# POTO TECHNOLOGY CO., LTD

## FM Transmitter

## Model Number: NaNo-FC-FM

Prepared for : POTO TECHNOLOGY CO., LTD
Industrial Yin Hu, Jio-Yi Tang, Tang-Xia Town, Dong Guan,
Guang dong.

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number : ACS-F06033
Date of Test : Jan.05~23,2006
Date of Report : Feb.07,2006

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APPENDIX I (9 pages)

# TEST REPORT DECLARATION

| | | |
|---|---|---|
| Applicant | : | POTO TECHNOLOGY CO., LTD |
| Manufacturer | : | POTO TECHNOLOGY CO., LTD |
| EUT Description | : | FM Transmitter<br>(A) MODEL NO. : NaNo-FC-FM<br>(B) SERIAL NO. : N/A<br>(C) POWER SUPPLY : DC 12V |

Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Sep,2005

The device described above is tested by Audix Technology (Shenzhen) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits for radiated and conducted emissions.
The test results are contained in this test report and Audix Technology (Shenzhen) Co., Ltd. is assumed full responsibility for the accuracy and completeness of tests. Also, this report shows that EUT is technically compliant with FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shenzhen) Co., Ltd.

Date of Test : Jan.05~23,2006

Prepared by : Annie Wu
Annie Wu/ Assistant

Reviewer : Ken Lu
Ken Lu / Assistant Manager

AUDIX® 信華科技(深圳)有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report
Signature: 2006.02.09

Approved & Authorized Signer : Smart Tsai / Vice General Manager

Name of the Representative of the Responsible Party : _____

Signature : _____

# 1. GENERAL INFORMATION

## 1.1. Description of Device (EUT)

Description : FM Transmitter

Model Number : NaNo-FC-FM

Applicant : POTO TECHNOLOGY CO., LTD
Industrial Yin Hu, Jio-Yi Tang, Tang-Xia Town, Dong Guan, Guang dong.

Manufacturer : POTO TECHNOLOGY CO., LTD
Industrial Yin Hu, Jio-Yi Tang, Tang-Xia Town, Dong Guan, Guang dong.

Date of Test : Jan.05~23,2006

## 1.2. Test Facility

Site Description

| | | |
|---|---|---|
| 3m Anechoic Chamber | : | Certificated by FCC, USA<br>Registration Number: 90454<br>Aug. 15, 2003 |
| 3m & 10m Anechoic Chamber | : | Certificated by FCC, USA<br>Registration Number: 794232<br>Mar. 15, 2004 |
| EMC Lab. | : | Certificated by DATech, German<br>Registration Number: DAT-P-091/99-01<br>Feb. 02, 2004<br><br>Certificated by NVLAP, USA<br>NVLAP Code: 200372-0<br>Mar. 31, 2004<br><br>Certificated by Nemko, Norway<br>Aut. No.: ELA135<br>April. 22, 2004<br><br>Certificated by Industry Canada<br>Registration Number: IC 5183<br>Jul. 28, 2004 |
| Name of Firm | : | Audix Technology (Shenzhen) Co., Ltd. |
| Site Location | : | No. 6, Ke Feng Rd., 52 Block,<br>Shenzhen Science & Industrial Park,<br>Nantou, Shenzhen, Guangdong, China |

## 1.3. Test Uncertainty

| No. | Item | Uncertainty | Remark |
|---|---|---|---|
| 1. | Uncertainty for Conducted Emission Test | 1.22dB | |
| 2. | Uncertainty for Radiated Emission Test | 3.14dB | 3m Chamber |
| 3. | Uncertainty for Radiated Emission Test | 3.18dB | 10m Chamber |
| 4. | Uncertainty for Power Clamp Test | 1.38dB | |

# 2. POWER LINE CONDUCTED EMISSION TEST

According to Paragraph (f) of FCC Part 15 section 15.239, Tests to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

# 3. RADIATED EMISSION TEST

## 3.1. Test Equipment

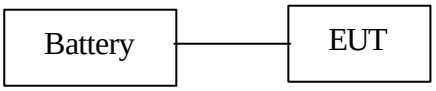
The following test equipments are used during the radiated emission Test：

### 3.1.1. For Anechoic Chamber

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | EMI Spectrum | HP | 85422E | 3625A00181 | May 16, 05 | 1 Year |
| 2. | Test Receiver | Rohde & Schwarz | ESVS20 | 830350/005 | May 16, 05 | 1 Year |
| 3. | Amplifier | HP | 8447D | 2944A07794 | Sep.14, 05 | 1/2 Year |
| 4. | Bilog Antenna | Schaffner | CBL6111C | 2598 | Jan. 11, 06 | 1 Year |
| 5. | RF Cable | MIYAZAKI | 5D-2W | 3# Chamber No.1 | Jan. 28, 06 | 1/2 Year |
| 6. | RF Cable | MIYAZAKI | 5D-2W | 3# Chamber No.2 | Jan. 28, 06 | 1/2 Year |
| 7. | RF Cable | FUJIKURA | RG-55/U | 3# Chamber No.3 | Jan. 28, 06 | 1/2 Year |
| 8. | RF Cable | FUJIKURA | RG-55/U | 3# Chamber No.4 | Jan. 28, 06 | 1/2 Year |
| 9. | Coaxial Switch | Anritsu | MP59B | M73989 | Jan. 28, 06 | 1/2 Year |

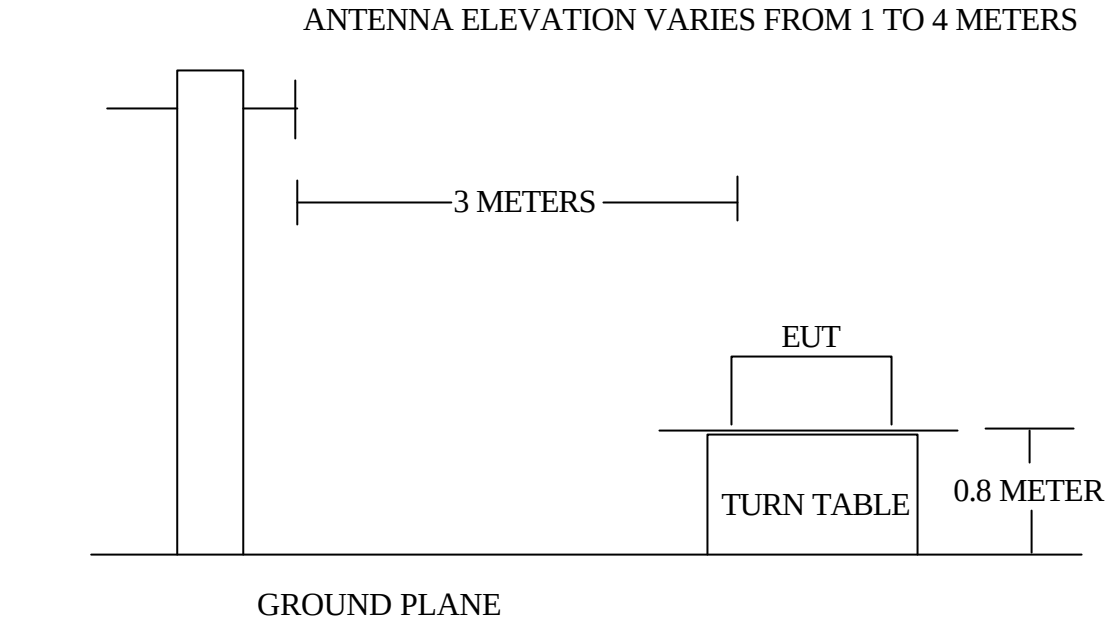
## 3.2. Block Diagram of Test Setup

### 3.2.1. Block Diagram of connection between EUT and simulators




*(EUT: FM Transmitter)*

3.2.2. Anechoic Chamber Setup Diagram




## 3.3. Radiated Emission Limit 30~1000MHz

| FREQUENCY MHz | DISTANCE Meters | FIELD STRENGTHS LIMIT | |
|---|---|---|---|
| | | μV/m | dB(μV)/m |
| 30 ~ 88 | 3 | 100 | 40.0 |
| 88 ~ 216 | 3 | 150 | 43.5 |
| 216 ~ 960 | 3 | 200 | 46.0 |
| 960 ~ 1000 | 3 | 500 | 54.0 |
| Above 1000 | 3 | Other:<br>74.0 dB(μV)/m (Peak)<br>54.0 dB(μV)/m (Average) | |

Remark： (1) Emission level dBμV = 20 log Emission level μV/m
(2) The smaller limit shall apply at the cross point between two frequency bands.
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

## 3.4. EUT Configuration on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 3.4.1. FM Transmitter (EUT)

| | | |
|---|---|---|
| Model Number | : | NaNo-FC-FM |
| Serial Number | : | N/A |
| Manufacturer | : | POTO TECHNOLOGY CO., LTD |

## 3.5. Operating Condition of EUT

3.5.1. Setup the EUT as shown in Section 3.2..

3.5.2. Let the EUT work in test modes (Channel 1(88.1-88.3MHz)/Channel 2(88.3-88.5MHz)/Channel 3(88.5-88.7)/Channel(88.7-88.9)) and test it.

