

Report No. SET2014-01395

EMC TEST REPORT

Report No.: SET2014-01395

Product: Hearing aid

Model No. : JH-115

Applicant: Huizhou Jinghao Electronics Co., Ltd.

Issued by: CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd.

Lab Location: Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, 518055, P. R. China

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Test Report

Product: Hearing aid

Model No.: JH-115

Applicant.....: Huizhou Jinghao Electronics Co., Ltd.

Applicant Address.....: Building A, Dongfeng Village, Baiyunqian, Gutangao Industrial Area, Huihuan town, Huizhou, China

Manufacturer: Huizhou Jinghao Electronics Co., Ltd.

Manufacturer Address: Building A, Dongfeng Village, Baiyunqian, Gutangao Industrial Area, Huihuan town, Huizhou, China

Test Standards.....: EN 60118-13:2005 <Electroacoustics - Hearing aids - Part 13: Electromagnetic compatibility (EMC)>

Test Result.....: PASS

Tested by:

Xu Weiwei Feb. 25. 2014

Signature, Date

Reviewed by: *Zhu Qi* Feb. 25. 2014

Signature, Date

Approved by: *Wu Lian* Feb. 25. 2014

Signature, Date





Table of Contents

1	General Information	4
1.1	Description of EUT	4
1.2	Objective	4
1.3	Test Standards and Results	4
1.4	List of Equipments Used	5
1.5	Environmental Conditions	5
1.7	Test Facility	5
2	Immunity Test	6
2.1	Radiated, Radio Frequency Electromagnetic Field Immunity Test	6
2.1.1	Test Specification	6
2.1.2	Test Procedure	6
2.1.3	Test Setup	7
2.1.4	Test Result	7
	Appendix I: Photographs of the EUT	8
	Appendix II: Photographs of the Test Configuration	9



1 General Information

1.1 Description of EUT

The EUT is a ITE (in the ear) Hearing Aids.

For a more detailed features description about the EUT, please refer to the manufacture’s specification or the User’s Manual.

1.2 Objective

Perform Electromagnetic Susceptibility (EMS) tests for IEC standard compliance.

1.3 Test Standards and Results

The EUT has been tested according to EN 60118-13:2005

EN 60118-13:2005	Electroacoustics - Hearing aids - Part 13: Electromagnetic compatibility (EMC)
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The results are as follow:

IMMUNITY (EN 60118-13:2005)		
Basic Standard	Test Type	Result
IEC 61000-4-3	Radiated, radio frequency electromagnetic field immunity	PASS





1.4 List of Equipments Used

Description	Manufacturer	Model No.	Serial No.	Cal. Due Date
EMS Antenna, BiLog	Amplifier Research	AR AT1080	A0304249	2014.06.10
EMS Antenna, Horn	Amplifier Research	AT4002A	A0304250	2014.06.10
Signal Generator	ROHDE&SCHWARZ	SML02	A0304261	2014.06.10
Power Amplifier	Amplifier Research	AR 150W1000	A0304247	2014.06.10
Field Monitor	Amplifier Research	AR FM5004	305128	2014.06.10
Anechoic Chamber	Albatross	H-249	A0304210	2014.03.08
Audio Analyzer	ROHDE&SCHWARZ	UPL16	105570	2014.06.10

NOTE: Equipments listed above have been calibrated and are in the period of validation.

1.5 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35°C
- Humidity: 30-60 %
- Atmospheric pressure: 86-106 kPa

1.7 Test Facility

Shenzhen Electronic Product Quality Testing Center (SET) is a third party testing organization accredited by China National Accreditation Committee for Laboratories (CNACL) according to ISO/IEC 17025. The accreditation certificate number is **L1659**.

The EMC chamber site No.1 (EMC12.8×6.8×6.4(m)), and the radiated and conducted Emission test equipments of SET are constructed and calibrated to meet the FCC requirements ANSI C63.4:2001 and CISPR 22/EN 55022. The FCC Registration Number is **261302**.

