

Product name: A0101
Manufacturer: IJINUS
FCC Id: SE6A001

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

Transmitter n°1

Maximum peak output power at the antenna terminal: 12.00 (dBm)
Maximum peak output power at the antenna terminal: 15.84893192 (mW)
Antenna gain(typical): 0 (dBi)
Maximum antenna gain: 1 (numeric)
Prediction distance: 20 (cm)
Prediction frequency: 915 (MHz)
MPE limit for uncontrolled exposure at prediction frequency: 0.61 (mW/cm²)

Power density at prediction frequency: **0.003153** (mW/cm²)

Maximum allowable antenna gain: **22.8659969** (dBi)

Transmitter n°2

Maximum peak output power at the antenna terminal: 32.31 (dBm)
Maximum peak output power at the antenna terminal: 1702.158508 (mW)
Antenna gain(typical): 1 (dBi)
Maximum antenna gain: 1.258925412 (numeric)
Prediction distance: 20 (cm)
Prediction frequency: 850 (MHz)
MPE limit for uncontrolled exposure at prediction frequency: 0.55 (mW/cm²)

Power density at prediction frequency: **0.426315** (mW/cm²)

Maximum allowable antenna gain: **2.106325448** (dBi)

Transmitter n°3

Maximum peak output power at the antenna terminal: 29.35 (dBm)
Maximum peak output power at the antenna terminal: 860.9937522 (mW)
Antenna gain(typical): 1 (dBi)
Maximum antenna gain: 1.258925412 (numeric)
Prediction distance: 20 (cm)
Prediction frequency: 1900 (MHz)
MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm²)

Power density at prediction frequency: **0.215640** (mW/cm²)

Maximum allowable antenna gain: **7.662698554** (dBi)

Collocation evaluation for the following cases:

Pd(n) = Power density of nth transmitter at 20cm
LPd(n)= Power density limit for the nth transmitter

Transmitter n°1 + Transmitter n°2 :

$$[Pd(1)/LPd(1)] + [Pd(2)/LPd(2)] = 0.78029 < 1$$

Transmitter n°1 + Transmitter n°3 :

$$[Pd(1)/LPd(1)] + [Pd(3)/LPd(3)] = 0.22081 < 1$$

Note: Transmitter n°2 & transmitter n°3 can't transmit simultaneously