

FCC Test Report

On Model Name: Microwave Oven

Model Numbers: ZX028EYY; XM031EYY

Brand Name: 

FCC ID: VG8ZX028EYY

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-0908-10270-FCCID

Prepared by: May Wang

Reviewed by: Jawen Yin

QC Manager: Paul Chen

Test Report Released by: 

Paul Chen

September 16, 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>VG8ZXM028EYY _Test report.pdf</i>
<i>Operation Description</i>	<i>Technical Description</i>	<i>VG8ZXM028EYY_operation description.pdf</i>
<i>External Photos</i>	<i>External Photos</i>	<i>VG8ZXM028EYY_External Photos</i>
<i>Internal Photos</i>	<i>Internal Photos</i>	<i>VG8ZXM028EYY_Internal Photos</i>
<i>Block Diagram</i>	<i>Block Diagram</i>	<i>VG8ZXM028EYY_Block Diagram.pdf</i>
<i>Schematics</i>	<i>Circuit Diagram</i>	<i>VG8ZXM028EYY _Schematics.pdf</i>
<i>ID Label/Location</i>	<i>Label and Location</i>	<i>VG8ZXM028EYY _Label & Location.pdf</i>
<i>User Manual</i>	<i>User Manual</i>	<i>VG8ZXM028EYY _User Manual.pdf</i>
<i>Test set-up photos</i>	<i>Test setup photos</i>	<i>VG8ZXM028EYY _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 : *ZXM028EYY(X=E or A;Y=0-9 or A-Z);
XM031EYY(X=E or A;Y=0-9 or A-Z)*

Model Tested : *ZEM028EZC*

Brand Name : 

Date Tested : *September 01,2009 to september 14,2009*

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*

Manufacturer : *Foshan Shunde Midea Microwave and Electrical
Appliances Manufacturing Co., Ltd.*

*NO.18 Huanzhen West
Road,Beijiao,Shunde,Foshan,Guangdong,528311,
China.*

EUT Description

Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd. model tested ZEM028EZC (referred to the EUT in this report) is a Microwave Oven.

<i>Power Voltage</i>	<i>120V~ 60 Hz</i>
<i>Rated Input Power(Microwave)</i>	<i>1500W</i>
<i>Rated Output Power(Microwave)</i>	<i>1000W</i>
<i>Operation Frequency</i>	<i>2450MHz</i>
<i>Magnetron Model Number</i>	<i>2M219J</i>
<i>External Dimensions:</i>	<i>20.2x16.9x12 inch</i>
<i>Turntable Diameter</i>	<i>12.4 inch</i>
<i>Net Weight</i>	<i>32.2 Lbs</i>

Type of Deriver

The serial product model ZXMO28EYY, XM031EYY only the model number is different, anything else are the same. so we select the model number ZEM028EZC for final test.

ZXM028EYY model designations:

X= E or A

M: only the microwave functions;

028: indicate cavity capacity is 28 liters;

Y: indicate the design No.;

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

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

XM031EYY model designations:

X= E or A

M: only the microwave functions;

031: indicate cavity capacity is 31 liters;

Y: indicate the design No.;

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

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

Note :

The above EUT information was declared by manufacturer and for more detailed features description, please refer to manufacture's specification or user's manual.

Test Summary

The Electromagnetic Compatibility requirements on model tested ZEM028EZC 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
<i>FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003</i>	<i>Radiation Hazard Measurement</i>	<i>Passed</i>	<i>Enclosure</i>	<i>Attachment 1</i>
<i>FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003</i>	<i>Input Power Measurement</i>	<i>Passed</i>	<i>AC Input Port</i>	<i>Attachment 2</i>
<i>FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003</i>	<i>RF Output power Measurement</i>	<i>Passed</i>	<i>EUT</i>	<i>Attachment 3</i>
<i>FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003</i>	<i>Operating Frequency Measurement</i>	<i>Passed</i>	<i>EUT</i>	<i>Attachment 4</i>
<i>FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003</i>	<i>Conducted Emission</i>	<i>Passed</i>	<i>AC Input Port</i>	<i>Attachment 5</i>
<i>FCC Part 18:2007 FCC/OST MP-5:1986 ANSI C63.4: 2003</i>	<i>Radiated Emission</i>	<i>Passed</i>	<i>Enclosure</i>	<i>Attachment 6</i>

