APPLICATION FOR CERTIFICATION On Behalf of

Philips Electronics Industries (Taiwan) Ltd.

Flat Panel Color Monitor

Model No.: Scenicview A17-1

FCC ID: A3KM140

Brand: Fujitsu Siemens Computers

Prepared for: Philips Electronics Industries (Taiwan) Ltd.

5, Tze Chiang 1 Rd, Chungli Ind. Park, Chungli, Taoyuan Hsien, Taiwan, R.O.C.

Prepared By: Audix Corporation

Technical Division EMC Department No. 53-11, Tin-Fu Tsun, Lin-Kou, Taipei County, Taiwan, R.O.C.

Tel: (02) 2609-9301, 2609-2133

Fax: (02) 2609-9303

File Number : EM940083 Report Number : EM-F940034 Date of Test : Jan. 19 ~ 22, 2005

Date of Report : Feb. 01, 2005

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APPENDIX I (Radiated Test Data at Simple Anechoic Chamber)

TEST REPORT CERTIFICATION

Applicant : Philips Electronics Industries (Taiwan) Ltd.

Manufacturer : Philips Electronics Industries (Taiwan) Ltd.

Factory #1 : Philips Ltd. Assembly Centre Hungary

Factory #2 : Philips Consumer Electronics Co., of Suzhou Ltd.

Factory #3 : Skyway (Dong Guan) Monitor Factory

EUT Description : Flat Panel Color Monitor

FCC ID : A3KM140

(A) MODEL NO. : Scenicview A17-1

(B) SERIAL NO. : (1)TY0404785 (2)TY0404789
(C) BRAND NAME : Fujitsu Siemens Computers
(D) POWER SUPPLY : AC 100-240V~60-50Hz

(E) TEST VOLTAGE: AC 120V/60Hz

Measurement Standard Used:

FCC CFR 47 Part 15 Subpart B/July 2004 and CISPR 22/1997 ANSI C63.4-2003

The device described above was tested by Audix Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 Subpart B with the provisions of section §15.107 (a) and §15.109 (a)(g) Class B limits both conducted and radiated emission.

The measurement results are contained in this test report and Audix Corporation 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 Audix Corporation.

Date of Test: Jan. $19 \sim 22,2005$

Test Engineer:

Prepared by: Medical Section 2.7

(IVIIa Lee/Assistant Officer

(Allen Wang/Deputy Manager)

Approved & Authorized Signer: Klon Kin Feb. 3 2005

(Leon Liu/Senior Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : Flat Panel Color Monitor

Model Number : Scenicview A17-1

Serial Number : (1)TY0404785 (2)TY0404789

FCC ID. : A3KM140

Brand : Fujitsu Siemens Computers

Applicant : Philips Electronics Industries (Taiwan) Ltd.

5, Tze Chiang 1 Rd, Chungli Ind. Park, Chungli, Taoyuan Hsien, Taiwan, R.O.C.

Manufacturer : Philips Electronics Industries (Taiwan) Ltd.

5, Tze Chiang 1 Rd, Chungli Ind. Park, Chungli, Taoyuan Hsien, Taiwan, R.O.C.

Factory #1 : Philips Ltd. Assembly Centre Hungary

Holland Fasor 6. PF 204, H-8002

Szekesfehervar, Hungary

Factory #2 : Philips Consumer Electronics Co., of Suzhou Ltd.

No. 161, Zhujiang Road, New District, Suzhou

215011, China

Factory #3 : Skyway (Dong Guan) Monitor Factory

Industrial Zone, Da Ling Shan Town, Dong

Guan City, Guang Dong, China

LCD Panel : (1)Quanta Display Inc., M/N QD17EL07

(2)LG Philips, M/N LM170E01

Power Board : (1)LC (Lien Chang), M/N AIP-0093

(2)Delta, M/N EADP-43AF A

Scanning Frequency : Horizontal: 30-83kHz

Vertical: 56-76Hz

Max Resolution : 1280*1024/75Hz

D-Sub Data Cable : Shielded, Detachable, 1.8m

Bonded two ferrite cores

Power Cord : Non-Shielded, Detachable, 1.5m (3 pin)

Data of Receipt of Sample : Jan. 19, 2005

Date of Test : Jan. $19 \sim 22,2005$

1.2. Tested Supporting System Details

1.2.1. PERSONAL COMPUTER

Model Name : FHD-D1931 Serial Number : YBPAOO2513

FCC ID : by DoC

Manufacturer : FUJITSU SIEMENS

Power Cord : Non-Shielded, Detachable, 1.8m

1.2.2. KEYBOARD

Model Number : KBPC XC GB

Serial Number : S26381-K397-V165

FCC ID : by DoC

Manufacturer : FUJITSU SIEMENS

Data Cable : Shielded, Undetachable, 2.0m

1.2.3. PS2 MOUSE

Model Number : M042KC
Serial Number : 041028562
FCC ID : by Doc
BSMI ID : R41108

Manufacturer : FUJITSU SIEMENS

Data Cable : Non-Shielded, Undetachable, 2.0m

1.2.4. MODEM

Model Number : DM-1414
Serial Number : 980034383
FCC ID : IFAXDM1414

Manufacturer : Accex

Data Cable : Shielded, Detachable, 1.2m Power Adapter : Amigo, M/N AM-91000A

> Non-Shielded, Undetachable, 1.8m Non-Shielded, Undetachable, 1.8m

1.2.5. DOT MATRIX PRINTER

Model Number : KX-P2135

Serial Number : 8DMCNC02144

BSMI ID : 3872A371

FCC ID : ACJ5Z6KX-P2135

Brand : Panasonic Manufacturer : Matsushita

Data Cable : Non-Shielded, Detachable, 1.5m Power Cord : Non-Shielded, Undetachable, 1.8m

1.2.6. MICROPHONE

Model Number : HD-303 Serial Number : N/A

Manufacturer : Multimedia Microphone System
Data Cable : Non-Shielded, Undetachable, 2.2m

1.2.7. WALKMAN

Model Number : RQ-P35LT-K Serial Number : HA08623 Manufacturer : Panasonic

Data Cable : Non-Shielded, Detachable, 1.8m

1.2.8. MICRO VAULT (USB Storage Media)

Model Number : USM128U2

Serial Number : N/A
FCC ID : By DoC
BSMI ID : D33021
Manufacturer : SONY

Data Cable : Non-Shielded, Detachable, 2m

1.2.9. SPEAKER

Model Number : J-008

Serial Number : 97-C-008923-T

Manufacturer : (J-S) JAZZ HIPSTER

Data Cable : Non-Shielded, Undetachable, 1m

1.3. Test Facility

Name of Firm : Audix Corporation

Technical Division EMC Department No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei County 24443, Taiwan, R.O.C.

Test Facility & Location (C3/R3/R6/Mini-Chamber)

No. 3 Shielded Room

No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei County 24443, Taiwan, R.O.C.

No. 3 Open Area Test Site

No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei County 24443, Taiwan, R.O.C.

Feb. 10, 2003 Re-File on

Federal Communication Commission

Registration Number: 90996

No. 6 Open Area Test Site

No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei County 24443, Taiwan, R.O.C.

Jun. 11, 2003 Re-File on

Federal Communication Commission

Registration Number: 98448

Simple Anechoic Chamber

No. 67-4, Tin-Fu Tsun, Lin-Kou, Taipei County, Taiwan, R.O.C.

NVLAP Lab. Code : 200077-0

(NVLAP is a NATA accredited body under Mutual Recognition Agreement)

DAR-Registration No. : DAT-P-145/03-01

1.4. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)		
Conduction Test	150kHz~30MHz	±1.73dB		
Radiation Test	30MHz~300MHz	±2.99dB		
(Distance: 10m)	300MHz~1000MHz	±2.73dB		
Radiation Test	30MHz~300MHz	±2.91dB		
(Distance: 3m)	300MHz~1000MHz	±2.94dB		

Remark : Uncertainty = $ku_c(y)$

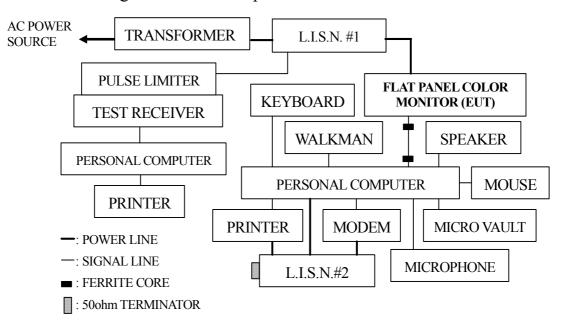
2. POWERLINE CONDUCTED EMISSION MEASUREMENT

2.1. Test Equipment

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

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	Rohde & Schwarz	ESCS 30	825442/020	Aug.05, 04'	Aug.04, 05'
2.	L.I.S.N. # 1	Kyoritsu	KNW-407	8-1370-10	Jun.05, 04'	Jun.04, 05'
3.	L.I.S.N. # 2	Kyoritsu	KNW-407	8-1370-9	Jun.05, 04'	Jun.04, 05'
4.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100041	Apr.28, 04'	Apr.27, 05'

2.2. Block Diagram of Test Setup



2.3. Conducted Powerline Emission Limit (§15.107, Class B)

Frequency	Maximum RF Line Voltage				
	Quasi-Peak Level	Average Level			
150kHz ~ 500kHz	66 ~ 56 dBμV	$56 \sim 46 \text{ dB}\mu\text{V}$			
$500kHz \sim 5MHz$	56 dBμV	46 dBμV			
5MHz ~ 30MHz	60 dBμV	50 dBμV			

Remark: 1. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2. The lower limit applies at the band edges.

