## 7. Measurement Data (continued)

### 7.12. Public Exposure to Radio Frequency Energy Levels (15.247(i) (1.1307 (b)(1)) RSS-GEN, ISSUE 4 5.5, RSS-102)

7.12.1. 15.247(i) (1.1307 (b)(1) Requirements

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

For a 1-g head or body SAR, the test exclusion result must be ≤ 3.0.
For a 10-g extremity SAR, the test exclusion result must be ≤ 7.5.

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

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

| | | |
|---|---|---|
| $P_{MAX}$ | mW | Maximum power of channel, including tune-up tolerance |
| $d_{MIN}$ | mm | Minimum test separation distance, mm (≤ 50 mm) |
| $f_{(GHz)}$ | GHz | $f_{(GHz)}$ 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.

Results: Passed - The device under test meets the exclusion requirement detailed in FCC OET 447498.

| **Channel:** | | **37** | **17** | **39** | |
|---|---|---|---|---|---|
| **Input[1]:** | $P_{MAX}$ | 0.740 | 1.436 | 3.856 | **mW** |
| | $d_{MIN}$[2] | 5.00 | 5.00 | 5.00 | **mm** |
| | $f_{(GHz)}$ | 2.400 | 2.442 | 2.480 | **GHz** |
| **Test Exclusion:** | | **0.23** | **0.45** | **1.21** | |
| **Limit Exemption:** | | **7.5** | **7.5** | **7.5** | |
| **Measurement Result:** | | **Compliant** | **Compliant** | **Compliant** | |

[1] Taken from column 3 of the table in Section 7.3 of this test report.

[2] When the minimum test separation distance is < 5 mm, a distance of 5 mm according to KDB 447498, 4.1 f) is applied to determine SAR test exclusion.

**Note:** BLE, BT, and WiFi Radios do not transmit simultaneously.

7.12.2. IC RSS-102 Issue 5 SAR Evaluation (Reference RSS-102, Table 1)

| Frequency | Separation Distance | Maximum Power | RSS-102 Limit | Result |
|---|---|---|---|---|
| MHz | mm | mW | mW | |
| 2402 | ≤ 20 | 0.74 | 10.65 | Compliant |
| 2440 | ≤ 20 | 1.44 | 10.11 | Compliant |
| 2480 | ≤ 20 | 3.86 | 9.86 | Compliant |



Compliance Worldwide, Inc. - 357 Main Street - Sandown, NH 03873
(603) 887 3903 Fax (603) 887 6445
www.complianceworldwide.com