



# Test Report

**Applicant:** ENPING SANGE ELECTRONIC CO., LTD

**Address of** No.12 ,F District ,Individual & Foreign Capital Industry Zone,

**Applicant:** Enping City, Guangdong Province, P. R. China

**Equipment Under Test (EUT):**

EUT Name: Wireless Microphone

Model No.: BM-5

Serial No.: Not supplied by client

**Standards:** FCC PART15 SUBPART C: 2008

**Date of Receipt:** Oct 25, 2009

**Date of Test:** Nov. 3 - 5, 2009

**Date of Issue:** Nov. 9, 2009

**Test Result :** **PASS\***

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

Authorized Signature:

  
Henly.xie / Manager

This report refers to the General Conditions for Inspection and Testing Services, printed overleaf

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. 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.

The test report prepare by:

Guangzhou Huesent Testing Service Co., Ltd.

No.91, Dongguanzhuang Road, Guangzhou, China.

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<http://www.hst.org.cn> E-mail:hst@hst.org.cn



FCCID: XVJBM-5

Report Number: HST200908-1642-FCC

## 2. Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission	FCC PART 15, SUBPART C: 2008	ANSI C63.4:2003	15.249 a) table	PASS
Occupied Bandwidth	FCC PART 15, SUBPART C: 2008	ANSI C63.4:2003	902M-928MHz	PASS



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## 4. General Information

### 4.1 Client Information

Applicant: ENPING SANGE ELECTRONIC CO., LTD  
Address of Applicant: No.12 ,F District ,Individual & Foreign Capital Industry Zone, Enping City, Guangdong Province, P. R. China

### 4.2 General Description of E.U.T.

EUT Name: Wireless Microphone  
Item No.: BM-5  
Serial No.: Not supplied by client

### 4.3 Details of E.U.T.

Power Supply: 1.5Vdc (1 x AAA battery)  
Power Cord: NA

### 4.4 Description of Support Units

The EUT has been tested independently.

### 4.5 Standards Applicable for Testing

The standard used was FCC PART 15, SUBPART C, PART 15.249.

### 4.6 Test Location

All tests were subcontract to the laboratory following:

CEPREI (headquarters) lab.

No.110, Dongguanzhuang Road, Tianhe District, Guangzhou city, Guangdong Province, P.R. China  
Tel: 86-20-87237178    Fax: 86-20-87236171    Email: [emc@ceprei.biz](mailto:emc@ceprei.biz)  
FCC- Registration No: 258518 on Mar 25, 2005

### 4.8 Deviation from Standards

None.

### 4.9 Abnormalities from Standard Conditions

None.



## 5. Equipments Used during Test

No.	Test item.	Name of Equipment's	Model/Type	Last Calibrated Date
1	CE	EMI receiver	R&S ESCS 30	2009-6-8
2	CE	LISN	R&S ESH3-Z6	2009-6-8
3	CE	Shielded room	Lindgren 3.6*2.5*3	2009-6-8
4	RE	EMI RECEIVER	R&S ESU	2009-6-8
5	RE	Anechoic chamber	Lindgren FACT-4	2009-6-8
6	RE	Antenna	ETS•Lindgren 3142B	2009-6-8

