

# TEST REPORT

Reference No..... : WTX22X10199750W002  
FCC ID ..... : 2AV4C-U280MS-2N1-WH  
Applicant ..... : Eaton Corporation  
Address ..... : 10000 Woodward Avenue, Woodridge IL 60517, USA  
Manufacturer ..... : DONGGUAN CE LINK LIMITED  
Address ..... : 22 Dongkang Road, Dalingshan Town, Dongguan City, Guangdong  
Province, China.  
Product Name ..... : 2-in-1 MagSafe Wireless Charging Stand, 20W  
Model No. .... : U280MS-2N1-WH  
Standards ..... : KDB 680106 D01 V03  
Date of Receipt sample .... : 2022-10-08  
Date of Test..... : 2022-10-08 to 2022-11-07  
Date of Issue ..... : 2022-11-07  
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	2022-11-07	Original
/	/	/

## 1. GENERAL INFORMATION

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### 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:	2-in-1 MagSafe Wireless Charging Stand, 20W
Trade Name:	Tripp Lite
Model No.:	U280MS-2N1-WH
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:	110~205kHz
Power adapter:	ASK
Antenna Type:	Coil Antenna
Rated Voltage:	Input: 5V, 9V
Rated Current:	Input: 3A
Rated Power:	Output1 : 5W Output2 : 5W/7.5W/15W

## 1.2 Auxiliary Equipment List and Details

### Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Adapter	Xiaomi	MDY-11-EX	/
Smart phone	Apple	IPhone 12 Pro Max	/
Air pods	Apple	A2190	/
wireless charging tester	YBZ	YBZ wireless charging tester	/

### Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB-C Cable	1.25	Unshielded	Without Ferrite

**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)

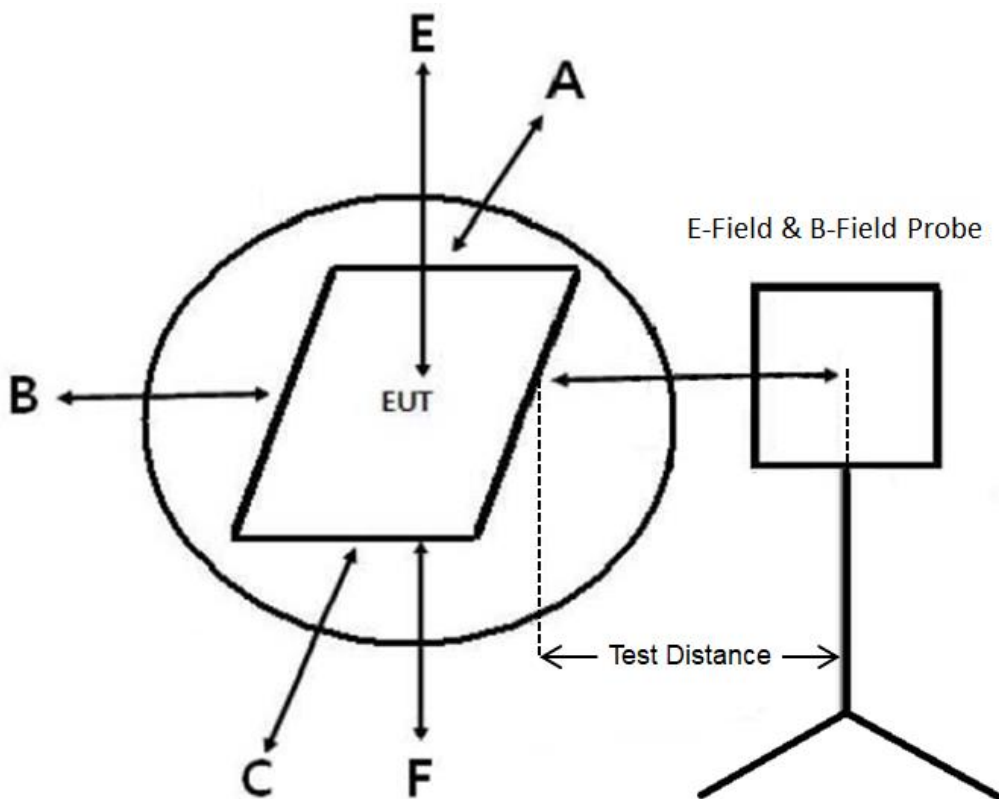
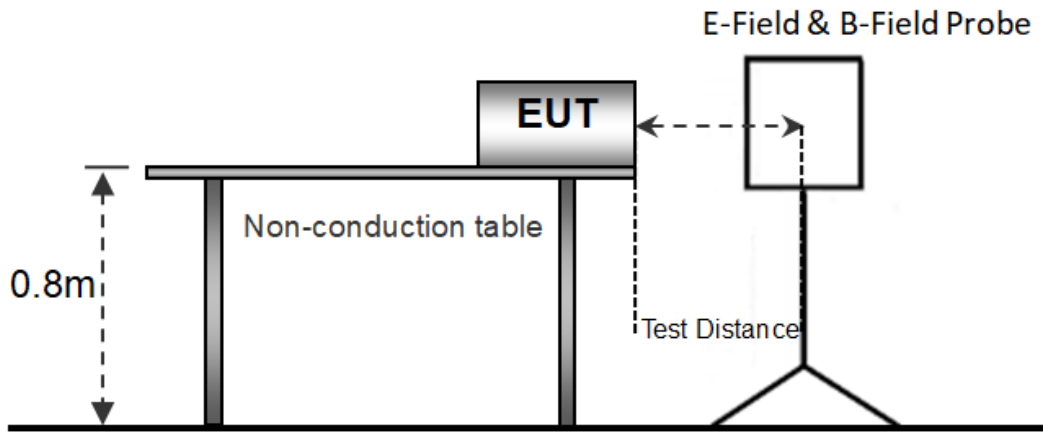
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposure</b>				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f <sup>2</sup>	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	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	Output1 : 5W
TM2	Wireless Charging	Output2 : 5W
TM3	Wireless Charging	Output2 : 7.5W
TM4	Wireless Charging	Output2 : 15W
TM5	Wireless Charging	Output1: 5W + Output2: 15W
<b>Measurement Distance:</b>		
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 5.2 of KDB 680106 D01V03

