



FCC TEST REPORT

Test report
On Behalf of
Shanghai Jun Bang Industrial Company Limited
For
Wireless Charger
Model No.: W15, W10, W20, W25, W30

FCC ID: 2AUZ2-W15

Prepared for : **Shanghai Jun Bang Industrial Company Limited**
No.1 Building, No.5780 Lao Zhu Feng Road, Qing Pu District, Shanghai 201717,
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: **Oct. 24, 2019 ~ Nov. 1, 2019**
Date of Report: **Nov. 1, 2019**
Report Number: **HK1910242661-2E**



Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel List							
Channel	Frequency (KHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	125						

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.

2. SUMMARY OF TEST RESULTS

2.1 Test procedures according to the technical standards:

FCC KDB680106 D01 RF Exposure Wireless Charging Apps v03

FCC CFR 47			
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB680106 D01v03 (3)(3)	Electric Field Strength (E) (V/m)	PASS	
	Magnetic Field Strength (H) (A/m)	PASS	

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	All emissions, radiated(<30M)(9KHz-30MHz)	$\pm 2.45\text{dB}$
2	Temperature	$\pm 0.5^\circ\text{C}$
3	Humidity	$\pm 2\%$



2.3 Test Instruments

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
Broadband Field Meter	NARDA	NBM-550	-	Dec. 27, 2018	Dec. 26, 2019
Magnetic Field Meter	NARDA	ELT-400	1 – 400kHz	Dec. 27, 2018	Dec. 26, 2019
Magnetic Probe	NARDA	HF-3061	300kHz – 30MHz	Dec. 27, 2018	Dec. 26, 2019
Magnetic Probe	NARDA	HF-0191	27 – 1000MHz	Dec. 27, 2018	Dec. 26, 2019
Broadband Field Meter	NARDA	NBM-550	-	Dec. 27, 2018	Dec. 26, 2019
Electric Field Meter	COMBINOVA	EFM 200	5Hz – 400kHz	Dec. 27, 2018	Dec. 26, 2019
E-Field Probe	NARDA	EF-0391	100kHz – 3GHz	Dec. 27, 2018	Dec. 26, 2019
E-Field Probe	NARDA	EF-6091	100MHz – 60GHz	Dec. 27, 2018	Dec. 26, 2019

NOTE: 1. The calibration interval of the above test instruments is 12 months .

2.4 Description of Testing Condition

	Normal Test Conditions	Extreme Test Conditions
Temperature	15°C~35°C	-10°C~55°C
Humidity	20%~75%	N/A
Supply Voltage	Input :DC 5V 2A /DC 9V 1.67A Output :10W, 7.5W, 5W	DC 4.5V~DC 10V

Note: All the mode will be tested, and the worst case data display in the report.

The 5V 2A mode is the worst case in the test. And also the output 10W is the worst test case.



3. MAXIMUM PERMISSIBLE EXPOSURE

3.1 MAXIMUM PERMISSIBLE EXPOSURE

Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180 / f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v03

Note 3: 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.



4. TEST PROCEDURE

a. According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and § 2.1093 RF exposure is calculated. According KDB680106 D01v03: RF Exposure Wireless Charging Apps v02.

b. Equipment Approval Considerations:

The EUT does comply with item 5(b) of KDB 680106 D01v03

1) Power transfer frequency is less than 1MHz

Yes, the device operate in the frequency is 125KHz

2) Output power from each primary coil is less than or equal to 15 watts.

Yes, the maximum output power of the primary coil is 10W.

3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that able to detect and allow coupling only between individual pair of coils.

Yes, the transfer system includes only single primary and secondary coils.

4) Client device is inserted in or placed directly in contact with the transmitter.

Yes, client device is placed directly in contact with the transmitter.

