

APPLICATION FOR CERTIFICATION
(FCC CFR47 PART 15 DIGITAL DEVICE)

On Behalf of

LG Electronics USA

40" PDP Monitor

Model : (1)MU-40PA15 (2)P40V24

FCC ID : BEJMU40PA15

Brand: (1)LG (2)ZENITH

Prepared for : LG Electronics USA
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Rosemont IL US.

Prepared by : Taiwan Tokin EMC Eng. Corp.
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File Number : ATM-G91601
Report Number : TTEMC-F91098
Date of Test : Jun. 28 ~ Jul. 03, 2002
Date of Report : Jul. 08, 2002

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TEST REPORT CERTIFICATION

Applicant : LG Electronics USA
 Manufacturer : LG Electronics Inc.
 FCC ID : BEJMU40PA15
 EUT Description : 40" PDP Monitor
 (A) MODEL NO. : (1)MU-40PA15 (2)P40V24
 (B) SERIAL NO. : N/A
 (C) BRAND : (1)LG (2)ZENITH
 (D) POWER SUPPLY : AC 120V, 60Hz

Measurement Procedure Used:

FCC RULES AND CISPR 22 (DOCKET NO. 92-152, SEP. 1993) AND
 FCC / ANSI C63.4-1992
 (FCC CFR 47, Part 15 Subpart B/2002 and CISPR 22/1997 +A1/2000)

The device described above was tested by TAIWAN TOKIN EMC ENG. CORP. to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the CISPR 22 Class B limits both radiated and conducted emissions and above 1000MHz compared to the FCC Part 15 Subject B radiated limit.

The measurement results are contained in this test report and TAIWAN TOKIN EMC ENG. CORP. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Taiwan Tokin EMC Eng. Corp.

(NOTE: These results are deemed satisfactory evidence of compliance with ICES-003 of the Canadian Interference-Causing Equipment Regulations.)

Date of Test : Jun. 28 ~ Jul. 03, 2002

Prepared By: Monica Chang Jul. 13, 2002
 (Monica Chang/Officer)

Test Engineer : Allen Wang July 16, 2002
 (Allen Wang/Deputy Manager)

Approve & Authorized Signer : Jackie Deng 7/16/02
 (Jackie Deng/Assistant General Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : 40" PDP Monitor
Model Number : (1)MU-40PA15 (2)P40V24

Above models are identical except the model number and brand. Details of model number & brand are as follows:

Model Number	Brand
MU-40PA15	LG
P40V24	ZENITH

FCC ID	:	BEJMU40PA15
Brand	:	(1)LG (2)ZENITH
Applicant	:	LG Electronics USA 6133 N River Rd., Suite 1100, Rosemont IL US.
Manufacturer	:	LG Electronics Inc. (Kumi TV Plant.) Kumi TV Plant. 642, Jinpyung-dong, Kumi-City, Kyoungsang Buk-do, 730-360, Korea
Scanning Frequency	:	Horizontal: 31kHz-65kHz Vertical: 56Hz-120Hz
Maximum Resolution	:	832x624
Display Panel Module	:	LG, M/N PDP40NVDN4
Remote Control	:	LG, 6710V00067K
15 Pin D-Sub Cable (To PC)	:	Shielded, Detachable, 7.5m Bonded two ferrite cores
Speaker w/Stand (L, R) (Optional)	:	Speaker: LG, AP-40SA11 Wires: Non-Shielded, Detachable, 4.8m Bonded a ferrite core
Power Cord (AC IN)	:	Non-Shielded, Detachable, 2.8m

Date of Receipt of Sample : Jun. 27, 2002

Date of Test : Jun. 28 ~ Jul. 03, 2002

1.2. Tested Supporting System Details

1.2.1. PC SYSTEM

Model Number	:	HP VECTRA XE320
Serial Number	:	SG21101940
FCC ID	:	By DoC
BSMI ID	:	3912A318
Brand	:	HP
Manufacturer	:	First International Computer, Inc.
RS232C Cable	:	Non-Shielded, Detachable, 1.8m (To EUT) Bonded a ferrite core
Audio Cable	:	Non-Shielded, Detachable, 1.5m (To EUT)
Power Cord	:	Non-Shielded, Detachable, 1.8m

1.2.2. KEYBOARD

Model Number	:	SK-2502C
Serial Number	:	M020236414
FCC ID	:	By DoC
BSMI ID	:	3872F107
Manufacturer	:	Silitek (Brand: HP)
Data Cable	:	Non-Shielded, Undetachable, 1.8m

1.2.3. PRINTER

Model Number	:	2225C+
Serial Number	:	3121S96627
FCC ID	:	DSI6XU2225
Manufacturer	:	Hewlett Packard
Data Cable	:	Shielded, Detachable, 1.2m
Power Adapter	:	Hewlett Packard, M/N 82241A Non-Shielded, Undetachable, 2.0m

1.2.4. MODEM

Model Number	:	DM-1414
Serial Number	:	980034400
FCC ID	:	IFAXDM1414
Manufacturer	:	Aceex
Data Cable	:	Shielded, Detachable, 1.2m
Power Adapter	:	Amigo, Model AM-91000A Non-Shielded, Undetachable, 1.8m

1.2.5. MOUSE

Model Number	:	M-S48a
Serial Number	:	LZE020501521
FCC ID	:	JNZ201213
BSMI ID	:	4882A001
Manufacturer	:	Logitech (Brand: HP)
Data Cable	:	Non-Shielded, Undetachable, 1.8m

1.2.6. USB MOUSE #1

Model Number	:	CREUBB
Serial Number	:	N/A
FCC ID	:	NHM-CREUBE
BSMI ID	:	3872F083
Manufacturer	:	CRE Technology Co., Ltd.
Data Cable	:	Shielded, Undetachable, 1.8m

1.2.7. USB MOUSE #2

Model Number	:	CREUBB
Serial Number	:	N/A
FCC ID	:	NHM-CREUBE
BSMI ID	:	3872F083
Manufacturer	:	CRE Technology Co., Ltd.
Data Cable	:	Shielded, Undetachable, 1.8m

1.2.8. MICROPHONE

Model Number	:	HD-303
Serial Number	:	N/A
Manufacturer	:	Multimedia Microphone System
Data Cable	:	Non-Shielded, Undetachable, 2.2m

1.2.9. WALKMAN

Model Number	:	RQ-P35LT-K
Serial Number	:	HA08562
Manufacturer	:	Panasonic
Data Cable	:	Non-Shielded, Detachable, 1.8m

1.2.10. DVD PLAYER

Model Number	:	DV-S6D
Serial Number	:	UCYD007728TA
Manufacturer	:	Pioneer
S Video Cable	:	Non-Shielded, Detachable, 1.5m (To EUT)
A/V Cable	:	Non-Shielded, Detachable, 1.8m (To EUT)
Component Cable	:	Non-Shielded, Detachable, 1.8m (To EUT)
Power Cord	:	Non-Shielded, Detachable, 2m

1.2.11. 150Ω RESISTOR LOAD

Data Cable	:	Non-Shielded, Detachable, 1.8m (To EUT)
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1.3. Description of Test Facility

Site Description : Feb. 09, 2000 File on
 (No. 3 Open Site) Federal Communication Commission
 Registration Number: 90996

Site Description : May 16, 2000 Re-file on
 (Anechoic Chamber) Federal Communication Commission
 Registration Number: 90993

Name of Firm : Taiwan Tokin EMC Eng. Corp.

Site Location #1 : No. 53-11, Tin-Fu Tsun, Lin-Kou,
 Taipei Hsien, Taiwan, R.O.C.

Site Location #2 : No. 67-4, Tin-Fu Tsun, Lin-Kou,
 Taipei Hsien, Taiwan, R.O.C.

