RF EXPOSURE REPORT

Report No.:	20240617G10086X-W3
Product Name:	Finder Series Thermal Imaging Monocular
Model No.:	FH50R V2, FH35R V2
FCC ID:	2AY3N-26-00
Applicant:	InfiRay Technologies Co., Ltd.
Address:	Room 301, Building C3, Hefei Innovation Industrial Park, NO.800 Wangjiang West Road, Hefei National High-tech Industry Development District, Anhui, P.R.China
Dates of Testing:	06/06/2024 - 06/27/2024
Issued by:	CCIC Southern Testing Co., Ltd.
Lab Location:	Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China. **Tel**：86 755 26627338 **E-Mail**：manager@ccic-set.com

Test Report

Product.....:	Finder Series Thermal Imaging Monocular
Trade Name .....:	InfiRay
Applicant.....:	InfiRay Technologies Co., Ltd.
Applicant Address.....:	Room 301, Building C3, Hefei Innovation Industrial Park, NO.800 Wangjiang West Road, Hefei National High-tech Industry Development District, Anhui, P.R.China
Manufacturer.....:	InfiRay Technologies Co., Ltd.
Manufacturer Address.....:	Room 301, Building C3, Hefei Innovation Industrial Park, NO.800 Wangjiang West Road, Hefei National High-tech Industry Development District, Anhui, P.R.China
Test Standards.....:	47 CFR Part 2.1093
Test Result.....:	Pass

Tested by .....: 2024.06.27

Chuiwang Zhang, Test Engineer

Reviewed by.....: 2024.06.27

Sun Jiaohui, Senior Engineer

Approved by.....: 2024.06.27

Chris You, Manager

Table of Contents

Change History		
Issue	Date	Reason for change
1.0	2024.06.27	First edition

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Finder Series Thermal Imaging Monocular
Device Type	Portable Device
EUT supports Radios application	WLAN2.4GHz 802.11b/g/n (HT20)
Frequency Range(Tx)	2412MHz~2462MHz
Modulation Type	DSSS (802.11b), OFDM (802.11g/n)
Antenna gain	2.2dBi
Antenna Type	Internal Antenna

Note 1: The information of antenna gain and cable loss is provided by the manufacturer and our lab is not responsible for the accuracy of the antenna gain and cable loss information.

Note 2: Model FH35R V2 has the same technical structure as FH50R V2, including circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction, with FH50R V2, The difference lies only in lens focal length of the different models.

1.2. EUT Description

EUT has been tested according to the following standards.

No.	Identity	Document Title
1	47 CFR Part 1	Practice and Procedure
2	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
3	KDB 447498 D01 General RF Exposure Guidance v06	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices

1.3. Laboratory Facilities

FCC-Registration No.: CN1283

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until Jun. 30th, 2025.

ISED Registration: 11185A

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A on Aug. 04, 2016, valid time is until Jun. 30th, 2025.

CAB number: CN0064

A2LA Code: 5721.01

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

1.4. Laboratory Location

Company Name:	CCIC Southern Testing Co., Ltd.
Address:	Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China

2. Technical Requirements Specification in CFR Title 47 Part 2.1093

2.1. Evaluation method

According to KDB447498 D01 General RF Exposure Guidance v06 Section 4.3.1 Standalone SAR test exclusion considerations: Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The minimum test separation distance defined in 4.1 f) is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander. To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified, typically in the SAR measurement or SAR analysis report, by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting are required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions; for example, handheld PTT two-way radios, handsets, laptops and tablets, etc..

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

[(max. power of channel, including tune-up tolerance, mW)/ (min. test separation distance, mm)]

- $[\sqrt{f_{(GHz)}}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

2.2. Evaluation Results

Worst-Case mode Conducted Output Power Results for 2.4G WLAN

Test Mode	Frequency (MHz)	Test Results (dBm)	Max Tune up power (dBm)
802.11b	2437	8.77	8±1

Maximum Evaluation Results

Test Mode	Frequency (MHz)	Antenna Distance (mm)	RF output power (including tune-up tolerance)		SAR Test Exclusion Threshold	SAR Test Exclusion
			dBm	mW		
802.11b	2437	5	9.0	7.94	2.47 < 3.0	Yes

2.3. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB447498 D01 General RF Exposure Guidance v06 section 4.3.1.

** END OF REPORT **