The EMC chamber site No.1 (EMC12.8×6.8×6.4(m)) also complies with Canada standard RSS 212, and acceptable to Industry Canada for the performance of radiated measurements. The Industry Canada Registration Number is IC 5915.

2 Immunity Test

2.1 Radiated, Radio Frequency Electromagnetic Field Immunity Test

2.1.1 Test Specification

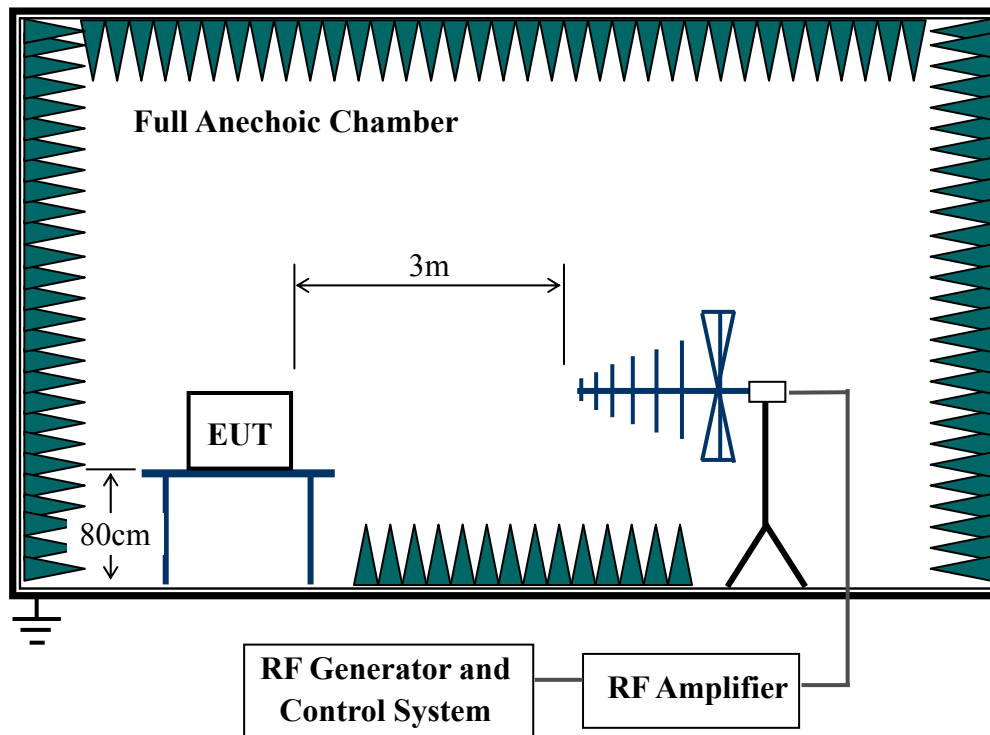
Basic Standard:	IEC 61000-4-3
Frequency Range:	800 MHz – 960MHz, 1400MHz-2000MHz
Field Strength:	Bystander compatibility:3V/m(800–960MHz), 2V/m(1400–2000MHz)
Modulation:	1kHz sine wave, 80%, AM modulation
Frequency Step:	1% of fundamental
Polarity of Antenna	Horizontal and Vertical
Test Distance:	3m
Antenna Height:	1.5m
Dwell Time:	1 second for 1kHz modulation

2.1.2 Test Procedure

The test procedure was in accordance with IEC 61000-4-3.