2.4. EUT's Configuration during Compliance Measurement

The following equipments 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. Flat Panel Color Monitor (EUT) #1

Model Number : Scenicview A17-1

Serial Number : TY0404785 FCC ID : A3KM140

Manufacturer : Philips Electronics Industries (Taiwan) Ltd.

LCD Panel : LG Philips, M/N LM170E01 Power Board : Delta, M/N EADP-43AF A Scanning Frequency : Horizontal : 30kHz-83kHz

Vertical: 56Hz-76Hz

Max. Resolution : 1280*1024/75Hz

D-Sub Data Cable : Shielded, Detachable, 1.8m

Bonded two ferrite cores

Power Cord : Non-Shielded, Detachable, 1.5m (3 pin)

2.4.2. Flat Panel Color Monitor (EUT) #2

Model Number : Scenicview A17-1

Serial Number : TY0404789 FCC ID : A3KM140

Manufacturer : Philips Electronics Industries (Taiwan) Ltd.

LCD Panel : Quanta Display Inc., M/N QD17EL07

Power Board : LC (Lien Chang), M/N AIP-0093

Scanning Frequency : Horizontal: 30kHz-83kHz

Vertical: 56Hz-76Hz

Max. Resolution : 1280*1024/75Hz

D-Sub Data Cable : Shielded, Detachable, 1.8m

Bonded two ferrite cores

Power Cord : Non-Shielded, Detachable, 1.5m (3 pin)

2.4.3. 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 equipments.
- 2.5.3. Personal computer read data from disk.
- 2.5.4. Personal computer running the EMI self-test program "EMC Test" by windows XP and sent "H" character to Monitor (EUT), the screen of Monitor (EUT) displayed and filled with "H" pattern by EUT's resolution.
- 2.5.5. Personal Computer read data from FDD and then wrote data into FDD, same operation from HDD \cdot Modem.

- 2.5.6. The other peripheral devices were drove and operated in turn during all testing.
- 2.5.7. Repeat above procedure from 2.5.3 to 2.5.6.

2.6. Test Procedure

The EUT was put on table which was above the ground by 80cm and its power cord 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 simulators of the interface cables were manipulated according to FCC ANSI C63.4-2003 during conducted measurement.

The bandwidth of the R&S Test Receiver ESCS30 was set at 9kHz.

The frequency range from 150kHz to 30MHz was pre-scanned with a peak detector.

The all final readings from test receiver were measured with Quasi-Peak detector and Average detector. (Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

2.7. Powerline Conducted Emission Measurement Results

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

EUT with following test modes were performed during conducted testing and all the test results are attached in next pages.

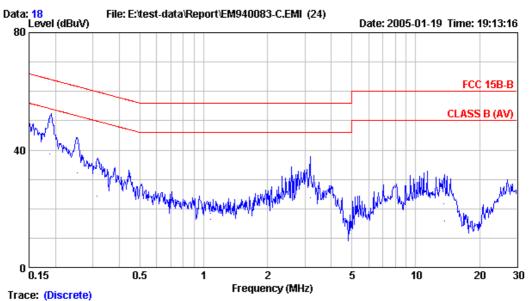
EUT: Flat Panel Color Monitor M/N: Scenicview A17-1

Test Date: Jan. 19, 2005 Temperature: 17℃ Humidity: 54%

The details of test modes are as follows:

No.	Serial Number	LCD Panel	Power Board	Eraguanay / Regulation	Reference Test Data No.		
NO.	Seriai Number	LCD Panel	Power Board	Frequency / Resolution.	Neutral	Line	
1.			Delta	640*480/60Hz, 31kHz	# 18	# 17	
2.	TY0404785	LG Philips		1024*768/75Hz, 60kHz	# 15	# 16	
3.				1280*1024/75Hz, 80kHz	# 14	# 13	
4.				640*480/60Hz, 31kHz	#7	# 8	
5.	TY0404789 Quanta I	Quanta Display Inc.	LC (Lien Chang)	1024*768/75Hz, 60kHz	# 10	# 9	
6.			(1 - 1 - 2)	1280*1024/75Hz, 80kHz	# 11	# 12	





: NO.3 Shielded room Site Data

: 18 : KNW-407 Condition Phase : NEUTRAL

: FCC 15B-B Limit

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

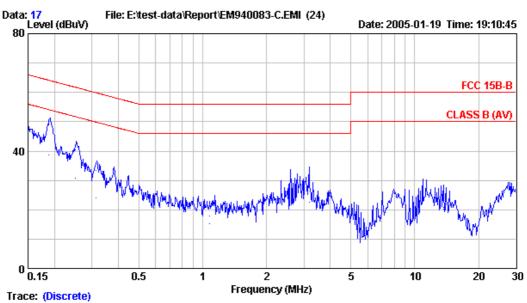
: FLAT PANEL COLOR MONITOR Power Rating : 120Vac/60Hz M/N:A17-1 Test Mode : 640*480/60Hz/31KHz

LPL+Delta

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dΒ μ V)	(dΒ μ V)	(dB μ V)	(dB)	
1	0.188	0.22	0.20	49.11	49.53	64.13	14.60	QP
2	0.188	0.22	0.20	38.30	38.72	54.13	15.41	AVERAGE
3	0.254	0.16	0.20	41.97	42.33	61.62	19.28	QP
4	0.254	0.16	0.20	31.90	32.26	51.62	19.35	AVERAGE
5	0.315	0.13	0.20	34.34	34.67	59.84	25.16	QP
6	0.315	0.13	0.20	24.06	24.39	49.84	25.44	AVERAGE
7	1.080	0.10	0.40	17.99	18.49	56.00	37.51	QP
8	1.080	0.10	0.40	15.96	16.46	46.00	29.54	AVERAGE
9	3.173	0.10	0.40	33.83	34.33	56.00	21.67	QP
10	3.174	0.10	0.40	23.23	23.73	46.00	22.27	AVERAGE
11	13.620	0.18	0.70	20.67	21.55	60.00	38.45	QP
12	13.621	0.18	0.70	14.96	15.84	50.00	34.16	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Site : NO.3 Shielded room Data : 17 Condition : KNW-407 Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

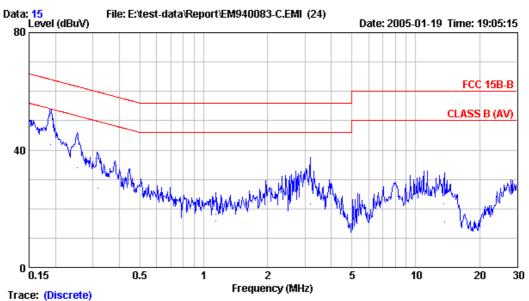
EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 640*480/60Hz/31KHz

LPL+Delta

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dΒ μ V)	(dB μ V)	(dB μ V)	(dB)	
1	0.188	0.22	0.20	48.52	48.94	64.12	15.18	QP
2	0.188	0.22	0.20	38.25	38.67	54.12	15.45	AVERAGE
3	0.252	0.17	0.20	40.01	40.38	61.70	21.33	QP
4	0.252	0.17	0.20	30.42	30.79	51.70	20.91	AVERAGE
5	0.315	0.13	0.20	32.93	33.26	59.84	26.58	QP
6	0.315	0.13	0.20	23.79	24.12	49.84	25.72	AVERAGE
7	1.079	0.10	0.40	17.26	17.76	56.00	38.24	QP
8	1.080	0.10	0.40	14.88	15.38	46.00	30.62	AVERAGE
9	3.171	0.10	0.40	31.89	32.39	56.00	23.61	QP
10	3.173	0.10	0.40	22.14	22.64	46.00	23.36	AVERAGE
11	13.621	0.18	0.70	20.03	20.91	60.00	39.09	QP
12	13.624	0.18	0.70	19.23	20.11	50.00	29.89	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Site : NO.3 Shielded room Data : 15 Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

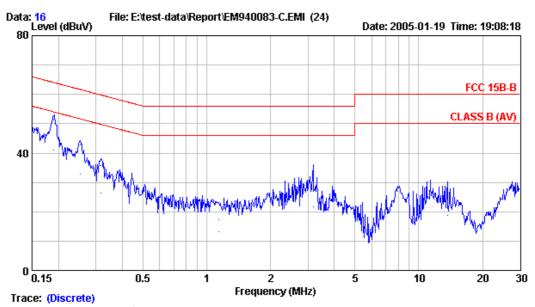
EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 1024*768/75Hz/60KHz

LPL+Delta

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	(dB μ V)	(dB μ V)	(dB)	
1	0.189	0.22	0.20	51.93	52.35	64.06	11.72	QP
2	0.189	0.22	0.20	41.55	41.97	54.06	12.09	AVERAGE
3	0.254	0.16	0.20	43.65	44.01	61.62	17.60	QP
4	0.254	0.16	0.20	33.66	34.02	51.62	17.59	AVERAGE
5	0.316	0.13	0.20	36.75	37.08	59.81	22.72	QP
6	0.316	0.13	0.20	26.57	26.90	49.80	22.90	AVERAGE
7	1.141	0.10	0.40	17.65	18.15	56.00	37.85	QP
8	1.143	0.10	0.40	15.18	15.68	46.00	30.32	AVERAGE
9	3.173	0.10	0.40	34.13	34.63	56.00	21.37	QP
10	3.175	0.10	0.40	21.15	21.65	46.00	24.35	AVERAGE
11	13.620	0.18	0.70	20.93	21.81	60.00	38.19	QP
12	13.621	0.18	0.70	14.69	15.57	50.00	34.43	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Site : NO.3 Shielded room Data : 16 Condition : KNW-407 Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

