FCC TEST REPORT

FCC ID: 2A2CFSW-ST2811-L18

Product	:	Wireless DC Adapter
Model Name	:	SW-ST2811-L18
Brand	:	N/A
Report No.	:	PTC21031801413E-FC02

Prepared for

Dong Guan City Shengwei Lighting Co., Ltd

Floor 6, Building D, Keruixin Technology Park, Dasha Road, Dasha Village, Dalingshan Town, Dongguan, Guangdong, China

Prepared by

Precise Testing & Certification Co., Ltd

Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China

TEST RESULT CERTIFICATION

Applicant's name	:	Dong Guan City Shengwei Lighting Co., Ltd
Address	:	Floor 6, Building D, Keruixin Technology Park, Dasha Road, Dasha Village, Dalingshan Town, Dongguan, Guangdong, China
Manufacture's name	:	Dong Guan City Shengwei Lighting Co., Ltd
Address	:	Floor 6, Building D, Keruixin Technology Park, Dasha Road, Dasha Village, Dalingshan Town, Dongguan, Guangdong, China
Product name	:	Wireless DC Adapter
Model name	:	SW-ST2811-L18
Test procedure		KDB 447498 D01 General RF Exposure Guidance v06
Test Date	:	Apr.05, 2021 to March 7, 2022
Date of Issue	:	March 7, 2022
Test Result	:	Pass

This device described above has been tested by PTS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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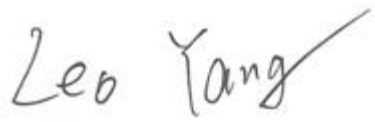
Test Engineer:



Leo Yang / Engineer

Technical Manager:

Wu Weimin / Manager

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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS
Remark:		
N/A: Not Applicable		

3 General Information

3.1 General Description of E.U.T.

Product Name	:	Wireless DC Adapter
Model Name	:	SW-ST2811-L18,SW-ST2811-L6L,SW-ST2811-L12 Note:The principle of electrical equipment is consistent, the output power is different, the maximum includes the minimum
Bluetooth Version	:	BT 4.2 BLE
Operating frequency	:	2402-2480MHz
Numbers of Channel	:	40
Antenna Type	:	PCB antenna
Antenna Gain	:	0 dBi
Type of Modulation	:	GFSK,
Power supply	:	Adapter model:SW-ST2811-L18 Input: AC100-240V/0.5A Output:DC24V/1.5A Adapter model:SW-ST2811-L6L Input: AC100-240V/0.2A Output:DC24V/0.5A Adapter model:SW-ST2811-L12 Input: AC100-240V/0.35A Output:DC24V/1.1A
Hardware Version	:	N/A
Software Version	:	N/A

4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : FCC Part 2.1091

4.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	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

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

4.3 MPE Calculation Method

E (V/m) = $\frac{\sqrt{30 \times P \times G}}{d}$ Power Density: Pd (W/m²) = $\frac{E^2}{377}$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

Pd = $\frac{30 \times P \times G}{377 \times d^2}$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Test Result

Item	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm2)	Limit of Power Density (mW/cm2)	Result
BLE	1	2.174	1.65	0.0003	1	Pass

********THE END REPORT********