6.0 TEST PROCEDURES AND RESULTS

6.1 Safety Check

Test Equipment use : No. 17 in the Table 4-1 in this report.

$\langle 0.5mW/cm^2$

6.2 Radiated Field Strength

6.2.1 Test Data

Test Equipment use : from No. 01 to No. 16 in the Table 4-1 in this report.

Test Condition of Instrument
Resolution Bandwidth : 9kHz (4-30MHz)
: 120kHz (30-1000MHz)
: 1MHz (1GHz-25GHz)
Detector Function : Average

EUT Warm-up Time : 30 minutes
Date : July 12 to 13, 2001

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

	Measured Frequency (MHz)	* Factor (dB)	Meter Reading at 3 m (dBμV/m)	Emission Level at 3 m (dBμV/m)	Emission Level at 3 m (μV/m)	Emission Level at 300 m (μV/m)	Limits at 300 m (μV/m)	Margin for Limits at 300 m (μV/m)
Horizontal	2 nd Harmonic							
	4938.00	-7.16	43.22	36.06	63.55	0.64	38.92	38.28
	3 rd Harmonic							
	7358.02	-6.95	39.22	32.27	41.07	0.41	38.92	38.51
	Sprious							
	8143.49	-6.67	42.96	36.29	65.25	0.65	38.92	38.27
	Emission Side Band							
	2400.00	-13.18	None	None	None	None		
	2500.00	-13.13	None	None	None	None		
Vertical	2 nd Harmonic							
	4938.00	-7.16	48.71	41.55	119.56	1.20	38.92	37.72
	3 rd Harmonic							
	7358.02	-6.95	42.93	35.98	62.95	0.63	38.92	38.29
	Sprious							
	8143.49	*-6.67*	*53.66*	*46.99*	*223.66*	*2.24*	*38.92*	*36.68*
	Emission Side Band							
	2400.00	-13.18	43.50	30.32	32.81	0.33	38.92	38.59
	2500.00	-13.13	44.20	31.07	35.77	0.36	38.92	38.56

* Factor = Antenna Factor + Cable loss − AMP Gain

Note: In the frequency range of from 9kHz to 1000MHz, emission from the EUT at 3m distance was measured and the level was lower than the floor noise level of 20dBμV/m.
In the frequency range of from 4th harmonic to 10th harmonic, emission from the EUT at 3m distance was measured and the level was lower than the floor noise level of 30dBμV/m.

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

Total power input to oven : 5490 W(208 V, 27.8 A)

Power developed in dummy load : 3366 W

6.4 Frequency measurements (OST MP-5, 4.5)

Maximum frequency variation:

Load ---------- 2450.8 MHz - 2471.3 MHz (3500 cc ~ 700 cc / Load)

Line Voltage --- 2460.2 MHz - 2466.1 MHz (166 V ~ 260 V / 3500 cc Load)

6.5 Description of calcuration

Calculation Formura to get field strength at 300m from the measured at 3m.

Field Strength at 3m (dBμ/m)
= Meter Reading + Antenna Factor + Cable Loss - Amprifier Gain
(dBμV/m) (dB) (dB) (dB)

Field Strength at 300m (dBμ/m)

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

K: Conversion Factor for 3 m to 300 m

Example: Sprious Frequency 8143.49 MHz
Meter Reading 53.66 dBμV/m

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Amp. Gain (dB)	K
8143.49	25.58	3.65	- 35.90	0.01

$$= K \times 10^{\wedge}\{(53.66 + 25.58 + 3.65 - 35.90) \div 20)\}$$
$$= 2.24\ \mu\text{V/m}$$