

FCC CFR47 PART 18 SUBPART C

ISM EQUIPMENT

TEST REPORT

FOR

MICROWAVE OVEN

Model: D100N30(X)III-(Y)-(Z) (Testing case: D100N30ASPRIII-H3-FR01)

Magnetron Model: Galanz, M24FC-610A

Brand Name: Galanz

Test Report No.: 11CA12011-02

FCC ID: UHW10030005

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: James He

Reviewed By: Yanhan Lu

QC Manager: Valley.Wang

Test Report Released By _____

Name



12/01/2011 _____

Date

List Attached Files

| Exhibit Type | File Description | File Name |
|------------------------------|--------------------------------|--|
| Test report | Test report | UHW10030005 -Test report .pdf |
| Operation Description | Operational Description | UHW10030005 -Operational description .pdf |
| External Photos | External Photos | UHW10030005 -External photos .pdf |
| Internal Photos | Internal Photos | UHW10030005 -Internal photos .pdf |
| Block Diagram | Block Diagram | UHW10030005 -Block diagram .pdf |
| Schematics Diagram | Schematics Diagram | UHW10030005 -Schematics .pdf |
| ID Label/ Location | ID Label/ Location | UHW10030005 -label & location .pdf |
| User Manual | User Manual | UHW10030005 -User manual .pdf |
| Test setup Photos | Test setup Photos | UHW10030005 -Test setup photos .pdf |
| Part List | Part List | UHW10030005 - Part list .pdf |

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----- | 14 |
| CONFIGURATION OF TESTED SYSTEM----- | 15 |
| ATTACHMENT 1- RADIATION HAZARD TEST----- | 16 |
| ATTACHMENT 2-INPUT POWER MEASUREMENT----- | 19 |
| ATTACHMENT 3-RF OUTPUT POWER MEASUREMENT----- | 22 |
| ATTACHMENT 4- OPERATING FREQUENCY MEASUREMENT----- | 25 |
| ATTACHMENT 5-CONDUCTED EMISSION TEST RESULTS----- | 28 |
| ATTACHMENT 6-RADIATED EMISSION TEST RESULTS----- | 33 |

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 November 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 November be reproduced without permission from EMC Laboratory of Guangdong Galanz Enterprises Co., Ltd

Opinions and Interpretations

This test report relates to the above mentioned equipment under test (EUT). Without permission of EMC Laboratory of Guangdong Galanz Enterprises Co., Ltd, 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 November 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 November result in additional deviation.

Administrative Data

Test Sample Microwave oven
Model Numbers D100N30(X)III-(Y)-(Z)
Model Tested D100N30ASPRIII-H3-FR01
Brand Name Galanz
Date Tested November 23, 2011—November 26, 2011
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
D100N30ASPRIII-H3-FR01
(Refer to the EUT in this report) is a Microwave Oven.

Specifications:

| | |
|----------------------------------|--------------------------------------|
| Power consumption | 120Vac 60Hz, 1450W(Microwave) |
| Output | 1000W |
| Operation frequency | 2450Hz |
| Magnetron brand | Galanz |
| Magnetron number | M24FC-610A |
| Outside dimensions(HxWxD) | 12.9×21.3×15.7 in. |
| Cavity dimensions(HxWxD) | 9.4×13.9×14.1 in. |
| Capacity | 1.06 cu.ft |
| Cooking uniformity | Turntable System |
| Net weight | Approx. 40.6 lb. |

Type of Deriver

D100N30(X)III-(Y)-(Z)model designations:

D: With Microwave and Grills functions.

100: denote the output power is 1000W

N30: denote different capacity in 30 liters.

III: mean the capacity type.

Variable (X) may be L,P,SL,SP ,AL,AP,ASL,ASP ,EL,EP, ESL,ESP .

“L” is pull-out type door, “P” is push-button type door. When there is no letter before “L” and “P”, denotes mechanical control model; When there are “A” or “E” denote the electrical control model. “S” denotes stainless steel cavity; When there is without “S” before “L” or “P”, denotes the epoxy painted cavity.

Variable (Y) may compose by one to six characters from A to Z and/or numbers from 0 to 9. It represents the differences of the appearance.

Variable (Z) may compose by one to four characters from A to Z and/or numbers from 0 to 9. It represents the differences of the fixing mode.

Test Summary

The Electromagnetic Compatibility Requirements on model tested D100N30ASPRIII-H3-FR01 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 _____



