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NATIONAL GEYER OF MEASUREMENT AND TEST FOR EAST CHINA
SHANGHAI INSTITUTE OF MEASUREMENT AND TESTING TECHNOLOGY

ACLAP6Z01
EXHIBIT 1-1B

(New Submission)
(Alternate Construction)

检测报告编号 200610-3-A02010
Report number No.

TEST REPORT

华东国家计量测试中心 上海市计量测试技术研究院

检测报告

委托者 Panasonic Home Appliances Microwave Oven (Shanghai) Co., Ltd.
Customer

委托者地址 No. 898, Long Dong Road, Pu Dong Shanghai
Address of customer

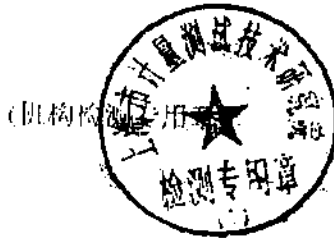
样品名称 Microwave Oven
Name of sample

制造厂 Panasonic Home Appliances Microwave Oven (Shanghai) Co., Ltd.
Manufacturer

型号/规格 NN-H275BF
Model/Specification

样品编号 PP-001
No. of sample

FCC Registration Number 142171



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检 测 员 刘雁
Tested by

检测日期 2006 年 02 月 09 日
Date for test Year Month Day

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FAX NO. :

FROM :

(Alternate Construction)

国家法定计量检定机构计量授权证书号(中心院): (国)法计(2002)01039号/(2002)01019号
The number of the Certificate of Metrological Authorization to The Legal Metrological Verification Institution is No. (2002) 01039 / No. (2002) 01019

中国实验室国家认可委员会(CNAL)实验室认可证书号: No.L0134
The number of the certificate accredited by CNAL is No.L0134

本次检测所依据的技术规范(代号、名称):

Reference documents for the test (code, name)

CISPR 11: 2004 Industrial, scientific and medical (ISM) radio-frequency equipment -
Electromagnetic disturbance characteristics - Limits and methods of
measurement

Refer to: FCC Part 18: 2004 Industrial, Scientific, and Medical Equipment

FCC/OST MP-5: 1996

本次检测所使用的主要测量仪器:

Main measuring instruments used in this test

Refer to Attachment 1

以上测量仪器的量值溯源至国家基准。

Quantity values of above measuring instruments used in this test are traced to those of the national primary standards in the P.R. China.

检测地点及环境条件:

Location and environmental condition for the test

地点: Shanghai Institute of Measurement and Testing Technology

Location

温度: 22 ℃; 湿度: 50 %RH; 其它: /

Ambient temperature

Relative humidity

Others

检测结果的说明:

Description of results

Pass

本报告提供的结果仅对本次被检的样品有效。

The data are valid only for the sample(s).

检测数据/结果:

Data/Results of test

1. Description of EUT

Name of sample:	Microwave oven
Model No.:	NN-H275BF
Sample No.:	PP-001
FCC ID No.:	ACLAP6Z01
Operation frequency:	2450MHz
Output rating:	1200W (IEC 705)
Magnetron type:	2M261
Employed mode:	Turntable
Door seal type:	Choke

2. Data summary

Item		Result
Input power measurement		Measured input power: 1608W
RF output power measurement		Measured RF output power: 936.8W
Frequency measurement	Frequency vs Line voltage variation test (96~150V/1500ml water load)	Maximum frequency variation: 2437.6~2480.2MHz
	Frequency vs Load variation test (1500~300ml water load/ 120V)	Maximum frequency variation: 2435.1~2481.7MHz
Radiated emission test		See section 4
Safety check		0.07MW/cm ²

3. Test data and results

3.1 Input power measurement

A beaker of 700ml water was placed in the center of the microwave oven. The microwave oven worked at maximum power.

Input voltage	Input current	Measured input power
120V	13.4A	1608W

3.2 RF output power measurement

A beaker of 1500ml water was placed in the center of the oven. The oven worked at maximum output power for 120 seconds. The temperature of the water before and after this operation was measured and recorded.

Temperature before test= 11.3°C; Temperature after test= 29.2°C

Temp. Rise= Temperature after test- Temperature before test=17.9°C

$$\text{RF output power} = [(4.187 \text{ joules/Cal}) \times (\text{Volume in ml}) \times (\text{Temp. Rise})] / \text{Time in seconds}$$

$$= (4.187 \times 1500 \times 17.9) / 120 = 936.8\text{W}$$

The measured output was found to be above 500W. Therefore, in accordance with section 18.305 of subpart C, the measured out-of-band emissions were compared to the 25xSQRT(power/500)[µV/m] @ 300m limit.

3.3 Frequency measurement

Following the above test, after operating the oven long enough to assure that stable operating temperature were obtained. A beaker of 1500ml water was placed in the center of the oven. The oven worked at maximum power.

3.3.1 Frequency vs Line voltage variation test

The operating frequency was monitored as the input voltage was varied between 80 to 125 percent of the nominal rating. The results of this test are as follows. Line voltage varied from 96Vac to 150Vac.

Maximum frequency variation: 2437.6~2480.2MHz (96~150V/1500ml water load)

3.3.2 Frequency vs Lode variation test

Initial load: 1500ml. Load at completion of test: 300ml.

Maximum frequency variation: 2435.1~2481.7MHz (1500~300ml water load/ 120V)

4. Radiated Emission Test

A beaker of the water load was placed in the center of the oven. The oven worked at maximum power.

The variable test condition	Antenna polarization: vertical & horizontal
	Water load position (in the center of the oven and at the front right corner)
	Turn table azimuth (0°~360°)
	Water load quantity (1050ml & 450ml)

The test results is the maximized value as above test condition:

Test Frequency (MHz)	Meter Reading (dBuV)	Total Loss (dB)	Result @ 300m (dBuV/m)	Antenna Polarization	Limit @ 300m (dBuV/m)	Margin (dB)
37.77	31.21	16.48	7.69	V	30.69	23.00
51.38	29.78	8.25	-1.97	V	30.69	32.66
72.76	27.56	8.87	-3.57	H	30.69	34.26
103.86	27.13	11.14	-1.73	H	30.69	32.42
133.02	32.12	10.75	2.87	V	30.69	27.82
558.73	28.45	20.13	8.58	V	30.69	22.11