

## RADIO FREQUENCY EXPOSURE EVALATION

### Evaluation Method

KDB 447498 D04 Interim General RF Exposure Guidance v01

### Applicable Standard:

FCC CFR 47 §1.1307(b)(3)(i)(B):

A single RF source is exempt if the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold  $P_{th}$  (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive).  $P_{th}$  is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

$d$  = the separation distance (cm);

## SAR evaluation:

<Passed>

| Mode      | Frequency | Max output power |       | Ant. Gain | Max E.I.R.P |       | P <sub>th</sub> |
|-----------|-----------|------------------|-------|-----------|-------------|-------|-----------------|
|           | MHz       | dBm              | mW    | dBi       | dBm         | mW    | mW              |
| 802.11b   | 2412      | 12.1             | 16.22 | 2.5       | 14.6        | 28.84 | 38.6            |
| 802.11g   | 2412      | 11.84            | 15.28 | 2.5       | 14.34       | 27.16 | 38.6            |
| 802.11n20 | 2412      | 11.81            | 15.17 | 2.5       | 14.31       | 26.98 | 38.6            |

Note1: For this EUT, that is a fixed devices, and the separation distance is 2 cm that declared by manufacturer.

Note2: The Conducted output power and Maximum EIRP both no greater than the threshold P<sub>th</sub>, that meets the exemption, the RF exposure evaluation is not required.

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