

EMI Test Report

On Model Name: Microwave oven

Model Numbers: XM720CYY-PM

Brand Name:  Midea

FCC ID: VG8XM720CYY-PM

Prepared for Foshan Shunde Midea Microwave and
Electrical Appliances Manufacturing Co., Ltd.

According to

FCC Part 18(2007)

Industrial, Scientific and Medical Equipment

FCC/OST MP-5(1986)

FCC methods of measurements of radio noise emission from industrial, scientific and
medical equipment

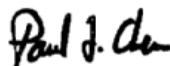
Test Report#: FOS-0911-10321-FCCID

Prepared by: May Wang

Reviewed by: Jawen Yin

QC Manager: Paul Chen

Test Report Released by:



Paul Chen

Dec 23, 2009

Date

List Attached Files

| <i>Exhibit Type</i> | <i>File Description</i> | <i>File Name</i> |
|------------------------------|------------------------------|---|
| <i>Test Report</i> | <i>Test Report</i> | <i>VG8XM720CYY-PM_Test report.pdf</i> |
| <i>Operation Description</i> | <i>Technical Description</i> | <i>VG8XM720CYY-PM_operation description.pdf</i> |
| <i>External Photos</i> | <i>External Photos</i> | <i>VG8XM720CYY-PM_External Photos</i> |
| <i>Internal Photos</i> | <i>Internal Photos</i> | <i>VG8XM720CYY-PM_Internal Photos</i> |
| <i>Block Diagram</i> | <i>Block Diagram</i> | <i>VG8XM720CYY-PM_Block Diagram.pdf</i> |
| <i>Schematics</i> | <i>Circuit Diagram</i> | <i>VG8XM720CYY-PM_Schematics.pdf</i> |
| <i>ID Label/Location</i> | <i>Label and Location</i> | <i>VG8XM720CYY-PM_Label & Location.pdf</i> |
| <i>User Manual</i> | <i>User Manual</i> | <i>VG8XM720CYY-PM_User Manual.pdf</i> |
| <i>Test setup photos</i> | <i>Test setup photos</i> | <i>VG8XM720CYY-PM_Test Setup Photos</i> |

Test Location

Tests performed in a Certified ANSI Semi-Anechoic Chamber and Shielded Room.

Test Site Location: Shenzhen Academy of Metrology and Quality inspection

Longzhu Road, Nanshan District, Shenzhen, Guangdong, China

Tel : 86-755-26941617

Fax : 86-755-26941615

FCC Registration Number: 274801

CNAS Registration Number: L0579

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Opinions and Interpretations

This test report relates to the abovementioned equipment under test (EUT). Without the permission of ECMG Worldwide Certification Solution Inc., Test Lab this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark on this or similar products. The manufacturer has sole responsibility of continued compliance of the device.

Statement of Measurement Uncertainty

The data and results referenced in the document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities that can account for a nominal measurement error. Furthermore, component and process variability of devices similar to that tested may result in additional deviation.

Administrative Data

Test Sample : Microwave Oven

Model Numbers : XM720CYY-PM (X=E or A;Y=0-9 or A-Z)

Model Tested : EM720CPZ-PM

Brand Name : 

Date Tested : December 21, 2009

Applicant : Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd.
NO.18 Huanzhen West Road, Beijiao, Shunde,
Foshan, Guangdong, 528311, China.

Telephone : 86-757-26339423

Fax : 86-757-26656995

EUT Description

Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd.model tested EM720CPZ-PM (referred to the EUT in this report) is a Microwave Oven.

| | |
|--------------------------------|-------------|
| Model: | XM720CYY-PM |
| Rated Voltage: | 120V~ 60Hz |
| Rated Input Power(Microwave): | 1050W |
| Rated Output Power(Microwave): | 700W |
| Oven Capacity: | 0.7 Cu.ft. |
| Turntable Diameter: | ∅ inch |
| External Dimensions: | mm |
| Net Weight: | 12 kg |

Magnetron Model: 2M217J

Magnetron Manufacturer: WITOL

Test Report #: FOS-0911-10321-FCCID

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Type of Deriver

XM720CYY-PM model designations:

X= E or A

M: only the microwave functions;

7: indicate the output power is 700W;

20: indicate cavity capacity is 20 liters;

C: indicate the design No.;

YY= 0-9 or A-Z, indicate different appearance.

"E" is electrical control with touch pad; "A" is electrical control with keyboard.

Test Summary

The Electromagnetic Compatibility requirements on model tested EM720CPZ-PM for this test is stated below. All results listed in this report relate exclusively to this above-mentioned model as the Equipment Under Test. This report confers no approval or endorsement upon any other component, host or subsystem used in the test set-up.

| Emission Tests | | | | |
|---|---------------------------------------|---------------------|-------------------|---------------|
| Specifications | Description | Test Results | Test Point | Remark |
| FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003 | Radiation Hazard Measurement | Passed | Enclosure | Attachment 1 |
| FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003 | Input Power Measurement | Passed | AC Input Port | Attachment 2 |
| FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003 | RF Output power Measurement | Passed | EUT | Attachment 3 |
| FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003 | Operating Frequency Measurement | Passed | EUT | Attachment 4 |
| FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003 | Conducted Emission | Passed | AC Input Port | Attachment 5 |
| FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003 | Radiated Emission | Passed | Enclosure | Attachment 6 |
| "EUT" means "EM720CPZ-PM". | | | | |

Load for Microwave Ovens

For all measurements the energy developed by the oven was absorbed by a dummy load consisting of a quantity of tap water in a beaker. If the oven was provided with a shelf or other utensil support, this support was in its initial normal position. For ovens rated at 1000watts or less power output, the beaker contained quantities of water as listed in the following subparagraphs. For ovens rated at more than 1000watts output, each quantity was increased by 50% for each 500watts or fraction thereof in excess of 1000 watts. Additional beakers were used if necessary.

--Load for power output measurement: 1000 milliliters of water in the beaker located in the center of the oven.

--Load for frequency measurement: 1000 milliliters of water in the beaker located in the center of the oven.

--Load for measurement of radiation on second and third harmonic: Two loads, one of 700 and the other of 300 milliliters, of water are used. Each load is tested both with the beaker located in the center of the oven and with it in the right front corner.

--Load for all other measurements: 700 milliliters of water, with the beaker located in the center of the oven.

