

#### Shenzhen Most Technology Service Co., Ltd.

East A, 1 floor of New Aolin Factory building, Langshan Erlu, North District, Hi-tech Industry Park, Nanshan, Shenzhen, Guangdong, China

## **RF Exposure Evaluation Report**

Compiled by

Supervised by

( position+printed name+signature)..: Test Engineer Sunny Deng

Approved by

( position+printed name+signature)..: Manager Yvette Zhou

Date of issue...... February 21,2024

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

Nanshan, Shenzhen, Guangdong, China.

Applicant's name...... TECH-AUDIO CO., LTD

325. Taiwan

Test specification/ Standard......: 47 CFR Part 1.1307;47 CFR Part 1.1310

KDB447498D01 General RF Exposure Guidance v06

Sunny Deng

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

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Test item description.....: Bluetooth Speaker

Trade Mark..... N/A

Model/Type reference...... Nexa 1

Pro, Nexa 1 Ultra. Nexa 2 Ultra. Nexa 3 Ultra, Nexa 1 Mini, Nexa 2

Mini, Nex 3 Mini, A1, A2, A3, A1 Elite, A2 Elite, A3 Elite

Modulation Type.....: GFSK, π/4DQPSK, 8DPSK

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

Hardware Version.....V1.1

Software Version..... V1.1

Rating...... POWER Input: TYPE-C 5V/2.1A

Battery:7.2V/2500mAH

Result..... PASS

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#### TEST REPORT

Equipment under Test : Bluetooth Speaker

Model /Type : Nexa 1

Nexa 2, Nexa 3, Nexa 4, Nexa X, Nexa 1 Pro, Nexa 2 Pro, Nexa

Listed Models 3 Pro,Nexa 1 Ultra. Nexa 2 Ultra. Nexa 3 Ultra,Nexa 1

Mini, Nexa 2 Mini, Nex 3 Mini, A1, A2, A3, A1 Elite, A2 Elite, A3

Elite

Remark The model name is different and the appearance is different,

and the rest remains unchanged.

Applicant : TECH-AUDIO CO., LTD

Address : No. 14, Aly. 5, Ln. 216, Zhongxing Rd., Longtan Dist., Taoyuan

City 325, Taiwan

Manufacturer : XIAMEN TECH-SOUND CO., LTD

Address 'NO.170, Ji Yin Road, Tong An District, Xiamen, China.

| Test Result: | PASS |
|--------------|------|
|              |      |

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.

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# 1. Revision History

| Revision | Issue Date | Revisions     | Revised By |
|----------|------------|---------------|------------|
| 00       | 2024-02-21 | Initial Issue | Alisa Luo  |
|          |            |               |            |
|          |            |               |            |

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## 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 ≤ 50 mm are determined by:

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

f(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  $\leq$  5 mm, a distance of 5 mm is applied to determine SAR test exclusion

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# 2.1.3 EUT RF Exposure

## BT classic

| GFSK             |                         |                            |                       |  |  |
|------------------|-------------------------|----------------------------|-----------------------|--|--|
| Test channel     | Peak Output Power (dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |  |  |
|                  |                         |                            | (dBm)                 |  |  |
| Lowest(2402MHz)  | 1.359                   | 1.359±1                    | 2.359                 |  |  |
| Middle(2441MHz)  | 3.047                   | 3.047±1                    | 4.047                 |  |  |
| Highest(2480MHz) | 2.816                   | 2.816±1                    | 3.816                 |  |  |

| π /4DQPSK        |                         |                         |                       |  |  |
|------------------|-------------------------|-------------------------|-----------------------|--|--|
| Test channel     | Peak Output Power (dBm) | Tune up tolerance (dBm) | Maximum tune-up Power |  |  |
|                  |                         |                         | (dBm)                 |  |  |
| Lowest(2402MHz)  | 0.153                   | 0.153±1                 | 1.153                 |  |  |
| Middle(2441MHz)  | 1.605                   | 1.605±1                 | 2.605                 |  |  |
| Highest(2480MHz) | 1.762                   | 1.762±1                 | 2.762                 |  |  |

| 8DPSK            |                            |                         |                       |  |
|------------------|----------------------------|-------------------------|-----------------------|--|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance (dBm) | Maximum tune-up Power |  |
|                  |                            |                         | (dBm)                 |  |
| Lowest(2402MHz)  | 0.209                      | 0.209±1                 | 1.209                 |  |
| Middle(2441MHz)  | 1.812                      | 1.812±1                 | 2.812                 |  |
| Highest(2480MHz) | 1.803                      | 1.803±1                 | 2.803                 |  |

| Worst case: GFSK |                        |                          |      |                 |           |                       |
|------------------|------------------------|--------------------------|------|-----------------|-----------|-----------------------|
| Channel          | Maximum Peak Conducted | Maximum tune-up<br>Power |      | Calculated      | Exclusion | SAR Test<br>Exclusion |
|                  | Output Power<br>(dBm)  | (dBm)                    | (mW) | value threshold |           |                       |
| Lowest(2402MHz)  | 3.047                  | 4.047                    | 2.54 | 0.65            | 3.0       | Yes                   |

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