NVLAP Lab Code : 200077-0

DAR- Registration No. : DAT-P-092/99-00e

1.4. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conduction Test	150KHz~30MHz	±2.66dB
Radiation Test (Distance: 10m)	30MHz~300MHz	+4.5dB / -4.5dB
	300MHz~1000MHz	+3.88dB / -3.84dB
Radiation Test (Distance: 3m)	30MHz~300MHz	+4.26dB / -4.22dB
	300MHz~1000MHz	+5.28dB / -4.0dB

Remark : Uncertainty = K_{uc}(y)

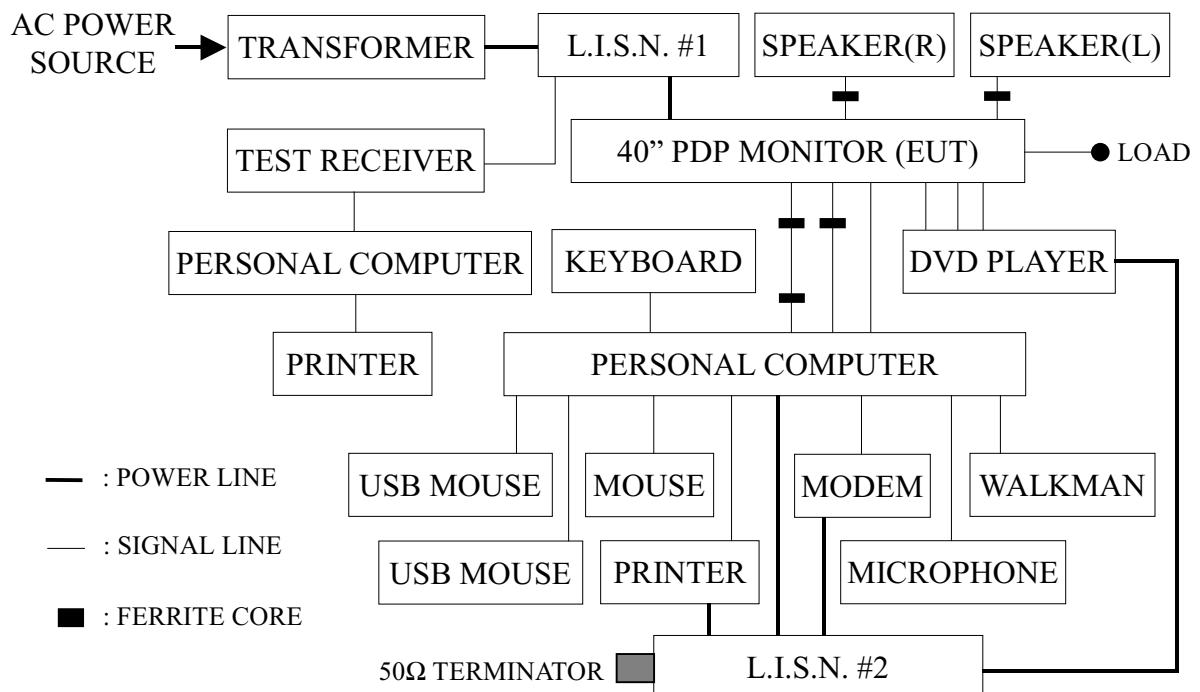
2. POWERLINE CONDUCTED TEST

2.1. Test Equipment

The following test equipment are used during the power line conducted tests :

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	844591/015	Feb. 27, 02'	1 Year
2.	L.I.S.N. #1	Kyoritsu	KNW-407	8-1430-5	Nov. 12, 01'	1 Year
3.	L.I.S.N. #2	Kyoritsu	KNW-407	8-1430-6	Nov. 12, 01'	1 Year

2.2. Block Diagram of Test Setup



2.3. Powerline Conducted Emission Limit (CISPR 22, Class B)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150KHz ~ 500KHz	66 ~ 56 dB	56 ~ 46 dB
500KHz ~ 5MHz	56 dB	46 dB
5MHz ~ 30MHz	60 dB	50 dB

2.4. EUT's Configuration during Compliance Measurement

The following equipment were installed on RF LINE VOLTAGE measurement to meet the Commission requirement and operating in a manner which tended to maximize its emission characteristics in a normal application.

2.4.1. 40" PDP Monitor (EUT)

Model Number	:	MU-40PA15
Serial Number	:	N/A
Brand	:	LG
FCC ID	:	BEJMU40PA15
Manufacturer	:	LG Electronics Inc.

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2.4.2. Supporting System : As in section 1.2

2.5. Operating Condition of EUT

- 2.5.1. Setup the EUT and simulator as shown on 2.2.
- 2.5.2. Turned on the power of all equipment.
- 2.5.3. The Personal computer read data from disk.
- 2.5.4. The Personal computer performed the EMI self-test program "Hwin", and sent "H" characters to the 40" PDP Monitor (EUT), then the screen of 40" PDP Monitor (EUT) displayed "H" patterns by EUT's resolution via D-Sub input.
- 2.5.5. The DVD Player played a DVD Movie and sent the image & sound to the 40" PDP Monitor (EUT) via Component input、S-Video input or A/V input.
- 2.5.6. The 40" PDP Monitor (EUT) displayed character "H" and image "DVD-Movie" at the same time in the PIP (Picture in Picture) Mode.
- 2.5.7. The other peripheral devices were driven and operated in turn during all testing.

2.6. Test Procedure

The EUT was connected to the power mains through a line impedance stabilization network (L.I.S.N. #1) and the other peripheral devices power cord were connected to the power mains through a line impedance stabilization network (L.I.S.N. #2). This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to FCC ANSI C63.4-1992 on conducted measurement.

The bandwidth of the R&S Test Receiver ESHS10 was set at 10KHz.

The frequency range from 150KHz to 30MHz was checked.

2.7. Line Conducted RF Voltage Measurement Results

PASSED. Please refer to the following pages.

All emissions not reported below are too low against the prescribed limits.

EUT with the following test modes were done on conducted measurement, and all the test results are attached in the next pages.

(Test Date: Jun. 28, 2002 Temperature: 31°C Humidity: 71 %)

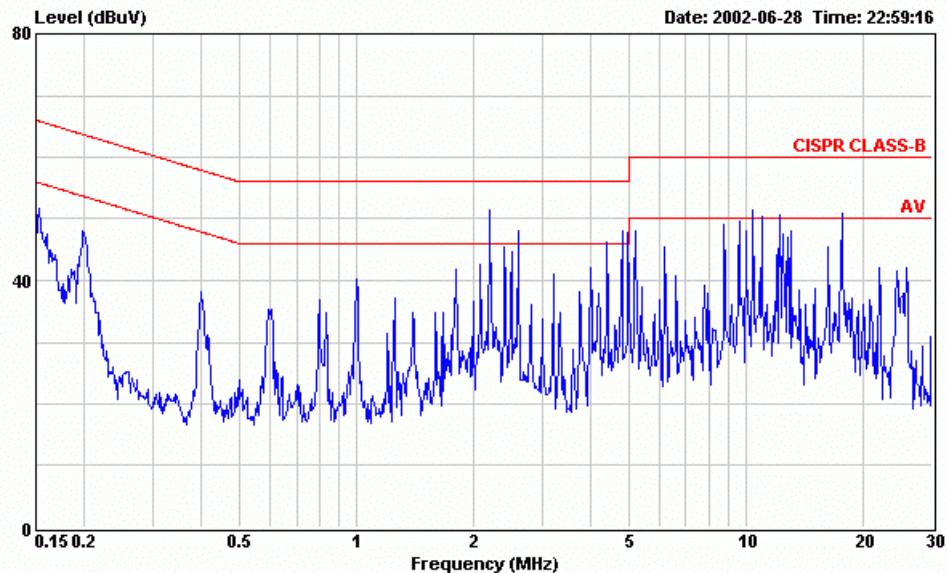
No.	Input Port	Display of EUT	Reference Data #
1.	PC Input/ D-Sub	Character “H”, 640*480/60Hz, 31kHz	# 40 (41, 42) ; # 37 (38, 39).
2.	PC Input/ D-Sub	Character “H”, 640*480/120Hz, 64kHz	# 43 (44, 45) ; # 46 (47, 48).
3.	PC Input/ D-Sub	Character “H”, 800*600/85Hz, 54kHz	# 52 (53, 54) ; # 49 (50, 51).
4.	A/V Input	Image “DVD Movie”	# 61 (62, 63) ; # 64 (65, 66).
5.	S-Video Input	Image “DVD Movie”	# 55 (56, 57) ; # 58 (59, 60).
6.	Component Input (DVD)	Image “DVD Movie”	# 70 (71, 72) ; # 67 (68, 69).
7.	D-Sub & A/V Input (PIP)	Character “H” + Image “DVD Movie” 800*600/85Hz, 54kHz	# 73 (74, 75) ; # 76 (77, 78).



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Data#: 40 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 640*480/60Hz 31KHz

Data#: 41 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:00:07

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 640*480/60Hz 31KHz

Freq	Over Limit	Read Line	Probe Factor	Cable			
				Freq	Level		
MHz	dBuV	dB	dBuV	dB	dB		
1	0.198	47.26	-16.42	63.68	46.86	0.20	0.20 QP
2	0.400	37.54	-20.31	57.85	37.24	0.10	0.20 QP
3	2.399	43.25	-12.75	56.00	42.75	0.10	0.40 QP
4 !	2.598	47.55	-8.45	56.00	47.05	0.10	0.40 QP
5 !	4.998	47.79	-8.21	56.00	47.07	0.12	0.60 QP
6	12.198	49.04	-10.96	60.00	48.14	0.20	0.70 QP

