

RF Exposure

MPE Calculation

KDB 447498

Prediction of MPE limit at a given distance

Equation from IEEE C95.1

$$S = \frac{EIRP}{4\pi R^2} \text{ re - arranged } R = \sqrt{\frac{EIRP}{S 4\pi}}$$

where:

S = power density

R = distance to the centre of radiation of the antenna

EIRP = EUT Maximum power

Note:

The Maximum Output Power Density EIRP was measured by substitution method

Result

Prediction Frequency (MHz)	Maximum Output Power Density EIRP (W/MHz)	Maximum Bandwidth (MHz)	Maximum Output Power EIRP (W)	Maximum Duty Cycle (%)	Time Averaged EIRP (W)	Minimum Distance (cm)	Power density at distance (W/m ²)	Power density limit (S) (W/m ²)
4940 - 4990	1	20	173.780	85%	147.713	108.42	0.99	1