APPLICATION FOR CERTIFICATION On Behalf of

Philips Electronics Industries (Taiwan) Ltd.

Flat Panel Color Monitor

Model No.: 420WN6

FCC ID : A3KM146

Brand: PHILIPS

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.

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File Number : EM940777

Report Number : EM-F940143

Date of Test : Jun. $29 \sim 30, 2005$

Date of Report : Jul. 04, 2005

TABLE OF CONTENTS

Description	Page
Test Report Certification.	3
1. GENERAL INFORMATION	4
1.1. Description of Device (EUT)	4
1.2. Tested Supporting System Details	5
1.3. Test Facility	
1.4. Measurement Uncertainty	
2. POWERLINE CONDUCTED EMISSION MEASUREMENT	8
2.1. Test Equipment	8
2.2. Block Diagram of Test Setup	
2.3. Powerline Conducted Emission Limit (15.107, Class B)	
2.4. EUT's Configuration during Compliance Measurement	9
2.5. Operating Condition of EUT	
2.6. Test Procedure	
2.7. Conducted Emission Measurement Results	
3. RADIATED EMISSION MEASUREMENT	25
3.1. Test Equipment	25
3.2. Block Diagram of Test Setup	
3.3. Radiation Limit (15.109/CISPR 22, Class B)	26
3.4. EUT's Configuration during Compliance Measurement	26
3.5. Operating Condition of EUT	
3.6. Test Procedure	
3.7. Radiated Emission Measurement Results	27
4. DEVIATION TO TEST SPECIFICATIONS	42
5. PHOTOGRAPHS	43
5.1. Photos of Conducted Emission Measurement	43
5.2. Photos of Radiated Measurement at Open Area Test Site	45

TEST REPORT CERTIFICATION

Applicant : Philips Electronics Industries (Taiwan) Ltd.

Manufacturer : Philips Electronics Industries (Taiwan) Ltd.

Factory #1 : Skyway (Dong Guan) Monitor Factory

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

Factory #3 : Philips Ltd. Assembly Centre Hungary

EUT Description : Flat Panel Color Monitor

FCC ID : A3KM146

(A) MODEL NO. : 420WN6(B) SERIAL NO. : TY0405258(C) BRAND NAME : PHILIPS

(D) POWER SUPPLY : AC 100-240V~ 60-50Hz

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

Measurement Standard Used:

FCC CFR 47 Part 15 Subpart B/Jan. 2005 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 sections 15.107(a) and 15.109(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 compliant 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: Jun. $29 \sim 30$, 2005

Prepared by: Myntica Chang Jul. 08. >005

(Monica Chang/Administrator)

Test Engineer: Jony Lee Jul 11. 2005

(10ny Lee/Section Manager)

Approved & Authorized Signer: Klon Kin Jul. 11 2005

(Leon Liu/Senior Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : Flat Panel Color Monitor

Model Number : 420WN6

Serial Number : TY0405258

FCC ID. : A3KM146

Brand : PHILIPS

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 Road, Chungli Industrial Park P.O. Box 123, Chungli, Taoyuan, Taiwan, R.O.C

Factory #1 : Skyway (Dong Guan) Monitor Factory

Industrial Zone, Da Ling Shan Town, Dong Guan

City, Guang Dong, China

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

No. 161, Zhujiang Road, New District, Suzhou

215011, China

Factory #3 : Philips Ltd. Assembly Centre Hungary

Holland Fasor 6. PF 204, H-8002 Szekesfehervar,

Hungary

Scanning Frequency : Horizontal: 45-50kHz

Vertical: 47-63Hz

Max Resolution : 1360*768/60Hz, 48kHz

LCD Panel : LPL, M/N LC420W02

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

Bonded two ferrite cores

DVI Data Cable : Shielded, Detachable, 1.8m

Bonded two ferrite cores

Audio Cable : Non-Shielded, Detachable, 1.5m

Power Cord : Non-Shielded, Detachable, 1.8m (3 pin)

Data of Receipt of Sample : Jun. 27, 2005

Date of Test : Jun. $29 \sim 30, 2005$

1.2. Tested Supporting System Details

1.2.1. 15" LCD MONITOR (TO EUT)

Model Number : D5063

Serial Number : CN206A6013 FCC ID : ARSLM562H

BSMI ID : R33037

Manufacturer : Top Victory Electronics (Fujian) Co., Ltd.

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

Bonded two ferrite cores

AC Adapter : Delta, M/N ADP-40TB

BSMI ID 3892D142

Cord: Shielded, Undetachable, 1.8m

Bonded a ferrite core

Power Cord : Non-Shielded, Detachable, 1.8m

1.2.2. TV PATTERN GENERATOR (TO EUT)

Model Number : PM 5418 TDSI+Y/C

Serial Number : LO646252 Manufacturer : Philips Next Cal. Date : Sep. 15, 2005

BNC Cable : Shielded, Detachable, 1.8m Power Cord : Non-Shielded, Detachable, 1.8m

1.2.3. EARPHONE (TO EUT)

Model Number : N/A
Serial Number : N/A
Manufacturer : Panasonic

Earphone Cable : Non-Shielded, Undetachable, 1.1m

1.2.4. PC SYSTEM

Model Name : Dell Dim 4600PC

Model Number : DMC
Serial Number : 5DYW915
FCC ID. : By DoC
BSMI ID : R33002
Manufacturer : DELL

VGA Card : Nvidia FX5200

Power Cord : Non-shielded, Detachable, 1.8m

1.2.5. KEYBOARD

Model Number : SK-8110 Serial Number : N/A BSMI ID : T3A002 FCC ID : By DoC Manufacturer : DELL

Data Cable : Non-Shielded, Undetachable, 2m

1.2.6. DOT MATRIX PRINTER

Model Number : KX-P2135 Serial Number : 8DMCN02139 FCC ID : ACJ5Z6KX-P2135

BSMI ID : 3872A371

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

1.2.7. MOUSE

Model Number : MO71KC
Serial Number : 406012041
BSMI ID : R41108
FCC ID : By DoC
Manufacturer : DELL

Data Cable : Non-Shielded, Undetachable, 2m

1.2.8. WALKMAN

Model Number : RQ-P35LT-K Serial Number : HA08631 Manufacturer : Panasonic

Data Cable : Non-Shielded, Detachable, 1.8m

1.2.9. MICROPHONE

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

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

1.2.10. MICRO VAULT

Model Number : USM128U2

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

Data Cable : Shielded, Detachable, 1.8m

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 : No. 5 Shielded Room

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

No. 4 Open Area Test Site

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

Feb. 03, 2003 Re-File on

Federal Communication Commission

Registration Number: 90991

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		

Remark : Uncertainty = $ku_c(y)$

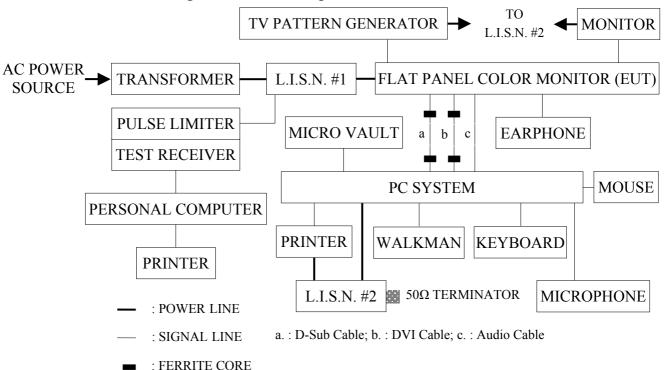
2. POWERLINE CONDUCTED EMISSION MEASUREMENT

2.1. Test Equipment

The following test equipment was used during the powerline conducted emission measurement:

Item	Туре	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R & S	ESCS30	100039	Jun. 23, 05'	Jun. 22, 06'
2.	L.I.S.N. #1	Kyoritsu	KNW-407	8-1539-2	Nov. 18, 04'	Nov. 17, 05'
3.	L.I.S.N. #2	Kyoritsu	KNW-407	8-1539-3	Nov. 18, 04'	Nov. 17, 05'
4.	Pulse Limiter	R & S	ESH3-Z2	100040	Apr. 09, 05'	Apr. 08, 06'

2.2. Block Diagram of Test Setup



2.3. Powerline Conducted 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 ~ 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)

Model Number : 420WN6
Serial Number : TY0405258
FCC ID : A3KM146
Brand : PHILIPS

Manufacturer : Philips Electronics Industries (Taiwan) Ltd.

