



# RF Exposure Report

**Test report  
On Behalf of  
WEI SHENG TECHNOLOGY LTD.  
For  
Bluetooth speaker with QI wireless charging**

**Model No.: WS-QI209**

**FCC ID: 2ANQF-WS-QI209**

**Prepared for : WEI SHENG TECHNOLOGY LTD.  
Yong Fa Industrial, No.1 Tang Long West Road, Tangxia Town,  
Dongguan City, Guangdong Province, China**

**Prepared By : Shenzhen HUAK Testing Technology Co., Ltd.  
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China**

**Date of Test: Dec. 17, 2018 to Dec. 23, 2018  
Date of Report: Dec. 23, 2018  
Report Number: HK1812292051E**



## TEST RESULT CERTIFICATION

**Applicant's name** ..... : WEI SHENG TECHNOLOGY LTD.

Address ..... : Yong Fa Industrial, No.1 Tang Long West Road, Tangxia Town, Dongguan City, Guangdong Province, China

**Manufacture's Name** ..... : WEI SHENG TECHNOLOGY LTD.

Address ..... : Yong Fa Industrial, No.1 Tang Long West Road, Tangxia Town, Dongguan City, Guangdong Province, China

**Factory** ..... : Dongguan City FUZE Electronic Co.,Ltd.

Address ..... : No.2, Dongyiheng Road, Huanshidong Road, Tangxia Town, Dongguan City, Guangdong Province, China

**Product description**

Trade Mark: TOSHIBA

Product name ..... : Bluetooth speaker with QI wireless charging

Model and/or type reference .. : WS-QI209

**Standards** ..... : KDB 680106 D01 RF Exposure Wireless Charging Base App v03

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**Date of Test** ..... :

Date (s) of performance of tests ..... : Dec. 17, 2018 to Dec. 23, 2018

Date of Issue ..... : Dec. 23, 2018

Test Result ..... : **Pass**

Testing Engineer ..... :

(Gary Qian)

Technical Manager ..... :

(Eden Hu)

Authorized Signatory ..... :

(Jason Zhou)



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## 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 : 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, 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

<b>Operation Frequency</b>	140kHz
<b>Maximum field strength</b>	51.92dBuV/m(Peak)@3m
<b>Number of channels</b>	1
<b>Antenna Designation</b>	Integrated Antenna (Met 15.203 Antenna requirement)
<b>Hardware Version</b>	1.0.0
<b>Software Version</b>	1.0.0
<b>Power Supply</b>	DC 5V



## 2.2 OPERATION OF EUT DURING TESTING

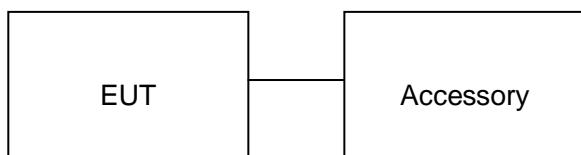
NO.	TEST MODE DESCRIPTION
1	Wireless charging Mode(Full load)
2	Wireless charging Mode(half load)
3	Wireless charging Mode(Null load)

Note:

1. The mode 1 was the worst case and only the data of the worst case record in this report.

## 2.3 DESCRIPTION OF TEST SETUP

Configure :



Item	Equipment	Model No.	ID or Specification	Remark
1	Wireless electronic Load	--	Maximum power 5W	Support
2	Adapter	KA1801A-0502400	DC 5V	AE



