

RF Exposure Evaluation TEST REPORT

for

Globe Electric Company Inc.

Disinfecting Wireless Charging Hub

Model No.: 60055

Prepared for : Globe Electric Company Inc.
150, Oneida, Montreal, Quebec, Canada, H9R 1A8

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
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Report Number : ACS-F20268
Date of Test : Dec.30,2020
Date of Report : Jan.06,2021

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TEST REPORT

Applicant : Globe Electric Company Inc.
Product : Disinfecting Wireless Charging Hub
(A) Model No. : 60055
(B) Test Voltage : AC 120V/60Hz

Testing Based on:
KDB 680106 D01 RF Exposure Wireless Charging Apps v03

The device described above is tested by Audix Technology (Shenzhen) Co., Ltd.. The measurement results were contained in this test report and Audix Technology (Shenzhen) Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC RF Exposure requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Audix Technology (Shenzhen) Co., Ltd..

Date of Test : Dec.30,2020 Report of date: Jan.06,2021

Prepared by : Brave Zhang Reviewed by : Sunny Lu
Brave Zhang / Assistant Sunny Lu / Deputy Manager



Approved & Authorized Signer :

Stamp only for EMC Dept. Report

Signature: David Jin
David Jin / Deputy General Manager

1. GENERAL INFORMATION

1.1. Description of Equipment Under Test

Applicant	Globe Electric Company Inc.
Applicant Address	150, Oneida, Montreal, Quebec, Canada, H9R 1A8
Manufacturer	Globe Electric Company Inc.
Manufacturer Address	150, Oneida, Montreal, Quebec, Canada, H9R 1A8
Product	Disinfecting Wireless Charging Hub
Model No.	60055
Radio Frequency	126.8kHz
Modulation Type	FSK
Sample Type	Prototype production
Date of Receipt	Dec.08,2020
Date of Test	Dec.30,2020

1.2. Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Kefeng Road, Science & Technology
Park, Nanshan District, Shenzhen, Guangdong,
China

RF Anechoic Chamber : Dimensions are:
[L]10m × [W]5.5m × [H]5m

EMC Lab. : Accredited by DAkkS, Germany
Registration No: D-PL-12151-01-00
Valid Date: Dec.07, 2021

: Accredited by NVLAP, USA
NVLAP Code: 200372-0
Valid Date: Mar.31, 2021

Certificated by FCC, USA
Designation No: CN5022
Valid Date: Mar.31, 2021

1.3. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty
Uncertainty for Radiated Spurious Emission test in RF chamber	3.7dB(30MHz-1000MHz)
	3.3dB(1GHz-26.5GHz)
Uncertainty for test site temperature and humidity	0.6°C
	3%

Note: The value is not calculated in the test results.

2. RF EXPOSURE REQUIREMENT

2.1. Equipment list

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Field meter	Nadar	ETL-400	N-0163	Oct.19,20	1 Year
2.	ELT PROBE	Nadar	ETL Probe 100 cm ²	M-0609	Oct.19,20	1 Year

2.2. General information

For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

This device meeting all of the following requirements, so the PGA is not required.

- (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 placed directly in contact with the transmitter.
- (5) Mobile exposure conditions only
- (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.

2.3. Limit

Basic Restrictions Reference levels

Basic restrictions for electric, magnetic and electromagnetic fields (0Hz to 300GHz)

TABLE 1—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 Exposure				
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
300-1,500			f/300	6
1,500-100,000			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
300-1,500			f/1500	30
1,500-100,000			1.0	30

