

RF Exposure Evaluation Report

Product : Smart Telescope
Trade mark : Seestar
Model/Type reference : Seestar S50 Pro, Seestar S50 Plus,
Seestar S50 Max, Seestar S50 Ultra,
Seestar S50 Lite, Seestar S50 Elite
Serial Number : N/A
Report Number : EED32S80608905
FCC ID : 2A7R3-SEESTARS50
Date of Issue : Jun. 18, 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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road 6#, SuZhou industrial Park, JiangSu P.R. China**

Prepared by:

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Check No.: 4609240326

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2 General Information

2.1 Client Information

Applicant:	SUZHOU ZWO CO., LTD.
Address of Applicant:	Room #303, Unit3, Building#2, Lanting Peninsula Life Plaza, Moon bay road 6#, SuZhou industrial Park, JiangSu P.R. China
Manufacturer:	SUZHOU ZWO CO., LTD.
Address of Manufacturer:	Room #303, Unit3, Building#2, Lanting Peninsula Life Plaza, Moon bay road 6#, SuZhou industrial Park, JiangSu P.R. China
Factory:	SUZHOU ZWO CO., LTD.
Address of Factory:	Building #2, DongJing Workshop, Suzhou Industrial Park

2.2 General Description of EUT

Product Name:	Smart Telescope
Model No.:	Seestar S50 Pro, Seestar S50 Plus, Seestar S50 Max, Seestar S50 Ultra, Seestar S50 Lite, Seestar S50 Elite
Test Model No.:	Seestar S50 Pro
Model difference:	Seestar S50 Pro, Seestar S50 Plus, Seestar S50 Max, Seestar S50 Ultra, Seestar S50 Lite, Seestar S50 Elite - as different models within the same series, the differences among the models lie in the naming only. The other aspects are the same, and the differences do not affect safety and electromagnetic compatibility.
Trade Mark:	Seestar

2.3 Product Specification subjective to this standard

Frequency Range:	BLE: 2402MHz~2480MHz 2.4G Wi-Fi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz 5G Wi-Fi: U-NII-1: 5150-5250MHz U-NII-2C:5500-5700MHz U-NII-3:5745-5825MHz
Modulation Type:	BLE: GFSK 2.4G Wi-Fi: IEEE for 802.11b:DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g:OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20): OFDM (64QAM, 16QAM,QPSK,BPSK) 5G Wi-Fi: IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11n(HT20/HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11ac(VHT20/VHT40/VHT80): OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Test Power Grade:	Default
Test Software of EUT:	Putty
Antenna Type:	PCB Antenna
Antenna Gain:	BLE/2.4G Wi-Fi: 3.27dBi 5G Wi-Fi: U-NII-1: 5.33dBi U-NII-2C: 4.30dBi U-NII-3: 4.23dBi

Power Supply:	Battery:	DC 3.7V 10000 mA
	USB Port:	DC 5V
Sample Received Date:	May 08, 2026	
Sample tested Date:	May 08, 2026 to Jun. 08, 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 P_{th} (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). P_{th} 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 $ERP_{20 \text{ cm}}$ 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	4.76	3.27	5.88	3.87	3060.00	0.0013	Pass
@2.4G Wi-Fi	20	16.11	3.27	17.23	52.84	3060.00	0.0173	Pass
@5G Wi-Fi U-NII-1	20	11.12	5.33	14.3	26.92	3060.00	0.0088	Pass
@5G Wi-Fi U-NII-2C	20	11.68	4.3	13.83	24.15	3060.00	0.0079	Pass
@5G Wi-Fi U-NII-3	20	11.82	4.23	13.9	24.55	3060.00	0.0080	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 EED32S80608901, EED32S80608902, EED32S80608903 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)=0.0013+0.0173+0.0088=0.0274 < 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 ***