



Test Report

Applicant: Betterway Electronic Co.,Ltd.
Address of Applicant: Aote Mansion Northern Suburb Industrial Zone, Enping City, Guangdong Province, China.
Equipment Under Test (EUT):
EUT Name: Portable wireless PA amplifier
Model No.: SH-322、HS-333、HS-321、SH-322、SH-321、SH-333、SH-331、AWP6046、AWP6047、HS-331
FCCID: U7RSH-321
Serial No.: Not supplied by client
Standards: FCC PART15 SUBPART B:2006
Date of Receipt: Mar 30, 2007
Date of Test: Apr 01, 2007
Date of Issue: Apr 12, 2007
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.

Self-ordained 68# courtyard, No.91, Dongguan Zhuang Road, Guangzhou, China.

Tel: 86-20-87221453 Fax: 86-20-87221905

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



2. Test Summary

| Test | Test Requirement | Test Method | Class / Severity | Result |
|-----------------------------------------|---------------------------------|-----------------|------------------|--------|
| Radiated Emission (30MHz to 1GHz) | FCC PART 15, SUBPART B: 2006 | ANSI C63.4:2003 | Class B | PASS |
| Conducted Emission (150KHz to 30MHz) | FCC PART 15, SUBPART B: 2006 | ANSI C63.4:2003 | Class B | PASS |

Remark:

Tests were performed for one model SH-321 only, since the other models (SH-322、HS-333、HS-321、HS-322、SH-333、SH-331、AWP6046、AWP6047、HS-331) were electrical identified and same function to SH-321, with difference being the model name and outer figure.



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4. General Information

4.1 Client Information

Applicant: Betterway Electronic Co.,Ltd
Address of Applicant: Aote Mansion Northern Suburb Industrial Zone,Enping
City,Guangdong Province,china.

4.2 General Description of E.U.T.

EUT Name: Portable wireless PA amplifier
Item No.: SH-322、HS-333、HS-321、SH-322、SH-321、SH-333、SH-331、
AWP6046、AWP6047、HS-331
Serial No.: Not supplied by client

4.3 Details of E.U.T.

Power Supply: 110VAC 60Hz for receiver
Power Cord: N/A

4.4 Description of Support Units

The EUT has been tested with a signal generator.

4.5 Standards Applicable for Testing

The customer requested FCC tests for Portable wireless PA amplifier
The standard used was FCC PART 15, SUBPART B, CLASS B (2006)

4.6 Test Location

GuangZhou Huesent Testing Service Co., Ltd.
Self-ordained 68# courtyard, No.91, Dongguanzhuang Road,Guangzhou,China.
Tel: 86-20-87221905, Fax: 86-20-87223892
All tests were subcontract to the laboratory following-
Guangdong Electronic & Electrical Products Inspection and Supervision Institute.
Address:45 Cunnan Street,Shayongnan,Sanyuanli District,GuangZhou,
FCC- Registratrion No: 597719 in Jan 18, 2005
CNAS- Accreditation No: L 0307, issued in Mar 2, 2006
CQC Authorized Subcontract Lab V-016

4.8 Deviation from Standards

None.

4.9 Abnormalities from Standard Conditions

None.



5. Equipments Used during Test

| EQP NO. | DESCRIPTION | MANUFACTURER | MODEL.NO | SER NO | Cal. date |
|---------|-------------------|--------------|----------|--------|------------|
| 70-137 | EMI TEST RECEIVER | R & S | ESIB7 | 100192 | 2007.03.30 |
| / | PULSE LIMITER | R & S | ESH3-Z2 | 100300 | 2007.03.30 |
| 37-021 | LISN | R & S | ESH3-Z5 | | 2007.03.30 |
| 70-136 | ULTRALOG ANTENNAS | R & S | HL-562 | 100172 | 2003.08.19 |
| 74-008 | CHAMBER | ETS-LINDREN | CACT-3 | / | 2004.07.16 |
| 74-007 | SHIELDING ROOM | ETS-LINDREN | Celltype | / | 2005.05.25 |
| 10-049 | Signal generator | Anritsu | MG3602A | M17634 | 2006.09.30 |

6. Test Results

6.1 Conducted Emissions Mains Terminals, 150 kHz to 30MHz

Test Requirement: FCC Part 15 B
Test Method: ANSI C63.4
Class / Severity: Class B
Detector: Peak for pre-scan (9kHz Resolution Bandwidth)
Quasi-Peak if maximised peak within 6dB of Quasi-Peak limit
Test Date: Apr 07,2007

6.1.1 E.U.T. Operation

Operating Environment:

Temperature:25.0°C

Humidity:62% RH

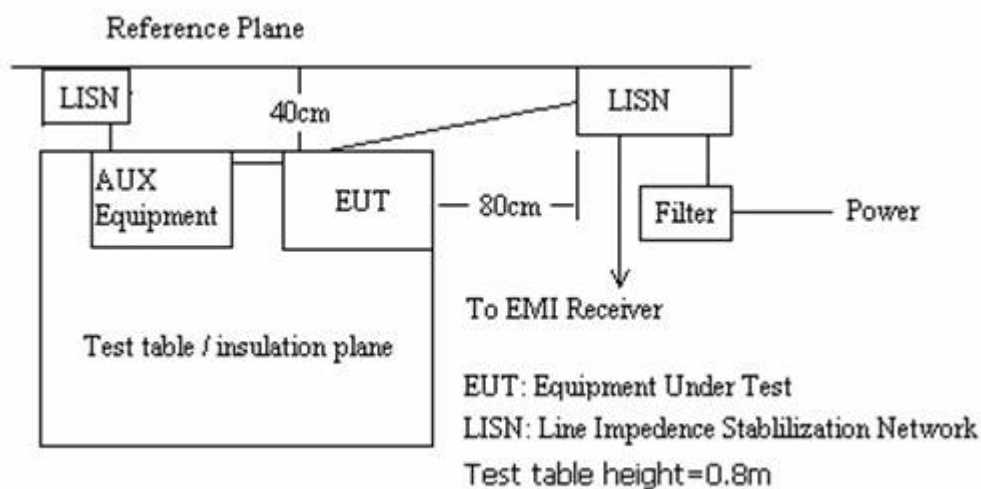
Atmospheric Pressure: 1012mBar

EUT Operation:

Pretest in all mode to find worse case.

Compliance test was performed in charging mode and Louder mode with 1kHz audio signal tape played.

6.1.2 Plan View of Test Setup



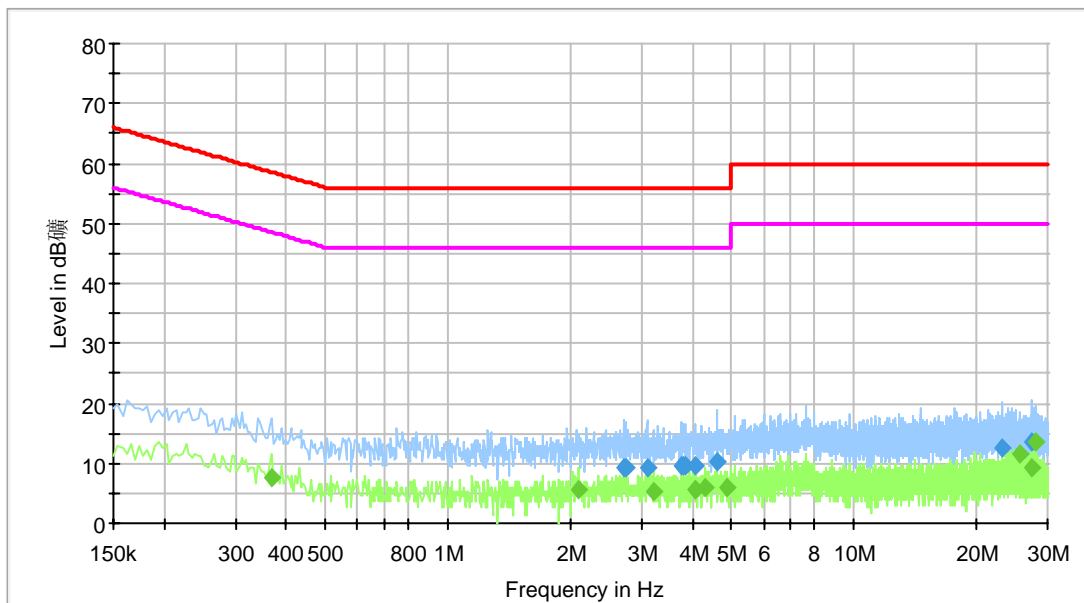
6.1.3 Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized emission were detected when Peak measurement level is over Average Limit.

Live Line- Charging mode:

Peak Scan

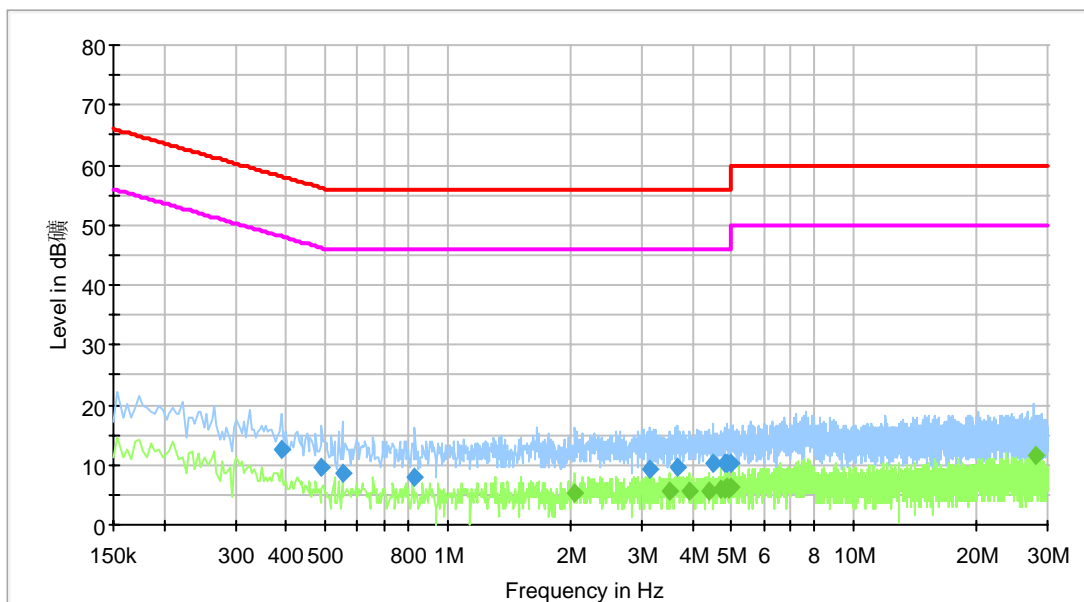


Quasi-peak and Average measurement

No significant, since the value were similar as background and all the Peak level were 40dB lower than the average limit.

Neutral Line- Charging mode:

Peak Scan

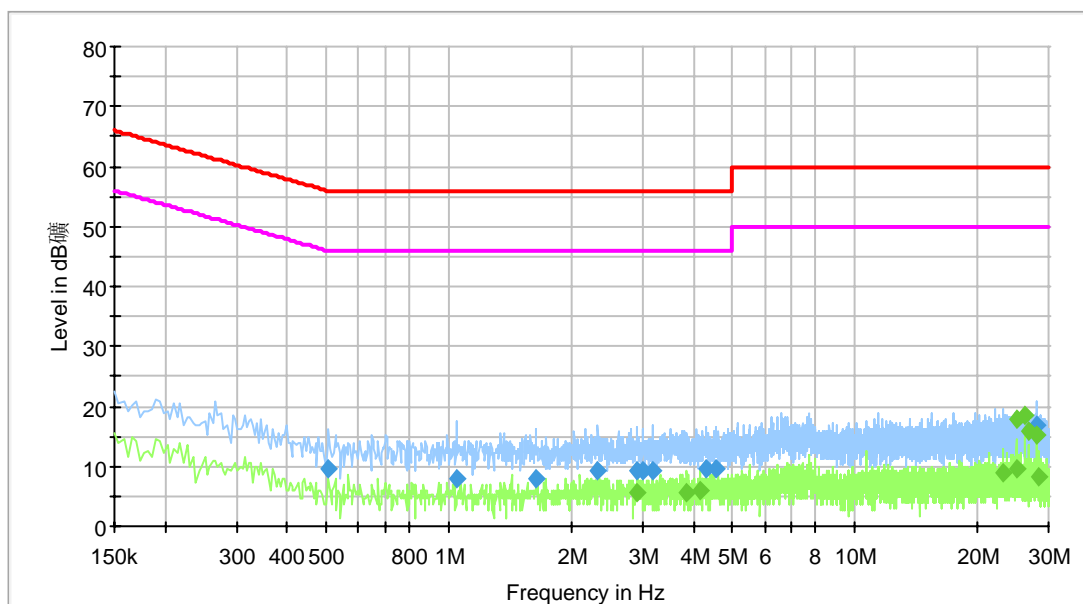


Quasi-peak and Average measurement

No significant, since the value were similar as background and all the Peak level were 40dB lower than the average limit.

Live Line- Louder mode:

Peak Scan

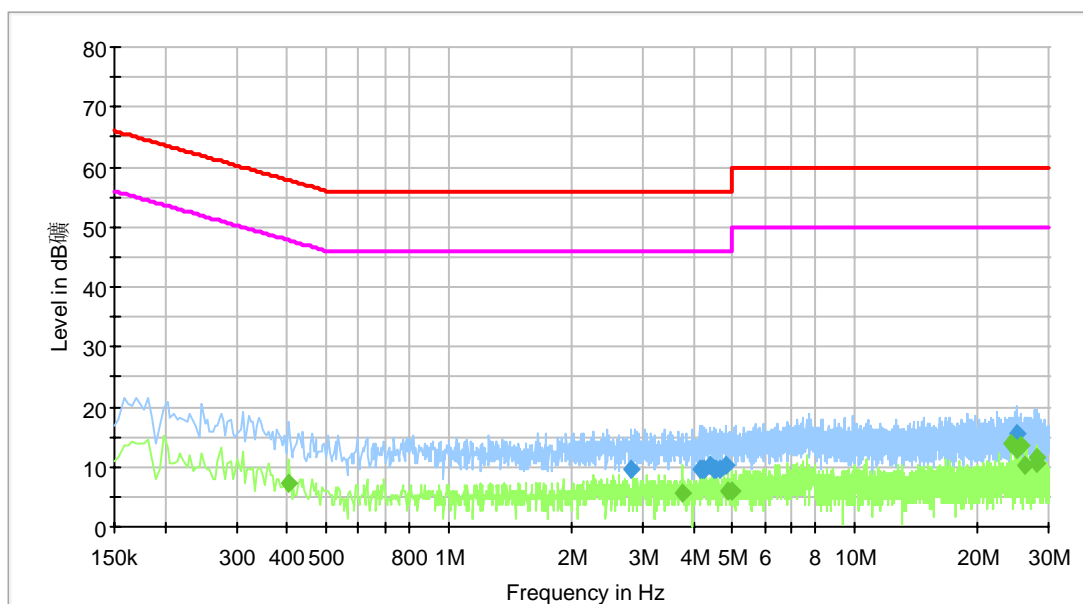


Quasi-peak and Average measurement

No significant, since the value were similar as background and all the Peak level were 40dB lower than the average limit.

Neutral Line- Louder mode:

Peak Scan



Quasi-peak and Average measurement

No significant, since the value were similar as background and all the Peak level were 40dB lower than the average limit.

6.2 Radiated Emissions, 30MHz to 1GHz

Test Requirement: FCC Part15 B
Test Method: ANSI C63.4
Class: Class B
Detector: Peak for pre-scan (120kHz resolution bandwidth)
Quasi-Peak if maximised peak within 6dB of limit
Test Date: Apr 07 2007

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0°C

Humidity: 52% RH

Atmospheric Pressure: 1012mBar

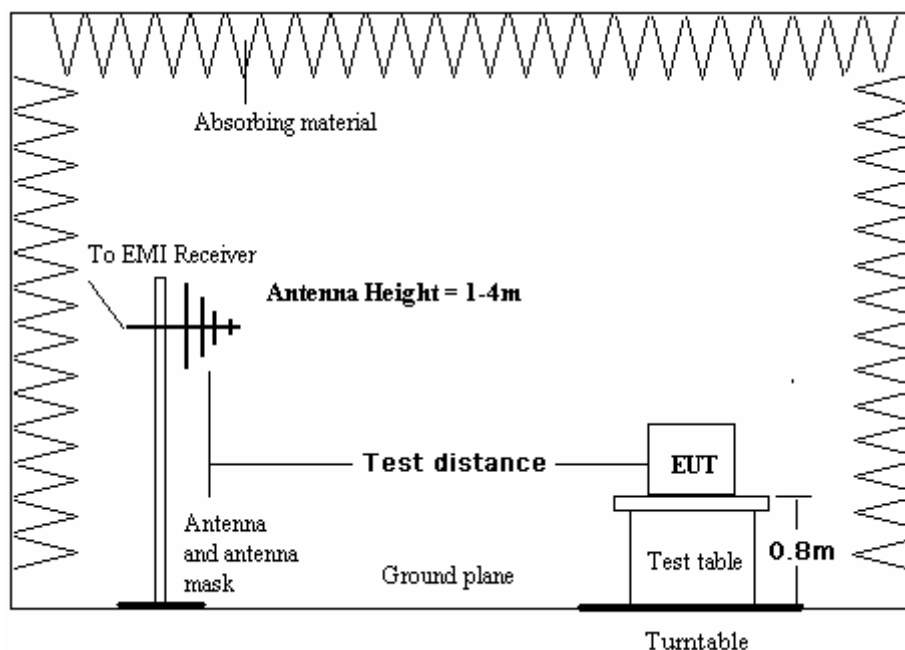
EUT Operation:

Pretest in all mode to find worse case.

Compliance test was performed in charging mode and Louder mode with 1kHz audio signal tape played.

FM microphone was simulated by a signal generator with 37.5kHz modulation by 1kHz audio signal.

