

6. TESTED SYSTEM DETAILS

6.1 Peripherals and Others:

Description	Model Name	Serial No.	Manufacture	FCC ID
Personal Computer	PC 743	TB42634595	DEC Corp.	A09-PC74XWW
Keyboard	PCXAJ-BA	TB41403360	DEC Corp.	N/A
Mouse	PC7XS-AA	LT40510969	DEC Corp.	DZL210513
CRT Display	GDM17SEIT	2003751	SONY Corp.	AK8GDM17SE1
Printer	BJ-200	SXS19225	Canon Corp.	AZDK10110A
Label Writer	XL PLUSE	C944110071E	Costar Corp.	I73LWXL
AC Adapter	6100-031	N/A	Costar Corp.	N/A
PC Card Reader	CR-500	5200384	FUJI FILM CO., LTD.	L5NPCD001

Note:

* N/A: Equipment required for the Verification.

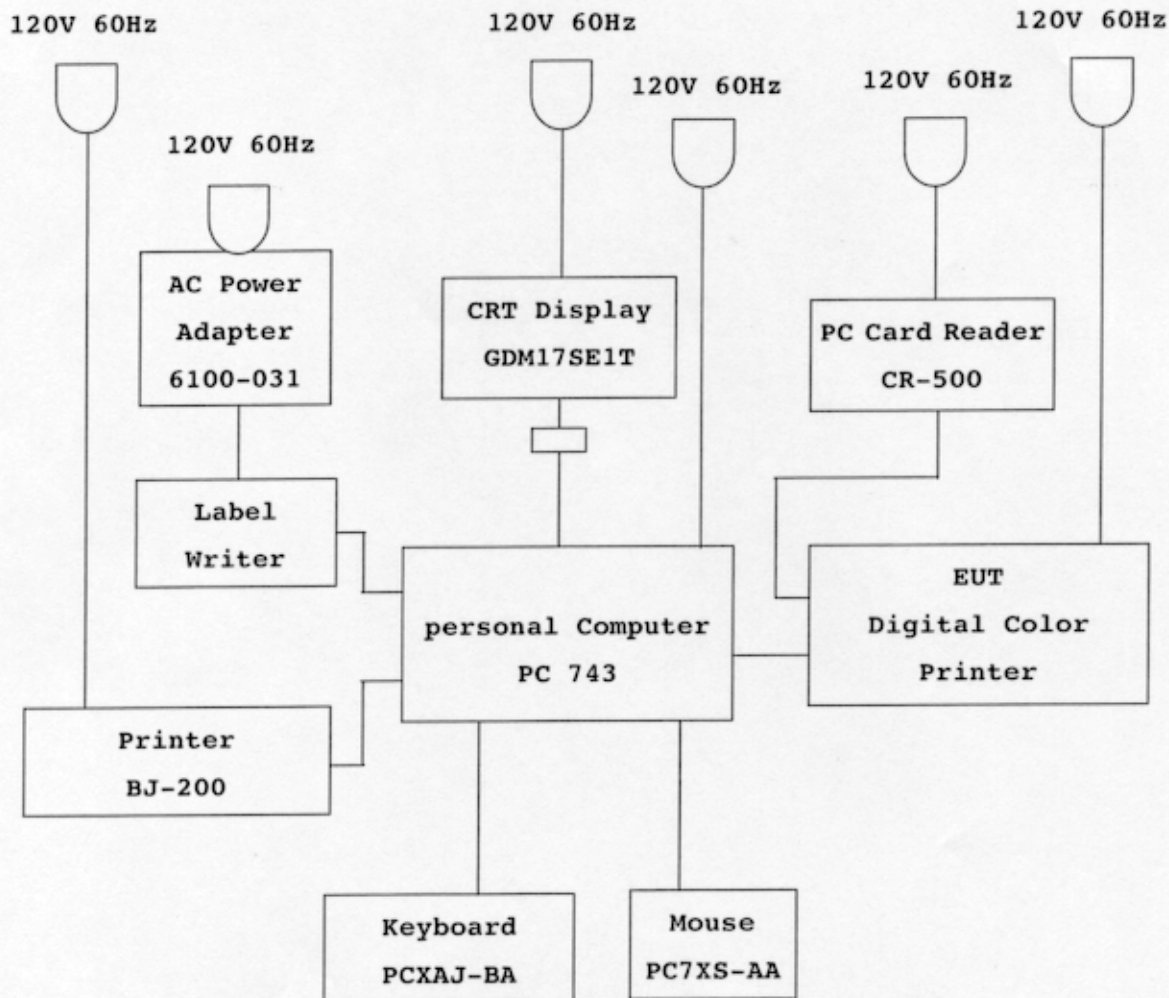
6.2 List of Cables:

Description	Length	Type of shield	Ferrite Core
EUT/Personal Computer	1.0	Shielded	N/A
AC Power Cord(EUT)	1.8	Non-shielded	N/A
EUT/PC Card Reader	1.8	Shielded	N/A
AC Power Cord(PC Card Reader)	1.8	Non-shielded	N/A
AC Power Cord(Personal Computer)	1.8	Non-shielded	N/A
CRT Display/Personal Computer	1.8	Shielded	Provided
AC Power Cord(CRT Display)	1.8	Non-shielded	N/A
Keyboard/Personal Computer	1.3	Shielded	N/A
Mouse/Personal Computer	1.85	Shielded	N/A
Printer/Personal Computer	1.0	Shielded	N/A
Label Writer/Personal Computer	1.8	Non-shielded	N/A
AC Adapter(Label Writer)	1.9	Shielded	N/A
AC Power Cord(PC Card Reader)	1.9	Non-shielded	N/A

Note:

*Provided: The cable is an accessory for CRT Display that was attached a ferrite core.

Figure 6-1 System Configuration Diagram:





FUJI PHOTO FILM CO., LTD.

26-30, NISHIAZABU 2-CHOME
MINATO-KU, TOKYO 106-8620, JAPAN
Telephone:(03)3406-2444
Facsimile:(03)3406-2173
Cable:FUJIFILM TOKYO

FCC ID : F5GNC-400D
Part15 Sub.Part B Class B Digital Device

7. TEST RESULTS

7.1 Conducted Radio Noise Measurement

7.1.1 Measurement Instrumentation Used:

	(Model / Serial No. / Manufacturer)
Test Receiver -----	(ESHS30 / 842053-001 / Rohde & Schwarz)
L.I.S.N -----	(KNW-407 / 8-833-5 / Kyoritsu Electrical)
L.I.S.N -----	(KNW-407 / 8-680-14 / Kyoritsu Electrical)

7.1.2 Measurement Procedure:

The power line conducted interference measurements were performed in a shield enclosure with peripherals placed on a table, 80cm high over a metal floor. It was located more than required distance away from the shielded enclosure wall. The EUT was plugged into the L.I.S.N and the frequency range of interest scanned.

FCC ID : F5GNC-400D
Part15 Sub.Part B Class B Digital Device
7.1.3 Test Data
Table 7.1-1 Conducted Radio Noise Measurement Results:
Operating mode: Printing
Date of measurement: July 2, 2002
Test Procedure: ANSI C63.4-1992 clause 11.5.2
Temperature: 23 degree C
Humidity: 83 %

Frequency (MHz)	Results Meter Reading.		Results Emission Level	Limit	Margin
	VA. (dBuV/m)	VB. (dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)
0.45	16.1	12.3	16.2	48.0	31.8
0.49	28.3	24.7	28.4	48.0	19.6
0.79	21.3	22.9	23.0	48.0	25.0
0.99	21.9	25.6	25.7	48.0	22.3
1.38	21.8	25.0	25.1	48.0	22.9
1.48	22.2	24.6	24.7	48.0	23.3
1.78	22.3	25.4	25.5	48.0	22.5
2.27	23.6	25.0	25.1	48.0	22.9
2.99	37.1	37.5	37.6	48.0	10.4
3.39	46.2	46.4	46.5	48.0	1.5
3.79	42.9	42.8	43.0	48.0	5.0
5.09	33.0	31.2	33.1	48.0	14.9
7.38	28.4	27.4	28.5	48.0	19.5
9.58	28.5	28.5	28.6	48.0	19.4
10.85	30.1	31.1	31.3	48.0	16.7
14.73	31.6	31.8	32.1	48.0	15.9
17.53	38.3	39.2	39.6	48.0	8.4
20.00	28.8	29.5	29.9	48.0	18.1
23.04	20.2	24.9	25.4	48.0	22.6
25.00	13.7	10.6	14.2	48.0	33.8
30.00	12.1	13.7	14.3	48.0	33.7

Note:

- 1) Emission Levels are Higher levels of VA or VB of Meter Readings + Correction Factor.
- 2) VA: Between one end of the power cable and the grounded.
VB: Between the other end of power cable and the grounded.



FUJI PHOTO FILM CO., LTD.

