# APPLICATION FOR CERTIFICATION On Behalf of

Philips Electronics Industries (Taiwan) Ltd. LCD TV

Model No.: 26MF605W/17

Brand: Philips Magnavox

FCC ID: A3KM137

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 Hsien, Taiwan, R.O.C.

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

Fax: (02) 2609-9303

File Number : EM931467 Report Number : EM-F940001

Date of Test : Dec.  $22 \sim 28$ , 2004

Date of Report : Jan. 04, 2005

## TABLE OF CONTENTS

Description	Page
Test Report Certification.	3
1. GENERAL INFORMATION	4
1.1. Description of Device (EUT)	
1.2. Tested Supporting System Details	
1.3. Test Facility	
1.4. Measurement Uncertainty	
2. CONDUCTED DISTURBANCE MEASUREMENT	
2.1. Test Equipment	
2.2. Block Diagram of Test Setup	
2.3. Conducted Powerline 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. Line Conducted RF Voltage Measurement Results	10
3. RADIATED DISTURBANCE MEASUREMENT	19
3.1. Test Equipment	19
3.2. Block Diagram of Test Setup	19
3.3. Radiation Limit (§15.109/CISPR 22, Class B)	20
3.4. EUT's Configuration during Compliance Measurement	
3.5. Operating Condition of EUT	
3.6. Test Procedure	
3.7. Radiated Emission Measurement Results	21
4. DEVIATION TO TEST SPECIFICATIONS	30
5. PHOTOGRAPHS	31
5.1. Photos of Powerline Conducted Measurement	31
5.2. Photos of Radiated Measurement at Open Area Test Site	33

## TEST REPORT CERTIFICATION

Applicant : Philips Electronics Industries (Taiwan) Ltd.

Manufacturer : Philips Electronics Industries (Taiwan) Ltd.

Factory : Philips Consummer Electronics Co., of Suzhou Ltd.

EUT Description : LCD TV

FCC ID : A3KM137

(A) MODEL NO. : 26MF605W/17 (B) SERIAL NO. : TY0404748

(C) BRAND NAME : Philips Magnavox

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

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

Measurement Standards and Methods Used:

FCC CFR 47 Part15 / Jul. 2004 and CISPR 22/1997 and 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 (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: Dec.  $22 \sim 28$ , 2004

Prepared by: Jan ob. sat

(Julie Hsu/Assistant Administrator)

Test Engineer: Ching Jan, 06. 2003

L L -

Approve & Authorized Signer: Klon Ku Jan 6 2005
(Leon Liu/Senior Manager)

#### 1. GENERAL INFORMATION

#### 1.1. Description of Device (EUT)

Description : LCD TV

(The DVI IN & TV Tuner & AV Functions & HD Functions are not available in this test

report)

Model Number : 26MF605W/17

Serial Number : TY0404748

FCC ID. : A3KM137

Brand : Philips Magnavox

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 : Philips Consummer Electronics Co., of Suzhou

Ltd.

No. 161, Zhujiang Road, New District, Suzhou

215011, PROC

LCD Panel : LG Philips, Type No. LC26WX2

Scanning Frequency : Horizontal: 30-50kHz

Vertical: 56-63Hz

Max Resolution : 1280\*768 / 60Hz

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

Bonded two ferrite cores

Power Cord : Non-Shielded, Detachable, 1.8m

Data of Receipt of Sample : Dec. 16, 2004

Date of Test : Dec.  $22 \sim 28$ , 2004

#### 1.2. Tested Supporting System Details

#### 1.2.1. PERSONAL COMPUTER

Model Name : Dell Dim 4600PC

Model Number : DMC
Serial Number : 5DYW91S
FCC ID : By DoC
BSMI ID : R33002
Manufacturer : DELL

VGA Card : Nvidia FX5200

Audio Cable : Non-Shielded, Detachable, 1.0m Power Cord : Non-Shielded, Detachable, 1.8m

1.2.2. KEYBOARD

Part Number : 09C487

Serial Number : CN-09C487-38844-193-7480

Manufacturer : DELL

Data Cable : Shielded, Undetachable, 1.8m

1.2.3. MODEM

Model Number : DM-1414
Serial Number : 980034394
FCC ID : IFAXDM1414

Manufacturer : Accex

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

Non-Shielded, Undetachable, 1.8m

1.2.4. PS2 MOUSE

Part Number : 6U220

Serial Number : 85T841-0000 FCC ID : LZA31578847

Manufacturer : DELL

Data Cable : 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 : HA08717 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, 1.8m

#### 1.2.9. EARPHONE (Link to EUT)

Model Number : N/A

Manufacturer : Panasonic

Earphone Cable : Non-Shielded, Undetachable, 1.1m

#### 1.2.10. COLOUR TV PATTERN GENERATOR (Link to EUT)

Model Number : PM5515 Type Number : PM5515G Manufacturer : Philips

Coaxial Cable : Shielded, Detachable, 2m

Power Cord : Non-Shielded, Detachable, 1.8m

## 1.3. Test Facility

Name of Firm : Audix Corporation

Technical Division EMC Department

Location : No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,

Taipei Hsien 24443, Taiwan, R.O.C.

