# RF EXPOSURE REPORT

| | |
|---|---|
| Applicant | Zound Industries International AB |
| Address | Centralplan 15 SE-111 20 Stockholm Sweden |

| | |
|---|---|
| Manufacturer or Supplier | Zound Industries International AB |
| Address | Centralplan 15 SE-111 20 Stockholm Sweden |
| Product | WIRELESS HOME BLUETOOTH SPEAKER |
| Brand Name | Marshall |
| Model | STANMORE III |
| Additional Model & Model Difference | N/A |
| Date of tests | Sep. 17, 2021 ~ Oct. 29, 2021 |

☒ **FCC Part 2 (Section 2.1091)**

☒ **KDB 447498 D01**

☒ **IEEE C95.1**

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

| Tested by Eric Fang<br>Project Engineer / EMC Department | Approved by Glyn He<br>Assistant Manager / EMC Department |
|---|---|
|  |  <br>Date: Nov. 10, 2021 |

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# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| FM2105WDG0163 | Original release | Nov. 10, 2021 |

# 1. CERTIFICATION

| | |
|---|---|
| **FCC ID:** | 2AAGF-STANMOREIII |
| **PRODUCT:** | WIRELESS HOME BLUETOOTH SPEAKER |
| **BRAND NAME:** | Marshall |
| **MODEL NO.:** | STANMORE III |
| **ADDITIONAL NO.:** | N/A |
| **APPLICANT:** | Zound Industries International AB |
| **STANDARDS:** | Centralplan 15 SE-111 20 Stockholm Sweden |
| | KDB 447498 D01 |
| | IEEE C95.1 |

# 2. RF EXPOSURE LIMIT

## LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| FREQUENCY RANGE (MHz) | ELECTRIC FIELD STRENGTH (V/m) | MAGNETIC FIELD STRENGTH (A/m) | POWER DENSITY ($mW/cm^2$) | AVERAGE TIME (minutes) |
|---|---|---|---|---|
| **LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE** | | | | |
| 300-1500 | … | … | F/1500 | 30 |
| 1500-100,000 | … | … | 1.0 | 30 |

F = Frequency in MHz

# 3. 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

# 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

# 5. ANTENNA GAIN

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

| Transmitter Circuit | Peak Gain (dBi) | Antenna Type |
|---|---|---|
| Chain 0 | 3.94 | PCB Antenna |

# 6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The tuned conducted Average Power (declared by client)

| Mode | Frequency (MHz) | Target Power (dBm) | Tolerance (dBm) | Lower Tolerance (dBm) | Upper Tolerance (dBm) |
|---|---|---|---|---|---|
| GFSK | 2402-2480 | 6 | +-2 | 4 | 8 |
| 8DPSK | 2402-2480 | 6 | +-2 | 4 | 8 |
| BT-LE 1M | 2402-2480 | 3 | +-2 | 1 | 5 |
| BT-LE 2M | 2402-2480 | 3 | +-2 | 1 | 5 |

The measured conducted Average Power

| Mode | Frequency (MHz) | Averaged Power (dBm) |
|---|---|---|
| GFSK | 2480 | 6.21 |
| 8DPSK | 2402 | 6.97 |
| BT-LE 1M | 2480 | 3.44 |
| BT-LE 2M | 2480 | 3.31 |

| FREQUENCY BAND (MHz) | MAX AVERAGE POWER (dBm) | ANTENNA GAIN (dBi) | DISTANCE (cm) | POWER DENSITY ($mW/cm^2$) | LIMIT ($mW/cm^2$) |
|---|---|---|---|---|---|
| 2402-2480 | 8 | 3.94 | 20 | 0.00311 | 1.0 |

**--- END ---**