

RF Exposure Evaluation Report

Product : iCarPro 2S
Trade mark : Vgate,vLinker
Model/Type reference : CV306
Serial Number : N/A
Report Number : EED32Q80105903
FCC ID : 2A45F-CV306
Date of Issue : Mar. 22, 2024
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
47 CFR Part 2.1091
47 CFR Part 2.1093
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

Shenzhen CheBoTong Technology co., Ltd.
Room 5C, 5th Building 2, BanDao Chengbang Garden 2th, East Angle
Head Golden Century Road, Shekou Street, Nanshan District shenzhen
518000 China (Peoples Republic Of)

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China

TEL: +86-755-3368 3668**FAX: +86-755-3368 3385**

Compiled by:

mark.chen

Reviewed by:

Frazer. Li

Approved by:

Mark Chen

Frazer Li

Aaron Ma

Date:

Mar. 22, 2024

Aaron Ma

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Shenzhen CheBoTong Technology co., Ltd.
Address of Applicant:	Room 5C, 5th Building 2, BanDao Chengbang Garden 2th, East Angle Head Golden Century Road, Shekou Street, Nanshan District shenzhen 518000 China (Peoples Republic Of)
Manufacturer:	Shenzhen CheBoTong Technology co., Ltd.
Address of Manufacturer:	Room 5C, 5th Building 2, BanDao Chengbang Garden 2th, East Angle Head Golden Century Road, Shekou Street, Nanshan District shenzhen 518000 China (Peoples Republic Of)
Factory:	Shenzhen CheBoTong Technology co., Ltd.
Address of Factory:	Room 5C, 5th Building 2, BanDao Chengbang Garden 2th, East Angle Head Golden Century Road, Shekou Street, Nanshan District shenzhen 518000 China (Peoples Republic Of)

4.2 General Description of EUT

Product Name:	iCarPro 2S
Model No.(EUT):	CV306
Trade Mark:	Vgate,vLinker

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	BLE: GFSK BT: GFSK, $\pi/4$ DQPSK, 8DPSK
Test Power Grade:	Default
Test Software of EUT:	BT_Tool
Antenna Type:	PCB Antenna
Antenna Gain:	1.7dBi
Power Supply:	DC 12V
Sample Received Date:	Jan. 23, 2024
Sample tested Date:	Jan. 23, 2024 to Mar. 07, 2024
Remark:	Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

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

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

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).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

5.1.3 EUT RF Exposure Evaluation**For Stand alone:****For Bluetooth LE:**

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2402	1.13	1.7	2.83	0.68	1.169	3060	PASS

For Bluetooth Classic:

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2441	1.7	1.7	3.4	1.25	1.334	3060	PASS

Note:

- ① EIRP=conducted power+antenna gain;
- ② ERP=EIRP-2.15;
- ③ $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$;
- ④ $ERP(mW) = 10^{(ERP(dBm)/10)}$;
- ⑤ The estimation distance is 20cm;
- ⑥ The test data please refer to the report of EED32Q80105901, EED32Q80105902 and only the worst case data was recorded in the report.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***