

APPLICATION FOR CERTIFICATION

On Behalf of  
Xinbao Electrical Equipments Co., Ltd.

Microwave Oven

Model Number: XB2316/XB2616

Prepared for : Xinbao Electrical Equipments Co., Ltd.  
Zhenghe South Road, Leliu Town, Shunde District,  
Foshan City, Guangdong, China.

Prepared By : Audix Technology (Shenzhen) Co., Ltd.  
No. 6 Ke Feng Rd., 52 Block,  
Shenzhen Science & Industrial Park,  
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Report Number : ACS-F05350  
Date of Test : Oct. 26~Nov. 17, 2005  
Date of Report : Feb. 27, 2006

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APPENDIX I (5 Pages)

APPENDIX II (9 Pages)

## TEST REPORT CERTIFICATION

Applicant : Xinbao Electrical Equipments Co., Ltd.  
 Manufacturer : Xinbao Electrical Equipments Co., Ltd.  
 EUT Description : Microwave Oven  
 (A) MODEL NO. : XB2316/XB2616  
 (B) SERIAL NO. : N/A  
 (C) POWER SUPPLY : AC 120V/60Hz

## Test Procedure Used:

FCC Rules and Regulations CFR Title 47 Part 18 Subpart C and FCC/OST MP-5 (February 1986)

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 18 Subpart C limits for both radiation and conduction emissions.

The measurement results are contained in this test report and Audix Technology (Shenzhen) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits. Audix Technology (Shenzhen) Co., Ltd. recommends that this data can be submitted for FCC certification purposes if a 6dB margin below FCC limits is obtained. 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.

## Tested performance

- 1) General input, output power and frequency.
- 2) Radiation emissions(30MHz to 1GHz) in 3 meters anechoic chamber.  
 Radiation emissions(1GHz to 10GHz) in 3 meters anechoic chamber.

Date of Test : Oct. 26~Nov. 17, 2005

Prepared by :

Annie Wu  
 Annie Wu / Assistant

Reviewer :

Ken Lu 8/11/05  
 Ken Lu / Deputy Manager

Approved & Authorized Signer :



Smart Tsai / Vice General Manager

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

Description	:	Microwave Oven
Model Number	:	XB2316/XB2616
Applicant	:	Xinbao Electrical Equipments Co., Ltd. Zhenghe South Road, Leliu Town, Shunde District, Foshan City, Guangdong, China.
Manufacturer	:	Xinbao Electrical Equipments Co., Ltd. Zhenghe South Road, Leliu Town, Shunde District, Foshan City, Guangdong, China.
Power Cord	:	Unshielded, Undetachable 1.0m
Date of Test	:	Oct. 26~Nov. 17, 2005

## 1.2. 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

## 1.3. Measurement 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	

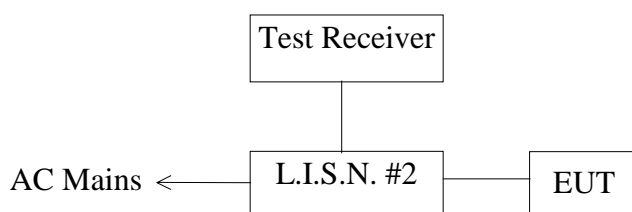
## 2. POWER LINE CONDUCTED EMISSION TEST

### 2.1. Test Equipment

The following test equipments are used during the power line conducted emission test:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	May 16, 05	1 Year
2.	L.I.S.N.#2	Kyoritsu	KNW-407	8-1636-1	May 16, 05	1 Year
3.	Terminator	Hubersuhner	50Ω	No. 1	June 23, 05	1 Year
4.	RF Cable	MIYAZAKI	5D-2W	LISN Cable 1#	Feb.16, 06	1/2 Year
5.	Coaxial Switch	Anritsu	MP59B	M55367	Feb.16, 06	1/2 Year
6.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100340	Feb.16, 06	1/2 Year

### 2.2. Block Diagram of Test Setup



(EUT: Microwave Oven)

### 2.3. Power Line Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. \* Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

## 2.4. Configuration of EUT on Test

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

### 2.4.1. Microwave Oven ( EUT )

Model Number : XB2316/XB2616  
Serial Number : N/A  
Manufacturer : Xinbao Electrical Equipments Co., Ltd.

## 2.5. Operating Condition of EUT

2.5.1. Setup the EUT and simulator as shown on Section 2.2.

2.5.2. Turn on the power of all equipment.

2.5.3. Let the EUT work in test mode (Full Load) and test it.

## 2.6. Test Procedure

The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). This provides a 50 ohm coupling impedance for the EUT. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission levels. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4-2003 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

The test result are reported on Section 2.7, all the scanning waveforms for Conducted Emission Test are attached in Appendix I.

## 2.7. Power Line Conducted Emission Test Results

**PASS.**

The frequency range from 150kHz to 30 MHz is investigated.

All emissions not reported below are too low against the prescribed limits.

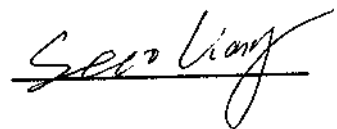
Date of Test :	Nov.08, 2005	Temperature :	23°C
EUT :	Microwave Oven	Humidity :	54%
Model No. :	XB2316	Test Mode :	Full Load
Test Engineer :	Sam		

Frequency (MHz)	Reading (dBμV)				Limit (dBμV)	
	VA		VB		Quasi-Peak	Average
	Quasi-Peak	Average	Quasi-Peak	Average		
0.155	N/A	N/A	46.59	*	65.73	55.73
0.220	N/A	N/A	36.14	*	62.82	52.82
0.230	37.28	*	N/A	N/A	62.45	52.45
0.595	N/A	N/A	32.57	*	56.00	46.00
0.617	23.86	*	N/A	N/A	56.00	46.00
0.731	N/A	N/A	31.97	*	56.00	46.00
1.140	22.37	*	N/A	N/A	56.00	46.00
2.200	N/A	N/A	25.37	*	56.00	46.00
2.210	32.56	*	N/A	N/A	56.00	46.00
25.190	26.56	*	N/A	N/A	60.00	50.00
26.140	N/A	N/A	24.56	*	60.00	50.00
30.000	20.85	*	N/A	N/A	60.00	50.00

Remark: 1) If the data table appeared symbol of “N/A” means the value was too low to be measured.

2) If the data table appeared symbol of “\*” means the Q.P. value is under the limit for average, so, the average value had been omitted.

Reviewer :





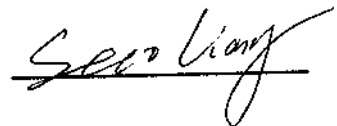
Date of Test :	Nov. 08, 2005	Temperature :	23°C
EUT :	Microwave Oven	Humidity :	54%
Model No. :	XB2616	Test Mode :	Full Load
Test Engineer :	Sam		

Frequency (MHz)	Reading (dBμV)				Limit (dBμV)	
	VA		VB			
	Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average
0.153	26.69	*	N/A	N/A	65.82	55.82
0.173	N/A	N/A	31.03	*	64.81	54.81
0.253	N/A	N/A	29.53	*	61.64	51.64
0.341	22.95	*	N/A	N/A	59.18	49.18
0.354	N/A	N/A	32.92	*	58.87	48.87
0.377	22.91	*	N/A	N/A	58.34	48.34
0.491	N/A	N/A	23.88	*	56.14	46.14
0.686	N/A	N/A	30.43	*	56.00	46.00
1.487	34.19	*	N/A	N/A	56.00	46.00
2.167	N/A	N/A	23.20	*	56.00	46.00
2.461	31.34	*	N/A	N/A	56.00	46.00
3.025	27.70	*	N/A	N/A	56.00	46.00

Remark: 1) If the data table appeared symbol of “N/A” means the value was too low to be measured.

2) If the data table appeared symbol of “\*” means the Q.P. value is under the limit for average, so, the average value had been omitted.

Reviewer :



### 3. RADIATED EMISSION TEST (一)

#### 3.1. Test Equipment

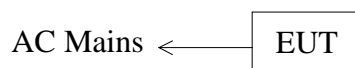
The following test equipments are used during the radiated emission test:

##### 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. 30, 06	1/2 Year
6.	RF Cable	MIYAZAKI	5D-2W	3# Chamber No.2	Jan. 30, 06	1/2 Year
7.	RF Cable	FUJIKURA	RG-55/U	3# Chamber No.3	Jan. 30, 06	1/2 Year
8.	RF Cable	FUJIKURA	RG-55/U	3# Chamber No.4	Jan. 30, 06	1/2 Year
9.	Coaxial Switch	Anritsu	MP59B	M73989	Jan. 30, 06	1/2 Year

#### 3.2. Block Diagram of Test Setup

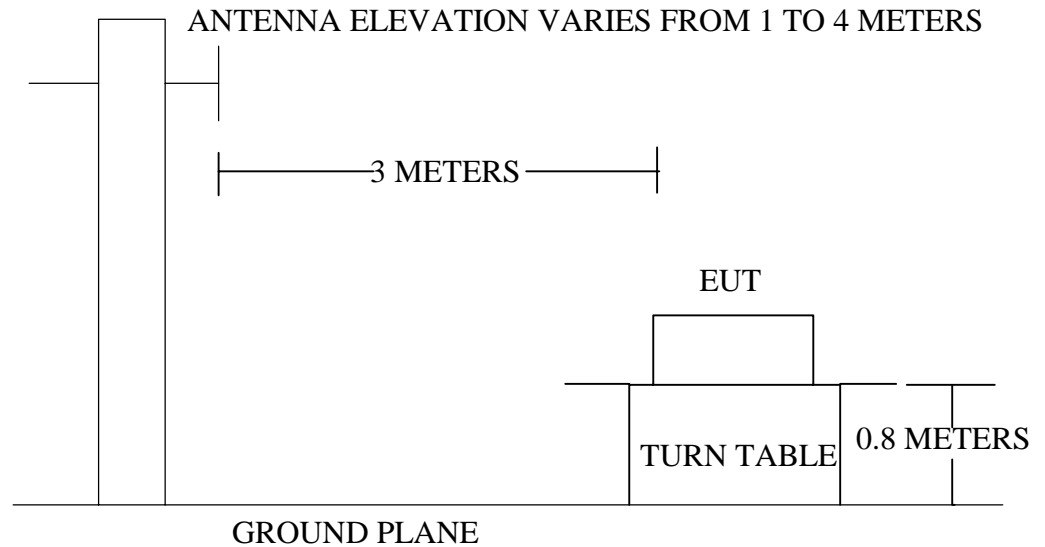
##### 3.2.1. Block diagram of connection between the EUT and simulators



(EUT: Microwave Oven)

### 3.2.2. In Anechoic Chamber

#### ANTENNA TOWER



### 3.3. Radiated Emission Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

- Remark :
- (1) Emission level  $(\text{dB})\mu\text{V} = 20 \log \text{Emission level } \mu\text{V/m}$
  - (2) The smaller limit shall apply at the cross point between two frequency bands.
  - (3) Distance is the distance in meters between the measuring 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. Microwave Oven (EUT)

Model Number : XB2316/XB2616  
 Serial Number : N/A  
 Manufacturer : Xinbao Electrical Equipments Co., Ltd.

3.4.2. Support Equipment : As Tested Supporting System Detail, in Section 1.2.

### 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 mode (Full Load) and test it.

### 3.6. Test Procedure

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. Power on the PC and let it work normally, we use a keyboard test software, let EUT working in test mode, then test it. 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 are set on test.

The bandwidth of the EMI test receiver (R&S ESVS20) is set at 120kHz.

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

The test mode (Full Load) is tested in Anechoic Chamber, and all the scanning waveforms are attached in Appendix II.

### 3.7. Radiated Emission Test Result

**PASS.**

The frequency range from 30MHz to 1000MHz is investigated.

Please see the following pages.

Date of Test :	Nov. 17, 2005	Temperature :	23.8°C
EUT :	Microwave Oven	Humidity :	62%
Model No. :	XB2316	Test Mode :	Full Load
Test Engineer:	Thomax	Memo :	Load Location: Center

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dB	Limits dBμV/m
<b>53.280</b>	<b>8.10</b>	<b>1.55</b>	<b>15.26</b>	<b>24.91</b>	<b>-15.09</b>	<b>40.00</b>
67.830	6.15	1.77	13.78	21.71	-18.29	40.00
98.870	10.78	2.07	5.42	18.28	-25.22	43.50
163.860	11.14	2.87	3.08	17.09	-26.41	43.50
260.860	13.13	3.68	2.63	19.44	-26.56	46.00
367.560	15.64	4.46	2.71	22.80	-23.20	46.00

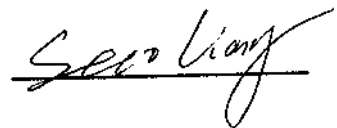
Remark: 1. All readings are Quasi-Peak values.

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

3. The worst emission was detected at 53.280MHz with corrected signal level of 24.91dBμV/m (Limit is 40.00dBμV/m) when the antenna was at horizontal polarization and at 1.35m high and the turn table was at 160°.

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :



Date of Test :	Nov. 17, 2005	Temperature :	23.8°C
EUT :	Microwave Oven	Humidity :	62%
Model No. :	XB2316	Test Mode :	Full Load
Test Engineer:	Thomax	Memo :	Load Location: Center

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Over Limits dB	Limits dBμV/m
58.130	6.92	1.67	14.04	22.63	-17.37	40.00
225.940	10.11	3.38	5.12	18.61	-27.39	46.00
377.260	14.64	4.53	3.41	22.58	-23.42	46.00
518.880	18.29	5.44	2.66	26.38	-19.62	46.00
678.930	19.66	6.32	4.07	30.05	-15.95	46.00
<b>856.440</b>	<b>22.19</b>	<b>7.19</b>	<b>6.42</b>	<b>35.80</b>	<b>-10.20</b>	<b>46.00</b>

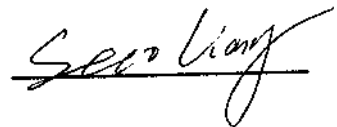
Remark: 1. All readings are Quasi-Peak values.

