

APPLICATION FOR CERTIFICATION

On Behalf of

Tsann Kuen Enterprise Co., Ltd.

Microwave Oven

Model : TSK-M1602ME

FCC ID : RBJ-TSKM1602ME

Prepared for : Tsann Kuen Enterprise Co., Ltd.  
3, Kai Fa 2<sup>nd</sup> Road, Pao An Industrial District,  
Ren Teh Hsiang, Tainan, Taiwan

Prepared By : Audix Corporation  
Technical Division EMC Department  
No. 53-11, Tin-Fu Tsun, Lin-Kou,  
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File Number : EM950457  
Report Number : EM-F950126  
Date of Test : Apr. 11 ~ 17, 2006  
Date of Report : Apr. 21, 2006

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# TEST REPORT CERTIFICATION

Applicant : Tsann Kuen Enterprise Co., Ltd.  
 Manufacturer : Tsann Kuen (Zhangzhou) Enterprise Co., Ltd.  
 EUT Description : Microwave Oven  
 FCC ID : RBJ-TSKM1602ME  
           (A) MODEL NO. : TSK-M1602ME  
           (B) SERIAL NO. : N/A  
           (C) POWER SUPPLY : AC 120V, 60Hz

Measurement Procedure Used:

FCC RULES AND REGULATIONS PART 18 SUBPART C, OCT 2005  
AND FCC/OST MP-5 FEBRUARY 1986

The device described above was tested by Audix Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 18 subpart C limits both radiated and conducted emissions.

The measurement results are contained in this test report and Audix Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Corporation.

Date of Test : Apr. 11 ~ 17, 2006

Prepared by : Nita Lee Apr. 25, 2006  
(Nita Lee/Assistant Administrator)

Test Engineer : Ben Cheng May. 2, 2006  
(Ben Cheng/Section Manager)

Approved & Authorized Signer : Leon Liu May. 2 2006  
(Leon Liu/Senior Manager)

# 1. GENERAL INFORMATION

## 1.1. Description of Device (EUT)

Description	:	Microwave Oven
Model Number	:	TSK-M1602ME
FCC ID	:	RBJ-TSKM1602ME
Applicant	:	Tsann Kuen Enterprise Co., Ltd. 3, Kai Fa 2 <sup>nd</sup> Road, Pao An Industrial District, Ren Teh Hsiang, Tainan, Taiwan
Manufacturer	:	Tsann Kuen (Zhangzhou) Enterprise Co., Ltd. Tsann Kuen Industrial Park, Longchi Development District, Zhangzhou, Fujian, 363000, P.R. China
Magnetron	:	Witol, Type No. 2M315H
H.V. Transformer	:	YLEC, Type No. YL-R601ACK
Fan Motor	:	Heng Cheng, Type YJF62A-120(CK04)
Frequency	:	2450MHz
Power Supply	:	AC 120V, 60Hz
Rated Current	:	10A
Microwave Output	:	600W
Rated Power Consumption	:	950W
Power Cord	:	Non-Shielded, Undetachable, 1.1m (3-Pin)
Date of Receipt of Sample	:	Apr. 04, 2006
Date of Test	:	Apr. 11 ~ 17, 2006

## 1.2. Description of Test Facility

Name of Firm : **Audix Corporation**  
**Technical Division EMC Department**  
 No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,  
 Taipei County, Taiwan, R.O.C.

Test Site : **No. 2 Shielded Room**  
 (C2/AC) No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,  
 Taipei County, Taiwan, R.O.C.

**Semi-Anechoic Chamber**  
 Federal Communication Commission  
 Registration Number: 90993  
 Filing on May 16, 2003  
 No. 53-11, Tin-Fu Tsun, Lin-Kou,  
 Taipei County, Taiwan, R.O.C.

NVLAP Lab. Code : 200077-0  
 (NVLAP is a NATA accredited body under Mutual Recognition Agreement)

DAR-Registration No. : DAT-P-145/03-01

## 1.3. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conduction Test	150kHz~30MHz	±1.73dB
Radiation Test (Distance: 3m)	30MHz~300MHz	±2.91dB
	300MHz~1000MHz	±2.94dB

Remark : Uncertainty =  $k_{uc}(y)$

## 2. INPUT POWER MEASUREMENT

### 2.1. Test Equipment

The following test equipment was used during the input power measurement :

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Universal Power Analyzer	Voltech	PM3000A	AL109/9072	May 13, 05'	May 12, 06'

### 2.2. Test Setup

#### 2.2.1. Block Diagram of connection between EUT and simulators

**MICROWAVE OVEN (EUT)**

#### 2.2.2. Block Diagram of connection between EUT and test equipment



### 2.3. Operating Condition of EUT and Measurement Procedure

The input power was measured using a universal power analyzer. 700 milliliters of water in the beaker was placed in the center of the Microwave Oven (EUT). The Microwave Oven (EUT) was operated at the rated input and full output power for 6 minutes.

### 2.4. Measurement Results

EUT : Microwave Oven

M/N : TSK-M1602ME

Test Date : Apr. 17, 2006    Temperature : 24°C    Humidity : 49%

Load : 700ml

Measured Input			Manufacturer's Input	
Voltage (Vac)	Current (A)	Input Power (W)	Current (A)	Input Power (W)
120	9.17	996	10A	1200W

### 3. OUTPUT POWER MEASUREMENT

#### 3.1. Test Equipment

None.

#### 3.2. Test Setup

**MICROWAVE OVEN (EUT)**

#### 3.3. Operating Condition of EUT and Measurement Procedure

The Calorimetric Method was used to determine maximum output power. 1000 milliliters of water in the beaker was placed in the center of the Microwave Oven (EUT). A mercury thermometer was used to measure temperature rise.

#### 3.4. Measurement Results

EUT : Microwave Oven

M/N : TSK-M1602ME

Test Date : Apr. 17, 2006    Temperature : 24°C    Humidity : 49%

Load : 1000ml

Manufacture's Output : 600W

Load	Initial Water Temperature °C	Final Water Temperature °C	Heating Duration (Sec.)
1000ml	26 °C	39 °C	120

$$\text{Power [W]} = \frac{4.2 \text{ (Joules/Cal)} \times \text{Volume in ml} \times \text{Temperature Rise}}{\text{Time in Seconds}}$$

$$\text{Power [W]} = \frac{4.2 \times 1000 \times 13}{120} = 455\text{W}$$

## 4. OUTPUT FREQUENCY MEASUREMENT

### 4.1. Test Equipment

The following test equipment was used during the input power measurement :

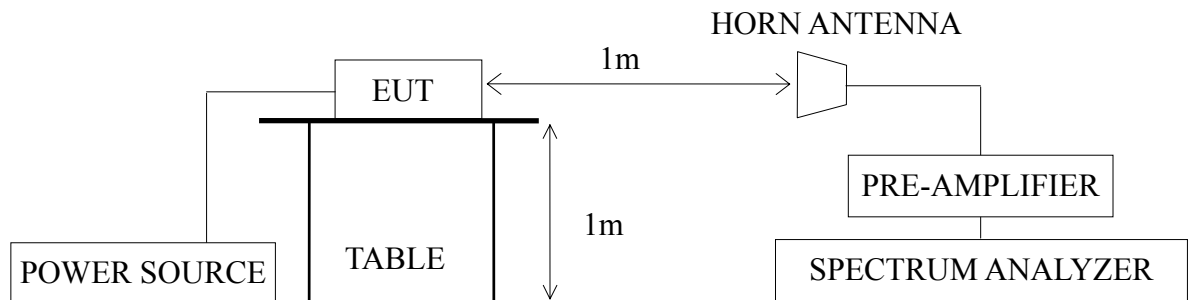
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 26, 05'	Sep. 25, 06'
2.	Horn Antenna	EMCO	3115	9112-3775	May 04, 05'	May 03, 06'
3.	Pre-Amplifier	HP	8449B	3008A01284	Jul. 05, 05'	Jul. 04, 06'

### 4.2. Test Setup

#### 4.2.1. Block Diagram of connection between EUT and simulators



#### 4.2.2. Block Diagram of connection between EUT and test equipment



### 4.3. Operating Condition of EUT and Measurement Procedure

The fundamental frequency was measured using a spectrum analyzer. The Microwave Oven (EUT) was operated in “Power-High” mode and without load.

### 4.4. Measurement Results

EUT : Microwave Oven

M/N : TSK-M1602ME

Test Date : Apr. 17, 2006    Temperature : 24°C    Humidity : 49%

Load : No Load

Measured Frequency (MHz)	Manufacture's Rated Frequency
2426.9	2450



## 5. FREQUENCY MEASUREMENT

### 5.1. Test Equipment

The following test equipment was used during the input power measurement :

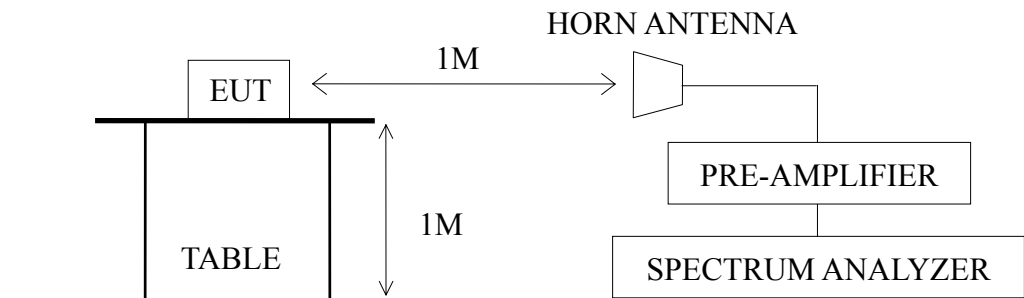
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 26, 05'	Sep. 25, 06'
2.	Horn Antenna	EMCO	3115	9112-3775	May 04, 05'	May 03, 06'
3.	Pre-Amplifier	HP	8447D	2944A06305	Mar. 09, 06'	Mar. 08, 07'

### 5.2. Test Setup

#### 5.2.1. Block Diagram of connection between EUT and simulators



#### 5.2.2. Block Diagram of connection between EUT and test equipment



### 5.3. Operating Condition of EUT and Measurement Procedure

#### 5.3.1. The Variation of frequency with time

The operating frequency was measured using a spectrum analyzer. Starting with the EUT at room temperature, 1000 milliliters of water in the beaker was placed in the center of the Microwave Oven (EUT) and the EUT was operated at maximum output power.

The fundamental operating frequency was monitored until the water load was reduced to 20% of the original load.

#### 5.3.2. The Variation of frequency for line voltage

Following the above test, after operating the oven long enough to assure that stable operating temperature were obtained, the operating frequency was monitored as the input voltage was varied between 80 to 125 percent of the nominal rating.

The water load was maintained at 1000ml for the duration of the test.

## 5.4. Measurement Results

**PASSED.** All the test results are listed in the following and next two pages.

EUT : Microwave Oven

M/N : TSK-M1602ME

Test Date : Apr. 17, 2006    Temperature : 24°C    Humidity : 49%

### 5.4.1. The Variation of frequency with time

Frequency was measured at the rated input voltage (AC 120V).

Initial Load: 1000ml

Final Load: 200ml

Fundamental Frequency: 2426.9MHz

Limit:  $2.4\text{GHz} < f < 2.5\text{GHz}$

Maximum Frequency Observed: 2445.8MHz

Minimum Frequency Observed: 2440.9MHz

Results: **PASSED.**

### 5.4.2. The Variation of frequency for line voltage

Variation of line voltage from 80% (96V) to 125% (150V)

Load: 1000ml

Fundamental Frequency: 2426.9MHz

Limit:  $2.4\text{GHz} < f < 2.5\text{GHz}$

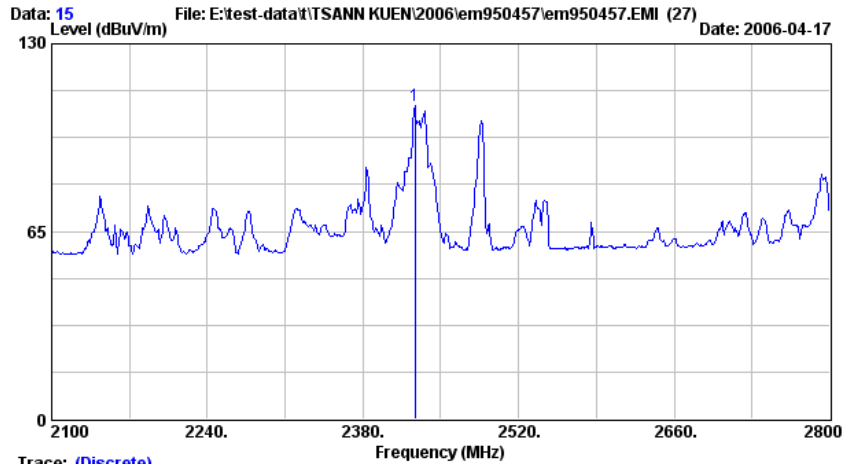
Maximum Frequency Observed: 2445.8MHz

Minimum Frequency Observed: 2442.3MHz

Results: **PASSED.**

**Fundamental Frequency: 2426.9MHz**

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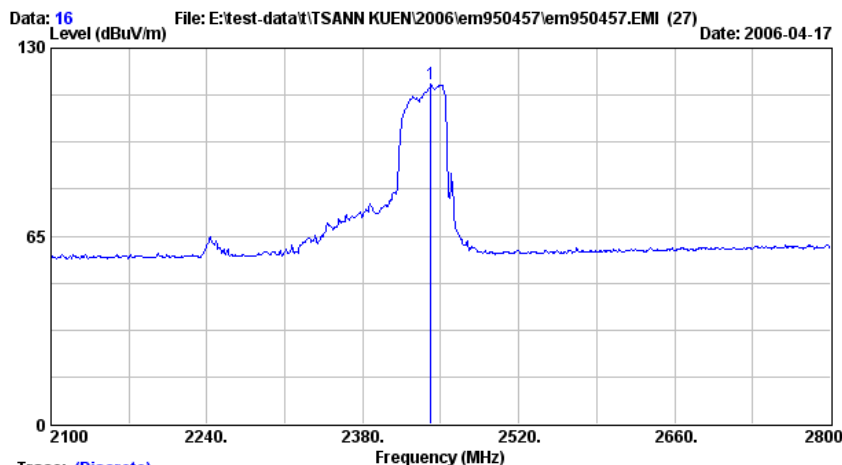


Trace: (Discrete)

Site no.	: A/C Chamber	Data no.	: 15
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC CLASS-B		
Env. / Ins.	: 8593EM 24°C/49%	Engineer	: Cater Chou
EUT	: Microwave Oven M/N:TSK-M1602ME		
Power Rating	: 120Vac 60Hz		
Test Mode	: Power (Hi)		
	: no load		

