FCC RF EXPOSURE REPORT

CERTIFICATION TEST REPORT

For

Smart Lock

MODEL NUMBER: LTH71A

FCC ID: 2BP8U-LTH71A

REPORT NUMBER: 4791798573-1-RF-4

ISSUE DATE: July 22, 2025

Prepared for

Foshan Viomi Electrical Technology Co., Ltd.
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Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	July 22, 2025	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	Foshan Viomi Electrical Technology Co., Ltd.
Address:	13th Floor, No.7, Industrial Road, Licun Village, Lunjiao Town, Shunde District Foshan City, Guangdong, P.R. China

Manufacturer Information

Company Name:	Foshan Viomi Electrical Technology Co., Ltd.
Address:	13th Floor, No.7, Industrial Road, Licun Village, Lunjiao Town, Shunde District Foshan City, Guangdong, P.R. China

EUT Information

EUT Name:	Smart Lock
Model:	LTH71A
Brand:	VIOMI
Sample Received Date:	May 30, 2025
Sample Status:	Normal
Sample ID:	8537733
Date of Tested:	May 30, 2025 to July 22, 2025

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC 47CFR§2.1091	PASS
KDB447498D01v06	PASS

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 and KDB447498D01v06.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 4102.01)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1187)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules. **ISED (Company No.: 21320)** UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.

Note 1:
All tests measurement facilities use to collect the measurement data are located at Room 101, Building 2, No.4, Information Road, Songshan Lake, Dongguan, Guangdong, China.

Note 2:
The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd.
Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3:
For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.

4. REQUIREMENT

LIMIT AND CALCULATION METHOD

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

RF EXPOSURE LIMIT

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (Minutes)
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

CALCULATION METHOD

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

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

CALCULATED RESULTS

Worst Case					
Mode	Max Tune Up Power	Antenna Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm^2	mW/cm^2	--
BLE	-1.5	3.65	0.00033	1.0	Complies
Thread	-0.5	3.65	0.00041	1.0	Complies
NFC	-56.4	0	0.00000	0.98	Complies

For NFC, the maximum average field strength is -1.2 dBuV/m at 30m, so 38.8 dBuV/m at 3m transmit power(eirp) of the device was calculated.
EIRP=38.8 dBuV/m@3m = (38.8-95.2) dBm = -56.4 dBm

Note:
1. The calculated distance is 20 cm.
2. The power comes from operation description.
3. EUT does not support simultaneous operation.

END OF REPORT