APPLICATION FOR CERTIFICATION
(Class II Permissive Change)
On Behalf of
Philips Electronics Industries (Taiwan) Ltd.
Flat Panel Color Monitor
Model No.：SCENICVIEW B19-1
FCC ID: A3KM132
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 Hsien, Taiwan, R.O.C.

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File Number	:	EM930140R2
Report Number	:	EM-F930078
Date of Test	:	Apr. 23 ~ 26, 2004
Date of Report	:	Apr. 30, 2004

TABLE OF CONTENTS

TEST REPORT CERTIFICATION
(Class II Permissive Change)

Applicant	:	Philips Electronics Industries (Taiwan) Ltd.
Manufacturer	:	Philips Electronics Industries (Taiwan) Ltd.
Factory #1	:	Philips Monitors Manufacturing 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	:	A3KM132
		(A) MODEL NO. : SCENICVIEW B19-1
		(B) SERIAL NO. : TY0404146
		(C) BRAND NAME : Fujitsu Siemens Computers
		(D) POWER SUPPLY : AC 100-240V~ 60-50Hz
		(Test Voltage: AC 120V/60Hz)

Measurement Standard Used:

FCC CFR 47 Part 15 Subpart B/Dec. 2003 and CISPR 22/1997
ANSI C63.4-2001

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 : Apr. 23 ~ 26, 2004

Prepared by : Julie Hsu May 06.2004.
(Julie Hsu/Assistant Officer)

Test Engineer : Allen Wang May. 7, '04
(Allen Wang/Deputy Manager)

Approved & Authorized Signer : Leon Liu May. 10 2004
(Leon Liu/Assistant General Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Flat Panel Color Monitor
Model Number	:	SCENICVIEW B19-1
Serial Number	:	TY0404146
FCC ID.	:	A3KM132
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 Road, Chungli Industrial Park P.O. Box 123, Chungli, Taoyuan, Taiwan, R.O.C
Factory #1	:	Philips Monitors Manufacturing Hungary Free Trade Zone Limited Liability Company (PMM LLC) H-9700 Szombathely, Puskas tivadar u. 10., 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	:	LG Philips, Type No. LM190E03
Scanning Frequency	:	Horizontal: 30-80kHz Vertical: 56-75Hz
Max Resolution	:	1280*1024
D-Sub Data Cable	:	Shielded, Detachable, 1.8m Bonded two ferrite cores

Audio Cable	:	Shielded, Detachable, 1.8m Bonded a ferrite core
Data of Receipt of Sample	:	Apr. 23, 2004
Date of Test	:	Apr. 23 ~ 26, 2004

Remark：
This EUT is a modified version of original FCC ID A3KM132, the differences are as follows:
(1) to add a new model number “SCENICVIEW B19-1” for brand “Fujitsu Siemens Computers”.
(2) new cabinet style.
(3) to add a new base style.
(4) the main chassis was modified.

1.2. Tested Supporting System Details

1.2.1. PERSONAL COMPUTER

Model Name	:	FHD-D1521
Serial Number	:	YBEN147889
FCC ID	:	By DoC
Manufacturer	:	FUJITSU
Power Cord	:	Non-Shielded, Detachable, 1.8m

1.2.2. KEYBOARD

Model Number	:	KBPC P2 EU US
Serial Number	:	S26381-K240-V110
FCC ID	:	HSSO1TASTK240
Manufacturer	:	FUJITSU
Data Cable	:	Shielded, Undetachable, 2.0m

1.2.3. MOUSE

Model Number	:	M-S69
Part Number	:	HCA23608284
FCC ID	:	JNZ211443
BSMI ID	:	3892D101
Manufacturer	:	FUJITSU
Data Cable	:	Shielded, Undetachable, 1.8m Bonded a ferrite Core

1.2.4. DOT MATRIX PRINTER

Model Number	:	KX-P2135
Serial Number	:	8DMCN02139
FCC ID	:	ACJ5Z6KX-P2135
BSMI ID	:	3872A371
Manufacturer	:	Matsushita (Brand： Panasonic)
Data Cable	:	Shielded, Detachable, 1.5m
Power Cord	:	Non-Shielded, Undetachable, 1.8m

1.2.5. MODEM

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

1.2.6. 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	:	HA08562
Manufacturer	:	Panasonic
Data Cable	:	Non-Shielded, Detachable, 1.8m

1.2.8. MICRO VAULT (USB 2.0 STORAGE MEDIA)

Model Number	:	USM64U2
Serial Number	:	N/A
FCC ID	:	By DoC
BSMI ID	:	D33021
Manufacturer	:	SONY
Data Cable	:	Shielded, Detachable, 1.0m

1.2.9. EARPHONE (Link To EUT)

Model Number	:	N/A
Serial Number	:	N/A
Manufacturer	:	Panasonic
Earphone Cable	:	Non-Shielded, Undetachable, 1.1m

1.2.10. POWER CORD : Non-Shielded, Detachable, 1.8m (3 Pin)

1.3. Test Facility

Name of Firm	:	Audix Corporation Technical Division EMC Department No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei Hsien 24443, Taiwan, R.O.C.
Test Facility & Location (C4/R3/R5)	:	**No. 4 Shielded Room** No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei Hsien 24443, Taiwan, R.O.C. **No. 3 Open Test Site** No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei Hsien 24443, Taiwan, R.O.C. Feb. 09, 2003 Re-File on Federal Communication Commission Registration Number: 90996 **No. 5 Open Test Site** No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei Hsien 24443, Taiwan, R.O.C. Dec. 19, 2003 Re-File on Federal Communication Commission Registration Number: 90992
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	±2.66dB
Radiation Test (Distance: 10m)	30MHz~300MHz	+4.5dB / –4.5dB
	300MHz~1000MHz	+3.88dB / –3.84dB
Radiation Test (Distance: 3m)	30MHz~300MHz	+4.26dB / –4.22dB
	300MHz~1000MHz	+5.28dB / –4.0dB