**Load: 200ml, Voltage: 120V**

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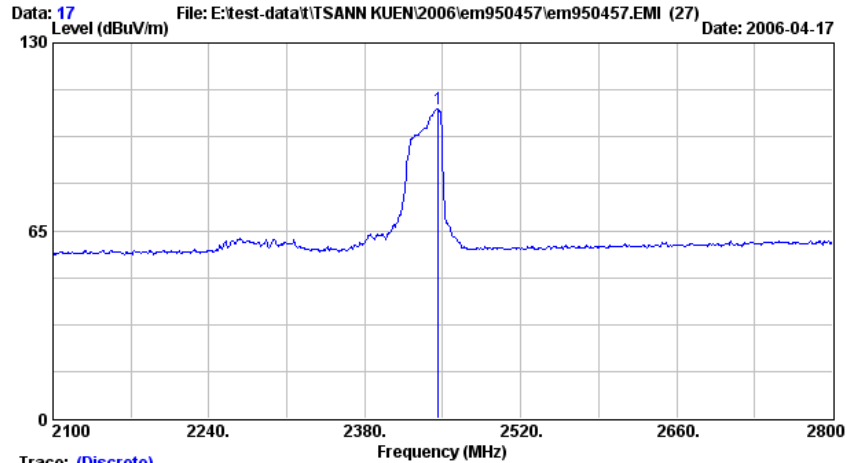


Trace: (Discrete)

Site no.	: A/C Chamber	Data no.	: 16
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	:		
Env. / Ins.	: 8593EM 24°C/49%	Engineer	: Cater Chou
EUT	: Microwave Oven M/N:TSK-M1602ME		
Power Rating	: 120Vac 60Hz		
Test Mode	: Power (Hi)		
	: 200 milliliters of waters in the beaker		
	: located in the center of the oven		

**Load: 1000ml, Voltage: 120V**

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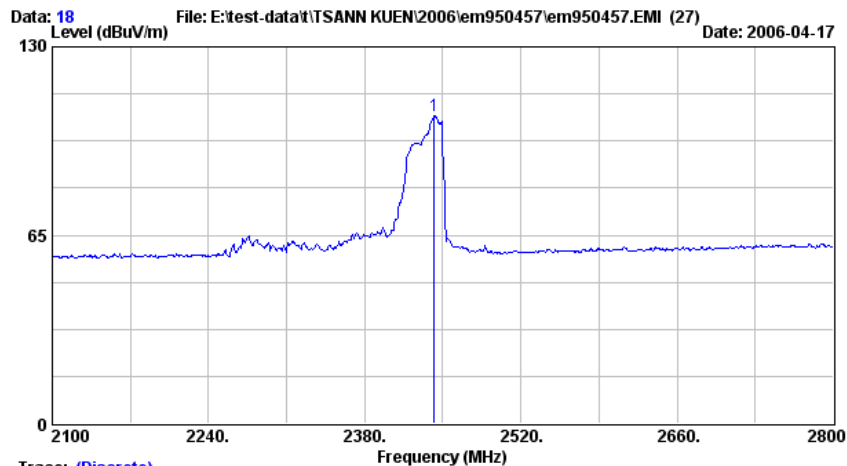
Trace: (Discrete)

Site no.	: A/C Chamber	Data no.	: 17
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	:		
Env. / Ins.	: 8593EM 24°C/49%	Engineer	: Cater Chou
EUT	: Microwave Oven M/N:TSK-M1602ME		
Power Rating	: 120Vac 60Hz		
Test Mode	: Power(Hi)		

1000 milliliters of waters in the beaker  
located in the center of the oven

**Voltage Variation: 80%, Voltage: 96V, Load: 1000ml**

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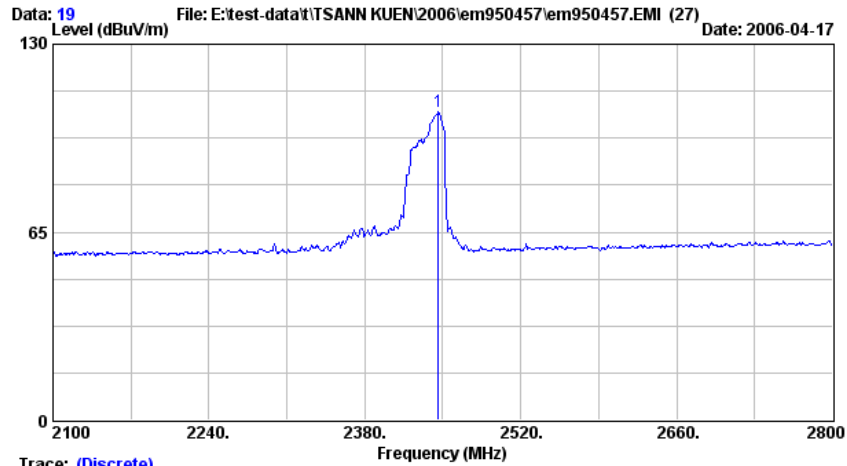
Trace: (Discrete)

Site no.	: A/C Chamber	Data no.	: 18
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	:		
Env. / Ins.	: 8593EM 24°C/49%	Engineer	: Cater Chou
EUT	: Microwave Oven M/N:TSK-M1602ME		
Power Rating	: 96Vac 60Hz		
Test Mode	: Power(Hi)		

1000 milliliters of waters in the beaker  
located in the center of the oven

**Voltage Variation: 125%, Voltage: 150V, Load: 1000ml**

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Trace: (Discrete)

Site no.	: A/C Chamber	Data no.	: 19
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	:		
Env. / Ins.	: 8593EM 24°C/49%	Engineer	: Cater Chou
EUT	: Microwave Oven M/N:TSK-M1602ME		
Power Rating	: 150Vac 60Hz		
Test Mode	: Power(Hi)		
	1000 milliliters of waters in the beaker		
	located in the center of the oven		

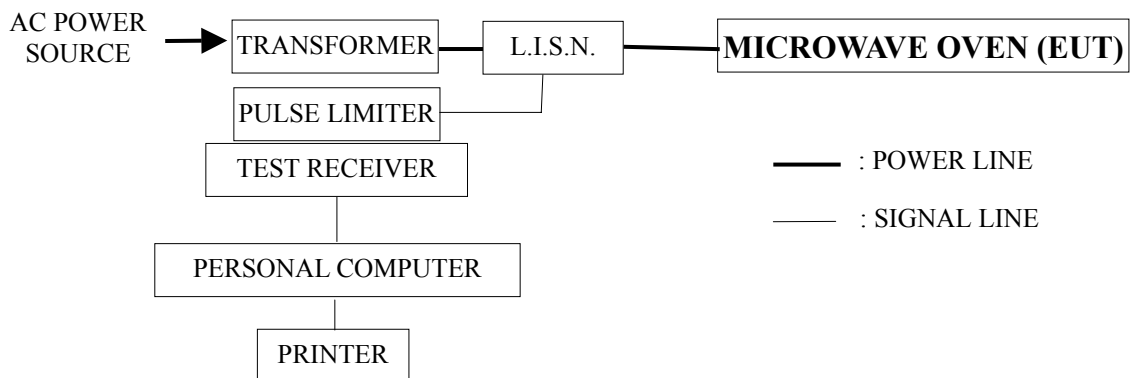
## 6. CONDUCTED EMISSION MEASUREMENT

### 6.1. Test Equipment

The following test equipment was used during the conducted emission measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCS30	100265	Sep. 27, 05'	Sep. 26, 06'
2.	L.I.S.N.	Kyoritsu	KNW-407	8-855-9	Apr. 20, 05'	Apr. 19, 06'
3.	Pulse Limiter	R&S	ESH3Z2	001	Mar. 11, 06'	Mar. 10, 07'

### 6.2. Test Setup



### 6.3. Conduction Limits [18.307(b)]

Frequency of Emission	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB $\mu$ V*	56 ~ 46 dB $\mu$ V*
500kHz ~ 5MHz	56 dB $\mu$ V	46 dB $\mu$ V
5MHz ~ 30MHz	60 dB $\mu$ V	50 dB $\mu$ V

Remark 1.: If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2.: \* Decreases with the logarithm of the frequency.

## 6.4. Operating Condition of EUT

- 6.4.1. Setup the EUT and simulator as shown on 6.2.
- 6.4.2. Turned on the power of all equipment.
- 6.4.3. The Microwave Oven (EUT) was set in test modes, and all the test modes are listed in section 6.6.

## 6.5. Test Procedure

The EUT was put on table which was above the ground by 80cm and its power cord was connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.) Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions simulators of the interface cables were manipulated according to FCC PART 18 during conducted measurement.

The bandwidth of the R&S Test Receiver ESCS30 was set at 9kHz.

The frequency range from 0.15MHz to 30MHz was pre-scanned with a peak detector. All the final readings from test receiver were measured with Quasi-Peak detector and Average detector. (Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

## 6.6. Conducted Emission Measurement Results

**PASSED.** All emissions not reported below are too low against the prescribed limits.

EUT : Microwave Oven

M/N : TSK-M1602ME

The EUT with following test modes was performed during this section testing and selected the worst test mode [**Mode 1**] to read Q.P. values, all the test results are attached in next pages. (※ **the worst test mode**)

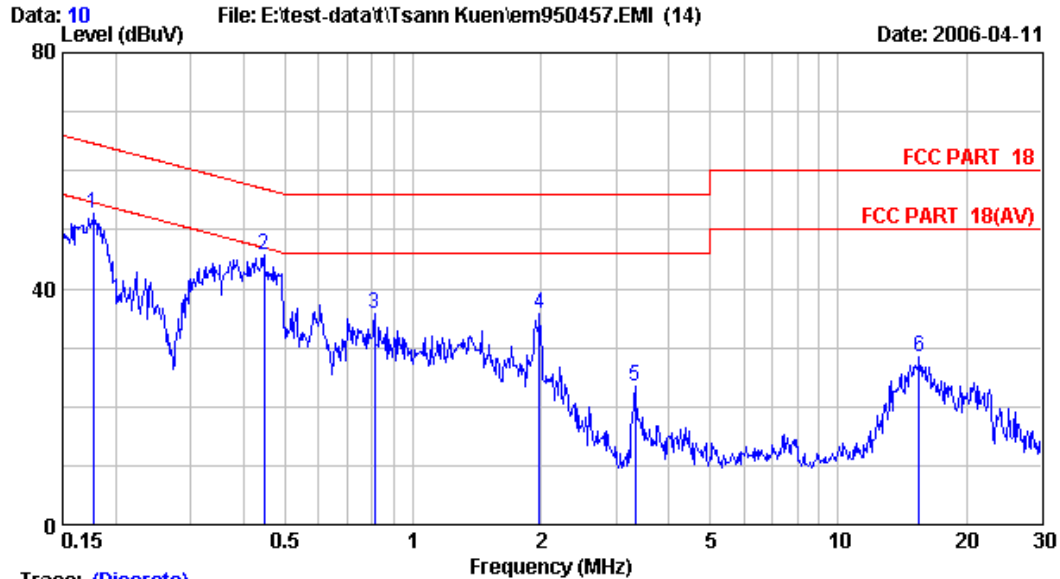
Test Date : Apr. 11, 2006      Temperature : 20°C      Humidity : 65%

The details of test mode and reference test data are as follows :

NO.	Test Mode	Reference Test Data No.	
		Neutral	Line
※1.	Power (Max.)	# 10	# 9
2.	Power (Mid.)	# 11	# 12
3.	Power (Min.)	# 14	# 13
4.	Popcorn	# 6	# 5
5.	Defrost	# 7	# 8
6.	Beverage	# 2	# 1
7.	Plzza	# 3	# 4



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Site : No.2 Shielded room Data : 10  
Condition : KHW-407 Phase : NEUTRAL  
Limit : FCC PART 18  
Env. / Ins. : 20°C,65% / ESCS 30 Engineer: Ada Huang  
EUT : Microwave Oven M/N:TSK-M1602ME  
Power Rating : 120Vac/60Hz  
Test Mode : POWER(MAX)

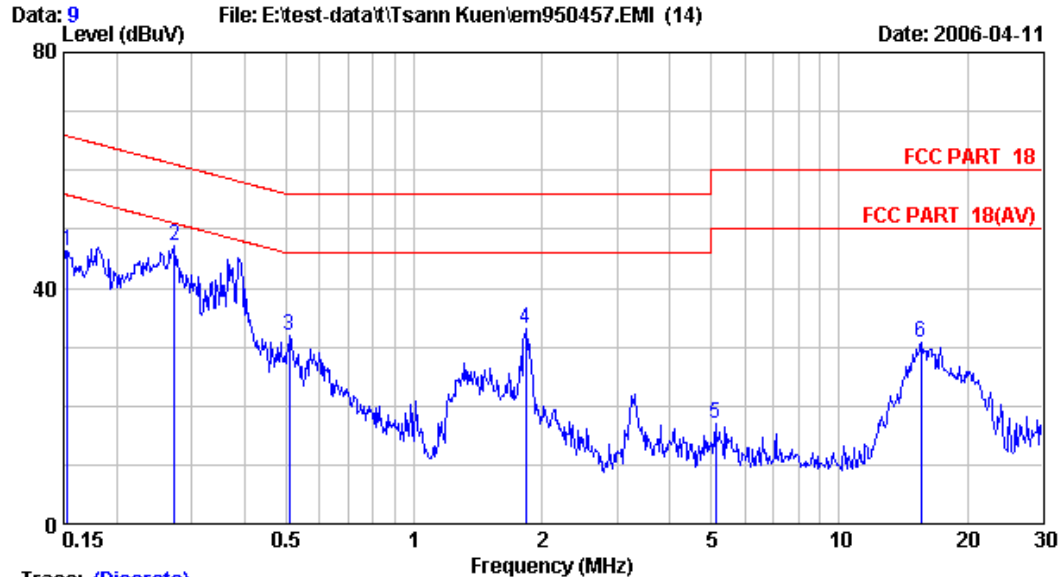
		LISN	Cable		Emission			
Freq.		Factor	Loss	Reading	Level	Limits	Margin	Remark
(MHz)		(dB)	(dB)	(dB $\mu$ V)	(dB $\mu$ V)	(dB $\mu$ V)	(dB)	
1	0.177	0.24	0.25	52.22	52.71	64.64	11.92	QP
2	0.447	0.10	0.33	45.43	45.86	56.93	11.07	QP
3	0.813	0.10	0.38	35.30	35.78	56.00	20.22	QP
4	1.980	0.10	0.40	35.16	35.66	56.00	20.34	QP
5	3.328	0.10	0.40	22.88	23.38	56.00	32.62	QP
6	15.470	0.21	0.70	27.40	28.31	60.00	31.69	QP

Remarks: 1.Emission Level= LISN Factor + Cable Loss + Reading.  
2.If the average limit is met when using a quasi-peak detector  
the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.





