EMI Test Report

On Model Name: Microwave oven(Over The Range)

Model Numbers: XM048KYY

Brand Name: Midea

FCC ID: VG8XM048KYY

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#:	SHE-0912-10339-FCC ID
Prepared by:	May Wang
Reviewed by:	Jawen Yin
QC Manager:	Paul Chen

Test Report Released by: Paul J. Chen — January 8, 2010

Paul Chen — Date

List Attached Files

Exhibit Type	File Description	File Name
Test Report	Test Report	VG8XM048KYY _Test report.pdf
Operation Description	Technical Description	VG8XM048KYY _operation description.pdf
External Photos	External Photos	VG8XM048KYY _External Photos
Internal Photos	Internal Photos	VG8XM048KYY _Internal Photos
Block Diagram	Block Diagram	VG8XM048KYY _Block Diagram.pdf
Schematics	Circuit Diagram	VG8XM048KYY _Schematics.pdf
ID Label/Location	Label and Location	VG8XM048KYY _Label & Location.pdf
User Manual	User Manual	VG8XM048KYY _User Manual.pdf
Test setup photos	Test setup photos	VG8XM048KYY _Test Setup Photos

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

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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 (Over The Range)*
Model Numbers	*: XM048KYY(X=E or A;Y=0-9 or A-Z)*
Model Tested	*: EM048K##*
Brand Name	*:* Midea
Date Tested	*: December 29, 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 EM048K## (referred to the EUT in this report) is a Microwave Oven(Over The Range).

Power Supply	*120V AC, 60Hz*
Input Power	*1550 W*
Cooking Power	*1000 W*
Frequency	*2450 MHz*
Cavity Volume	*1.7 cubic ft. (48L)*
Net Weight	*55.2 lbs. (25kg)*
Magnetron Model	*2M248J*
Magnetron Manufacturer	*TOSHIBA*

For more informations please refer to user's manual.

Type of Deriver

XM048KYY(X=E or A;Y=0-9 or A-Z) model designations:

X= E or A

M: only the microwave functions;

48: indicate cavity capacity is 48 liters;

K: 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 EM048K## 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*

Load for Microwave Ovens

For all measurements the energy developed by the oven was absorbed by a dummy load consisting of a quantity of tag 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.

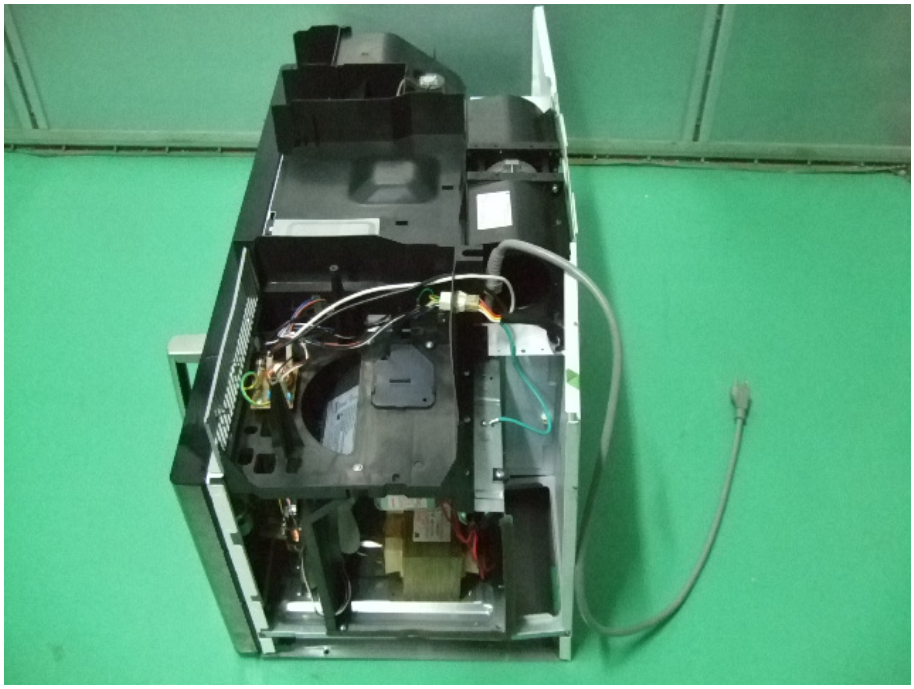
There were no modifications installed by ECMG Worldwide Certification Solution Inc., test personnel.