Data#: 42 File#: D:\Lg-14.emi

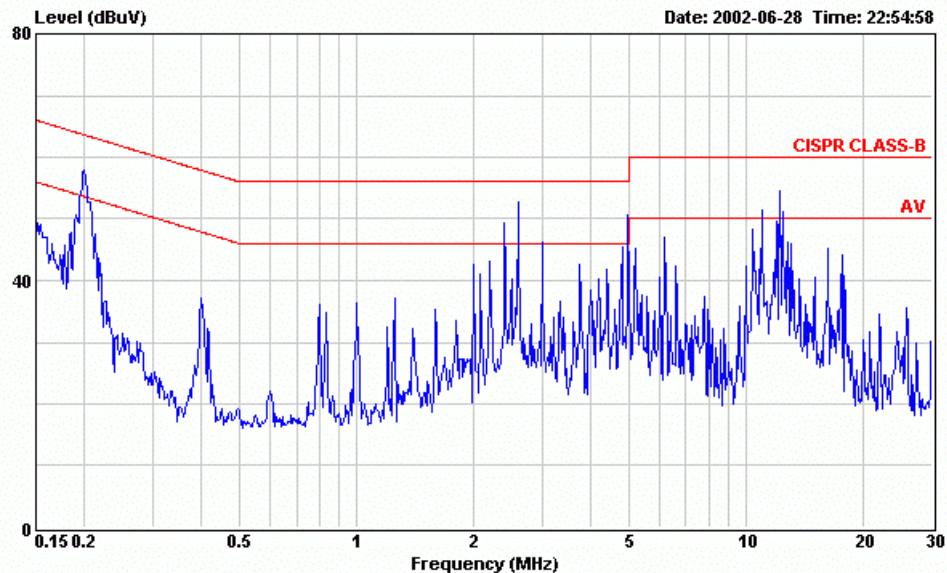
Freq	Over Limit	Read Line	Probe Factor	Cable			
				Freq	Level		
MHz	dBuV	dB	dBuV	dB	dB		
1	0.198	36.07	-17.61	53.68	35.67	0.20	0.20 Average
2	0.400	26.06	-21.79	47.85	25.76	0.10	0.20 Average
3	2.399	30.71	-15.29	46.00	30.21	0.10	0.40 Average
4	2.598	35.07	-10.93	46.00	34.57	0.10	0.40 Average
5 !	4.998	39.24	-6.76	46.00	38.52	0.12	0.60 Average
6	12.198	36.20	-13.80	50.00	35.30	0.20	0.70 Average



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Data#: 37 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 640*480/60Hz 31KHz

Data#: 38 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 22:57:49

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 640*480/60Hz 31KHz

Freq	Over Limit	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	

1 !	0.199	56.89	-6.75	63.64	56.49	0.20	0.20 QP
2	0.399	36.48	-21.40	57.88	36.18	0.10	0.20 QP
3 !	2.399	49.34	-6.66	56.00	48.84	0.10	0.40 QP
4 !	2.599	52.00	-4.00	56.00	51.50	0.10	0.40 QP
5 !	4.999	51.05	-4.95	56.00	50.35	0.10	0.60 QP
6 !	12.199	53.24	-6.76	60.00	52.38	0.16	0.70 QP

Data#: 39 File#: D:\Lg-14.emi

Freq	Over Limit	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	

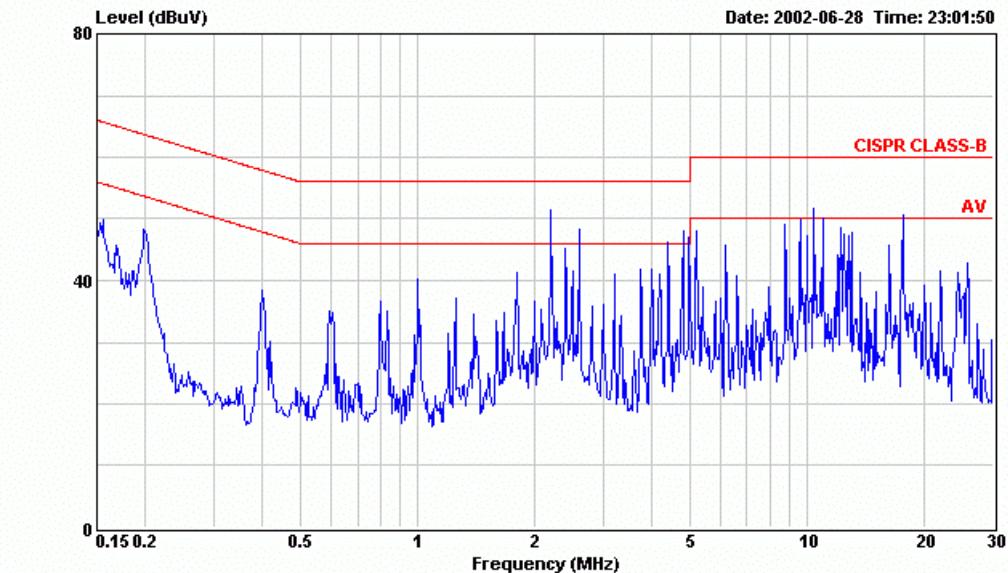
1 !	0.199	45.11	-8.53	53.64	44.71	0.20	0.20 Average
2	0.399	24.83	-23.05	47.88	24.53	0.10	0.20 Average
3 !	2.399	36.84	-9.16	46.00	36.34	0.10	0.40 Average
4 !	2.599	39.42	-6.58	46.00	38.92	0.10	0.40 Average
5 !	4.999	41.40	-4.60	46.00	40.70	0.10	0.60 Average
6 !	12.199	41.47	-8.53	50.00	40.61	0.16	0.70 Average



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Data#: 43 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 640*480/120Hz 64KHz

Data#: 44 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:02:42

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 640*480/120Hz 64KHz

Freq	Over Limit	Read Line	Probe Factor	Cable	
				MHz	dBuV
1	0.201	46.78	-16.80	63.58	46.38
2	0.399	37.78	-20.10	57.88	37.48
3	2.399	43.33	-12.67	56.00	42.83
4 !	2.599	47.80	-8.20	56.00	47.30
5 !	4.999	47.96	-8.04	56.00	47.24
6	12.198	48.52	-11.48	60.00	47.62

Data#: 45 File#: D:\Lg-14.emi

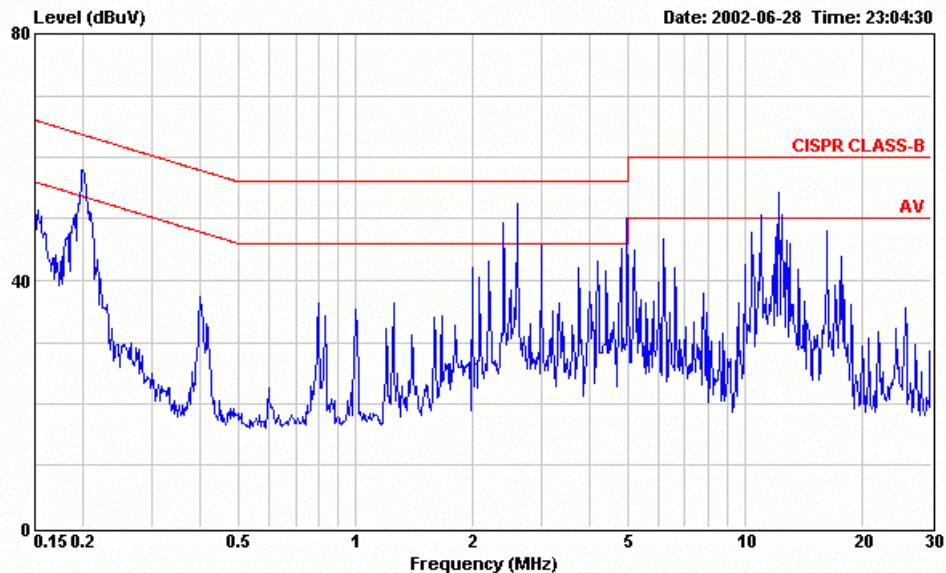
Freq	Over Limit	Read Line	Probe Factor	Cable	
				MHz	dBuV
1	0.201	35.42	-18.16	53.58	35.02
2	0.399	26.14	-21.74	47.88	25.84
3	2.399	30.48	-15.52	46.00	29.98
4	2.599	35.38	-10.62	46.00	34.88
5 !	4.999	38.99	-7.01	46.00	38.27
6	12.198	36.09	-13.91	50.00	35.19



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Data#: 46 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 640*480/120Hz 64KHz

Data#: 47 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:05:50

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 640*480/120Hz 64KHz

Freq	Over Limit	Read Line	Probe Level	Cable Factor		
MHz	dBuV	dB	dBuV	dB	dB	Remark

1 !	0.201	56.39	-7.20	63.59	55.99	0.20	0.20 QP
2	0.400	36.16	-21.69	57.85	35.86	0.10	0.20 QP
3 !	2.398	48.80	-7.20	56.00	48.30	0.10	0.40 QP
4 !	2.600	51.70	-4.30	56.00	51.20	0.10	0.40 QP
5 !	4.998	50.53	-5.47	56.00	49.83	0.10	0.60 QP
6 !	12.198	53.38	-6.62	60.00	52.52	0.16	0.70 QP

Data#: 48 File#: D:\Lg-14.emi

Freq	Over Limit	Read Line	Probe Level	Cable Factor		
MHz	dBuV	dB	dBuV	dB	dB	Remark