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Trace: (Discrete)

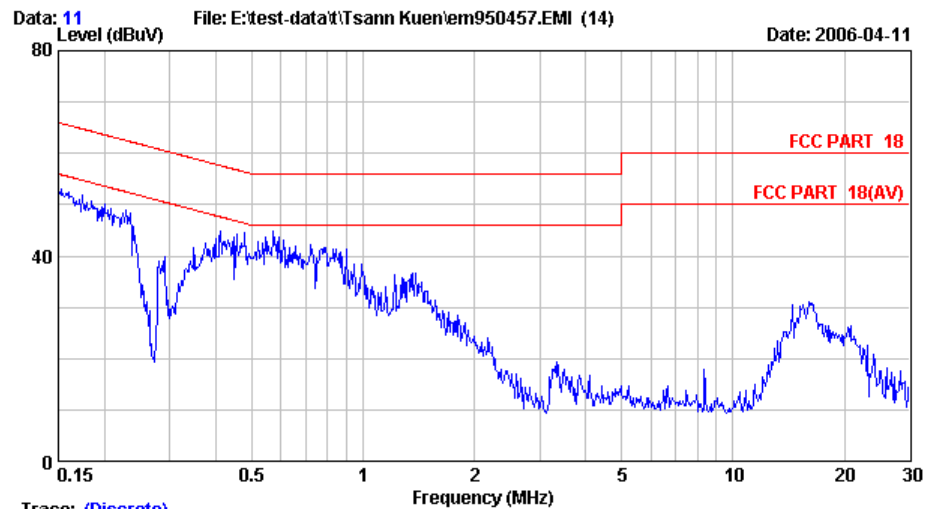
Site : No.2 Shielded room Data : 9  
Condition : KHW-407 Phase : LINE  
Limit : FCC PART 18  
Env. / Ins. : 20°C,65% / ESCS 30 Engineer: Ada Huang  
EUT : Microwave Oven M/N:TSK-M1602ME  
Power Rating : 120Vac/60Hz  
Test Mode : POWER(MAX)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.153	0.29	0.24	45.85	46.38	65.82	19.44	QP
2	0.273	0.15	0.29	46.71	47.15	61.03	13.87	QP
3	0.510	0.10	0.34	31.62	32.06	56.00	23.94	QP
4	1.829	0.10	0.40	32.47	32.97	56.00	23.03	QP
5	5.112	0.13	0.48	16.44	17.05	60.00	42.95	QP
6	15.552	0.21	0.70	29.84	30.75	60.00	29.25	QP

Remarks: 1.Emission Level= LISN Factor + Cable Loss + Reading.  
2.If the average limit is met when using a quasi-peak detector  
,the EUT shall be deemed to meet both limits and measurement  
with average detector is unnecessary.



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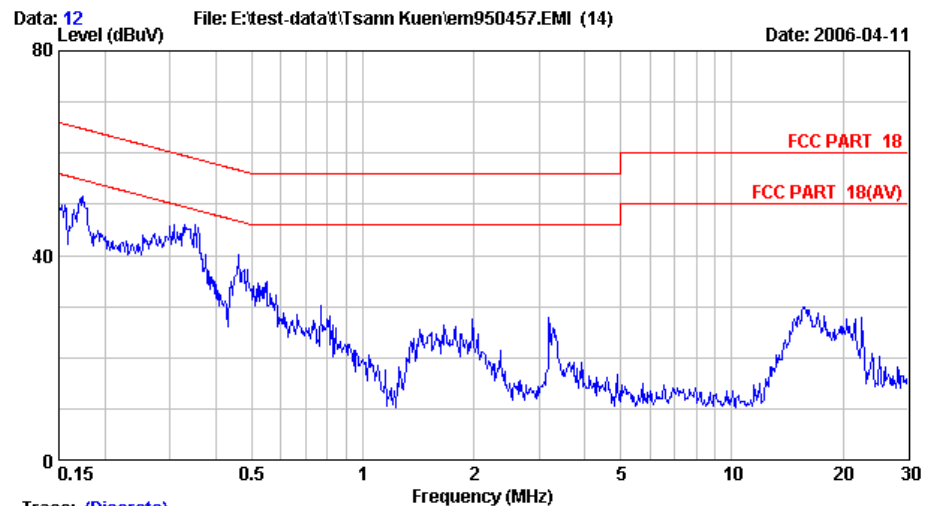


Trace: (Discrete)

Site	: No.2 Shielded room	Data	: 11
Condition	: KNW-407	Phase	: NEUTRAL
Limit	: FCC PART 18		
Env. / Ins.	: 20°C, 65% / ESCS 30	Engineer:	: Ada Huang
EUT	: Microwave Oven M/N: TSK-M1602ME		
Power Rating	: 120Vac/60Hz		
Test Mode	: POWER(MID)		



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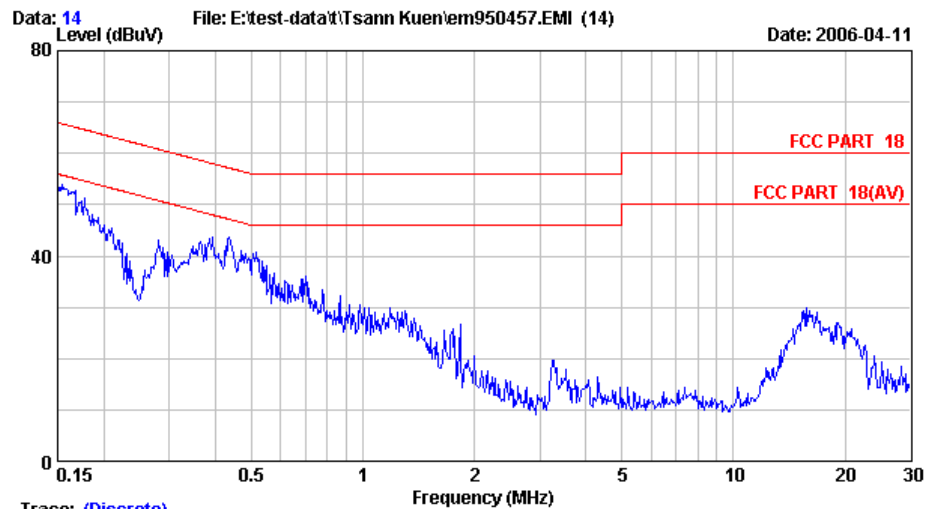


Trace: (Discrete)

Site	: No.2 Shielded room	Data	: 12
Condition	: KNW-407	Phase	: LINE
Limit	: FCC PART 18		
Env. / Ins.	: 20°C, 65% / ESCS 30	Engineer:	: Ada Huang
EUT	: Microwave Oven M/N: TSK-M1602ME		
Power Rating	: 120Vac/60Hz		
Test Mode	: POWER(MID)		



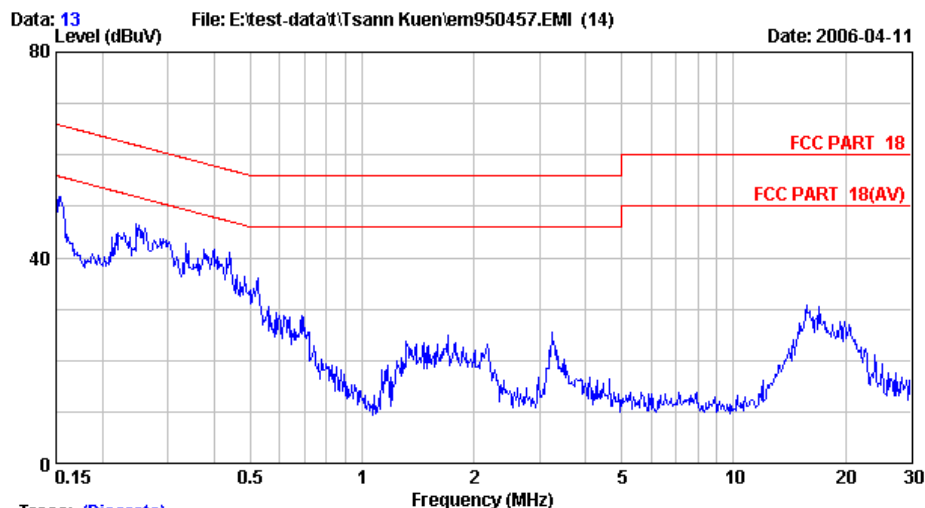
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Site : No.2 Shielded room Data : 14  
Condition : KNW-407 Phase : NEUTRAL  
Limit : FCC PART 18  
Env. / Ins. : 20°C, 65% / ESCS 30 Engineer: Ada Huang  
EUT : Microwave Oven M/N: TSK-M1602ME  
Power Rating : 120Vac/60Hz  
Test Mode : POWER(MIN)



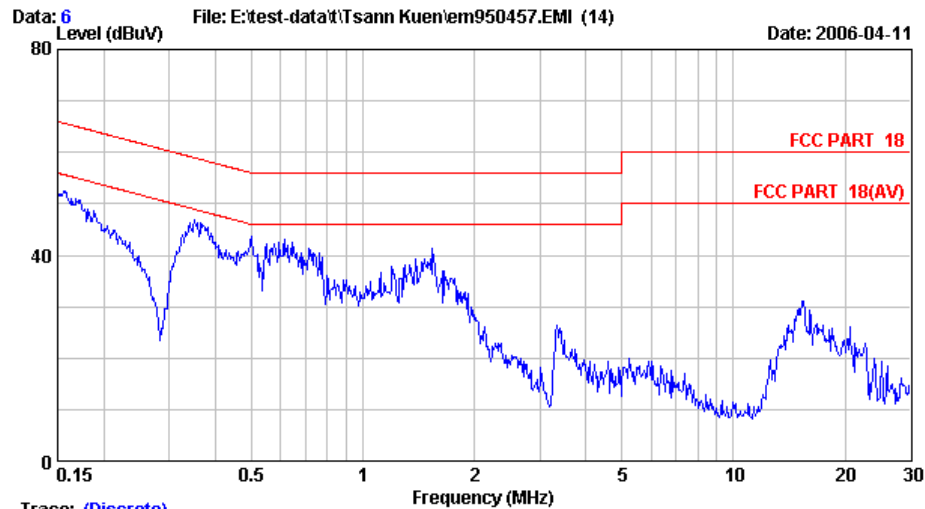
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Site : No.2 Shielded room Data : 13  
Condition : KNW-407 Phase : LINE  
Limit : FCC PART 18  
Env. / Ins. : 20°C, 65% / ESCS 30 Engineer: Ada Huang  
EUT : Microwave Oven M/N: TSK-M1602ME  
Power Rating : 120Vac/60Hz  
Test Mode : POWER(MIN)



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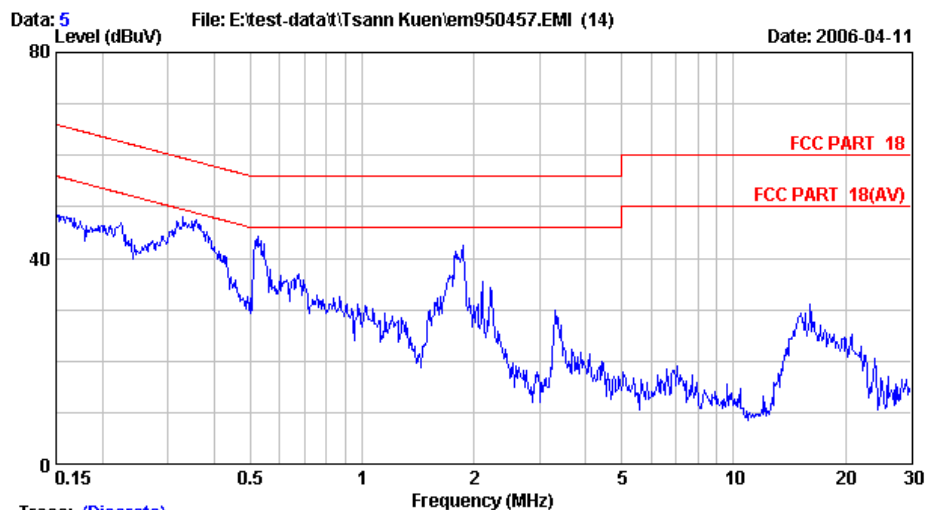


Trace: (Discrete)

Site	: No.2 Shielded room	Data	: 6
Condition	: KNW-407	Phase	: NEUTRAL
Limit	: FCC PART 18		
Env. / Ins.	: 20°C, 65% / ESCS 30	Engineer:	Ada Huang
EUT	: Microwave Oven M/N:TSK-M1602ME		
Power Rating	: 120Vac/60Hz		
Test Mode	: POPCORN		



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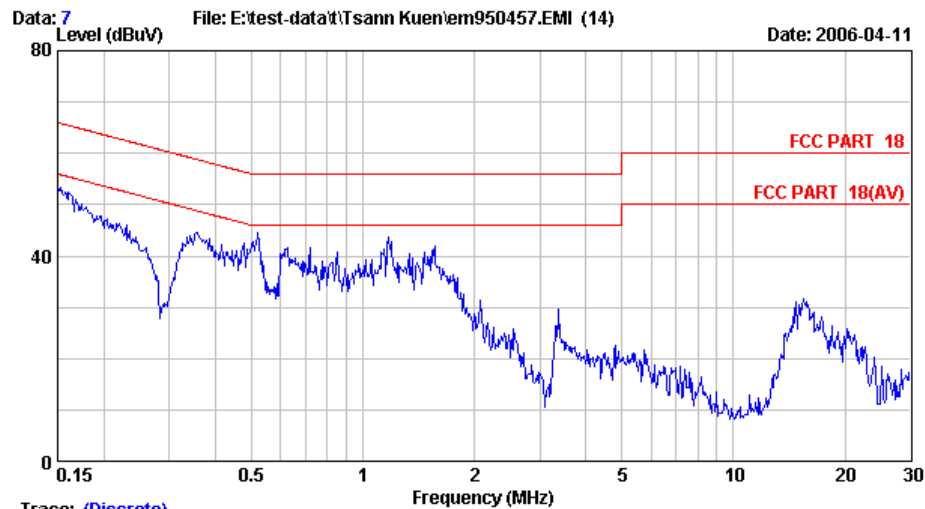


