

# Test Report

Verified code: 055242

Report No.: E20230717807601-4

Customer: Faurecia Clarion Electronics (Xiamen) Co., Ltd.

Address: 6F, No. 40, Guanri Road, Software Park Stage II, Xiamen City, Fujian Province, P.R. China

Sample Name: RN WCBS

Sample Model: Z0003NI

Receive Sample Date: Jul. 25, 2023

Test Date: Aug. 31, 2023 ~ Aug. 31, 2023

Reference Document: CFR47 FCC Part 1: Subpart I Section 1.1310  
CFR47 FCC Part 1: Subpart I Section 1.1307

Test Result: Pass

Prepared by: Wen Wenwen  
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Reviewed by: Jimmy Tan  
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Xiao Liang

GRG METROLOGY &amp; TEST GROUP CO., LTD.

Issued Date: 2023-10-26

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5. Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.

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## TABLE OF CONTENTS

1. GENERAL DESCRIPTION OF EUT .....	5
1.1 APPLICANT .....	5
1.2 MANUFACTURER .....	5
1.3 FACTORY .....	5
1.4 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST .....	5
2. LABORATORY AND MEASUREMENT UNCERTAINTY .....	7
2.1 LABORATORY .....	7
2.2 MEASUREMENT UNCERTAINTY .....	7
3. TEST MODE AND SUPPORTIVE INSTRUMENTS .....	8
3.1 TEST MODE .....	8
3.2 BLOCK DIAGRAM .....	8
3.3 LOCAL SUPPORTIVE INSTRUMENTS .....	9
4. LIST OF USED TEST EQUIPMENT AT GRGT .....	9
4.1 LIST OF USED TEST EQUIPMENT .....	9
5. TECHNICAL REQUIREMENTS SPECIFICATION .....	10
5.1 TEST LIMIT .....	10
5.2 TEST PROCEDURES .....	11
5.3 TEST RESULT .....	12
6. PHOTOGRAPHS OF TEST SET-UP .....	13
7. PHOTOGRAPHS OF THE EUT .....	13

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REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E20230717807601-4	Original Issue	2023-10-25

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## 1. GENERAL DESCRIPTION OF EUT

### 1.1 APPLICANT

Name: Faurecia Clarion Electronics (Xiamen) Co., Ltd.  
Address: 6F, No. 40, Guanri Road, Software Park Stage II, Xiamen City, Fujian Province, P.R. China

### 1.2 MANUFACTURER

Name: Faurecia Clarion Electronics (Xiamen) Co., Ltd.  
Address: 6F, No. 40, Guanri Road, Software Park Stage II, Xiamen City, Fujian Province, P.R. China

### 1.3 FACTORY

Name 1: Faurecia Clarion Electronics (Fengcheng) Co. Ltd.  
Address 1: No. 12 High-Tech Road, Fengcheng High Technology Industry Park, Yi chun City, Jiangxi Province, P.R. China.  
Name 2: ELECTRÓNICA CLARION, S.A. DE C.V.  
Address 2: Av. Nueve Oriente No. 3, Col. Zona Industrial Valle de Oro. 76803 – San Juan del Río (Mexico)

### 1.4 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Product Name: RN WCBS  
Product Model: Z0003NI  
Adding Model: /  
Model Difference: /

Trade Name:



Power Supply: DC 9V-16V by battery, typical voltage DC 12V, Rating current  $\leq 2.54\text{A}$

Frequency Band: 120kHz for wireless charger

FCC ID: WY2Z0003NI

Antenna Type: Coil Antenna for wireless charger

Modulation type: FSK for wireless charger

Sample submitting way: ☒ Provided by customer ☐ Sampling

Sample No: E20230717807601-0001

Temperature Range: -30°C ~ +60°C

Hardware version: 285J95096R

Software version: 283H57049R

Note:

The basic description of the EUT is provided by the applicant. This report is made Solely on the basis of such data and/or information. We accept no responsibility for the authenticity and completeness of the above data and information and the validity of the results and/or conclusions.

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## 2. LABORATORY AND MEASUREMENT UNCERTAINTY

### 2.1 LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of GRG METROLOGY & TEST group CO., LTD.

Add : No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District  
Shenzhen, 518110, People's Republic of China

P.C. : 518110

Tel : 0755-61180008

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### 2.2 MEASUREMENT UNCERTAINTY

Parameter	Worst Case Uncertainty	Max. Uncertainty
E/H-Field Level Tester	12.6%	<30%

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95%.  
This uncertainty represents an expanded uncertainty factor of  $k=2$ .

