

## 6. Measurement Data (continued)

### 6.11. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(2))

#### 6.11.1. 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)(2) and 2.1093 of this chapter.

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.

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

	CH 2	CH 2	CH 2	CH 2	CH 4	CH 4	CH 4	CH 4	
<b>Input:</b> $P_{\text{MAX}}$	0.624	0.164	0.908	0.795	0.517	0.161	0.916	0.787	mW
$d_{\text{MIN}}$	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	mm
$f_{(\text{GHz})}$	3.995	3.993	3.999	4.004	3.743	3.737	3.793	3.741	GHz
<b>Test Exclusion:</b>	<b>0.249</b>	<b>0.065</b>	<b>0.363</b>	<b>0.318</b>	<b>0.200</b>	<b>0.062</b>	<b>0.357</b>	<b>0.305</b>	
<b>Limit Exemption:</b>	<b>3.000</b>								

<sup>1</sup> Taken from the peak data in Section 6.8 of this test report (converted to mW).

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

## 6. Measurement Data (continued)

### 6.11. Public Exposure to Radio Frequency Energy Levels (1.1310)

#### 6.11.2 RF Exposure for devices that operate above 6 GHz (continued)

**Requirement:** TCB Workshop November 2019 RF Exposure Policy Updates dated November 13, 2019, specifically slide 11.

Test exclusion based on 1 mW may be used now with the portable device  $f > 6\text{GHz}$  FCC MPE power density limits. Maximum time-averaged conducted power irrespective of distance from the body.

Worst Case conducted peak power = **-6.59 dBm or 0.219 mW**

**Result:** Device is compliant with the Test Exclusion requirement of 1 mW.

