



6. TESTED SYSTEM DETAILS

6.1 Peripherals and Others :

<i>Description</i>	<i>Model Name</i>	<i>Serial No.</i>	<i>Manufacturer</i>	<i>FCC ID</i>
Personal Computer	PC743	TB42634595	DEC	A09-74XWW
Keyboard	PCXAJ-BA	TB41403360	DEC	N/A
CRT Display	GDM-17SE1T	2003751	Sony Corp.	AK8GDM17SE1
Mouse	PC7XS-AA	LT40510969	DEC	DZL210513
Bubble Jet Printer	BJ-200	SXS19225	Canon Inc.	AZDK10110A
Label Writer	XL PLUS	C944110071E	CoStar Corp.	I73LWXL
AC Power Adapter	60100-031	-	CoStar Corp.	N/A
PC Card Reader	CR-500	5200384	Fuji Photo Film Co., Ltd.	L5NPCD001

6.2 List of Cables :

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

Note:

* Provided : The cable is an accessory for Personal Computer which was attached a ferrite core.



FUJIFILM

FUJI PHOTO FILM CO.,LTD.

26-30, NISHIAZABU 2-CHOME,

MINATO-KU, TOKYO 106, JAPAN

Telephone: (03) 3406-2934

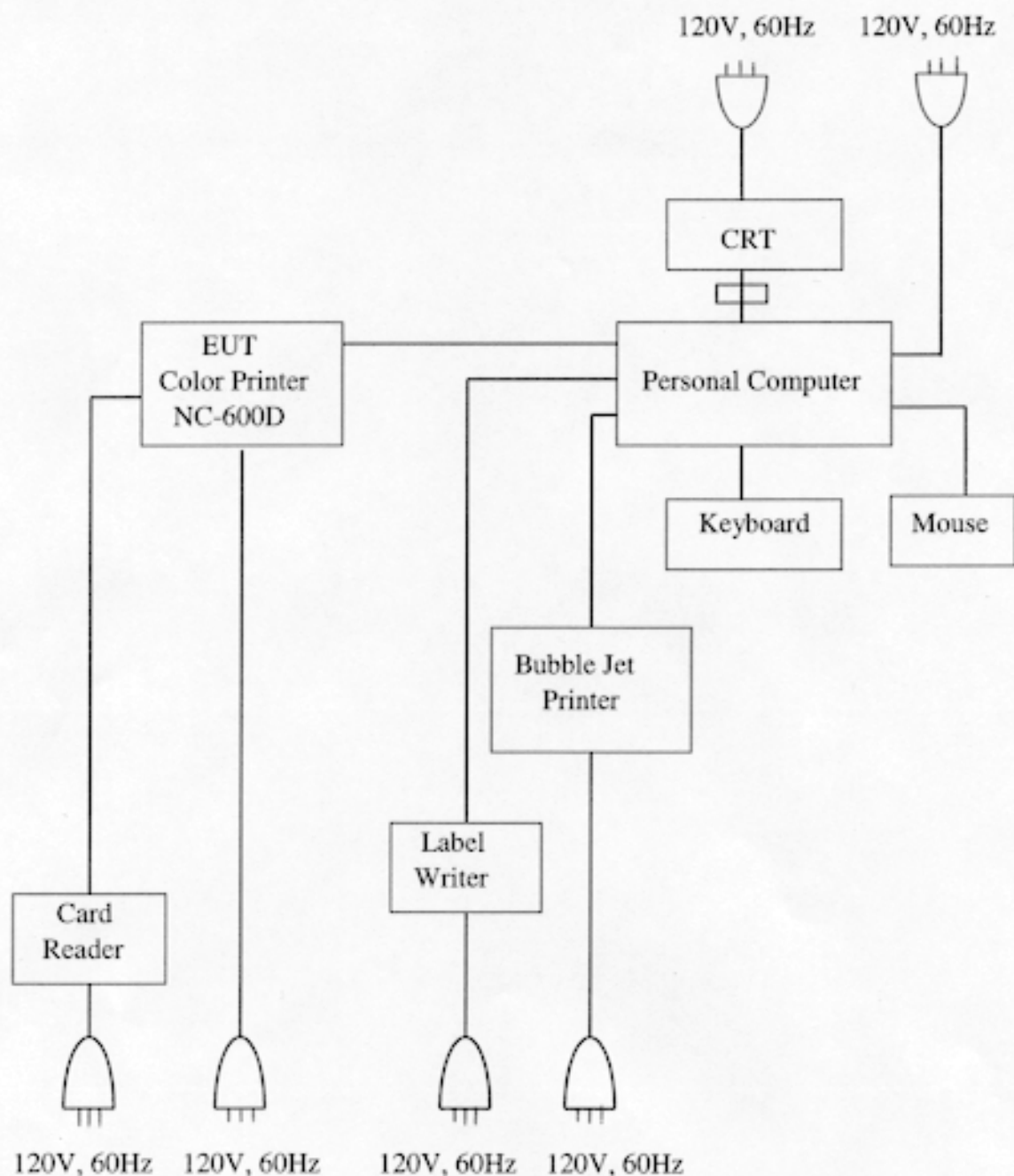
Facsimile : (03) 3406-9967

page 6 of 6

FCC ID: F5GNC-600D

Part 15 Subpart B Class B Digital Device

Figure 6-1 System Configuration Diagram :





FUJI PHOTO FILM CO.,LTD.

26-30, NISHIAZABU 2-CHOME,

MINATO-KU, TOKYO 106, JAPAN

Telephone: (03) 3406-2934

Facsimile : (03) 3406-9967

FCC ID: F5GNC-600D

Part 15 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 ----- (ESH-3 / 872994-047 / Rohde & Schwarz)

L. I. S. N ----- (KNW-407 / 8-833-5 / Kyoritsu Electrical Works)

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-600D

Part 15 Subpart B Class B Digital Device

7.1.3 Test Data

Table 7.1-1 Conducted Radio Noise Measurement Results:

Operating mode: Print Mode

Date of measurement: February 2, 2000

Test Procedure: ANSI C63.4-1992

Temperature: 20 degree C

Humidity: 33 %

