FCC CFR47 PART 18 SUBPART C

ISM EQUIPMENT

TEST REPORT

FOR

MICROWAVE OVEN

Model: JES737WM, JES737WM01, JES737WM02, JES737WK,

JES0735DPBB, JES0735DPWW and JES0738DPWW

(Testing case: JES737WM02)

Magnetron Model: Galanz, M24FB-210A

Brand Name: GE

Test Report No.: 09CA7020-03

FCC ID: UH7020003

Prepared for

GUANGDONG GALANZ ENTERPRISE (GROUP)CO.,LTD.

25 RONGGUI NAN ROAD, RONGGUI SHUNDE, GUANGDONG

P.R.C.528305

ACCORDING TO

FCC PART 18 INDUSTRIAL, SCIENTIFIC AND MEDICAL EQUIPMENT

&

FCC/0ST MP-5(1986) FCC METHODS OF MEASUREMENTS OF RADIO NOISE EMISSION FROM INDUSTRIAL, SCIENTIFIC AND MEDICAL EQUIPMENT

Prepared By: Vegia Huang	
Reviewed By: Louis Lu	
QC Manager: Valley Wang	
Test Report Released By	_24/05/2009_
Name	Date

List Attached Files

Exhibit Type	File Description	File Name
		UHWJES737WM
Test report	Test report	-Test report .pdf
		UHWJES737WM
Operation Description	Operation Description	-operationdescription .pdf
		UHWJES737WM
External Photos	External Photos	-external photos
		UHWJES737WM
Internal Photos	Internal Photos	-Internal photos
		UHWJES737WM
Block Diagram	Block Diagram	-block diagram.pdf
		UHWJES737WM
Schematics	Schematics	-schematics.pdf
		UHWJES737WM
ID Label/ Location	ID Label/ Location	-label & location.pdf
		UHWJES737WM
User Manual	User Manual	-user manual .pdf
		UHWJES737WM
Test setup Photos	Test setup Photos	-test setup photos

Test Location

Tests performed at Galanz in a certified Ansi Semi-Anechoic Chamber and Shielded Room.

Test Site Location EMC Laboratory Guangdong Galanz Enterprises Co., Ltd 25 South Ronggui Rd., Shunde, Foshan, Guangdong, China.

Tel: 86-757-23612785 Fax: 86-757-23612537

In compliance with the site registration requirements of section 2.948 of the FCC rules to perform EMI measurements for the general public.

FCC Registration Number: 580210

Table of Contents

GOVERNMENT DISCLAIMER NOTICE	4
REPRODUCTION CAUSE	4
OPINIONS AND INTERPRETATIONS	4
STATEMENT OF MEASUREMENT UNCERTAINTY	4
ADMINISTRATIVE DATA	5
EUT DESCRIPTION	5
TYPE OF DERIVER	6
TEST SUMMARY	7
LORD FOR MWO	8
EQUIPMENT MODIFICATION	8
EUT SAMPLE PHOTOS FOR MODEL	9
TEST SYSTEM DETAILS	-15
CONFIGURATION OF TESTED SYSTEM	-16
ATTACHMENT 1- RADIATION HAZARD TEST	-17
ATTACHMENT 2-INPUT POWER MEASUREMENT	-20
ATTACHMENT 3-RF OUTPUT POWER MEASUREMENT	-23
ATTACHMENT 4- OPERATING FREQUENCY MEASUREMENT	-26
ATTACHMENT 5-CONDUCTED EMISSION TEST RESULTS	-29
ATTACHMENT 6-RADIATED EMISSION TEST RESULTS	-34

GOVERNMENT DISCLAIMER NOTICE

When government drawing, specification or other data are used for any purpose other than in connection with a definitely related government procurement operation, the United States government thereby incurs no responsibility nor any obligation whatsoever, and the fact that the Government might have formulated, furnished or in any way supplied the said drawing, specification or other data, is not to be regarded implication or otherwise in any manner licensing the holder or any other person or corporation, or conveying any rights to permission to manufacture, use or sell patented invention that may in any way be related thereto. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Reproduction Clause

Any reproduction of the document must be done in full. No single part of the document may be reproduced without permission from ATC-Lab Guangdong Group. 205# Yingfeng Building, Ronggui, China.