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

3. The worst emission was detected at 856.440MHz with corrected signal level of 35.80dBμV/m (Limit is 46.00dBμV/m) when the antenna was at vertical polarization and at 1.34m high and the turn table was at 175°.

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :



Date of Test :	Nov. 17, 2005	Temperature :	23.8°C
EUT :	Microwave Oven	Humidity :	62%
Model No. :	XB2316	Test Mode :	Full Load
Test Engineer:	Thomax	Memo :	Load Location: RF

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
MHz	Factor	Loss	Horizontal	Horizontal	Limits	
	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
54.250	7.51	1.56	15.54	24.61	-15.39	40.00
114.390	11.55	2.21	10.61	24.37	-19.13	43.50
347.190	15.42	4.25	7.64	27.32	-18.68	46.00
507.240	17.58	5.34	12.02	34.94	-11.06	46.00
759.440	21.23	6.50	7.62	35.35	-10.65	46.00
<b>906.880</b>	<b>22.38</b>	<b>7.34</b>	<b>7.52</b>	<b>37.24</b>	<b>-8.76</b>	<b>46.00</b>

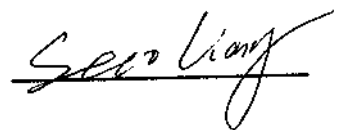
Remark: 1. All readings are Quasi-Peak values.

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

3. The worst emission was detected at 906.880MHz with corrected signal level of 37.24dBμV/m (Limit is 46.00dBμV/m) when the antenna was at horizontal polarization and at 1.28m high and the turn table was at 125°.

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :



Date of Test :	Nov. 17, 2005	Temperature :	23.8°C
EUT :	Microwave Oven	Humidity :	62%
Model No. :	XB2316	Test Mode :	Full Load
Test Engineer:	Thomax	Memo :	Load Location: RF

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
MHz	Factor	Loss	Vertical	Vertical	Limits	
	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
55.220	6.63	1.56	11.35	19.55	-20.45	40.00
92.080	8.17	2.02	7.09	17.28	-26.22	43.50
225.940	10.11	3.38	4.88	18.37	-27.63	46.00
300.630	12.93	3.90	7.74	24.57	-21.43	46.00
356.890	14.15	4.33	7.56	26.04	-19.96	46.00
<b>887.480</b>	<b>22.62</b>	<b>7.42</b>	<b>7.61</b>	<b>37.29</b>	<b>-8.71</b>	<b>46.00</b>

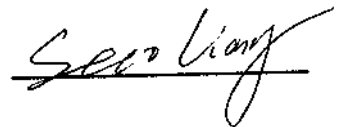
Remark: 1. All readings are Quasi-Peak values.

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

3. The worst emission was detected at 887.480MHz with corrected signal level of 37.29dBμV/m (Limit is 46.00dBμV/m) when the antenna was at vertical polarization and at 1.38m high and the turn table was at 280°.

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :





Date of Test :	Nov. 16, 2005	Temperature :	23.8°C
EUT :	Microwave Oven	Humidity :	62%
Model No. :	XB2616	Test Mode :	Full Load
Test Engineer:	Thomax	Memo :	Load Location: Center

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
MHz	Factor	Loss	Horizontal	Horizontal	Limits	
	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
67.830	6.15	1.77	19.25	27.18	-12.82	40.00
177.440	10.16	2.94	19.62	32.72	-10.78	43.50
334.580	14.96	4.16	12.50	31.62	-14.38	46.00
446.130	16.66	4.96	18.49	40.10	-5.90	46.00
706.090	20.56	6.38	12.02	38.97	-7.04	46.00
<b>895.240</b>	<b>22.18</b>	<b>7.31</b>	<b>11.32</b>	<b>40.81</b>	<b>-5.19</b>	<b>46.00</b>

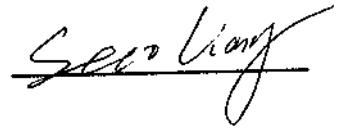
Remark: 1. All readings are Quasi-Peak values.

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

3. The worst emission was detected at 895.240MHz with corrected signal level of 40.81dBμV/m (Limit is 46.00dBμV/m) when the antenna was at horizontal polarization and at 1.29m high and the turn table was at 235°.

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :



Date of Test :	Nov. 16, 2005	Temperature :	23.8°C
EUT :	Microwave Oven	Humidity :	62%
Model No. :	XB2616	Test Mode :	Full Load
Test Engineer:	Thomax	Memo :	Load Location: Center

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
MHz	Factor	Loss	Vertical	Vertical	Limits	
	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
187.140	7.77	3.07	11.66	22.50	-21.00	43.50
443.220	16.32	4.73	19.85	40.90	-5.10	46.00
589.690	19.00	5.85	11.03	35.89	-10.11	46.00
703.180	20.71	6.42	12.96	40.09	-5.91	46.00
749.740	21.22	6.46	12.97	40.66	-5.34	46.00
<b>853.530</b>	<b>22.12</b>	<b>7.15</b>	<b>11.79</b>	<b>41.07</b>	<b>-4.93</b>	<b>46.00</b>

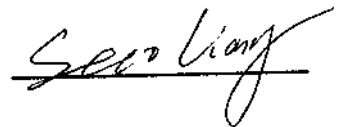
Remark: 1. All readings are Quasi-Peak values.

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

3. The worst emission was detected at 853.530MHz with corrected signal level of 41.07dBμV/m (Limit is 46.00dBμV/m) when the antenna was at vertical polarization and at 1.55m high and the turn table was at 238°.

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :



Date of Test :	Nov. 16, 2005	Temperature :	23.8°C
EUT :	Microwave Oven	Humidity :	62%
Model No. :	XB2616	Test Mode :	Full Load
Test Engineer:	Thomax	Memo :	Load Location: RF

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
MHz	Factor	Loss	Horizontal	Horizontal	Limits	
	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
169.680	10.98	2.86	17.24	31.08	-12.42	43.50
250.190	12.47	3.59	21.55	37.60	-8.40	46.00
427.700	16.69	4.88	19.32	40.89	-5.11	46.00
652.740	20.02	6.08	13.74	39.85	-6.15	46.00
817.640	21.61	6.88	12.43	40.92	-5.08	46.00
<b>856.440</b>	<b>22.18</b>	<b>7.19</b>	<b>11.96</b>	<b>41.33</b>	<b>-4.67</b>	<b>46.00</b>

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

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

3. The worst emission was detected at 856.440MHz with corrected signal level of 41.33dBμV/m (Limit is 46.00dBμV/m) when the antenna was at horizontal polarization and at 1.98m 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 : 

Date of Test :	Nov. 16 2005	Temperature :	23.8°C
EUT :	Microwave Oven	Humidity :	62%
Model No. :	XB2616	Test Mode :	Full Load
Test Engineer:	Thomax	Memo :	Load Location: RF

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Over Limits dB	Limits dBμV/m
429.640	16.13	4.81	20.41	41.35	-4.65	46.00
<b>541.190</b>	<b>18.75</b>	<b>5.43</b>	<b>11.61</b>	<b>35.79</b>	<b>-10.21</b>	<b>46.00</b>
654.680	19.38	6.21	14.95	40.54	-5.46	46.00
817.640	22.07	6.88	12.74	41.70	-4.30	46.00
837.040	21.92	6.92	11.81	40.64	-5.36	46.00
853.530	22.12	7.15	12.25	41.53	-4.47	46.00

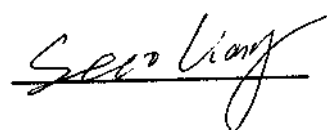
Remark: 1. All readings are Quasi-Peak values.

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

3. The worst emission was detected at 429.640MHz with corrected signal level of 41.35dBμV/m (Limit is 46.00dBμV/m) when the antenna was at vertical polarization and at 1.1m high and the turn table was at 35°.

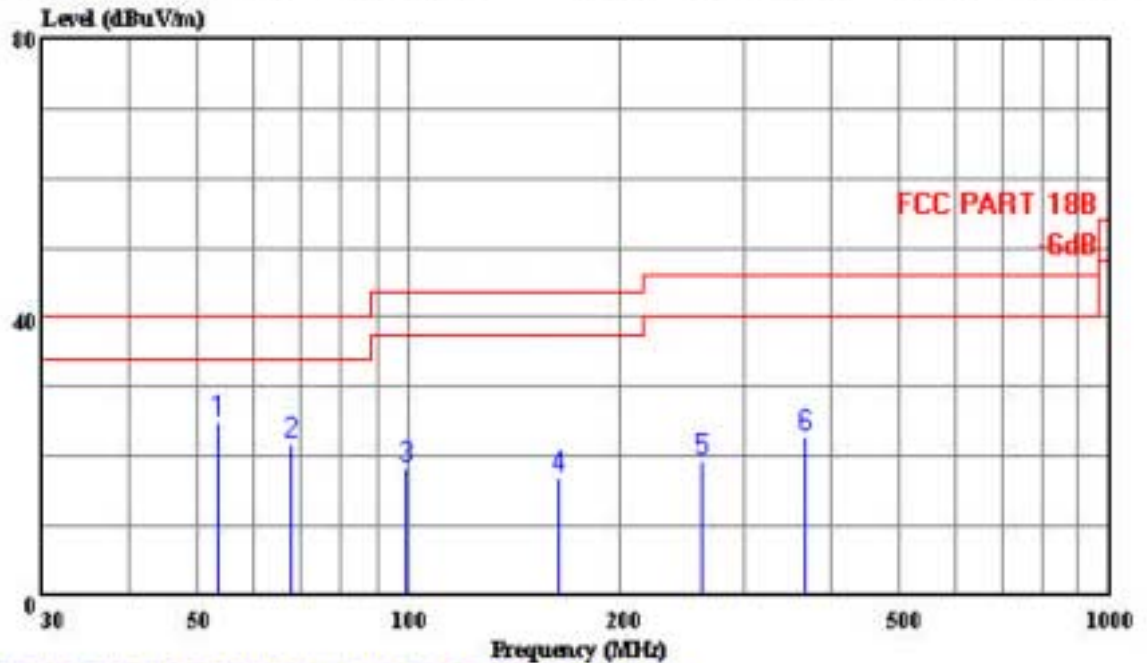
4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

Reviewer :



**AUDIX**<sup>®</sup> Shenzhen Science & Ind. Park  
Tel: 0755-26639495~7  
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. Fax: 0755-26632877

Data#: 24 File#: XINBAO.EMI Date: 2005-11-17 Time: 01:37:31



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR HORIZONTAL  
EUT : Microwave Oven  
M/N : XB2316  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: THOMAX  
Comment : Temp:23.8°C Humi:62%  
Memo : LOAD LOCATION: CENTER  
: H:1.35m Deg:160°

Page:

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	53.280	24.91	-15.09	40.00	15.26	1.55	8.10
2	67.830	21.71	-18.29	40.00	13.78	1.77	6.15
3	98.870	18.28	-25.22	43.50	5.42	2.07	10.78
4	163.860	17.09	-26.41	43.50	3.08	2.87	11.14
5	260.860	19.44	-26.56	46.00	2.63	3.68	13.13
6	367.560	22.80	-23.20	46.00	2.71	4.46	15.64



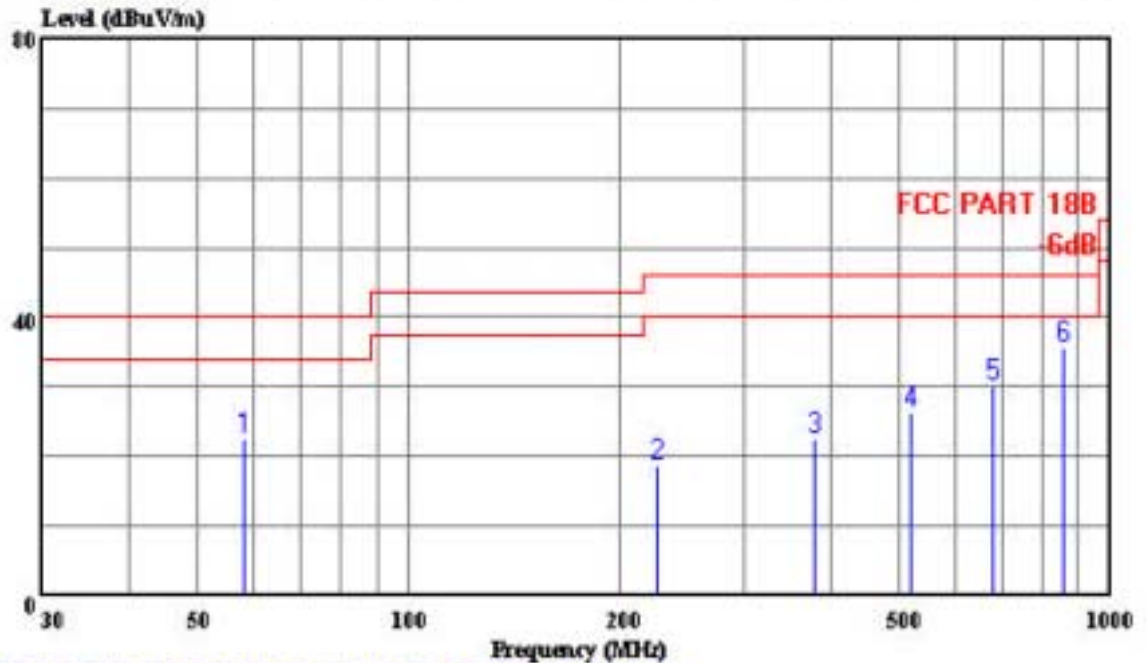
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: 22 File#: XINBAO.EMI Date: 2005-11-17 Time: 01:35:39