Trace: (Discrete)

Site	: No.2 Shielded room	Data	: 5
Condition	: KNW-407	Phase	: LINE
Limit	: FCC PART 18		
Env. / Ins.	: 20°C, 65% / ESCS 30	Engineer:	Ada Huang
EUT	: Microwave Oven M/N:TSK-M1602ME		
Power Rating	: 120Vac/60Hz		
Test Mode	: POPCORN		



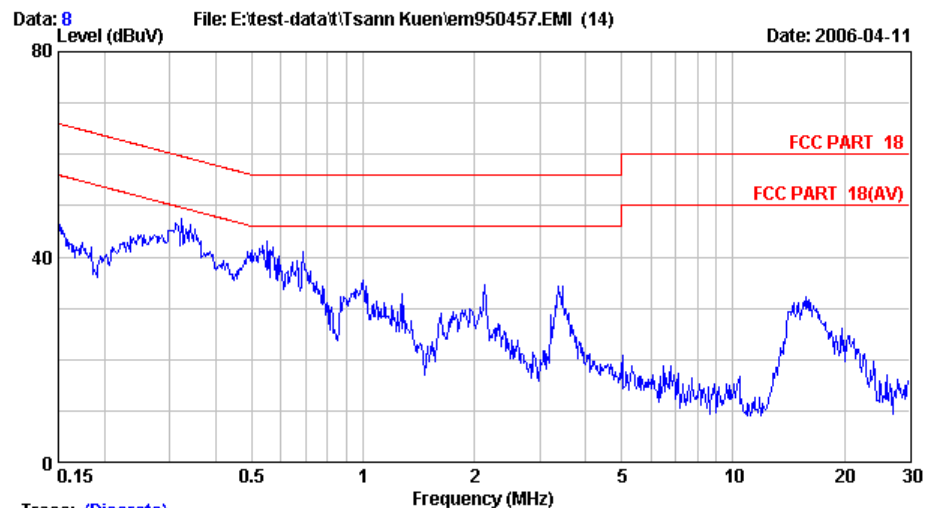
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Site : No.2 Shielded room Data : 7  
Condition : KNW-407 Phase : NEUTRAL  
Limit : FCC PART 18  
Env. / Ins. : 20°C, 65% / ESCS 30 Engineer: Ada Huang  
EUT : Microwave Oven M/N: TSK-M1602ME  
Power Rating : 120Vac/60Hz  
Test Mode : DEFROST



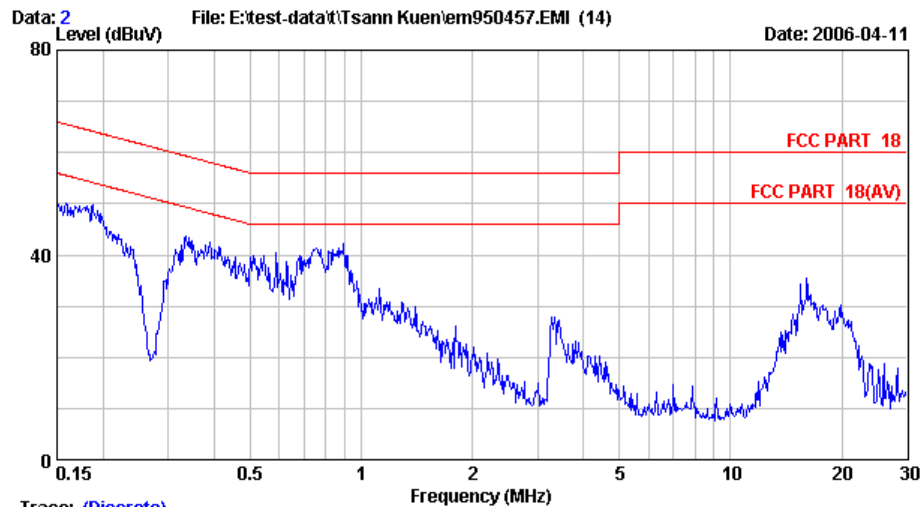
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Site : No.2 Shielded room Data : 8  
Condition : KNW-407 Phase : LINE  
Limit : FCC PART 18  
Env. / Ins. : 20°C, 65% / ESCS 30 Engineer: Ada Huang  
EUT : Microwave Oven M/N: TSK-M1602ME  
Power Rating : 120Vac/60Hz  
Test Mode : DEFROST



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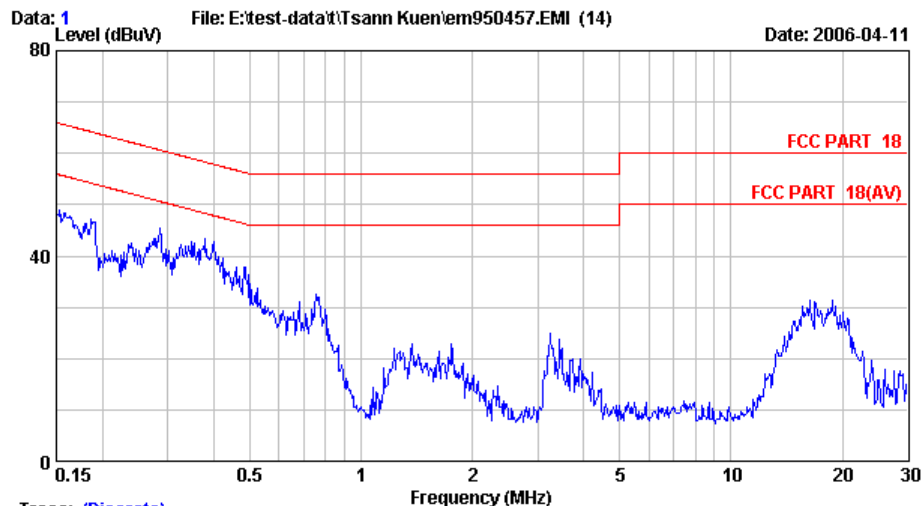


Trace: (Discrete)

Site	: No.2 Shielded room	Data	: 2
Condition	: KNW-407	Phase	: NEUTRAL
Limit	: FCC PART 18		
Env. / Ins.	: 20°C, 65% / ESCS 30	Engineer:	Ada Huang
EUT	: Microwave Oven M/N: TSK-M1602ME		
Power Rating	: 120Vac/60Hz		
Test Mode	: BEVERAGE		



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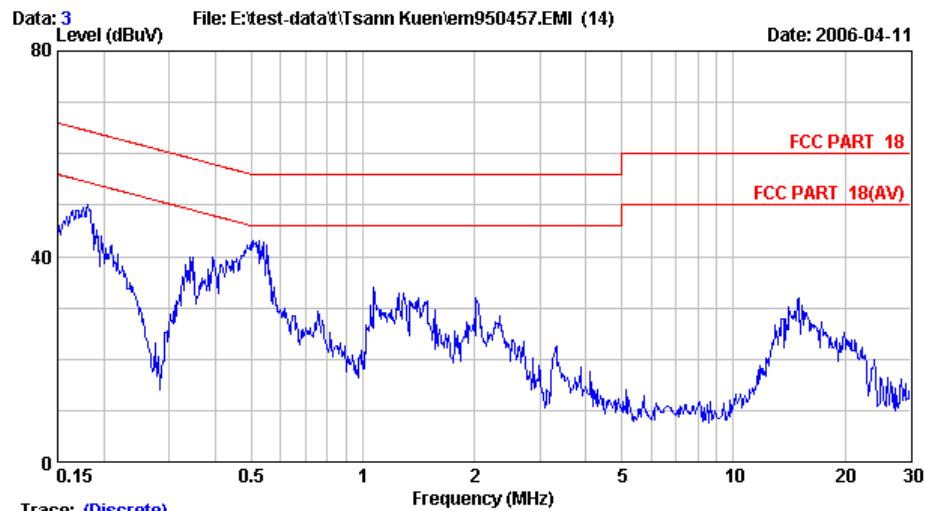


Trace: (Discrete)

Site	: No.2 Shielded room	Data	: 1
Condition	: KNW-407	Phase	: LINE
Limit	: FCC PART 18		
Env. / Ins.	: 20°C, 65% / ESCS 30	Engineer:	Ada Huang
EUT	: Microwave Oven M/N: TSK-M1602ME		
Power Rating	: 120Vac/60Hz		
Test Mode	: BEVERAGE		



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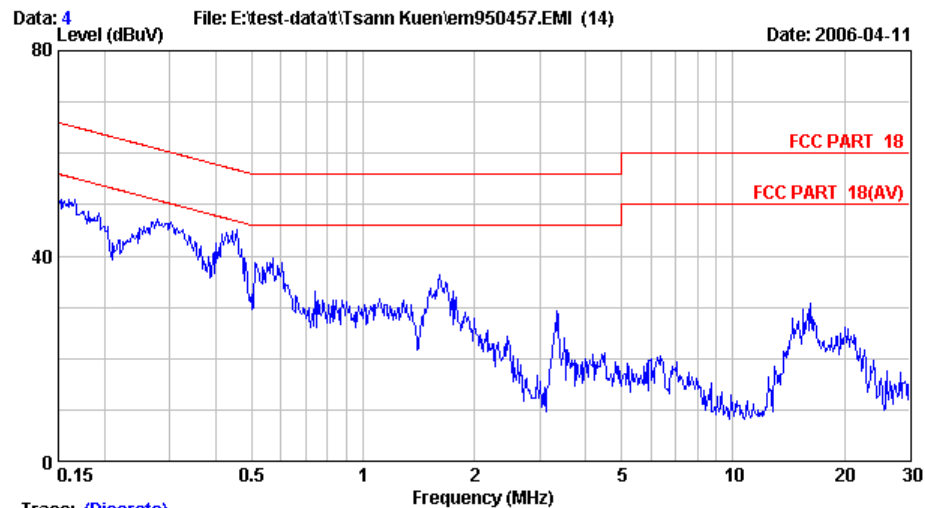


Trace: (Discrete)

Site	: No.2 Shielded room	Data	: 3
Condition	: KNW-407	Phase	: NEUTRAL
Limit	: FCC PART 18		
Env. / Ins.	: 20°C, 65% / ESCS 30	Engineer:	Ada Huang
EUT	: Microwave Oven M/N: TSK-M1602ME		
Power Rating	: 120Vac/60Hz		
Test Mode	: PLZZA		



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Trace: (Discrete)

Site	: No.2 Shielded room	Data	: 4
Condition	: KNW-407	Phase	: LINE
Limit	: FCC PART 18		
Env. / Ins.	: 20°C, 65% / ESCS 30	Engineer:	Ada Huang
EUT	: Microwave Oven M/N: TSK-M1602ME		
Power Rating	: 120Vac/60Hz		
Test Mode	: PLZZA		

## 7. RADIATED EMISSION MEASUREMENT

### 7.1. Test Equipment

The following test equipment was used during the radiated emission tests :

#### 7.1.1. Below 1GHz (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 26, 05'	Sep. 25, 06'
2.	Pre-Amplifier	HP	8447D	2944A06305	Mar. 09, 06'	Mar. 08, 07'
3.	Biconical Antenna	CHASE	VBA6106A	1264	Nov.11, 05'	Nov.10, 06'
4.	Log Periodic Antenna	Schwarzbeck	UHALP9108-A	0139	Nov. 19, 05'	Nov. 19, 06'

#### 7.1.2. Above 1GHz (at Semi-Anechoic Chamber)

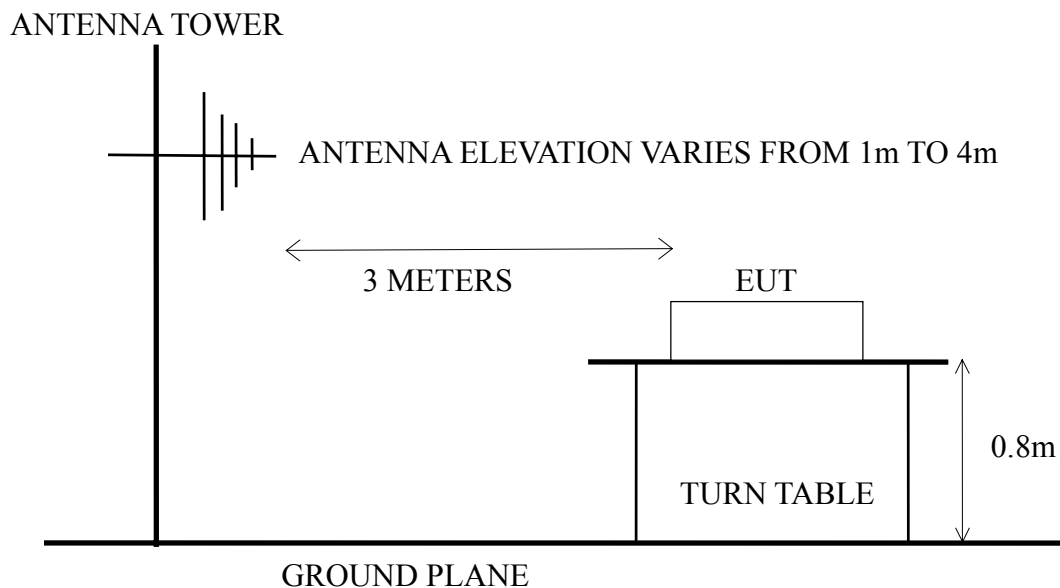
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 26, 05'	Sep. 25, 06'
2.	Pre-Amplifier	HP	8449B	3008A01284	Jul. 05, 05'	Jul. 04, 06'
3.	Horn Antenna	EMCO	3115	9112-3775	May 04, 05'	May 03, 06'
4.	For Above 3.5GHz -High Pass Filter	HP	84300-80038	005	Jan. 13, 06'	Jan. 12, 07'

### 7.2. Test Setup

#### 7.2.1. Block Diagram of connection between EUT and simulators

**MICROWAVE OVEN (EUT)**

#### 7.2.2. Semi-Anechoic Chamber (3m) Setup Diagram





### 7.3. Radiation Limits

The radiated limits are complied with FCC CFR Title 47 Part 18 Subpart C & MP-5. The limits are calculated as below:

Calculated formula:

$$\text{Limit } (E_{300m}) = 25 * (\text{Power} / 500)^{1/2} (\mu\text{V/m})$$

$$E_{3m} = E_{300m} / K$$

$$\text{Power Output} = 455\text{W}$$

$$\text{Limit } (E_{300m}) = 25 * (455 / 500)^{1/2} (\mu\text{V/m}) = 23.84848 (\mu\text{V/m})$$

$$E_{3m} = 23.84848 / 6.1656 * 10^{-3} = 3867.9654 (\mu\text{V/m})$$

$$20\log(3867.9654) = 71.7 (\text{dB}\mu\text{V/m})$$

### 7.4. Operating Condition of EUT

- 7.4.1. Setup the EUT and simulator as shown on 7.2.
- 7.4.2. Turned on the power of all equipment.
- 7.4.3. The beaker with two loads (700ml & 300ml) and two locations (center & right front corner) was placed into the Microwave Oven (EUT).
- 7.4.4. The Microwave Oven (EUT) was set in test modes, and all the test modes are listed in section 7.6.