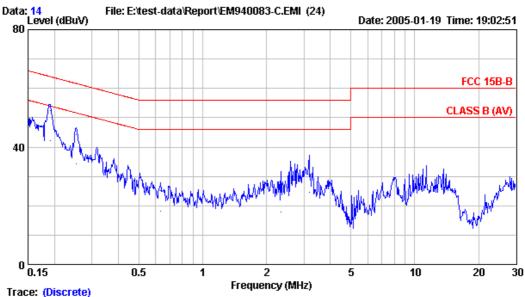
EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 1024*768/75Hz/60KHz

LPL+Delta

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	(dB μ V)	(dB	(dB)	
1	0.189	0.22	0.20	50.86	51.28	64.06	12.79	QP
2	0.189	0.22	0.20	40.47	40.89	54.06	13.17	AVERAGE
3	0.254	0.16	0.20	42.45	42.81	61.62	18.80	QP
4	0.254	0.16	0.20	32.47	32.83	51.62	18.78	AVERAGE
5	0.316	0.13	0.20	35.37	35.70	59.81	24.10	QP
6	0.316	0.13	0.20	25.96	26.29	49.81	23.51	AVERAGE
7	1.141	0.10	0.40	16.87	17.37	56.00	38.63	QP
8	1.143	0.10	0.40	12.64	13.14	46.00	32.86	AVERAGE
9	3.173	0.10	0.40	31.15	31.65	56.00	24.35	QP
10	3.174	0.10	0.40	21.19	21.69	46.00	24.31	AVERAGE
11	13.621	0.18	0.70	21.67	22.55	60.00	37.45	QP
12	13.622	0.18	0.70	18.02	18.90	50.00	31.10	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Trace: (Discrete)

Site : NO.3 Shielded room Data : 14 Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

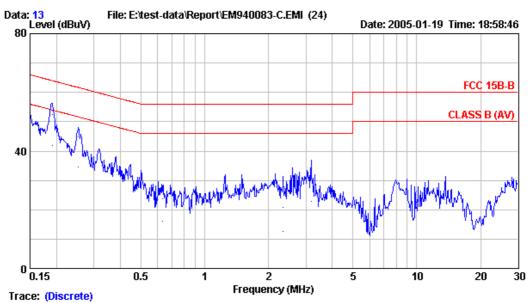
EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 1280*1024/75Hz/80KHz

LPL+Delta

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dB μ V)		Limits (dB μ V)	Margin (dB)	Remark
1	0.192	0.21	0.20	52.17	52.58	63.95	11.37	QP
2	0.192	0.21	0.20	41.71	42.12	53.95	11.83	AVERAGE
3	0.253	0.17	0.20	43.91	44.28	61.66	17.39	QP
4	0.253	0.17	0.20	33.85	34.22	51.66	17.45	AVERAGE
5	0.634	0.10	0.20	24.90	25.20	56.00	30.80	QP
6	0.634	0.10	0.20	17.90	18.20	46.00	27.80	AVERAGE
7	2.346	0.10	0.40	25.08	25.58	56.00	30.42	QP
8	2.349	0.10	0.40	17.30	17.80	46.00	28.20	AVERAGE
9	3.170	0.10	0.40	33.23	33.73	56.00	22.27	QP
10	3.171	0.10	0.40	24.02	24.52	46.00	21.48	AVERAGE
11	9.961	0.10	0.60	28.71	29.41	60.00	30.59	QP
12	9.962	0.10	0.60	25.65	26.35	50.00	23.65	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Site : NO.3 Shielded room Data : 13 Condition : KNW-407 Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

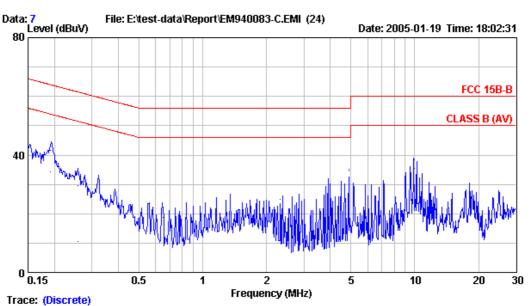
EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 1280*1024/75Hz/80KHz

LPL+Delta

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	(dB μ V)	(dB μ V)	(dB)	
1	0.192	0.21	0.20	51.97	52.38	63.95	11.57	QP
2	0.192	0.21	0.20	41.57	41.98	53.95	11.97	AVERAGE
3	0.254	0.16	0.20	44.34	44.70	61.62	16.91	QP
4	0.254	0.16	0.20	34.26	34.62	51.62	16.99	AVERAGE
5	0.634	0.10	0.20	23.29	23.59	56.00	32.41	QP
6	0.634	0.10	0.20	15.87	16.17	46.00	29.83	AVERAGE
7	2.346	0.10	0.40	20.17	20.67	56.00	35.33	QP
8	2.347	0.10	0.40	12.07	12.57	46.00	33.43	AVERAGE
9	3.173	0.10	0.40	33.19	33.69	56.00	22.31	QP
10	3.174	0.10	0.40	22.39	22.89	46.00	23.11	AVERAGE
11	9.961	0.10	0.60	25.81	26.51	60.00	33.49	QP
12	9.964	0.10	0.60	21.98	22.68	50.00	27.32	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Site : NO.3 Shielded room Data : 7

Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

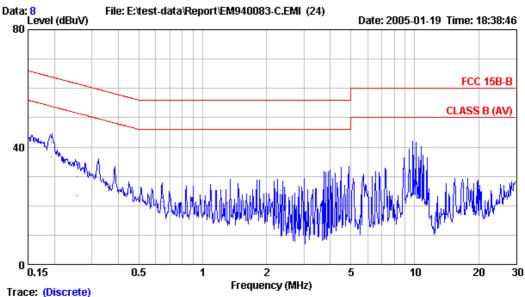
EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 640*480/60Hz/31KHz

QDI+LC

		LISN	Cable		Emission			_
	Freq.	Factor	Loss	Reading		Limits	Margin	Remark
	(MHz)	(dB)	(dB)	$(dB \mu V)$	(dΒ μ V)	(dB μ V)	(dB)	
1	0.191	0.21	0.20	41.11	41.52	63.98	22.46	QP
2	0.191	0.21	0.20	33.89	34.30	53.98	19.68	AVERAGE
3	0.257	0.16	0.20	29.15	29.51	61.52	32.01	QP
4	0.257	0.16	0.20	10.18	10.54	51.52	40.98	AVERAGE
5	0.648	0.10	0.20	20.81	21.11	56.00	34.89	QP
6	0.648	0.10	0.20	18.31	18.61	46.00	27.39	AVERAGE
7	2.320	0.10	0.40	24.41	24.91	56.00	31.09	QP
8	2.322	0.10	0.40	22.02	22.52	46.00	23.48	AVERAGE
9	4.877	0.10	0.60	34.36	35.06	56.00	20.94	QP
10	4.880	0.10	0.60	33.82	34.52	46.00	11.48	AVERAGE
11	9.916	0.10	0.60	37.66	38.36	60.00	21.64	QP
12	9.917	0.10	0.60	34.88	35.58	50.00	14.42	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





: NO.3 Shielded room Site : 8 : KNW-407 Condition Phase : LINE

: FCC 15B-B Limit

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

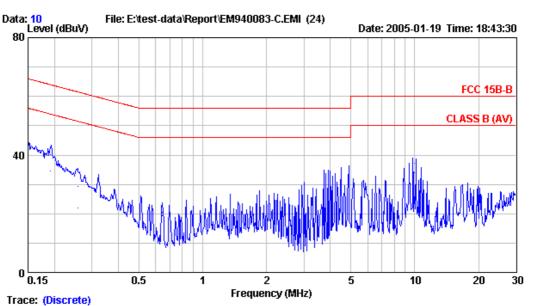
: FLAT PANEL COLOR MONITOR Power Rating: 120Vac/60Hz M/N:A17-1 Test Mode : 640*480/60Hz/31KHz

ODI+LC

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading $(dB\muV)$	Emission Level (dB μ V)	Limits (dB μ V)	Margin (dB)	Remark
1	0.193	0.21	0.20	41.29	41.70	63.93	22.22	QP
2 3	0.193 0.256	0.21 0.16	0.20 0.20	36.18 29.54	36.59 29.90	53.93 61.55	17.33 31.65	AVERAGE QP
4	0.256	0.16	0.20	23.01	23.37	51.55	28.18	AVERAGE
5	0.644	0.10	0.20	22.45	22.75	56.00	33.25	QP
6	0.644	0.10	0.20	21.21	21.51	46.00	24.49	AVERAGE
7	2.313	0.10	0.40	24.59	25.09	56.00	30.91	QP
8	2.317	0.10	0.40	20.51	21.01	46.00	24.99	AVERAGE
9	4.881	0.10	0.60	32.26	32.96	56.00	23.04	QP
10	4.882	0.10	0.60	32.20	32.90	46.00	13.10	AVERAGE
11	9.966	0.10	0.60	38.82	39.52	60.00	20.48	QP
12	9.967	0.10	0.60	35.30	36.00	50.00	14.00	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Site : NO.3 Shielded room Data : 10 Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

