FCC TEST REPORT

FCC ID: 2A43H-PL010

Product	:	Quantum Lights
Model Name	:	Smart Light PL010
Brand	:	N/A
Report No.	:	PTC22021805803E-FC03

Prepared for

TOLEZ LTD

Building 308, Hesheng cultural and creative park, Longhua District, Shenzhen, Guangdong

Prepared by

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TEST RESULT CERTIFICATION

Applicant's name	:	TOLEZ LTD
Address	:	Building 308, Hesheng cultural and creative park, Longhua District, Shenzhen, Guangdong
Manufacture's name	:	TOLEZ LTD
Address	:	Building 308, Hesheng cultural and creative park, Longhua District, Shenzhen, Guangdong
Product name	:	Quantum Lights
Model name	:	Smart Light PL010
Test procedure		KDB 447498 D01 General RF Exposure Guidance v06
Test Date	:	Mar. 02, 2022 to Mar. 09, 2022
Date of Issue	:	Mar. 09, 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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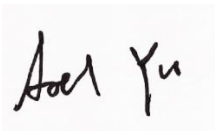
Test Engineer:



Abel Yu / 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	:	Quantum Lights
Model Name	:	Smart Light PL010
Additional model	:	N/A
Specification	:	802.11b/g/n HT20 BT 4.2 BLE
Operation Frequency	:	2412-2462MHz for 802.11b/g;/ n(HT20) 2402-2480MHz for BT
Number of Channel	:	11 channels for 802.11b/g; n(HT20) 40 channels for BT
Type of Modulation	:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; GFSK For BT
Antenna installation	:	PCB antenna
Antenna Gain	:	2.5 dBi
Power supply	:	Adapter model:JYH37-2400750-CA Input：AC100-240V 50/60HZ 0.5A, Output:DC 24V 0.75A
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
WIFI	1.78	16.614	45.856	0.0162	1	Pass
BLE	1.78	0.768	1.193	0.000423	1	Pass

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