EUT Sample Photos For Model EM048K##

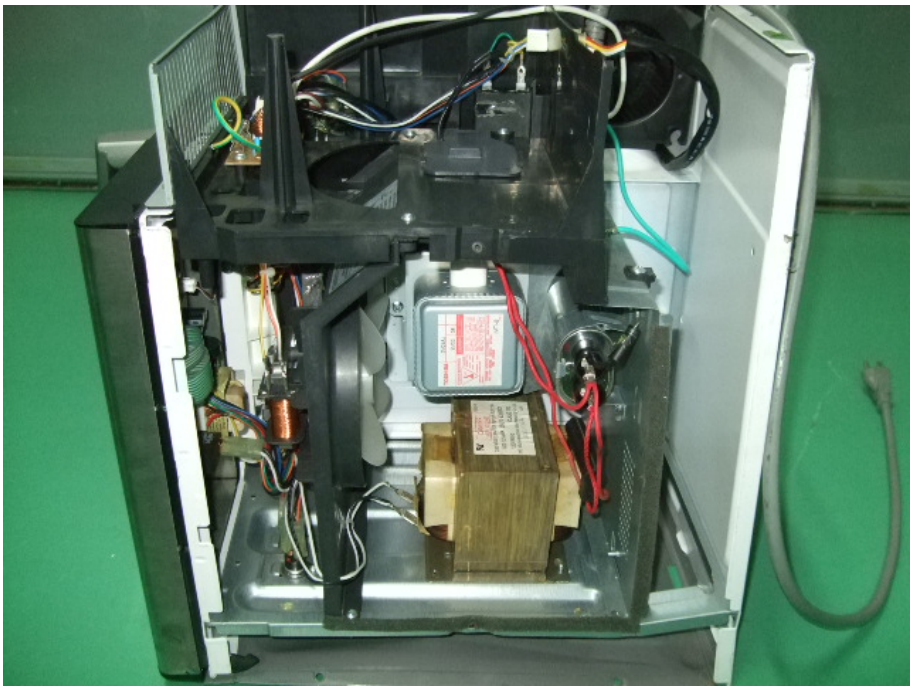
Front & Top View

Rear View

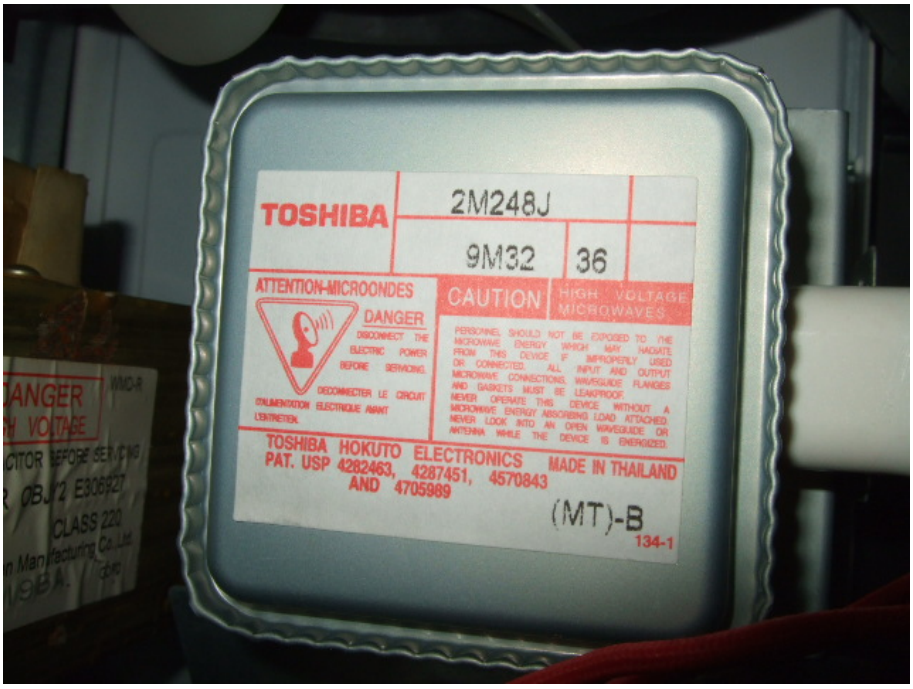
Door Opened View



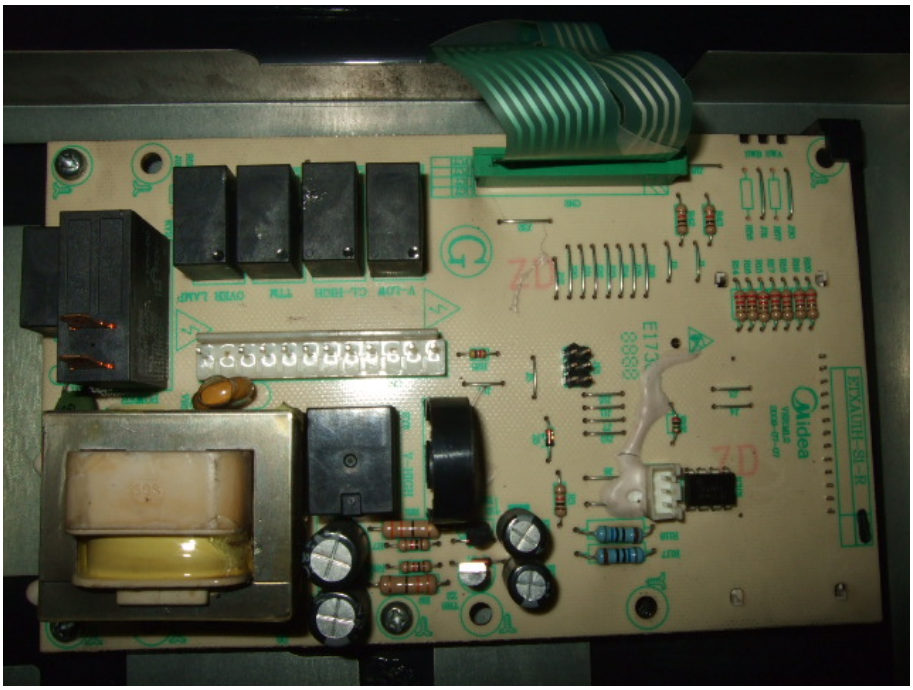
Uncovered View #1



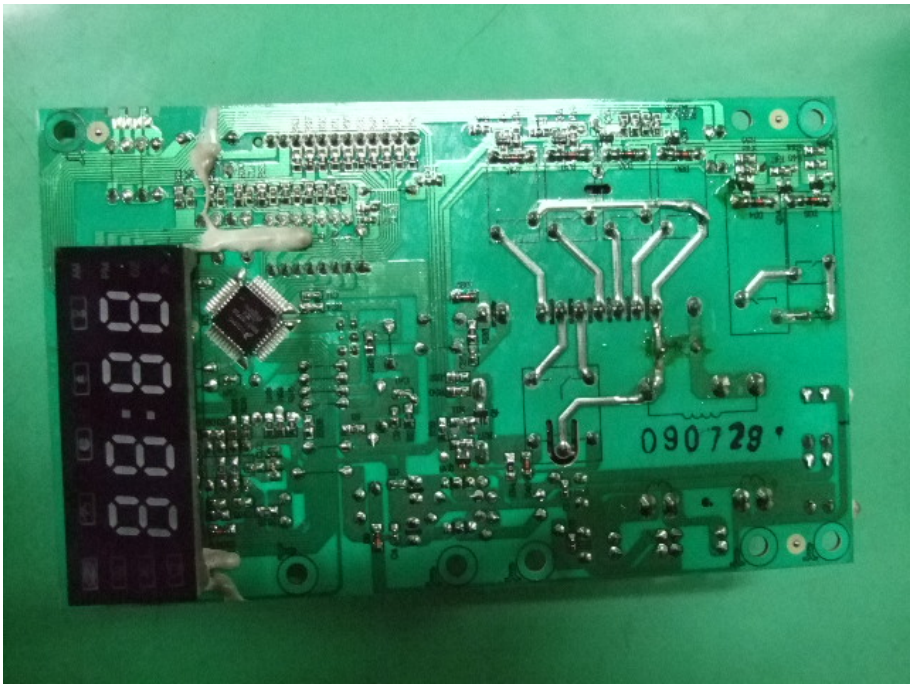
Uncovered View #2



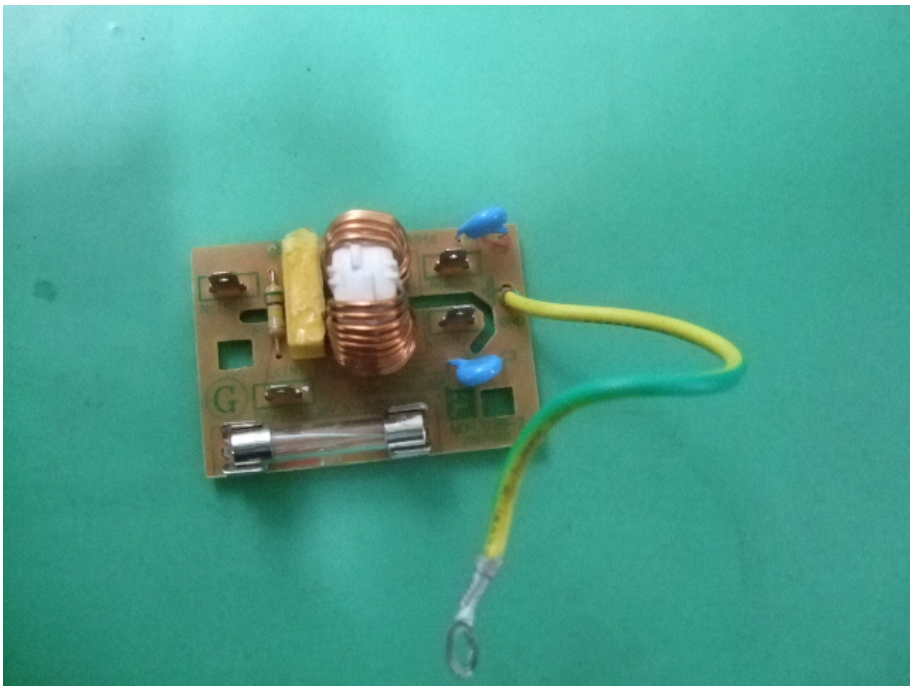
Magnetron View



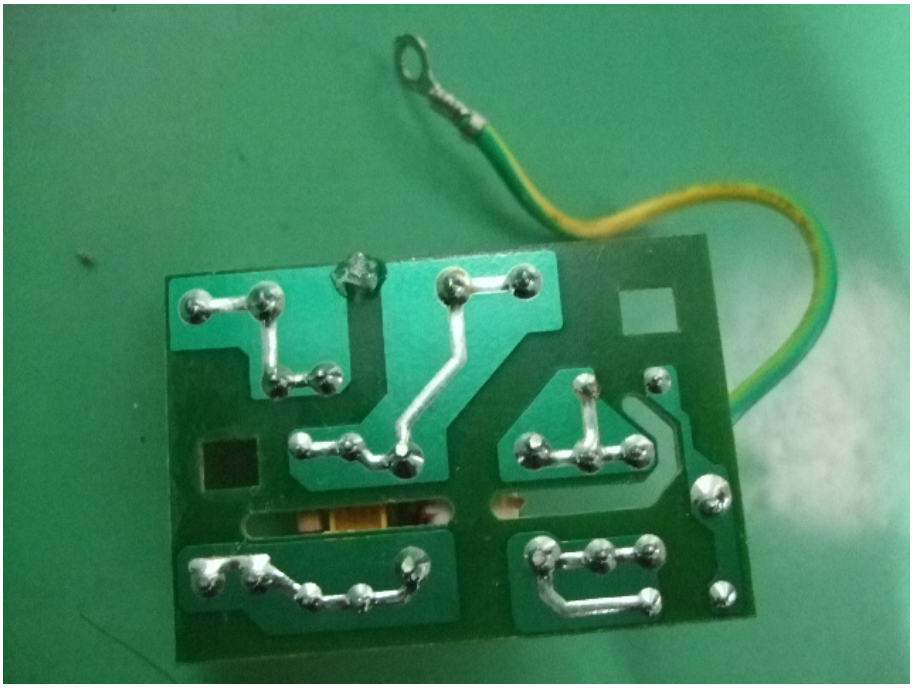
MainBoard -Front View



MainBoard- Rear View



AC Filter Board - Front View

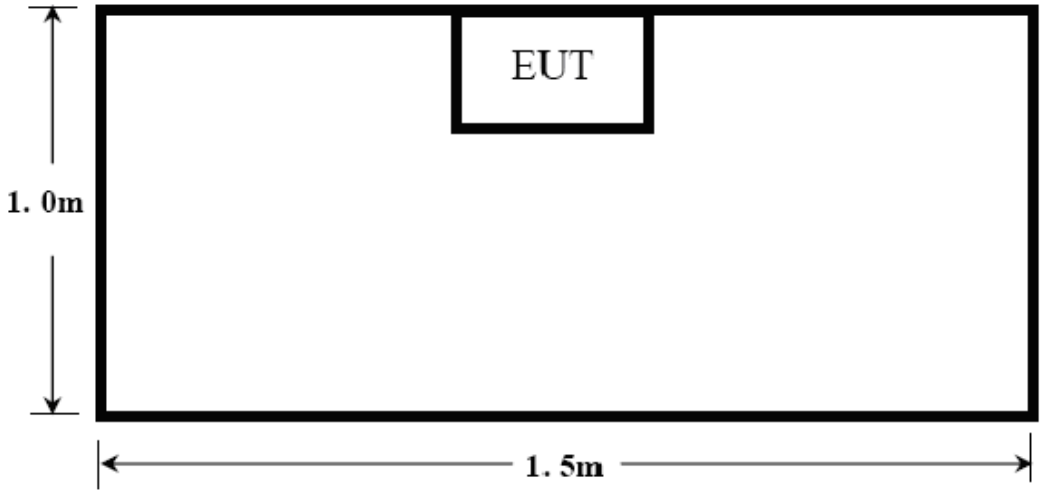


AC Filter Board- Rear View

Test System Details

EUT					
Model Numbers:	XM048KYY				
Model Tested:	EM048K##				
Description:	Microwave Oven (Over The Range)				
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:	XM048KYY	**PRODUCT:**	Microwave Oven (Over The Range)
