

7. Measurement Data (continued)**7.7. Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1))****7.7.1. 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.

Test Notes: For frequencies below 100 MHz, the following may be considered for SAR test exclusion.

For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz is multiplied by $(1 + \log(100 / f_{\text{(MHz)}}))$.

For test separation distances ≤ 50 mm, the power threshold determined by the above equation is multiplied by $\frac{1}{2}$.

Appendix C SAR Test Exclusion @ 100 MHz = 237 mW

SAR Test Exclusion 50mm = $237 * (1 + \log(100 / 13.56)) = 442$ mW

SAR Test Exclusion ≤ 50 mm = $442 * 0.5 = 221$ mW

- (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.

		13.56 MHz	
Input:	P_{MAX}	0.000001	mW
Limit Exemption:		221	

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

Note: The EUT does not support simultaneous transmission in order to conserve battery life.

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

6. Measurement Data (continued)

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

6.7.1. 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 2	434 MHz	
Input:	P_{MAX}	0.1649	0.019	mW
	d_{MIN}	5.00	5.000	mm
	$f_{(\text{GHz})}$	3.994	0.434	GHz
Test Exclusion:		0.102	0.066	
Limit Exemption:		3.000	3.000	

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

Note: The EUT does not support simultaneous transmission in order to conserve battery life.

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