

Test Number: 227-18

Issue Date: 6/1/2018

## 6. Measurement Data (continued)

### 6.8. Public Exposure to Radio Frequency Energy Levels ((1.1307 (b)(1)) RSS-GEN, ISSUE 4, RSS 102)

#### 6.8.1. FCC Requirements

Requirement: Portable devices are subject to radio frequency radiation exposure requirements.

For a 1-g SAR, the test exclusion result must be  $\leq 3.0$ .

Test Notes: The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by the following formula:

$$\text{SAR Test Exclusion} = \frac{P_{\text{MAX}}}{d_{\text{MIN}}} \times \sqrt{f_{(\text{GHz})}} \quad (1)$$

$P_{\text{MAX}}$  mW Maximum power of channel, including tune-up tolerance

$d_{\text{MIN}}$  mm Minimum test separation distance, mm ( $\leq 50$  mm)

$f_{(\text{GHz})}$  GHz  $f_{(\text{GHz})}$  is the RF channel transmit frequency in GHz ( $>100$  MHz and  $<6$  GHz)

(1) FCC OET 447498 - Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

Conclusion: The device under test meets the exclusion requirement detailed in FCC OET 447498.

|                         |                         |              |              |              |
|-------------------------|-------------------------|--------------|--------------|--------------|
| <b>Input:</b>           | $P_{\text{MAX}}^1$ (mW) | 0.05         | 0.11         | 0.11         |
|                         | $d_{\text{MIN}}$ (mm)   | 5.00         | 5.00         | 5.00         |
|                         | $f_{(\text{GHz})}$      | 2.402        | 2.441        | 2.480        |
| <b>Test Exclusion:</b>  |                         | <b>0.017</b> | <b>0.035</b> | <b>0.033</b> |
| <b>Limit Exemption:</b> |                         | <b>3.00</b>  | <b>3.00</b>  | <b>3.00</b>  |

<sup>1</sup> Taken from column 5 of the table in Section 7.4 of this test report.

#### 6.8.2. RSS-102 Issue 5 Requirements

Requirement: SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1. Portable devices are subject to radio frequency radiation exposure requirements.

Test Notes: The limit was taken from Table 1 of RSS-102 Issue 5.

| Frequency (MHz) | Separation Distance (mm) | Maximum Power (mW) | RSS-102 Limit (mW) | Result    |
|-----------------|--------------------------|--------------------|--------------------|-----------|
| 2402.00         | $\leq 5$                 | 0.05               | 4.26               | Compliant |
| 2440.00         | $\leq 5$                 | 0.11               | 4.05               | Compliant |
| 2480.00         | $\leq 5$                 | 0.11               | 3.94               | Compliant |