FUJIFILM

FUJI PHOTO FILM CO.,LTD.
26-30, NISHIAZABU 2-CHOME,
MINATO-KU, TOKYO 106, JAPAN
Telephone: (03) 3406-2934
Facsimile : (03) 3406-9967

6. TESTED SYSTEM DETAILS

6.1 Peripherals and Others :

Description	*Model Name*	*Serial No.*	*Manufacturer*	*FCC ID*
Personal Computer	HP NetVectra N30	TW01230966	HP	DOC
LCD Monitor	Flex Scan L350	C4932011	EIZO NANAO	DOC.
Key Board	SK-2501 A	M990800599	HP	GYUR56SK
Mouse	M-S34	LZB00622085	HP	DZL211029
Laser Printer	C4120A	SGEF060226	HP	DOC

Note:
*DoC: Device was tested and authorized under a Declaration of Conformity to the applicable FCC rules.

6.2 List of Cables :

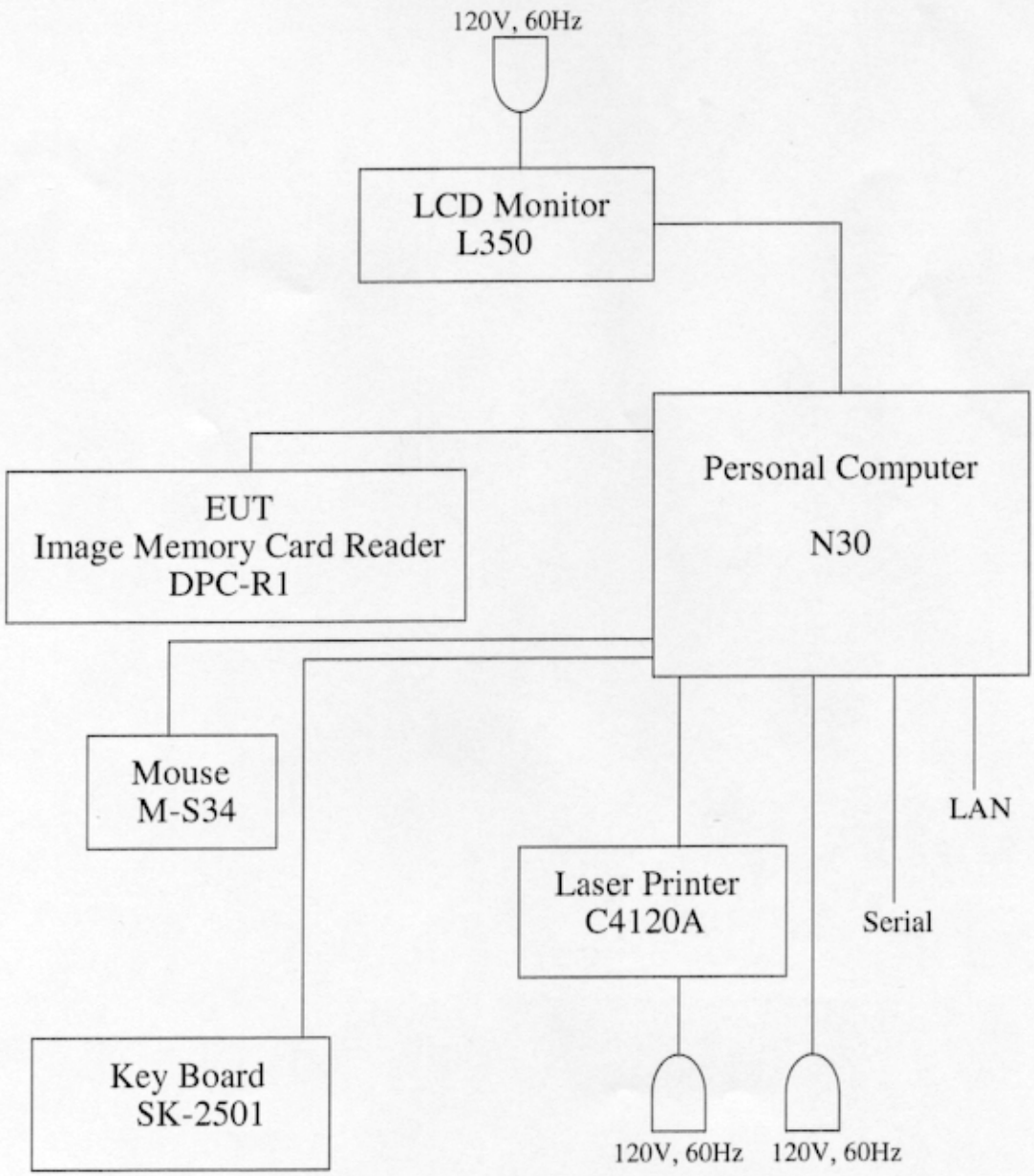
Description	*Length*	*Type of shield*	*Ferrite Core*
EUT / Personal Computer	1.0 m	Shield	N/A
Mouse / Personal Computer	1.85 m	Shield	N/A
Monitor / Personal Computer	1.8 m	Shield	N/A
Key Board / Personal Computer	1.7 m	Shield	N/A
Printer / Personal Computer	2.1 m	Shield	N/A
LAN / Personal Computer	2.0 m	Non- shield	N/A
Serial / Personal Computer	1.8 m	Shield	N/A
AC Power Cord (PC)	2.35 m	Non- shield	N/A
AC Power Cord (Printer)	2.30 m	Non- shield	N/A
AC Power Cord (Monitor)	2.0 m	Non- shield	N/A

