

## SAR Test exclusion documentation according to CFR 47 §1.1307

Report identification number: 1-3734/21-01-07 Exemption / MPE (FCC)

<b>contains the module with the following certification numbers</b>	
FCC ID	XKB-XTRAWIC

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.

### Document authorised:

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**EUT technologies:**

Technologies:	Max. meas. cond. AVG Power	Antenna gain	Max. EIRP for RF exposure	Max. ERP for RF exposure
WLAN <sup>1)</sup> 2450 MHz	15.2 dBm	6.6 dBi	21.8 dBm	<b>19.65 dBm</b> (=92.26mW)
WLAN <sup>2)</sup> 5000 MHz	11.6 dBm	7.2 dBi	18.8 dBm	<b>16.65 dBm</b> (=46.24mW)

1) Test result taken from CTC advanced GmbH report 1-3734/21-01-06.

2) Test result taken from CTC advanced GmbH report 1-3734/21-01-05.

**Declared minimum safety distance: 20cm**

According to the manual a safety distance of 20cm shall be applied between the user (and/or bystanders) to the EUT antenna whilst active transmitting.

**SAR-Based Exemption following 47 CFR 1.1307 amendment:**

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold  $P_{th}$  (mW). This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive).  $P_{th}$  is given by Formula (B.2).

$$P_{th}(\text{mW}) = \begin{cases} ERP_{20\text{cm}} \left(\frac{d}{20\text{cm}}\right)^x & d \leq 20\text{cm} \\ ERP_{20\text{cm}} & 20\text{cm} \leq d \leq 40\text{cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left( \frac{60}{ERP_{20\text{cm}} \sqrt{f}} \right)$$

and  $f$  is in GHz,  $d$  is the separation distance (cm), and  $ERP_{20\text{cm}}$  is per Formula (B.1).

$$P_{th}(\text{mW}) = ERP_{20\text{cm}}(\text{mW}) = \begin{cases} ERP_{20\text{cm}} \left(\frac{d}{20\text{cm}}\right)^x & d \leq 20\text{cm} \\ ERP_{20\text{cm}} & 20\text{cm} \leq d \leq 40\text{cm} \end{cases} \quad (\text{B.1})$$

Technology	Transmitter frequency (MHz)	Max. decl. ERP (mW)	Threshold ERP		Minimal Safety (mm)	Verdict
			(mW)	(dBm)		
WLAN	2450	92.26	3060.00	34.8	200	EXCEMPTED
WLAN	5000	46.24	3060.00	34.8	200	EXCEMPTED