



FUJI PHOTO FILM CO., LTD.

26-30, NISHIAZABU 2-CHOME,

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Telephone: (03) 3406-2934

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**FCC ID : F5GFP-S2PRO**

Part 15 Sub.part 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>
Video Monitor	PVM-8040	2029411	Sony	DOC
Personal Computer	M8597J/C	UV2033MPMDU	Apple Computer, Inc.	DOC
PC Monitor	M2978	CY52401HF3CV	LG Electronics, Inc.	DOC
AC Adaptor (for EUT) AC-5VH		1036	Fuji Photo Film Co., Ltd.	N/A
AC Adapter (for PC) M8482		-	Apple Computer, Inc.	DOC

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

#### **Note:**

\*DOC: Declaration of Conformity by Manufacturer, Apple Computer, Inc. or Logitech.

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



# FUJIFILM

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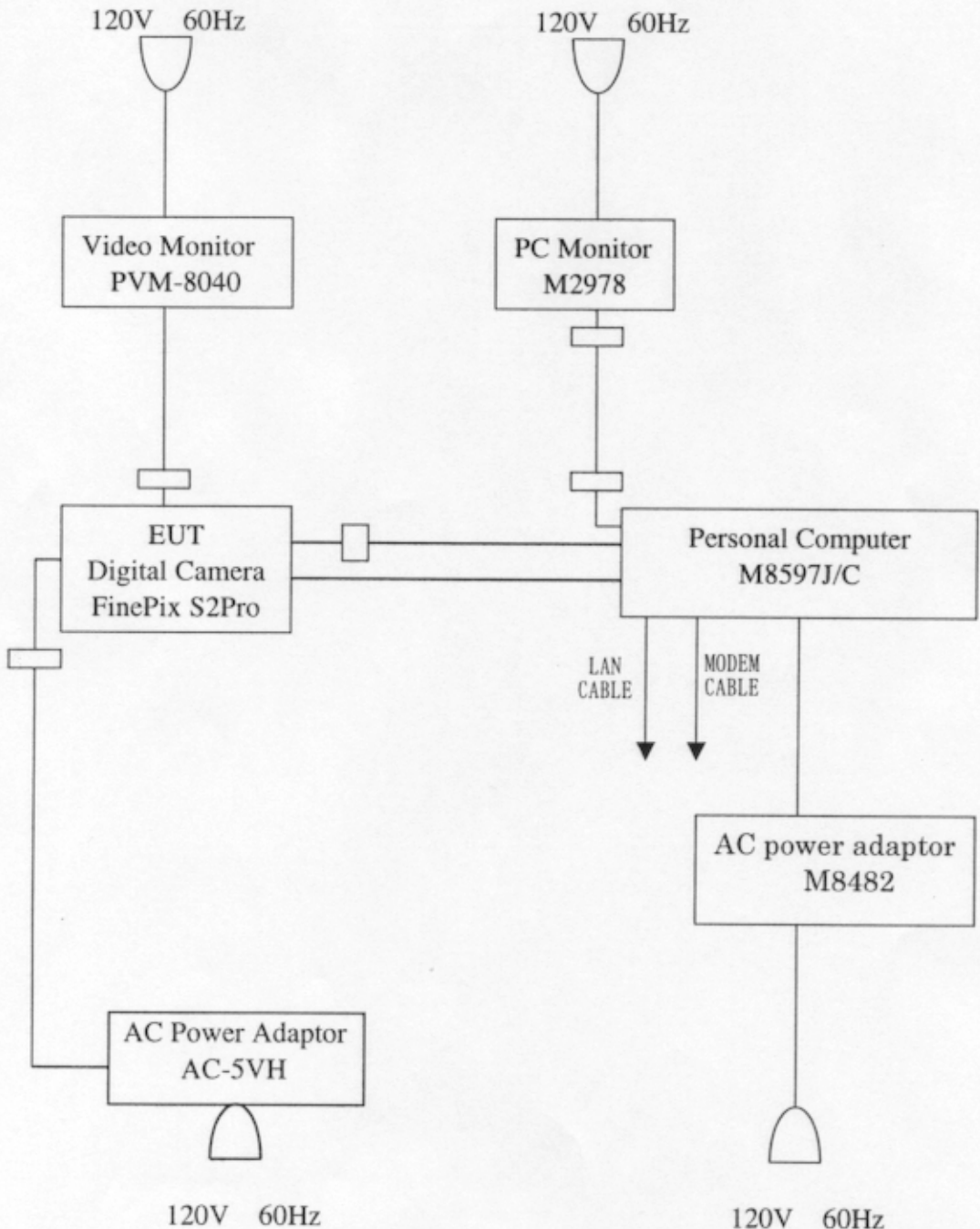
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Figure 6-1 System Configuration Diagram :



**6.2 List of Cables:**

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<i>Description</i>	<i>Length</i>	<i>Type of shield</i>	<i>Ferrite Core</i>
AC Power Cord (Video Monitor)	1.5 m	Non-shielded	N/A
AV Cable	1.4 m	Shielded	Add
DC Power Cord (EUT/AC adaptor)	1.9 m	Shielded	Add
USB cable (EUT / PC)	1.5 m	Shielded	Add
IEEE1394 cable (EUT / PC)	2.0 m	Shielded	N/A
AC Power Cord (PC/AC adapter)	1.8 m	Shielded	N/A
PC Monitor / Personal Computer	1.65 m	Shielded	Provided
AC Power Cord (PC Monitor)	1.7 m	Shielded	N/A
MODEM Cable	1.8 m	Non-shielded	N/A
LAN Cable	1.8 m	Non-shielded	N/A

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**Note:**

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



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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: USB Mode

Date of measurement: April 16, 2002

Test Procedure: ANSI C63.4-1992

Temperature: 13 degree C

Humidity: 48 %

Frequency	Results		Results	Limit	Margin
	Meter Reading.		Emission Level		
	VA.	VB.			
(MHz)	(dBuV/m)		(dBuV/m)	(dBuV/m)	(dBuV/m)
0.4800	39.9	40.0	40.0	47.9	7.9
0.5600	33.3	34.9	34.9	47.9	13.0
1.5900	31.1	31.2	31.2	47.9	16.7
3.8800	37.1	36.8	37.1	47.9	10.8
6.2600	37.6	36.7	37.6	47.9	10.3
11.1800	36.0	34.0	36.0	47.9	11.9

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:

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

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

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.

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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 turntable 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: USB Mode

Date of measurement: April 16, 2002

Test Procedure: ANSI C63.4-1992

Temperature: 21 degree C

Humidity: 28 %

<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>			
30.100	19.8	-	34.3	34.3	40.0	5.7
68.590	7.9	23.0	34.4	34.4	40.0	5.6
107.320	13.2	28.8	30.5	30.5	43.5	13.0
111.370	13.8	25.6	29.6	29.6	43.5	13.9
135.660	16.2	26.6	24.2	26.6	43.5	16.9
178.930	18.4	25.4	24.5	25.4	43.5	18.1
294.540	22.6	29.9	24.8	29.9	46.0	16.1
324.980	20.1	28.7	32.8	32.8	46.0	13.2
332.810	20.3	-	27.4	27.4	46.0	18.6
736.360	28.0	-	36.0	36.0	46.0	10.0
798.740	28.7	-	33.4	33.4	46.0	12.6

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.