### 7.5. Test Procedure

The EUT was placed on a turn table which was 0.8 meter or 1 meter (0.8 meter for measurement below 1GHz and 1 meter for measurement above 1GHz) above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. The EUT was set to 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna moved up and down between 1 to 4 meters above reference plane to find out the maximum emission level. Broadband antenna such as calibrated biconical and log-periodical antenna or horn antenna was used as a receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC/OST MP-5 (1986) regulation.

The resolution bandwidth of spectrum analyzer using Peak detector was set at 120kHz for measurement below 1GHz and resolution bandwidth of spectrum analyzer using Average detector was set at 1MHz for measurement above 1GHz.

Load for measurement on second and third harmonics: Two loads one of 700 and the other of 300 ml, of water are used. Each load is tested both with the beaker located in the center of the microwave oven and with it in the right front corner.

Load for all other measurement: 700ml of water, with the beaker located in the center of the microwave oven.

The frequency range from 30MHz to 1000MHz was pre-scanned with Peak detector at simple anechoic chamber and frequency range above 1GHz was pre-scanned with Average detector at simple anechoic chamber.

## 7.6. Radiated Emission Measurement Results

**PASSED.** All emissions not reported below are too low against the prescribed limits.

EUT : Microwave Oven

M/N : TSK-M1602ME

The EUT with following test modes was measured at Semi-Anechoic Chamber and all the test results are listed in next pages.

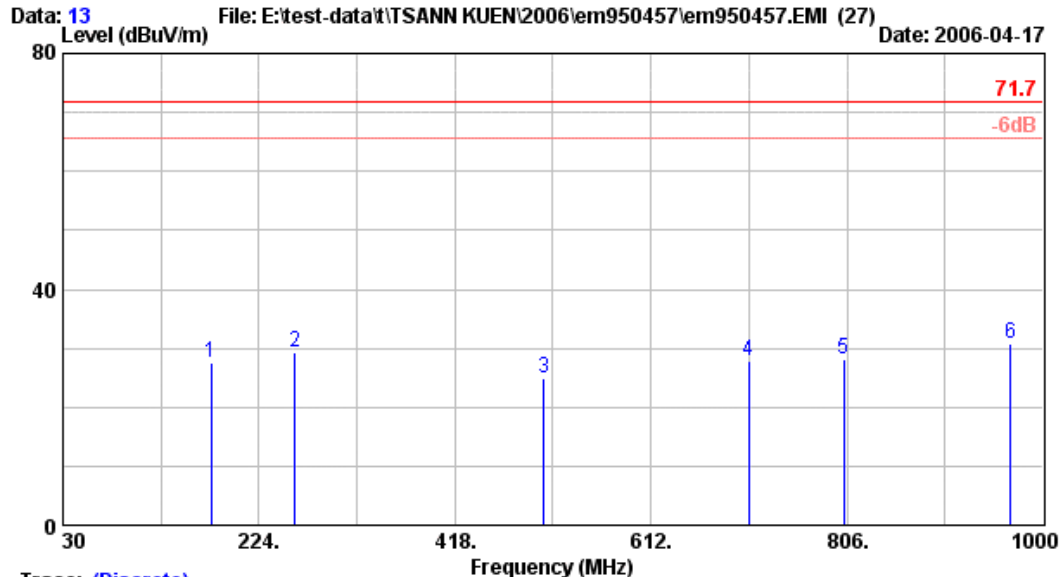
Test Date : Apr. 17, 2006    Temperature : 24°C    Humidity : 49%

The details of test mode and reference test data are as follows :

NO.	Frequency range	Test Mode	Reference Test Data No.	
			Horizontal	Vertical
1.	Below 1GHz (30MHz-1GHz)	Load: 700ml, Beaker Location: Center Power (Max.)	# 13	# 14
2.		Load: 700ml, Beaker Location: Center Power (Mid.)	# 10	# 9
3.		Load: 700ml, Beaker Location: Center Power (Min.)	# 11	# 12
4.		Load: 700ml, Beaker Location: Center (Popcorn)	# 5	# 6
5.		Load: 700ml, Beaker Location: Center (Defrost)	# 8	# 7
6.		Load: 700ml, Beaker Location: Center (Beverage)	# 1	# 2
7.		Load: 700ml, Beaker Location: Center (Plzza)	# 4	# 3
8.	Above 1GHz (1GHz-18GHz)	Load: 700ml, Beaker Location: Center Power (Max.)	# 20	# 21
9.	Above 1GHz. (At second and third harmonics)	Load: 700ml, Beaker Location: Right Front Corner Power (Max.)	# 23	# 22
10.		Load: 300ml, Beaker Location: Center Power (Max.)	# 27	# 26
11.		Load: 300ml, Beaker Location: Right Front Corner Power (Max.)	# 24	# 25



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Trace: (Discrete)

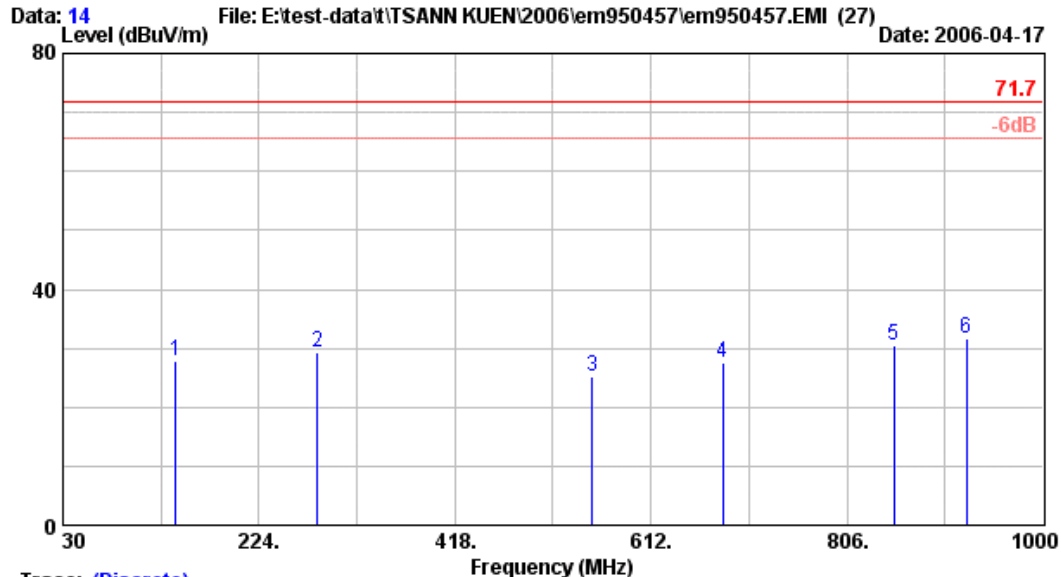
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 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power(MAX)  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	176.470	21.21	2.90	3.31	27.42	71.70	44.28	QP
2	259.890	24.55	3.53	1.23	29.31	71.70	42.39	QP
3	506.270	18.99	6.72	-0.84	24.87	71.70	46.83	QP
4	709.000	23.54	6.60	-2.36	27.79	71.70	43.91	QP
5	803.090	24.20	6.90	-2.85	28.25	71.70	43.45	QP
6	967.990	26.90	7.69	-3.89	30.70	71.70	41.00	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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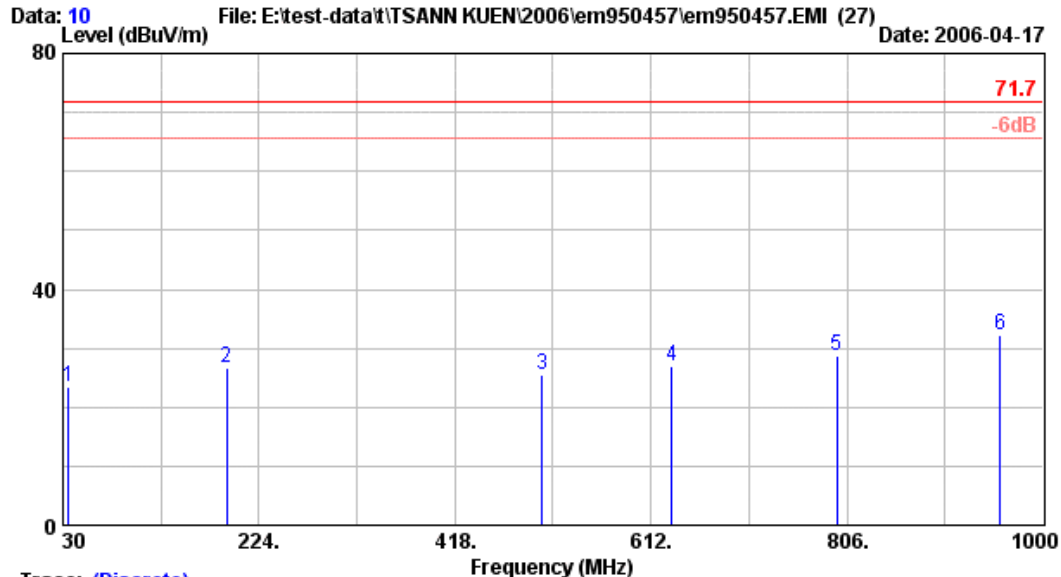
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 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power(MAX)  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	141.550	20.26	2.50	5.18	27.94	71.70	43.76	QP
2	282.200	26.43	3.80	-0.99	29.24	71.70	42.46	QP
3	553.800	21.88	6.80	-3.36	25.32	71.70	46.38	QP
4	682.810	23.53	6.41	-2.50	27.45	71.70	44.25	QP
5	852.560	26.14	7.10	-2.82	30.43	71.70	41.27	QP
6	924.340	25.76	7.40	-1.62	31.54	71.70	40.16	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

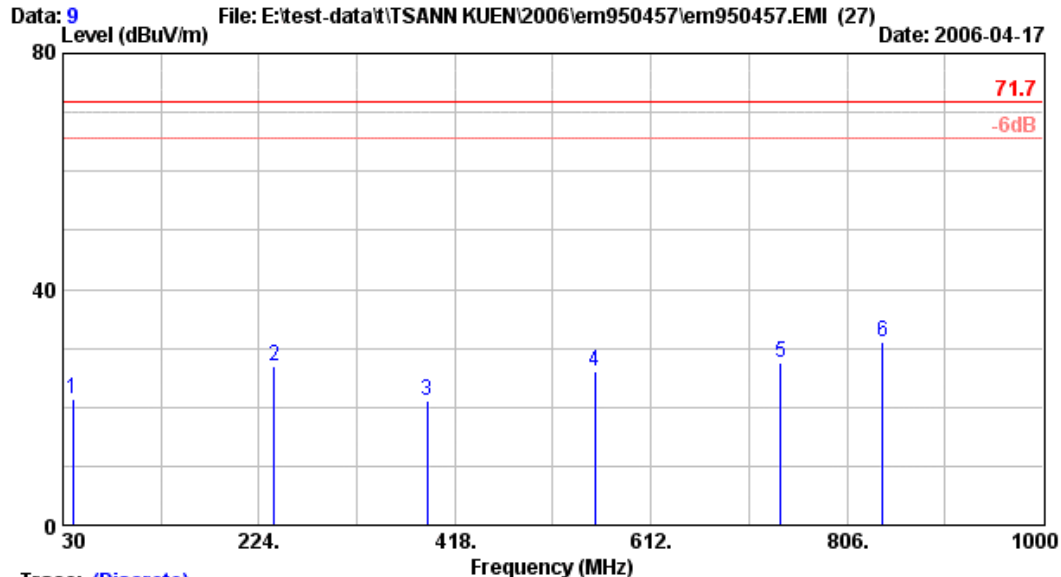
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 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power(Mid)  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	35.820	22.49	1.20	-0.31	23.38	71.70	48.32	QP
2	191.990	21.60	3.00	2.00	26.60	71.70	45.10	QP
3	504.330	19.02	6.62	-0.04	25.60	71.70	46.10	QP
4	632.370	20.95	6.40	-0.47	26.88	71.70	44.82	QP
5	796.300	24.04	6.90	-2.31	28.63	71.70	43.07	QP
6	957.320	26.33	7.60	-1.76	32.17	71.70	39.53	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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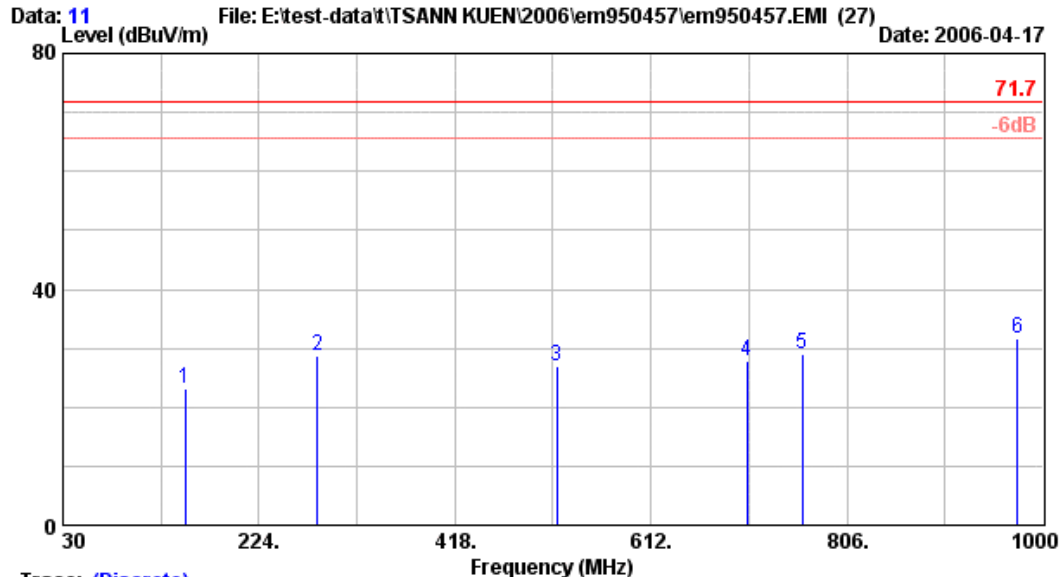
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 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power(Mid)  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	39.700	20.74	1.20	-0.55	21.39	71.70	50.31	QP
2	239.520	24.36	3.40	-0.84	26.92	71.70	44.78	QP
3	390.840	17.62	4.80	-1.21	21.21	71.70	50.49	QP
4	556.710	21.98	6.76	-2.80	25.94	71.70	45.76	QP
5	740.040	23.66	6.64	-2.73	27.57	71.70	44.13	QP
6	840.920	26.62	7.10	-2.65	31.07	71.70	40.63	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

