



**SGS-CSTC Standards Technical  
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Report No.: SHEM120900138310

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## ***FCC MPE REPORT***

<b>Application No.:</b>	SHEM1209001383RF
<b>Applicant:</b>	Hansong (Nanjing) Technology Ltd.
<b>FCC ID:</b>	XCO-SUBWOOFER
<b>IC ID:</b>	7756A- SUBWOOFER
<b>Equipment Under Test (EUT):</b>	
<b>NOTE:</b> The following sample(s) submitted was/were identified on behalf of the client as	
Product Name:	Soundtrack system
Brand Name:	Paradigm
Model:	BASS SOUNDTRACK
Added Model:	N/A
<b>Standards:</b>	FCC Rules 47 CFR §2.1091 & FCC OET Bulletin 65 supplement C
<b>Date of Receipt:</b>	September 21, 2012
<b>Date of Test:</b>	October 13, 2012
<b>Date of Issue:</b>	October 31, 2012
<b>Test Result :</b>	<b>PASS*</b>

\* In the configuration tested, the EUT complied with the standards specified above.

**Tony Wu**

**E&E Section Manager**

**SGS-CSTC (Shanghai) Co., Ltd.**

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

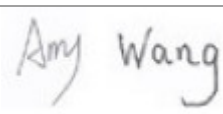

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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## 2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00	/	October 31, 2012	/	Original

Authorized for issue by:				
Engineer		Zenger Zhang		
		Print Name		
Clerk		Amy Wang		
		Print Name		
Reviewer		Jim Xu		
		Print Name		



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## 4 General Information

### 4.1 Client Information

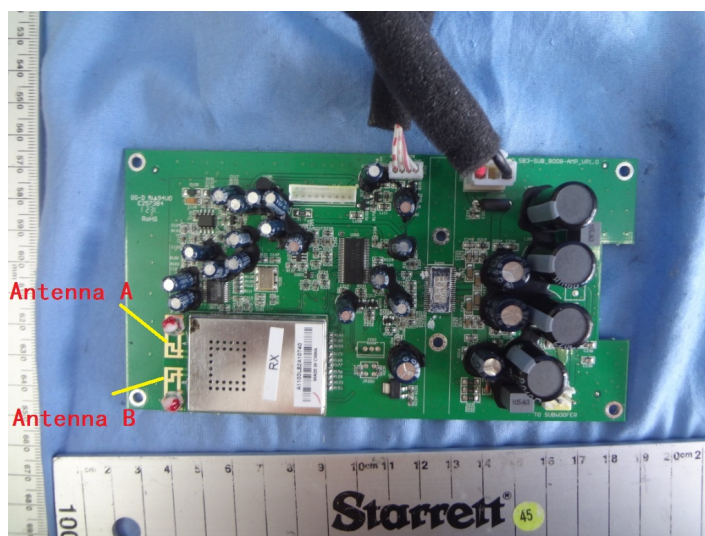
<b>Applicant:</b>	Hansong (Nanjing) Technology Ltd.
<b>Address of Applicant:</b>	8th Kangping Road, Jiangning Economy and Technology Development Zone, Nanjing, 211106, China
<b>Manufacturer:</b>	Not supplied by the client
<b>Address of Manufacturer:</b>	Not supplied by the client
<b>Factory:</b>	Not supplied by the client

### 4.2 General Description of EUT (Equipment Under Test)

<b>Product Name</b>	Soundtrack system
<b>Brand Name:</b>	Paradigm
<b>Model No:</b>	BASS SOUNDTRACK
<b>Added Model:</b>	N/A
<b>Product Description:</b>	A contain a Wi-Fi modular mobile device

### 4.3 Technical Specifications:

<b>Operation Frequency:</b>	2412MHz~2464MHz
<b>Modulation Technique:</b>	QPSK
<b>TPC Support:</b>	No
<b>DFS Support:</b>	No
<b>Number of Channel:</b>	3 channel(Low:2412MHz; Middle:2438MHz; High:2464MHz)
<b>Power Supply:</b>	100V~120V AC or 220V~240V AC.
<b>Antenna Type</b>	Integral
<b>Antenna Gain</b>	1.5dBi Remark: the RF modular contain two antenna, but the two antenna couldn't simultaneous working.