Note:  
/

## 6. Test Results

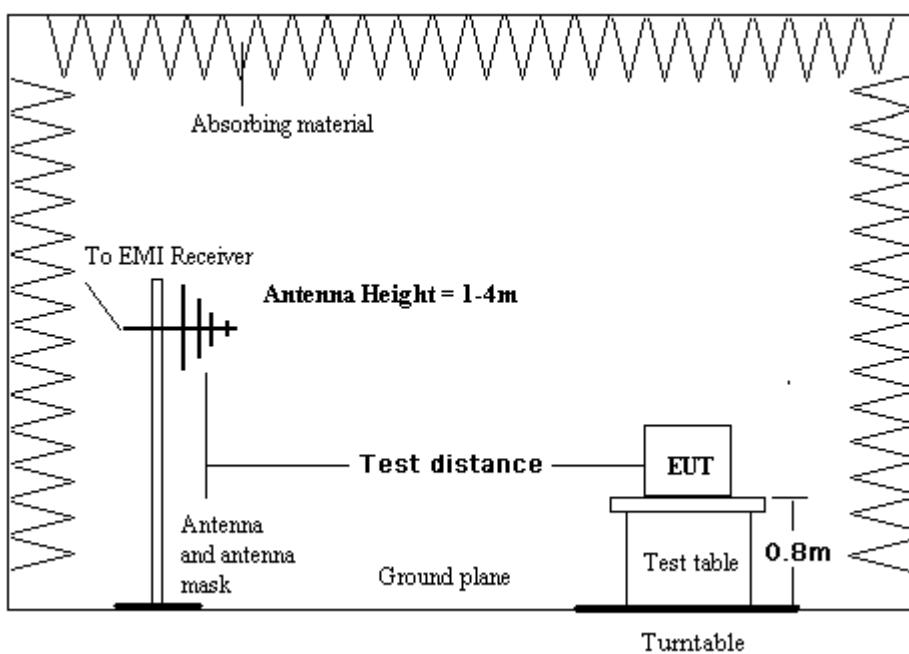
### 6.1 RADIATION INTERFERENCE

Test Requirement: FCC Part15.249, a)  
Test Method: ANSI C63.4  
Detector: Peak for pre-scan (The resolution bandwidth was 100KHz and the video bandwidth was 300KHz up to 1.0GHz and 1.0MHz with a video BW of 3.0MHz above 1.0GHz.)  
Average detector if maximised peak within 6dB of limit  
Test Date: Nov. 3, 2009

#### 6.1.1 E.U.T. Operation

Operating Environment:  
Temperature: 25°C      Humidity:55% RH      Atmospheric Pressure: 1020mBar  
EUT Operation:  
Test the EUT work normally in on mode during the whole test.

#### 6.1.2 Test Setup



#### 6.1.3 Test Procedure

##### ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES:

An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical polarities.



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#### 6.1.4 Measurement Data

##### Average measurement of carrier

Frequency	Level		Transducer	Limit	Min. Margin
MHz	dBuV/m		dB	dBuV/m	dB
	V	H			
902.1 (L)	80.3	73.9	-2.6	94dB (50mV/m)	13.7
915.0 (M)	81.1	76.8	-2.6		12.9
927.9 (H)	82.2	78.3	-2.6		11.8

##### Average measurement of harmonics and spurious emission at lowest channel 902.1MHz

Frequency	Level		Transducer	Limit	Min. Margin
MHz	dBuV/m		dB	dBuV/m	dB
	V	H			
2 <sup>nd</sup> 1804.2	50.6	43.5	+2.6	54dB 500μV/m	3.4
3 <sup>rd</sup> 2706.3	51.3	43.8	+2.8		2.7
4 <sup>th</sup> 3608.4	52.4	44.2	+3.3		1.6
5 <sup>th</sup> 4510.5	52.6	45.1	+4.4		1.4
6 <sup>th</sup> 5412.6	51.5	42.6	+5.3		2.5
7 <sup>th</sup> 6314.7	53.2	46.0	+5.8		0.8
above	<44	<44			NA

##### Average measurement of harmonics and spurious emission at middle channel 915.0MHz

Frequency	Level		Transducer	Limit	Min. Margin
MHz	dBuV/m		dB	dBuV/m	dB
	V	H			
2 <sup>nd</sup> 1830.0	49.8	43.3	+2.6	54dB 500μV/m	4.2
3 <sup>rd</sup> 2745.0	52.2	44.7	+2.8		1.8
4 <sup>th</sup> 3660.0	52.5	43.9	+3.3		1.5
5 <sup>th</sup> 4575.0	51.7	43.1	+4.4		2.3
6 <sup>th</sup> 5490.0	49.2	41.8	+5.3		4.8
7 <sup>th</sup> 6405.0	53.4	46.5	+5.8		0.6
above	<44	<44			NA

##### Average measurement of harmonics and spurious emission at highest channel 927.9MHz

Frequency	Level		Transducer	Limit	Min. Margin
MHz	dBuV/m		dB	dBuV/m	dB
	V	H			
2 <sup>nd</sup> 1855.8	51.5	42.7	+2.6	54dB 500μV/m	2.5
3 <sup>rd</sup> 2783.7	52.8	44.2	+2.8		1.2
4 <sup>th</sup> 3711.6	52.3	43.2	+3.3		1.7
5 <sup>th</sup> 4639.5	52.0	44.4	+4.4		2.0
6 <sup>th</sup> 5567.4	50.6	43.6	+5.3		3.4
7 <sup>th</sup> 6495.3	53.1	45.6	+5.8		0.9
above	<44	<44			NA

Note: The transducer factor = antenna factor + cable loss - preamplifier.

The Level = Read level + transducer factor.



## 6.1 Occupied Bandwidth

Test Requirement: FCC Part15.249,  
Test Method: ANSI C63.4  
Detector: Peak for scan (The resolution bandwidth was 1kHz and the video bandwidth was 1kHz, span was 500kHz)  
maximised peak hold  
Test Date: Nov. 4, 2009

### 6.1.1 E.U.T. Operation

Operating Environment:  
Temperature: 25°C      Humidity:55% RH      Atmospheric Pressure: 1020mBar  
EUT Operation:  
Test the EUT work normally in on mode during the whole test.

