

Maximum Permissible Exposure

FCC ID : 2APYSG019C
Equipment : Wireless Charger
Model Name : G019C
Applicant : Lanto Electronic Ltd
No.399 baisheng Road, jinxi Town, Kunshan City,
Jiangsu, 215324, China
Standard : 47 CFR Part 2.1091

The product was received on Jun. 11, 2018, and testing was started from Jun. 29, 2018 and completed on Jun. 29, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in KDB 680106 D01 RF Exposure Wireless Charging Apps v03 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of United States government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.


Approved by: Kevin Liang

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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History of this test report

Report No.	Version	Description	Issued Date
FA861107	01	Initial issue of report	Jul. 02, 2018
FA861107	02	Remove Brand Name	Jul. 13, 2018
FA861107	03	2m USB Cable is replaced to 1.5m USB Cable	Jul. 27, 2018

Reviewed by: Sam Tsai

Report Producer: Jenny Yang

1 Human Exposure Assessment

1.1 Maximum Permissible Exposure

1.1.1 Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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
Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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
Note 1: f = frequency in MHz ; *Plane-wave equivalent power density				
Note 2: For the applicable limit, see FCC 1.1310				

1.1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03

1.2 Testing Location Information

Testing Location				
☒	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-327-0973		
Test site Designation No. TW1190 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Randy	21.5°C / 62%	29/Jun/2018

1.3 Accessories

Accessories Information				
AC Adapter	Brand Name	flextronics	Model Name	G1000-US
	Power Rating	I/P: 100- 240Vac, 1.7 A, O/P: 5Vdc, 3A, O/P: 9Vdc, 2A		
Type-C USB Cable	Brand Name	-	In/Out door	Indoor
	Signal Line	1.5 meter, non-shielded cable, with w/o ferrite core		

Note: Regarding to more detail and other information, please refer to user manual.

1.4 Support Equipment

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	RX Load	-	-	-
2	DC power supply	GW	GPS-3030DD	-
3	Load	SSR	400W	-
4	Phone	Apple	MRRM2TA/A	-

Note: Support equipment No.1 was provided by customer.