## 3.6. Test Procedure

The EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2003 on radiated emission Test.

The bandwidth of the EMI test receiver (R&S ESVS20) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The frequency range from 30MHz to 1000MHz are checked.

The test modes (Channel 1(88.1-88.3MHz)/Channel 2(88.3-88.5MHz)/Channel 3(88.5-88.7)/Channel(88.7-88.9)) is tested in Anechoic Chamber and all the scanning waveforms are attached in Appendix I.

## 3.7. Radiated Emission Test Results

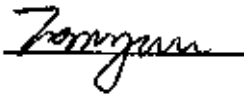
**PASS.**

The frequency range from 30MHz to 1000MHz is investigated.
Please see the following pages.

| | | | | | |
|---|---|---|---|---|---|
| Date of Test | : | Jan.05,2006 | Temperature | : | 23℃ |
| EUT | : | FM Transmitter | Humidity | : | 54% |
| Model No. | : | NaNo-FC-FM | Test Mode | : | Channel 1 (88.1-88.3MHz) |
| Test Engineer: | | Victor | | | |

| Frequency MHz | Antenna Factor dB/m | Cable Loss dB | Meter Reading Horizontal dBμV | Emission Level Horizontal dBμV/m | Over Limits dB | Limits dBμV/m |
|---|---|---|---|---|---|---|
| 88.165 | 8.85 | 1.98 | 26.80 | 37.63 | -10.32 | 47.95 |

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 88.165MHz with corrected signal level of 37.63dBμV/m(Limit is 47.95 dBμV/m) when the antenna was at horizontal polarization and at 2.1m high and the turn table was at 0 °.
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: 

| | | | | | |
|---|---|---|---|---|---|
| Date of Test | : | Jan.05,2006 | Temperature | : | 23℃ |
| EUT | : | FM Transmitter | Humidity | : | 54% |
| Model No. | : | NaNo-FC-FM | Test Mode | : | Channel 1 (88.1-88.3MHz) |
| Test Engineer: | | Victor | | | |

| Frequency MHz | Antenna Factor dB/m | Cable Loss dB | Meter Reading Vertical dBμV | Emission Level Vertical dBμV/m | Over Limits dB | Limits dBμV/m |
|---|---|---|---|---|---|---|
| 88.165 | 7.66 | 1.98 | 18.00 | 27.64 | -20.31 | 47.95 |

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 88.165MHz with corrected signal level of 27.64dBμV/m(Limit is 47.95dBμV/m) when the antenna was at vertical polarization and at 1.1m high and the turn table was at 0 °.
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Zongjun

| | | | | | |
|---|---|---|---|---|---|
| Date of Test | : | Jan.05,2006 | Temperature | : | 23℃ |
| EUT | : | FM Transmitter | Humidity | : | 54% |
| Model No. | : | NaNo-FC-FM | Test Mode | : | Channel 2 (88.3-88.5MHz) |
| Test Engineer: | | Victor | | | |

| Frequency MHz | Antenna Factor dB/m | Cable Loss dB | Meter Reading Horizontal dBμV | Emission Level Horizontal dBμV/m | Over Limits dB | Limits dBμV/m |
|---|---|---|---|---|---|---|
| 88.350 | 9.08 | 1.95 | 58.02 | 40.92 | -7.03 | 47.95 |

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 88.350MHz with corrected signal level of 40.92dBμV/m(Limit is 47.95 dBμV/m) when the antenna was at horizontal polarization and at 2.0m high and the turn table was at 0 °.
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Zongyun

| | | | | | |
|---|---|---|---|---|---|
| Date of Test | : | Jan.05,2006 | Temperature | : | 23℃ |
| EUT | : | FM Transmitter | Humidity | : | 54% |
| Model No. | : | NaNo-FC-FM | Test Mode | : | Channel 2 (88.3-88.5MHz) |
| Test Engineer: | | Victor | | | |

| Frequency MHz | Antenna Factor dB/m | Cable Loss dB | Meter Reading Vertical dBμV | Emission Level Vertical dBμV/m | Over Limits dB | Limits dBμV/m |
|---|---|---|---|---|---|---|
| 88.350 | 7.72 | 1.97 | 19.90 | 29.60 | -18.35 | 47.95 |

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 88.350MHz with corrected signal level of 29.60dBμV/m(Limit is 47.95dBμV/m) when the antenna was at vertical polarization and at 1.1m high and the turn table was at 0 °.
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Zongyan

| | | | | | |
|---|---|---|---|---|---|
| Date of Test | : | Jan.05,2006 | Temperature | : | 23℃ |
| EUT | : | FM Transmitter | Humidity | : | 54% |
| Model No. | : | NaNo-FC-FM | Test Mode | : | Channel 3 (88.5-88.7MHz) |
| Test Engineer: | | Victor | | | |

| Frequency MHz | Antenna Factor dB/m | Cable Loss dB | Meter Reading Horizontal dBμV | Emission Level Horizontal dBμV/m | Over Limits dB | Limits dBμV/m |
|---|---|---|---|---|---|---|
| 88.560 | 8.89 | 1.97 | 26.40 | 37.26 | -10.69 | 47.95 |

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 88.560MHz with corrected signal level of 37.26dBμV/m(Limit is 47.95 dBμV/m) when the antenna was at horizontal polarization and at 2.2m high and the turn table was at 0 °.
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Zongyan

| | | | | | |
|---|---|---|---|---|---|
| Date of Test | : | Jan.05,2006 | Temperature | : | 23℃ |
| EUT | : | FM Transmitter | Humidity | : | 54% |
| Model No. | : | NaNo-FC-FM | Test Mode | : | Channel 3 (88.5-88.7MHz) |
| Test Engineer: | | Victor | | | |

| Frequency MHz | Antenna Factor dB/m | Cable Loss dB | Meter Reading Vertical dBμV | Emission Level Vertical dBμV/m | Over Limits dB | Limits dBμV/m |
|---|---|---|---|---|---|---|
| 88.560 | 7.72 | 1.97 | 21.83 | 31.53 | -16.42 | 47.95 |

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 88.560MHz with corrected signal level of 31.53dBμV/m(Limit is 47.95dBμV/m) when the antenna was at vertical polarization and at 1.1m high and the turn table was at 12 °.
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Zongyan

| | | | | | |
|---|---|---|---|---|---|
| Date of Test | : | Jan.05,2006 | Temperature | : | 23℃ |
| EUT | : | FM Transmitter | Humidity | : | 54% |
| Model No. | : | NaNo-FC-FM | Test Mode | : | Channel 4 (88.7-88.9MHz) |
| Test Engineer: | | Victor | | | |

| Frequency MHz | Antenna Factor dB/m | Cable Loss dB | Meter Reading Horizontal dBμV | Emission Level Horizontal dBμV/m | Over Limits dB | Limits dBμV/m |
|---|---|---|---|---|---|---|
| 88.770 | 8.92 | 1.97 | 29.22 | 40.11 | -7.84 | 47.95 |

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 88.770MHz with corrected signal level of 40.11dBμV/m(Limit is 47.95 dBμV/m) when the antenna was at horizontal polarization and at 2.1m high and the turn table was at 0 °.
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Zongyan

| | | | | | |
|---|---|---|---|---|---|
| Date of Test | : | Jan.05,2006 | Temperature | : | 23℃ |
| EUT | : | FM Transmitter | Humidity | : | 54% |
| Model No. | : | NaNo-FC-FM | Test Mode | : | Channel 4(88.7-88.9MHz) |
| Test Engineer: | | Victor | | | |

| Frequency MHz | Antenna Factor dB/m | Cable Loss dB | Meter Reading Vertical dBμV | Emission Level Vertical dBμV/m | Over Limits dB | Limits dBμV/m |
|---|---|---|---|---|---|---|
| 88.773 | 7.79 | 1.97 | 18.30 | 28.06 | -19.89 | 47.95 |

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 88.773MHz with corrected signal level of 28.06dBμV/m(Limit is 47.95dBμV/m) when the antenna was at vertical polarization and at 1.2m high and the turn table was at 0 °.
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Zongyan

