

# EMI TEST REPORT

On Model Name: Microwave Oven				
Model Numbers: XC032CYY-S, XC034AYY-S				
Brand Name: Midea				
FCC ID Number: RSFXC032CYY				
Prepared for Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.				
According to FCC Part 18(2014) 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 #: GUA-1502-11291-FCC				
Prepared by: <u>ECMG</u> ViVi Huang/Assistant Company Name				
Reviewed by: <u>ECMG</u> Jawen Yin/Senior Engineer Company Name				
QC Manager: <u>ECMG</u> Swall Zhang/QC Manager Company Name				
Test Report Released by: May 6 <sup>th</sup> , 2015 Swall Zhang Date				

**Test Location** 

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

Test Site Location	: GD WITOL VACUUM ELECTRONIC EMC TEST LABORATORY
	BeiJiao,ShunDe,FoShan,GuangDong, 528311, China
Tel	: (86)-757-26326917
Fax	: (86)-757- 22607341

#### **Test Facility**

The test facility was recognized, certified, or accredited by the following organizations:

FCC – Registration No.: 910385

GD WITOL VACUUM ELECTRONIC EMC TEST LABORATORY has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC was maintained in our files

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# List Attached Files

Exhibit Type	File Description	File Name
Test Report	Test Report	RSFXC032CYY _Test Report.pdf
Operation Description	Technical Description	RSFXC032CYY_Operation Description.pdf
External Photos	External Photos	RSFXC032CYY_External Photos.pdf
Internal Photos	Internal Photos	RSFXC032CYY_Internal Photos.pdf
Block Diagram	Block Diagram	RSFXC032CYY _Block Diagram.pdf
Schematics	Circuit Diagram	RSFXC032CYY _Schematics.pdf
ID Label/Location	Label and Location	RSFXC032CYY _Label & Location.pdf
User Manual	User Manual	RSFXC032CYY _User's Manual.pdf
Test set-up photos	Test set-up photos	RSFXC032CYY _Test Set-up Photos

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#### **Opinions and Interpretations**

This test report relates to the abovementioned equipment under test (EUT).Without the permission of ECMG Electronic Technical Testing Corp (Shenzhen) 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	: XC032CYY-S, XC034AYY-S
Model Tested	: EC032CTC-S
Brand Name	Midea
Receipt Date	: March 9 <sup>th</sup> , 2015
Date Tested	: March 10 <sup>th</sup> , 2015
Applicant	: Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.
Address	No.6, Yong An Road, Beijiao, Shunde, Foshan.
Telephone	: (86)-757-23606480
Fax	: (86)-757-22607341
Manufacturer	: Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.
Address	No.6, Yong An Road, Beijiao, Shunde, Foshan.
Telephone	: (86)-757-23606480
Fax	: (86)-757-22607341
Factory	: Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.
Address	No.6, Yong An Road, Beijiao, Shunde, Foshan.
Telephone	: (86)-757-23606480
Fax	: (86)-757-22607341

## **EUT Description**

*Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd. model tested EC032CTC-S (referred to as the EUT in this report) is a Microwave Oven.* 

The technical specifications of EUT are as below:

Power Supply	120V AC/60Hz
Rated Input Power (Microwave)	1500W
Rated Output Power (Microwave)	1000W
Frequency	2450 MHz(Class B/Group 2)
Magnetron Model	2М319Ј
Magnetron Manufacturer	WITOL

NOTE: For more detailed information or features please refer to user's manual of EUT.

## EUT Model Derived

*XC032CYY-S,XC034AYY-S model designations as follows:* 

X= E or A; C: indicate microwave +Grill+ Convection function ; 032: "0" indicates the microwave output power is 1000W, "32" indicate cavity capacity is 32 liters; A/C: indicate the design No.; YY= 0-9 or A-Z, indicate different appearance; -S: Stainless cavity;

XC032CYY-S is identical to model XC034AYY-S except model name.

Model EC032CTC-S was selected for the final testing.