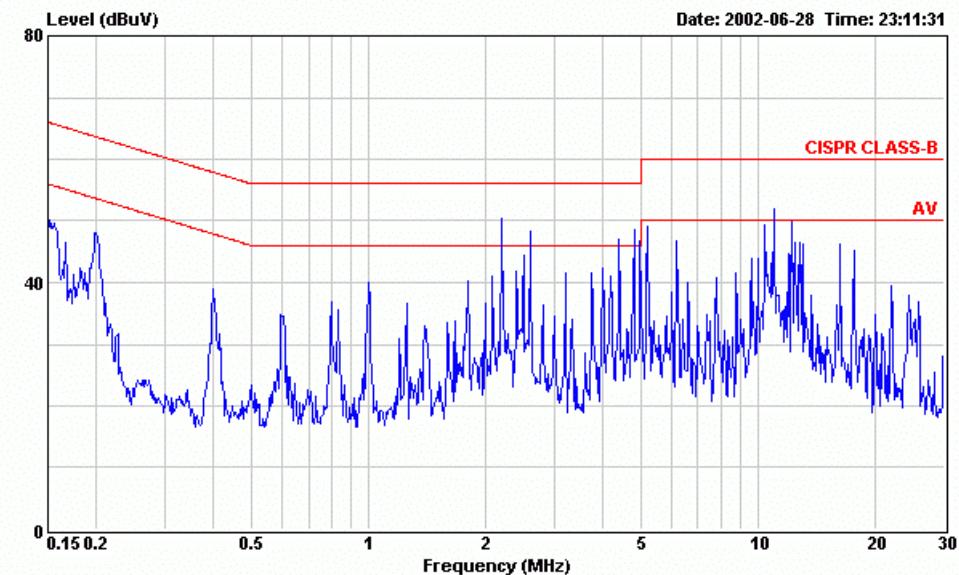
1 !	0.201	44.56	-9.03	53.59	44.16	0.20	0.20 Average
2	0.400	24.47	-23.38	47.85	24.17	0.10	0.20 Average
3 !	2.398	36.40	-9.60	46.00	35.90	0.10	0.40 Average
4 !	2.600	39.09	-6.91	46.00	38.59	0.10	0.40 Average
5 !	4.998	40.92	-5.08	46.00	40.22	0.10	0.60 Average
6 !	12.198	41.41	-8.59	50.00	40.55	0.16	0.70 Average



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Data#: 52 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 800*600/85Hz 54KHz

Data#: 53 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:11:35

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 800*600/85Hz 54KHz

Freq	Over Limit	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	

1	0.200	46.98	-16.62	63.60	46.58	0.20	0.20 QP
2	0.399	37.81	-20.07	57.88	37.51	0.10	0.20 QP
3	2.399	42.20	-13.80	56.00	41.70	0.10	0.40 QP
4 !	2.599	47.84	-8.16	56.00	47.34	0.10	0.40 QP
5 !	4.998	46.26	-9.74	56.00	45.54	0.12	0.60 QP
6	12.199	48.52	-11.48	60.00	47.62	0.20	0.70 QP

Data#: 54 File#: D:\Lg-14.emi

Freq	Over Limit	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	

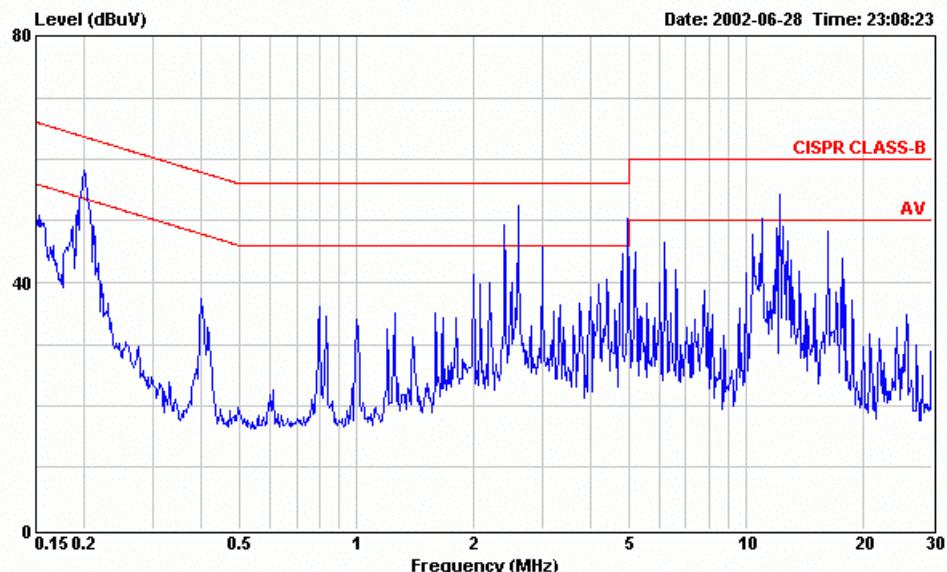
1	0.200	35.57	-18.03	53.60	35.17	0.20	0.20 Average
2	0.399	26.17	-21.71	47.88	25.87	0.10	0.20 Average
3	2.399	29.47	-16.53	46.00	28.97	0.10	0.40 Average
4	2.599	35.22	-10.78	46.00	34.72	0.10	0.40 Average
5 !	4.998	38.09	-7.91	46.00	37.37	0.12	0.60 Average
6	12.199	36.17	-13.83	50.00	35.27	0.20	0.70 Average



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Data#: 49 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 800*600/85Hz 54KHz

Data#: 50 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:08:27

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : 800*600/85Hz 54KHz

Freq	Over Limit	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	

1 !	0.200	56.67	-6.95	63.62	56.27	0.20	0.20 QP
2	0.399	36.26	-21.62	57.88	35.96	0.10	0.20 QP
3 !	2.399	48.88	-7.12	56.00	48.38	0.10	0.40 QP
4 !	2.601	51.19	-4.81	56.00	50.69	0.10	0.40 QP
5 !	4.998	50.39	-5.61	56.00	49.69	0.10	0.60 QP
6 !	12.199	53.46	-6.54	60.00	52.60	0.16	0.70 QP

Data#: 51 File#: D:\Lg-14.emi

Freq	Over Limit	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	

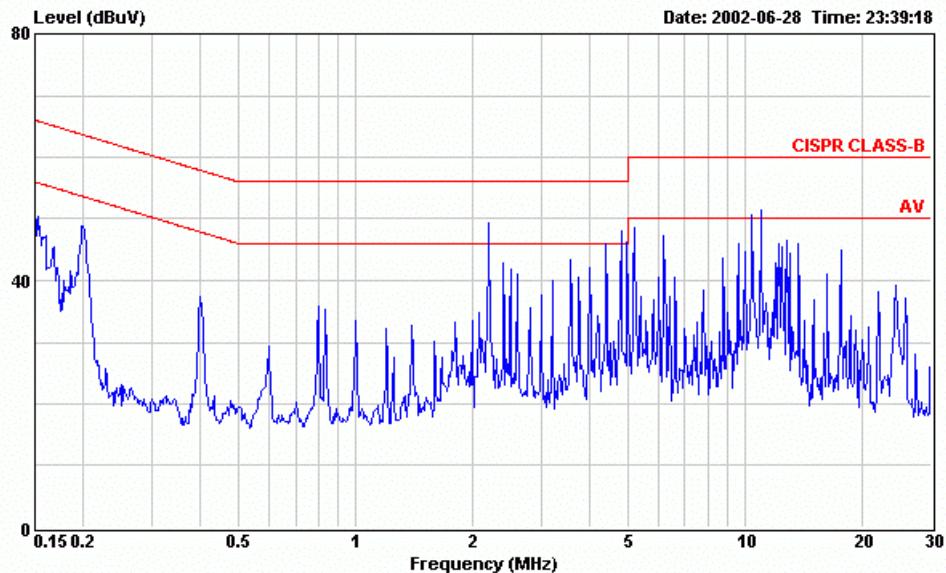
1 !	0.200	44.90	-8.72	53.62	44.50	0.20	0.20 Average
2	0.399	24.73	-23.15	47.88	24.43	0.10	0.20 Average
3 !	2.399	36.45	-9.55	46.00	35.95	0.10	0.40 Average
4 !	2.601	38.68	-7.32	46.00	38.18	0.10	0.40 Average
5 !	4.998	40.81	-5.19	46.00	40.11	0.10	0.60 Average
6 !	12.199	41.47	-8.53	50.00	40.61	0.16	0.70 Average



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Data#: 61 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : AV IN

Data#: 62 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:39:39

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : AV IN

Freq	Over Limit	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
						dB	dB
MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.201	47.57	-16.01	63.58	47.17	0.20	0.20 QP
2	0.399	37.07	-20.80	57.87	36.77	0.10	0.20 QP
3	2.400	36.38	-19.62	56.00	35.88	0.10	0.40 QP
4	2.601	39.82	-16.18	56.00	39.32	0.10	0.40 QP
5	5.001	46.18	-13.82	60.00	45.46	0.12	0.60 QP
6	12.201	46.58	-13.42	60.00	45.68	0.20	0.70 QP