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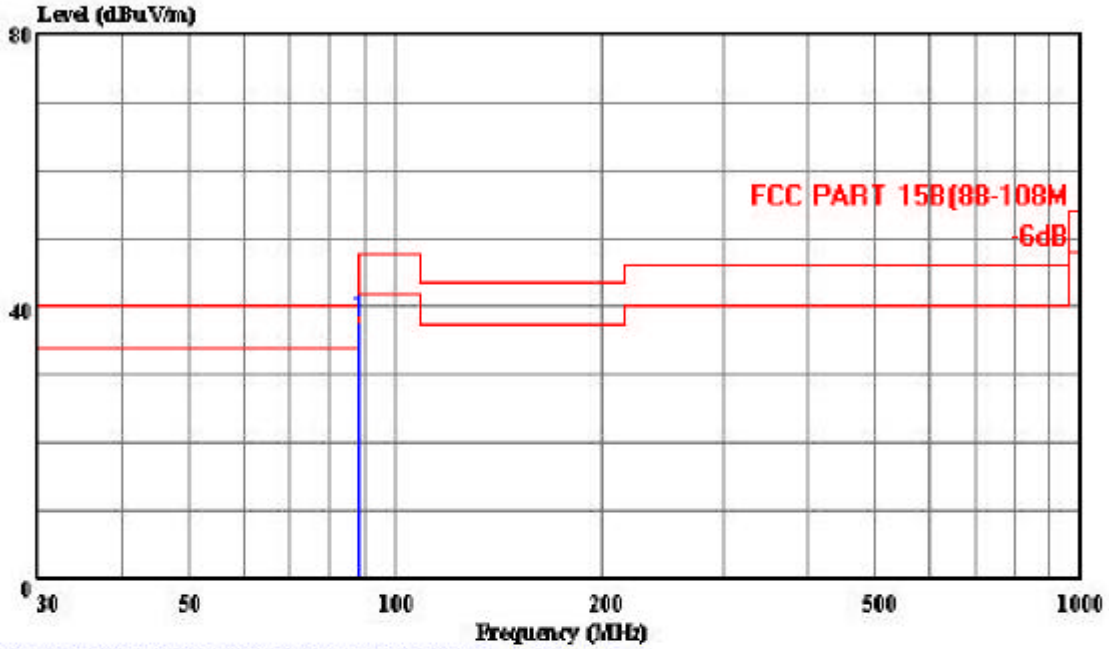


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR HORIZONTAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 1 (88.1-88.3MHz)
Comment : Temp:23' Humi:54%
Memo : Antpos:2.1m Tablepos:0'

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.165 | 37.63 | -10.32 | 47.95 | 26.80 | 1.98 | 8.85 |

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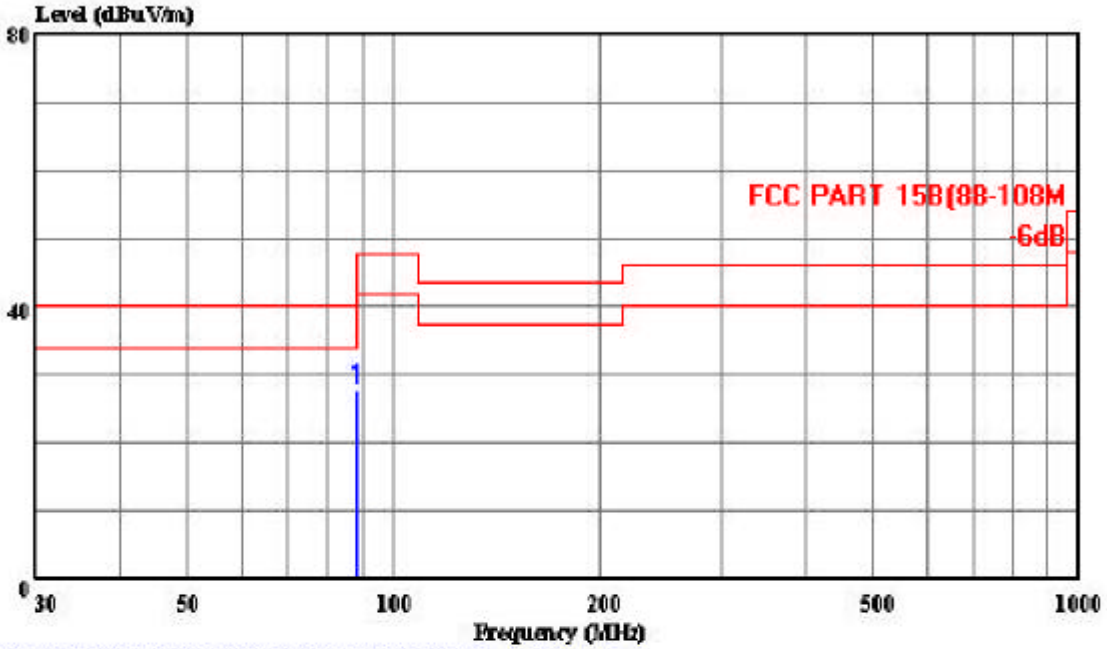


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 1 (88.1-88.3MHz)
Comment : Temp:23' Humi:54%
Memo : Antpos:1.1m Tablepos:0'

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.165 | 27.64 | -20.31 | 47.95 | 18.00 | 1.98 | 7.66 |

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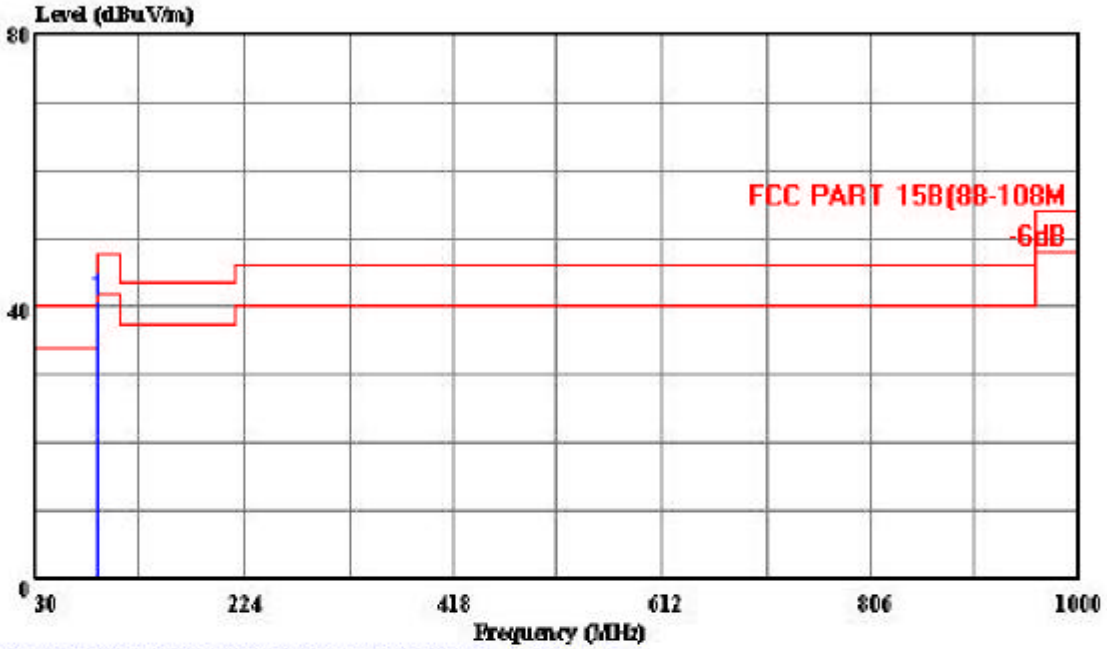


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR HORIZONTAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 2 (88.3-88.5MHz)
Comment : Temp:23' Humi:54%
Memo : Antpos:2.0m Tablepos:0'

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.350 | 40.92 | -7.03 | 47.95 | 58.02 | 1.95 | 9.08 |