Opinions and Interpretations

This test report relates to the above mentioned equipment under test (EUT). Without permission of ATC-Lab Guangdong Group, this 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 JES737WM,JES737WM01,JES737WM02,JES737WK,

JES0735DPBB, JES0735DPWW and JES0738DPWW

(Testing case: JES737WM02)

Brand Name GE

Date Tested Apr 01, 2009—Apr 02, 2009

Applicant Guangdong Galanz Enterprises Co., Ltd.

25 ronggui nan Rd., Shunde, Foshan, Guangdong, China

Telephone 86-757-23612785 Fax 86-757-23612537

Manufacturer Guangdong Galanz Enterprises Co., Ltd.

25 ronggui nan Rd., Shunde, Foshan, Guangdong, China

EUT DESCRIPTION

Guangdong Galanz Enterprises Co., Ltd. Model tested JES737WM02 (Refer to the EUT in this report) is a Microwave Oven.

Specifications:

Power consumption	120Vac 60Hz, 1200W
Output	700W
Operation frequency	2450Hz
Magnetron brand	Galanz
Magnetron number	M24FB-210A
Outside dimensions(HxWxD)	10.9*18.3*13.9 in.
Cavity dimensions(HxWxD)	8.6*11.7*12.8 in.
Capacity	0.7 cu.ft
Cooking uniformity	Turntable System
Net weight	Approx.28.9lbs.

Type of Deriver

The series products, model names: JES737WM, JES737WM01, JES737WM02, JES737WK, JES0735DPBB, JES0735DPWW and JES0738DPWW, only model names and appearance are different. We select JES737WM02 to test.

Test Summary

The Electromagnetic Compatibility Requirements on model tested JES737WM02 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 sub-system used in the test set-up

	Emission Tests				
Specifications	Description	Test results	Test point	Remark	
FCC Part 18:2004 FCC/OST MP-5:1986 ANSI C63.4:2003	Radiation Hazard Measurement	Passed	Enclosure	Attachment 1	
FCC Part 18:2004 FCC/OST MP-5:1986 ANSI C63.4:2003	Input Power Measurement	Passed	AC Input Port	Attachment 2	
FCC Part 18:2004 FCC/OST MP-5:1986 ANSI C63.4:2003	RF Output Power Measurement	Passed	EUT	Attachment 3	
FCC Part 18:2004 FCC/OST MP-5:1986 ANSI C63.4:2003	Operating Frequency Measurement	Passed	EUT	Attachment 4	
FCC Part 18:2004 FCC/OST MP-5:1986 ANSI C63.4:2003	Conducted Emission	Passed	AC Input Port	Attachment 5	
FCC Part 18:2004 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 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 1000 watts or less power output, the beaker contained quantities of water as listed in the following subparagraphs, for ovens rated at more than 1000 watts output, each quantity was increased by 50% for each 500 watts 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 ovens

Equipment Modification

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

EUT Sample Photos for model



Front and top view



Door open view

EMC LABORATORY REPORT NO: 09CA7020-03 Page 9 of 35 GUANGDONG ATC-LAB CO., LTD. 528305
205# YINGFENG BUILDING RONGGUI RD RONGGUI SHUNDE FOSHAN GUANGDONG CHINA TE: 86-757-28375537, FAX: 86-757-28375535
This report shall not be reproduced except in full, without the written approval of ATC-Lab.



