

APPLICATION FOR CERTIFICATION  
On Behalf of  
Philips Electronics Industries (Taiwan) Ltd.  
Flat Panel Color Monitor  
Model No. : 230WP7  
FCC ID : A3KM147  
Brand : PHILIPS

Prepared for : Philips Electronics Industries (Taiwan) Ltd.  
5, Tze Chiang 1 Road, Chungli Industrial Park  
Chungli, Taoyuan, 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 : EM941190  
Report Number : EM-F940250  
Date of Test : Oct. 21 ~ 25, 2005  
Date of Report : Oct. 28, 2005

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# TEST REPORT CERTIFICATION

Applicant : Philips Electronics Industries (Taiwan) Ltd.  
Factory #1 : Philips Consumer Elec. Co. of Suzhou Ltd.  
Factory #2 : TPV Electronics (Fujian) Co., Ltd  
EUT Description : Flat Panel Color Monitor  
FCC ID : A3KM147  
(A) MODEL NO. : 230WP7  
(B) SERIAL NO. : TY0405310  
(C) BRAND : PHILIPS  
(D) POWER SUPPLY : AC 100-240V, 60-50Hz  
(E) TEST VOLTAGE : AC 120V/60Hz

Measurement Procedure Used:

FCC CFR 47 Part 15 Subpart B/Sep. 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 section §15.107 (a) and §15.109 (a)(g) Class B limits both conducted and radiated emission.

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

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX Corporation.

Date of Test : Oct. 21 ~ 25, 2005

Prepared by : May Chen Nov. 02, 2005  
(May Chen/Assistant)

Test Engineer : Alex Deng Nov. 02, 2005  
(Alex Deng/Section Manager)

Approved & Authorized Signer : Leon Liu Nov. 2 2005  
(Leon Liu/Senior Manager)

# 1. GENERAL INFORMATION

## 1.1. Description of Device

Description	:	Flat Panel Color Monitor
Model Number	:	230WP7
Serial Number	:	TY0405310
FCC ID.	:	A3KM147
Brand	:	PHILIPS
Applicant	:	Philips Electronics Industries (Taiwan) Ltd. 5, Tze Chiang 1 Rd, Chungli Ind. Park, Chungli, Taoyuan Hsien, Taiwan, R.O.C.
Factory #1	:	Philips Consumer Elec. Co. of Suzhou Ltd. No. 161, Zhujiang Road, New District, Suzhou 215011, PRC.
Factory #2	:	TPV Electronics (Fujian) Co., Ltd Shangzheng, Yuanhong, Road, Fuqing, Fujian, China.
Scanning Frequency	:	Horizontal: 30-93kHz Vertical: 56-85Hz
Max Resolution	:	1600*1200/75kHz (D-Sub) 1920*1200/60kHz (DVI)
LCD Panel	:	LPL, M/N LM230WU3-SLB1
D-Sub Cable	:	Shielded, Detachable, 1.8m Bonded two ferrite cores
DVI Cable	:	Shielded, Detachable, 1.8m Bonded two ferrite cores
USB Cable	:	Shielded, Detachable, 1.5m Bonded two ferrite cores
Power Cord	:	Non-Shielded, Detachable, 1.8m (3 pin)
Data of Receipt of Sample	:	Oct. 19, 2005
Date of Test	:	Oct. 21 ~ 25, 2005

## 1.2. Tested Supporting System Details

### 1.2.1. PC SYSTEM

Model Number	:	D510
Serial Number	:	N/A
FCC ID	:	By DoC
BSMI ID	:	3912Q007
Manufacturer	:	COMPAQ
VGA Card	:	ATI, M/N: Radeon 9800 Pro S/N: 180419018492, FCC by DoC
Power Cord	:	Non-Shielded, Detachable, 1.8m

### 1.2.2. KEYBOARD

Model Number	:	KB-0133
Serial Number	:	N/A
FCC ID	:	By DoC
BSMI ID	:	R31310
Manufacturer	:	COMPAQ
Data Cable	:	Shielded, Undetachable, 1.8m

### 1.2.3. PS2 MOUSE

Model Number	:	M-S69
Serial Number	:	N/A
FCC ID	:	JNZ211443
BSMI ID	:	3892D101
Manufacturer	:	COMPAQ
Data Cable	:	Shielded, Undetachable, 1.8m

### 1.2.4. PRINTER

Model Number	:	KX-P2135
Serial Number	:	8DMCNC02144
FCC ID	:	ACJ5Z6KX-P2135
BSMI ID	:	3872A371
Manufacturer	:	Matsushita (Brand: Panasonic)
Data Cable	:	Shielded, Detachable, 1.5m
Power Cord	:	Non-Shielded, Detachable, 1.8m

### 1.2.5. MODEM

Model Number	:	DM-1414
Serial Number	:	980034387
FCC ID	:	IFAXDM1414
Manufacturer	:	Aceex
Data Cable	:	Shielded, Detachable, 1.2m
Power Adapter	:	Amigo, Model 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. USB2.0 EXTERNAL HARD DISK DRIVE #1 - LINK TO EUT

Model Number : F12-U  
 Serial Number : A0100214-4B90002  
 FCC ID : By DoC  
 BSMI ID : 3902C223  
 Manufacturer : TeraSys  
 Data Cable : Shielded, Detachable, 1.0m

## 1.2.8. USB2.0 EXTERNAL HARD DISK DRIVE #2 - LINK TO EUT

Model Number : F12-U  
 Serial Number : A0100214-4CG0015  
 FCC ID : By DoC  
 BSMI ID : 3902C223  
 Manufacturer : TeraSys  
 Data Cable : Shielded, Detachable, 1.0m

## 1.2.9. USB2.0 EXTERNAL HARD DISK DRIVE #3 - LINK TO EUT

Model Number : F12-U  
 Serial Number : A0100214-4CG0019  
 FCC ID : By DoC  
 BSMI ID : 3902C223  
 Manufacturer : TeraSys  
 Data Cable : Shielded, Detachable, 1.0m

## 1.2.10.USB2.0 EXTERNAL HARD DISK DRIVE #4 - LINK TO EUT

Model Number : F12-U  
 Serial Number : A0100214-4CG0011  
 FCC ID : By DoC  
 BSMI ID : 3902C223  
 Manufacturer : TeraSys  
 Data Cable : Shielded, Detachable, 1.0m

## 1.2.11. WALKMAN

Model Number : RQ-P35LT-K  
 Serial Number : HA08623  
 Manufacturer : Panasonic  
 Data Cable : Non-Shielded, Detachable, 1.8m

## 1.2.12. SPEAKER

Model Number : J-008  
 Serial Number : J80547836  
 Manufacturer : (J-S) JAZZ HIPSTER  
 Data Cable : Non-Shielded, Undetachable, 1m

### 1.3. Description of 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 Site : **No. 5 Shielded Room &  
 Simple-Anechoic Chamber**  
 (C5/Simple-AC/R3) No. 67-4, Tin-Fu Tsun, Lin-Kou,  
 Taipei County, Taiwan, R.O.C.

**No. 3 Open Area Test Site**  
 No. 67-4, Tin-Fu Tsun, Lin-Kou,  
 Taipei County, Taiwan, R.O.C.

Feb. 10, 2003 Re-File on  
 Federal Communication Commission  
 Registration Number: 90996

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 (Distance: 3m)	30MHz~300MHz	±2.91dB
	300MHz~1000MHz	±2.94dB
Radiation Test (Distance: 10m)	30MHz~300MHz	±2.99dB
	300MHz~1000MHz	±2.73dB