- The testing was performed in a fully anechoic chamber. The transmit antenna was located at a distance of 3 meters from the EUT.
- The frequency range is swept from 800 MHz – 960MHz and 1400MHz-2000MHz with the signal 80% amplitude modulated with sine wave. In order to represent the worst case condition, the modulation frequencies shall be 1 kHz and.
- The rate of sweep did not exceed 1.5×10^{-3} decade/s. Where the frequency range is swept incrementally, the step size was 1% of fundamental.
- The minimum dwell time shall be based upon the time required for the equipment or system to be exercised (if applicable) and adequately respond to the test signal. The dwell time shall be at least 1s for 1kHz modulation, and shall be no less than the respond time of the slowest responding function plus the setting time of the radiated RF immunity test system.
- The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

2.1.3 Test Setup



For the actual test configuration, please refer to Appendix II: Photographs of the Test Configuration.

2.1.4 Test Result

Test Conditions	Polarity	Azimuth	Observation	Result
800-960MHz, 3V/m 1kHz Sine 80% AM	V&H	0	Note(1)	Pass
	V&H	90	Note(1)	Pass
	V&H	180	Note(1)	Pass
	V&H	270	Note(1)	Pass
1400-2000 MHz, 3V/m, 1Hz Sine 80% AM	V&H	0	Note(1)	Pass
	V&H	90	Note(1)	Pass
	V&H	180	Note(1)	Pass
	V&H	270	Note(1)	Pass

NOTE:

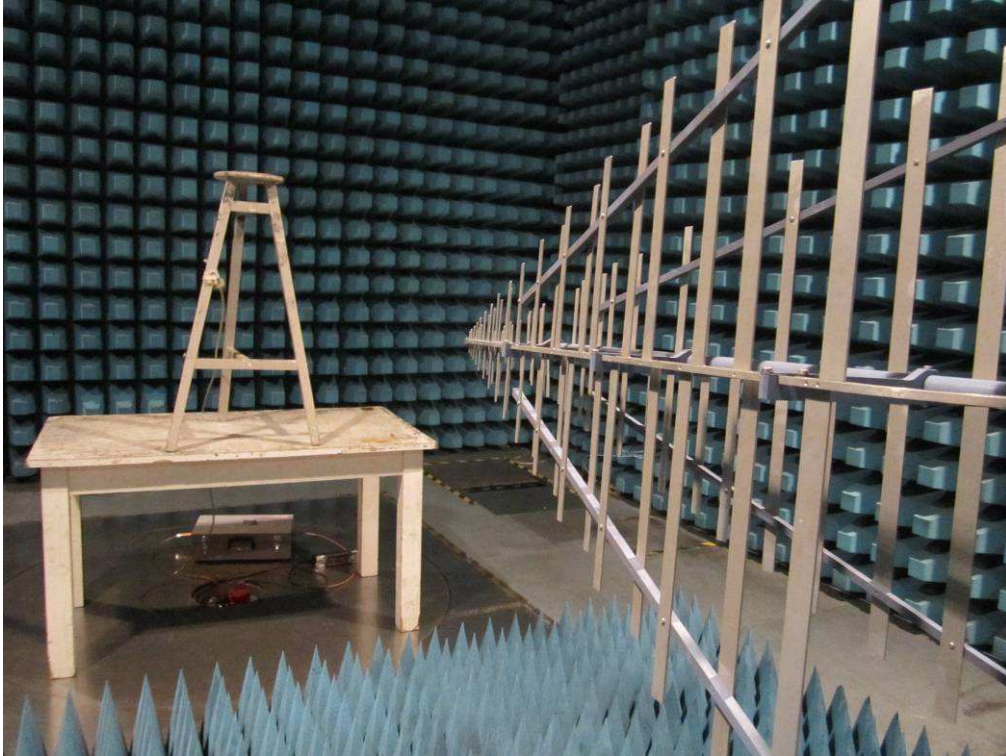
- (1). The EUT continued to operate as intended during and after the test. The IRIL (input related interference level) is less than 55dB.
- (2). The EUT is complied with the Bystander compatibility.

Appendix I: Photographs of the EUT



Appendix II: Photographs of the Test Configuration

1. Radiated, Radio Frequency Electromagnetic Field Immunity Test



End of Report