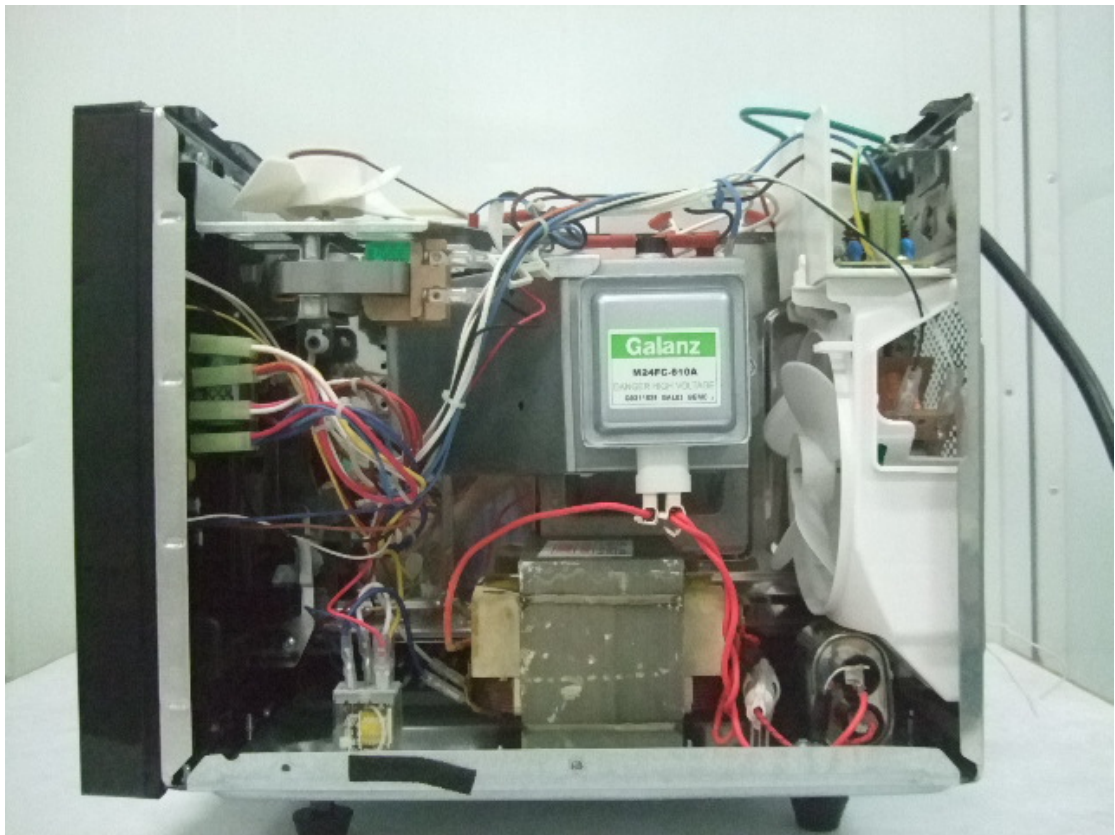
Front and top view



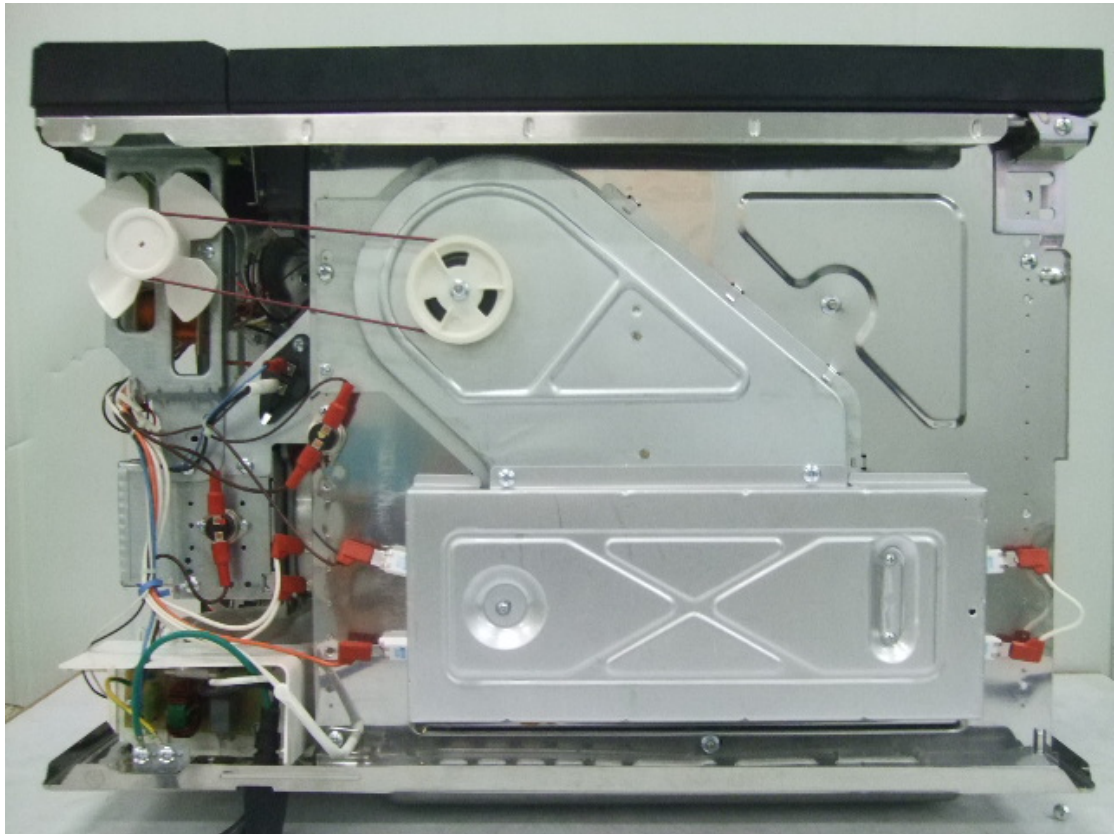
Door open view



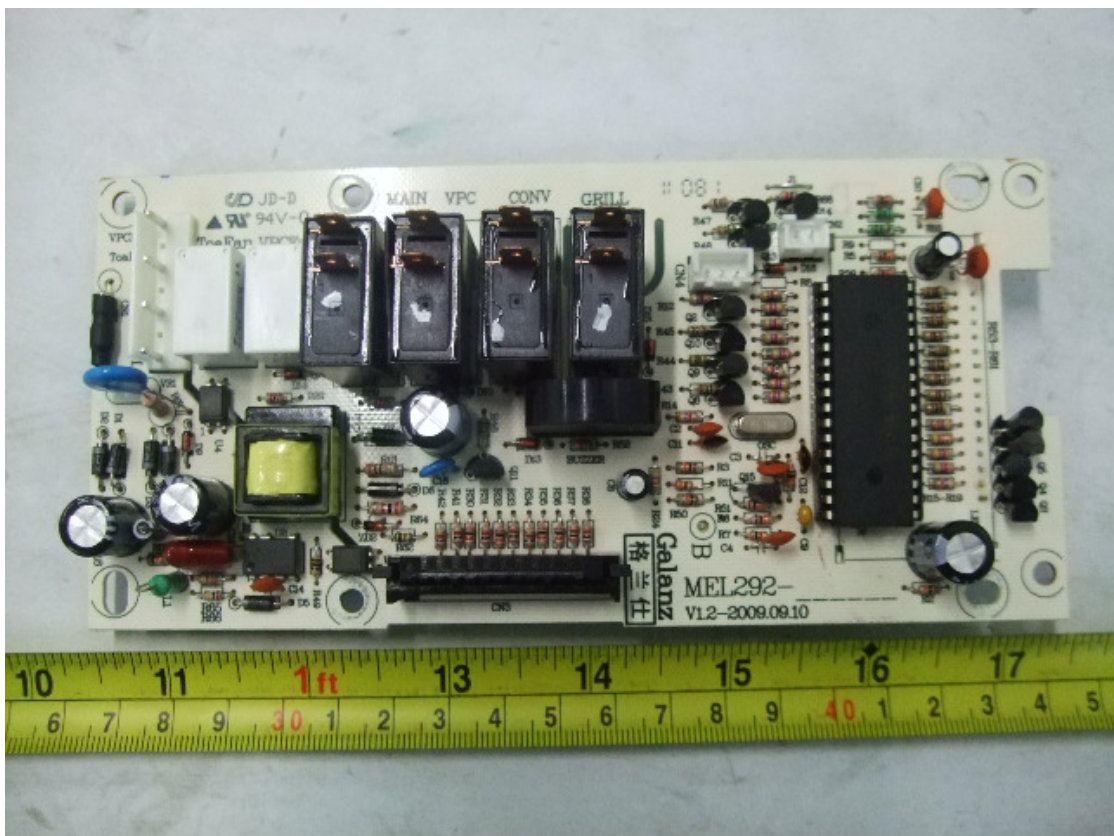
Rear View of EUT



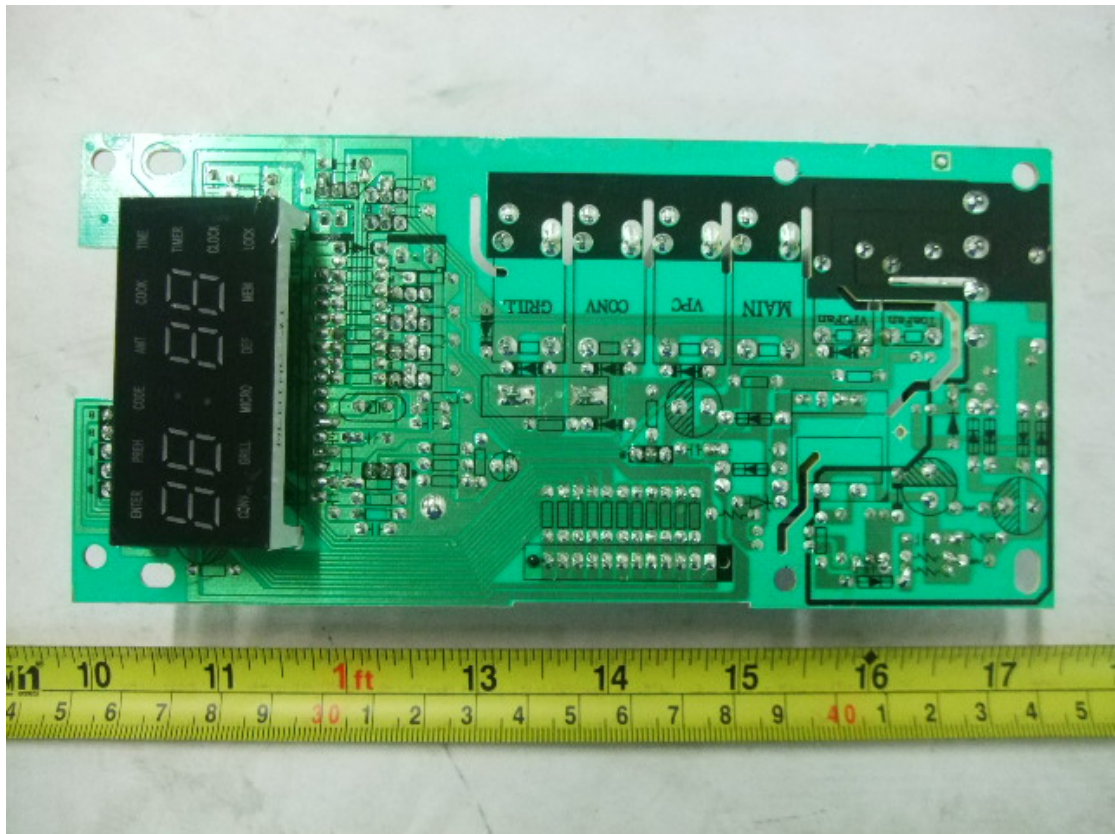
Uncovered View from right side



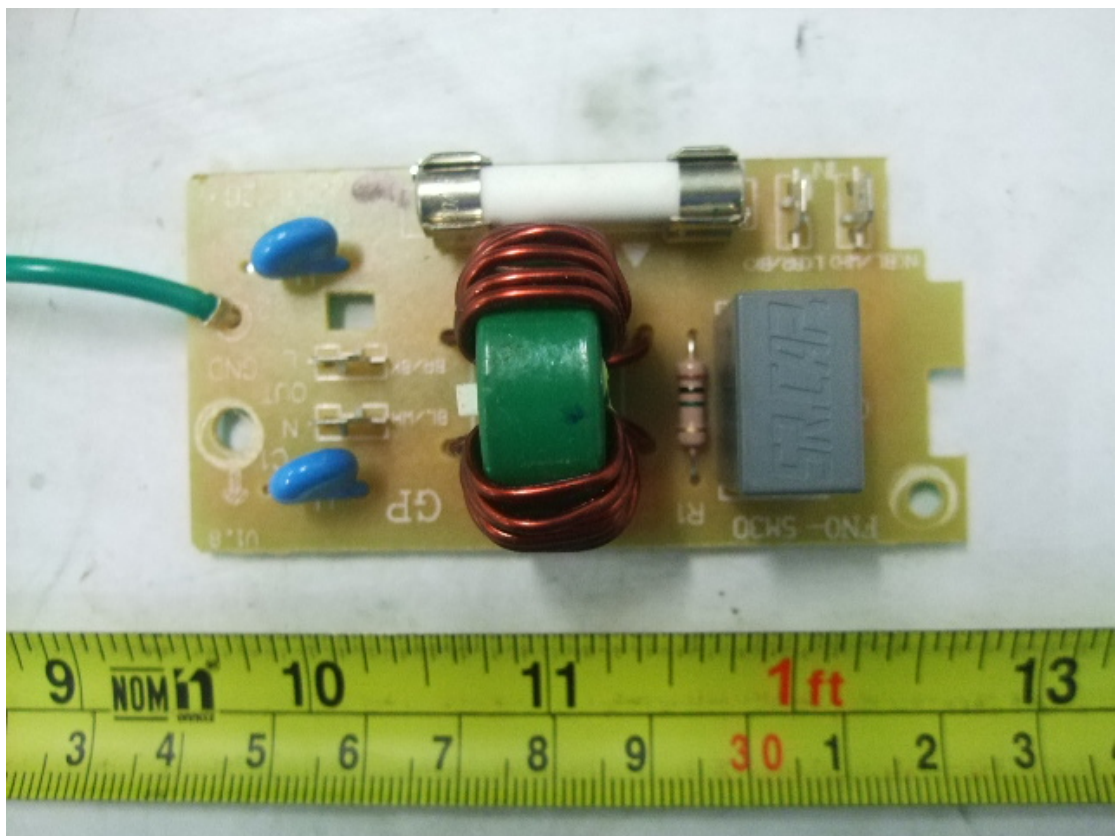
Uncovered View from top side



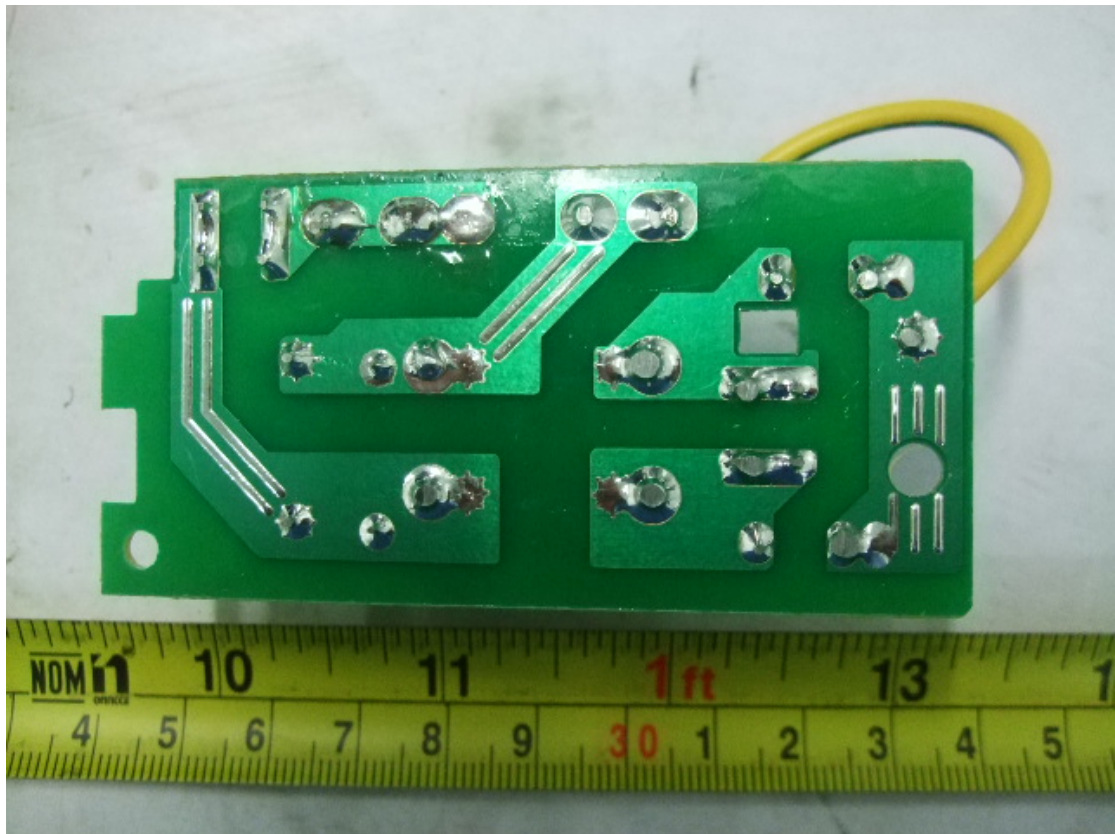
Front view of Main board



Back view of Main board



Front View of AC power filter board



Back of View AC power filter board

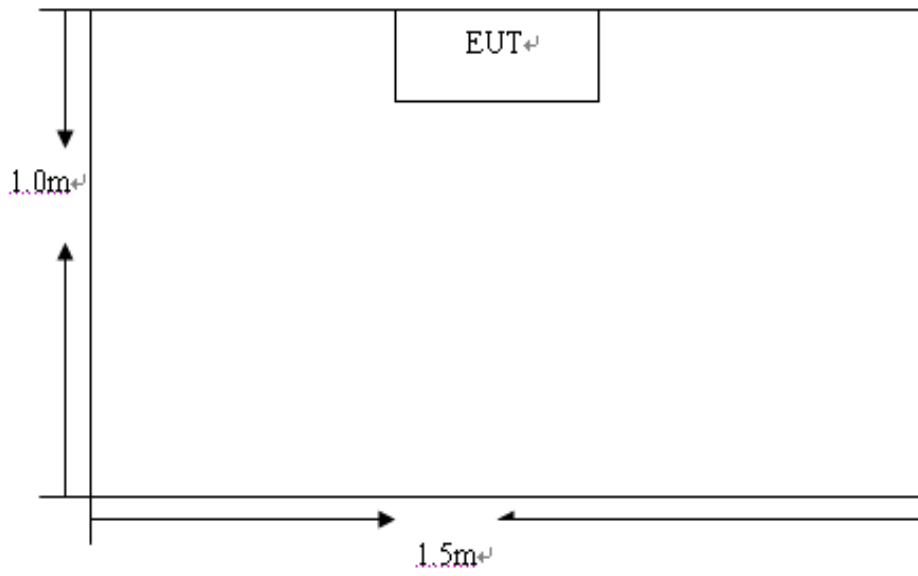


View of Magnetron

Test System Details

| EUT | | | | | |
|--------------------------|--|-------------|--------------------------|-------------------------|------------------------|
| Model Numbers | D100N30(X)III-(Y)-(Z) | | | | |
| Model tested | D100N30ASPRIII-H3-FR01 | | | | |
| Description | Microwave Oven | | | | |
