

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	<i>Marshall</i>
Model	WOBURN III
Additional Model & Model Difference	N/A
Date of tests	Oct. 20, 2021 ~ Oct. 21, 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 Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	

Date: Nov. 05, 2021

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Test Report No.: FM2104WDG0401

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM2104WDG0401	Original release	Nov. 05, 2021

1. CERTIFICATION

FCC ID:	2AAGF-WOBURNIII
PRODUCT:	WIRELESS HOME BLUETOOTH SPEAKER
BRAND NAME:	<i>Marshall</i>
MODEL NO.:	WOBURN 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

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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	3.45	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	2	+2	0	4
8DPSK	2402-2480	2	+2	0	4
BT-LE 1M	2402-2480	5	+2	3	7
BT-LE 2M	2402-2480	5	+2	3	7

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
GFSK	2480	2.23
8DPSK	2480	3.38
BT-LE 1M	2402	6.01
BT-LE 2M	2402	5.89

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
2402-2480	7	3.45	20	0.002207	1.0

--- END ---