Prediction of MPE limit at a given distance

MW-CBDA-SMR-10W80-PS8, Uplink Outdoor Donar 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 peak output power at antenna input terminal:	21.21	(dBm)
Maximum peak output power at antenna input terminal:	132.1295634	(mW)
Antenna gain(typical):	14	(dBi)
Maximum antenna gain:	25.11886432	(numeric)
Prediction distance:	45	(cm)
Prediction frequency:	2462	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)

Power density at prediction frequency: 0.130426 (mW/cm^2)

Maximum allowable antenna gain: 22.84634892 (dBi)

Margin of Compliance: 8.846348916

Combine power desity of 2.4 GHz and 5.8 GHz: 0.130+0.124=0.254 mW/cm^2 < 1mW/cm^2