#### **Test Summary**

The electromagnetic compatibility requirements on model EC032CTC-S for this test are 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 18:2014 FCC/OST MP-5:1986 ANSI C63.4-2009	Radiation Hazard Measurement	Passed	Enclosure	Attachment 1	
FCC Part 18:2014 FCC/OST MP-5:1986 ANSI C63.4-2009	Input Power Measurement	Passed	AC Input Port	Attachment 2	
FCC Part 18:2014 FCC/OST MP-5:1986 ANSI C63.4-2009	RF Output power Measurement	Passed	EUT	Attachment 3	
FCC Part 18:2014 FCC/OST MP-5:1986 ANSI C63.4-2009	Operating Frequency Measurement	Passed	EUT	Attachment 4	
FCC Part 18:2014 FCC/OST MP-5:1986 ANSI C63.4-2009	Conducted Emission	Passed	AC Input Port	Attachment 5	
FCC Part 18:2014 FCC/OST MP-5:1986 ANSI C63.4-2009	Radiated Emission	Passed	Enclosure	Attachment 6	

#### Load for Microwave Oven

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.

## EUT Exercise Software

No test sofware support this test.

#### **Equipment Modification**

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

There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen) test personnel.

EUT Sample Photos for Model EC032CTC-S



**EUT Front View** 

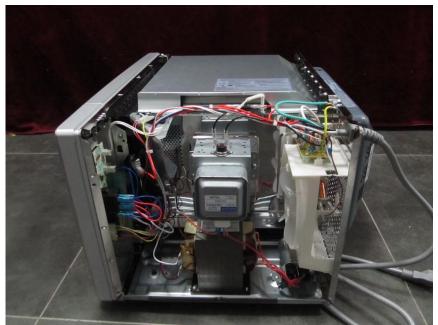


EUT Back View

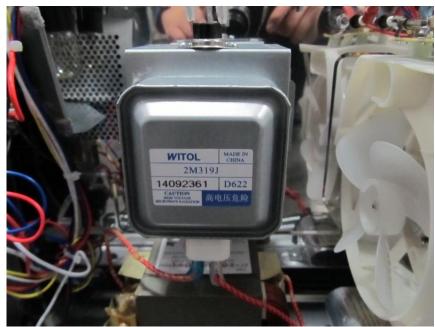
FCC Test Report #: GUA-1502-11291-FCC Prepared for Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd. Prepared by ECMG Electronic Technical Testing Corp (Shenzhen).



Door Opend View



EUT Uncovered View



Magnetron Front View

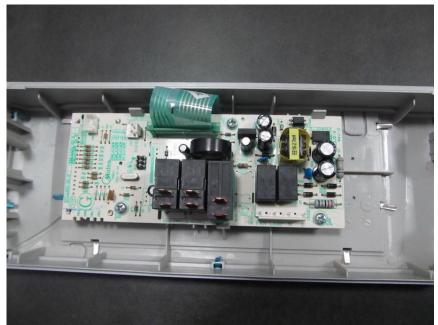


Power Filter Board- Top View

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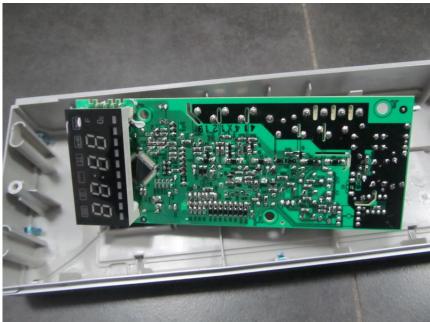


Power Filter Board- Bottom View



Mother board Top View

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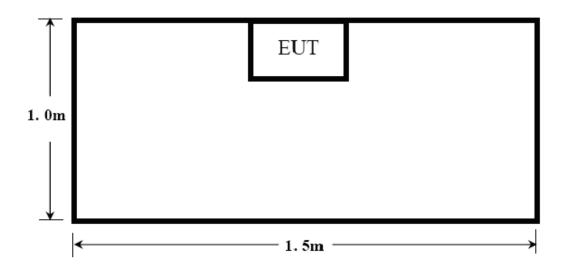
Mother board Bottom View

## **Test System Details**

EUT						
Model Number:	XC032	2CYY-S,XC034A	A <i>YY-S</i>			
Model Tested:	EC032	CTC-S				
Description:	Micro	wave Oven				
Input:	AC 12	0V/60Hz				
Manufacturer:	Guang	gdong Midea K	itchen Appliance	es Manuf	acturing	Co.,Ltd.
Support Equipment						
Description Model Number Serial Number Manufacturer						
N/A						
		Cable	Description			
Description	From	То	Length (Meters)	Shiel (Y/		Ferrite (Y/N)
Power Cable	EUT	Plug	1.2	٨	I	Ν

#### Note:

The EUT has been tested as an independent unit together with other necessary accessories or support units. The above support units or accessories were used to form a representative test configuration during the test tests.



