
ENGINEERING TEST REPORT

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Report No . CALR-FCC-115

MAR 5, 2000

This is to certify that the MICROWAVE OVEN from which the following data has been derived properly complies with the requirements of " FCC Rules and Regulations Part 18 Subpart C " as of the date the measurements were made.

1. Manufacturer of Device : NISSIN INDUSTRY CO., LTD.

3-2-11 SHIBUKAWA-CHO
HIGASHI OSAKA CITY JAPAN

2. Description of Device

a.	Model No.	:	MW8109WC
b.	Serial No.	:	P1000001
c.	Operating Frequency	:	2450 MHz
d.	Output RF Power	:	1100 W (BY IEC 705)
e.	Power Consumption	:	120 V. 60 Hz
f.	Magnetron Type	:	Matsushita 2M167
g.	Employed Mode	:	Turn Table
h.	Door Seal Type	:	Choke

3. Measurement Procedure Used : FCC/OST MP-5

4. Measurement Site

Name : Panasonic Magnetron Lab.
Panasonic Industrial Company

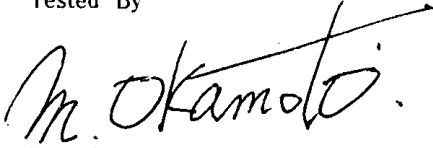
Address : 1707 N. Randall Road
Elgin, Illinois 60123-7847

Description of this test facility has been filed with the FCC. (Feb. 26, 1987,
File # 31010/EQU 4-3-0A)

5. Date of Measurement : Feb 21, 2001

6. Measurement Data : See Attached "Data Summary"

Tested By

A handwritten signature in black ink, appearing to read "M. Okamoto". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

M. Okamoto
Applications Manager of Magnetron
Panasonic Industrial Company

DATA SUMMARY

1. Safety Check : < 0.5 mW/cm2 @ 5cm

2. Radiated Field Strength uV/m @ 300m

	Frequency (MHz)	Field Strength (uV/m)	Permissible (uV/m)
Fundamental	2472	994	-----
2nd Harmonic	4946	1.48	32.75
3rd Harmonic	7402	1.74	32.75
4th Harmonic	9880	1.93	32.75
Spurious	2549	0.46	32.75
Emission Side Band	2400	0.59	32.75
Emission Side Band	2500	0.26	32.75

3. Maximum frequency variation : 2465 MHz - 2473 MHz
(96V ~ 150V / 1500cc Load)

2453 MHz - 2471 MHz
(1500cc ~ 300cc / Load)

4. Total power input to oven : 1700 W

5. Power developed in dummy load : 858W

6. Supply voltage : 120V , 14.45 A

Description of Instrumentation and calculation

(1) Measurement equipment

- a. Field Strength Meter : Electro-Metrics Model EMC-50
Bandwidth Setting : 1 MHz
Detector Function : Linear Average Detection
- b. Receiving Antenna : Electro-Metrics Model RGA-180
Frequency Range : 1 – 18 GHz
- c. Microwave Survey Meter : Narda Model 8110B

(2) Test Condition

- a. Antenna Height Variation : 1.0 – 1.5 m
- b. Distance of Antenna to Test unit : 3.0 m
- c. Test Unit Height : 1.0 m

(3) Calculation Formula

Field Strength at 3 m (dBuV/m)

= Receiver Reading + Antenna Factor + Cable Loss

(dBuV) (dB/m) (dB)

Field Strength at 300m (uV/m)

= K * 10 $\frac{\text{Field Strength at 3 m (dBuV/m)}}{20}$

K : Conversion Factor for 3 m to 300 m

Frequency	Antenna Factor	Cable Loss	Conv. Factor
(MHz)	(dB/m)	(dB)	K
2400	29	0.7	0.0061
Fundamental	29.3	0.7	0.0062
2500	29.5	0.7	0.0063
4900	33.4	0.9	0.01
7350	36.5	1.2	0.01
9800	38.2	1.4	0.01

Example : 2nd Harmonics

Receiver Reading = 20 dB @ 3 m

FIS = 0.01 * 10 $\frac{20 + 33.4 + 0.9}{20}$ = 5.19 (uV/m)