Scanning Frequency : Horizontal: 45-50kHz

Vertical: 47-63Hz

Max Resolution : 1360*768/60Hz, 48kHz LCD Panel : LPL, M/N LC420W02 D-Sub Data Cable : Shielded, Detachable, 1.8m

Bonded two ferrite cores

DVI Data Cable : Shielded, Detachable, 1.8m

Bonded two ferrite cores

Audio Cable : Non-Shielded, Detachable, 1.5m

Power Cord : Non-Shielded, Detachable, 1.8m (3 pin)

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 equipments.
- 2.5.3. The PC System read data from disk.
- 2.5.4. The PC System running the EMI self-test program "H-V1.8" sent character "H" to Monitor (EUT), the screen of Monitor (EUT) displayed and filled with "H" pattern by EUT's resolution.
- 2.5.5. The PC System sent "H" pattern to the Flat Panel Color Monitor (EUT) via D-Sub Port (EUT input) and the TV Pattern Generator sent the "Color Bar" image to the Flat Panel Color Monitor (EUT) via BNC port (EUT input) at the same time.
- 2.5.6. The Flat Panel Color Monitor (EUT) sent character "H" to the 15" LCD Monitor via D-Sub port (EUT output) during all testing.
- 2.5.7. The other peripheral devices were driven and operated in turn during all testing.

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 of equipments and all of the interface cables were changed according to FCC ANSI C63.4-2003 on 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.

All the 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. Conducted Emission Measurement Results

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

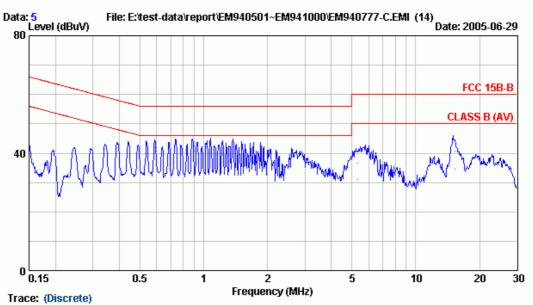
The EUT with following test modes was tested during the conducted testing and all the test results are listed in the following pages.

Test Date: Jun. 29, 2005 Temperature: 27°C Humidity: 67%

The details of test modes are as follows:

Mode	Input	Display, Resolution/Frequency	Reference Test Data No.		
Mode	Input	Display, Resolution/Frequency	Neutral	Line	
1.		"H" Pattern, 640*480/60Hz, 31kHz	# 5	# 6	
2.	D-Sub	"H" Pattern, 1280*768/60Hz, 48kHz	# 4	# 3	
3.		"H" Pattern, 1360*768/60Hz, 48kHz	# 1	# 2	
4.		"H" Pattern, 640*480/60Hz, 31kHz	# 8	# 7	
5.	DVI	"H" Pattern, 1280*768/60Hz, 48kHz	# 9	# 10	
6.		"H" Pattern, 1360*768/60Hz, 48kHz	# 12	# 11	
7.	D-Sub + BNC	PIP- "H" Pattern & "Color Bar" Image	# 13	# 14	





Site : NO.5 Shielded room Data : 5

Condition : KNW-407(8-1539-3) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

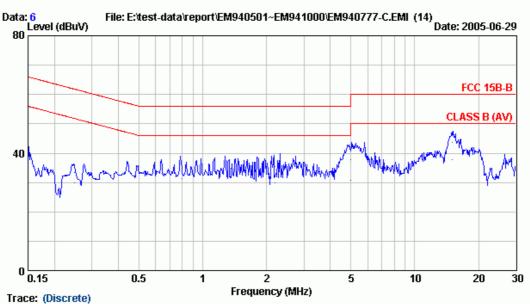
Power Rating : 120Vac/60Hz

Test Mode : 640*480/60Hz 31KHz(D-Sub)

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBμV)	(dB μ V)	(dB μ V)	(dB)	
1	0.350	0.10	0.20	40.23	40.53	58.97	18.44	 OP
2	0.350	0.10	0.20	39.86	40.16	48.97	8.81	AVERAGE
3	0.448	0.10	0.20	41.86	42.16	56.91	14.75	QP
4	0.448	0.10	0.20	40.38	40.68	46.91	6.23	AVERAGE
5	0.597	0.10	0.20	41.73	42.03	56.00	13.97	QP
6	0.597	0.10	0.20	40.41	40.71	46.00	5.29	AVERAGE
7	0.900	0.10	0.20	42.08	42.38	56.00	13.62	QP
8	0.900	0.10	0.20	40.50	40.80	46.00	5.20	AVERAGE
9	5.320	0.12	0.60	35.87	36.59	60.00	23.41	QP
10	5.320	0.12	0.60	30.25	30.97	50.00	19.03	AVERAGE
11	15.345	0.21	0.70	39.75	40.66	60.00	19.34	QP
12	15.345	0.21	0.70	33.74	34.65	50.00	15.35	AVERAGE

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





Site : NO.5 Shielded room Data : 6 Condition : KNW-407(8-1539-3) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

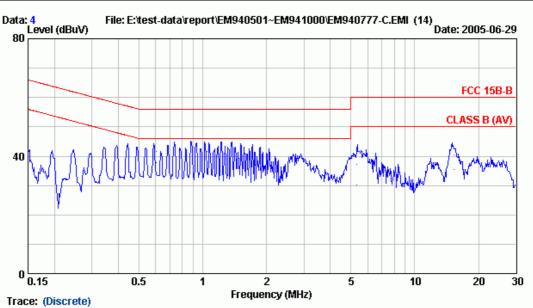
Power Rating : 120Vac/60Hz

Test Mode : 640*480/60Hz 31KHz(D-Sub)

			LISN	Cable		Emission			
		Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
		(MHz)	(dB)	(dB)	(dB μ V)	(dB	(dΒ μ V)	(dB)	
-									
	1	0.150	0.20	0.20	34.19	34.59	65.99	31.40	QP
	2	0.150	0.20	0.20	32.12	32.52	55.99	23.47	AVERAGE
	3	0.249	0.18	0.20	33.11	33.49	61.79	28.30	QP
	4	0.249	0.18	0.20	29.39	29.77	51.79	22.02	AVERAGE
	5	0.797	0.10	0.20	34.02	34.32	56.00	21.68	QP
	6	0.797	0.10	0.20	30.97	31.27	46.00	14.73	AVERAGE
	7	2.195	0.10	0.40	34.85	35.35	56.00	20.65	QP
	8	2.195	0.10	0.40	29.46	29.96	46.00	16.04	AVERAGE
	9	4.981	0.12	0.60	36.99	37.71	56.00	18.29	QP
	10	4.981	0.12	0.60	30.13	30.85	46.00	15.15	AVERAGE
	11	15.062	0.20	0.70	42.64	43.54	60.00	16.46	QP
	12	15.070	0.20	0.70	37.03	37.93	50.00	12.07	AVERAGE

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





Site : NO.5 Shielded room Data : 4

Condition : KNW-407(8-1539-3) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

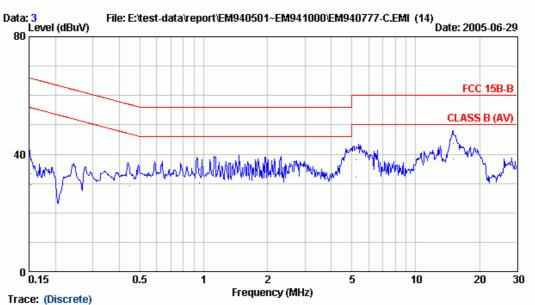
Power Rating : 120Vac/60Hz

Test Mode : 1280 * 768 / 60 Hz 48 KHz (D-Sub)

		LISN	Cable		Emission				
	Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dB#V)	Level (dB μ V)	Limits (dB μ V)	Margin (dB)	Remark	
	(MHZ)	(ub) 	(ub)	(ασμ ν) 	(ubμ v)	(ubµ v)	(ub) 		_
1	0.349	0.10	0.20	40.02	40.32	58.99	18.67	QP	
2	0.349	0.10	0.20	39.86	40.16	48.99	8.83	AVERAGE	
3	0.448	0.10	0.20	41.74	42.04	56.92	14.88	QP	
4	0.448	0.10	0.20	40.38	40.68	46.92	6.24	AVERAGE	
5	0.604	0.10	0.20	41.29	41.59	56.00	14.41	QP	
6	0.604	0.10	0.20	37.59	37.89	46.00	8.11	AVERAGE	
7	1.052	0.10	0.40	41.10	41.60	56.00	14.40	QP	
8	1.052	0.10	0.40	37.83	38.33	46.00	7.67	AVERAGE	
9	5.301	0.12	0.60	36.41	37.13	60.00	22.87	QP	
10	5.301	0.12	0.60	29.59	30.31	50.00	19.69	AVERAGE	
11	. 15.328	0.21	0.70	39.65	40.56	60.00	19.44	QP	
12	15.328	0.21	0.70	34.52	35.43	50.00	14.57	AVERAGE	

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





Site : NO.5 Shielded room Data : 3 Condition : KNW-407(8-1539-3) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

