



TEST REPORT

Reference No...... : WTZ22F04082348W
FCC ID : 2A7MY-CF8
Applicant..... : Foshan Shunde QINGZHOU Electric Appliances Co.,Ltd
Address..... : Room 2901, Building 18, Vanke Jinyu Binjiang Plaza, No. 13 Desheng
Middle Road, Dehe Community, Daliang Street, Shunde District,
Foshan, Guangdong
Manufacturer : The same as above
Address..... : The same as above
Product Name..... : Car Refrigerator
Model No..... : CF8, CF15
Test specification..... : FCC CFR47 Part 1 Subpart 2 (Section2.1091): 2020
KDB 447498 D01 v06
Date of Receipt sample : 2022-05-24
Date of Test : 2022-05-24
Date of Issue..... : 2022-07-13
Test Report Form No. : WEW-MPE-01A
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

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1 Revision History

Test Report No.	Date of Issue	Description	Status
WTZ22F04082348W	2022-07-13	Original	Valid

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3 General Information

3.1 General Description of E.U.T

Product Name	Car Refrigerator
Model No.	CF8, CF15
Model Description	Two models are identical except for the appearance. Therefore the full tests were performed on model CF8.
Rated Voltage.....	DC 12/24V, 45W
Battery Capacity	---
Power Adapter	---

3.2 Technical Characteristics of EUT (BT mode)

Bluetooth Version	V5.1(BR+EDR mode)
Frequency Range	2402-2480MHz
Max. RF Output Power	0.88dBm (Conducted)
Modulation	GFSK , $\pi/4$ DQPSK
Data Rate	1Mbps, 2Mbps
Quantity of Channels	79
Channel Separation.....	1MHz
Type of Antenna	PCB Printed Antenna
Antenna Gain	1.6dBi
Lowest Oscillation.....	24MHz

3.3 Technical Characteristics of EUT (BLE mode)

Bluetooth Version	V5.1(BLE mode)
Frequency Range	2402-2480MHz
RF Output Power	-8.69dBm (Conducted)
Modulation	GFSK
Data Rate	1Mbps
Quantity of Channels	40
Channel Separation.....	2MHz
Type of Antenna	PCB Printed Antenna
Antenna Gain	1.6dBi
Lowest Oscillation.....	24MHz

3.4 Disclaimer

The antenna gain information is provided by the customer. The laboratory is not responsible for the accuracy of the antenna gain information.



4 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

4.1 Standard Applicable

This estimation follows the general guidelines for RF Exposure according to KDB 447498.

As noted in §2.1091(b) a mobile device is defined as “a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.”

According to §2.1091(c) the limits to be used for evaluation are defined in §1.1310.

As specified in §1.1310(d)(2) at operating frequencies less than or equal to 6 GHz, the limits for maximum permissible exposure (MPE), derived from whole-body SAR limits and listed in Table 1 of §1.1310(e) may be used.

Table 1 below shows the limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields.

(a) Limits for Occupational / Controlled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

(b) 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 Times 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	30

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



4.2 MPE Calculation Method

$$S = (30 \cdot P \cdot G) / (377 \cdot R^2)$$

S = power density (in appropriate units, e.g., mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor is normally numeric gain.

R = distance to the center of radiation of the antenna (in appropriate units, e.g., cm)

4.3 MPE Calculation Result

Prediction distance (mm)	Mode	Antenna Gain (dBi)	Numeric gain	Maximum Tune-up output power (dBm)	Maximum peak output power (mW)	PD (mW/cm ²)	Limit (mW/cm ²)
>200	BT	1.6	1.45	2.48	1.770	0.0005090	1.0
>200	BLE	1.6	1.45	-7.09	0.195	0.0000561	1.0

Result: Pass

=====End of Report=====

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