

SAR evaluation

FCC ID: 2AL6K-BL-M8723DU4

MPE Calculation Method

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

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

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

$$Pd = (30 * P * G) / (377 * d^2)$$

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 WIFI Result and Limit

(WORSE CASE IS AS BELOW, WIFI is the worst case)

Antenna Gain (Numeric)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
1.047	45.499 (16.58dBm)	0.00948	1	Complies

Note:

WIFI and Bluetooth cannot transmit simultaneously

Antenna Gain: 0.2dBi (2.4G Band)

Antenna Gain (Numeric): 1.047dBi