# ACLAP6E01

# APPLICATION FOR CERTIFICATION

MODEL NO. FCC ID

NN-C994S ACLAP6E01

# LIST OF EXHIBITS

EXHIBIT 1A: TECHNICAL REPORT (Radiated Emissions)

EXHIBIT 1B: TECHNICAL REPORT (Line Conducted Emissions)

EXHIBIT 2: PHOTOGRAPHS OF MAGNETRON AND COMPONENTS

EXHIBIT 3: SAMPLE AND LOCATION OF FCC ID LABEL

EXHIBIT 4: SCHEMATIC DIAGRAM

EXHIBIT 5A : REPORT OF MEASUREMENTS (Radiated Emissions)

EXHIBIT 5B : REPORT OF MEASUREMENTS (Line Conducted Emissions)

EXHIBIT 6A : LIST OF MEASURING EQUIPMENT AND CALIBRATION (Radiated Emissions)

EXHIBIT 6B : LIST OF MEASURING EQUIPMENT AND CALIBRATION (Line Conducted Emissions)

EXHIBIT 7: OPERATING INSTRUCTIONS

EXHIBIT 8: INSTALLATION INSTRUCTIONS

#### ACLAP6E01 EXHIBIT 1

## TECHNICAL REPORT

- DESCRIPTION OF MEASUREMENT FACILITY: The description of the measurement facility is on file with the FCC laboratory. Please refer to the commission's reference 31010/EQU 4-3-0A.
- 2. INSTALLATION INSTRUCTIONS: See EXHIBIT 7.
- 3. OPERATING INSTRUCTIONS: See EXHIBIT 8.
- 4. APPLICANT:

PANASONIC HOME APPLIANCE COMPANY of AMERICA, MICROWAVE TECHNICAL LAB., E-Zip E2J-16 1707 N. Randall Road Elgin, Illinois 60123-7847

5. MANUFACTURER:

MATSUSHITA ELECTRIC INDUSTRIAL COMPANY, Energy & Heathcare Solutions Division Microwave Oven Business unit 800 Tsutsui-Cho Yamatokoriyama Nara, 639-1188 Japan

6. MEASUREMENT SITE: (Radiated Emissions) Panasonic Industrial Company Panasonic Magnetron Laboratory FCC Registration Number 96247 1703 N. Randall Road Elgin, IL 60123-7847

MEASUREMENT SITE: (Line Conducted Emissions). JQA Safety & EMC Center FCC Registration Number 342182 TSURU EMC Branch 2096 Ohata Tanbozawa, Tsuru-shi Yamanashi-ken 402-0045, Japan

7. EQUIPMENT IDENTIFICATION: <u>Model No. :NE-C994S</u> <u>Brand Name : Panasonic</u> <u>FCC ID : ACLAP6E01</u>

#### ACLAP6E01 EXHIBIT 1A

7. EQUIPMENT SPECIFICATIONS:

Electrical Power Requirement: <u>120Vac, 60Hz, 12.8A</u> Nominal Operating Frequency: <u>2450 MHz</u> Maximum RF Energy Generated: <u>1100 W (IEC 705)</u> Magnetron Type: <u>2M236-M1</u> Feed Type and Location: <u>Through the wave guide on the right side of the oven.</u> Stirrer: <u>Stirrer Type</u> ` Cabinet Dimensions: (<u>W) 606 x (H) 376 x (D) 491 (mm)</u> Oven Cavity Dimensions: (<u>W) 412 x (H) 242 x (D) 426 (mm)</u> Door Viewing Area Dimensions: (<u>W) 320 x (H) 182 (mm)</u> Door Seal Type: <u>Slit Choke seal and capacitive seal method</u>