Remark：Uncertainty = $ku_c(y)$

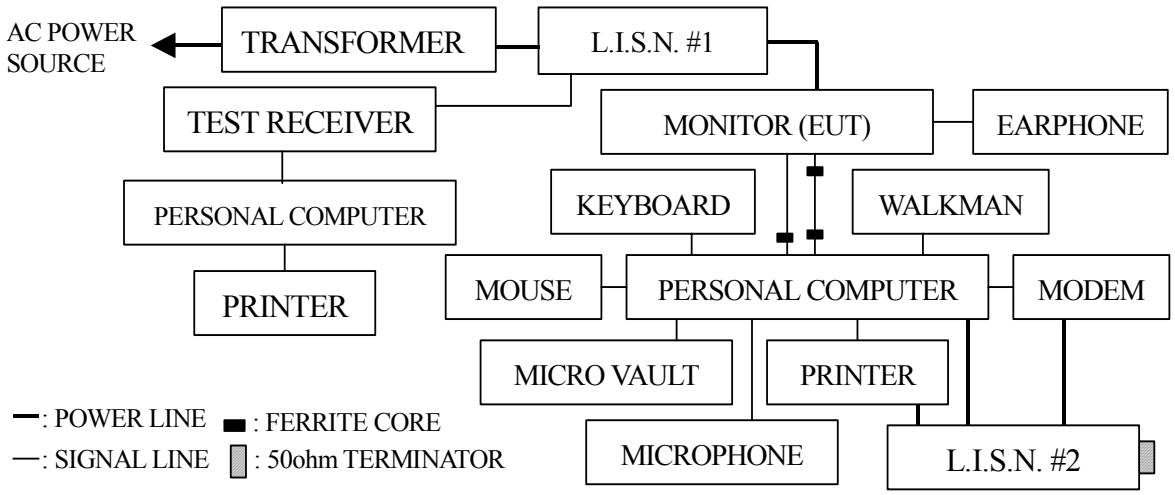
2. CONDUCTED DISTURBANCE MEASUREMENT

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	ESHS10	844591/015	Mar.04, 04’	Mar.03, 05’
2.	L.I.S.N. # 1	Kyoritsu	KNW-407	8-1430-5	Nov.20, 03’	Nov.19, 04’
3.	L.I.S.N. # 2	Kyoritsu	KNW-407	8-1430-6	Nov.20, 03’	Nov.19, 04’

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 ~ 46 dBμV
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	:	SCENICVIEW B19-1
Serial Number	:	TY0404146
FCC ID	:	A3KM132
Manufacturer	:	Philips Electronics Industries (Taiwan) Ltd.
LCD Panel	:	LG Philips, M/N LM190E03
Scanning Frequency	:	Horizontal: 30-80kHz Vertical: 56-75Hz
Max Resolution	:	1280*1024
D-Sub Data Cable	:	Shielded, Detachable, 1.8m Bonded two ferrite cores
Audio Cable	:	Shielded, Detachable, 1.8m Bonded a ferrite core

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. Personal computer running the EMI self-test program "EMC Test" 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、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 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 C63.4-2001 on conducted measurement.

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

The frequency range from 150kHz to 30MHz was checked using a peak detector.

2.7. Test Results

PASSED. Please refer to the following pages.
(All the emissions not reported below are too low against the prescribed limits.)

The EUT with following test modes and with AC 120V/60Hz supplying voltage were performed during conducted testing and all the test results are listed in next section.

Test Date： Apr. 23, 2004 Temperature：24℃ Humidity：60％

No.	Frequency / Resolution.	Reference Test Data #
1.	640*480/60Hz, 31kHz	# 17, # 18
2.	1024*768/75Hz, 60kHz	# 16, # 15
3.	1280*1024/75Hz, 80kHz	# 13, # 14

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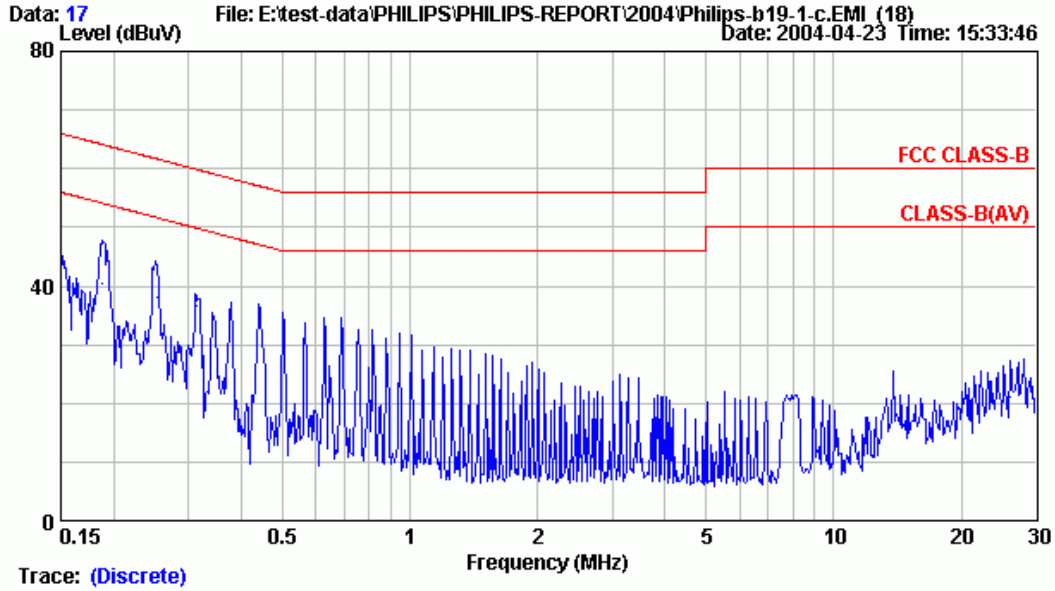

Env. / Ins. : 24*c/60%/ESHS10 Engineer: JACK LU
EUT : Flat Panel Color Monitor M/N:B19-1
Power Rating : 120Vac/60Hz
Test Mode : 640*480/60Hz 31KHzo7

	Frequency MHz	LISN Factor dB	Cable Loss dB	EMI.Level Reading dBμV	EMI.Level NEUTRAL dBμV	Limits dBμV	Margin dB	Remark
1	0.188	0.22	0.10	46.86	47.18	64.14	16.97	QP
2	0.188	0.22	0.10	40.25	40.57	54.14	13.58	AVERAGE
3	0.253	0.17	0.08	41.59	41.83	61.66	19.83	QP
4	0.253	0.17	0.08	37.89	38.13	51.66	13.53	AVERAGE
5	0.313	0.14	0.07	38.11	38.31	59.89	21.58	QP
6	0.313	0.14	0.07	36.46	36.66	49.89	13.23	AVERAGE
7	0.440	0.10	0.10	35.96	36.16	57.06	20.90	QP
8	0.440	0.10	0.10	35.49	35.69	47.06	11.37	AVERAGE @
9	0.754	0.10	0.11	31.62	31.83	56.00	24.17	QP
10	0.754	0.10	0.11	30.29	30.50	46.00	15.50	AVERAGE
11	26.147	0.42	0.30	23.90	24.62	60.00	35.38	QP
12	26.147	0.42	0.30	20.36	21.08	50.00	28.92	AVERAGE

