RF Exposure Report

Report No.: AGC00184190501FH03

APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	Wireless & Charger
BRAND NAME	:	HIVI
MODEL NAME	:	PB One
APPLICANT	:	HiVi Acoustics Technology Co., Ltd.
DATE OF ISSUE	:	Jul. 08, 2019
STANDARD(S)	:	KDB 680106 D01 RF Exposure Wireless Charging Base App v03
REPORT VERSION	:	V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jul. 08, 2019	Valid	Initial Release

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1. VERIFICATION OF CONFORMITY

Applicant	HiVi Acoustics Technology Co., Ltd.
Address	No. 13, Sansha Road, Dongchong Town, Nansha District, Guangzhou City, Guangdong Province, 511453, China
Manufacturer	HiVi Acoustics Technology Co., Ltd.
Address	No. 13, Sansha Road, Dongchong Town, Nansha District, Guangzhou City, Guangdong Province, 511453, China
Factory	HiVi Acoustics Technology Co., Ltd.
Address	No. 13, Sansha Road, Dongchong Town, Nansha District, Guangzhou City, Guangdong Province, 511453, China
Product Designation	Wireless & Charger
Brand Name	HIVI
Test Model:	PB One
Date of test	May 07, 2019 to Jul. 05, 2019
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-US-BR/RF

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in KDB 680106 D01.

The results of testing in this report apply to the product/system which was tested only.

Tested By	Erik Yang(Yang Jianmin)	Jul. 05, 2019
Reviewed By	Max Zhang(Zhang Yi)	Jul. 08, 2019
Approved By	Forrest Lei(Lei Yonggang) Authorized Officer	Jul. 08, 2019

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

Operation Frequency	Charging zone for headphone: 140.8kHz Charging zone for cellphone: 116.6 kHz
Maximum field strength	Charging zone for headphone: 55.65dBuV/m(PK)@3m Charging zone for cellphone: 55.73dBuV/m(PK)@3m
Number of channels	2
Antenna Designation	Integrated Antenna (Met 15.203 Antenna requirement)
Hardware Version	Double charger bl_tx_v5.2.3
Software Version	V1.0
Power Supply	DC 5V/3000mA or DC 9V/2000mA or DC 12V/1500mA by Micro-USB

3. DESCRIPTION OF TEST MODES

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.

4. SYSTEM TEST CONFIGURATION

Item	Equipment	Model No.	ID or Specification	Remark
1	Wireless & Charger	PB One	2ATFWPBONE	EUT
2	Adapter	PB	DC 5V/3000mA or DC 9V/2000mA or DC 12V/1500mA	Accessory
3	Headset	N/A	2.5W	Accessory
4	Load	N/A	5W	Accessory

5. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Designation Number	CN1259
FCC Test Firm Registration Number	975832
A2LA Cert. No.	5054.02
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA

