

RF Exposure Evaluation Report

| | |
|-----------------------------|--|
| Product | : ASTROLINK |
| Trade mark | : ASTROLINK |
| Model/Type reference | : See section 3.2 |
| Serial Number | : N/A |
| Report Number | : EED32Q81950403 |
| FCC ID | : 2BN2S-TA700B |
| Date of Issue | : Feb. 26, 2025 |
| Test Standards | : 47 CFR Part 1.1307 47 CFR Part 1.1310 47 CFR Part 2.1091 47 CFR Part 2.1093 KDB 447498 D04 Interim General RF Exposure Guidance v01 |
| Test result | : PASS |

Prepared for:

Chengdu Spaceon Electronics Co.,Ltd.
No.66 Shengye Road, Jinniu District, Chengdu, Sichuan, China

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China

TEL: +86-755-3368 3668

FAX: +86-755-3368 3385

Compiled by:

Zhenxia Wen

Reviewed by:

Frazer. Li

Approved by:

Zhenxia Wen
Aaron Ma

Date:

Frazer Li
Feb. 26, 2025

Check No.: 5736271124



Report No. : EED32Q81950403

Page 2 of 8

1 Version

| Version No. | Date | Description |
|-------------|---------------|-------------|
| 00 | Feb. 26, 2025 | Original |
| | | |
| | | |

2 Contents

| | Page |
|---|----------|
| 1 VERSION..... | 2 |
| 2 CONTENTS..... | 3 |
| 3 GENERAL INFORMATION..... | 4 |
| 3.1 CLIENT INFORMATION..... | 4 |
| 3.2 GENERAL DESCRIPTION OF EUT | 4 |
| 3.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD | 4 |
| 3.4 TEST LOCATION..... | 5 |
| 3.5 DEVIATION FROM STANDARDS | 5 |
| 3.6 ABNORMALITIES FROM STANDARD CONDITIONS | 5 |
| 3.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER..... | 5 |
| 4 SAR EVALUATION | 6 |
| 4.1 RF EXPOSURE COMPLIANCE REQUIREMENT | 6 |
| 4.1.1 <i>Limits</i> | 6 |
| 4.1.2 <i>Test Procedure</i> | 6 |
| 4.1.3 <i>EUT RF Exposure Evaluation</i> | 7 |

Report No. : EED32Q81950403

Page 4 of 8

3 General Information

3.1 Client Information

| | |
|--------------------------|--|
| Applicant: | Chengdu Spaceon Electronics Co.,Ltd. |
| Address of Applicant: | No.66 Shengye Road, Jinniu District, Chengdu, Sichuan, China |
| Manufacturer: | Chengdu Spaceon Electronics Co.,Ltd. |
| Address of Manufacturer: | No.66 Shengye Road, Jinniu District, Chengdu, Sichuan, China |
| Factory: | Chengdu Spaceon Electronics Co.,Ltd. |
| Address of Factory: | No.66 Shengye Road, Jinniu District, Chengdu, Sichuan, China |

3.2 General Description of EUT

| | |
|-----------------|--|
| Product Name: | ASTROLINK |
| Model No.: | TA700B, TA700B-S10, TA700B-S11, TA700B-S12, TA700B-S13, TA700B-G10, TA700B-G11, TA700B-G12, TA700B-G13 |
| Test Model No.: | TA700B |
| Trade mark: | ASTROLINK |

3.3 Product Specification subjective to this standard

| | | |
|--|--|----------|
| Frequency Range: | 2402MHz~2480MHz | |
| Modulation Type: | BLE: GFSK BT: GFSK, π/4DQPSK, 8DPSK | |
| Test Power Grade: | Default | |
| Test Software of EUT: | MobaXterm_Personal_22.1 | |
| Antenna Type: | Contact antenna | |
| Antenna Gain: | -4.95dBi | |
| Power Supply: | Adapter: | DC 5V/2A |
| | Battery: | DC 3.7V |
| Sample Received Date: | Jan. 02, 2025 | |
| Sample tested Date: | Jan. 02, 2025 to Jan. 20, 2025 | |
| Remark: Model No.: TA700B, TA700B-S10, TA700B-S11, TA700B-S12, TA700B-S13, TA700B-G10, TA700B-G11, TA700B-G12, TA700B-G13 Only the model TA700B was tested. The differences between models are: the letters S and G represent different dial appearances and straps, XX(GXX/SXX) represents different colors, and the differences between models do not affect electrical safety and EMC. | | |

3.4 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

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.

3.7 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 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.

4.1.2 Test Procedure

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

4.1.3 EUT RF Exposure Evaluation

For Stand alone:

BLE:

| Frequency (MHz) | Estimation distance (cm) | Max. Conducted Output power (dBm) | Antenna Gain (dBi) | ERP (dBm) | ERP (mW) | Limit (mW) | MPE ratio | Result |
|--------------------|--------------------------------|---|--------------------------|--------------|-------------|---------------|--------------|--------|
| 2440 | 0.5 | 0.8 | -4.95 | -1.35 | 0.7328 | 2.7528 | 0.2662 | Pass |

BT:

| Frequency (MHz) | Estimation distance (cm) | Max. Conducted Output power (dBm) | Antenna Gain (dBi) | ERP (dBm) | ERP (mW) | Limit (mW) | MPE ratio | Result |
|--------------------|--------------------------------|---|--------------------------|--------------|-------------|---------------|--------------|--------|
| 2441 | 0.5 | 3.44 | -4.95 | 1.29 | 1.3459 | 2.7519 | 0.4891 | Pass |

| Frequency (MHz) | Estimation distance (cm) | Max. Conducted Output power (dBm) | Antenna Gain (dBi) | ERP (dBm) | ERP (mW) | Limit (mW) | MPE ratio |
|--------------------|--------------------------------|---|--------------------------|--------------|-------------|---------------|-----------|
| 2441 | 0.5 | 3.44 | -4.95000 | 1.29 | 1.3459 | 2.7519 | 0.4891 |

Note:

- ①EIRP=conducted power+antenna gain;
- ②ERP=EIRP-2.15;
- ③EIRP(dBm) = Field strength of the fundamental signal(dBuV/m@3m) – 95.23;
- ④ERP(mW) = $10^{(ERP\ (dBm)/10)}$;
- ⑤The estimation distance is 0.5cm;
- ⑥The test data please refer to the report of EED32Q81950401, EED32Q81950402 and only the worst case data was recorded in the report.

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;
5. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***