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 Foshan Shunde 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 ZEM028EZC



Front View



Back View

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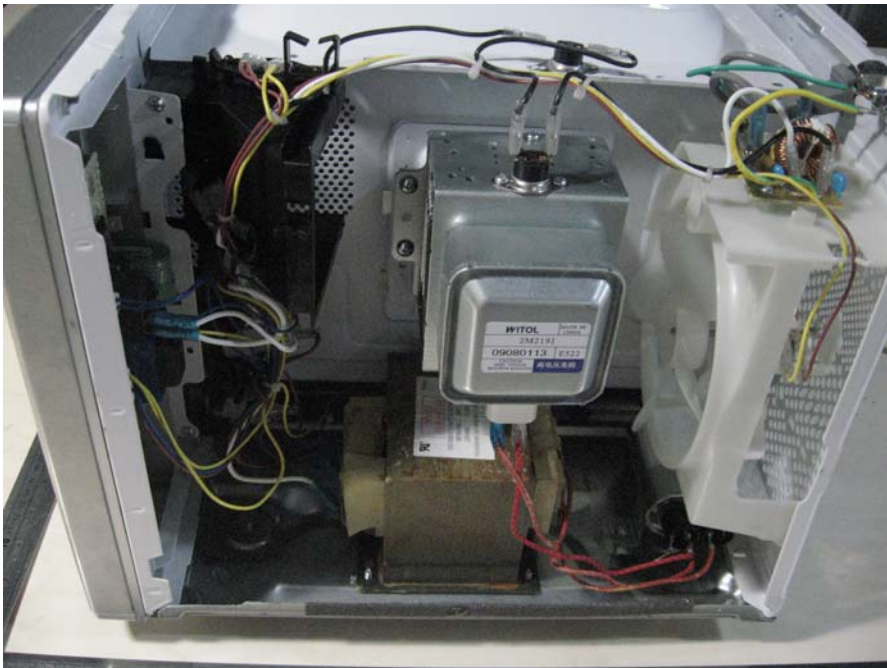
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Door Opened View



Inside View

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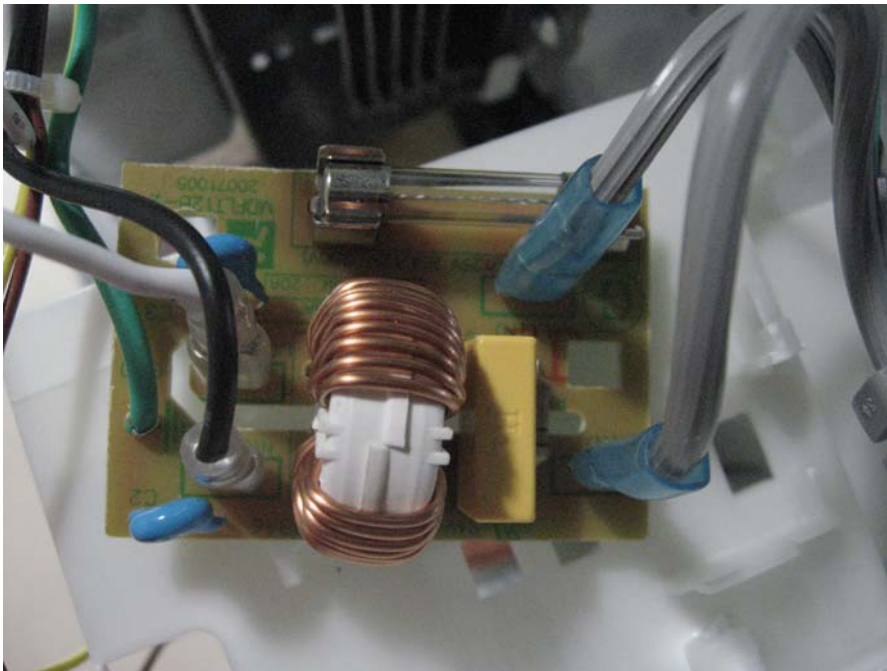
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Magnetron View



