

TEST REPORT

Reference No..... : WTX22X11241797W002
FCC ID : A4X-WPC20-2TCNC
Applicant : CE LINK LIMITED
Address : 22 Dongkang Road, Dalingshan Town, Dongguan City, Guangdong
Province, China.
Manufacturer : DONGGUAN CE LINK LIMITED
Address : 22 Dongkang Road, Dalingshan Town, Dongguan City, Guangdong
Province, China.
Product Name : Magsafe Wireless Charger
Model No..... : WPC20-2TCNC
Standards : KDB 680106 D01 V03
Date of Receipt sample : 2022-11-30
Date of Test..... : 2022-11-30 to 2023-01-13
Date of Issue : 2023-01-13
Test Report Form No. : WTX_KDB 680106 D01 V03W
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 approver.

Prepared By:

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Report version

Version No.	Date of issue	Description
Rev.00	2023-01-13	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Factory#1: SuiChuan CE LINK LIMITED
 Address of factory: SuiChuan county industrial park east zone, Ji'an city, Jiangxi province, China.

Factory#2: CE LINK VIET NAM COMPANY LIMITED.
 Address of factory: Lot CNSG04&CNSG06 Van Trung Industrial Zone, Viet Yen district, Bac Giang Province, Vietnam

General Description of EUT	
Product Name:	Magsafe Wireless Charger
Trade Name:	CE-LINK
Model No.:	WPC20-2TCNC
Adding Model(s):	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

Technical Characteristics of EUT	
Frequency Range:	112~146.5KHz
Modulation Type:	ASK
Antenna Type:	Coil Antenna
Antenna Gain:	0dBi
Rated Voltage:	Type-C: 12V, 9V, 5V
Rated Current:	Type-C: 2.5A, 2.5A, 3A
Rated Power:	Wireless Output 1: 5W, 7.5W, 10W, 15W Wireless Output 2: 5W

1.2 Auxiliary Equipment List and Details

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Smart phone	Apple	IPhone 12 Pro Max	/
Air pods	Apple	A2190	/

1.3 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
ELECTRIC AND MAGNETIC FIELD ANALYZER	Narda	EHP-200AC	180ZX10226	2021-05-20	2024-05-19

2. RF Exposure Test Report

2.1 Standard Applicable

According to §1.1310 system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

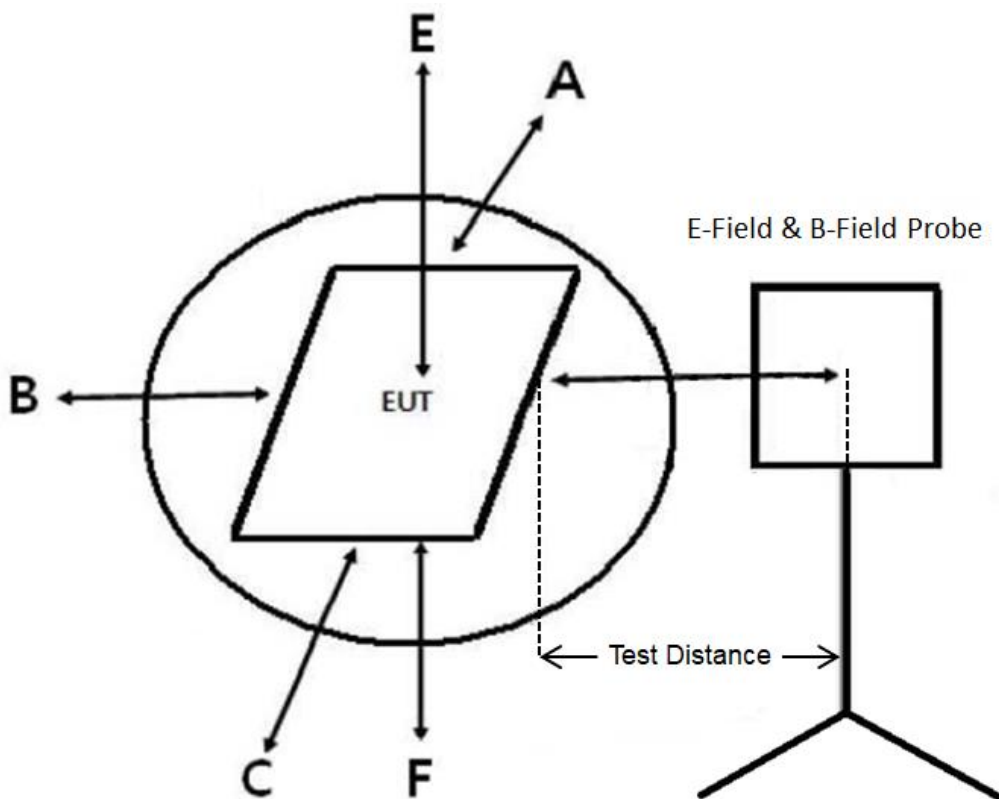
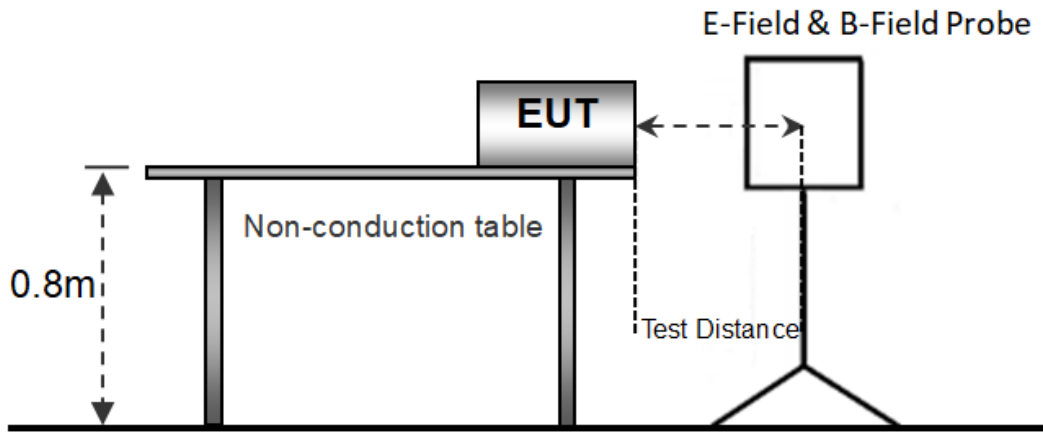
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	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 ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

