# MPE Report

Report No.:STS2605180H02

Issued for

Shenzhen xiaoxiang supply chain technology co., ltd

Xinghe WORLD Twin Towers, No. 8 Yaxing Road, Nankeng Community, Bantian Street, Longgang District, Shenzhen West Tower 28th Floor 2801A-1

| | |
|---|---|
| Product Name: | MINISO Wireless Earbud |
| Brand Name: | MINISO |
| Model Name: | MS220 |
| Series Model(s): | N/A |
| FCC ID: | 2BHJR-MS220 |
| Test Standards: | FCC 47CFR §2.1093 |

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the ShenZhen STS Test Services Co., Ltd.

# TEST REPORT

**Applicant's Name**.....: Shenzhen xiaoxiang supply chain technology co., ltd

Address .....: Xinghe WORLD Twin Towers, No. 8 Yaxing Road, Nankeng Community, Bantian Street, Longgang District, Shenzhen West Tower 28th Floor 2801A-1

**Manufacturer's Name**.....: Shenzhen xiaoxiang supply chain technology co., ltd

Address .....: Xinghe WORLD Twin Towers, No. 8 Yaxing Road, Nankeng Community, Bantian Street, Longgang District, Shenzhen West Tower 28th Floor 2801A-1

**Product Description**

Product Name.....: MINISO Wireless Earbud

Brand Name .....: MINISO

Model Name .....: MS220

Series Model(s).....: N/A

**Test Standards** .....: FCC 47CFR §2.1093
447498 D04 Interim General RF Exposure Guidance v01

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**Date of Test** .....:

Date of receipt of test item.....: 28 May. 2026

Date (s) of performance of tests.....: 28 May. 2026 ~ 01 June 2026

Date of Issue.....: 03 June 2026

Test Result.....: **Pass**

Testing Engineer : Aaron Bu

(Aaron Bu)

Technical Manager : Skylar. Li

(Skylar Li)

Authorized Signatory : Bovey Yang

(Bovey Yang)

SHENZHEN STS TEST SERVICES CO., LTD. TESTING APPROVAL

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## Revision History

| Rev. | Issue Date | Report No. | Effect Page | Contents |
|---|---|---|---|---|
| 00 | 03 June 2026 | STS2605180H02 | ALL | Initial Issue |
| | | | | |

# 1. GENERAL INFORMATION

## 1.1 GENERAL DESCRIPTION OF THE EUT

| | |
|---|---|
| Product Name | MINISO Wireless Earbud |
| Brand Name | MINISO |
| Model Name | MS220 |
| Series Model(s) | N/A |
| Model Difference | N/A |
| Channel List | Please refer to the Note 3. |
| Bluetooth | Frequency:2402 – 2480 MHz<br>Modulation: GFSK(1Mbps), π/4-DQPSK(2Mbps), 8DPSK(3Mbps) |
| Bluetooth Configuration | BR+EDR |
| Antenna Type | Chip |
| Antenna Gain | 2.78dBi |
| Power Rating | Input: DC 5V/300mA<br>Output: DC 3.7V/60mA |
| Adapter | N/A |
| Battery | EAR<br>Model: FL 450909<br>Rated Voltage: 3.7V<br>Charge Limit Voltage: 4.2V<br>Capacity: 30mAh<br>Charging box:<br>Model: 602030<br>Rated Voltage: 3.7V<br>Charge Limit Voltage: 4.2V<br>Capacity: 300mAh<br>Manufacturer : Tanghe Fenglong Electronic Technology Co., Ltd. |
| Hardware version number | KE-K66-L-V1.1<br>KE-K66-R-V1.1 |
| Software version number | V001-KE-K10-AB5756C-20260417-(MINISO-MS220) |
| Connecting I/O Port(s) | Please refer to the Note 1. |

## 1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD
Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

## 2. FCC 47CFR §2.1093 REQUIREMENT

2.1 TEST STANDARDS

Follow the maximum permissible exposure (MPE) limits specified in 447498 D04 Interim General Radio Frequency Exposure Guidelines v01. The gain of the antenna used in the product was extracted from the supplied antenna data sheet and the maximum total power input to the antenna was also measured. Calculate the distance from the product to the MPE limit by the formula.

2.2 LIMIT

For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of Part 1.1307. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

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

Where

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

and

$$ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

$d$ = the separation distance (cm);

(C) Or using below table and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

| RF Source frequency (MHz) | Threshold ERP(watts) |
|---|---|
| 0.3-1.34 | 1,920 $R^2$. |
| 1.34-30 | 3,450 $R^2/f^2$. |
| 30-300 | 3.83 $R^2$. |
| 300-1,500 | 0.0128 $R^2f$. |
| 1,500-100,000 | 19.2$R^2$. |


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For multiple RF sources: Multiple RF sources are exempt if:

(A) The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required). This exemption may not be used in conjunction with other exemption criteria other than those is paragraph (b)(3)(i)(A) of Part 1.1307. Medical implant devices may only use this exemption and that in paragraph (b)(3)(i)(A).

(B) in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^{a}\frac{P_i}{P_{th,i}}+\sum_{j=1}^{b}\frac{ERP_j}{ERP_{th,j}}+\sum_{k=1}^{c}\frac{Evaluated_k}{Exposure\ Limit_k}\leq 1$$

Where:

a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(B) of Part 1.1307 for Pth, including existing exempt transmitters and those being added.

b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(C) of Part 1.1307 for Threshold ERP, including existing exempt transmitters and those being added.

c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters.

Pi = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

Pth,i = the exemption threshold power (Pth) according to paragraph (b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i.

ERPj = the ERP of fixed, mobile, or portable RF source j.

ERPth,j = exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least λ/2π according to the applicable formula of paragraph (b)(3)(i)(C) of Part 1.1307.

Evaluatedk = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure.

Exposure Limitk = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k, as applicable from § 1.1310.

## 2.3 TEST RESULT

Tune up

| RF Function | Tune Up Power (dBm) | Tune Up Power (dBm) |
|---|---|---|
| BT-L | -2±1 | -1 |
| BT-R | -2±1 | -1 |

| RF Function | Frequency (GHz) | Separation distance (cm) | Tune Up Power (dBm) | ANT Gain (dBi) | EIRP (dBm) | ERP (dBm) | ERP (mW) | Limit (mW) | Ratio | Result |
|---|---|---|---|---|---|---|---|---|---|---|
| BT-L | 2.402 | 0.5 | -1 | 2.78 | 1.78 | -0.37 | 0.918 | 2.788 | 0.329 | Pass |
| BT-R | 2.402 | 0.5 | -1 | 2.78 | 1.78 | -0.37 | 0.918 | 2.788 | 0.329 | Pass |

Note: 1. The Maxinum power is less than the limit, complies with the exemption requirements.

2. ERP = EIRP - 2.15

※※※※※END OF THE REPORT※※※※※