#### 4.4 Accessories of Product:

<b>EUT Input:</b>	Bass Soundtrack: 100V~120V AC or 220V~240V AC,		
<b>AC Cable (For Bass Soundtrack):</b>	Manufacturer:	N/A	
	Model No.:	N/A	
	Rated Input:	AC 100V-240V	
	Cable Type:	AC port:	180 cm Length



## 4.5 Test Location

All tests were performed at SGS E&E EMC lab

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.  
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## 4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. Date of expiry: 2014-07-26.

- **FCC – Registration No.: 402683**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683, Expiry Date: 2015-02-22.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A. Expiry Date: 2014-09-20.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3868 and C-4336 respectively. Date of Registration: 2012-05-29. Date of Expiry: 2015-05-28.



## 5 Test Standards and Limits

The Equipment under Test (EUT) has been tested at SGS's (own or subcontracted) laboratories.

The following table summarizes the specific reference documents such as harmonized standards or test specifications which were used for testing as SGS's (own or subcontracted) laboratories.

Identity	Document Title	Version
FCC OET Bulletin 65 supplement C	Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields	2001

In the configuration tested, the EUT complied with the standards specified above.

FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

### (B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time $ E ^2$ , $ H ^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz \*Plane-wave equivalent power density

## 6 Summary of Results

Frequency Band	Limit (mW/cm <sup>2</sup> )	Result (mW/cm <sup>2</sup> )	Verdict
2412-2464MHz	1.0	0.012	Pass

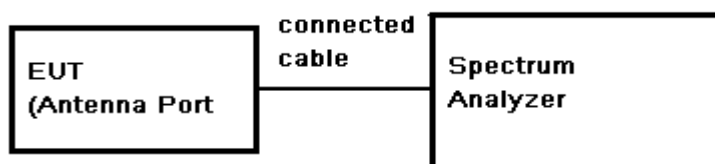
## 7 Measurement and Calculation

### 7.1 Maximum transmit power

**Test Date:** Oct 13, 2012

**EUT Operation:** Test in fixing frequency operating mode at lowest, middle and highest frequency.

**Test Configuration:**



**Test Results record:**

Test mode	Channel	Reading Peak Power (dBm)	Cable Loss (dB)	Output Peak Power (dBm)	Output Peak Power (mW)	Peak Power Limit (dBm)	Result
Antenna A	Low	15.69	0.5	16.19	41.59	30	PASS
	Mid	15.85	0.5	16.35	43.15	30	PASS
	High	16.02	0.5	16.52	44.87	30	PASS
Antenna B	Low	16.47	0.5	16.97	49.77	30	PASS
	Mid	16.54	0.5	17.04	50.58	30	PASS
	High	16.69	0.5	17.19	52.36	30	PASS



## 7.2 SAR Calculation

**Test Results:** MPE Limit Calculation: the EUT's operating frequencies 2412MHz to 2464MHz; the highest power is High channel(2464MHz). The Measured maximum radiated power is 16.69 dBm(52.36mW).with maximum peak gain is1.5dBi. Duty factor is 100%

Equation from page 18 of OET 65, Edition 97-01

$$S = PG * \text{Duty factor} / 4\pi R^2$$

P =Power Input to antenna (52.36mWatts)

G =Antenna Gain (1.413numeric)

R = distance to the center of radiation of antenna (in meter) = 20cm

$$S = (52.36 * 1.413 * 1) / (4\pi * 20^2) = 0.012\text{mW/cm}^2$$

$$\text{MPE limit} = 1.0\text{mW/cm}^2$$

Note:

1)  $P \text{ (Watts)} = 10^{\frac{dBm}{10}} / 1000$

2)  $G \text{ (Antenna gain in numeric)} = 10^{\text{(Antenna gain in dBi)} / 10}$



## **8 EUT Constructional Details**

Refer to the <Appendix F Bass Soundtrack\_External Photos > & <Appendix G Bass Soundtrack\_Internal Photos>.

***THE END OF REPORT***