Equipment Modification

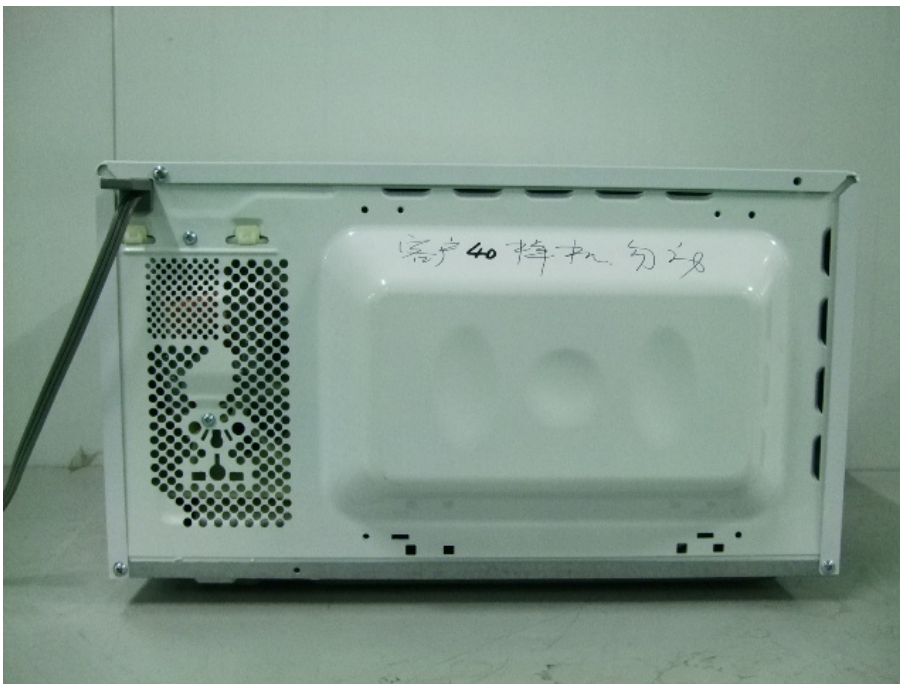
Any modifications installed previous to testing by Midea Microwave and Electrical Appliances Manufacturing Co.,Ltd will be incorporated in each production model sold or leased in United States.

There were no modifications installed by ECMG Worldwide Certification Solution Inc., test personnel.

EUT Sample Photos for model EM720CPZ-PM



Front View



Back View

Test Report #: FOS-0911-10321-FCCID

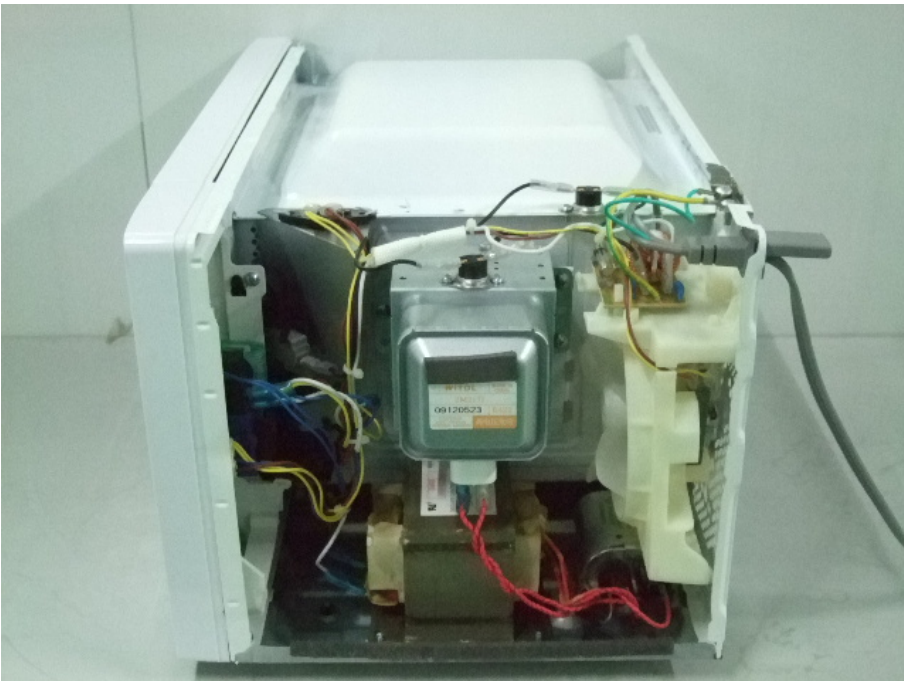
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Door Opened View



Inside View #1

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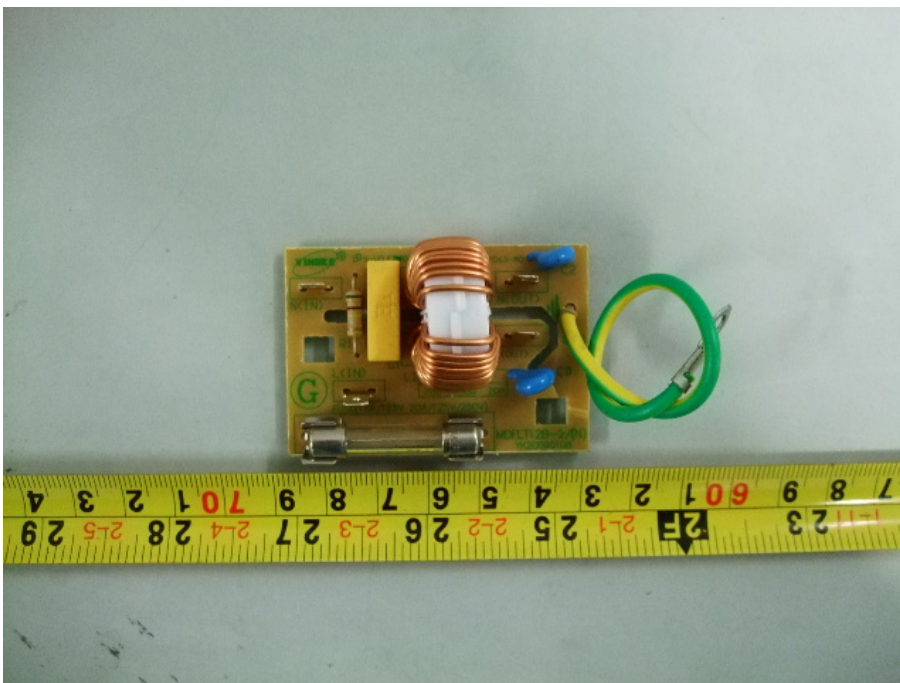
Inside View #2