Remarks: 1. Emission Level= Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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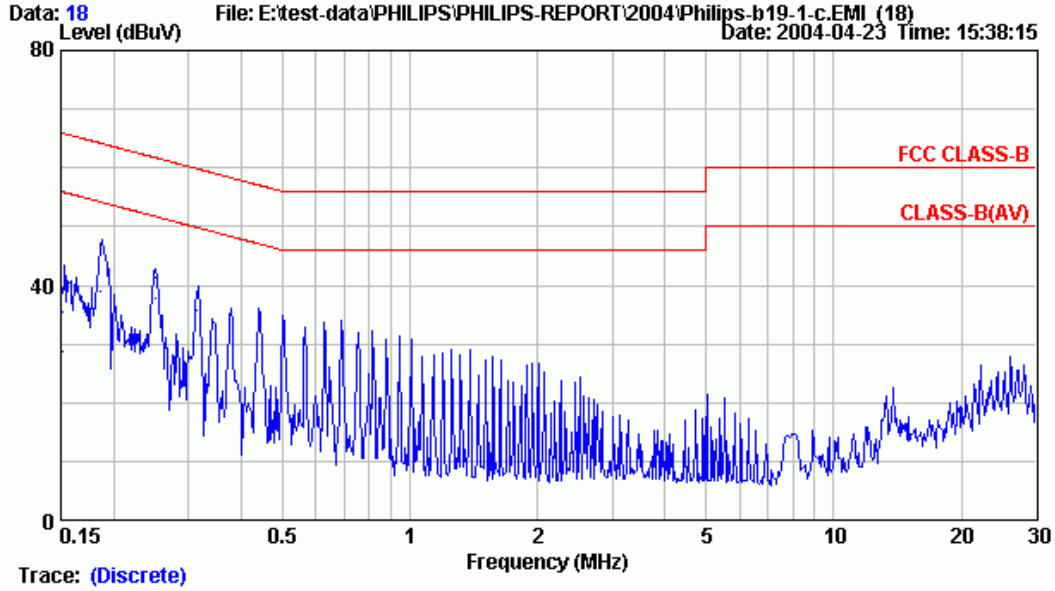

Env. / Ins. : 24*c/60%/ESHS10 Engineer: JACK LU
EUT : Flat Panel Color Monitor M/N:B19-1
Power Rating : 120Vac/60Hz
Test Mode : 640*480/60Hz 31KHzo7

	Frequency MHz	LISN Factor dB	Cable Loss dB	EMI.Level Reading dBμV	EMI.Level LINE dBμV	Limits dBμV	Margin dB	Remark
1	0.151	0.30	0.08	35.09	35.47	65.93	30.46	QP
2	0.151	0.30	0.08	28.27	28.65	55.93	27.28	AVERAGE
3	0.186	0.22	0.10	45.47	45.79	64.20	18.41	QP
4	0.186	0.22	0.10	38.62	38.94	54.20	15.26	AVERAGE
5	0.250	0.17	0.08	41.17	41.41	61.75	20.33	QP
6	0.250	0.17	0.08	37.57	37.81	51.75	13.93	AVERAGE
7	0.315	0.13	0.07	37.51	37.71	59.83	22.12	QP
8	0.315	0.13	0.07	35.68	35.88	49.83	13.95	AVERAGE
9	0.439	0.10	0.10	35.08	35.28	57.08	21.80	QP
10	0.439	0.10	0.10	34.56	34.76	47.08	12.32	AVERAGE @
11	0.943	0.10	0.10	29.24	29.44	56.00	26.56	QP
12	0.943	0.10	0.10	28.13	28.33	46.00	17.67	AVERAGE

Remarks: 1. Emission Level= Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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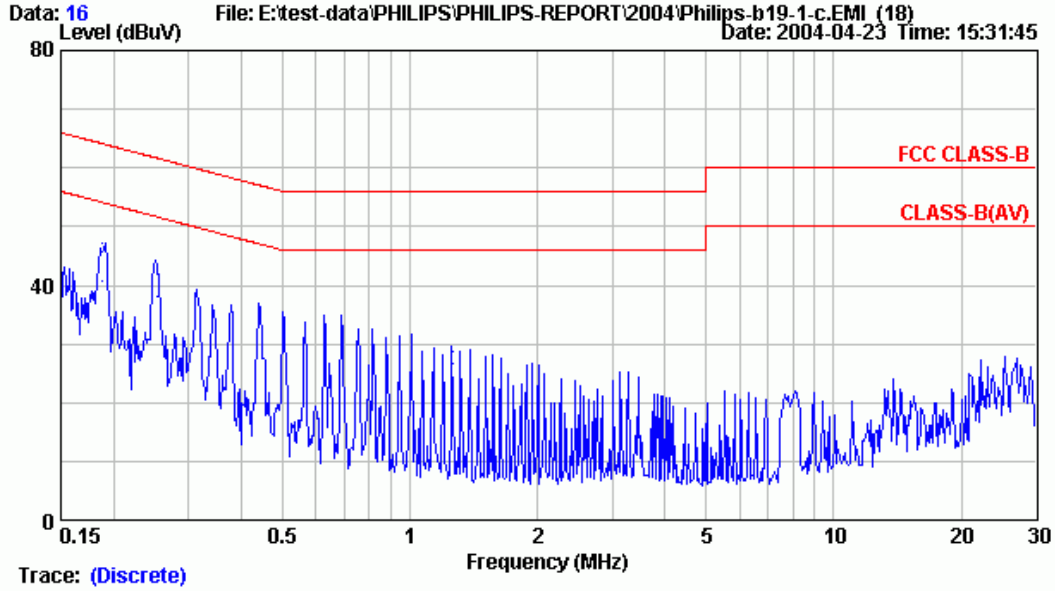

Env. / Ins. : 24*c/60%/ESHS10 Engineer: JACK LU
EUT : Flat Panel Color Monitor M/N:B19-1
Power Rating : 120Vac/60Hz
Test Mode : 1024*768/75Hz ,60KHz