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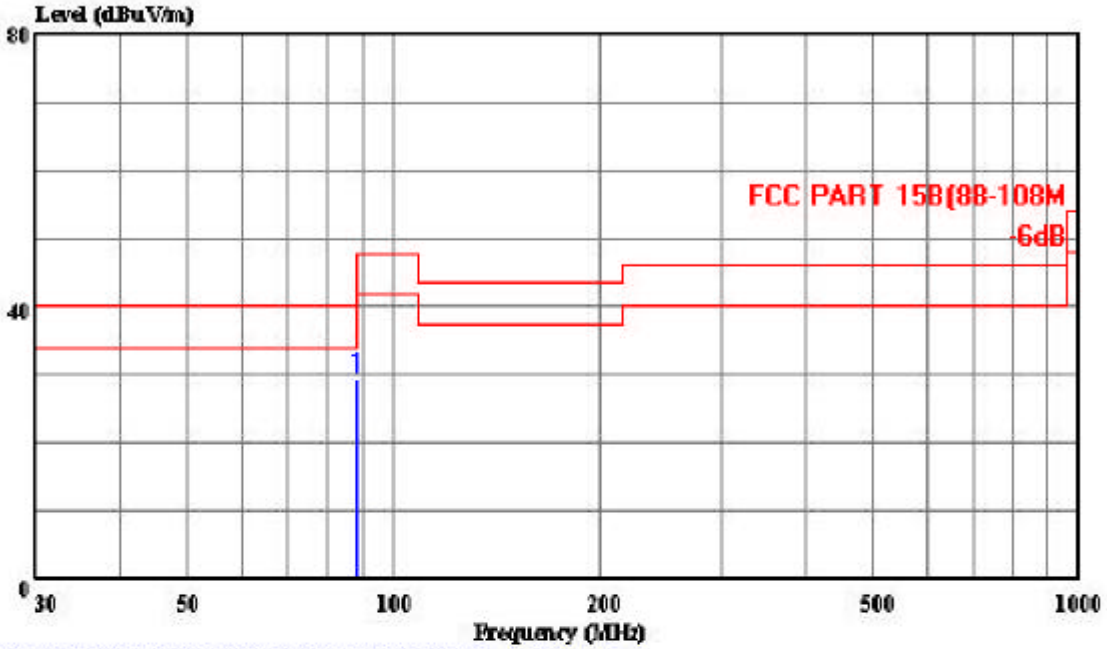


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Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 2 (88.3-88.5MHz)
Comment : Temp:23' Humi:54%
Memo : Antpos:1.1m Tablepos:0'

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.350 | 29.60 | -18.35 | 47.95 | 19.90 | 1.97 | 7.72 |

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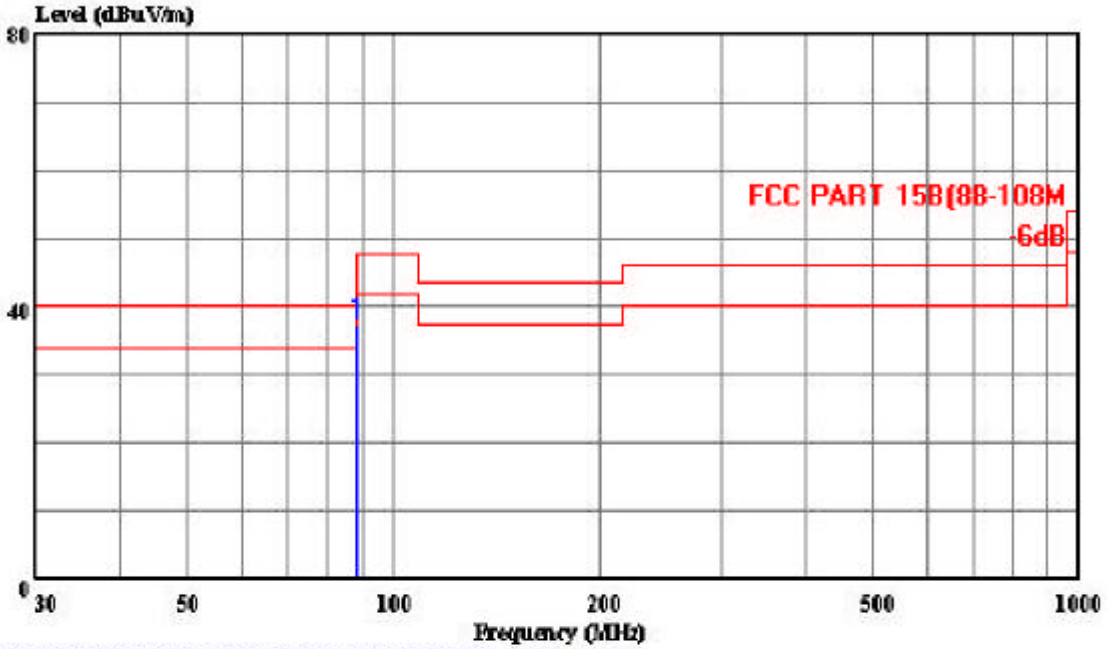


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR HORIZONTAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 3 (88.5-88.7MHz)
Comment : Temp:23' Humi:54%
Memo : Antpos:2.2m Tablepos:0'

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.560 | 37.26 | -10.69 | 47.95 | 26.40 | 1.97 | 8.89 |

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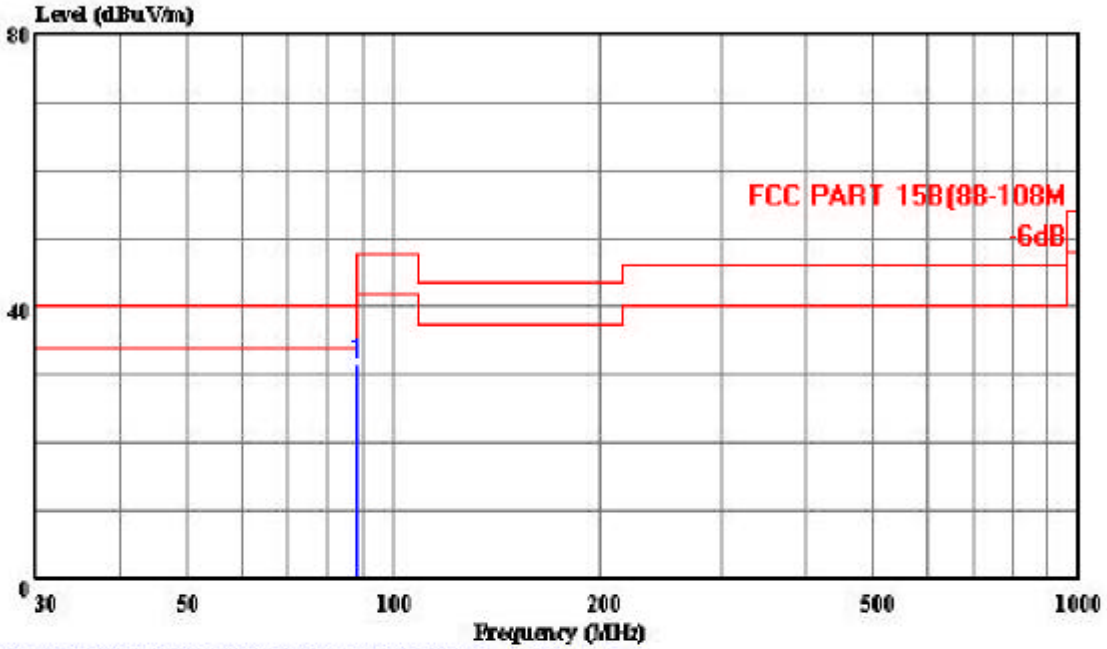
Data#: 17 File#: ACS5Q1236.BMI Date: 2006-01-06 Time: 00:07:11




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 3 (88.5-88.7MHz)
Comment : Temp:23' Humi:54%
Memo : Antpos:1.1m Tablepos:12'

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.560 | 31.53 | -16.42 | 47.95 | 21.83 | 1.97 | 7.72 |

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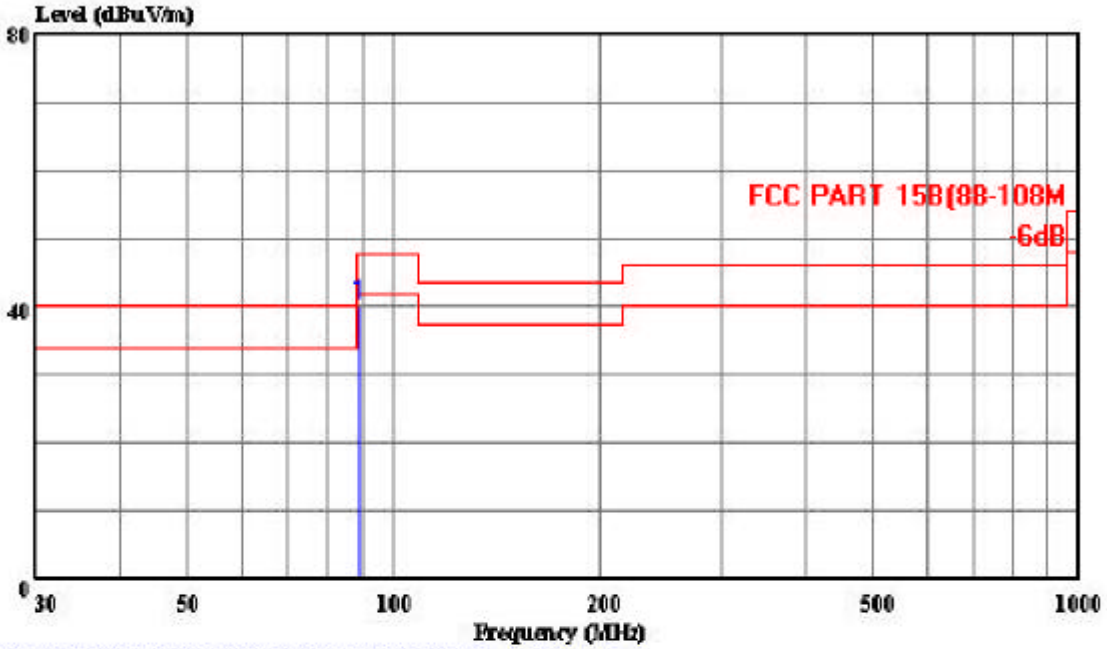
Data#: 23 File#: ACS5Q1236.EMI Date: 2006-01-06 Time: 00:20:00




