

# TEST REPORT

**Reference No.**..... : WTD22D04080420W002  
**FCC ID** ..... : 2A5MDAR-04  
**Applicant**..... : HiFun Design and Trading, Inc  
**Address**..... : 4575 Webb Bridge Rd #4193, Alpharetta, GA, US  
**Manufacturer** ..... : Huizhou City Huiyang QU Xinxu Town JinShunYan Electronic Processing Factory  
**Address**..... : Tangxia Chanjing village, Xinxu Town, Huiyang District, Huizhou City, Guangdong ,China  
**Product**..... : JUKEBOX  
**Model(s)** ..... : AR-04, AR-04A, AR-04B, AR-04C, AR-04D, AR-04E, AR-04F, AR-04G, AR-04H, AR-04I, AR-04J  
**Standards**..... : FCC Part 1.1307  
**Date of Receipt sample** .... : 2022-04-26  
**Date of Test** ..... : 2022-04-27 to 2022-05-31  
**Date of Issue**..... : 2022-05-31  
**Test Result**..... : **Pass**

## Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

## Prepared By:

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### 3. Revision History

| Test report No.        | Date of Receipt sample | Date of Test                   | Date of Issue | Purpose  | Comment | Approved |
|------------------------|------------------------|--------------------------------|---------------|----------|---------|----------|
| WTD22D04080420<br>W002 | 2022-04-26             | 2022-04-27<br>to<br>2022-05-31 | 2022-05-31    | Original | -       | Valid    |

## 4. General Information

### 4.1. General Description of E.U.T.

|                       |                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------|
| Product:              | JUKEBOX                                                                               |
| Model(s):             | AR-04, AR-04A, AR-04B, AR-04C, AR-04D, AR-04E, AR-04F, AR-04G, AR-04H, AR-04I, AR-04J |
| Model difference:     | Only the models name are different.<br>Model AR-04 was tested in this report.         |
| Operation Frequency:  | 2402-2480MHz, 79 Channels in total                                                    |
| Antenna installation: | internal permanent antenna                                                            |
| Antenna Gain:         | 0dBi                                                                                  |
| Type of Modulation:   | GFSK, $\pi/4$ DQPSK, 8DPSK                                                            |
| Hardware Version:     | BYLO3-B.(MP3)-MAIN                                                                    |
| Software Version:     | UO1                                                                                   |

### 4.2. Details of E.U.T.

|                       |                                                                                         |
|-----------------------|-----------------------------------------------------------------------------------------|
| Max. RF output power: | 4.93dBm                                                                                 |
| Ratings:              | Input: AC 100-240V 50/60Hz 0.35A from adapter<br>Output: DC 9.0V == 1.0A                |
| Adapter:              | Manufacturer: DongGuan Guanjin Electronics Technology Co.,Ltd<br>Model No.: K12V090100U |

### 4.3. Test Facility

The test facility has a test site registered with the following organizations:

**ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.**

Waltek Services(Shenzhen) Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

**FCC Designation No.: CN1201. Test Firm Registration No.: 523476.**

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

## 5. Test Summary

| Test Items                                                        | Test Requirement | Result |
|-------------------------------------------------------------------|------------------|--------|
| Maximum Permissible Exposure<br>(Exposure of Humans to RF Fields) | 1.1307           | PASS   |

## 6. RF Exposure

Test Requirement: FCC Part 1.1307

Evaluation Method: FCC Part 2.1091 & KDB 447498 D01 General RF Exposure Guidance v06

### 6.1. Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

### 6.2. The procedures / limit

#### (A) Limits for Occupational / Controlled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|------------------------------------------|------------------------------------------------------------------|
| 0.3-3.0               | 614                               | 1.63                              | (100)*                                   | 6                                                                |
| 3.0-30                | 1842 / f                          | 4.89 / f                          | (900 / f)*                               | 6                                                                |
| 30-300                | 61.4                              | 0.163                             | 1.0                                      | 6                                                                |
| 300-1500              |                                   |                                   | F/300                                    | 6                                                                |
| 1500-100,000          |                                   |                                   | 5                                        | 6                                                                |

#### (B) Limits for General Population / Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|------------------------------------------|------------------------------------------------------------------|
| 0.3-1.34              | 614                               | 1.63                              | (100)*                                   | 30                                                               |
| 1.34-30               | 824/f                             | 2.19/f                            | (180/f)*                                 | 30                                                               |
| 30-300                | 27.5                              | 0.073                             | 0.2                                      | 30                                                               |
| 300-1500              |                                   |                                   | F/1500                                   | 30                                                               |
| 1500-100,000          |                                   |                                   | 1.0                                      | 30                                                               |

Note: f = frequency in MHz; \*Plane-wave equivalent power density

### 6.3. MPE Calculation Method

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = output power to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator,  
the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

From the peak EUT RF output power, the minimum mobile separation distance, R=20cm,  
as well as the gain of the used antenna, the RF power density can be obtained

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. conducted Output Power (dBm) | Max. conducted Output Power (mW) | Power Density (mW/cm <sup>2</sup> ) | Limit of Power Density (mW/cm <sup>2</sup> ) | Result     |
|--------------------|------------------------|-----------------------------------|----------------------------------|-------------------------------------|----------------------------------------------|------------|
| 0.00               | 1.000                  | 4.93                              | 3.11                             | 0.000619                            | 1                                            | Compliance |

=====End of Report=====