

# Ningbo EverFlourish Smart Technology Corp., Ltd

# **MPE ASSESSMENT REPORT**

## **Report Type:**

FCC Part §2.1091, §2.1093 and §1.1307(b) assessment report

#### Model:

ED26WF-US1, ED26WF-2US1

#### **REPORT NUMBER:**

220802969SHA-003

#### **ISSUE DATE:**

November 7, 2022

#### **DOCUMENT CONTROL NUMBER:**

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Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North) Caohejing Development Zone Shanghai 200233, China

Telephone: 86 21 6127 8200

www.intertek.com

Report no.: 220802969SHA-003

Applicant: Ningbo EverFlourish Smart Technology Corp., Ltd

77 Wuxiang East Road, Yinzhou, Ningbo, Zhejiang, 31511 China

Manufacturer: Ningbo EverFlourish Smart Technology Corp., Ltd

77 Wuxiang East Road, Yinzhou, Ningbo, Zhejiang, 31511 China

Factory Ningbo EverFlourish Smart Technology Corp., Ltd

77 Wuxiang East Road, Yinzhou, Ningbo, Zhejiang, 31511 China

FCC ID: VBA-EFED26WF

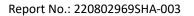
#### **SUMMARY:**

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v06 FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:	REVIEWED BY:	
Danan Ding	Zrie. li	
Project Engineer	Reviewer	
Damon Ding	Eric Li	

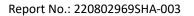
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# **Revision History**

Report No.	Version	Description	Issued Date	
220802969SHA-003	Rev. 01	Initial issue of report	November 7, 2022	





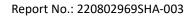
# **1 GENERAL INFORMATION**

# 1.1 Description of Equipment Under Test (EUT)

Product name:	Dimmer switch			
Type/Model/PMN/HVIN:	ED26WF-US1, ED26WF-2US1			
	EUT is an indoor Wi-Fi and bluetooth outlet switch. EUT supports			
	WIFI and bluetooth function. All models use the same modular.			
Description of EUT:	ED26WF-2US1 has two receptacles connected in parallel while ED26WF-US1 is with one only.			
	125VAC 60Hz			
	2.4A Max. 300W Resistive			
	Max. 300W Tungsten			
Rating:	Max. 150W LED, CFL			
EUT type:	☐ Table top ☐ Floor standing			
Software Version:	/			
Hardware Version:	/			
Sample Identification				
No.:	0221219-07-001			
Sample received date:	2022.9.30			
Date of test:	2022.9.30-2022.11.7			

# 1.2 Technical Specification

Frequency Band:	2400MHz ~ 2483.5MHz
Support Standards:	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20)
	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK)
	IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK)
	IEEE 802.11n(HT20): OFDM (64-QAM, 16-QAM, QPSK, BPSK)
Type of Modulation:	IEEE 802.11n-HT40: OFDM (64-QAM, 16-QAM, QPSK, BPSK)
Operating Frequency:	2412MHz to 2462MHz for IEEE 802.11b/g/n(HT20)
	11 Channels for 802.11b, 802.11g and 802.11n(HT20)
Channel Number:	7 Channels for 802.11n(HT40)
Channel Separation:	5 MHz
Antenna:	PCB Antenna, 0dBi





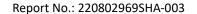
#### **TEST REPORT**

Frequency Band:	2402MHz to 2480MHz
Support Standards:	Bluetooth Low Energy
Type of Modulation:	GFSK
Channel Number:	40
Date Rate	1Mbps
Channel Separation:	2MHz
Antenna Information:	PCB antenna, 0dBi

# 1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is	CNAS Accreditation Lab	
recognized,	Registration No. CNAS L0139	
certified, or accredited by these organizations:	FCC Accredited Lab Designation Number: CN0175	
organizations.	IC Registration Lab CAB identifier.: CN0014	
	VCCI Registration Lab Registration No.: R-4243, G-845, C-4723, T-2252	
	A2LA Accreditation Lab Certificate Number: 3309.02	





## 2 MPE Assessment

Test result: Pass

## 2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

Frequency range	E-field strength	H-field strength	B-field	Equivalent plane wave	
	(V/m)	(A/m)	(uT)	power density	
				$S_{eq}$ (W/m <sup>2</sup> )	
0-1 Hz	-	$3,2 \times 10^4$	$4 \times 10^{4}$	-	
1-8 Hz	10 000	$3.2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-	
8-25 Hz	10 000	4 000/f	5 000/f	-	
0,025-0,8 kHz	250/f	4/f	5/f	-	
0,8-3 kHz	250/f	5	6,25	-	
3-150 kHz	87	5	6,25	-	
0,15-1 MHz	87	0,73/f	0,92/f	-	
1-10 MHz	87/f <sup>1/2</sup>	0,73/f	0,92/f	-	
10-400 MHz	28	0,073	0,092	2	
400-2 000 MHz	1,375 f <sup>1/2</sup>	0,0037 f <sup>1/2</sup>	0,0046 f <sup>1/2</sup>	f/200	
2-300 GHz	61	0,16	0,20	10	

Mobile device exposure for simultaneous transmission operations: the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is  $\leq$  1.0



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# 2.2 Assessment Results

Power density (S) is calculated according to the formula:

 $S = PG / (4\pi R^2)$ 

**TEST REPORT** 

Where  $S = power density in mW/cm^2$ 

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report 220802969SHA-001&220802969SHA-002:

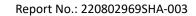
The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

Mode	Frequency band	Max Power	Antenna Gain	R	S	Limits
	(MHz)	dBm	dBi	(cm)	(mW/cm2)	(mW/cm2)
Bluetooth	2402 -2480	5.54	0	20	0.0007	1
WIFI	2412-2462	14.21	0	20	0.0052	1

Note: 1 mW/cm2 from 1.310 Table 1

The sum of the MPE ratios for all simultaneously transmitting is 0.0007/1+0.0052/1=0.0059 < 1.0

For the device can support simultaneous transmission, according to 447498 D01 General RF Exposure Guidance v06,





# **Appendix I**

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be
maintained between the antenna of this device and persons during device operation.
To ensure compliance, operations at closer than this distance is not recommended.
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