RF Exposure Report

FCC ID:	ESX-BMAX10
Applicant:	Guangzhou Panyu Juda Car Audio Equipment Co., Ltd.
Address:	NO.5 Building, No.139, Zhouxing Street, Dongchong Town, Nansha District, Guangzhou City, Guangdong Province, China
Manufacturer:	Guangzhou Panyu Juda Car Audio Equipment Co., Ltd.
Address:	NO.5 Building, No.139, Zhouxing Street, Dongchong Town, Nansha District, Guangzhou City, Guangdong Province, China
Product(s):	WIRELESS SPEAKER SYSTEM
Brand:	Panasonic
Test Model(s):	SC-BMAX10
Series Model(s):	N/A
Test Date:	Apr. 10, 2024~ May. 22, 2024
Issued Date:	Jul. 04, 2024
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 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 : Nature Lee
Nature Lee

Reviewed by : Dragon Long
Dragon Long

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
24032703-SE-US-01	Original Release	Jul. 04, 2024

1 General Information

1.1 General Description of EUT

Product	WIRELESS SPEAKER SYSTEM
Brand	Panasonic
Sample No.	HS2403290005/ HS2403290006
Test Model(s)	SC-BMAX10
Series Model(s)	N/A
Status of EUT	Engineering Prototype
Power Supply Rating	110-240V~ 50/60Hz
Modulation Type	GFSK, π/4 DQPSK, 8DPSK for FHSS
Transfer Rate	1/2/3Mbps
Operating Frequency	2402 ~ 2480MHz
Number of Channel	79
Output Power (Max Average)	5.63dBm
Antenna Type and Antenna Gain	PCB Antenna, 2.31dBi Gain
Antenna Connector	N/A
Accessory Device	N/A
Data Cable Supplied	AC Cable: 150cm Non-shielded, Detachable Optical Cable: 110cm Non-shielded, Detachable

Note:

1. Please refer to the EUT photo document (Reference No.: 24032703-01&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.

2 RF exposure limit

The corresponding SAR Exclusion Threshold condition, listed below:

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,16 where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, the distance of 5 mm is applied to determine SAR test exclusion.

2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:
a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·(f(MHz)/150)] mW, at 100MHz to 1500 MHz
b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz

3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by [1 + log(100/f(MHz))] for test separation distances > 50 mm and < 200 mm.
b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by ½ for test separation distances ≤ 50 mm.
c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

3 Calculation

The antenna of this product, under normal use condition, is at less than 5mm away from the body of the user.

4 Calculation SAR test exclusion thresholds

The measured of Maximum RF Conduted Power

Mode	Frequency (MHz)	Maximum RF Power (dBm)
BT GFSK	2402-2480	5.63
BT 8DPSK	2402-2480	2.75

The tuned Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
BT GFSK	2402-2480	5	±2	3	7
BT 8DPSK	2402-2480	2	±2	0	4

SAR Test Exclusion Thresholds

Frequency (MHz)	Maximum source-based time averaged conducted output power(dBm)	Minimum separation distance (mm)	Result of Eq. 1	Limit for 1-g SAR	Limit for 10-g extremity SAR	Verdict
2402-2480	7	5	1.5731	3.0	7.5	Exempt from SAR

Conclusion： Therefore this device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.

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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