

TOSHIBA

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Mr. R. Kanemitsu
Manager
Overseas Department
Nissin Industry Co., Ltd.
3-2-11, Shibukawa-cho,
Higashi Osaka City
Japan

February 5, 1999
(Ref. No. : 99-031)

RE : Electromagnetic radiation from Nisshin microwave oven model MO-105ZZ
with Toshiba magnetron 2M240H(IF).5

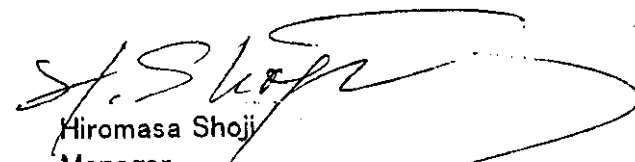
Dear Mr. Kanemitsu

We are enclosing herewith the above mentioned test results based on FCC measuring method in our measuring facility of FCC file number 430A.

We confirmed test results are satisfied with FCC limit.

Please feel free to contact us, if you have any question or request.

Sincerely yours,


Hiromasa Shoji
Manager
Magnetron Application Engineering
Magnetron Engineering Department

SJ/SG/oh

cc : Mr. Nakazawa TOSHIBA.HOKUTO.OSAKA
Mr. Ikegami TOSHIBA HOKUTO TOKYO

FCC ID: JH4105ZZ
NISSHIN IND. CO., LTD. (USA)
645 Dauphine Ct., Suite D
Elk Grove, IL 60007

EXHIBIT "B"
2-8-99

ELECTROMAGNETIC RADIATION TEST OF MICROWAVE OVEN

The following measurements were conducted in Toshiba Hokuto Electronics Corporation measurement facility of FCC file number 430A.

Date : 1999-2-5
Oven : MO-015ZZ
Tube : 2M240H(IF),5
Line : 120V/60Hz

1. Output power (Load : 1000ml water (center))

Input power : 1770W
Output power : 1055W
* Permissible FIS = $36.3 \mu\text{V/m}$ at 300m
(FIS : Field Intensity Strength)

2. Power Leak (Load : 275ml water (center))

Po leak : 0.2 mW/cm^2

3. FIS measurements

Measurement equipment (Refer Page-4)

Interference analyzer : EMC-60 MK-IV (Bandwidth : 5MHz)
Antenna : CA-S, CA-M and CA-X

3-1 Side band radiation (Load : 700ml water (center))

Frequency (MHz)	FIS ($\mu\text{V/m}$) at 300m
2,386	5.5
2,501	0.9

3-2 Harmonics radiation

Harmonics	Load	FIS ($\mu\text{V/m}$) at 300m	Frequency (MHz)
2nd	300ml center	15.5	4,930
3rd	700ml center	15.7	7,333
4th	700ml center	18.1	9,812

Note : 2nd and 3rd Harmonics : The maximum value with the load condition such as 300ml or 700ml water in the center or side position

4. Frequency measurements

Measurement equipment (Refer Page-4)

Interference analyzer : EMC-60 MK-IV (Bandwidth : 5MHz)

Antenna : CA-S, CA-M and CA-X

4-1 The variation of frequency for load variation (Load : 1000ml water center)

Volume of water (ml)	Frequency (MHz)
1000	2,451
800	2,447
600	2,446
400	2,447
200	2,452

4-2 The variation of frequency for line voltage variation (Load : 1000ml water center)

Line voltage (V)	Frequency (MHz)
96	2,459
108	2,459
120	2,460
132	2,458
150	2,456

5. Frequency sweeping

Measurement equipment (Refer Page-4)

Spectrum analyzer : HP8562A

Antenna : CA-S, CA-M and CA-X

None of higher FIS value than those shown in the above table existed in the following frequency band.

Frequency (MHz)	Load condition
2000 - 2400	700ml center
2500 - 4000	
4000 - 8000	300ml or 700ml water in the center or side position
8000 - 10000	700ml center

No.	Equipment Name	Model Name & Manufacturer	Specification	Last Calibration Date	Calibration Frequency
1	Interference Analyzer	EMC-60 MK-IV SER : 44116 ELECTRO-METRICS	0.5 to 18 GHz	March 1998	
2	Antenna	(1) CA-S SER : 22-1 POLARAD	2.1 to 4.34 GHz		
		(2) CA-M SER : 20-15 POLARAD	4.19 to 7.74 GHz		
		(3) CA-X SER : 20-10 POLARAD	7.36 to 10 GHz		
3	Signal Generator	8671B SER : 2545A00106 HEWLETT PACKARD	2.0 to 18 GHz	March 1998	
4	Frequency Counter	85340A SER : 134A01280 HEWLETT PACKARD		March 1998	Annually
5	Power Meter	435A SER : 1312J00144 HEWLETT PACKARD	0 to 1 mW	March 1998	Annually
6	Power Sensor	8481A SER : 1234A871 HEWLETT PACKARD		March 1998	
7	Spectrum Analyzer	8562A SER : 2923A03932 HEWLETT PACKARD	1 kHz to 22 GHz	March 1998	