

# RF Exposure Evaluation Report

Product Name	Wireless Charger Module
Model No.	LPS-15WP K
FCC ID.	2APYS-LPS15WPK

Applicant	Lanto Electronic Ltd
Address	No.399 baisheng Road,jinxi Town Kunshan, Jiangsu, China 215234

Date of Receipt	Feb. 17, 2022
Date of Declaration	Mar. 21, 2022
Report No.	2220447R-RFUSMPEV02-A
Report Version	V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

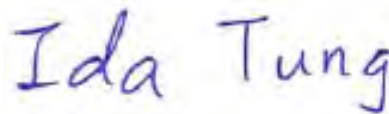
Issued Date: Mar. 21, 2022

Report No.: 2220447R-RFUSMPEV02-A



Product Name	Wireless Charger Module	
Applicant	Lanto Electronic Ltd	
Address	No.399 baisheng Road,jinxi Town Kunshan, Jiangsu, China 215234	
Manufacturer	Lanto Electronic Ltd	
Model No.	LPS-15WP K	
FCC ID.	2APYS-LPS15WPK	
EUT Rated Voltage	DC20 V, 1A	
EUT Test Voltage	AC 120 V / 60 Hz	
Trade Name	LUXSHAREICT	
Applicable Standard	KDB 447498 D01 v06	<input checked="" type="checkbox"/> For Field Strength Test
Test Result	Complied	

Documented By :



( Project Specialist / Ida Tung )

Tested By :



( Senior Engineer / Alan Chen )

Approved By :



( Manager / Tim Sung )

## **Revision History**

Report No.	Version	Description	Issued Date
2220447R-RFUSMPEV02-A	V1.0	Initial issue of report.	Mar. 21, 2022

## 1. RF Exposure Evaluation

### 1.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Specification	Last Cal.
X	EM Field Meter	Wavecontrol	SMP2 / 18SN0746	1 Hz - 60 GHz	Apr., 2021
X	Isotropic EM Field Probe	Wavecontrol	WP400-3 / 18WP120014	1 Hz - 400 KHz	Apr., 2021
X	Isotropic EM Field Probe	Wavecontrol	WP400 / 18WP100392	1 Hz - 400 KHz	Apr., 2021
X	Isotropic EM Field Probe	Wavecontrol	WPF8 / 18WP040835	100 KHz - 8 GHz	Apr., 2021

### 1.2. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document.

The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	Uncertainty
E-Field Emissions / H-Field Emissions	$\pm 1.30$ dB

### 1.3. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
Radiated Emission	Temperature (°C)	10~40 °C	23.5 °C
	Humidity (%RH)	10~90 %	55.1 %

**USA : FCC Registration Number: TW0033**

**Canada : IC Registration Number: 26930**

Site Description : Accredited by TAF  
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd  
Address : No. 5-22, Ruishukeng Linkou District, New Taipei City,  
24451, Taiwan

Performed Location : No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City  
333411, Taiwan, R.O.C.

Phone number : +886-3-275-7255

Fax number : +866-3-327-8031

Email address : [info.tw@dekra.com](mailto:info.tw@dekra.com)

Website : <http://www.dekra.com.tw>

#### 1.4. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

##### 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> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
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	6
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/F	2.19/F	*(180/F <sup>2</sup> )	30
300-1500	27.5	0.073	0.2	30
300-1500	--	--	F/1500	30
1500-100,000	--	--	1	30

Note:

1. RF Exposure evaluation should be conducted assuming a separation distance of 10 cm
2. The EUT is including four models for different marketing requirement.

#### 1.5. Test Procedure

The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils per the FCC 's request. (reference KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01)

## 1.6. Test Result of RF Exposure Evaluation for WPT

<i>Items to be covered</i>	<i>Answer from applicant</i>
Power transfer frequency is less than 1 MHz.	Operation frequency range is 128kHz.
Output power from each primary coil is less than or equal to 15 watts.	Output Power equal to 15W.
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, allow coupling only between individual pairs of coils.
Client device is placed directly in contact with the transmitter.	Yes, meet the requirements.
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Yes, meet the requirements.
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.	<p>*Electric Field Strength (V/m) @20cm = 0.80V/m (&lt; 307 V/m) MPE Limit (614 V/m) *50% =307 V/m</p> <p>*Magnetic Field Strength (A/m) @20cm =0.23 A/m (&lt; 0.815 A/m ) MPE Limit (1.63 A/m) *50%= 0.815 A/m</p>

Product : Wireless Charger Module  
 Test Item : RF Exposure Evaluation  
 Test Site : ACB1 Chamber  
 Test Date : 2022/03/07

**E-Field Emissions**

Test Position	Frequency (MHz)	Measurement Level @15cm (V/m)	Limit (V/m)	50% Limit (V/m)	Result
Side 1	0.12800	0.480	614.0	307.0	PASS
Side 2	0.12800	0.490	614.0	307.0	PASS
Side 3	0.12800	0.510	614.0	307.0	PASS
Side 4	0.12800	0.470	614.0	307.0	PASS

Test Position	Frequency (MHz)	Measurement Level @20cm (V/m)	Limit (V/m)	50% Limit (V/m)	Result
Top	0.12800	0.800	614.0	307.0	PASS
Bottom	0.12800	0.600	614.0	307.0	PASS

**H-Field Emissions**

Test Position	Frequency (MHz)	Measurement Level @15cm (A/m)	Limit (A/m)	50% Limit (A/m)	Result
Side 1	0.12800	0.110	1.63	0.815	PASS
Side 2	0.12800	0.040	1.63	0.815	PASS
Side 3	0.12800	0.040	1.63	0.815	PASS
Side 4	0.12800	0.050	1.63	0.815	PASS

Test Position	Frequency (MHz)	Measurement Level @20cm (V/m)	Limit (V/m)	50% Limit (V/m)	Result
Top	0.12800	0.230	1.63	0.815	PASS
Bottom	0.12800	0.230	1.63	0.815	PASS