

# FCC RF EXPOSURE REPORT

## FCC ID: 2AR2STAFB1RE

**Project No.** : 2112C091  
**Equipment** : Soundbar speaker  
**Brand Name** :   
**Test Model** : PHILIPS or TAFB1RE/37  
**Series Model** : TAFB1, TAFB1RE, TAFB1RE/10, TAFB1/10, TAFB1/37, TAFB1/98, TAFB1RE/98, TAFB1xx/yy (x=A-Z or blank, yy=00-99 or blank for country code)  
**Applicant** : MMD Hong Kong Holding Limited  
**Address** : Unit 1006, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong  
**Manufacturer** : MMD Hong Kong Holding Limited  
**Address** : Unit 1006, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong  
**Factory** : Zhong Shan City Richsound Electronic Industrial Ltd.  
**Address** : No.16, East Shagang Road, Gangkou, Zhongshan, Guangdong, China  
**Date of Receipt** : Dec. 17, 2021  
**Date of Test** : Dec. 17, 2021 ~ Mar. 04, 2022  
**Issued Date** : Mar. 21, 2022  
**Report Version** : R00  
**Test Sample** : Engineering Sample No.: DG2021121618  
**Standard(s)** : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091  
FCC Title 47 Part 2.1091

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Vincent Tan

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Chay Cai

Approved by : Chay Cai



TESTING CERT #5123.02

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**REPORT ISSUED HISTORY**

| Report No.          | Version | Description      | Issued Date   | Note  |
|---------------------|---------|------------------|---------------|-------|
| BTL-FCCP-6-2112C091 | R00     | Original Report. | Mar. 21, 2022 | Valid |

## 1. TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.

BTL's Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

## 2. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna:

For BT:

| Ant. | Manufacturer                           | P/N           | Antenna Type | Connector | Gain (dBi) |
|------|----------------------------------------|---------------|--------------|-----------|------------|
| 1    | Yuan de Electronics (Shenzhen) Co. LTD | 136-B918X-10A | FPC          | N/A       | 2.44       |

Note: The antenna gain is provided by the manufacturer.

For WLAN 2.4GHz:

| Ant. | Manufacturer                           | P/N           | Antenna Type | Connector | Gain (dBi) |
|------|----------------------------------------|---------------|--------------|-----------|------------|
| 1    | Yuan de Electronics (Shenzhen) Co. LTD | 136-B918X-20A | FPC          | N/A       | 2.42       |

Note: The antenna gain is provided by the manufacturer.

For RLAN 5GHz:

| Ant. | Manufacturer                           | P/N           | Antenna Type | Connector | Gain (dBi) |
|------|----------------------------------------|---------------|--------------|-----------|------------|
| 1    | Yuan de Electronics (Shenzhen) Co. LTD | 136-B918X-30A | FPC          | N/A       | 4.39       |

Note: The antenna gain is provided by the manufacturer.

For 5.8G SRD:

| Ant. | Manufacturer                           | P/N           | Antenna Type | Connector | Gain (dBi) | Note |
|------|----------------------------------------|---------------|--------------|-----------|------------|------|
| 1    | Yuan de Electronics (Shenzhen) Co. LTD | 136-B918X-40A | FPC          | N/A       | 1.63       | TX   |
| 2    | Yuan de Electronics (Shenzhen) Co. LTD | 136-B918X-50A | FPC          | N/A       | 4.16       | RX   |

Note: The antenna gain is provided by the manufacturer.

### 3. TEST RESULTS

| Tune up tolerance(dBm) |        |        |          |
|------------------------|--------|--------|----------|
| BT                     | 2.4GHz | 5GHz   | 5.8G SRD |
| ≤1.50                  | ≤15.00 | ≤11.50 | ≤10.00   |

For BT:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Peak Output Power (dBm) | Max. Peak Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|------------------------------|-----------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 2.44               | 1.7539                 | 1.50                         | 1.4125                      | 0.00049                                 | 1                                                | Complies    |

For 2.4GHz:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 2.42               | 1.7458                 | 15.00                   | 31.6228                | 0.01099                                 | 1                                                | Complies    |

For 5GHz:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 4.39               | 2.7479                 | 11.50                   | 14.1254                | 0.00773                                 | 1                                                | Complies    |

For 5.8G SRD:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 1.63               | 1.4555                 | 10.00                   | 10.0000                | 0.00290                                 | 1                                                | Complies    |

**For the max simultaneous transmission MPE:**

| Ratio   |         |          | Total   | Limit of Ratio | Test Result |
|---------|---------|----------|---------|----------------|-------------|
| BT      | 2.4GHz  | 5.8G SRD |         |                |             |
| 0.00049 | 0.01099 | 0.00290  | 0.01438 | 1              | Complies    |

Note: The calculated distance is 20 cm.  
Output power including tune up tolerance.

**End of Test Report**