# ATTACHMENT 1 -RADIATION HAZARD TEST

CLIENT:	Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.	TEST STANDERD:	FCC Part 18	
MODEL NUMBERS:	XC032CYY-S,XC034AYY-S	PRODUCT:	Microwave Oven	
MODEL TESTED:	EC032CTC-S	EUT DESIGNATION:	Home or Office	
TEMPERATURE:	23°C	HUMIDITY:	51%	
ATM PRESSURE:	103kPa	GROUNDING:	Through AC Power Cord	
TESTED BY:	Dong mei Yang	DATE OF TEST:	March 10 <sup>th</sup> , 2015	
TEST REFERENCE:	ANSI C63.4-2009, 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 700ml 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 microwavemeter will check the leakage and then record the maximum leakage.			
TESTED RANGE:	N/A			
TEST VOLTAGE:	AC 120V/60Hz			
RESULTS:	There was no microwave leakage exceeding a power level of 0.06mW/cm <sup>2</sup> observed at any point 5cm or more from the external surface of the oven. A maximum of 1.0 mW/cm <sup>2</sup> 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 Electronic Technical Testing Corp (Shenzhen) test personnel.			
M. UNCERTAINTY:	0.0001 mW/cm <sup>2</sup>			

## Test Equipment List:

Test Equipment	Manufacturer	Model	Serial No.	Cal. Due Date
Microwave Measurement	HOLADAY	HI-1710A	00022150	2015.11.09

TESTED BY:

REVIEWED BY:

ENGINEER

SENIOR ENGINEER

# ATTACHMENT 2 - INPUT POWER MEASUREMENT

CLIENT:	Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.	TEST STANDERD:	FCC Part 18	
MODEL NUMBERS:	XC032CYY-S,XC034AYY-S	PRODUCT:	Microwave Oven	
MODEL TESTED:	EC032CTC-S	EUT DESIGNATION:	Home or Office	
TEMPERATURE:	22°C	HUMIDITY:	59%	
ATM PRESSURE:	103.1kPa	GROUNDING:	Through AC Power Cord	
TESTED BY:	Dong mei Yang	DATE OF TEST:	March 10 <sup>th</sup> , 2015	
TEST REFERENCE:	ANSI C63.4-2009, 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 700ml 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 Electronic Technical Testing Corp (Shenzhen) test personnel.			
M. UNCERTAINTY :	± 5W			

#### Test Data:

Input voltage (V)	Input Current (A)	Measured Input Power (W)	Rated input Power (W)
120.7	12.65	1413	1500

## Test Equipments List:

Test Equipment	Manufacturer	Model	Serial No.	Cal. Due Date
Power Meter	Power Meter Ainuo		058704200	2016.02.06

**TESTED BY:** 

ENGINEER

**REVIEWED BY:** 

SENIOR ENGINEER

## ATTACHMENT 3 - RF OUTPUT POWER MEASUREMENT

CLIENT:	Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.	TEST STANDERD:	FCC Part 18		
MODEL NUMBERS:	XC032CYY-S, XC034AYY-S	PRODUCT:	Microwave Oven		
MODEL TESTED:	EC032CTC-S	EUT DESIGNATION:	Home or Office		
TEMPERATURE:	<b>22</b> °C	HUMIDITY:	60%RH		
ATM PRESSURE:	103kPa	GROUNDING:	Through AC Power Cord		
TESTED BY:	Dong mei Yang	DATE OF TEST:	March 10 <sup>th</sup> , 2015		
TEST REFERENCE:	ANSI C63.4-2009, FCC/OST MP-5:1986				
TEST PROCEDURE:	The EUT was set up according to the FCC MP-5 and FCC Part 18 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 n = 4.2 joules/calorie × 1000 × (Fi				
TESTED RANGE:	N/A				
TEST VOLTAGE:	120VAC / 60Hz				
RESULTS:	RF Output Power =829.5 watts. The test results relate only to the equipment under test provided by client.				
CHANGES OR MODIFICATIONS:	There were no modifications installed by ECMG Electronic Technical Testing Corp (Shenzhen) test personnel.				
M. UNCERTAINTY:	±0.3°C				

