


Test Report No.:  
**FCC2021-0039-EMF**

# Test Report

**EUT** : True Wireless earphones  
**MODEL** : Air05  
**BRAND NAME** :   
**APPLICANT** : Shenzhen Koorui technology Co., Ltd.  
**Classification Of Test** : N/A




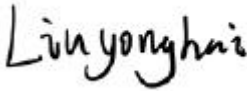

**CVC Testing Technology Co., Ltd.**



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|   |   |   |                       |
|---|---|---|-----------------------|
| <b>Client</b>   | Name : Shenzhen Koorui technology Co., Ltd.<br>Address : 3rd Floor, Building A1, No. 663, Bulong Road,Dafapu Community, Bantian Street,Longgang District, ShenZhen Guangdong P.R. China   |   |                       |
| <b>Manufacturer</b>   | Name : Shenzhen Koorui technology Co., Ltd.<br>Address : 3rd Floor, Building A1, No. 663, Bulong Road,Dafapu Community, Bantian Street,Longgang District, ShenZhen Guangdong P.R. China   |   |                       |
| <b>Factor</b>   | Name : Shenzhen fuchang technology Co., Ltd.<br>Address : No.602,6th Floor,Building A,Yongshenhui Industrial Park,NO.3 Chuangye Road,Shilongzi Industrial Zone,Shiyan Street, Shenzhen City   |   |                       |
| <b>Equipment Under Test</b>   | Name : True Wireless earphones<br>Model/Type: Air05<br>Trade mark :  <br>Serial NO.:N/A<br>Sampe NO.:3-1 |   |                       |
| Date of Receipt.  | 2021.12.01  | Date of Testing   | 2021.12.01~2021.12.16 |
| <b>Test Specification</b>   |   | <b>Test Result</b>  |                       |
| FCC Part 2 (Section 2.1093), KDB 447498 D01<br>IEEE C95.1   |   | PASS  |                       |
| <b>Evaluation of Test Result</b>  | The equipment under test was found to comply with the requirements of the standards applied.<br><br><b>Issue Date: 2021.12.27</b>   |   |                       |
| Tested by:<br><br>Xu ZhenFei<br>Name                      Signature                    | Reviewed by:<br><br>Liu YongHai<br>Name                      Signature   | Approved by:<br><br>Chen HuaWen<br>Name                      Signature |                       |
| <b>Other Aspects: NONE.</b>   |   |   |                       |
| Abbreviations:OK,    Pass= passed                      Fail = failed                      N/A= not applicable                      EUT= equipment, sample(s) under tested |   |   |                       |

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



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**RELEASE CONTROL RECORD**

| ISSUE NO.        | REASON FOR CHANGE | DATE ISSUED |
|------------------|-------------------|-------------|
| FCC2021-0039-EMF | Original release  | 2021.12.27  |

## 1. GERTIFICATION

|                         |   |
|-------------------------|---|
| <b>FCC ID</b>           | 2A23CAIR05  |
| <b>PRODUCT</b>          | True Wireless earphones   |
| <b>BRAND</b>            |  |
| <b>MODEL</b>            | Air05   |
| <b>ADDITIONAL MODEL</b> | N/A   |
| <b>APPLICANT</b>        | Shenzhen Koorui technology Co., Ltd.  |
| <b>STANDARDS</b>        | FCC Part 2 (Section 2.1093)   |
|                         | KDB 447498 D01  |
|                         | IEEE C95.1  |

Note: This product is wireless earphone, divided into left ear and right ear.



## 2. RF EXPOSURE LIMIT

### 2.1 RF EXPOSURE

#### 2.1.1 RF EXPOSURE DEFINE

The corresponding SAR Exclusion Threshold condition, listed below:

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, 16 where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

2) At 100 MHz to 6 GHz and for test separation distances  $> 50$  mm, the SAR test exclusion threshold is determined according to the following:

a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · (f(MHz)/150)] mW, at 100MHz to 1500 MHz

b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at  $> 1500$  MHz and  $\leq 6$  GHz

3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.

a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$  for test separation distances  $> 50$  mm and  $< 200$  mm.

b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for test separation distances  $\leq 50$  mm.

c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

#### 2.1.2 Classification

The antenna of this product, under normal use condition, is at less than 20cm away from the body of the user. So, this device is classified as Portable Device.