Remark : Uncertainty =  $k_{uc}(y)$

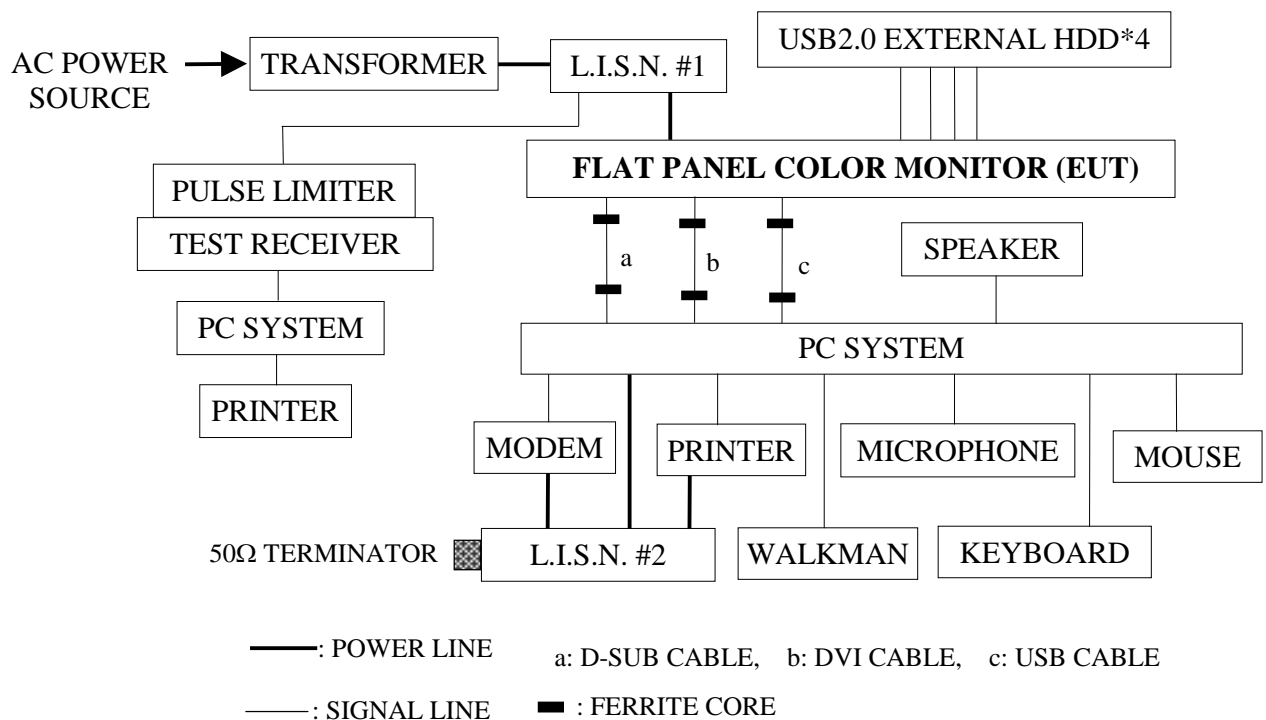
## 2. CONDUCTED EMISSION MEASUREMENT

### 2.1. Test Equipment

The following test equipment was used during the powerline conducted emission measurement: (No. 5 Shielded Room)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R & S	ESCS 30	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	ESH3Z2	100040	Apr.09, 05'	Apr.08, 06'

### 2.2. Block Diagram of Test Setup



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

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

Remark1.: 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 equipment were installed on RF LINE VOLTAGE measurement to meet the Commission requirement and operating in a manner which tended to maximize its emission characteristics in a normal application..

### 2.4.1. Flat Panel Color Monitor (EUT)

Model Number	:	230WP7
Serial No.	:	TY0405310
Brand	:	PHILIPS
Factory	:	Philips Consumer Elec. Co. of Suzhou Ltd.
Scanning Frequency	:	Horizontal: 30-93kHz Vertical: 56-85Hz
Max Resolution	:	1600*1200/75kHz (D-Sub) 1920*1200/60kHz (DVI)
LCD Panel	:	LPL, M/N LM230WU3-SLB1
D-Sub Cable	:	Shielded, Detachable, 1.8m Bonded two ferrite cores
DVI Cable	:	Shielded, Detachable, 1.8m Bonded two ferrite cores
USB Cable	:	Shielded, Detachable, 1.5m Bonded two ferrite cores
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 equipment.

2.5.3. The PC system read data from disk.

2.5.4. The PC system running the self-test program "Testpat Ver 1.80" by windows XP and sent "H" character to Flat Panel Color Monitor (EUT) through VGA card, the screen displayed and filled with "H" pattern by EUT's resolution via D-Sub or DVI input.

2.5.5. The PC system read data from external HDDs and then wrote data into external HDDs via USB inputs.

2.5.6. Repeat the above procedures from 2.5.4 to 2.5.5.

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 simulators of the interface cables were manipulated according to FCC ANSI C63.4-2003 during conducted measurement.

The bandwidth of the R&S Test Receiver ESCS 30 was set at 9kHz.

The frequency range from 0.15MHz to 30MHz was pre-scanned with a peak detector.

The all final readings from Test Receiver were measured with the 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. Test Results

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

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

EUT : Flat Panel Color Monitor    Model No.: 230WP7

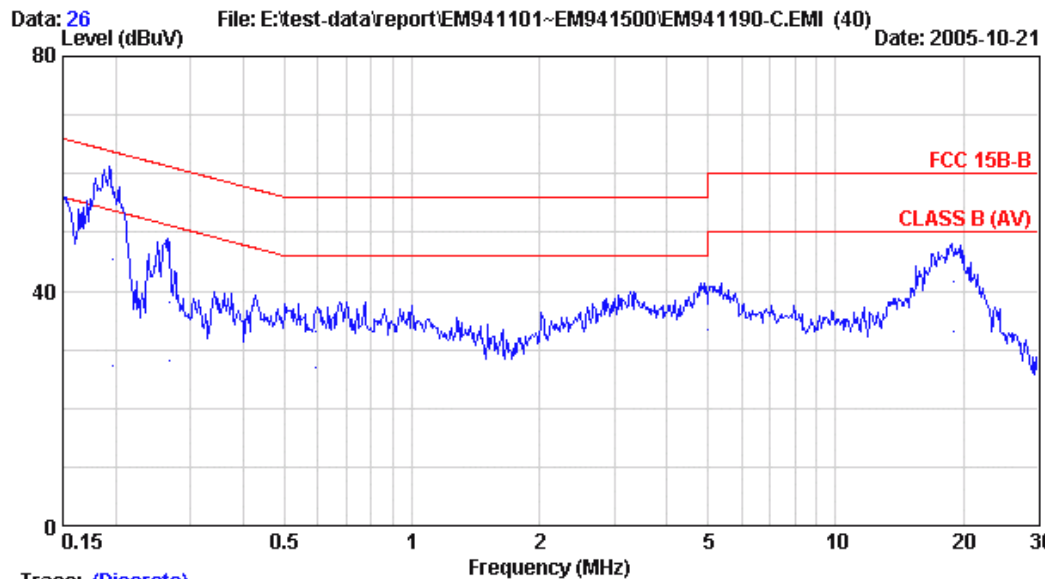
Test Date: Oct. 21, 2005    Temperature: 24    Humidity: 63%

The details of test modes are as follows:

Mode	Input Port	Resolution/ Frequency	Panel Position	Reference Test Data No.	
				Neutral	Line
1.	D-Sub	640*480/60Hz, 31kHz	0°/Horizontal	# 26	# 25
2.		1024*768/85Hz, 69kHz	0°/Horizontal	# 23	# 24
3.		1280*1024/75Hz, 80kHz	0°/Horizontal	# 27	# 28
4.		1600*1200/75Hz, 94kHz	0°/Horizontal	# 22	# 21
5.	DVI	640*480/60Hz, 31kHz	0°/Horizontal	# 35	# 36
6.		1024*768/85Hz, 69kHz	0°/Horizontal	# 38	# 37
7.		1280*1024/75Hz, 80kHz	0°/Horizontal	# 34	# 33
8.		1600*1200/60Hz, 76kHz	0°/Horizontal	# 31	# 32
9.		1920*1200/60Hz, 76kHz	0°/Horizontal	# 30	# 29
10.		768*1024/60Hz	90°/Vertical	# 39	# 40



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 Email: ttemc@ttemc.com.tw



Trace: (Discrete)

Site : NO.5 Shielded room Data : 26

Condition : KMW-407 (8-1539-2) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

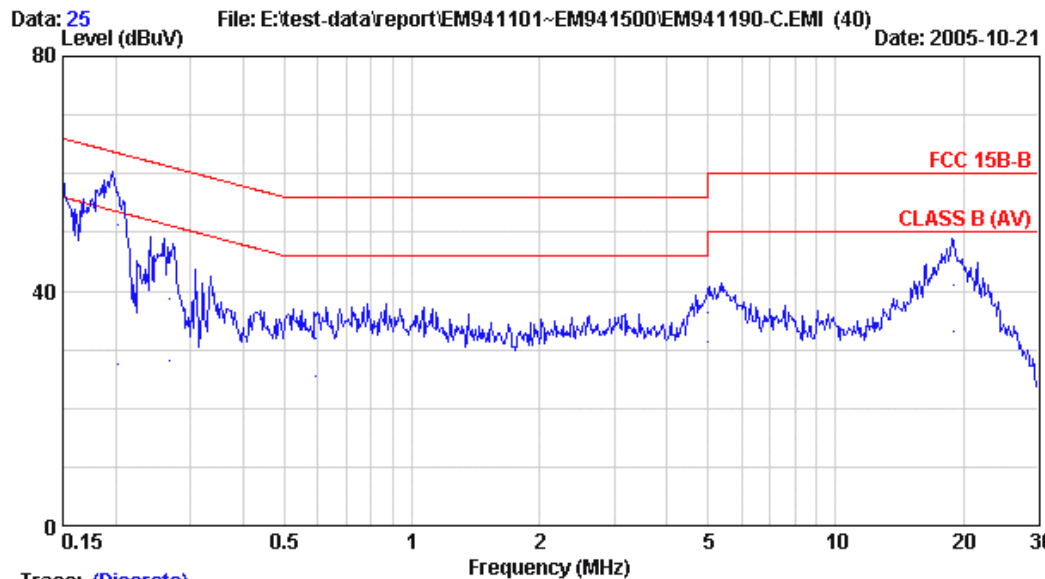
Test Mode : 640\*480/60Hz 31KHz (D-SUB)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.20	0.20	51.26	51.66	65.99	14.33	QP
2	0.150	0.20	0.20	38.89	39.29	55.99	16.70	AVERAGE
3	0.198	0.10	0.20	45.15	45.45	63.71	18.26	QP
4	0.198	0.10	0.20	26.98	27.28	53.71	26.43	AVERAGE
5	0.267	0.10	0.20	37.86	38.16	61.20	23.04	QP
6	0.267	0.10	0.20	27.96	28.26	51.20	22.94	AVERAGE
7	0.590	0.10	0.20	32.83	33.13	56.00	22.87	QP
8	0.590	0.10	0.20	26.52	26.82	46.00	19.18	AVERAGE
9	4.996	0.12	0.60	37.12	37.84	56.00	18.16	QP
10	4.996	0.12	0.60	32.55	33.27	46.00	12.73	AVERAGE
11	18.961	0.36	0.70	40.57	41.63	60.00	18.37	QP
12	18.961	0.36	0.70	32.01	33.07	50.00	16.93	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

