



RF EXPOSURE REPORT

Applicant	:	Continental Aftermarket & Services GmbH
Address of Applicant	:	Sodener Strasse 9, 65824 Schwalbach am Taunus, Germany
Manufacturer	:	Huizhou Foryou General Electronics Co., Ltd.
Address of Manufacturer	:	No.2 District A, Foryou Industry Park, No. 1 North Shangxia Road, Dongjiang Hi tech Industry Park, 516005 Huizhou city, Guangdong Province, China(PROC)
Equipment under Test	:	In-Vehicle infotainment System
Model No.	:	CRD8612UBA/DMR675, CRS8612UBA/DMR675, TRD8612UBA/DMR675, TRS8612UBA/DMR675, CRD8612UBA-CLA/DMR675, CRD8612UBA/DMR675-CLA, CRD8613UBA-CLA/DMR675
FCC ID	:	2AVAW-CRD8612UBA
Test Standard(s)	:	KDB447498 D01 General RF Exposure Guidance v06
Report No.	:	DDT-RE24012204-2E08
Issue Date	:	2024/12/18
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

Table of Contents

1. General Test Information..... 5

1.1. Description of EUT..... 5

1.2. Accessories of EUT 5

1.3. Test laboratory 5

2. RF Exposure evaluation for FCC..... 6

2.1. Assessment procedure 6

2.2. Assess result..... 7

Test Report Declare

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Manufacturer	:	Huizhou Foryou General Electronics Co., Ltd.
Address of Manufacturer	:	No.2 District A, Foryou Industry Park, No. 1 North Shangxia Road, Dongjiang Hi tech Industry Park, 516005 Huizhou city, Guangdong Province, China(PROC)

Test Standard Used:

KDB447498 D01 General RF Exposure Guidance v06

We Declare:

The equipment described above is tested by Guangdong Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	DDT-RE24012204-2E08		
Date of Receipt:	2024/01/25	Date of Test:	2024/01/25~2024/12/18

Prepared By:**Approved By:***Bobo Chen***Bobo Chen/Engineer***Damon Hu***Damon Hu/EMC Manager**

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Guangdong Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	2024/12/18	

1. General Test Information

1.1. Description of EUT

EUT Name	: In-Vehicle infotainment System
Model Number	: CRD8612UBA/DMR675, CRS8612UBA/DMR675, TRD8612UBA/DMR675, TRS8612UBA/DMR675, CRD8612UBA-CLA/DMR675, CRD8612UBA/DMR675-CLA, CRD8613UBA-CLA/DMR675
Difference of model number	: The product circuit design, layout, components used and internal wiring are the same, only the model numbers are different. We chose the model "CRD8612UBA/DMR675" as a representative model for compliance testing.
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 12V

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual. The above Antenna information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

"☑" means to be chosen or applicable; "☐" means don't to be chosen or not applicable; This note applies to entire report.

1.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

1.3. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20155, G-20118

2. RF Exposure evaluation for FCC

2.1. Assessment procedure

Requirement:

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100000			1.0	30

Note: f= frequency in MHz; *Plane-wave equivalent power density

Calculation method

$$E(\text{V/m}) = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } S(\text{mW/cm}^2) = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (mW)

G = EUT Antenna numeric gain (numeric)=

d = Separation distance between radiator and human body (m)

The formula can be changed to

We can change the formula to:

$$S = \frac{30 \times P \times G}{377 \times d^2} \quad \text{or, } d = \sqrt{\frac{30 \times P \times G}{377 \times S}}$$

From the peak EUT RF output power, the minimum mobile separation distance, $d=0.2$ m, as well as the gain of the used antenna, the RF power density can be obtained.

2.2. Assess result

Mode	Output power (dBm)	Output power (mW)	tune up power (dBm)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE Values (mW/cm ²)	MPE Limit (mW/cm ²)
Bluetooth BR/EDR	-1.50	0.71	-1.50	3.2	2.09	0.00029	1
Bluetooth LE	-2.37	0.579	-2	3.2	2.09	0.00026	1
5G WiFi	13.34	21.577	14	3.5	2.24	0.01119	1

Simultaneous transmit evaluation result: $0.00029+0.01119=0.01148 < 1$

Note: The estimation distance is 20 cm

Conclusion: MPE evaluation required since transmitter power is below FCC threshold

-----End Report-----