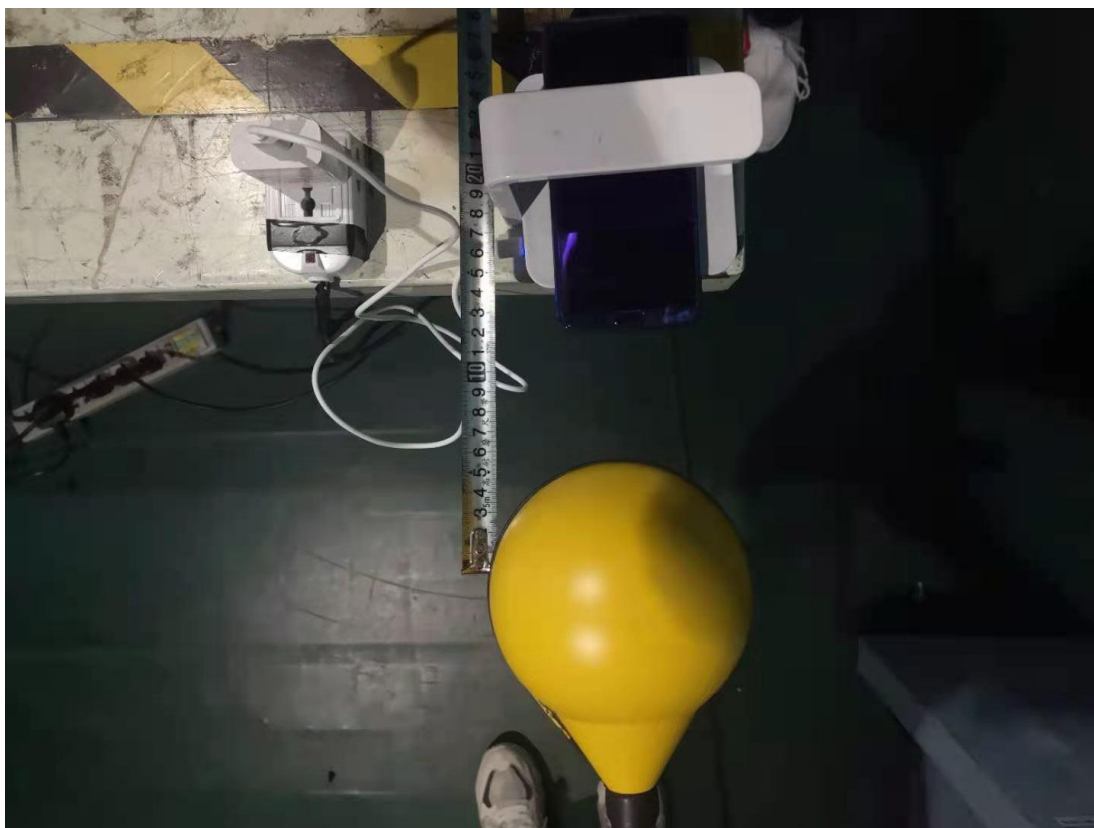
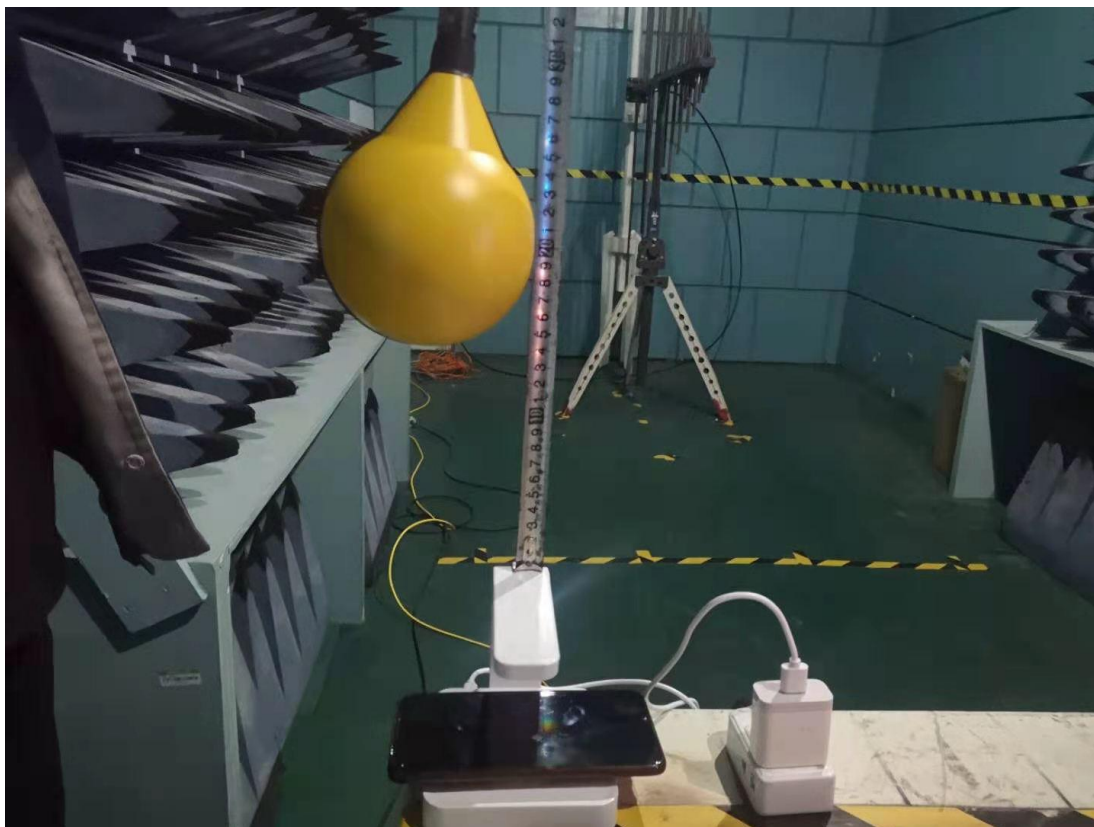
f = frequency in MHz * = Plane-wave equivalent power density