### 6.1.2 Test Setup

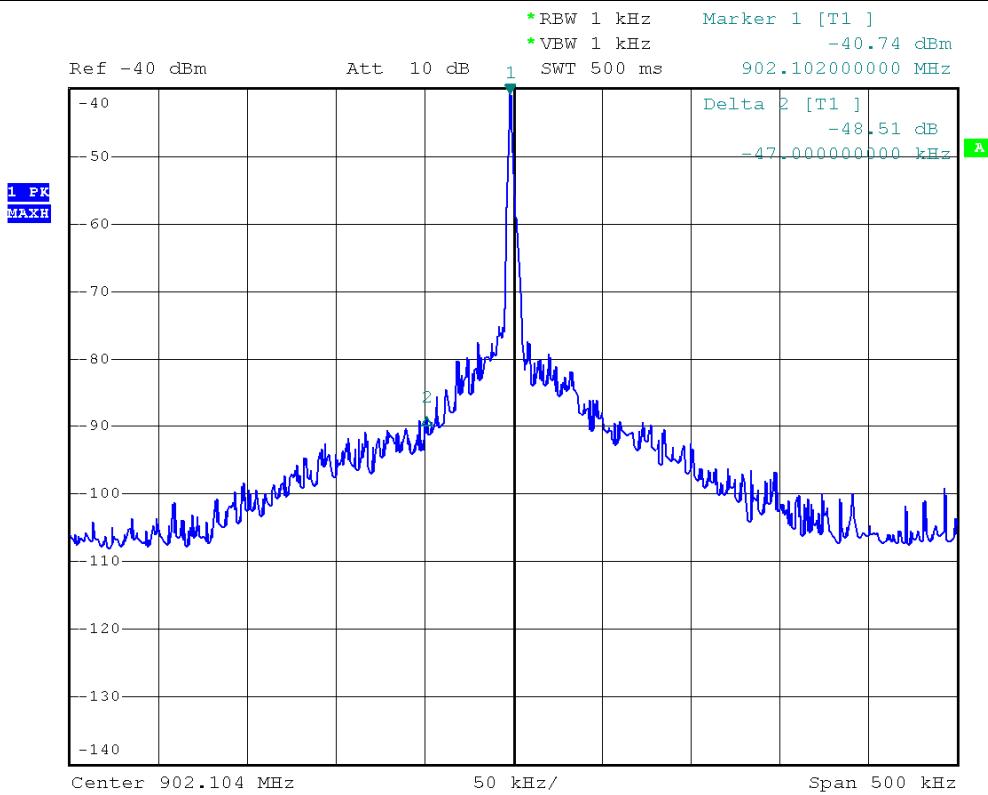
### 6.1.3 Test Procedure

- a) Set the EUT's frequency to lowest channel,
- b) Set the measure Spectrum Analyser RBW=1kHz, VBW=1kHz, auto measure time and maximum peak-hold mode.
- c) Start scan for 10 times and record the plot.

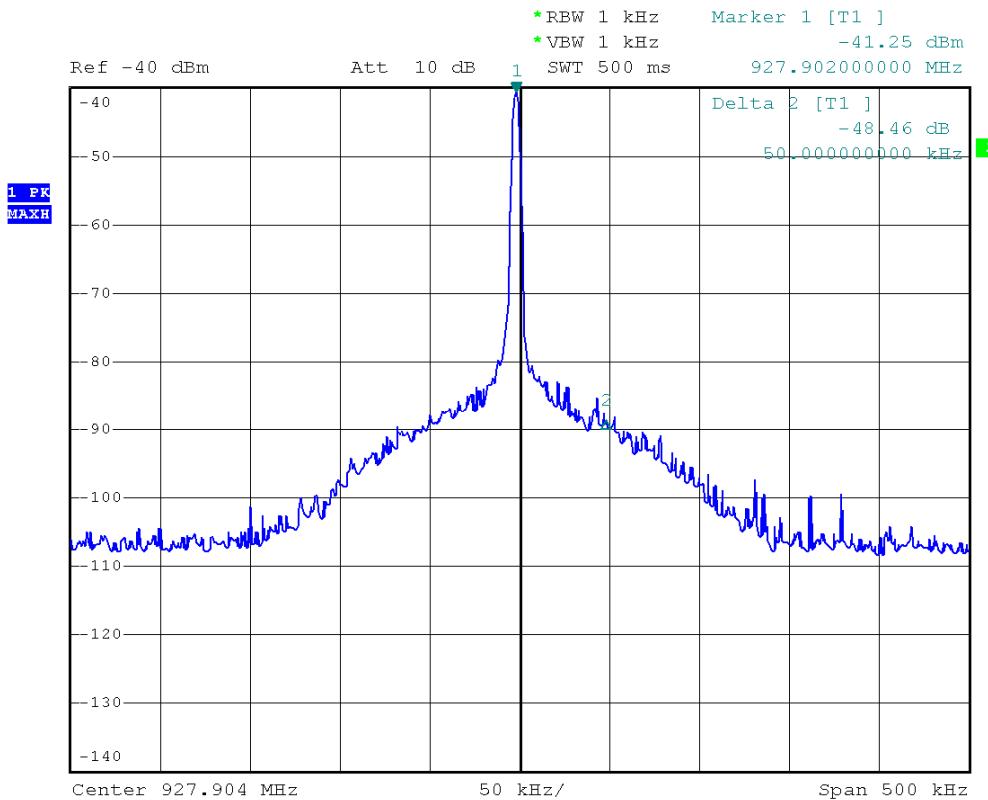
Set the EUT's frequency to highest channel, repeat a)-c)

