

REPORT OF MEASUREMENTS (MICROWAVE OVEN TEST DATA)

FCC ID : AEZM219 MODEL : EM-V3400SW DATE : March 18, 2000
 NOMINAL FREQUENCY : 2.450 M Hz. TESTED BY : IIJAYASHI

M. Hayashi

DESCRIPTION : (Unit Dimension : cm)

Cabinet Dimension : 52.5 by 43.0 by 28.9 Door Dimension : 41.4 by 25.1

Oven Cavity Dimension : 35.1 by 38.9 by 21.3 Door Viewing area : 30.5 by 14.9

Feed Type and Location : Waveguide, located right side Stirrer : Rotating tray

(incl. Rotating tray)

Door seal Type : Choke Seal Magnetron Type : Sanyo, 2M-219H

Others : N/A

TEST EQUIPMENT USED :

1. Antenna (Horn Antenna)

	Frequency Range	Correction Factor
AILTECH 91888-2	1.0 - 2.0 G Hz	21.5 - 22 dB
AILTECH 91889-2	2.0 - 3.6 G Hz	20.5 - 21 dB
AILTECH 94613-1	3.6 - 7.6 G Hz	37 dB
AILTECH 91891-2	7.3 - 10.0 G Hz	39.8 dB

Other Correction Factor

(a) Cable loss

Frequency (M Hz)	Cable loss (dB)
2,400	1.1
2,500	1.1
4,900	1.6
7,350	2.2
9,800	2.7

(b) Loss of Band Rejection Filter

Frequency Range (G Hz)	Filter loss (dB)
2.0 - 3.6	3.0

2. Field Strength Meter

AILTECH NM-67 (SER 0241-03088)

Last calibrated date : December 13, 1999

Setting : Bandwidth ----- 1 MHz

Function ----- Field Intensity (average value detector)

3. When measuring sidebands close to the fundamental, band reject filter Model 6N45-2450/60 (SER FK837-1) was employed.

REPORT OF MEASUREMENT (MICROWAVE OVEN TEST DATA SHEET B)

FCC ID : AEZM219 MODEL : EM-V3400SW DATE : March 18, 2000
 Nominal Frequency : 2,450 MHz TESTED BY : H.HAYASHI

DATA SUMMARY (FCC MEASUREMENT PROCEDURE MP-5)

SAFETY CHECK (at 5 cm) Load : 275 ml/center 0.09 mW/sq.cm
 FUNDAMENTAL Load : 1,000 ml/center 2,450 MHz

CALCULATION : $E<300m> = K \cdot 10^{((A+B+C+D+E)/20)}$ LIMIT = $25 \cdot \sqrt{(power/500)}$: 37.1 $\mu V/m$

* Note : Location of load for the oven provided with the rotating tray is :
 Contiguous with the shelf circumference.

RADIATION FIELD STRENGTH ($\mu V/m$ at 300 m)

	Load (ml)	Location of Load	Emission Frequency (MHz)	Meter Reading (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Filter Loss (dB)	Calcu. Factor (dB)	The Value of K ($E<300m>=K \cdot E<3m>$)	Max Field Strength ($\mu V/m$ at 300m)	Limit ($\mu V/m$ at 300m)
2nd Harmonic	300	Center	4,904	20.0	37.0	1.6	—	5	0.0100	15.1	37.1
2nd Harmonic	300	* Right/Front Corner	4,899	20.0	37.0	1.6	—	5	0.0100	15.1	37.1
2nd Harmonic	700	Center	4,914	18.0	37.0	1.6	—	5	0.0100	12.0	37.1
2nd Harmonic	700	* Right/Front Corner	4,909	14.0	37.0	1.6	—	5	0.0100	7.6	37.1
3rd Harmonic	300	Center	7,358	15.0	39.8	2.2	—	5	0.0100	12.6	37.1
3rd Harmonic	300	* Right/Front Corner	7,362	18.0	39.8	2.2	—	5	0.0100	17.8	37.1
3rd Harmonic	700	Center	7,367	14.0	39.8	2.2	—	5	0.0100	11.2	37.1
3rd Harmonic	700	* Right/Front Corner	7,380	15.0	39.8	2.2	—	5	0.0100	12.6	37.1
4th Harmonic	700	Center	8,610	23.0	39.8	2.7	—	5	0.0100	33.5	37.1
Spurious	700	Center	2,515	30.0	20.8	1.1	3	5	0.0064	6.3	37.1
Emission Sideband 2,400 MHz	700	Center	2,400	17.0	20.8	1.1	3	5	0.0061	1.3	37.1
Emission Sideband 2,500 MHz	700	Center	2,500	16.0	20.8	1.1	3	5	0.0064	1.3	37.1

Maximum Frequency Variation 1,000 ml load

Total Power Input to Oven

Power Development in dummy load (Thermal Method)

Supply Voltage

2,447 to 2,449 MHz

1,480 Watts

1,100 Watts (IEC705 Test Procedure)

AC 120 V 60 Hz

1830 MHz - 2745 MHz

2745 MHz - 3660 MHz

3660 MHz - 4575 MHz

4575 MHz and above

2.6230 * 10⁽⁻³⁾ * frequency : GHz) -0.00022.1858 * 10⁽⁻³⁾ * frequency : GHz) +0.00101.0929 * 10⁽⁻³⁾ * frequency : GHz) +0.0050

0.0100

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 TESTED BY : H. HAYASHI
7d. Hayashi

Note : In order to convert the measured field strength at 3meters to the field at 300 meters, comply with FCC/OST MP-5 Appendix C "4.6.1 Computations to determine compliance". A calculation factor of 5 dB, this figure is fixed by SANYO, is introduced bfor adjusting a tolerance in measurement.
 A calculation factor of 5 dB should be added to "METER READING" as shown in SAMPLE CALCULATION below.

SAMPLE CALUCULATION

(1) 2nd Harmonic with 300 mV/Center load

$$\begin{aligned}\text{Field Strength at 300 m} &= 0.0100 \times 10^{(20.0 + 37 + 1.6 + 5) \div 20} \\ &= 15.1 \text{ uV/m}\end{aligned}$$

(2) Emission sideband 2,400 M Hz., 700 mV/Center load

$$\begin{aligned}\text{Field Strength at 300 m} &= 0.0061 \times 10^{(17.0 + 20.8 + 1.1 + 8 + 5) \div 20} \\ &= 1.3 \text{ uV/m}\end{aligned}$$

REPORT OF MEASUREMENT (MICROWAVE OVEN TEST DATA)

- Measurement of Frequency VS Line Voltage Stability -

FCC ID : AEZM219 Model : EM-V3400SW Date : March 18, 2000Nominal Frequency : 2.450 MHz Tested by : H.HAYASHI*H. Hayashi*

Line Voltage Variation [Volt]	Frequency [GHz]	Deviation for ISM Frequency [MHz]	Limit [MHz]
96 (- 20%)	2.446	-4	± 50
120 (± 0%)	2.447	-3	± 50
150 (+ 25%)	2.447	-3	± 50

[Environment]

Temperature : 20.3 °CHumidity : 56.0 %

[Sample Calculation]

Frequency : 2.446 GHz

Deviation for ISM Frequencies Calculated as follows,

$$\underline{2.4460} - 2.4500 = \underline{-0.0040} \text{ [GHz]} = \underline{-4.0} \text{ [MHz]}$$

[Summary of Test Results]

Above data shows that the test device do / do not complies with the requirements.