

# RF Exposure Evaluation Report

**Product** : Astrophotography Wireless Controller  
**Trade mark** : ZWO  
**Model/Type reference** : ASIAIR Mini-26, ASIAIR Mini Ultra,  
ASIAIR Mini Lite, ASIAIR Mini Max,  
ASIAIR Mini Pro  
**Serial Number** : N/A  
**Report Number** : EED32S810346  
**FCC ID** : 2A7R3-AIRMINI26  
**Date of Issue** : August 13, 2026  
**Test Standards** : 47 CFR Part 1.1307  
47 CFR Part 1.1310  
47 CFR Part 2.1091  
KDB 447498 D04 Interim General RF  
Exposure Guidance v01  
**Test result** : PASS

Prepared for:

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JiangSu, China**

Prepared by:

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August 13, 2026

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## 2 General Information

### 2.1 Client Information

|                          |                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------|
| Applicant:               | SUZHOU ZWO CO., LTD.                                                                     |
| Address of Applicant:    | Building 2, Peninsula Life Plaza, Moon bay road 6 SuZhou Industrial Park, JiangSu, China |
| Manufacturer:            | SUZHOU ZWO CO., LTD.                                                                     |
| Address of Manufacturer: | Building 2, Peninsula Life Plaza, Moon bay road 6 SuZhou Industrial Park, JiangSu, China |
| Factory:                 | SUZHOU ZWO CO., LTD.                                                                     |
| Address of Factory:      | Building #2, DongJing Workshop, Suzhou Industrial Park                                   |

### 2.2 General Description of EUT

|                   |                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------|
| Product Name:     | Astrophotography Wireless Controller                                                                                |
| Model No.:        | ASIAIR Mini-26, ASIAIR Mini Ultra, ASIAIR Mini Lite, ASIAIR Mini Max, ASIAIR Mini Pro                               |
| Test Model No.:   | ASIAIR Mini-26                                                                                                      |
| Model difference: | They have same electrical, PCB and layout, only the model names and color are different for marketing requirements. |
| Trade Mark:       | ZWO                                                                                                                 |

### 2.3 Product Specification subjective to this standard

|                       |                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range:      | BLE: 2402MHz~2480MHz<br>2.4G Wi-Fi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz<br>5G Wi-Fi:<br>U-NII-1 & U-NII-2A: 5150-5350MHz<br>U-NII-2C:5500-5700MHz<br>U-NII-3:5745-5825MHz                                                                                                                                                                                                |
| Modulation Type:      | BLE: GFSK<br>2.4G Wi-Fi: IEEE for 802.11b:DSSS(CCK,DQPSK,DBPSK)<br>IEEE for 802.11g:OFDM(64QAM, 16QAM, QPSK, BPSK)<br>IEEE for 802.11n(HT20): OFDM (64QAM, 16QAM,QPSK,BPSK)<br>5G Wi-Fi: IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM)<br>IEEE 802.11n(HT20/HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM)<br>IEEE 802.11ac(VHT20/VHT40/VHT80): OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) |
| Test Power Grade:     | Default                                                                                                                                                                                                                                                                                                                                                                         |
| Test Software of EUT: | Putty                                                                                                                                                                                                                                                                                                                                                                           |
| Antenna Type:         | Dipole antenna                                                                                                                                                                                                                                                                                                                                                                  |
| Antenna Gain:         | BLE: 4.75dBi<br>2.4G Wi-Fi: 4.62dBi<br>5G Wi-Fi: 4.45dBi                                                                                                                                                                                                                                                                                                                        |
| Power Supply:         | DC 11V-15V                                                                                                                                                                                                                                                                                                                                                                      |
| Sample Received Date: | May 26, 2026                                                                                                                                                                                                                                                                                                                                                                    |
| Sample tested Date:   | May 26, 2026 to Jun. 25, 2026                                                                                                                                                                                                                                                                                                                                                   |

## 2.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164, Test Firm Registration No.: 260439

## 2.5 Deviation from Standards

None.

## 2.6 Abnormalities from Standard Conditions

None.

## 2.7 Other Information Requested by the Customer

None.

### 3 SAR Evaluation

#### 3.1 RF Exposure Compliance Requirement

##### 3.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by Formula

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

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 ERP20cm is per Formula (B.1).

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

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

##### 3.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.



### 3.1.3 EUT RF Exposure Evaluation

**For Stand alone:**

| Frequency (MHz) | Estimation distance (cm) | Max. Conducted Output power (dBm) | Antenna Gain (dBi) | ERP (dBm) | ERP (mW) | Limit (mW) | MPE ratio | Result |
|-----------------|--------------------------|-----------------------------------|--------------------|-----------|----------|------------|-----------|--------|
| @BLE            | 20                       | 3.99                              | 4.75               | 6.59      | 4.56     | 3060.00    | 0.0015    | Pass   |
| @2.4G Wi-Fi     | 20                       | 13.81                             | 4.62               | 16.28     | 42.46    | 3060.00    | 0.0139    | Pass   |
| @5G Wi-Fi       | 20                       | 10.8                              | 4.45               | 13.10     | 20.42    | 3060.00    | 0.0067    | Pass   |

**Note:**

- ① EIRP=conducted power+antenna gain;
- ②  $ERP = EIRP - 2.15$ ;
- ③  $EIRP(dBm) = \text{Field strength of the fundamental signal}(dBuV/m@3m) - 95.23$ ;
- ④  $ERP(mW) = 10^{(ERP(dBm)/10)}$ ;
- ⑤ The estimation distance is 20cm;
- ⑥ The test data please refer to the report of EED32S810342, EED32S810344, EED32S810345 and only the worst case data was recorded in the report.

**For Simultaneous Transmission:**

As MPE ratio (BLE+2.4G Wi-Fi+5G Wi-Fi)=0.0015+0.0139+0.0067=0.0221 < 1, it's deemed to fulfil the RF exposure requirement.

**Statement**

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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\*\*\* End of Report \*\*\*