Rear View of EUT



Uncovered View from right side



View of Magnetron



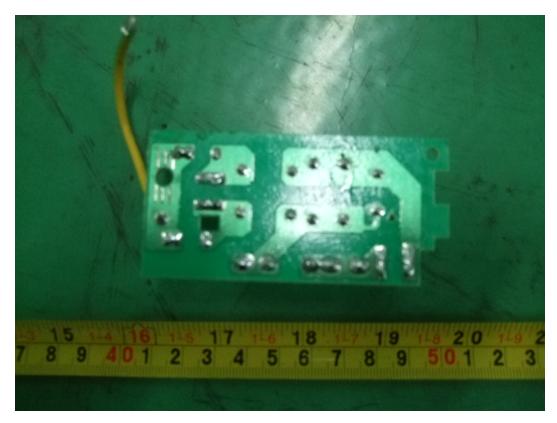
Front view of Main board



Back view of Main board



Front View of AC power filter board

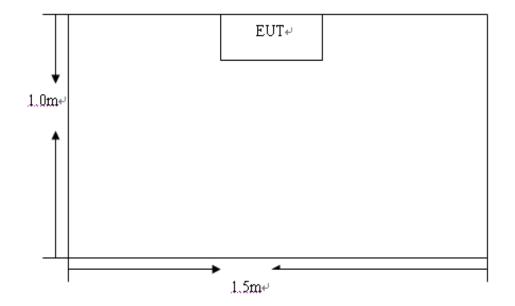


Back of View AC power filter board

Test System Details

EUT					
Model Numbers	JES737	JES737WM, JES737WM01, JES737WM02, JES737WK ,			
	JES073	5DPBB, JES0	735DPWW a	nd JES0738D	PWW,
Model Tested	JES737	WM02			
Description	Microw	ave Oven			
Manufacturer	Guangd	long Galanz E	nterprises Co	o., Ltd	
		Support 1	Equipment		
		N	/ A		
	Cable Description				
Description	From	From To Length Shielded Ferrite			Ferrite
			Meters	Y/N	Y/N
Power cord	EUT	Plug	1.00	N	N

Configuration of Tested System



ATTACHMENT 1-RADIATION HAZARD TEST

Client: Guangdong Galanz Enterprises Co Ltd		Test Standard: FCC Part 18	
Model Numbers: JES737WM, JES737WM01, JES737WM02, JES737WK, JES0735DPBB, JES0735DPWW and JES0738DPWW		Product: Microwave Oven	
Model Tested: JES7	737WM02	EUT Designation: Home or Office	
Temperature: 23℃		Humidity: 48%RH	
ATM Pressure: 101	kPa	Grounding: Through AC power cord	
Tested By: Vegia Hu	iang	Date of Test: Apr 01, 2009	
Test Reference	ANSI C63.4: 2003, I	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 0.03mW/cm² observed at any point 5cm or more from the external surface of the oven. A maximum of 1.0 mW/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 allowed.		
Changes or	by client. There were no modifications installed by Galanz test personnel		
Modifications		·	
M. Uncertainty	0.01 mW/cm ²		

EMC LABORATORY REPORT NO: 09CA7020-03 GUANGDONG ATC-LAB CO., LTD. 528305

Page 16 of 35

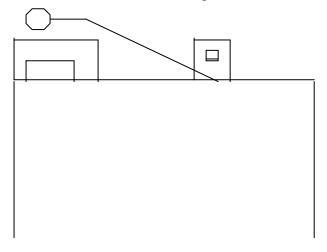
Test Equipment List

Test	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
Equipment					
Field Monitor	ETS	AR FM5004	A0304252	2009-01-22	2010-01-21
Electric Field	ETS	AR FP6001	A0304302	2009-01-22	2010-01-21
probe					

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

Radiation Hazard Test Set-up

Microwave Leakage Tester





Radiation Hazard Test Setup

ATTACHMENT 2-INPUT POWER MEASUREMENT

Client: Guangdong Galanz Enterprises Co Ltd		Test Standard: FCC Part 18	
Model Numbers: JI JES737WM01, JES	5737WM02,	Product: Microwave Oven	
JES737WK, JES07 JES0735DPWW an			
Model Tested: JES		EUT Designation: Home or Office	
Temperature: 23°C		Humidity: 48%RH	
ATM Pressure: 101	kPa	Grounding: Through AC power cord	
Tested By: Vegia H	uang	Date of Test: Apr 01, 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 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 ampere-meter 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 Galanz test personnel		
M. Uncertainty	±5W		