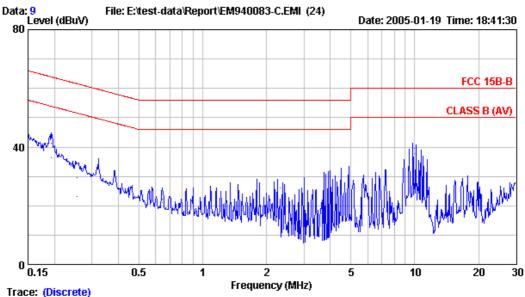
EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 1024*768/75Hz/60KHz

QDI+LC

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	(dB μ V)	(dB	(dB)	
1	0.191	0.21	0.20	39.73	40.14	63.98	23.84	QP
2	0.191	0.21	0.20	34.26	34.67	53.98	19.31	AVERAGE
3	0.258	0.16	0.20	28.94	29.30	61.48	32.18	QP
4	0.259	0.16	0.20	21.55	21.91	51.48	29.57	AVERAGE
5	0.642	0.10	0.20	20.09	20.39	56.00	35.61	QP
6	0.642	0.10	0.20	19.01	19.31	46.00	26.69	AVERAGE
7	2.313	0.10	0.40	22.92	23.42	56.00	32.58	QP
8	2.315	0.10	0.40	19.11	19.61	46.00	26.39	AVERAGE
9	4.882	0.10	0.60	35.61	36.31	56.00	19.69	QP
10	4.885	0.10	0.60	32.80	33.50	46.00	12.50	AVERAGE
11	9.964	0.10	0.60	36.61	37.31	60.00	22.69	QP
12	9.966	0.10	0.60	33.28	33.98	50.00	16.02	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





: NO.3 Shielded room Site : 9 : KNW-407 Condition Phase : LINE

: FCC 15B-B Limit

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

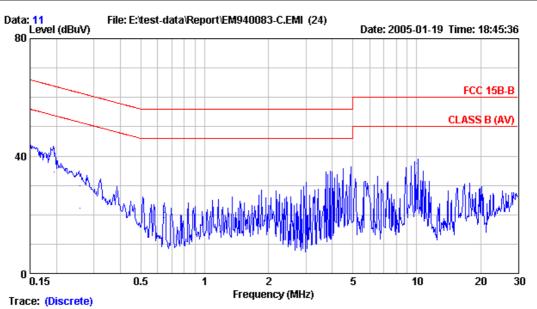
: FLAT PANEL COLOR MONITOR Power Rating: 120Vac/60Hz M/N:A17-1 : 1024*768/75Hz/60KHz Test Mode

ODI+LC

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	(dB μ V)	(dB	(dB)	
1	0.194	0.21	0.20	40.93	41.34	63.87	22.53	QP
2	0.194	0.21	0.20	35.84	36.25	53.87	17.62	AVERAGE
3	0.256	0.16	0.20	29.22	29.58	61.56	31.98	QP
4	0.256	0.16	0.20	22.76	23.12	51.56	28.44	AVERAGE
5	0.642	0.10	0.20	21.95	22.25	56.00	33.75	QP
6	0.642	0.10	0.20	20.84	21.14	46.00	24.86	AVERAGE
7	2.315	0.10	0.40	25.57	26.07	56.00	29.93	QP
8	2.318	0.10	0.40	18.57	19.07	46.00	26.93	AVERAGE
9	4.882	0.10	0.60	32.58	33.28	56.00	22.72	QP
10	4.885	0.10	0.60	28.88	29.58	46.00	16.42	AVERAGE
11	9.964	0.10	0.60	38.98	39.68	60.00	20.32	QP
12	9.965	0.10	0.60	37.00	37.70	50.00	12.30	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Site : NO.3 Shielded room Data : 11 Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

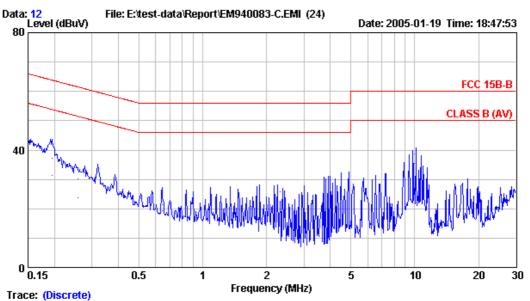
EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 1280*1024/75Hz/80KHz

QDI+LC

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	(dB μ V)	(dB	(dB)	
1	0.195	0.21	0.20	39.71	40.12	63.84	23.72	QP
2	0.195	0.21	0.20	34.04	34.45	53.84	19.39	AVERAGE
3	0.257	0.16	0.20	29.39	29.75	61.52	31.77	QP
4	0.257	0.16	0.20	21.93	22.29	51.52	29.22	AVERAGE
5	0.645	0.10	0.20	20.63	20.93	56.00	35.07	QP
6	0.645	0.10	0.20	18.85	19.15	46.00	26.85	AVERAGE
7	2.313	0.10	0.40	22.76	23.26	56.00	32.74	QP
8	2.315	0.10	0.40	19.14	19.64	46.00	26.36	AVERAGE
9	4.881	0.10	0.60	35.39	36.09	56.00	19.91	QP
10	4.882	0.10	0.60	35.72	36.42	46.00	9.58	AVERAGE
11	9.964	0.10	0.60	36.74	37.44	60.00	22.56	QP
12	9.966	0.10	0.60	33.66	34.36	50.00	15.64	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.





Site : NO.3 Shielded room Data : 12 Condition : KNW-407 Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : (17*C,54%) /ESCS30 Engineer: JAMES CHOU

EUT : FLAT PANEL COLOR MONITOR
Power Rating : 120Vac/60Hz M/N:A17-1
Test Mode : 1280*1024/75Hz/80KHz

QDI+LC

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB μ V)		Limits (dB μ V)	Margin (dB)	Remark
1	0.195	0.21	0.20	36.72	37.13	63.82	26.69	QP
2	0.195	0.21	0.20	31.03	31.44	53.82	22.38	AVERAGE
3	0.257	0.16	0.20	29.85	30.21	61.52	31.31	QP
4	0.257	0.16	0.20	23.35	23.71	51.52	27.80	AVERAGE
5	0.642	0.10	0.20	21.13	21.43	56.00	34.57	QP
6	0.642	0.10	0.20	19.15	19.45	46.00	26.55	AVERAGE
7	2.315	0.10	0.40	25.35	25.85	56.00	30.15	QP
8	2.317	0.10	0.40	20.16	20.66	46.00	25.34	AVERAGE
9	4.881	0.10	0.60	31.91	32.61	56.00	23.39	QP
10	4.881	0.10	0.60	31.50	32.20	46.00	13.80	AVERAGE
11	9.965	0.10	0.60	38.11	38.81	60.00	21.19	QP
12	9.966	0.10	0.60	34.81	35.51	50.00	14.49	AVERAGE

Remarks: 1. Emission Level= LISN Factor + Cable Loss + Reading.

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

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

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

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000134	Jul. 04, 04'	Jul. 03, 05'
2.	Pre-Amplifier	HP	8447D	2944A06669	Jul.27, 04'	Jul.26, 05'
3.	Bilog Antenna	Schwarzbeck	CBL6112B	2818	May 18, 04'	May 17, 05'

3.1.2. For 30MHz~1000MHz Frequency (At No. 3 Open Area Test Site)

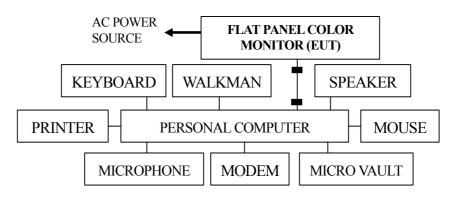
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R & S	ESVS10	845165/002	Mar. 10, 04'	Mar. 09, 05'
2.	Biconical Antenna	Chase	VBA6106A	1227	Nov. 15, 04'	Nov. 14, 05'
3.	Log Periodic Antenna	Chase	UPA6109	1027	Nov. 15, 04'	Nov. 14, 05'

3.1.3. For 1GHz~2GHz Frequency (At No. 6 Open Area Test Site)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000132	May 28, 04'	May 27, 05'
2.	Amplifier	HP	8449B	3008A01284	Jul. 02, 04'	Jul. 01, 05'
3.	Horn Antenna	EMCO	3115	9609-4927	Jul. 06, 04'	Jul. 05, 05'