#### **Test Result:**

Initial Temp (℃)	Final Temp (で)	Measured Times (s)	Measured output Power (W)
20.0	43.7	120s	829.5

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

## Test Equipments list:

Test Equipment	Manufacturer	facturer Model		Cal. Due Date	
Digit Thermometer	Fluke Corporation	Fluke 51 II	87500204	2015.03.26	
Stopwatch	CASIO	HS-3	05Q07R	2015.08.06	

**TESTED BY:** ENGINEER

**REVIEWED BY:** 

1:0

SENIOR ENGINEER

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# ATTACHMENT 4 - OPERATING FREQUENCY MEASUREMENT

CLIENT:	Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.	Appliances Manufacturing TEST STANDERD:			
MODEL NUMBERS:	XC032CYY-S,XC034AYY-S	PRODUCT:	Microwave Oven		
MODEL TESTED:	EC032CTC-S	EUT DESIGNATION:	Home or Office		
TEMPERATURE:	22℃	HUMIDITY:	60%RH		
ATM PRESSURE:	101.1kPa	GROUNDING:	Through AC Power Cord		
TESTED BY:	Dong mei Yang	DATE OF TEST:	March 10 <sup>th</sup> , 2015		
TEST REFERENCE:	ANSI C63.4-2009, FCC/OST MP-5:1986				
TEST PROCEDURE:	<ul> <li>The EUT was set up according to the FCC MP-5 and FCC Part 18 for Operating Frequency Measurement.</li> <li>1) The variation of frequency with time. The operating frequency was measured using a spectrum analyzer. Starting with the EUT at room temperature, a 1050ml 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.</li> <li>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 1050ml 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.</li> </ul>				
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 Electronic Technical Testing Corp (Shenzhen) test personnel.				
M. UNCERTAINTY:	Freq. ±10kHz				

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## Variation in Operating Frequency with Time:

Minimum Frequency (MHz)	Maximum Frequency (MHz)
2452.2	2453.8

## Variation in Operating Frequency with Line Voltage:

Minimum Frequency (MHz)	Maximum Frequency (MHz)			
2450.2	2453.4			
Note: Line voltage varied from 96Vac to 150Vac.				

## Test Equipments List:

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
EMI test receiver	R&S	ESIB-26	100174	11/18/2014	11/17/2015
Horn Antenna	R&S	HF906	100311	11/20/2014	11/21/2015
Horn Antenna					

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).

**TESTED BY:** 

ENGINEER

**REVIEWED BY:** 

SENIOR ENGINEER

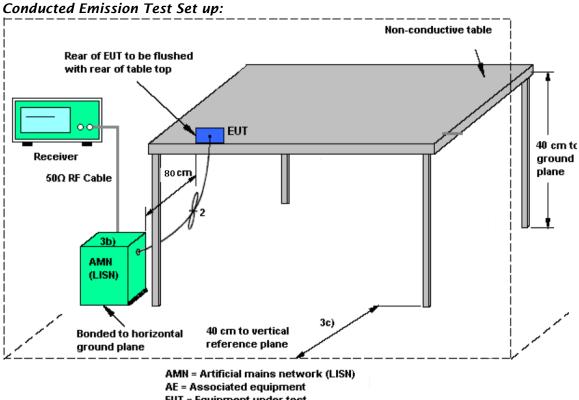
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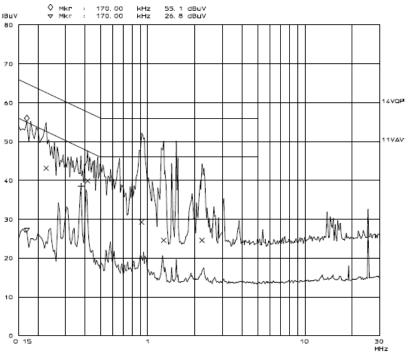
**Operating Frequency Test Set-up** 

