RF Exposure Report

Test report
On Behalf of
Shenzhen Kingstar Industrial Co.Ltd.
For
Wireless bluetooth speaker

Model No.: F2

FCC ID: 2ADOMF2

Prepared for :	**Shenzhen Kingstar Industrial Co.Ltd.** **#1 Floor, Building A, ZaiFeng Industrial Park, Shajing Town,Bao'an District, Shenzhen, Guangdong, China**
Prepared By :	**Shenzhen HUAK Testing Technology Co., Ltd.** **1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street, Bao'an District, Shenzhen City, China**

Date of Test:	**Jan. 31, 2019 to Feb. 13, 2019**
Date of Report:	**Feb. 13, 2019**
Report Number:	**HK1902140243E**

TEST RESULT CERTIFICATION

Applicant's name	:	Shenzhen Kingstar Industrial Co.Ltd.
Address	:	#1 Floor, Building A, ZaiFeng Industrial Park, Shajing Town, Bao'an District, Shenzhen, Guangdong, China
Manufacture's Name	:	Shenzhen Kingstar Industrial Co.Ltd.
Address	:	#1 Floor, Building A, ZaiFeng Industrial Park, Shajing Town, Bao'an District, Shenzhen, Guangdong, China
Factory		Shenzhen Kingstar Industrial Co.Ltd.
Address		#1 Floor, Building A, ZaiFeng Industrial Park, Shajing Town, Bao'an District, Shenzhen, Guangdong, China
Product description		
Trade Mark:		N/A
Product name	:	Wireless bluetooth speaker
Model and/or type reference	:	F2
Standards	:	KDB 680106 D01 RF Exposure Wireless Charging Base App v03

Date of Test	:	
Date (s) of performance of tests	:	Jan. 31, 2019 to Feb. 13, 2019
Date of Issue	:	Feb. 13, 2019
Test Result	:	**Pass**

Testing Engineer	:	Gary Qian
		(Gary Qian)
Technical Manager	:	Eden Hu
		(Eden Hu)
Authorized Signatory	:	Jason Zhou
		(Jason Zhou)

Table of Contents **Page**

1 . TEST SUMMARY 4
2. GENERAL INFORMATION 5
2.1. PRODUCT DESCRIPTION 5
2.2 OPERATION OF EUT DURING TESTING 6
2.3 DESCRIPTION OF TEST SETUP 6
5. TEST EQUIPMENT LIST 7
6. RADIO FREQUENCY (RF) EXPOSURE TEST 8
6.1. LIMITS 8
6.2. TEST SETUP 8
APPENDIX A: PHOTOGRAPHS OF TEST SETUP 11

1. TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST	RESULT
E and H field strength measurements	Compliant

1.2 TEST FACILITY

Test Firm : Shenzhen HUAK Testing Technology Co., Ltd.

Address : 1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street, Bao'an District, Shenzhen City, China

Designation Number: : CN1229

Test Firm Registration Number : 616276

1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty(Above 1GHz)	=	4.06dB, k=2

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

Operation Frequency	123.4KHz
Maximum field strength	56.92dBuV/m(Peak)@3m
Number of channels	1
Antenna Designation	Integrated Antenna (Met 15.203 Antenna requirement)
Hardware Version	V1.0
Software Version	V1.0
Power Supply	DC 5V by adapter

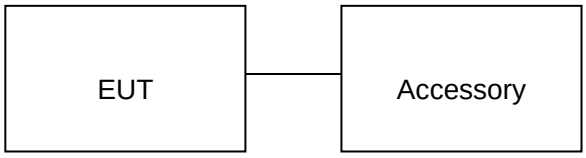
2.2 OPERATION OF EUT DURING TESTING

NO.	TEST MODE DESCRIPTION
1	Wireless charging Mode(Full load)
2	Wireless charging Mode(half load)
3	Wireless charging Mode(Null load)

Note:
1. The mode 1 was the worst case and only the data of the worst case record in this report.
2. The wireless charging of this EUT only work when it connected with USB charger.