	Frequency MHz	LISN Factor dB	Cable Loss dB	EMI.Level Reading dBμV	EMI.Level NEUTRAL dBμV	Limits dBμV	Margin dB	Remark
1	0.151	0.30	0.08	37.16	37.54	65.97	28.43	QP
2	0.151	0.30	0.08	34.86	35.24	55.97	20.73	AVERAGE
3	0.188	0.22	0.10	46.90	47.22	64.14	16.93	QP
4	0.188	0.22	0.10	40.27	40.59	54.14	13.56	AVERAGE
5	0.253	0.17	0.08	41.55	41.79	61.65	19.86	QP
6	0.253	0.17	0.08	37.85	38.09	51.65	13.56	AVERAGE
7	0.440	0.10	0.10	36.15	36.35	57.06	20.71	QP
8	0.440	0.10	0.10	35.63	35.83	47.06	11.23	AVERAGE @
9	0.690	0.10	0.10	33.59	33.79	56.00	22.21	QP
10	0.690	0.10	0.10	31.22	31.42	46.00	14.58	AVERAGE
11	1.260	0.10	0.10	28.53	28.73	56.00	27.27	QP
12	1.260	0.10	0.10	26.60	26.80	46.00	19.20	AVERAGE

Remarks: 1. Emission Level= Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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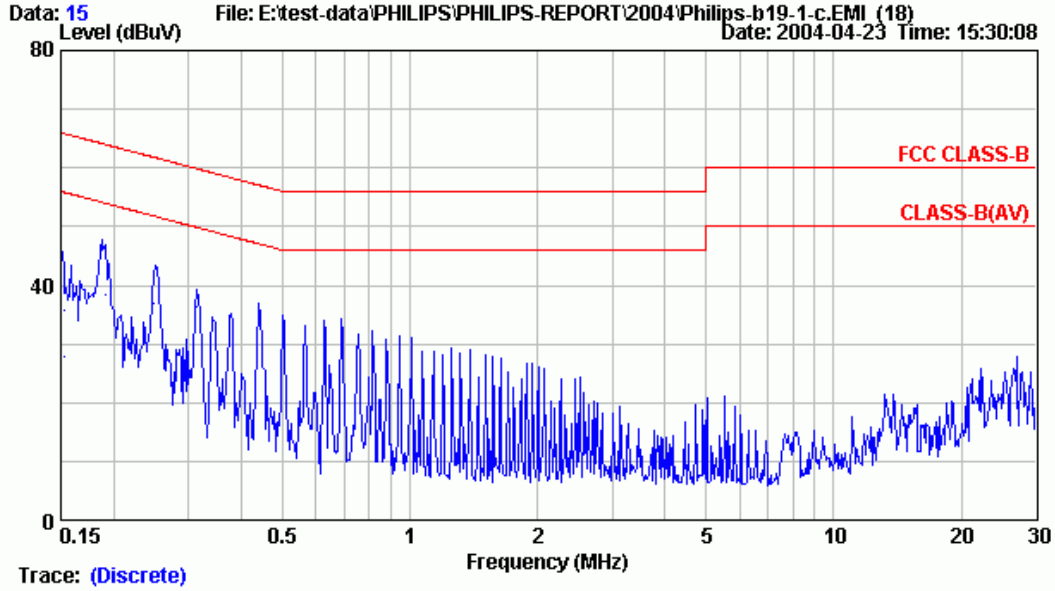

Env. / Ins. : 24*c/60%/ESHS10 Engineer: JACK LU
EUT : Flat Panel Color Monitor M/N:B19-1
Power Rating : 120Vac/60Hz
Test Mode : 1024*768/75Hz ,60KHz

	Frequency MHz	LISN Factor dB	Cable Loss dB	EMI.Level Reading dBμV	EMI.Level LINE dBμV	Limits dBμV	Margin dB	Remark
1	0.152	0.29	0.08	35.33	35.71	65.87	30.17	QP
2	0.152	0.29	0.08	27.52	27.90	55.87	27.98	AVERAGE
3	0.192	0.21	0.10	45.03	45.34	63.96	18.62	QP
4	0.192	0.21	0.10	37.99	38.30	53.96	15.66	AVERAGE
5	0.249	0.17	0.08	40.40	40.65	61.78	21.14	QP
6	0.249	0.17	0.08	36.60	36.85	51.78	14.94	AVERAGE
7	0.315	0.13	0.07	38.05	38.25	59.84	21.59	QP
8	0.315	0.13	0.07	36.02	36.22	49.84	13.62	AVERAGE
9	0.441	0.10	0.10	35.20	35.40	57.04	21.64	QP
10	0.441	0.10	0.10	34.54	34.74	47.04	12.30	AVERAGE @
11	0.690	0.10	0.10	32.79	32.99	56.00	23.01	QP
12	0.690	0.10	0.10	29.97	30.17	46.00	15.83	AVERAGE

Remarks: 1. Emission Level= Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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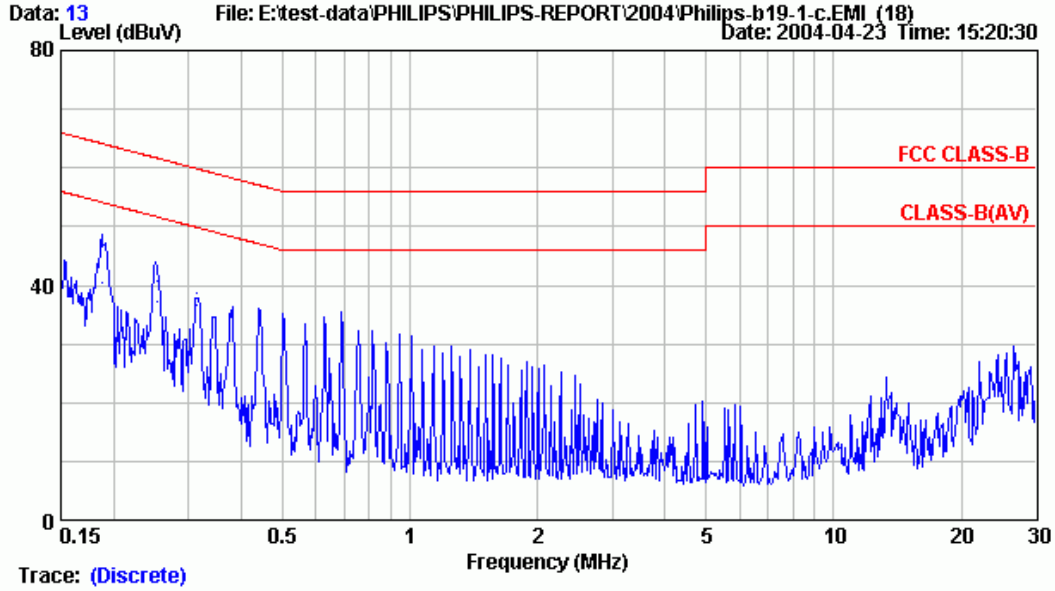