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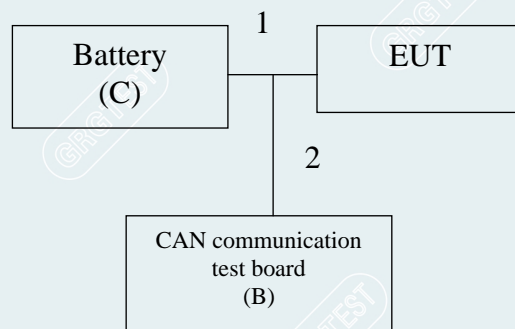
### 3. TEST MODE AND SUPPORTIVE INSTRUMENTS

#### 3.1 TEST MODE

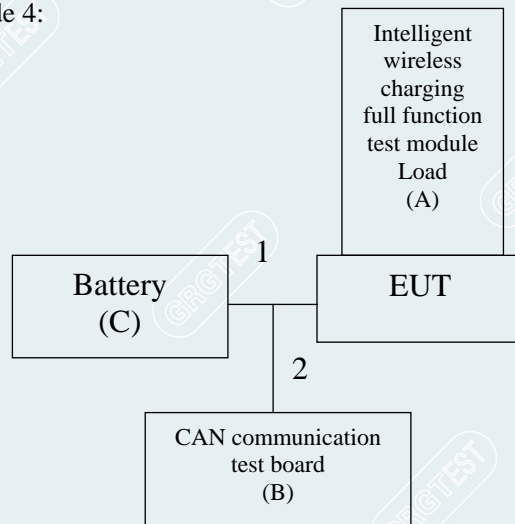
Mode No.	Description of the modes
Mode 1	EUT Standby Mode
Mode 2	EUT charging mode + RX load(5W)
Mode 3	EUT charging mode + RX load(10W)
Mode 4	EUT charging mode + RX load(15W)

#### 3.2 BLOCK DIAGRAM

Mode 1:



Mode 2 to mode 4:





### 3.3 LOCAL SUPPORTIVE INSTRUMENTS

No.	Name of Equipment	Manufacturer	Model	Serial Number
A	Intelligent wireless charging full function test module Load	/	/	/
B	CAN communication test board	/	HBHQ-TEST-01	700009064
C	Battery	/	L2-400	D8J16H288-0610

No.	Cable Type	Qty.	Shielded Type	Ferrite Core(Qty.)	Note
1	DC Cable	1	No	0	Unshielded 1.0m
2	DC Cable	1	No	0	Unshielded 1.0m

## 4. LIST OF USED TEST EQUIPMENT AT GRGT

### 4.1 LIST OF USED TEST EQUIPMENT

Name of equipment	Manufacturer	Model	Serial number	Calibration due
Long, medium and short wave electromagnetic field frequency selective analyzer	narda	EHP-200A	180ZX00611	2023-09-04

Note: The calibration interval of the test instruments is 12 months.

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## 5. TECHNICAL REQUIREMENTS SPECIFICATION

### 5.1 TEST LIMIT

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(i) Limits for Occupational/Controlled Exposure</b>				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
<b>(ii) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz. \* = Plane-wave equivalent power density.

The EUT does comply with requirements of KDB 680106 D01.

1) Power transfer frequency is less than 1MHz

Yes, the operating frequency of the device is 120kHz.

2) Output power from each primary coil is less than or equal to 15 watts.

Yes, the maximum output power of the primary coil is 15W.

3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pair of coils.

Yes, the transfer system includes only single primary and secondary coils.

4) Client device is inserted in or placed directly in contact with the transmitter.

Yes, client device is placed directly in contact with the transmitter.

