



CTC  **advanced**
member of RWTÜV group



Bundesnetzagentur

BNetzA-CAB-02/21-102



DAkkS
Deutsche
Akreditierungsstelle
D-PL-12076-01-03

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

Report identification number: 1-9420/19-03-08 Exclusion (FCCISED)

contains the module with the following certification numbers	
FCC ID	N5F-BLXH1
ISED number	3248A-BLXH1
HVIN (Hardware Version Identification Number)	BLXH1A
PMN (Product Marketing Name)	BRT, VRR
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.

Document authorised:

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EUT technologies:

Technologies:	Max. measured avg EIRP:
DTS band 2400.0 to 2483.5 MHz	-30.53 dBm
BT LE 2450 MHz	5.27 dBm

Notes:

Test results for DTS taken from CTC advanced GmbH report 1-9420/19-03-05 (page 23)
Max measured E-field strength: **64.7 dB μ V/m @3m** (average) with FAKRA A3 antenna

BT LE test results taken from DEKRA test report 63024RRF.002 (page 18).

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 50mm

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

where

$\text{Threshold}_{1-g;10-g}$ 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.

technology	frequency [MHz]	$d_{separation}$ [mm]	Threshold _{1-g}	Powerlimit [mW]	$P_{\text{max-declared}}$		Exclusion
					[dBm]	[mW]	
DTS	2450.00	5	3	9.58	-30.53	0.00	yes
BT LE	2450.00	5	3	9.58	5.27	3.37	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.

technology	frequency [MHz]	$d_{separation}$ [mm]	tissue volume	Powerlimit [mW]	$P_{\text{max-declared}}$		Exclusion
					[dBm]	[mW]	
DTS	2450.00	5	1 g	4.00	-30.53	0.00	yes
BT LE	2450.00	5	1 g	4.00	5.27	3.37	yes

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