FCC RF EXPOSURE REPORT

For

Roku Battery Camera Plus

SERIES EUT NAME: Roku Battery Camera Plus SE

MODEL NUMBER: SCB12X

REPORT NUMBER: 4791635002-1-RF-3

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Prepared for

LEEDARSON LIGHTING CO., LTD
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Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	February 14, 2025	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	LEEDARSON LIGHTING CO., LTD
Address:	Xingtai Industrial Park, Economic Development Zone of Changtai County, Zhangzhou City, Fujian.

Manufacturer Information

Company Name:	LEEDARSON LIGHTING CO., LTD
Address:	Xingtai Industrial Park, Economic Development Zone of Changtai County, Zhangzhou City, Fujian.

EUT Information

EUT Name:	Roku Battery Camera Plus
Series EUT Name:	Roku Battery Camera Plus SE
Model:	SCB12X
Brand：	Roku
Sample Received Date:	January 8, 2025
Sample Status:	Normal
Sample ID:	8027449
Date of Tested:	January 13, 2025 to February 14, 2025

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
447498 D04 Interim General RF Exposure Guidance v01	**PASS**

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 1 Subpart I, section 1.1307 and KDB 447498 D04 Interim General RF Exposure Guidance v01.

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 Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, 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 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.

4. REQUIREMENT

LIMIT AND CALCULATION METHOD

According to 447498 D04 Interim General RF Exposure Guidance v01,

2.1.4 MPE-Based Exemption

An alternative to the SAR-based exemption is provided in § 1.1307(b)(3)(i)(C), for a much wider frequency range, from 300 kHz to 100 GHz, applicable for separation distances greater or equal to λ/2π, where λ is the free-space operating wavelength in meters. The MPE-based test exemption condition is in terms of ERP, defined as the product of the maximum antenna gain and the delivered maximum time-averaged power.10 For this case, a RF source is an RF exempt device if its ERP (watts) is no more than a frequency-dependent value, as detailed tabular form in Appendix B. These limits have been derived based on the basic specifications on Maximum Permissible Exposure (MPE) considered for the FCC rules in § 1.1310(e)(1).

MPE-based Exemption

$$P_{\text{th}}\ (\text{mW}) = ERP_{20\ \text{cm}}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases} \qquad (\text{B.1})$$

$$P_{\text{th}}\ (\text{mW}) = \begin{cases} ERP_{20\ \text{cm}}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ \text{cm}} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases} \qquad (\text{B.2})$$

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ \text{cm}}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distance (cm), and ERP_{20cm} is per Formula (B.1).

CALCULATED RESULTS

For Single RF Source

Operating Mode	Max. Tune up Power	Max. Antenna Gain	EIRP	ERP	ERP	Distance	Limit Threshold
	(dBm)	(dBi)	(dBm)	(dBm)	(mW)	(cm)	(mW)
BLE	21.0	2.56	23.56	21.41	138.357	20	3060
WIFI2.4G	22.0	2.56	24.56	22.41	174.181	20	3060

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

END OF REPORT