

2.0 INTRODUCTION

2.1 Purpose

The purpose of this report is to show compliance of the Commercial Microwave Oven/Model NE-2180 to the requirement of Part 18 of the FCC Rules and Regulations (47 CFR, PART 18, Subpart C).

2.2 Requirement

The test requirements are as follows.

Radiation hazard test

Safety Check for Radiation Hazard.

Radiation leakage should be measured in accordance with the current Bureau of Radiological Health standard.

Applicable limit for this product is 0.5 mW/cm².

Field strength limits (FCC Part15, 18.305)

Operating frequency	RF Power generated by equipment (Watt)	Field Strength limit ($\mu\text{V}/\text{m}$) at 300m Detector Function: Average
Any non-ISM frequency	500 or more	$15 \times \sqrt{(\text{Output_RF_Power})/500}$ $= 15 \times \sqrt{2387/500}$ $= 32.77$

Power output measurement for micro wave oven (OST MP-5, Sec. 4.3)

The power output is measured by the calorimetric method, using the load specified in Section 4.1(MP-5), computing the power output from the observed temperature rise of the load over a period of time.

The measured value of power output is used to determine the allowable out-of-band field strength under the terms specified in Section 18.305 of the Rules.

The AC power input to the oven is also measured to determine if the oven is operating in accordance with the manufacture's specifications.

Frequency measurements (OST MP-5, Sec. 4.5)

Measurements are made of:

- (a) The variation of frequency with time, using the load specified in Section 4.1 (OST MP-5), starting with the EUT and load at room temperature and continuing until the load quantity has been reduced by evaporation to approximately 20% of the original quantity.
This test is made with nominal rated AC supply voltage.
- (b) The variation of frequency for line voltage variation from 80% to 125% of nominal rated voltage, starting with the EUT warm from at least 10 minutes use, with a load as specified in Section 4.1 (OST MP-5), and with this load at room temperature at the beginning of the test.

2.3 Short Description of the EUT

This microwave oven uses 4 magnetron tubes.

At the highest power operation all 4 tubes oscillate continuously.

Other power selection the magnetrons oscillate off and on during heating.

- a. Magnetron Type No. : 2M210-M1
- b. Employed Mode : Stirrer
- c. Door Seal Type : Choke

2.4 Equipment Under Test

Operation - mode of the E.U.T.:

The equipment under test was operated during the measurement under following conditions: Maximum Operation Mode (Section 4.1, OST MP-5)

--- Set up: EUT is used on a table, no any special shelf or support.

--- Load : Required quantity, Specified OST MP-5 of tap water with a glass beaker is used as load depend to the out put wattage.

2.5 Environmental Conditions

This test effort was performed July from 12 to 13, 2001.

Temperature :	20-23	℃
Humidity :	72-73	%
Barometer :	99	kPa

3.0 TEST SITE DESCRIPTION

This testing was performed at :

Name of Test Site : Matsushita EMC Center

Address : Yashiro Sasayama-shi
Hyogo 669-2356 Japan

Registration/Accreditation

This test site (Anechoic chamber) has been filed at FCC.

Registration Number : 100715

Date of Listing : April 20, 2001

: Accredited by NVLAP

NVLAP Lab Cord : 100428-0

Effective through : December 31, 2001