



# FUJIFILM

FUJI PHOTO FILM CO., LTD.

26-30, NISHIAZABU 2-CHOME,

MINATO-KU, TOKYO 106, JAPAN

Telephone: (03) 3506-2934

Facsimiles: (03) 3506-9967

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FCC ID : F5GFP-501

Part 15 Subpart B Class B Digital Device

## 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	12XL212	1V08FHNJE1N5	Compaq Computer Co., Ltd.	DOC
PC Monitor	M2978	CY52401HF3CV	LG Electronics, Inc.	BEJCA500
Video Monitor	PVM-8040	2029411	Sony Corp.	N/A
Scanner	AS-1	0009	Fuji Photo Film Co., Ltd.	F5GAS-1
Mouse	M-BB48	LZE01271677	Logitech	DOC
Head Phone Controller	-	-	Mitsumi	N/A
Head Phone Speaker	-	-	Mitsumi	N/A
Picture Cradle	-	D1000158A	Fuji Photo Film Co., Ltd.	N/A
AC Adapter (for PC)	LE-9702B-01	177625-001	Compaq Computer Co., Ltd.	N/A
AC Adaptor (for EUT)	AC-5VS	9956	Fuji Photo Film Co., Ltd.	N/A

(for AC Adapter of EUT, Input: 120VAC, 60Hz / Output: 5VDC)

#### Note:

\*DOC: Declaration of Conformity by Manufacturer, Compaq Computer Co., Ltd., or Logitech.

\* N/A: Equipment required for the Verification.



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## 6.2 List of Cables :

<i>Description</i>	<i>Length</i>	<i>Type of shield</i>	<i>Ferrite Core</i>
Mouse / Personal Computer	1.9 m	Shielded	N/A
AC Power Cord (PC Monitor)	1.7 m	Non-shielded	N/A
PC Monitor / Personal Computer	1.65 m	Shielded	Provided
Scanner / Personal Computer	1.5 m	Shielded	Provided
EUT / Personal Computer	1.5 m	Shielded	Add
DC Power Cord (PC/AC adaptor)	1.5 m	Shielded	Provided
AC Power Cord (PC/AC adapter)	1.7 m	Non-shielded	N/A
DC Power Cord (EUT/AC adaptor)	1.9 m	Shielded	Add
AC Power Cord (Scanner)	1.8 m	Non-shielded	N/A
EUT / Video Monitor	1.4 m	Shielded	Add
AC Power Cord (Video Monitor)	1.5 m	Non-shielded	N/A
Headphone Cable	0.8 m	Shielded	N/A
Head Set Cable	1.11 m	Shielded	N/A

### Note:

\* Provided: The cable is an accessory for Personal Computer, Digital Camera, Scanner or PC Monitor which was attached a ferrite core.



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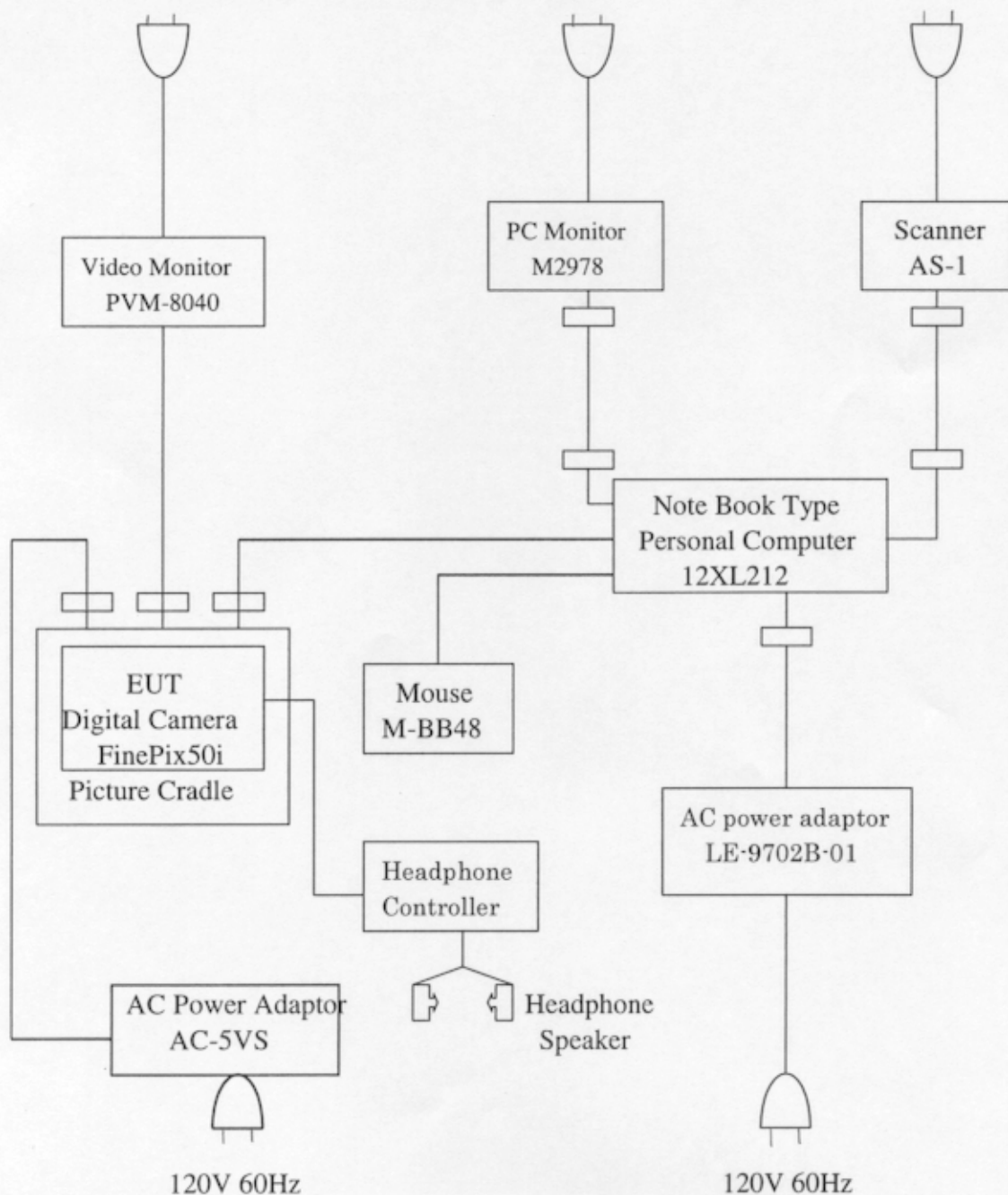
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Figure 6-1 System Configuration Diagram :