Env. / Ins. : 24*c/60%/ESHS10 Engineer: JACK LU
EUT : Flat Panel Color Monitor M/N:B19-1
Power Rating : 120Vac/60Hz
Test Mode : 1280*1024/75Hz, 80KHz

	Frequency MHz	LISN Factor dB	Cable Loss dB	EMI.Level Reading dBμV	EMI.Level NEUTRAL dBμV	Limits dBμV	Margin dB	Remark
1	0.188	0.22	0.10	47.18	47.50	64.14	16.64	QP
2	0.188	0.22	0.10	40.02	40.34	54.14	13.80	AVERAGE
3	0.254	0.17	0.08	40.61	40.85	61.63	20.78	QP
4	0.254	0.17	0.08	36.85	37.09	51.63	14.54	AVERAGE
5	0.314	0.14	0.07	38.41	38.61	59.86	21.25	QP
6	0.314	0.14	0.07	36.29	36.49	49.86	13.37	AVERAGE
7	0.442	0.10	0.10	35.26	35.46	57.03	21.57	QP
8	0.442	0.10	0.10	34.60	34.80	47.03	12.23	AVERAGE @
9	0.693	0.10	0.10	33.23	33.43	56.00	22.57	QP
10	0.693	0.10	0.10	31.44	31.64	46.00	14.36	AVERAGE
11	0.944	0.10	0.10	29.93	30.13	56.00	25.87	QP
12	0.944	0.10	0.10	28.57	28.77	46.00	17.23	AVERAGE

Remarks: 1. Emission Level= Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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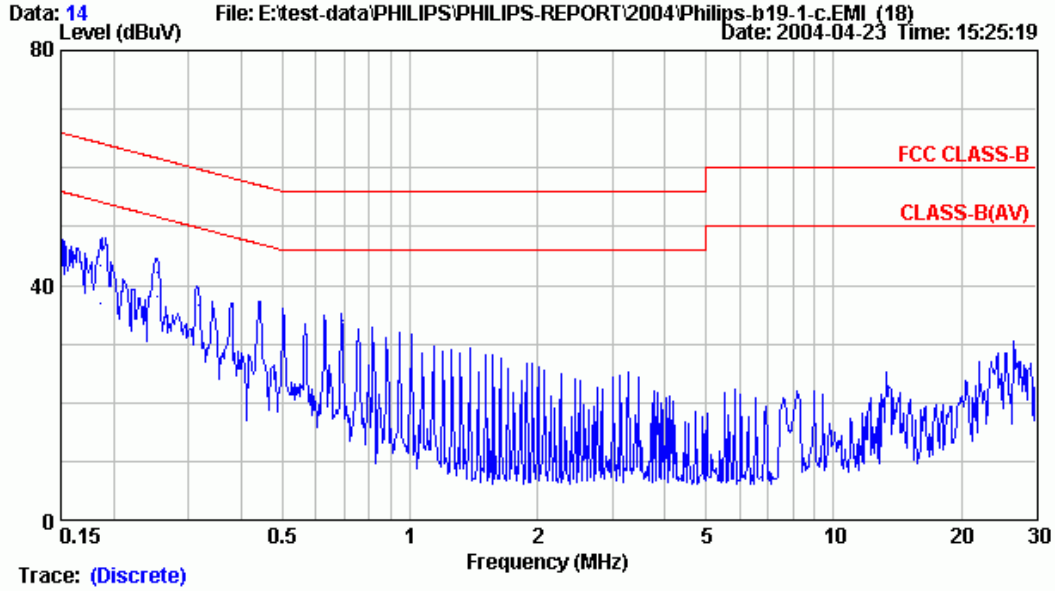


Env. / Ins. : 24*c/60%/ESHS10 Engineer: JACK LU
EUT : Flat Panel Color Monitor M/N:B19-1
Power Rating : 120Vac/60Hz
Test Mode : 1280*1024/75Hz, 80KHz

	Frequency MHz	LISN Factor dB	Cable Loss dB	EMI.Level Reading dBμV	EMI.Level LINE dBμV	Limits dBμV	Margin dB	Remark
1	0.150	0.30	0.08	36.92	37.30	66.00	28.70	QP
2	0.150	0.30	0.08	34.96	35.34	56.00	20.66	AVERAGE
3	0.185	0.23	0.09	43.17	43.49	64.25	20.76	QP
4	0.185	0.23	0.09	36.65	36.97	54.25	17.28	AVERAGE
5	0.253	0.17	0.08	41.81	42.05	61.65	19.60	QP
6	0.253	0.17	0.08	37.99	38.23	51.65	13.42	AVERAGE
7	0.316	0.13	0.07	38.29	38.49	59.82	21.33	QP
8	0.316	0.13	0.07	36.42	36.62	49.82	13.20	AVERAGE
9	0.442	0.10	0.10	35.48	35.68	57.02	21.34	QP
10	0.442	0.10	0.10	34.95	35.15	47.02	11.87	AVERAGE @
11	0.692	0.10	0.10	33.89	34.09	56.00	21.91	QP
12	0.692	0.10	0.10	32.02	32.22	46.00	13.78	AVERAGE

Remarks: 1. Emission Level= Factor + Cable Loss + Reading.
2. If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

3. RADIATED DISTURBANCE MEASUREMENT

3.1. Test Equipment

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

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

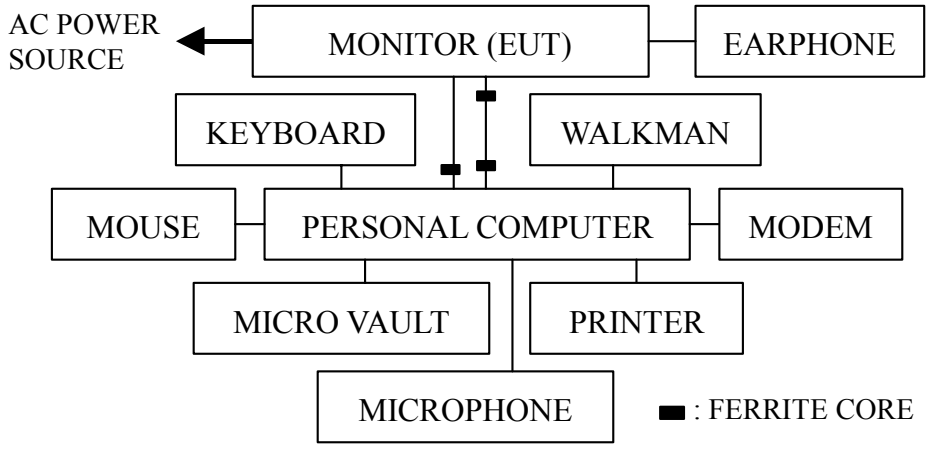
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8590L	3710A01838	N/A	N/A
2.	Test Receiver	Rohde & Schwarz	ESVS10	845165/002	Mar.10, 04’	Mar.09, 05’
3.	Amplifier	HP	8447D	2727A06154	N/A	N/A
4.	Broadband Antenna	Chase	VBA6106A	1231	Mar.17, 04’	Mar.16, 05’
5.	Log Periodic Antenna	Chase	UPA6109	1027	Mar.17, 04’	Mar.16, 05’