Data#: 63 File#: D:\Lg-14.emi

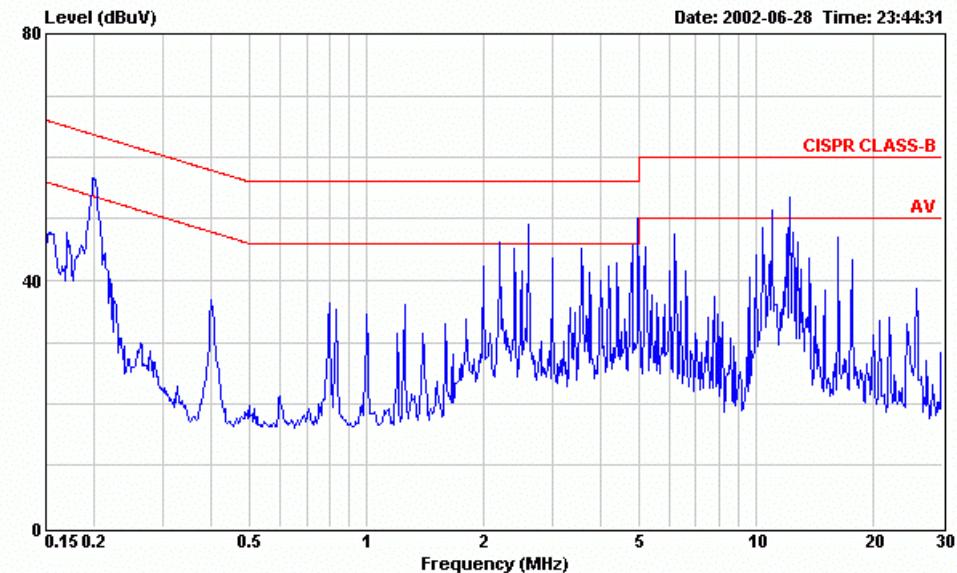
Freq	Over Limit	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
						dB	dB
MHz	dBuV	dB	dBuV	dBuV	dB		
1 !	0.200	46.64	-6.96	53.60	46.24	0.20	0.20 Average
2	0.399	26.67	-21.20	47.87	26.37	0.10	0.20 Average
3	2.398	35.63	-10.37	46.00	35.13	0.10	0.40 Average
4 !	2.599	36.22	-9.78	46.00	35.72	0.10	0.40 Average
5 !	5.001	40.85	-9.15	50.00	40.15	0.10	0.60 Average
6 !	12.201	41.95	-8.05	50.00	41.09	0.16	0.70 Average



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Data#: 64 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : AV IN

Data#: 65 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:45:16

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : AV IN

Freq	Over Level	Limit	Read Line	Probe Factor	Cable Loss	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	

1 !	0.200	55.80	-7.83	63.63	55.40	0.20	0.20 QP
2	0.400	35.69	-22.16	57.85	35.39	0.10	0.20 QP
3	2.400	45.16	-10.84	56.00	44.66	0.10	0.40 QP
4 !	2.600	47.79	-8.21	56.00	47.29	0.10	0.40 QP
5 !	4.998	50.49	-5.51	56.00	49.79	0.10	0.60 QP
6 !	12.200	51.98	-8.02	60.00	51.12	0.16	0.70 QP

Data#: 66 File#: D:\Lg-14.emi

Freq	Over Level	Limit	Read Line	Probe Factor	Cable Loss	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	

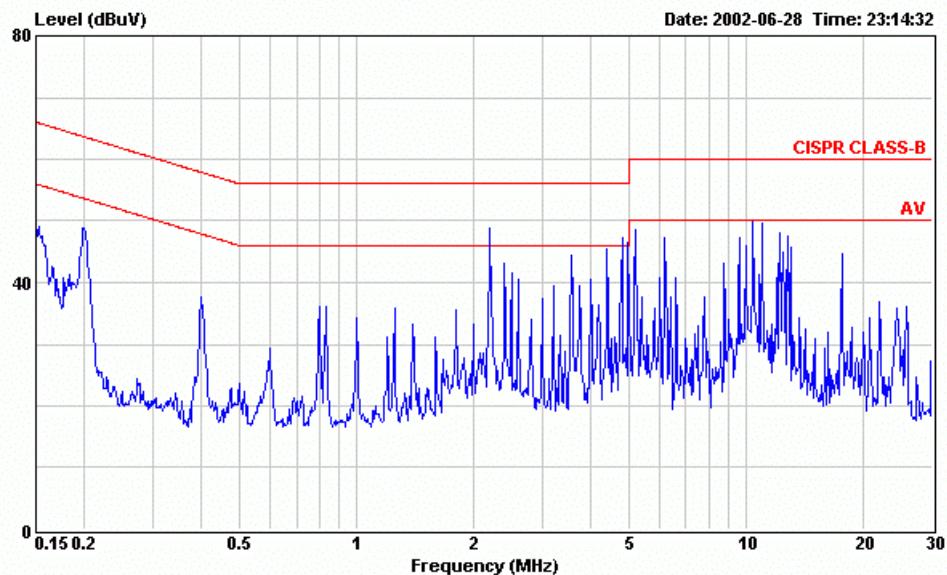
1 !	0.200	46.75	-6.88	53.63	46.35	0.20	0.20 Average
2	0.400	26.24	-21.61	47.85	25.94	0.10	0.20 Average
3	2.400	35.07	-10.93	46.00	34.57	0.10	0.40 Average
4 !	2.600	36.50	-9.50	46.00	36.00	0.10	0.40 Average
5 !	4.998	42.30	-3.70	46.00	41.60	0.10	0.60 Average
6 !	12.200	42.47	-7.53	50.00	41.61	0.16	0.70 Average



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Data#: 55 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : S IN

Data#: 56 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:34:22

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : S IN

Freq	Over Level	Limit	Read Line	Probe Factor	Cable	
					MHz	dBuV
						dB
1	0.199	48.17	-15.48	63.65	47.77	0.20
2	0.399	37.16	-20.71	57.87	36.86	0.10
3	2.400	38.84	-17.16	56.00	38.34	0.10
4	2.600	40.33	-15.67	56.00	39.83	0.10
5 !	4.999	47.09	-8.91	56.00	46.37	0.12
6	12.197	45.36	-14.64	60.00	44.46	0.20

Data#: 57 File#: D:\Lg-14.emi

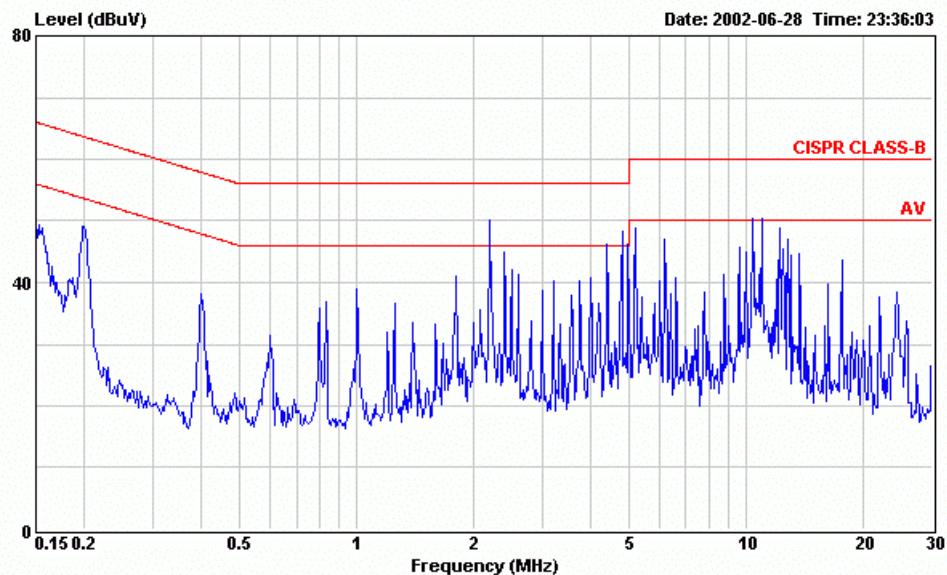
Freq	Over Level	Limit	Read Line	Probe Factor	Cable	
					MHz	dBuV
						dB
1	0.199	39.00	-14.65	53.65	38.60	0.20
2	0.399	27.84	-20.03	47.87	27.54	0.10
3	2.400	29.66	-16.34	46.00	29.16	0.10
4	2.600	30.27	-15.73	46.00	29.77	0.10
5 !	4.999	39.28	-6.72	46.00	38.56	0.12
6	12.197	35.13	-14.87	50.00	34.23	0.20



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Data#: 58 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : S IN

Data#: 59 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:36:53

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : S IN

	Freq	Over Level	Limit	Read Line	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB
1	0.200	48.31	-15.31	63.62	47.91	0.20	0.20 QP
2	0.399	37.26	-20.61	57.87	36.96	0.10	0.20 QP
3	2.399	42.76	-13.24	56.00	42.26	0.10	0.40 QP
4	2.600	40.62	-15.38	56.00	40.12	0.10	0.40 QP
5	4.997	45.02	-10.98	56.00	44.32	0.10	0.60 QP
6	12.199	46.76	-13.24	60.00	45.90	0.16	0.70 QP