5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

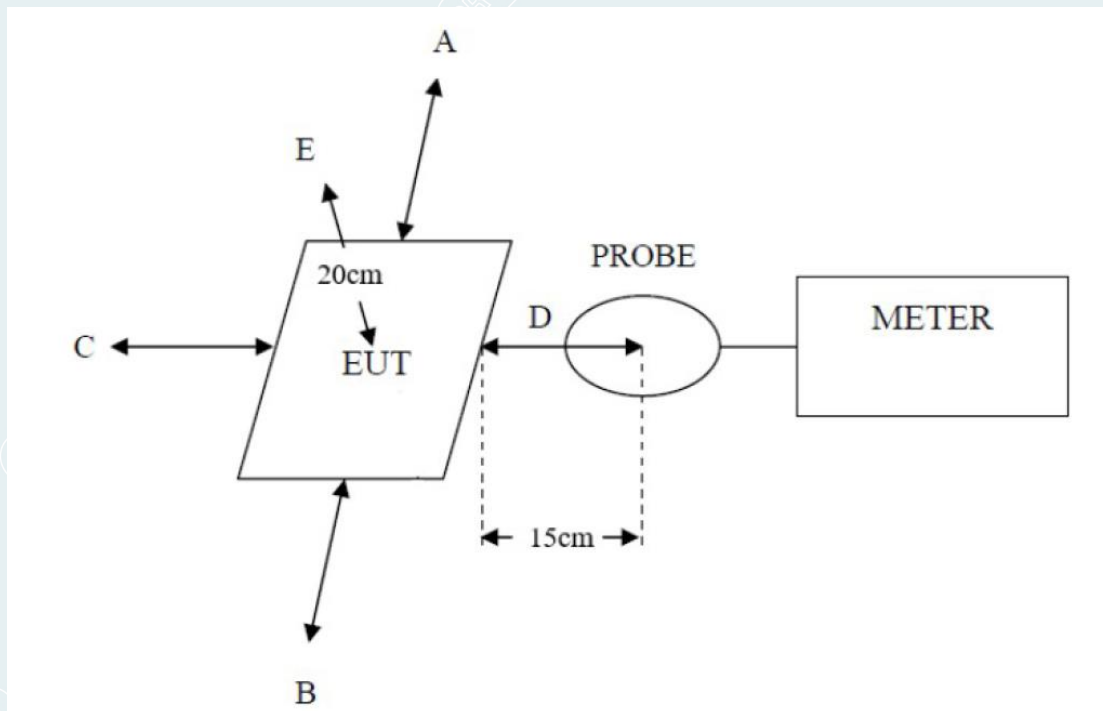
Yes, the EUT is a mobile Wireless Charger.

6) The aggregate H-field strengths at 15cm surrounding the device and 20cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

Yes, the EUT field strength levels are less than 50% of the MPE limit.

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## 5.2 TEST PROCEDURES



Note: Measurements should be made from all sides and the top of EUT, with the 15cm measured from the center of the probe(s) to the edge of the device and the 20cm measured from the center of the probe(s) to the top of the device. Position A is the front of the EUT, position B is the rear of the EUT, position C is the left of the EUT, position D is the right of the EUT, position E is the top of the EUT.

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### 5.3 TEST RESULT

Date of testing:	2023-08-31
Ambient temperature:	24.0 °C
Relative humidity:	60%RH
Ambient Pressure:	101kPa
Test by:	Zhang Zishan

H-Field Strength at 15 cm from the edges surrounding the EUT and 20cm from the top surface of the EUT.

EUT Test Mode	Measured H-Field Strength Values(A/m)					50% Limit(A/m)	Limit (A/m)	Result
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E			
Mode 1	0.0977	0.0975	0.0978	0.0974	0.0973	0.815	1.63	Pass
Mode 2	0.1995	0.1837	0.2036	0.1287	0.4380	0.815	1.63	Pass
Mode 3	0.4076	0.2960	0.4774	0.3178	0.7379	0.815	1.63	Pass
Mode 4	0.3149	0.3141	0.2222	0.2185	0.7376	0.815	1.63	Pass

E-Field Strength at 15 cm from the edges surrounding the EUT and 20cm from the top surface of the EUT.

EUT Test Mode	Measured E-Field Strength Values(V/m)					50% Limit(V/m)	Limit (V/m)	Result
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E			
Mode 1	0.4253	0.4251	0.4253	0.4253	0.4253	307	614	Pass
Mode 2	0.6982	0.6437	0.6236	0.5948	1.7956	307	614	Pass
Mode 3	1.1611	0.7859	1.2664	1.7901	1.1761	307	614	Pass
Mode 4	1.0035	0.8284	0.6996	0.7466	1.1140	307	614	Pass

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## **6. PHOTOGRAPHS OF TEST SET-UP**

Please refer to the attached document E20230717807601-10 test setup photo.

## **7. PHOTOGRAPHS OF THE EUT**

Please refer to the attached document E20230717807601-11 EUT photo.

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