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## 7. TEST RESULTS

### 7.1 Conducted Radio Noise Measurement

#### 7.1.1 Measurement Instrumentation Used:

*(Model / Serial No. / Manufacturer)*

Test Receiver ----- (ESCS 30 / 825788-007 / Rohde & Schwarz)

L. I. S. N ----- (KNW-407 / 8-823-10 / Kyoritsu Electrical)

L. I. S. N ----- (KNW-407 / 8-680-7 / Kyoritsu Electrical)

Spectrum Analyzer System ----- (8568S / 2445A00924 / 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.

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### 7.1.3 Test Data

**Table 7.1-1 Conducted Radio Noise Measurement Results:**

Operating mode: Camera Mode

Date of measurement: May 11, 2001

Test Procedure: ANSI C63.4-1992

Temperature: 15 degree C

Humidity: 58 %

Frequency  (MHz)	Results Meter Reading.		Results	Limit	Margin
			Emission Level		
	VA.	VB.			
	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)
0.5400	34.3	37.1	37.1	47.9	10.8
1.4300	36.8	37.1	37.1	47.9	10.8
2.3200	35.8	35.3	35.8	47.9	12.1
3.3000	35.9	35.6	35.9	47.9	12.0
6.0100	33.5	33.6	33.6	47.9	14.3
17.8500	19.8	22.1	22.1	47.9	25.8

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.

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## **7.2 Radiated Radio Noise Measurement**

### **7.2.1 Measurement Instrumentation Used :**

*(Model / Serial No. / Manufacturer)*

Test Receiver ----- (ESCS 30 / 834115-020 / Rohde &amp; Schwarz)

Bi-Conical Antenna ----- (BBA9106 / D-6901 No.2 / Schwarzbeck)

Log-Periodic Antenna ----- (UHALP9107 / 424-517 / Schwarzbeck)

Spectrum Analyzer System ----- (8568S / 2445A00924 / Hewlett Packard)

### **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.



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## 7.2.3 Test Data

**Table 7.2-1 Radiated Radio Noise Measurement Results:**

Operating mode: Camera Mode

Test Procedure: ANSI C63.4-1992

Date of measurement: May 11, 2001

Temperature: 16degree C

Humidity: 60%

Frequency	Correction	Results		Results	Limit	Margin
	Factor	Meter Reading.		Emission Level		
(Mhz)	(dB)	(dBuV/m)		(dBuV/m)	(dBuV/m)	(dBuV/m)
		Hori.	Vert.			
59.070	9.7	-	25.7	25.7	40.0	14.3
68.220	8.2	24.4	26.0	26.0	40.0	14.0
128.860	15.9	-	26.4	26.4	43.5	17.1
229.090	20.6	34.9	30.6	34.9	46.0	11.1
261.820	21.0	39.8	27.6	39.8	46.0	6.2
278.180	21.9	38.9	-	38.9	46.0	7.1
294.540	22.6	38.0	-	38.0	46.0	8.0
304.260	19.7	36.0	-	36.0	46.0	10.0
311.420	19.8	37.7	32.6	37.7	46.0	8.3
320.050	19.9	37.6	31.4	37.6	46.0	8.4
340.060	20.4	35.2	32.1	35.2	46.0	10.8
499.760	23.6	-	35.7	35.7	46.0	10.3
520.080	24.0	35.4	-	35.4	46.0	10.6
540.890	24.4	29.4	35.7	35.7	46.0	10.3
558.410	24.9	36.7	-	36.7	46.0	9.3
580.950	25.7	-	36.9	36.9	46.0	9.1
896.600	31.6	37.3	42.4	42.4	46.0	3.6

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.





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## 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;

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

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

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.