MODEL TESTED:	EM048K##	**EUT DESIGNATION:**	Home or Office
TEMPERATURE:	22℃	**HUMIDITY:**	60%RH
ATM PRESSURE:	101.1kPa	**GROUNDING:**	Through AC Power Cord
TESTED BY:	May Wang	**DATE OF TEST:**	December 29, 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:	There was no microwave leakage exceeding a power level of 0.15 mW/cm2 observed at any point 5cm or more from the external surface of the oven. 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. 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:	0.0001 mW/cm2		

Test Equipments List:

Test Equipment	*Manufacturer*	*Model*	*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: _____ ***REVIEWED BY:*** _____

ENGINEER ***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:	XM048KYY	**PRODUCT:**	Microwave Oven (Over The Range)
MODEL TESTED:	EM048K##	**EUT DESIGNATION:**	Home or Office
TEMPERATURE:	22℃	**HUMIDITY:**	60%RH
ATM PRESSURE:	101.1kPa	**GROUNDING:**	Through AC Power Cord
TESTED BY:	May Wang	**DATE OF TEST:**	December 29, 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 Input power Measurement. 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.		
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:

Input Voltage (Vac/Hz)	*Input Current (amps)*	*Measured Input Power (watts)*	*Rated Input Power (watts)*
120/60	*12.80*	*1536*	*1550*

Test equipments list :

Test Equipment	*Manufacturer*	*Model*	*Serial No.*	*Last Cal.*	*Cal. Due*
Power frequency test system	*AINO*	*8707A*	*02040213*	*11/14/2009*	*11/13/2009*
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).					

