Freetron (Far East) Co., Ltd.

FM Transmitter

Model Number: 10010

Prepared for : Freetron (Far East) Co., Ltd.
Block 11, Wan Feng Da Zhong Jiang Ind. Estate,
Sha Jing Zhen, Bao An Xian, Shenzhen, China.

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-F05302
Date of Test : Sep.09~Oct.12,2005
Date of Report : Oct.18,2005

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TEST REPORT DECLARATION

Applicant : Freetron (Far East) Co., Ltd.

Manufacturer : Freetron (Far East) Co., Ltd.

EUT Description : FM Transmitter

(A) MODEL NO. : 10010
(B) SERIAL NO. : F2005101801
(C) POWER SUPPLY : DC 3.1V

Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Jun,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 : Sep.09~Oct.12,2005

Prepared by : Annie Wu / Assistant

Reviewer : Lake Wang / Supervisor

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:

Approved & Authorized Signer : Ken Lu / Assistant Manager

Name of the Representative of the Responsible Party : _____

Signature : _____

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description **:** FM Transmitter

Model Number **:** 10010

Applicant **:** Freetron (Far East) Co., Ltd.
Block 11, Wan Feng Da Zhong Jiang Ind. Estate,
Sha Jing Zhen, Bao An Xian, Shenzhen, China.

Manufacturer **:** Freetron (Far East) Co., Ltd.
Block 11, Wan Feng Da Zhong Jiang Ind. Estate,
Sha Jing Zhen, Bao An Xian, Shenzhen, China.

Date of Test **:** Jun.25~29, 2004

1.2. Tested Supporting System Details

1.2.1. Headphone

Model Number : MDR-505
Manufacturer : SONY

1.3. Test Facility

Site Description

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

1.4. 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. RADIATED EMISSION TEST

2.1. Test Equipment

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

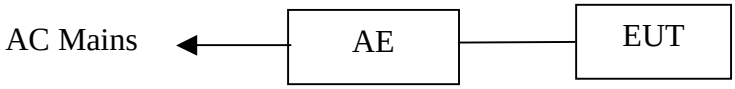
2.1.1. For Anechoic Chamber

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. 12, 05	1 Year
5.	PC	N/A	586ATX3	N/A	N/A	N/A
6.	Printer	HP	Laserjet6P	SGCF019673	N/A	N/A
7.	RF Cable	MIYAZAKI	5D-2W	3# Chamber No.1	Jul. 29, 05	1/2 Year
8.	RF Cable	MIYAZAKI	5D-2W	3# Chamber No.2	Jul. 29, 05	1/2 Year
9.	RF Cable	FUJIKURA	RG-55/U	3# Chamber No.3	Jul. 29, 05	1/2 Year
10.	RF Cable	FUJIKURA	RG-55/U	3# Chamber No.4	Jul. 29, 05	1/2 Year
11.	Coaxial Switch	Anritsu	MP59B	M73989	Jul. 29, 05	1/2 Year

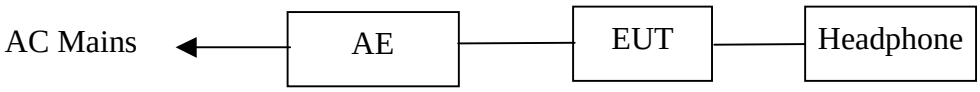
2.2. Block Diagram of Test Setup

2.2.1. Block Diagram of connection between EUT and simulators

TX Mode



FM Mode

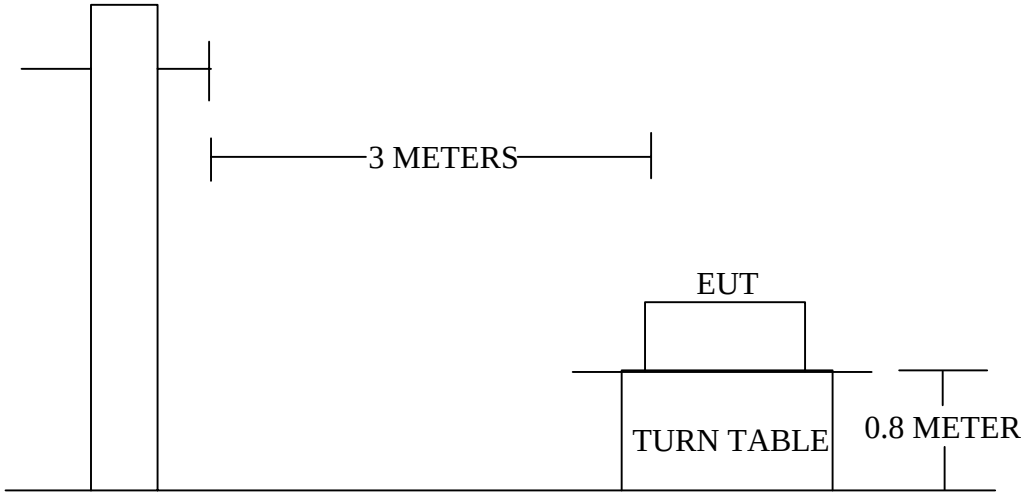


(EUT: FM Transmitter)

2.2.2. Anechoic Chamber Setup Diagram

ANTENNA TOWER

ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS



GROUND PLANE

2.3. 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	Local Oscillator: 114.0 dB(μV)/m (Peak) 94.0 dB(μV)/m (Average) Other: 74.0 dB(μV)/m (Peak) 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.

2.4. 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.

2.4.1. FM Transmitter (EUT)

Model Number	:	10010
Serial Number	:	F2005101801
Manufacturer	:	Freetron (Far East) Co., Ltd.

2.5. Operating Condition of EUT

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

2.5.2. Let the EUT work in test modes (FM 88MHz/FM 98MHz/FM 108MHz/FM 88.1MHz/FM 98.1MHz/FM 107.9MHz) and test it.

2.6. 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 bandwidth of the VBW is set at 300KHz and RBW is set at 120KHz for measurement below 1GHz.

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

The test modes (FM 108MHz/FM 88.1MHz/FM 98.1MHz/FM 107.9MHz) is tested in Anechoic Chamber and all the scanning waveforms are attached in Appendix I.

2.7. Radiated Emission Test Results

PASS.

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

Date of Test	:	Sep.19,2005	Temperature	:	23.8℃
EUT	:	FM Transmitter	Humidity	:	57%
Model No.	:	10010	Test Mode	:	FM 108MHz (FM Receive Mode)
Test Engineer:		Victor			

Frequency	Antenna Factor	Cable Loss	Meter Reading Horizontal	Emission Level Horizontal	Over Limits	Limits
MHz	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
121.180	12.33	2.29	5.03	19.65	-23.85	43.50
216.450	**10.02**	**3.33**	**26.39**	**39.74**	**-6.26**	**46.00**
332.640	14.91	4.14	3.87	22.92	-23.08	46.00
434.490	16.77	4.95	2.76	24.48	-21.52	46.00
567.380	19.34	5.74	1.22	26.30	-19.70	46.00
732.280	21.16	6.58	1.50	29.24	-16.76	46.00

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 216.450MHz with corrected signal level of 39.74dBμV/m(Limit is 46.00 dBμV/m) when the antenna was at horizontal polarization and at 1.3m high and the turn table was at 230 ° .
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer : Lake Wang

Date of Test	:	Sep.19,2005	Temperature	:	23.8℃
EUT	:	FM Transmitter	Humidity	:	57%
Model No.	:	10010	Test Mode	:	FM 108MHz (FM Receive Mode)
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
140.580	11.56	2.70	4.76	19.02	-24.48	43.50
216.450	**9.31**	**3.33**	**20.32**	**32.96**	**-13.04**	**46.00**
336.520	13.74	4.24	2.64	20.63	-25.37	46.00
414.120	16.03	4.79	2.82	23.64	-22.36	46.00
492.690	17.29	5.38	2.51	25.18	-20.82	46.00
612.000	19.42	5.84	2.12	27.37	-18.63	46.00

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
3. The worst emission was detected at 216.450MHz with corrected signal level of 32.96dBμV/m(Limit is 46.00dBμV/m) when the antenna was at vertical polarization and at 1.5m high and the turn table was at 250 ° .
4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer : Lake Wang

Date of Test	:	Oct.12,2005	Temperature	:	23.3℃
EUT	:	FM Transmitter	Humidity	:	52%
Model No.	:	10010	Test Mode	:	FM 88.1MHz (FM Transmitting Mode)
Test Engineer:		Victor			

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dBμV/m	Limits dBμV/m
88.100	**8.85**	**1.98**	**27.76**	**38.59**	**-9.36**	**47.95**
176.200	10.03	2.95	19.09	32.07	-11.34	43.50

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 88.100MHz with corrected signal level of 38.59dBμV/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 : Lake Wang

Date of Test	:	Oct.12,2005	Temperature	:	23.3℃
EUT	:	FM Transmitter	Humidity	:	52%
Model No.	:	10010	Test Mode	:	FM 88.1MHz(FM Transmitting Mode)
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
88.100	**7.66**	**1.98**	**19.72**	**29.37**	**-18.59**	**47.95**
176.200	7.46	2.95	10.71	21.13	-22.37	43.50

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 88.100MHz with corrected signal level of 29.37dBμV/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 : Lake Wang

Date of Test	:	Oct.12,2005	Temperature	:	23.3℃
EUT	:	FM Transmitter	Humidity	:	52%
Model No.	:	10010	Test Mode	:	FM 98.1MHz(FM Transmitting Mode)
Test Engineer:		Victor			