| Manufacturer | Guangdong Galanz Enterprises Co., Ltd | | | | |
| Support Equipment | | | | | |
| N/A | | | | | |
| Cable Description | | | | | |
| Description | From | To | Length Meters | Shielded Y/N | Ferrite Y/N |
| Power cord | EUT | Plug | 1.05 | N | N |

Configuration of Tested System



ATTACHMENT 1-RADIATION HAZARD TEST

| | | |
|--|---|---|
| Client: Guangdong Galanz Enterprises Co Ltd | | Test Standard: FCC Part 18 |
| Model Numbers: D100N30(X)III-(Y)-(Z) | | Product: Microwave Oven |
| Model Tested: D100N30ASPRIII-H3-FR01 | | EUT Designation: Home or Office |
| Temperature: 24°C | | Humidity: 52%RH |
| ATM Pressure: 101kPa | | Grounding: Through AC power cord |
| Tested By: James He | | Date of Test: November 23,2011 |
| Test Reference | ANSI C63.4: 2003, FCC/OST MP-5:1986 | |
| Test Procedure | The EUT was set up according to the FCC MP-5 and FCC Part 18 for Radiation Hazard Measurement. The measurement was using a microwave leakage meter to measure the Radiation leakage in the as-received condition with the oven door closed. A 1000ml water load in a beaker was located in the center of the oven and the Microwave oven was set to maximum power. While the oven operating, the microwave meter will check the leakage and then record the maximum leakage | |
| Tested Range | N/A | |
| Test Voltage | 120VAC/60Hz | |
| Results | <p>There was no microwave leakage exceeding a power level of 0.02mW/cm² observed at any point 5cm or more from the external surface of the oven.</p> <p>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.</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 Galanz test personnel | |
| M. Uncertainty | 0.03mW/cm ² | |