### 6.1.4 Measurement Data

#### Maximum Peak hold measurement for lowest channel 902.1M



#### Maximum Peak hold measurement for highest channel 927.9M

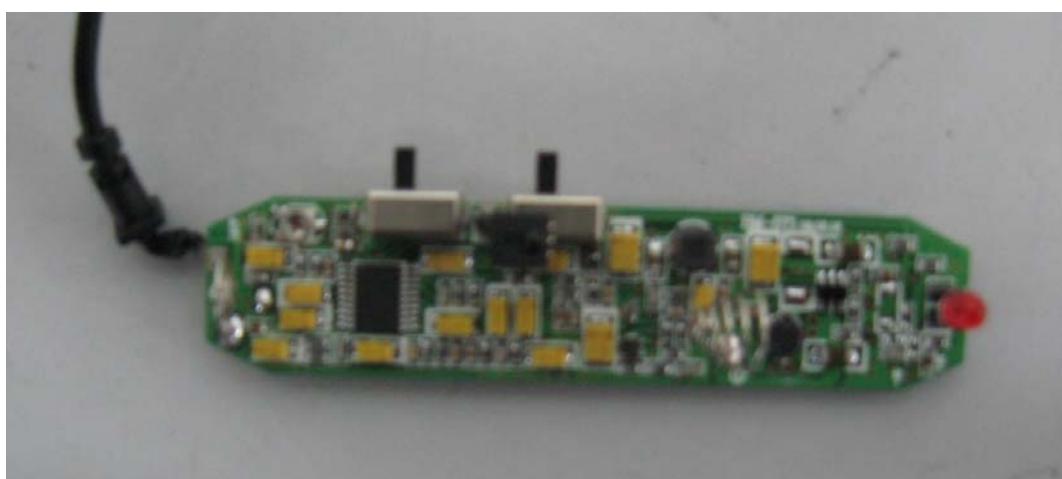
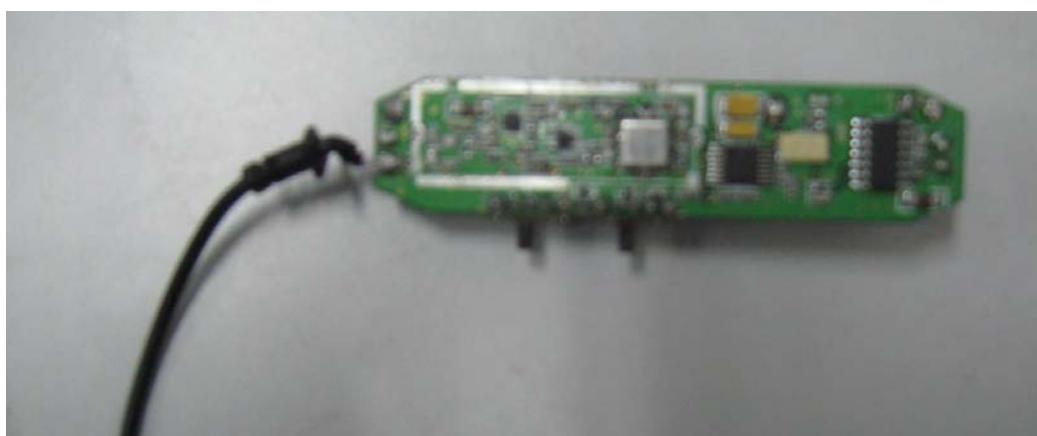


## 7 Photographs

### 7.1 Radiated Emission Test Setup



## 7.2 EUT Constructional Details



\*\*\*End of Report\*\*\*