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR HORIZONTAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 4 (88.7-88.9MHz)
Comment : Temp:23' Humi:54%
Memo : Antpos:2.1m Tablepos:0'

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.770 | 40.11 | -7.84 | 47.95 | 29.22 | 1.97 | 8.92 |

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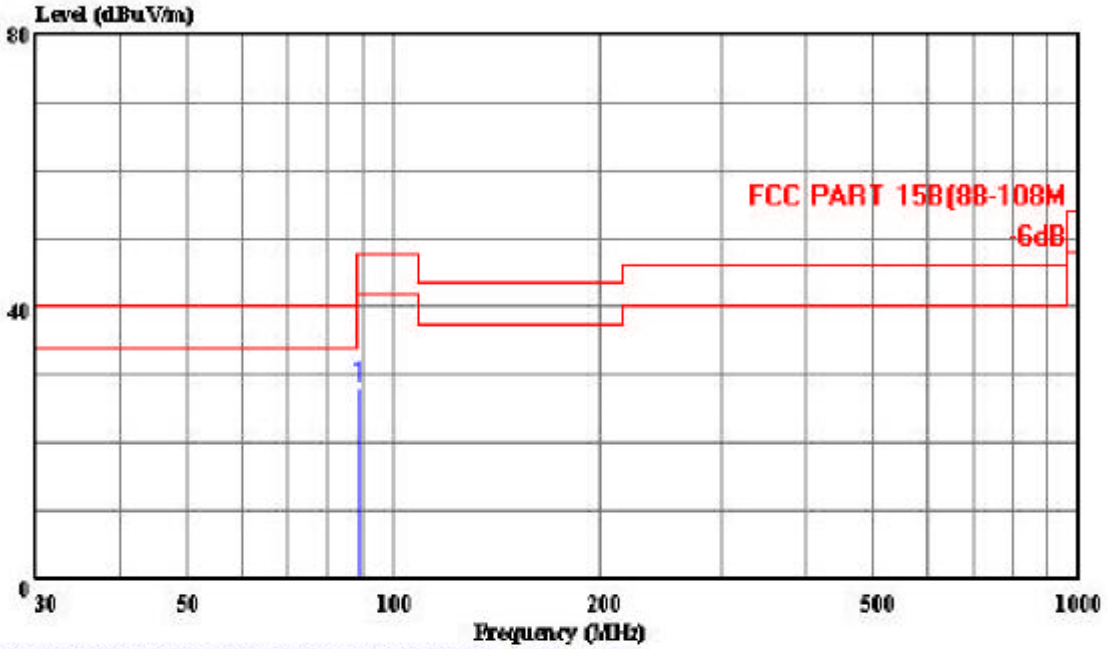
Data#: 20 File#: ACS5Q1236.BMI Date: 2006-01-06 Time: 00:15:08




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 4 (88.7-88.9MHz)
Comment : Temp:23' Humi:54%
Memo : Antpos:1.2m Tablepos:0'

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.773 | 28.06 | -19.89 | 47.95 | 18.30 | 1.97 | 7.79 |

# 4. BANDWIDTH TEST

## 4.1. Test Equipment

The following test equipments are used during the bandwidth test:

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | EMI Spectrum | HP | 85422E | 3625A00181 | May 16, 05 | 1 Year |
| 2. | Amplifier | HP | 8447D | 2944A07794 | Sep.14, 05 | 1/2 Year |
| 3. | Bilog Antenna | Schaffner | CBL6111C | 2598 | Jan. 11, 06 | 1 Year |
| 4. | RF Cable | MIYAZAKI | 5D-2W | 3# Chamber No.1 | Jan. 28, 06 | 1/2 Year |
| 5. | RF Cable | MIYAZAKI | 5D-2W | 3# Chamber No.2 | Jan. 28, 06 | 1/2 Year |
| 6. | RF Cable | FUJIKURA | RG-55/U | 3# Chamber No.3 | Jan. 28, 06 | 1/2 Year |
| 7. | RF Cable | FUJIKURA | RG-55/U | 3# Chamber No.4 | Jan. 28, 06 | 1/2 Year |
| 8. | Coaxial Switch | Anritsu | MP59B | M73989 | Jan. 28, 06 | 1/2 Year |

## 4.2. Test Standard

The test completeness FCC 15C (239).

## 4.3. Bandwidth Limit

200kHz wide centered on the operation frequency.

## 4.4. Test Procedure

**PASS.**

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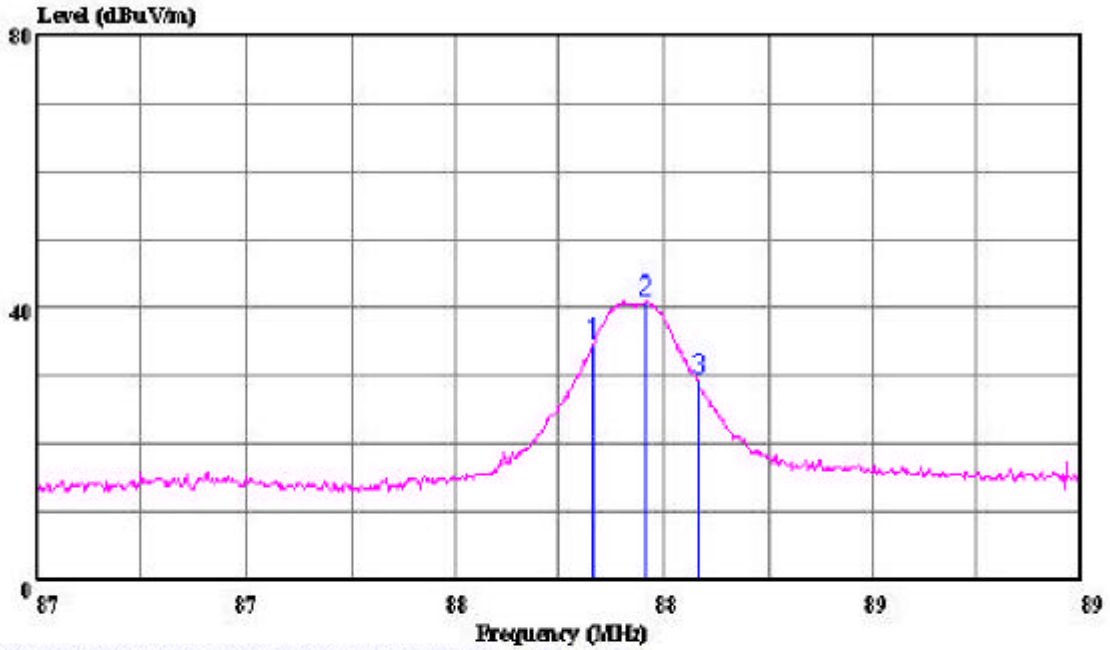
Data#: 25 File#: ACS5Q1236.BMI Date: 2006-01-23 Time: 13:21:39




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: 3 Ref Trace:

Condition: 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 1 (88.1-88.3MHz)
Comment : Temp:23' Humi:54%
Memo :

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.065 | 34.54 | ------ | ------ | 53.02 | 1.98 | 7.69 |
| 2 | 88.165 | 40.70 | ------ | ------ | 59.15 | 1.98 | 7.71 |
| 3 | 88.265 | 29.33 | ------ | ------ | 47.75 | 1.97 | 7.74 |