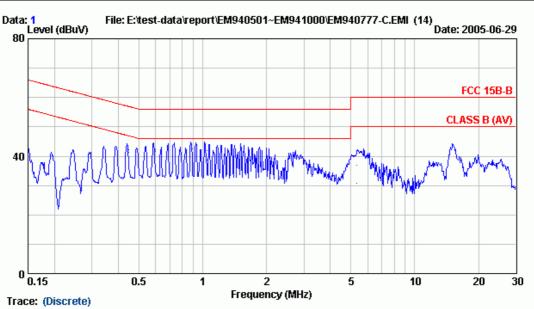
Power Rating : 120Vac/60Hz

Test Mode : 1280 * 768 / 60 Hz 48 KHz (D-Sub)

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	(dB μ V)	(dBμV)	(dB)	
1	0.153	0.20	0.20	32.99	33.39	65.82	32.43	QP
2	0.153	0.20	0.20	29.24	29.64	55.82	26.18	AVERAGE
3	0.447	0.10	0.20	34.84	35.14	56.94	21.80	QP
4	0.447	0.10	0.20	28.96	29.26	46.94	17.68	AVERAGE
5	0.951	0.10	0.20	34.50	34.80	56.00	21.20	QP
6	0.951	0.10	0.20	29.85	30.15	46.00	15.85	AVERAGE
7	1.995	0.10	0.40	35.19	35.69	56.00	20.31	QP
8	1.995	0.10	0.40	29.29	29.79	46.00	16.21	AVERAGE
9	5.211	0.12	0.60	37.32	38.04	60.00	21.96	QP
10	5.211	0.12	0.60	31.60	32.32	50.00	17.68	AVERAGE
11	15.084	0.20	0.70	42.72	43.62	60.00	16.38	QP
12	15.084	0.20	0.70	37.41	38.31	50.00	11.69	AVERAGE

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





Site : NO.5 Shielded room Data : 1

Condition : KNW-407(8-1539-3) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

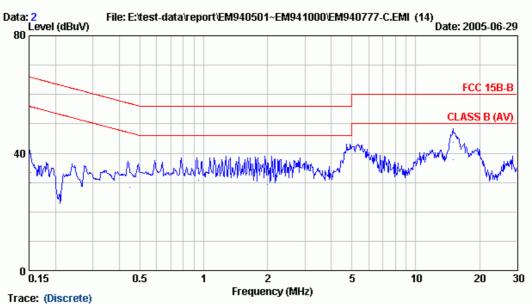
Power Rating : 120Vac/60Hz

Test Mode : 1360 * 768 / 60 Hz 48 KHz (D-Sub)

			LISN	Cable		Emission			
		Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dB μ V)	Level $(\mathtt{dB}\mu\mathtt{V})$	Limits (dB μ V)	Margin (dB)	Remark
_	1	0.348	0.10	0.20	40.00	40.30	59.01	18.71	QP
	2	0.348	0.10	0.20	39.62	39.92	49.01	9.09	AVERAGE
	3	0.449	0.10	0.20	41.94	42.24	56.89	14.65	QP
	4	0.449	0.10	0.20	40.97	41.27	46.89	5.62	AVERAGE
	5	0.600	0.10	0.20	41.83	42.13	56.00	13.87	QP
	6	0.600	0.10	0.20	41.39	41.69	46.00	4.31	AVERAGE
	7	0.896	0.10	0.20	42.23	42.53	56.00	13.47	QP
	8	0.896	0.10	0.20	39.65	39.95	46.00	6.05	AVERAGE
	9	1.046	0.10	0.40	41.38	41.88	56.00	14.12	QP
	10	1.046	0.10	0.40	38.12	38.62	46.00	7.38	AVERAGE
	11	5.311	0.12	0.60	36.31	37.03	60.00	22.97	QP
	12	5.311	0.12	0.60	30.10	30.82	50.00	19.18	AVERAGE

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





Site : NO.5 Shielded room Data : 2 Condition : KNW-407(8-1539-3) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N: 420WN6

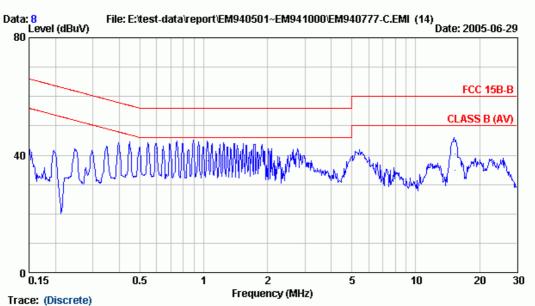
Power Rating : 120Vac/60Hz

Test Mode : 1360 * 768 / 60 Hz 48 KHz (D-Sub)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V)	Limits (dB μ V)	Margin (dB)	Remark
1	0.153	0.20	0.20	32.93	33.33	65.84	32.51	QP
2	0.153	0.20	0.20	29.62	30.02	55.84	25.82	AVERAGE
3	0.446	0.10	0.20	34.64	34.94	56.95	22.01	QP
4	0.446	0.10	0.20	28.27	28.57	46.95	18.38	AVERAGE
5	0.945	0.10	0.20	34.66	34.96	56.00	21.04	QP
6	0.945	0.10	0.20	30.34	30.64	46.00	15.36	AVERAGE
7	1.989	0.10	0.40	35.15	35.65	56.00	20.35	QP
8	1.990	0.10	0.40	28.89	29.39	46.00	16.61	AVERAGE
9	15.078	0.20	0.70	42.72	43.62	60.00	16.38	QP
10	15.078	0.20	0.70	36.85	37.75	50.00	12.25	AVERAGE

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





Site : NO.5 Shielded room Data : 8

Condition : KNW-407(8-1539-3) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

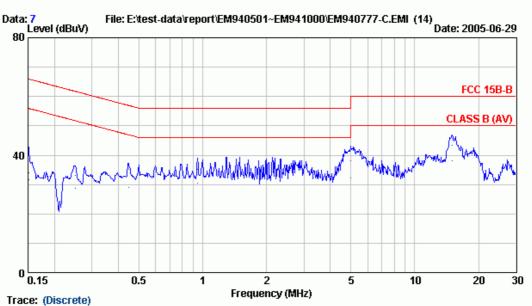
Power Rating : 120Vac/60Hz

Test Mode : 640*480/60Hz 31KHz(DVI)

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	(dB	(dΒ μ V)	(dB)	
1	0.350	0.10	0.20	40.03	40.33	58.96	18.63	QP
2	0.350	0.10	0.20	39.61	39.91	48.96	9.05	AVERAGE
3	0.400	0.10	0.20	41.13	41.43	57.85	16.42	QP
4	0.400	0.10	0.20	40.63	40.93	47.85	6.92	AVERAGE
5	0.448	0.10	0.20	41.88	42.18	56.91	14.73	QP
6	0.448	0.10	0.20	40.46	40.76	46.91	6.15	AVERAGE
7	0.601	0.10	0.20	41.82	42.12	56.00	13.88	QP
8	0.601	0.10	0.20	40.83	41.13	46.00	4.87	AVERAGE
9	1.045	0.10	0.40	41.53	42.03	56.00	13.97	QP
10	1.045	0.10	0.40	37.55	38.05	46.00	7.95	AVERAGE
11	15.332	0.21	0.70	39.65	40.56	60.00	19.44	QP
12	15.332	0.21	0.70	34.01	34.92	50.00	15.08	AVERAGE

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





Site : NO.5 Shielded room Data : 7 Condition : KNW-407(8-1539-3) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

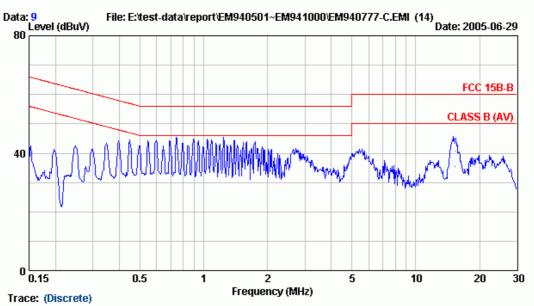
Power Rating : 120Vac/60Hz

Test Mode : 640*480/60Hz 31KHz(DVI)

	_	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	0.152	0.20	0.20	33.58	33.98	65.89	31.91	QP
2	0.152	0.20	0.20	31.12	31.52	55.89	24.37	AVERAGE
3	0.252	0.18	0.20	32.64	33.02	61.70	28.67	QP
4	0.252	0.18	0.20	28.22	28.60	51.70	23.09	AVERAGE
5	0.448	0.10	0.20	34.94	35.24	56.92	21.68	QP
6	0.448	0.10	0.20	28.62	28.92	46.92	18.00	AVERAGE
7	0.946	0.10	0.20	34.88	35.18	56.00	20.82	QP
8	0.946	0.10	0.20	30.27	30.57	46.00	15.43	AVERAGE
9	4.972	0.12	0.60	37.51	38.23	56.00	17.77	QP
10	4.972	0.12	0.60	31.55	32.27	46.00	13.73	AVERAGE
11	15.053	0.20	0.70	42.54	43.44	60.00	16.56	QP
12	15.053	0.20	0.70	37.28	38.18	50.00	11.82	AVERAGE

