

RF Exposure Test Report

Report No.: SA190729D01

FCC ID: 2ADB4TM0007P

Test Model: TM0007P

Received Date: Jul. 29, 2019

Test Date: Jul. 30, 2019

Issued Date: Aug. 7, 2019

Applicant: Foxconn Interconnect Technology Limited Taiwan Branch

Address: No. 66-1, JHONGSHAN RD., TUCHENG DIST., NEW TAIPEI CITY 23680, TAIWAN (R.O.C.)

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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**FCC Registration /
Designation Number:** 198487 / TW2021



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Release Control Record

Issue No.	Description	Date Issued
SA190729D01	Original release.	Aug. 7, 2019

1 Certificate of Conformity

Product: Wireless Charging Pad 10W

Brand: **GO
TO**

Test Model: TM0007P

Sample Status: Engineering sample

Applicant: Foxconn Interconnect Technology Limited Taiwan Branch

Test Date: Jul. 30, 2019

Standards: FCC Part 2 (Section 2.1091)

FCC Part 1 (Section 1.1307(c) and (d), Section 1.1310)

KDB 680106 D01 RF Exposure Wireless Charging v03

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by :

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Date: Aug. 7, 2019

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Approved by :

Rex Lai

Date: Aug. 7, 2019

Rex Lai / Associate Technical Manager

2 General Information

2.1 General Description of EUT

Product	Wireless Charging Pad 10W
Brand	GO TO
Test Model	TM0007P
Sample Status	Engineering sample
Power Supply Rating	Input: +5Vdc, 3A or +9Vdc, 2A or 12Vdc, 1.5A (from adapter) Output: 10W
Modulation Type	FSK
Operating Frequency	127.8 kHz
Antenna Type	Coil antenna
Field Strength	52.86dBuV/m
Dimensions	17.35cm ² (diameter = 47mm)
Accessory Device	Adapter
Data Cable Supplied	Shielded USB cable (1.2m)
Maximum Power Output from the Charging Coil	10W

Note:

1. The EUT is a Wireless Charging Pad 10W.

2. The EUT uses following adapter.

Brand	DVE
Model	DSA-18QFB FUS A
Input Power	100-240Vac, 50/60Hz, 0.8A (AC 2 Pin)
Output Power	+5Vdc, 3A or +9Vdc, 2A or 12Vdc, 1.5A

3. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3 RF Exposure

3.1 Description of Support Units

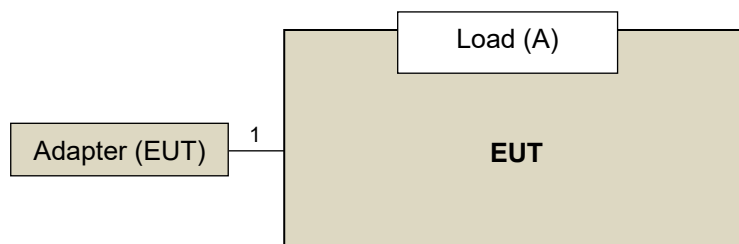
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Load	NA	NA	NA	NA	Supplied by client (10W max load)

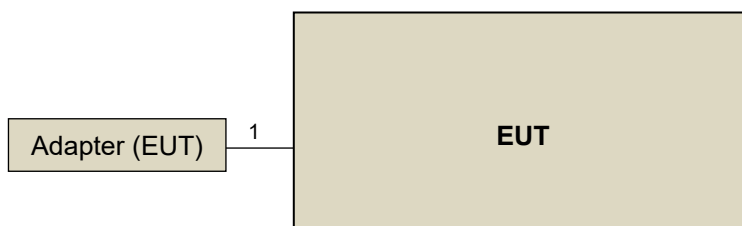
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	1.2	Y	0	Supplied by client

