

REPORT OF MEASUREMENTS (MICROWAVE OVEN TEST DATA)

FCC ID : AEZM315 MODEL : EM-V5405SWX DATE : March 15, 2000NOMINAL FREQUENCY : 2.450 M Hz. TESTED BY : ILIJAYASHIId. Jayarlin

DESCRIPTION : (Unit Dimension : cm)

Cabinet Dimension : 55.0 by 45.6 by 31.7Door Dimension : 43.9 by 27.9Oven Cavity Dimension : 37.6 by 42.2 by 24.2Door Viewing area : 33.1 by 17.9Feed Type and Location : Waveguide, located right sideStirrer : Rotating tray

(incl. Rotating tray)

Door seal Type : Choke SealMagnetron Type : Sanyo, 2M-219IIOthers : 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 : AEZM315 MODEL : EM-V5405SWX DATE : March 15, 2000
 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 0.18 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 = $25 \cdot \sqrt{(power/500)}$: 38.7 $\mu V/m$

* 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	4,056	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 loadTotal Power Input to Oven : 2,462 to 2,465 M.Hz.1,650 WattsPower Development in dummy load (Thermal Method) : 1,200 Watts (IEC705 Test Procedure)AC 120 V 60 HzSupply Voltage : 4575 MHz and above1830 MHz - 2745 MHz : $2.6230 \cdot 10^{(-3)}$ * frequency : GHz) -0.00022745 MHz - 3660 MHz : $2.1858 \cdot 10^{(-3)}$ * frequency : GHz) -0.00103660 MHz - 4575 MHz : $1.0929 \cdot 10^{(-3)}$ * frequency : GHz) +0.0050

0.0100

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 TESTED BY : IL HAYASHI
Id. 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 m/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 m/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.HAYASHIrd. Hayashi

Line Voltage Variation [Volt]	Frequency [GHz]	Deviation for ISM Frequency [MHz]	Limit [MHz]
96 (- 20%)	2.463	+13	± 50
120 ($\pm 0\%$)	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 not complies with the requirements.