

MPE Calculation Method

$$E \text{ (V/m)} = (30 \cdot P \cdot G)^{0.5} / d$$

$$\text{Power Density: } P_d \text{ (W/m}^2\text{)} = E^2 / 377$$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$P_d = (30 \cdot P \cdot G) / (377 \cdot d^2)$$

From the peak EUT RF output power, the minimum mobile separation distance,
d=0.2m, as well

Calculated Result and Limit (WORSE CASE IS AS BELOW)

WIFI

Antenna Gain (Numeric)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
1	25.823 (14.12dBm)	0.00514	1	Complies

BT

Antenna Gain (Numeric)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
1	3.4 (5.31dBm)	0.0007	1	Complies

$$0.00514 + 0.0007 = 0.00584 < 1$$