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR VERTICAL

EUT : Microwave Oven

M/N : XB2316

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8°C Humi:62%

Memo : LOAD LOCATION: CENTER

: H:1.34m Deg:175°

Page:

	Freq	Level	Over	Limit	Read	Cable	Probe
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	58.130	22.63	-17.37	40.00	14.04	1.67	6.92
2	225.940	18.61	-27.39	46.00	5.12	3.38	10.11
3	377.260	22.58	-23.42	46.00	3.41	4.53	14.64
4	518.880	26.38	-19.62	46.00	2.66	5.44	18.29
5	678.930	30.05	-15.95	46.00	4.07	6.32	19.66
6	856.440	35.80	-10.20	46.00	6.42	7.19	22.19



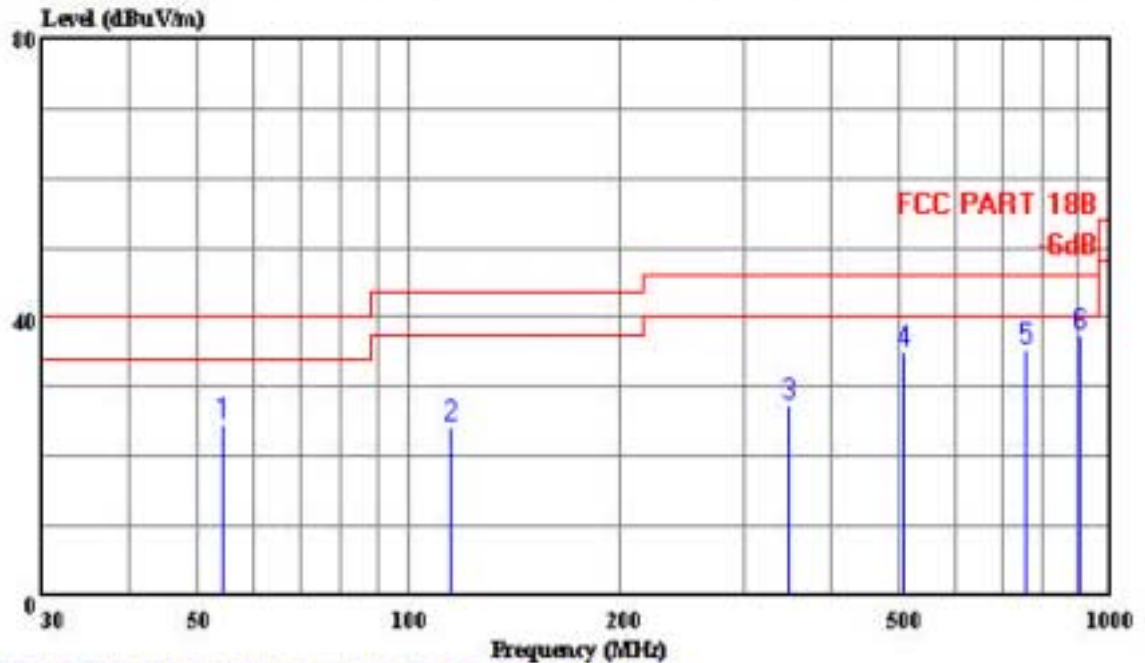
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: 18 File#: XINBAO.EMI Date: 2005-11-17 Time: 01:30:45



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR HORIZONTAL

EUT : Microwave Oven

M/N : XB2316

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8°C Humi:62%

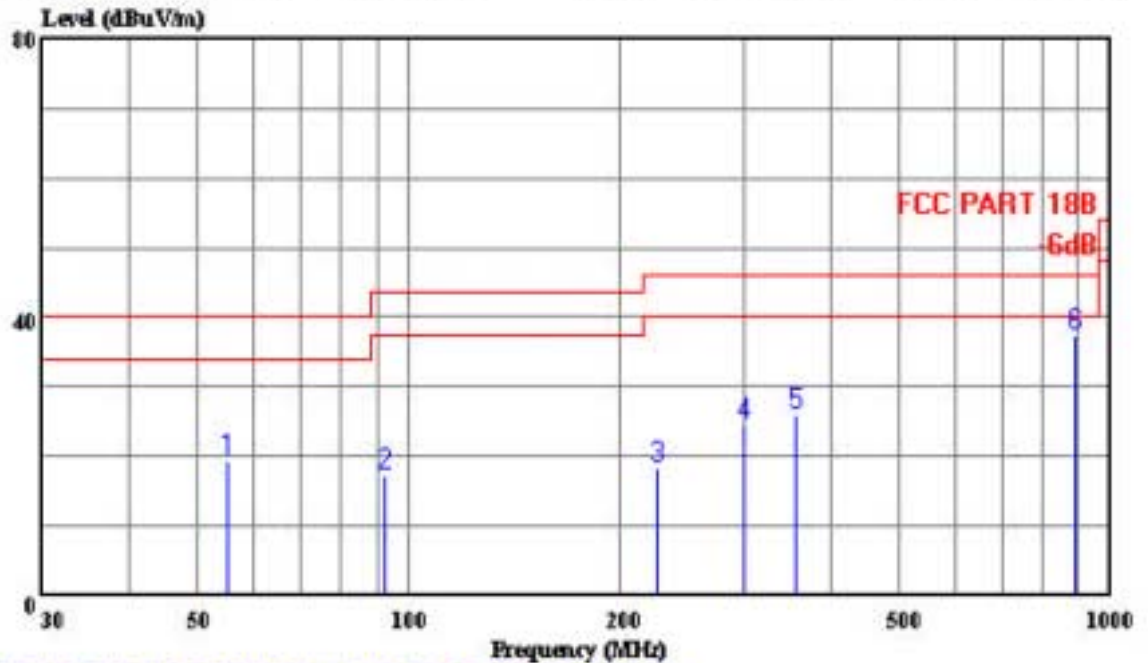
Memo : LOAD LOCATION:RF

: H:1.28m Deg:125°

Page:

	Freq	Level	Over	Limit	Read	Cable	Probe
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	54.250	24.61	-15.39	40.00	15.54	1.56	7.51
2	114.390	24.37	-19.13	43.50	10.61	2.21	11.55
3	347.190	27.32	-18.68	46.00	7.64	4.25	15.42
4	507.240	34.94	-11.06	46.00	12.02	5.34	17.58
5	759.440	35.35	-10.65	46.00	7.62	6.50	21.23
6	906.880	37.24	-8.76	46.00	7.52	7.34	22.38

Data#: 20 File#: XINBAO.EMI Date: 2005-11-17 Time: 01:32:47



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR VERTICAL  
EUT : Microwave Oven  
M/N : XB2316  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: THOMAX  
Comment : Temp:23.8°C Humi:62%  
Memo : LOAD LOCATION:RF  
: H:1.38m Deg:280°

Page:

	Freq	Level	Over	Limit	Read	Cable	Probe
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	55.220	19.55	-20.45	40.00	11.35	1.56	6.63
2	92.080	17.28	-26.22	43.50	7.09	2.02	8.17
3	225.940	18.37	-27.63	46.00	4.88	3.38	10.11
4	300.630	24.57	-21.43	46.00	7.74	3.90	12.93
5	356.890	26.04	-19.96	46.00	7.56	4.33	14.15
6	887.480	37.29	-8.71	46.00	7.61	7.42	22.26





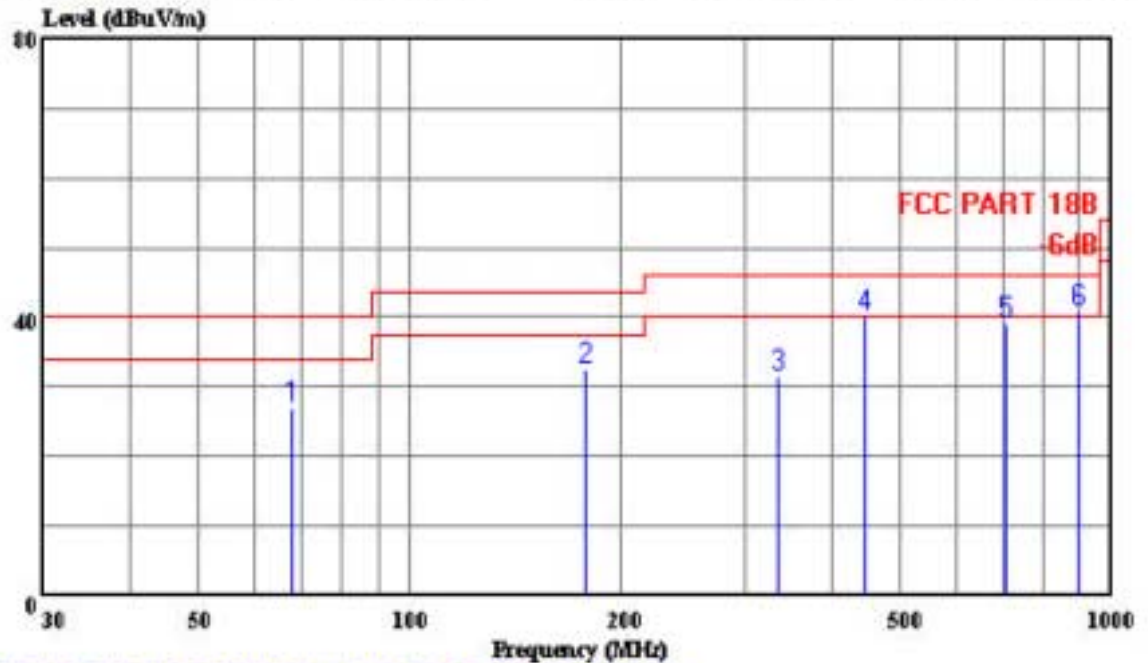
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: 10 File#: XINBAO.EMI Date: 2005-11-16 Time: 01:16:44



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR HORIZONTAL

EUT : Microwave Oven

M/N : XB2616

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8°C Humi:62%

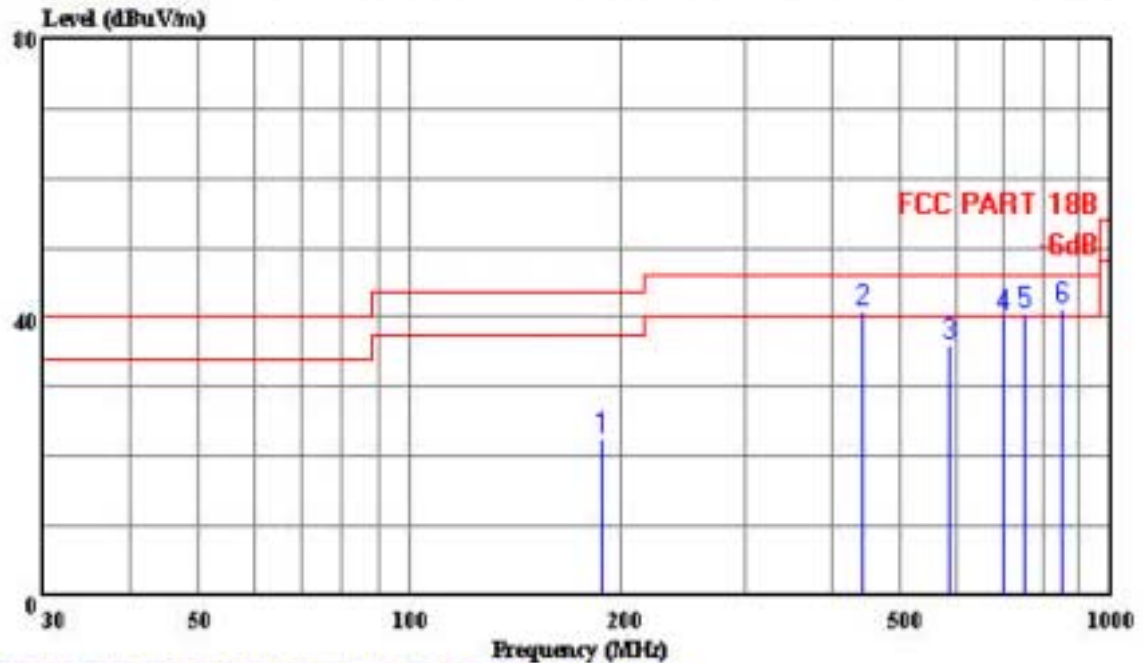
Memo : LOAD LOCATION: CENTER

: H:1.29m Deg:235°

Page:

	Freq	Level	Over Limit	Limit	Read	Cable	Probe
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	67.830	27.18	-12.82	40.00	19.25	1.77	6.15
2	177.440	32.72	-10.78	43.50	19.62	2.94	10.16
3	334.580	31.62	-14.38	46.00	12.50	4.16	14.96
4	446.130	40.10	-5.90	46.00	18.49	4.96	16.66
5	706.090	38.97	-7.04	46.00	12.02	6.38	20.56
6	895.240	40.81	-5.19	46.00	11.32	7.31	22.18