Note:

FUJIFILM

FUJI PHOTO FILM CO.,LTD.
26-30, NISHIAZABU 2-CHOME,
MINATO-KU, TOKYO 106, JAPAN
Telephone: (03) 3406-2934
Facsimile : (03) 3406-9967

Figure 6-1 System Configuration Diagram :



FUJIFILM

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 : **F5GDPC-R1**
Part 15 Subpart 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 ---------- (ESHS10 /100003 / Rohde & Schwarz)

L. I. S. N ---------- (ESH2-Z5 / 892602018 / Rohde & Schwarz)

L. I. S. N ---------- (ESH2-Z5 / 881492004 / Rohde & Schwarz)

Spectrum Analyzer---------- (E4401B / US39240216 / Hewlett Packard)

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.

FUJIFILM

FUJI PHOTO FILM CO.,LTD.
26-30, NISHIAZABU 2-CHOME,
MINATO-KU, TOKYO 106, JAPAN
Telephone: (03) 3406-2934
Facsimile : (03) 3406-9967

7.1.3 Test Data

Table 7.1-1 Conducted Radio Noise Measurement Results:

Operating mode: Read/Write — Date of measurement: June 28, 2002
Test Procedure: ANSI C63.4-1992 — Temperature: 23.5 degree C
Humidity: 59.0 %

Frequency	*Results Meter Reading.*		*Results Emission Level*	*Limit*	*Margin*
	VA.	*VB.*			
(MHz)	*(dBuV)*		*(dBuV)*	*(dBuV)*	*(dBuV)*
0.150	29.7	29.2	29.7	66.0	36.3
0.207	46.6	48.0	48.0	63.3	15.3
0.621	37.2	35.2	37.2	56.0	18.8
4.355	36.1	38.2	38.2	56.0	17.8
16.284	34.8	41.1	41.1	60.0	18.9
29.352	42.2	42.0	42.2	60.0	17.8

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.

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:

CRN = TRM + CF
Margin = Limit - 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.

FUJIFILM

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 : **F5GDPC-R1**
Part 15 Subpart B Class B Digital Device

7.2 Radiated Radio Noise Measurement

7.2.1 Measurement Instrumentation Used :

(Model / Serial No. / Manufacturer)

Test Receiver ---------- (ESVS10 / 833269002 / Rohde & Schwarz)

Spectrum analyzer---------- (TR4173E / 85590009 / Advantest)

Per-Amplifier---------- (8447D / 2443A03843 / Hewlett Packard)

Biconical antenna---------- (BBA9106 / - / Schwarzbeck)

Log-periodic antenna---------- (USLP9143 / 121 / Schwarzbeck)

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.

FUJIFILM

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 : **F5GDPC-R1**
Part 15 Subpart B Class B Digital Device

7.2.3 Test Data

Table 7.2-1 Radiated Radio Noise Measurement Results:

Operating mode: Read/Writer
Test Procedure: ANSI C63.4-1992

Date of measurement: June 28, 2002
Temperature: 20 degree C
Humidity: 84 %

Frequency	*Correction Factor*	*Results Meter Reading.*		*Results Emission Level*	*Limit*	*Margin*
(Mhz)	*(dB)*	*(dBuV/m)*		*(dBuV/m)*	*(dBuV/m)*	*(dBuV/m)*
		Hori.	*Vert.*			
48.00	-13.6	-	24.9	24.9	40.0	15.1
75.03	-18.7	-	22.8	22.8	40.0	17.2
77.52	-18.7	30.2	-	30.2	40.0	9.8
96.02	-15.6	28.9	-	28.9	43.5	14.6
100.03	-14.6	29.6	-	29.6	43.5	13.9
100.04	-14.6	-	30.6	30.6	43.5	12.9
144.03	-10.2	27.8	-	27.8	43.5	15.7
144.04	-10.2	-	34.9	34.9	43.5	8.6
150.00	-10.0	-	37.2	37.2	43.5	6.3
150.01	-10.0	30.3	-	30.3	43.5	13.2
168.00	- 9.4	25.8	-	25.8	43.5	17.7
200.02	- 7.6	29.1	-	29.1	43.5	14.4
216.00	- 7.3	25.5	-	25.5	43.5	18.0
301.47	- 9.7	-	36.7	36.7	46.0	9.3
301.48	- 9.7	37.9	-	37.9	46.0	8.1
501.09	- 4.7	-	36.5	36.5	46.0	9.5
501.20	- 4.7	38.7	-	38.7	46.0	7.3
751.65	0.8	39.6	39.7	39.7	46.0	6.3

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.

FUJIFILM

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 : **F5GDPC-R1**
Part 15 Subpart 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
Margin = 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.