



Test report No. : 4790218754-US-R3-V0  
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Issued date : 2022/7/15  
FCC ID : 2APLE18300408

# Maximum Permissible Exposure Report

**Product** : Security Hub  
**Model Name** : SH1001  
**FCC ID** : 2APLE18300417  
**Test Regulation** : 47 CFR FCC Part 2.1091  
**Received Date** : 2022/3/31  
**Test Date** : 2022/3/31 ~ 2022/5/20  
**Issued Date** : 2022/7/15  
**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



The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report are responsible of the test sample(s) provided by the client only and are not to be used to indicate applicability to other similar products.

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Doc No: 17-EM-F0864 / 5.0





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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.Nam Son Ward, Bac Ninh city, Bac Ninh province, Viet Nam

**EUT DESCRIPTION:** Security Hub

**BRAND:** Arlo

**MODEL:** SH1001

**SAMPLE STAGE:** Engineering Verification Test sample

<b>APPLICABLE STANDARDS</b>	
<b>STANDARD</b>	<b>Test Results</b>
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 : 2022/7/15

Approved and Authorized By:



Eric Lee  
 Senior Laboratory Engineer

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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

<b>Test Location</b>	Underwriters Laboratories Taiwan Co., Ltd.
<b>Address</b>	Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan
<b>Accreditation Certificate</b>	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

<b>Product Name</b>	Security Hub	
<b>Brand Name</b>	Arlo	
<b>Model Name</b>	SH1001	
<b>Operating Frequency</b>	Sub-G	904 MHz ~ 926 MHz
	NFC	13.56 MHz
	WLAN	2412MHz ~ 2462MHz
<b>Modulation</b>	Sub-G	O-QPSK
	NFC	ASK
	WLAN	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
<b>Number of Channel</b>	Sub-G	12
	NFC	1
	WLAN	11 for 802.11b, 802.11g, 802.11n (HT20)
<b>Normal Voltage</b>	5Vdc from Adapter / 3.6Vdc from Battery	
<b>S/N</b>	AB5U217LA00D0	
<b>Sample ID</b>	Conducted Test: 4835381	
	Radiated Test: 4835380	

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Note:

1. The EUT provides one completed transmitters and one receivers.

Modulation Mode	Tx,Rx Function
Sub-G	1TX,1RX
802.11b	1TX,1RX
802.11g	1TX,1RX
802.11n (HT20)	1TX,1RX

2. The EUT contains following accessory devices:

Product	Brand	Model	Description
AC Adapter	PIE	AD2158	Input: 100-240V, 50/60Hz, 0.3A Output: 5.0V, 2A
AC Adapter	CWT	2AEA010	Input: 100-240V, 50/60Hz, 0.3A Output: 5.0V, 2A
USB Cable	Nienyi	322-50018-01	Length: 2.5 m

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

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## 4.2. Description of Available Antennas

Ant. No.	Transmitter Circuit	Brand Name	Model Name	Ant. Type	Frequency Band (MHz)	Maximum Gain (dBi)
1	Chain (0)	N/A	N/A	PCB	2400~2483	2.8
2	Chain (0)	N/A	N/A	PCB	890~930	1.6
3	Chain (0)	N/A	N/A	Coil	13.56	-

Note: The above antenna information was provided from customer and for more detailed features description, please refer the manufacturer specification or user 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 <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	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/ cm<sup>2</sup>)

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

### WLAN 2.4GHz

Evaluation Frequency (MHz)	Max. Average power (dBm)	Directional Gain (dBi)	Max. EIRP (dBm)	Max. EIRP (mW)	Power density @ 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412 ~ 2462	22.45	2.80	25.25	334.965	0.06664	1.00

### Sub-G

Evaluation Frequency (MHz)	Max. Average power (dBm)	Directional Gain (dBi)	Max. EIRP (dBm)	Max. EIRP (mW)	Power density @ 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
904 ~ 926	19.06	1.60	20.66	116.413	0.02316	0.60

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/cm<sup>2</sup>) = 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.

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**END OF REPORT**

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