

Test Number: 105-19

Issue Date: 1/25/2019

7. Measurement Data (continued)

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

7.11.1. 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:

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

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.

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

Channel:	37	38	39	
Input¹:	P_{MAX}	1.786	1.738	1.585
	d_{MIN}^2	5.00	5.00	5.00
	$f_{(\text{GHz})}$	2.402	2.426	2.480
Test Exclusion:	0.55	0.54	0.50	
Limit Exemption:	3.0	3.0	3.0	
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.

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7. Measurement Data (continued)

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

7.11.2. RSS-102 Issue 5 Requirements

Requirement: SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1. Portable devices are subject to radio frequency radiation exposure requirements.

Test Notes: The limit was taken from Table 1 of RSS-102 Issue 5. For limb-worn devices where the 10 gram value applies, the exemption limits for routine evaluation in Table 1 are multiplied by a factor of 2.5.

Results: Compliant

Bluetooth Radio				
Frequency	Separation Distance	Maximum Power	RSS-102 Limit	Result
MHz	mm	mW	mW	
2402	≤5	1.79	10.65	Compliant
2426	≤5	1.74	10.33	Compliant
2480	≤5	1.58	9.86	Compliant