

## RF Exposure Evaluation Report

**Report Reference No.**..... : **MTEB25030335-H**

**FCC ID**..... : **2AZ6J-AKX10S**

Compiled by

( position+printed name+signature)..: File administrators Alisa Luo



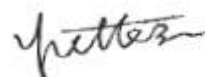
Supervised by

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Approved by

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Date of issue..... : **Mar.27,2025**

**Representative Laboratory Name. :** **Shenzhen Most Technology Service Co., Ltd.**

Address..... : No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park,  
Nanshan, Shenzhen, Guangdong, China.

**Applicant's name**..... : **Medeli Electronics Co., Ltd.**

Address..... : 20/F., Cheung Lee Industrial Building, 9 Cheung Lee Street, Chai  
Wan, Hongkong

**Test specification/ Standard**..... : **47 CFR Part 1.1307**

**47 CFR Part 2.1093**

TRF Originator..... : Shenzhen Most Technology Service Co., Ltd.

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**Test item description**..... : Electronic Keyboard

Trade Mark..... : MEDELI

Model/Type reference..... : AKX10S

Listed Models ..... : DX2324 ,AKXXXX(X=A~Z,a~z,0~9 or blank)

Modulation Type..... : GFSK,  $\pi/4$ DQPSK,8DPSK

Operation Frequency..... : From 2402MHz to 2480MHz

Hardware Version..... V1.0.0

Software Version..... V1.0.2

Rating..... : DC 15V by Adapter

Result..... : PASS

**TEST REPORT**

Equipment under Test : Electronic Keyboard

Model /Type : AKX10S

Listed Models : DX2324 ,AKXXXX(X=A~Z,a~z,0~9 or blank)

Remark : Only the model “ AKX10S ” was tested, Their electrical circuit design, layout, components used and internal wiring are identical, Only the Silkscreen and the Color of Appearance is different.

Applicant : Medeli Electronics Co., Ltd.

Address : 20/F., Cheung Lee Industrial Building, 9 Cheung Lee Street, Chai Wan, Hongkong

Manufacturer : Medeli Musical Instrument (Zhu Hai) Co.,Ltd

Address : Medeli Industrial Park,2 Shuang Lin East Road,Dalinshan Area, Liangang Industrial Zone, Jinwan District, Zhuhai, China.

|                     |             |
|---------------------|-------------|
| <b>Test Result:</b> | <b>PASS</b> |
|---------------------|-------------|

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

| Revision | Issue Date | Revisions     | Revised By |
|----------|------------|---------------|------------|
| 00       | 2025.03.27 | Initial Issue | Alisa Luo  |
|          |            |               |            |
|          |            |               |            |

## 2. SAR Evaluation

### 2.1 RF Exposure Compliance Requirement

#### 2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. 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.

#### 2.1.2 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:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \left[ \sqrt{f(\text{GHz})} \right]$$
  
 $\leq 3.0$  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

## 2.1.3 EUT RF Exposure

## Measurement Data

## BLE

| GFSK             |                            |                            |                       |
|------------------|----------------------------|----------------------------|-----------------------|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |
|                  |                            |                            | (dBm)                 |
| Lowest(2402MHz)  | -1.85                      | $-1.85 \pm 1$              | -0.85                 |
| Middle(2440MHz)  | -3.16                      | $-3.16 \pm 1$              | -2.16                 |
| Highest(2480MHz) | -2.89                      | $-2.89 \pm 1$              | -1.89                 |

## Worst case: GFSK

| Channel         | Maximum Peak<br>Conducted Output<br>Power<br>(dBm) | Maximum tune-up<br>Power |      | Calculated<br>value | Exclusion<br>threshold | SAR Test<br>Exclusion |
|-----------------|----------------------------------------------------|--------------------------|------|---------------------|------------------------|-----------------------|
|                 |                                                    | (dBm)                    | (mW) |                     |                        |                       |
| Lowest(2402MHz) | -1.85                                              | -0.85                    | 0.82 | 0.25                | 3.0                    | Yes                   |

## EDR

| GFSK             |                            |                            |                       |
|------------------|----------------------------|----------------------------|-----------------------|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |
|                  |                            |                            | (dBm)                 |
| Lowest(2402MHz)  | -0.84                      | $-0.84 \pm 1$              | 0.16                  |
| Middle(2441MHz)  | -1.79                      | $-1.79 \pm 1$              | -0.79                 |
| Highest(2480MHz) | -2.22                      | $-2.22 \pm 1$              | -1.22                 |

| $\pi/4$ DQPSK    |                            |                            |                       |
|------------------|----------------------------|----------------------------|-----------------------|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |
|                  |                            |                            | (dBm)                 |
| Lowest(2402MHz)  | 1.25                       | $1.25 \pm 1$               | 2.25                  |
| Middle(2441MHz)  | 0.34                       | $0.34 \pm 1$               | 1.34                  |
| Highest(2480MHz) | -0.11                      | $-0.11 \pm 1$              | 0.89                  |

| 8DPSK            |                            |                            |                       |
|------------------|----------------------------|----------------------------|-----------------------|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |
|                  |                            |                            | (dBm)                 |
| Lowest(2402MHz)  | 1.59                       | $1.59 \pm 1$               | 2.59                  |
| Middle(2441MHz)  | 0.69                       | $0.69 \pm 1$               | 1.69                  |
| Highest(2480MHz) | 0.22                       | $0.22 \pm 1$               | 1.22                  |

| Worst case: 8DPSK |                                                    |                          |      |                     |                        |                       |
|-------------------|----------------------------------------------------|--------------------------|------|---------------------|------------------------|-----------------------|
| Channel           | Maximum Peak<br>Conducted Output<br>Power<br>(dBm) | Maximum tune-up<br>Power |      | Calculated<br>value | Exclusion<br>threshold | SAR Test<br>Exclusion |
|                   |                                                    | (dBm)                    | (mW) |                     |                        |                       |
| Lowest(2402MHz)   | 1.59                                               | 2.59                     | 1.82 | 0.56                | 3.0                    | Yes                   |

.....THE END OF REPORT.....