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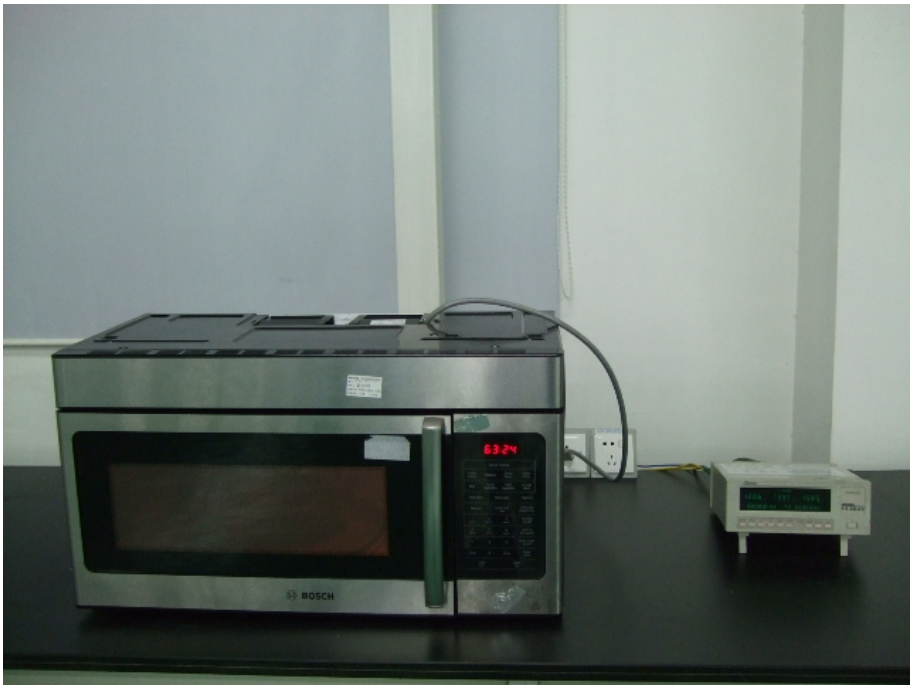
Input Power Test Set-Up :



ATTACHMENT 3 – RF OUTPUT POWER MEASUREMENT

CLIENT:	Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd.	**TEST STANDERD:**	FCC Part 18
MODEL NUMBERS:	XM048KYY	**PRODUCT:**	Microwave Oven (Over The Range)
MODEL TESTED:	EM048K##	**EUT DESIGNATION:**	Home or Office
TEMPERATURE:	22℃	**HUMIDITY:**	60%RH
ATM PRESSURE:	101.1kPa	**GROUNDING:**	Through AC Power Cord
TESTED BY:	May Wang	**DATE OF TEST:**	December 29, 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 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. RF Output Power = (4.2joules/calorie)(volume in milliliters)(temperature rise) / (time in seconds) = 4.2 joules/calorie × 1000 × (Final Temp – Initial Temp) / 120		
TESTED RANGE:	N/A		
TEST VOLTAGE:	120VAC / 60Hz		
RESULTS:	RF Output Power = 861 watts. 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:	± 0.3℃		

Test Data:

Quality of Water (ml)	Starting Temperature (℃)	Final Temperature (℃)	Elapsed Time (Seconds)	RF Output Power (watts)
1000	18.2	42.8	120	861

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: _____ ENGINEER

REVIEWED BY: _____ 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:	XM048KYY	**PRODUCT:**	Microwave Oven (Over The Range)
MODEL TESTED:	EM048K##	**EUT DESIGNATION:**	Home or Office
TEMPERATURE:	22℃	**HUMIDITY:**	60%RH
ATM PRESSURE:	101.1kPa	**GROUNDING:**	Through AC Power Cord
TESTED BY:	May Wang	**DATE OF TEST:**	December 29, 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 Operating Frequency Measurement. 1) The variation of frequency with time. 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. 2) The variation of frequency with Line Voltage. 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.		
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		

Variation in Operating Frequency with Time:

Minimum Frequency (MHz)	*Maximum Frequency (MHz)*
2403.2	*2490.1*

Variation in Operating Frequency with Line Voltage:

Minimum Frequency (MHz)	*Maximum Frequency (MHz)*
2418.3	*2491.8*
Note: Line voltage varied from 96Vac to 150Vac.	