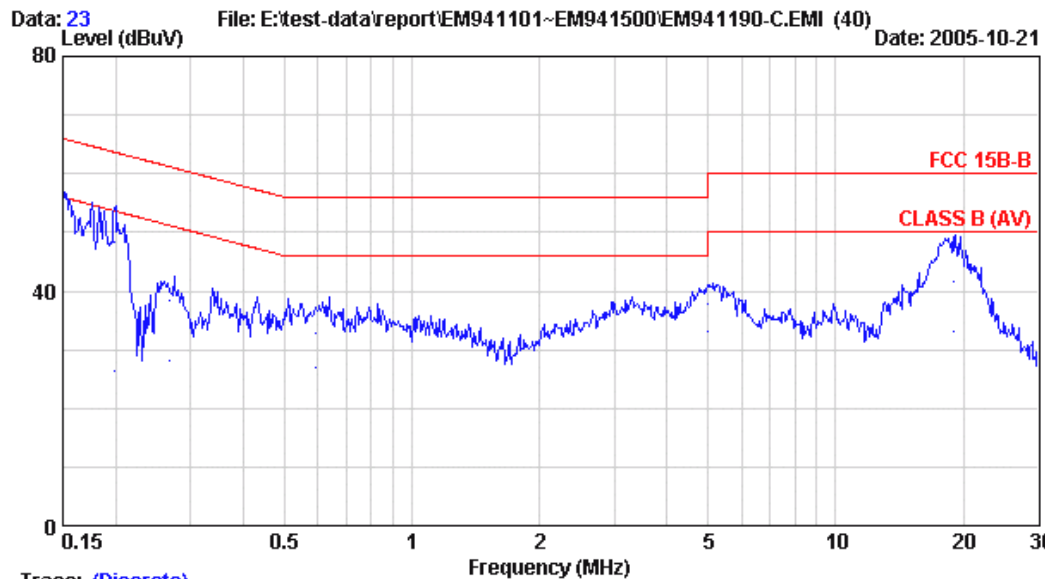
Site : NO.5 Shielded room Data : 25  
 Condition : KMW-407 (8-1539-2) Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 640\*480/60Hz 31KHz (D-SUB)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.151	0.30	0.20	51.14	51.64	65.97	14.33	QP
2	0.151	0.30	0.20	42.92	43.42	55.97	12.55	AVERAGE
3	0.202	0.10	0.20	51.08	51.38	63.52	12.14	QP
4	0.202	0.10	0.20	27.13	27.43	53.52	26.09	AVERAGE
5	0.267	0.10	0.20	38.30	38.60	61.20	22.60	QP
6	0.267	0.10	0.20	27.75	28.05	51.20	23.15	AVERAGE
7	0.590	0.10	0.20	31.64	31.94	56.00	24.06	QP
8	0.590	0.10	0.20	25.25	25.55	46.00	20.45	AVERAGE
9	4.998	0.12	0.60	35.58	36.30	56.00	19.70	QP
10	4.998	0.12	0.60	30.66	31.38	46.00	14.62	AVERAGE
11	18.959	0.28	0.70	40.08	41.06	60.00	18.94	QP
12	18.959	0.28	0.70	32.19	33.17	50.00	16.83	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 23

Condition : KMW-407 (8-1539-2) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

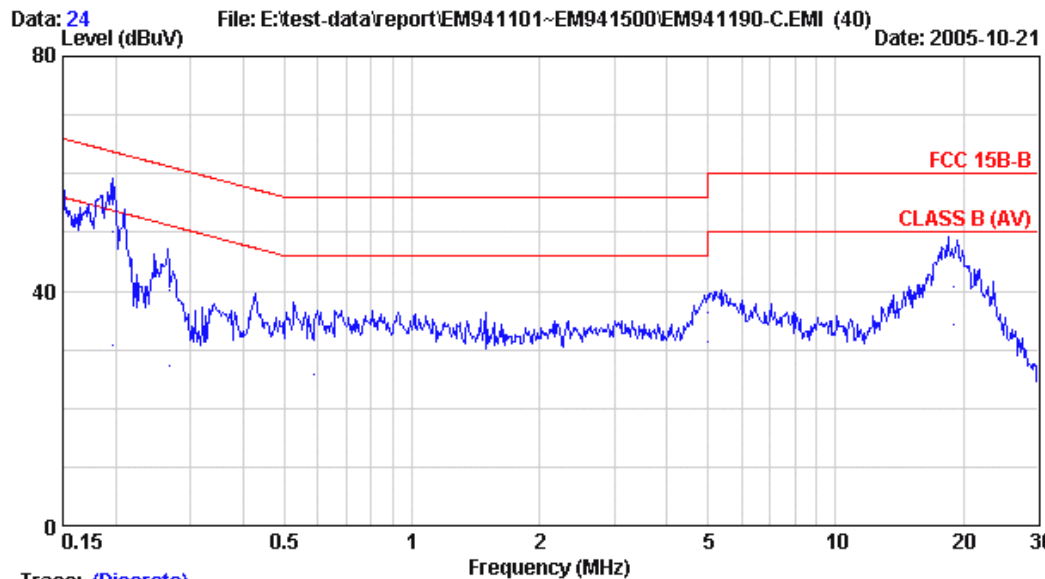
Test Mode : 1024\*768/85Hz 69KHz (D-SUB)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.20	0.20	49.62	50.02	65.99	15.97	QP
2	0.150	0.20	0.20	38.40	38.80	55.99	17.19	AVERAGE
3	0.199	0.10	0.20	48.00	48.30	63.64	15.34	QP
4	0.199	0.10	0.20	26.22	26.52	53.64	27.12	AVERAGE
5	0.268	0.10	0.20	38.16	38.46	61.17	22.71	QP
6	0.268	0.10	0.20	27.82	28.12	51.17	23.05	AVERAGE
7	0.590	0.10	0.20	32.55	32.85	56.00	23.15	QP
8	0.590	0.10	0.20	26.80	27.10	46.00	18.90	AVERAGE
9	4.996	0.12	0.60	37.12	37.84	56.00	18.16	QP
10	4.996	0.12	0.60	32.47	33.19	46.00	12.81	AVERAGE
11	18.956	0.36	0.70	40.42	41.48	60.00	18.52	QP
12	18.956	0.36	0.70	32.19	33.25	50.00	16.75	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

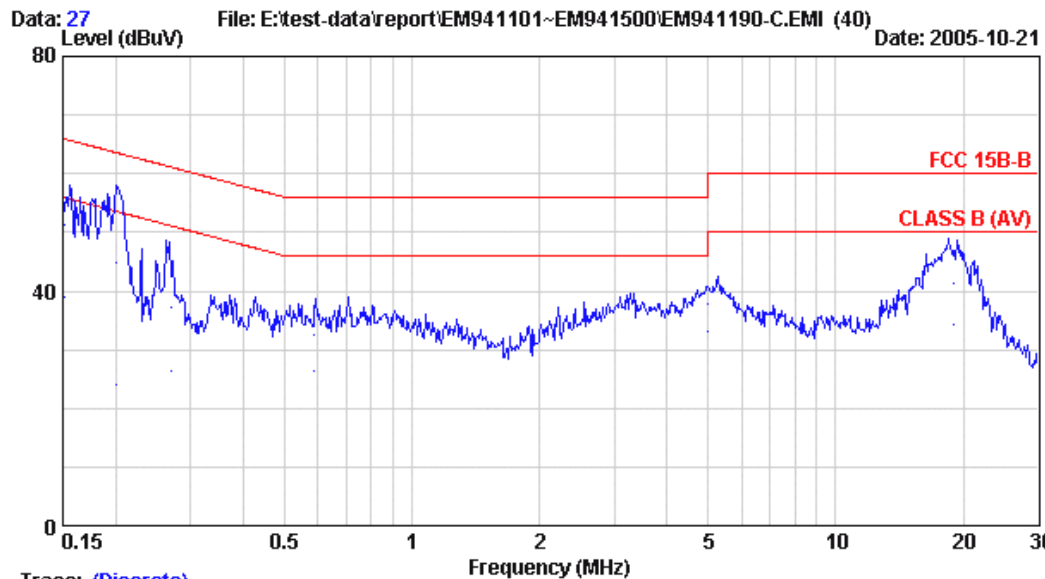
Site : NO.5 Shielded room Data : 24  
 Condition : KMW-407 (8-1539-2) Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 1024\*768/85Hz 69KHz (D-SUB)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.151	0.30	0.20	50.88	51.38	65.97	14.59	QP
2	0.151	0.30	0.20	42.57	43.07	55.97	12.90	AVERAGE
3	0.198	0.10	0.20	49.88	50.18	63.71	13.53	QP
4	0.198	0.10	0.20	30.39	30.69	53.71	23.02	AVERAGE
5	0.268	0.10	0.20	39.93	40.23	61.16	20.93	QP
6	0.268	0.10	0.20	27.06	27.36	51.16	23.80	AVERAGE
7	0.587	0.10	0.20	31.28	31.58	56.00	24.42	QP
8	0.587	0.10	0.20	25.47	25.77	46.00	20.23	AVERAGE
9	4.998	0.12	0.60	35.68	36.40	56.00	19.60	QP
10	4.998	0.12	0.60	30.56	31.28	46.00	14.72	AVERAGE
11	18.959	0.28	0.70	39.87	40.85	60.00	19.15	QP
12	18.959	0.28	0.70	33.40	34.38	50.00	15.62	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 27

