

REPORT OF MEASUREMENTS (MICROWAVE OVEN TEST DATA)

FCC ID : AEZM315 MODEL : EM-V5405SWX DATE : March 15, 2000
 NOMINAL FREQUENCY : 2,450 M Hz. TESTED BY : H. HAYASHI
7d. Hayashi

DESCRIPTION : (Unit Dimension : cm)

Cabinet Dimension : 55.0 by 45.6 by 31.7 Door Dimension : 43.9 by 27.9

Oven Cavity Dimension : 37.6 by 42.2 by 24.2 Door Viewing area : 33.1 by 17.9

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)

	<u>Frequency Range</u>	<u>Correction Factor</u>
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

<u>Frequency (M Hz)</u>	<u>Cable loss (dB)</u>
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

<u>Frequency Range (G Hz)</u>	<u>Filter loss (dB)</u>
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)

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 Nominal Frequency : 2,450 MHz TESTED BY : H.HAYASHI

DATA SUMMERY (FCC MEASUREMENT PROCEDURE MP-5)

SAFETY CHECK (at 5 cm) Load : 275 ml/center
 FUNDAMENTAL Load : 1,000 ml/center

0.18 mW/sq.cm
2,450 MHz

LIMIT = $25 \times \sqrt{\text{power}/500}$: 38.7 $\mu\text{V}/\text{m}$

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

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

	Load (ml)	Location of Load	Emission Frequency (MHz)	Meter Reading (μBuV)	Antenna Factor (dB)	Cable Loss (dB)	Filter Loss (dB)	Calcu. Factor (dB)	The Value of K ($E < 300\text{m} > = K * E < 3\text{m} >$)	Max. Field Strength ($\mu\text{V}/\text{m}$ at 300m)	Limit ($\mu\text{V}/\text{m}$ at 300m)
2nd Harmonic	300	Center	4,056	10.0	37.0	1.6	—	5	0.0094	4.5	38.7
2nd Harmonic	300	* Right/Front Corner	4,242	10.0	37.0	1.6	—	5	0.0096	4.6	38.7
2nd Harmonic	700	Center	4,248	12.0	37.0	1.6	—	5	0.0096	5.8	38.7
2nd Harmonic	700	* Right/Front Corner	4,080	9.0	37.0	1.6	—	5	0.0095	4.0	38.7
3rd Harmonic	300	Center	7,358	24.0	39.8	2.2	—	5	0.0100	35.5	38.7
3rd Harmonic	300	* Right/Front Corner	7,377	22.0	39.8	2.2	—	5	0.0100	28.2	38.7
3rd Harmonic	700	Center	7,398	18.0	39.8	2.2	—	5	0.0100	17.8	38.7
3rd Harmonic	700	* Right/Front Corner	7,383	18.0	39.8	2.2	—	5	0.0100	17.8	38.7
4th Harmonic	700	Center	9,852	12.0	39.8	2.7	—	5	0.0100	9.4	38.7
Spurious	700	Center	2,520	33.0	20.8	1.1	3	5	0.0064	9.0	38.7
Emission Sideband 2,400 MHz	700	Center	2,400	20.0	20.8	1.1	3	5	0.0061	1.9	38.7
Emission Sideband 2,500 MHz	700	Center	2,500	20.0	20.8	1.1	3	5	0.0064	2.0	38.7

Maximum Frequency Variation 1,000 ml load
 Total Power Input to Oven 1,650 Watts
 Power Development in dummy load (Thermal Method) 1,200 Watts (IEC705 Test Procedure)
 Supply Voltage AC 120 V 60 Hz

1830 MHz - 2745 MHz 2,6230 * $10^{(-3)}$ * frequency : GHz) -0.0002
 2745 MHz - 3660 MHz 2,1858 * $10^{(-3)}$ * frequency : GHz) +0.0010
 3660 MHz - 4575 MHz 1,0929 * $10^{(-3)}$ * frequency : GHz) +0.0050
 4575 MHz and above 0.0100

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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 mI/Center load

$$\begin{aligned}\text{Field Strength at 300 m} &= 0.0094 \times 10^{(10.0 + 37 + 1.6 + 5) : 20} \\ &= 4.5 \text{ uV/m}\end{aligned}$$

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

$$\begin{aligned}\text{Field Strength at 300 m} &= 0.0061 \times 10^{(20.0 + 20.8 + 1.1 + 3 + 5) : 20} \\ &= 1.9 \text{ uV/m}\end{aligned}$$

REPORT OF MEASUREMENT (MICROWAVE OVEN TEST DATA)

- Measurement of Frequency VS Line Voltage Stability -

FCC ID : AEZM315 Model : EM-V5405SWX Date : March 15, 2000Nominal Frequency : 2.450 MHzTested by : H.HAYASHI7d.74ayashi

Line Voltage Variation [Volt]	Frequency [GHz]	Deviation for ISM Frequency [MHz]	Limit [MHz]
96 (- 20%)	2.463	+13	± 50
120 (± 0%)	2.465	+15	± 50
150 (+ 25%)	2.464	+14	± 50

[Environment]

Temperature : 21.2 °CHumidity : 57.0 %

[Sample Calculation]

Frequency : 2.465 GHz

Deviation for ISM Frequencies Calculated as follows,

$$\underline{2.4650} - 2.4500 = \underline{+0.0150} \text{ [GHz]} = \underline{+15.0} \text{ [MHz]}$$

[Summary of Test Results]

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