



RF Exposure evaluation

FOR

Wireless Charging Pad

Model : AP-W06

Issued to

Ablelink Electronics Limited

Unit 15, 9/F., Block A, Po Lung Centre, 11 Wang Chiu Road, Kowloon Bay,
Kowloon, Hong Kong.

Issued by

WH Technology Corp.



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1. GENERAL INFORMATION

Applicant : Ablelink Electronics Limited
Address : Unit 15, 9/F., Block A, Po Lung Centre, 11 Wang Chiu Road, Kowloon Bay, Kowloon, Hong Kong.
Manufacturer/ Factory : Ablelink Electronics Ltd
Address : 182 Qingzhang Road, Chang Shan Tou, QingXi Town, Dongguan, China
EUT : Wireless Charging Pad
Model Name : AP-W06
FCC ID : YHEAPW06
Trade Name : N/A
Model Differences : N/A

Standard: FCC Part 1 (Section 1.1307(b), 1.1310)

Receipt Date : 05/21/2018

Final Test Date :06/22/2018

Tested By:


May 21, 2018
(Date)



Bing Chang/ Engineer

June 22, 2018
(Date)

Reviewed by:



Bell Wei / Manager
Designation Number: TW2954



EUT Specification

EUT:	Wireless Charging Pad
M/N:	AP-W06
Frequency band: (Operating)	<input type="checkbox"/> WLAN:2.142G~2.462GHz <input type="checkbox"/> WLAN:5.18G~5.32GHz/5.50GHz~5.70GHz <input type="checkbox"/> WLAN:5.745G~5.825GHz <input type="checkbox"/> Bluetooth:2.402GHz~2.480GHz <input type="checkbox"/> Zigbee:2.405GHz~2.480GHz <input checked="" type="checkbox"/> Others 110KHz-200KHz
Device category:	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others ____
Antenna diversity:	<input type="checkbox"/> Single antenna <input type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity <input checked="" type="checkbox"/> Coil Antenna
Antenna Type:	Coil Antenna
Antenna gain:	0dBi

LIST OF TEST AND MEASUREMENT INSTRUMENTS

Equipment	Model	Manufacture	Last Cal.	Next Cal.
Exposure Level Tester	ELT-400	NARDA	Aug. 06, 2017	Aug. 05, 2018
Magnetic field probe 100cm2	B-Field Probe 100 cm2	NARDA	Aug. 06, 2017	Aug. 05, 2018



Applicable Standard

FCC § 1.1307 & 1.1310

According to the item 5.2 of KDB 680106 D01 RF Exposure Wireless Charging Apps V03: Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF evaluation.

- a) Power transfer frequency is less than 1 MHz.
- b) Output power from each primary coil is less than or equal to 15 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 placed directly in contact with the transmitter.
- e) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
- f) 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.

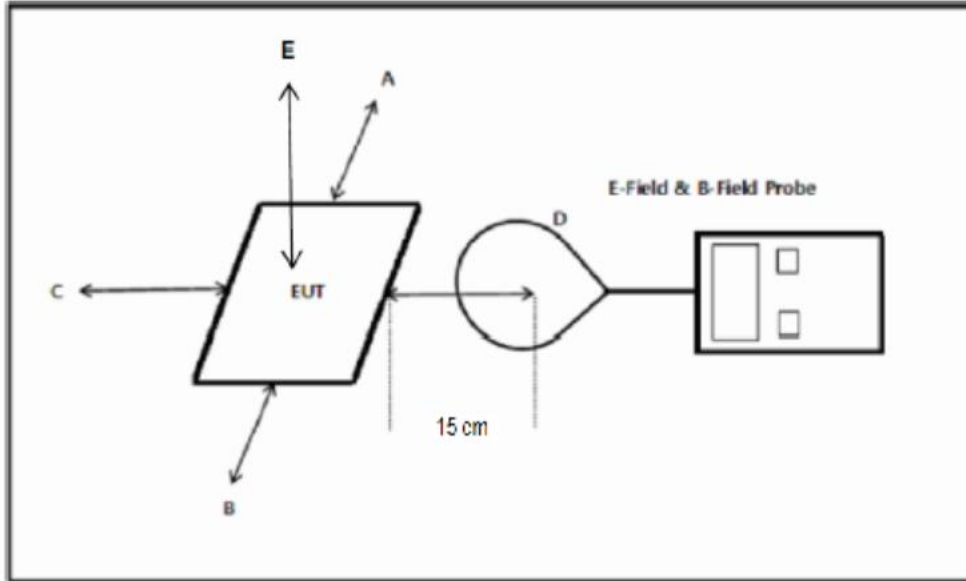
Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure				
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 Exposure				
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
300-1,500			f/300	6
1,500-100,000			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)	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;



