Nemko

Prediction of MPE limit at a given distance

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

$$S = \frac{PG}{4pR^2}$$

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(e.I.r.p.):	20.00	(dBm)
Maximum peak output power (e.I.r.p.):	100	(mW)
Antenna gain(typical):	0	(dBi)
Maximum antenna gain:	1	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	1900	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm^2)

Power density at prediction frequency: 0.019894 (mW/cm^2)

Maximum allowable antenna gain: 17.0127 (dBi)

The peak power output listed above is the maximum eirp. The device is mounted in an office environment, typically in a window. The device is able to be moved by an installer in order to get maximum coverage. A statement in the installation manual warns the installer to mount the device with a minimum separation distance of 20 cm.