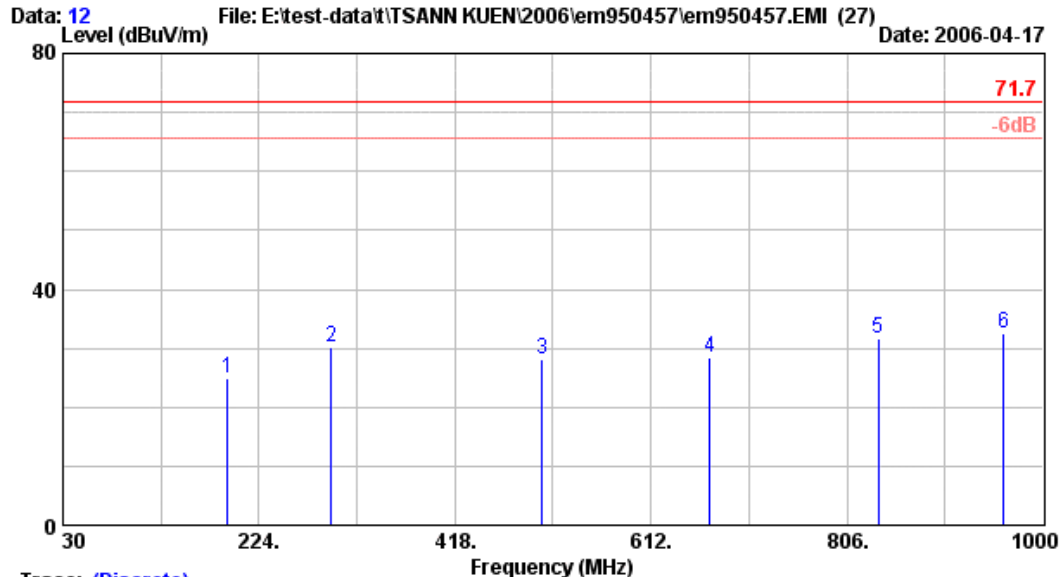
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 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power(Min)  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	151.250	20.65	2.60	-0.04	23.21	71.70	48.49	QP
2	282.200	25.39	3.80	-0.40	28.79	71.70	42.91	QP
3	518.880	20.01	6.90	0.05	26.96	71.70	44.74	QP
4	707.060	23.55	6.60	-2.30	27.85	71.70	43.85	QP
5	761.380	23.68	6.70	-1.28	29.10	71.70	42.60	QP
6	974.780	26.52	7.70	-2.65	31.57	71.70	40.13	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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Trace: (Discrete)

Site no. : A/C Chamber Data no. : 12  
 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power(Min)  
 700 milliliters of waters in the beaker  
 located in the center of the oven

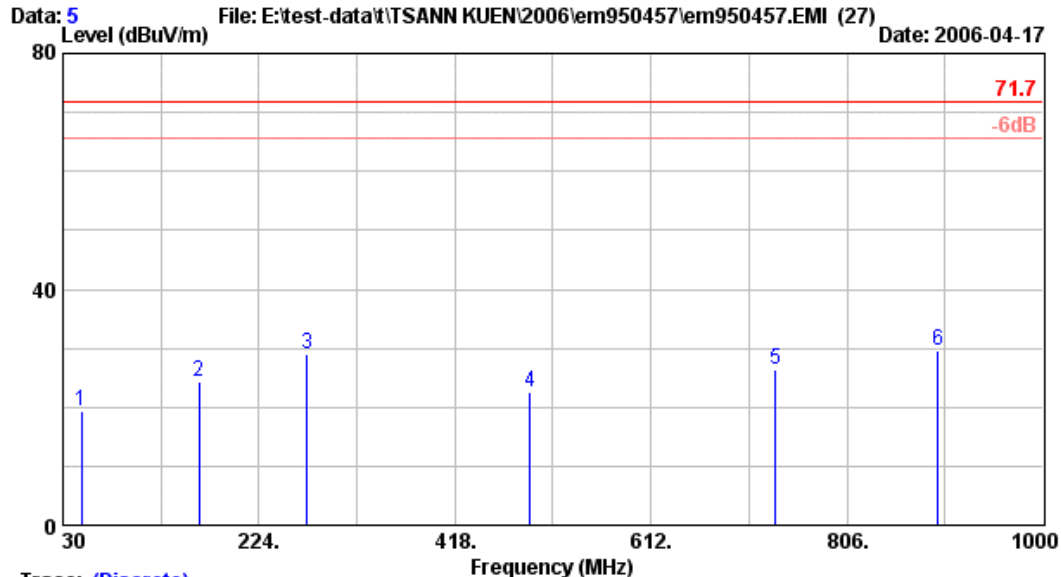
		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	192.960	22.13	3.00	-0.27	24.87	71.70	46.83	QP
2	295.780	26.37	4.00	-0.04	30.33	71.70	41.37	QP
3	504.330	20.21	6.62	1.18	28.00	71.70	43.70	QP
4	670.200	22.89	6.40	-0.84	28.45	71.70	43.25	QP
5	837.040	26.47	7.10	-1.96	31.61	71.70	40.09	QP
6	961.200	27.14	7.60	-2.15	32.59	71.70	39.11	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.





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Trace: (Discrete)

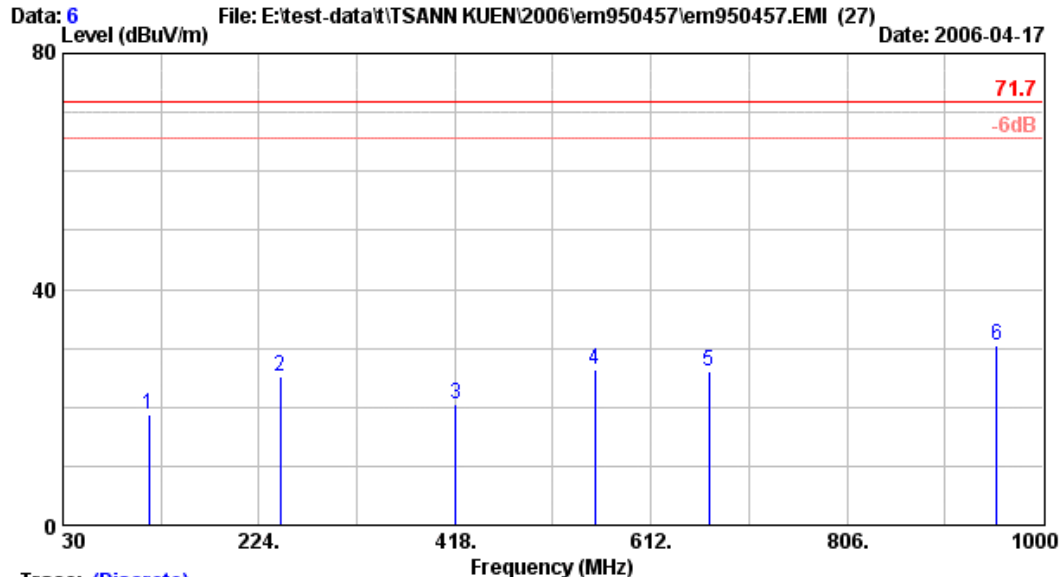
Site no. : A/C Chamber Data no. : 5  
 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Popcorn  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	48.430	17.32	1.40	0.59	19.31	71.70	52.39	QP
2	164.830	20.89	2.70	0.77	24.36	71.70	47.34	QP
3	271.530	25.06	3.70	0.22	28.98	71.70	42.72	QP
4	492.690	18.63	6.40	-2.45	22.58	71.70	49.12	QP
5	735.190	22.18	6.68	-2.41	26.45	71.70	45.25	QP
6	896.210	25.01	7.30	-2.77	29.54	71.70	42.16	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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Trace: (Discrete)

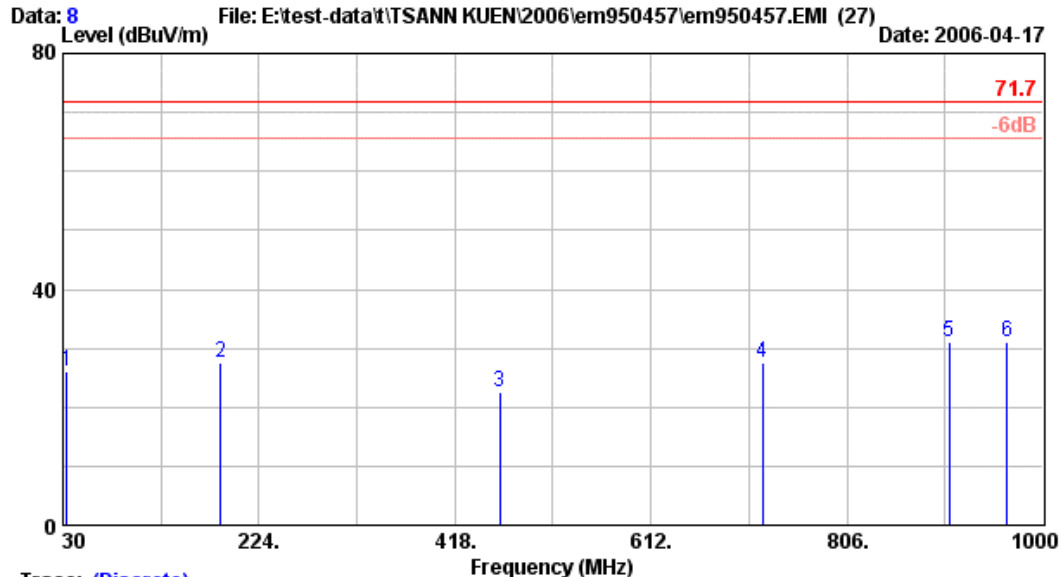
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 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Popcorn  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	115.360	17.52	2.30	-1.05	18.77	71.70	52.93	QP
2	245.340	24.59	3.50	-2.75	25.35	71.70	46.35	QP
3	418.970	17.03	5.00	-1.49	20.55	71.70	51.15	QP
4	556.710	21.98	6.76	-2.50	26.24	71.70	45.46	QP
5	669.230	22.76	6.40	-2.95	26.21	71.70	45.49	QP
6	954.410	27.16	7.60	-4.41	30.35	71.70	41.35	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

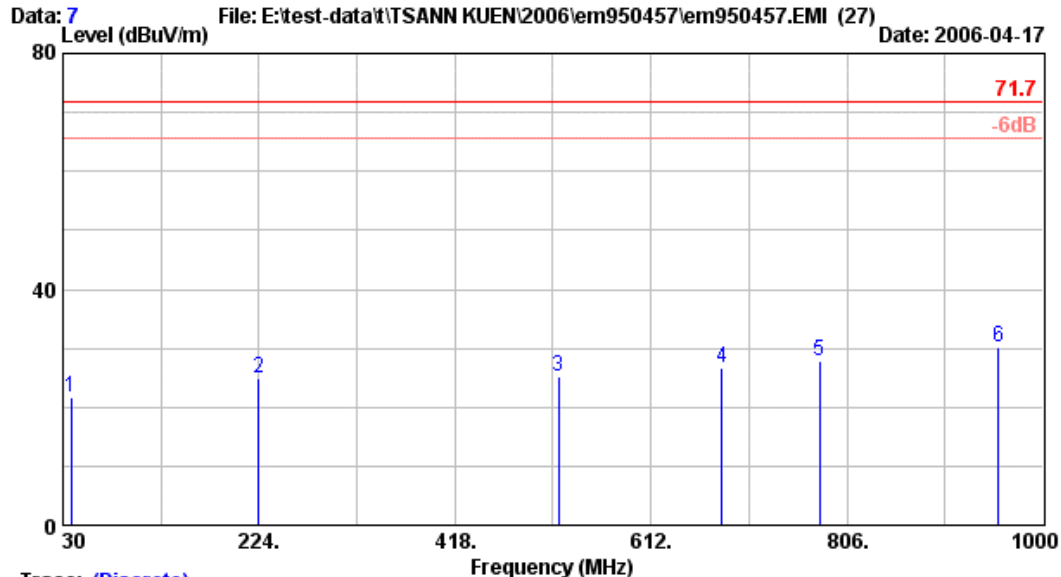
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 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Defrost  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	33.880	23.12	1.10	1.77	25.99	71.70	45.71	QP
2	186.170	21.38	2.90	3.18	27.47	71.70	44.23	QP
3	462.620	17.99	5.70	-1.04	22.66	71.70	49.04	QP
4	722.580	22.19	6.50	-1.13	27.56	71.70	44.14	QP
5	906.880	24.90	7.40	-1.26	31.04	71.70	40.66	QP
6	964.110	26.80	7.60	-3.38	31.02	71.70	40.68	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

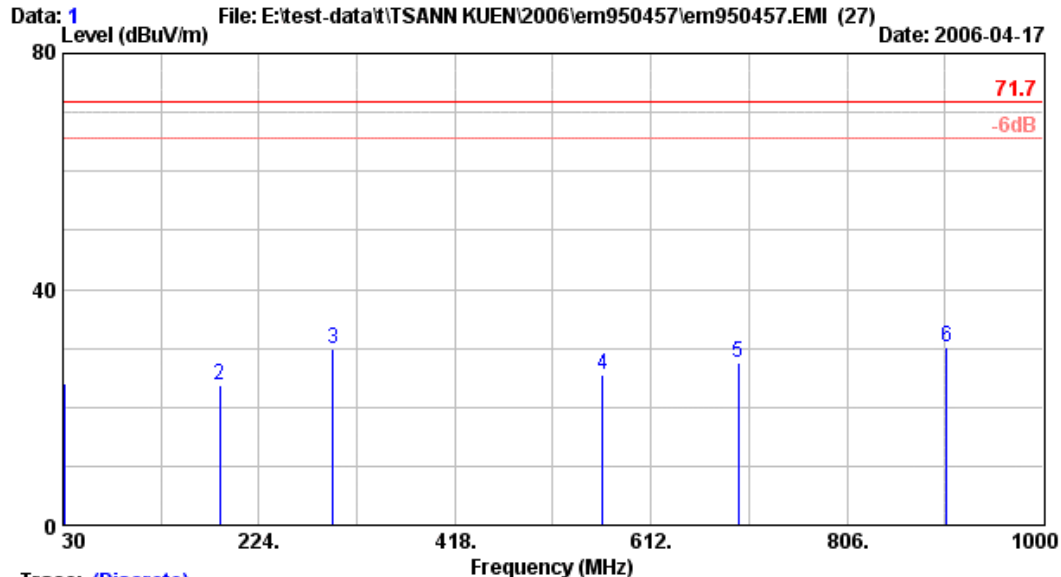
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 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Defrost  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	37.760	21.49	1.20	-0.93	21.76	71.70	49.94	QP
2	224.000	22.09	3.30	-0.35	25.04	71.70	46.66	QP
3	520.820	20.71	6.90	-2.46	25.15	71.70	46.55	QP
4	681.840	23.53	6.50	-3.23	26.80	71.70	44.90	QP
5	778.840	25.34	6.80	-4.43	27.71	71.70	43.99	QP
6	956.350	27.16	7.60	-4.56	30.20	71.70	41.50	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