26-30, NISHIAZABU 2-CHOME
MINATO-KU, TOKYO 106-8620, JAPAN

Telephone:(03)3406-2444

Facsimile:(03)3406-2173

Cable:FUJIFILM TOKYO

FCC ID : F5GNC-400D

Part15 Sub.Part B Class B Digital Device

7.1.4 Conducted Radio Noise Calculation

The conducted radio noise is calculated by adding the calibration factor to the measured reading. The basic equation and a sample calculation are as follows.

$$\text{CRN} = \text{TRM} + \text{CF}$$

$$\text{Margin} = \text{Limit} - \text{CRN}$$

where CRN = Conducted Radio Noise (dBuV)

TRM = Test Receiver Reading (dBuV)

CF: Correction Factor (dB/m)

The correction factor includes cable loss and LISN factor.



FUJI PHOTO FILM CO., LTD.

26-30, NISHIAZABU 2-CHOME
MINATO-KU, TOKYO 106-8620, JAPAN
Telephone:(03)3406-2444
Facsimile:(03)3406-2173
Cable:FUJIFILM TOKYO

FCC ID : F5GNC-400D

Part15 Sub.Part B Class B Digital Device

7.2 Radiated Radio Noise Measurement

7.2.1 Measurement Instrumentation Used:

(Model / Serial No. / Manufacturer)
Test Receiver -----(ESVS10 / 84231-004 / Rohde & Schwarz)
Bi-Conical Antenna -----(BBA9106 / 11905065-2 / Schwarzbeck)
Log-Periodic Antenna -----(UHALP9107 / 91031436 / Schwarzbeck)

7.2.2 Measurement Procedure:

The EUT was placed in an 80cm high table along with the peripherals.
The turntable was separated from the antenna at a distance of 3 meter. Cable were placed in a position to produce maximum emission as determined by experimentation, and operation mode was selected for maximum.
The frequencies and amplitudes of maximum emission were measured at varying azimuths, antenna heights and antenna polarities.

7.2.3 Test Data

Table 7.2-1 Radiated Radio Noise Measurement Results:

Operating mode: Printing Date of measurement: July 2, 2002
Test Procedure: ANSI C63.4-1992 sec. 8.3.1.1 Temperature: 28 degree C
Humidity: 78 %

Frequency (MHz)	Correction Factor (dB)	Results Meter Reading. (dBuV/m)		Results Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)
		Hor.	Vert.			
32.1	19.0	< -2.0	5.1	24.1	40.0	15.9
44.0	14.8	11.1	9.4	25.9	40.0	14.1
55.0	11.4	2.0	13.7	25.1	40.0	14.9
61.6	9.6	5.9	15.0	24.6	40.0	15.4
99.9	12.3	10.5	7.8	22.8	43.5	20.7
115.6	14.7	6.9	8.2	22.9	43.5	20.6
150.0	17.6	11.8	10.4	29.4	43.5	14.1
168.0	18.8	12.7	12.2	31.5	43.5	12.0
187.0	19.6	2.8	4.0	23.6	43.5	19.9
225.0	20.8	8.0	14.0	34.8	46.0	11.2
244.0	21.5	5.0	2.5	26.5	46.0	19.5
262.5	22.4	14.5	11.3	36.9	46.0	9.1
299.9	23.9	10.0	9.4	33.9	46.0	12.1
333.1	21.7	10.2	10.3	32.0	46.0	14.0
360.0	22.3	10.0	12.4	34.7	46.0	11.3
407.9	23.0	14.0	10.2	37.0	46.0	9.0
450.0	24.4	10.2	11.1	35.5	46.0	10.5
487.5	25.5	10.0	16.8	42.3	46.0	3.7
525.0	26.4	7.9	14.0	40.4	46.0	5.6
637.5	28.7	5.2	6.5	35.2	46.0	10.8
850.0	32.7	< -2.0	< -2.0	< 30.7	46.0	> 15.3
1000.0	34.9	< -2.0	< -2.0	< 32.9	54.0	> 21.1

Note:

- 1) Meter Readings are corrected by all Correction Factors.
- 2) Emission Levels are higher levels of Hori. Or Vert. Of Meter Readings.
- 3) Margin = Limit - Emission Level.



FUJI PHOTO FILM CO., LTD.

26-30, NISHIAZABU 2-CHOME
MINATO-KU, TOKYO 106-8620, JAPAN
Telephone:(03)3406-2444
Facsimile:(03)3406-2173
Cable:FUJIFILM TOKYO

FCC ID : F5GNC-400D

Part15 Sub.Part B Class B Digital Device

7.2.4 Radiated Radio Noise Calculation

The radiated radio noise is calculated by adding the correction factor to the measured reading. The basic equation and a sample of calculation are as follows;

$$RRN = TRM + CF$$

$$\text{Margin} = \text{Limit} - RRN$$

where RRN = Radiated Radio Noise (dBuV)

TRM = Test Receiver Reading (dBuV)

CF: Correction Factor (dB/m) ,

The correction factor includes pre-amplifier gain, cable loss and antenna factor.