Test Facility & Location : No. 3

(C3/R4)

No. 3 Shielded Room

No. 4 Open Area Test Site

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

Mar. 31, 2003 Renewal 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), (V/m)		
Conduction Test	150kHz~30MHz	±1.73dB		
Radiation Test	30MHz~300MHz	±2.99dB		
(Distance: 10m)	300MHz~1000MHz	±2.73dB		

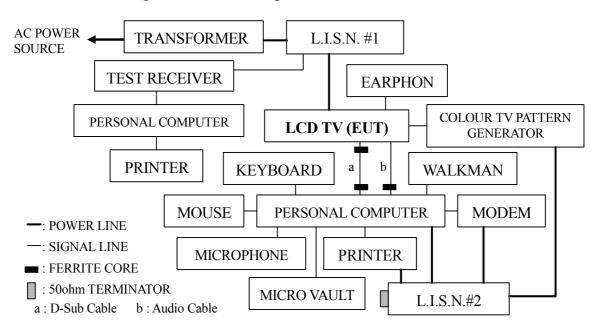
### 2. CONDUCTED DISTURBANCE MEASUREMENT

#### 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	$56 \sim 46 \ dB\mu V$		
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. LCD TV (EUT)

Model Number : 26MF605W/17
Serial Number : TY0404748
FCC ID : A3KM137

Manufacturer : Philips Electronics Industries (Taiwan) Ltd.

LCD Panel : LG Philips, Type No. LC26WX2

Scanning Frequency : Horizontal: 30-50kHz

Vertical: 56-63Hz

Max Resolution : 1280\*768 / 60Hz

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

Bonded two ferrite cores

Power Cord : Non-Shielded, Detachable, 1.8m

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. Personal computer read data from disk.
- 2.5.4. The PC System running the test program "Testpat V1.8" by Windows XP and the screen of EUT displayed "H" pattern by EUT's resolution via D-Sub Input.
- 2.5.5. Set the PC System to send the "H" pattern to EUT via D-Sub Input, and send the "Color Bar" image to EUT via RF Input. The screen of EUT display "H" pattern and the "Color Bar" image at same time during PIP mode testing.
- 2.5.6. The PC System running the program "Windows Media Player" and sent the sound to earphone of EUT during all testing.
- 2.5.7. The PC System read data from FDD and then wrote data into FDD, same operation from HDD \( \) Modem.
- 2.5.8. The other peripheral devices were drove and operated in turn during all testing.
- 2.5.9. Repeat above procedure from 2.5.3 to 2.5.8.

#### 2.6. Test Procedure

The EUT was connected to the power mains through a line impedance stabilization network (L.I.S.N. #1). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N. #2). This provided a 50ohm 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.

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. Line Conducted RF Voltage Measurement Results

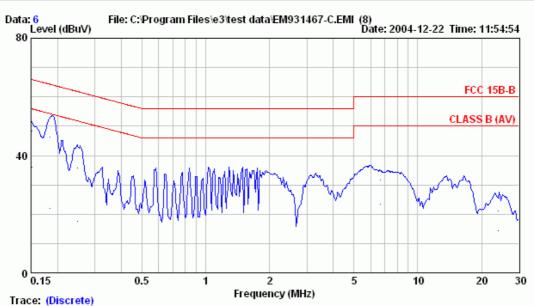
**PASSED.** All emissions not reported below are too low against the prescribed limits.

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

Test Date: Dec. 22, 2004 Temperature: 21°C Humidity: 59%

Mode	Carial Number	LCD Panel	Innut Dort	Eroguanay / Dagalutian Imaga	Reference Data No.	
Mode   Serial Number		LCD Panel	Input Port	Frequency / Resolution, Image	Neutral	Line
1.				640*480/60Hz, 31kHz; H Pattern	# 6	# 5
2.		LG Philips,	D-Sub	1280*720/60Hz, 44.7kHz; H Pattern	# 3	# 4
3.	TY0404748	Type No: LS26WX2		1280*768/60Hz, 48kHz; H Pattern	# 2	# 1
4.		LSZUWAZ	D-Sub + RF	H Pattern + Image "Color Bar" (PIP Mode)	# 7	# 8





Site : NO.3 Shielded room Data : 6

Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (21\*C,59%) /ESCS30 Engineer: JASON LIN

EUT : LCD TV (26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

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

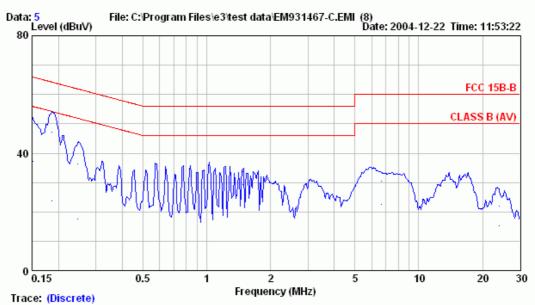
s/N:TY0404748

D-SUB

		ISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBµV)	(dBµV)	(dBµV)	(dB)	
1	0.151	0.30	0.20	47.88	48.38	65.96	17.58	QP
2	0.151	0.30	0.20	35.41	35.91	55.96	20.05	AVERAGE
3	0.185	0.23	0.20	45.77	46.20	64.27	18.07	QP
4	0.185	0.23	0.20	21.58	22.01	54.27	32.26	AVERAGE
5	0.248	0.17	0.20	35.52	35.89	61.82	25.94	QP
6	0.248	0.17	0.20	17.20	17.57	51.82	34.25	AVERAGE
7	1.485	0.10	0.40	34.08	34.58	56.00	21.42	QP
8	1.489	0.10	0.40	29.34	29.84	46.00	16.16	AVERAGE
9	6.646	0.10	0.60	30.87	31.57	60.00	28.43	QP
10	6.650	0.10	0.60	22.76	23.46	50.00	26.54	AVERAGE
11	23.898	0.30	0.70	19.97	20.97	60.00	39.03	QP
12	23.902	0.30	0.70	13.33	14.33	50.00	35.67	AVERAGE