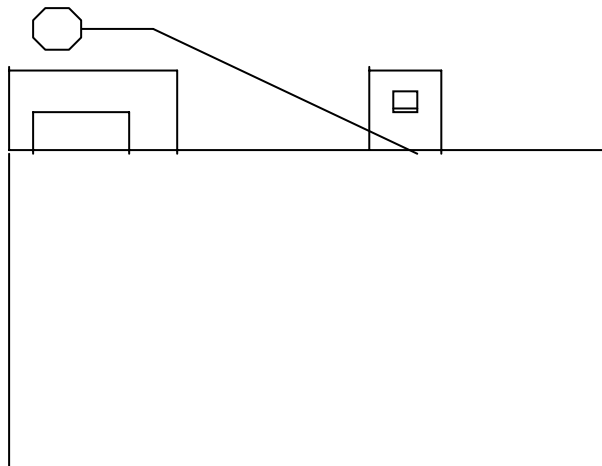
Test Equipment List

| Test Equipment | Manufacturer | Model | Serial No. | Last Cal. | Cal. Due |
|----------------------|--------------|-----------|------------|------------|------------|
| Field Monitor | ETS | AR FM5004 | A0304252 | 2011-01-21 | 2013-01-20 |
| Electric Field probe | ETS | AR FP6001 | A0304302 | 2011-01-21 | 2013-01-20 |

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: D100N30(X)III-(Y)-(Z) | Product: Microwave Oven |
| Model Tested: D100N30ASPRIII-H3-FR01 | EUT Designation: Home or Office |
| Temperature: 24°C | Humidity:52%RH |
| ATM Pressure: 101kPa | Grounding: Through AC power cord |
| Tested By: James He | Date of Test: November 23,2011 |
| 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 Vac/Hz | Input Current amps | Measured Input power(watt) | Rated input power(watt) |
|---------------------------------|-------------------------------|---------------------------------------|--------------------------------------|
| 120V/60Hz | 14.53 | 1532 | 1450 |

Test Equipment List

| Test equipment | Manufacturer | Model | Serial No. | Last Cal. | Cal. Due |
|-----------------------------------|---------------------|--------------|-------------------|------------------|-----------------|
| Power frequency test system | Ainuo | AN8716PX | 058704273 | 2011-07-06 | 2012-07-06 |

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: D100N30(X)III-(Y)-(Z) | Product: Microwave Oven |
| Model Tested: D100N30ASPRIII-H3-FR01 | EUT Designation: Home or Office |
| Temperature: 24°C | Humidity: 52%RH |
| ATM Pressure: 101kPa | Grounding: Through AC power cord |
| Tested By: James He | Date of Test: November 23,2011 |
| 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 18 for RF power measurement, The Caloric method was used to determine maximum RF output power.</p> <ol style="list-style-type: none"> 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 <p>RF Output Power (W) = $4.2 \times 1000 \times (\text{Final Temp} - \text{Initial Temp}) / 120$</p> |
| Tested Range | N/A |
| Test Voltage | 120VAC/60Hz |
| Results | <p>RF output power =896W</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 Galanz test personnel. |
| M. Uncertainty | ±0.3°C |

Test Data

| Quality of water(ml) | Starting temperature(°C) | Final temperature(°C) | Elapsed time (seconds) | RF output power(watt) |
|-----------------------------|---------------------------------|------------------------------|-------------------------------|------------------------------|
| 1000 | 18.0 | 43.6 | 120 | 896 |

Test Equipment List

| Test equipment | Manufacturer | Model | Serial No. | Last Cal. | Cal. Due |
|-----------------------|---------------------|--------------|-------------------|------------------|-----------------|
| Data Acquisition | TES | TES-1310 | 021108782 | 2011-04-04 | 2012-04-04 |

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 | Test Standard: FCC Part 18 |
| Model Numbers: D100N30(X)III-(Y)-(Z) | Product: Microwave Oven |
| Model Tested: D100N30ASPRIII-H3-FR01 | EUT Designation: Home or Office |
| Temperature: 25°C | Humidity: 53%RH |
| ATM Pressure: 100.8kPa | Grounding: Through AC power cord |
| Tested By: James He | Date of Test: November 23,2011 |
| 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 18 for Operating Frequency measurement</p> <p>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.</p> <p>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</p> |
| Tested Range | 2450 ± 50MHz |
| Test Voltage | 120VAC/60Hz |
| Results | Refer to following pages for details of the variation in operating frequency with time & line voltage measurement |
| Changes or Modifications | There were no modifications installed by Galanz test personnel. |
| M. Uncertainty | Freq. ± 10kHz |

Test data

Variation in Operating Frequency with Time

| Minimum Frequency(MHz) | Maximum Frequency(MHz) |
|------------------------|------------------------|
| 2402.8 | 2482.2 |

