RF Exposure Report

FCC ID:	2BBQK-BRLEY450
Applicant:	Marshall Group AB
Address:	Centralplan 15 111 20 Stockholm Sweden
Manufacturer:	Marshall Group AB
Address:	Centralplan 15 111 20 Stockholm Sweden
Product(s):	PARTY SPEAKER
Brand:	Marshall, Marshall
Test Model(s):	BROMLEY 450
Series Model(s):	N/A
Test Date:	Jun. 04, 2025 ~ Jul. 01, 2025
Issued Date:	Jul. 02, 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
Standards:	FCC Part 2(Section 2.1093) KDB 447498 D01 General RF Exposure Guidance v06

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 : Nature Lee — *Nature 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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Release control record

Issue No.	Reason for change	Date Issued
25052102-SE-US-01	Original Release	Jul. 02, 2025

1 General Information

1.1 General Description of EUT

Product(s)	PARTY SPEAKER
Test Model(s)	BROMLEY 450
Sample No.	HS25052102-S002, HS25052102-S003
Series Model(s)	N/A
Status of EUT	Engineering Prototype
Power Supply Rating	INPUT: 100-240V~, 50/60Hz, 120W or DC 10.8V from power bank (Battery)
Modulation Type	GFSK, π/4 DQPSK, 8DPSK for FHSS GFSK for DTS
Transfer Rate	1Mbps, 2Mbps, 3Mbps
Operating Frequency	2402 ~ 2480MHz
Number of Channel	79 for FHSS 40 for DTS 1Mbps 37 for DTS 2Mbps
Maximum Output Power (Peak)	9.64dBm for FHSS 5.89dBm for DTS
Antenna Type and Antenna Gain	PCB Antenna, 3.29dBi
Accessory Device	N/A
Cable Supplied	AC Cable, Unshielded, 200cm

Note:

1. Please refer to the EUT photo document (Reference No.: 25052102-01&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.
3. Hwa-Hsing (Dongguan) Testing Co., Ltd. is not responsible for the accuracy of the information provided by the manufacturer.

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 SAR test exclusion thresholds

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

Function	Transmit and Receive Chain	Antenna Gain (dBi)	Maximum Power		Distance (cm)	Power density (mW/cm^2)	Limit (mW/cm^2)
			(dBm)	(mW)			
BT	1TX,1RX	3.29	9.64	9.20	20	0.003906	1.0
BLE	1TX,1RX	3.29	5.89	3.88	20	0.001647	1.0

Note: The above wireless function can not be transmission simultaneous.

Conclusion:

Therefore, the worst-case situation is 0.003906 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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