Data#: 60 File#: D:\Lg-14.emi

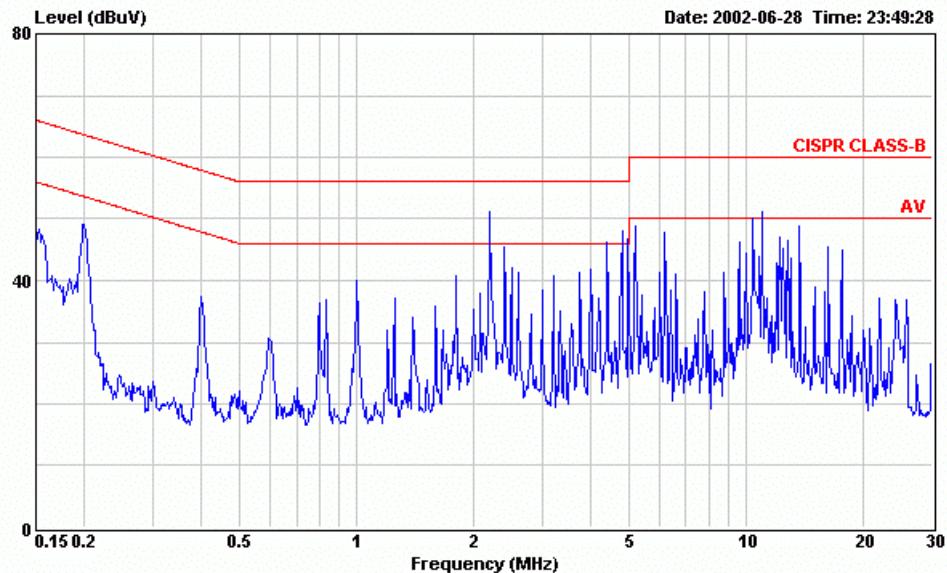
	Freq	Over Level	Limit	Read Line	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB
1	0.200	38.85	-14.77	53.62	38.45	0.20	0.20 Average
2	0.399	27.59	-20.28	47.87	27.29	0.10	0.20 Average
3	2.399	28.20	-17.80	46.00	27.70	0.10	0.40 Average
4	2.600	30.57	-15.43	46.00	30.07	0.10	0.40 Average
5	4.997	37.64	-8.36	46.00	36.94	0.10	0.60 Average
6	12.199	36.16	-13.84	50.00	35.30	0.16	0.70 Average



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Data#: 70 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : DVD IN

Data#: 71 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:49:35

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : DVD IN

Freq	Over Level	Limit	Read Line	Probe Factor	Cable	
					dBuV	dB
1	0.199	48.39	-15.28	63.67	47.99	0.20
2	0.399	37.52	-20.35	57.87	37.22	0.10
3	2.398	40.83	-15.17	56.00	40.33	0.10
4	2.602	39.38	-16.62	56.00	38.88	0.10
5 !	4.999	47.73	-8.27	56.00	47.01	0.12
6	12.196	44.79	-15.21	60.00	43.89	0.20

Data#: 72 File#: D:\Lg-14.emi

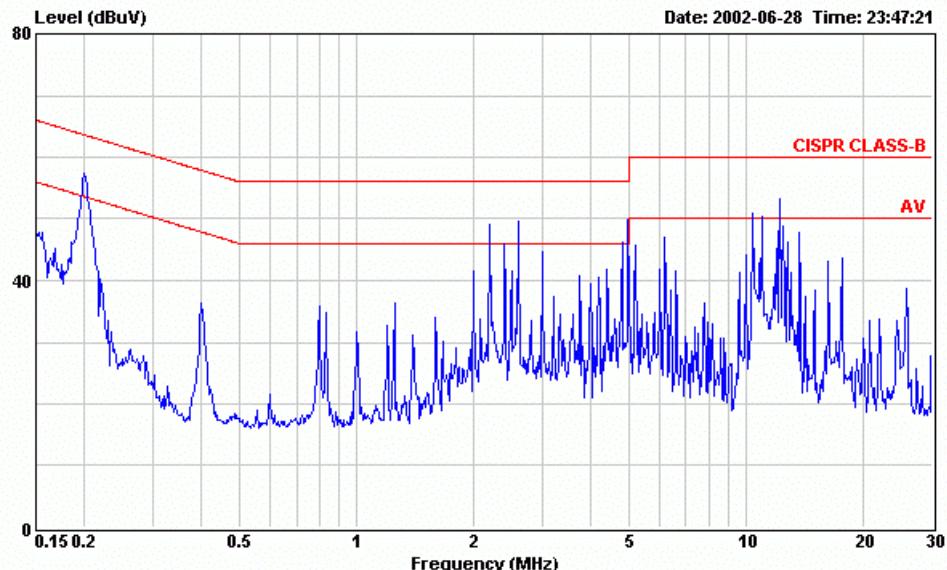
Freq	Over Level	Limit	Read Line	Probe Factor	Cable	
					dBuV	dB
1	0.199	38.90	-14.77	53.67	38.50	0.20
2	0.399	27.65	-20.22	47.87	27.35	0.10
3	2.398	29.01	-16.99	46.00	28.51	0.10
4	2.602	29.71	-16.29	46.00	29.21	0.10
5 !	4.999	38.88	-7.12	46.00	38.16	0.12
6	12.196	34.26	-15.74	50.00	33.36	0.20



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Data#: 67 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : DVD IN

Data#: 68 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:47:25

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : DVD IN

	Freq	Over Level	Limit	Read Line	Probe Level	Cable Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	

1 !	0.199	56.83	-6.82	63.65	56.43	0.20	0.20	QP
2	0.399	35.90	-21.98	57.88	35.60	0.10	0.20	QP
3	2.399	45.58	-10.42	56.00	45.08	0.10	0.40	QP
4 !	2.598	46.97	-9.03	56.00	46.47	0.10	0.40	QP
5 !	4.999	50.37	-5.63	56.00	49.67	0.10	0.60	QP
6 !	12.200	52.10	-7.90	60.00	51.24	0.16	0.70	QP

Data#: 69 File#: D:\Lg-14.emi

	Freq	Over Level	Limit	Read Line	Probe Level	Cable Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	

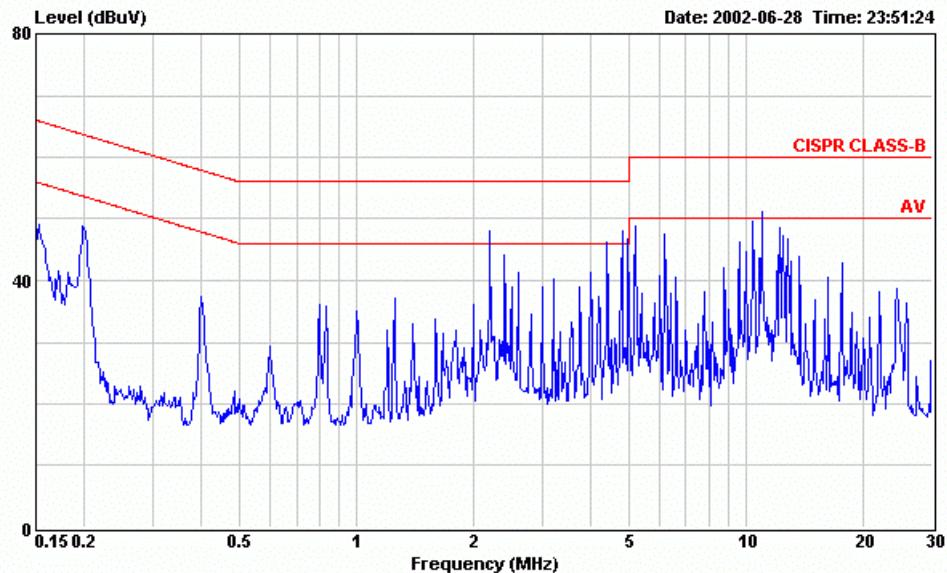
1 !	0.199	46.26	-7.39	53.65	45.86	0.20	0.20	Average
2	0.399	26.47	-21.41	47.88	26.17	0.10	0.20	Average
3	2.399	35.51	-10.49	46.00	35.01	0.10	0.40	Average
4 !	2.598	36.25	-9.75	46.00	35.75	0.10	0.40	Average
5 !	4.999	42.24	-3.76	46.00	41.54	0.10	0.60	Average
6 !	12.200	42.17	-7.83	50.00	41.31	0.16	0.70	Average



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Data#: 73 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : PIP

Data#: 74 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:51:27

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNW-407 NEUTRAL
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : PIP

Freq	Over Level	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	

1	0.198	48.29	-15.40	63.69	47.89	0.20	0.20 QP
2	0.400	36.91	-20.94	57.85	36.61	0.10	0.20 QP
3	2.401	40.89	-15.11	56.00	40.39	0.10	0.40 QP
4	2.598	41.03	-14.97	56.00	40.53	0.10	0.40 QP
5 !	5.000	47.13	-8.87	56.00	46.41	0.12	0.60 QP
6	12.200	46.78	-13.22	60.00	45.88	0.20	0.70 QP