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





Site : NO.3 Shielded room Data : 5 Condition : KNW-407 Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : (21\*C,59%) /ESCS30 Engineer: JASON LIN

EUT : LCD TV (26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

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

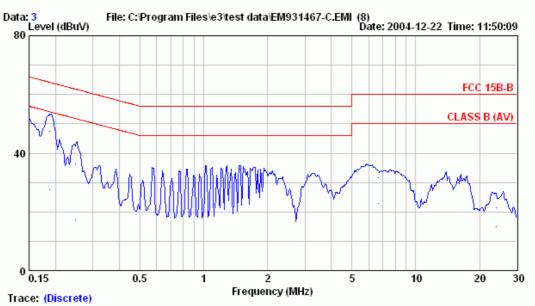
s/N:TY0404748

D-SUB

		ISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBµV)	(dBµV)	(dBµV)	(dB)	
1	0.151	0.30	0.20	48.83	49.33	65.96	16.63	QP
2	0.151	0.30	0.20	36.83	37.33	55.96	18.63	AVERAGE
3	0.186	0.22	0.20	46.87	47.29	64.21	16.92	QP
4	0.186	0.22	0.20	23.19	23.61	54.21	30.60	AVERAGE
5	0.247	0.17	0.20	35.90	36.27	61.87	25.60	QP
6	0.247	0.17	0.20	17.20	17.57	51.87	34.30	AVERAGE
7	1.484	0.10	0.40	33.28	33.78	56.00	22.22	QP
8	1.486	0.10	0.40	28.79	29.29	46.00	16.71	AVERAGE
9	6.646	0.10	0.60	29.65	30.35	60.00	29.65	QP
10	6.650	0.10	0.60	21.88	22.58	50.00	27.42	AVERAGE
11	23.901	0.38	0.70	20.82	21.90	60.00	38.10	QP
12	23.903	0.38	0.70	14.21	15.29	50.00	34.71	AVERAGE

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





Site : NO.3 Shielded room Data : 3

Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (21\*C,59%) /ESCS30 Engineer: JASON LIN

EUT : LCD TV (26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

Test Mode : 1280\*720/60Hz/44.7KHz

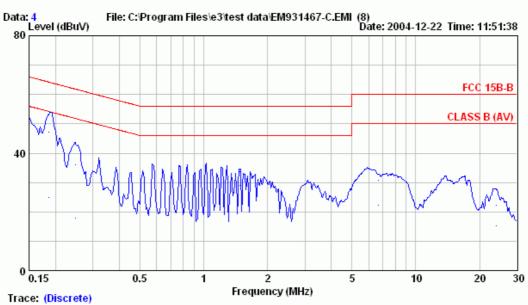
s/N:TY0404748

D-SUB

	Freq.	ISN Factor (dB)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.151	0.30	0.20	48.26	48.76	65.97	17.21	QP
2	0.151	0.30	0.20	35.46	35.96	55.97	20.01	AVERAGE
3	0.187	0.22	0.20	47.05	47.47	64.16	16.69	QP
4	0.187	0.22	0.20	27.02	27.44	54.16	26.71	AVERAGE
5	0.248	0.17	0.20	35.90	36.27	61.82	25.55	QP
6	0.248	0.17	0.20	16.89	17.26	51.82	34.56	AVERAGE
7	1.485	0.10	0.40	34.14	34.64	56.00	21.36	QP
8	1.488	0.10	0.40	29.16	29.66	46.00	16.34	AVERAGE
9	6.646	0.10	0.60	30.87	31.57	60.00	28.43	QP
10	6.649	0.10	0.60	22.15	22.85	50.00	27.15	AVERAGE
11	23.899	0.30	0.70	20.38	21.38	60.00	38.62	QP
12	23.901	0.30	0.70	13.94	14.94	50.00	35.06	AVERAGE

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





Site : NO.3 Shielded room Data : 4 Condition : KNW-407 Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : (21\*C,59%) /ESCS30 Engineer: JASON LIN

EUT : LCD TV (26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

Test Mode : 1280\*720/60Hz/44.7KHz

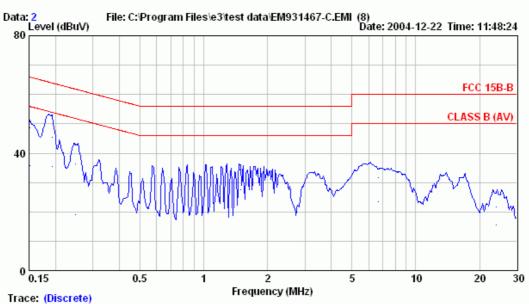
s/N:TY0404748

D-SUB

			ISN	Cable		Emission			
		Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
		(MHz)	(dB)	(dB)	(dBµV)	(dBµV)	(dBµV)	(dB)	
_	1	0.151	0.30	0.20	48.87	49.37	65.96	16.60	QP
	2	0.151	0.30	0.20	36.61	37.11	55.96	18.86	AVERAGE
	3	0.186	0.22	0.20	46.67	47.09	64.21	17.12	QP
	4	0.186	0.22	0.20	24.35	24.77	54.21	29.44	AVERAGE
	5	0.248	0.17	0.20	35.64	36.01	61.82	25.81	QP
	6	0.248	0.17	0.20	17.57	17.94	51.82	33.88	AVERAGE
	7	1.484	0.10	0.40	33.28	33.78	56.00	22.22	QP
	8	1.486	0.10	0.40	28.40	28.90	46.00	17.10	AVERAGE
	9	6.647	0.10	0.60	29.98	30.68	60.00	29.32	QP
	10	6.651	0.10	0.60	21.63	22.33	50.00	27.67	AVERAGE
	11	23.900	0.38	0.70	21.07	22.15	60.00	37.85	QP
	12	23.902	0.38	0.70	14.21	15.29	50.00	34.71	AVERAGE

