



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

Report identification number: 1-8392/19-01-14 Exclusion (FCC_ISED)

contains the module with the following certification numbers	
FCC ID	DMOSKEWD
ISED number	2099A-SKEWD
HVIN (Hardware Version Identification Number)	EW-D SK
PMN (Product Marketing Name)	EW-D SK
FVIN (Firmware Version Identification Number)	1.0.0
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.

Document authorised:



Alexander Hnatovskiy
Lab Manager
Radio Communications & EMC



Marco Scigliano
Testing Manager
Radio Communications & EMC

EUT technologies:

Range	Serial Nr.	Frquency [MHz]	Measured max. EIRP,RMS [dBm]	Target Max. EIRP [dBm]	Max. EIRP (Declared) [dBm]
Q1-6	Cond.: 1220000405	470.20	9.88	11.0 (± 1)	12.0
		498.10	10.96		
		526.00	11.09		
R1-6	Cond.: 1220000433	520.00	9.62	10.0 (± 1)	11.0
		548.00	10.14		
		576.00	10.34		
R4-9	Cond.: 1220000401	552.00	10.84	10.0 (± 1)	11.0
		579.90	10.90		
		607.80	10.54		
BTLE	Cond.: 1220000402	2402.00	5.80	5.0 (± 1)	6.0
		2440.00	5.89		
		2480.00	5.89		

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 $\leq 50\text{mm}$

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

where

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

$d_{\text{separation}}$ 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.

range	frequency [MHz]	$d_{\text{separation}}$ [mm]	Threshold _{1-g}	Powerlimit [mW]	P _{max-declared}	
					[dBm]	[mW]
Q1-6	470.20	5	3	21.88	12.00	15.85
	498.10	5	3	21.25	12.00	15.85
	526.00	5	3	20.68	12.00	15.85
R1-6	520.00	5	3	20.80	11.00	12.59
	548.00	5	3	20.26	11.00	12.59
	576.00	5	3	19.76	11.00	12.59
R4-9	552.00	5	3	20.19	11.00	12.59
	579.90	5	3	19.70	11.00	12.59
	607.80	5	3	19.24	11.00	12.59
BTLE	2402.00	5	3	9.68	6.00	3.98
	2440.00	5	3	9.60	6.00	3.98
	2480.00	5	3	9.53	6.00	3.98

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]	
Q1-6	470.20	1 g	17.00	12.00	15.85	yes
	498.10	1 g	17.00	12.00	15.85	yes
	526.00	1 g	17.00	12.00	15.85	yes
R1-6	520.00	1 g	16.00	11.00	12.59	yes
	548.00	1 g	16.00	11.00	12.59	yes
	576.00	1 g	16.00	11.00	12.59	yes
R4-9	552.00	1 g	15.50	11.00	12.59	yes
	579.90	1 g	15.50	11.00	12.59	yes
	607.80	1 g	15.50	11.00	12.59	yes
BTLE	2402.00	1 g	6.00	6.00	3.98	yes
	2440.00	1 g	6.00	6.00	3.98	yes
	2480.00	1 g	6.00	6.00	3.98	yes

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