

RF EXPOSURE REPORT

OF

Applicant: Channel Well Technology Co., Ltd
No.222, Sec. 2, Nankan Rd., Lujhu Township, Taoyuan
County 338, Taiwan, R. O. C

Product Name: Wireless Charger

Brand Name: CWT

Model No.: WTM1B15

Model Difference: N/A

FCC ID: 2AC3UWTM1B15

Report Number: ER/2020/30167

FCC Rule Part Part 2.1093

Issue Date: Jul. 30, 2020

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. The test data, data evaluation in this report is in compliance with FCC Rules Part 2.

The test results of this report relate only to the tested sample identified in this report.

Approved By:

John Teh

Yeh John / Asst. Manager

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Revision History

Report Number	Revision	Description	Issue Date	Remark
ER/2020/30167	Rev.00	Original.	Jul. 30, 2020	Revised By: Violetta Tang

Note:

1、Disclaimer

Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 General Information

Product Name:	Wireless Charger	
Brand Name:	CWT	
Model No.:	WTM1B15	
Model Difference:	N/A	
Hardware Version:	N/A	
Software Version:	N/A	
Power Supply:	19V from AC/DC Adapter	
	Adapter:	Model No.: HKA12019063-6C, Supplier: HuntKey.

WPC

Operating Frequency	127kHz
Transmit Power	< 80.11dBuV/m at 3m.
Number of Channels	1
Antenna Type	Coil Antenna
Modulation Type	ASK

This report complies with FCC regulatory radio rule with respect to WPC that operates on 127 kHz.

1.2 Test Facility

SGS Taiwan Ltd. Central RF Lab (TAF code 3702)

No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803

FCC Designation number: TW0027

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2 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

2.1 Standard Applicable

According to KDB 680106 D01 RF Exposure Wireless Charging App v03

RF exposure potential to users and bystanders is expected to vary according to factors inherent to the design of individual systems, which generally requires different evaluation considerations to show compliance.

When exposure concerns arise; for example, due to evolving products and operations, RF exposure evaluation may be requested under the provisions of Sections 1.1307 (c) and (d) to determine compliance. Because of significant variations in design and operating characteristics, the procedures required to evaluate RF exposure compliance for wireless power transfer are considered according to the exposure potentials of individual implementations

The RF exposure requirements must be determined in conjunction with the device operating characteristics, according to the mobile and portable exposure requirements in Sections 2.1091 and 2.1093 of the rules. SAR and MPE limits do not cover the frequency range for wireless power transfer applications which operate below 100 kHz and 300 kHz respectively; therefore, RF exposure compliance needs to be determined with respect to Sections 1.1307 (c) and (d) of the FCC rules.

2.2 Limits for Maximum Permissible Exposure (MPE)

Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

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

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2.3 The Worst Charging Condition:

Ancillary Equipment	Charging Condition	Verdict
Load	Full Loading	PASS
Load	99% Loading	PASS
Load	50% Loading	PASS
Load	1% Loading	PASS
Note: For Wireless Power Consortium Qi specification, a lower operating frequency or high duty cycle result in the transfer of a higher amount of power and charging current.		

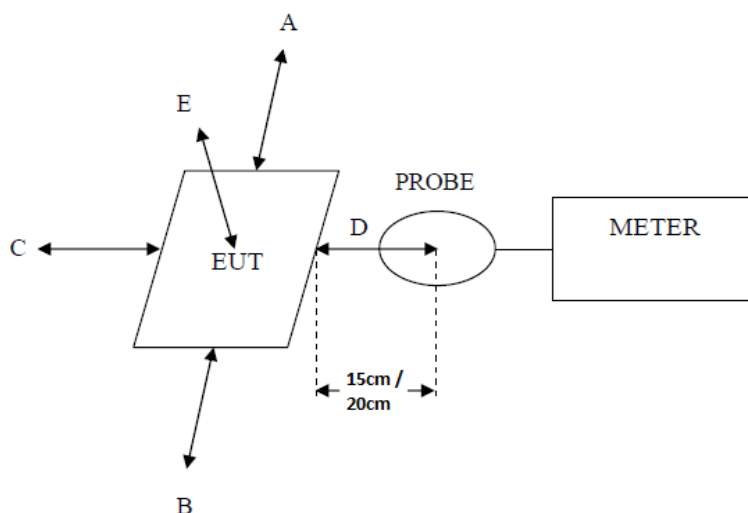
2.4 Measurement Procedure:

For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device.

2.5 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
E-Field Probe	Narda Safety Test Solutions GmbH	EF-0691	G-0061	08/13/2019	08/12/2020
Broadband Field Meter	Narda Safety Test Solutions GmbH	NBM-550	F-0375	08/13/2019	08/12/2020
Smart Phone	Apple	I phone X	MQAF2TA/A	N/A	N/A

2.6 Test Set-up:



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2.7 Maximum Permissible Exposure (MPE) Evaluation:

Full Loading

Maximum Permissible Exposure			
Probe from EUT Side	Test Distance	E-field (V/m)	H-field (A/m)
Front	15 cm	0.53	0.0015
Back	15 cm	0.59	0.0017
Left	15 cm	0.68	0.0013
Right	15 cm	0.57	0.0014
Top	15 cm	0.68	0.0018
Bottom	15 cm	0.66	0.0017
Limit		614	0.815

99% Loading

Maximum Permissible Exposure			
Probe from EUT Side	Test Distance	E-field (V/m)	H-field (A/m)
Front	15 cm	0.51	0.0015
Back	15 cm	0.58	0.0017
Left	15 cm	0.67	0.0013
Right	15 cm	0.55	0.0014
Top	15 cm	0.67	0.0018
Bottom	15 cm	0.66	0.0017
Limit		614	0.815

50% Loading

Maximum Permissible Exposure			
Probe from EUT Side	Test Distance	E-field (V/m)	H-field (A/m)
Front	15 cm	0.49	0.0014
Back	15 cm	0.54	0.0016
Left	15 cm	0.67	0.0012
Right	15 cm	0.48	0.0013
Top	15 cm	0.67	0.0017
Bottom	15 cm	0.65	0.0018
Limit		614	0.815

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1% Loading

Maximum Permissible Exposure			
Probe from EUT Side	Test Distance	E-field (V/m)	H-field (A/m)
Front	15 cm	0.47	0.0013
Back	15 cm	0.52	0.0015
Left	15 cm	0.65	0.0011
Right	15 cm	0.46	0.0011
Top	15 cm	0.66	0.0017
Bottom	15 cm	0.63	0.0017
Limit		614	0.815

~ End of Report ~

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