EUT Setup:





Test Procedure:

- a) The RF exposure test was performed on 360 degree turn table in anechoic chamber.
- b) The measurement probe was placed at test distance (10cm) which is between the edge of the charger and the geometric centre of probe.
- c) The turn table was rotated 360d degree to search of highest strength.
- d) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- e) The EUT were measured according to the dictates of KDB 680106D01v03

Result:

- a) Power transfer frequency is less than 1 MHz.
Yes, The device operates in the frequency 110kHz-200kHz.
- b) Output power from each primary coil is less than or equal to 15 watts.
Yes, The maximum output power of the primary coil is Max 10W<15W.
- 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.
Yes, The transfer system including a charging system with only single primary coils is to detect and allow only between individual of coils.
- d) Client device is placed directly in contact with the transmitter.
Yes, Client device is placed directly in contact with the transmitter.
- e) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
Yes.
- f) 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.
The EUT H-field strengths at 15 cm surrounding the device and 20 cm above the top surface are less than 50% the MPE limit.



TEST DATA

E and H field Strength

E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

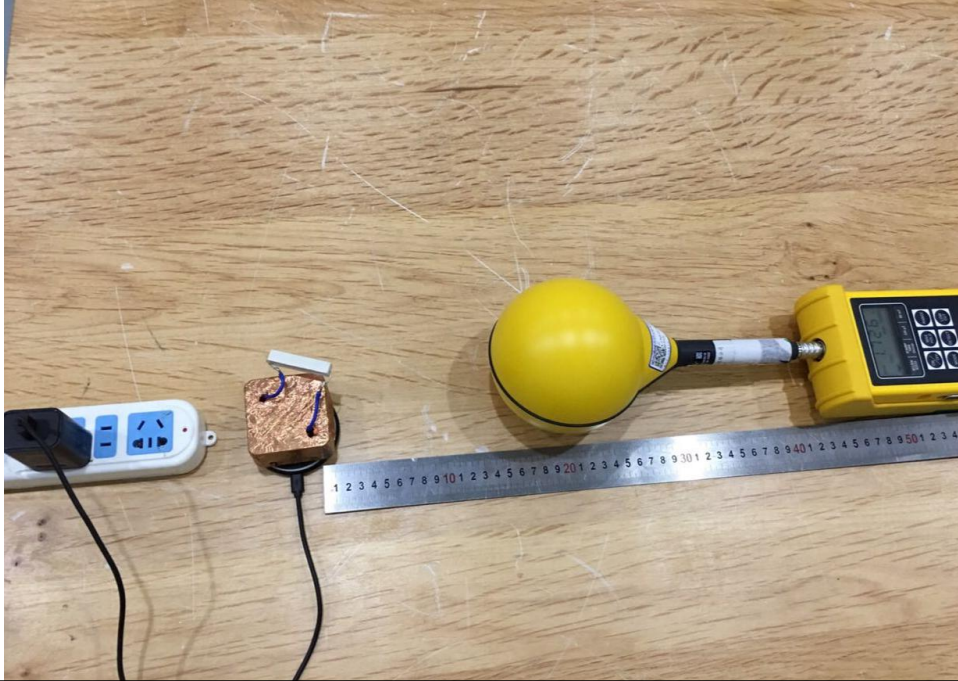
Frequency Range (MHz)	Position A (V/m) 15cm	Position B (V/m) 15cm	Position C (V/m) 15cm	Position D (V/m) 15cm	Position E (V/m) 20cm	Limits Test (V/m)	Test Mode
0.110-0.200	1.60	1.73	2.14	1.68	2.46	614	Full Load
	1.55	1.68	2.11	1.63	2.22	614	Half Load
	1.48	1.60	1.99	1.58	2.16	614	Empty Load

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Position A (A/m) 15cm	Position B (A/m) 15cm	Position C (A/m) 15cm	Position D (A/m) 15cm	Position E (A/m) 20cm	Limits Test (A/m)	Test Mode
0.110-0.200	0.29	0.21	0.31	0.19	0.28	1.63	Full Load
	0.27	0.21	0.30	0.18	0.28	1.63	Half Load
	0.28	0.20	0.28	0.18	0.26	1.63	Empty Load



Testing photo



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