

MPE TEST REPORT

Applicant Lorex Technology Inc.

FCC ID UCZ-IC301

Product 2K Indoor Pan-Tilt Wi-Fi Security Camera

Brand LOREX

Model IC301A-PPW-AZ1; IC301A-PPW-AE1; IC301A-PPW-AF1;
IC301A-PPW-AA1; IC301A-PPW-AS1

Report No. EFTA25120035-IE-03-M1

Issue Date February 27, 2026

Eurofins TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC 47 CFR Part 1 §1.1310, §2.1091**. The test results show that the equipment tested can demonstrate compliance with the requirements as documented in this report.



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1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **Eurofins TA Technology (Shanghai) Co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2 Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

Eurofins TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

1.3 Testing Location

Company: Eurofins TA Technology (Shanghai) Co., Ltd.
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1.4 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25°C
Relative humidity	Min. = 20%, Max. = 80%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2 Description of Equipment Under Test

Client Information

Applicant	Lorex Technology Inc.
Applicant address	250 Royal Crest Court, Markham, ontario L3R 3S1, Canada
Manufacturer	Qualvision Technology Co., Ltd.
Manufacturer address	2F~5F, Bldg B, No.37, ZhenXing Road, LiYuHe Industrial Park, LouCun, GongMing, ShenZhen, China, 518107

General Technologies

EUT Description			
Model	IC301A-PPW-AZ1; IC301A-PPW-AE1; IC301A-PPW-AF1; IC301A-PPW-AA1; IC301A-PPW-AS1		
Lab Internal SN	251202-18-001		
Hardware Version	/		
Software Version	/		
Frequency	Band	TX (MHz)	RX (MHz)
	Wi-Fi 2.4G	2400 ~ 2483.5	2400 ~ 2483.5
	Wi-Fi 5GHz (U-NII-1)	5150 ~ 5250	5150 ~ 5250
	Wi-Fi 5GHz (U-NII-2A)	5250 ~ 5350	5250 ~ 5350
	Wi-Fi 5GHz (U-NII-2C)	5470 ~ 5600 5650 ~ 5725	5470 ~ 5600 5650 ~ 5725
	Wi-Fi 5GHz (U-NII-3)	5725~5850	5725~5850
	Bluetooth (Low Energy)	2400 ~ 2483.5	2400 ~ 2483.5
EUT Accessory			
Adapter 1	Manufacturer: Zhuzhou Dachuan Electronic Technology Co.,Ltd Model: DCT10W050150US-C1 Input: 100-240V 0.3A Output: 5.0V==1.5A		
Adapter 2	Manufacturer: Shenzhen Honor Electronic Co., Ltd Model: ADS-10LA-06 05075EPCU Input: 100-240V 0.3A Output: 5.0V===1.5A		
Date of Testing	December 5, 2025 ~ December 7, 2025		
Date of Sample Received	December 2, 2025		
Note: 1. The EUT is sent from the applicant to Eurofins TA and the information of the EUT is declared by the applicant.			

2. All indications of Pass/Fail in this report are opinions expressed by Eurofins TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.
3. The customer declares that all models differ only model name.

It's just that the model names are different.

These models are electrically and functionally identical and share the same RF hardware and emissions behavior. Therefore, both are covered under FCC ID: UCZ-IC301 and IC: 8575A-IC301.

3 Maximum Tune up and Antenna Gain

The numeric gain (G) of the antenna with a gain specified in dB is determined by

$$\text{Numeric gain (G)} = 10^{(\text{antenna gain}/10)}$$

Band	Maximum Tune up Tolerance		Antenna Gain (dBi)	Numeric Gain
	(dBm)	(mW)		
Wi-Fi 2.4G	23.00	199.53	3.76	2.38
Wi-Fi 5GHz (U-NII-1)	17.00	50.12	0.05	1.01
Wi-Fi 5GHz (U-NII-2A)	17.00	50.12	0.74	1.19
Wi-Fi 5GHz (U-NII-2C)	17.00	50.12	2.66	1.85
Wi-Fi 5GHz (U-NII-3)	17.00	50.12	3.18	2.08
Bluetooth LE	6.00	3.98	3.76	2.38

4 MPE Limit

According to section 1.1310 of FCC 47 CFR Part 1, limits for maximum permissible exposure (MPE) are as following.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) LIMITS FOR OCCUPATIONAL/CONTROLLED EXPOSURE				
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
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE				
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
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

*f = frequency in MHz. * = Plane-wave equivalent power density.*

Note1. Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational / controlled limits apply provided he or she is made aware of the potential for exposure.

Note2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

The maximum permissible exposure for 1500~100,000MHz is 1.0. So

Band	The Maximum Permissible Exposure (mW/cm ²)
Wi-Fi 2.4GHz	1.000
Wi-Fi 5GHz	1.000
Bluetooth LE	1.000

5 RF Exposure Evaluation Result

RF exposure evaluation method is based on KDB 447498 D01, this calculation is based on the conducted power, maximum power and antenna gain with provides the minimum separation distance. The formula shown below is from OET Bulletin 65 Edition 97-01 Per KDB 447498 D01:

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

Where: S = power density (in appropriate units, e.g. mW/cm²)

P = Time-average maximum tune up procedure (in appropriate units, e.g., mW)

G = the numeric gain of the antenna

R = distance to the center of radiation of the antenna (20 cm = limit for MPE)

Band	Maximum Tune up (dBm)	Antenna Gain (dBi)	Maximum EIRP (dBm)	PG (mW)	Result (mW/cm ²)	Limit Value (mW/cm ²)	The MPE Ratio
Wi-Fi 2.4G	23.000	3.760	26.760	474.242	0.052	1.000	0.052
Wi-Fi 5GHz (U-NII-1)	17.000	0.050	17.050	50.699	0.006	1.000	0.006
Wi-Fi 5GHz (U-NII-2A)	17.000	0.740	17.740	59.429	0.006	1.000	0.006
Wi-Fi 5GHz (U-NII-2C)	17.000	2.660	19.660	92.470	0.010	1.000	0.010
Wi-Fi 5GHz (U-NII-3)	17.000	3.180	20.180	104.232	0.011	1.000	0.011
Bluetooth LE	6.000	3.760	9.760	9.462	0.001	1.000	0.001
Note: R = 20cm $\pi = 3.1416$ The MPE Ratio = Mac Result÷Limit Value							

This device supports simultaneous transmission as following two combinations:

1. Wi-Fi 2.4GHz and Wi-Fi 5G.
2. Bluetooth and Wi-Fi 5G

Accordingly, the maximum cumulative ratio of simultaneous transmitting antennas is calculated as follows: TER = Wi-Fi 2.4GHz Antenna MPE Ratio + Wi-Fi 5GHz Antenna MPE Ratio = 0.052 + 0.011 = 0.063 < 1

So, the limit is kept.

Note: For this device, minimum separation distance is 20cm, even if calculations indicate MPE distance is less.

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. No change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

*****END OF REPORT *****