

RF Exposure Evaluation

According to 616217 D04 SAR for laptop and tablets v01r02, the required minimum test separation distance for incorporating transmitters and antennas into laptop, notebook and netbook computer displays is determined with the display screen opened at an angle of 90 degree to the keyboard compartment. Please refer to the device internal photos, the antenna located in the top of the displays, the distance to the keyboard is more than 20 cm, SAR evaluation is not required.

Below is MPE evaluations:

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

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

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 as the gain of the used antenna, the RF power density can be obtained.

Calculated Result and Limit (WORSE CASE IS AS BELOW)

Antenna Gain (Numeric)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
1.64 (2.14dBi)	64.9 (18.12 dBm@ 2462MHz)	0.02	1	Compiles