Inside View #3



Magnetron View



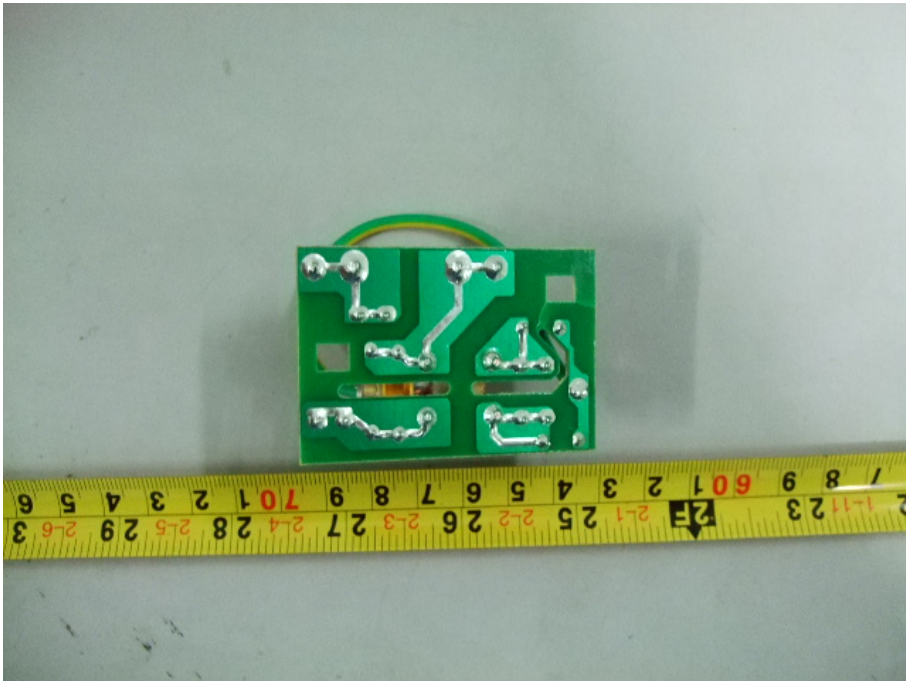
Filter Board -Front View

Test Report #: FOS-0911-10321-FCCID

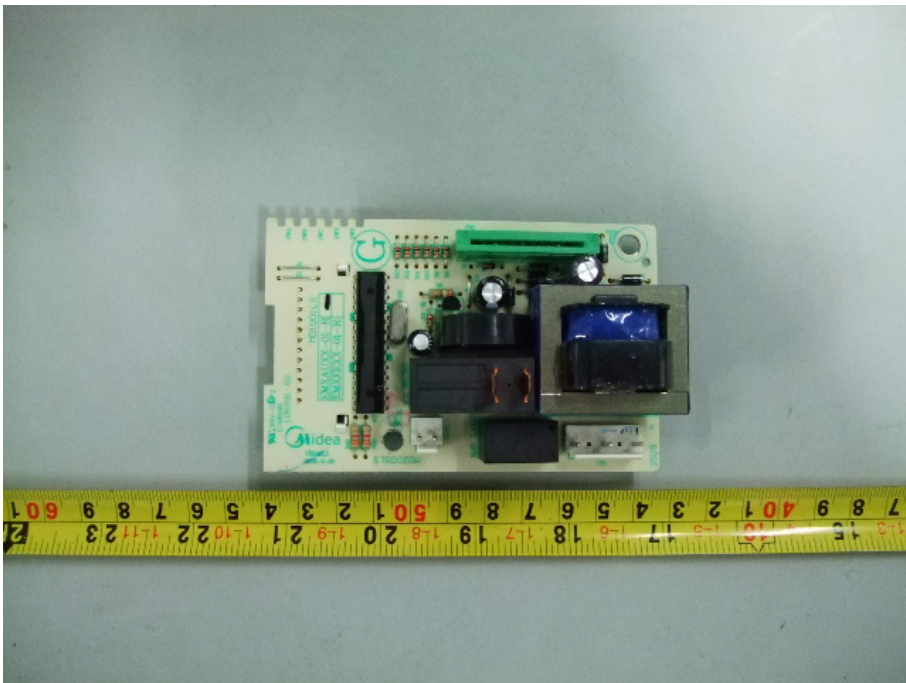
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Filter Board -Back View



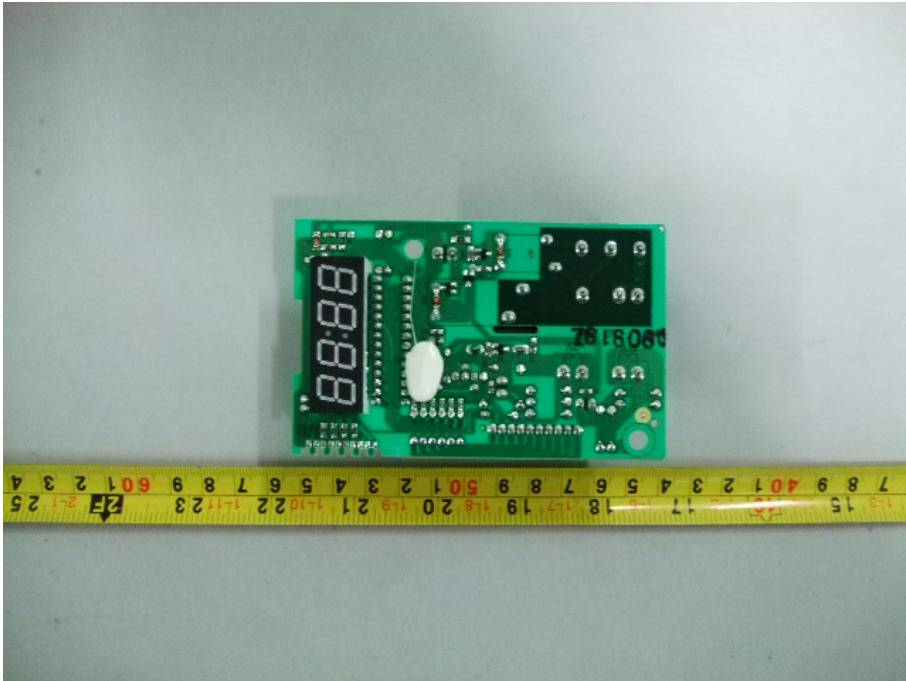
Control Board-Front View

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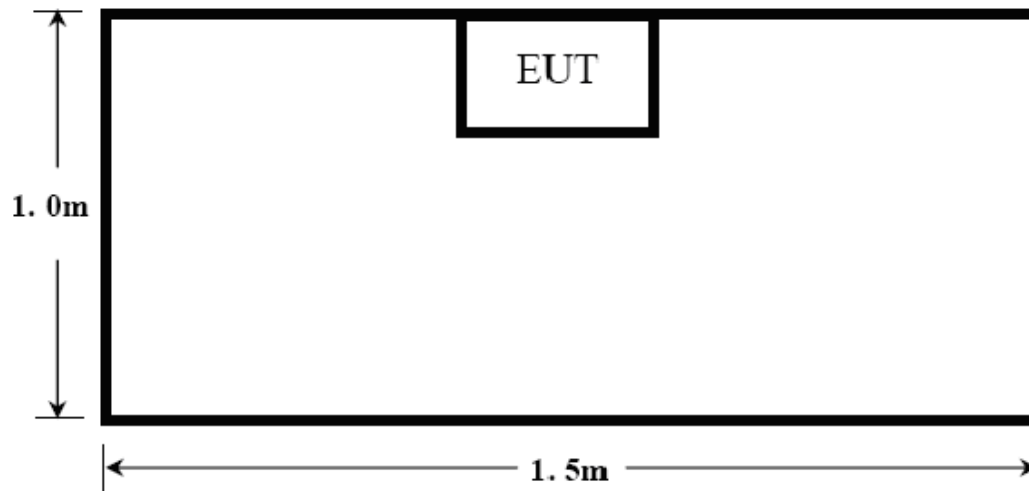


