# RF Exposure Report

| | |
|---|---|
| FCC ID: | 2AR2STAB6309 |
| Applicant: | MMD Hong Kong Holding Limited |
| Address: | Units 1208-11, 12th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong |
| Manufacturer: | MMD Hong Kong Holding Limited |
| Address: | Units 1208-11, 12th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong |
| Product: | Soundbar speaker |
| Brand(s): | PHILIPS or |
| Test Model(s): | TAB6309/37 |
| Series Model(s): | See Section 2.1 |
| Test Date: | Apr. 14, 2024 ~ Apr. 22, 2024 |
| Issued Date: | Mar. 20, 2025 |
| Issued By: | Hwa-Hsing (Dongguan) Testing Co., Ltd. |
| Address: | No.101, Building N1, Yuyuan 2 Road, Yuyuan Industrial Park, HuangJiang Town, Dongguan City, People's Republic of China |
| Test Firm Registration No.: | 915896 |
| Designation No.: | CN1255 |
| Standards: | FCC Part 2 (Section 2.1091)<br>KDB 447498 D01<br>IEEE C95.1 |

The above equipment has been tested by **Hwa-Hsing (Dongguan) Testing Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Wendy Lee

*Wendy Lee*

Reviewed by : Sye Yang

*Sye Yang*

Approved by : Scott He

*Scott He*

HWA-HSING (DONGGUAN) TESTING CO., LTD. LYNS-TCi

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Test Report No.: 2411180519-SE-US-01

**Release control record**

| Issue No. | Reason for change | Date issued |
|---|---|---|
| 24032702-SE-US-01 | Original Release | May. 08, 2024 |
| 2411180519-SE-US-01 | Based on the above report 24032702-SE-US-01 to add additional model, after engineering evaluation, no additional testing is required. | Mar. 20, 2025 |

# 1 General Information

## 1.1 General Description of EUT

| | |
|---|---|
| Product | Soundbar speaker |
| Sample No. | HS2404090003 |
| Test Model(s) | TAB6309/37 |
| Series Model(s) | TAB6309, TAB6309/10, TAB6309/yy, TAB6200/37, TAB6200, TAB6200/10, TAB6200/yy (yy=00-99 or blank, for country code) |
| Status of EUT | Engineering Prototype |
| Power Supply Rating | DC 24V 1.5A |
| Modulation Type | BDR/EDR: GFSK, π/4 DQPSK, 8DPSK for FHSS<br>BLE: GFSK for DTS |
| Transfer Rate | BDR/EDR: 1/2/3Mbps<br>BLE: 1/2Mbps |
| Operating Frequency | 2402 ~ 2480MHz |
| Number of Channel | BDR/EDR: 79<br>BLE: 40 |
| Maximum Output Power | ATS2835P：BDR/EDR: 3.51dBm (Average)<br>ATS2835P：BLE: 2.74dBm (Average)<br>JL7012C6：BDR/EDR: 2.07dBm (Average)<br>JL7012C6：BLE: 2.98dBm (Average) |
| Antenna Type | FPC Antenna |
| Antenna Gain | ATS2835P: 3.27 dBi Gain<br>JL7012C6: 2.55 dBi Gain |
| Antenna Connector | N/A |
| Accessory Device | Remote Control×1 |
| Data Cable Supplied | AC Line: 140cm Non-shielded, Detachable<br>Adapter: 220cm Non-shielded, Detachable |

Note:

1. Please refer to the EUT photo document (Reference No.:2411180519-01-01&02) for detailed product photo.
2. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.
   Hwa-Hsing (Dongguan) Testing Co., Ltd. is not responsible for the accuracy of the information provided by the manufacturer.
3. Model difference: These models are only different from model name and color for trade purpose.

## 2 RF exposure limit

Limits for maximum permissible exposure (MPE)

| Limits for general population / uncontrolled exposure | | | | |
|---|---|---|---|---|
| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density ($mW/cm^2$) | Average time (minutes) |
| 300-1500 | … | … | F/1500 | 30 |
| 1500-100,000 | … | … | 1.0 | 30 |
| Note: F = Frequency in MHz | | | | |

### 2.1 MPE calculation formula

$Pd = (Pout*G) / (4*pi*r^2)$

*Where:*

Pd = power density in $mW/cm^2$

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

**Classification:**

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

## 3 Calculation result of maximum conducted power

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

| Function | Frequency (MHz) | Antenna Gain (dBi) | Antenna Type | Transmit and Receive Chain | Maximum AVG Power |
|---|---|---|---|---|---|
| BDR/EDR（ATS2835P） | 2402-2480 | 3.27 | FPC | 1TX,1RX | 3.51dBm |
| BLE (JL7012C6) | 2402-2480 | 2.55 | FPC | 1TX,1RX | 2.98dBm |

| Frequency (MHz) | Max power (mW) | Antenna gain (dBi) | Distance (cm) | Power density ($mW/cm^2$) | Limit ($mW/cm^2$) |
|---|---|---|---|---|---|
| 2402-2480（ATS2835P） | 2.2439 | 3.27 | 20 | 0.00948 | 1.0 |
| 2402-2480 (JL7012C6) | 1.9861 | 2.55 | 20 | 0.000711 | 1.0 |

**Conclusion:**

Therefore, the worst-case situation is 0.00948 $mW/cm^2$, which is less than “1”. This confirmed that the device compliance with FCC 1.1310 MPE limit.

**Appendix – Information on the Testing Laboratories**

We, Hwa-Hsing (Dongguan) Testing Co., Ltd., A global provider of TESTING and CERTIFICATION services for consumer products, electronic products and wireless information technology products. Adhering to the core values “HONEST and TRUSTWORTHY, OBJECTIVE and IMPARTIALITY, RIGOROUS and AFFICIENT”, commitment to provide professional, perfect and efficient comprehensive ONE-STOP solution of TESTING and CERTIFICATION services for Manufacturers, Buyers, Traders, Brands, Retailers. Assist client to better manage risk, protect their brands, reduce costs and cut time to over 150 markets in global. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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