### 3. TEST EQUIPMENT LIST

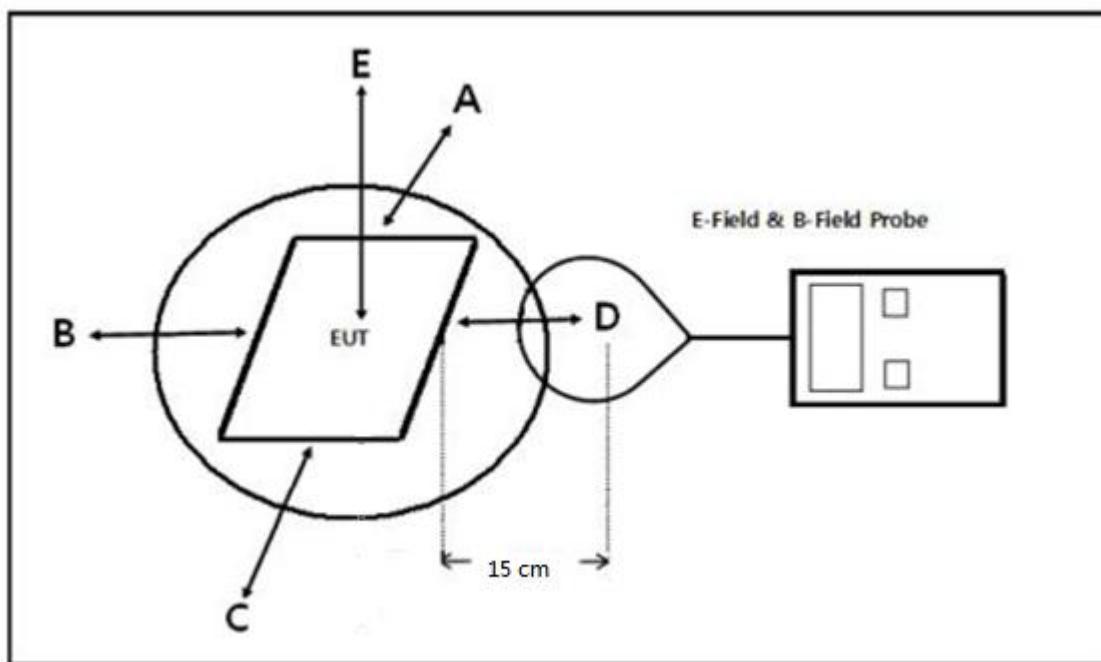
Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Broadband Field Meter	Narda Safety Test Solutions GmbH	NBM-550	J-0004	June 12, 2018	June 11, 2019
Probe FHP	Narda Safety Test Solutions GmbH	EHP-50F	J-0015	June 12, 2018	June 11, 2019

## 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)
140.0kHz	0.16	0.16	0.16	0.16	2.62	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)
140.0kHz	0.18	0.18	0.18	0.18	0.39	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)
133.8kHz	0.14	0.14	0.14	0.14	1.89	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)
133.8kHz	0.12	0.12	0.12	0.12	0.33	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)
129.5kHz	0.16	0.16	0.16	0.16	1.58	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)
129.5kHz	0.13	0.13	0.13	0.13	0.20	1.63



## APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Position E

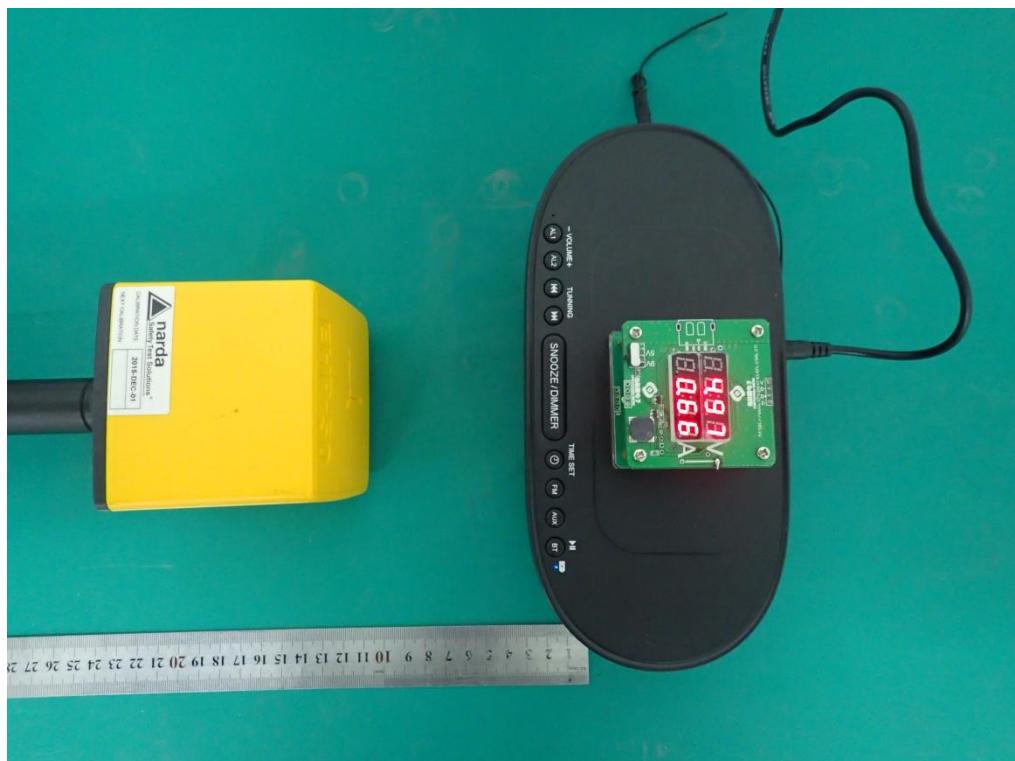


Position A





Position B

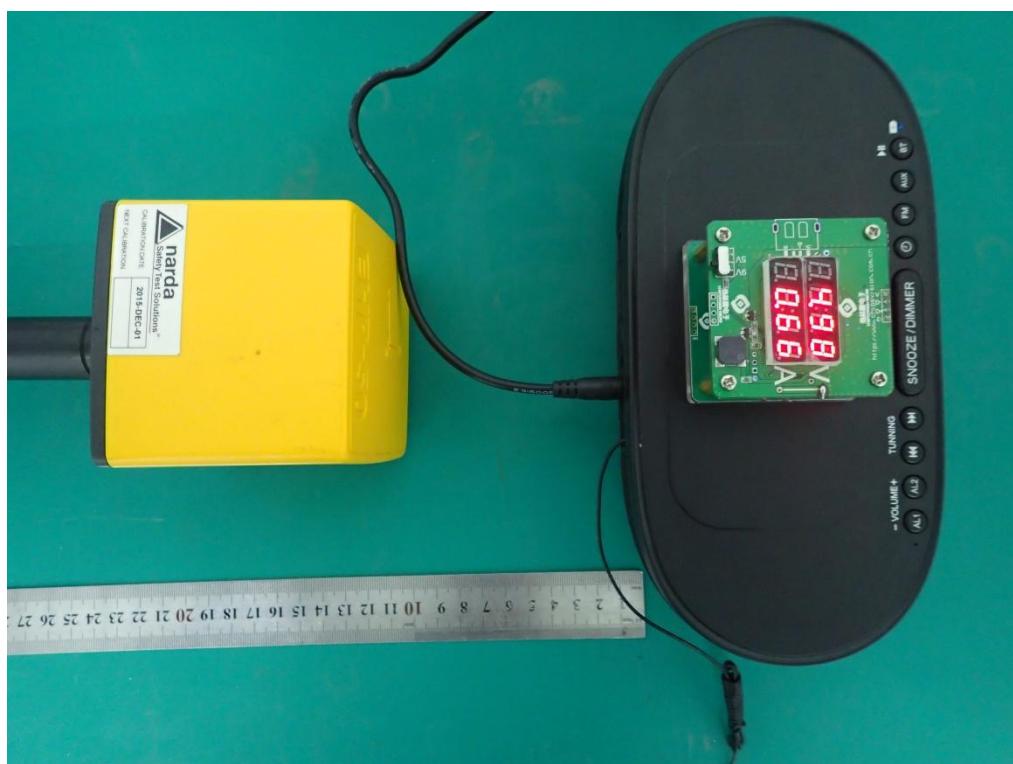


Position C





Position D



----END OF REPORT----