

RF EXPOSURE MEASUREMENT AND TEST REPORT

For

Monitorling Limited

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FCC ID: 2AGQD-HB45W

Report Type: Original Report	Product Type: Hibu Wireless Charging Base
Test Engineer: Star Xie	star xie
Report Number: RDG151030007	
Report Date: 2016-05-24	
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan).

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Monitorlinq Limited's* product, model number: *HB45W* or ("EUT") in this report is a *Hibu Wireless Charging Base*, which was measured approximately: 4.75 cm (L) x 4.75 cm (W) x 1.2 cm (H), rated input voltage: DC 5.0V from system. The highest operating frequency is 67kHz.

** All measurement and test data in this report was gathered from production sample serial number: 151030007 (Assigned by BACL.Dongguan). The EUT was received on 2015-11-12.*

Objective

This report is prepared on behalf of *Monitorlinq Limited* in accordance with Part 2-Subpart J, and FCC KDB 680106 D01. The objective of the manufacturer is to determine compliance with KDB 680106 D01 V02.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with MP-5, FCC Methods of Measurements of Radio Noise Emissions from ISM Equipment, February 1986, and FCC KDB 680106 D01 RF Exposure Considerations for Low Power Consumer Wireless Power Transfer Application v02.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Test site at Bay Area Compliance Laboratories Corp. (Dongguan) has been fully described in reports submitted to the Federal Communications Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 06, 2015.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 273710. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a manufacturer testing fashion.

EUT Exercise Software

No exercise software was used.

Special Accessories

No special accessories.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
N/A	Adapter	HNBC050100	N/A
Monitorlinq	Load	HB45B	N/A

External Cable

Cable Description	Length (m)	From	To
Unshielded Undetachable USB Cable	1.5m	USB port of Adapter	EUT

FCC KDB 680106 § 5(2)

Applicable Standards

As per FCC KDB 680106 § 5(2) :

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

- a) Power transfer frequency is less than 1 MHz
- b) Output power from each primary coil is less than 5 watts
- c) 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
- d) Client device is inserted in or placed directly in contact with the transmitter
- e) The maximum coupling surface area of the transmit (charging) device is between 60 cm² and 400 cm².
- f) Aggregate leakage fields at 10 cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.

Results

The EUT does not comply with item 5.2 of KDB 680106 D01 v02

- a) The EUT operating frequency is 67kHz.
- b) Please refer to report RDG1530007-00 for the filed strength level of the fundamental signal measurement.
- c) The EUT only has one coil for transmitting.
- d) When charging, the client device is put on top of and in direct contact with EUT
- e) The maximum coupling surface area of the EUT is 22.6 cm², please refer to the EUT for dimensions
- f) Please refer to the following section of this report for MPE measurement.

RF EXPOSURE

Test Results

RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310

Measurement Distance: 10cm

Test voltage: DC 5V

Limit:

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				

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Amplifier Research	Field Probe	FP5000	301825	2015-12-22	2016-12-21
Combinova	Magnetic Field Meter	MFM 1000	0133	2015-08-08	2016-08-07

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Environmental Conditions

Temperature:	24°C
Relative Humidity:	52 %
ATM Pressure:	100.5 kPa

Testing was performed by Star Xie on 2016-05-23.

Test Result

Electric Field Strength

Test Position	Test distance (cm)	Test result (V/m)	Limit (V/m)
Side 1	10	5.67	614
Side 2	10	5.73	614
Side 3	10	5.65	614
Side 4	10	5.76	614
Side 5	10	5.92	614
Side 6	10	5.62	614

Magnetic Field Strength

Test Position	Test distance (cm)	Test result (A/m)	Limit (A/m)
Side 1	10	0.0014	1.63
Side 2	10	0.0014	1.63
Side 3	10	0.0015	1.63
Side 4	10	0.0016	1.63
Side 5	10	0.0025	1.63
Side 6	10	0.0023	1.63

