

## RF Exposure Compliance Requirement

Calculation formula:

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

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between EUT and antenna (m)

Remark:  $E(\text{V/m}) = 10^{(dB\text{UV}/m)/20} \times 10^{-6}$

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

in the formula above, d=3m, field strength= 93dB<sub>UV</sub>/m(max describe by client), G=1.58  
 so P=0.38mW

In KDB 447498 D01 v06: 4.3.1 Standalone SAR test exclusion considerations:

The SAR Test Exclusion Threshold is calculated from:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR.}$$

The worst case test separation distance is **5mm**.

The product belongs to **standalone portable device** base the FCC rule part 2.1091&2.1093. The transmission frequencies of the device are between 100 MHz and 6 GHz.

The ERP and SAR Test Exclusion Threshold (mW) are listed below:

Transmit frequency (MHz)	Output power (mW)	SAR Test Exclusion Threshold (mW)
2478	0.38	9.53