

SAR Test exclusion documentation according to FCC KDB 447498, RSS-102

Report identification number: 1-2702/21-01-06 Exclusion (FCC_ISED)

contains the module with the following certification numbers	
FCC ID	2AXDT-RFM004
ISED number	26428-RFM004
HVIN (Hardware Version Identification Number)	RFM004
PMN (Product Marketing Name)	RF Module 4
FVIN (Firmware Version Identification Number)	-/-
HMN (Host Marketing Name)	-/-

This test report is electronically signed and valid without handwritten signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

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EUT technologies:

Technologies:	Max. measured conducted (AVG) power:	Max. gain:	Min. pathloss:
Bluetooth LE	5.8 dBm	0.8 dBi	0 dB (if applicable)
MI 3.27 MHz)*	--	--	--

Note: Bluetooth LE test results see CTC advanced test report 1-2702/21-01-05.

E.I.R.P. peak results are:

2402 MHz: 5.9 dBm

2440 MHz: 6.6 dBm

2480 MHz: 4.4 dBm

The maximum duty cycle in 100 ms for 255 payload bytes is 85%. This leads to a correction factor of -0.7 dB. Therefore the maximum average output power for SAR exclusion is 5.9 dBm.

)* exempt from routine evaluation for FCC. Measured for ISED in nerve stimulation report 1-2702/21-01-06

SAR test exclusion according to KDB447498 (General RF Exposure Guidance v06)

Equation from Chapter 4.3.1: Standalone SAR test exclusion considerations page 11 and ff.

(1) Standalone SAR test exclusion for 100 MHz to 6 GHz at test separation distances ≤ 50mm

$$(\text{Threshold}_{1\text{-g};10\text{-g}}) \times d_{\text{separation}} / f^{0.5}$$

where

Threshold_{1-g;10-g} is 3 for 1-g; 7.5 for 10-g

d_{separation} is the min. test separation distance; 5mm is used if the distance is less

f is the RF channel transmit frequency

The table below gives the calculated maximal power that could be used for source based time averaged conducted or radiated power, adjusted for tune up tolerance. If this is at or below the calculated value the DUT is exempted from SAR evaluation.

frequency [MHz]	d _{separation} [mm]	Threshold _{1-g}	Powerlimit [mW]	P _{max-declared}		Exclusion
				[dBm]	[mW]	
2450.00	5	3	9.58	5.90	3.89	yes

SAR test exclusion according to RSS-102 Issue 5 Section 2.5.1/Table 1

The table below gives the calculated maximal power that could be used for source based time averaged conducted or radiated power, adjusted for tune up tolerance. If this is at or below the calculated value the DUT is exempted from SAR evaluation.

frequency [MHz]	d _{separation} [mm]	tissue volume	Powerlimit [mW]	P _{max-declared}		Exclusion
				[dBm]	[mW]	
2450.00	5	1 g	4.00	5.90	3.89	yes

The limits above are defined for body worn application and therefore cover all use cases.