TEST EQUIPMENT LIST

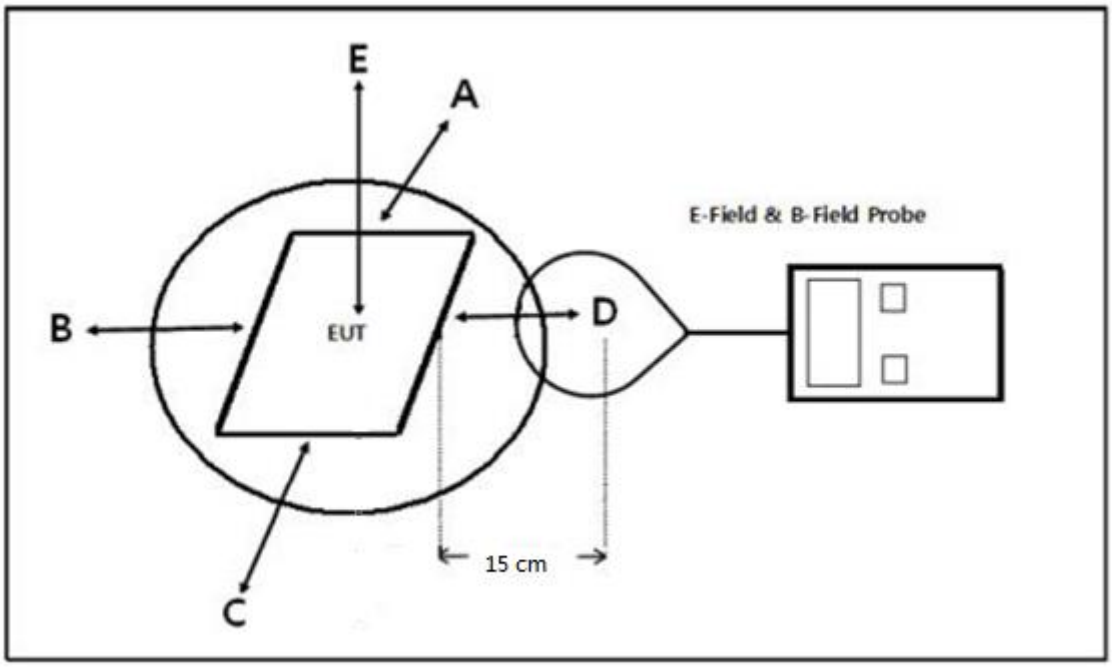
Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Broadband Field Meter	Narda Safety Test Solutions GmbH	NBM-550	J-0004	Jun.12, 2019	Jun.11, 2020
Probe FHP	Narda Safety Test Solutions GmbH	EHP-50F	J-0015	Jun.12, 2019	Jun.11, 2020

6. RADIO FREQUENCY (RF) EXPOSURE TEST

6.1. 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.

6.2. 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);

6.3. 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 20cm from each side of the EUT. For top side the measure distance is 20cm.

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.

6.4. TEST RESULT

Charging zone for cellphone:

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)
116.6kHz	0.16	0.16	0.16	0.16	2.37	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)
116.6kHz	0.08	0.08	0.08	0.08	0.55	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)
120.8kHz	0.16	0.16	0.16	0.16	2.31	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)
120.8kHz	0.08	0.08	0.08	0.08	0.51	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)
176.1kHz	0.16	0.16	0.16	0.16	2.40	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)
176.1kHz	0.13	0.13	0.13	0.13	0.44	1.63

Charging zone for headphone:

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)
140.8kHz	0.16	0.16	0.16	0.16	2.43	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)
140.8kHz	0.08	0.08	0.08	0.08	0.60	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)
156.2kHz	0.16	0.16	0.16	0.16	2.35	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)
156.2kHz	0.08	0.08	0.08	0.08	0.54	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)
176.0kHz	0.16	0.16	0.16	0.16	2.45	614

H-field strength test result:

