

RF Exposure Report

FCC ID: 2AGJ417U5K

Applicant: Specialty Technologies, LLC

Address: 340 Victoria Rd Youngstown Ohio 44515, USA

Manufacturer: Specialty Technologies, LLC

Address: 340 Victoria Rd Youngstown Ohio 44515, USA

Product: Powered Subwoofer

Brand(s): SVS

Test Model(s): SB17-Ultra Evolution, PB17-Ultra Evolution, SB-5000 Evolution,
PB-5000 EvolutionSeries Model(s): PB17-Ultra R|Evolution, SB17-Ultra R|Evolution, SB-5000
R|Evolution, PB-5000 R|Evolution

Test Date: Mar. 12, 2024~ Jun. 02, 2024

Issued Date: Aug. 05, 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

Designation No.: CN1255

Standards: FCC Part 2 (Section 2.1091)
KDB 447498 D01

IEEE C95.1

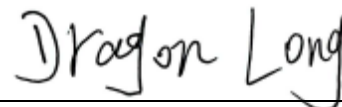
The above equipment has been tested by **Hwa-Hsing (Dongguan) Testing Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :



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Reviewed by :



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Approved by :



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Ver. 1.5

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Test Report No.: 2407270190-SE-US-01

Release control record

| Issue No. | Reason for change | Date issued |
|---------------------|--|---------------|
| 23121406-SE-US-01 | Original Release | Jul. 09, 2024 |
| 2407270190-SE-US-01 | Based on the above report 23121406-SE-CA-01 to 1. Add the models: PB17-Ultra R Evolution, SB17-Ultra R Evolution, SB-5000 R Evolution, PB-5000 R Evolution. After engineering evaluation, no additional testing is required. | Aug. 05, 2024 |

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1 General Information**1.1 General Description of EUT**

| | |
|----------------------|--|
| Product | Powered Subwoofer |
| Sample No. | HS2403120017, HS2403120018, HS2403120019, HS2403120020 |
| Test Model(s) | SB17-Ultra Evolution, PB17-Ultra Evolution, SB-5000 Evolution, PB-5000 Evolution |
| Series Model(s) | PB17-Ultra R Evolution, SB17-Ultra R Evolution, SB-5000 R Evolution, PB-5000 R Evolution |
| Status of EUT | Engineering Prototype |
| Power Supply Rating | AC 100-240V 50/60Hz 15A |
| Modulation Type | GFSK for DTS |
| Transfer Rate | 1 Mbps, 2Mbps |
| Operating Frequency | 2402 ~ 2480MHz |
| Number of Channel | 40 |
| Maximum Output Power | 6.06dBm (Average) |
| Antenna Type | Wire Antenna |
| Antenna Gain | 2.85dBi Gain |
| Antenna Connector | N/A |
| Accessory Device | N/A |
| Data Cable Supplied | AC Cable: 180cm Non-shielded, Detachable |

Note:

1. Please refer to the EUT photo document (Reference No.: 2407270190-01&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. Model difference: All models are identical with each other except for model name, software, appearance, size of loud speaker and size of the main unit.

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/cm²

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.

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3 Calculation result of maximum conducted power

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

| Function | Frequency (MHz) | Antenna Gain (dBi) | Antenna Type | Transmit and Receive Chain | Maximum AVG Power |
|----------|-----------------|--------------------|--------------|----------------------------|-------------------|
| BLE | 2402-2480 | 2.85 | Dipole | 1TX,1RX | 6.06dBm |

| Frequency (MHz) | Max power (mW) | Antenna gain (dBi) | Distance (cm) | Power density (mW/cm ²) | Limit (mW/cm ²) |
|-----------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2402-2480 | 4.0365 | 2.85 | 20 | 0.001548 | 1.0 |

Conclusion:

Therefore, the worst-case situation is 0.001548 mW/cm², which is less than "1". This confirmed that the device compliance with FCC 1.1310 MPE limit.

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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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