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dBμV/m	Limits dBμV/m
98.100	10.82	2.05	29.38	42.25	-5.70	47.95
196.840	9.27	3.16	21.48	33.91	-9.59	43.50
295.780	13.29	3.90	6.16	23.35	-22.65	46.00
392.435	**15.87**	**4.68**	**20.31**	**40.86**	**-5.14**	**46.00**
492.690	17.33	5.38	17.09	39.80	-6.20	46.00
589.690	18.78	5.85	14.71	39.35	-6.65	46.00

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 392.435MHz with corrected signal level of 40.86dBμV/m(Limit is 46.00dBμV/m) when the antenna was at vertical polarization and at 1.8m 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 : Lake Wang

Date of Test	:	Oct.12,2005	Temperature	:	23.3℃
EUT	:	FM Transmitter	Humidity	:	52%
Model No.	:	10010	Test Mode	:	FM 98.1MHz(FM Transmitting Mode)
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
98.100	9.06	2.05	26.25	37.36	-10.59	47.95
196.840	8.40	3.16	12.65	24.21	-19.29	13.50
295.780	12.86	3.90	5.83	22.59	-23.41	46.00
392.780	**15.28**	**4.68**	**16.64**	**36.60**	**-9.40**	**46.00**
492.690	17.29	5.38	4.75	27.42	-18.58	46.00
589.690	19.00	5.85	7.02	31.88	-14.12	46.00

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 392.780MHz with corrected signal level of 36.60dBμV/m(Limit is 46.00dBμV/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 : Lake Wang

Date of Test	:	Oct.12,2005	Temperature	:	23.3℃
EUT	:	FM Transmitter	Humidity	:	52%
Model No.	:	10010	Test Mode	:	FM 107.9MHz(FM Transmitting Mode)
Test Engineer:		Victor			

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dBμV/m	Limits dBμV/m
107.900	**11.25**	**2.27**	**31.78**	**45.30**	**-2.65**	**47.95**
215.800	9.81	3.31	27.44	40.56	-2.94	43.50
323.700	14.14	4.03	12.69	30.86	-15.14	46.00
431.580	16.63	4.82	2.28	41.73	-4.27	46.00
539.500	18.20	5.43	19.59	43.23	-2.77	46.00
647.890	20.06	6.19	12.89	39.14	-6.86	46.00

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 107.900MHz with corrected signal level of 45.30dBμV/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 : Lake Wang

Date of Test	:	Oct.12,2005	Temperature	:	23.3℃
EUT	:	FM Transmitter	Humidity	:	52%
Model No.	:	10010	Test Mode	:	FM 107.9MHz(FM Transmitting Mode)
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
107.900	**9.46**	**2.27**	**22.87**	**34.60**	**-13.35**	**47.95**
215.800	9.09	3.31	14.64	27.04	-16.46	43.50
431.580	16.16	4.82	10.56	31.55	-14.45	46.00
539.500	18.75	5.43	12.61	36.79	-9.21	46.00

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 107.900MHz with corrected signal level of 34.60dBμV/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 : Lake Wang

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.
Shenzhen Science & Ind. Park
Tel: 0755-26639495~7
Fax: 0755-26632877

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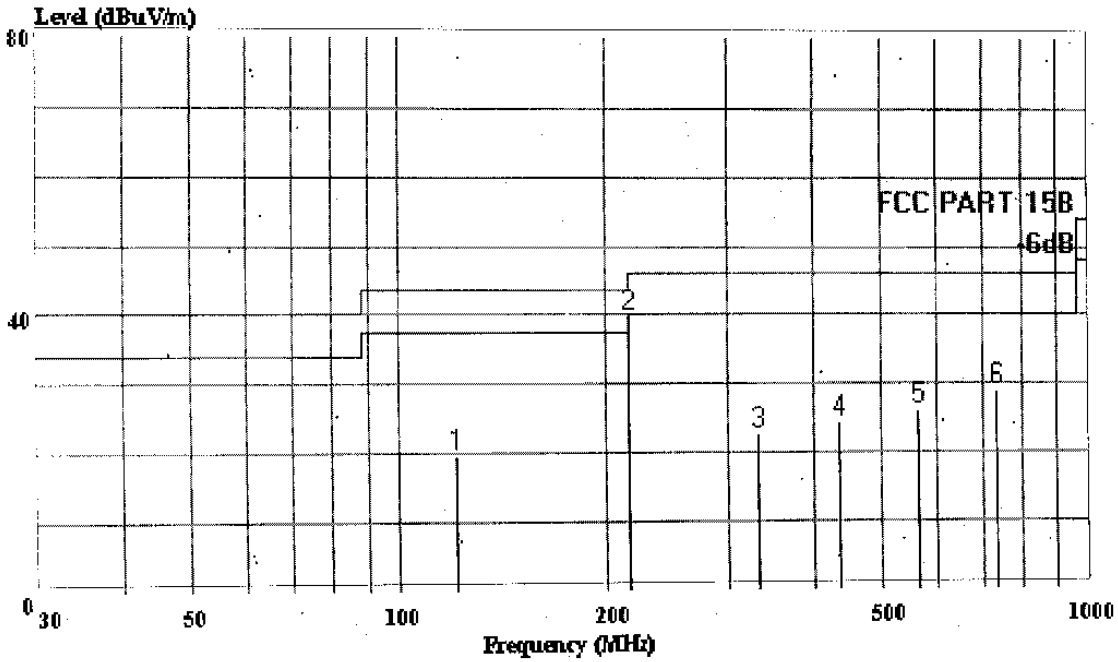

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR HORIZONTAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 108MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.8'C Humi:57%
Memo : H:1.3m Deg:230'

Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	121.180	19.65	-23.85	43.50	5.03	12.33	2.29
2	216.450	39.74	-6.26	46.00	26.39	10.02	3.33
3	332.640	22.92	-23.08	46.00	3.87	14.91	4.14
4	434.490	24.48	-21.52	46.00	2.76	16.77	4.95
5	567.380	26.30	-19.70	46.00	1.22	19.34	5.74
6	732.280	29.24	-16.76	46.00	1.50	21.16	6.58

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.
Shenzhen Science & Tnd. Park
Tel: 0755-26639495~7
Fax: 0755-26632877

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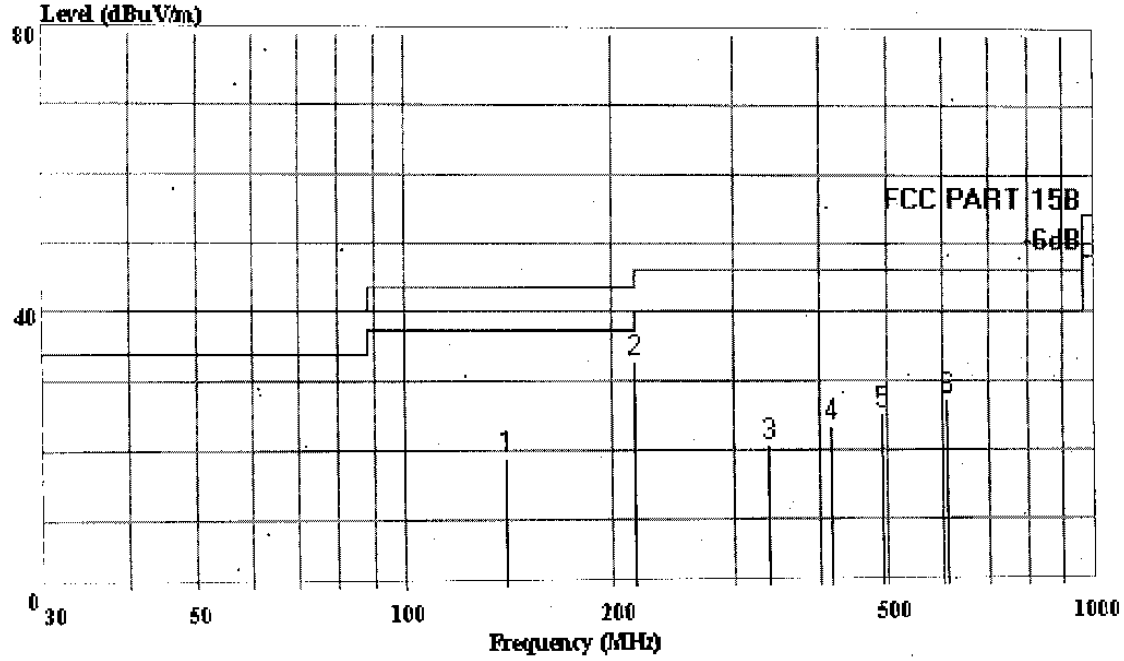

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 108MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.8'C Humi:57%
Memo : H:1.5m Deg:250'

Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	140.580	19.02	-24.48	43.50	4.76	11.56	2.70
2	216.450	32.96	-13.04	46.00	20.32	9.31	3.33
3	336.520	20.63	-25.37	46.00	2.64	13.74	4.24
4	414.120	23.64	-22.36	46.00	2.82	16.03	4.79
5	492.690	25.18	-20.82	46.00	2.51	17.29	5.38
6	612.000	27.37	-18.63	46.00	2.12	19.42	5.84

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.
Shenzhen Science & Ind. Park
Tel: 0755-26639495~7
Fax: 0755-26632877