Variation in Operating Frequency with Line Voltage

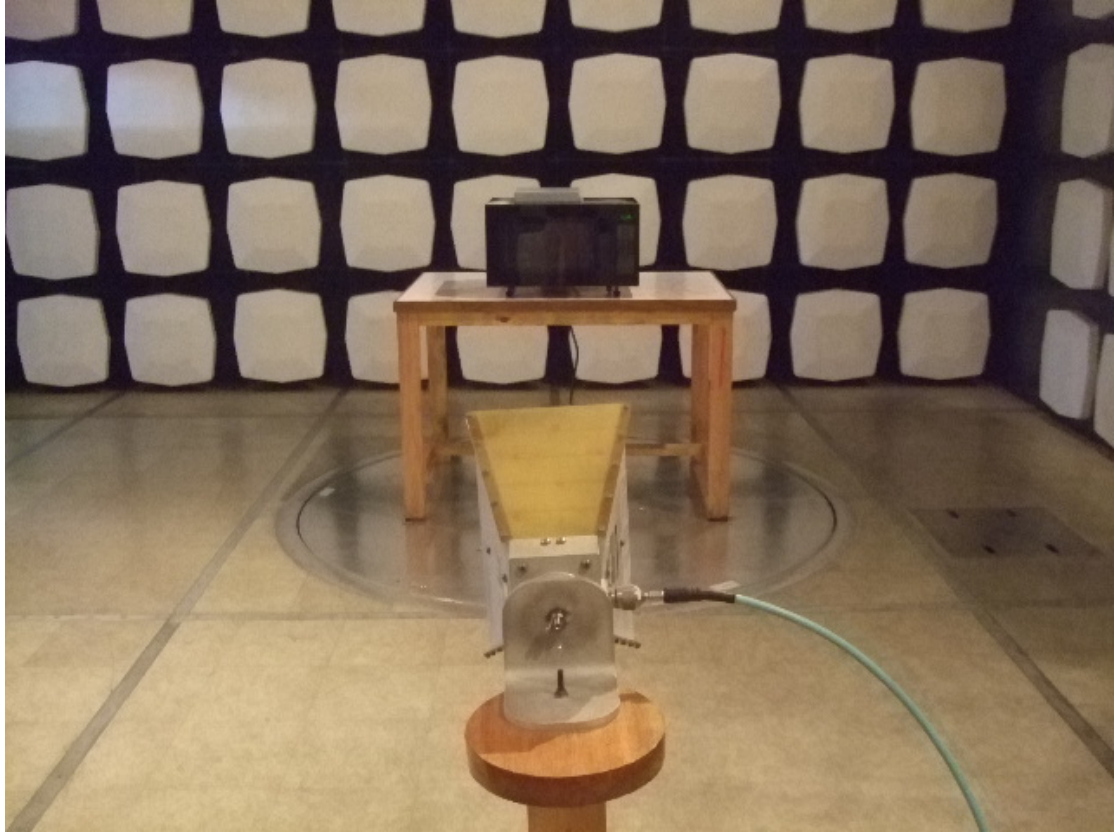
| Minimum Frequency(MHz) | Maximum Frequency(MHz) |
|------------------------|------------------------|
| 2411.0 | 2478.8 |

Note: Line voltage varied from 96Vac to 150Vac

Test Equipment List

| Test equipment | Manufacturer | Model | Serial No. | Last Cal. | Cal. Due |
|---------------------|--------------|-------|------------|------------|------------|
| Horn Antenna | ETS | 3115 | 6587 | 2010-08-02 | 2012-08-02 |
| Spectrum Analyzer | R&S | FSP30 | 100755 | 2011-11-09 | 2012-11-09 |
| 3m Anechoic chamber | ETS | N/A | N/A | 2011-05-23 | 2013-05-23 |

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

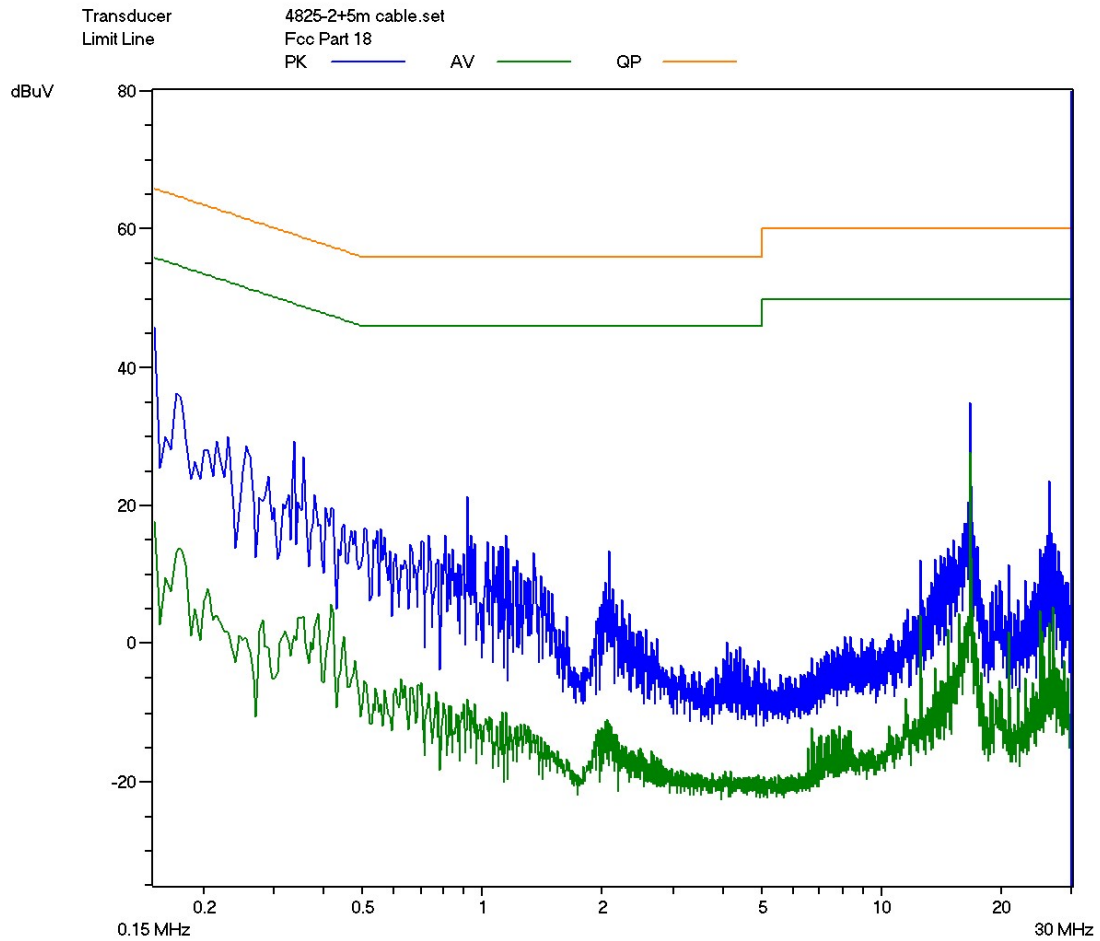
| | | |
|--|---|---|
| Client: Guangdong Galanz Enterprises Co Ltd | | Test Standard: FCC Part 18 |
| Model Numbers: D100N30(X)III-(Y)-(Z) | | Product: Microwave Oven |
| Model Tested: D100N30ASPRIII-H3-FR01 | | EUT Designation: Home or Office |
| Temperature: 25°C | | Humidity: 52%RH |
| ATM Pressure: 100.8kPa | | Grounding: Through AC power cord |
| Tested By: James He | | Date of Test: November 23, 2011 |
| 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 emission, 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 peak 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 Emission on line N by 20.8dB μ V of Quasi-peak detector and by 34.5 dB μ V of Average detector. | |
| Changes or Modifications | There were no modifications installed by Galanz test personnel. | |
| M. Uncertainty | \pm 2.5dB | |