Condition : KMW-407 (8-1539-2) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

Test Mode : 1280\*1024/75Hz 80KHz (D-SUB)

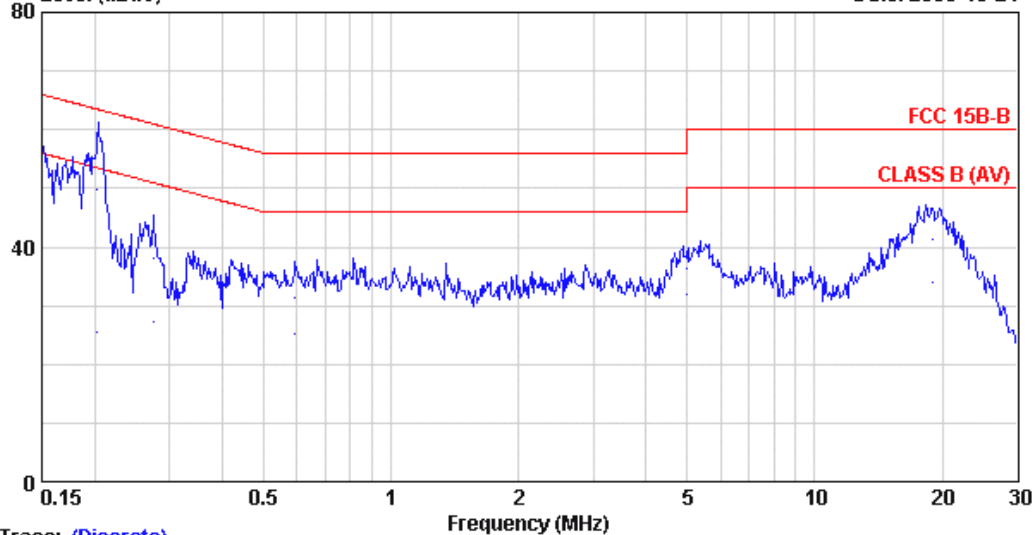
	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.151	0.20	0.20	50.84	51.24	65.95	14.71	QP
2	0.151	0.20	0.20	38.65	39.05	55.95	16.90	AVERAGE
3	0.200	0.10	0.20	44.66	44.96	63.63	18.67	QP
4	0.200	0.10	0.20	23.81	24.11	53.63	29.52	AVERAGE
5	0.269	0.10	0.20	36.81	37.11	61.14	24.03	QP
6	0.269	0.10	0.20	26.22	26.52	51.14	24.62	AVERAGE
7	0.589	0.10	0.20	32.19	32.49	56.00	23.51	QP
8	0.589	0.10	0.20	26.11	26.41	46.00	19.59	AVERAGE
9	4.997	0.12	0.60	37.16	37.88	56.00	18.12	QP
10	4.997	0.12	0.60	32.39	33.11	46.00	12.89	AVERAGE
11	18.955	0.36	0.70	40.40	41.46	60.00	18.54	QP
12	18.955	0.36	0.70	33.33	34.39	50.00	15.61	AVERAGE

Remarks: 1. Emission Level = LISN 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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Data: 28 File: E:\test-data\report\EM941101~EM941500\EM941190-C.EMI (40) Date: 2005-10-21  
 Level (dBuV)



Trace: (Discrete)  
 Site : NO.5 Shielded room Data : 28  
 Condition : KMW-407 (8-1539-2) Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 1280\*1024/75Hz 80KHz (D-SUB)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.30	0.20	51.34	51.84	65.99	14.15	QP
2	0.150	0.30	0.20	41.77	42.27	55.99	13.72	AVERAGE
3	0.202	0.10	0.20	49.58	49.88	63.54	13.66	QP
4	0.202	0.10	0.20	25.14	25.44	53.54	28.10	AVERAGE
5	0.276	0.10	0.20	37.68	37.98	60.95	22.97	QP
6	0.276	0.10	0.20	26.98	27.28	50.95	23.67	AVERAGE
7	0.591	0.10	0.20	31.00	31.30	56.00	24.70	QP
8	0.591	0.10	0.20	24.97	25.27	46.00	20.73	AVERAGE
9	4.992	0.12	0.60	35.55	36.27	56.00	19.73	QP
10	4.992	0.12	0.60	31.27	31.99	46.00	14.01	AVERAGE
11	18.959	0.28	0.70	40.26	41.24	60.00	18.76	QP
12	18.959	0.28	0.70	32.96	33.94	50.00	16.06	AVERAGE

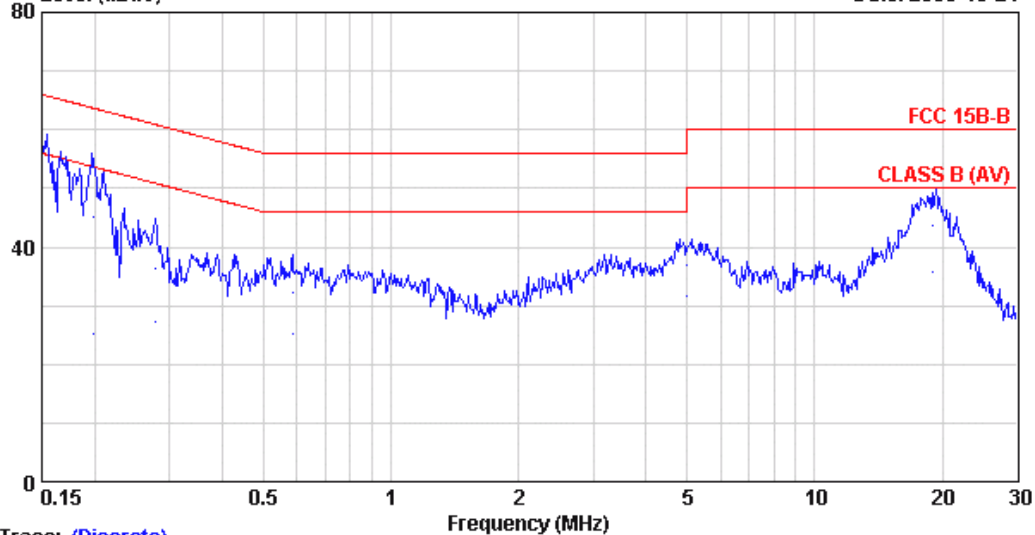
Remarks: 1. Emission Level = LISN Factor + Cable Loss + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.