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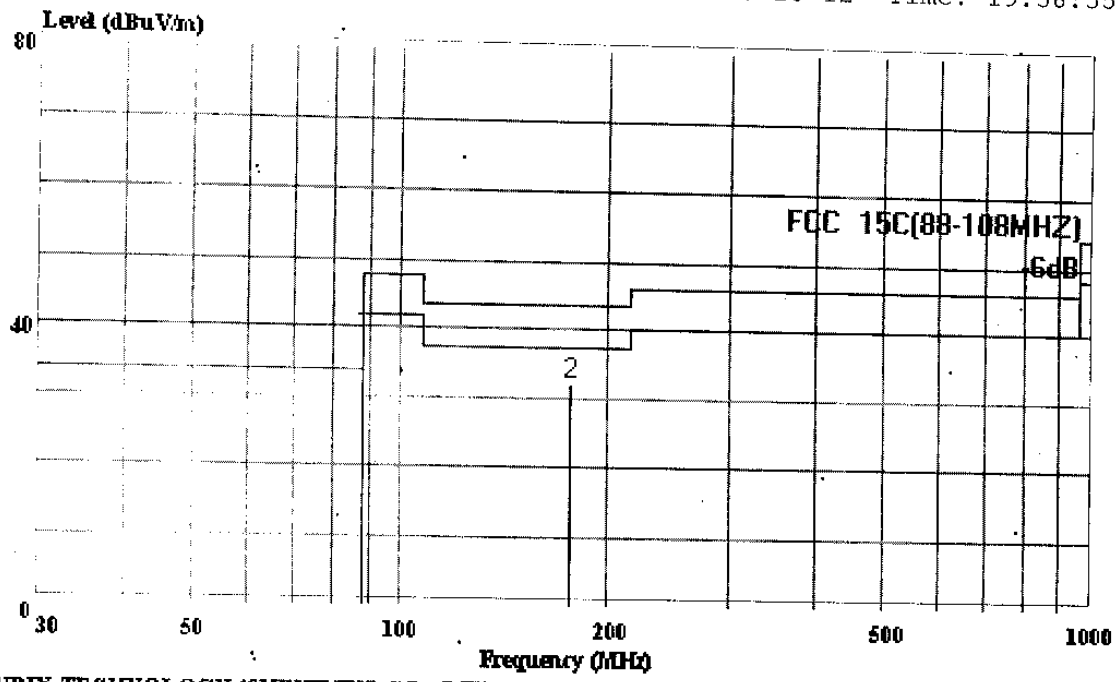

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR HORIZONTAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 88.1MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX
: AntPos:1.1m TablePos:0'

Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	88.100	38.59	-9.36	47.95	27.76	8.85	1.98
2	176.200	32.07	-11.43	43.50	19.09	10.03	2.95

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.
Shenzhen Science & Ind. Park
Tel: 0755-26639495~7
Fax: 0755-26632877

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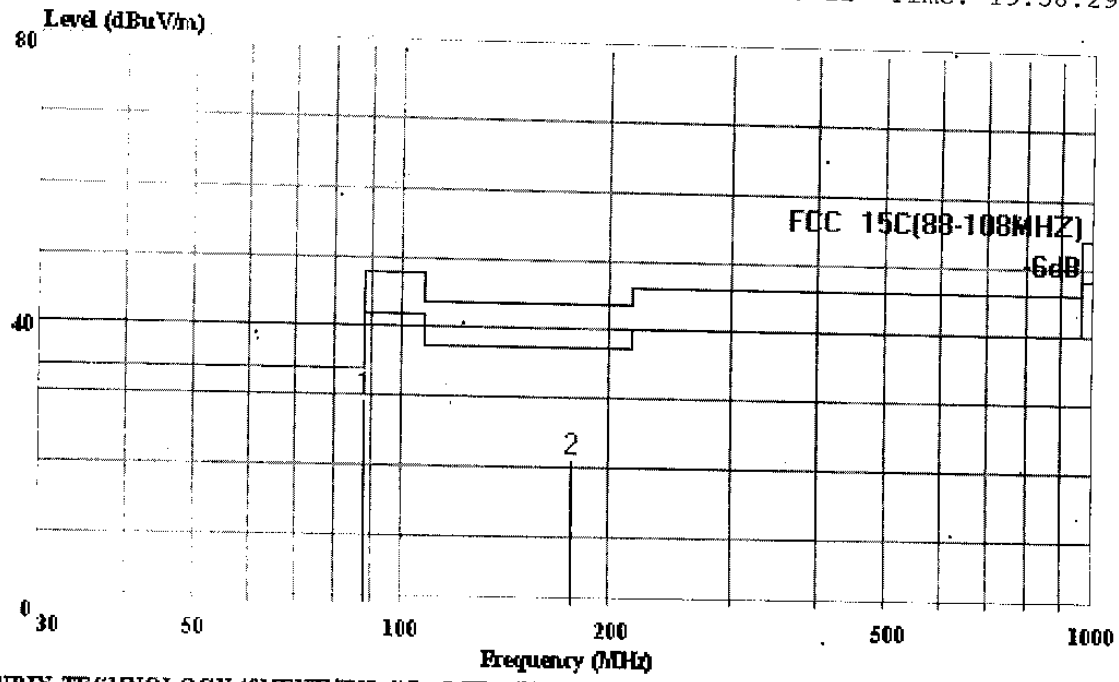

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 88.1MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX
: AntPos:1.1m TablePos:0'

Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	88.100	29.37	-18.59	47.95	19.72	7.66	1.98
2	176.200	21.13	-22.37	43.50	10.71	7.46	2.95

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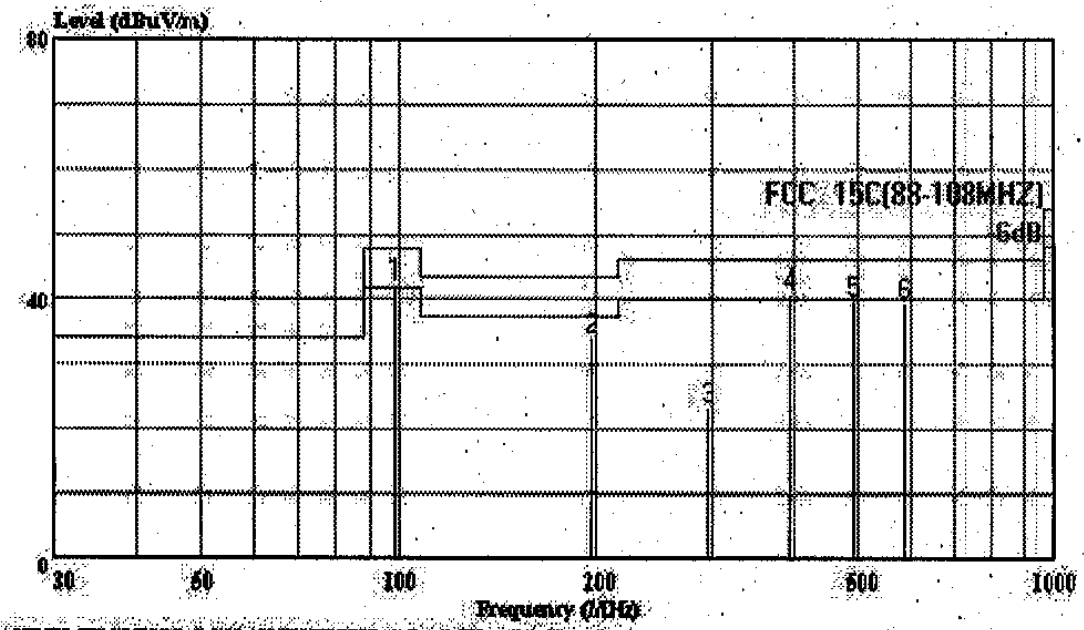
Data#: 20 File#: Freetron.emi Date: 2005-09-19 Time: 11:51:20



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

Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR HORIZONTAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 98.1MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX
: AntPos:1.8m TablePos:0'

Page:

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	98.100	42.25	-5.70	47.95	29.38	10.82	2.05
2	196.840	33.91	-9.59	43.50	21.48	9.27	3.16
3	295.780	23.35	-22.65	46.00	6.16	13.29	3.90
4	392.435	40.86	-5.14	46.00	20.31	15.87	4.68
5	492.690	39.80	-6.20	46.00	17.09	17.33	5.38
6	589.690	39.35	-6.65	46.00	14.71	18.78	5.85

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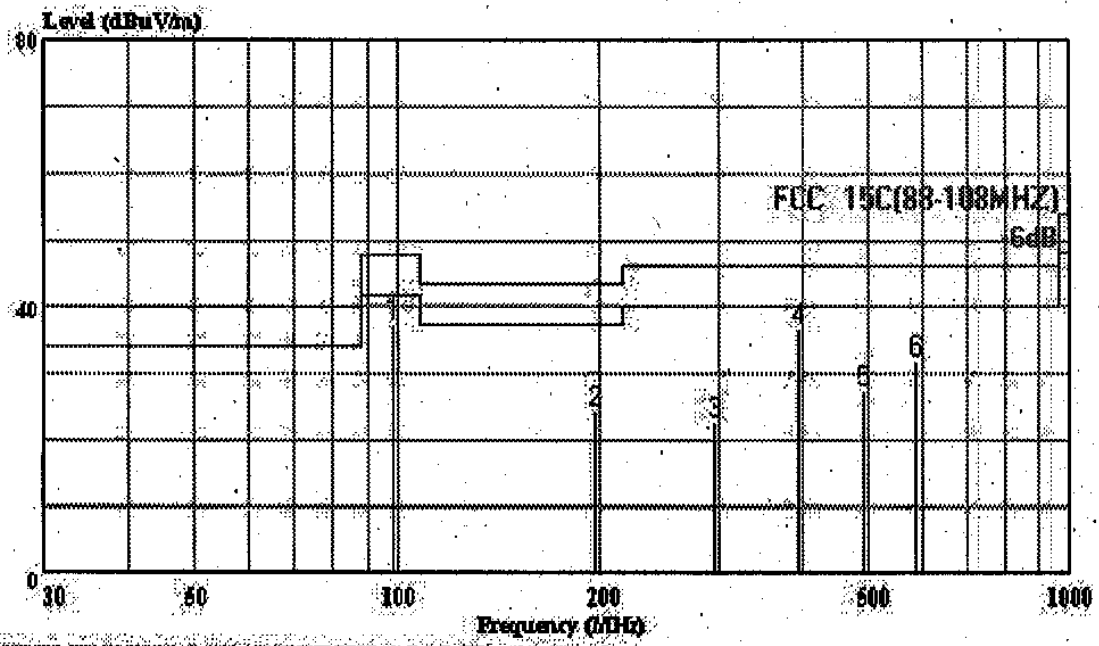