Data#: 12      File#: XINBAO.EMI      Date: 2005-11-16      Time: 01:20:33



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

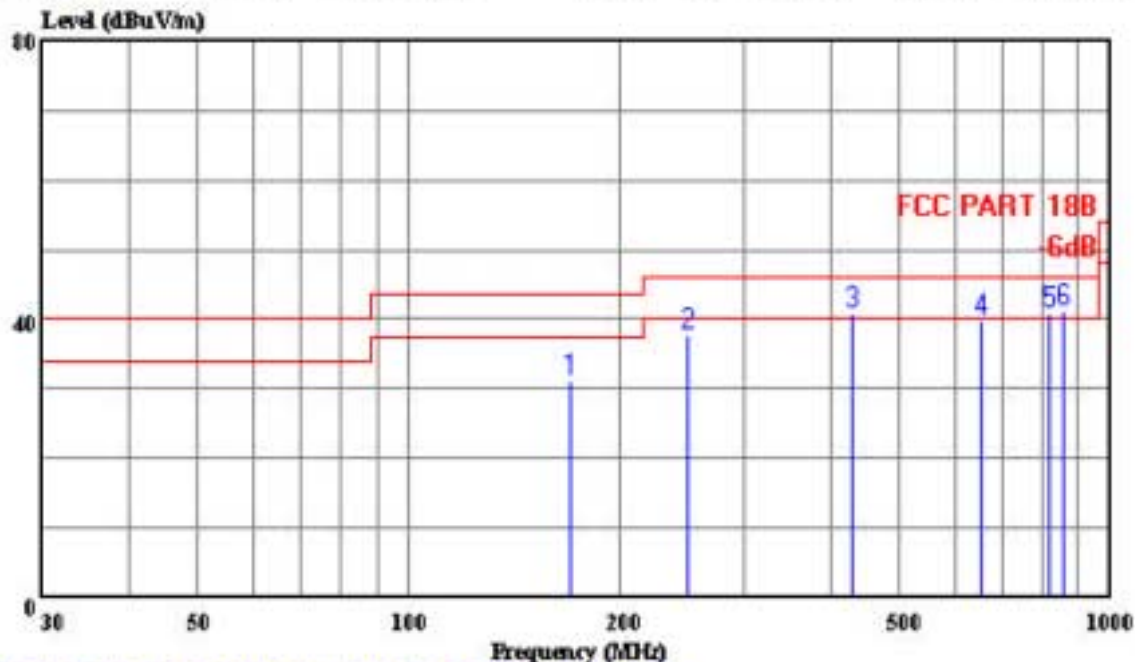
Condition: FCC PART 18B 3m 2598FACTOR VERTICAL  
EUT : Microwave Oven  
M/N : XB2616  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: THOMAX  
Comment : Temp:23.8°C Humi:62%  
Memo : LOAD LOCATION: CENTER  
: H:1.55m Deg:238°

Page:

	Freq	Level	Over	Limit	Read	Cable	Probe
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	187.140	22.50	-21.00	43.50	11.66	3.07	7.77
2	443.220	40.90	-5.10	46.00	19.85	4.73	16.32
3	589.690	35.89	-10.11	46.00	11.03	5.85	19.00
4	703.180	40.09	-5.91	46.00	12.96	6.42	20.71
5	749.740	40.66	-5.34	46.00	12.97	6.46	21.22
6	853.530	41.07	-4.93	46.00	11.79	7.15	22.12

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Data#: 16 File#: XINBAO.EMI Date: 2005-11-16 Time: 01:26:05



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

Trace:

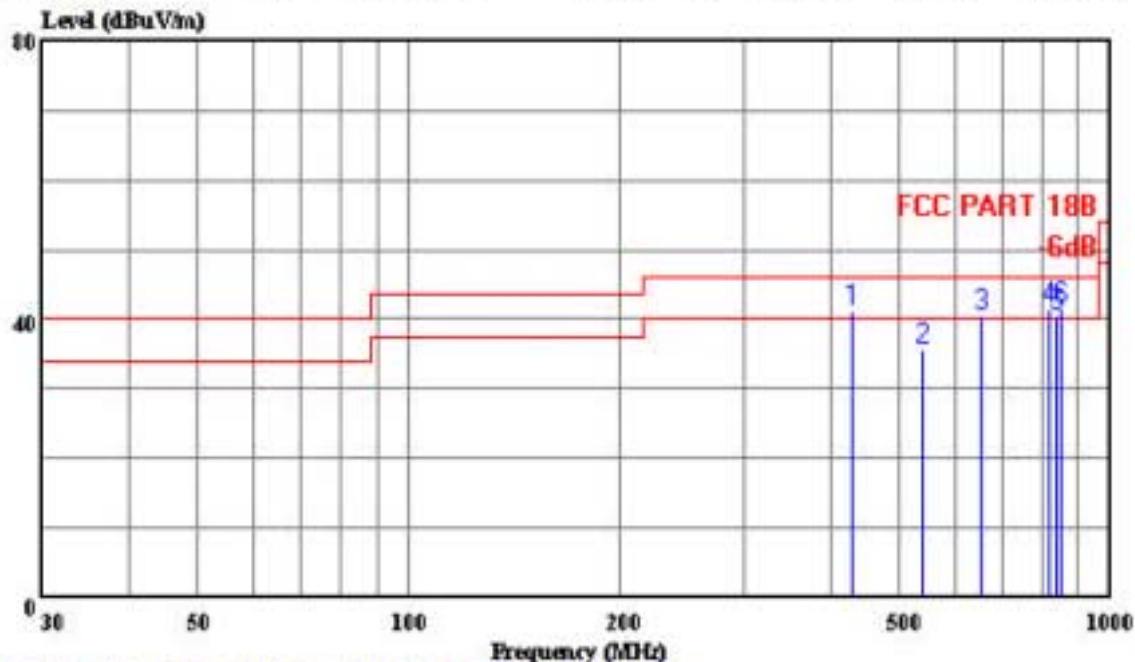
Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR HORIZONTAL  
EUT : Microwave Oven  
M/N : XB2616  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: THOMAX  
Comment : Temp:23.8°C Humi:62%  
Memo : LOAD LOCATION:RF  
: H:1.98m Deg:230°

Page:

	Freq	Level	Over	Limit	Read	Cable	Probe
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	169.680	31.08	-12.42	43.50	17.24	2.86	10.98
2	250.190	37.60	-8.40	46.00	21.55	3.59	12.47
3	427.700	40.89	-5.11	46.00	19.32	4.88	16.69
4	652.740	39.85	-6.15	46.00	13.74	6.08	20.02
5	817.640	40.92	-5.08	46.00	12.43	6.88	21.61
6	856.440	41.33	-4.67	46.00	11.96	7.19	22.18

Data#: 14 File#: XINBAO.EMI Date: 2005-11-16 Time: 01:23:47



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR VERTICAL  
EUT : Microwave Oven  
M/N : XB2616  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: THOMAX  
Comment : Temp:23.8°C Humi:62%  
Memo : LOAD LOCATION:RF  
: H:1.37m Deg:160°

Page:

	Freq	Level	Over	Limit	Read	Cable	Probe
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB
1	429.640	41.35	-4.65	46.00	20.41	4.81	16.13
2	541.190	35.79	-10.21	46.00	11.61	5.43	18.75
3	654.680	40.54	-5.46	46.00	14.95	6.21	19.38
4	817.640	41.70	-4.30	46.00	12.74	6.88	22.07
5	837.040	40.64	-5.36	46.00	11.81	6.92	21.92
6	853.530	41.53	-4.47	46.00	12.25	7.15	22.12

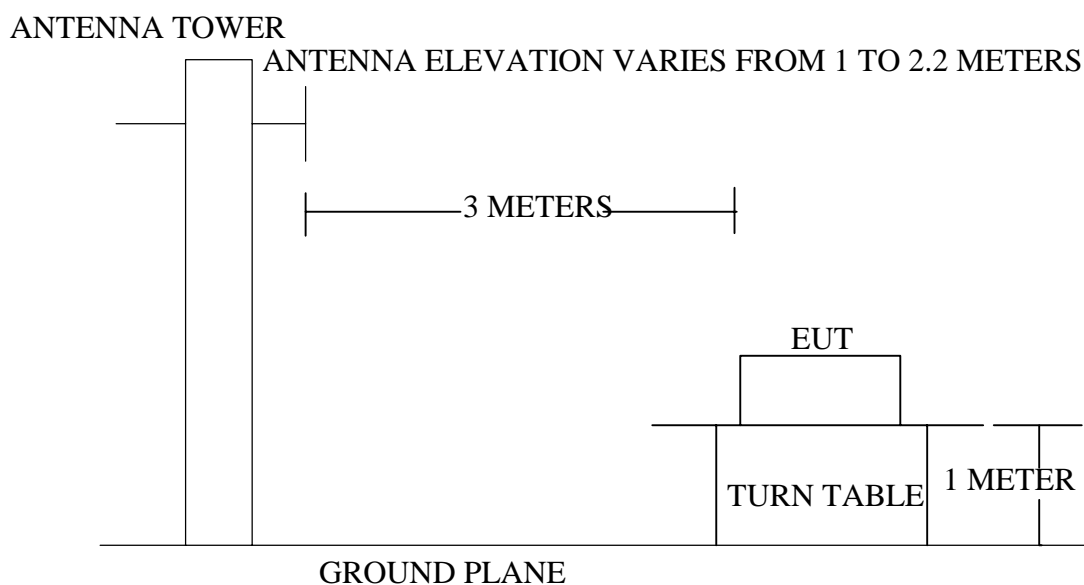
## 4. RADIATED EMISSION TEST (二)

### 4.1. Test Equipment

The following test equipments are used during the at radiation emission tests :

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Spectrum	HP	85422E	3625A00181	May 16, 05	1 Year
1.	Test Receiver	Rohde & Schwarz	ESVS20	830350/005	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
9.	Spectrum	Agilent	E4407B	MY41440292	May 16, 05	1 Year
10.	Amp	HP	8449B	3008A00863	May 16, 05	1 Year
11.	Antenna	EMCO	3115	9607-4877	Jun. 05, 05	1.5 Year

### 4.2. Anechoic Chamber Test Site Setup Diagram



### 4.3. Radiation Limit

The radiation limits of the microwave oven is complied with FCC CFR Title 47 Part 18 Subpart C & MP-5. The limits is calculated as below. Calculated formula:

$$\begin{aligned}\text{Limit} &= 25\sqrt{\text{Power}/500} = \text{uV/m (@ 300m)} \\ \text{E (300m)} &= k * \text{E (3m)}\end{aligned}$$

$$\begin{aligned}\text{XB2616: Power output} &= 805 \text{ (W)} \\ \text{Limit} &= 25\sqrt{805}/500 = 31.72 \text{ uV/m (@ 300m)} \\ 31.72 &= 0.00628655685 * \text{E (3m)} \\ \text{E (3m) limit} &= 5045.7 \text{ uV/m} = 74.058 \text{ dBuV/m}\end{aligned}$$

$$\begin{aligned}\text{XB2316: Power output} &= 630 \text{ (W)} \\ \text{Limit} &= 25\sqrt{630}/500 = 28.05 \text{ uV/m (@ 300m)} \\ 28.05 &= 0.00628655685 * \text{E (3m)} \\ \text{E (3m) limit} &= 4461.94 \text{ uV/m} = 72.99 \text{ dBuV/m}\end{aligned}$$

### 4.4. EUT Configuration and Test Procedure

The EUT are placed on a turn table which is 1 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can move up and down between 1 meter to 2.2 meters to find out the maximum emission level. Broadband antenna (calibrated Bi-log antenna) and horn antenna are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, the relative positions of beaker in microwave oven according to FCC MP-5 (1986) on radiated measurement.

Measured condition is listed as below:

Frequency range (GHz)	Bandwidth (kHz)	Detector Mode
0.03 - 1	120	Quasi-Peak
1 - 10	1000	Average

#### 4.5. Radiated RFI Emission Noise Measurement Results

##### **PASS.**

The frequency spectrum from 30MHz to the highest detectable emission frequency is investigated. All the emissions not reported below are too low against the FCC Part 18 Subpart C limit.

Date of test: Nov. 17, 2005 Temperature: 25 °C

Model Number: XB2316 Humidity: 54 %

Output Power: 630 W Test Engineer: Seco

Freq. (MHz)	Pre-Amp Factor (dBuV)	Antenna Factor (dBuV)	Cables Loss (dBuV)	Load Location	Load (ml)	Reading (dBuV)	Emission Level Horizontal (dBuV/m)	limits 3m (dBuV/m)
1340.000	35.16	26.64	1.61	Center	300	46.89	39.99	72.99
1606.900	34.86	27.54	1.57	Center	300	44.57	38.82	72.99
1844.900	34.76	28.87	1.77	Center	300	46.87	42.75	72.99
2388.900	34.78	30.55	2.83	Center	300	53.81	52.41	72.99
2502.800	34.80	30.82	2.95	Center	300	53.71	52.68	72.99
3817.400	34.94	33.85	4.71	Center	300	52.42	56.06	72.99
4461.200	34.99	34.21	5.68	Center	300	55.24	60.14	72.99
5223.400	35.15	35.75	6.72	Center	300	52.19	59.51	72.99
5708.100	35.20	36.50	7.21	Center	300	50.58	59.09	72.99
7134.400	35.55	37.53	8.89	Center	300	50.20	61.07	72.99
7607.800	35.73	38.27	9.27	Center	300	45.12	56.92	72.99
8513.200	35.80	38.93	10.01	Center	300	44.79	57.93	72.99
8945.200	35.80	39.71	10.44	Center	300	45.07	59.42	72.99
9564.400	35.76	40.31	11.07	Center	300	45.53	61.14	72.99
1340.000	35.16	26.64	1.61	RF	300	47.89	40.98	72.99
1656.200	34.84	27.81	1.54	RF	300	48.16	42.68	72.99
1882.300	34.75	29.08	1.77	RF	300	46.46	42.56	72.99
2139.000	34.73	30.00	2.37	RF	300	46.82	44.46	72.99
2506.200	34.81	30.82	2.96	RF	300	56.45	55.42	72.99
4427.900	34.98	34.21	5.64	RF	300	53.80	58.67	72.99
4675.800	35.03	34.57	6.01	RF	300	52.66	58.21	72.99
5171.600	35.14	35.83	6.67	RF	300	53.83	61.02	72.99
5678.500	35.20	51.08	7.18	RF	300	51.08	59.53	72.99
6044.800	35.22	49.62	7.55	RF	300	49.62	58.73	72.99
7116.400	35.54	37.50	8.88	RF	300	46.02	56.86	72.99
7606.000	35.72	38.24	9.23	RF	300	44.52	56.27	72.99
9766.000	35.64	40.35	11.26	RF	300	46.34	62.32	72.99

Remark: The reading are Average detector above 1 GHz.