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Data: 22 File: E:\test-data\report\EM941101~EM941500\EM941190-C.EMI (40) Date: 2005-10-21  
 Level (dBuV)



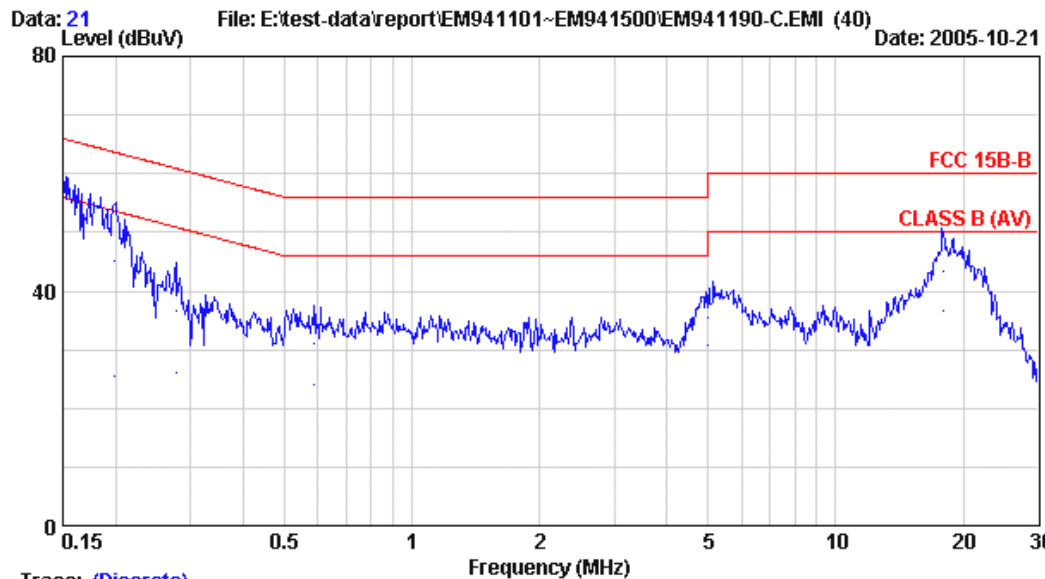
Trace: (Discrete)  
 Site : NO.5 Shielded room Data : 22  
 Condition : KMW-407 (8-1539-2) Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 1600\*1200/75Hz 94KHz (D-SUB)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.20	0.20	50.46	50.86	65.99	15.13	QP
2	0.150	0.20	0.20	35.92	36.32	55.99	19.67	AVERAGE
3	0.198	0.10	0.20	44.87	45.17	63.69	18.52	QP
4	0.198	0.10	0.20	24.76	25.06	53.69	28.63	AVERAGE
5	0.279	0.10	0.20	36.12	36.42	60.84	24.42	QP
6	0.279	0.10	0.20	26.82	27.12	50.84	23.72	AVERAGE
7	0.587	0.10	0.20	31.80	32.10	56.00	23.90	QP
8	0.587	0.10	0.20	24.92	25.22	46.00	20.78	AVERAGE
9	4.999	0.12	0.60	36.12	36.84	56.00	19.16	QP
10	4.999	0.12	0.60	31.00	31.72	46.00	14.28	AVERAGE
11	18.937	0.36	0.70	42.62	43.68	60.00	16.32	QP
12	18.937	0.36	0.70	34.58	35.64	50.00	14.36	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 21

Condition : KMW-407 (8-1539-2) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

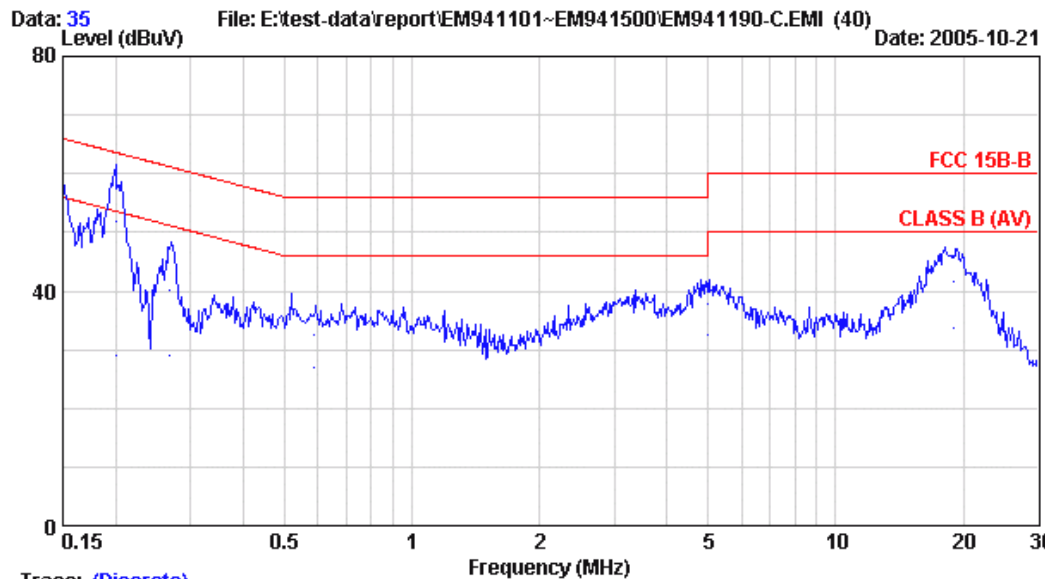
Test Mode : 1600\*1200/75Hz 94KHz (D-SUB)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.30	0.20	53.37	53.87	65.99	12.12	QP
2	0.150	0.30	0.20	41.77	42.27	55.99	13.72	AVERAGE
3	0.199	0.10	0.20	44.85	45.15	63.65	18.50	QP
4	0.199	0.10	0.20	25.24	25.54	53.65	28.11	AVERAGE
5	0.277	0.10	0.20	36.23	36.53	60.90	24.37	QP
6	0.277	0.10	0.20	25.68	25.98	50.90	24.92	AVERAGE
7	0.589	0.10	0.20	30.70	31.00	56.00	25.00	QP
8	0.589	0.10	0.20	23.67	23.97	46.00	22.03	AVERAGE
9	4.998	0.12	0.60	34.86	35.58	56.00	20.42	QP
10	4.998	0.12	0.60	30.05	30.77	46.00	15.23	AVERAGE
11	17.925	0.26	0.70	42.28	43.24	60.00	16.76	QP
12	17.925	0.26	0.70	35.56	36.52	50.00	13.48	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 35

Condition : KMW-407 (8-1539-2) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

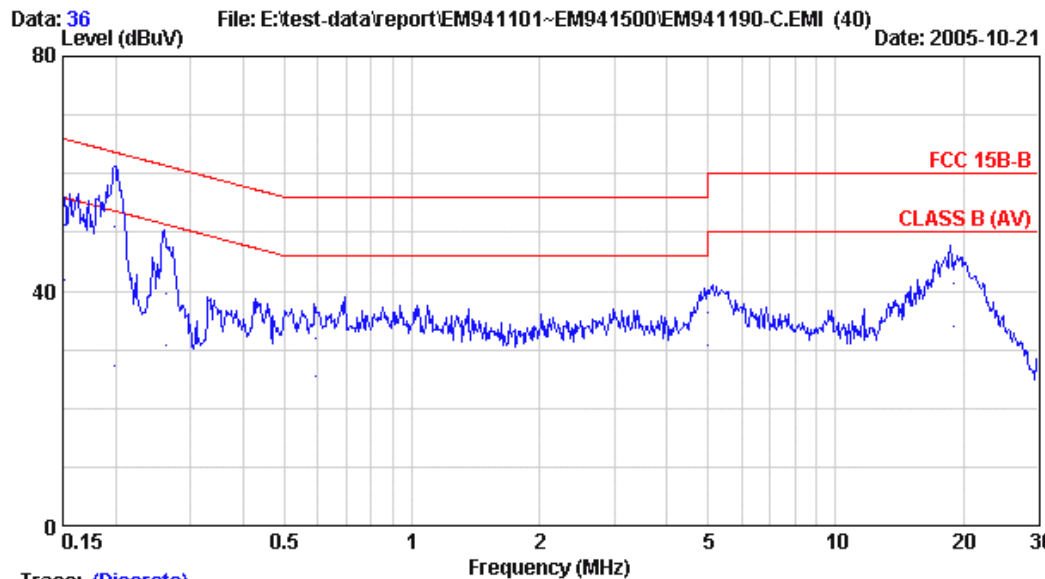
Test Mode : 640\*480/60Hz 31KHz (DVI)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.20	0.20	50.06	50.46	65.97	15.51	QP
2	0.150	0.20	0.20	38.31	38.71	55.97	17.26	AVERAGE
3	0.200	0.10	0.20	51.54	51.84	63.60	11.76	QP
4	0.200	0.10	0.20	28.82	29.12	53.60	24.48	AVERAGE
5	0.268	0.10	0.20	39.87	40.17	61.18	21.01	QP
6	0.268	0.10	0.20	28.59	28.89	51.18	22.29	AVERAGE
7	0.588	0.10	0.20	32.23	32.53	56.00	23.47	QP
8	0.588	0.10	0.20	26.60	26.90	46.00	19.10	AVERAGE
9	4.999	0.12	0.60	36.99	37.71	56.00	18.29	QP
10	4.999	0.12	0.60	31.89	32.61	46.00	13.39	AVERAGE
11	18.959	0.36	0.70	40.63	41.69	60.00	18.31	QP
12	18.959	0.36	0.70	32.58	33.64	50.00	16.36	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 36

Condition : KMW-407 (8-1539-2) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