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 98.1MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX
: AntPos:1.1m TablePos:0'

Page:

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	98.100	37.36	-10.59	47.95	26.25	9.06	2.05
2	196.840	24.21	-19.29	43.50	12.65	8.40	3.16
3	295.780	22.59	-23.41	46.00	5.83	12.86	3.90
4	392.780	36.60	-9.40	46.00	16.64	15.28	4.68
5	492.690	27.42	-18.58	46.00	4.75	17.29	5.38
6	589.690	31.88	-14.12	46.00	7.02	19.00	5.85

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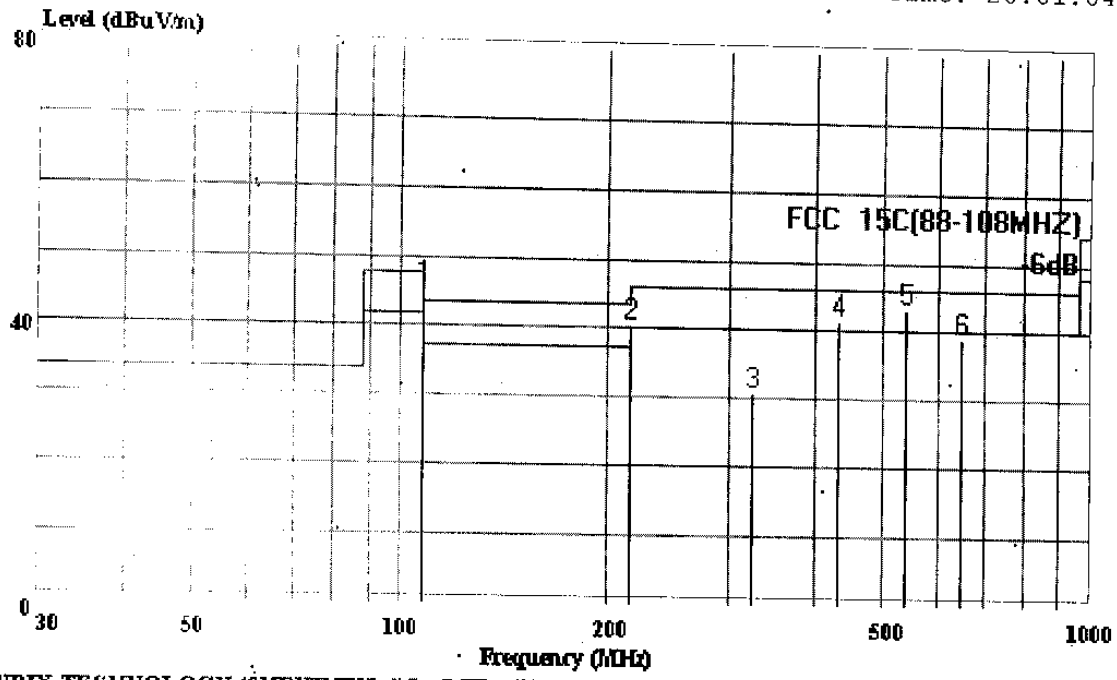

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR HORIZONTAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 107.9MHz.
Test Spec : FCC 15C
Test Engineer : VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX
: AntPos:1.1m TablePos:0'

Page: 1

		Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	!	107.900	45.30	-2.65	47.95	31.78	11.25	2.27
2	!	215.800	40.56	-2.94	43.50	27.44	9.81	3.31
3		323.700	30.86	-15.14	46.00	12.69	14.14	4.03
4	!	431.600	41.73	-4.27	46.00	20.28	16.63	4.82
5	!	539.500	43.23	-2.77	46.00	19.59	18.20	5.43
6		647.400	39.14	-6.86	46.00	12.89	20.06	6.19

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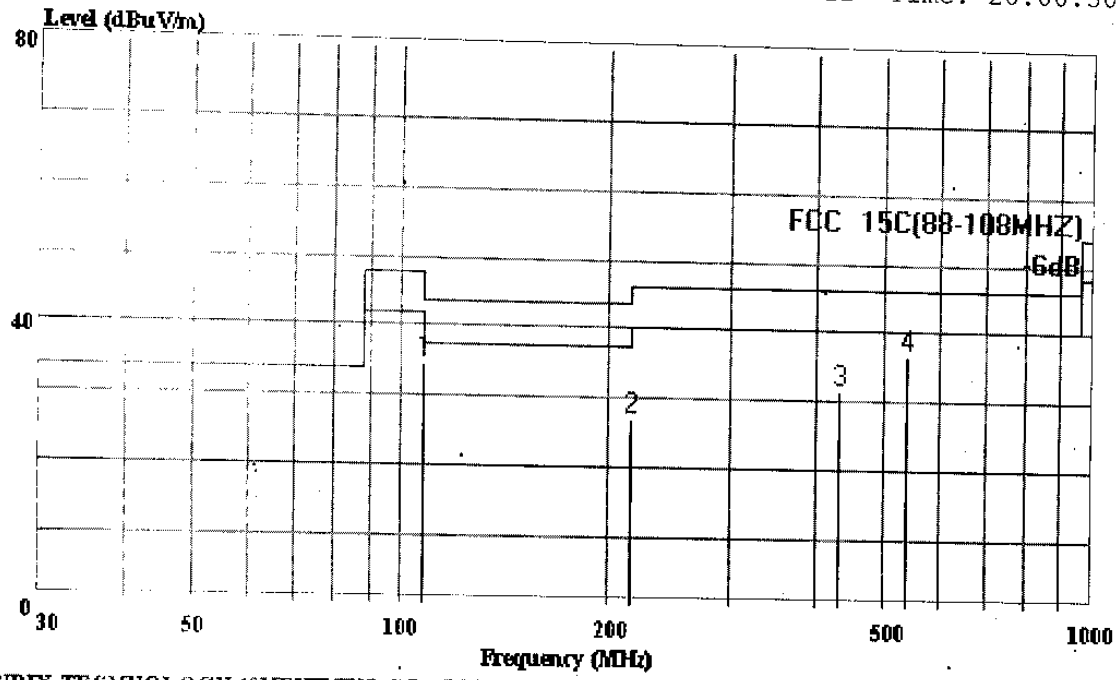
Data#: 23 File#: Freetron.emi Date: 2005-10-12 Time: 20:00:30



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

Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 107.9MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX
: AntPos:1.1m TablePos:0'

Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	107.90	34.60	-13.35	47.95	22.87	9.46	2.27
2	215.80	27.04	-16.46	43.50	14.64	9.09	3.31
3	431.60	31.55	-14.45	46.00	10.56	16.16	4.82
4	539.50	36.79	-9.21	46.00	12.61	18.75	5.43

3. BANDWIDTH TEST

3.1. Test Equipment

The following test equipments are used during the bandwidth test:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4407B	MY41440292	May 16, 05	1 Y
2.	Antenna	EMCO	3115	9607-4877	Jun 15, 04	1.5 Y

3.2. Test Standard

The test completeness FCC 15C (239).

3.3. Bandwidth Limit

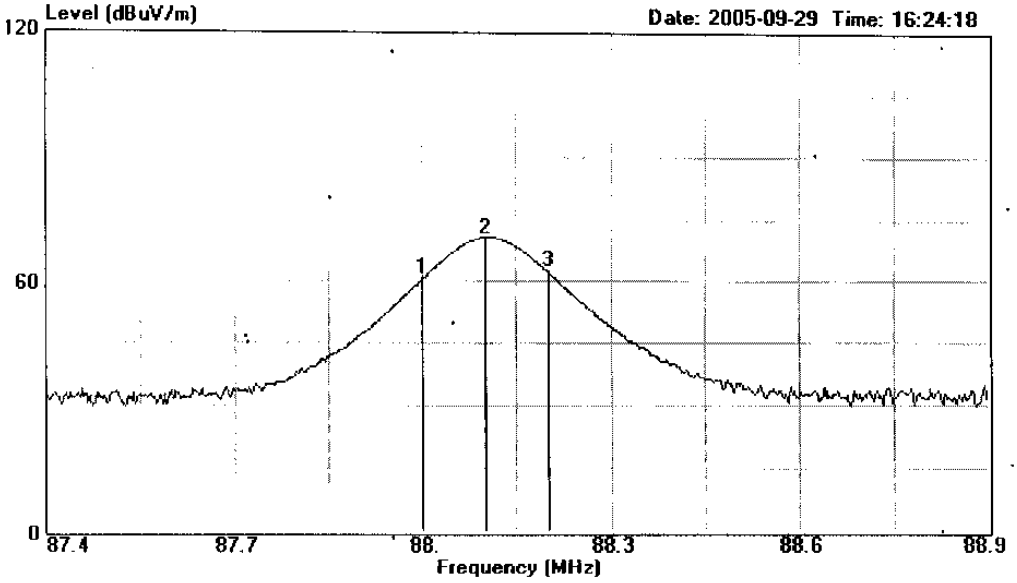
200KHz wide centered on the operation frequency.