Frequency (MHz)	Results		Results	Limit	Margin
	Meter Reading.		Emission Level		
	VA.	VB.			
	(dBuV/m)		(dBuV/m)	(dBuV/m)	(dBuV/m)
0.4500	< 10.1	< 10.1	< 10.1	48.0	>37.9
0.4900	34.6	34.9	34.9	48.0	13.1
0.5400	30.7	33.6	33.6	48.0	14.4
0.6500	29.2	33.2	33.2	48.0	14.8
0.8800	32.3	32.9	32.9	48.0	15.1
1.4100	24.2	25.5	25.5	48.0	22.5
2.0500	26.8	30.3	30.3	48.0	17.7
3.4800	24.6	23.4	24.6	48.0	23.4
4.5400	25.1	26.6	26.6	48.0	21.4
6.0600	29.8	29.4	29.8	48.0	18.2
8.0000	30.3	30.9	30.9	48.0	17.1
10.0000	35.4	37.0	37.0	48.0	11.0
12.0000	39.8	40.5	40.5	48.0	7.5
15.0000	30.8	30.5	30.8	48.0	17.2
18.0000	35.2	34.7	35.2	48.0	12.8
20.0000	41.6	41.4	41.6	48.0	6.4
22.0000	40.9	41.1	41.1	48.0	6.9
25.0000	40.0	39.4	40.0	48.0	8.0
27.0000	37.6	34.4	37.6	48.0	10.4
30.0000	28.6	25.6	28.6	48.0	19.4

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, JAPAN

Telephone: (03) 3406-2934

Facsimile : (03) 3406-9967

FCC ID: **F5GNC-600D**

Part 15 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.

FCC ID: F5GNC-600D**Part 15 Sub.part B Class B Digital Device**

7.2 Radiated Radio Noise Measurement

7.2.1 Measurement Instrumentation Used :

(Model / Serial No. / Manufacturer)

(for 30 - 1000 MHz)

Test Receiver ----- (ESVS10 / 843744-018 / Rohde & Schwarz)

Biconical Antenna ----- (BBA9106 / 11905065-3 / Schwarzbeck)

Log-periodic Antenna ----- (UHALP9107 / 9107915 / Schwarzbeck)

(for above 1000 MHz)

Spectrum Analyzer ----- (8563E / 3438A00756 / Hewlett Packard)

Pre-Amplifier ----- (WJ-6611-513 / 0288 / Watkins Johnson)

Log-periodic Antenna ----- (94612-1 / 97062301 / NAC Co.)

7.2.2 Measurement Procedure:

The EUT was placed in a 80cm high table along with the peripherals.