6.2.2 Test Setup

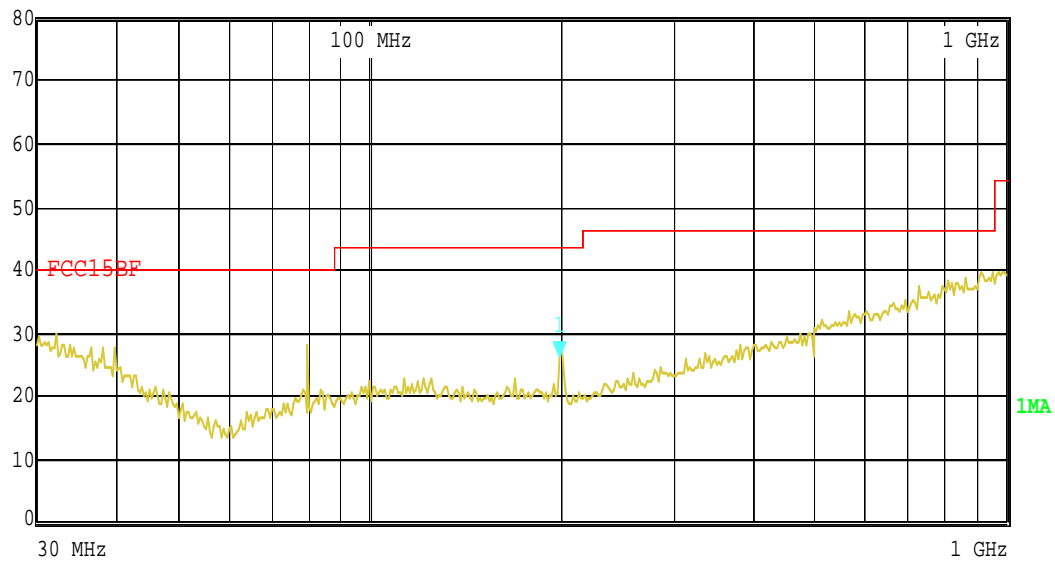


6.2.3 Measurement Data

An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bilog antenna with 2 orthogonal polarities

Vertical—charging mode:

Peak scan



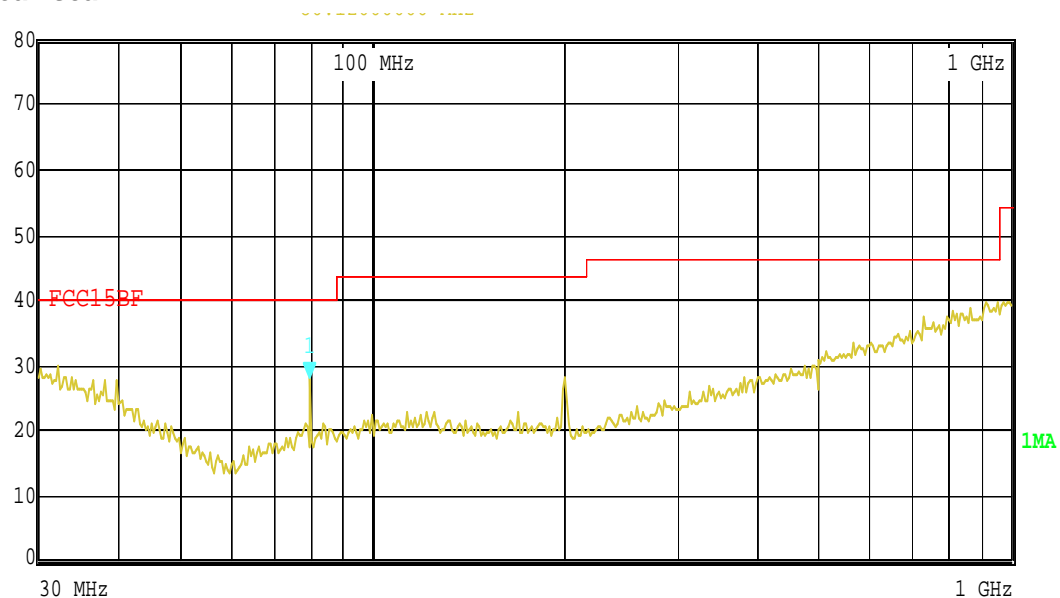
Date: 1.APR.2007 07:43:12

Quasi-peak measurement

No significant, since the values are similar as background and emissions attenuated more than 20 dB below the permissible value are not reported.

Horizontal—Charging mode:

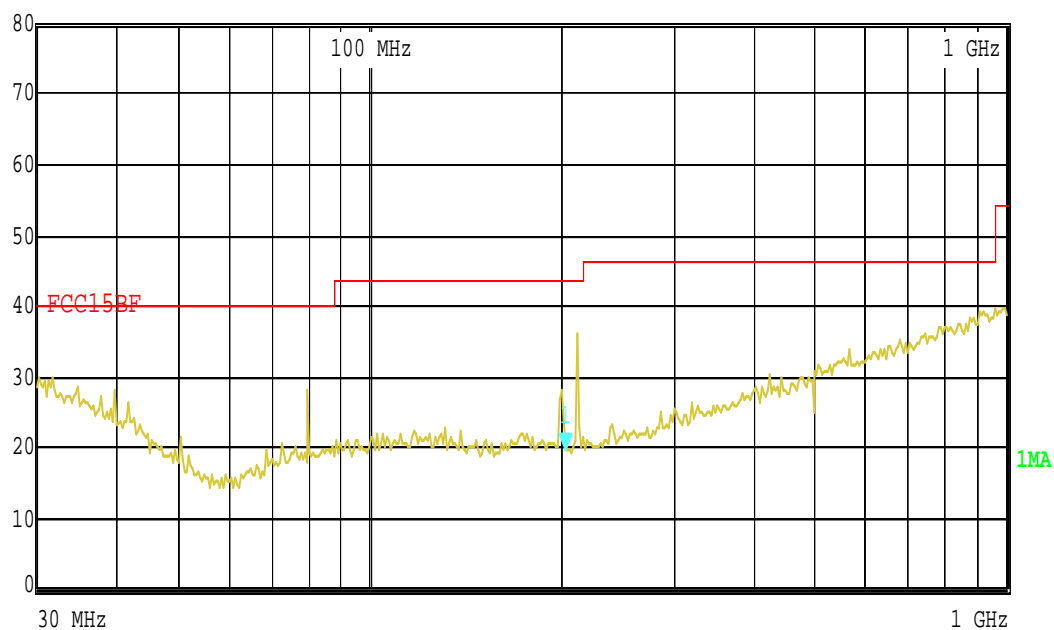
Peak scan



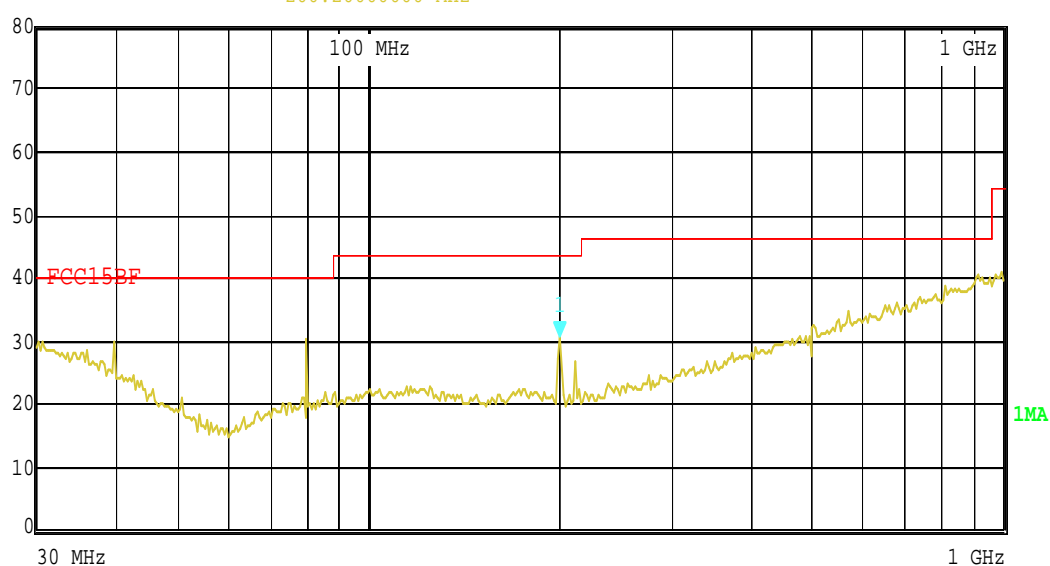
Date: 1.APR.2007 07:44:03

Quasi-peak measurement

No significant, since the values are similar as background and emissions attenuated more than 20 dB below the permissible value are not reported.

