# FCC RF EXPOSURE REPORT

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|---|---|---|
| Applicant | : | Lorex Technology Inc. |
| Address | : | 250 Royal Crest Court, Markham, ON L3R 3S1 Canada |
| Equipment | : | 2K Wi-Fi Smart Lightbulb Pan-Tilt Camera |
| Model No. | : | SL301A-46W-AZ1, SL301A-46W-AA1 |
| Trade Name | : | Lorex |
| FCC ID. | : | UCZ-SL301 |

**I HEREBY CERTIFY THAT:**

**The sample was received Aug. 14, 2025 and the testing was completed on Aug. 21, 2025 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.**

Approved by:

**Leevin Li / Supervisor**

# Contents

## History of this test report

| Version No. | Report No | Date | Description |
|---|---|---|---|
| Rev.01 | 25080191-DRFCC05 | Aug. 27, 2025 | Initial Issue |

# 1. Test Configuration of Equipment under Test

## 1.1 Feature of Equipment

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|---|---|
| Equipment | 2K Wi-Fi Smart Lightbulb Pan-Tilt Camera |
| Model Name | SL301A-46W-AZ1, SL301A-46W-AA1 |
| Model Discrepancy | Different models are suitable for different sales channels, and the safety regulations, electromagnetic compatibility, and other aspects of the product are the same. |
| Frequency Range | BLE/ WIFI 2.4G: 2400MHz-2483.5MHz<br>WIFI 5G: 5150MHz-5250MHz, 5250MHz-5350MHz,<br>　　　　5470MHz -5725MHz, 5725MHz -5850MHz |
| Modulation Type | BLE: GFSK<br>2.4GHz<br>802.11b: CCK, DQPSK, DBPSK<br>802.11g/n: BPSK, QPSK, 16QAM, 64QAM<br>802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM<br>5GHz<br>802.11a/n: BPSK, QPSK, 16QAM, 64QAM<br>802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM<br>802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM |
| Data Rate | BLE:<br>GFSK: 1Mbps, 2Mbps, 125kbps, 500kbps<br>WIFI 2.4GHz:<br>802.11b: 1, 2 ,5.5,11Mbps<br>802.11g: 6,9,12,18,24,36,48,54Mbps<br>802.11n: MCS0-MCS7, HT20/HT40<br>802.11ax: MCS0-MCS11, HE20/HE40<br>WIFI 5GHz:<br>802.11a: 6,9,12,18,24,36,48,54Mbps<br>802.11n: MCS0-MCS7, HT20/HT40<br>802.11ac: MCS0-MCS9, VHT20/40<br>802.11ax: MCS0-MCS11, HE20/HE40 |
| Working Temperature | -20°C to 60°C |
| EUT Power Rating: | 110~220Vac/0.24A |

Note:
1. EUT support Client mode without radar detection.
2. The EUT not support TPC
3. 802.11ax only support full RU.
4. For more details, please refer to the User's manual of the EUT.

## 1.2 General Information of Test

| Test Site | **Cerpass Technology Corporation(Cerpass Laboratory)**<br>Address: Room 102, No. 5, Xing'an Road, Chang'an Town, Dongguan City, Guangdong Province<br>Tel: +86-769-8547-1212<br>Fax: +86-769-8547-1912 |
|---|---|
| FCC Designation No.: | CN1288 |
| Frequency Range Investigated: | Conducted: from 150kHz to 30 MHz<br>Radiation: from 9kHz to 40,000MHz |
| Test Distance: | The test distance of radiated emission from antenna to EUT is 3 M. |

## 2. Radio Frequency Exposure

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|---|---|
| **Device category** | ☐ Portable (<20cm separation)<br>☒ Mobile (>20cm separation) |
| **Exposure classification** | ☐ Occupational/Controlled exposure (S = 5mW/cm$^2$)<br>☒ General Population/Uncontrolled exposure (S=1mW/cm$^2$) |
| **Antenna diversity** | ☐ Single antenna<br>☒ Multiple antennas<br>　☐ Tx diversity<br>　☐ Rx diversity<br>　☒ Tx/Rx diversity |
| **Evaluation applied** | ☒ MPE Evaluation*<br>☐ SAR Evaluation<br>☐ N/A |

**TEST RESULTS**

No non-compliance noted.

**Calculation**

Given 　　$E = \dfrac{\sqrt{30 \times P \times G}}{d}$ 　&　 $S = \dfrac{E^2}{3770}$

　　　　*Where　E = Field strength in Volts / meter*
　　　　　　　*P = Power in Watts*
　　　　　　　*G = Numeric antenna gain*
　　　　　　　*d = Distance in meters*
　　　　　　　*S = Power density in milliwatts / square centimeter*

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

　　　　*P (mW) = P (W) / 1000 and*
　　　　*d (cm) = d(m) /100*

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$　　　***Equation 1***

　　　　*Where　d = Distance in cm*
　　　　　　　*P = Power in mW*
　　　　　　　*G = Numeric antenna gain*
　　　　　　　*S = Power density in mW / cm$^2$*

## Maximum Permissible Exposure

### Bluetooth

| Channel Frequency (MHz) | Max. Conducted output power (dBm) | Max. Tune up power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm2) | Limit (mW/cm2) |
|---|---|---|---|---|---|---|
| 2402-2480 (BLE) | 3.600 | 5.600 | -0.74 | 20 | 0.000609 | 1 |

### Wlan

| Channel Frequency (MHz) | Max. Conducted output power (dBm) | Max. Tune up power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm2) |
|---|---|---|---|---|---|
| 2412-2462 | 24.02 | 26.02 | -0.74 | 20 | 0.067 |
| 5150-5250 | 15.5 | 17.5 | 0.24 | 20 | 0.012 |
| 5250-5350 | 14.51 | 16.51 | 0.24 | 20 | 0.009 |
| 5470-5725 | 15.34 | 17.34 | 0.24 | 20 | 0.011 |
| 5725-5850 | 14.81 | 16.81 | 0.24 | 20 | 0.010 |

### Maximum Permissible Exposure (Co-location)
the sum of the ratios of the spatially averaged results to the applicable frequency dependent MPE limits :

| Simultaneous transmission mode | The sum of the ratios | Result |
|---|---|---|
| Bluetooth +WLAN | 0.0006/1+0.067/1 | 0.0676 < 1 |

### Conclusion
The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

-----------------------End of the report -----------------------