Data#: 75 File#: D:\Lg-14.emi

Freq	Over Level	Limit	Read Line	Probe Level	Cable Factor	Cable Loss Remark	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	

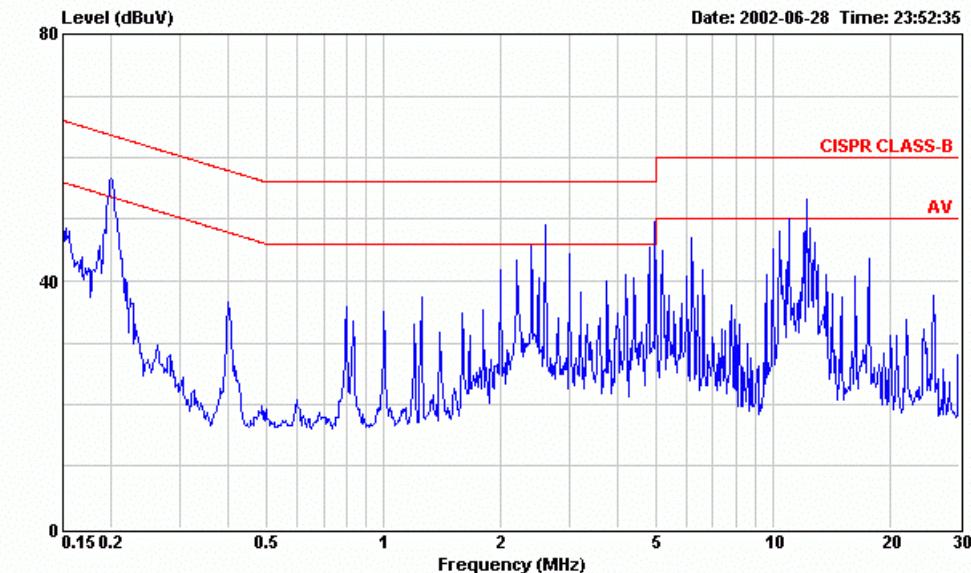
1	0.198	38.76	-14.93	53.69	38.36	0.20	0.20 Average
2	0.400	27.40	-20.45	47.85	27.10	0.10	0.20 Average
3	2.401	29.01	-16.99	46.00	28.51	0.10	0.40 Average
4	2.598	31.24	-14.76	46.00	30.74	0.10	0.40 Average
5 !	5.000	39.18	-6.82	46.00	38.46	0.12	0.60 Average
6	12.200	36.17	-13.83	50.00	35.27	0.20	0.70 Average



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Data#: 76 File#: D:\Lg-14.emi



Site : No.4 Shielded room
Condition : CISPR CLASS-B KNNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : PIP

Data#: 77 File#: D:\Lg-14.emi

Date: 2002-06-28 Time: 23:53:45

Site : No.4 Shielded room
Condition : CISPR CLASS-B KNNW-407 LINE
EUT : 40" PDP Monitor M/N:MU-40PA15
POWER : 120Vac/ 60Hz
MEMO : PIP

Freq	Level	Over	Limit	Read	Probe	Cable
		Line	dBuV	Level	Factor	Loss
MHz	dBuV	dB				
1 !	0.201	55.40	-8.18	63.58	55.00	0.20
2	0.400	35.53	-22.32	57.85	35.23	0.10
3	2.401	44.80	-11.20	56.00	44.30	0.10
4 !	2.601	46.74	-9.26	56.00	46.24	0.10
5 !	5.000	50.43	-5.57	56.00	49.73	0.10
6 !	12.200	52.40	-7.60	60.00	51.54	0.16

Data#: 78 File#: D:\Lg-14.emi

Freq	Level	Over	Limit	Read	Probe	Cable
		Line	dBuV	Level	Factor	Loss
MHz	dBuV	dB				
1 !	0.201	45.92	-7.66	53.58	45.52	0.20
2	0.400	26.12	-21.73	47.85	25.82	0.10
3	2.401	34.88	-11.12	46.00	34.38	0.10
4	2.601	35.25	-10.75	46.00	34.75	0.10
5 !	5.000	41.84	-4.16	46.00	41.14	0.10
6 !	12.200	42.35	-7.65	50.00	41.49	0.16

3. RADIATED EMISSION TEST

3.1. Test Equipment

The following test equipment are used during the radiated emission tests :

3.1.1. For 30MHz~1000MHz Frequency (at Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 04, 01'	1 Year
2.	Pre-Amplifier	HP	8447D	2944A06305	Mar. 05, 02'	1 Year
3.	Broadband Antenna	Schwarzbeck	BBA9106	A3L	Feb. 24, 02'	1 Year
4.	Broadband Antenna	Schwarzbeck	UHALP9108-A	0138	Feb. 24, 02'	1 Year

3.1.2. For 1GHz~2GHz frequency (at Anechoic Chamber)

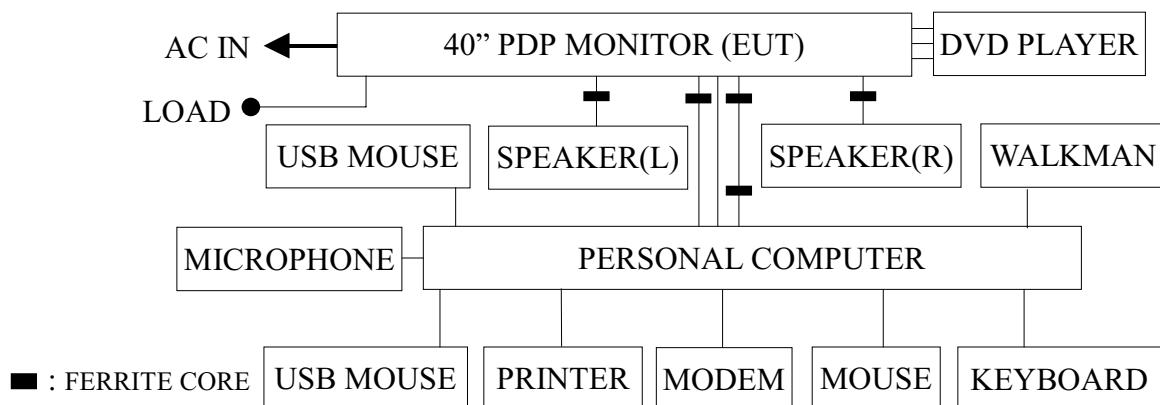
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 04, 01'	1 Year
2.	Amplifier	HP	8449B	3008A00529	Jan. 05, 02'	1 Year
3.	Horn Antenna	EMCO	3115	9112-3775	Apr. 16, 02'	1 Year

3.1.3. For 30MHz~1000MHz Frequency (at No. 3 Open Test Site)

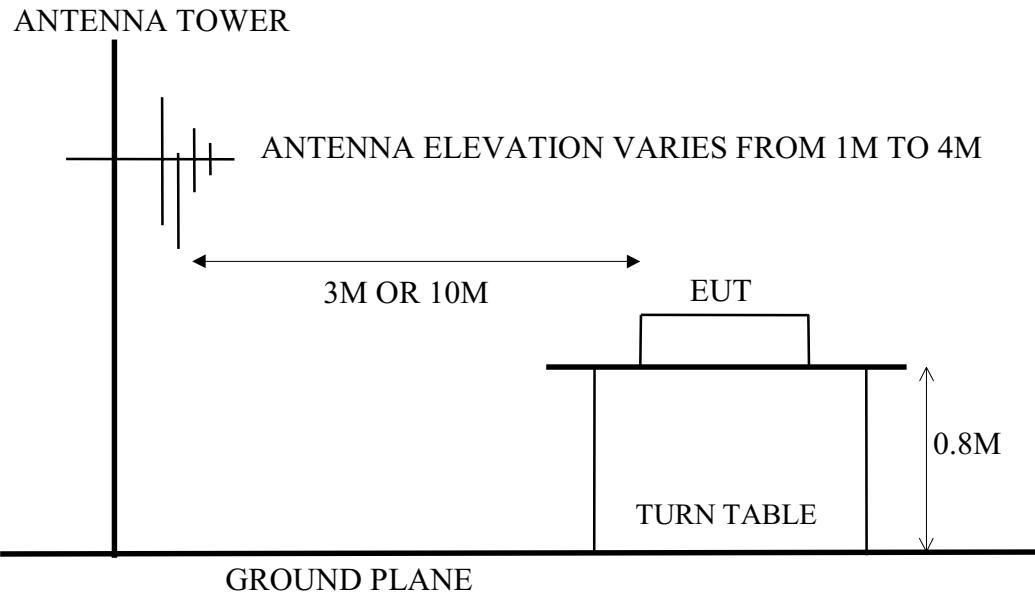
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	HP	8590L	3710A01838	Aug. 06, 01'	1 Year
2.	Test Receiver	R&S	ESVS10	845165/002	Dec. 12, 01'	1 Year
3.	Biconical Antenna	CHASE	VBA6106A	1231	Mar. 16, 02'	1 Year
4.	Log Periodic Antenna	CHASE	UPA6109	1027	Mar. 16, 02'	1 Year

3.2. Block Diagram of Test Setup

3.2.1. Block Diagram of connection between EUT and simulators



3.2.2. Anechoic Chamber (3M) & Open Field Test Site (10M) Setup Diagram



3.3. Radiation Limit (CISPR 22, Class B)

All emanations from a class B computing devices or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dB μ V/m)
30 ~ 230	10 (3)	30 (40)
230 ~ 1000	10 (3)	37 (47)
1000 ~ 2000	3	74.0 (Peak)

- Note :
- (1) The tighter limit applies at the edge between two frequency bands.
 - (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the E.U.T.
 - (3) There is no over 1GHz limits in CISPR 22 standard. Therefor, a FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.109 (g).
 - (4) The 3M limit apply relation: $L_2 = L_1(d_1/d_2)$

3.4. EUT's Configuration during Compliance Measurement

The configuration of EUT and its simulators were same as those used in conducted measurement. Please refer to 2.4.