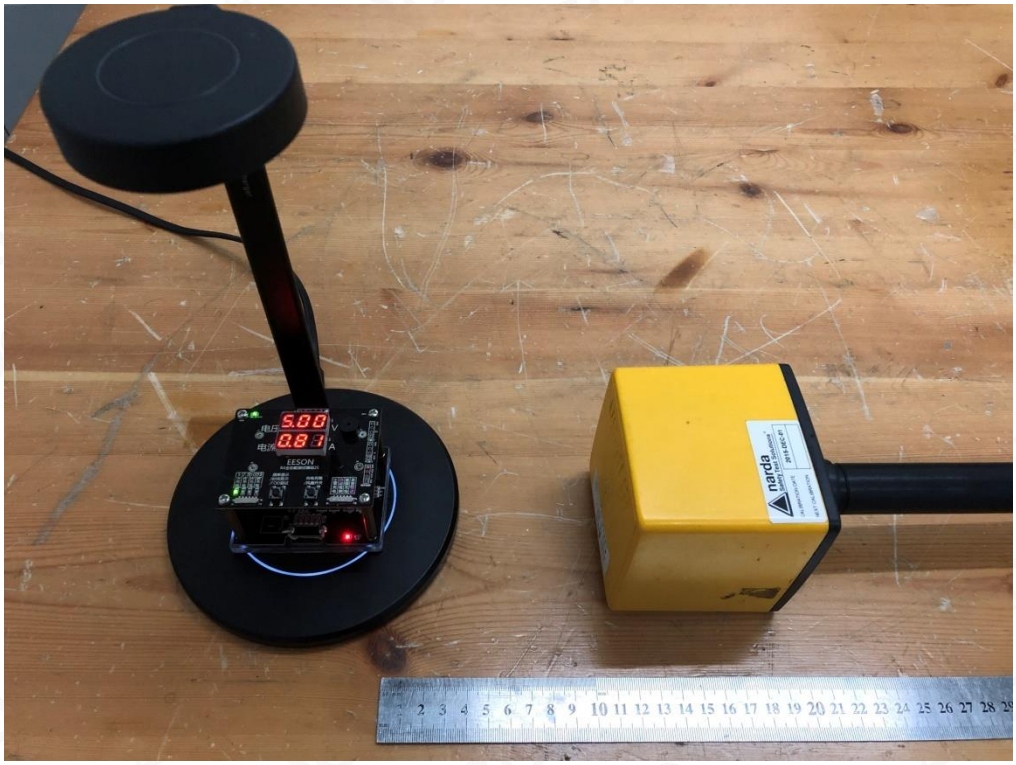
Frequency Range	Probe Position A (A/m)	Probe Position B (A/m)	Probe Position C (A/m)	Probe Position D (A/m)	Probe Position E (A/m)	Limit (A/m)
176.0kHz	0.13	0.13	0.13	0.13	0.46	1.63

