

6.0 TEST PROCEDURES AND RESULTS

6.1 Safety Check

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

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

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 (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	Spurious 127.94	*** -12.50	58.00	45.05	188.36	1.88	22.95	21.06
	Spurious 2389.80	* 31.67	23.89	55.56	599.87	6.00	22.95	16.95
	2nd Harmonic 4889.00	** 11.29	25.72	37.01	70.91	0.71	22.95	22.24
	3rd Harmonic 7353.00	** 14.96	23.71	38.67	85.92	0.86	22.95	22.09
	4th Harmonic 9784.50	** 15.96	23.25	39.21	91.27	0.91	22.95	22.04
	5th Harmonic 12146.70	** 19.07	25.17	44.24	162.93	1.63	22.95	21.32
	Emission Side Band 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

6.2.2 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	Date : November 6 to 7, 2001
	9kHz (4-30MHz)
	120kHz (30-1000MHz)
	1MHz (1GHz-25GHz)
Detector Function	Average

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)
Vertical	Spurious 127.94	*** -12.50	65.60	53.10	451.86	4.52	22.95	18.43
	Spurious 2389.80	* 31.67	26.28	57.95	789.88	7.90	22.95	15.05
	2nd Harmonic 4889.00	** 11.29	33.87	45.16	181.22	1.81	22.95	21.14
	3rd Harmonic 7353.00	** 14.96	25.15	40.11	101.30	1.01	22.95	21.94
	4 th Harmonic 9784.50	** 15.96	23.34	39.30	92.22	0.92	22.95	22.03
	5 th Harmonic 12146.70	** 19.07	30.95	49.81	309.39	3.09	22.95	15.79
	Emission Side Band 2400.00 2500.00	* 31.70 31.95	24.25 19.95	55.95 51.90	627.16 393.55	6.27 3.94	22.95 22.95	16.68 19.01

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

Note: In the frequency range of from 9kHz to 1000MHz except 127.94MHz, emission from the EUT at 3m distance was measured and the level was less than the floor noise level of 20dBμV/m.

In the frequency range of from 6th harmonic to 10th harmonic, emission from the EUT at 3m distance was measured and the level was less than the floor noise level of 20dBμV/m.

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 (dBμV/m)
= Meter Reading + Antenna Factor + Cable Loss
(dBμV/m) (dB) (dB)

Field Strength at 300m (μV/m)
= $K \times 10^{\{ \text{Field Strength at 3 m (dBμV/m)} \div 20 \}}$
K : Conversion Factor for 3 m to 300 m

Example: Spurious Frequency 2389.80 MHz
Meter Reading 26.28 dBμV/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 μV/m