



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:	<u>25.00</u>	(dBm)
Minimum cable loss between transmitter and antenna input:	<u>2.00</u>	(dB)
Maximum peak output power at antenna input terminal:	<u>23.00</u>	(dBm)
Maximum peak output power at antenna input terminal:	<u>199.5262315</u>	(mW)
Maximum Antenna gain (typical):	<u>20</u>	(dBi)
Maximum antenna gain:	<u>100</u>	(numeric)
Prediction distance:	<u>75</u>	(cm)
Prediction frequency:	<u>824</u>	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	<u>0.549333333</u>	(mW/cm^2)
Power density at prediction frequency:	<u>0.28</u>	(mW/cm^2)
Maximum allowable antenna gain:	<u>22.89</u>	(dBi)
Margin of Compliance:	<u>2.89</u>	(dB)