Test Data

Input Voltage	Input Current	Measured Input	Rated input
Vac/Hz	amps	power(watt)	power(watt)
120V/60Hz	10.11	1203	1200

Test Equipment List

Test equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
Power frequency test system	Ainuo	AN8716PX	058704273	2008-07-06	2009-07-06

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



Input Power Test Setup

ATTACHMENT 3-RF OUTPUT POWER MEASUREMENT

Client: Guangdong Galanz Enterprises Co Ltd		Test Standard: FCC Part 18	
Model Numbers: JES737WM, JES737WM01, JES737WM02, JES737WK, JES0735DPBB, JES0735DPWW and JES0738DPWW		Product: Microwave Oven	
Model Tested: JES	737WM02	EUT Designation: Home or Office	
Temperature: 23℃		Humidity: 48%RH	
ATM Pressure: 101	kPa	Grounding: Through AC power cord	
Tested By: Vegia H	uang	Date of Test: Apr 01, 2009	
Test Reference	ANSI C63.4: 2003 , FC	C/OST MP-5:1986	
Test Procedure	The EUT was set up according to the FCC MP-5 and 18 for RF power measurement, The Caloric method was used to determine maximum RF output power. 1) A 1000ml water load in a beaker is located in the center of the oven. 2) Measure and record the initial temperature of the 1000ml water load. 3) Start and keep the oven operating at maximum output power for 120 seconds. 4) At the end of the 120 seconds, measure and record the final temperature of the 1000ml water load. 5) Calculate the RF output power RF Output Power (W) = 4.2 x 1000 x (Final Temp – Initial Temp) / 120		
Tested Range	N/A		
Test Voltage	120VAC/60Hz		
Results	RF output power =637W The test results relate only to the equipment under test provided by clients.		
Changes or Modifications	There were no modifications installed by Galanz test personnel.		
M. Uncertainty	±0.3 °C		

EMC LABORATORY REPORT NO: 09CA7020-03 GUANGDONG ATC-LAB CO., LTD. 528305

Page 22 of 35

Test Data

Quality	of	Starting	Final	Elapsed time	RF output
water(ml)		temperature(°C)	temperature(°C)	(seconds)	power(watt)
1000		18.4	36.6	120	637

Test Equipment List

Test equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
Data Acquisition	TES	TES-1310	021108782	2009-04-04	2010-04-03

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



RF Output Power Test Set-up

ATTACHMENT 4-OPERATING FREQUENCY MEASUREMENT

Client: Guangdong Galanz Enterprises Co Ltd Model Numbers: JES737WM, JES737WM01, JES737WM02, JES737WK, JES0735DPBB, JES0735DPWW and JES0738DPWW		Test Standard: FCC Part 18	
		Product: Microwave Oven	
Model Tested: JES	737WM02	EUT Designation: Home or Office	
Temperature: 22℃		Humidity: 48%RH	
ATM Pressure: 100	.8kPa	Grounding: Through AC power cord	
Tested By: Vegia H	uang	Date of Test: Apr 02, 2009	
Test Reference	ANSI C63.4: 2003 , FC	C/OST MP-5:1986	
Test Procedure	The EUT was set up according to the FCC MP-5 and 18 for Operating Frequency measurement 1) The Variation of frequency with time The operating frequency was measured using a spectrum analyzer, starting with EUT at room temperature, a 1000ml water load in a breaker was located in the center of the oven, set a spectrum analyzer with antenna at 3 meters distance from the oven and 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		
Test Voltage	2450±50MHz		
Test Voltage	120VAC/60Hz		
Results		ages for details of the variation in operating line voltage measurement	
Changes or Modifications	There were no modifica	tions installed by Galanz test personnel.	
M. Uncertainty	Freq. ± 10kHz		