@300 m

Exhibit 1 Test Equipment List

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Name / Model No.	S / No.	Manufacturer	Last Calibrated
Field Strength Meter Model EMC - 50	175	Electro Metrics	2 / 24 / 00
Microwave Survey Meter 8110B	20915	Narda	11 / 24 / 99
Ridged Guide Antenna RGA - 180	2455	Electro Metrics	08 / 20 / 88
Network Analyzer 8410B	1647A00704	Hewlett Packard	06 / 17 / 88
Reflection Unit 8743A	1330A01358	Hewlett Packard	06 / 17 / 88
Sweep Oscillator 8620C	1645A00827	Hewlett Packard	06 / 17 / 88
Frequency Meter 536A	1441A00695	Hewlett Packard	09 / 17 / 88
Power Meter 436A	1629A1172	Hewlett Packard	08 / 05 / 89
Spectrum Analyzer 8555A	1642A06830	Hewlett Packard	08 / 21 / 88

Fig. 1 Physical Description of Test Site

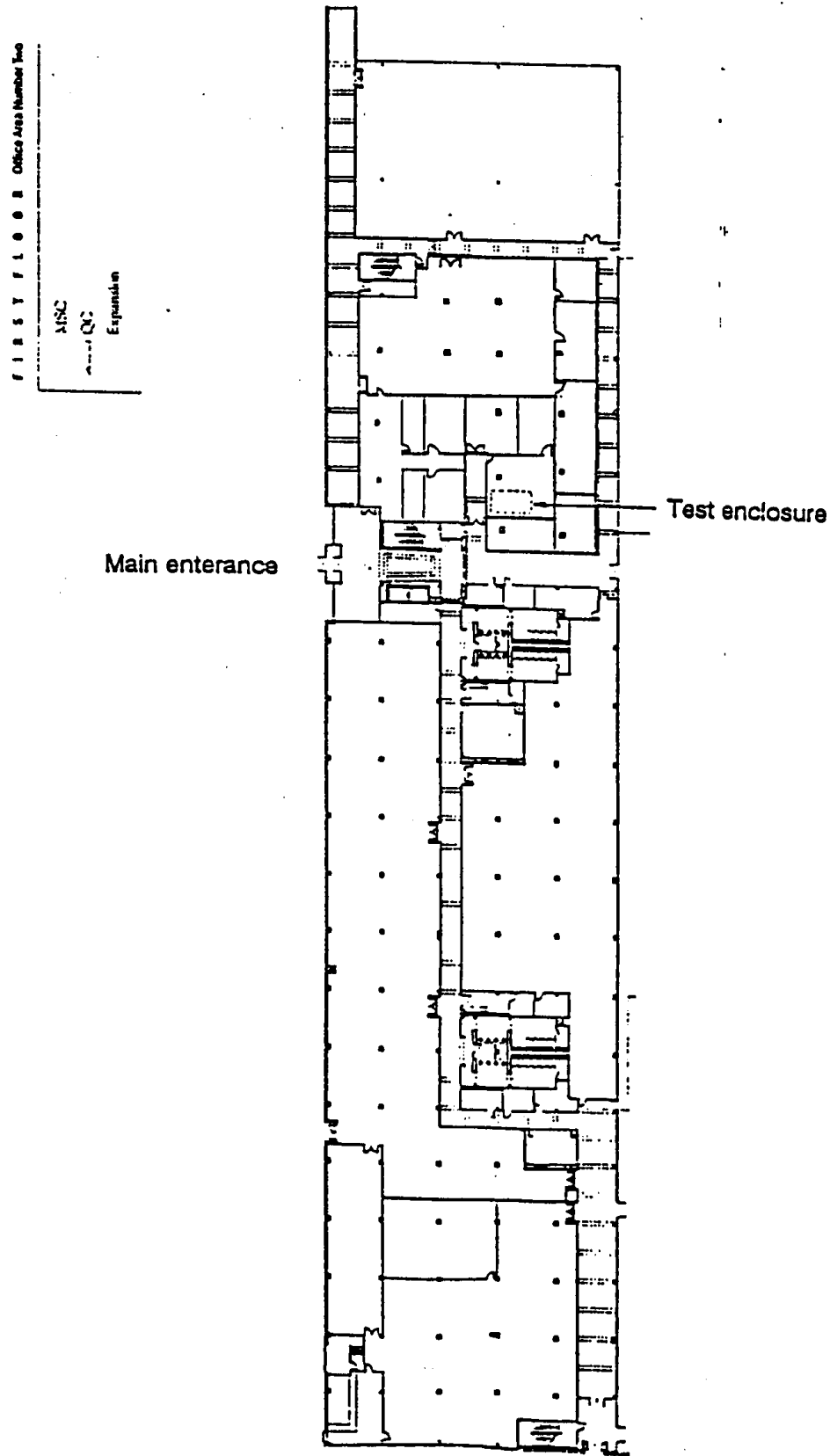


Fig. 2 Physical Dimensions of Test Site (Unit mm)