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





Site : NO.3 Shielded room Data : 2

Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (21\*C,59%) /ESCS30 Engineer: JASON LIN

EUT : LCD TV (26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

Test Mode : 1280\*768/60Hz/48KHz

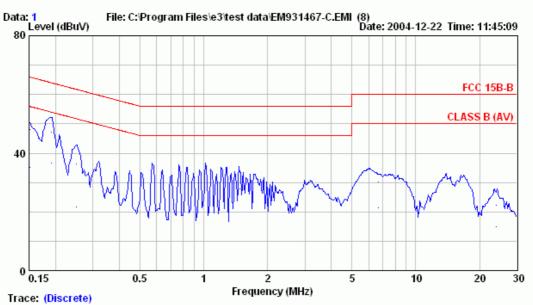
s/N:TY0404748

D-SUB

		ISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	$(\mathtt{MHz})$	(dB)	(dB)	(dBµV)	(dBµV)	(dBµV)	(dB)	
1	0.151	0.30	0.20	48.02	48.52	65.94	17.42	OP
								_
2	0.151	0.30	0.20	35.38	35.88	55.94	20.06	AVERAGE
3	0.193	0.21	0.20	45.14	45.55	63.93	18.37	QP
4	0.193	0.21	0.20	35.17	35.58	53.93	18.34	AVERAGE
5	0.249	0.17	0.20	35.86	36.23	61.78	25.55	QP
6	0.249	0.17	0.20	18.80	19.17	51.78	32.61	AVERAGE
7	1.485	0.10	0.40	33.88	34.38	56.00	21.62	QP
8	1.488	0.10	0.40	27.00	27.50	46.00	18.50	AVERAGE
9	6.650	0.10	0.60	30.91	31.61	60.00	28.39	QP
10	6.651	0.10	0.60	22.83	23.53	50.00	26.47	AVERAGE
11	23.900	0.30	0.70	20.58	21.58	60.00	38.42	QP
12	23.904	0.30	0.70	14.40	15.40	50.00	34.60	AVERAGE

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





Site : NO.3 Shielded room Data : 1 Condition : KNW-407 Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : (21\*C,59%) /ESCS30 Engineer: JASON LIN

EUT : LCD TV (26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

Test Mode : 1280 \* 768 / 60 Hz / 48 KHz

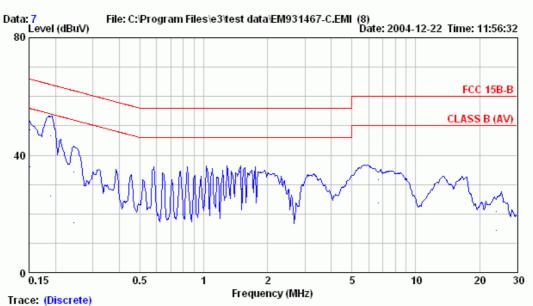
s/N:TY0404748

D-SUB

		ISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBµV)	(dBµV)	(dBµV)	(dB)	
1	0.151	0.30	0.20	47.64	48.14	65.94	17.80	QP
2	0.151	0.30	0.20	34.75	35.25	55.94	20.69	AVERAGE
3	0.191	0.21	0.20	46.63	47.04	63.98	16.94	QP
4	0.191	0.21	0.20	36.20	36.61	53.98	17.36	AVERAGE
5	0.250	0.17	0.20	36.00	36.37	61.76	25.39	QP
6	0.250	0.17	0.20	21.30	21.67	51.76	30.09	AVERAGE
7	1.481	0.10	0.40	32.77	33.27	56.00	22.73	QP
8	1.484	0.10	0.40	27.46	27.96	46.00	18.04	AVERAGE
9	6.650	0.10	0.60	29.41	30.11	60.00	29.89	QP
10	6.651	0.10	0.60	20.74	21.44	50.00	28.56	AVERAGE
11	23.901	0.38	0.70	21.13	22.21	60.00	37.79	QP
12	23.904	0.38	0.70	13.83	14.91	50.00	35.09	AVERAGE

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





Site : NO.3 Shielded room Data : 7

Condition : KNW-407 Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : (21\*C,59%) /ESCS30 Engineer: JASON LIN

EUT : LCD TV (26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

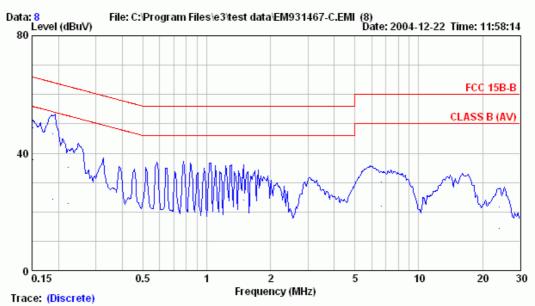
Test Mode : PIP

s/N:TY0404748

		ISN	Cable		Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBµV)	(dBµV)	(dBµV)	(dB)	
1	0.151	0.30	0.20	48.18	48.68	65.95	17.28	QP
2	0.151	0.30	0.20	35.69	36.19	55.95	19.76	AVERAGE
3	0.189	0.22	0.20	46.11	46.53	64.09	17.56	QP
4	0.189	0.22	0.20	25.57	25.99	54.09	28.10	AVERAGE
5	0.243	0.17	0.20	33.99	34.36	62.00	27.63	QP
6	0.243	0.17	0.20	16.66	17.03	51.99	34.96	AVERAGE
7	1.486	0.10	0.40	33.90	34.40	56.00	21.60	QP
8	1.489	0.10	0.40	27.99	28.49	46.00	17.51	AVERAGE
9	6.646	0.10	0.60	30.81	31.51	60.00	28.49	QP
10	6.648	0.10	0.60	23.06	23.76	50.00	26.24	AVERAGE
11	23.897	0.30	0.70	19.77	20.77	60.00	39.23	QP
12	23.901	0.30	0.70	13.37	14.37	50.00	35.63	AVERAGE