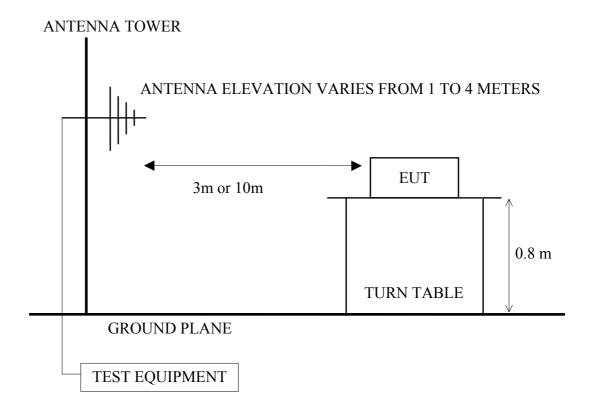
3.2. Block Diagram of Test Setup

3.2.1. Block Diagram of connection between EUT and simulators

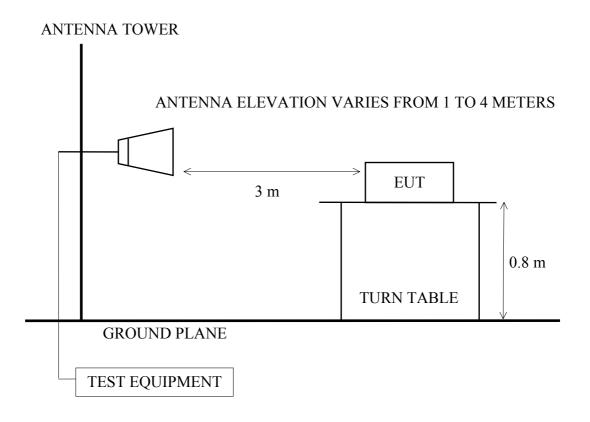


■ : FERRITE CORE

3.2.2. Simple Anechoic Chamber (3m) & Open Area Test Site (10m) Setup Diagram for 30-1000MHz



3.2.3. Open Area Test Site Setup Diagram (3m) for 1-2GHz



3.3. Radiation Limit (§15.109/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:

\mathcal{C} 1		
FREQUENCY	DISTANCE	FIELD STRENGTHS LIMITS
(MHz)	(Meters)	$(dB\mu V/m)$
30 ~ 230	10 (3)	30 (40)
230 ~ 1000	10 (3)	37 (47)
Above 1GHz	3	74.0 (Peak)
Above 1GHz	3	54.0 (Average)

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 (a), (g).
- (4) The 3m limit apply relation: L2 = L1(d1/d2)

3.4. EUT's Configuration during Compliance Measurement

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

3.5. Operating Condition of EUT

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

3.6. Test Procedure

3.6.1. For frequency range 30MHz-1000MHz measurement at distance of 10m at open area test site and 3m at simple anechoic chamber:

The EUT and its simulators were placed on a turn table which was 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set 10 meters (or 3 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 at open area test site, bilog antenna at simple anechoic chamber) 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 C63.4-2003 and CISPR 22 on radiated measurement.

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

The frequency range from 30MHz to 1000MHz was pre-scanned with Peak detector at simple anechoic chamber and all final readings of measurement were with Quasi-Peak detector at open area test site.

3.6.2. For frequency range 1GHz-2GHz measurement at distance of 3m at open area test site:

The EUT and its simulators were placed on a turn table which was 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level, EUT was set 3 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. A calibrated Horn Antenna was used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement, and both average and peak emission level were recorded form spectrum analyzer. In order to find the maximum emission level, all the interface cables were manipulated according to ANSI C63.4-2003 on radiated measurement.

The resolution bandwidth of spectrum analyzer E7405A was set at 1MHz.

The frequency range from 1GHz to 2GHz was pre-scanned and all final readings of measurement were with Peak detector and Average detector at open area test

3.7. Radiated Emission Measurement Results

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

EUT: Flat Panel Color Monitor M/N: Scenicview A17-1

For 30MHz~1000MHz Frequency Range:

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

Test Date: Jan. 20, 2005 Temperature: 17°C Humidity: 62%

The details of test modes are as follows:

No	No. Serial Number	I CD Donal	Dayyar Daard	Eraguanay / Regulation	Reference Test Data No.		
NO.	No. Serial Number LCD Panel		Power Board	Frequency / Resolution.	Horizontal	Vertical	
1.			Delta	640*480/60Hz, 31kHz	# 7	# 8	
2.	TY0404785	LG Philips		1024*768/75Hz, 60kHz	# 10	# 9	
3.				1280*1024/75Hz, 80kHz	# 11	# 12	
4.				640*480/60Hz, 31kHz	# 6	# 5	
5.	TY0404789 Quanta Display Inc	Quanta Display Inc.	LC (Lien Chang)	1024*768/75Hz, 60kHz	# 3	# 4	
6.				1280*1024/75Hz, 80kHz	# 2	# 1	

Finally, re-measured the test mode [Mode 3 & 6] at No. 3 open area test site and all the test results are attached in section 3.7.1.

Test Date: Jan. 22, 2005 Temperature: 16°C Humidity: 63%

The details of test modes are as follows:

No	No. Serial Number	LCD Panel	Dower Board	Frequency / Resolution.	Reference Test Data No.		
No. Serial N	Seriai Number	LCD Faller	rowel boald	riequency / Resolution.	Horizontal	Vertical	
3.※	TY0404785	LG Philips	Delta	1280*1024/75Hz, 80kHz	# 2	# 1	
6.	TY0404789	Quanta Display Inc.	LC (Lien Chang)	1280*1024/75Hz, 80kHz	# 6	# 5	

(* mode for maximum detected emission)

For 1GHz~2GHz Frequency Range:

To selected the worst test modes [Mode 3 & 6] performed measurement at No. 6 open area test site from 1GHz to 2GHz frequency range and all the test results are attached in section 3.7.2.

Test Date: Jan. 21, 2005 Temperature: 21°C Humidity: 62%

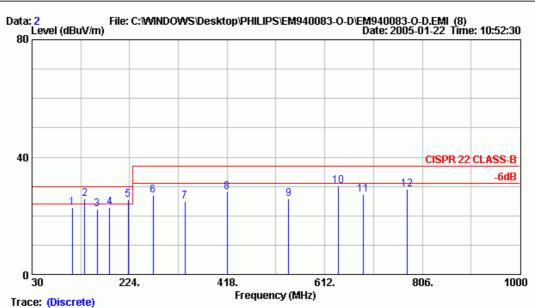
The details of test modes are as follows:

N	C : 1M	I CD D	D D 1	D 1.4. /E	Reference Test Data No.		
Mode	Serial No.	LCD Panel	Power Board	Resolution/ Frequen	су	Horizontal	Vertical
2	TY0404785	LG Philips	Delta	1280*1024/75Hz, 80kHz	Peak	# 3	# 1
J.	110404763	LO I lillips	Dena	1280° 1024/ / 3112, 80KHZ	Average	# 4	# 2
6.	TY0404789	Quanta	LC	1280*1024/75Hz, 80kHz	Peak	#7	# 5
0.	110404769	Display Inc.	(Lien Chang)	1260°1024/73HZ, 60KHZ	Average	# 8	# 6

30MHz to 1000MHz Frequency Range Measurement Results



AUDIX Corp. EMC Laboratory No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei County, Taiwan R.O.C. Post Code:24443 Tel:02-26092133 Fax:02-26099303 Email:ttemc@ttemc.com.tw Web:www.ttemc.com



Site no. : NO.3 Open site

Data no. : 2 Dis. / Ant. : 10m 6106A/6109(0104) Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : 16*C/63% ESVS10 Engineer : Alex Yen

: Flat Panel Color Monitor EUT

Power Rating: 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

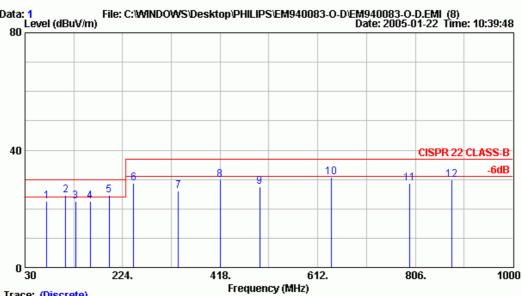
Panel:LPL+DELTA S/N:TY0404785

	-			Reading	Emission Level (dB μ V/m)		_	Remark
1	110.246	18.21	2.00	2.65	22.86	30.00	7.14	
2	134.976	19.84	2.20	3.69	25.73	30.00	4.27	*
3	159.706	20.56	2.40	-0.69	22.27	30.00	7.73	
4	184.437	20.76	2.60	-0.44	22.92	30.00	7.08	
5	221.532	21.63	3.00	0.80	25.43	30.00	4.57	
6	270.993	23.11	3.40	0.41	26.92	37.00	10.08	
7	334.325	14.62	3.80	6.44	24.86	37.00	12.14	
8	417.700	16.24	4.20	7.55	27.99	37.00	9.01	
9	540.147	19.28	5.20	1.25	25.73	37.00	11.27	
10	639.030	20.38	5.60	4.09	30.07	37.00	6.93	
11	688.529	21.61	5.80	-0.22	27.19	37.00	9.81	
12	775.085	22.40	6.20	0.39	28.99	37.00	8.01	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

- 2. The emission levels that are 20dB below the official limit are not reported.
- 3. The worst emission was detected at 134.976MHz with corrected signal level of 25.73dB μ V/m (limit is 30.0dB μ V/m) when the antenna was at horizontal polarization and was at 4m high and the turn table was at 40°.
- $4.\ 0^{\circ}was$ the table front facing the antenna. Degree is calculated from O°clockwise facing the antenna.