# ATTACHMENT 5 - CONDUCTED EMISSION TEST RESULTS

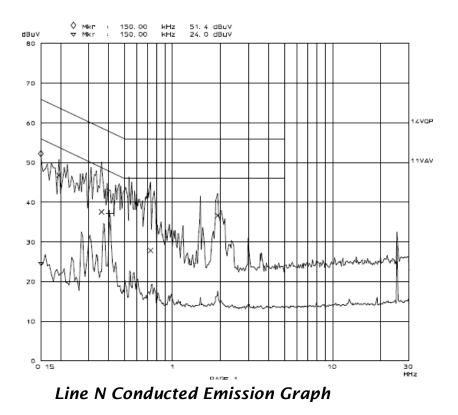
r					
CLIENT:	Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.	TEST STANDERD:	FCC Part 18		
MODEL NUMBERS:	XC032CYY-S,XC034AYY-S	PRODUCT:	Microwave Oven		
MODEL TESTED:	EC032CTC-S	EUT DESIGNATION:	Home or Office		
TEMPERATURE:	22℃	HUMIDITY:	60%RH		
ATM PRESSURE:	101.1kPa	GROUNDING:	Through AC Power Cord		
TESTED BY:	Dong mei Yang	March 10 <sup>th</sup> , 2015			
TEST REFERENCE:	ANSI C63.4-2009, FCC/OST MP-5:1986				
TEST PROCEDURE:	The EUT was set up according to the guideline of ANSI C63.4-2009 & 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 quasipeaked 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 Electronic Technical Testing Corp (Shenzhen) test personnel.				
M. UNCERTAINTY:	±2.5 dB				



- EUT = Equipment under test
  - ISN = Impedance stabilization network







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#### Test Data:

Lines (L/N)	Frequency (MHz)	Corrected QP Level (dBuV)	Limits QP (dBuV)	Margin QP (dB)	Frequency (MHz)	Corrected AV Level (dBuV)	Limits AV (dBuV)	Margin QP (dB)
L	0.625	51.8	56	-4.2	0.625	/	46	/
L	1.855	34.3	56	-21.7	1.855	/	46	/
L	2.310	32.6	56	-23.4	2.310	/	46	/
N	0.550	49.3	56	-6.7	0.550	/	46	/
Ν	0.570	37.9	56	-18.1	0.570	/	46	/
Ν	1.435	31.2	56	-24.8	1.435	/	46	/

Note :

1) All readings are using a bandwidth of 9 kHz, with a 500 ms sweep time. A video filter was not used.

2) "QP" means "Quasi-Peak" values, "AV" means "Average" values.

3) The other reading are too low against official limits that are not be recorded.

## Test Equipments List:

Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due
EMI test receiver	R&S	ESC30	100267	2015-2-10	2016-2-9
LISN	SCHNANER	NNB42	00003	2015-2-10	2016-2-9
Transient Limiter	Agilent	11947A	3107A03648	11/19/2014	11/18/2015
Shielding Room	ТДК	8m×4m×3m	N/A	04/17/2014	04/16/2015

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).

REVIEWED BY:

SENIOR ENGINEER

TESTED BY:

ENGINEER

FCC Test Report #: GUA-1502-11291-FCC Prepared for Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd. Prepared by ECMG Electronic Technical Testing Corp (Shenzhen).

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# Conducted Emission Test Set-up:

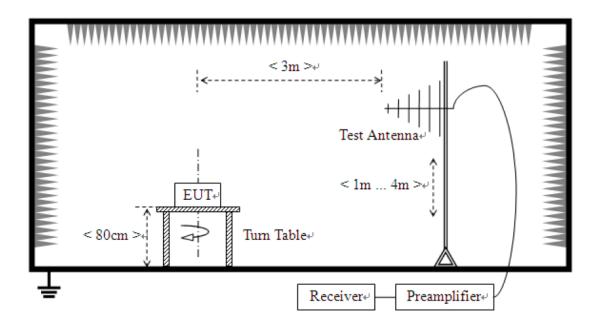


FCC Test Report #: GUA-1502-11291-FCC Prepared for Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd. Prepared by ECMG Electronic Technical Testing Corp (Shenzhen).