3.1.2. Above 1GHz Frequency (At No. 5 Open Test Site)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00272	Jun.05, 03’	Jun.04, 04’
2.	Test Receiver	Rohde & Schwarz	ESVS10	849231/017	Feb.06, 04’	Feb.05, 05’
3.	Amplifier	HP	8447D	2944A07185	N/A	N/A
4.	Horn Antenna	EMCO	3115	9609-4927	Jul. 04, 03’	Jul. 03, 04’

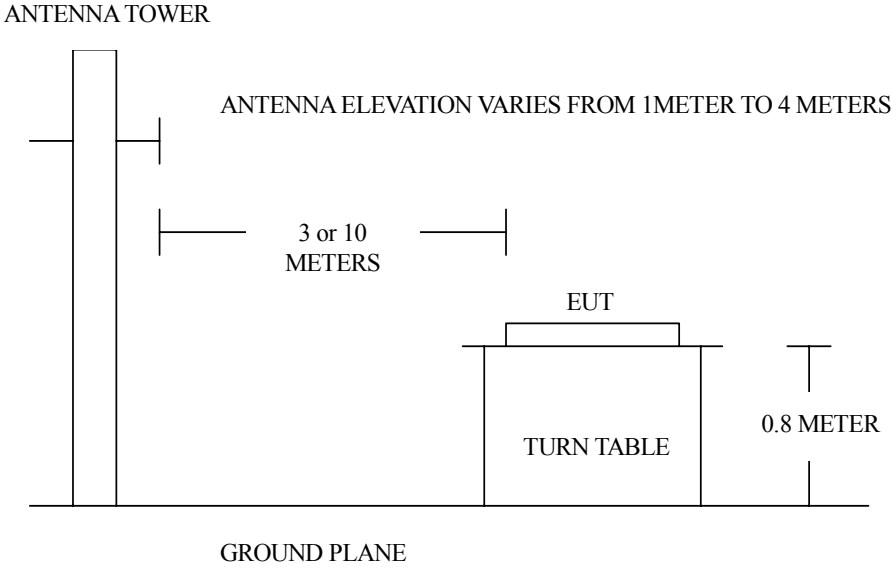
3.2. Block Diagram of Test Setup

3.2.1. Block Diagram of connection between EUT and simulators



3.2.2. Open Field Test Site Setup Diagram

(10m for 30-1000MHz, 3m for above 1GHz)



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 (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dBμV/m)
30 ~ 230	10 (3)	30 (40)
230 ~ 1000	10 (3)	37 (47)
1000 ~ 2000	3	74.0 (Peak)
1000 ~ 2000	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 (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 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 or 3 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 C63.4-2001 on radiated measurement.

The bandwidth of the R&S Test Receiver ESVS10 was set at 120kHz and resolution bandwidth of spectrum analyzer 8593EM was set at 1MHz.

The frequency range from 30MHz to 2GHz was checked.

For 30~1000MHz frequency range, the EUT with following test modes and with AC 120V/60Hz supplying voltage were performed during radiated testing and all the test results are listed in section 3.7.1. **(※ mode for maximum detected emission)**

	No.	Frequency / Resolution.
	1.	640*480/60Hz, 31kHz
	2.	1024*768/75Hz, 60kHz
※	3.	1280*768/75Hz, 80kHz

For above 1GHz frequency range, the worst test mode **[Mode 3]** was selected testing (at No. 5 Open Field Test Site), the test results are listed in section 3.7.2.

3.7. Radiated Emission Measurement Results

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

3.7.1. 30~1000MHz frequency and 10 meters distance measurement.

Date of Test： Apr. 24, 2004 Temperature： 26℃

EUT： Flat Panel Color Monitor Humidity： 66%

Test Mode： 640*480/60Hz, 31kHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Limits dBμV/m	Margin dB
85.532	14.78	1.67	6.20	22.65	30.00	7.35
108.032	18.28	2.00	2.55	22.83	30.00	7.17
121.113	18.72	2.20	2.71	23.63	30.00	6.37
153.044	20.19	2.40	1.20	23.79	30.00	6.21
175.556	20.76	2.60	0.33	23.69	30.00	6.31
198.055	20.70	2.80	0.66	24.16	30.00	5.84
229.536	21.72	3.00	0.61	25.33	30.00	4.67
310.583	13.78	3.60	9.69	27.07	37.00	9.93
378.105	15.43	4.20	7.72	27.35	37.00	9.65
445.621	16.74	4.40	6.39	27.53	37.00	9.47
513.136	18.85	4.80	4.21	27.86	37.00	9.14
580.652	20.34	5.20	3.23	28.77	37.00	8.23
648.169	20.54	5.60	2.56	28.70	37.00	8.30
715.683	20.98	6.00	1.79	28.77	37.00	8.23
783.203	22.56	6.20	1.80	30.56	37.00	6.44
850.712	23.99	6.60	0.68	31.27	37.00	5.73
918.236	23.22	7.00	0.50	30.72	37.00	6.28

Remark： 1. All reading are Quasi-Peak values.
2. Emission Level= Antenna Factor + Cable Loss + Meter Reading.
3. Measurement at No. 3 open field test site with test voltage of 120V/60Hz.

