

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

Telephone: (03) 3406-2934 Facsimile: (03) 3406-9967

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FCC ID: F5GFP-4900

Part 15 Sub.part B Class B Digital Device

6. TESTED SYSTEM DETAILS

6.1 Peripherals and Others:

M - J - J N	C ! - ! N! -	16 6	FAGUE
		Manufacturer	FCC ID
M2978 C	Y52401HF3CV	LG Electronics, Inc.	BEJCA500
PCG-505TR	3415556	Sony Corp.	DOC
PCGA-PR5	126219	Sony Corp.	DOC
PCGA-FD5	1215376	Sony Corp.	DOC
PCGA-CD51	3101473	Sony Corp.	DOC
PCGA-AC51	9906A0361473	Sony Corp.	N/A
SKR-2233	8AAE001175	Sejiner Electron, Inc.	GJJSKR-223C9
2.1A	-	Microsoft Corp.	C3KKMP3
AS-1	0009	Fuji Photo Film Co., Ltd.	F5GAS-1
DX-9 Zoom	8A00003	Fuji Photo Film Co., Ltd.	F5GDX-9
-9) AC-5VN	9937	Fuji Photo Film Co., Ltd.	N/A
T) AC-5VN	9914	Fuji Photo Film Co., Ltd.	N/A
PVM-8040	2029411	Sony Corp.	N/A
	PCG-505TR PCGA-PR5 PCGA-FD5 PCGA-CD51 PCGA-AC51 SKR-2233 2.1A AS-1 DX-9 Zoom -9) AC-5VN T) AC-5VN	M2978 CY52401HF3CV PCG-505TR 3415556 PCGA-PR5 126219 PCGA-FD5 1215376 PCGA-CD51 3101473 PCGA-AC51 9906A0361473 SKR-2233 8AAE001175 2.1A - AS-1 0009 DX-9 Zoom 8A00003 -9) AC-5VN 9937 T) AC-5VN 9914	M2978 CY52401HF3CV LG Electronics, Inc. PCG-505TR 3415556 Sony Corp. PCGA-PR5 126219 Sony Corp. PCGA-FD5 1215376 Sony Corp. PCGA-CD51 3101473 Sony Corp. PCGA-AC51 9906A0361473 Sony Corp. SKR-2233 8AAE001175 Sejiner Electron, Inc. 2.1A - Microsoft Corp. AS-1 0009 Fuji Photo Film Co., Ltd. DX-9 Zoom 8A00003 Fuji Photo Film Co., Ltd. -9) AC-5VN 9937 Fuji Photo Film Co., Ltd. T) AC-5VN 9914 Fuji Photo Film Co., Ltd.

(for AC Adapter of EUT and DX-9, Input: 120VAC, 60Hz / Output: 5VDC)

Note:

*DOC: Declaration of Conformity by Manufacturer, Sony Corp.

* N/A: Equipment required for the Verification.



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6.2 List of Cables:

Description	Length	Type of shield	Ferrite Core
EUT / Personal Computer	1.5 m	Shielded	Add
Port Replicator / Personal Computer	0.2 m	Shielded	Provided
Scanner / Port Replicator	1.5 m	Shielded	Provided
Digital Camera / Port Replicator	2.0 m	Shielded	Provided
EUT / Video Monitor	1.4 m	Shielded	Add
Personal Computer / CD-ROM	0.3 m	Shielded	Provided
Personal Computer / Floppy Drive	0.1 m	Shielded	Provided
Mouse / Personal Computer	1.9 m	Shielded	N/A
Key Board / Port Replicator	1.1 m	Shielded	N/A
PC Monitor / Port Replicator	1.65 m	Shielded	Provided
DC Power Cord (PC/AC adaptor)	2.2 m	Non-shielded	N/A
DC Power Cord (EUT/AC adaptor)	1.9 m	Non-shielded	Add
DC Power Cord (DX-9/AC adapter)	1.9 m	Non-shielded	Provided
AC Power Cord (PC Monitor)	1.7 m	Non-shielded	N/A
AC Power Cord (Video Monitor)	1.5 m	Non-shielded	N/A
AC Power Cord (Scanner)	1.8 m	Non-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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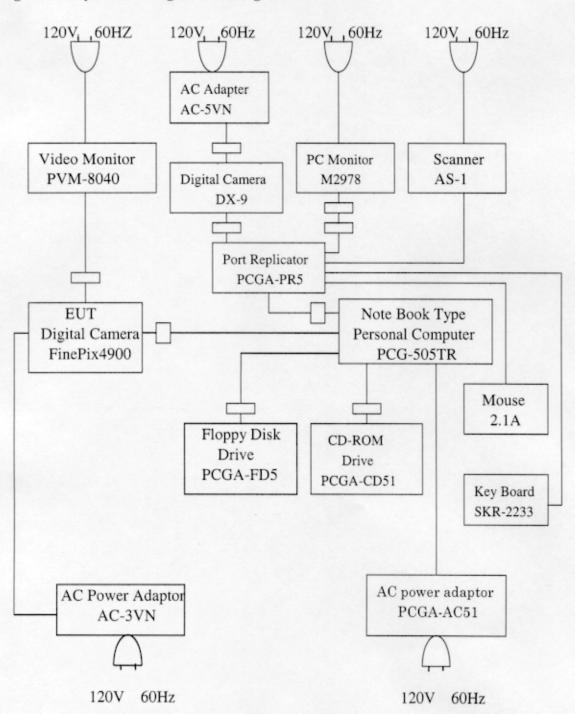
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Figure 6-1 System Configuration Diagram:





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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 ----- (ESH-3 / 872079-020 / 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: June 27, 2000

Test Procedure: ANSI C63.4-1992 Temperature: 24 degree C

Humidity: 70 %

Frequency		sults Reading.	Results Emission Level	Limit	Margin
	VA.	VB.			
(MHz)	(dBu	V/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)
0.5300	34.3	36.3	36.3	47.9	11.6
0.6200	38.0	38.2	38.2	47.9	9.7
0.7100	40.0	38.7	40.0	47.9	7.9
0.7900	39.2	37.0	39.2	47.9	8.7
0.8800	35.5	33.2	35.5	47.9	12.4
3.5800	30.3	29.0	30.3	47.9	17.6
5.3600	27.3	25.5	27.3	47.9	20.6
16.3600	15.7	16.5	16.5	47.9	31.4

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.

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 ----- (ESVP / 879529-016 / Rohde & 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: June 27, 2000 Temperature: 15 degree C Humidity: 85 %

Frequency	Correction	Results Meter Reading.		Results	Limit	Margin	
	Factor			Emission Level			
(Mhz) (dB)		(dBuV/m)		(dBuV/m)	(dBuV/m)	(dBuV/m)	
		Hori.	Vert.				
55.700	10.8	-	15.5	15.5	40.0	24.5	
89.800	10.1	-	15.5	15.5	43.5	28.0	
126.700	15.9	29.5	33.9	33.9	43.5	9.6	
157.300	17.6	29.3	30.0	30.0	43.5	13.5	
180.000	18.7	38.7	31.5	38.7	43.5	4.8	
196.360	19.4	36.5		36.5	43.5	7.0	
229.090	20.9	40.5	34.7	40.5	46.0	5.5	
240.000	21.1	31.6	25.4	31.6	46.0	14.4	
261.820	21.4	40.5	36.9	40.5	46.0	5.5	
311.420	20.1	31.1	24.6	31.1	46.0	14.9	
360.000	21.1	35.6	38.2	38.2	46.0	7.8	
392.730	21.8	34.7	-	34.7	46.0	11.3	
409.090	22.1	35.3		35.3	46.0	10.7	
425.450	22.5	37.0	37.6	37.6	46.0	8.4	
458.180	23.3	36.6	34.1	36.6	46.0	9.4	
491.510	23.8	-	35.5	35.5	46.0	10.5	
526.190	24.6	35.4		35.4	46.0	10.6	
528.080	24.7	-	35.6	35.6	46.0	10.4	
529.770	24.7	36.0		36.0	46.0	10.0	
644.310	27.4	37.5		37.5	46.0	8.5	
701.580	28.3	37.0		37.0	46.0	9.0	

Note: 1) Meter Readings are corrected by all Correction Factors.

3) Margin = Limit - Emission Level.

²⁾ Emission Levels are higher levels of Hori. or Vert. of Meter Readings.



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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;

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.