EXHIBIT A- TEST SETUP PHOTOGRAPHS FOR RF EXPOSURE

Electric Field Strength

Side 1 View



Side 2 View



Side 3 View



Side 4 View



Side 5 View



Side 6 View

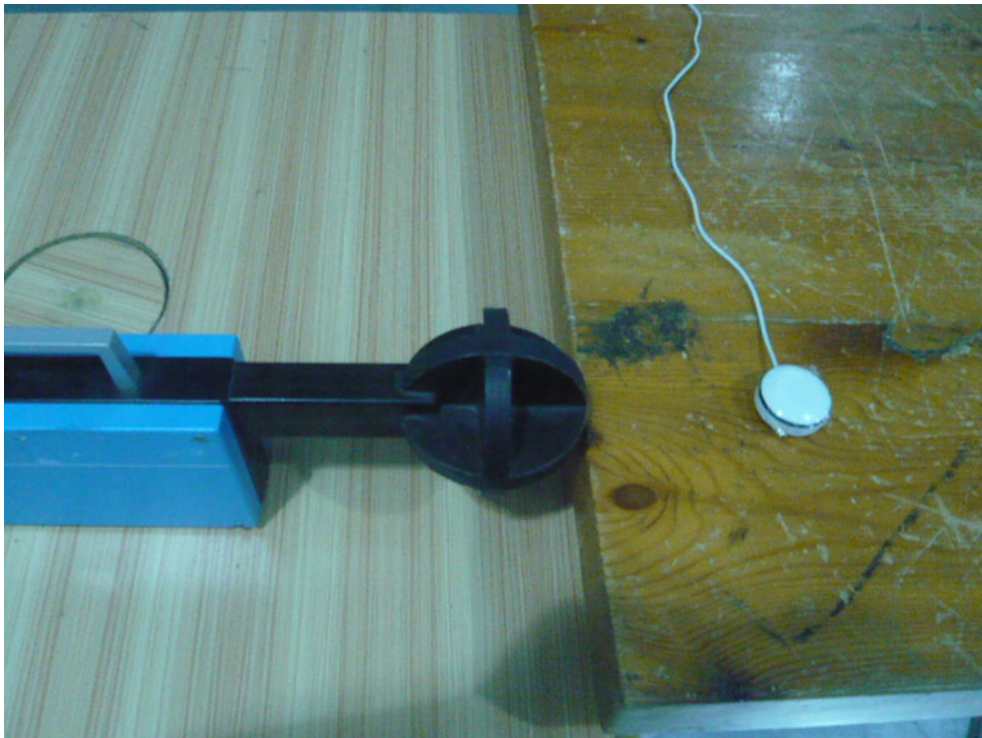


Magnetic Field Strength