2.3 DESCRIPTION OF TEST SETUP

Configure :



Item	Equipment	Model No.	ID or Specification	Remark
1	Wireless electronic Load	--	Maximum power 5W	Support
2	Adapter	RJT-AS120300E999	DC 5V/3A	AE

3. TEST EQUIPMENT LIST

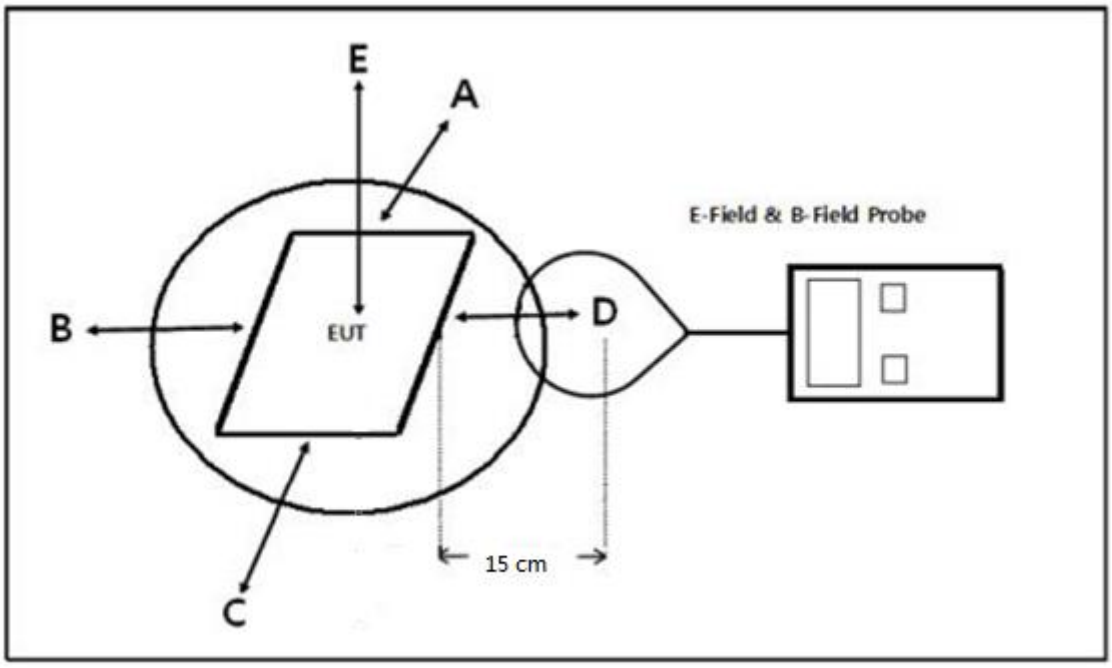
Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Broadband Field Meter	Narda Safety Test Solutions GmbH	NBM-550	J-0004	June 12, 2018	June 11, 2019
Probe FHP	Narda Safety Test Solutions GmbH	EHP-50F	J-0015	June 12, 2018	June 11, 2019

4. RADIO FREQUENCY (RF) EXPOSURE TEST

4.1. LIMITS

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.

4.2. TEST SETUP



Note: Position A: Front of EUT; Position B: Left of EUT; Position C: back of EUT; Position D: Right of EUT; Position E: Top of EUT(20 cm measure distance);

4.3. TEST PROCEDURE

The EUT was placed on a non-conductive table top and the ancillary equipment (e.g. mobile phone) was placed on the EUT for charging.

Maximum E-field and H-field measurements were tested 15cm from each side of the EUT. For top side the measure distance is 15cm.

Along the side of the EUT to center of E-field probe and H-field probe were positioned at the location to search maximum field strength.

4.4. TEST RESULT

Test condition: Mode 1

E-field strength test result:

Frequency Range	Probe Position A (V/m)	Probe Position B (V/m)	Probe Position C (V/m)	Probe Position D (V/m)	Probe Position E (V/m)	Limit (V/m)
123.4kHz	0.16	0.16	0.16	0.16	2.45	614

H-field strength test result:

Frequency Range	Probe Position A (A/m)	Probe Position B (A/m)	Probe Position C (A/m)	Probe Position D (A/m)	Probe Position E (A/m)	Limit (A/m)
123.4kHz	0.18	0.18	0.18	0.18	0.57	1.63

Test condition: Mode 2

E-field strength test result:

Frequency Range	Probe Position A (V/m)	Probe Position B (V/m)	Probe Position C (V/m)	Probe Position D (V/m)	Probe Position E (V/m)	Limit (V/m)
128.7kHz	0.14	0.14	0.14	0.14	1.74	614

H-field strength test result:

Frequency Range	Probe Position A (A/m)	Probe Position B (A/m)	Probe Position C (A/m)	Probe Position D (A/m)	Probe Position E (A/m)	Limit (A/m)
128.7kHz	0.12	0.12	0.12	0.12	0.45	1.63

Test condition: Mode 3

E-field strength test result:

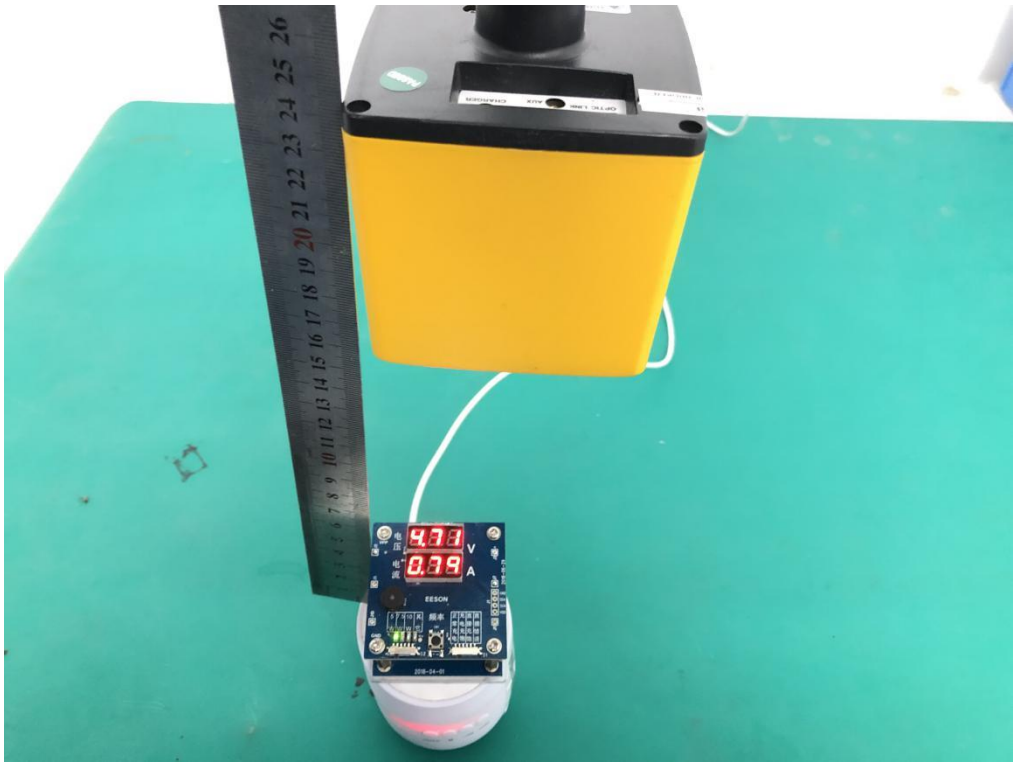
Frequency Range	Probe Position A (V/m)	Probe Position B (V/m)	Probe Position C (V/m)	Probe Position D (V/m)	Probe Position E (V/m)	Limit (V/m)
138.5kHz	0.16	0.16	0.16	0.16	1.40	614

H-field strength test result:

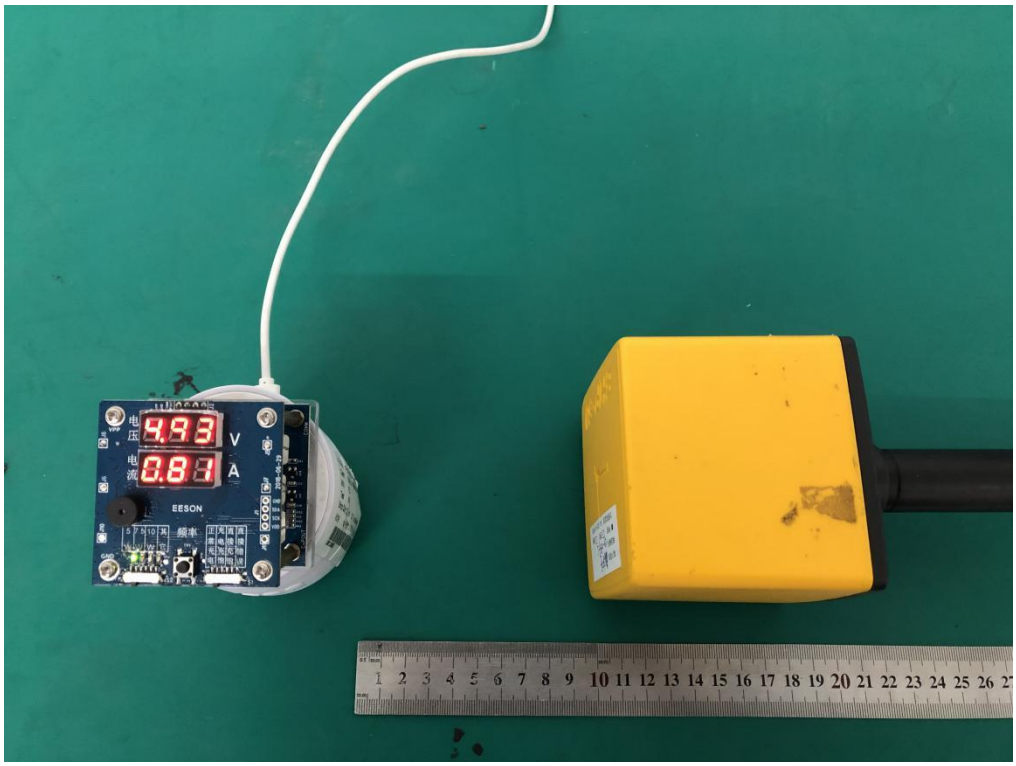
Frequency Range	Probe Position A (A/m)	Probe Position B (A/m)	Probe Position C (A/m)	Probe Position D (A/m)	Probe Position E (A/m)	Limit (A/m)
138.5kHz	0.13	0.13	0.13	0.13	0.38	1.63