## ACLAP6E01 EXHIBIT 2

PHOTOGRAPHS OF EQUIPMENT

EXHIBIT 2-A: FRONT VIEW OF MODEL NN-C994S

EXHIBIT 2-B: FRONT VIEW OF MODEL NN-C994S WITH THE DOOR OPENED

EXHIBIT 2-C1: LEFT SIDE VIEW OF MODEL NN-C994S

EXHIBIT 2-C2: LEFT SIDE VIEW OF MODEL NN-C994S WITH ENCLOSURE REMOVED

EXHIBIT 2-D1: RIGHT SIDE VIEW OF MODEL NN-C994S

EXHIBIT 2-D2: RIGHT SIDE VIEW OF MODEL NN-C994S WITH ENCLOSURE REMOVED

EXHIBIT 2-E1: REAR VIEW OF MODEL NN-C994S

EXHIBIT 2-E2: REAR VIEW OF MODEL NN-C994S WITH ENCLOSURE REMOVED

EXHIBIT 2-F1: TOP VIEW OF MODEL NN-C994S

EXHIBIT 2-F2: TOP VIEW OF MODEL NN-C994S WITH ENCLOSURE REMOVED

EXHIBIT 2-G: BOTTOM VIEW OF MODEL NN-C994S

EXHIBIT 2-H: VIEW OF MAGNETRON TYPE 2M236-M1

EXHIBIT 2-I: VIEW OF CONTROL

EXHIBIT 2-J: VIEW OF POWER LINE FILTER

EXHIBIT 2-K: VIEW OF INVERTER

## ACLAP6E01 EXHIBIT 5A

**REPORT OF MEASUREMENTS** 

- 1. MODEL NO.: <u>NN-C994S</u>
  - SERIAL NO. <u>6B35130005</u>

MAGNETRON TYPE NO.: 2M236-M1

- 2. MEASUREMENT DATE: 6/10/05
- 3. LIST OF MEASURING EQUIPMENT AND CALIBRATION DATA: REFER TO EXHIBIT 6

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

# 5. DATA SUMMARY:

Safety Check : <u>&lt;0.1 MW/cm2</u>				
Radiated Field Strength:	( uV/m @ 300m )	Limit		
Fundamental:	2480 MHz	<u>982.63uv/m</u>	N/A	
2nd. Harmonic:	<u>4958 MHz</u>	<u>3.27uv/m</u>	32.76	
3rd. Harmonic:	<u>7427 MHz</u>	2.43uv/m	"	
4th. Harmonic:	<u>10139 MHz</u>	<u>1.70uv/m</u>	"	
Spurious:	<u>2359 Mhz</u>	<u>0.49uv/m</u>	"	
Emission Sideband:	<u>2400 MHz</u>	<u>0.47uv/m</u>	"	
Emission Sideband:	<u>2500 MHz</u>	<u>0.26uv/m</u>	"	
Greater than 4th. Harmor	nic not measurab	le		

Maximum Frequency Variation:	<u>2484 to 2488 MHz</u>
(166V ~ 250V/ 1500 ml water load	1)
Maximum Frequency Variation:	2485 to 2486 MHz
(1500 ml - 300ml water load)	
Total Power Input to Oven:	<u>2005 watts</u>
Power Developed in Dummy Load	1: <u>858 watts</u>
Supply Voltage: <u>1</u>	20 Volts, 60Hz, 17.0A

REPORT OF MEASUREMENTS

- 1. MODEL NO.: <u>NN-C994SF</u> SAMPLE NO. <u>6B35160003</u> MAGNETRON TYPE NO.: <u>2M236-M1</u>
- 2. MEASUREMENT DATE: 6/07/05
- 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 MHz	QP Level dBuV	QP Limit dBuV	QP Delta dB	AV Level dBuV	AV Limit dBuV	AV Delta dB
0.15	65.5	66.00.5	53.4	56.0	2.6	GD
0.27	54.2	61.16.9	40.8	51.1	10.3	
0.47	50.1	56.56.4	37.0	46.5	9.5	
0.78	46.1	56.09.9	<10.1	46.0	>35.9	
1.07	43.1	56.012.9	-	46.0	-	
3.05	29.9	56.026.1	-	46.0	-	
5.00	28.0	56.028.0	- 46.	- 0		
7.00	34.5	60.025.5	-	50.0	-	
10.00	37.4	60.022.6	-	50.0	-	
14.00	38.6	60.021.4	-	50.0	-	
17.00	36.3	60.023.7	-	50.0	-	
20.00	29.5	60.030.5	-	50.0	-	
25.00	28.2	60.031.8	-	50.0	-	
30.00	24.6	60.035.4	-	50.0	-	

## Power Line Neutral Side

Frequency	QP Level	QP Limit	QP Delta	AV Level	AV Limit	AV Delta
MHz	dBuV	dBuV	dB	dBuV	dBuV	dB
0.15	59.3	66.06.7	49.6	56.0	6.4	
0.27	58.8	61.12.3	44.4	51.1	6.7	
0.47	46.4	56.510.1	35.6	46.5	10.9	
0.78	46.1	56.09.9	<10.1	46.0	>35.9	
1.07	46.4	56.09.6	<10.1	46.0	>35.9	
3.05	29.7	56.026.3	-	46.0	-	
5.00	28.2	56.027.8	- 46.	- 0		
7.00	33.3	60.026.7	-	50.0	-	
10.00	35.2	60.024.8	-	50.0	-	
14.00	38.7	60.021.3	-	50.0	-	
17.00	37.8	60.022.2	-	50.0	-	
20.00	24.8	60.035.2	-	50.0	-	

25.00	18.5	60.041.5	-	50.0	-
30.00	19.7	60.040.3	-	50.0	-