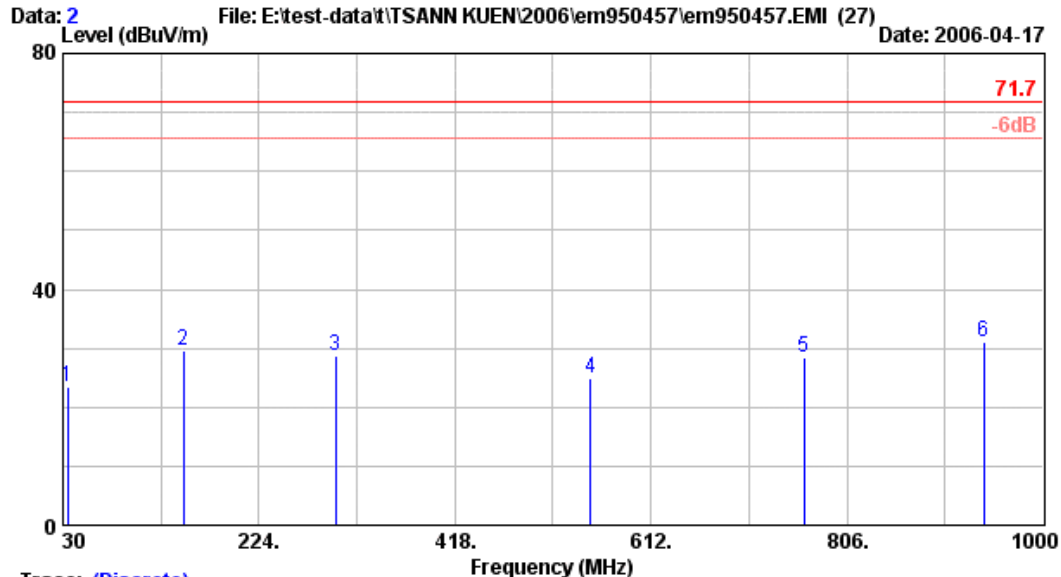
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 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Beverage  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	30.970	24.81	1.10	-1.82	24.09	71.70	47.61	QP
2	185.200	21.37	2.90	-0.41	23.86	71.70	47.84	QP
3	297.720	26.68	3.98	-0.82	29.84	71.70	41.86	QP
4	564.470	20.42	6.60	-1.44	25.58	71.70	46.12	QP
5	698.330	23.36	6.50	-2.25	27.61	71.70	44.09	QP
6	904.940	24.84	7.40	-1.93	30.31	71.70	41.39	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

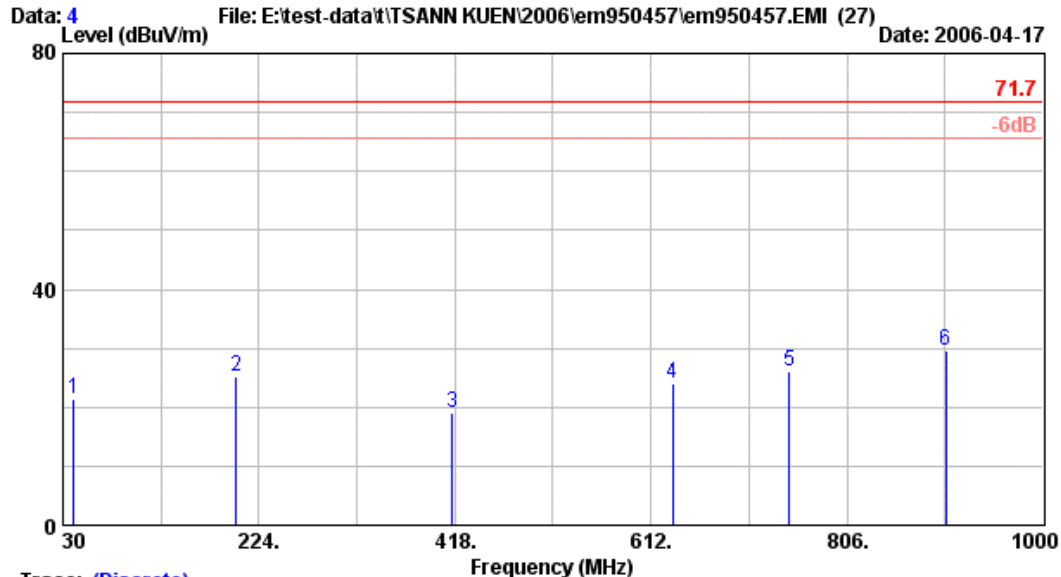
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 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Beverage  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	34.850	21.88	1.20	0.36	23.44	71.70	48.26	QP
2	149.310	22.02	2.60	4.96	29.58	71.70	42.12	QP
3	299.660	26.86	3.90	-1.98	28.78	71.70	42.92	QP
4	551.860	21.66	6.80	-3.63	24.84	71.70	46.86	QP
5	763.320	24.93	6.74	-3.20	28.47	71.70	43.23	QP
6	941.800	26.86	7.50	-3.44	30.93	71.70	40.77	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

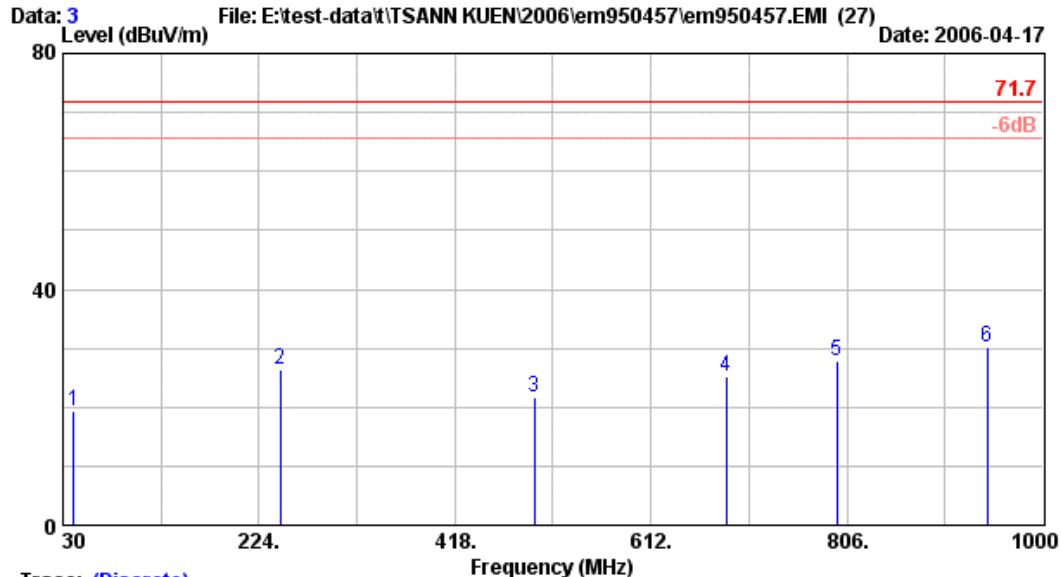
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 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : HORIZONTAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Pizza  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	40.670	20.36	1.30	-0.24	21.42	71.70	50.28	QP
2	201.690	22.07	3.03	0.03	25.13	71.70	46.57	QP
3	415.090	16.99	5.10	-3.06	19.03	71.70	52.67	QP
4	633.340	20.95	6.30	-3.12	24.12	71.70	47.58	QP
5	748.770	23.18	6.70	-3.66	26.22	71.70	45.48	QP
6	903.970	24.88	7.40	-2.82	29.46	71.70	42.24	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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Trace: (Discrete)

Site no. : A/C Chamber Data no. : 3  
 Dis. / Ant. : 3m VBA6106A/UHALP9108-A Ant. pol. : VERTICAL  
 Limit : 71.7  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Pizza  
 700 milliliters of waters in the beaker  
 located in the center of the oven

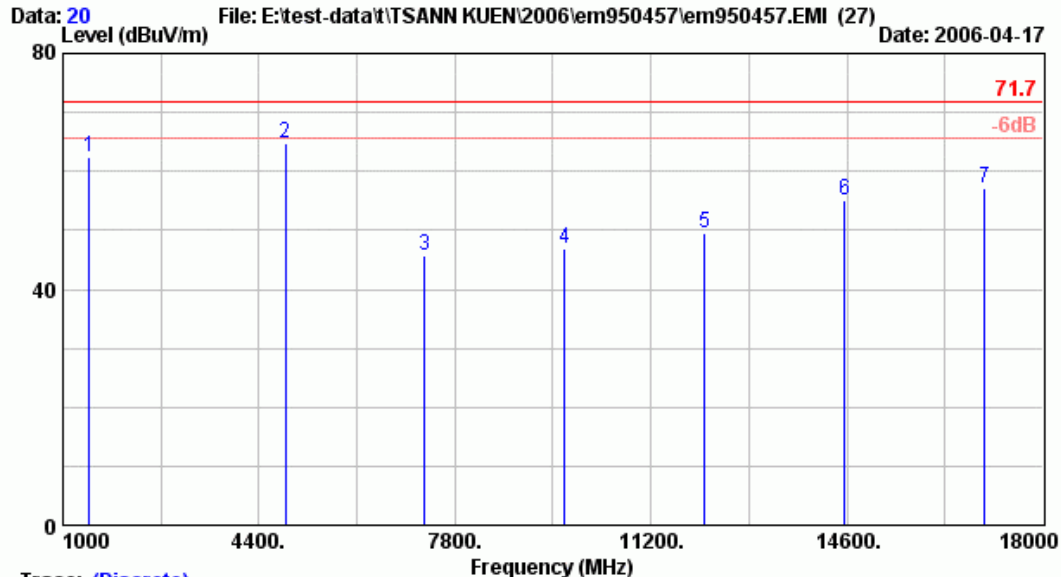
		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	40.670	20.33	1.30	-2.15	19.48	71.70	52.22	QP
2	245.340	24.59	3.50	-1.85	26.24	71.70	45.46	QP
3	496.570	19.38	6.40	-4.22	21.56	71.70	50.14	QP
4	686.690	23.55	6.50	-4.97	25.08	71.70	46.62	QP
5	796.300	25.04	6.90	-4.17	27.77	71.70	43.93	QP
6	944.710	26.98	7.50	-4.20	30.28	71.70	41.42	QP

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.





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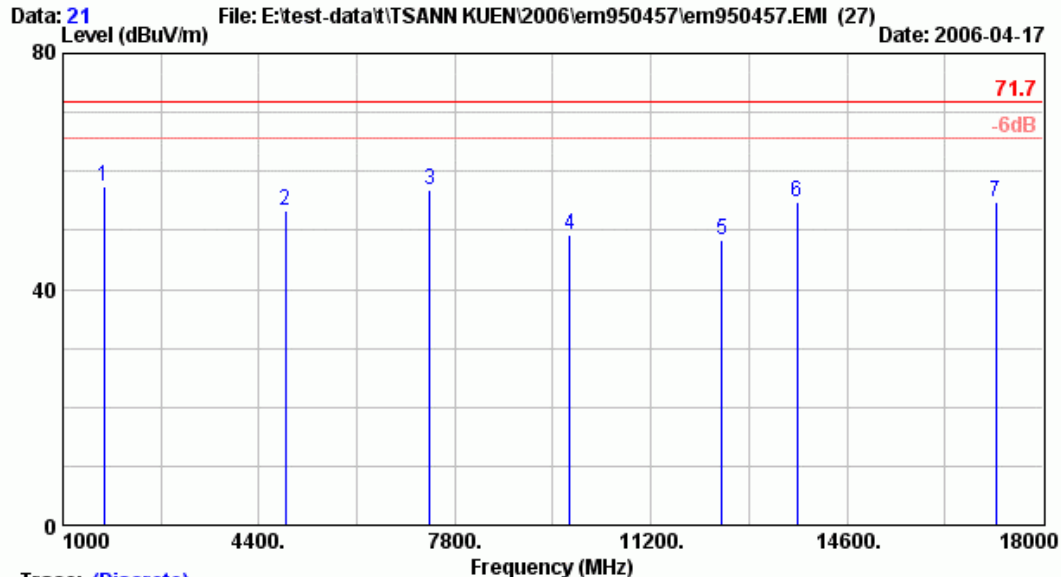
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Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
Limit : 71.7 dB  $\mu$ V/m  
Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
EUT : Microwave Oven M/N:TSK-M1602ME  
Power Rating : 120Vac 60Hz  
Test Mode : Power(MAX)  
700 milliliters of waters in the beaker  
located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)		
1 1459.000	25.39	5.31	31.74	62.44	71.70	9.26	Average	
2 4853.800	33.75	9.15	21.87	64.77	71.70	6.93	Average	
3 7280.700	36.90	11.36	-2.45	45.81	71.70	25.89	Average	
4 9707.600	38.33	12.96	-4.56	46.74	71.70	24.96	Average	
5 12134.500	38.79	14.97	-4.16	49.60	71.70	22.10	Average	
6 14561.400	39.93	16.69	-1.47	55.16	71.70	16.54	Average	
7 16988.300	42.10	16.97	-1.94	57.13	71.70	14.57	Average	

