

# TEST REPORT

**Product Name** : Translator Earbuds  
**Brand Mark** : Timekettle  
**Model No.** : M3  
**Extension model** : L1, L2, L3, S1, S2, S3, X1, X2, X3  
**Report Number** : BLA-EMC-202205-A4806  
**FCC ID** : 2AQ2G-M3  
**Date of Sample Receipt** : 2022/5/19  
**Date of Test** : 2022/5/19 to 2022/6/24  
**Date of Issue** : 2022/6/24  
**Test Standard** : 47 CFR Part 1.1307, Part 2.1093, KDB 447498  
**Test Result** : Pass

Prepared for:

**Shenzhen Timekettle Technologies Co., Ltd**  
**Room 402, Building 3B, Minqi Science Park, Nanshan**  
**District, Shenzhen, Guangdong, China**

Prepared by:

**BlueAsia of Technical Services(Shenzhen) Co.,Ltd.**  
**Building C, No. 107, Shihuan Road, Shiyao Sub-District, Baoan District,**  
**Shenzhen, Guangdong Province, China**  
**TEL: +86-755-23059481**

Compiled by:

*Jozu*  
*Blue Zhong*

Approved by:

Review by:

*Sueels*

Date:

2022/6/24



## REPORT REVISE RECORD

| Version No. | Date      | Description |
|-------------|-----------|-------------|
| 00          | 2022/6/24 | Original    |

## TABLE OF CONTENTS

|          |                                                 |          |
|----------|-------------------------------------------------|----------|
| <b>1</b> | <b>TEST SUMMARY .....</b>                       | <b>4</b> |
| <b>2</b> | <b>GENERAL INFORMATION .....</b>                | <b>5</b> |
| <b>3</b> | <b>GENERAL DESCRIPTION OF E.U.T. ....</b>       | <b>5</b> |
| <b>4</b> | <b>LABORATORY LOCATION .....</b>                | <b>6</b> |
| <b>5</b> | <b>RF EXPOSURE COMPLIANCE REQUIREMENT .....</b> | <b>7</b> |
| 5.1      | STANDARD REQUIREMENT .....                      | 7        |
| 5.2      | LIMITS .....                                    | 7        |
| 5.3      | EUT RF EXPOSURE .....                           | 7        |

## 1 TEST SUMMARY

| Test item   | Test Requirement                            | Test Method        | Class/Severity     | Result |
|-------------|---------------------------------------------|--------------------|--------------------|--------|
| RF Exposure | 47 CFR Part 1.1307, Part 2.1093, KDB 447498 | CFR 47 Part 2.1093 | CFR 47 Part 2.1093 | Pass   |

## 2 GENERAL INFORMATION

|                        |                                                                                                                                                           |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant</b>       | Shenzhen Timekettle Technologies Co., Ltd                                                                                                                 |
| <b>Address</b>         | Room 402, Building 3B, Minqi Science Park, Nanshan District, Shenzhen, Guangdong, China                                                                   |
| <b>Manufacturer</b>    | Guangdong Mingyang Smart Technology Co., Ltd                                                                                                              |
| <b>Address</b>         | Room 413, Hongdu Business Building Building A, Anle Industrial Area. Haile Community Xinan Street, Baoan District Shenzhen. China                         |
| <b>Factory</b>         | Guangdong Mingyang Smart Technology Co., Ltd                                                                                                              |
| <b>Address</b>         | Building 1, No.111 Nanjiang Road, Humen Town, Dongguan City, Guangdong Province                                                                           |
| <b>Product Name</b>    | Translator Earbuds                                                                                                                                        |
| <b>Test Model No.</b>  | M3                                                                                                                                                        |
| <b>Extension model</b> | L1, L2, L3, S1, S2, S3, X1, X2, X3                                                                                                                        |
| <b>Note</b>            | All above models are identical in the same PCB layout, interior structure and electrical circuits. The differences are model name for commercial purpose. |

## 3 GENERAL DESCRIPTION OF E.U.T.

|                         |        |
|-------------------------|--------|
| <b>Hardware Version</b> | V1.2   |
| <b>Software Version</b> | V1.3.4 |

BLE

|                             |                                   |
|-----------------------------|-----------------------------------|
| <b>Operation Frequency:</b> | 2402MHz-2480MHz                   |
| <b>Modulation Type:</b>     | GFSK                              |
| <b>Channel Spacing:</b>     | 2MHz                              |
| <b>Number of Channels:</b>  | 40                                |
| <b>Antenna Type:</b>        | Chip Antenna                      |
| <b>Antenna Gain:</b>        | 2.5dBi(Provided by the applicant) |

BDR+EDR

|                             |                                   |
|-----------------------------|-----------------------------------|
| <b>Operation Frequency:</b> | 2402MHz-2480MHz                   |
| <b>Modulation Type:</b>     | GFSK, pi/4DQPSK, 8DPSK            |
| <b>Channel Spacing:</b>     | 1MHz                              |
| <b>Number of Channels:</b>  | 79                                |
| <b>Antenna Type:</b>        | Chip Antenna                      |
| <b>Antenna Gain:</b>        | 2.5dBi(Provided by the applicant) |

NOTE : This report is only for right earphone.

#### 4 LABORATORY LOCATION

All tests were performed at:  
BlueAsia of Technical Services(Shenzhen) Co., Ltd.  
Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province,  
China  
Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673  
No tests were sub-contracted.

## 5 RF EXPOSURE COMPLIANCE REQUIREMENT

### 5.1 STANDARD REQUIREMENT

According to KDB447498D01 General RF Exposure Guidance v06

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

### 5.2 LIMITS

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, 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<sup>17</sup>

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

### 5.3 EUT RF EXPOSURE

| Operational Mode: EDR (8-DPSK worst case)               |                                           |                        |                       |      |                  |                     |
|---------------------------------------------------------|-------------------------------------------|------------------------|-----------------------|------|------------------|---------------------|
| Channel                                                 | Maximum Peak Conducted Output Power (dBm) | Tune up tolerance (dB) | Maximum tune-up Power |      | Calculated value | Exclusion threshold |
|                                                         |                                           |                        | (dBm)                 | (mW) |                  |                     |
| 2402MHz                                                 | 2.259                                     | ±1                     | 3.259                 | 2.12 | 0.66             | 3.0                 |
| 2441MHz                                                 | 3.772                                     | ±1                     | 4.772                 | 3.00 | 0.94             |                     |
| 2480MHz                                                 | 2.991                                     | ±1                     | 3.991                 | 2.51 | 0.79             |                     |
|                                                         |                                           |                        |                       |      |                  |                     |
| Operational Mode: BLE                                   |                                           |                        |                       |      |                  |                     |
| 2402 MHz                                                | 0.87                                      | ±1                     | 1.87                  | 1.54 | 0.48             | 3.0                 |
| 2442 MHz                                                | 3.238                                     | ±1                     | 4.238                 | 2.65 | 0.83             |                     |
| 2480 MHz                                                | 2.695                                     | ±1                     | 3.695                 | 2.34 | 0.74             |                     |
| Conclusion: the calculated value ≤3.0, SAR is exempted. |                                           |                        |                       |      |                  |                     |

**----END OF REPORT----**

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of BlueAsia, this report can't be reproduced except in full.

BlueAsia