

TEST REPORT

Reference No. : WTK20S11086435W002
FCC ID : 2AW9K-W02
Applicant..... : HUMBOLDT TECHNOLOGY(HK) LIMITED
Address..... : ROOM 13 27/F HO KING COMMERCIAL CENTRE 2-16 FA YUEN
STREET , MONGKOK, KL, HONGKONG
Manufacturer : Wingo Times Shenzhen Group Co. Ltd
Address..... : 1101, Building H, Chuangxin Yungu Workshop, No.48 Paotai Road,
First Industrial Zone, Lisonglang Community, Gongming Street,
Guangming District, Shenzhen
Product..... : Magnetic Wireless Charger
Model(s) : W02
Brand Name..... : LETSCOM
Standards..... : FCC CFR 47 Part 1.1307
FCC CFR 47 Part 1.1310
Date of Receipt sample : 2020-11-19
Date of Test : 2020-11-20 to 2020-12-15
Date of Issue..... : 2020-12-18
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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3. Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTK20S11086435W002	2020-11-19	2020-11-20 to 2020-12-15	2020-12-18	original	-	Valid

4. General Information

4.1 General Description of E.U.T

Product:	Magnetic Wireless Charger
Model(s):	W02
Model Difference:	N/A
Type of Modulation:	ASK
Frequency Range:	112~205kHz
Antenna installation:	Loop antenna
Hardware Version:	W02-V01
Software Version:	WP221252-GW02_0xC7BE_V3.2.3.2

4.2 Details of EUT

Ratings:	Input: 5V/2A, 9V/2A, 12V/1.67A
	Wireless charging:
	Output: 5W, 7.5W, 10W, 15W

4.3 Test Mode

All the test model(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data were recorded and reported.

Description	Test channel	Test mode
Full Load(15W)*	184.0kHz	Transmitting with Ant
Half Load(7.5W)	184.0kHz	Transmitting with Ant
No Load	184.0kHz	Transmitting with Ant
All the mode were tested and passed, "*" show the worst case mode which were recorded in this report.		

4.4 Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Services(Shenzhen) Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

5. Test Summary

Test Items	Test Requirement	Result
Electric Field Strength (E) (V/m)	FCC CFR 47 part1 § 1.1310	PASS
Magnetic Field Strength (H) (A/m)	KDB 680106 D01 v03	PASS

Note: -

6. Equipment Used during Test

6.1 Equipments List

RF EXPOSURE						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Magnetic Field Meter	NARDA	ELT-400	M-0155/M-0170	2020-07-24	2020-07-23

6.2 Description of Auxiliary Equipment

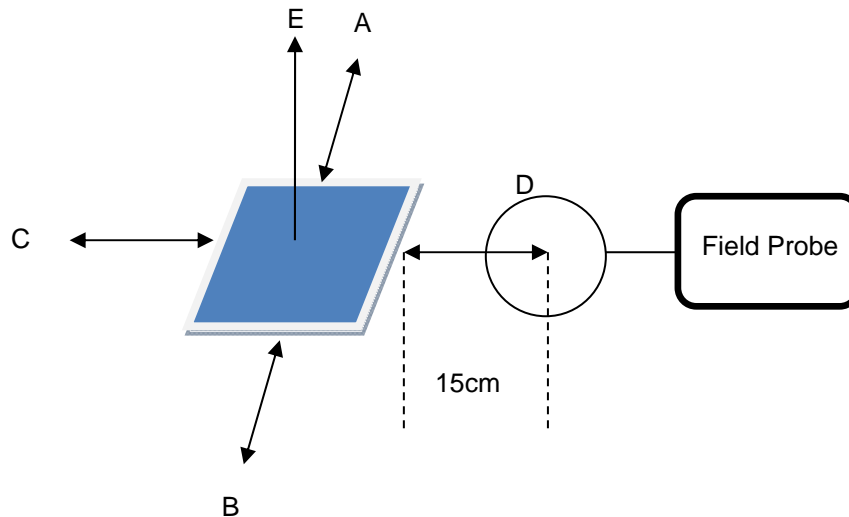
Equipment	Manufacturer	Model No.	Series No.
Simulated load	/	/	/
Adapter	XIAOMI	AD651P	N/A

6.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by GUANG ZHOU GRG METROLOGY & TEST CO., LTD. address is No.163, Pingyun Rd. West of Huangpu Ave, Tianhe District, Guangzhou, Guangdong, China.

