

SZ ZUVI TECHNOLOGY CO., LTD.

SAR COMPLIANCE REPORT

Report Type:
FCC SAR assessment report

Model:
HS200

REPORT NUMBER:
2311A1300SHA-004

ISSUE DATE:
December 7, 2023

DOCUMENT CONTROL NUMBER:
TTRFFCCSAR-01_V2 © 2022 Intertek



Applicant: SZ ZUVI TECHNOLOGY CO., LTD.
Room 613, HKUST SZ IER Building, Yuexing 1st Road, Nanshan District, Shenzhen, Guangdong, China 518057

Manufacturer: SZ ZUVI TECHNOLOGY CO., LTD.
Room 613, HKUST SZ IER Building, Yuexing 1st Road, Nanshan District, Shenzhen, Guangdong, China 518057

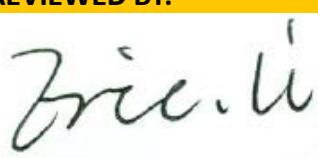
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FCC ID: 2BCUI-HS200

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

447498 D04 Interim General RF Exposure Guidance v01
FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:
Project Engineer
Damon Ding**REVIEWED BY:**
Reviewer
Eric Li

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TEST REPORT**Revision History**

| Report No. | Version | Description | Issued Date |
|------------------|---------|-------------------------|------------------|
| 2311A1300SHA-004 | Rev. 01 | Initial issue of report | December 7, 2023 |
| | | | |
| | | | |

TEST REPORT**1 GENERAL INFORMATION****1.1 Description of Equipment Under Test (EUT)**

| | |
|-----------------------|---|
| Product name: | AirLight Pro |
| Model: | HS200 |
| Description of EUT: | EUT is an AirLight Pro . EUT supports RF ID and Bluetooth function. |
| Rating: | 120Vac/60Hz, 1800W |
| Category of EUT: | Class B |
| EUT type: | <input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing |
| Software Version: | / |
| Hardware Version: | / |
| Sample received date: | 2023.11.14 |
| Date of test: | 2023.11.14-2023.12.7 |

1.2 Technical Specification

| | |
|----------------------|----------------------|
| Frequency Band: | 2402MHz to 2480MHz |
| Support Standards: | Bluetooth Low Energy |
| Type of Modulation: | GFSK |
| Channel Number: | 40 |
| Date Rate | 1Mbps |
| Channel Separation: | 2MHz |
| Antenna Information: | 2.39dBi, PCB antenna |

| | |
|------------------|---------------|
| Frequency Range: | 121kHz~128kHz |
| Modulation: | / |
| Antenna: | Coil antenna |

TEST REPORT**1.3 Description of Test Facility**

| | |
|------------|--|
| Name: | Intertek Testing Services Shanghai |
| Address: | Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China |
| Telephone: | 86 21 61278200 |
| Telefax: | 86 21 54262353 |

| | |
|---|--|
| The test facility is recognized, certified, or accredited by these organizations: | CNAS Accreditation Lab Registration No. CNAS L0139 |
| | FCC Accredited Lab Designation Number: CN0175 |
| | IC Registration Lab CAB identifier.: CN0014 |
| | VCCI Registration Lab Member No.: 3598 (Registration No.: R-14243, G-10845, C-14723, T-12252) |
| | A2LA Accreditation Lab Certificate Number: 3309.02 |

TEST REPORT

2 SAR Assessment

Test result: Pass

2.1 SAR Test Exclusion Limit

This method shall only be used at separation distances up to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula below:

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

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

f is in GHz, d is the separation distance (cm), and ERP_{20cm} is per Formula above.

The example values shown in below are for illustration only.

| Frequency (MHz) | Distance (mm) | | | | | | | | | | |
|-----------------|---------------|----|----|-----|-----|-----|-----|-----|-----|-----|--|
| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | |
| 300 | 39 | 65 | 88 | 110 | 129 | 148 | 166 | 184 | 201 | 217 | |
| 450 | 22 | 44 | 67 | 89 | 112 | 135 | 158 | 180 | 203 | 226 | |
| 835 | 9 | 25 | 44 | 66 | 90 | 116 | 145 | 175 | 207 | 240 | |
| 1900 | 3 | 12 | 26 | 44 | 66 | 92 | 122 | 157 | 195 | 236 | |
| 2450 | 3 | 10 | 22 | 38 | 59 | 83 | 111 | 143 | 179 | 219 | |
| 3600 | 2 | 8 | 18 | 32 | 49 | 71 | 96 | 125 | 158 | 195 | |
| 5800 | 1 | 6 | 14 | 25 | 40 | 58 | 80 | 106 | 136 | 169 | |

2.2 Assessment Results

As we can see from the BLE test report 2311A1300SHA-001:

The highest EIRP adjusted with tune-up tolerance is: 3.81dBm=2.404mW
2.404mW < 3mW (Test Exclusion Thresholds of 2450MHz at 5mm).

TEST REPORT

As we can see from the RF ID test report 2311A1300SHA-002:

➤ Limits for General Population/Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm ²) | Average Time (minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| Limits For General Population / Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | (180/f ²)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | ... | ... | f/1500 | 30 |
| 1500-100,000 | ... | ... | 1.0 | 30 |

f = frequency in MHz. * = Plane-wave equivalent power density.

The highest test data with is: 85.46dBuV/m = 0.0187 V/m < 614 V/m

BLE and RF ID can transmit simultaneously

2.404mW / 3mW + 0.0187 V/m / 614 V/m = 0.801 < 1

Therefore, the SAR requirement is deemed to be satisfied without test.

***** END *****