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





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

Limit : FCC 15B-B

Env. / Ins. : (21\*C,59%) /ESCS30 Engineer: JASON LIN

EUT : LCD TV (26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

Test Mode : PIP

s/N:TY0404748

	Freq.	ISN Factor (dB)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.151	0.30	0.20	48.28	48.78	65.95	17.17	QP
2	0.151	0.30	0.20	37.17	37.67	55.95	18.28	AVERAGE
3	0.187	0.22	0.20	46.13	46.55	64.15	17.59	QP
4	0.188	0.22	0.20	23.94	24.36	54.15	29.78	AVERAGE
5	0.223	0.18	0.20	34.83	35.21	62.72	27.51	QP
6	0.223	0.18	0.20	22.33	22.71	52.72	30.01	AVERAGE
7	1.486	0.10	0.40	31.02	31.52	56.00	24.48	QP
8	1.489	0.10	0.40	23.62	24.12	46.00	21.88	AVERAGE
9	6.650	0.10	0.60	29.55	30.25	60.00	29.75	QP
10	6.653	0.10	0.60	21.19	21.89	50.00	28.11	AVERAGE
11	23.893	0.38	0.70	20.52	21.60	60.00	38.40	QP
12	23.897	0.38	0.70	13.27	14.35	50.00	35.65	AVERAGE

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

### 3. RADIATED DISTURBANCE MEASUREMENT

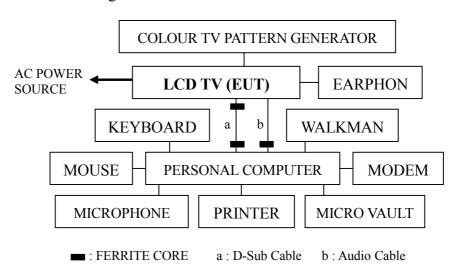
## 3.1. Test Equipment

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

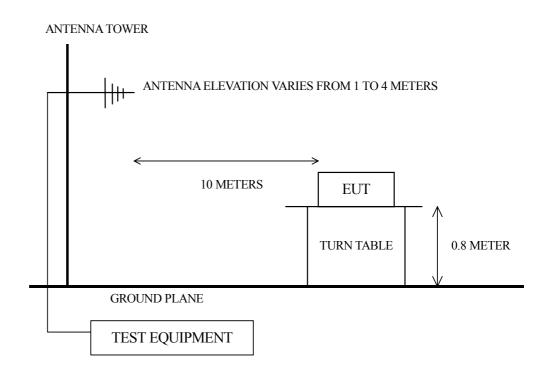
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000134	Jul.04, 04'	Jul.03, 05'
2.	Test Receiver	Rohde&Schwarz	ESVS10	845165/018	Jun.14, 04'	Jun.13, 05'
3.	Amplifier	HP	8447D	2727A05737	N/A	N/A
4.	Broadband Antenna	Chase	VBA6106A	1263	Nov.15, 04'	Nov.14, 05'
5.	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



#### 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)	$(dB\mu V/m)$
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 was 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) 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 a peak detector.

The all final readings from test receiver were measured with Quasi-Peak detector.

#### 3.7. Radiated Emission Measurement Results

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

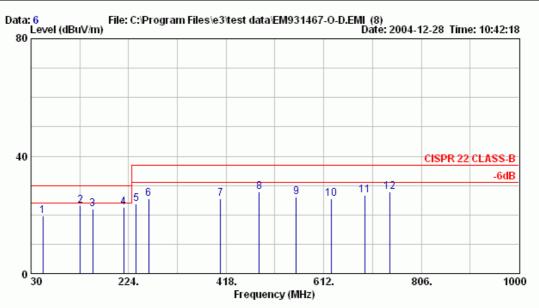
The EUT with following test modes were performed during radiated measurement and all the test results are attached next pages.

Test Date: Dec. 28, 2004 Temperature: 17°C Humidity: 68%

	Modo	de Serial Number LCD Panel		Input Port	Frequency / Resolution, Image	Reference Data No.	
	Mode			input Fort	rrequency / Resolution, image	Horizontal	Vertical
	1.				640*480/60Hz, 31kHz; H Pattern	# 6	# 5
	2.	TY0404748	LG Philips, Type No: LS26WX2	D-Sub	1280*720/60Hz, 44.7kHz; H Pattern	# 3	# 4
*	3.				1280*768/60Hz, 48kHz; H Pattern	# 2	# 1
	4.		2525 1112	D-Sub + RF	H Pattern + Image "Color Bar" (PIP Mode)	# 7	# 8

(\* mode for maximum detected emission)





Site no. : No.4 OPEN SITE Data no. : 6

Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : 17\*C/68% ESVS 10 Engineer : Alex Yen