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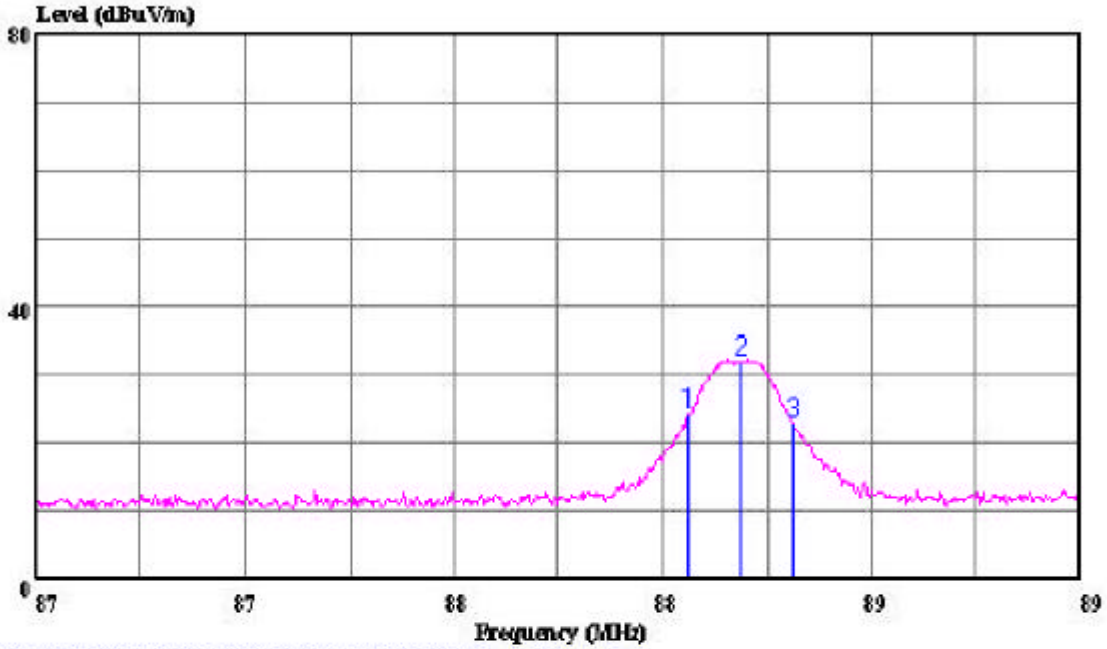


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: 9 Ref Trace:

Condition: 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 2 (88.3-88.5MHz)
Comment : Temp:23' Humi:54%
Memo :

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.250 | 24.07 | ------ | ------ | 42.50 | 1.97 | 7.74 |
| 2 | 88.350 | 31.71 | ------ | ------ | 50.11 | 1.97 | 7.76 |
| 3 | 88.450 | 22.87 | ------ | ------ | 41.25 | 1.97 | 7.79 |

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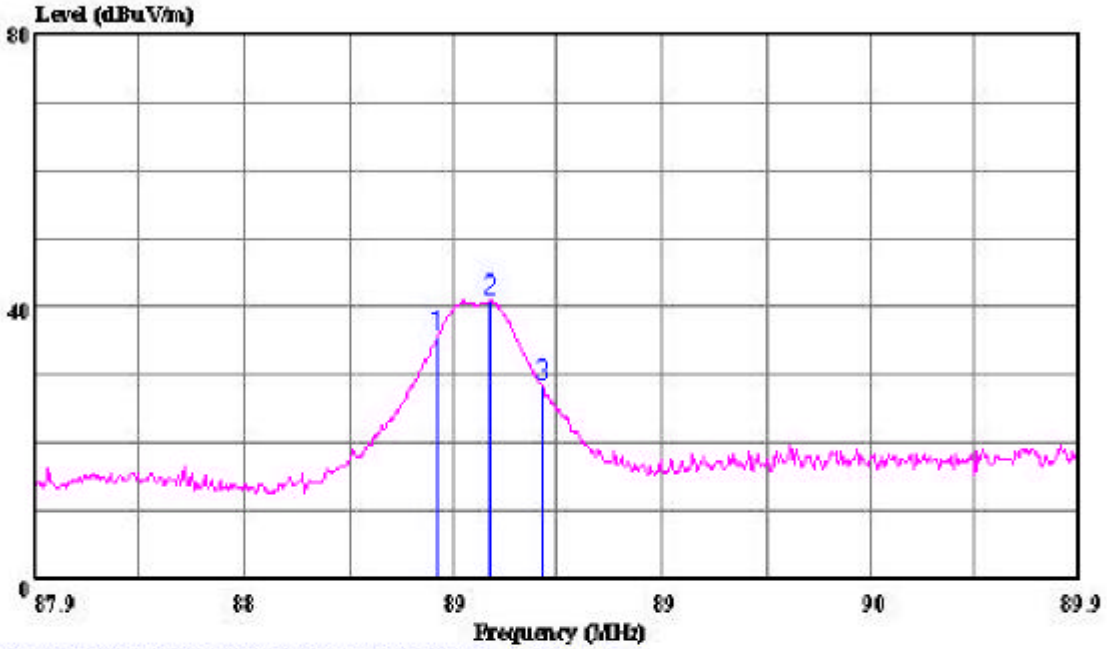
Data#: 26 File#: ACS5Q1236.EMI Date: 2006-01-23 Time: 13:50:30




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: 24 Ref Trace:

Condition: 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 4 (88.7-88.9MHz)
Comment : Temp:23' Humi:54%
Memo :

Page:

| | Freq | Level | Over Limit | Limit Line | Read Level | Cable Loss | Probe Factor |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB | dB |
| 1 | 88.670 | 35.82 | ------ | ------ | 54.15 | 1.97 | 7.84 |
| 2 | 88.770 | 40.72 | ------ | ------ | 59.02 | 1.97 | 7.87 |
| 3 | 88.870 | 28.48 | ------ | ------ | 46.75 | 1.96 | 7.89 |

# 5. DEVIATION TO TEST SPECIFICATIONS

[ NONE]

# APPENDIX I

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.
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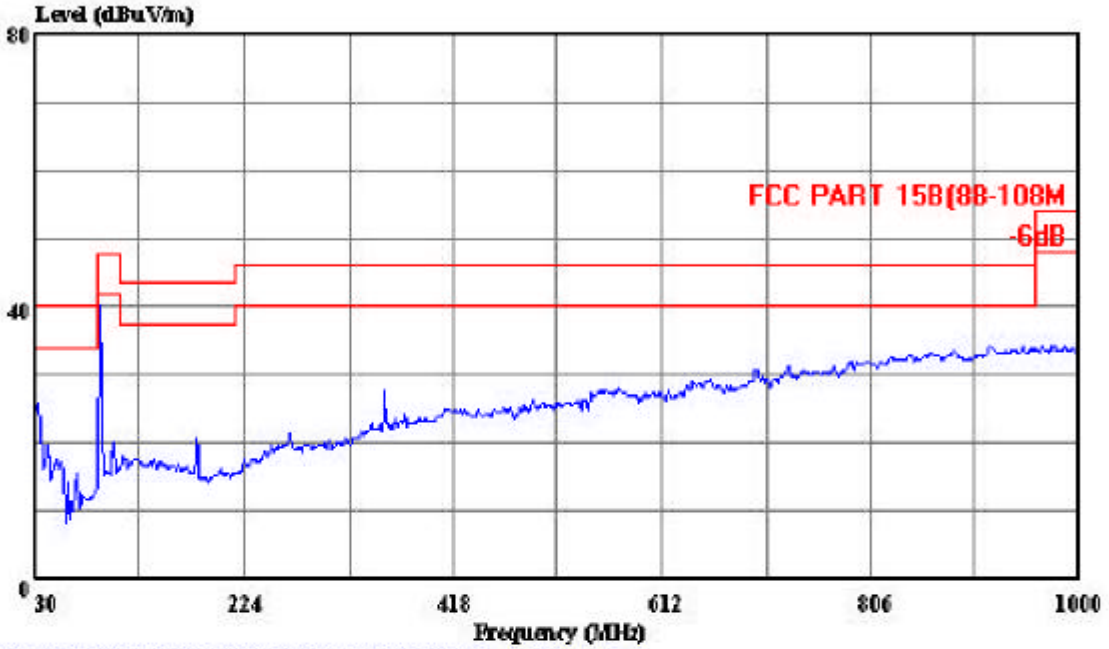
Data#: 1 File#: ACS5Q1236.EMI Date: 2006-01-05 Time: 22:34:23




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR HORIZONTAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 1 (88.1-88.3MHz)
Comment : Temp:23' Humi:54%
Memo :