3.4. Test Procedure

PASS.

信華科技(深圳)有限公司
AUDIX Technology (Shenzhen) Co.,Ltd.
No. 6, Ke Feng Road, Block 52,
Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
Tel:+86-755-26639496 Fax:+86-755-26632877

Data#: 70 File#: C:\EMI TEST DATA\F\Freetron.EMI



Site : 1# Chamber
Condition : 3m
EUT : FM TRANSMITTER
M/N : 10010
Power : DC 3.1V
Test Engineer : Seco
Memo : Temp:23.6' Humi:54.3%
Memo : TX 88.1MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB	
1	88.000	61.17	------	------	61.17	0.00	0.00	0.00	Peak
2	88.100	70.75	------	------	70.75	0.00	0.00	0.00	Peak,
3	88.200	63.06	------	------	63.06	0.00	0.00	0.00	Peak

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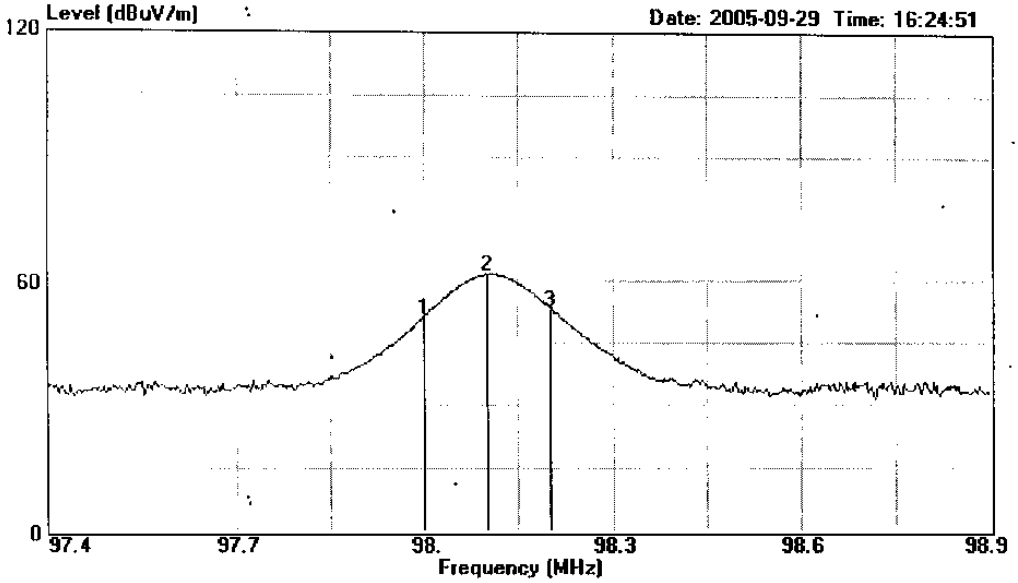
AUDIX Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Road, Block 52,
Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
Tel:+86-755-26639496 Fax:+86-755-26632877

Data#: 71 File#: C:\EMI TEST DATA\F\Freetron.EMI



Site : 1# Chamber
Condition : 3m
EUT : FM TRANSMITTER
M/N : 10010
Power : DC 3.1V
Test Engineer : Seco
Memo : Temp:23.6' Humi:54.3%
Memo : TX 98.1MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB	
1	98.000	51.39	------	------	51.39	0.00	0.00	0.00	Peak
2	98.100	61.75	------	------	61.75	0.00	0.00	0.00	Peak
3	98.200	53.43	------	------	53.43	0.00	0.00	0.00	Peak

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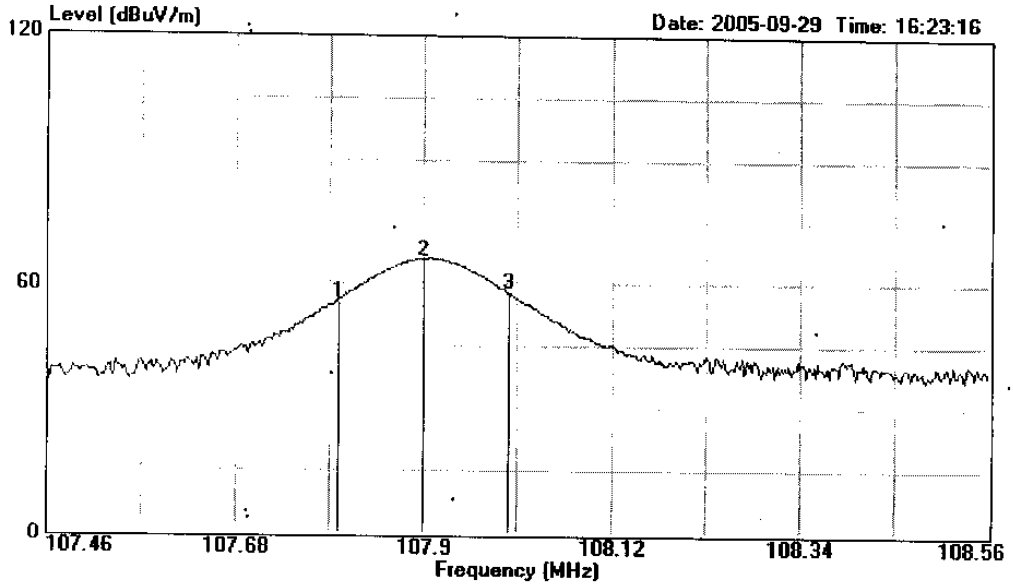
Data#: 69 File#: C:\EMI TEST DATA\F\Freetron.EMI



Site : 1# Chamber
Condition : 3m
EUT : FM TRANSMITTER
M/N : 10010
Power : DC 3.1V
Test Engineer : Seco
Memo : Temp:23.6' Humi:54.3%
Memo : TX 107.9MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Preamp Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB	
1	107.800	55.80	------	------	55.80	0.00	0.00	0.00	Peak
2	107.900	65.95	------	------	65.95	0.00	0.00	0.00	Peak
3	108.000	58.13	------	------	58.13	0.00	0.00	0.00	Peak

4. DEVIATION TO TEST SPECIFICATIONS

[NONE]

APPENDIX I

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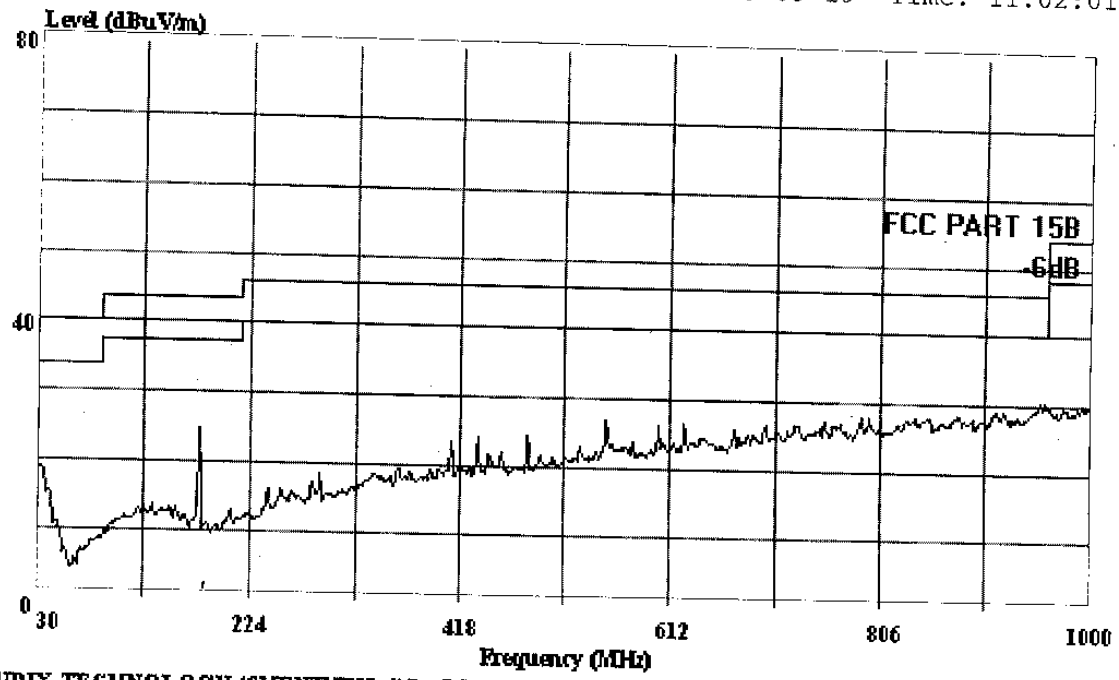
Data#: 5 File#: FREETRON.EMI Date: 2005-09-19 Time: 11:02:01



Trace: Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR HORIZONTAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 88MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.8'C Humi:57%
Memo :