Control Board-Back View

Test System Details

| EUT | | | | | |
|--------------------------|---|-----------|------------------------|-----------------------|----------------------|
| Model Numbers: | XM720CYY-PM | | | | |
| Model Tested: | EM720CPZ-PM | | | | |
| Description: | Microwave Oven | | | | |
| Manufacturer: | Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd. | | | | |
| Support Equipment | | | | | |
| N/A | | | | | |
| Cable Description | | | | | |
| Description | From | To | Length (Meters) | Shielded (Y/N) | Ferrite (Y/N) |
| Power Cable | EUT | Plug | 1.20 | N | N |

Configuration of Tested System



ATTACHMENT 1 - RADIATION HAZARD TEST

| | | | |
|----------------------------------|--|-------------------------|-----------------------|
| CLIENT: | Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd. | TEST STANDERD: | FCC Part 18 |
| MODEL NUMBERS: | XM720CYY-PM | PRODUCT: | Microwave Oven |
| MODEL TESTED: | EM720CPZ-PM | EUT DESIGNATION: | Home or Office |
| TEMPERATURE: | 22°C | HUMIDITY: | 60%RH |
| ATM PRESSURE: | 101.1kPa | GROUNDING: | Through AC Power Cord |
| TESTED BY: | May Wang | DATE OF TEST: | December 21, 2009 |
| TEST REFERENCE: | ANSI C63.4: 2003, FCC/OST MP-5:1986 | | |
| TEST PROCEDURE: | The EUT was set up according to the FCC MP-5 and FCC Part 18 for Radiation Hazard Measurement. The measurement was using a microwave leakage meter to measure the Radiation leakage in the as-received condition with the oven door closed. A 1000ml water load in a beaker was located in the center of the oven and the Microwave oven was set to maximum power. While the oven operating, the microwave meter will check the leakage and then record the maximum leakage. | | |
| TESTED RANGE: | N/A | | |
| TEST VOLTAGE: | 120VAC / 60Hz | | |
| RESULTS: | <p>There was no microwave leakage exceeding a power level of 0.10 mW/cm² observed at any point 5cm or more from the external surface of the oven.</p> <p>A maximum of 1.0mW/cm² is allowed in accordance with the applicable FCC standards. Hence, microwave leakage in the as-received condition with the oven door closed was below the maximum allowed.</p> <p>The test results relate only to the equipment under test provided by client.</p> | | |
| Changes or Modifications: | There were no modifications installed by ECMG Worldwide Certification Solution Inc., (China) test personnel. | | |
| M. UNCERTAINTY: | 0.0001 mW/cm ² | | |

Test Report #: FOS-0911-10321-FCCID

Prepared for Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd.

Prepared by ECMG Worldwide Certification Solution Inc.

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Test Equipments List:

| Test Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Due |
|----------------|--------------|-----------|------------|------------|------------|
| Field Monitor | HOLADAY | H1-1710 | 98370 | 04/02/2009 | 04/01/2010 |

Note: All testing were performed using internationally recognized standards. All test instruments were calibrated and traceable to the National Institute of Standards and Technology (NIST).

SIGNED BY: May wang
ENGINEER

REVIEWED BY: Janeyan
SENIOR ENGINEER

Radiation Hazard Test Set-up :



ATTACHMENT 2 – INPUT POWER MEASUREMENT

| | | | |
|----------------------------------|---|-------------------------|-----------------------|
| CLIENT: | Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd. | TEST STANDERD: | FCC Part 18 |
| MODEL NUMBERS: | XM720CYY-PM | PRODUCT: | Microwave Oven |
| MODEL TESTED: | EM720CPZ-PM | EUT DESIGNATION: | Home or Office |
| TEMPERATURE: | 22°C | HUMIDITY: | 60%RH |
| ATM PRESSURE: | 101.1kPa | GROUNDING: | Through AC Power Cord |
| TESTED BY: | May Wang | DATE OF TEST: | December 21, 2009 |
| TEST REFERENCE: | ANSI C63.4: 2003, FCC/OST MP-5:1986 | | |
| TEST PROCEDURE: | <p>The EUT was set up according to the FCC MP-5 and FCC Part 18 for Input power Measurement.</p> <p>The input power and current was measured using a power analyzer. A 1000ml water load in a beaker was located in the center of the oven and the Microwave oven was set to maximum power. While the oven is operating, use a voltmeter and an ampmeter to test the AC input voltage and current</p> | | |
| TESTED RANGE: | N/A | | |
| TEST VOLTAGE: | 120VAC / 60Hz | | |
| RESULTS : | Based on the measured input power, the EUT was found to be operating within the intended specifications. The test results relate only to the equipment under test provided by client. | | |
| Changes or Modifications: | There were no modifications installed by ECMG Worldwide Certification Solution Inc., (China) test personnel. | | |
| M. UNCERTAINTY : | ± 5W | | |

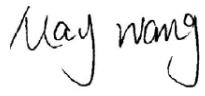
Test Data:

| <i>Input Voltage (Vac/Hz)</i> | <i>Input Current (amps)</i> | <i>Measured Input Power (watts)</i> | <i>Rated Input Power (watts)</i> |
|-----------------------------------|---------------------------------|---|--------------------------------------|
| 120/60 | 9.108 | 1093 | 1050 |

Test equipments list :

| <i>Test Equipment</i> | <i>Manufacturer</i> | <i>Model</i> | <i>Serial No.</i> | <i>Last Cal.</i> | <i>Cal. Due</i> |
|-----------------------------|---------------------|--------------|-------------------|------------------|-----------------|
| Power frequency test system | AINO | 8707A | 02040213 | 11/14/2009 | 11/13/2010 |

Note: All testing were performed using internationally recognized standards. All test instruments were calibrated and traceable to the National Institute of Standards and Technology (NIST).