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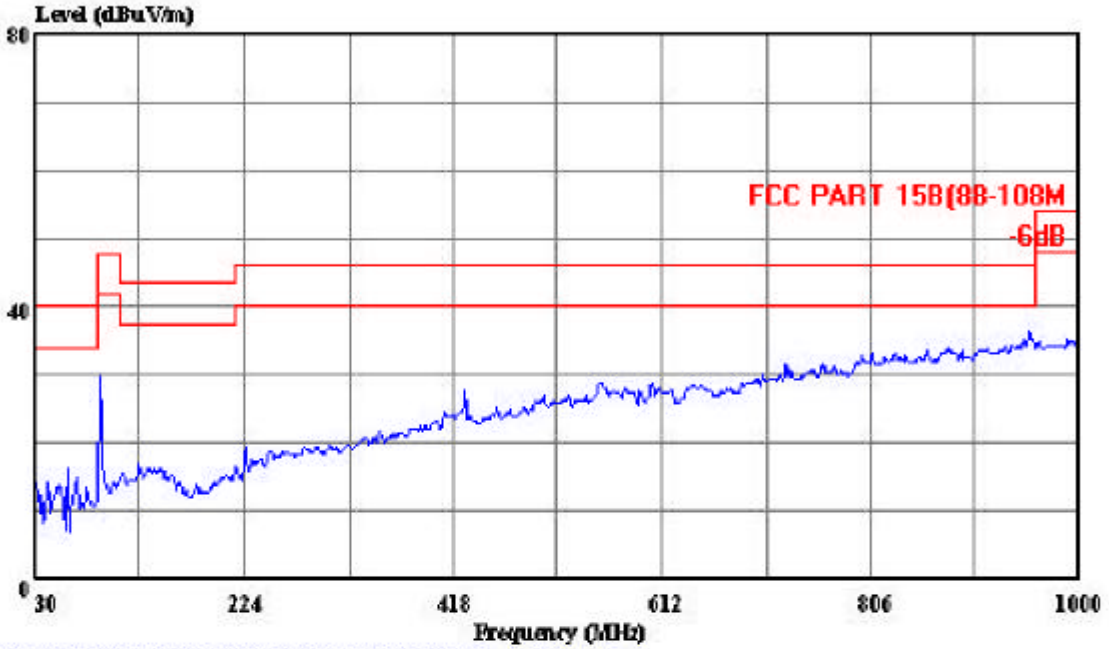


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 1 (88.1-88.3MHz)
Comment : Temp:23' Humi:54%
Memo :

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.
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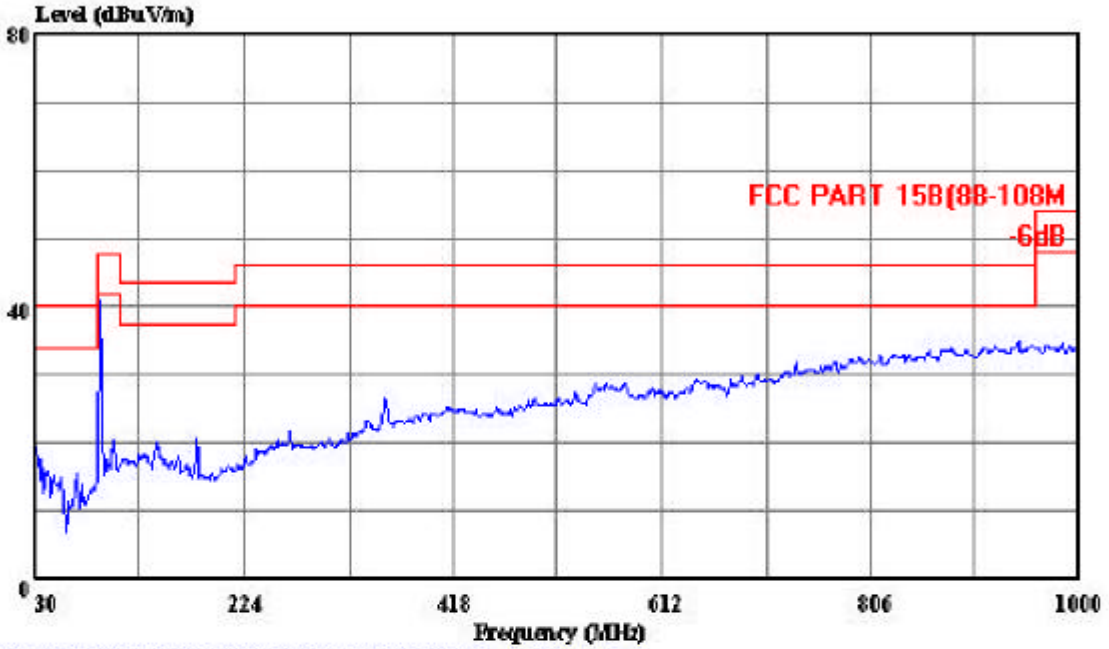


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR HORIZONTAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 2 (88.3-88.5MHz)
Comment : Temp:23' Humi:54%
Memo :

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.
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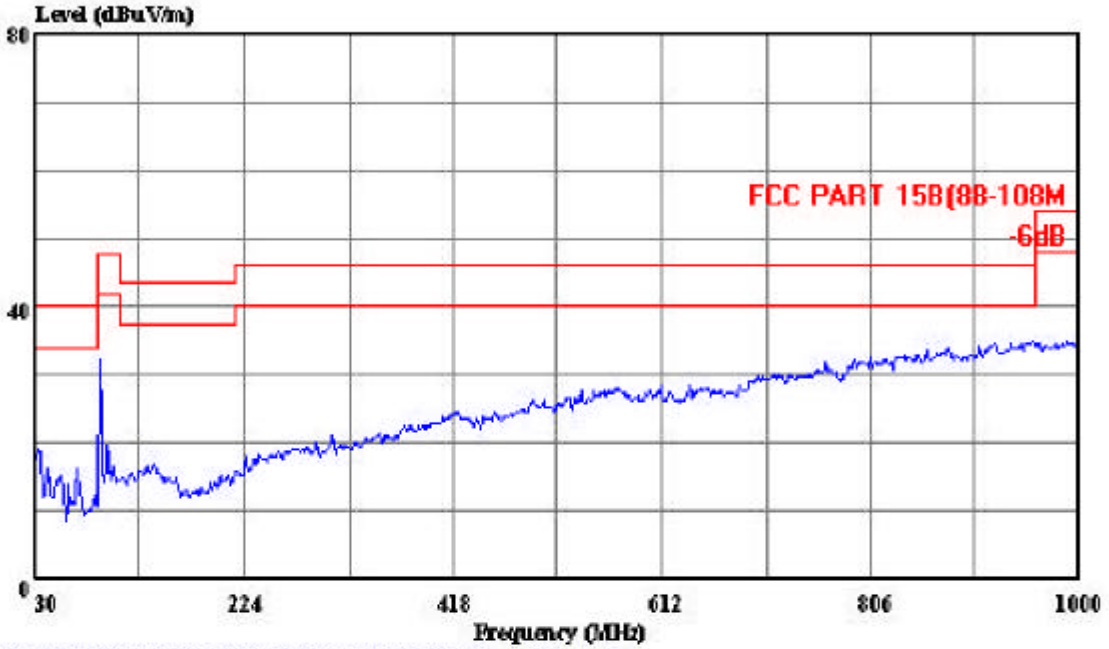
Data#: 7 File#: ACS5Q1236.EMI Date: 2006-01-05 Time: 23:05:35




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 2 (88.3-88.5MHz)
Comment : Temp:23' Humi:54%
Memo :

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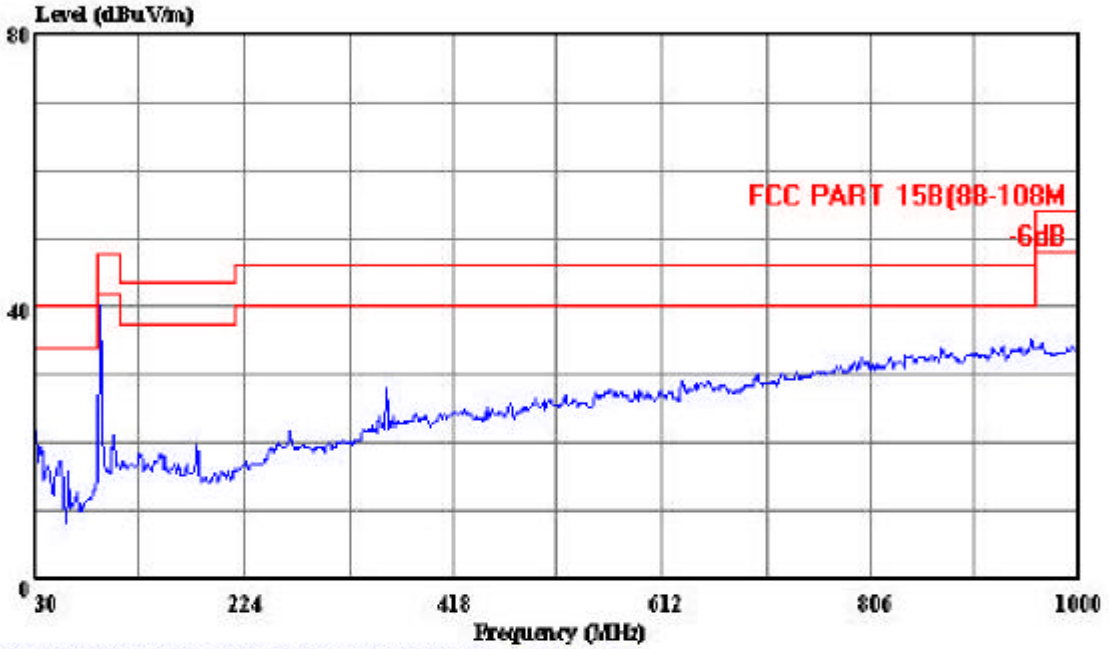