CE-L.res
CE L

11/23/11 4:55:41 PM

Title CE L
Type Microwave Oven
Manufacturer Galanz
Condition Full Power Of Microwave Mode

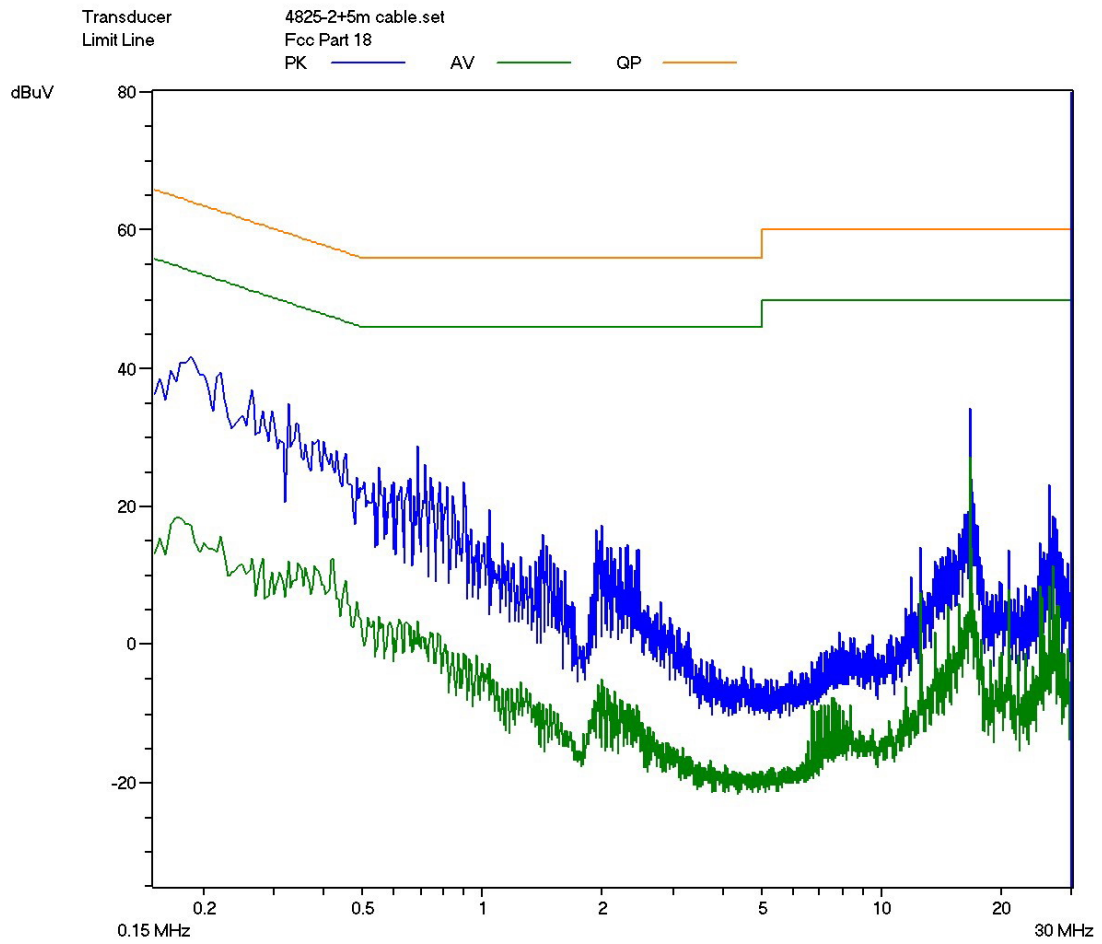
Frequency Range(s) Range 1
Start Frequency 150 kHz
Stop Frequency 30 MHz
Step Frequency 5 kHz
Attenuator Auto
Detector AV CISPR
IF Bandwidth 9 kHz
Measure Time 10 ms



Line L Conducted Emission Graph

Title CE N
Type Microwave Oven
Manufacturer Galanz
Condition Full Power Of Microwave Mode

Frequency Range(s) Range 1
Start Frequency 150 kHz
Stop Frequency 30 MHz
Step Frequency 5 kHz
Attenuator Auto
Detector AV CISPR
IF Bandwidth 9 kHz
Measure Time 10 ms



Line N Conducted Emission Graph

Test Data

| Line | Frequency (MHz) | Corrected Reading(QP) | Corrected Reading(AV) | QP limit dB uV | AV limit dB uV |
|------|-----------------|-----------------------|-----------------------|----------------|----------------|
| L | 0.1726 | 34.2 | 14.7 | 64.8 | 54.8 |
| L | 0.3390 | 23.4 | 9.8 | 59.2 | 49.2 |
| L | 16.8536 | 28.8 | 20.2 | 60.0 | 50.0 |
| N | 0.1710 | 44.0 | 18.1 | 64.8 | 54.8 |
| N | 0.2184 | 42.2 | 17.2 | 62.8 | 52.9 |
| N | 16.7788 | 37.8 | 25.5 | 60.0 | 50.0 |

Test Equipment List

| Test equipment | Manufacturer | Model | Serial No. | Last Cal. | Cal. Due |
|----------------|--------------|---------|------------|------------|------------|
| EMI Receiver | SCHAFFNER | SMR4503 | 44 | 2011-07-08 | 2012-07-08 |
| LISN | ETS | 4825/2 | 1161 | 2011-07-08 | 2012-07-08 |
| Shielding Room | ETS | N/A | N/A | 2011-05-18 | 2012-05-18 |