Test Equipments List :

Test Equipment	*Manufacturer*	*Model*	*Serial No.*	*Last Cal.*	*Cal. Due*
Horn Antenna	*ETS*	*3115*	*6587*	*08/03/2009*	*08/02/2010*
Spectrum Analyzer	*R&S*	*FSP30*	*100755*	*11/03/2009*	*11/02/2010*
3m Anechoic chamber	*ETS*	*N/A*	*N/A*	*05/26/2009*	*05/25/2010*
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).					

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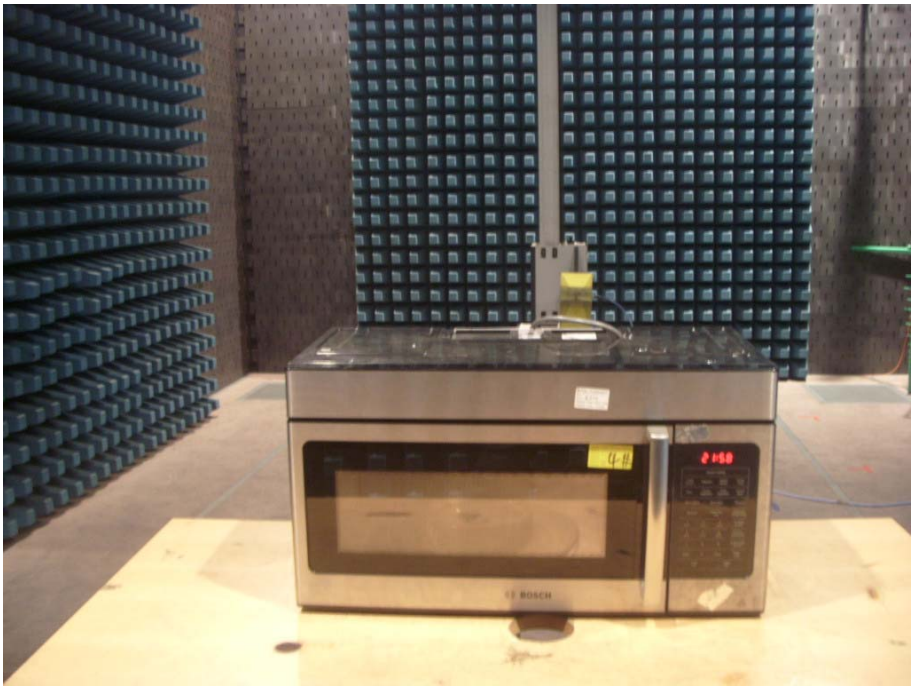
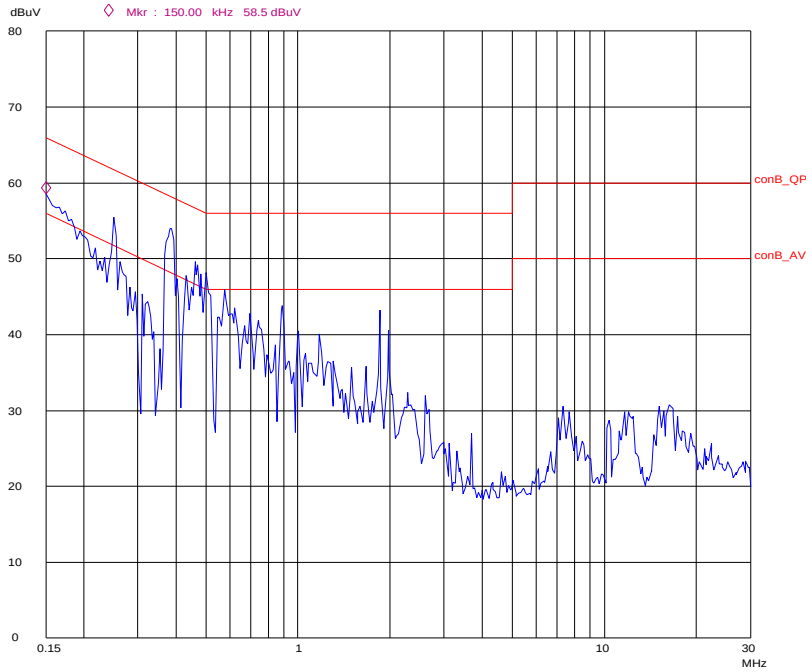
ENGINEER ***SENIOR ENGINEER***

Operating Frequency Test Set-up :