SIGNED BY: 
ENGINEER

REVIEWED BY: 
SENIOR ENGINEER

Input Power Test Set-Up :



ATTACHMENT 3 – RF OUTPUT POWER MEASUREMENT

| | | | |
|----------------------------------|---|-------------------------|-----------------------|
| CLIENT: | Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd. | TEST STANDERD: | FCC Part 18 |
| MODEL NUMBERS: | XM720CYY-PM | PRODUCT: | Microwave Oven |
| MODEL TESTED: | EM720CPZ-PM | EUT DESIGNATION: | Home or Office |
| TEMPERATURE: | 22°C | HUMIDITY: | 60%RH |
| ATM PRESSURE: | 101.1kPa | GROUNDING: | Through AC Power Cord |
| TESTED BY: | May Wang | DATE OF TEST: | December 21, 2009 |
| TEST REFERENCE: | ANSI C63.4: 2003, FCC/OST MP-5:1986 | | |
| TEST PROCEDURE: | <p>The EUT was set up according to the FCC MP-5 and FCC Part 18C for RF output power Measurement. The Caloric Method was used to determine maximum RF output power. The initial temperature of the water load was measured. A 1000ml water load in a beaker was located in the center of the oven. The oven was operated at maximum output power for 120 seconds, the temperature of the water was re-measured.</p> <p>RF Output Power</p> $= (4.2\text{joules/calorie})(\text{volume in milliliters})(\text{temperature rise}) / (\text{time in seconds})$ $= 4.2 \text{ joules/calorie} \times 1000 \times (\text{Final Temp} - \text{Initial Temp}) / 120$ | | |
| TESTED RANGE: | N/A | | |
| TEST VOLTAGE: | 120VAC / 60Hz | | |
| RESULTS: | <p>RF Output Power = 581 watts</p> <p>The test results relate only to the equipment under test provided by client.</p> | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Worldwide Certification Solution Inc., (China) test personnel. | | |
| M. UNCERTAINTY: | ± 0.3°C | | |

Test Data:

| Quality of Water (ml) | Starting Temperature (°C) | Final Temperature (°C) | Elapsed Time (Seconds) | RF Output Power (watts) |
|------------------------------|----------------------------------|-------------------------------|-------------------------------|--------------------------------|
| 1000 | 18.4 | 35.0 | 120 | 581 |

Test Equipments List :

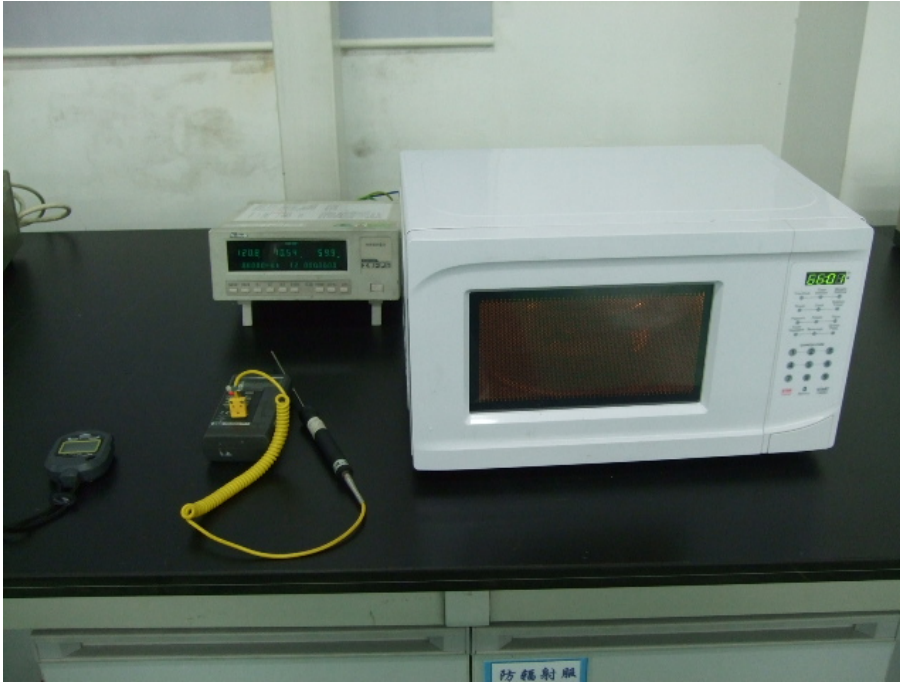
| Test Equipment | Manufacturer | Model | Serial No. | Last Cal. | Cal. Due |
|-----------------------|---------------------|--------------|-------------------|------------------|-----------------|
| Stopwatch | Guangdong | SW323 | SW01 | 02/14/2009 | 02/13/2010 |
| Thermometer | Taiwan | TES-1310 | 020907011 | 03/05/2009 | 03/04/2010 |

Note: All testing were performed using internationally recognized standards. All test instruments were calibrated and traceable to the National Institute of Standards and Technology (NIST).

SIGNED BY: May Wang
ENGINEER

REVIEWED BY: Jameson
SENIOR ENGINEER

RF Output Power Test Set-Up :



ATTACHMENT 4 - OPERATING FREQUENCY MEASUREMENT

| | | | |
|----------------------------------|--|-------------------------|-----------------------|
| CLIENT: | Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd. | TEST STANDERD: | FCC Part 18 |
| MODEL NUMBERS: | XM720CYY-PM | PRODUCT: | Microwave Oven |
| MODEL TESTED: | EM720CPZ-PM | EUT DESIGNATION: | Home or Office |
| TEMPERATURE: | 22°C | HUMIDITY: | 60%RH |
| ATM PRESSURE: | 101.1kPa | GROUNDING: | Through AC Power Cord |
| TESTED BY: | May Wang | DATE OF TEST: | December 21, 2009 |
| TEST REFERENCE: | ANSI C63.4: 2003, FCC/OST MP-5:1986 | | |
| TEST PROCEDURE: | <p>The EUT was set up according to the FCC MP-5 and FCC Part 18 for Operating Frequency Measurement.</p> <p>1) The variation of frequency with time.</p> <p>The operating frequency was measured using a spectrum analyzer. Starting with the EUT at room temperature, a 1000ml water load in a beaker was located in the center of the oven. Set a spectrum analyzer with antenna at 3 meters distance form the oven and the oven was operated at maximum output power. The fundamental operating frequency was monitored until the water load was reduced to 20 percent of the original load.</p> <p>2) The variation of frequency with Line Voltage.</p> <p>The operating frequency was measured using a spectrum analyzer. The EUT was operated/warmed by at least 10 minutes of use with a 1000ml water load at room temperature at the beginning of the test. Then the operating frequency was monitored as the input voltage was varied between 80 and 125 percent of the nominal rating.</p> | | |
| TESTED RANGE: | 2450 ± 50MHz | | |
| TEST VOLTAGE: | 120VAC / 60Hz | | |
| RESULTS: | Please refer to following pages for details of the variation in operating frequency with time & line voltage measurement.The test results relate only to the equipment under test provided by client. | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Worldwide Certification Solution Inc., (China) test personnel. | | |
| M. UNCERTAINTY: | Freq. ±10kHz | | |

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Variation in Operating Frequency with Time:

| <i>Minimum Frequency (MHz)</i> | <i>Maximum Frequency (MHz)</i> |
|--------------------------------|--------------------------------|
| 2427.0 | 2487.0 |

Variation in Operating Frequency with Line Voltage:

| <i>Minimum Frequency (MHz)</i> | <i>Maximum Frequency (MHz)</i> |
|--|--------------------------------|
| 2436.2 | 2493.4 |
| <i>Note: Line voltage varied from 96Vac to 150Vac.</i> | |