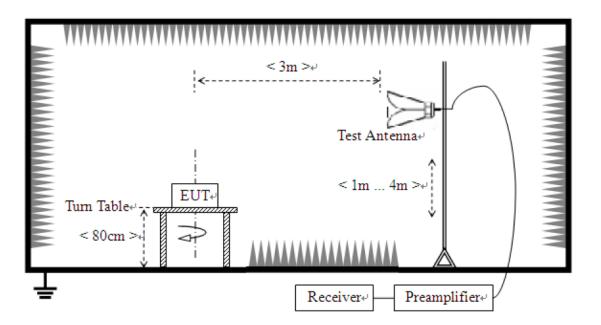
## ATTACHMENT 6 - RADIATED EMISSION TEST RESULTS

CLIENT:	Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd.	TEST STANDERD:	FCC Part 18		
MODEL NUMBERS:	XC032CYY-S, XC034AYY-S	PRODUCT:	Microwave Oven		
MODEL TESTED:	EC032CTC-S	EUT DESIGNATION:	Home or Office		
TEMPERATURE:	<b>22</b> °C	HUMIDITY:	63%RH		
ATM PRESSURE:	103.0kPa	GROUNDING:	Through AC Power Cord		
TESTED BY:	Dong mei Yang	DATE OF TEST:	March 10 <sup>th</sup> , 2015		
TEST REFERENCE:	ANSI C63.4-2009, FCC/OST	MP-5:1986			
TEST PROCEDURE:	radiated emissions. Microway table. The top of the table is 1 mounted metal turntable. An measurement range (pre-sca then performed and the signif peak detection mode from 30 1GHz. The following data lists the sig correction factors (including of	e Oven was placed on a 0.0 m above the ground. EMI receiver peak scan w n) in an Anechoic chamb icant peaks marked. All of MHz to 1GHz and avera gnificant emission freque able and antenna correct planation of the Correcti	The table is placed on a flush was made at the frequency er. Signal discrimination was data was recorded in Quasi- ge detector mode above		
TESTED RANGE:	30MHz to 24.5GHz				
TEST VOLTAGE:	120VAC / 60Hz				
RESULTS:	The EUT meet 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 Electronic Technical Testing Corp (Shenzhen) test personnel.				
M. UNCERTAINTY:	± 3.2 dB				

For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



FCC Test Report #: GUA-1502-11291-FCC Prepared for Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd. Prepared by ECMG Electronic Technical Testing Corp (Shenzhen).

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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 [dBµV/m]	Factor (dB)	Field Strength [dBµV/m]	Delta, QP [dB]	3 Meters Limits [dBµV/m]	
428.496	V	10	16.7	26.7	-43.5	70.2	
515.876	V	4.8	18.1	22.9	-47.3	70.2	
615.110	V	9.4	21.8	31.2	-39.0	70.2	
412.946	Н	12.3	16.3	28.6	-41.6	70.2	
426.553	Н	10.4	16.7	27.1	-42.8	70.2	
677.315	Н	7.4	23.8	38.4	-31.8	70.2	

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 [GHz]	Antenna Polarization [V/H]	Corrected Reading [dBµV/m]	Factor (dB)	Field Strength [dBµV/m]	Delta, AV [dB]	3 Meters Limits [dBµV/m]
8.5911	Н	29.98	22.42	52.4	-17.8	70.2
14.7535	Н	17.06	35.34	52.4	-17.8	70.2
17.2184	Н	7.6	44.10	51.7	-18.4	70.2
8.5911	V	20.28	22.42	42.7	-27.3	70.2
14.7535	V	19.8	35.34	55.2	-15.0	70.2
17.2184	V	8.0	44.10	52.1	-18.1	70.2

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.

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## Test Equipments List:

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
EMI Test Receiver	R&S	ESIB-26	100174	11/19/2014	11/18/2015
Horn Antenna	R&S	HF906	100311	11/21/2014	11/20/2015
Hybrid Log Periodic Antenna	ТДК	HLP-3003C	130144	11/21/2014	11/20/2015
Loop Antenna	ETS	ETS-6152	24934	11/21/2014	11/20/2015
Anechoic Chamber	TDK	9m×6 m×5.7m	N/A	04/17/2014	04/16/2015

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).

**TESTED BY:** 

**REVIEWED BY:** 

SENIOR ENGINEER

ENGINEER

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Radiated Emission Test Set-up (30 -1,000MHz):

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



**\*\*\*** End Of Report **\*\***\*

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