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

### Report identification number: 1-5116/22-01-11-A Exemption / MPE (FCC)

| contains the module with the following certification numbers | |
| --- | --- |
| FCC ID | QZ9-CG3 |

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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**Document History:**

| Version | Applied Changes | Date of Release |
| --- | --- | --- |
| | Initial Release | 2023-03-02 |
| -A | Editorial corrections on page 2. | 2023-03-20 |

**EUT technologies:**

| Technologies: | Max. meas. cond. AVG Power | Max. declared antenna gain | Max. EIRP for RF exposure | **Max. ERP for RF exposure** |
|---|---|---|---|---|
| BT EDR 2450 MHz | 5.0 dBm [1] | < 5.0 dBi | 10.0 dBm | **7.85 dBm** (= 6.10mW) |

[1] Test result taken from CTC advanced GmbH report 1-5116/22-01-03.

**Declared minimum safety distance: 19.72cm**
According the CADs and technical descriptions from the manufacturer a safety distance of 19.72 cm 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).

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

where

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

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

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

| Technology | Transmitter frequency | Max. decl. ERP | Treshold ERP | | Minimal Safety | Verdict |
|---|---|---|---|---|---|---|
| | (MHz) | (mW) | (mW) | (dBm) | (mm) | |
| BT EDR | 2450 | 6.10 | 3060.00 | 34.8 | 197.2 | EXEMPTED |