR-800AB-25W90, with UpLink Antenna 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 RF output power of uplink transmitter:	25.00	(dBm)
Minimum cable loss between transmitter and antenna input:	2.00	(dB)
Maximum peak output power at antenna input terminal:	23.00	(dBm)
Maximum peak output power at antenna input terminal:	199.5262315	(mW)
Maximum Antenna gain (typical):	20	(dBi)
Maximum antenna gain:	100	(numeric)
Prediction distance:	75	(cm)
Prediction frequency:	824	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.549333333	(mW/cm^2)
Power density at prediction frequency:	0.28	(mW/cm^2)
Maximum allowable antenna gain:	22.89	(dBi)
Margin of Compliance:	2.89	(dB)