

REPORT OF MEASUREMENTS (MICROWAVE OVEN TEST DATA)

FCC ID : AEZM511 MODEL : EM-K8815 DATE : October 05, 2000
 NOMINAL FREQUENCY : 2.450 M Hz. TESTED BY : IIHAYASHI
A. Hayashi

DESCRIPTION : (Unit Dimension : cm)

Cabinet Dimension : 59.5 by 46.0 by 36.2 Door Dimension : 48.7 by 32.5
 Oven Cavity Dimension : 43.4 by 42.5 by 30.2 Door Viewing area : 38.1 by 21.3
 Feed Type and Location : Waveguide, located right side Stirrer : Rotating tray
 (incl. Rotating tray)
 Door seal Type : Choke Seal Magnetron Type : Toshiba 2M248H
 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)

FCC ID : AEZM511 MODEL : EM-K8815 DATE : October 05, 2000
 Nominal Frequency : 2,450 MHz TESTED BY : HIHAYASHI

DATA SUMMARY (FCC MEASUREMENT PROCEDURE MP-5)

SAFETY CHECK (at 5 cm) Load : 275 ml/center 0.04 mW/sq.cm
 FUNDAMENTAL Load : 1,000 ml/center 2,450 MHz

7d, Hayashi
 CALCULATION : $E(300m) = K * 10^{((A+B+C+D+E)/20)}$

LIMIT = $25 * \sqrt{(power/500)}$: 38.7 uV/m

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

RADIATION FIELD STRENGTH (uV/m at 300 m)

	Load	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 ($E(300m) = K * E(3m)$)	Max. Field Strength (uV/m at 300m)	Limit (uV/m at 300m)
2nd Harmonic	300	Center	4,917	17.0	37.0	1.6	—	5	0.0100	10.7	38.7
2nd Harmonic	300	* Right/Front Corner	4,913	20.0	37.0	1.6	—	5	0.0100	15.1	38.7
2nd Harmonic	700	Center	4,929	20.0	37.0	1.6	—	5	0.0100	15.1	38.7
2nd Harmonic	700	* Right/Front Corner	4,926	12.0	37.0	1.6	—	5	0.0100	6.0	38.7
3rd Harmonic	300	Center	6,855	15.0	39.8	2.2	—	5	0.0100	12.6	38.7
3rd Harmonic	300	* Right/Front Corner	6,855	15.0	39.8	2.2	—	5	0.0100	12.6	38.7
3rd Harmonic	700	Center	6,864	14.0	39.8	2.2	—	5	0.0100	11.2	38.7
3rd Harmonic	700	* Right/Front Corner	8,226	13.0	39.8	2.2	—	5	0.0100	10.0	38.7
4th Harmonic	700	Center	9,877	14.0	39.8	2.7	—	5	0.0100	11.9	38.7
Spurious	700	Center	2,379	35.0	20.8	1.1	3	5	0.0060	10.6	38.7
Emission Sideband 2,400 MHz	700	Center	2,400	23.0	20.8	1.1	3	5	0.0061	2.7	38.7
Emission Sideband 2,500 MHz	700	Center	2,500	17.0	20.8	1.1	3	5	0.0064	1.4	38.7

Maximum Frequency Variation 1,000 ml load 2,454 to 2,455 MHz
 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 3 meters 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 before adjusting a tolerance in measurement.

A calculation factor of 5 dB should be added to "METER READING" as shown in SAMPLE CALCULATION below.

SAMPLE CALCULATION

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

$$\begin{aligned}\text{Field Strength at 300 m} &= 0.0100 \times 10^{(17.0 + 37 + 1.6 + 5) : 20} \\ &= 10.7 \text{ uV/m}\end{aligned}$$

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

$$\begin{aligned}\text{Field Strength at 300 m} &= 0.0061 \times 10^{(23.0 + 20.8 + 1.1 + 3 + 5) : 20} \\ &= 2.7 \text{ uV/m}\end{aligned}$$

REPORT OF MEASUREMENT (MICROWAVE OVEN TEST DATA)

- Measurement of Frequency VS Line Voltage Stability -

FCC ID : AEZM511 Model : EM-K8815 Date : October 5, 2000Nominal Frequency : 2.450 MHzTested by : H.HAYASHI*H. Hayashi*

Line Voltage Variation [Volt]	Frequency [GHz]	Deviation for ISM Frequency [MHz]	Limit [MHz]
96 (- 20%)	2.455	+5	± 50
120 (± 0%)	2.455	+5	± 50
150 (+ 25%)	2.456	+6	± 50

[Environment]

Temperature : 23.0 °CHumidity : 59.0 %

[Sample Calculation]

Frequency : 2.456 GHz

Deviation for ISM Frequencies Calculated as follows,

$$\underline{2.456} - 2.450 = \underline{+0.006} \text{ [GHz]} = \underline{+6} \text{ [MHz]}$$

[Summary of Test Results]

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