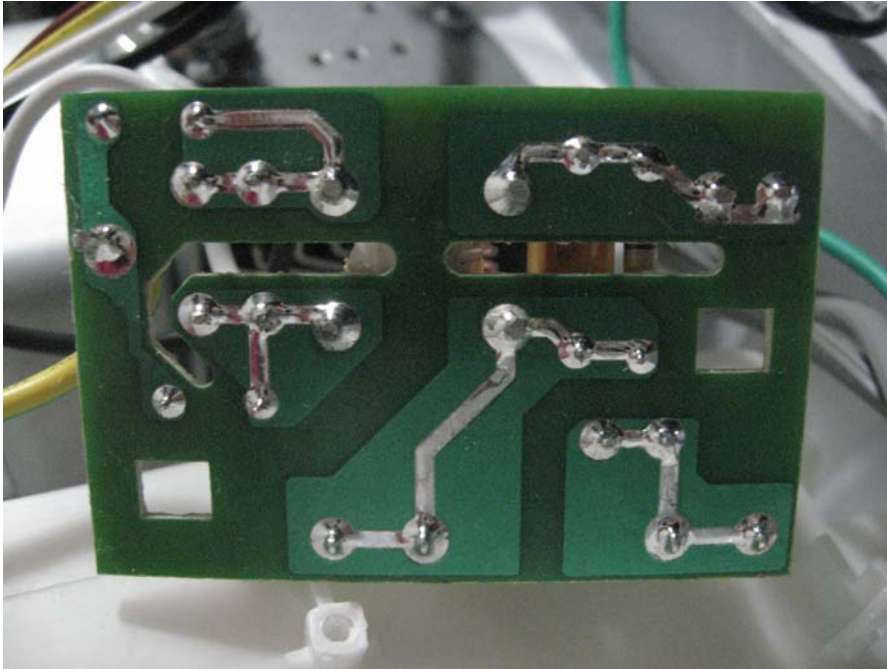
Filter Board -Front View

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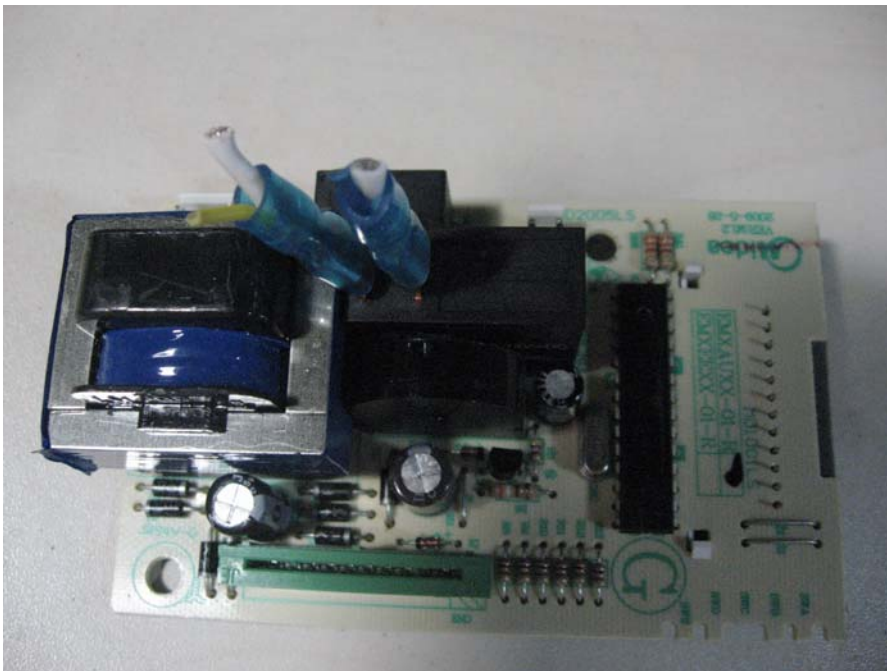
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Filter Board -Back View