EUT : LCD TV(26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

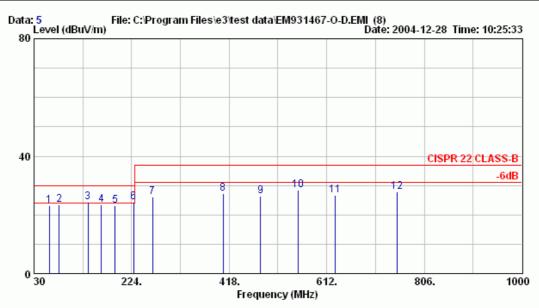
Test Mode : 640\*480/60Hz 31KHz

	-		Loss	Reading	Emission Level (dBµV/m)		Margin Remark (dB)
1	53.741	14.91	0.78	3.99	19.67	30.00	10.33
2	127.932	19.73	1.16	2.19	23.08	30.00	6.92
3	152.662	20.75	1.35	-0.21	21.89	30.00	8.11
4	214.488	21.45	1.50	-0.47	22.49	30.00	7.51
5	239.219	22.63	1.61	-0.38	23.86	37.00	13.14
6	263.949	23.85	1.72	-0.01	25.56	37.00	11.44
7	406.475	15.99	2.21	7.34	25.54	37.00	11.46
8	483.566	17.73	2.42	7.66	27.82	37.00	9.18
9	557.757	20.43	2.56	2.97	25.96	37.00	11.04
10	627.393	20.55	2.83	2.15	25.53	37.00	11.47
11	693.775	22.51	3.02	1.18	26.70	37.00	10.30
12	743.235	22.40	3.16	2.20	27.76	37.00	9.24

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.4 OPEN SITE Data no. : 5

Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : 17\*C/68% ESVS 10 Engineer : Alex Yen

EUT : LCD TV(26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

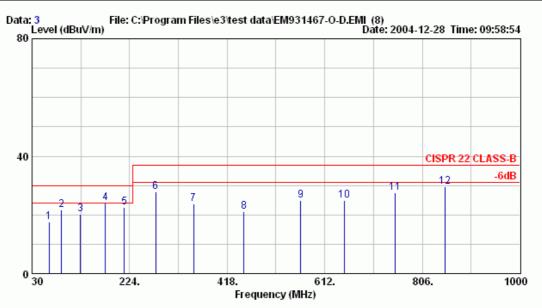
Test Mode : 640\*480/60Hz 31KHz

	Freq.	Ant. Factor (dB/m)		_	Emission Level (dBµV/m)		Margin (dB)	Remark
1	60.200	14.02	0.85	8.23	23.10	30.00	6.90	
2	80.000	14.35	0.94	8.19	23.48	30.00	6.52	
3	137.230	20.17	1.27	2.94	24.38	30.00	5.62	
4	164.280	21.06	1.36	0.95	23.37	30.00	6.63	
5	191.287	22.27	1.69	-0.90	23.07	30.00	6.93	
6	228.382	23.03	1.57	-0.24	24.36	30.00	5.64	
7	265.478	24.09	1.72	0.35	26.15	37.00	10.85	
8	405.949	16.69	2.20	8.42	27.31	37.00	9.69	
9	480.140	18.40	2.42	5.61	26.43	37.00	10.57	
10	554.370	20.07	2.55	5.87	28.49	37.00	8.51	
11	628.599	20.11	2.84	3.82	26.77	37.00	10.23	
12	752.251	23.46	3.18	1.34	27.98	37.00	9.02	

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.4 OPEN SITE Data no. : 3

Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B Env. / Ins. : 17\*C/68% ESVS 10 Engineer : Alex Yen

: LCD TV(26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

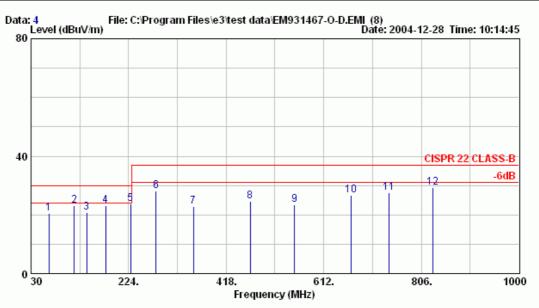
Test Mode : 1280\*720/60Hz 44.7KHz

			Ant.	Cable		Emission			
		Freq.	Factor	Loss	Reading	Level	Limits	Margin Re	mark
		(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	$(dB\mu V/m)$	(dB)	
•									
	1	63.618	13.17	0.86	3.65	17.68	30.00	12.32	
	2	88.529	15.81	1.00	4.89	21.71	30.00	8.29	
	3	126.067	19.46	1.15	-0.52	20.09	30.00	9.91	
	4	176.118	21.03	1.41	1.71	24.15	30.00	5.85	
	5	213.656	21.51	1.50	-0.49	22.51	30.00	7.49	
	6	276.220	24.28	1.73	1.89	27.90	37.00	9.10	
	7	351.296	15.01	2.10	6.69	23.80	37.00	13.20	
	8	451.398	16.87	2.36	1.81	21.03	37.00	15.97	
	9	564.012	20.64	2.58	1.65	24.87	37.00	12.13	
	10	651.601	21.64	2.90	0.37	24.91	37.00	12.09	
	11	751.702	23.11	3.18	1.38	27.67	37.00	9.33	
	12	851.804	24.69	3.37	1.51	29.56	37.00	7.44	