### 2.1.3 Antenna Gain

The antennas provided to the EUT, please refer to the following table:

| Frequency Band     | Antenna Gain (dBi) | Antenna Type |
|--------------------|--------------------|--------------|
| BT(GFSK)           | 2.67               | Chip Antenna |
| BT( $\pi/4$ DQPSK) | 2.67               | Chip Antenna |
| BT(8DPSK)          | 2.67               | Chip Antenna |

### 2.1.4 calculation result of maximum conducted AV power

The tuned conducted AV Power (declared by client)

**Left**

| Mode               | Frequency (MHz) | Target Power (dBm) | Tolerance (dBm) | Lower Tolerance (dBm) | Upper Tolerance (dBm) |
|--------------------|-----------------|--------------------|-----------------|-----------------------|-----------------------|
| BT(GFSK)           | 2402-2480MHz    | 2                  | + -1            | 1                     | 3                     |
| BT( $\pi/4$ DQPSK) | 2402-2480MHz    | -2                 | + -1            | -3                    | -1                    |
| BT(8DPSK)          | 2402-2480MHz    | -2                 | + -1            | -3                    | -1                    |

**Right**

| Mode               | Frequency (MHz) | Target Power (dBm) | Tolerance (dBm) | Lower Tolerance (dBm) | Upper Tolerance (dBm) |
|--------------------|-----------------|--------------------|-----------------|-----------------------|-----------------------|
| BT(GFSK)           | 2402-2480MHz    | 2                  | + -1            | 1                     | 3                     |
| BT( $\pi/4$ DQPSK) | 2402-2480MHz    | -2                 | + -1            | -3                    | -1                    |
| BT(8DPSK)          | 2402-2480MHz    | -2                 | + -1            | -3                    | -1                    |

The measured conducted AV Power

**Left**

| Mode               | Frequency (MHz) | AV Power (dBm) |
|--------------------|-----------------|----------------|
| BT(GFSK)           | 2480            | 2.96           |
| BT( $\pi/4$ DQPSK) | 2480            | -1.87          |
| BT(8DPSK)          | 2480            | -1.80          |

**Right**

| Mode               | Frequency (MHz) | AV Power (dBm) |
|--------------------|-----------------|----------------|
| BT(GFSK)           | 2480            | 2.14           |
| BT( $\pi/4$ DQPSK) | 2480            | -2.71          |
| BT(8DPSK)          | 2480            | -2.70          |



**Left**

| Frequency (MHz) | Maximum source-based time AV conducted output power (dBm) | Minimum separation distance (mm) | Result of Eq. 1 | Limit for 1-g SAR | Limit for 10-g extremity SAR | Verdict         |
|-----------------|---|----------------------------------|-----------------|-------------------|------------------------------|-----------------|
| 2402-2480       | 3   | 5                                | 0.628           | 3.0               | 7.5                          | Exempt from SAR |

**Right**

| Frequency (MHz) | Maximum source-based time AV conducted output power (dBm) | Minimum separation distance (mm) | Result of Eq. 1 | Limit for 1-g SAR | Limit for 10-g extremity SAR | Verdict         |
|-----------------|---|----------------------------------|-----------------|-------------------|------------------------------|-----------------|
| 2402-2480       | 3   | 5                                | 0.628           | 3.0               | 7.5                          | Exempt from SAR |

**Conclusion:**

Therefore this device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.





### Important

- (1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.
- (2) The test report is invalid if altered.
- (3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.
- (4) Objections to the test report must be submitted to the laboratory within 15 days.
- (5) Generally, commission test is responsible for the tested samples only.

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