3.1.1 Configuration of System under Test

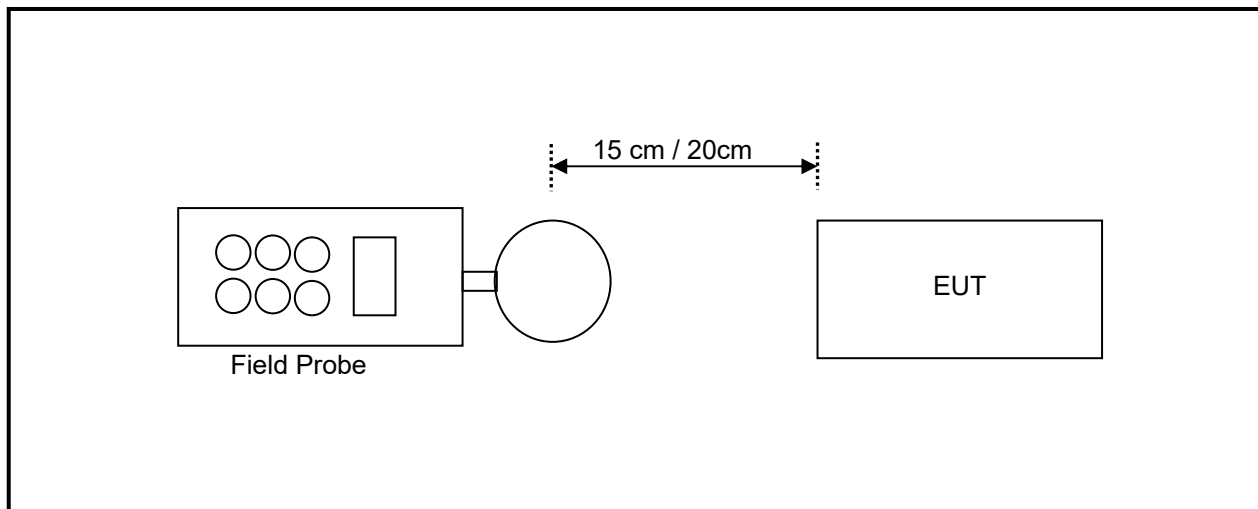
Charging Mode with Load



Standby Mode



3.2 Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm or 20 cm measured from the center of the probe(s) to the edge of the device.

3.3 Test Instruments

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
Broadband Field Meter	NARDA	NBM-550	-	Mar. 28, 2018	Mar. 27, 2020
Magnetic Field Meter	NARDA	ELT-400	1 – 400kHz	Apr. 12, 2018	Apr. 11, 2020
Magnetic Probe	NARDA	HF-3061	300kHz – 30MHz	Apr. 16, 2018	Apr. 15, 2020
Magnetic Probe	NARDA	HF-0191	27 – 1000MHz	Apr. 17, 2018	Apr. 16, 2020
Broadband Field Meter	NARDA	NBM-550	-	Mar. 28, 2018	Mar. 27, 2020
Electric Field Meter	COMBINOVA	EFM 200	5Hz – 400kHz	Dec. 6, 2017	Dec. 5, 2019
E-Field Probe	NARDA	EF-0391	100kHz – 3GHz	Mar. 28, 2018	Mar. 27, 2020
E-Field Probe	NARDA	EF-6091	100MHz – 60GHz	Mar. 29, 2018	Mar. 28, 2020

NOTE: 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in Chia Pau RF Chamber
 3. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

3.4 Limits for Maximum Permissible Exposure (MPE)

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 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
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

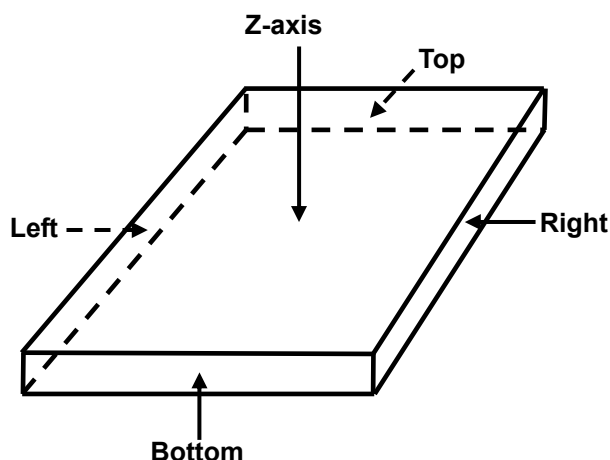
NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply 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.