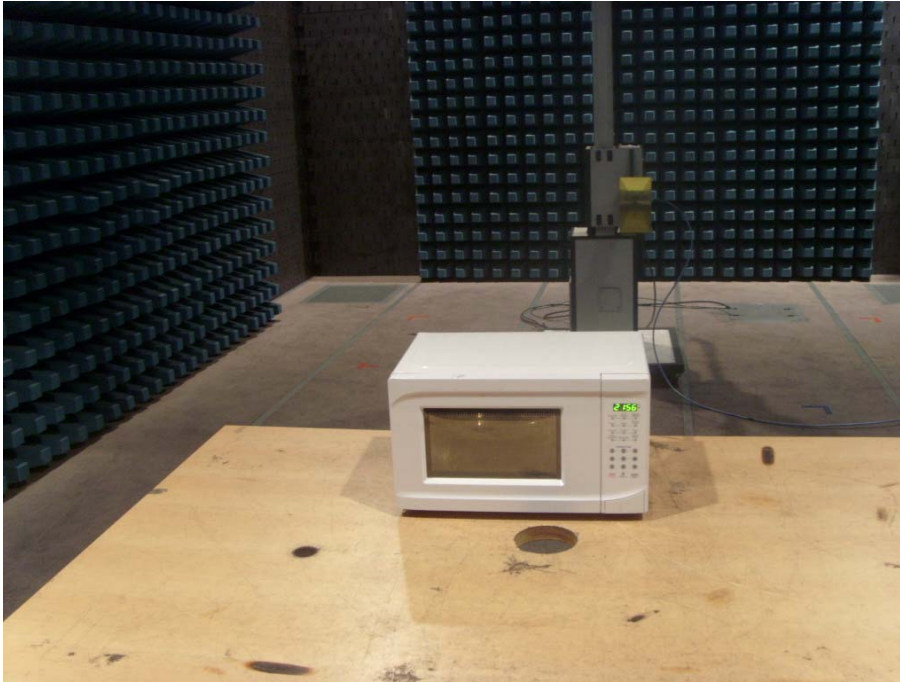
Test Equipments List :

| <i>Test Equipment</i> | <i>Manufacturer</i> | <i>Model</i> | <i>Serial No.</i> | <i>Last Cal.</i> | <i>Cal. Due</i> |
|--|----------------------|-----------------|-------------------|-------------------|-------------------|
| <i>Horn Antenna</i> | <i>R&S</i> | <i>HF906</i> | <i>SB3434</i> | <i>2009-01-25</i> | <i>2010-01-24</i> |
| <i>EMI Receiver</i> | <i>R&S</i> | <i>ES126</i> | <i>SB3436</i> | <i>2009-01-25</i> | <i>2010-01-24</i> |
| <i>Band-pass Filter</i> | <i>Micro-Tronics</i> | <i>BRM50702</i> | <i>SIN-030</i> | <i>2009-01-25</i> | <i>2010-01-24</i> |
| <i>3M Anechoic chamber</i> | <i>Albatross</i> | <i>9x6x6</i> | <i>SB3450</i> | <i>2009-03-27</i> | <i>2010-03-26</i> |
| <i>Note: All testing were performed using internationally recognized standards. All test instruments were calibrated and traceable to the National Institute of Standards and Technology (NIST).</i> | | | | | |

SIGNED BY: May Wang
ENGINEER

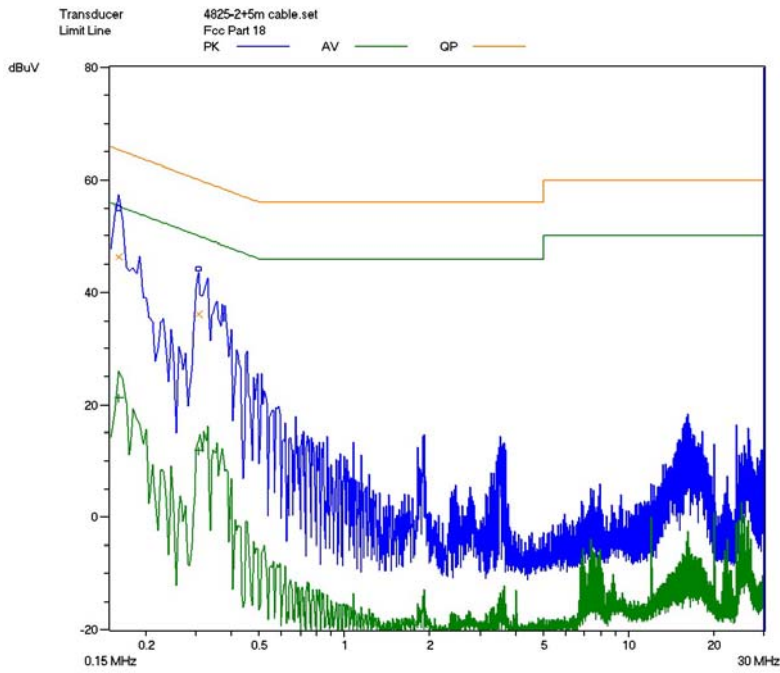
REVIEWED BY: Jameson
SENIOR ENGINEER

Operating Frequency Test Set-up :

