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## 1.0 Maximum Permissible Exposure Evaluation (Supplements the test report.)

The measured power is considered for the intended use of the device and resulting RF exposure to the user.

### 1.2 Criteria

| Section Reference  | Date        |
|--|-------------|
| 447498 D01 General RF Exposure Guidance v06 // RSS-102 Issue 5 | 30 Nov 2018 |

### 1.3 Procedure

Using measurement of peak power and considering the intended application, determine the permissible exposure level, applicability of exclusion, or whether additional exposure tests (SAR) are indicated. When applicable justify conclusion for selected exposure level and separation distance.

### 1.4 Power to Exposure Calculation

For 2.4 GHz radio power is determined by conducted measurement. SAR exemption method was applied for 5 mm spacing.

| Table 1.4.1 Power Calculation for Exposure, 2.4 GHz Radio (Highest frequency 2.480 GHz) |                          |                             |                  |                     |                         |
|---|--------------------------|-----------------------------|------------------|---------------------|-------------------------|
| Measured Conducted Power mW   | Calculated Peak EIRP dBm | Source Duty Cycle Factor dB | Antenna Gain dBi | Calculated EIRP dBm | EIRP In Linear Terms mW |
| 4.4   | 6.4                      | -20.0                       | 0                | -13.6               | 0.044                   |

### 1.5 SAR Exemption Calculation – FCC

*Applicable requirement: KDB 447498 Clause 4.3.1 Section 1*

Calculation (max power including tune up tolerance = 0.044 mW):

$$[(0.044 \text{ mW})/(5 \text{ mm})] \cdot [\sqrt{2.480 \text{ (GHz)}}] = 0.014$$

$$0.014 \leq 3.0$$

Therefore, the device meets the applicable FCC SAR exemption requirements.

**1.6 SAR Exemption Calculation – IC**

This device meets the clause **2.5 Exemption Limits for Routine Evaluation – SAR Evaluation** criteria in RSS-102 Clause 2.5.1, Table 1, for frequency row 2450 MHz. This is based on the output power of 0.044 mW being less than 4 mW at the smallest exposure distance given of  $\leq 5$  mm in Table 1.

Signed:

A handwritten signature in black ink, appearing to read "Eric Lifsey", written in a cursive style.

Eric Lifsey

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