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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.

3.5 Test Point Description



4 Calculation Result of Maximum Conducted Power

Charging Mode with Load

Charging Mode with 10% Load

E-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max E-field (V/m)	0.6100	0.5800	0.7500	0.3300	0.8900
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-613.3900	-613.4200	-613.2500	-613.6700	-613.1100
50 % Limit (V/m)	307	307	307	307	307
50 % Margin (V/m)	-306.3900	-306.4200	-306.2500	-306.6700	-306.1100

H-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max H-field (uT)	0.1300	0.1490	0.1370	0.1280	0.1430
Max H-field (A/m)	0.1040	0.1192	0.1096	0.1024	0.1144
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.5260	-1.5108	-1.5204	-1.5276	-1.5156
50 % Limit (A/m)	0.815	0.815	0.815	0.815	0.815
50 % Margin (A/m)	-0.7110	-0.6958	-0.7054	-0.7126	-0.7006

Measurements were made from all sides and the top of the primary/client pair, with the 15 cm or 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode with 50% Load

E-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max E-field (V/m)	0.6900	0.6600	0.8100	0.3700	0.9500
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-613.3100	-613.3400	-613.1900	-613.6300	-613.0500
50 % Limit (V/m)	307	307	307	307	307
50 % Margin (V/m)	-306.3100	-306.3400	-306.1900	-306.6300	-306.0500

H-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max H-field (uT)	0.1390	0.1560	0.1490	0.1330	0.1500
Max H-field (A/m)	0.1112	0.1248	0.1192	0.1064	0.1200
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.5188	-1.5052	-1.5108	-1.5236	-1.5100
50 % Limit (A/m)	0.815	0.815	0.815	0.815	0.815
50 % Margin (A/m)	-0.7038	-0.6902	-0.6958	-0.7086	-0.6950

Measurements were made from all sides and the top of the primary/client pair, with the 15 cm or 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode with max Load

E-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max E-field (V/m)	0.7700	0.7500	0.8900	0.4300	1.0900
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-613.2300	-613.2500	-613.1100	-613.5700	-612.9100
50 % Limit (V/m)	307	307	307	307	307
50 % Margin (V/m)	-306.2300	-306.2500	-306.1100	-306.5700	-305.9100

H-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max H-field (uT)	0.1450	0.1600	0.1580	0.1370	0.1560
Max H-field (A/m)	0.1160	0.1280	0.1264	0.1096	0.1248
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.5140	-1.5020	-1.5036	-1.5204	-1.5052
50 % Limit (A/m)	0.815	0.815	0.815	0.815	0.815
50 % Margin (A/m)	-0.6990	-0.6870	-0.6886	-0.7054	-0.6902

Measurements were made from all sides and the top of the primary/client pair, with the 15 cm or 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Standby Mode

E-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max E-field (V/m)	0.1600	0.1200	0.2100	0.1700	0.3800
Limit (V/m)	614	614	614	614	614
Margin (V/m)	-613.8400	-613.8800	-613.7900	-613.8300	-613.6200
50 % Limit (V/m)	307	307	307	307	307
50 % Margin (V/m)	-306.8400	-306.8800	-306.7900	-306.8300	-306.6200

H-Field Measurement					
Distance	15cm				20cm
EUT Side	Left	Right	Top	Bottom	Z-axis
Max H-field (uT)	0.1000	0.0980	0.1040	0.1020	0.2010
Max H-field (A/m)	0.0800	0.0784	0.0832	0.0816	0.1608
Limit (A/m)	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.5500	-1.5516	-1.5468	-1.5484	-1.4692
50 % Limit (A/m)	0.815	0.815	0.815	0.815	0.815
50 % Margin (A/m)	-0.7350	-0.7366	-0.7318	-0.7334	-0.6542

Measurements were made from all sides and the top of the primary/client pair, with the 15 cm or 20 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

5 Photographs of the Test Configuration

Please refer to the attached file (Test Setup Photo).

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