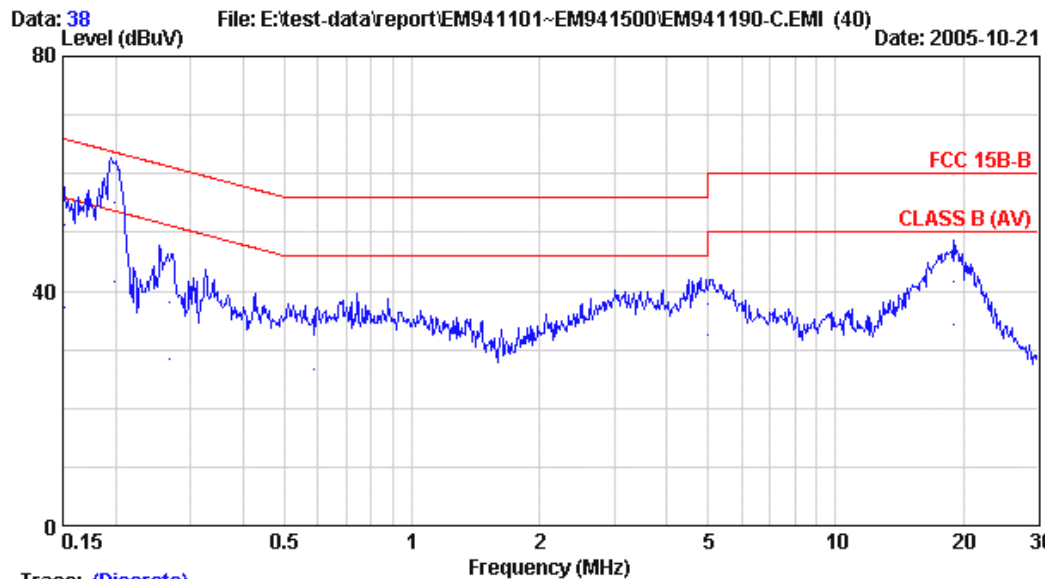
Test Mode : 640\*480/60Hz 31KHz (DVI)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.151	0.30	0.20	50.92	51.42	65.96	14.54	QP
2	0.151	0.30	0.20	41.37	41.87	55.96	14.09	AVERAGE
3	0.199	0.10	0.20	50.68	50.98	63.65	12.67	QP
4	0.199	0.10	0.20	26.90	27.20	53.65	26.45	AVERAGE
5	0.262	0.10	0.20	39.21	39.51	61.38	21.87	QP
6	0.262	0.10	0.20	30.50	30.80	51.38	20.58	AVERAGE
7	0.592	0.10	0.20	31.54	31.84	56.00	24.16	QP
8	0.592	0.10	0.20	25.30	25.60	46.00	20.40	AVERAGE
9	5.008	0.12	0.60	35.62	36.34	60.00	23.66	QP
10	5.008	0.12	0.60	30.10	30.82	50.00	19.18	AVERAGE
11	18.966	0.28	0.70	40.36	41.34	60.00	18.66	QP
12	18.966	0.28	0.70	32.89	33.87	50.00	16.13	AVERAGE

Remarks: 1. Emission Level = LISN 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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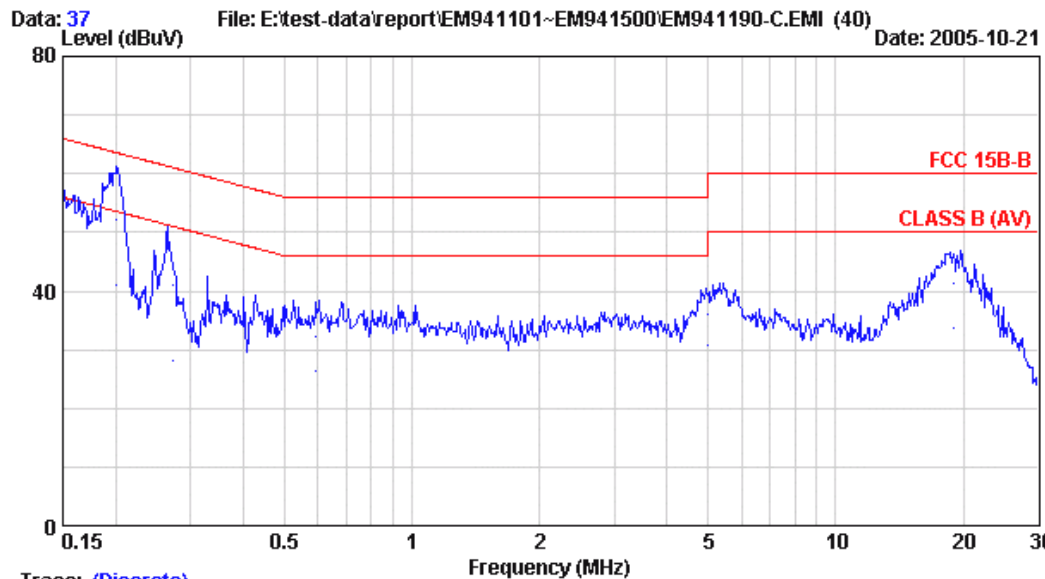
Site : NO.5 Shielded room Data : 38  
 Condition : KMW-407 (8-1539-2) Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 1024\*768/85Hz 69KHz (DVI)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.151	0.20	0.20	51.02	51.42	65.95	14.53	QP
2	0.151	0.20	0.20	36.87	37.27	55.95	18.68	AVERAGE
3	0.199	0.10	0.20	54.71	55.01	63.66	8.65	QP
4	0.199	0.10	0.20	41.22	41.52	53.66	12.14	AVERAGE
5	0.267	0.10	0.20	37.82	38.12	61.21	23.09	QP
6	0.267	0.10	0.20	28.26	28.56	51.21	22.65	AVERAGE
7	0.588	0.10	0.20	32.35	32.65	56.00	23.35	QP
8	0.588	0.10	0.20	26.36	26.66	46.00	19.34	AVERAGE
9	4.996	0.12	0.60	37.12	37.84	56.00	18.16	QP
10	4.996	0.12	0.60	31.71	32.43	46.00	13.57	AVERAGE
11	18.957	0.36	0.70	40.51	41.57	60.00	18.43	QP
12	18.957	0.36	0.70	33.18	34.24	50.00	15.76	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

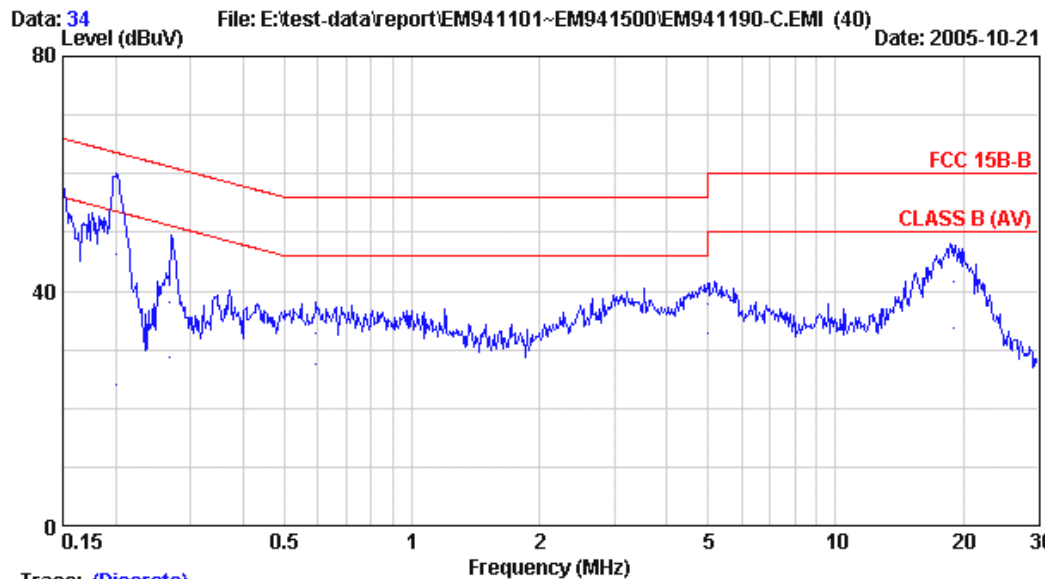
Site : NO.5 Shielded room Data : 37  
 Condition : KMW-407 (8-1539-2) Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 1024\*768/85Hz 69KHz (DVI)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.30	0.20	51.24	51.74	65.99	14.25	QP
2	0.150	0.30	0.20	43.36	43.86	55.99	12.13	AVERAGE
3	0.200	0.10	0.20	51.83	52.13	63.63	11.50	QP
4	0.200	0.10	0.20	40.63	40.93	53.63	12.70	AVERAGE
5	0.273	0.10	0.20	40.74	41.04	61.02	19.98	QP
6	0.273	0.10	0.20	27.94	28.24	51.02	22.78	AVERAGE
7	0.591	0.10	0.20	32.07	32.37	56.00	23.63	QP
8	0.591	0.10	0.20	26.11	26.41	46.00	19.59	AVERAGE
9	4.996	0.12	0.60	35.35	36.07	56.00	19.93	QP
10	4.996	0.12	0.60	30.14	30.86	46.00	15.14	AVERAGE
11	18.958	0.28	0.70	40.32	41.30	60.00	18.70	QP
12	18.958	0.28	0.70	32.66	33.64	50.00	16.36	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 34

Condition : KMW-407 (8-1539-2) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