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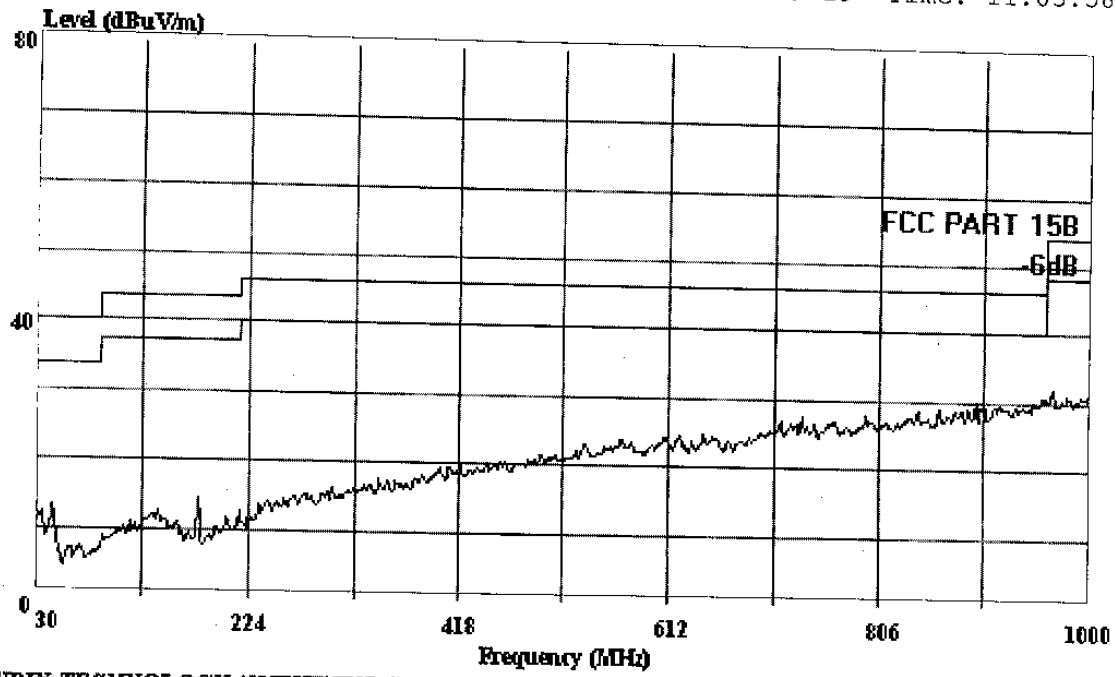
Data#: 6 File#: FREETRON.EMI Date: 2005-09-19 Time: 11:03:58



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

Trace: Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 88MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.8'C Humi:57%
Memo :

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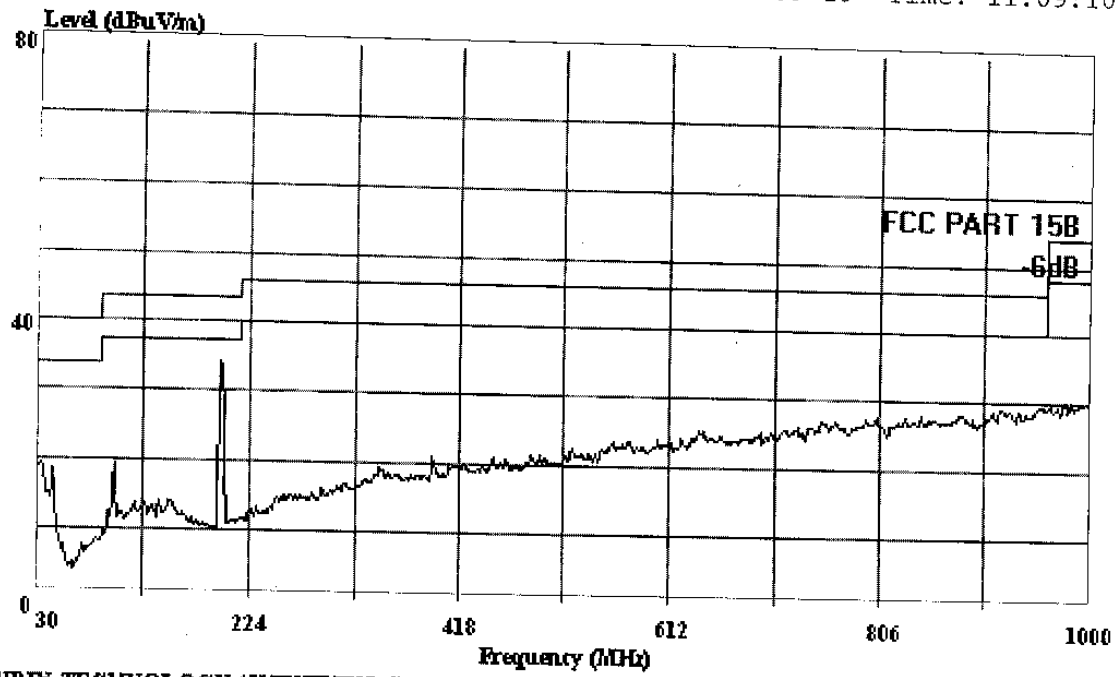
Data#: 8 File#: FREETRON.EMI Date: 2005-09-19 Time: 11:09:10



Trace: Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR HORIZONTAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 98MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.8'C Humi:57%
Memo :

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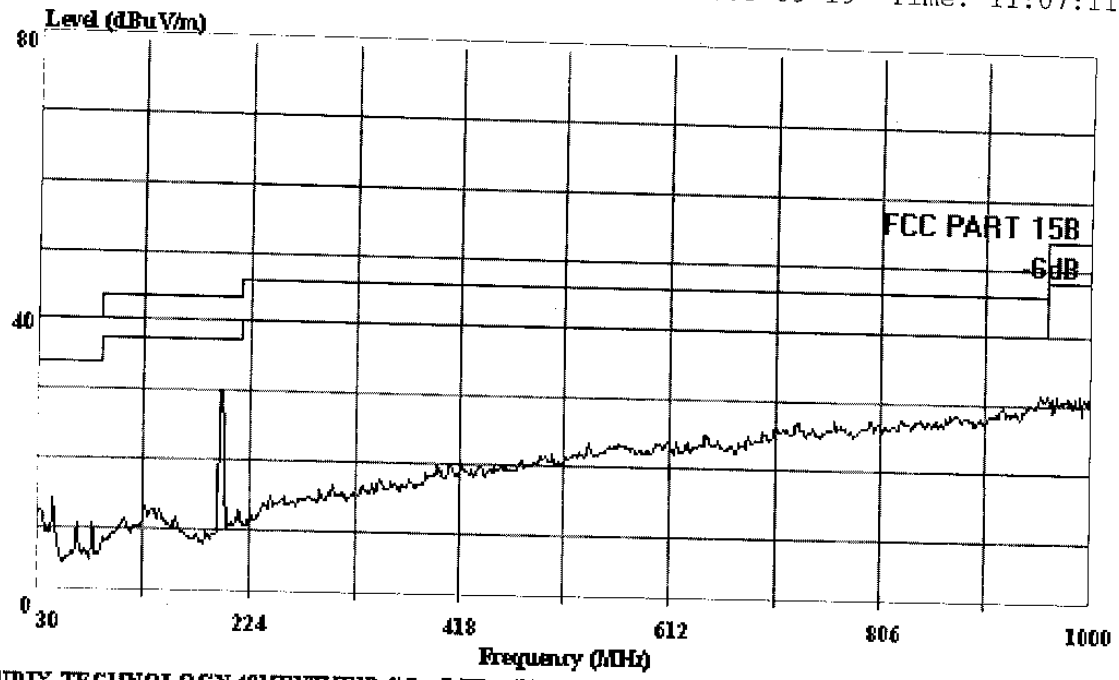
Data#: 7 File#: FREETRON.EMI Date: 2005-09-19 Time: 11:07:11



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

Trace: Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 98MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.8'C Humi:57%
Memo :

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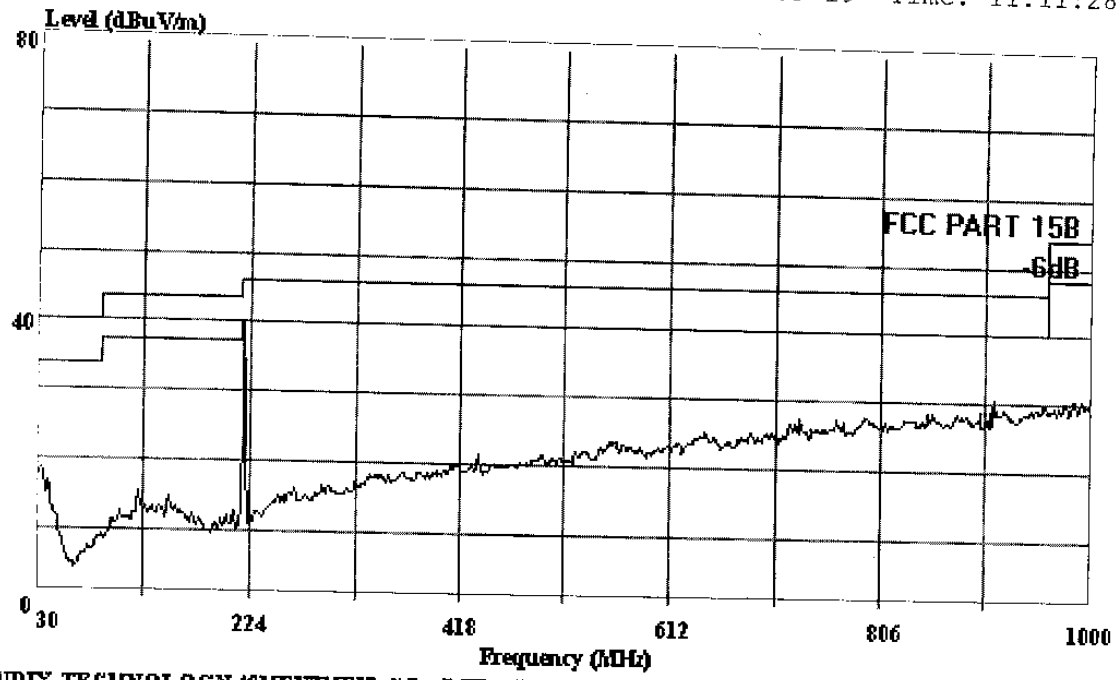
Data#: 9 File#: FREETRON.EMI Date: 2005-09-19 Time: 11:11:28