Freq. (MHz)	Pre-Amp Factor (dBuV)	Antenna Factor (dBuV)	Cables Loss (dBuV)	Load Location	Load (ml)	Reading (dBuV)	Emission Level Vertical (dBuV/m)	limits 3m (dBuV/m)
1343.400	35.15	26.65	1.61	Center	300	49.23	42.34	72.99
1482.800	34.93	26.88	1.59	Center	300	49.96	43.50	72.99
1850.000	34.76	28.90	1.78	Center	300	45.88	41.79	72.99
2224.000	34.74	30.19	2.65	Center	300	49.40	47.49	72.99
2422.900	34.78	30.62	2.87	Center	300	55.42	54.13	72.99
2626.900	34.85	31.14	3.09	Center	300	52.66	52.04	72.99
3761.900	34.95	33.72	4.63	Center	300	55.67	59.07	72.99
4427.900	34.98	34.21	5.64	Center	300	56.50	61.37	72.99
5167.900	35.13	35.64	6.66	Center	300	52.43	59.59	72.99
5685.900	35.20	36.48	7.18	Center	300	50.96	59.41	72.99
7120.000	35.55	37.51	8.89	Center	300	46.37	57.23	72.99
7620.400	35.72	38.25	9.23	Center	300	48.32	60.08	72.99
9568.000	35.76	40.31	11.07	Center	300	44.95	60.57	72.99
1340.000	35.16	26.64	1.61	RF	300	46.38	39.47	72.99
1520.200	34.89	48.37	1.56	RF	300	48.37	42.08	72.99
2200.200	34.74	44.23	2.62	RF	300	44.23	42.24	72.99
2540.200	34.82	43.43	3.00	RF	300	43.43	42.52	72.99
3798.900	34.94	33.81	4.69	RF	300	52.60	56.16	72.99
4409.400	34.98	34.22	5.61	RF	300	51.98	56.83	72.99
4942.200	35.09	35.17	6.42	RF	300	52.07	58.57	72.99
5637.800	35.20	36.43	7.13	RF	300	50.94	59.30	72.99
6958.000	35.49	37.23	8.75	RF	300	44.70	55.19	72.99
7400.800	35.66	38.01	9.08	RF	300	44.06	55.49	72.99
9488.800	35.80	40.28	10.98	RF	300	43.43	58.89	72.99

Remark: The reading are Average detector above 1 GHz.



Date of test: Nov. 05, 2005 Temperature: 25 °C

Model Number: XB2316 Humidity: 54 %

Output Power: 630 W Test Engineer: Seco

Freq. (MHz)	Pre-Amp Factor (dBuV)	Antenna Factor (dBuV)	Cables Loss (dBuV)	Load Location	Load (ml)	Reading (dBuV)	Emission Level Horizontal (dBuV/m)	limits 3m (dBuV/m)
1340.000	35.16	26.64	1.61	RF	700	47.95	41.04	72.99
1515.100	34.90	27.01	1.67	RF	700	50.29	44.08	72.99
1707.200	34.82	28.10	1.70	RF	700	44.53	39.51	72.99
2195.100	34.74	30.12	2.61	RF	700	46.61	44.60	72.99
2479.000	34.80	30.75	2.93	RF	700	49.52	48.40	72.99
4335.400	34.97	34.23	5.49	RF	700	52.11	56.87	72.99
4942.200	35.09	35.17	6.42	RF	700	56.20	62.70	72.99
7404.400	35.66	38.02	9.08	RF	700	45.34	56.78	72.99
9420.400	35.80	40.21	10.92	RF	700	43.56	58.89	72.99
1346.800	35.15	26.65	1.60	Center	700	52.18	45.29	72.99
1848.300	34.76	28.89	1.77	Center	700	45.18	41.08	72.99
2188.300	34.74	30.11	2.55	Center	700	52.08	50.00	72.99
2441.600	34.79	30.66	2.89	Center	700	48.84	47.61	72.99
2533.400	34.82	30.90	2.99	Center	700	47.55	46.62	72.99
2848.000	34.94	31.72	3.34	Center	700	55.99	56.10	72.99
4390.900	34.98	34.22	5.58	Center	700	51.66	56.48	72.99
4934.800	35.08	35.14	6.39	Center	700	53.33	59.78	72.99
5970.800	35.20	36.76	7.47	Center	700	50.43	59.46	72.99
7397.200	35.66	38.01	9.08	Center	700	48.68	60.11	72.99
9848.800	35.60	40.37	11.34	Center	700	44.79	60.90	72.99

Remark: The reading are Average detector above 1 GHz.

Freq. (MHz)	Pre-Amp Factor (dBuV)	Antenna Factor (dBuV)	Cables Loss (dBuV)	Load Location	Load (ml)	Reading (dBuV)	Emission Level Vertical (dBuV/m)	limits 3m (dBuV/m)
1306.000	35.21	26.59	1.64	RF	700	51.73	44.75	72.99
1693.600	34.83	28.01	1.59	RF	700	47.58	42.35	72.99
1805.800	34.78	28.65	1.97	RF	700	44.74	40.59	72.99
2171.300	34.73	30.07	1.34	RF	700	48.36	45.04	72.99
2545.300	34.82	30.93	3.00	RF	700	43.08	42.19	72.99
4934.800	35.08	35.14	6.39	RF	700	57.06	63.51	72.99
6889.600	35.48	37.13	8.66	RF	700	45.72	56.04	72.99
7393.600	35.66	38.00	9.08	RF	700	44.46	55.89	72.99
9481.600	35.80	40.27	10.98	RF	700	43.31	58.76	72.99
1300.900	35.22	26.58	1.64	Center	700	48.43	41.43	72.99
1542.300	34.88	27.18	1.67	Center	700	47.44	41.40	72.99
1822.800	34.77	28.75	1.84	Center	700	44.23	40.04	72.99
2336.200	34.77	30.43	2.77	Center	700	50.85	49.28	72.99
2465.400	34.79	30.72	2.91	Center	700	53.92	52.76	72.99
4298.400	34.96	34.24	5.44	Center	700	54.02	58.75	72.99
4945.900	35.09	35.17	6.42	Center	700	55.04	61.54	72.99
6929.200	35.49	37.19	8.71	Center	700	47.16	57.57	72.99
7408.000	35.66	38.03	9.09	Center	700	50.87	62.33	72.99
8693.200	35.80	39.25	10.19	Center	700	44.57	58.22	72.99

Remark: The reading are Average detector above 1 GHz.

Date of test: Nov. 05, 2005 Temperature: 25 °C

Model Number: XB2616 Humidity: 54 %

Output Power: 805W Test Engineer: Seco

Freq. (MHz)	Pre-Amp Factor (dBuV)	Antenna Factor (dBuV)	Cables Loss (dBuV)	Load Location	Load (ml)	Reading (dBuV)	Emission Level Horizontal (dBuV/m)	limits 3m (dBuV/m)
1547.400	34.88	27.20	1.68	Center	300	46.99	40.99	74.058
1904.400	34.74	29.20	1.90	Center	300	44.46	40.83	74.058
2191.700	34.74	30.11	2.56	Center	300	46.69	44.63	74.058
2281.800	34.75	30.31	2.71	Center	300	49.02	47.29	74.058
2382.100	34.77	30.53	2.82	Center	300	49.10	47.69	74.058
2484.100	34.80	30.76	2.93	Center	300	48.78	47.68	74.058
4261.400	34.95	34.25	5.39	Center	300	53.26	57.94	74.058
4398.300	34.98	34.22	5.58	Center	300	54.99	59.82	74.058
4668.400	34.03	34.56	5.99	Center	300	52.87	58.39	74.058
4938.500	35.03	35.16	6.40	Center	300	52.56	59.04	74.058
5197.500	35.09	35.71	6.70	Center	300	54.21	61.48	74.058
5763.600	35.14	36.56	7.27	Center	300	50.75	59.38	74.058
7667.200	35.20	38.27	9.27	Center	300	47.11	58.92	74.058
8135.200	35.73	38.53	9.63	Center	300	46.42	58.78	74.058
8376.400	35.80	38.77	9.87	Center	300	47.00	59.84	74.058
9168.400	35.80	39.96	10.67	Center	300	48.00	62.83	74.058
1428.400	35.01	26.79	1.60	RF	300	48.23	41.60	74.058
2218.900	34.74	30.17	2.64	RF	300	49.83	47.90	74.058
2366.800	34.77	30.50	2.81	RF	300	52.61	51.14	74.058
2482.400	34.80	30.76	2.93	RF	300	45.89	44.78	74.058
2572.500	34.83	31.00	3.03	RF	300	43.75	42.94	74.058
4054.200	34.91	34.29	5.07	RF	300	52.23	56.68	74.058
4402.000	34.98	34.22	5.60	RF	300	55.80	60.63	74.058
4920.000	35.08	35.12	6.37	RF	300	58.34	64.75	74.058
5193.800	35.14	35.69	6.69	RF	300	53.16	60.40	74.058
7361.200	35.64	37.95	9.05	RF	300	47.21	58.57	74.058
7616.800	35.72	38.25	9.23	RF	300	46.76	58.51	74.058
8095.600	35.80	38.49	9.59	RF	300	46.38	58.67	74.058
8369.200	35.80	38.77	9.86	RF	300	45.08	57.91	74.058

Remark: The reading are Average detector above 1 GHz.

Freq. (MHz)	Pre-Amp Factor (dBuV)	Antenna Factor (dBuV)	Cables Loss (dBuV)	Load Location	Load (ml)	Reading (dBuV)	Emission Level Vertical (dBuV/m)	limits 3m (dBuV/m)
1482.800	34.93	26.88	1.59	Center	300	46.78	40.32	74.058
1724.200	34.81	28.19	1.76	Center	300	44.88	40.02	74.058
1873.800	34.75	29.03	1.91	Center	300	42.73	38.92	74.058
2213.800	34.74	30.16	2.64	Center	300	46.75	44.81	74.058
2383.800	34.78	30.54	2.82	Center	300	47.64	46.23	74.058
2502.800	34.80	30.82	2.95	Center	300	46.61	45.58	74.058
4102.300	34.92	34.28	5.14	Center	300	52.08	56.59	74.058
4409.400	34.98	34.22	5.61	Center	300	55.35	60.20	74.058
4916.300	35.08	35.11	6.36	Center	300	55.30	61.69	74.058
7364.800	35.64	37.95	9.05	Center	300	45.09	56.45	74.058
7624.000	35.72	38.25	9.24	Center	300	45.89	57.66	74.058
8405.200	35.80	38.80	9.90	Center	300	45.80	58.70	74.058
1340.000	35.16	26.64	1.61	RF	300	49.19	42.29	74.058
1482.800	34.93	26.88	1.59	RF	300	52.16	45.70	74.058
1725.900	34.81	28.20	1.73	RF	300	51.92	47.05	74.058
1992.800	34.71	29.68	2.07	RF	300	48.04	45.08	74.058
2397.400	34.78	30.57	2.84	RF	300	56.14	54.77	74.058
2506.200	34.81	30.82	2.96	RF	300	55.31	54.28	74.058
3969.100	34.91	34.23	4.95	RF	300	50.33	54.61	74.058
4427.900	34.98	34.21	5.64	RF	300	51.15	56.02	74.058
4979.200	35.10	35.25	6.46	RF	300	53.53	60.14	74.058
5730.300	35.20	36.52	7.23	RF	300	49.61	58.15	74.058
7598.800	35.72	38.24	9.22	RF	300	43.55	55.29	74.058
9604.000	35.74	40.32	11.10	RF	300	42.19	57.87	74.058

Remark: The reading are Average detector above 1 GHz.

Date of test: Nov. 05, 2005 Temperature: 25 °C

Model Number: XB2616 Humidity: 60 %

Output Power: 805W Test Engineer: Seco

Freq. (MHz)	Pre-Amp Factor (dBuV)	Antenna Factor (dBuV)	Cables Loss (dBuV)	Load Location	Load (ml)	Reading (dBuV)	Emission Level Horizontal (dBuV/m)	limits 3m (dBuV/m)
1470.900	34.95	26.85	1.54	RF	700	47.94	41.39	74.058
1708.900	34.82	28.11	1.72	RF	700	50.38	45.39	74.058
1980.900	34.71	29.63	2.12	RF	700	43.86	40.90	74.058
2203.600	34.74	30.14	2.63	RF	700	48.17	46.19	74.058
2380.400	34.77	30.53	2.82	RF	700	51.32	49.90	74.058
2504.500	34.81	30.82	2.96	RF	700	50.14	49.12	74.058
3695.300	34.96	33.57	4.54	RF	700	52.54	55.69	74.058
4435.300	34.99	34.21	5.65	RF	700	59.66	64.54	74.058
4927.400	35.08	35.13	6.38	RF	700	56.29	62.72	74.058
7559.200	35.71	38.23	9.19	RF	700	44.50	56.21	74.058
9352.000	35.80	40.14	10.85	RF	700	44.08	59.28	74.058
1343.400	35.15	26.65	1.61	Center	700	48.65	41.76	74.058
1542.300	34.88	27.18	1.67	Center	700	48.12	42.08	74.058
1853.400	34.76	28.92	1.80	Center	700	46.47	42.43	74.058
2227.400	34.74	30.19	2.65	Center	700	45.63	43.73	74.058
2533.400	34.82	30.90	2.99	Center	700	55.00	54.07	74.058
4379.800	34.97	34.22	5.56	Center	700	54.25	59.06	74.058
5785.800	35.20	36.58	7.28	Center	700	50.37	59.03	74.058
7382.800	35.65	37.98	9.07	Center	700	48.15	59.54	74.058
9398.800	35.80	40.19	10.90	Center	700	44.33	59.61	74.058

Remark: The reading are Average detector above 1 GHz.

