

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