

Applicant Name: ZHONGSHAN WEIHUA LIGHTING TECHNOLOGY CO., LTD

Applicant Address: No.13 YOUNG YI 2RD HENGLAN TOWN, ZHONGSHAN CITY, GUANGDONG PROVINCE CHINA

Test item: SMART OUTDOOR WALL LIGHT

Model / Type Reference: 60000149, 0501-WT-TY, 60000150, 0415S-WD-TY, 60000151, 0288-WD-TY, 60000152, 2079-TY

FCC ID: 2A7H8-60000XXX

Date of Issue: 2025-01-06

Testing Laboratory: LCTECH Guangdong Testing Services Co., Ltd.
2/F., Technology and Enterprise Development Center, Guangyuan Road, Xiaolan, Zhongshan, Guangdong, China

Test Specification: KDB 447498 D01 General RF Exposure Guidance v06

Test Result: Passed

Compiled by:

Reviewed by:

2025-01-06

Rex He

Rex He

2025-01-06

Tension Li

Tension Li

Date

Name

Signature

Date

Name

Signature

Remark:

N/A

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RF Exposure Evaluation

Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density(mW/cm ²)	Averaging time (minutes)
(A)Limits for Occupational/Controlled Exposures				
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
(B)Limits for GeneralPopulation/UncontrolledExposure				
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

f = frequency in MHz

Friis transmission formula: $Pd = (Pout * G) / (4 * \pi * r^2)$

Where

Pd =power density in mW/cm², **Pout**= output power to antenna in mW;

G = gain of antenna in linear scale, **Pi**=3.1416;

R = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Test Procedure

Software provided by client enabled the EUT to transmit and receive data b in

Bluetooth and wireless functions individually.

Test Result of RF Exposure Evaluation

BLE mode

Channel	Output power to antenna(dBm)	Output power to antenna(mW)	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)	Result
2440MHz	6.822	4.811	0.00212	1.0	PASS

802.11b

Channel	Output power to antenna(dBm)	Output power to antenna(mW)	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)	Result
2412MHz	19.811	95.741	0.04209	1.0	PASS

The RF function of the product can only be used in one mode at a time, so there is no need for co-assessment.

Remark: antenna gain=2.21dBi

The max power density is less than MPE exempt limit, so it is compliance.