Freq. (MHz)	Pre-Amp Factor (dBuV)	Antenna Factor (dBuV)	Cables Loss (dBuV)	Load Location	Load (ml)	Reading (dBuV)	Emission Level Vertical (dBuV/m)	limits 3m (dBuV/m)
1346.800	35.15	26.65	1.60	RF	700	47.44	40.55	74.058
1686.800	34.83	27.99	1.55	RF	700	46.43	41.13	74.058
2196.800	34.74	30.13	2.62	RF	700	49.91	47.92	74.058
2502.800	34.80	30.82	2.95	RF	700	50.64	49.61	74.058
4416.800	34.98	34.22	5.62	RF	700	53.57	58.43	74.058
5219.700	35.15	35.75	6.72	RF	700	52.26	59.58	74.058
7602.400	35.72	38.24	9.22	RF	700	44.20	55.95	74.058
8509.600	35.80	38.92	10.01	RF	700	45.50	58.62	74.058
9589.600	35.75	40.32	11.08	RF	700	43.74	59.39	74.058
1360.400	35.12	26.68	1.62	Center	700	47.36	40.53	74.058
1841.500	34.76	28.85	1.79	Center	700	43.58	39.46	74.058
1987.700	34.71	29.66	2.06	Center	700	48.17	45.19	74.058
2225.700	34.74	30.19	2.65	Center	700	48.34	46.43	74.058
2429.500	34.78	30.64	2.87	Center	700	52.49	51.22	74.058
2572.500	34.83	31.00	3.03	Center	700	47.47	46.66	74.058
4379.800	34.97	34.22	5.56	Center	700	53.14	57.95	74.058
4638.800	35.03	34.49	5.95	Center	700	53.37	58.79	74.058
5223.400	35.15	35.75	6.72	Center	700	54.58	61.90	74.058
5685.900	35.20	36.48	7.18	Center	700	50.90	59.35	74.058
7102.000	35.54	37.48	8.88	Center	700	46.39	57.22	74.058
7667.200	35.73	38.27	9.27	Center	700	44.54	56.35	74.058
9539.200	35.78	40.31	11.04	Center	700	43.46	59.02	74.058

Remark: The reading are Average detector above 1 GHz.

## 5. GENERAL INPUT / OUTPUT POWER AND FREQUENCY

### 5.1. Test Equipments

The following test equipments are used during the general input / output power and frequency measurement :

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4407B	MY41440292	May 16, 05	1 Year
2.	Amp	HP	8449B	3008A00863	May 16, 05	1 Year
3.	Antenna	EMCO	3115	9607-4877	Jun. 05, 05	1.5 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May 16, 05	1 Year
1.	Power meter	HP	436A	2016A07891	May 16, 05	1 Year
2.	Power Sensor	Agilent	8482B	My41090514	May 16, 05	1 Year

### 5.2. Input Power

#### 5.2.1. EUT Configuration and Procedure

Input power is measured using a Power Analyzer. A 1000ml water load is placed in the center of the oven, which is operated at full output power.

Measured Input				Manufacturer's Rating	
EUT Model No.	Voltage (V)	Current (A)	Input Power (W)	Current (A)	Input Power (W)
XB2316	119.94	9.63	1150.2	9.42	1130
XB2616	119.94	11.83	1413.6	11.5	1380

### 5.3. Output Power

#### 5.3.1. EUT Configuration and Procedure

The Calorimetric Method is to determine maximum output power. A 1000ml water load is placed in the center of the oven, which is operated at maximum power. A mercury thermometer is used to measure temperature rising.

#### 5.3.2. Test Results

Test Sample	Temp (start) (Degree C)	Temp (final) (Degree C)	Temp Elapsed (Seconds)
XB2316	23.5	41.5	120
XB2616	23.5	46.5	120

$$\text{Power (W)} = \frac{4.2 \text{ (joules/cal)} \times (\text{Volume in ml}) \times (\text{Temp rising})}{\text{Time in seconds}}$$

$$\text{XB2316: Power (W)} = \frac{4.2 * 1000 * 18}{120\text{S}} = 630 \text{ (W)}$$

$$\text{XB2616: Power (W)} = \frac{4.2 * 1000 * 23}{120\text{S}} = 805 \text{ (W)}$$



## 5.4. Output Frequency

### 5.4.1. EUT Configuration and Procedure

The fundamental frequency was measured using a Hewlett Packard Spectrum Analyzer and Horn Antenna.

### 5.4.2. Test Results

Test Sample	Measured Frequency (MHz)	Manufacturer's Rated Freq. (MHz)
XB2316	2467.4	2450
XB2616	2445.5	2450

## 5.5. Output Frequency Stability

### 5.5.1. EUT Configuration and Procedure

The HP Spectrum Analyzer is tuned to the maximum amplitude at the oven operating frequency. During the test, the Spectrum Analyzer is used to measurement operating frequency and record the maximum and minimum frequency.

### 5.5.2. Test Results

Frequency variation with time

Test Sample	Load		Maximum Frequency		Minimum Frequency	
	Start (ml)	End (ml)	Measured (MHz)	Limits (MHz)	Measured (MHz)	Limits (MHz)
XB2316	1000	200	2468.0	2500	2453.0	2400
XB2616	1000	200	2468.8	2500	2444.6	2400

Frequency variation with line voltage

Test Sample	Voltage (V)	Frequency		Voltage (V)	Frequency	
		Measured (MHz)	Limits (MHz)		Measured (MHz)	Limits (MHz)
XB2316	150	2468.0	2500	96	2479.0	2400
XB2616	150	2470.0	2500	96	2473.0	2400

# **APPENDIX I**

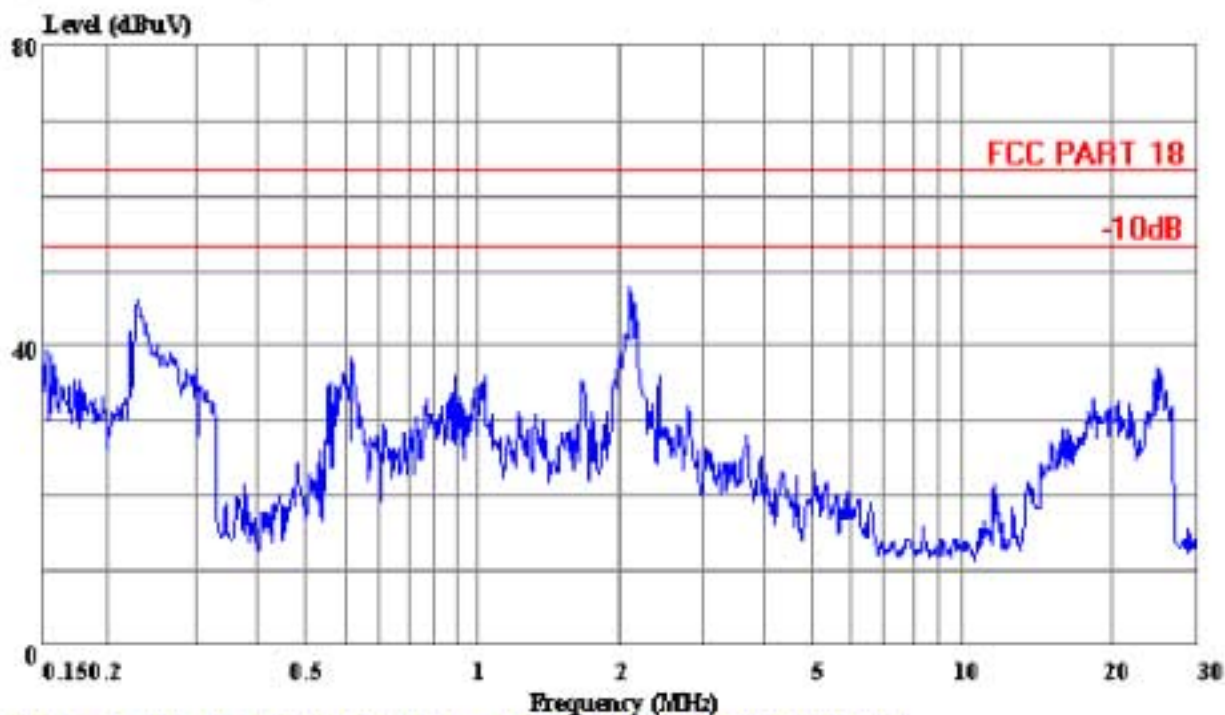


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

No.6 Ke Feng Road,Block 52,  
Shenzhen Science&Industry Park,

Data#: 13 File#: Xinbao..EMI

Date: 2005-11-08 Time: 18:12:59



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (Audix NO.1 CONDUCTION)

Trace:

Ref Trace:

Condition: FCC PART 18 VA KNW-407  
EUT : Microwave Oven  
M/N : XB2316  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: SAM  
Comment : Temp:23° Humi:54%  
Memo :

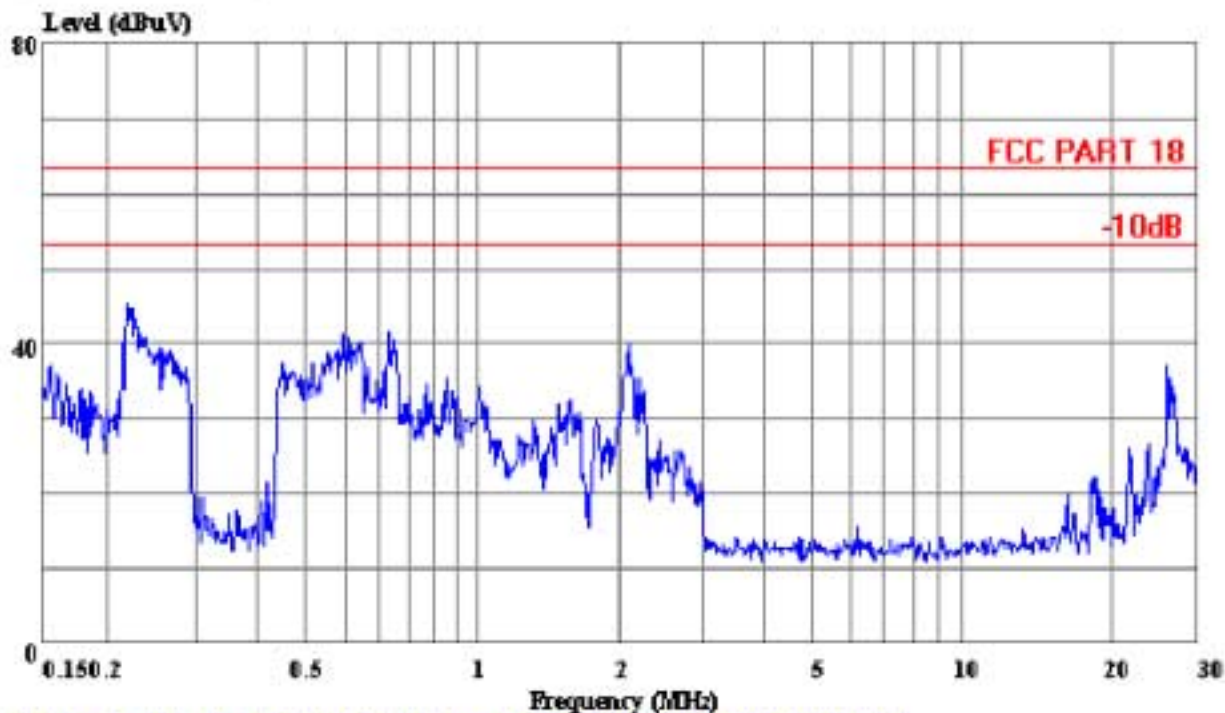


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

No.6 Ke Feng Road,Block 52,  
Shenzhen Science&Industry Park,

Data#: 15 File#: Xinbao..EMI

Date: 2005-11-08 Time: 18:14:54



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (Audix NO.1 CONDUCTION)

Trace:

Ref Trace:

Condition: FCC PART 18 VB KNW-407  
EUT : Microwave Oven  
M/N : XB2316  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: SAM  
Comment : Temp:23° Humi:54%  
Memo :