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

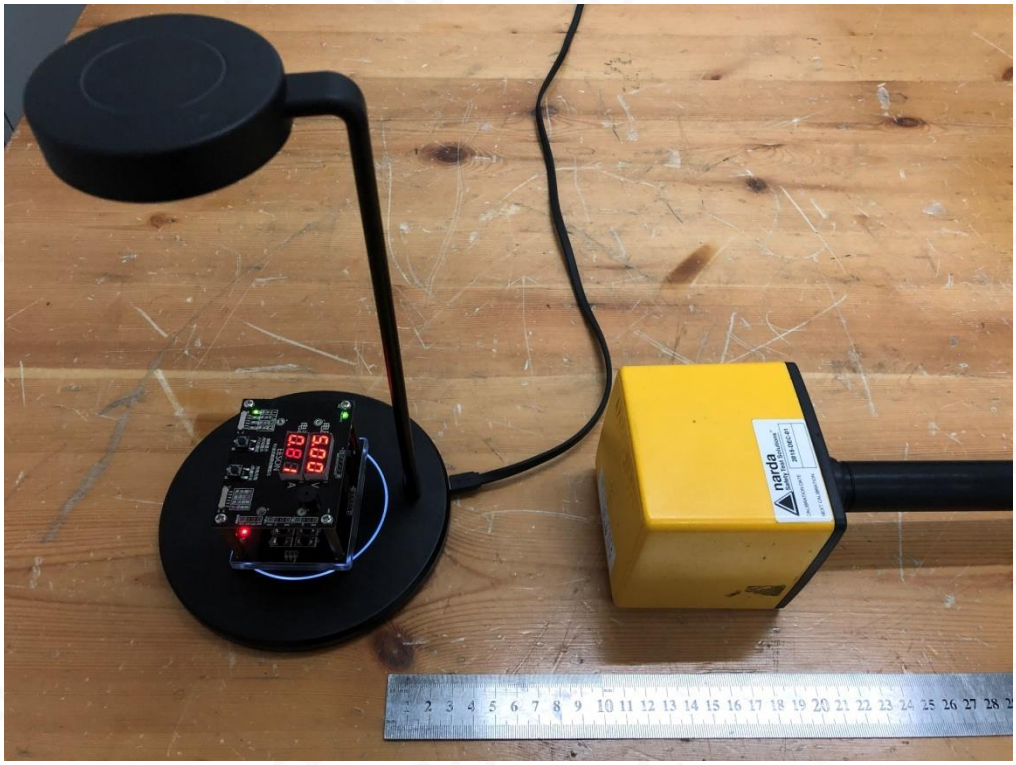
Charging zone for cellphone

Position E

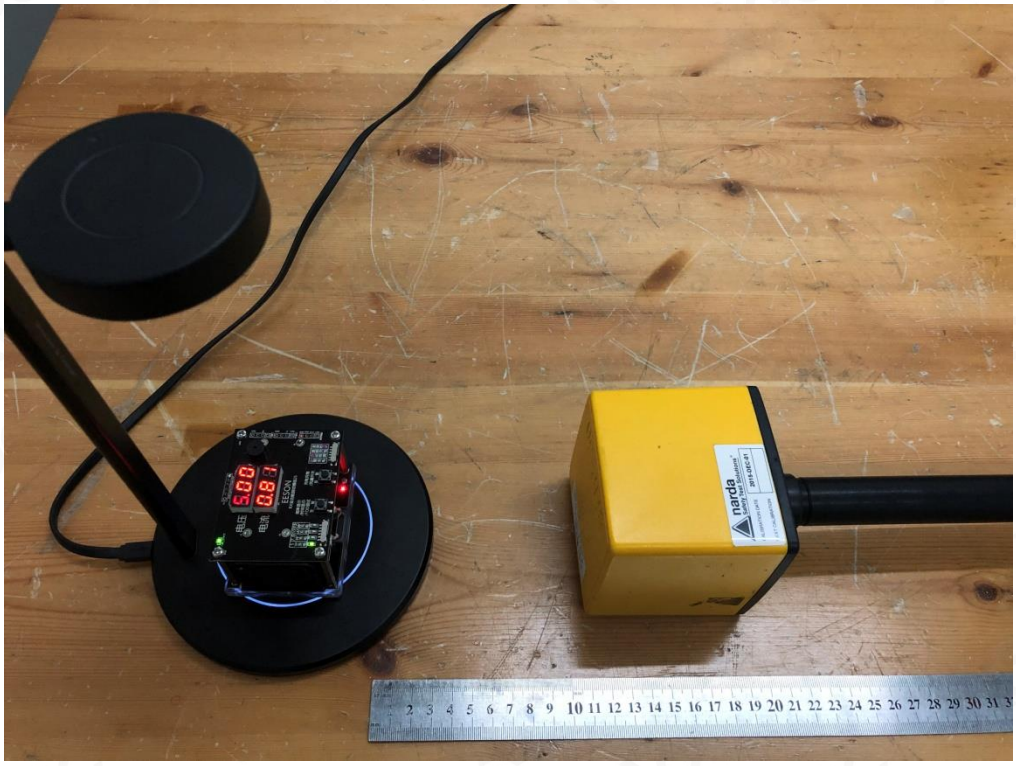
Position A



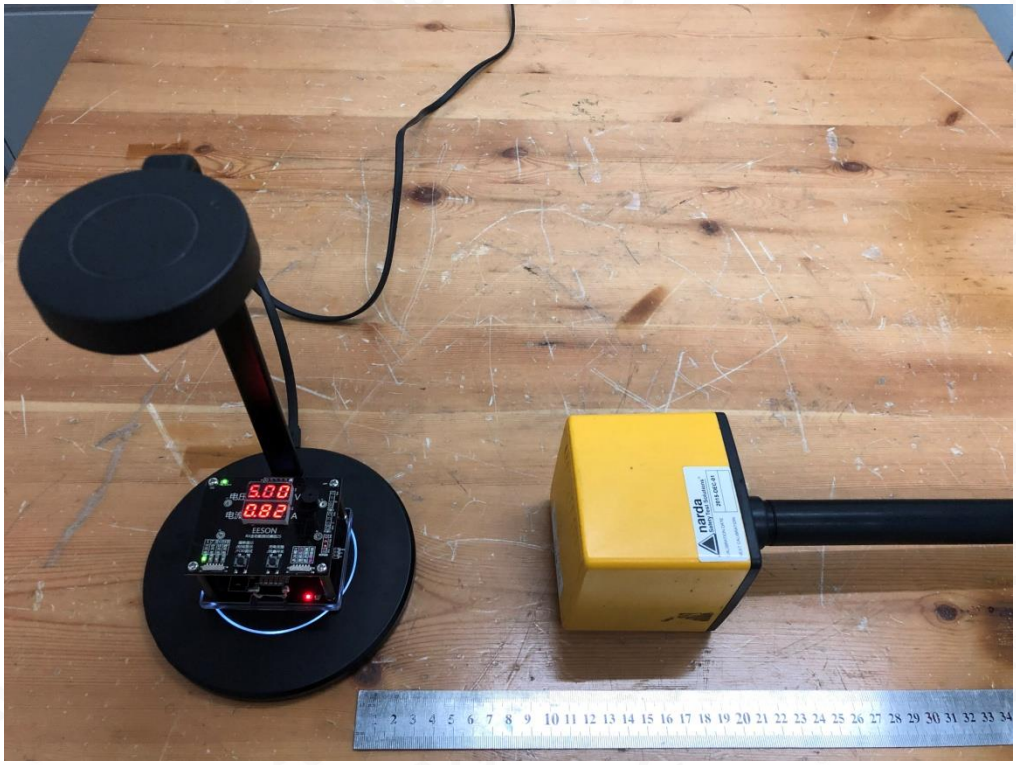