7. RF Exposure

7.1 Test Setup



The RF exposure test was performed in anechoic chamber.

The probe was placed at test distance (15cm) which is between the edge of the charger and the geometric centre of probe.

The EUT was put in different directions (Left, Right, Front, Rear, Top and Bottom) to obtain the maximum reading.

The EUT was measured according to the dictates of KDB 680106 D01 RF Exposure Wireless Charging App v03.

7.2 Equipment approval considerations (clause 5 b) of KDB 680106 D01 v03

- (1) Power transfer frequency is less than 1 MHz.
- (2) Output power from each primary coil is less than or equal to 15 watts.
- (3) 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.
- (4) Client device is placed directly in contact with the transmitter.
- (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
- (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.

7.3 FCC Rules

§1.1310: The criteria listed in the following table 1 shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)—Continued

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
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

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

7.4 EUT Operation

Operating Environment :

Temperature: 23.5 °C

Humidity: 51.1 % RH

Atmospheric Pressure: 101.2kPa

EUT Operation : Charging mode: Loading of 10 W

Only the worst case transmitting mode were record in the report.

7.5 Test Result

Maximum RF exposure reading and percentage

Electric Field Limit			Magnetic Field Limit		
FCC	Maximum RMS(V/m)	Percentage(%)	FCC	Maximum RMS(A/m)	Percentage(%)
614	15.33	2.50	1.623	0.315	19.41

E-Filed Strength (V/m) of charging mode: Loading of 15 W

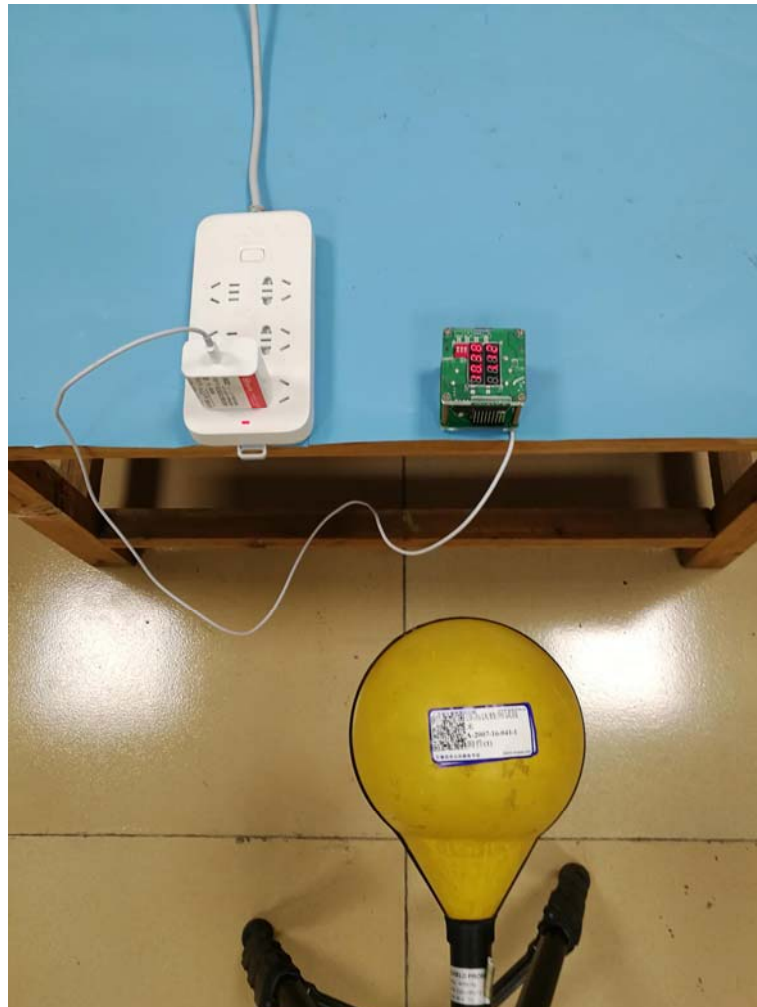
Frequency Range MHz	Test Position					Maximum (V/m)
	A	B	C	D	E	
0.118	15.33	8.8	8.25	8.27	7.06	15.33

H-Filed Strength (A/m) of charging mode: Loading of 15 W

Frequency Range MHz	Test Position					Maximum (A/m)
	A	B	C	D	E	
0.118	0.315	0.080	0.090	0.115	0.110	0.315

8. Photographs-Test Setup

8.1 Test Setup



===== End of Report =====