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

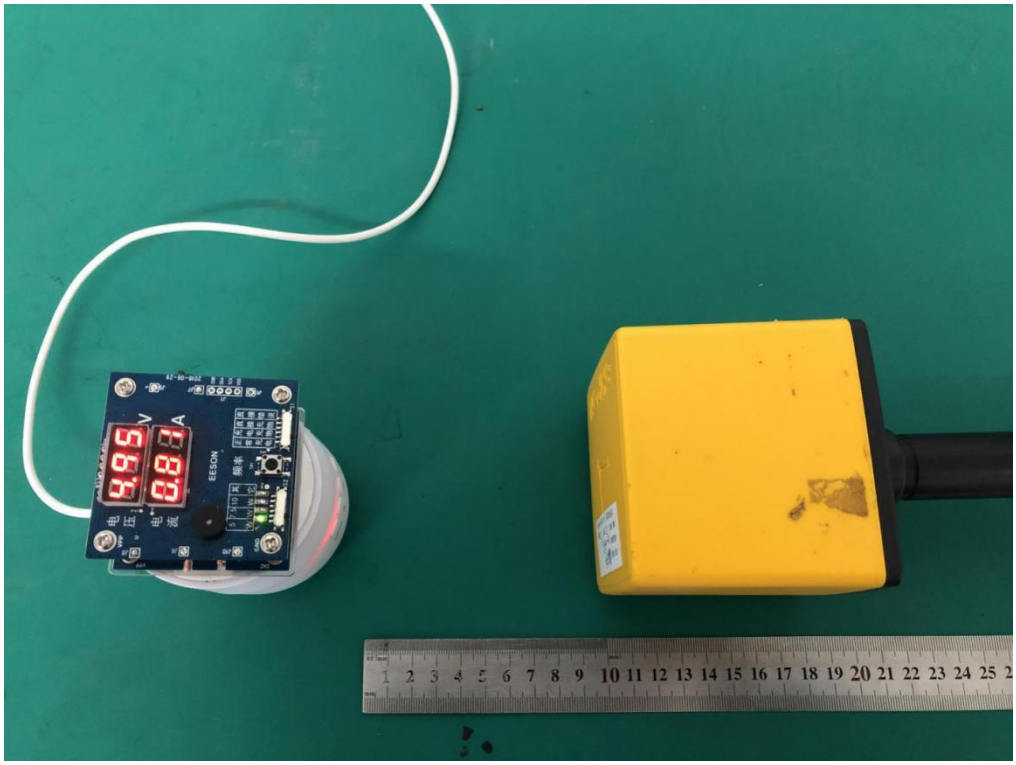
Position E



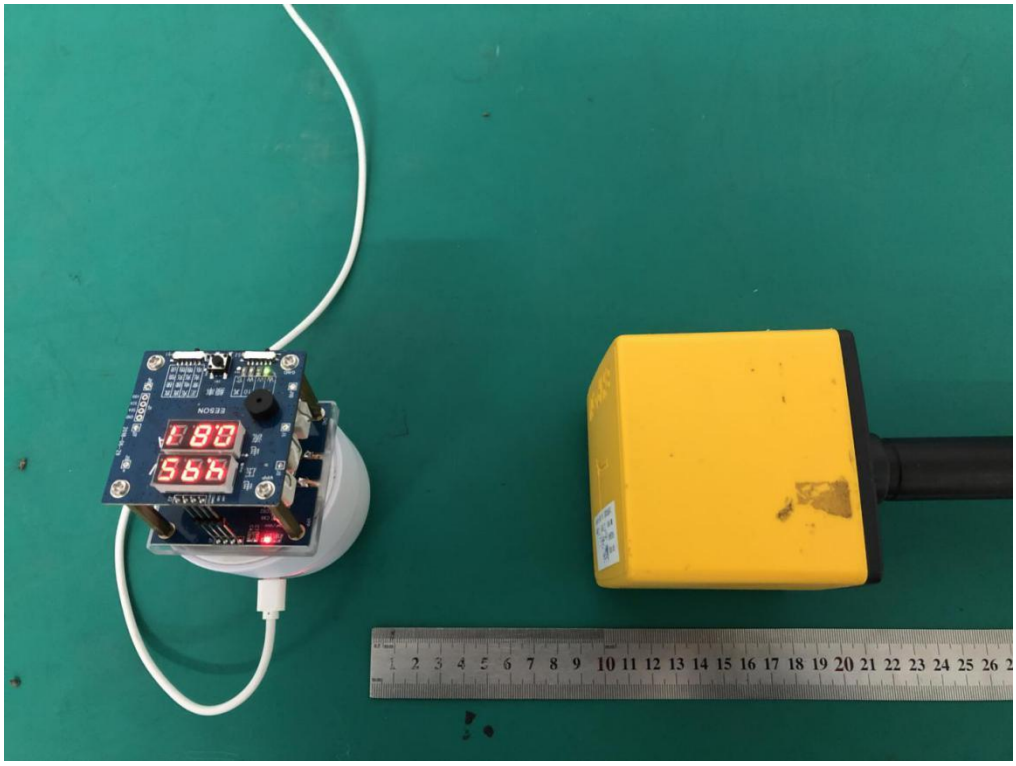