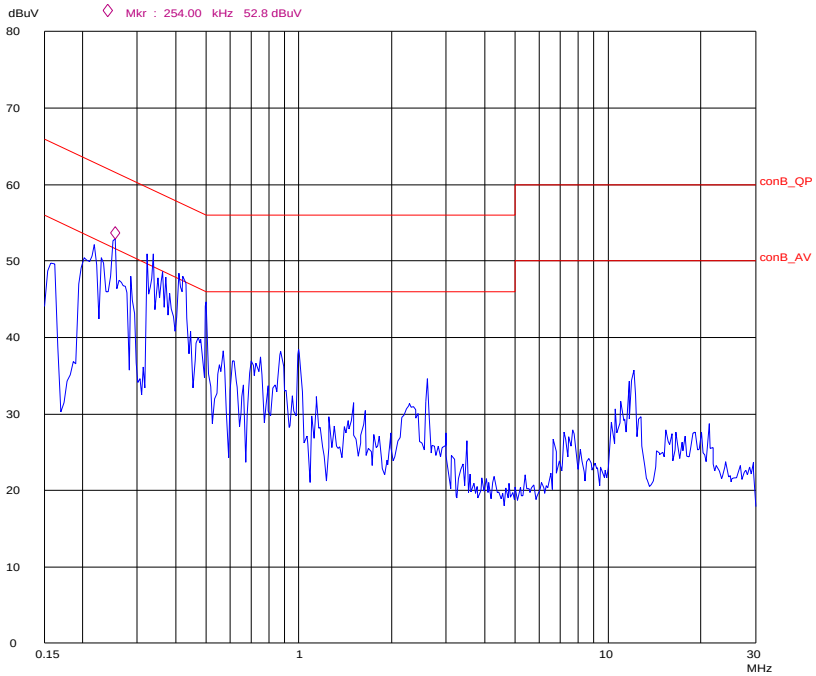


ATTACHMENT 5 - CONDUCTED EMISSION TEST RESULTS

CLIENT:	Foshan Shunde Midea Microwave and Electrical Appliances Manufacturing Co., Ltd.	**TEST STANDERD:**	FCC Part 18
MODEL NUMBERS:	XM048KYY	**PRODUCT:**	Microwave Oven (Over The Range)
MODEL TESTED:	EM048K##	**EUT DESIGNATION:**	Home or Office
TEMPERATURE:	22℃	**HUMIDITY:**	60%RH
ATM PRESSURE:	101.1kPa	**GROUNDING:**	Through AC Power Cord
TESTED BY:	May Wang	**DATE OF TEST:**	December 29, 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	0.150	51.6	66.0	-14.4	23.5	56.0	-32.5
L	0.250	50.6	61.8	-11.2	49.4	51.8	-2.4
L	0.382	44.2	58.2	-14.0	15.9	48.2	-32.3
N	0.251	49.9	61.7	-11.8	49.0	51.7	-2.7
N	0.322	44.0	59.7	-15.7	15.7	49.7	-34.0
N	0.422	40.8	57.4	-16.6	16.8	47.4	-30.6
Note: All readings are using a bandwidth of 9 kHz, with a 600 ms sweep time.							

Test Equipments List:

Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due
EMI Receiver	R&S	ESCS30	SB2603	07/09/2009	07/08/2010
AMN	R&S	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).					

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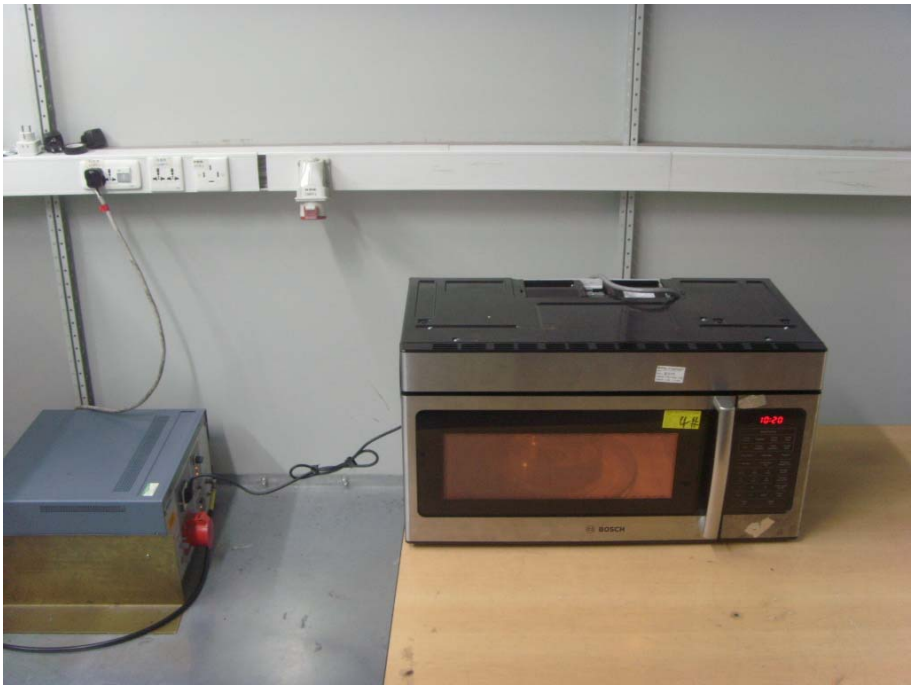
ENGINEER **SENIOR ENGINEER**

