PANASONIC HOME APPLIANCE COMPANY of AMERICA, MICROWAVE TECHNICAL LABORATORY 1707 N. RANDALL ROAD, E- Zip E2J-16 ELGIN, IL 60123-7847

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## **PHAA**

July 12, 2007

Federal Communications Commission Equipment Authorization Branch 7435 Oakland Mills Road Columbia, MD 21046

## SUBJECT: FILING FOR CERTIFICATION GRANTEE CODE ACL.

We are sending application for models with FCC Identifier ACLAP8S71. These Microwave Ovens are to be approved under the regulations for part 18.

In the submission you will find exhibits for measurements taken in both Radiated and Line Conducted modes. As permitted by FCC rules, these measurements were taken by a registered lab. The lab has submitted documents which are on file with the FCC. For a quick reference to all of the exhibits submitted, please reference the Application Index and Summary after this cover letter page.

If there are any questions pertaining to this application, please contact me.

Sincerely,

George Vazquez Engineer, Codes & Safety

Cc: S. Yamashita

# FCC ID: ACLAP8S71 APPLICATION INDEX AND SUMMARY

## **APPLICATION FOR CERTIFICATION**

Model No.	Brand Name	FCC ID.
NN-CS597S	Panasonic	ACLAP8S71

## **LIST OF EXHIBITS**

**EXHIBIT A: PHOTOGRAPHS OF EQUIPTMENT** 

External Photos: Reference EXHIBIT A Internal Photos: Reference EXHIBIT A

**EXHIBIT B: TEST SETUP PHOTOS** 

EXHIBIT C: TECHNICAL REPORT

EXHIBIT D: SCHEMATIC DIAGRAM

EXHIBIT E: USERS MANUAL

EXHIBIT F: SAMPLE/LOCATION of FCC ID. LABEL

EXHIBIT G: TEST REPORT SUMMARY

Radiated Emissions Line Conductance

EXHIBIT H: TEST REPORT

## FCC ID: ACLAP8S71 EXHIBIT A

## PHOTOGRAPHS OF EQUIPMENT

External Photos: Reference EXHIBIT A Internal Photos: Reference EXHIBIT A

#### **EXHIBIT C**

#### **TECHNICAL REPORT**

#### 1. DESCRIPTION OF MEASUREMENT FACILITY:

The description of the measurement facility is already on file with the FCC laboratory. Please refer to the commission's registration number 382179.

#### 2. USERS MANUAL

Reference: EXHIBIT E

#### 3. APPLICANT:

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

#### 4. MANUFACTURER:

Panasonic Home Appliances Microwave Oven Shanghai Co. LTD., (PHAMOS) 898 Long Dong Road Pu Dong, Snanghai 201203 China

#### 5. MEASUREMENT SITE:

FCC Registration Number 382179
Bay Area Compliance Laboratory Corp.
6/F, the 3<sup>rd</sup> Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China 518038

#### 6. EQUIPMENT SPECIFICATIONS:

Electrical Power Requirement: 120Vac, 60Hz, 12.0A

Nominal Operating Frequency: 2450 MHz

Maximum RF Energy Generated: 1000 W (IEC 705)

Magnetron Type: 2M261-M32

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

Stirrer: Bottom Feed Stirrer

Cabinet Dimensions: (W) 523 x (H) 320 x (D) 497(mm)

Oven Cavity Dimensions: (W) 354 x (H) 205 x (D) 343 (mm)

Door Viewing Area Dimensions: (W) 298 x (H) 147 (mm)

Door Seal Type: Slit Choke seal and capacitive seal method

FCC ID: ACLAP8S71 EXHIBIT G

## **TEST REPORT SUMMARY: Radiated Emissions**

1. MODEL NUMBER: NN-CS597S

SERIAL NUMBER: 0704119

MAGNETRON TYPE NO.: 2M261-M32

2. MEASUREMENT DATE:

From: 5/09/2007 to end of testing: 5/16/2007

3. TEST REPORT: Reference EXHIBIT H

4. TEST SETUP PHOTOS: Reference EXHIBIT B

4. INVESTIGATED FREQUENCY RANGE: 30 MHz to 24.5 GHz

5. TEST DATA SUMMARY: Selected Peak Readings

Safety Check (Radiation Hazard Measurement) :< 0.71 mW/cm<sup>2</sup> @ 5cm.

