Maximum Permissible Exposure

FCC ID	:	**2APYS-LPS05WBI**
Equipment	:	**Wireless Charger**
Brand Name	:	**Sonos**
Model Name	:	**LPS-05WB-I**
Applicant	:	**Lanto Electronic Ltd No.399 baisheng Road, jinxi Town, Kunshan City, Jiangsu, 215324, China**
Manufacturer	:	**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 Nov. 06, 2020, and testing was started from Nov. 09, 2020 and completed on Nov. 12, 2020. 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 47 CFR Part 2.1091 and shown compliance with the applicable technical standards.

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: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

Table of Contents

HISTORY OF THIS TEST REPORT 3
1 HUMAN EXPOSURE ASSESSMENT 5
1.1 Maximum Permissible Exposure 5
1.2 Testing Applied Standards 6
1.3 Testing Location Information 6
1.4 Support Equipment 6
1.5 The Worst Condition 7
2 TEST EQUIPMENT AND CALIBRATION DATA 10
APPENDIX A. TEST PHOTOS
PHOTOGRAPHS OF EUT V01

History of this test report

Report No.	Version	Description	Issued Date
FA0O2323NF	01	Initial issue of report	Dec. 31, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.5	-	Maximum Permissible Exposure	PASS	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
None.

Reviewed by: Sam Tsai

Report Producer: Amber Chiu

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/ cm²)**	**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/ cm²)**	**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				

1.2 Testing Applied Standards

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

- 47 CFR Part 2.1091

The following reference test guidance is not within the scope of accreditation of TAF:

- KDB680106 D01 RF Exposure Wireless Charging Apps v03

1.3 Testing Location Information

Testing Location					
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan 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		TH06-HY	Alan Chien	20.1~26.9°C / 50~60%	09/Nov/2020~ 12/Nov/2020

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	Fixture	-	-	-
2	Load	-	-	-
3	AC adapter	Sonos	CPS012050210U	-
4	DC power cable(+)	MiSUMi	WTN1227-RED	-
5	DC power cable(-)	MiSUMi	WTN1227-BLACK	-

Note: Support equipment No.1 & 2 & 3 was provided by customer.

1.5 The Worst Condition

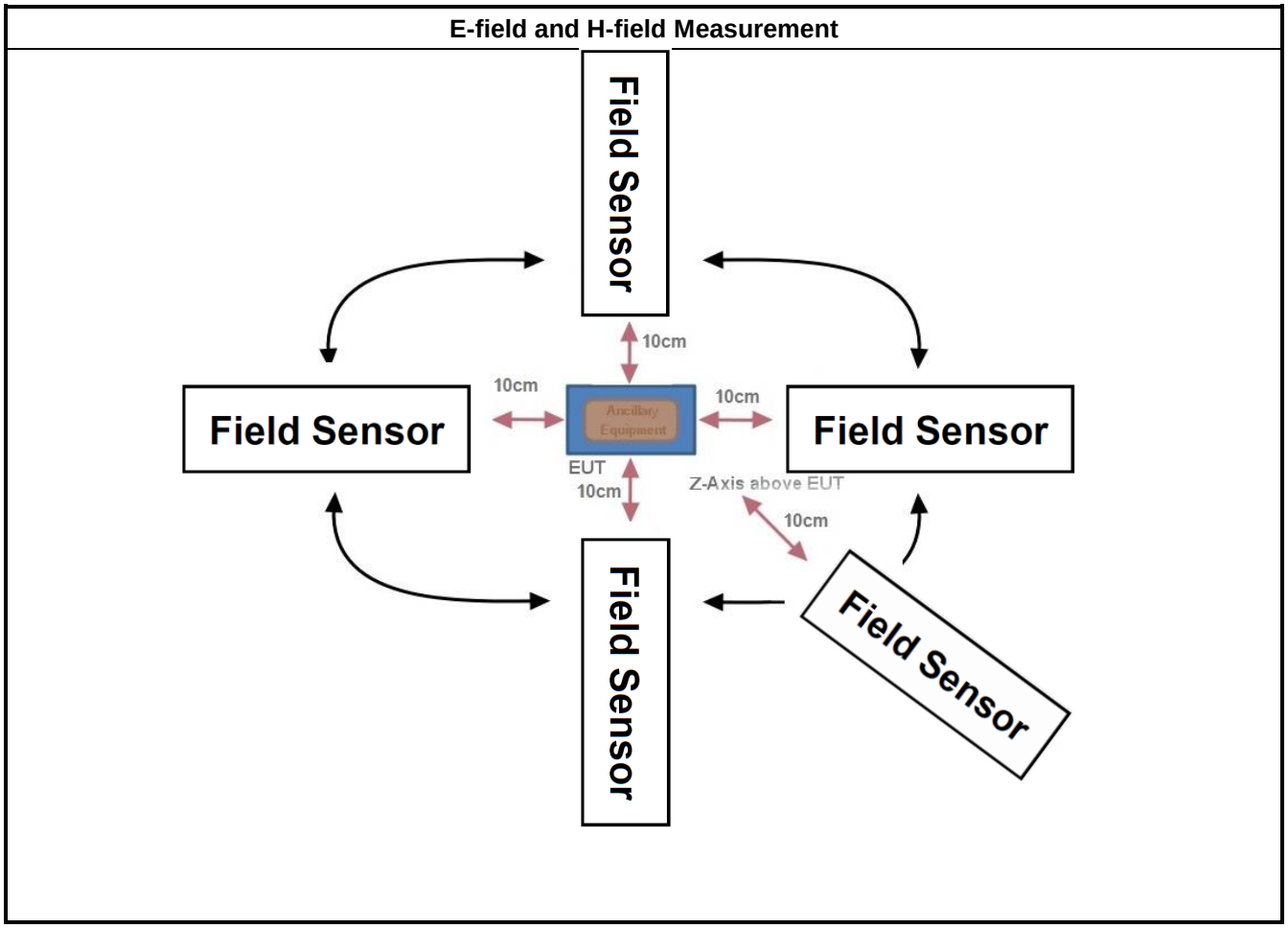
Ancillary Equipment	Evaluation Mode	Worst Condition
Load	Charging	Operating

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 10 cm 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.
☒	E-field transfer to H-field
-	E-field = Z_0 × H-field H-field = E-field ÷ Z_0 Where Z_0 = Free Space Impedance = 377Ω

1.5.2 Test Setup

E-field and H-field Measurement



Note 1 : find worst position for each axis.
Note 2 : This shall be measured as the distance from the edge of the device to the center of the measurement probe.

1.5.3 Result of Maximum Permissible Exposure

Maximum Permissible Exposure				
Charging Condition	**Separation**	**Probe from EUT Side**	**E-field (V/m)**	**H-field (A/m)**
Operating	10cm	Left	3.5406	0.129
	10cm	Right	1.3906	0.092
	10cm	Top	2.8906	0.039
	10cm	Bottom	2.7969	0.101
	10cm	Y-axis above EUT	0.5406	0.283
Limit			614	1.63
Margin Limit (%)			0.58%	17.33%

2 Test Equipment and Calibration Data

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Electric and Magnetic field Probe - Analyzer	Narda S.T.S. / PMM	EHP 200AC	170WX80309	3kHz~30MHz	08/May/2019	07/May/2021