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

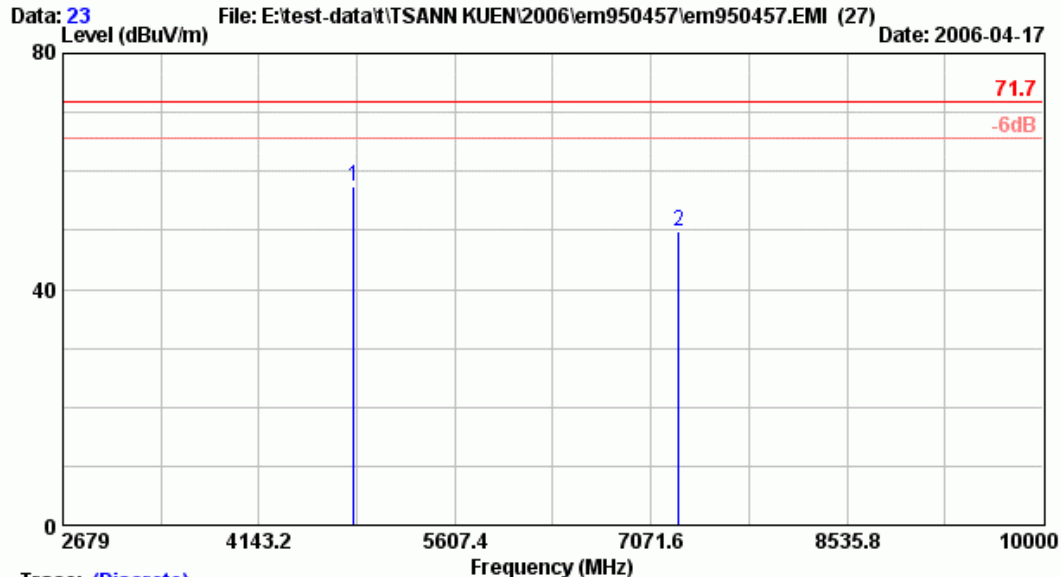
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 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : 71.7 dB  $\mu$ V/m  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power (MAX)  
 700 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)		
1	1714.000	26.50	6.92	24.02	57.44	71.70	14.26	Average
2	4853.800	33.75	9.15	10.30	53.20	71.70	18.50	Average
3	7358.000	37.05	11.48	8.39	56.91	71.70	14.79	Average
4	9789.000	38.43	12.93	-2.10	49.26	71.70	22.44	Average
5	12424.000	38.96	15.00	-5.72	48.24	71.70	23.46	Average
6	13733.000	42.25	16.04	-3.53	54.76	71.70	16.94	Average
7	17184.000	43.34	17.16	-5.73	54.78	71.70	16.92	Average

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

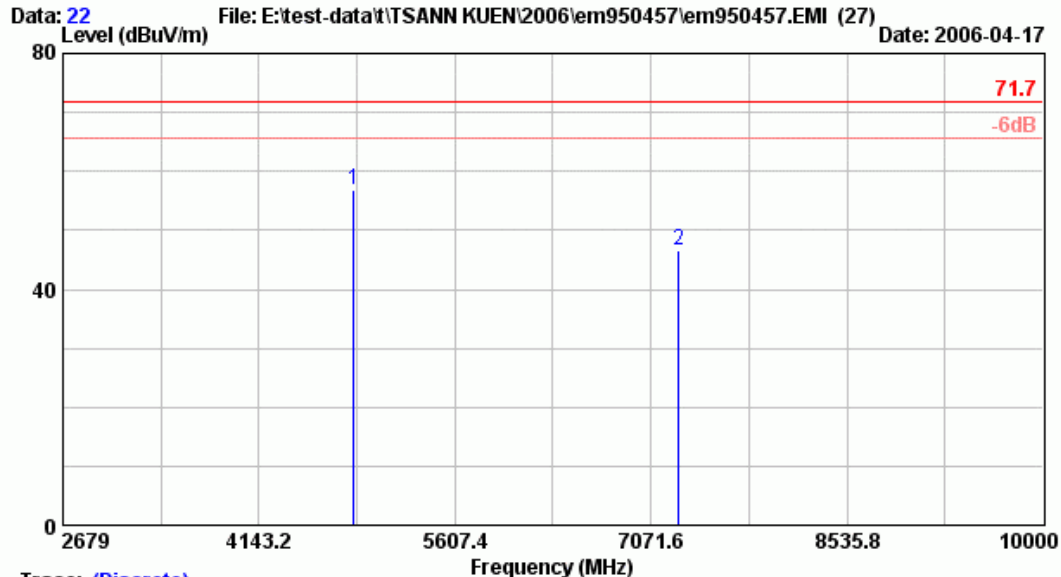
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 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : 71.7 dB  $\mu$ V/m  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power(MAX)  
 700 milliliters of waters in the beaker  
 located in the right front corner

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)		
1 4853.800	33.75	9.15	53.95	57.50	71.70	14.20	Average	
2 7280.700	36.90	11.36	40.88	49.74	71.70	21.96	Average	

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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Trace: (Discrete)

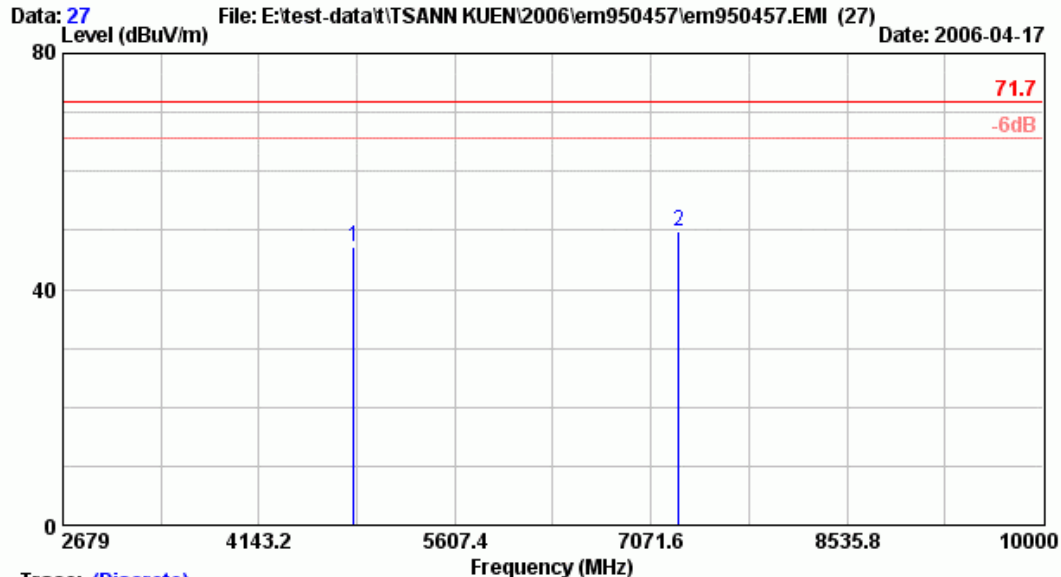
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 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : 71.7 dB  $\mu$ V/m  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power (MAX)  
 700 milliliters of waters in the beaker  
 located in the right front corner

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)		
1 4853.800	33.75	9.15	13.92	56.82	71.70	14.88	Average	
2 7280.700	36.90	11.36	-1.79	46.47	71.70	25.23	Average	

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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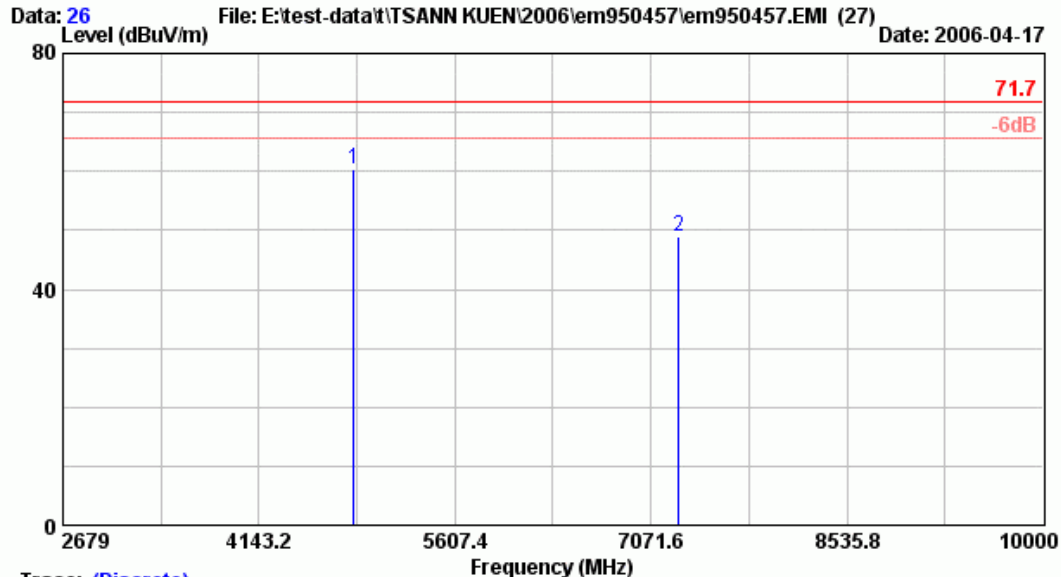
Site no. : A/C Chamber Data no. : 27  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : 71.7 dB  $\mu$ V/m  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power (MAX)  
 300 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)		
1 4853.800	33.75	9.15	43.68	47.24	71.70	24.46	Average	
2 7280.700	36.90	11.36	41.00	49.86	71.70	21.84	Average	

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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Trace: (Discrete)

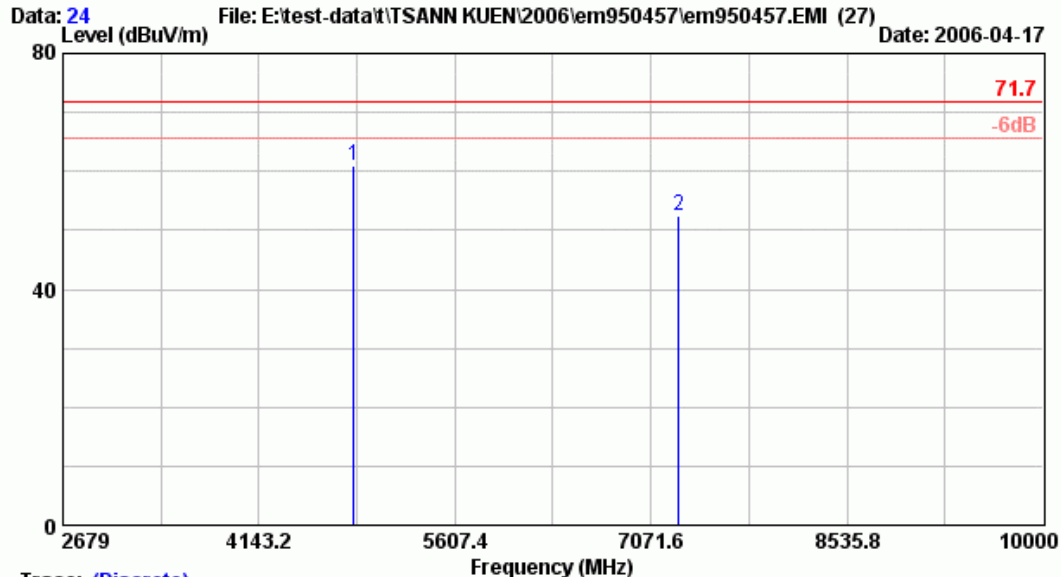
Site no. : A/C Chamber Data no. : 26  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : 71.7 dB  $\mu$ V/m  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power (MAX)  
 300 milliliters of waters in the beaker  
 located in the center of the oven

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)		
1 4853.800	33.75	9.15	17.43	60.33	71.70	11.37	Average	
2 7280.700	36.90	11.36	0.60	48.86	71.70	22.84	Average	

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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Trace: (Discrete)

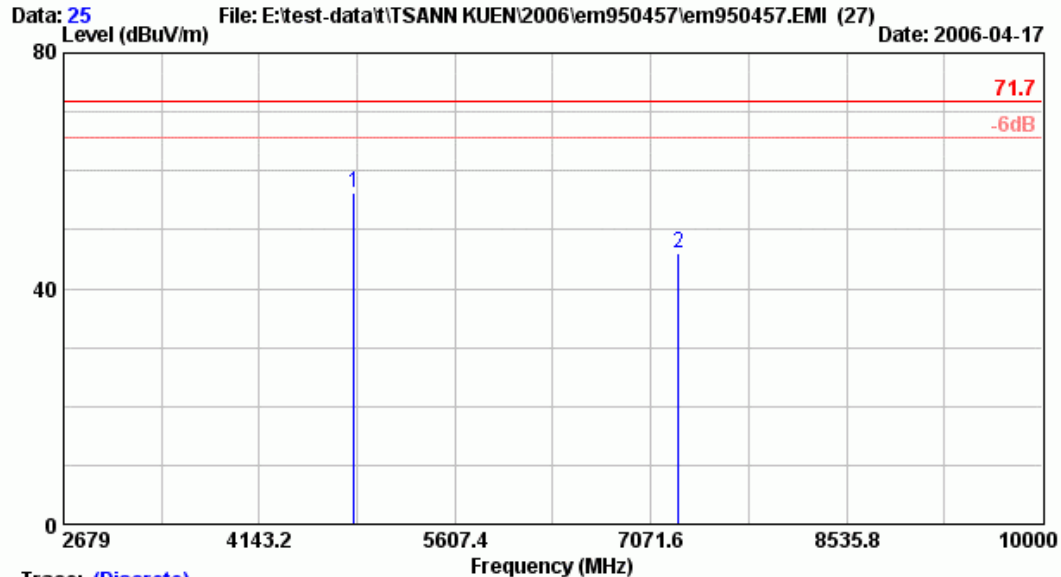
Site no. : A/C Chamber Data no. : 24  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : 71.7 dB  $\mu$ V/m  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power (MAX)  
 300 milliliters of waters in the beaker  
 located in the right front corner

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)		
1 4853.800	33.75	9.15	57.51	61.06	71.70	10.64	Average	
2 7280.700	36.90	11.36	43.47	52.33	71.70	19.37	Average	

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



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Trace: (Discrete)

Site no. : A/C Chamber Data no. : 25  
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL  
 Limit : 71.7 dB $\mu$ V/m  
 Env. / Ins. : 8593EM 24°C/49% Engineer : Cater Chou  
 EUT : Microwave Oven M/N:TSK-M1602ME  
 Power Rating : 120Vac 60Hz  
 Test Mode : Power(MAX)  
 300 milliliters of waters in the beaker  
 located in the right front corner

		Ant.	Cable		Emission			
Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)		
1 4853.800	33.75	9.15	13.47	56.37	71.70	15.33	Average	
2 7280.700	36.90	11.36	-2.13	46.13	71.70	25.57	Average	

Remarks: 1. Emission Level=Antenna Factor + Cable Loss + Reading  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



## **8. DEVIATION TO TEST SPECIFICATIONS**

**【NONE】**