20. MPE Calculations

Base Station Transceiver
MPE Calcluation

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 antenna input terminal:	25.83	(dBm)
Maximum peak output power at antenna input terminal:	382.825	(mW)
Antenna gain(typical):	6.94	(dBi)
Maximum antenna gain:	4.943	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	918.8	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.62	(mW/cm^2)
Power density at prediction frequency:	0.376470	(mW/cm^2)
Maximum allowable antenna gain:	9.1	(dBi)
Margin of Compliance at 20 cm =	2.2	dB