Date of Test： Apr. 24, 2004 Temperature： 26℃

EUT： Flat Panel Color Monitor Humidity： 66%

Test Mode： 640*480/60Hz, 31kHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Limits dBμV/m	Margin dB
40.518	19.10	1.20	2.91	23.21	30.00	6.79
85.531	15.64	1.67	5.65	22.96	30.00	7.04
108.809	16.86	2.00	6.94	25.80	30.00	4.20
153.043	20.87	2.40	1.21	24.48	30.00	5.52
175.552	20.38	2.60	1.39	24.37	30.00	5.63
198.059	21.72	2.80	0.69	25.21	30.00	4.79
229.752	20.24	3.00	0.83	24.07	30.00	5.93
243.072	20.88	3.20	5.00	29.08	37.00	7.92
310.579	14.09	3.60	9.69	27.38	37.00	9.62
378.093	16.02	4.20	7.63	27.85	37.00	9.15
445.612	17.12	4.40	6.39	27.91	37.00	9.09
580.642	20.15	5.20	2.98	28.33	37.00	8.67
648.163	20.47	5.60	2.53	28.60	37.00	8.40
783.193	22.41	6.20	1.82	30.43	37.00	6.57
850.712	23.99	6.60	0.98	31.57	37.00	5.43
918.231	23.16	7.00	0.81	30.97	37.00	6.03

Remark： 1. All reading are Quasi-Peak values.
2. Emission Level= Antenna Factor + Cable Loss + Meter Reading.
3. Measurement at No. 3 open field test site with test voltage of 120V/60Hz.

Date of Test： Apr. 24, 2004 Temperature： 26℃

EUT： Flat Panel Color Monitor Humidity： 66%

Test Mode： 1024*768/75Hz, 60kHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Limits dBμV/m	Margin dB
40.518	17.70	1.20	3.40	22.30	30.00	7.70
63.024	11.95	1.60	8.35	21.90	30.00	8.10
85.530	14.79	1.68	6.53	23.00	30.00	7.00
108.036	18.30	2.00	2.08	22.38	30.00	7.62
121.118	18.73	2.20	2.63	23.56	30.00	6.44
130.541	19.48	2.20	1.54	23.22	30.00	6.78
153.047	20.28	2.40	1.13	23.81	30.00	6.19
175.553	20.74	2.60	0.02	23.36	30.00	6.64
198.059	20.70	2.80	0.19	23.69	30.00	6.31
220.564	21.57	3.00	0.05	24.62	30.00	5.38
229.533	21.72	3.00	0.34	25.06	30.00	4.94
243.070	22.06	3.20	4.64	29.90	37.00	7.10
265.576	22.74	3.40	3.20	29.34	37.00	7.66
288.082	24.03	3.50	2.06	29.59	37.00	7.41
310.593	13.78	3.60	10.03	27.41	37.00	9.59
378.108	15.63	4.10	8.64	28.37	37.00	8.63
445.628	16.61	4.40	6.45	27.46	37.00	9.54
513.143	18.65	4.80	4.20	27.65	37.00	9.35
580.663	20.16	5.20	3.03	28.39	37.00	8.61
648.178	20.44	5.60	2.61	28.65	37.00	8.35
715.698	20.90	6.00	2.44	29.34	37.00	7.66
783.213	22.52	6.20	1.53	30.25	37.00	6.75
850.733	24.00	6.60	1.06	31.66	37.00	5.34
918.248	23.18	7.00	0.69	30.87	37.00	6.13

Remark： 1. All reading are Quasi-Peak values.
2. Emission Level= Antenna Factor + Cable Loss + Meter Reading.
3. Measurement at No. 3 open field test site with test voltage of 120V/60Hz.

Date of Test： Apr. 24, 2004 Temperature： 26℃

EUT： Flat Panel Color Monitor Humidity： 66%

Test Mode： 1024*768/75Hz, 60kHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Limits dBμV/m	Margin dB
40.518	19.04	1.20	3.22	23.46	30.00	6.54
63.024	13.05	1.60	7.57	22.22	30.00	7.78
85.530	15.66	1.68	5.68	23.02	30.00	6.98
108.927	16.87	2.00	8.28	27.15	30.00	2.85
121.117	19.33	2.20	3.56	25.09	30.00	4.91
130.541	18.61	2.20	2.60	23.41	30.00	6.59
153.047	20.83	2.40	0.87	24.10	30.00	5.90
175.553	20.40	2.60	1.38	24.38	30.00	5.62
198.059	21.72	2.80	0.03	24.55	30.00	5.45
229.752	20.25	3.00	0.67	23.92	30.00	6.08
243.070	20.93	3.20	5.02	29.15	37.00	7.85
265.576	22.46	3.40	2.92	28.78	37.00	8.22
288.082	24.38	3.50	2.13	30.01	37.00	6.99
310.579	14.06	3.60	9.85	27.51	37.00	9.49
378.097	16.03	4.10	7.68	27.81	37.00	9.19
445.612	17.09	4.40	6.37	27.86	37.00	9.14
513.130	19.08	4.80	4.14	28.02	37.00	8.98
580.650	20.17	5.20	3.07	28.44	37.00	8.56
648.165	20.39	5.60	2.61	28.60	37.00	8.40
715.695	21.10	6.00	2.72	29.82	37.00	7.18
783.211	22.22	6.20	1.81	30.23	37.00	6.77
850.731	23.60	6.60	1.10	31.30	37.00	5.70
918.250	23.22	7.00	0.57	30.79	37.00	6.21

Remark： 1. All reading are Quasi-Peak values.
2. Emission Level= Antenna Factor + Cable Loss + Meter Reading.
3. Measurement at No. 3 open field test site with test voltage of 120V/60Hz.

Date of Test： Apr. 24, 2004 Temperature： 26℃

EUT： Flat Panel Color Monitor Humidity： 66%

Test Mode： 1280*1024/75Hz, 80kHz

	Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Limits dBμV/m	Margin dB
	40.522	17.70	1.20	3.43	22.33	30.00	7.67
	63.022	11.95	1.60	8.08	21.63	30.00	8.37
	85.530	14.79	1.68	6.20	22.67	30.00	7.33
	108.035	18.30	2.00	2.54	22.84	30.00	7.16
	121.112	18.73	2.20	2.75	23.68	30.00	6.32
	130.543	19.48	2.20	1.26	22.94	30.00	7.06
	153.048	20.28	2.40	1.11	23.79	30.00	6.21
	175.556	20.74	2.60	0.32	23.66	30.00	6.34
	198.059	20.70	2.80	0.65	24.15	30.00	5.85
	220.566	21.57	3.00	0.21	24.78	30.00	5.22
*	**229.532**	**21.72**	**3.00**	**0.57**	**25.29**	**30.00**	**4.71**
	243.072	22.06	3.20	4.38	29.64	37.00	7.36
	265.576	22.74	3.40	3.06	29.20	37.00	7.80
	288.082	24.03	3.50	2.08	29.61	37.00	7.39
	310.587	13.78	3.60	9.91	27.29	37.00	9.71
	378.105	15.63	4.10	7.76	27.49	37.00	9.51
	445.620	16.61	4.40	6.47	27.48	37.00	9.52
	513.135	18.65	4.80	4.16	27.61	37.00	9.39
	580.650	20.16	5.20	3.11	28.47	37.00	8.53
	648.166	20.44	5.60	2.49	28.53	37.00	8.47
	715.682	20.90	6.00	1.78	28.68	37.00	8.32
	783.200	22.52	6.20	1.83	30.55	37.00	6.45
	850.717	24.00	6.60	0.72	31.32	37.00	5.68
	918.235	23.18	7.00	0.48	30.66	37.00	6.34

Remark： 1. All reading are Quasi-Peak values.
2. Emission Level= Antenna Factor + Cable Loss + Meter Reading.
3. The worst emission is detected at 229.532MHz with corrected signal level of 25.29dBμV/m (limit is 30dBμV/m) when the antenna is at Horizontal polarization and is at 4m high and the turn table is at 45°.
4. 0°was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
5. Measurement at No. 3 open field test site with test voltage of 120V/60Hz.