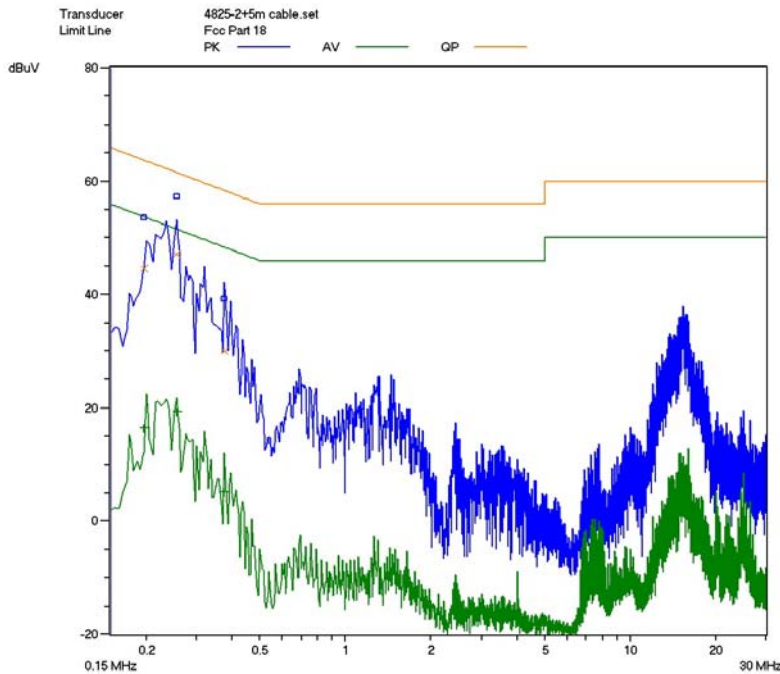


ATTACHMENT 5 - CONDUCTED EMISSION TEST RESULTS

| | | | |
|----------------------------------|--|-------------------------|-----------------------|
| CLIENT: | Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd. | TEST STANDERD: | FCC Part 18 |
| MODEL NUMBERS: | XM720CYY-PM | PRODUCT: | Microwave Oven |
| MODEL TESTED: | EM720CPZ-PM | EUT DESIGNATION: | Home or Office |
| TEMPERATURE: | 22°C | HUMIDITY: | 60%RH |
| ATM PRESSURE: | 101.1kPa | GROUNDING: | Through AC Power Cord |
| TESTED BY: | May Wang | DATE OF TEST: | December 21, 2009 |
| TEST REFERENCE: | ANSI C63.4: 2003, FCC/OST MP-5:1986 | | |
| TEST PROCEDURE: | The EUT was set up according to the guideline of ANSI C63.4: 2003 & FCC MP-5 for conducted emissions. The measurement was using a AMN on each line and an EMI receiver peak scan was made at the frequency measurement range. The six highest significant peaks were then marked, and these signals were then quasi-peaked and averaged. The frequency range investigated was from 150kHz to 30MHz. | | |
| TESTED RANGE: | 150kHz to 30MHz | | |
| TEST VOLTAGE: | 120VAC / 60Hz | | |
| RESULTS: | The EUT meets the requirements of test reference for Conducted Emissions. The test results relate only to the equipment under test provided by client. | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Worldwide Certification Solution Inc., (China) test personnel. | | |
| M. UNCERTAINTY: | ±2.5 dB | | |



Line L Conducted Emission Graph



Line N Conducted Emission Graph

Test Data:

| Line L/N | Frequency (MHz) | Corrected QP Level (dBuV) | Limits QP (dBuV) | Margin QP (dB) | Corrected AVE Level (dBuV) | Limits AVE (dBuV) | Margin AV (dB) |
|----------|-----------------|---------------------------|------------------|----------------|----------------------------|-------------------|----------------|
| L | 0.1600 | 46.4 | 65.4 | -19.0 | 21.3 | 55.4 | -34.1 |
| L | 0.3050 | 36.0 | 60.1 | -24.1 | 11.9 | 50.1 | -38.2 |
| L | 15.9534 | 9.3 | 60.0 | -50.7 | -9.9 | 50.0 | -59.9 |
| N | 0.1950 | 44.6 | 63.8 | -19.2 | 16.5 | 53.8 | -37.3 |
| N | 0.2550 | 47.2 | 61.5 | -14.3 | 19.3 | 51.5 | -32.2 |
| N | 0.3750 | 30.1 | 58.4 | -28.3 | 5.3 | 48.4 | -43.1 |

Note:

- 1) All readings are using a bandwidth of 9 kHz, with a 600 ms sweep time.
- 2) The other emission levels are too low against official limit that are not be recorded.

Test Equipments List:

| Test Equipment | Manufacturer | Model | Serial No. | Last Cal. | Cal. Due |
|----------------|--------------|---------|------------|------------|------------|
| EMI Receiver | SCHAFFNER | SMR4503 | 11725 | 07/09/2009 | 07/08/2010 |
| LISN | EMCO | 4825/2 | 1161 | 07/09/2009 | 07/08/2010 |

Note: All testing were performed using internationally recognized standards. All test instruments were calibrated and traceable to the National Institute of Standards and Technology (NIST).

SIGNED BY: May Wang
ENGINEER

REVIEWED BY: Jameson
SENIOR ENGINEER

Conducted Emission Test Set-up :



ATTACHMENT 6 - RADIATED EMISSION TEST RESULTS

| | | | |
|----------------------------------|--|-------------------------|-----------------------|
| CLIENT: | Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd. | TEST STANDERD: | FCC Part 18 |
| MODEL NUMBERS: | XM720CYY-PM | PRODUCT: | Microwave Oven |
| MODEL TESTED: | EM720CPZ-PM | EUT DESIGNATION: | Home or Office |
| TEMPERATURE: | 22°C | HUMIDITY: | 60%RH |
| ATM PRESSURE: | 101.1kPa | GROUNDING: | Through AC Power Cord |
| TESTED BY: | May Wang | DATE OF TEST: | December 21, 2009 |
| TEST REFERENCE: | ANSI C63.4: 2003, FCC/OST MP-5:1986 | | |
| TEST PROCEDURE: | <p>The EUT was set up according to the guidelines of ANSI C63.4: 2003 & FCC MP-5 for radiated emissions. Microwave oven was placed on a 1m *1.5m nonconductive table. The top of the table is 1.0 m above the ground. The table is placed on a flush mounted metal turntable.</p> <p>An EMI receiver peak scan was made at the frequency measurement range (pre-scan) in an Anechoic chamber. Signal discrimination was then performed and the significant peaks marked. All data was recorded in Quasi-peak detection mode from 30 MHz to 1GHz and average detector mode above 1GHz.</p> <p>The following data lists the significant emission frequencies, measured levels, correction factors (including cable and antenna correction factors), and the corrected readings against the limits. Explanation of the Correction Factor are given as follows:</p> <p>FS= RA + AF + CF - AG</p> <p>Where: FS = Field Strength</p> <p>RA = Receiver Amplitude</p> <p>AF = Antenna Factor</p> <p>CF = Cable Attenuation Factor</p> <p>AG = Amplifier Gain</p> | | |
| TESTED RANGE: | 30MHz to 24.5GHz | | |
| TEST VOLTAGE: | 120VAC / 60Hz | | |
| RESULTS: | The EUT meets the requirements of test reference for Radiated Emissions. The test results relate only to the equipment under test provided by client. | | |
| CHANGES OR MODIFICATIONS: | There were no modifications installed by ECMG Worldwide Certification Solution Inc., (China) test personnel. | | |
| M. UNCERTAINTY: | ± 3.2 dB | | |

Test Report #: FOS-0911-10321-FCCID

Prepared for Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd.

Prepared by ECMG Worldwide Certification Solution Inc.