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:	XM048KYY	**PRODUCT:**	Microwave Oven (Over The Range)
MODEL TESTED:	EM048K##	**EUT DESIGNATION:**	Home or Office
TEMPERATURE:	22℃	**HUMIDITY:**	60%RH
ATM PRESSURE:	101.1kPa	**GROUNDING:**	Through AC Power Cord
TESTED BY:	May Wang	**DATE OF TEST:**	December 29, 2009
TEST REFERENCE:	ANSI C63.4: 2003, FCC/OST MP-5:1986		
TEST PROCEDURE:	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. 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: FS= RA + AF + CF - AG Where: FS = Field Strength RA = Receiver Amplitude AF = Antenna Factor CF = Cable Attenuation Factor AG = Amplifier Gain		
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		

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 [dBµV/m]	Factor (dB)	Field Strength [dBµV/m]	Delta, QP [dB]	3 Meters Limits [dBµV/m]
54.950	H	19.8	8.91	10.89	-59.41	70.3
243.416	H	12.5	12.09	0.41	-69.89	70.3
803.431	H	30.9	23.08	7.82	-62.48	70.3
84.623	V	17.2	6.17	11.03	-59.27	70.3
292.711	V	25.0	14.39	10.61	-59.69	70.3
853.749	V	25.1	23.08	2.02	-67.28	70.3
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.						
1GHz – 25GHz						
Frequency [MHz]	Antenna Polarization [V/H]	Corrected Reading [dBµV/m]	Factor (dB)	Field Strength [dBµV/m]	Delta, AV [dB]	3 Meters Limits [dBµV/m]
4923.710	H	51.7	3.27	48.43	-21.87	70.3
7086.536	H	22.0	8.64	13.36	-56.94	70.3
7385.002	H	21.1	8.64	12.46	-57.84	70.3
4896.656	V	34.6	3.27	31.33	-38.97	70.3
14723.441	V	26.8	13.96	12.84	-57.46	70.3
2160.063	V	32.8	-6.28	39.08	-30.22	70.3
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.						

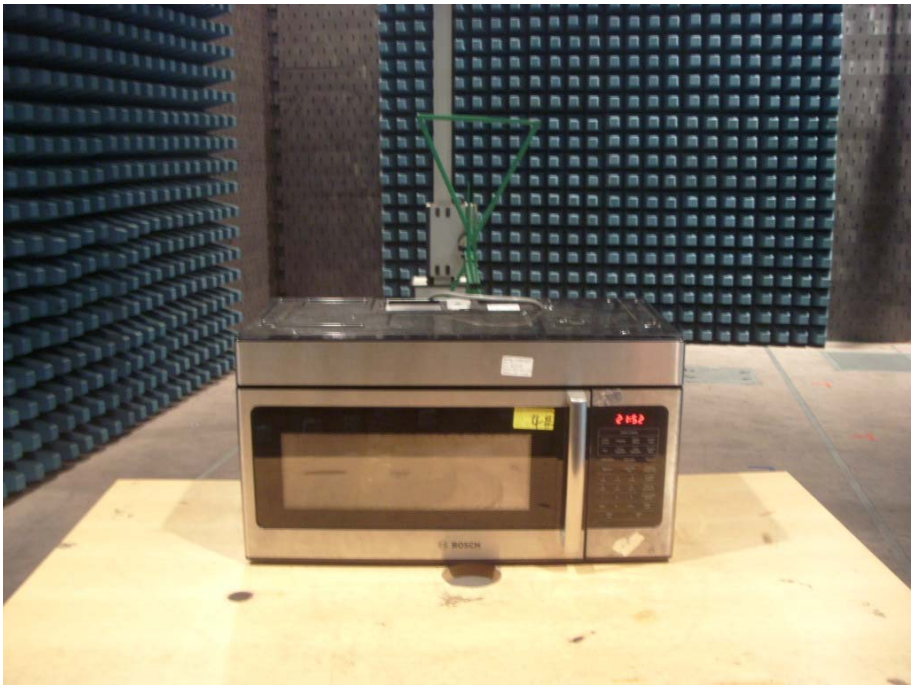
Test Equipments List:

Test Equipment	*Manufacturer*	*Model*	*Serial No.*	*Last Cal.*	*Cal. Due*
Vltra Broadband Antenna	*ETS*	*3142C*	*00042672*	*09/27/2009*	*09/26/2010*
Horn Antenna	*ETS*	*3115*	*6587*	*08/03/2009*	*08/02/2010*
Band-pass Filter	*Micro-Tronic*	*BRM50702*	*S/N-030*	*11/30/2009*	*11/29/2010*
EMI Receiver	*SCHAFFNER*	*SMR4503*	*44*	*07/09/2009*	*07/08/2010*
Spectrum Analyzer	*R&S*	*FSP30*	*100755*	*11/30/2009*	*11/29/2010*
3m Anechoic chamber	*ETS*	*N/A*	*N/A*	*05/24/2009*	*05/23/2010*
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: _____ ***REVIEWED BY:*** _____

ENGINEER ***SENIOR ENGINEER***

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



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