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EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 108MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.8'C Humi:57%
Memo :

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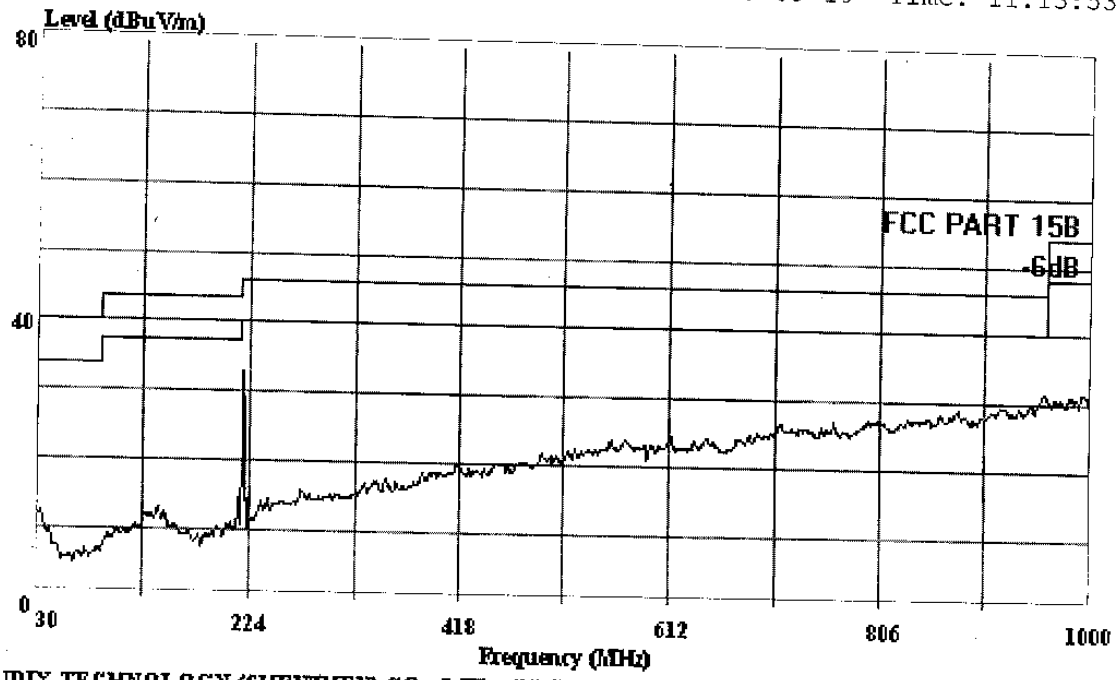

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Condition: FCC PART 15B 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 108MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.8'C Humi:57%
Memo :

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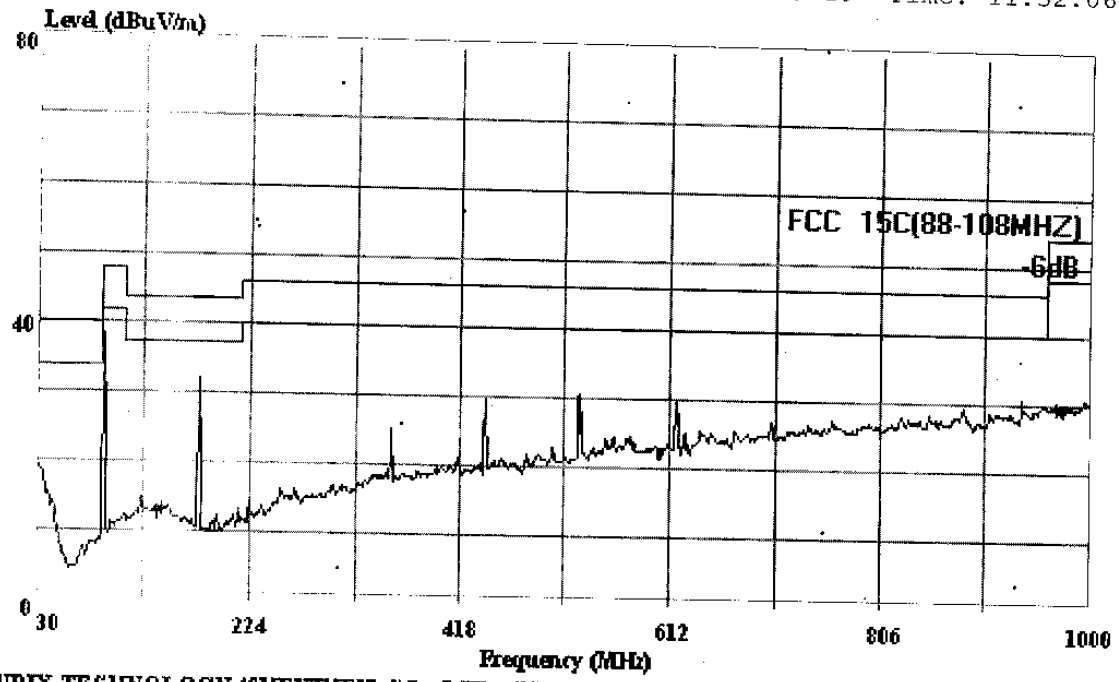
Data#: 14 File#: Freetron.emi Date: 2005-09-19 Time: 11:32:06



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EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 88.1MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX

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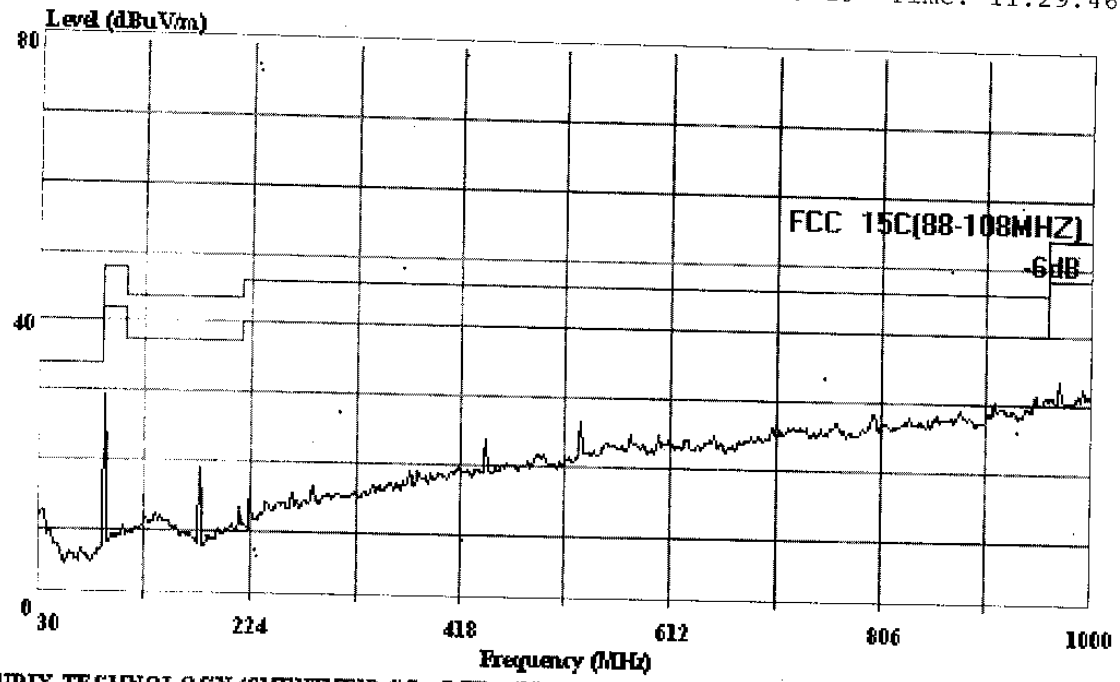
Data#: 13 File#: Freetron.emi Date: 2005-09-19 Time: 11:29:46



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EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 88.1MHz
Test Spec : DC 3.1V.
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX

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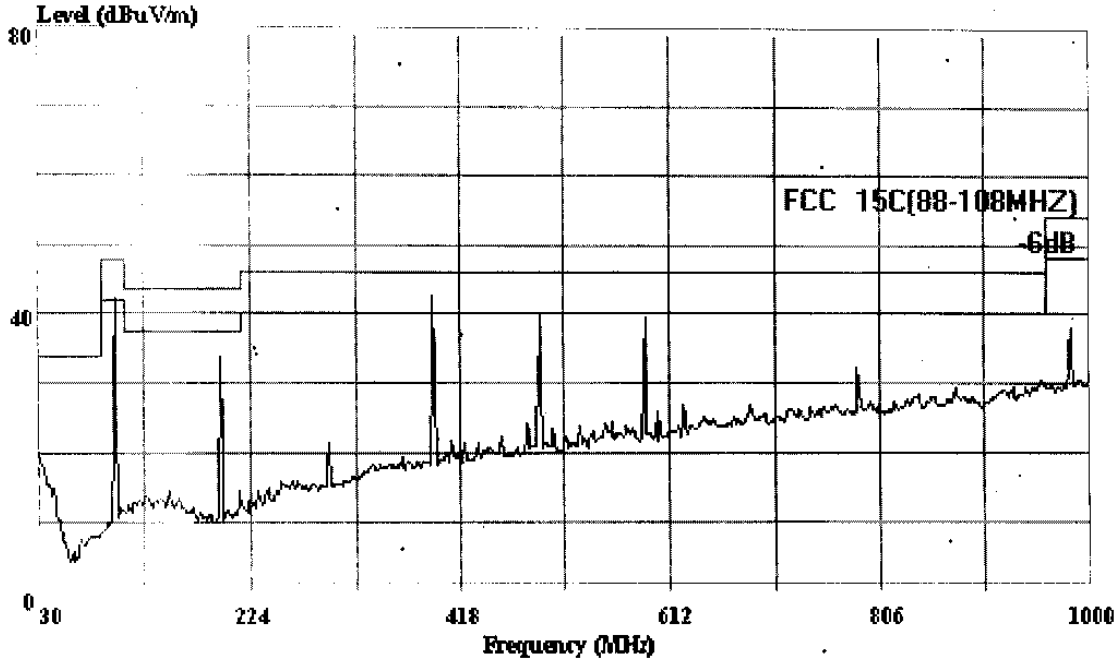
Data#: 15 File#: Freetron.emi Date: 2005-09-19 Time: 11:34:49



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Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR HORIZONTAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 98.1MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX

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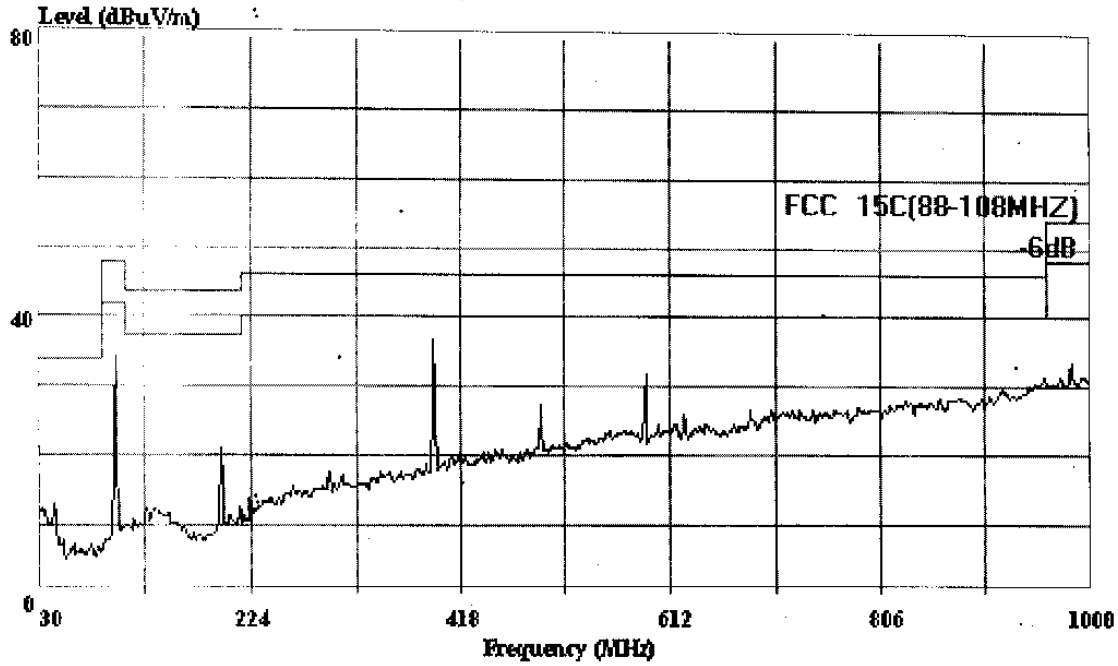
Data#: 16 File#: Freetron.emi Date: 2005-09-19 Time: 11:41:28



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

Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 98.1MHz
Test Spec : DC 3.1V
Test Engineer : VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX

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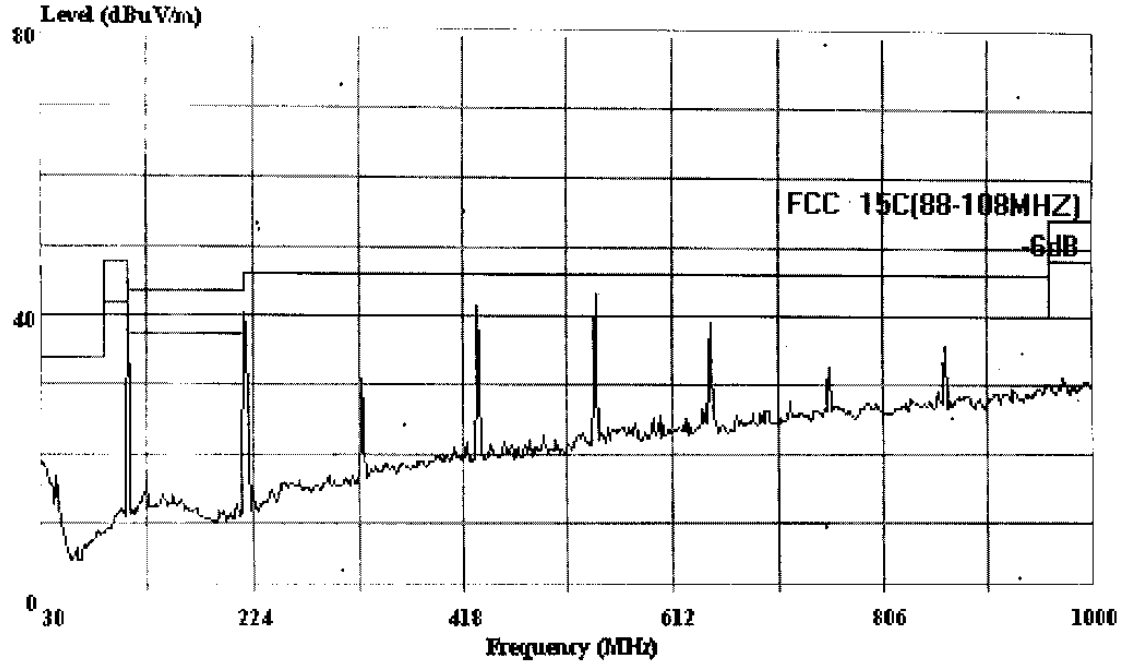

AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR HORIZONTAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 107.9MHz
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX

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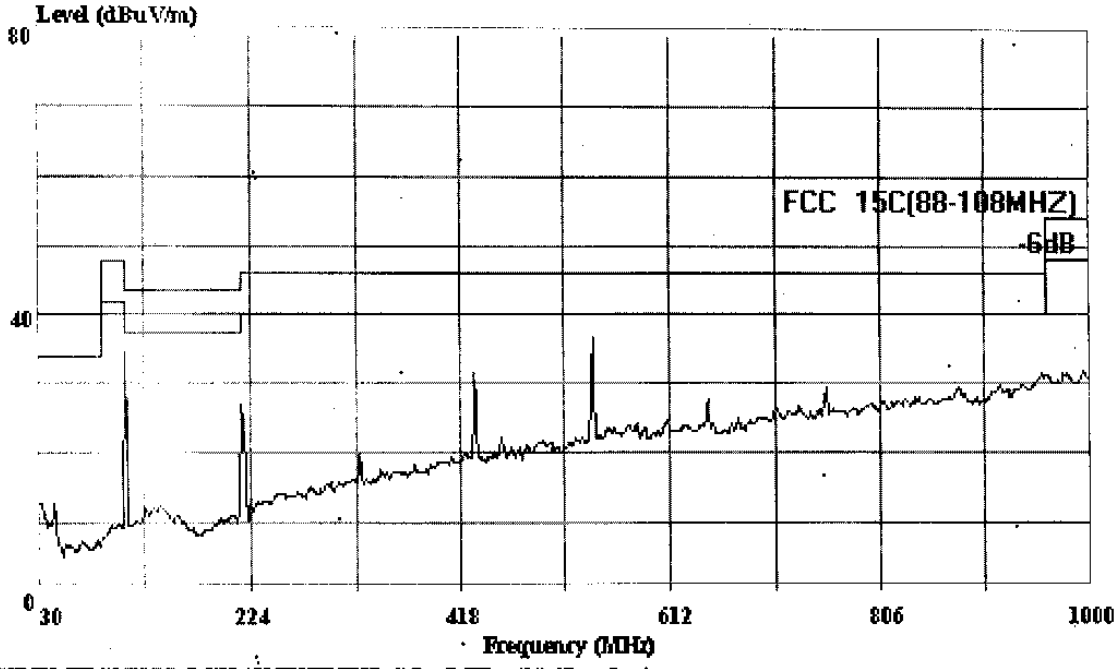
Data#: File#: Freetron.emi Date: 2005-09-19 Time: 11:44:09



Trace: Ref Trace:

Condition: FCC 15C(88-108MHZ) 3m 2598FACTOR VERTICAL
EUT : FM TRANSMITTER
M/N : 10010
OP Condition : FM 107.9MHz.
Test Spec : DC 3.1V
Test Engineer: VICTOR
Comment : Temp:23.3'C Humi:52%
Memo : TX