



FCC TEST REPORT

FCC ID: 2A5WY-F3001

Product	:	Wireless Charging Station
Basic model	:	F3002
Serial model	:	F3001,F300211110,F300251111,F300212110,F300252111,F300111110,F300151111,F300112110,F300152111
Brand	:	N/A
Report No.	:	PTC22031402102E-FC02

Prepared for

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Prepared by

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TEST RESULT CERTIFICATION

Applicant's name : Dongguan Nuomi Innovation Technology Co., Ltd.
Address : Room 501, Building 1, No. 7 Industrial North Road, Songshan Lake Park, Dongguan City, Guangdong Province
Manufacturer's name : Dongguan Nuomi Innovation Technology Co., Ltd.
Address : Room 501, Building 1, No. 7 Industrial North Road, Songshan Lake Park, Dongguan City, Guangdong Province
Product name : Wireless Charging Station
Basic model : F3002
Serial model : F3001,F300211110,F300251111,F300212110,F300252111,F300111110,F300151111,F300112110,F300152111
Test procedure : KDB680106 D01 RF Exposure Wireless Charging Apps v03
Test Date : Mar. 21, 2022 to Apr. 28, 2022
Date of Issue : Apr. 28, 2022
Test Result : Pass

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

A handwritten signature in black ink that reads 'Abel Yu'.

Abel Yu / Engineer

Technical Manager:

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Ronnie Liu / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS
Remark:		
N/A: Not Applicable		

2.1 Test Equipment List

Name of Equipment	Manufacturer	Model	Characteristics	Calibration Due	interval time
Exposure Level Tester	Narda	ELT-400	Aug. 21, 2021	Aug. 20, 2022	1 year
H-Field probe	Narda	HF-3061	Aug. 21, 2021	Aug. 20, 2022	1 year
E-Field probe	Narda	EF0691	Aug. 21, 2021	Aug. 20, 2022	1 year

2.2 Description of Support Units

Equipment	Model No.	Technical Parameters
Mobile phone	iPhone 13	7.5W/15W
Wireless charging load	KAZIDUN	5W/7.5W/10W/15W
Adapter	A653-2402700U	DC 24V,2.7A



2.3 Description of Test Modes

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Full load, Wireless charger module (Twin coil (Mobile phone load)+ Monocoil Load:15W+5W)
Mode 2	EUT+Mobile phone load (15W)
Mode 3	EUT+Monocoil Load (5W)

For Conducted Emission	
Final Test Mode	Description
Mode 1	Full load, Wireless charger module (Twin coil (Mobile phone load)+ Monocoil Load:15W+5W)

For Radiated Emission	
Final Test Mode	Description
Mode 1	Full load, Wireless charger module (Twin coil (Mobile phone load)+ Monocoil Load:15W+5W)

Note:

- (1) Test channel is 0.1250MHz.
- (2) All the situation(full load, half load and empty load) has been tested,only the worst situation (full load) was recorded in the report.
- (3)All modes have been tested. This report only show the test result of the worst case(Full load).
- (4)Upper and lower coil of Twin coil, in which the upper coil is the worst mode.



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Wireless Charging Station
Basic model	:	F3002
Serial model	:	F3001,F300211110,F300251111,F300212110,F300252111,F300111110,F300151111,F300112110,F300152111 Note:F3002 double coil part with watch bracket, F3001 does not have watch bracket, other coil parts are the same; F300211110, F300251111, F300212110, F300252111 and F3002 with the same product, the model name is different; F300111110, F300151111, F300112110, F300152111 and F3001 same product, different model name.
Operation Frequency	:	110-205KHz
Type of Modulation	:	ASK
Antenna installation	:	Inductive loop coil Antenna
Antenna Gain	:	0 dBi
Power supply	:	Adapter: Model:A653-2402700U Input: 100-240V~ 50/60Hz, 1.5A Output: DC 24V, 2.7A Monocoil:5W Twin coil:15W
Hardware Version	:	N/A
Software Version	:	N/A



4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : FCC Part 2.1091

4.1 Requirements

According to the item 5.b) of KDB 680106 D01v03:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