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 Galanz Enterprises Co Ltd | Test Standard: FCC Part 18 |
| Model Numbers: D100N30(X)III-(Y)-(Z) | Product: Microwave Oven |
| Model Tested: D100N30ASPRIII-H3-FR01 | EUT Designation: Home or Office |
| Temperature: 25°C | Humidity: 52%RH |
| ATM Pressure: 100.6kPa | Grounding: Through AC power cord |
| Tested By: James He | Date of Test: November 26,2011 |
| 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 0.8 m above the ground. The table is placed on a flush mounted metal turntable.</p> <p>An EMI receiver peak scan was made at the frequency measurement range (pre- scan) in an Anechoic chamber. Signal discrimination was then performed and the significant peaks marked. All data was recorded in Quasi-peak detection mode from 30 MHz to 1GHz and average detector mode above 1GHz.</p> <p>The following data lists the significant emission frequencies, measured levels, correction factors (including cable and antenna correction factors), and the corrected readings against the limits. Explanation of the Correction Factor are given as follows:</p> $FS= RA + AF + CF - AG$ <p>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 emission on Horizontal polarization by 11.03dBuV/m of average detector at 4.95284GHz |
| Changes or Modifications | There were no modifications installed by Galanz test personnel. |
| M. Uncertainty | ±3.2dB |

Test Data

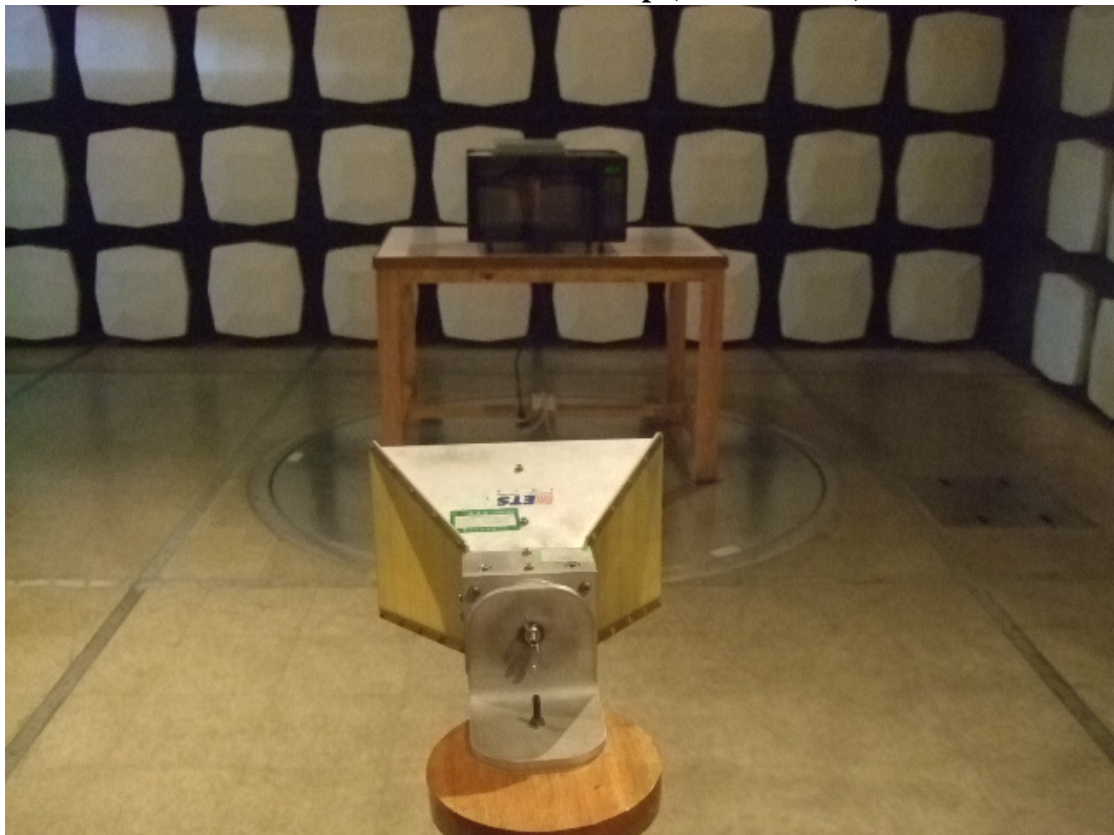
| 30MHz-1GHz | | | | |
|---|-----------------------------------|--|----------------------|--|
| Frequency (MHz) | Antenna Polarization (V/H) | 3 Meters Corrected QP reading (dBμV/m) | Delta QP (dB) | 3 Meters Limits (dBμV/m) |
| 106.2780 | V | 35.0 | 35.49 | 70.49 |
| 166.4760 | V | 19.5 | 50.99 | 70.49 |
| 857.6760 | V | 19.7 | 50.79 | 70.49 |
| 105.7720 | H | 26.5 | 43.99 | 70.49 |
| 272.0240 | H | 18.6 | 51.89 | 70.49 |
| 832.5520 | H | 19.8 | 50.69 | 70.49 |
| Note: All readings are quasi-peak unless stated otherwise, using a bandwidth of 120kHz. | | | | |
| 1GHz-25GHz | | | | |
| Frequency (GHz) | Antenna Polarization (V/H) | 3 Meters Corrected AV reading (dBμV/m) | Delta AV (dB) | 3 Meters Limits (dBμV/m) |
| 1.23436 | V | 30.96 | 39.53 | 70.49 |
| 4.92358 | V | 40.37 | 30.12 | 70.49 |
| 7.42728 | V | 51.13 | 19.36 | 70.49 |
| 1.24086 | H | 32.48 | 38.01 | 70.49 |
| 4.93634 | H | 41.25 | 29.24 | 70.49 |
| 7.42332 | H | 50.16 | 20.33 | 70.49 |
| Comment: None | | | | |
| Note: All reading are average unless stated otherwise, using PK detector RBW=1MHz,VBW=10Hz | | | | |

Test Equipment List

| Test equipment | Manufacturer | Model | Serial No. | Last Cal. | Cal. Due |
|---|---------------------|--------------|-------------------|------------------|-----------------|
| Broadband Antenna | ETS | 3142C | 00042672 | 2011-09-26 | 2012-09-26 |
| Horn Antenna | ETS | 3115 | 6587 | 2011-08-02 | 2012-08-02 |
| Band-pass Filter | Micro-Tronic | BRM50702 | S/N-030 | 2011-11-09 | 2012-11-09 |
| EMI Receiver | SCHAFFNER | SMR4503 | 44 | 2011-07-08 | 2012-07-08 |
| Spectrum Analyzer | R&S | FSP30 | 100755 | 2011-11-09 | 2012-11-09 |
| 3m Anechoic chamber | ETS | N/A | N/A | 2010-05-23 | 2012-05-23 |
| 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