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR HORIZONTAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 3 (88.5-88.7MHz)
Comment : Temp:23' Humi:54%
Memo :

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.
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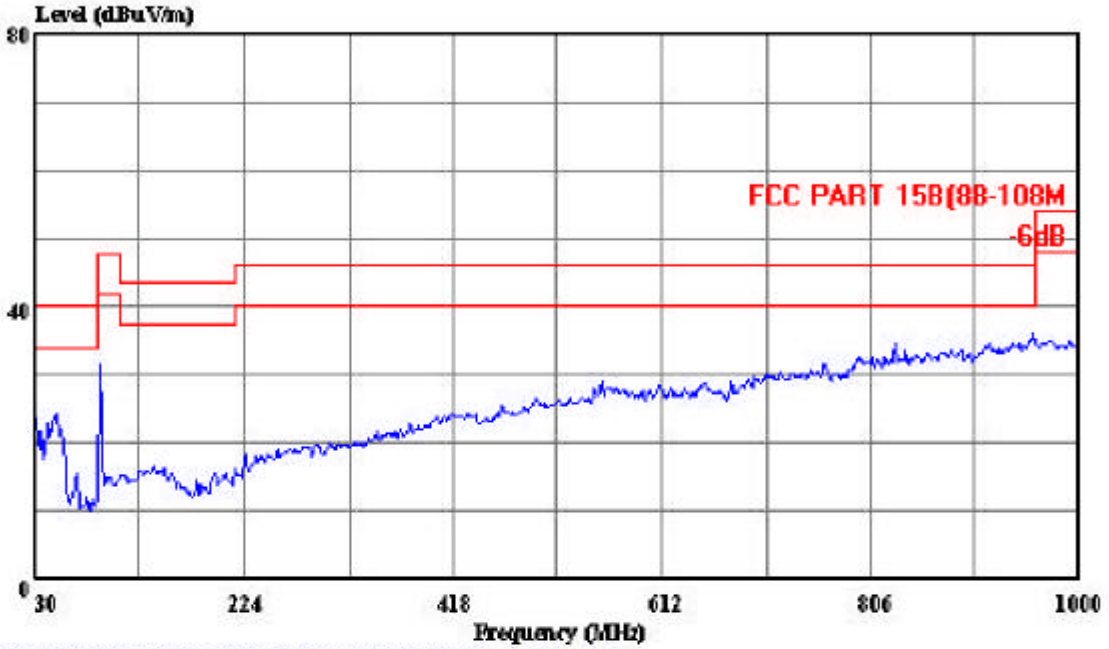
Data#: 16 File#: ACS5Q1236.EMI Date: 2006-01-06 Time: 00:07:05




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 3 (88.5-88.7MHz)
Comment : Temp:23' Humi:54%
Memo :

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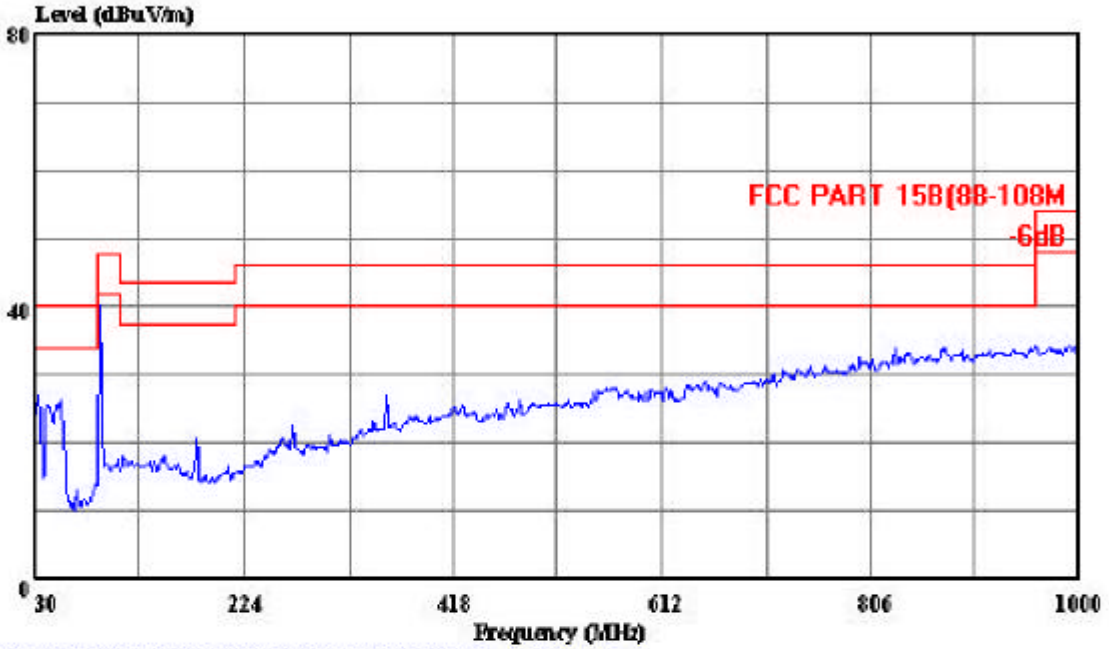


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR HORIZONTAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 4 (88.7-88.9MHz)
Comment : Temp:23' Humi:54%
Memo :

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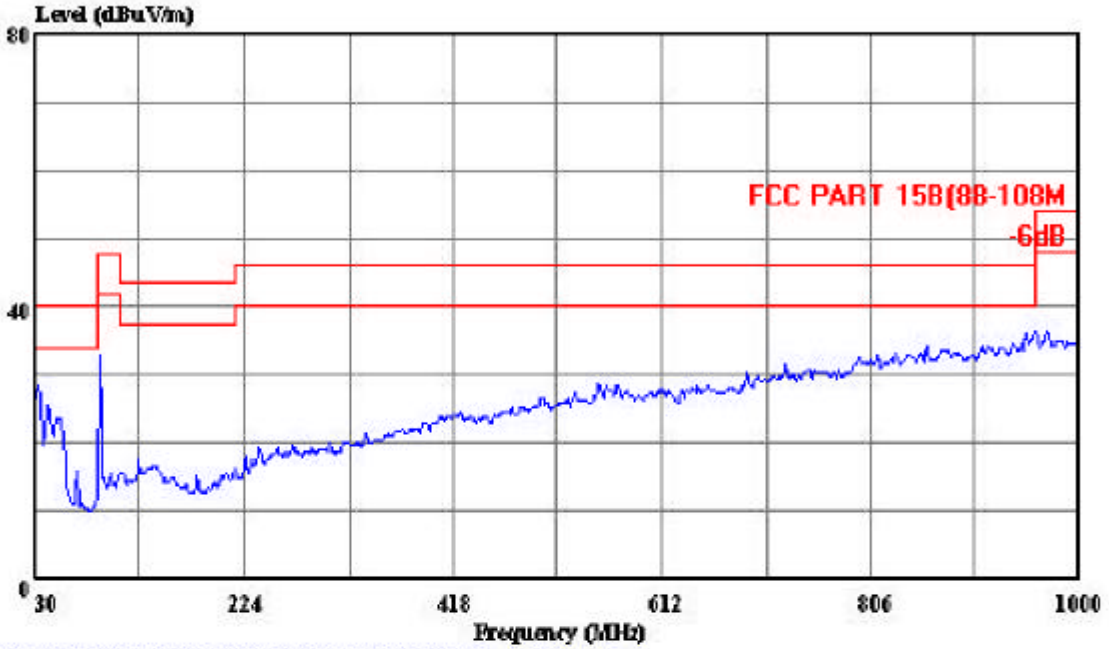
Data#: 19 File#: ACS5Q1236.EMI Date: 2006-01-06 Time: 00:12:52




AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B(88-108M 3m 2598FACTOR VERTICAL
EUT : FM Transmitter
M/N : NaNo-FC-FM
Test Spec : DC 12V
Test Engineer: VICTOR
OP Condition : Channel 4 (88.7-88.9MHz)
Comment : Temp:23' Humi:54%
Memo :