2.2 Test Conditions

Test Mode	Description	Remark
TM1	Wireless Charging	Connect to the adapter; AC120V/60Hz for adapter; Wireless charging: output1: 5W
TM2	Wireless Charging	Connect to the adapter; AC120V/60Hz for adapter; Wireless charging: output1: 10W
TM3	Wireless Charging	Connect to the adapter; AC120V/60Hz for adapter; Wireless charging: output1: 15W
TM4	Wireless Charging	Connect to the adapter; AC120V/60Hz for adapter; Wireless charging: output2: 5W
TM5	Wireless Charging	Connect to the adapter; AC120V/60Hz for adapter; Wireless charging: output1: 15W + output2: 5W
Measurement Distance:		
		15 cm and 20 cm

2.3 Test Procedure



- a. The measurement probe was placed at test distance(15 cm for A,B,C,D,F and 20 cm for E) which is between the edge of the charger and the geometric center of probe.
- b. The highest emission level was recorded at the measurement points(A, B, C, D, E, F).
- c. The EUT was measured according to the distance of KDB 680106 D01 V03.

2.4 Test Result

The EUT complies with item 5.b) of KDB 680106 D01V03

1. Power transfer frequency is less than 1 MHz
Yes, the device operates in the frequency range from 112kHz to 146.5kHz.
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 less than 15W.
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
Yes, the client device includes only single primary 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, It is mobile exposure conditions only.
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 less than 50% of the MPE limit, refer to test TM1, TM2, TM3, TM4, TM5 list, and the coils can't transmit simultaneously.

Test Mode: TM1

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	2.8597	614	307
Point F	0.4063	614	307
Point A	0.3861	614	307
Point B	1.1310	614	307
Point C	1.2476	614	307
Point D	1.0344	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.4453	1.63	0.815
Point F	0.4349	1.63	0.815
Point A	0.4858	1.63	0.815
Point B	0.0926	1.63	0.815
Point C	0.0840	1.63	0.815
Point D	0.0907	1.63	0.815

Test Mode: TM2

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	1.4470	614	307
Point F	1.0644	614	307
Point A	0.5539	614	307
Point B	0.5371	614	307
Point C	1.3030	614	307
Point D	1.1945	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.6289	1.63	0.815
Point F	0.2436	1.63	0.815
Point A	0.2224	1.63	0.815
Point B	0.0893	1.63	0.815
Point C	0.0789	1.63	0.815
Point D	0.0941	1.63	0.815

Test Mode: TM3

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	2.7394	614	307
Point F	0.5139	614	307
Point A	0.4861	614	307
Point B	1.0342	614	307
Point C	1.4703	614	307
Point D	0.9964	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.7158	1.63	0.815
Point F	0.5101	1.63	0.815
Point A	0.4833	1.63	0.815
Point B	0.1031	1.63	0.815
Point C	0.1095	1.63	0.815
Point D	0.1027	1.63	0.815

Test Mode: TM4

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	1.6667	614	307
Point F	0.3535	614	307
Point A	0.2898	614	307
Point B	1.2044	614	307
Point C	0.7595	614	307
Point D	0.2031	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.4453	1.63	0.815
Point F	0.4096	1.63	0.815
Point A	0.3419	1.63	0.815
Point B	0.1031	1.63	0.815
Point C	0.1007	1.63	0.815
Point D	0.0953	1.63	0.815

Test Mode: TM5

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit (V/m)
Point E	3.1261	614	307
Point F	1.6266	614	307
Point A	0.6405	614	307
Point B	0.5858	614	307
Point C	1.3142	614	307
Point D	1.1021	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit (A/m)
Point E	0.6385	1.63	0.815
Point F	0.6603	1.63	0.815
Point A	0.6176	1.63	0.815
Point B	0.1069	1.63	0.815
Point C	0.1066	1.63	0.815
Point D	0.1157	1.63	0.815

Note: this EUT was tested in 3 orthogonal positions and the worst case position (D point) data was reported.

2.5 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Electric Field Emissions	Radiated	±1.56 (V/m)
Magnetic Field Emissions	Radiated	±0.08(A/m)

2.6 Test Photos



APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

**** END OF REPORT ****