

ACLAP7F21

APPLICATION FOR CERTIFICATION

MODEL NO.

FCC ID

NN-G464MFR

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EXHIBIT 1

TECHNICAL REPORT

1. DESCRIPTION OF MEASUREMENT FACILITY:

The description of the measurement facility is on file with the FCC laboratory.

2. INSTALLATION INSTRUCTIONS:

See EXHIBIT 7.

3. OPERATING INSTRUCTIONS:

See EXHIBIT 8.

4. APPLICANT:

MATSUSHITA TECHNOLOGY CORPORATION of AMERICA,  
Microwave Technical Laboratory  
1711 N. Randall Road  
Elgin, Illinois 60123-7847

5. MANUFACTURER:

PANASONIC HOME APPLIANCES, MICROWAVE OVEN CO. LTD. (PHAMOS)  
898 Long Dong Road Pu dong  
Shanghai, 201203 China

6. MEASUREMENT SITE:(Radiated Emissions)

FCC Registration Number 96247  
PANASONIC MAGNETRON LAB.  
PANASONIC INDUSTRIAL COMPANY  
1707 N. Randall Road  
Elgin, IL 60123-7847

MEASUREMENT SITE: (Line Conducted Emissions).

FCC Registration Number 767285  
Jiangsu TUV Product Service Ltd.  
10 Huaxia M. Rd.  
Wuxi, Jiangsu, 214100 China

7. EQUIPMENT IDENTIFICATION:

Model No. : NN-G464MFR  
Brand Name : Panasonic  
Output Power: 1100W  
FCC ID : ACLAP7F21

## EXHIBIT 1A

### 8. EQUIPMENT SPECIFICATIONS:

Electrical Power Requirement: 120Vac, 60Hz, 11.2A

Nominal Operating Frequency: 2450 MHz

Maximum RF Energy Generated: 1100 W (IEC 705)

Grille Heater Power: 1100W

Magnetron Type: 2M261-M32

Feed Type and Location: Through the wave guide on the right side of the oven.

Stirrer: Turntable

Cabinet Dimensions: (W)510 x (H)305 x (D) 380 (mm)

Oven Cavity Dimensions: (W) 359x (H) 217 x (D) 352 (mm)

Door Viewing Area Dimensions: (W) 280 x (H) 152 (mm)

Door Seal Type: Slit Choke seal and capacitive seal method

|              |               |  |
|--------------|---------------|--|
| Model No.    | NN-G464MFR    |  |
| Input Power  | 120Vac, 11.2A |  |
| Output Power | 1100W         |  |
| Magnetron    | 2M261-M32)    |  |
| Brand        | Panasonic     |  |

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EXHIBIT 2

PHOTOGRAPHS OF EQUIPMENT

EXHIBIT 2-A: FRONT VIEW OF MODEL NN-G464MFR

EXHIBIT 2-B: FRONT VIEW OF MODEL NN-G464MFR WITH THE DOOR OPENED

EXHIBIT 2-C1: LEFT SIDE VIEW OF MODEL NN-G464MFR

EXHIBIT 2-C2: LEFT SIDE VIEW OF MODEL NN-G464MFR WITH ENCLOSURE REMOVED

EXHIBIT 2-D1: RIGHT SIDE VIEW OF MODEL NN-G464MFR

EXHIBIT 2-D2: RIGHT SIDE VIEW OF MODEL NN-G464MFR WITH ENCLOSURE REMOVED

EXHIBIT 2-E: REAR VIEW OF MODEL NN-G464MFR

EXHIBIT 2-F1: TOP VIEW OF MODEL NN-G464MFR

EXHIBIT 2-F2: TOP VIEW OF MODEL NN-G464MFR WITH ENCLOSURE REMOVED

EXHIBIT 2-G: BOTTOM VIEW OF MODEL NN-G464MFR

EXHIBIT 2-H: VIEW OF CONTROL CIRCUITRY

EXHIBIT 2-I: VIEW OF POWER LINE FILTER CIRCUITRY

EXHIBIT 2-J: VIEW OF INVERTER CIRCUITRY

EXHIBIT 2-K: VIEW OF MAGNETRON TYPE 2M261-M32

EXHIBIT 2-L: VIEW OF DOOR CHOKE CONSTRUCTION ILLUSTRATING INTEGRAL CHOKE TYPE.