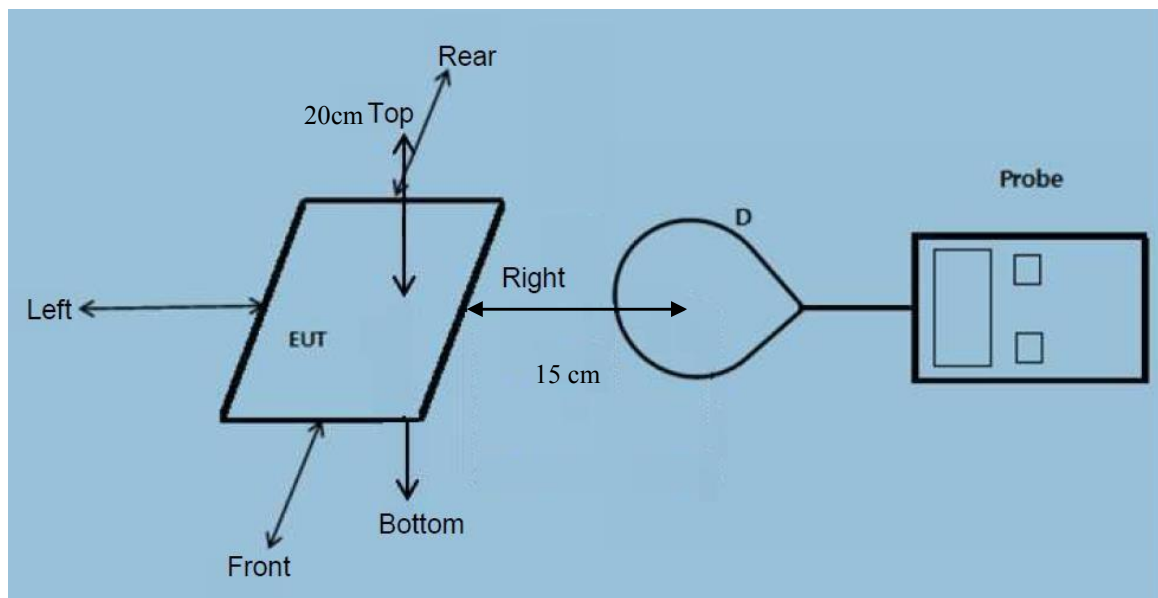
- 1) Power transfer frequency is less than 1 MHz
- 2) Output power from each primary coil is less than or equal to 15 watts.
- 3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils
- 4) Client device is inserted in or placed directly in contact with the transmitter
- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)
- 6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

Limits For Maximum Permissible Exposure (MPE)

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

F=frequency in MHz
 *=Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

4.2 Test Setup





Note: Measurements should be made at 15 cm surrounding the EUT and 20cm above the top surface of the EUT.

4.3 Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at required test distance which is between the edge of the charger and the geometric center of probe.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.(A is the right, B is the back, C is the left, D is the front, and E is the top.)
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v03.

Remark;

The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

4.4 Test Result

Equipment Approval Considerations item 5.b of KDB 680106 D01 v03.

- 1) Power transfer frequency is less than 1 MHz
 - The device operate in the frequency range 110~205KHz
- 2) Output power from each primary coil is less than 15 watts
 - 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 pairs of coils
 - The transfer system including a charging system with two primary coils is to detect and allow only between individual pairs of coils.Only one coil works at a time.
- 4) Client device is inserted in or placed directly in contact with the transmitter
 - Client device is placed directly in contact with the transmitter.
- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)
- 6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.
 - Conducted the measurement with the required distance and the test results please refer to the section 2.4.2



Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(b), 1.1310

Temperature:	24.3°C	Relative Humidity:	54%
Pressure:	1012 hPa	Test Voltage:	AC 120V, 60Hz for adapter

F-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Battery power	Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (V/m)	Limits Test (V/m)
1%	110~205	0.34	0.49	0.28	0.37	1.28	307	614
50%	110~205	1.63	1.47	1.48	1.37	1.56	307	614
99%	110~205	2.02	2.76	2.34	2.24	2.33	307	614
Stand-by	110~205	0.25	0.42	0.26	0.30	0.97	307	614

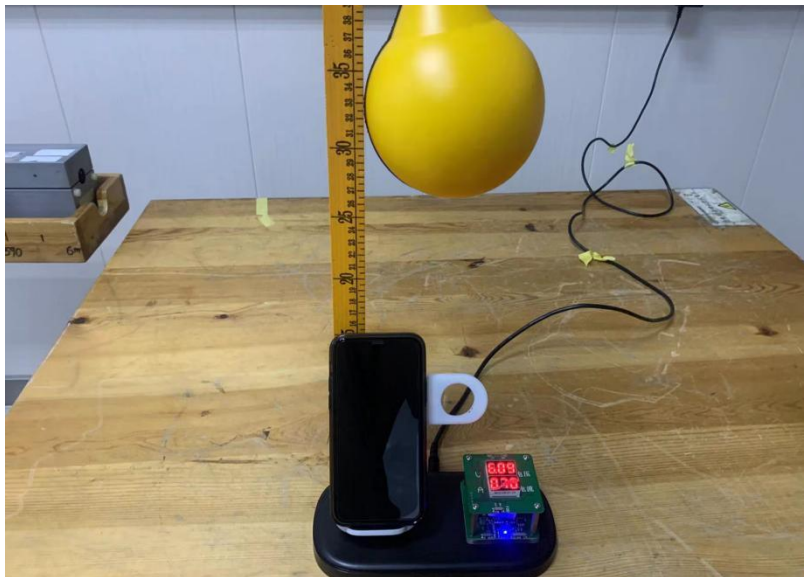


H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Battery power	Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (A/m)	Limits Test (A/m)
1%	110~205	0.155	0.176	0.126	0.135	0.165	0.815	1.63
50%	110~205	0.380	0.540	0.330	0.420	0.420	0.815	1.63
99%	110~205	0.470	0.650	0.400	0.332	0.530	0.815	1.63
Stand-by	110~205	0.124	0.133	0.130	0.140	0.160	0.815	1.63

Remark: All the conditions have been tested. It is found that 15W is the worst mode, and the data in the report only reflects the worst mode.

APPENDIX I -- TEST SETUP PHOTOGRAPH



*****THE END REPORT*****