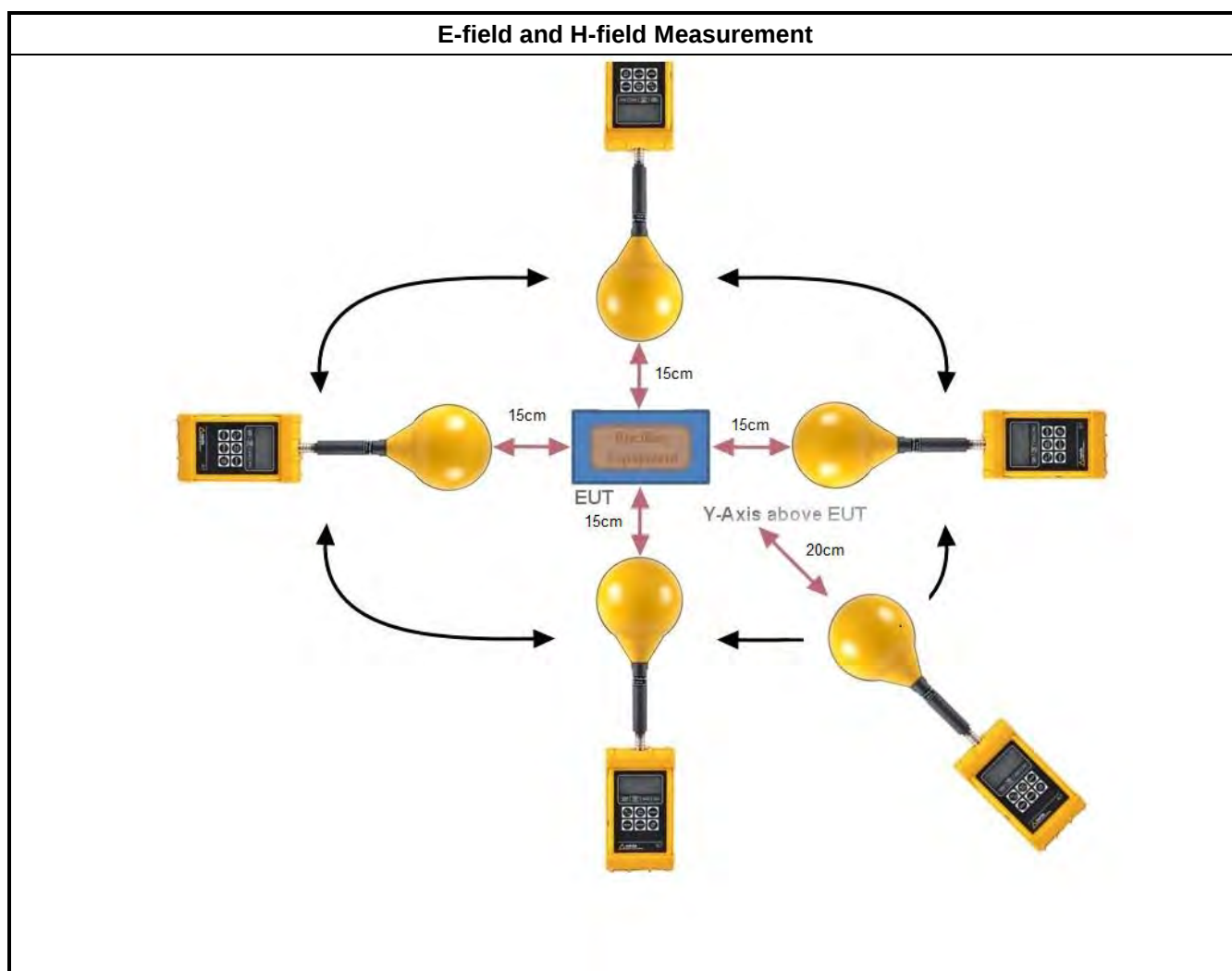
1.5 The Worst Condition

Ancillary Equipment	Charging Condition	Worst Charging Condition
The Phone	Phone (Y-axis)	Charging Mode

1.5.1 Test Method

Test Method
☒ Performed aggregate both leakage E-field and H-field at surrounding the device from all simultaneous transmitting coils.
☒ During testing, the EUT was placed on a non-conductive table top and the ancillary equipment (e.g., mobile phone) was placed on the EUT for charging. Maximum E-field and H-field measurements were tested 15cm & 20cm from each side of the EUT. Along the side of the EUT to center of E-field probe and H-field probe were positioned at the location to search maximum field strength.

1.5.2 Test Setup



1.5.3 Result of Maximum Permissible Exposure

<EUT (Z-Axis), Load (X-Axis)>

Maximum Permissible Exposure				
Charging Condition	Separation	Probe from EUT Side	E-field (V/m)	H-field Limit (A/m)
Operating	15cm	Left	0.34	0.001
Operating	15cm	Right	0.27	0.001
Operating	15cm	Top	0.31	0.001
Operating	15cm	Bottom	0.34	0.001
Operating	20cm	Y-axis above EUT	0.26	0.001
Limit			614	1.63
Margin Limit (%)			0.06%	0.06%

<EUT (Z-Axis), Load (Y-Axis)>

Maximum Permissible Exposure				
Charging Condition	Separation	Probe from EUT Side	E-field (V/m)	H-field Limit (A/m)
Operating	15cm	Left	0.22	0.001
Operating	15cm	Right	0.27	0.001
Operating	15cm	Top	0.44	0.001
Operating	15cm	Bottom	0.22	0.001
Operating	20cm	Y-axis above EUT	0.23	0.001
Limit			614	1.63
Margin Limit (%)			0.07%	0.07%

<EUT (Z-Axis), Load : Phone (X-Axis)>

Maximum Permissible Exposure				
Charging Condition	Separation	Probe from EUT Side	E-field (V/m)	H-field Limit (A/m)
Operating	15cm	Left	0.58	0.002
Operating	15cm	Right	0.61	0.002
Operating	15cm	Top	1.21	0.003
Operating	15cm	Bottom	0.65	0.002
Operating	20cm	Y-axis above EUT	0.42	0.001
Limit			614	1.63
Margin Limit (%)			0.20%	0.20%

<EUT (Z-Axis), Load : Phone (Y-Axis)>

Maximum Permissible Exposure				
Charging Condition	Separation	Probe from EUT Side	E-field (V/m)	H-field Limit (A/m)
Operating	15cm	Left	0.37	0.001
Operating	15cm	Right	0.43	0.001
Operating	15cm	Top	1.5	0.004
Operating	15cm	Bottom	0.41	0.001
Operating	20cm	Y-axis above EUT	0.44	0.001
Limit			614	1.63
Margin Limit (%)			0.24%	0.25%



2 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Probe EF	Narda Safety Test Solutions GmbH	0391 E-Field	D-0667	0.1MHz ~ 3GHz	10/Jun/2018	09/Jun/2020
Broadband Field Meter	Narda Safety Test Solutions GmbH	NBM-550	E-0847	0.1MHz ~ 3GHz	10/Jun/2018	09/Jun/2020