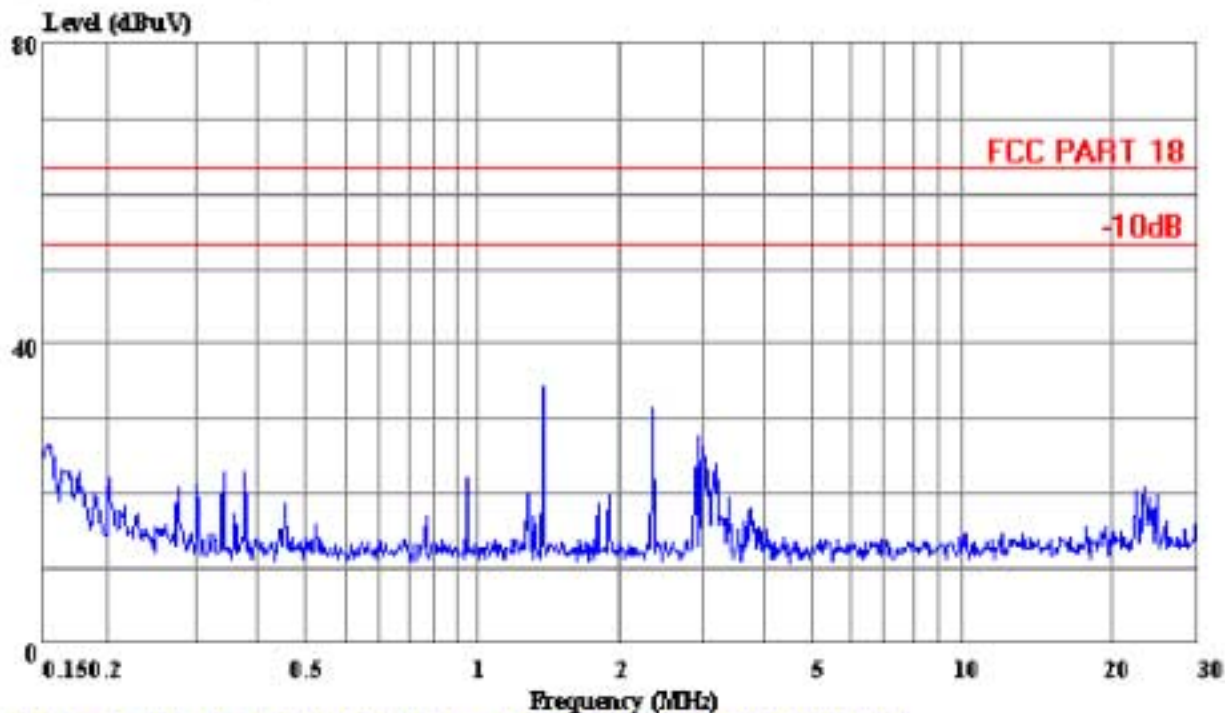


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

No.6 Ke Feng Road,Block 52,  
Shenzhen Science&Industry Park,

Data#: 5 File#: Xinbao..EMI

Date: 2005-11-08 Time: 16:14:01



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (Audix NO.1 CONDUCTION)

Trace:

Ref Trace:

Condition: FCC PART 18 VA KNW-407  
EUT : Microwave Oven  
M/N : XB2616  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: SAM  
Comment : Temp:23° Humi:54%  
Memo :

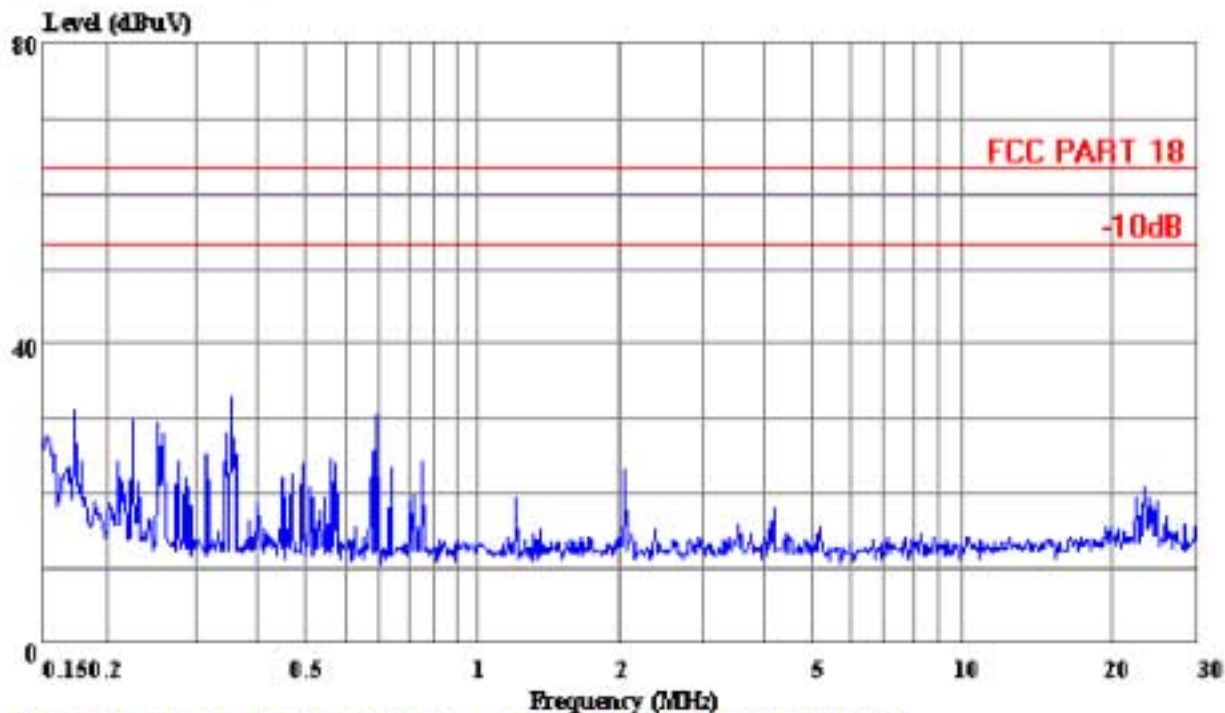


AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

No.6 Ke Feng Road,Block 52,  
Shenzhen Science&Industry Park,

Data#: 7 File#: Xinbao..EMI

Date: 2005-11-08 Time: 16:15:31



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (Audix NO.1 CONDUCTION)

Trace:

Ref Trace:

Condition: FCC PART 18 VB KNW-407  
EUT : Microwave Oven  
M/N : XB2616  
OP Condition : FULL LOAD  
Test Spec : AC 120V/60Hz  
Test Engineer: SAM  
Comment : Temp:23° Humi:54%  
Memo :

# **APPENDIX II**



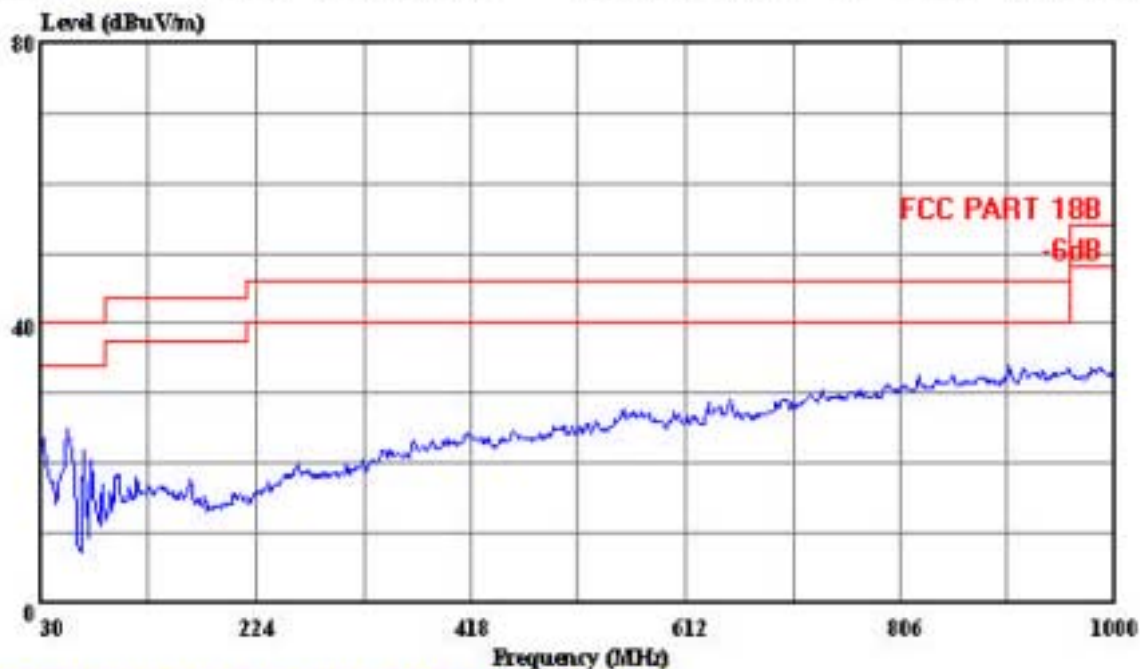
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495-7

Fax: 0755-26632877

Data#: 23 File#: XINBAO.EMI Date: 2005-11-17 Time: 01:37:14



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR HORIZONTAL

EUT : Microwave Oven

M/N : XB2316

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8'C Humi:62%

Memo : LOAD LOCATION: CENTER





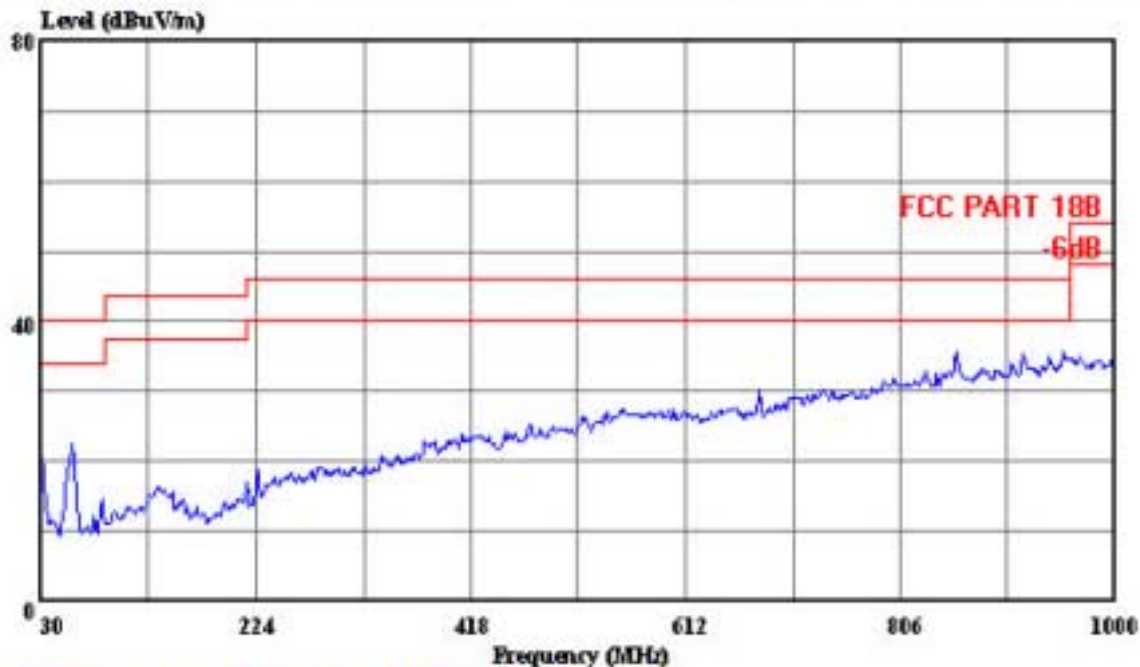
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495-7

Fax: 0755-26632877

Data#: 21 File#: XINBAO.EMI Date: 2005-11-17 Time: 01:35:17



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR VERTICAL

EUT : Microwave Oven

M/N : XB2316

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8°C Humi:62%

Memo : LOAD LOCATION: CENTER



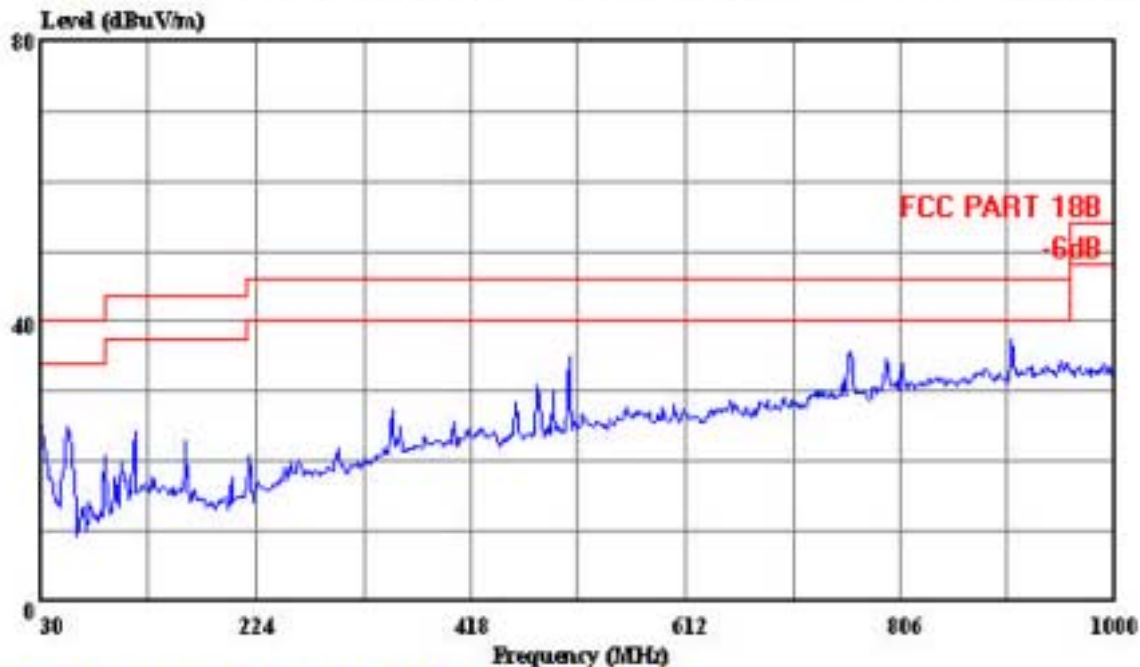
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495-7