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





Site : NO.5 Shielded room Data : 9 Condition : KNW-407(8-1539-3) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

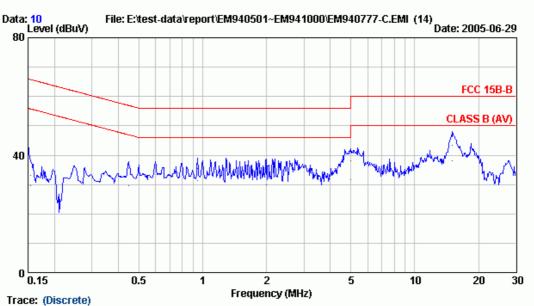
Power Rating : 120Vac/60Hz

Test Mode : 1280*768/60Hz 48KHz(DVI)

		LISN	Cable		Emission				
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB)	(dB)	$(\mathtt{dB}\mu\mathtt{V})$	(dB μ V)	(dB μ V)	(dB)		
1	0.451	0.10	0.20	41.66	41.96	56.85	14.89	QP	
2	0.451	0.10	0.20	40.16	40.46	46.85	6.39	AVERAGE	
3	0.602	0.10	0.20	41.78	42.08	56.00	13.92	QP	
4	0.602	0.10	0.20	39.86	40.16	46.00	5.84	AVERAGE	
5	0.900	0.10	0.20	42.08	42.38	56.00	13.62	QP	
6	0.900	0.10	0.20	40.20	40.50	46.00	5.50	AVERAGE	
7	1.049	0.10	0.40	41.20	41.70	56.00	14.30	QP	
8	1.049	0.10	0.40	39.40	39.90	46.00	6.10	AVERAGE	
9	1.255	0.10	0.40	41.52	42.02	56.00	13.98	QP	
10	1.255	0.10	0.40	35.89	36.39	46.00	9.61	AVERAGE	
11	15.307	0.21	0.70	39.75	40.66	60.00	19.34	QP	
12	15.307	0.21	0.70	34.69	35.60	50.00	14.40	AVERAGE	

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





Site : NO.5 Shielded room Data : 10 Condition : KNW-407(8-1539-3) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N: 420WN6

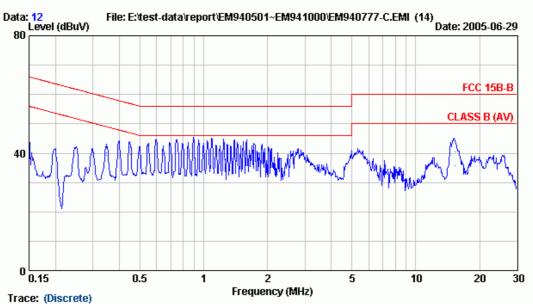
Power Rating : 120Vac/60Hz

Test Mode : 1280*768/60Hz 48KHz(DVI)

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(\mathtt{MHz})	(dB)	(dB)	$(dB \mu V)$	(dB μ V)	(dB μ V)	(dB)	
1	0.154	0.20	0.20	32.61	33.01	65.81	32.80	 OP
_								QP
2	0.154	0.20	0.20	29.16	29.56	55.81	26.25	AVERAGE
3	0.448	0.10	0.20	35.02	35.32	56.91	21.59	QP
4	0.448	0.10	0.20	29.28	29.58	46.91	17.33	AVERAGE
5	0.949	0.10	0.20	35.18	35.48	56.00	20.52	QP
6	0.949	0.10	0.20	31.06	31.36	46.00	14.64	AVERAGE
7	1.990	0.10	0.40	35.33	35.83	56.00	20.17	QP
8	1.990	0.10	0.40	29.44	29.94	46.00	16.06	AVERAGE
9	4.982	0.12	0.60	37.27	37.99	56.00	18.01	QP
10	4.982	0.12	0.60	30.93	31.65	46.00	14.35	AVERAGE
11	15.088	0.20	0.70	42.52	43.42	60.00	16.58	QP
12	15.088	0.20	0.70	37.28	38.18	50.00	11.82	AVERAGE

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





Site : NO.5 Shielded room Data : 12 Condition : KNW-407(8-1539-3) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

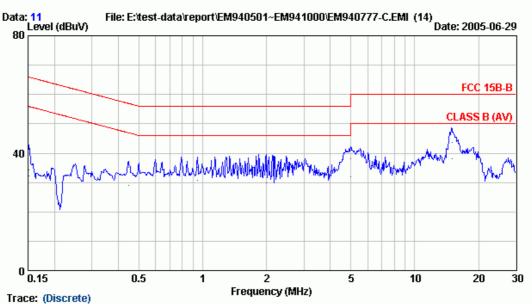
Power Rating : 120Vac/60Hz

Test Mode : 1360*768/60Hz 48KHz(DVI)

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(\mathtt{MHz})	(dB)	(dB)	$(dB \mu V)$	(dB μ V)	(dB μ V)	(dB)	
1	0.347	0.10	0.20	39.84	40.14	59.02	18.88	QP
2	0.347	0.10	0.20	38.99	39.29	49.02	9.73	AVERAGE
3	0.452	0.10	0.20	41.50	41.80	56.84	15.04	QP
4	0.452	0.10	0.20	39.36	39.66	46.84	7.18	AVERAGE
5	0.602	0.10	0.20	41.78	42.08	56.00	13.92	QP
6	0.602	0.10	0.20	39.43	39.73	46.00	6.27	AVERAGE
7	0.903	0.10	0.20	41.94	42.24	56.00	13.76	QP
8	0.903	0.10	0.20	38.18	38.48	46.00	7.52	AVERAGE
9	1.253	0.10	0.40	41.68	42.18	56.00	13.82	QP
10	1.253	0.10	0.40	37.40	37.90	46.00	8.10	AVERAGE
11	15.330	0.21	0.70	39.65	40.56	60.00	19.44	QP
12	15.330	0.21	0.70	34.77	35.68	50.00	14.32	AVERAGE

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





Site : NO.5 Shielded room Data : 11 Condition : KNW-407(8-1539-3) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

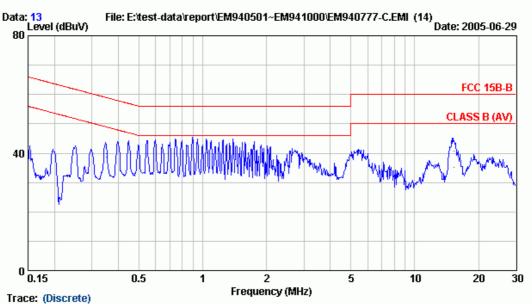
Power Rating : 120Vac/60Hz

Test Mode : 1360*768/60Hz 48KHz(DVI)

		LISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB μ V)	$(dB\mu V)$	(dB	(dB)	
1	0.151	0.20	0.20	33.91	34.31	65.94	31.63	QP
2	0.151	0.20	0.20	31.73	32.13	55.94	23.81	AVERAGE
3	0.449	0.10	0.20	34.78	35.08	56.90	21.82	QP
4	0.449	0.10	0.20	28.79	29.09	46.90	17.81	AVERAGE
5	0.947	0.10	0.20	34.78	35.08	56.00	20.92	QP
6	0.947	0.10	0.20	30.54	30.84	46.00	15.16	AVERAGE
7	1.993	0.10	0.40	35.21	35.71	56.00	20.29	QP
8	1.993	0.10	0.40	29.36	29.86	46.00	16.14	AVERAGE
9	4.979	0.12	0.60	37.25	37.97	56.00	18.03	QP
10	4.979	0.12	0.60	31.12	31.84	46.00	14.16	AVERAGE
11	15.085	0.20	0.70	42.64	43.54	60.00	16.46	QP
12	15.085	0.20	0.70	37.28	38.18	50.00	11.82	AVERAGE

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





Site : NO.5 Shielded room Data : 13 Condition : KNW-407(8-1539-3) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