Position A



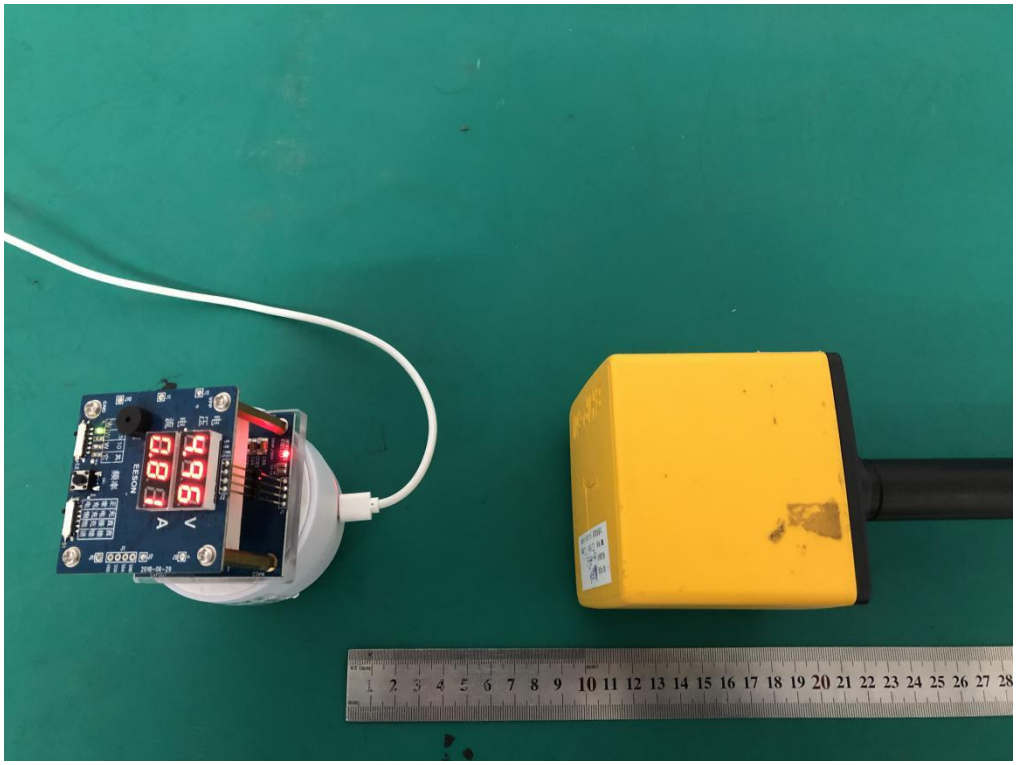
Position B



Position C



Position D



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