

RF Exposure

MPE Calculation

KDB 447498

Prediction of MPE limit at a given distance

Equation from IEEE C95.1

$$S = \frac{EIRP}{4\pi R^2} \text{ re - arranged } R = \sqrt{\frac{EIRP}{S4\pi}}$$

where:

S = power density

R = distance to the centre of radiation of the antenna

EIRP = EUT Maximum power

Note:

The EIRP was measured by substitution method

Result

Prediction Frequency (MHz)	EIRP (mW)	Maximum Duty Cycle*	Time Averaged EIRP (mW)	Minimum Distance (cm)	Power density at distance (mW/cm ²)	Power density limit (S) (mW/cm ²)
5150 – 5350	3944.573	85%	3352.887	16.6	0.968	1

*Duty Cycle declared by customer