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

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





: No.4 OPEN SITE Site no. Data no. : 4

Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

Limit : CISPR 22 CLASS-B Env. / Ins. : 17\*C/68% ESVS 10 Engineer : Alex Yen

: LCD TV(26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

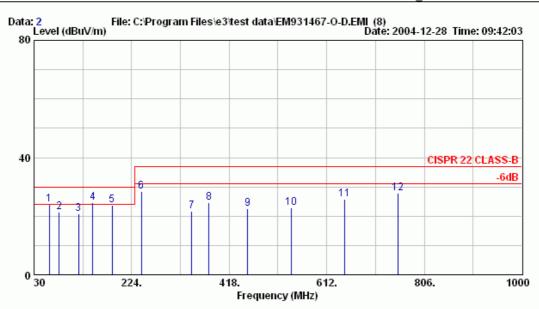
Test Mode : 1280\*720/60Hz 44.7KHz

	-		Loss	Reading	Emission Level (dBuV/m)		Margin Remark
	(MHZ)	(ub/m)	(ub) 	(чъну)	(цвµv/m) 	(ubµv/m)	(ub)
1	65.537	13.01	0.87	6.68	20.56	30.00	9.44
2	115.588	17.62	1.10	4.34	23.07	30.00	6.93
3	140.613	20.07	1.31	-0.55	20.83	30.00	9.17
4	178.151	21.35	1.45	0.44	23.23	30.00	6.77
5	228.202	23.50	1.57	-1.19	23.88	30.00	6.12
6	278.253	23.75	1.73	2.69	28.17	37.00	8.83
7	353.329	15.07	2.10	5.57	22.75	37.00	14.25
8	465.943	18.59	2.40	3.71	24.71	37.00	12.29
9	553.532	20.02	2.55	0.75	23.33	37.00	13.67
10	666.147	21.40	2.95	2.27	26.61	37.00	10.39
11	741.223	22.85	3.15	1.44	27.44	37.00	9.56
12	828.812	24.31	3.34	1.52	29.17	37.00	7.83

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.4 OPEN SITE Data no. : 2

Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : 17\*C/68% ESVS 10 Engineer : Alex Yen

EUT : LCD TV(26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

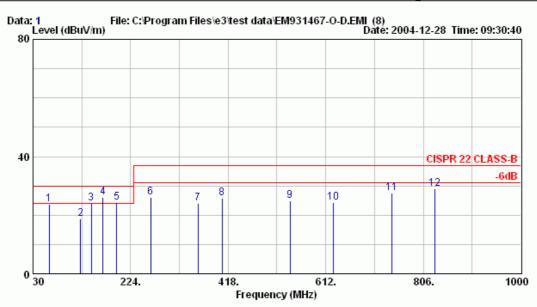
Test Mode : 1280\*768/60Hz 48KHz

		Ant.			Emission			
	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBμV)	(dBμV/m)	(dBμV/m)	(dB)	
1	60.370	13.59	0.85	9.45	 23.89	30.00	6.11	
_								
2	79.676	13.86	0.94	6.63	21.43	30.00	8.57	
3	118.162	18.91	1.10	0.82	20.83	30.00	9.17	
4	147.024	20.75	1.35	2.59	24.69	30.00	5.31	*
5	185.509	21.01	1.58	1.05	23.64	30.00	6.36	
6	243.186	22.93	1.64	3.86	28.43	37.00	8.57	
7	343.551	14.53	2.08	5.12	21.73	37.00	15.27	
8	377.884	15.16	2.12	7.22	24.49	37.00	12.51	
9	454.855	17.19	2.37	3.06	22.62	37.00	14.38	
10	541.446	18.76	2.52	1.55	22.83	37.00	14.17	
11	647.281	21.61	2.89	1.24	25.75	37.00	11.25	
12	753.115	23.15	3.19	1.42	27.76	37.00	9.24	

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 147.024MHz with corrected signal level of 24.69dB $\mu$ V/m (limit is 30.0dB $\mu$ V/m) when the antenna was at horizontal polarization and was at 4m high and the turn table was at 130°.
- 4.  $0^{\circ}was$  the table front facing the antenna. Degree is calculated from  $0^{\circ}clockwise$  facing the antenna.





Site no. : No.4 OPEN SITE Data no. : 1

Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

Limit : CISPR 22 CLASS-B

Env. / Ins. : 17\*C/68% ESVS 10 Engineer : Alex Yen

EUT : LCD TV(26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

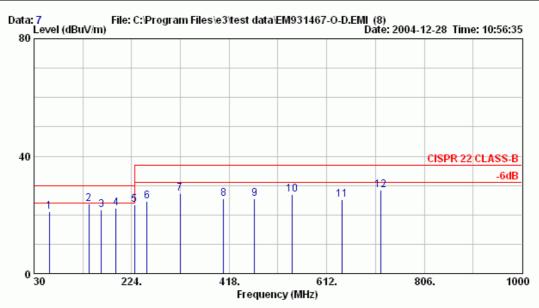
Test Mode : 1280\*768/60Hz 48KHz

	Freq.	Ant. Factor			Emission Level	Limits	Margin	Remark
	-			_	(dBμV/m)		_	
1	61.838	13.97	0.86	8.98	23.81	30.00	6.19	
2	124.201	18.68	1.14	-1.07	18.75	30.00	11.25	
3	146.138	20.34	1.35	2.28	23.97	30.00	6.03	
4	169.013	21.40	1.37	3.22	25.99	30.00	4.01	*
5	196.603	22.03	1.67	0.61	24.31	30.00	5.69	
6	264.015	24.14	1.72	0.26	26.11	37.00	10.89	
7	357.963	15.29	2.11	6.67	24.07	37.00	12.93	
8	406.264	16.69	2.21	6.98	25.88	37.00	11.12	
9	540.962	19.51	2.52	2.75	24.78	37.00	12.22	
10	627.553	20.10	2.83	1.37	24.30	37.00	12.70	
11	743.009	22.99	3.16	1.38	27.53	37.00	9.47	
12	829.601	24.31	3.34	1.44	29.09	37.00	7.91	

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 169.013MHz with corrected signal level of 25.99dB $\mu$ 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 300°.
- 4.  $0^{\circ}was$  the table front facing the antenna. Degree is calculated from  $0^{\circ}clockwise$  facing the antenna.