EMC LABORATORY REPORT NO: 09CA7020-03 GUANGDONG ATC-LAB CO., LTD. 528305

Page 25 of 35

205# YINGFENG BUILDING RONGGUI RD RONGGUI SHUNDE FOSHAN GUANGDONG CHINA TE: 86-757-28375537, FAX: 86-757-28375535

Test data

Variation in Operating Frequency with Time

Minimum Frequency(MHz)	Maximum Frequency(MHz)	
2446.8	2469.5	

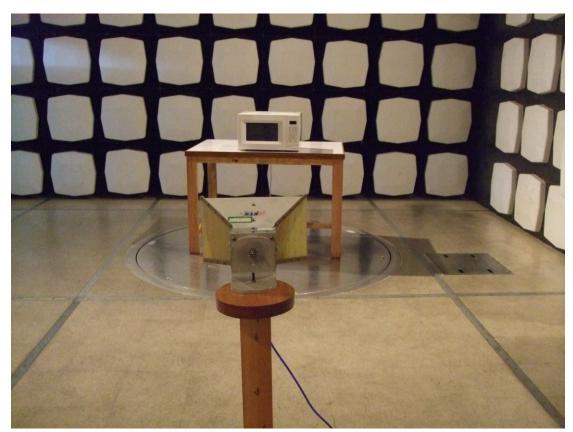
Variation in Operating Frequency with Line Voltage

Minimum Frequency(MHz)	Maximum Frequency(MHz)			
2450.8	2462.5			
Note: Line voltage varied from 96Vac to 150Vac				

Test Equipment List

Test	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
equipment					
Horn Antenna	ETS	3115	6587	2008-08-02	2010-08-02
Spectrum Analyzer	R&S	FSP30	100755	2008-11-03	2009-11-02
3m Anechoic chamber	ETS	N/A	N/A	2007-05-23	2009-05-23

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



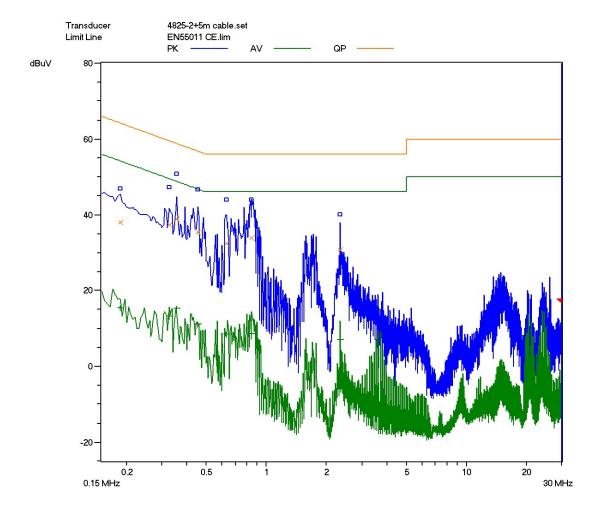
Operating Frequency Test Set-up

ATTACHMENT 5-CONDUCTED EMISSION TEST RESULTS

Client: Guangdong Galanz Enterprises Co Ltd		Test Standard: FCC Part 18	
Model Numbers: JES737WM, JES737WM01, JES737WM02, JES737WK, JES0735DPBB, JES0735DPWW and JES0738DPWW		Product: Microwave Oven	
Model Tested: JES7	737WM02	EUT Designation: Home or Office	
Temperature: 23°C		Humidity: 47%RH	
ATM Pressure: 100	.8kPa	Grounding: Through AC power cord	
Tested By: Vegia H	uang	Date of Test: Apr 02, 2009	
Test Reference	ANSI C63.4: 2003 , FCC/OST MP-5:1986		
Test Procedure	FCC MP-5 for conductor on each line and an EM measurement range, the and these signals were	ecording to the guideline of ANSI C63.4:2003 & ed emission, The measurement was using a AMN MI receiver peak scan was made at the frequency e six highest significant peak were then marked, then quasi peaked and averaged. The frequency from 150kHz to 30MHz	
Tested Range	150kHz to 30MHz		
Test Voltage	120VAC/60Hz		
Results	The EUT meets the requirements of test reference for conducted Emission on line N by 19.6dBuV of Quasi-peak detector and on line L by 33.5dBuV of Average detector.		
Changes or Modifications	There were no modifications installed by Galanz test personnel.		
M. Uncertainty	±2.5dB		

