RF Exposure Evaluation Report

APPLICANT	:	Zhejiang Lingzhu Technology Co., Ltd.
EQUIPMENT	:	Pan-Tilt Battery Camera
MODEL NAME	:	SC256-WS5, SC256-WS5A, SC256-WS5B, SC256-WS5C, SC256-WT5, SC256-WT5A, SC256-WT5B, SC256-WT5C
FCC ID	:	2BEWXSC256WS
STANDARD	:	47 CFR Part 2.1091 FCC KDB 447498 D01 v06

The product evaluation date was started from Mar. 18, 2025 and completed on Mar. 18, 2025. We, Sporton International Inc. (Kunshan), would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Si Zhang

Approved by: Si Zhang

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA4D2502	Rev. 01	Initial issue of report.	Jun. 30, 2025

1. Administration Data

1.1. Testing Laboratory

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-KS	CN1257	314309

Applicant	
Company Name	Zhejiang Lingzhu Technology Co., Ltd.
Address	Room 302, No 1 Building Huace Center, Xihu District, Hangzhou City, Zhejiang Province,China

Manufacturer	
Company Name	Zhejiang Lingzhu Technology Co., Ltd.
Address	Room 302, No 1 Building Huace Center, Xihu District, Hangzhou City, Zhejiang Province,China

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Pan-Tilt Battery Camera
Model Name	SC256-WS5, SC256-WS5A, SC256-WS5B, SC256-WS5C, SC256-WT5, SC256-WT5A, SC256-WT5B, SC256-WT5C
FCC ID	2BEWXSC256WS
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Mode	WLAN 2.4GHz 802.11b/g/n HT20 Bluetooth BLE
Antenna Gain	WLAN2.4GHz/Bluetooth: 0.68 dBi
Antenna Type	Bluetooth/WLAN: Dipole Antenna
HW Version	V1.0.3
SW Version	V3.0.66
EUT Stage	Production Unit

Remark:
1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are two types of EUT, the difference between them are the model number and design of the Passive Infrared Radiation Sensor and the differences do not affect the MPE analysis results.
3. All models are identical to each other, with the only differences being in the model name, lens, appearance and base. These differences are not related to the radio frequency function. The letter before the number "5" in the model name indicates different bases, with "S" representing a square base and "T" representing a curved base. The letter after the number "5" in the model name indicates different lenses, representing varying aperture and focal length options.

Comments and Explanations:
1. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.
2. The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.

3. Maximum RF average output tune up power among production units

<WLAN 2.4GHz >

Mode		Maximum Average Power (dBm)
2.4GHz	802.11b	18.50
	802.11g	18.50
	802.11n-HT20	18.50

< Bluetooth>

Mode	Maximum Average Power (dBm)
Bluetooth LE	9.00

4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
2.4GHz WLAN	2412.0	0.68	18.50	19.180	82.794	0.016	1.000
Bluetooth	2402.0	0.68	9.00	9.680	9.290	0.002	1.000

Note:
1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.
3. According to the EUT characteristic, WLAN 2.4GHz and Bluetooth cannot transmit simultaneously.

Conclusion:

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

------THE END------