Trace: (Discrete)

Site no. : NO.3 Open site

Data no. : 1 Dis. / Ant. : 10m 6106A/6109(0104) Ant. pol. : VERTICAL

Limit : CISPR 22 CLASS-B

: 16*c/63% ESVS10 Env. / Ins. Engineer : Alex Yen

: Flat Panel Color Monitor EUT

Power Rating: 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

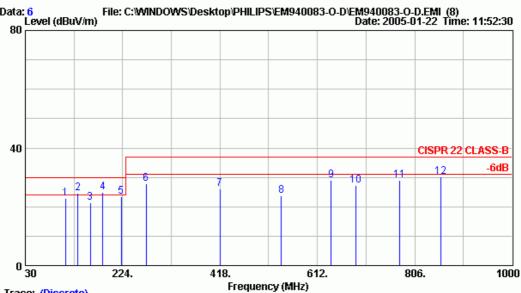
Panel:LPL+DELTA S/N:TY0404785

	Freq. (MHz)	Factor		Reading	Emission Level $(dB \mu V/m)$		_	Remark
1	73.150	12.66	1.60	8.35	22.61	30.00	7.39	
2	110.600	17.42	2.00	5.09	24.51	30.00	5.49	
3	130.400	18.63	2.20	1.83	22.66	30.00	7.34	
4	159.706	19.81	2.40	0.26	22.47	30.00	7.53	
5	196.802	21.54	2.90	0.22	24.66	30.00	5.34	*
6	246.263	21.01	3.10	4.74	28.85	37.00	8.15	
7	334.592	14.97	3.80	7.44	26.21	37.00	10.79	
8	418.142	16.76	4.20	8.82	29.78	37.00	7.22	
9	496.502	18.51	4.80	4.37	27.68	37.00	9.32	
10	639.750	20.07	5.60	5.00	30.67	37.00	6.33	
11	795.412	22.52	6.20	0.11	28.83	37.00	8.17	
12	877.975	23.67	6.80	-0.60	29.87	37.00	7.13	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

- 2. The emission levels that are 20dB below the official limit are not reported.
- 3. The worst emission was detected at 196.802MHz with corrected signal level of $24.66dB\mu V/m$ (limit is $30.0dB\mu V/m$) when the antenna was at vertical polarization and was at 1m high and the turn table was at 330° .
- 4. O°was the table front facing the antenna. Degree is calculated from O°clockwise facing the antenna.





Trace: (Discrete)

Site no. : NO.3 Open site Data no. : 6

Dis. / Ant. : 10m 6106A/6109(0104) Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : 16*C/63% ESVS10 Engineer : Alex Yen

EUT : Flat Panel Color Monitor

Power Rating: 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

Panel:QDI+LC S/N:TY0404789

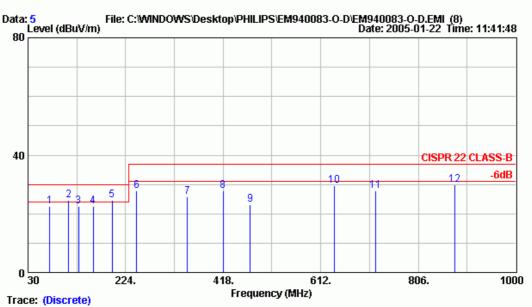
	Freq.	Factor	Loss	Reading	Emission Level (dB μ V/m)		_	Remark
1	110.246	18.21	2.00	2.65	22.86	30.00	7.14	
2	134.976	19.84	2.20	2.69	24.73	30.00	5.27	
3	159.706	20.56	2.40	-1.69	21.27	30.00	8.73	
4	184.437	20.76	2.60	1.56	24.92	30.00	5.08	
5	221.532	21.63	3.00	-1.20	23.43	30.00	6.57	
6	270.993	23.11	3.40	1.41	27.92	37.00	9.08	
7	417.700	16.24	4.20	5.55	25.99	37.00	11.01	
8	540.147	19.28	5.20	-0.75	23.73	37.00	13.27	
9	639.030	20.38	5.60	3.09	29.07	37.00	7.93	
10	688.529	21.61	5.80	-0.22	27.19	37.00	9.81	
11	775.085	22.40	6.20	0.39	28.99	37.00	8.01	
12	857.509	23.92	6.60	-0.21	30.31	37.00	6.69	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.

Audix Corporation. Report No. EM-F940034





: NO.3 Open site Site no.

Data no. : 5 Ant. pol. : VERTICAL Dis. / Ant. : 10m 6106A/6109(0104)

Limit : CISPR 22 CLASS-B

Env. / Ins. : 16*c/63% ESVS10

Engineer : Alex Yen

: Flat Panel Color Monitor EUT

Power Rating : 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

Panel:QDI+LC S/N:TY0404789

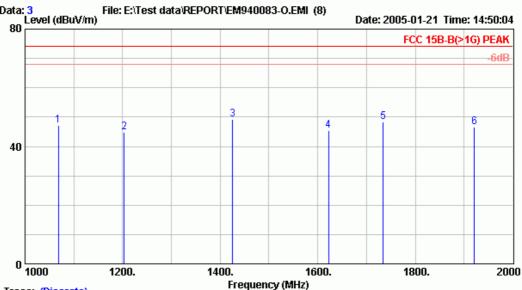
			Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	$(dB \mu V)$	$(dB \mu V/m)$	$(dB \mu V/m)$) (dB)	
1	73.150	12.66	1.60	8.35	22.61	30.00	7.39	
2	110.600	17.42	2.00	5.09	24.51	30.00	5.49	
3	130.400	18.63	2.20	1.83	22.66	30.00	7.34	
4	159.706	19.81	2.40	0.26	22.47	30.00	7.53	
5	196.802	21.54	2.90	0.22	24.66	30.00	5.34	
6	246.263	21.01	3.10	3.74	27.85	37.00	9.15	
7	347.099	15.47	4.00	6.27	25.74	37.00	11.26	
8	418.142	16.76	4.20	6.82	27.78	37.00	9.22	
9	471.645	18.50	4.80	-0.21	23.09	37.00	13.91	
10	639.750	20.07	5.60	4.00	29.67	37.00	7.33	
11	720.737	21.33	6.00	0.37	27.70	37.00	9.30	
12	877.975	23.67	6.80	-0.60	29.87	37.00	7.13	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

1GHz to 2GHz Frequency Range Measurement Results



AUDIX Corp. EMC Laboratory No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei County, Taiwan R.O.C. Post Code:24443 Tel:+886-2-26092133 Fax:-886-2-26099303 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

Site no. : NO.6 Open Site Dis. / Ant. : 3m HORN 3115 Data no. : 3

Ant. pol. : HORIZONTAL

: FCC 15B-B(>1G) PEAK Limit

Env. / Ins. : 21*C/62% E7405A Engineer : Byron Wu

: Flast Panel Color Monitor

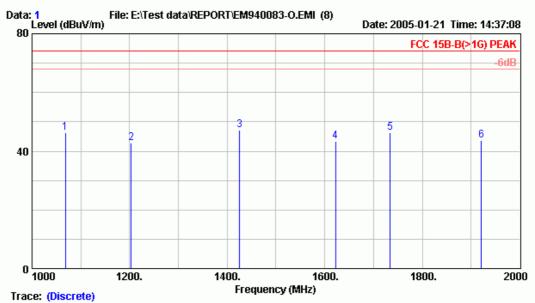
Power Rating : 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

	Freq. (MHz)				Emission Level (dB μ V/m)		_	Remark
1	1068.158	24.48	2.52	20.18	47.18	74.00	26.82	Peak
2	1203.440	24.84	2.72	17.14	44.70	74.00	29.30	Peak
3	1425.485	25.42	3.23	20.55	49.20	74.00	24.80	Peak
4	1622.154	26.11	3.95	15.31	45.36	74.00	28.64	Peak
5	1734.151	26.49	4.03	17.70	48.22	74.00	25.78	Peak
6	1921.485	27.18	4.68	14.84	46.70	74.00	27.30	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : NO.6 Open Site Data no. : 1

Dis. / Ant. : 3m HORN 3115 Ant. pol. : VERTICAL

Limit : FCC 15B-B(>1G) PEAK Env. / Ins. : 21*C/62% E7405A

Engineer : Byron Wu

: Flast Panel Color Monitor

Power Rating : 120Vac / 60Hz

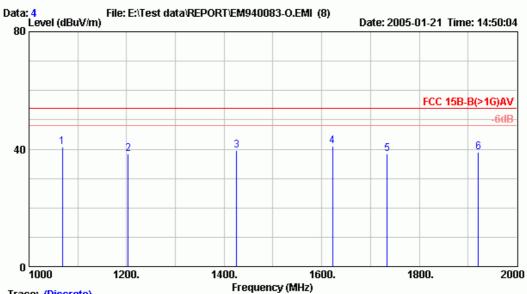
Test Mode : M/N:Scenicview A17-1

1280*1024 / 75Hz 80KHz

	Freq. (MHz)			_	Emission Level (dB μ V/m)	Limits (dB μ V/m)	_	Remark
2 3 4 5	1068.158 1203.440 1425.485 1622.154 1734.151 1921.485	24.48 24.84 25.42 26.11 26.49 27.18	2.52 2.72 3.23 3.95 4.03	18.55	46.18 42.70 47.20 43.36 46.22 43.70	74.00 74.00 74.00 74.00 74.00	27.82 31.30 26.80 30.64 27.78 30.30	Peak Peak Peak Peak Peak Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Trace: (Discrete)