CE L 4/2/09 9:11:28 AM

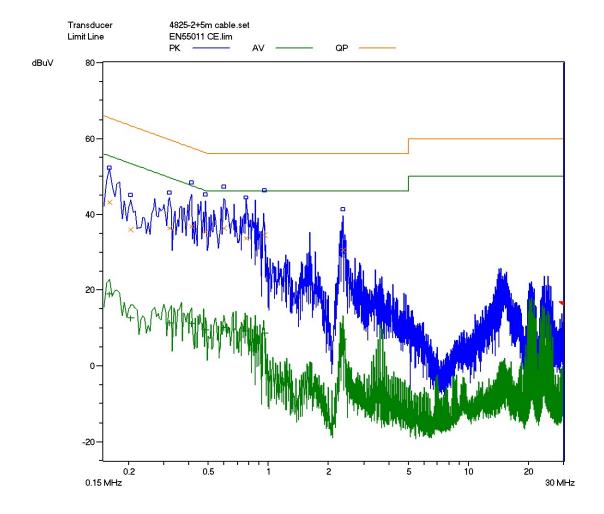
Туре		Microwave Oven
EUT / Ser.No.		GAL-SE090320003
Manufacturer		Galanz
Condition		Full Power (Microwave Mode)
Frequency Range	e(s)	Range 1
Start Frequency		150 kHz
Stop Frequency		30 MHz
Step Frequency		5 kHz
Attenuator		Auto
Detector	(Pre)	AV CISPR
IF Bandwidth	(Pre)	9 kHz
Measure Time	(Pre)	10 ms
Detector	(Final)	QP
IF Bandwidth	(Final)	9 kHz
Measure Time	(Final)	1 s
Sub Ranges	(Final)	20



Line L Conducted Emission Graph

CE N 4/2/09 9:14:04 AM

Туре		Microwave Oven	
EUT / Ser.No.		GAL-SE090320003	
Manufacturer		Galanz	
Condition		Full Power (Microwave Mode)	
Frequency Range	e(s)	Range 1	
Start Frequency		150 kHz	
Stop Frequency		30 MHz	
Step Frequency		5 kHz	
Attenuator		Auto	
Detector	(Pre)	AV CISPR	
IF Bandwidth	(Pre)	9 kHz	
Measure Time	(Pre)	10 ms	
Detector	(Final)	QP	
IF Bandwidth	(Final)	9 kHz	
Measure Time	(Final)	1 s	
Sub Ranges	(Final)	20	



Line N Conducted Emission Graph

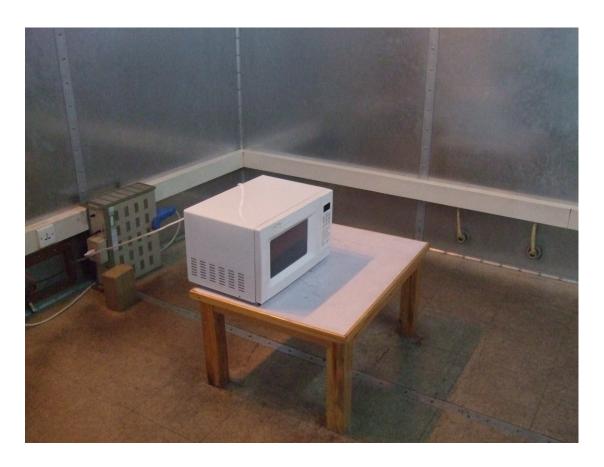
Test Data

Line	Frequency MHz	Corrected Reading(QP) dBuV	Corrected Reading(AV) dBuV	QP limit dBuV	AV limit dBuV
L	0.3250	37.4	13.3	59.6	49.6
L	0.3550	38.9	15.3	58.8	48.8
L	0.8450	34.0	8.7	56.0	46.0
N	0.1600	43.2	18.9	65.4	55.4
N	0.5950	36.4	10.1	56.0	46.0
N	0.9600	34.5	8.6	56.0	46.0