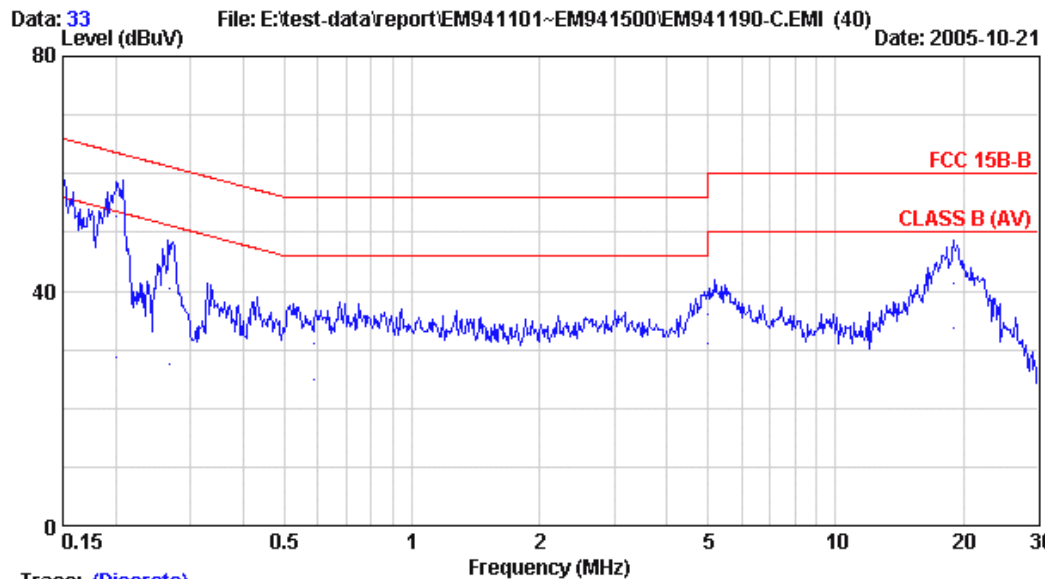
Test Mode : 1280\*1024/75Hz 80KHz (DVI)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.20	0.20	51.20	51.60	65.98	14.38	QP
2	0.150	0.20	0.20	38.31	38.71	55.98	17.27	AVERAGE
3	0.201	0.10	0.20	46.02	46.32	63.57	17.25	QP
4	0.201	0.10	0.20	23.70	24.00	53.57	29.57	AVERAGE
5	0.267	0.10	0.20	37.80	38.10	61.22	23.12	QP
6	0.267	0.10	0.20	28.52	28.82	51.22	22.40	AVERAGE
7	0.591	0.10	0.20	32.61	32.91	56.00	23.09	QP
8	0.591	0.10	0.20	27.10	27.40	46.00	18.60	AVERAGE
9	4.999	0.12	0.60	36.97	37.69	56.00	18.31	QP
10	4.999	0.12	0.60	32.14	32.86	46.00	13.14	AVERAGE
11	18.954	0.36	0.70	40.61	41.67	60.00	18.33	QP
12	18.954	0.36	0.70	32.74	33.80	50.00	16.20	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 33  
 Condition : KMW-407 (8-1539-2) Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 1280\*1024/75Hz 80KHz (DVI)

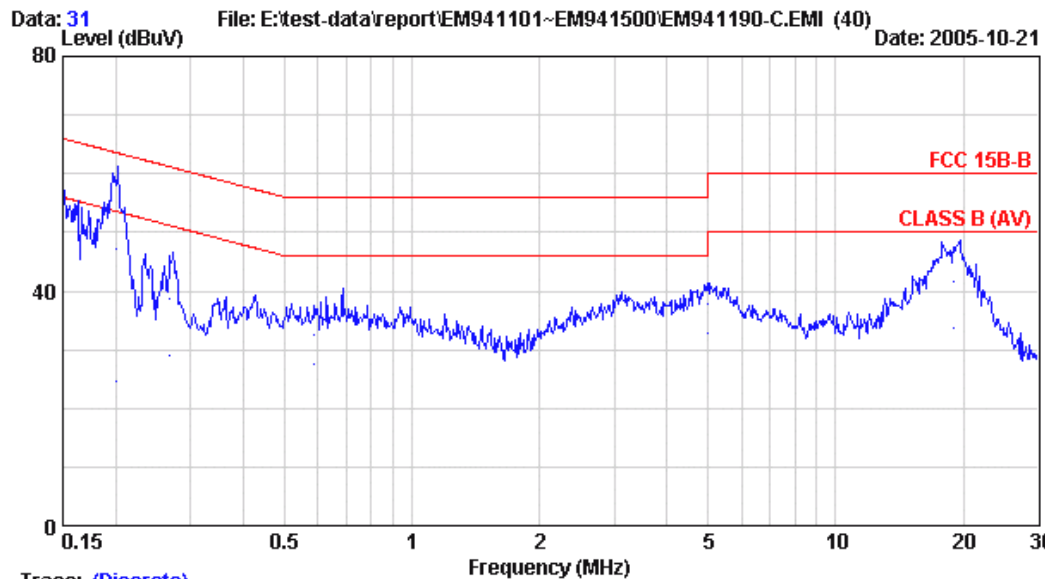
	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.30	0.20	50.90	51.40	65.98	14.58	QP
2	0.150	0.30	0.20	41.88	42.38	55.98	13.60	AVERAGE
3	0.200	0.10	0.20	52.57	52.87	63.60	10.73	QP
4	0.200	0.10	0.20	28.52	28.82	53.60	24.78	AVERAGE
5	0.267	0.10	0.20	40.13	40.43	61.20	20.77	QP
6	0.267	0.10	0.20	27.36	27.66	51.20	23.54	AVERAGE
7	0.587	0.10	0.20	30.62	30.92	56.00	25.08	QP
8	0.587	0.10	0.20	24.73	25.03	46.00	20.97	AVERAGE
9	4.998	0.12	0.60	35.42	36.14	56.00	19.86	QP
10	4.998	0.12	0.60	30.31	31.03	46.00	14.97	AVERAGE
11	18.961	0.28	0.70	40.22	41.20	60.00	18.80	QP
12	18.961	0.28	0.70	32.58	33.56	50.00	16.44	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 31

Condition : KMW-407 (8-1539-2) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

Test Mode : 1600\*1200/60Hz 76KHz (DVI)

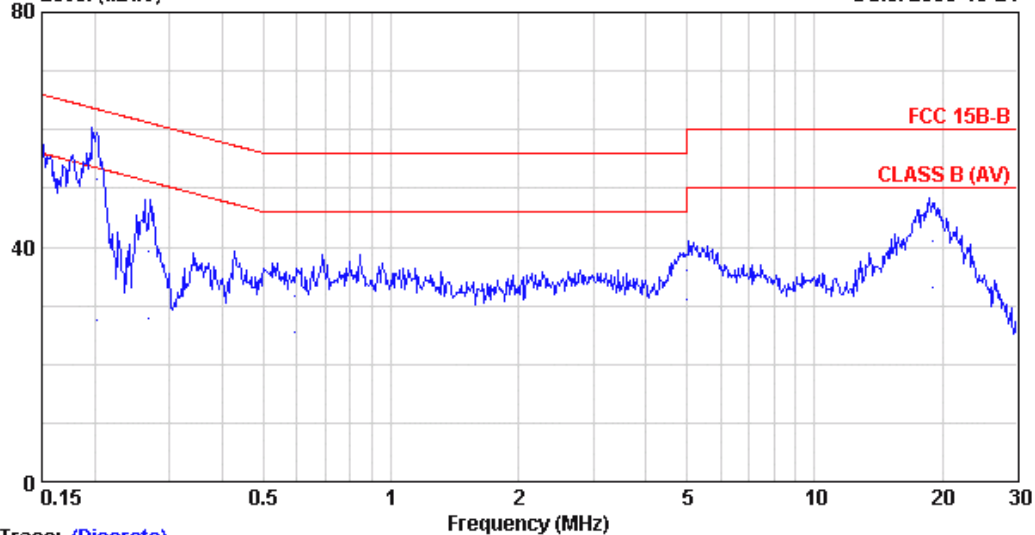
	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.20	0.20	51.02	51.42	65.98	14.56	QP
2	0.150	0.20	0.20	38.31	38.71	55.98	17.27	AVERAGE
3	0.200	0.10	0.20	47.02	47.32	63.59	16.27	QP
4	0.200	0.10	0.20	24.27	24.57	53.59	29.02	AVERAGE
5	0.267	0.10	0.20	38.34	38.64	61.22	22.58	QP
6	0.267	0.10	0.20	28.82	29.12	51.22	22.10	AVERAGE
7	0.589	0.10	0.20	32.31	32.61	56.00	23.39	QP
8	0.589	0.10	0.20	27.10	27.40	46.00	18.60	AVERAGE
9	4.998	0.12	0.60	37.03	37.75	56.00	18.25	QP
10	4.998	0.12	0.60	32.06	32.78	46.00	13.22	AVERAGE
11	18.955	0.36	0.70	40.42	41.48	60.00	18.52	QP
12	18.955	0.36	0.70	32.74	33.80	50.00	16.20	AVERAGE

Remarks: 1. Emission Level = LISN 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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Data: 32 File: E:\test-data\report\EM941101~EM941500\EM941190-C.EMI (40) Date: 2005-10-21  
 Level (dBuV)