Control Board-Front View

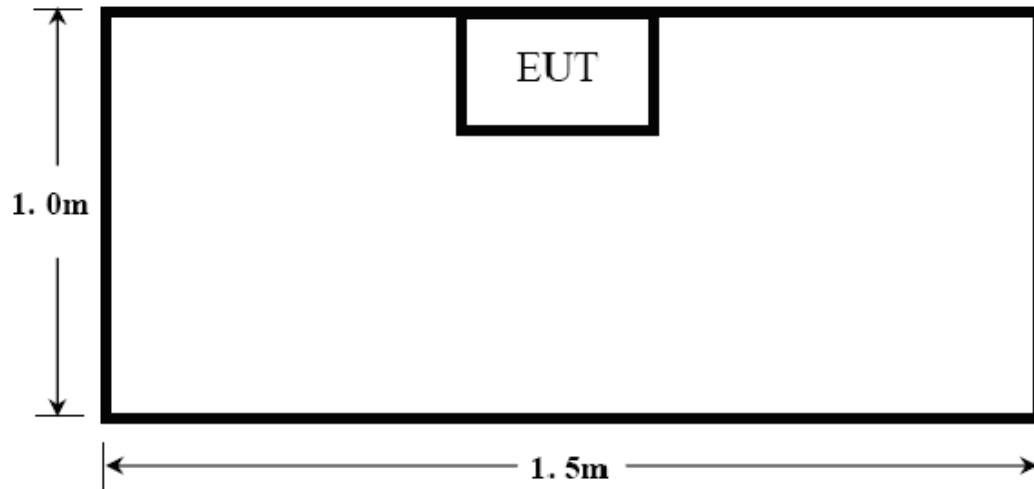


Control Board-Back View

Test System Details

EUT					
Model Numbers:	ZXM028EYY; XM031EYY				
Model Tested:	ZEM028EYC				
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 18:2007
MODEL NUMBERS:	ZXM028EYY; XM031EYY	PRODUCT:	Microwave Oven
MODEL TESTED:	ZEM028EZC	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:	September 3, 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 Radiation Hazard Measurement.</p> <p>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.</p>		
TESTED RANGE:	N/A		
TEST VOLTAGE:	120VAC / 60Hz		
RESULTS:	<p>There was no microwave leakage exceeding a power level of 0.04 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-0908-10270-FCCID


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Prepared by ECMG Worldwide Certification Solution Inc.

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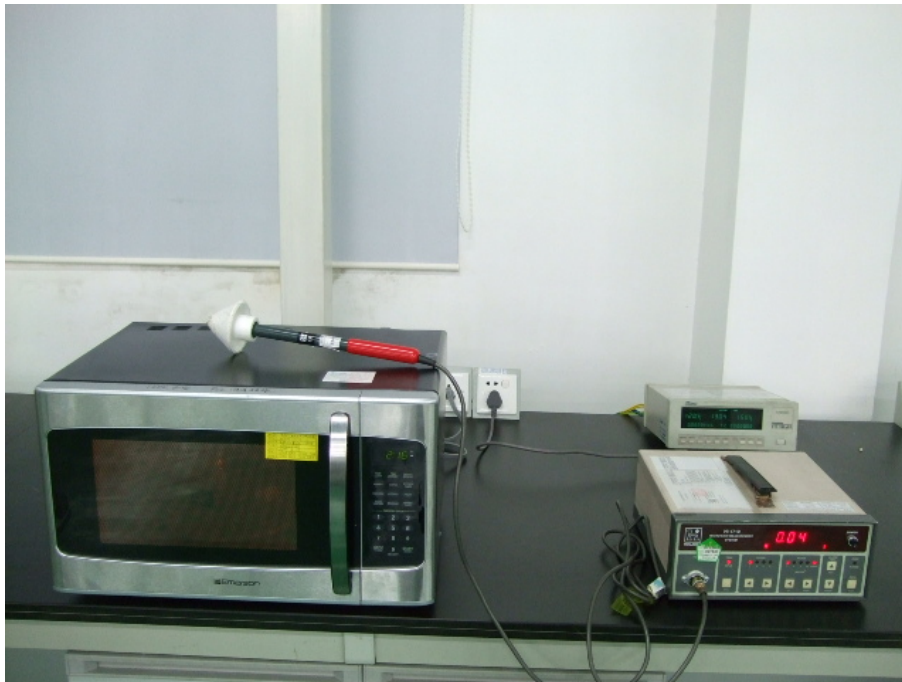
Test Equipments List:

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

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:	ZXM028EYY; XM031EYY	PRODUCT:	Microwave Oven
MODEL TESTED:	ZEM028EZC	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:	September 3, 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 ammeter to test the AC input voltage and current.</p>		
TESTED RANGE:	N/A		
TEST VOLTAGE:	120VAC / 60Hz		
RESULTS :	<p>Based on the measured input power, the EUT was found to be operating within the intended specifications.</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 :	± 5W		

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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>
120/60Hz	12.54	1505	1500

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>Power Frequency Test System</i>	<i>AINO</i>	<i>8707A</i>	<i>02040213</i>	<i>2008-11-14</i>	<i>2009-11-13</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).

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 18:2007
MODEL NUMBERS:	ZXM028EYY; XM031EYY	PRODUCT:	Microwave Oven
MODEL TESTED:	ZEM028EYC	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:	September 3, 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 = 830.62 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		

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Test Data:

Quality of Water (ml)	Starting Temperature (°C)	Final Temperature (°C)	Elapsed Time (Seconds)	RF Output Power (watts)
1000	18.7	42.5	120	830.62

Note: RF Output Power (W) = 4.2 x 1000 x (Final Temp - Initial Temp) / 120

Test Equipments List :

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

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: Jamenny
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 18:2007
MODEL NUMBERS:	ZXM028EYY; XM031EYY	PRODUCT:	Microwave Oven
MODEL TESTED:	ZEM028EYC	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:	September 3, 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		

Continue on to next page...

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. $\pm 10\text{kHz}$

Variation in Operating Frequency with Time:


Minimum Frequency (MHz)	Maximum Frequency (MHz)
2403.6	2480.4


Variation in Operating Frequency with Line Voltage:

Minimum Frequency (MHz)	Maximum Frequency (MHz)
2407.4	2487.2
Note: Line voltage varied from 96Vac to 150Vac.	

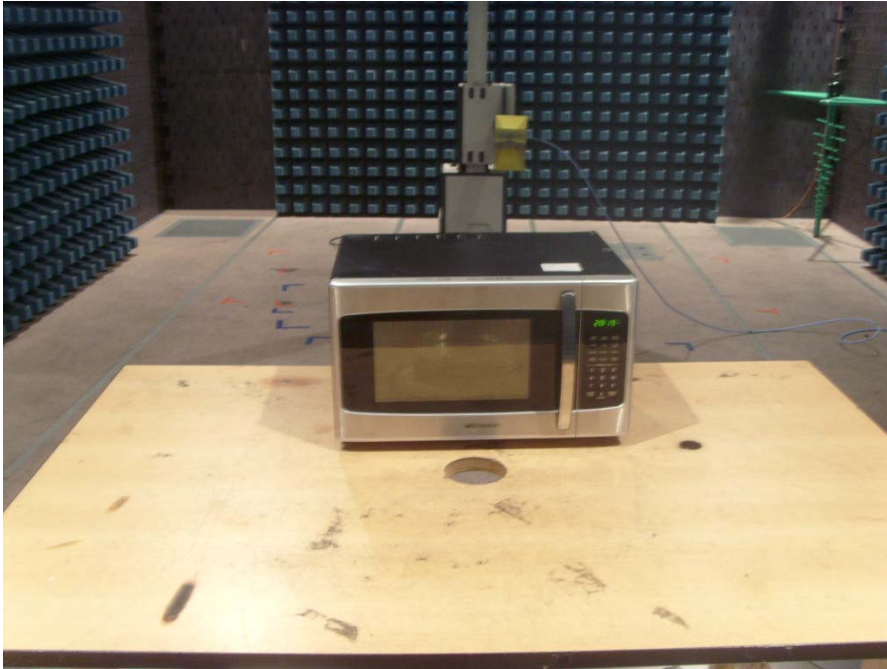
Test Equipments List :

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
Horn Antenna	R&S	HF906	SB3434	2009-01-25	2010-01-24
EMI Receiver	R&S	ES126	SB3436	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: 
ENGINEER

REVIEWED BY: 
SENIOR ENGINEER

Operating Frequency Test Set-up :