The turn table was separated from the antenna at a distance of 3 meter. Cables 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 (30 – 1000 MHz):

Operating mode: Printing

Date of measurement: January 18, 2000

Test Procedure: ANSI C63.4-1992

Temperature: 5 degree C

Humidity: 85 %

<i>Frequency</i>	<i>Correction</i>	<i>Results</i>		<i>Results</i>	<i>Limit</i>	<i>Margin</i>
	<i>Factor</i>	<i>Meter Reading.</i>		<i>Emission Level</i>		
<i>(MHz)</i>	<i>(dB)</i>	<i>(dBuV/m)</i>		<i>(dBuV/m)</i>	<i>(dBuV/m)</i>	<i>(dBuV/m)</i>
		<i>Hori.</i>	<i>Vert.</i>			
35.800	17.2	4.3	9.0	26.2	40.0	13.8
43.000	14.8	5.3	<-2.0	20.1	40.0	19.9
65.800	8.5	8.2	<-2.0	16.7	40.0	23.3
71.700	7.6	12.2	<-2.0	19.8	40.0	20.2
87.000	9.9	10.1	<-2.0	20.0	40.0	20.0
120.000	14.9	12.2	10.0	27.1	43.5	16.4
130.600	16.1	12.7	9.8	28.8	43.5	14.7
140.000	17.0	8.2	9.8	26.8	43.5	16.7
150.000	18.0	17.5	11.0	35.5	43.5	8.0
160.000	18.7	16.4	10.8	35.1	43.5	8.4
199.900	21.2	10.0	6.7	31.2	43.5	12.3
240.000	22.3	11.6	11.9	34.2	46.0	11.8
264.000	22.4	10.7	10.0	33.1	46.0	12.9
297.000	23.6	3.0	-0.4	26.6	46.0	19.4
320.000	20.6	7.5	4.5	28.1	46.0	17.9
332.400	21.1	14.8	13.8	35.9	46.0	10.1
359.900	21.8	9.8	4.1	31.6	46.0	14.4
384.100	22.4	5.7	7.5	29.9	46.0	16.1
407.900	22.9	11.7	8.0	34.6	46.0	11.4
514.300	24.9	- 1.7	2.0	26.9	46.0	19.1
700.000	28.4	< - 2.0	2.0	30.4	46.0	15.6
1000.000	33.8	< - 2.0	< - 2.0	< 31.8	54.0	> 22.2

Note: 1) The spectrum was checked from 30 MHz to 1000 MHz.

2) The symbol of '<' means 'or less' and '>' means 'or more'.

3) The cable (58.0 m length) loss is included in the antenna factor.

FCC ID: F5GNC-600D

Part 15 Sub.part B Class B Digital Device

Table 7.2-2 Radiated Radio Noise Measurement Results (1000 - 2000 MHz):

Operating mode: Printing

Date of measurement: January 18, 2000

Test Procedure: ANSI C63.4-1992

Temperature: 5 degree C

Humidity: 85 %

Frequency (MHz)	Correction	Results		Results	Limit (dBuV/m)	Margin (dBuV/m)
	Factor	Meter Reading.		Emission Level		
	(dB)	(dBuV/m)		(dBuV/m)		
		Hori.	Vert.			
1000.00	34.1	< 40.0	< 40.0	< 27.3	54.0	> 26.7
1100.00	34.9	< 40.0	< 40.0	< 27.3	54.0	> 26.8
1200.00	35.7	< 40.0	< 40.0	< 27.3	54.0	> 26.2
1300.00	36.6	< 40.0	< 40.0	< 27.3	54.0	> 25.6
1400.00	37.4	< 40.0	< 40.0	< 27.3	54.0	> 24.9
1500.00	38.3	< 40.0	< 40.0	< 27.3	54.0	> 24.3
1600.00	40.2	< 40.0	< 40.0	< 27.3	54.0	> 22.3
1700.00	42.0	< 40.0	< 40.0	< 27.3	54.0	> 20.3
1800.00	43.2	< 40.0	< 40.0	< 27.3	54.0	> 18.9
1900.00	43.9	< 40.0	< 40.0	< 27.3	54.0	> 18.1
2000.00	44.5	< 40.0	< 40.0	< 27.3	54.0	> 17.4

Note: 1) The spectrum was checked from 1000 MHz to 2000 MHz.

2) The symbol of '<' means 'or less' and '>' means 'or more'.

3) The cable (58.0 m length) loss is included in the antenna factor.

[Supplement of Table 7.2-1 and Radiated Radio Noise Measurement Results]

(1) 'Results Emission Level' are (higher levels of Hori. or Vert. of Meter Reading) +
Correction Factor.

(2) 'Margin' = Limit - Emission Level.



FUJI PHOTO FILM CO.,LTD.

26-30, NISHIAZABU 2-CHOME,

MINATO-KU, TOKYO 106, JAPAN

Telephone: (03) 3406-2934

Facsimile : (03) 3406-9967

FCC ID: F5GNC-600D

Part 15 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.