Site no. : NO.6 Open Site Data no. : 4

Dis. / Ant. : 3m HORN 3115 Ant. pol. : HORIZONTAL

Limit : FCC 15B-B(>1G)AV Env. / Ins. : 21*C/62% E7405A

Engineer : Byron Wu

: Flast Panel Color Monitor

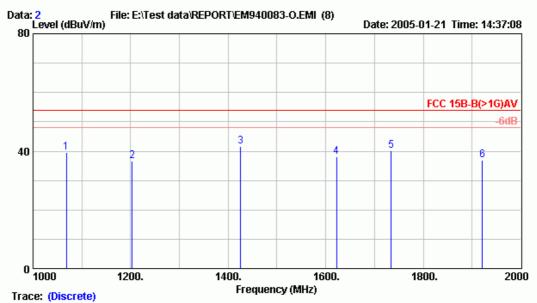
Power Rating : 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Remark
2 12 3 14 4 16 5 17	068.158 203.440 425.485 622.154 734.151	24.48 24.84 25.42 26.11 26.49 27.18	2.52 2.72 3.23 3.95 4.03 4.68	13.67 10.97 10.99 10.97 7.76 7.07	40.67 38.53 39.63 41.02 38.28 38.93	54.00 54.00 54.00 54.00 54.00 54.00	13.33 15.47 14.37 12.98 15.72 15.07	Average Average Average Average Average Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : NO.6 Open Site Data no. : 2

Dis. / Ant. : 3m HORN 3115 Ant. pol. : VERTICAL

Limit : FCC 15B-B(>1G)AV Env. / Ins. : 21*C/62% E7405A

Engineer : Byron Wu

: Flast Panel Color Monitor

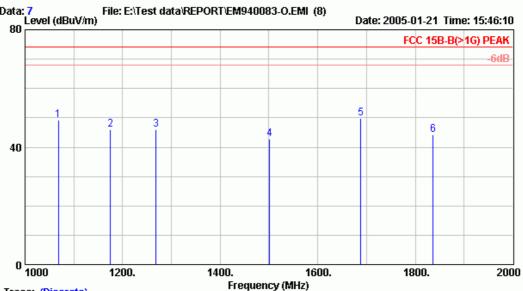
Power Rating : 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

_		Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Remark
	1	1068.158	24.48	2.52	12.67	39.67	54.00	14.33	Average
	2	1203.440	24.84	2.72	8.97	36.53	54.00	17.47	Average
	3	1425.485	25.42	3.23	12.99	41.63	54.00	12.37	Average
	4	1622.154	26.11	3.95	7.97	38.02	54.00	15.98	Average
	5	1734.151	26.49	4.03	9.76	40.28	54.00	13.72	Average
	6	1921.485	27.18	4.68	5.07	36.93	54.00	17.07	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Trace: (Discrete)

Site no. : NO.6 Open Site Data no. : 7

Dis. / Ant. : 3m HORN 3115 Ant. pol. : HORIZONTAL

Limit : FCC 15B-B(>1G) PEAK Env. / Ins. : 21*C/62% E7405A

Engineer : Byron Wu

: Flast Panel Color Monitor

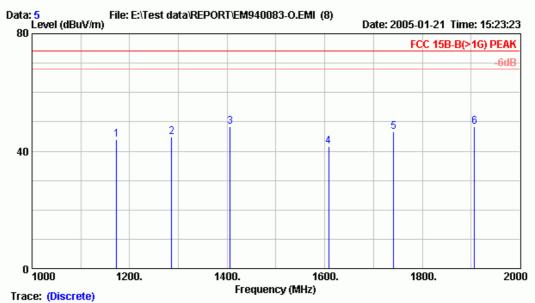
Power Rating : 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

	Freq.	Ant. Factor (dB/m)		_	Emission Level (dB μ V/m)	Limits (dB μ V/m)	_	Remark
1	1068.454	24.48	2.52	22.18	49.18	74.00	24.82	Peak
2	1175.454	24.75	2.77	18.47	45.98	74.00	28.02	Peak
3	1268.484	25.02	2.68	18.18	45.88	74.00	28.12	Peak
4	1501.458	25.60	3.74	13.46	42.81	74.00	31.19	Peak
5	1688.454	26.30	3.92	19.62	49.84	74.00	24.16	Peak
6	1836.454	26.87	4.61	12.63	44.11	74.00	29.89	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.





Site no. : NO.6 Open Site Data no. : 5

Dis. / Ant. : 3m HORN 3115 Ant. pol. : VERTICAL

Limit : FCC 15B-B(>1G) PEAK Env. / Ins. : 21*C/62% E7405A Engineer : Byron Wu

: Flast Panel Color Monitor

Power Rating : 120Vac / 60Hz

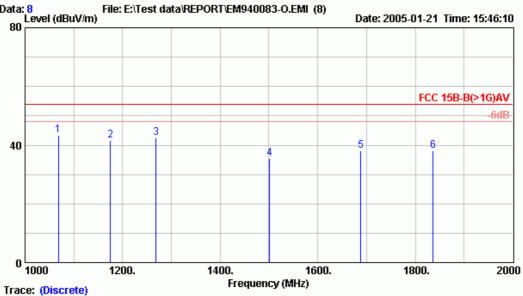
Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

_		Freq. (MHz)	Ant. Factor (dB/m)		Reading (dB μ V)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	_	Remark
	1	1173.485	24.75	2.77	51.90	44.08	74.00	29.92	Peak
	2	1286.454	25.06	2.71	52.37	44.92	74.00	29.08	Peak
	3	1406.454	25.38	3.21	54.74	48.22	74.00	25.78	Peak
	4	1608.454	26.04	3.92	46.57	41.64	74.00	32.36	Peak
	5	1741.155	26.55	4.11	50.70	46.61	74.00	27.39	Peak
	6	1906.545	27.12	4.55	51.25	48.32	74.00	25.68	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.





Site no. : NO.6 Open Site Data no. : 8

Dis. / Ant. : 3m HORN 3115 Ant. pol. : HORIZONTAL

Limit : FCC 15B-B(>1G)AV Env. / Ins. : 21*C/62% E7405A

Engineer : Byron Wu

: Flast Panel Color Monitor

Power Rating : 120Vac / 60Hz

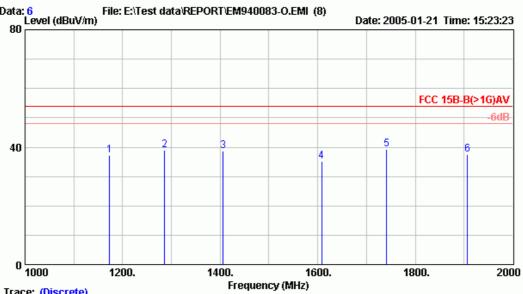
Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Remark
2 3 4 5	1068.454 1175.454 1268.484 1501.458 1688.454 1836.454	24.48 24.75 25.02 25.60 26.30 26.87	2.52 2.77 2.68 3.74 3.92 4.61	16.28 14.10 14.78 6.10 8.01 6.63	43.28 41.62 42.48 35.45 38.23 38.11	54.00 54.00 54.00 54.00 54.00	10.72 12.38 11.52 18.55 15.77	Average Average Average Average Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.





Trace: (Discrete)

Site no. : NO.6 Open Site Data no. : 6

Dis. / Ant. : 3m HORN 3115 Ant. pol. : VERTICAL

Limit : FCC 15B-B(>1G)AV Env. / Ins. : 21*C/62% E7405A

Engineer : Byron Wu

: Flast Panel Color Monitor

Power Rating : 120Vac / 60Hz

Test Mode : M/N:Scenicview A17-1 1280*1024 / 75Hz 80KHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Remark
1	1173.485	24.75	2.77	9.55	37.07	54.00	16.93	Average
2	1286.454	25.06	2.71	11.13	38.90	54.00	15.10	Average
3	1406.454	25.38	3.21	10.00	38.58	54.00	15.42	Average
4	1608.454	26.04	3.92	5.27	35.24	54.00	18.76	Average
5	1741.155	26.55	4.11	8.67	39.33	54.00	14.67	Average
6	1906.545	27.12	4.55	5.96	37.63	54.00	16.37	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.

4. DEVIATION TO TEST SPECIFICATIONS

[NONE]

5. PHOTOGRAPHS

5.1. Photos of Powerline Conducted Measurement

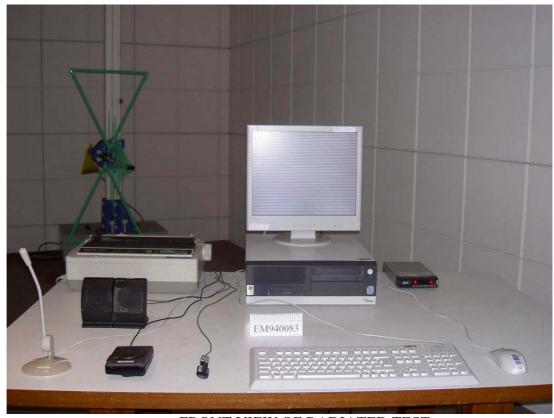


FRONT VIEW OF CONDUCTED TEST



BACK VIEW OF CONDUCTED TEST

5.2. Photos of Radiated Measurement at Simple Anechoic Chamber (30-1000MHz)



FRONT VIEW OF RADIATED TEST



BACK VIEW OF RADIATED TEST

5.3. Photos of Radiated Measurement at Open Area Test Site (30-1000MHz)



FRONT VIEW OF RADIATED TEST



BACK VIEW OF RADIATED TEST

Test Mode: S/N TY0404785 (1280*1024/75Hz, 80kHz)