Position B



Position C



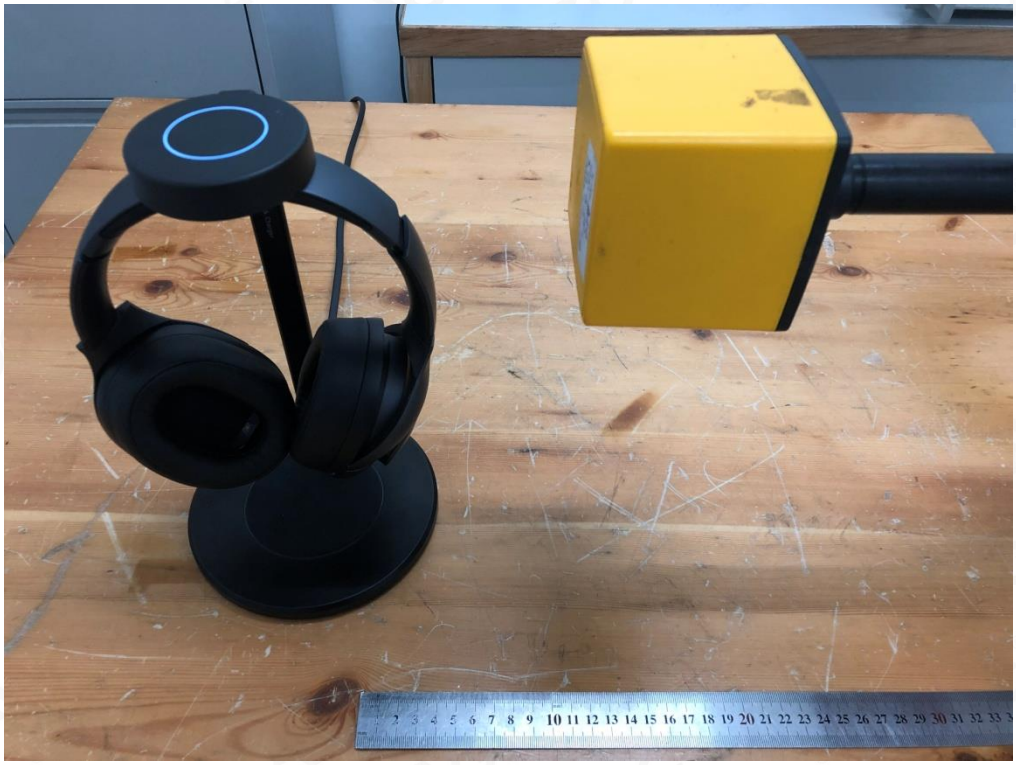
Position D



Charging zone for headphone

Position E

Position A



Position B

Position C

Position D

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