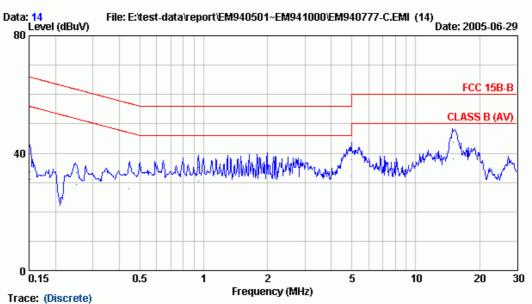
Power Rating : 120Vac/60Hz

Test Mode : PIP

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V)	Limits (dB μ V)	Margin (dB)	Remark
1	0.352	0.10	0.20	39.55	39.85	58.92	19.07	QP
2	0.352	0.10	0.20	38.52	38.82	48.92	10.10	AVERAGE
3	0.450	0.10	0.20	41.86	42.16	56.87	14.71	QP
4	0.450	0.10	0.20	40.85	41.15	46.87	5.72	AVERAGE
5	0.601	0.10	0.20	41.84	42.14	56.00	13.86	QP
6	0.601	0.10	0.20	40.91	41.21	46.00	4.79	AVERAGE
7	1.050	0.10	0.40	41.22	41.72	56.00	14.28	QP
8	1.050	0.10	0.40	39.59	40.09	46.00	5.91	AVERAGE
9	1.400	0.10	0.40	41.47	41.97	56.00	14.03	QP
10	1.400	0.10	0.40	38.20	38.70	46.00	7.30	AVERAGE
11	15.337	0.21	0.70	39.69	40.60	60.00	19.40	QP
12	15.337	0.21	0.70	34.19	35.10	50.00	14.90	AVERAGE

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





Site : NO.5 Shielded room Data : 14 Condition : KNW-407(8-1539-3) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 27*C/67% ESCS 30 Engineer: Jingo

EUT : Flat Panel Color Monitor M/N:420WN6

Power Rating : 120Vac/60Hz

Test Mode : PIP

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V)	Limits (dB μ V)	Margin (dB)	Remark
1	0.152	0.20	0.20	33.42	33.82	65.90	32.08	QP
2	0.152	0.20	0.20	30.80	31.20	55.90	24.70	AVERAGE
3	0.250	0.18	0.20	33.12	33.50	61.74	28.24	QP
4	0.250	0.18	0.20	28.99	29.37	51.74	22.37	AVERAGE
5	0.445	0.10	0.20	34.54	34.84	56.96	22.12	QP
6	0.445	0.10	0.20	27.53	27.83	46.96	19.13	AVERAGE
7	0.949	0.10	0.20	34.88	35.18	56.00	20.82	QP
8	0.949	0.10	0.20	30.13	30.43	46.00	15.57	AVERAGE
9	4.965	0.12	0.60	37.04	37.76	56.00	18.24	QP
10	4.965	0.12	0.60	31.54	32.26	46.00	13.74	AVERAGE
11	15.075	0.20	0.70	42.66	43.56	60.00	16.44	QP
12	15.075	0.20	0.70	37.22	38.12	50.00	11.88	AVERAGE

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

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

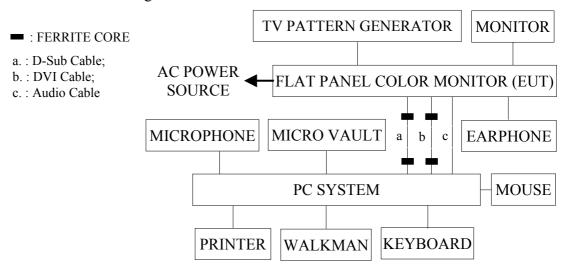
The following test equipment was used during the radiated emission measurement:

(No. 4 Open Area Test Site)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8590L	3624A01446	N/A	N/A
2.	Test Receiver	R & S	ESVS10	845165/018	Jun. 09, 05'	Jun. 08, 06'
3.	Amplifier	HP	8447D	1937A02488	N/A	N/A
4.	Biconical Antenna	Chase	VBA6106A	1231	Nov. 15, 04'	Nov. 14, 05'
	Log Periodic Antenna	Chase	UPA6109	1020	Nov. 15, 04'	Nov. 14, 05'

3.2. Block Diagram of Test Setup

3.2.1. Block Diagram of connection between EUT and simulators



3.2.2. Open Area Test Site Setup Diagram (10m)

ANTENNA TOWER

ANTENNA ELEVATION VARIES FROM 1 TO 4 METERS

10m

EUT

0.8m

TURN TABLE

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:

FREQUENCY	DISTANCE	FIELD STRENGTHS LIMITS
(MHz)	(Meters)	(dBµV/m)
30 ~ 230	10	30
230 ~ 1000	10	37

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.

3.4. EUT's Configuration during Compliance Measurement

The configuration of EUT and its simulators were the 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 was 0.8 meter above ground. The turn table rotate 360 degrees to determine the position of the maximum emission level. EUT was set 10 meters away from the receiving antenna which were mounted on a antenna tower. The antenna can move 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 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.

All the final readings of measurement from Test Receiver are Quasi-Peak values.

3.7. Radiated Emission Measurement Results

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

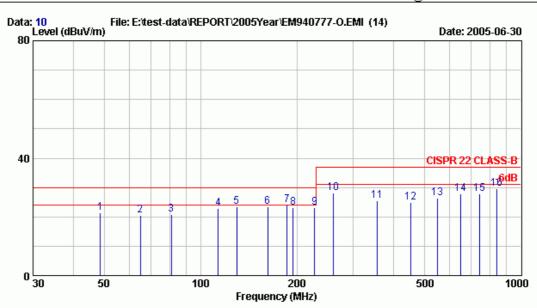
The EUT with following test modes was tested during the radiated testing and all the test results are listed in the following pages.

Test Date ∶ Jun. 30, 2005 Temperature ∶ 32°C Humidity ∶ 52%

The details of test modes are as follows:

Mode	Input	Display, Resolution/Frequency	Reference Test Data No.		
Wiode	mput	Bisplay, resolution requestey	Horizontal	Vertical	
1.		"H" Pattern, 640*480/60Hz, 31kHz	# 10	# 9	
2.	D-Sub	"H" Pattern, 1280*768/60Hz, 48kHz	# 7	# 8	
3.		"H" Pattern, 1360*768/60Hz, 48kHz	# 6	# 5	
4.		"H" Pattern, 640*480/60Hz, 31kHz	# 11	# 12	
5.	DVI	"H" Pattern, 1280*768/60Hz, 48kHz	# 3	# 4	
6.		"H" Pattern, 1360*768/60Hz, 48kHz	# 2	# 1	
7.	D-Sub + BNC	PIP- "H" Pattern & "Color Bar" Image	# 14	# 13	





Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109

Data no. : 10 Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

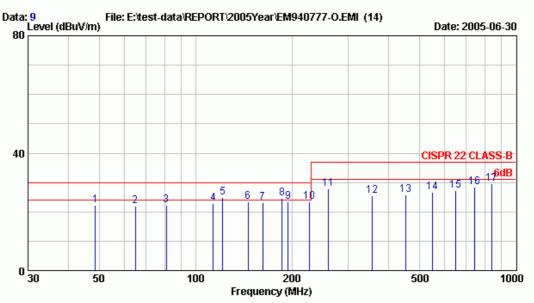
Power Rating : 120Vac / 60Hz

Test Mode : 640*480 / 60Hz;31KHz(D-SUB)

	-	Factor	Loss	Reading	Emission Level (dB μ V/m)		_	Remark
1	48.682	16.58	0.72	4.17	21.47	30.00	8.53	
2	64.867	12.90	0.87	6.86	20.63	30.00	9.37	
3	81.062	14.06	0.95	5.86	20.87	30.00	9.13	
4	113.419	18.74	1.10	3.01	22.86	30.00	7.14	
5	129.609	19.93	1.17	2.48	23.58	30.00	6.42	
6	161.988	20.89	1.36	1.16	23.41	30.00	6.59	
7	186.119	21.02	1.59	1.45	24.06	30.00	5.94	
8	194.351	21.23	1.69	0.28	23.19	30.00	6.81	
9	226.720	22.12	1.56	-0.49	23.18	30.00	6.82	
10	259.071	23.59	1.71	2.77	28.07	37.00	8.93	
11	356.173	15.36	2.11	8.16	25.63	37.00	11.37	
12	453.262	16.99	2.37	5.65	25.01	37.00	11.99	
13	550.342	19.55	2.55	4.19	26.29	37.00	10.71	
14	647.444	21.63	2.89	3.38	27.90	37.00	9.10	
15	744.533	22.66	3.16	2.12	27.94	37.00	9.06	
16	841.616	25.04	3.36	1.21	29.61	37.00	7.39	

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





Data no. : 9

Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

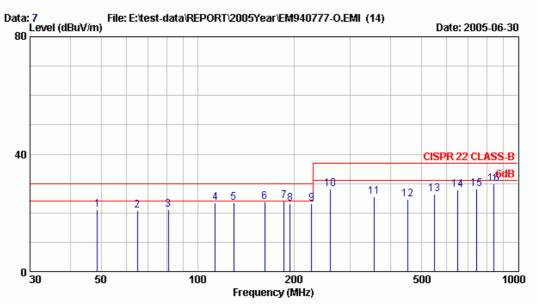
Power Rating : 120Vac / 60Hz

Test Mode : 640*480 / 60Hz;31KHz(D-SUB)

