

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

Report identification number: 1-6532/18-01-13 Exclusion (FCC_IC)

contains the module with the following certification numbers	
FCC ID	W4G-RMIX
IC number	8167A-RMIX
HVIN (Hardware Version Identification Number)	PCD0193-0000
PMN (Product Marketing Name)	RMIX
FVIN (Firmware Version Identification Number)	-/-
HMN (Host Marketing Name)	-/-

This report is electronically signed and valid without handwriting 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. power conducted: (PEAK)	Max. antenna gain:	Duty Cycle
SRD 2.4 GHz	Max. Declared 20.8 dBm *	Declared : 2.0 dBi *	10 %*

)* declared by manufacturer in document **C - W4G-RMIX Operation Description for FCC.**

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/10-g}	Powerlimit [mW]	P _{max-declared}		Exclusion	for
				[dBm]	[mW]		
2400.00	10	3	19.36	12.80	19.05	yes	Head & Body
2400.00	5	7.5	24.21	12.80	19.05	yes	Hands/wrist/Ankle

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	for
				[dBm]	[mW]		
2400.00	20	1 g	30.00	12.80	19.05	yes	Head & Body
2400.00	10	10 g	17.5*	12.80	19.05	yes	Hands/wrist/Ankle

*) (factor 2.5 for hands/wrists/limbs applied)

For hand-held devices where the 10 gram SAR value applies, the device is exempted from routine evaluation (test exclusion) if the final host justify a min. separation distance of **1 cm** from the radiating elements to the hands/wrists/limbs.

For body-worn devices where the 1 gram SAR value applies, the device is exempted from routine evaluation (test exclusion), if the final host justify a min. separation distance of **2 cm** from the radiating elements to the human body.