1. Power transfer frequency is less than 1 MHz  
Yes, the device operates in the frequency range from 110kHz to 205kHz.
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

<b>Electric Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (V/m)</b>	<b>Limit(V/m)</b>	<b>50% Limit (V/m)</b>
Point E	0.4187	614	307
Point F	0.2099	614	307
Point A	0.1927	614	307
Point B	0.6677	614	307
Point C	0.3254	614	307
Point D	0.2479	614	307
<b>Magnetic Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (A/m)</b>	<b>Limit(A/m)</b>	<b>50% Limit (A/m)</b>
Point E	0.4449	1.63	0.815
Point F	0.2071	1.63	0.815
Point A	0.1846	1.63	0.815
Point B	0.1031	1.63	0.815
Point C	0.0786	1.63	0.815
Point D	0.0941	1.63	0.815

Test Mode: TM2

<b>Electric Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (V/m)</b>	<b>Limit(V/m)</b>	<b>50% Limit (V/m)</b>
Point E	0.5004	614	307
Point F	0.1517	614	307
Point A	0.1392	614	307
Point B	0.2220	614	307
Point C	0.2530	614	307
Point D	0.2214	614	307
<b>Magnetic Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (A/m)</b>	<b>Limit(A/m)</b>	<b>50% Limit (A/m)</b>
Point E	0.1895	1.63	0.815
Point F	0.1437	1.63	0.815
Point A	0.1297	1.63	0.815
Point B	0.0921	1.63	0.815
Point C	0.0791	1.63	0.815
Point D	0.0812	1.63	0.815

Test Mode: TM3

<b>Electric Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (V/m)</b>	<b>Limit(V/m)</b>	<b>50% Limit (V/m)</b>
Point E	0.3757	614	307
Point F	0.1353	614	307
Point A	0.1170	614	307
Point B	0.1762	614	307
Point C	0.2199	614	307
Point D	0.2085	614	307
<b>Magnetic Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (A/m)</b>	<b>Limit(A/m)</b>	<b>50% Limit (A/m)</b>
Point E	0.1799	1.63	0.815
Point F	0.1330	1.63	0.815
Point A	0.1139	1.63	0.815
Point B	0.1034	1.63	0.815
Point C	0.0907	1.63	0.815
Point D	0.0938	1.63	0.815

Test Mode: TM4

<b>Electric Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (V/m)</b>	<b>Limit(V/m)</b>	<b>50% Limit (V/m)</b>
Point E	0.3710	614	307
Point F	0.1301	614	307
Point A	0.1161	614	307
Point B	0.1793	614	307
Point C	0.2262	614	307
Point D	0.2085	614	307
<b>Magnetic Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (A/m)</b>	<b>Limit(A/m)</b>	<b>50% Limit (A/m)</b>
Point E	0.1752	1.63	0.815
Point F	0.1349	1.63	0.815
Point A	0.1198	1.63	0.815
Point B	0.1034	1.63	0.815
Point C	0.0941	1.63	0.815
Point D	0.0941	1.63	0.815

Test Mode: TM5

<b>Electric Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (V/m)</b>	<b>Limit(V/m)</b>	<b>50% Limit (V/m)</b>
Point E	0.7183	614	307
Point F	0.1656	614	307
Point A	0.1598	614	307
Point B	0.3037	614	307
Point C	0.2843	614	307
Point D	0.3757	614	307
<b>Magnetic Field Emissions</b>			
<b>Test Position</b>	<b>Measure Value (A/m)</b>	<b>Limit(A/m)</b>	<b>50% Limit (A/m)</b>
Point E	0.3151	1.63	0.815
Point F	0.1752	1.63	0.815
Point A	0.1604	1.63	0.815
Point B	0.1004	1.63	0.815
Point C	0.1375	1.63	0.815
Point D	0.1415	1.63	0.815

Note: 1. The EUT was tested at 3 (X, Y, Z) orthogonal positions, and the worst-case position data was reported. Worst data for Electric Field Emissions (X), worst data for Magnetic Field Emissions (Z)

### 2.5 Measurement Uncertainty

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

2.6 Test Photos



## APPENDIX PHOTOGRAPHS

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Please refer to "ANNEX"

\*\*\*\* END OF REPORT \*\*\*\*