	Freq. (MHz)		Loss	_	Level (dB μ V/m)		_	Remark
1	48.633	16.33	0.72	5.23	22.28	30.00	7.72	
2	64.855	13.29	0.87	7.90	22.06	30.00	7.94	
3	81.051	14.46	0.95	6.81	22.22	30.00	7.78	
4	113.402	17.50	1.10	4.35	22.96	30.00	7.04	
5	121.566	18.31	1.12	5.44	24.87	30.00	5.13	
6	145.776	20.29	1.35	1.66	23.30	30.00	6.70	
7	161.921	20.92	1.36	0.95	23.23	30.00	6.77	
8	186.125	21.67	1.59	1.41	24.67	30.00	5.33	
9	194.309	22.23	1.69	-0.57	23.35	30.00	6.65	
10	226.640	23.47	1.56	-1.47	23.56	30.00	6.44	
11	259.017	23.65	1.71	2.58	27.94	37.00	9.06	
12	356.117	15.25	2.11	8.10	25.45	37.00	11.55	
13	453.197	17.56	2.37	5.72	25.65	37.00	11.35	
14	550.299	19.81	2.55	4.18	26.53	37.00	10.47	
15	647.361	21.06	2.89	3.43	27.38	37.00	9.62	
16	744.463	23.13	3.16	2.10	28.39	37.00	8.61	
17	841.534	25.14	3.36	1.22	29.72	37.00	7.28	

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





Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Data no. : 7

Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

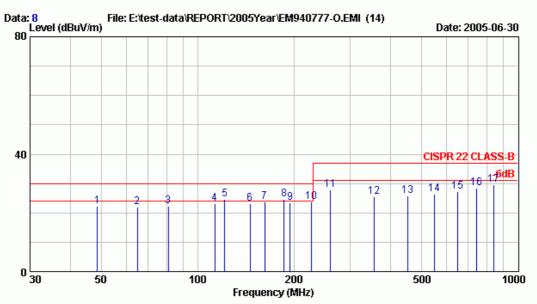
Power Rating : 120Vac / 60Hz

Test Mode : 1280*768 / 60Hz;48KHz(D-SUB)

	-	Factor	Loss	Reading	Emission Level (dB μ V/m)		_	Remark
1	48.694	16.58	0.72	3.85	21.15	30.00	8.85	
2	64.881	12.90	0.87	6.97	20.74	30.00	9.26	
3	81.056	14.06	0.95	6.03	21.04	30.00	8.96	
4	113.424	18.74	1.10	3.52	23.37	30.00	6.63	
5	129.609	19.93	1.17	2.28	23.38	30.00	6.62	
6	161.986	20.89	1.36	1.50	23.75	30.00	6.25	
7	186.126	21.02	1.59	1.50	24.12	30.00	5.88	
8	194.344	21.23	1.69	0.30	23.21	30.00	6.79	
9	226.714	22.12	1.56	-0.59	23.08	30.00	6.92	
10	259.090	23.59	1.71	2.71	28.01	37.00	8.99	
11	356.164	15.36	2.11	8.09	25.56	37.00	11.44	
12	453.253	16.99	2.37	5.20	24.56	37.00	12.44	
13	550.348	19.55	2.55	4.23	26.33	37.00	10.67	
14	647.429	21.63	2.89	3.25	27.77	37.00	9.23	
15	744.525	22.66	3.16	2.25	28.07	37.00	8.93	
16	841.606	25.04	3.36	1.35	29.75	37.00	7.25	

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





Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Data no. :8

Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

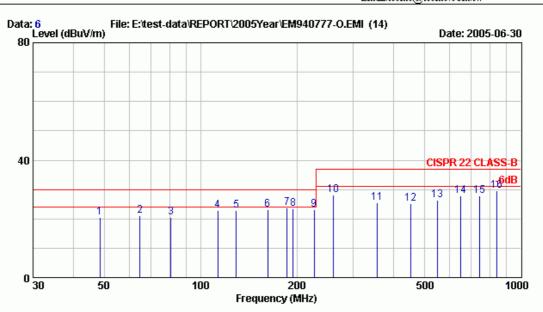
Power Rating : 120Vac / 60Hz

Test Mode : 1280*768 / 60Hz;48KHz(D-SUB)

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB μ V)	(dB # V/m)	$(dB \mu V/m)$	(dB)	
					22.19			
	2 64.826				21.87			
	3 81.020	14.46	0.95	7.01	22.42	30.00		
	4 113.377	17.50	1.10	4.48	23.09	30.00	6.91	
	5 121.605	18.31	1.12	5.30	24.73	30.00	5.27	
	6 145.774	20.29	1.35	1.62	23.26	30.00	6.74	
	7 161.936	20.92	1.36	1.37	23.65	30.00	6.35	
1	8 186.122	21.67	1.59	1.48	24.74	30.00	5.26	
!	9 194.315	22.23	1.69	-0.50	23.42	30.00	6.58	
1	226.689	23.47	1.56	-1.42	23.61	30.00	6.39	
1	1 259.046	23.65	1.71	2.60	27.96	37.00	9.04	
1	2 356.141	15.25	2.11	8.02	25.37	37.00	11.63	
1	3 453.230	17.56	2.37	5.77	25.70	37.00	11.30	
1	4 550.313	19.81	2.55	4.15	26.50	37.00	10.50	
1.	5 647.409	21.08	2.89	3.43	27.40	37.00	9.60	
1	6 744.492	23.13	3.16	2.25	28.54	37.00	8.46	
1	7 841.586	25.14	3.36	1.22	29.72	37.00	7.28	

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





Data no. : 6

Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

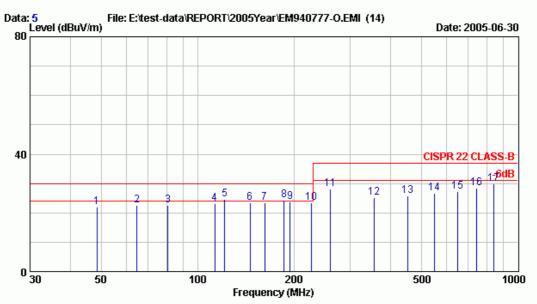
Power Rating : 120Vac / 60Hz

Test Mode : 1360*768 / 60Hz;48KHz(D-SUB)

	-	Factor	Loss	Reading	Emission Level (dB μ V/m)		_	Remark
1	48.544	16.58	0.72	3.24	20.54	30.00	9.46	
2	64.752	12.90	0.87	7.31	21.08	30.00	8.92	
3	80.925	13.98	0.95	5.69	20.62	30.00	9.38	
4	113.292	18.74	1.10	3.12	22.96	30.00	7.04	
5	129.466	19.93	1.17	1.68	22.77	30.00	7.23	
6	161.847	20.89	1.36	0.94	23.19	30.00	6.81	
7	186.123	21.02	1.59	1.22	23.83	30.00	6.17	
8	194.218	21.23	1.69	0.44	23.35	30.00	6.65	
9	226.590	22.12	1.56	-0.49	23.18	30.00	6.82	
10	258.957	23.59	1.71	2.78	28.08	37.00	8.92	
11	356.033	15.36	2.11	8.08	25.55	37.00	11.45	
12	453.127	16.99	2.37	5.71	25.07	37.00	11.93	
13	550.203	19.55	2.55	4.35	26.45	37.00	10.55	
14	647.292	21.61	2.89	3.38	27.89	37.00	9.11	
15	744.381	22.48	3.16	2.18	27.82	37.00	9.18	
16	841.484	25.04	3.36	1.10	29.50	37.00	7.50	

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





Data no. : 5

Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

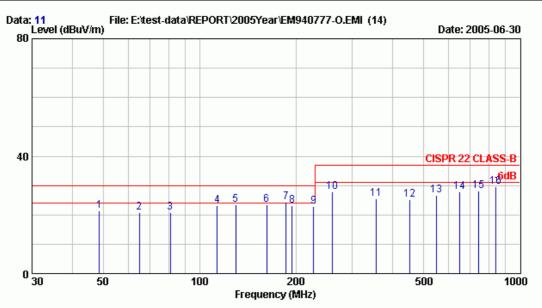
Power Rating : 120Vac / 60Hz

Test Mode : 1360*768 / 60Hz;48KHz(D-SUB)