Vertical—Louder mode:**Peak scan**

Date: 1.APR.2007 07:37:46

Horizontal—Louder mode:**Peak scan**

Date: 1.APR.2007 07:30:09

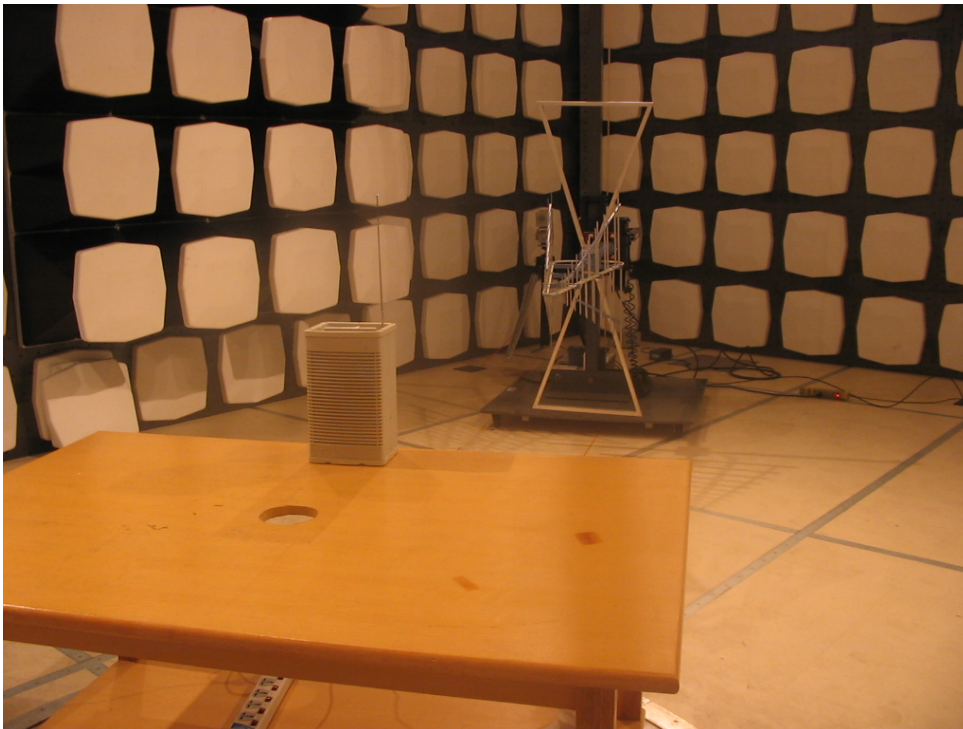
| Quasi-peak measurement | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------|------------------|------------------------|-----------------|-----------------|----------------|---------------|
| Signal carrier frequency: 174MHz | | | | | | |
| Frequency MHz | Factor (dB/m) | Read data (dBuV) | Level dBuV/m | Limit dBuV/m | Margin (dB) | Ant. polarity |
| 184.6 | 10.0 | 14.3 | 24.3 | 43.5 | 19.2 | V |
| 184.6 | 9.3 | 11.3 | 20.6 | 43.5 | 22.9 | H |
| Signal carrier frequency: 195MHz | | | | | | |
| Frequency MHz | Factor (dB/m) | Read data (dBuV) | Level dBuV/m | Limit dBuV/m | Margin (dB) | Ant. polarity |
| 205.6 | 12.2 | 14.6 | 26.8 | 43.5 | 16.7 | V |
| 205.6 | 11.0 | 12.3 | 23.3 | 43.5 | 20.2 | H |
| Signal carrier frequency: 216MHz | | | | | | |
| Frequency MHz | Factor (dB/m) | Read data (dBuV) | Level dBuV/m | Limit dBuV/m | Margin (dB) | Ant. polarity |
| 226.6 | 13.6 | 14.4 | 28.0 | 43.5 | 15.5 | V |
| 226.6 | 10.7 | 13.8 | 24.5 | 43.5 | 19.0 | H |
| The values are similar as background and emissions attenuated more than 20 dB below the permissible value are not reported. | | | | | | |

7. Photographs

7.1 Conducted Emission Test Setup

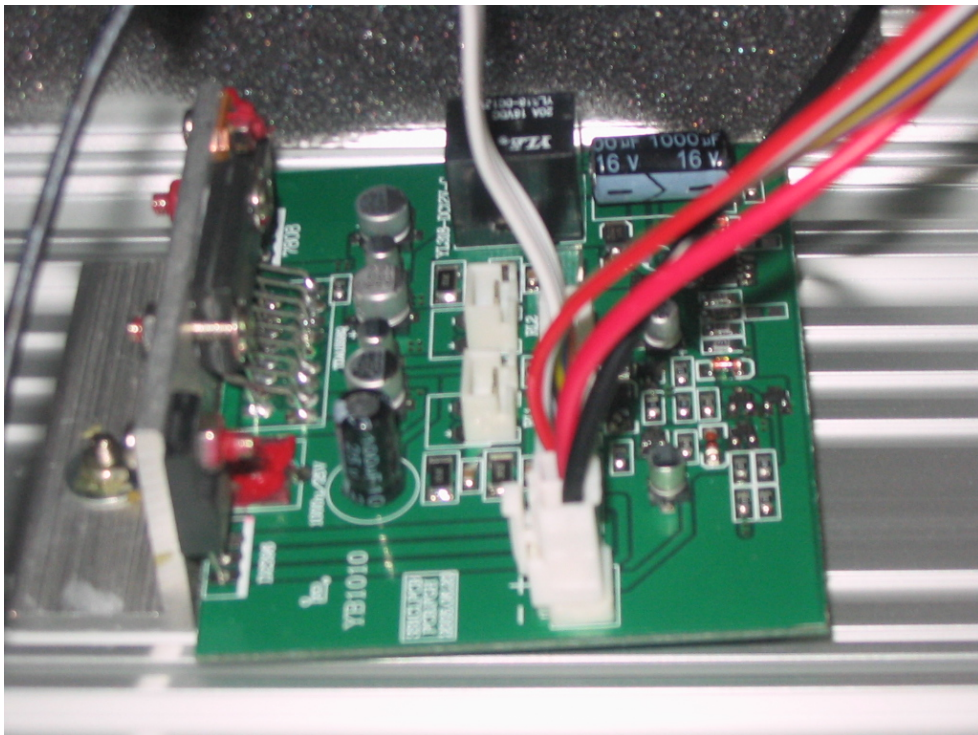
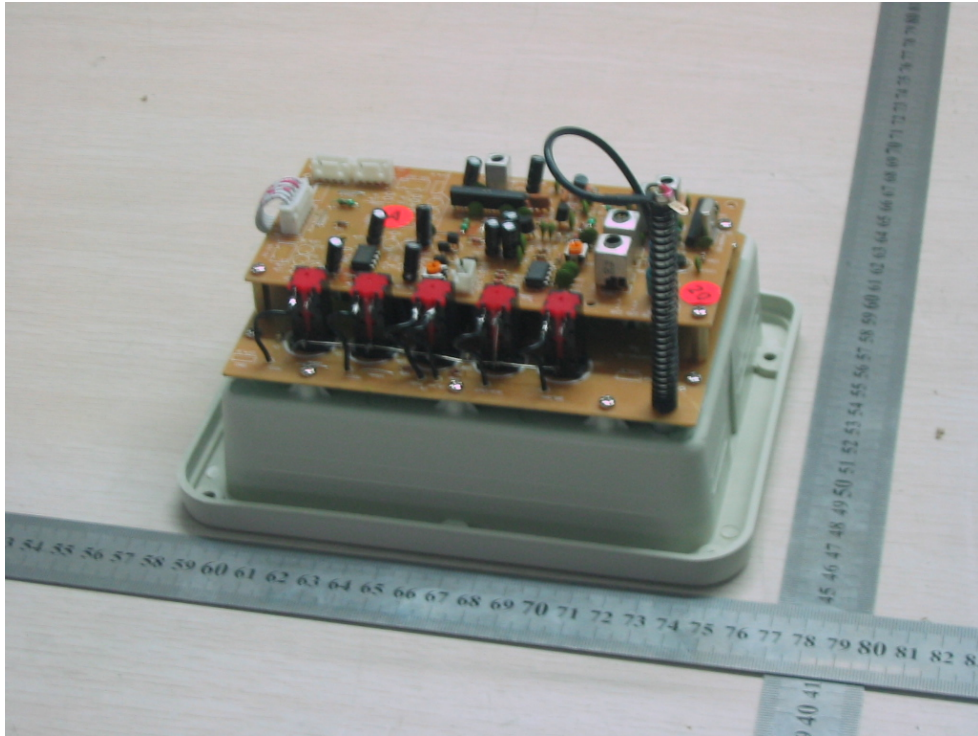