Date of Test： Apr. 24, 2004 Temperature： 26℃

EUT： Flat Panel Color Monitor Humidity： 66%

Test Mode： 1280*1024/75Hz, 80kHz

	Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Limits dBμV/m	Margin dB
	40.518	19.04	1.20	2.90	23.14	30.00	6.86
	63.024	13.05	1.60	7.81	22.46	30.00	7.54
	85.530	15.66	1.68	5.70	23.04	30.00	6.96
	108.808	16.86	2.00	6.95	25.81	30.00	4.19
*	**121.115**	**19.33**	**2.20**	**5.77**	**27.30**	**30.00**	**2.70**
	126.969	18.81	2.20	3.05	24.06	30.00	5.94
	153.047	20.83	2.40	1.13	24.36	30.00	5.64
	175.553	20.40	2.60	1.30	24.30	30.00	5.70
	198.059	21.72	2.80	0.45	24.97	30.00	5.03
	229.751	20.25	3.00	0.85	24.10	30.00	5.90
	243.070	20.93	3.20	4.98	29.11	37.00	7.89
	265.576	22.46	3.40	3.10	28.96	37.00	8.04
	288.082	24.38	3.50	2.20	30.08	37.00	6.92
	310.578	14.06	3.60	9.85	27.51	37.00	9.49
	378.094	16.03	4.10	7.62	27.75	37.00	9.25
	445.609	17.09	4.40	6.47	27.96	37.00	9.04
	513.126	19.08	4.80	4.18	28.06	37.00	8.94
	580.645	20.17	5.20	3.09	28.46	37.00	8.54
	648.161	20.39	5.60	2.57	28.56	37.00	8.44
	715.682	21.10	6.00	1.78	28.88	37.00	8.12
	783.198	22.22	6.20	1.87	30.29	37.00	6.71
	850.718	23.60	6.60	1.04	31.24	37.00	5.76
	918.235	23.22	7.00	0.75	30.97	37.00	6.03

Remark： 1. All reading are Quasi-Peak values.
2. Emission Level= Antenna Factor + Cable Loss + Meter Reading.
3. The worst emission is detected at 121.115MHz with corrected signal level of 27.30dBμV/m (limit is 30dBμV/m) when the antenna is at vertical polarization and is at 1m high and the turn table is at 330°.
4. 0°was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
5. Measurement at No. 3 open field test site with test voltage of 120V/60Hz.

3.7.2. Above1GHz frequency and 3 meters distance measurement.

Date of Test： Apr. 26, 2004 Temperature： 23℃

EUT： Flat Panel Color Monitor Humidity： 47%

Test Mode： 1280*1024/75Hz, 80kHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level (Peak) Horizontal dBμV/m	Limits dBμV/m	Margin dB
1125.00	24.91	4.29	26.83	56.02	74.00	17.98
1214.00	25.18	4.43	21.09	50.69	74.00	23.31
1304.00	25.65	4.68	19.59	49.92	74.00	24.08
1460.00	25.82	4.77	26.23	56.81	74.00	17.19
1567.00	26.04	5.01	22.77	53.82	74.00	20.18
1710.00	26.31	5.38	21.83	53.53	74.00	20.47
1892.00	26.62	5.79	22.60	55.01	74.00	18.99

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level (Peak) Vertical dBμV/m	Limits dBμV/m	Margin dB
1125.00	24.91	4.29	26.43	55.62	74.00	18.38
1214.00	25.18	4.43	25.09	54.69	74.00	19.31
1304.00	25.65	4.68	19.69	50.02	74.00	23.98
1460.00	25.82	4.77	23.63	54.21	74.00	19.79
1567.00	26.04	5.01	24.47	55.52	74.00	18.48
1710.00	26.31	5.38	21.13	52.83	74.00	21.17
1892.00	26.62	5.79	21.30	53.71	74.00	20.29

Remark： 1. All reading are Peak values.
2. Emission Level= Antenna Factor + Cable Loss + Meter Reading.
3. Measurement at No. 5 open field test site with test voltage of 120V/60Hz.

Date of Test： Apr. 26, 2004 Temperature： 23℃

EUT： Flat Panel Color Monitor Humidity： 47%

Test Mode： 1280*1024/75Hz, 80kHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level (Average) Horizontal dBμV/m	Limits dBμV/m	Margin dB
1125.00	24.91	4.29	13.93	43.12	54.00	10.88
1214.00	25.18	4.43	8.09	37.69	54.00	16.31
1304.00	25.65	4.68	4.39	34.72	54.00	19.28
1460.00	25.82	4.77	7.73	38.31	54.00	15.69
1567.00	26.04	5.01	12.97	44.02	54.00	9.98
1710.00	26.31	5.38	4.83	36.53	54.00	17.47
1892.00	26.62	5.79	12.20	44.61	54.00	9.39

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level (Average) Vertical dBμV/m	Limits dBμV/m	Margin dB
1125.00	24.91	4.29	14.63	43.82	54.00	10.18
1214.00	25.18	4.43	8.19	37.79	54.00	16.21
1304.00	25.65	4.68	10.39	40.72	54.00	13.28
1460.00	25.82	4.77	7.33	37.91	54.00	16.09
1567.00	26.04	5.01	13.07	44.12	54.00	9.88
1710.00	26.31	5.38	3.83	35.53	54.00	18.47
1892.00	26.62	5.79	15.00	47.41	54.00	6.59

Remark： 1. All reading are Average values.
2. Emission Level= Antenna Factor + Cable Loss + Meter Reading.
3. Measurement at No. 5 open field test site with test voltage of 120V/60Hz.

4. DEVIATION TO TEST SPECIFICATIONS

【NONE】