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB μ V)	(dB # V/m)	(dB \(\mu \) V/m)	(dB)	
1	48.470	16.33	0.72	4.91	21.95	30.00	8.05	
2	64.658	13.29	0.87	8.28	22.44	30.00	7.56	
3	80.829	14.35	0.95	7.29	22.59	30.00	7.41	
4	113.205	17.50	1.10	4.68	23.29	30.00	6.71	
5	121.586	18.31	1.12	5.30	24.73	30.00	5.27	
6	145.770	20.29	1.35	1.66	23.30	30.00	6.70	
7	161.870	20.92	1.36	1.30	23.58	30.00	6.42	
8	186.122	21.67	1.59	1.20	24.46	30.00	5.54	
9	194.254	22.23	1.69	-0.21	23.71	30.00	6.29	
10	226.601	23.47	1.56	-1.68	23.35	30.00	6.65	
11	258.976	23.65	1.71	2.71	28.07	37.00	8.93	
12	356.057	15.25	2.11	7.98	25.33	37.00	11.67	
13	453.153	17.56	2.37	5.83	25.76	37.00	11.24	
14	550.233	19.81	2.55	4.30	26.65	37.00	10.35	
15	647.335	21.06	2.89	3.43	27.38	37.00	9.62	
16	744.397	23.04	3.16	2.18	28.38	37.00	8.62	
17	841.488	25.14	3.36	1.29	29.79	37.00	7.21	

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





Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Data no. : 11

Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

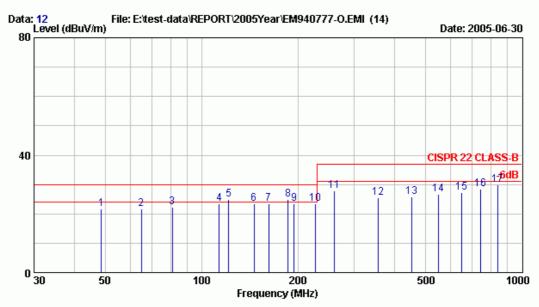
Power Rating: 120Vac / 60Hz

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

	-	Factor	Loss	Reading	Emission Level (dB μ V/m)		_	Remark
1	48.664	16.58	0.72	4.16	21.46	30.00	8.54	
2	64.881	12.90	0.87	6.93	20.70	30.00	9.30	
3	81.054	14.06	0.95	5.90	20.91	30.00	9.09	
4	113.406	18.74	1.10	3.31	23.16	30.00	6.84	
5	129.595	19.93	1.17	2.39	23.49	30.00	6.51	
6	161.943	20.89	1.36	1.17	23.42	30.00	6.58	
7	186.128	21.02	1.59	1.59	24.21	30.00	5.79	
8	194.315	21.23	1.69	0.21	23.12	30.00	6.88	
9	226.692	22.12	1.56	-0.69	22.98	30.00	7.02	
10	259.048	23.59	1.71	2.58	27.88	37.00	9.12	
11	356.146	15.36	2.11	7.92	25.39	37.00	11.61	
12	453.249	16.99	2.37	5.97	25.33	37.00	11.67	
13	550.325	19.55	2.55	4.51	26.61	37.00	10.39	
14	647.414	21.63	2.89	3.26	27.78	37.00	9.22	
15	744.503	22.66	3.16	2.21	28.03	37.00	8.97	
16	841.597	25.04	3.36	1.29	29.69	37.00	7.31	

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





Data no. : 12

Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

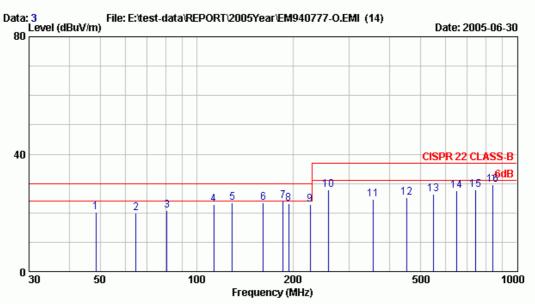
Power Rating : 120Vac / 60Hz

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

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB μ V)	(dB # V/m)	(dB μ V/m)	(dB)	
1	48.704	16.33	0.72	4.75	21.80	30.00	8.20	
2	64.873	13.29	0.87	7.57	21.73	30.00	8.27	
3	81.058	14.46	0.95	6.93	22.34	30.00	7.66	
4	113.416	17.50	1.10	4.91	23.52	30.00	6.48	
5	121.604	18.31	1.12	5.48	24.90	30.00	5.10	
6	145.786	20.29	1.35	1.70	23.34	30.00	6.66	
7	161.949	20.92	1.36	1.15	23.43	30.00	6.57	
8	186.124	21.67	1.59	1.53	24.79	30.00	5.21	
9	194.328	22.23	1.69	-0.60	23.32	30.00	6.68	
10	226.671	23.47	1.56	-1.55	23.48	30.00	6.52	
11	259.054	23.65	1.71	2.57	27.93	37.00	9.07	
12	356.158	15.25	2.11	8.09	25.44	37.00	11.56	
13	453.230	17.56	2.37	5.93	25.86	37.00	11.14	
14	550.327	19.81	2.55	4.45	26.80	37.00	10.20	
15	647.405	21.08	2.89	3.25	27.22	37.00	9.78	
16	744.520	23.13	3.16	2.08	28.37	37.00	8.63	
17	841.579	25.14	3.36	1.33	29.83	37.00	7.17	

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





Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Data no. : 3

Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

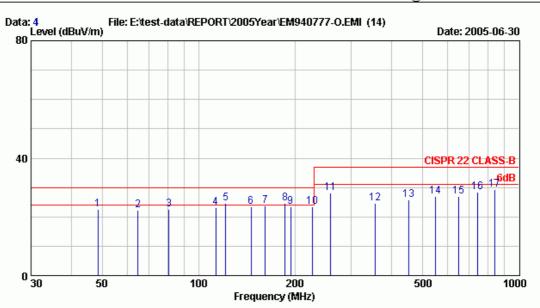
Power Rating : 120Vac / 60Hz

Test Mode : 1280*768 / 60Hz;48KHz(DVI)

	_	Factor	Loss	Reading	Emission Level (dB μ V/m)		_	Remark
1	48.535	16.58	0.72	2.98	20.28	30.00	9.72	
2	64.708	12.90	0.87	6.18	19.95	30.00	10.05	
3	80.880	13.98	0.95	5.74	20.67	30.00	9.33	
4	113.249	18.74	1.10	3.06	22.91	30.00	7.09	
5	129.425	19.82	1.17	2.36	23.34	30.00	6.66	
6	161.789	20.89	1.36	1.13	23.38	30.00	6.62	
7	186.125	21.02	1.59	1.52	24.13	30.00	5.87	
8	194.137	21.23	1.69	0.28	23.19	30.00	6.81	
9	226.525	22.12	1.56	-0.83	22.84	30.00	7.16	
10	258.882	23.59	1.71	2.65	27.95	37.00	9.05	
11	355.991	15.36	2.11	7.16	24.63	37.00	12.37	
12	453.079	16.99	2.37	5.74	25.10	37.00	11.90	
13	550.164	19.55	2.55	4.39	26.49	37.00	10.51	
14	647.256	21.61	2.89	3.13	27.64	37.00	9.36	
15	744.337	22.48	3.16	2.17	27.81	37.00	9.19	
16	841.407	25.04	3.36	1.28	29.68	37.00	7.32	

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





Data no. : 4

Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

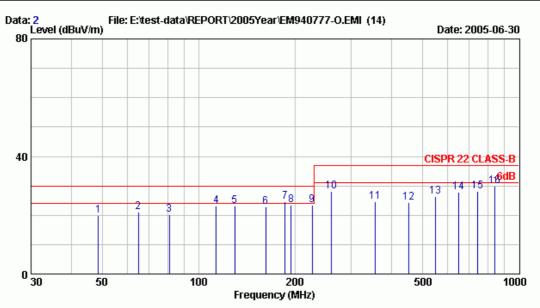
Power Rating : 120Vac / 60Hz

Test Mode : 1280*768 / 60Hz;48KHz(DVI)

			Ant.	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					22.63			
	2		13.29			22.03			
	3		14.35			22.65			
	4	113.226	17.50	1.10	4.60	23.21	30.00	6.79	
	5	121.598	18.31	1.12	5.31	24.74	30.00	5.26	
	6	145.775	20.29	1.35	1.70	23.34	30.00	6.66	
	7	161.754	20.92	1.36	1.38	23.65	30.00	6.35	
	8	186.126	21.67	1.59	1.37	24.63	30.00	5.37	
	9	194.124	22.23	1.69	-0.54	23.38	30.00	6.62	
	10	226.494	23.47	1.56	-1.63	23.40	30.00	6.60	
	11	258.840	23.65	1.71	2.72	28.08	37.00	8.92	
	12	355.932	15.25	2.11	7.34	24.69	37.00	12.31	
	13	453.021	17.56	2.37	5.78	25.71	37.00	11.29	
	14	550.137	19.81	2.55	4.54	26.89	37.00	10.11	
	15	647.211	21.06	2.89	3.12	27.07	37.00	9.93	
	16	744.325	23.04	3.16	2.22	28.42	37.00	8.58	
	17	841.416	25.14	3.36	0.89	29.39	37.00	7.61	

