

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 ≤ 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.

		CH 2	CH 2	CH 2	CH 2	CH 4	CH 4	CH 4	CH 4	
Input:	P_{MAX}	0.624	0.164	0.908	0.795	0.517	0.161	0.916	0.787	mW
	d_{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
Test Exclusion:		0.249	0.065	0.363	0.318	0.200	0.062	0.357	0.305	
Limit Exemption:		3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	

¹ 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)

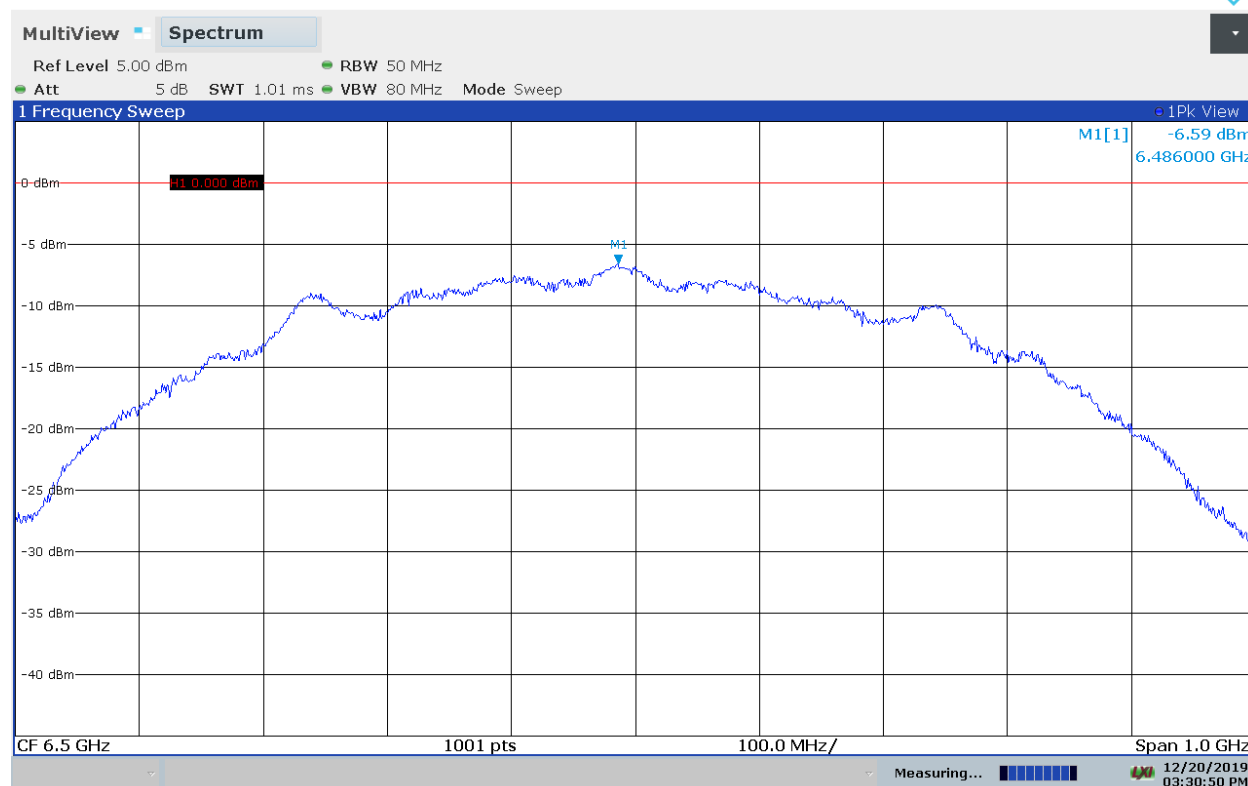
Requirement: TCB Workshop November 2019 RF Exposure Policy Updates dated November 13, 2019, specifically slide 11.

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.

103-20 Wiser Systems Handheld Tag



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