

6. Measurement Data (continued)

6.12. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1))

6.12.1. SAR Test Exclusion Calculation

Requirement: Portable devices as defined in § 2.1093 of this chapter operating under Part 15 are subject to radio frequency radiation exposure requirements as specified in §§ 1.1307(b) and 2.1093 of this chapter. For a 1-g SAR, the test exclusion result must be ≤ 3.0.

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:

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

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

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

| Channel: | | 3, 16M | 3, 64M | |
|-------------------------|--------------------|--------------|--------------|-----|
| Input: | P_{MAX} | 0.7196 | 0.2400 | mW |
| | d_{MIN} | 5.000 | 5.000 | mm |
| | $f_{\text{(GHz)}}$ | 4.492 | 4.488 | GHz |
| Test Exclusion: | | 0.305 | 0.102 | |
| Limit Exemption: | | 3.000 | 3.000 | |

¹ Taken from the peak data in Section 6.5 of this test report (converted to mW).

Notes:

The device does not exceed the test limit exemption and therefore a routine SAR Evaluation is not required.

The UWB and BLE radios do not transmit simultaneously.