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





Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Data no. : 2

Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : 32 *C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

Power Rating : 120Vac / 60Hz

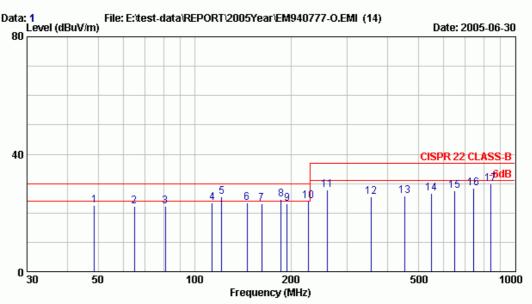
Test Mode : 1360*768 / 60Hz;48KHz(DVI)

	-	Factor	Loss	Reading	Emission Level (dB μ V/m)		_	Remark
1	48.669	16.58	0.72	2.77	20.07	30.00	9.93	
2	64.835	12.90	0.87	7.35	21.12	30.00	8.88	
3	81.024	14.06	0.95	5.34	20.35	30.00	9.65	
4	113.413	18.74	1.10	3.18	23.03	30.00	6.97	
5	129.554	19.93	1.17	2.18	23.27	30.00	6.73	
6	161.913	20.89	1.36	0.58	22.83	30.00	7.17	
7	186.122	21.02	1.59	1.92	24.53	30.00	5.47	*
8	194.291	21.23	1.69	0.46	23.38	30.00	6.62	
9	226.659	22.12	1.56	-0.19	23.49	30.00	6.51	
10	259.030	23.59	1.71	2.80	28.10	37.00	8.90	
11	356.104	15.36	2.11	7.23	24.70	37.00	12.30	
12	453.208	16.99	2.37	5.04	24.40	37.00	12.60	
13	550.284	19.55	2.55	4.29	26.39	37.00	10.61	
14	647.380	21.61	2.89	3.25	27.75	37.00	9.25	
15	744.475	22.66	3.16	2.20	28.02	37.00	8.98	
16	841.572	25.04	3.36	1.36	29.76	37.00	7.24	

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 186.122MHz with corrected signal level of 24.53dB $\mu V/m$ (limit was 30dB $\mu V/m)$ when the antenna was at horizontal polarization and was at 4m high and the turn table was at $105\,^{\circ}$.
- 4.0° is the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.





Data no. : 1

Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32 *C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

Power Rating : 120Vac / 60Hz

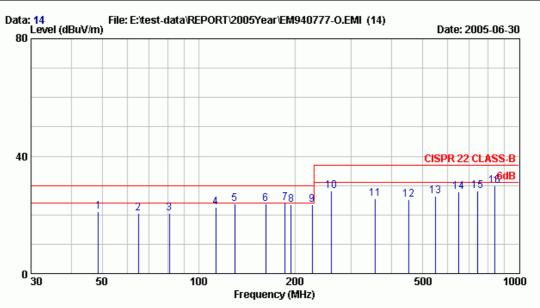
Test Mode : 1360*768 / 60Hz;48KHz(DVI)

	Freq.	Factor	Loss	_	Emission Level (dB μ V/m)		_	Remark
1	48.713	16.33	0.72	5.51	22.56	30.00	7.44	
2	64.886	13.29	0.87	8.06	22.22	30.00	7.78	
3	81.062	14.46	0.95	6.74	22.15	30.00	7.85	
4	113.429	17.50	1.10	4.85	23.46	30.00	6.54	
5	121.591	18.31	1.12	6.00	25.42	30.00	4.58	*
6	145.800	20.29	1.35	1.75	23.39	30.00	6.61	
7	161.972	20.92	1.36	0.96	23.24	30.00	6.76	
8	186.121	21.67	1.59	1.25	24.51	30.00	5.49	
9	194.352	22.23	1.69	-0.74	23.18	30.00	6.82	
10	226.700	23.47	1.56	-0.88	24.15	30.00	5.85	
11	259.078	23.65	1.71	2.52	27.88	37.00	9.12	
12	356.183	15.25	2.11	8.01	25.36	37.00	11.64	
13	453.268	17.56	2.37	5.91	25.84	37.00	11.16	
14	550.360	19.81	2.55	4.37	26.72	37.00	10.28	
15	647.445	21.08	2.89	3.53	27.50	37.00	9.50	
16	744.548	23.13	3.16	2.27	28.56	37.00	8.44	
17	841.633	25.14	3.36	1.35	29.85	37.00	7.15	

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 121.591MHz with corrected signal level of 25.42dB $\mu\text{V/m}$ (limit was $30\text{dB}\mu\text{V/m})$ when the antenna was at vertical polarization and was at 1m high and the turn table was at 240° .
- 4. O'is the table front facing the antenna. Degree is calculated from O clockwise facing the antenna.





Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109

Data no. : 14 Ant. pol. : HORIZONTAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

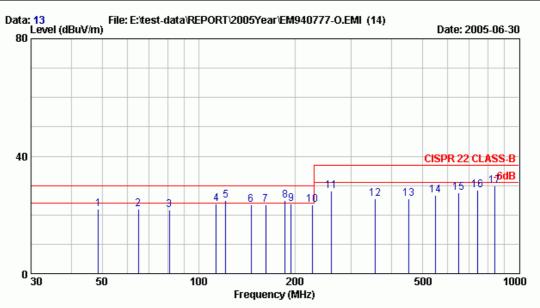
Power Rating : 120Vac / 60Hz

Test Mode : PIP

	-	Factor	Loss	Reading	Emission Level (dB μ V/m)		_	Remark
1	48.631	16.58	0.72	3.86	21.16	30.00	8.84	
2	64.813	12.90	0.87	6.74	20.51	30.00	9.49	
3	81.017	14.06	0.95	5.56	20.57	30.00	9.43	
4	113.359	18.74	1.10	2.79	22.64	30.00	7.36	
5	129.547	19.93	1.17	2.64	23.74	30.00	6.26	
6	161.878	20.89	1.36	1.38	23.63	30.00	6.37	
7	186.121	21.02	1.59	1.52	24.13	30.00	5.87	
8	194.254	21.23	1.69	0.67	23.58	30.00	6.42	
9	226.623	22.12	1.56	-0.26	23.41	30.00	6.59	
10	258.953	23.59	1.71	2.72	28.02	37.00	8.98	
11	356.056	15.36	2.11	8.01	25.48	37.00	11.52	
12	453.130	16.99	2.37	5.85	25.21	37.00	11.79	
13	550.229	19.55	2.55	4.39	26.49	37.00	10.51	
14	647.286	21.61	2.89	3.45	27.95	37.00	9.05	
15	744.392	22.48	3.16	2.44	28.09	37.00	8.91	
16	841.467	25.04	3.36	1.36	29.76	37.00	7.24	

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





Data no. : 13

Site no. : NO.4 Open Site
Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

: CISPR 22 CLASS-B Limit

Env. / Ins. : 32*C / 52% ESVS 10 Engineer : Tony Chen

: Flat Panel Color Monitor M/N:420WN6

Power Rating : 120Vac / 60Hz

Test Mode : PIP

		Ant.	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)		(dB # V/m)			
1	48.705	16.33	0.72		21.85			
2	64.870	13.29	0.87	7.86	22.02	30.00	7.98	
3	81.064	14.46	0.95	6.28	21.69	30.00	8.31	
4	113.411	17.50	1.10	5.02	23.63	30.00	6.37	
5	121.622	18.31	1.12	5.48	24.91	30.00	5.09	
6	145.786	20.29	1.35	1.91	23.55	30.00	6.45	
7	161.974	20.92	1.36	1.10	23.38	30.00	6.62	
8	186.124	21.67	1.59	1.68	24.94	30.00	5.06	
9	194.324	22.23	1.69	-0.21	23.71	30.00	6.29	
10	226.695	23.47	1.56	-1.70	23.33	30.00	6.67	
11	259.039	23.65	1.71	2.66	28.02	37.00	8.98	
12	356.137	15.25	2.11	8.04	25.39	37.00	11.61	
13	453.212	17.56	2.37	5.69	25.62	37.00	11.38	
14	550.301	19.81	2.55	4.45	26.80	37.00	10.20	
15	647.405	21.06	2.89	3.67	27.62	37.00	9.38	
16	744.494	23.13	3.16	2.18	28.47	37.00	8.53	
17	841.569	25.14	3.36	1.27	29.77	37.00	7.23	

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

4. DEVIATION TO TEST SPECIFICATIONS

[NONE]