ATTACHMENT 5 - CONDUCTED EMISSION TEST RESULTS

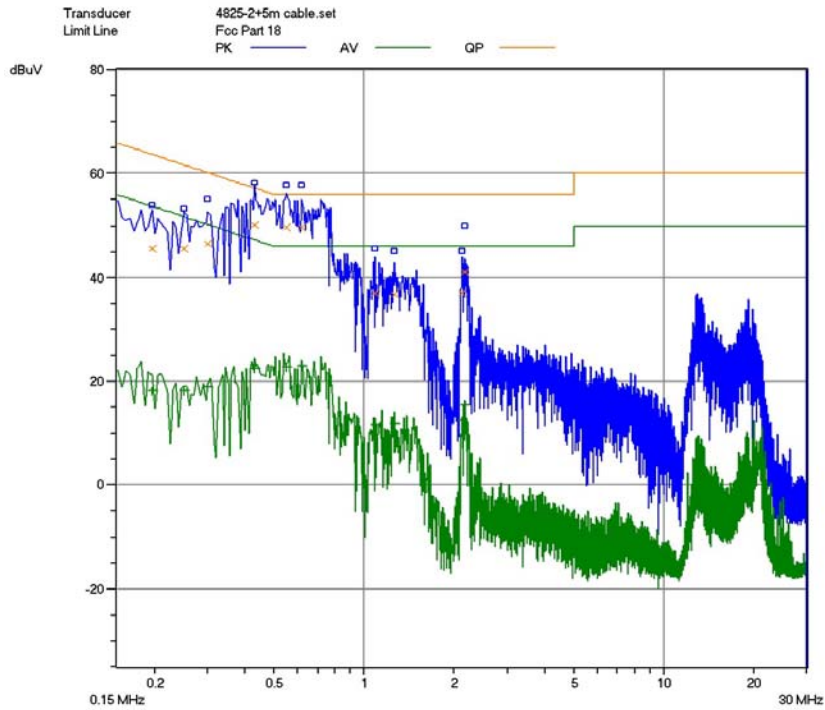
CLIENT:	Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd.	TEST STANDERD:	FCC Part 18:2007
MODEL NUMBERS:	ZXM028EYY; XM031EYY	PRODUCT:	Microwave Oven
MODEL TESTED:	ZEM028EYC	EUT DESIGNATION:	Home or Office
TEMPERATURE:	22°C	HUMIDITY:	60%RH
ATM PRESSURE:	101.1kPa	GROUNDING:	Through AC Power Cord
TESTED BY:	May Wang	DATE OF TEST:	September 3, 2009
TEST REFERENCE:	ANSI C63.4: 2003, FCC/OST MP-5:1986		
TEST PROCEDURE:	<p>The EUT was set up according to the guideline of ANSI C63.4: 2003 & FCC MP-5 for conducted emissions.</p> <p>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.</p> <p>The frequency range investigated was from 150kHz to 30MHz.</p>		
TESTED RANGE:	150kHz to 30MHz		
TEST VOLTAGE:	120VAC / 60Hz		
RESULTS:	<p>The EUT meets the requirements of test reference for Conducted Emissions on line L by 5.2 dB of Quasi-Peak detector.</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:	±2.5 dB		

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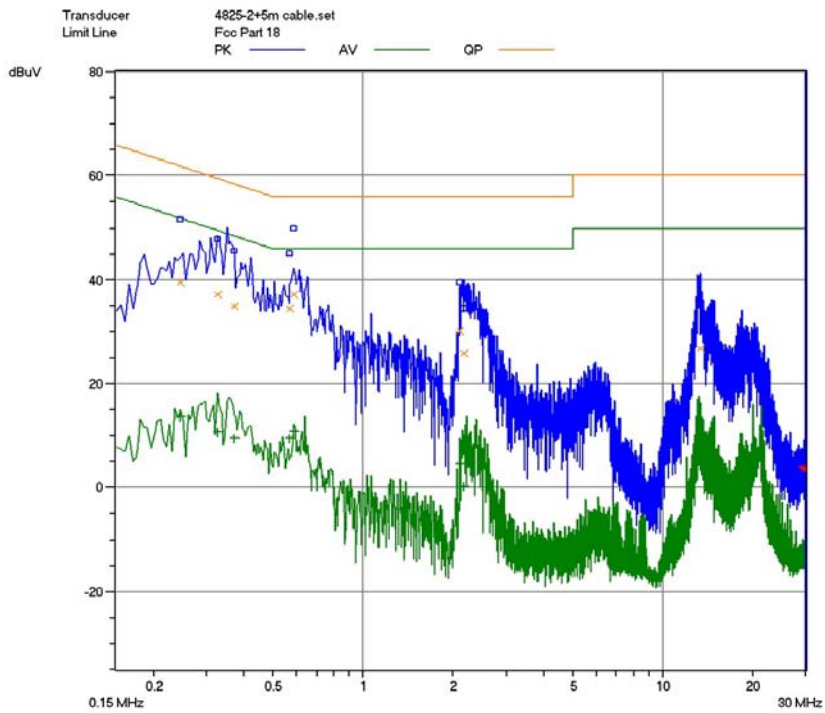
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Line L Conducted Emission Graph