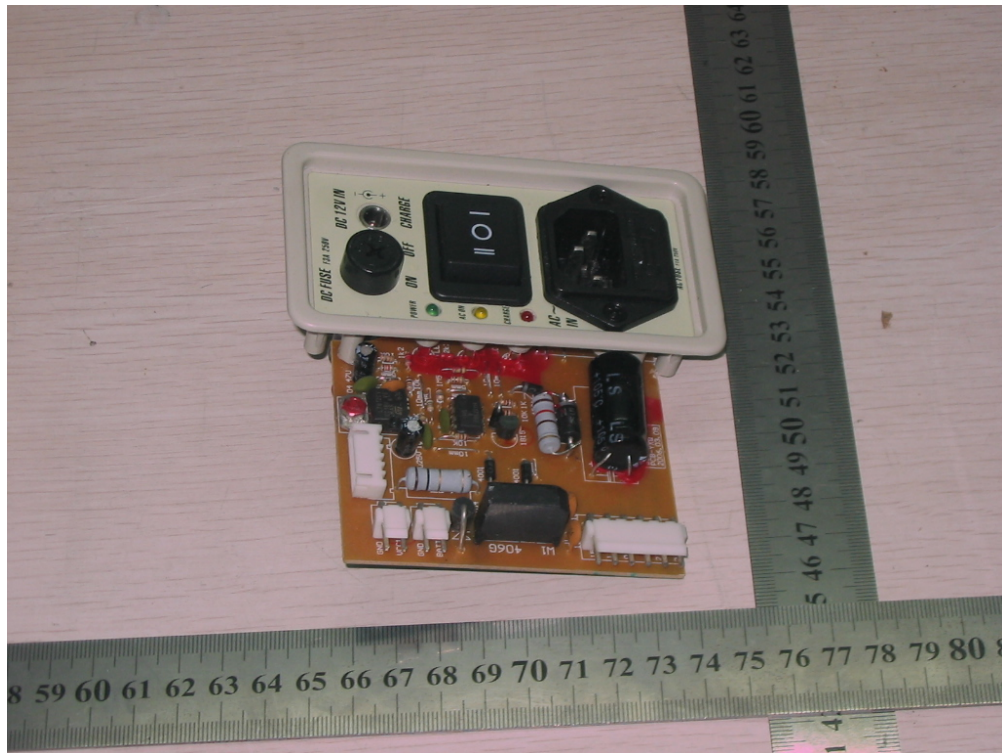
7.2 Radiated Emission Test Setup



7.3 EUT Constructional Details







End of Report