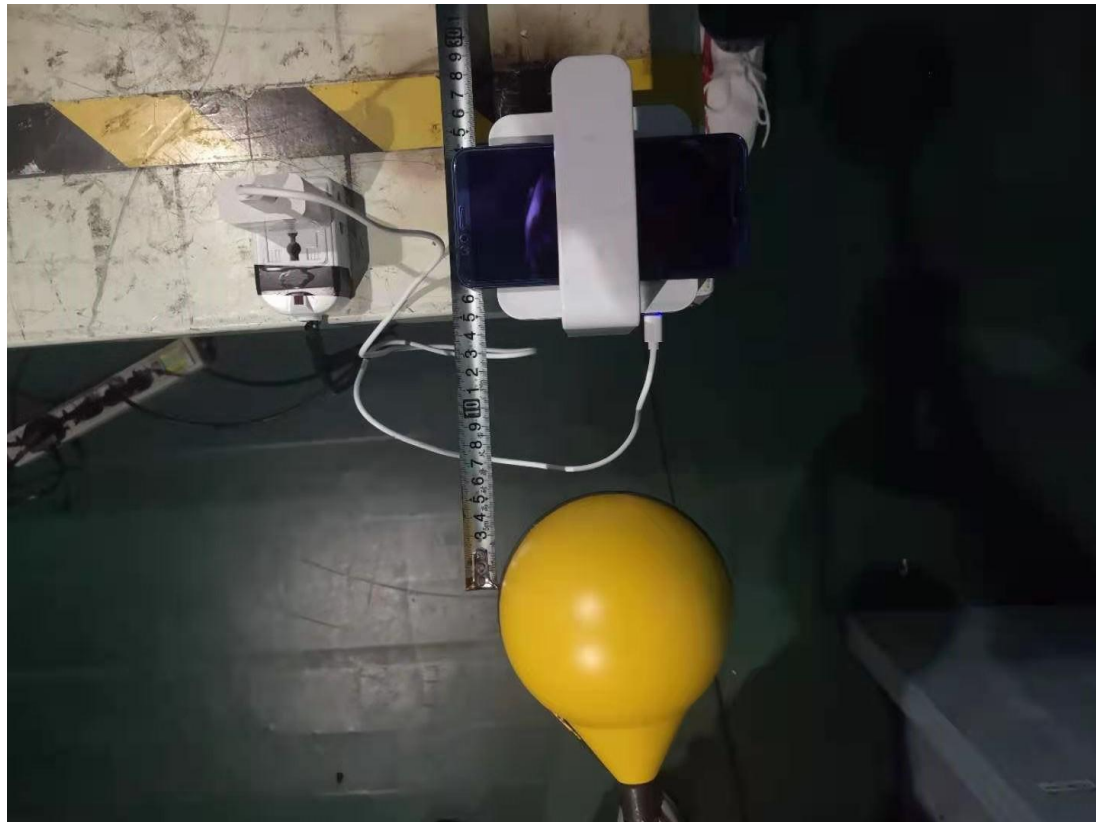
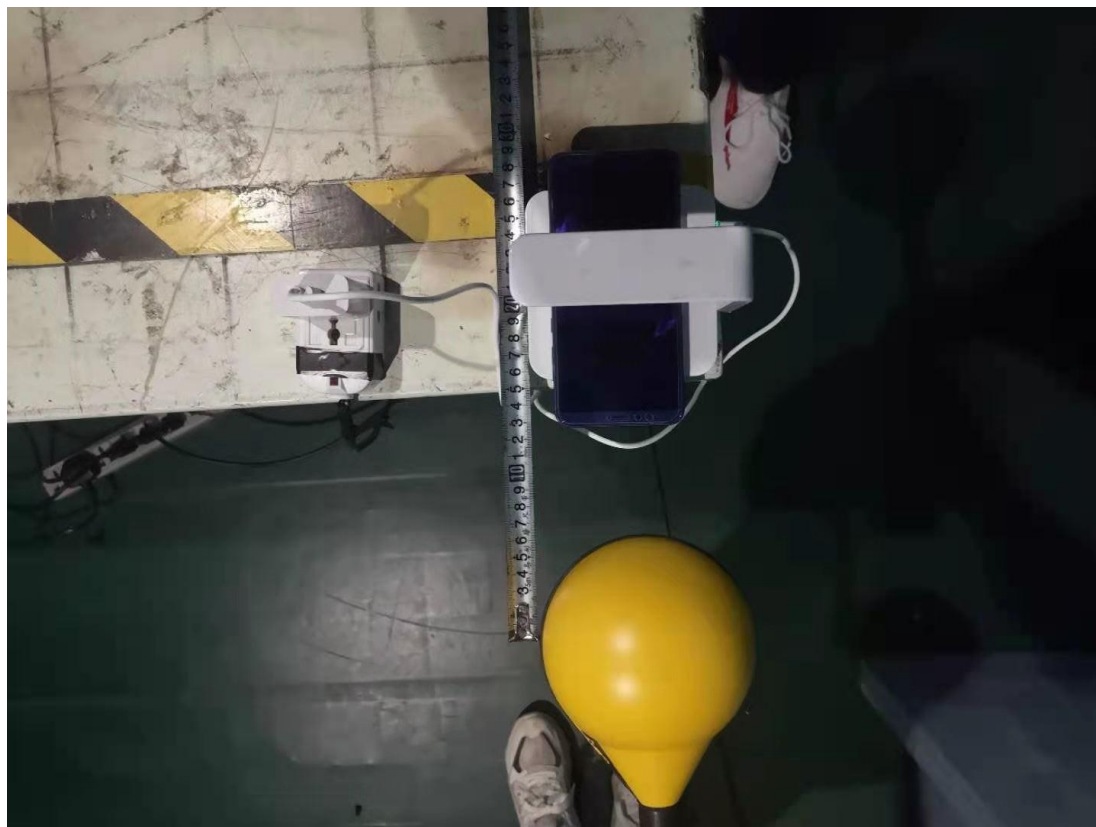
3. ASSESS RESULTS