Fax: 0755-26632877

Data#: 17 File#: XINBAO.EMI Date: 2005-11-17 Time: 01:30:24



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR HORIZONTAL

EUT : Microwave Oven

M/N : XB2316

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8'C Humi:62%

Memo : LOAD LOCATION:RF



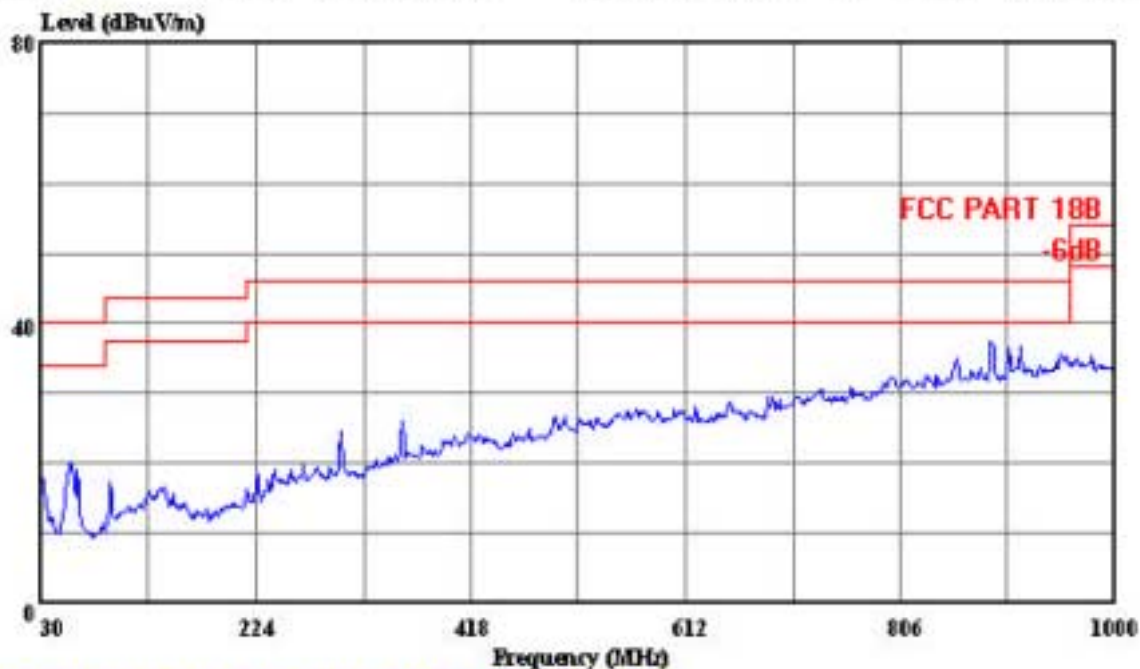
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495-7

Fax: 0755-26632877

Data#: 19 File#: XINBAO.EMI Date: 2005-11-17 Time: 01:32:22



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR VERTICAL

EUT : Microwave Oven

M/N : XB2316

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8'C Humi:62%

Memo : LOAD LOCATION:RF



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495-7

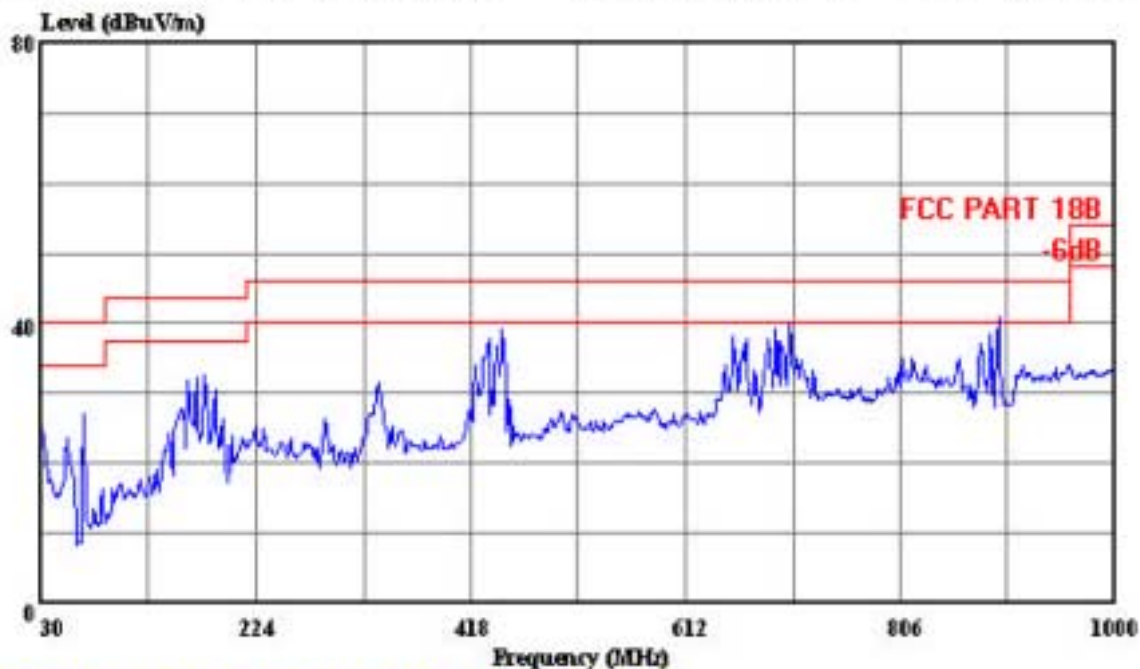
Fax: 0755-26632877

Data#: 9

File#: XINBAO.EMI

Date: 2005-11-16

Time: 01:16:12



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR HORIZONTAL

EUT : Microwave Oven

M/N : XB2616

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8'C Humi:62%

Memo : LOAD LOCATION: CENTER



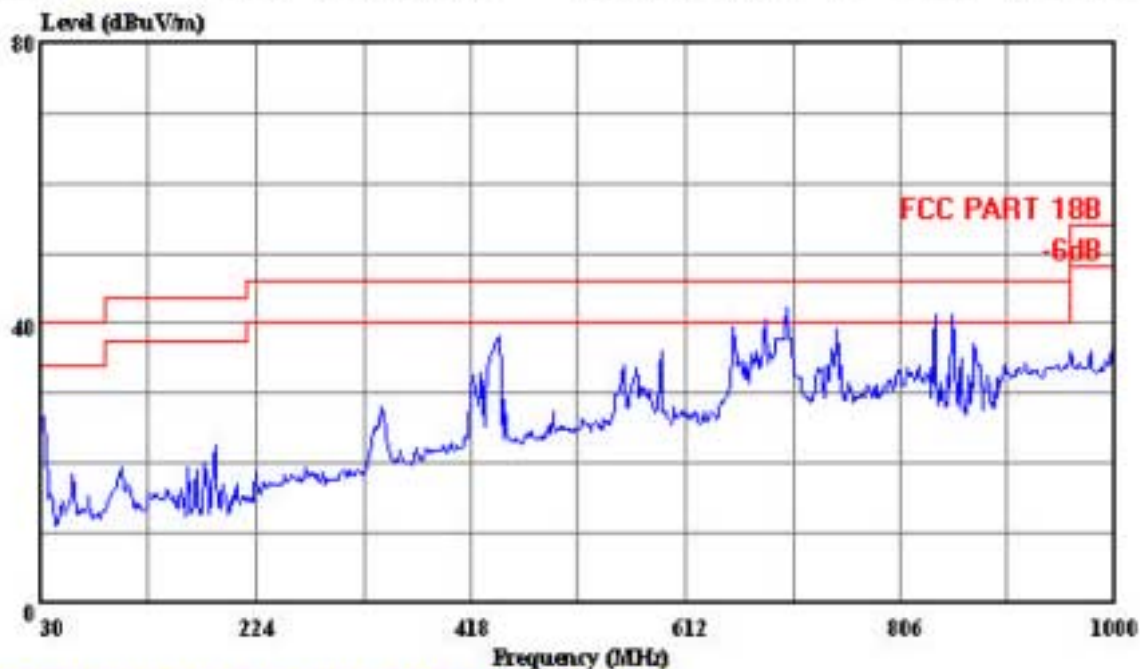
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495-7

Fax: 0755-26632877

Data#: 11 File#: XINBAO.EMI Date: 2005-11-16 Time: 01:19:16



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR VERTICAL

EUT : Microwave Oven

M/N : XB2616

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8'C Humi:62%

Memo : LOAD LOCATION: CENTER



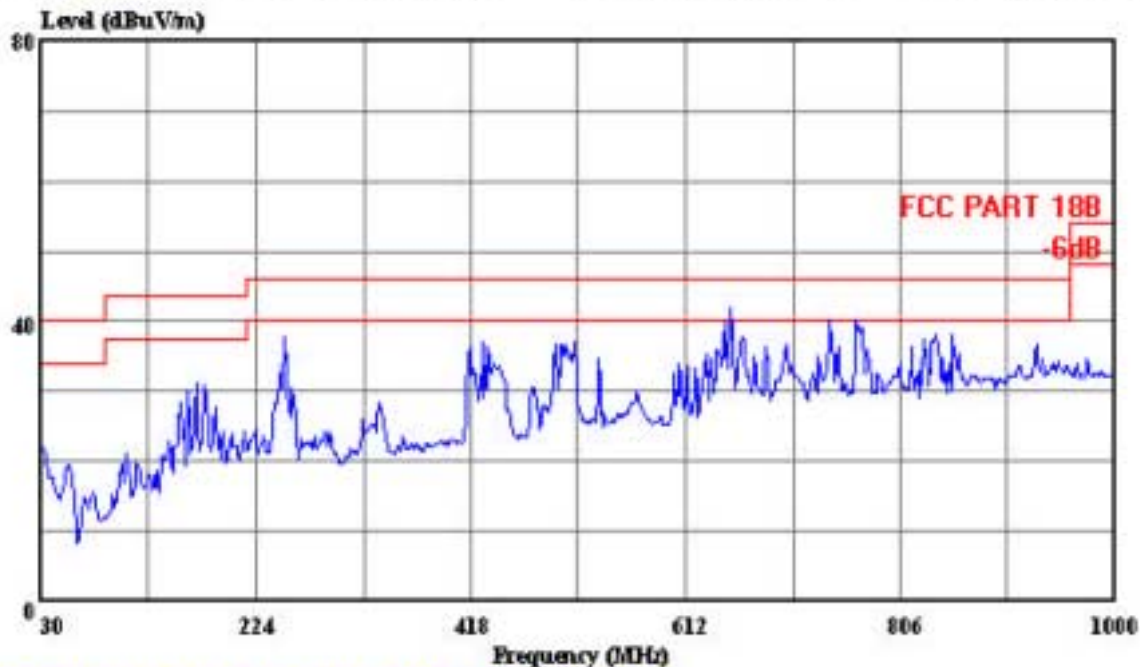
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495-7

Fax: 0755-26632877

Data#: 15 File#: XINBAO.EMI Date: 2005-11-16 Time: 01:25:45



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR HORIZONTAL

EUT : Microwave Oven

M/N : XB2616

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8'C Humi:62%

Memo : LOAD LOCATION:RF





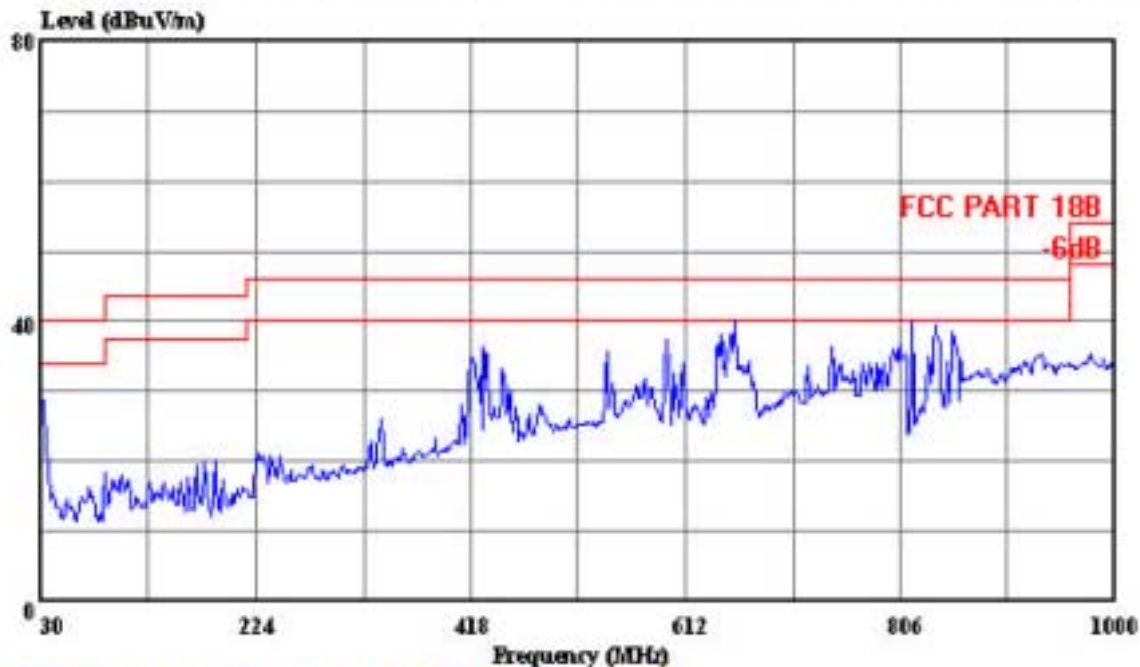
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science &amp; Ind. Park

Tel: 0755-26639495-7

Fax: 0755-26632877

Data#: 13 File#: XINBAO.EMI Date: 2005-11-16 Time: 01:23:24



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

Trace:

Ref Trace:

Condition: FCC PART 18B 3m 2598FACTOR VERTICAL

EUT : Microwave Oven

M/N : XB2616

OP Condition : FULL LOAD

Test Spec : AC 120V/60Hz

Test Engineer: THOMAX

Comment : Temp:23.8'C Humi:62%

Memo : LOAD LOCATION:RF