Site no. : No.4 OPEN SITE
Dis. / Ant. : 10m VBA6106A/UPA6109 Data no. : 7

Ant. pol. : HORIZONTAL

Limit : CISPR 22 CLASS-B Env. / Ins. : 17\*C/68% ESVS 10

Engineer : Alex Yen

: LCD TV(26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

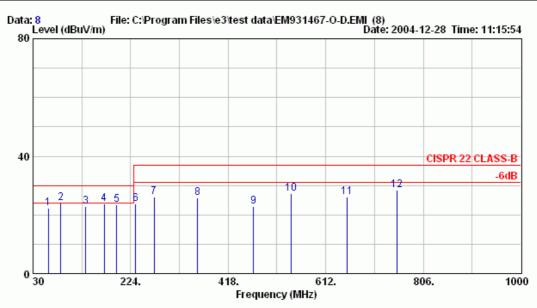
Test Mode : PIP

		Ant.	Cable		Emission		
	Freq.	Factor	Loss	Reading	Level	Limits	Margin Remark
	(MHz)	(dB/m)	(dB)	(dBμV)	(dBµV/m)	(dBμV/m)	(dB)
1	60.500	13.59	0.85	6.77	21.21	30.00	8.79
2	138.650	20.56	1.29	1.75	23.60	30.00	6.40
3	163.750	20.93	1.36	-0.53	21.77	30.00	8.23
4	192.980	21.19	1.71	-0.55	22.35	30.00	7.65
5	230.076	22.13	1.57	-0.26	23.44	37.00	13.56
6	254.806	23.15	1.69	-0.36	24.48	37.00	12.52
7	320.169	14.24	1.93	11.12	27.30	37.00	9.70
8	406.726	15.99	2.21	7.36	25.56	37.00	11.44
9	468.552	18.12	2.41	4.86	25.39	37.00	11.61
10	542.743	18.86	2.53	5.70	27.09	37.00	9.91
11	641.664	21.48	2.87	0.82	25.17	37.00	11.83
12	718.789	21.43	3.09	3.78	28.31	37.00	8.69

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

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





: No.4 OPEN SITE Site no. Data no. : 8

Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL

Limit : CISPR 22 CLASS-B Env. / Ins. : 17\*C/68% ESVS 10 Engineer : Alex Yen

: LCD TV(26") M/N:26MF605W/17

Power Rating : 120Vac/60Hz

Test Mode : PIP

		Ant.	Cable		Emission		
	Freq.	Factor	Loss	Reading	Level	Limits	Margin Remark
	(MHz)	(dB/m)	(dB)	(dBµV)	(dBµV/m)	$(dB\mu V/m)$	(dB)
1	60.547	14.02	0.85	7.35	22.22	30.00	7.78
2	85.277	14.94	0.98	8.19	24.11	30.00	5.89
3	134.802	19.76	1.23	1.82	22.81	30.00	7.19
4	171.872	21.74	1.38	0.61	23.73	30.00	6.27
5	196.628	22.03	1.67	-0.30	23.40	30.00	6.60
6	233.749	22.28	1.59	-0.22	23.65	37.00	13.35
7	270.870	24.11	1.73	0.11	25.95	37.00	11.05
8	357.464	15.29	2.11	8.46	25.86	37.00	11.14
9	468.713	18.70	2.41	1.87	22.98	37.00	14.02
10	542.955	19.57	2.53	5.07	27.17	37.00	9.83
11	654.191	20.93	2.91	2.23	26.07	37.00	10.93
12	753.163	23.48	3.19	1.68	28.35	37.00	8.65

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

Test Mode: D-Sub Input ("H" Pattern)



Test Mode: D-Sub + RF Input (PIP Mode, "H" Pattern + "Color Bar" image)



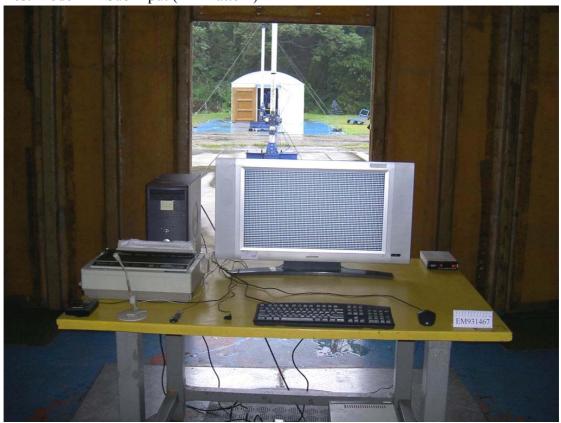
FRONT VIEW OF CONDUCTED TEST



BACK VIEW OF CONDUCTED TEST

## 5.2. Photos of Radiated Measurement at Open Area Test Site

Test Mode: D-Sub Input ("H" Pattern)



Test Mode: D-Sub + RF Input (PIP Mode, "H" Pattern + "Color Bar" image)



FRONT VIEW OF RADIATED TEST



BACK VIEW OF RADIATED TEST

Test Mode: D-Sub Input, 1280\*768/60Hz, 48kHz



SETUP WITH MAXIMUM DETECTED EMMISSION AT HORIZONTAL POLARIZATION



SETUP WITH MAXIMUM DETECTED EMMISSION AT VERTICAL POLARIZATION