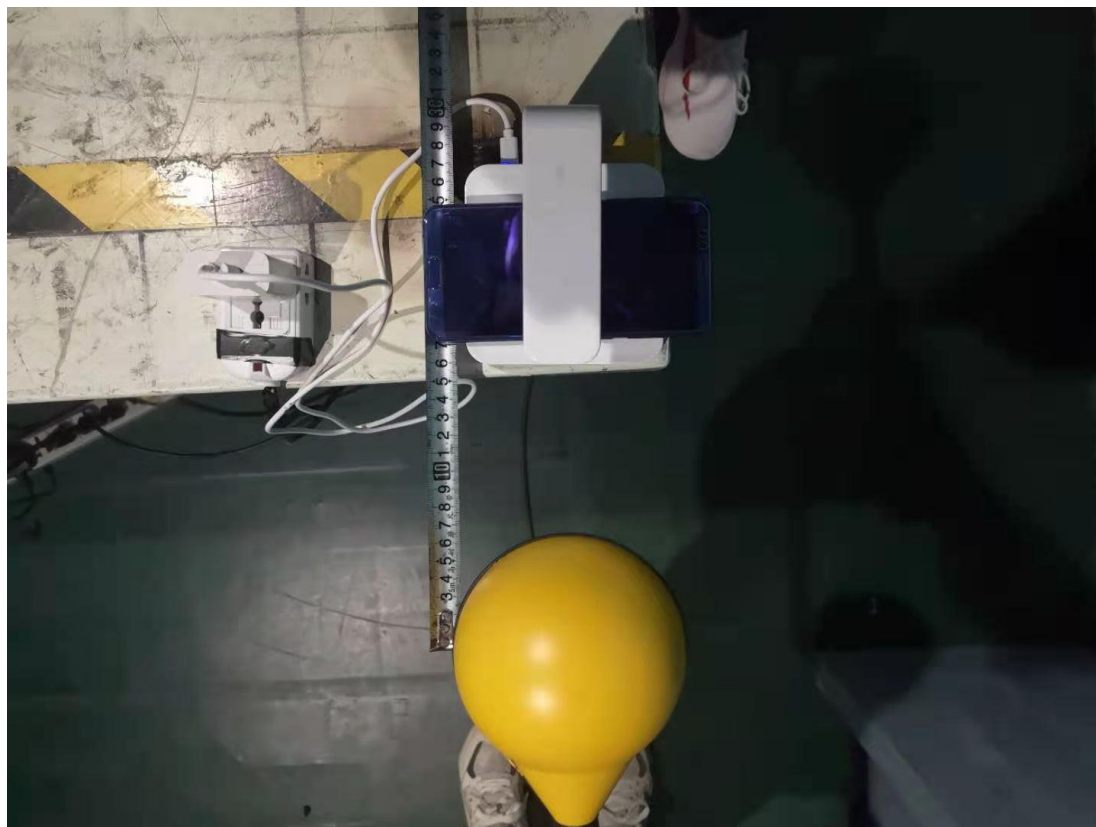
Three type of load was completed for test. Only the worst results of less than 1% of battery was reported as below:

EUT: Disinfecting Wireless Charging Hub					
M/N: 60055					
Test date: 2020-12-30		Pressure: 102.5 ±1.0 kpa		Humidity: 52.7 ±3.0%	
Tested by: Allen		Test site: RF Site		Temperature: 22.5 ±0.6℃	
Normal Operation (Charging mode)					
Position	Distance (CM)	uT (V/m)	E-Field Strength (V/m)	Limit (V/m)	Result
Front	15	0.255	76.30	614	PASS
Bank	15	0.254	76.61	614	PASS
Left	15	0.259	62.37	614	PASS
Right	15	0.258	77.61	614	PASS
Top	20	0.229	68.52	614	PASS
Normal Operation (Charging mode)					
Position	Distance (CM)	uT (V/m)	H-Field Strength (A/m)	Limit (A/m)	Result
Front	15	0.255	0.204	1.63	PASS
Bank	15	0.254	0.203	1.63	PASS
Left	15	0.259	0.207	1.63	PASS
Right	15	0.258	0.206	1.63	PASS
Top	20	0.229	0.183	1.63	PASS

4. PHOTOGRAPHS







..... **THE END**