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	0.4292	51.1	57.3	-6.2	26.8	47.3	-20.5
L	0.5504	50.4	56.0	-5.6	23.7	46.0	-22.3
L	0.6176	50.8	56.0	-5.2	23.8	46.0	-22.2
N	0.3500	42.5	58.9	-16.4	15.2	48.9	-33.7
N	0.5816	33.4	56.0	-22.6	8.5	46.0	-37.5
N	2.1480	34.3	56.0	-21.7	7.0	46.0	-39.0

Note: All readings are using a bandwidth of 9 kHz, with a 30 ms sweep time.

Test Equipments List:

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
EMI Receiver	SCHAFFNER	SMR4503	11725	2009.07.08	2010.07.08
LISN	EMCO	4825/2	1161	2009.07.08	2010.07.08

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: Janeym
SENIOR ENGINEER

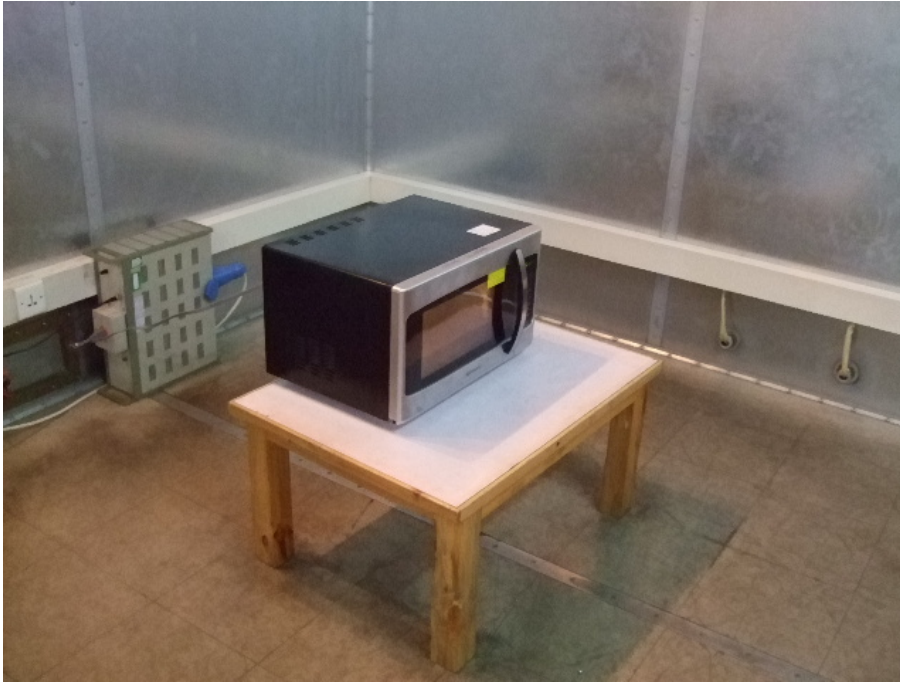
Test Report #: FOS-0908-10270-FCCID

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

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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 18:2007
MODEL NUMBERS:	ZXM028EYY; XM031EYY	PRODUCT:	Microwave Oven
MODEL TESTED:	ZEM028EYC	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:	September 14, 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. 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 Where: FS = Field Strength RA = Receiver Amplitude AF = Antenna Factor CF = Cable Attenuation Factor 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 on horizontal polarization by 27.5 dB of average detector at 560.050 MHz. 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		

