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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
KDB 447498 D01 Mobile Portable RF Exposure v05r01 // RSS-102 Issue 5 March 2015, Notice 2013 DRS0911	23 Nov 2015

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 radiated field measurement. SAR exemption method was applied for 200 mm spacing; this was based on that contact with the module is not required for operation and the device is entirely supported by the host system.

Table 1.4.1 Power Calculation for Exposure, 2.4 GHz Radio (Highest frequency 2.480 GHz)

Measured Radiated Power mW	Calculated Peak EIRP dBm	Source Duty Cycle Factor dB	Antenna Gain dBi	Calculated EIRP dBm	EIRP In Linear Terms mW
2.9	4.6	-2.07	0*	2.53	1.8

*Effect of antenna gain included in the field strength measurement.

1.5 SAR Exemption Calculation – FCC

Applicable requirement: KDB 447498 Clause 4.3.1 Section 1

Calculation (max power including tune up tolerance = 1.8 mW):

$$[(1.8 \text{ mW})/(200 \text{ mm})] \cdot [\sqrt{2.480 \text{ (GHz)}}] = 0.45$$

$$0.45 \leq 3.0$$

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 1.8 mW being less than 4 mW at the smallest exposure distance given of ≤ 5 mm in Table 1.

Signed:

A handwritten signature in black ink, appearing to read "Eric Lifsey". The signature is stylized with a large, looping "E" and "L".

Eric Lifsey
