



Test report No. : 4790218737-US-R3-V0
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Issued date : 2022/7/4
FCC ID : 2APLE18300418

Maximum Permissible Exposure Report

Product : Cellular and Battery Backup

Model Name : LBB1001

FCC ID : 2APLE18300418

Test Regulation : 47 CFR FCC Part 2.1091

Received Date : 2022/3/31

Test Date : 2022/4/6 ~ 2022/4/12

Issued Date : 2022/7/4

Applicant : Arlo Technologies Inc
2200 Faraday Avenue, Suite 150, Carlsbad, CA 92008, USA

Issued By : Underwriters Laboratories Taiwan Co., Ltd.
Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd.,
Zhudong Township, Hsinchu County, Taiwan



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Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan
Telephone : +886-2-7737-3000
Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0864 / 5.0



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REVISION HISTORY

Original Test Report No.: 4790218737-US-R3-V0

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1. Attestation of Test Results

APPLICANT: Arlo Technologies Inc
2200 Faraday Avenue, Suite 150, Carlsbad, CA 92008, USA

MANUFACTURER: Funing Precision Component Co., Ltd.
Lot B, Que Vo Industrial Zone, Van Duong Ward, Bac Ninh City,
Bac Ninh Province, Vietnam

EUT DESCRIPTION: Cellular and Battery Backup

BRAND: Arlo

MODEL: LBB1001

SAMPLE STAGE: Engineering Verification Test sample

APPLICABLE STANDARDS	
STANDARD	Test Results
47 CFR FCC PART 2.1091	PASS

Underwriters Laboratories Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Underwriters Laboratories Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Underwriters Laboratories Taiwan Co., Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Underwriters Laboratories Taiwan Co., Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Prepared By:

Cindy Hsin
Project Handler

Date : 2022/7/4

Approved By:

Kent Liu
Senior Laboratory Engineer

Date : 2022/7/4

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2. Test Methodology and Reference Procedures

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

3. Facilities and Accreditation

Test Location	Underwriters Laboratories Taiwan Co., Ltd.
Address	Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan
Accreditation Certificate	Underwriters Laboratories Taiwan Co., Ltd. is accredited by TAF, Laboratory Code 3398.

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4. Equipment Under Test

4.1. Description of EUT

Product Name	Cellular and Battery Backup
Brand Name	Arlo
Model Name	LBB1001
Operating Frequency	LTE Band 2 : 1850 MHz~1910 MHz (Uplink) ; 1930 MHz to 1990 MHz (Downlink) LTE Band 4 : 1710 MHz to 1755 MHz (Uplink) ; 2110 MHz to 2155 MHz (Downlink) LTE Band 5 : 824 MHz to 849 MHz (Uplink) ; 869 MHz to 894 MHz (Downlink) LTE Band 12 : 699 MHz to 716 MHz (Uplink) ; 729 MHz to 746 MHz (Downlink) LTE Band 13 : 777 MHz to 787 MHz (Uplink) 746 MHz to 756 MHz (Downlink) LTE Band 66 : 1710 MHz to 1780 MHz (Uplink) ; 2110 MHz to 2200 MHz (Downlink)
Modulation	QPSK / 16QAM
Normal Voltage	5Vdc From Host 3.6Vdc From Battery
Sample ID	Conducted Test: 4835375 Radiated Test: 4835377

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Note:

1. The EUT contains following accessory devices:

Product	Brand	Model	Description	P/N
Battery	Arlo	A-15	3.6Vdc,3250mAh	308-50033-01
Battery	Arlo	A-15	3.6Vdc,3250mAh	308-50036-01

2. The above EUT information is declared by manufacturer and for more detailed features description, please refer the manufacturer's or user's manual.

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4.2. Description of Available Antennas

Ant. No.	Frequency range	Brand Name	Model Name	Ant. Type	Maximum Gain (dBi)
1	1850~1910MHz	MASTER WAVE TECHNOLOGY CO., LTD.	902P00260S0	PIFA	4.30
	1710~1755 MHz				4.38
	824~849 MHz				4.13
	698~716 MHz				2.40
	777~787 MHz				4.13
	1710~1780 MHz				4.38

Note: The above antenna information was provided from customer and for more detailed features description, please refer the manufacturer's specification or user's manual.

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5. Requirement

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric 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
Note 1: f = frequency in MHz, * means Plane-wave equivalent power density				
Note 2: 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 cannot exercise control over their exposure.				

Power Density (S) is calculated by the following formula:

$$S=(P*G)/4\pi R^2$$

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

P = power input to the antenna (in appropriate units, e.g., mW)

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 (appropriate units, e.g., cm)

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6. Radio Frequency Radiation Exposure Evaluation

Operating (Mode)	Evaluation Frequency (MHz)	Max. Average power (dBm)	Antenna Gain (dBi)	Max. EIRP (dBm)	Max. EIRP (mW)	Power density @ 20 cm (mW/cm ²)	Limit (mW/cm ²)
LTE Band 2	1850.7~1909.3	22.00	4.30	26.30	426.580	0.08487	1.00
LTE Band 4	1710.7~1754.3	22.00	4.38	26.38	434.510	0.08644	1.00
LTE Band 5	824.7~848.3	22.00	4.13	26.13	410.204	0.08161	0.55
LTE Band 12	699.7~715.3	22.00	2.40	24.40	275.423	0.05479	0.47
LTE Band 13	779.5~784.5	22.00	4.13	26.13	410.204	0.08161	0.52
LTE Band 66	1710.7~1779.3	22.00	4.38	26.38	434.510	0.08644	1.00

Note:

1. Max. EIRP (dBm) = Max. Average power (dBm) + Antenna Gain (dBi)
2. Max. EIRP (mW) = $10^{(\text{Max. EIRP (dBm)} / 10)}$
3. Power density (mW/cm²) = Max. EIRP (mW) / $[4 \times \pi \times (\text{calculated distance})^2]$, the calculated distance is 20 cm.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

END OF REPORT

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