Radiated Field Streng	gth	Corrected Amplitude dBµV/m	Limit (dBµV/m)	Margin (dB)
Fundamental	2450 MHz	126.01	N/A	N/A
Emission Sideband	2400 MHz	68.59	70.7	2.11
Emission Sideband	2500 MHz	67.86	" "	2.84
2 <sup>nd</sup> Harmonic	4900 MHz	47.48	" "	23.22
3 <sup>rd</sup> Harmonic	7350 MHz	49.50	" "	21.20
4 <sup>th</sup> Harmonic	9800 MHz	49.72	" "	20.98
5 <sup>th</sup> Harmonic	12250 MHz	52.77	" "	17.93
Spurious	1215 MHz	29.75	" "	40.95
Spurious	4188 MHz	37.46	" "	33.24
Spurious	4353 MHz	37.05	" "	33.65

Note: The emission level of 6<sup>th</sup> harmonic to 10<sup>th</sup> harmonic 20db lower than limit.

Maximum Frequency Variation: <u>2433.4 to 2441.6 MHz</u>

(96V ~ 150V/ 1000 ml water load)

Maximum Frequency Variation: 2440.4 to 2485.6 MHz

(1000 ml - 200 ml water load)

Total Power Input to Oven: 1624.8 watts

Power Developed in Dummy Load: 934.5 watts

Supply Voltage: 120 Volts, 60Hz, 13.54A

FCC ID: ACLAP8S71

**EXHIBIT G** 

**TEST REPORT Summary: Line Conductance** 

1. MODEL NUMBER: NN-CS597S

SERIAL NUMBER: 0704119

MAGNETRON TYPE NO.: 2M261-M32

2. MEASUREMENT DATE:

From: 5/09/2007 to end of testing: 5/16/2007

3. TEST REPORT: Reference EXHIBIT H

4. TEST SETUP PHOTOS: Reference EXHIBIT B

4. INVESTIGATED FREQUENCY RANGE: 150 kHz to 30 MHz

5. TEST DATA SUMMARY: Selected Peak Readings

## **Power Line Live Side**

Frequency MHz	QP Amplitude dBμV	QP Limit dBµV	QP Margin dB
		<u> </u>	
0.170	57.00	64.96	7.96
0.230	55.80	62.45	6.65
0.820	49.30	56.00	6.70
0.960	49.20	56.00	6.80
11.840	40.00	60.00	20.00
17.390	39.30	60.00	20.70
Frequency	AV Amplitude	AV Limit	AV Margin
Frequency MHz	AV Amplitude dΒμV	AV Limit dΒμV	AV Margin dB
			_
MHz	dΒμV	dΒμV	dB
MHz 0.170	dBμV 43.60	dBμV 54.96	dB 11.36
MHz 0.170 0.230	dBμV 43.60 44.30	dBμV 54.96 52.45	dB 11.36 8.15
MHz 0.170 0.230 0.820	dBμV 43.60 44.30 36.70	dBμV 54.96 52.45 46.00	dB 11.36 8.15 9.30

FCC ID: ACLAP8S71 EXHIBIT G

## **Power Line Neutral Side**

Frequency	QP Amplitude	QP Limit	QP Margin
MHz	dΒμV	dΒμV	dB
0.220	57.50	62.80	5.32
0.300	53.60	60.24	6.64
0.620	49.80	56.00	6.20
0.930	50.10	56.00	5.90
1.000	48.40	56.00	7.60
17.660	43.70	60.00	16.30
Frequency	AV Amplitude	AV Limit	AV Margin
Frequency MHz	AV Amplitude dBμV	AV Limit dΒμV	AV Margin dB
	-		
MHz	dBμV	dΒμV	dB
MHz 0.220	dBμV 45.50	dBμV 52.82	dB 7.32
0.220 0.300	dBμV 45.50 41.20	dBμV 52.82 50.24	dB 7.32 9.04
MHz 0.220 0.300 0.620	dBμV 45.50 41.20 38.20	dBμV 52.82 50.24 46.00	dB 7.32 9.04 7.80