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Field strength limits for out-of-band emissions :

For RF output power <500W, Limit at 300m = 27.96dBuV/m

For RF output power >500W, Limit at 300m=20log[25*SQRT(Power/500)]dBuV/m

Test Data :

| 30MHz – 1GHz | | | | | | |
|--|----------------------------|----------------------------|-------------|-------------------------|----------------|--------------------------|
| Frequency [MHz] | Antenna Polarization [V/H] | Corrected Reading [dBuV/m] | Factor (dB) | Field Strength dB(μV/m) | Delta, QP [dB] | 3 Meters Limits [dBμV/m] |
| 166.3180 | H | 13.8 | 10.84 | 24.64 | -43.96 | 68.6 |
| 213.7240 | H | 14.6 | 10.04 | 24.64 | -43.96 | 68.6 |
| 242.4760 | H | 19.2 | 11.95 | 31.15 | -37.45 | 68.6 |
| 36.3420 | V | 20.1 | 16.46 | 36.56 | -32.04 | 68.6 |
| 131.7060 | V | 19.8 | 12.55 | 32.35 | -36.25 | 68.6 |
| 622.5060 | V | 17.0 | 19.11 | 36.11 | -32.49 | 68.6 |
| <p>Note: 1) All readings are quasi-peak unless stated otherwise, using a bandwidth of 120kHz, with a 60s sweep time. A video filter was not used. 2) Field Strength = Read Level + Factor, Factor = Antenna Factor + Cable Loss - Preamp Factor.</p> | | | | | | |
| 1GHz – 25GHz | | | | | | |
| Frequency [GHz] | Antenna Polarization [V/H] | Corrected Reading [dBμV/m] | Factor (dB) | Field Strength dB(μV/m) | Delta, AV [dB] | 3 Meters Limits [dBμV/m] |
| 4.91478 | H | 4.06 | 33.30 | 37.76 | -30.84 | 68.6 |
| 7.28510 | H | 4.64 | 36.30 | 40.94 | -27.66 | 68.6 |
| 10528.477 | H | 3.40 | 37.60 | 41.0 | -27.60 | 68.6 |
| 4.93906 | V | 4.09 | 33.35 | 37.44 | -31.16 | 68.6 |
| 7.35604 | V | 0.62 | 36.40 | 37.02 | -31.58 | 68.6 |
| 10528.477 | V | 3.70 | 37.60 | 41.3 | -27.30 | 68.6 |
| <p>Note: 1) All readings are average unless stated otherwise, using a bandwidth of 1MHz, with a 60s sweep time. A video filter was not used. 2) Field Strength = Read Level + Factor, Factor = Antenna Factor + Cable Loss - Preamp Factor.</p> | | | | | | |

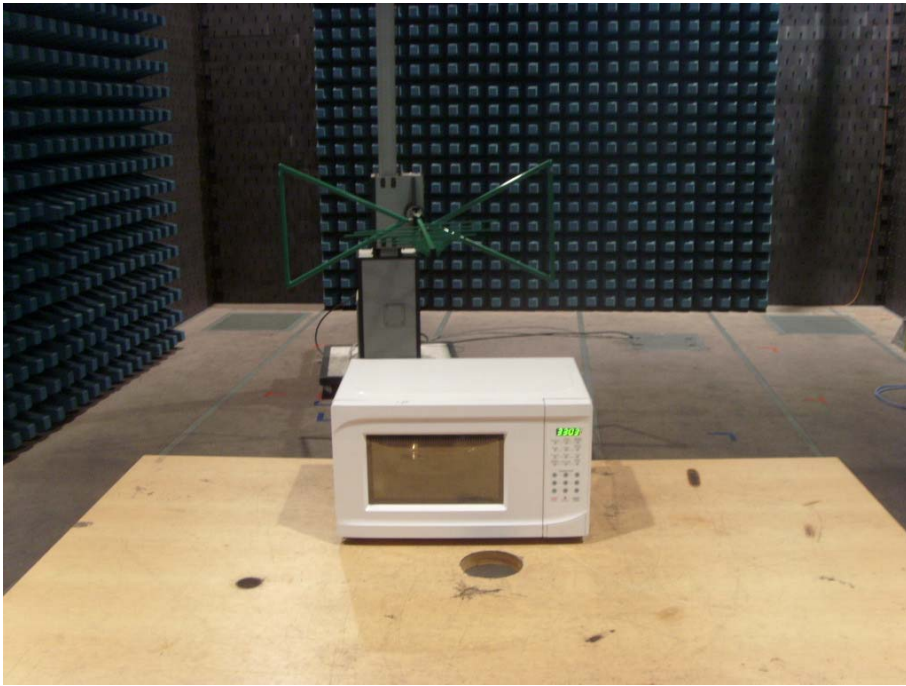
Test Equipments List:

| Test Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Due |
|---------------------|---------------|-----------|------------|------------|------------|
| Bilog Antenna | Chase | CBL6112B | SB3440 | 2009-01-25 | 2010-01-24 |
| Horn Antenna | R&S | HF906 | SB3434 | 2009-01-25 | 2010-01-24 |
| EMI Receiver | R&S | ES126 | SB3436 | 2009-01-25 | 2010-01-24 |
| Band-pass Filter | Micro-Tronics | BRM50702 | SIN-030 | 2009-01-25 | 2010-01-24 |
| 3M Anechoic chamber | Albatross | 9x6x6 | SB3450 | 2009-03-27 | 2010-03-26 |

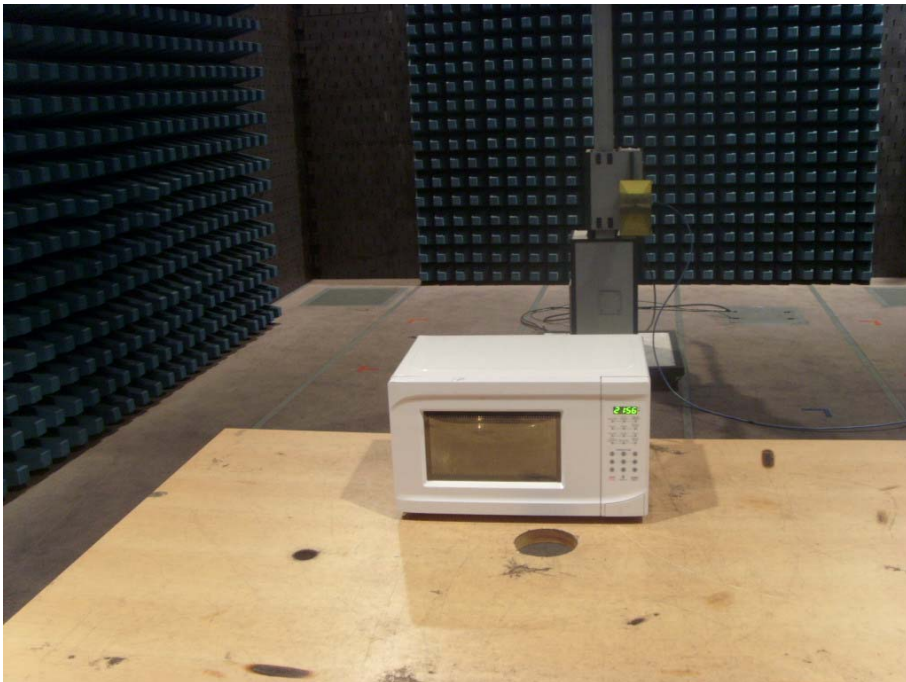
Note: All testing were performed using internationally recognized standards. All test instruments were calibrated and traceable to the National Institute of Standards and Technology (NIST).

SIGNED BY: May Wang
ENGINEER

REVIEWED BY: Jameson
SENIOR ENGINEER



Radiated Emission Test Set-up (30~1000MHz) :



Radiated Emission Test Set-up (1~25GHz) :