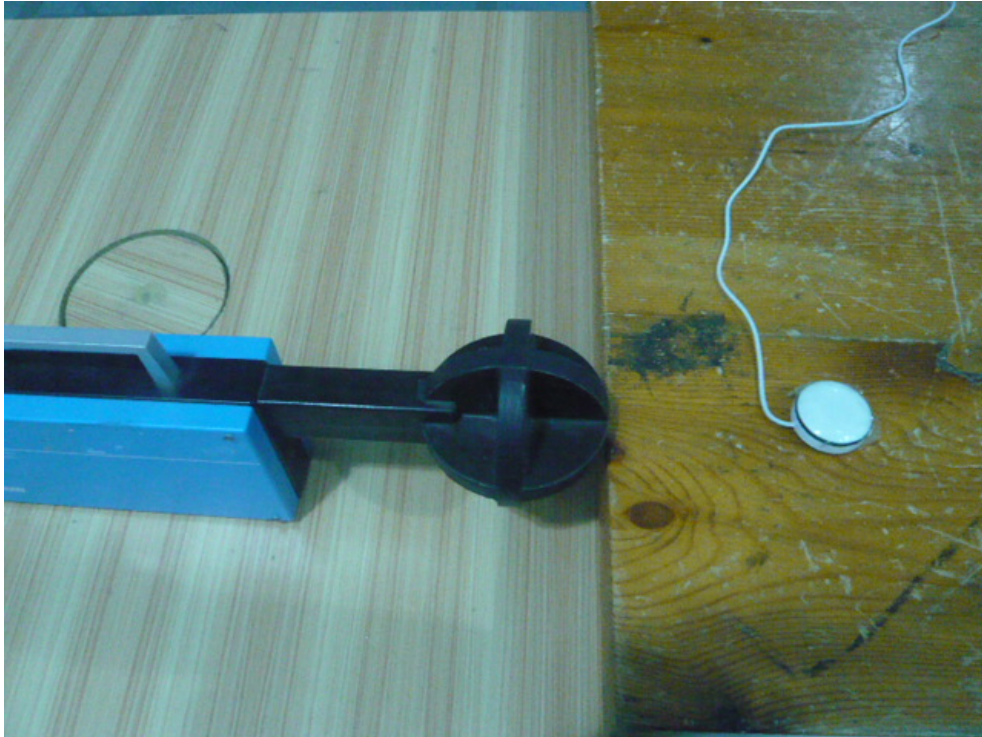
Side 1 View



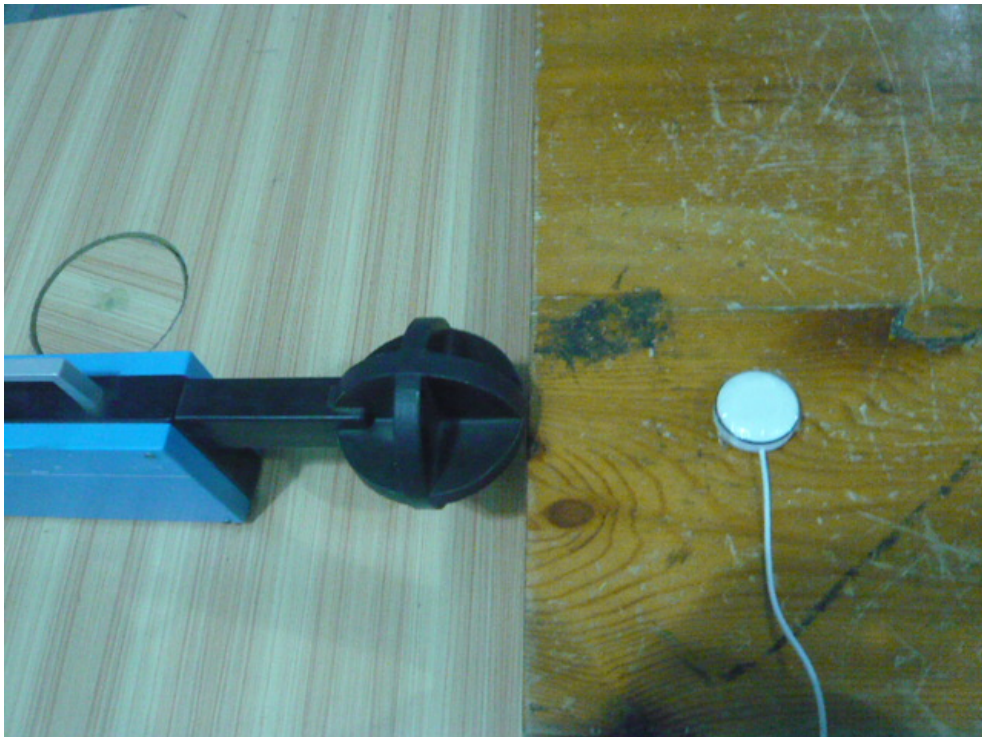
Side 2 View



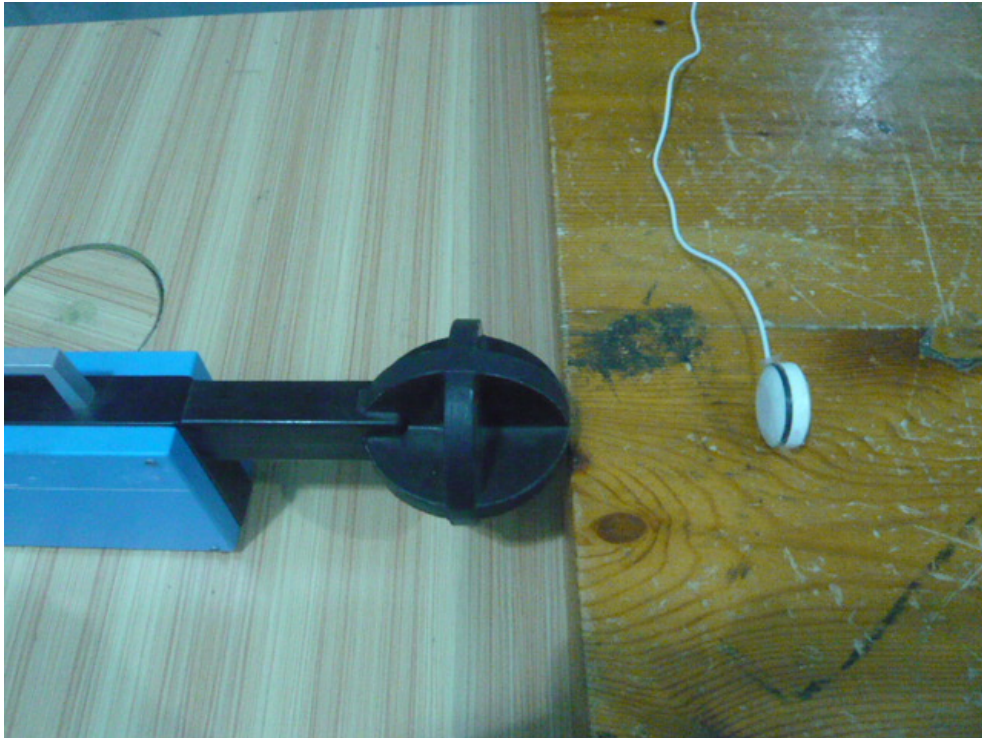
Side 3 View



Side 4 View



Side 5 View



Side 6 View