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EXHIBIT 5A

REPORT OF MEASUREMENTS

1. MODEL NO.: NN-G464MFR

SERIAL NO. PP-5003

MAGNETRON TYPE NO.: 2M261-M32

2. MEASUREMENT DATE: 11/12/04

3. LIST OF MEASURING EQUIPMENT AND CALIBRATION DATA:  
REFER TO EXHIBIT 6

4. INVESTIGATED FREQUENCY RANGE: 100Mhz to 10th Harmonic

5. DATA SUMMARY:

Safety Check :  $\leq 0.07 \text{ MW/cm}^2$

| Radiated Field Strength:   |                  | ( uV/m @ 300m )   | Limit |
|----------------------------|------------------|-------------------|-------|
| Fundamental                | <u>2468 MHz</u>  | <u>492.48uv/m</u> | ----- |
| 2nd. Harmonic              | <u>4928 MHz</u>  | <u>3.27uv/m</u>   | 36.36 |
| 3rd. Harmonic              | <u>8153 MHz</u>  | <u>2.43uv/m</u>   | "     |
| 4 <sup>th</sup> . Harmonic | <u>10366 MHz</u> | <u>1.51uv/m</u>   | "     |
| Spurious                   | <u>2387 MHz</u>  | <u>1.56uv/m</u>   | "     |
| Emission Sideband          | <u>2400 MHz</u>  | <u>0.74uv/m</u>   | "     |
| Emission Sideband          | <u>2500 MHz</u>  | <u>1.02uv/m</u>   | "     |

Harmonics greater than 4th. Harmonic not measurable-readings below floor of noise level.

Maximum Frequency Variation: 2468 to 2471 MHz  
(96V ~ 150V/ 1500 ml water load)

Maximum Frequency Variation: 2470 to 2474 MHz  
(1500 ml - 300ml water load)

Total Power Input to Oven: 1925 watts

Power Developed in Dummy Load: 1058 watts

Supply Voltage: 120 Volts, 60Hz, 16.2A

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EXHIBIT 5B

REPORT OF MEASUREMENTS

1. MODEL NO.: NN-G464MFR  
SAMPLE NO. S41206231  
MAGNETRON TYPE NO.: 2M261-M32

2. MEASUREMENT DATE: 12/06/04

3. LIST OF MEASURING EQUIPMENT AND CALIBRATION DATA:  
REFER TO ATTACHED EXHIBIT 6B

4. INVESTIGATED FREQUENCY RANGE: 0.15MHz to 30MHz

5. DATA SUMMARY: Selected Peak Readings **(Refer to Spectrum Analyzer plot for complete readings).**

Power Line High Side

| Frequency<br>MHz | QP Level<br>dBuV | QP Limit<br>dBuV | QP Delta<br>dB |
|------------------|------------------|------------------|----------------|
|------------------|------------------|------------------|----------------|

Peak Readings are not recorded when there is more than 6dB margin to limit for all measured frequencies.

| Frequency<br>MHz | AV Level<br>dBuV | AV Limit<br>dBuV | AV Delta<br>dB |
|------------------|------------------|------------------|----------------|
|------------------|------------------|------------------|----------------|

Peak Readings are not recorded when there is more than 6dB margin to limit for all measured frequencies.

Power Line Neutral Side

| Frequency<br>MHz | QP Level<br>dBuV | QP Limit<br>dBuV | QP Delta<br>dB |
|------------------|------------------|------------------|----------------|
|------------------|------------------|------------------|----------------|

Peak Readings are not recorded when there is more than 6dB margin to limit for all measured frequencies.

| Frequency<br>MHz | AV Level<br>dBuV | AV Limit<br>dBuV | AV Delta<br>dB |
|------------------|------------------|------------------|----------------|
|------------------|------------------|------------------|----------------|

Peak Readings are not recorded when there is more than 6dB margin to limit for all measured frequencies.