

## 6.0 TEST PROCEDURES AND RESULTS

### 6.1 Safety Check

Test Equipment : use No.13 from Table 4-1 of this report.

$$\langle 0.5\text{mW} / \text{cm}^2$$

### 6.2 Radiated Field Strength

#### 6.2.1 Test Data

Test Equipment : use No.01 to No.12 from Table 4-1 of this report.

Test Condition of Instrument

EUT Warm-up Time : 30 minutes

Resolution Bandwidth : 9kHz (4-30MHz)  
: 120kHz (30-1000MHz)  
: 1MHz (1GHz-25GHz)

Date : November 6 to 7, 2001

Detector Function : Average

Test Mode: Maximum Operation Mode (Section 4.1, OST MP-5).

	Measured Frequency (MHz)	Factor (dB)	Meter Reading at 3 m (dB $\mu$ V/m)	Emission Level at 3 m (dB $\mu$ V/m)	Emission Level at 3 m ( $\mu$ V/m)	Emission Level at 300 m ( $\mu$ V/m)	Limits at 300 m ( $\mu$ V/m)	Margin for Limits at 300 m ( $\mu$ V/m)
Horizontal	<b>Spurious</b> 127.94	*** -12.50	58.00	45.05	188.36	1.88	22.95	21.06
	<b>Spurious</b> 2389.80	* 31.67	23.89	55.56	599.87	6.00	22.95	16.95
	<b>2nd Harmonic</b> 4889.00	** 11.29	25.72	37.01	70.91	0.71	22.95	22.24
	<b>3rd Harmonic</b> 7353.00	** 14.96	23.71	38.67	85.92	0.86	22.95	22.09
	<b>4<sup>th</sup> Harmonic</b> 9784.50	** 15.96	23.25	39.21	91.27	0.91	22.95	22.04
	<b>5<sup>th</sup> Harmonic</b> 12146.70	** 19.07	25.17	44.24	162.93	1.63	22.95	21.32
	<b>Emission Side Band</b> 2400.00 2500.00	* 31.70 31.95	21.54 19.07	53.24 51.02	459.07 355.63	4.59 3.56	22.95 22.95	18.36 19.39

\* Factor = Antenna Factor + Cable loss

\*\* Factor = Antenna Factor + Cable loss + Attenuator - AMP Gain

\*\*\* Factor = Antenna Factor + Cable loss - AMP Gain



### 6.3 Power output measurements(OST MP-5, 4.3)

Total power input to oven : 1250 W( 120 V, 10.8 A)

Power developed in dummy load : 1170 W

### 6.4 Frequency measurements (OST MP-5, 4.5)

Maximum frequency variation:

Load ----- 2470.0 MHz – 2453.0 MHz (1500 cc ~ 300 cc / Load)

Line Voltage --- 2468.0 MHz – 2455.0 MHz ( 96 V ~ 150 V / 1500 cc Load)

### 6.5 Description of calculations

Calculation Formula for field strength at 300m from the measurement at 3m.

Field Strength at 3m (dB $\mu$ V/m)

= Meter Reading + Antenna Factor + Cable Loss  
(dB $\mu$ V/m)          (dB)          (dB)

Field Strength at 300m ( $\mu$ V/m)

=  $K \times 10^{\{ \text{Field Strength at 3 m (dB}\mu\text{V/m)} \div 20 \}}$

K : Conversion Factor for 3 m to 300 m

Example: Spurious Frequency 2389.80 MHz

Meter Reading          26.28 dB $\mu$ V/m

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)	K
2389.80	29.91	1.76	0.01

=  $K \times 10^{\{ (26.28 + 29.91 + 1.76) \div 20 \}}$

= 7.90  $\mu$ V/m