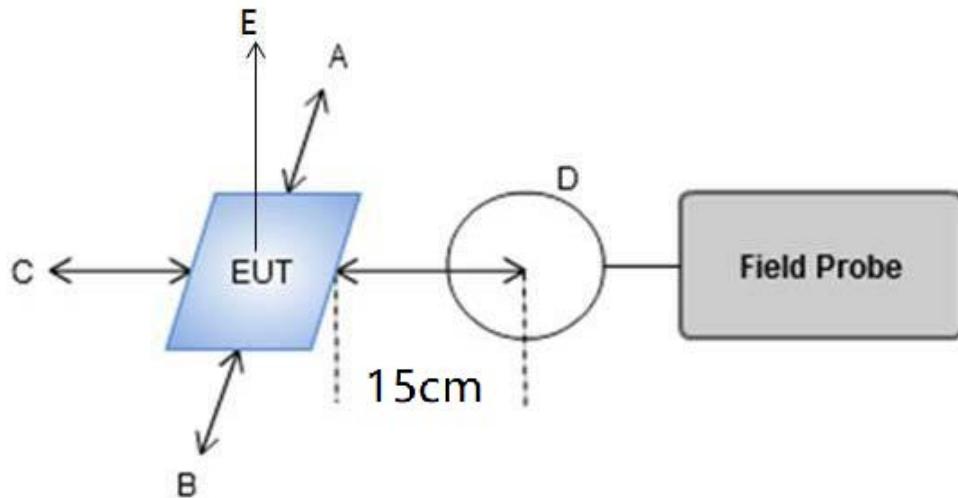
5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

Yes, the EUT is a Mobile Wireless Charger

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.

Yes, the EUT field strength levels are 50% x MPE limit.

4.1 TEST SETUP



4.2 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE

E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

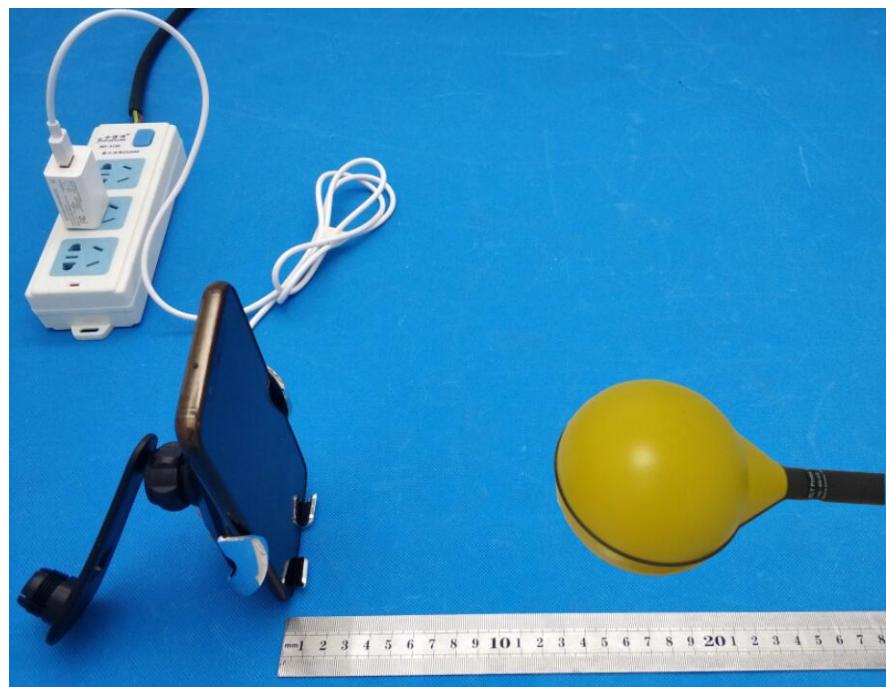
battery level	Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits Test (V/m)
1%	0.125	1.12	1.23	1.15	0.99	1.05	614
50%	0.125	0.89	0.94	0.93	1.02	0.98	614
99%	0.125	0.78	0.76	0.87	0.74	0.83	614

E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

battery level	Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits Test (A/m)
1%	0.125	0.28	0.31	0.32	0.27	0.33	1.63
50%	0.125	0.16	0.15	0.19	0.21	0.19	1.63
99%	0.125	0.16	0.13	0.11	0.12	0.14	1.63



PHOTOGRAPH OF TEST



※※※※※THE END※※※※※