TEST REPORT

Reference No.	:	WTF20F03014698W002
FCC ID	:	2AXYV-C5140A
Applicant	:	Foshan Rayven lighting Co.,Ltd
Address	:	A1 New Lighting Source Industry Zone,Luocun, Nanhai District, Foshan, Guangdong, China
Manufacturer	:	The same as above
Address	:	The same as above
Product Name	:	LED downlight
Model No.	:	SD.C5140A, SD.C5140C
Standards	:	FCC CFR47 Part 15 Subpart C (Section 15.247): 2019
Date of Receipt sample	:	2020-03-31
Date of Test	:	2020-10-22
Date of Issue	:	2021-03-24
Test Result	:	**Pass**

Remarks:
The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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1 Revision History

Test Report No.	Date of Issue	Description	Status
WTF20F03014698W002	2021-03-24	Original	Valid

2 Contents

3 General Information

3.1 General Description of E.U.T

Product Name	:	LED downlight
Model No.	:	SD.C5140A, SD.C5140C
Model Description	:	Two models are identical except the appearance. Therefore the full tests were performed on model SD.C5140A.
Rated Voltage	:	AC 120V, 60Hz, 12W
Battery Capacity	:	---
Power Adapter	:	---

3.2 Technical Characteristics of EUT

Support Standards	:	802.11b, 802.11g, 802.11n
Frequency Range	:	2412-2462MHz for 802.11b/g/n(HT20) 2422-2452MHz for 802.11n(HT20)
RF Output Power	:	14.67dBm (Conducted)
Modulation	:	802.11b: DSSS(DBPSK/DQPSK/CCK) 802.11g/n: OFDM (BPSK/QPSK/16QAM/64QAM)
Data Rate	:	1Mbps for 802.11b; 6Mbps for 802.11g;MCS0 for 802.11n
Quantity of Channels	:	11 for 802.11b/g/n(HT20); 8 for 802.11n(HT40)
Channel Separation	:	5MHz
Type of Antenna	:	PCB Printed Antenna
Antenna Gain	:	1.0dBi
Lowest Oscillation	:	26MHz

4 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

4.1 Standard Applicable

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

(a) 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 Times | 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)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

(b) 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 Times | 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)*	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-100000	/	/	1	30

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

4.2 MPE Calculation Method

$S = (30*P*G) / (377*R^2)$

S = power density (in appropriate units, e.g., mw/cm^2)

P = power input to the antenna (in appropriate units, e.g., mw)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor is normally numeric gain.

R = distance to the center of radiation of the antenna (in appropriate units, e.g., cm)

4.3 MPE Calculation Result

Prediction distance (mm)	Prediction frequency (MHz)	Antenna Gain (dBi)	Numeric gain	Maximum Tune-up output power (dBm)	Maximum peak output power (mW)	PD (mW/cm2)	Limit (mW/cm2)
>200	2462	1.0	1.26	14.67	29.31	0.0073	1.0

Result: Pass

======End of Report======