SETUP WITH MAXIMUM DETECTED EMISSION AT HORIZONTAL POLARIZATION



SETUP WITH MAXIMUM DETECTED EMISSION AT VERTICAL POLARIZATION

5.4. Photos of Radiated Measurement at Open Field Test Site (Above 1GHz)



FRONT VIEW OF RADIATED MEASUREMENT



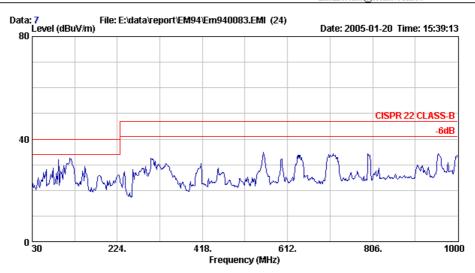
BACK VIEW OF RADIATED MEASUREMENT

APPENDIX I

(Radiated Emission Measurement Test Data at Simple Anechoic Chamber)

(Total Pages: 6 Pages)





Site no. : AUDIX Mini Chamber Data no. : 7

Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

EUT : Flat Panel Color Monitor

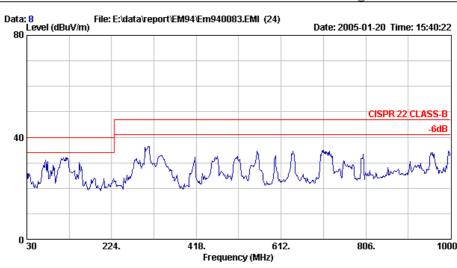
Power Rating: 120Vac / 60Hz M/N: Scenicview A17-1

Test Mode : 640*480/60Hz ; 31KHz

S/N:TY0404785



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Email:ttemc@ttemc.com.tw



Site no. : AUDIX Mini Chamber Data no. : 8

Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL

Limit : CISPR 22 CLASS-B

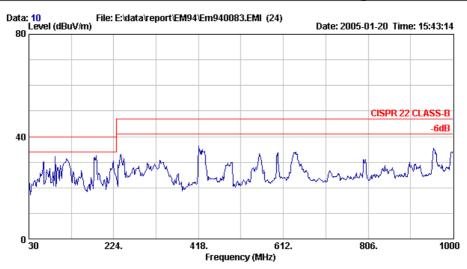
Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

EUT : Flat Panel Color Monitor

Power Rating: 120Vac / 60Hz M/N:Scenicview A17-1

Test Mode : 640*480/60Hz ; 31KHz





Site no. : AUDIX Mini Chamber Data no. : 10

Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

EUT : Flat Panel Color Monitor

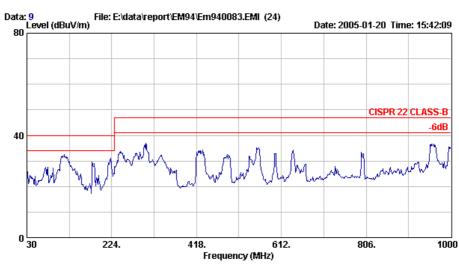
Power Rating: 120Vac / 60Hz M/N:Scenicview A17-1

Test Mode : 1024*768/75Hz ; 60KHz

s/N:TY0404785



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Email:ttemc@ttemc.com.tw



Site no. : AUDIX Mini Chamber Data no. : 9

Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL

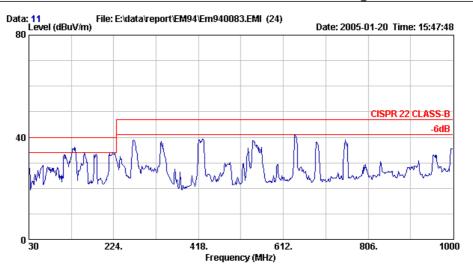
Limit : CISPR 22 CLASS-B
Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

EUT : Flat Panel Color Monitor

Power Rating: 120Vac / 60Hz M/N:Scenicview A17-1

Test Mode : 1024*768/75Hz ; 60KHz





Data no. : 11

Site no. : AUDIX Mini Chamber
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

: Flat Panel Color Monitor

Power Rating : 120Vac / 60Hz M/N:Scenicview A17-1

Test Mode : 1280*1024/75Hz ; 80KHz

s/N:TY0404785



AUDIX Corp. EMC Laboratory No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei County, Taiwan R.O.C. Post Code:24443 Tel:+886-2-26092133 Fax:+886-2-26099303 Email:ttemc@ttemc.com.tw

80 Level (dBuV/m) File: E:\data\report\EM94\Em940083.EMI (24) Date: 2005-01-20 Time: 15:48:37 CISPR 22 CLASS-B 40 0 <u>□</u> 224. 418. 612. 806. 1000 Frequency (MHz)

Site no. : AUDIX Mini Chamber Data no. : 12

Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL

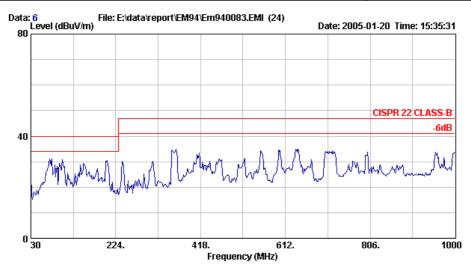
: CISPR 22 CLASS-B : (17*C/62%) / E7405A Env. / Ins. Engineer : ALEX HUANG

: Flat Panel Color Monitor

Power Rating: 120Vac / 60Hz M/N:Scenicview A17-1

Test Mode : 1280*1024/75Hz ; 80KHz





Site no. : AUDIX Mini Chamber
Dis. / Ant. : 3m CBL6112B(2818) Data no. : 6

Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

: Flat Panel Color Monitor

Power Rating : 120Vac / 60Hz M/N:Scenicview A17-1

: 640*480/60Hz ; 31KHz Test Mode

s/N:TY0404789



AUDIX Corp. EMC Laboratory No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei County, Taiwan R.O.C. Post Code:24443 Tel:+886-2-26092133 Fax:+886-2-26099303 Email:ttemc@ttemc.com.tw

File: E:\data\report\EM94\Em940083.EMI (24) 80 Level (dBuV/m) Date: 2005-01-20 Time: 15:34:20 CISPR 22 CLASS-B -6dB 40 612. 1000 Frequency (MHz)

Site no. : AUDIX Mini Chamber Data no. : 5

Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit

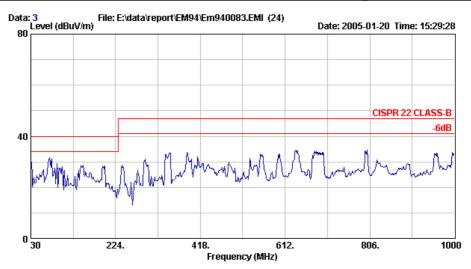
: (17*C/62%) / E7405A Env. / Ins. Engineer : ALEX HUANG

: Flat Panel Color Monitor

Power Rating: 120Vac / 60Hz M/N: Scenicview A17-1

Test Mode : 640*480/60Hz ; 31KHz





Site no. : AUDIX Mini Chamber Dis. / Ant. : 3m CBL6112B(2818) Data no. : 3

Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

: Flat Panel Color Monitor

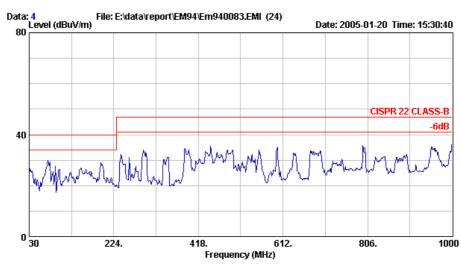
Power Rating : 120Vac / 60Hz M/N:Scenicview A17-1

: 1024*768/75Hz ; 60KHz Test Mode

s/N:TY0404789



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: AUDIX Mini Chamber Site no. Data no. : 4

Ant. pol. : VERTICAL Dis. / Ant. : 3m CBL6112B(2818)

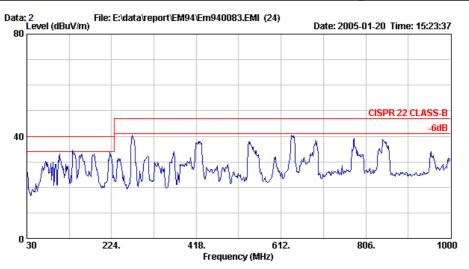
: CISPR 22 CLASS-B Limit Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

: Flat Panel Color Monitor

Power Rating : 120Vac / 60Hz M/N:Scenicview A17-1

Test Mode : 1024*768/75Hz ; 60KHz





Site no. : AUDIX Mini Chamber Dis. / Ant. : 3m CBL6112B(2818) Data no. : 2

Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : (17*C/62%) / E7405A Engineer : ALEX HUANG

: Flat Panel Color Monitor

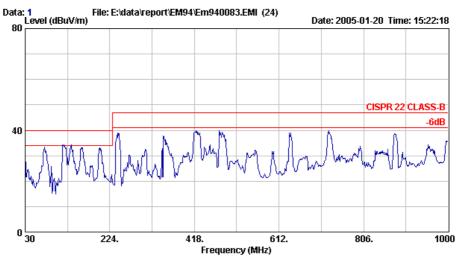
Power Rating : 120Vac / 60Hz M/N:Scenicview A17-1

Test Mode : 1280*1024/75Hz ; 80KHz

s/N:TY0404789



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: AUDIX Mini Chamber Site no. Data no. : 1

Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit : (17*C/62%) / E7405A Engineer : ALEX HUANG Env. / Ins.

: Flat Panel Color Monitor

Power Rating: 120Vac / 60Hz M/N:Scenicview A17-1

Test Mode : 1280*1024/75Hz ; 80KHz