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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]	Reading Level [dB μ V/m]	Factor (dB)	Field Strength dB(μ V/m)	3 Meters Limits [dB μ V/m]	Delta, QP [dB]
73.095	H	23.85	7.65	31.5	70.2	-38.7
267.284	H	25.38	13.82	39.2	70.2	-31.0
560.050	H	23.99	18.71	42.7	70.2	-27.5
72.872	V	23.17	7.53	30.7	70.2	-39.5
113.587	V	15.45	12.75	28.2	70.2	-42.0
647.609	V	16.17	18.93	35.1	70.2	-35.1
Note: 1)All readings are quasi-peak unless stated otherwise, using a bandwidth of 120kHz, with a 1.0 s sweep time. A video filter was not used. 2)Field Strength=Read Level + Factor, Factor = Antenna Factor + Cable Loss - Preamp Factor						
1GHz – 25GHz						
Frequency [GHz]	Antenna Polarization [V/H]	Reading Level [dB μ V/m]	Factor (dB)	Field Strength dB(μ V/m)	3 Meters Limits [dB μ V/m]	Delta, QP [dB]
4936.256	H	38.43	4.27	42.7	70.2	-27.5
8381.473	H	27.49	10.01	37.5	70.2	-32.7
14817.899	H	18.54	13.96	32.5	70.2	-37.7
2218.436	V	43.38	-6.28	37.1	70.2	-33.1
8357.124	V	36.57	9.93	46.5	70.2	-23.7
14775.214	V	39.6	13.90	53.5	70.2	-16.7
Note: 1) All readings are average unless stated otherwise, using a bandwidth of 1MHz, with a 30 ms sweep time. A video filter was not used. 2)Field Strength=Read Level + Factor, Factor = Antenna Factor + Cable Loss - Preamp Factor						

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>Bilog Antenna</i>	<i>Chase</i>	<i>CBL6112B</i>	<i>SB3440</i>	<i>2009-01-25</i>	<i>2010-01-24</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>

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:

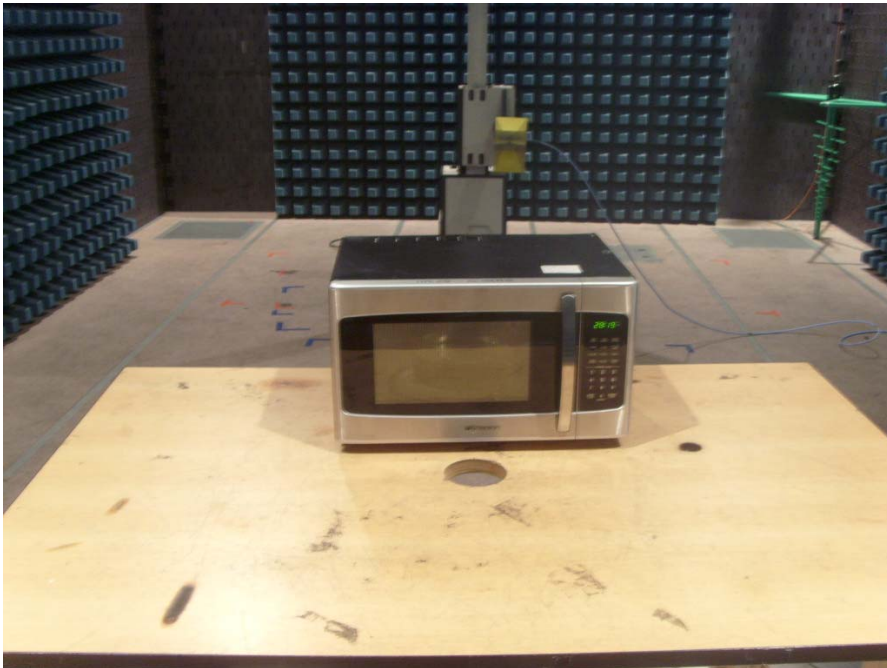


SENIOR ENGINEER

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



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



Test Report #: FOS-0908-10270-FCCID

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