3.5. Operating Condition of EUT

Same as conducted measurement which was listed in 2.5. except the test set up replaced by section 3.2.

3.6. Test Procedure

The EUT and its simulators were placed on a turn table which is 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT is set 3 or 10 meters away from the receiving antenna which was mounted on a antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) and dipole antenna were used as receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4-1992 on radiated measurement.

The bandwidth of the R&S Test Receiver ESVS10 was set at 120KHz.

The frequency range from 30MHz to 1000MHz was checked.

EUT with the following test modes were measured within Anechoic Chamber and all the scanning waveform were attached within APPENDIX, which include:

No.	Input Port	Display of EUT
1.	PC Input/ D-Sub	Character “H”, 640*480/60Hz, 31kHz
2.	PC Input/ D-Sub	Character “H”, 640*480/120Hz, 64kHz
※3.	PC Input/ D-Sub	Character “H”, 800*600/85Hz, 54kHz
4.	A/V Input	Image “DVD Movie”
5.	S-Video Input	Image “DVD Movie”
6.	Component Input (DVD)	Image “DVD Movie”
7.	D-Sub & A/V Input (PIP)	Character “H” + Image “DVD Movie” 800*600/85Hz, 54kHz

Finally, re-measured the worst test mode [Mode 3] at No. 3 Open Field Test Site and all the test results are listed in section 3.7.1.

For 1GHz ~ 2GHz frequency range, the test mode [Mode 3] was selected in 1~2GHz test and the test results are listed in section 3.7.2.

3.7. Radiated Emission Noise Measurement Results

PASSED. All emissions not reported below are too low against the prescribed limits.

3.7.1. 30MHz to 1000MHz frequency and at 10 meters distance measurement.

Date of Test :	Jul. 01, 2002	Temperature :	25°C
EUT :	40" PDP Monitor	Humidity :	57%
Test Mode :	PC Input/ D-Sub, 800*600/85Hz, 54kHz (Character "H")		

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Limits dBμV/m	Margin dB
75.192	13.22	1.60	2.32	17.14	30.00	12.86
90.910	15.89	1.80	10.20	27.89	30.00	2.11
125.309	19.27	2.20	-0.15	21.32	30.00	8.68
150.373	19.98	2.40	0.01	22.39	30.00	7.61
175.436	20.76	2.60	0.86	24.22	30.00	5.78
200.484	20.68	2.80	0.20	23.68	30.00	6.32
225.548	21.81	3.20	-1.30	23.71	30.00	6.29
275.675	23.61	3.40	0.39	27.40	37.00	9.60
360.010	14.90	4.00	6.72	25.62	37.00	11.38
399.996	16.40	4.20	6.80	27.40	37.00	9.60
460.003	17.31	4.40	2.88	24.59	37.00	12.41
540.003	19.28	5.20	0.86	25.34	37.00	11.66
640.000	20.39	5.60	1.92	27.91	37.00	9.09
*	726.794	21.06	6.00	6.21	33.27	37.00
759.994	22.64	6.20	1.43	30.27	37.00	6.73
880.001	23.68	6.80	0.86	31.34	37.00	5.66

- Remark :
1. All reading are Quasi-Peak values.
 2. '*' The worst emission was detected at 726.794MHz with corrected signal level of 33.27dBμV/m (limit was 37dBμV/m) when the antenna was at horizontal polarization and was at 3m high and the turn table was at 100° .
 3. 0° is the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
 4. Measurement at No. 3 open field test site.

Date of Test : Jul. 01, 2002 Temperature : 25°C
 EUT : 40" PDP Monitor Humidity : 57%
 Test Mode : PC Input/ D-Sub, 800*600/85Hz, 54kHz (Character "H")

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dB μ V	Emission Level Vertical dB μ V/m	Limits dB μ V/m	Margin dB
68.500	12.87	1.60	10.50	24.97	30.00	5.03
75.189	13.63	1.60	6.94	22.17	30.00	7.83
78.005	13.61	1.80	3.45	18.86	30.00	11.14
90.915	15.75	1.80	10.20	27.75	30.00	2.25
120.410	19.28	2.20	1.28	22.76	30.00	7.24
*	125.309	19.07	2.20	6.95	28.22	30.00
150.376	20.80	2.40	1.12	24.32	30.00	5.68
175.445	20.40	2.60	1.33	24.33	30.00	5.67
180.000	21.01	2.60	-0.31	23.30	30.00	6.70
200.503	21.71	2.80	2.06	26.57	30.00	3.43
225.573	20.78	3.20	-0.41	23.57	30.00	6.43
360.000	15.55	4.00	5.84	25.39	37.00	11.61
400.989	16.76	4.20	3.42	24.38	37.00	12.62
451.112	17.47	4.60	2.01	24.08	37.00	12.92
576.423	20.27	5.20	1.45	26.92	37.00	10.08
726.794	21.14	6.00	7.30	34.44	37.00	2.56
751.856	22.26	6.20	4.53	32.99	37.00	4.01
902.227	23.71	6.80	0.26	30.77	37.00	6.23

- Remark :
1. All reading are Quasi-Peak values.
 2. '*' The worst emission was detected at 125.309MHz with corrected signal level of 28.22dB μ V/m (limit was 30dB μ V/m) when the antenna was at vertical polarization and was at 1m high and the turn table was at 350° .
 3. 0° is the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
 4. Measurement at No. 3 open field test site.

3.7.2. 1GHz to 2GHz frequency and at 3 meters distance measurement.

Date of Test : Jul. 03, 2002 Temperature : 23°C
 EUT : 40" PDP Monitor Humidity : 63%
 Test Mode : PC Input/ D-Sub, 800*600/85Hz, 54kHz (Character "H")

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Pre-Amp Factor dB	Meter Reading Horizontal dB μ V	Emission Level Horizontal dB μ V/m	(Peak) Limits dB μ V/m	Margin dB
1067.120	25.23	4.32	40.68	49.98	38.85	74.00	35.15
1196.326	25.29	4.58	40.57	53.68	42.98	74.00	31.02
1291.972	25.33	4.81	40.50	51.56	41.20	74.00	32.80
1359.092	25.35	5.02	40.45	51.13	41.05	74.00	32.95
1442.992	25.38	5.26	40.39	50.70	40.95	74.00	33.05
1543.672	25.65	5.75	40.33	49.63	40.70	74.00	33.30
1615.826	26.03	6.26	40.28	49.11	41.12	74.00	32.88
1682.946	26.37	6.73	40.24	48.60	41.46	74.00	32.54
1921.222	27.47	6.25	40.12	50.56	44.16	74.00	29.84

Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Pre-Amp Factor dB	Meter Reading Vertical dB μ V	Emission Level Vertical dB μ V/m	(Peak) Limits dB μ V/m	Margin dB
1020.136	25.21	4.22	40.72	58.18	46.89	74.00	27.11
1196.326	25.29	4.58	40.57	58.36	47.66	74.00	26.34
1359.092	25.35	5.02	40.45	55.09	45.01	74.00	28.99
1409.432	25.37	5.17	40.41	55.69	45.82	74.00	28.18
1644.652	26.18	6.46	40.27	51.66	44.03	74.00	29.97
1724.896	26.57	7.01	40.22	53.29	46.65	74.00	27.35
1770.202	26.79	7.07	40.20	51.08	44.74	74.00	29.26
1879.272	27.29	6.48	40.14	52.27	45.90	74.00	28.10
1921.222	27.47	6.25	40.12	50.49	44.09	74.00	29.91

- Remark : 1. All reading are Peak values.
 2. Emission Level = Antenna Factor + Cable Loss + Meter Reading – Pre-Amp Factor.
 3. Measurement at Anechoic Chamber.

4. MODIFICATIONS TO EUT

1. Bond two ferrite cores on the D-Sub cable.
2. Add conductive gaskets on the holder of connector.
3. Add a ferrite core on the control wire of control board.
4. Add conductive fabric tapes on the bracket of AV and component jack.
5. Add a ferrite core on the control wire of speaker board.
6. Bond a ferrite core on the speaker's cable.
7. Add a ferrite core on the RS232C cable (Close to the EUT).

5. DEVIATION TO TEST SPECIFICATIONS

【NONE】