Test Equipment List

Test equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
EMI Receiver	SCHAFFNER	SMR4503	44	2008-07-08	2009-07-08
LISN	ETS	4825/2	1161	2008-07-08	2009-07-08
Shielding Room	ETS	N/A	N/A	2008-05-30	2009-05-30

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



Conducted Emission Test Set-up

ATTACHMENT 6-RADIATED EMISSION TEST RESULTS

Client: Guangdong Co Ltd	Galanz Enterprises	Test Standard: FCC Part 18	
Model Numbers: JES737WM, JES737WM01, JES737WM02, JES737WK, JES0735DPBB, JES0735DPWW and JES0738DPWW		Product: Microwave Oven	
Model Tested: JES7	/37WM02	EUT Designation: Home or Office	
Temperature: 23℃		Humidity: 48%RH	
ATM Pressure: 100	.8kPa	Grounding: Through AC power cord	
Tested By: Vegia Hu	ıang	Date of Test: Apr 02, 2009	
Test Reference	ANSI C63.4: 2003 , FC	C/OST MP-5:1986	
Test Procedure	ANSI C63.4: 2003, FCC/OST MP-5:1986 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 0.8 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		
Tested Range Test Voltage	30MHz to 24.5GHz 120VAC/60Hz		
Results	The EUT meets the requirements of test reference for Radiated emission on Horizontal polarization by 23.28dBuV/m of Average detector at 9.8784GHz		
Changes or Modifications	There were no modifica	tions installed by Galanz test personnel.	
M. Uncertainty	±3.2dB		

EMC LABORATORY REPORT NO: 09CA7020-03 GUANGDONG ATC-LAB CO., LTD. 528305 Page 33 of 35

Test Data

30MHz-1GHz							
Frequency (MHz)	Antenna Polarization (V/H)	Corrected QP reading (dBµV/m)	Delta QP (dB)	3 Meters Limits (dBµV/m)			
33.00	Н	23.6	45.4	69.0			
302.50	Н	26.3	42.7	69.0			
398.40	Н	25.5	43.5	69.0			
385.24	V	28.9	40.1	69.0			
502.43	V	26.5	42.5	69.0			
789.50	V	30.1	38.9	69.0			

Note: All readings are quasi-peak unless stated otherwise, using a bandwidth of 120kHz, with a 1s sweep time. A video filter was not used.

1GHz-25GHz								
Frequency (GHz)	Antenna Polarization (V/H)	Corrected AV reading (dBµV/m)	Delta AV (dB)	3 Meters Limits (dBµV/m)				
4.9196	Н	38.34	30.66	69.0				
7.3887	Н	38.33	30.67	69.0				
9.8784	Н	45.72	23.28	69.0				
4.9139	V	34.31	34.69	69.0				
7.3956	V	36.77	32.23	69.0				
9.8757	V	43.98	25.02	69.0				

Comment: None

Note: All reading are average unless stated otherwise, using a bandwidth of 1MHz, with a 30 ms sweep time. A video filter was not used.

Test Equipment List

Test	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
equipment					
Broadband Antenna	ETS	3142C	00042672	2008-09-26	2010-09-26
Horn Antenna	ETS	3115	6587	2008-08-02	2010-08-02
Band-pass Filter	Micro-Tronic	BRM50702	S/N-030	2008-11-03	2009-11-02
EMI Receiver	SCHAFFNER	SMR4503	44	2008-07-08	2009-07-08
Spectrum Analyzer	R&S	FSP30	100755	2008-11-03	2009-11-02
3m Anechoic chamber	ETS	N/A	N/A	2007-05-23	2009-05-23

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



Radiated Emission Test Setup (30-1000MHz)



Radiated Emission Test Setup (1-25GHz)

The End

EMC LABORATORY REPORT NO: 09CA7020-03 Page 36 of 35 GUANGDONG ATC-LAB CO., LTD. 528305
205# YINGFENG BUILDING RONGGUI RD RONGGUI SHUNDE FOSHAN GUANGDONG CHINA TE: 86-757-28375537, FAX: 86-757-28375535
This report shall not be reproduced except in full, without the written approval of ATC-Lab.