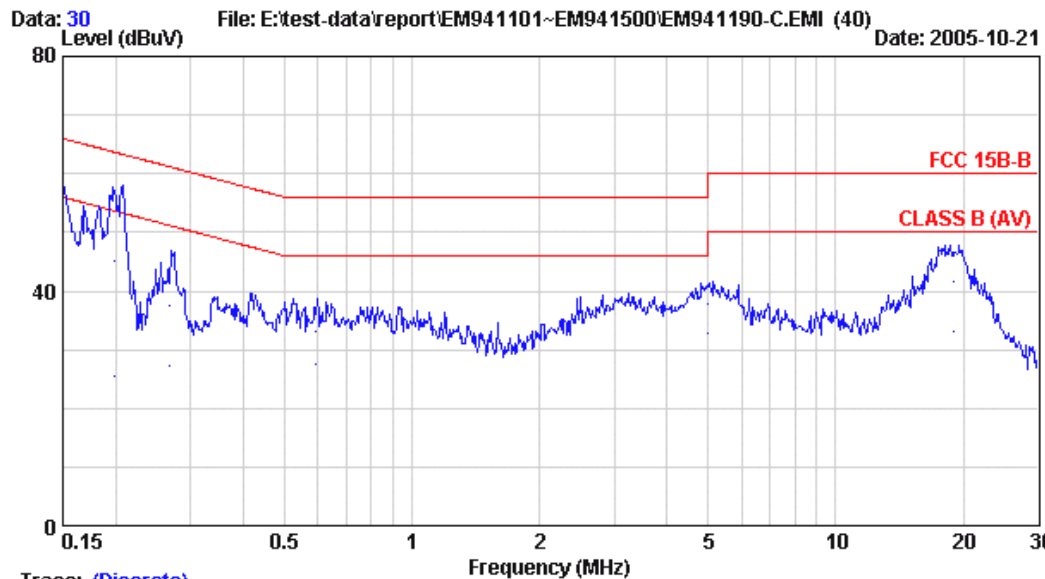
Trace: (Discrete)  
 Site : NO.5 Shielded room Data : 32  
 Condition : KMW-407 (8-1539-2) Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 1600\*1200/60Hz 76KHz (DVI)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.30	0.20	51.04	51.54	65.99	14.45	QP
2	0.150	0.30	0.20	42.05	42.55	55.99	13.44	AVERAGE
3	0.203	0.10	0.20	51.40	51.70	63.50	11.80	QP
4	0.203	0.10	0.20	27.28	27.58	53.50	25.92	AVERAGE
5	0.267	0.10	0.20	38.96	39.26	61.21	21.95	QP
6	0.267	0.10	0.20	27.46	27.76	51.21	23.45	AVERAGE
7	0.591	0.10	0.20	31.40	31.70	56.00	24.30	QP
8	0.591	0.10	0.20	25.25	25.55	46.00	20.45	AVERAGE
9	5.008	0.12	0.60	35.40	36.12	60.00	23.88	QP
10	5.008	0.12	0.60	30.26	30.98	50.00	19.02	AVERAGE
11	18.963	0.28	0.70	40.18	41.16	60.00	18.84	QP
12	18.963	0.28	0.70	32.19	33.17	50.00	16.83	AVERAGE

Remarks: 1. Emission Level = LISN 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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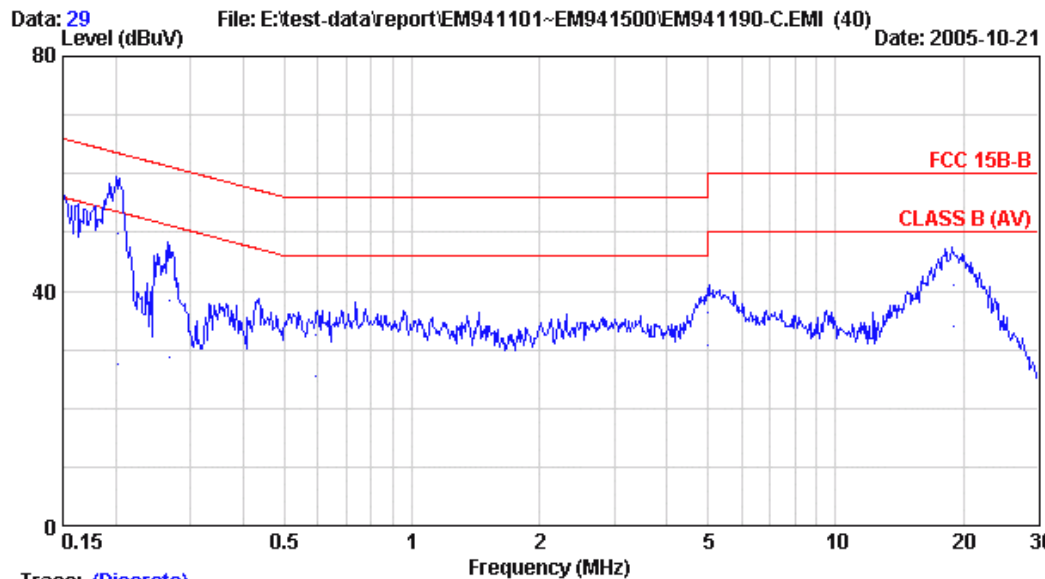
Site : NO.5 Shielded room Data : 30  
 Condition : KMW-407 (8-1539-2) Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 1920\*1200/60Hz 76KHz (DVI)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.20	0.20	51.20	51.60	65.99	14.39	QP
2	0.150	0.20	0.20	38.81	39.21	55.99	16.78	AVERAGE
3	0.198	0.10	0.20	44.72	45.02	63.69	18.67	QP
4	0.198	0.10	0.20	25.24	25.54	53.69	28.15	AVERAGE
5	0.268	0.10	0.20	37.32	37.62	61.17	23.55	QP
6	0.268	0.10	0.20	27.06	27.36	51.17	23.81	AVERAGE
7	0.590	0.10	0.20	32.71	33.01	56.00	22.99	QP
8	0.590	0.10	0.20	27.25	27.55	46.00	18.45	AVERAGE
9	4.999	0.12	0.60	37.13	37.85	56.00	18.15	QP
10	4.999	0.12	0.60	32.06	32.78	46.00	13.22	AVERAGE
11	18.956	0.36	0.70	40.46	41.52	60.00	18.48	QP
12	18.956	0.36	0.70	32.19	33.25	50.00	16.75	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 29

Condition : KMW-407 (8-1539-2) Phase : LINE

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

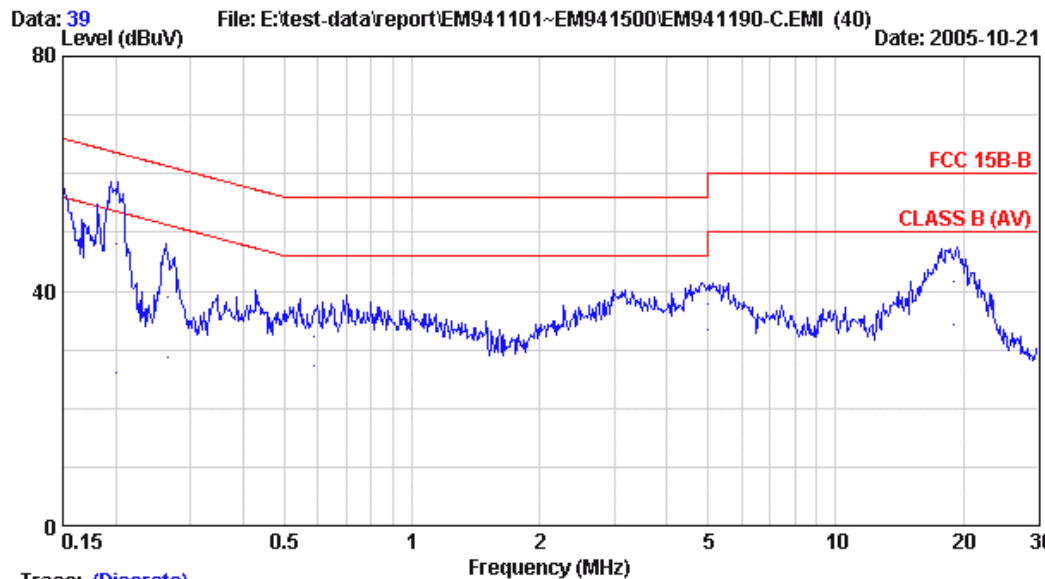
Test Mode : 1920\*1200/60Hz 76KHz (DVI)

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.30	0.20	51.12	51.62	65.97	14.35	QP
2	0.150	0.30	0.20	42.26	42.76	55.97	13.21	AVERAGE
3	0.202	0.10	0.20	49.50	49.80	63.54	13.74	QP
4	0.202	0.10	0.20	27.21	27.51	53.54	26.03	AVERAGE
5	0.267	0.10	0.20	38.16	38.46	61.20	22.74	QP
6	0.267	0.10	0.20	28.33	28.63	51.20	22.57	AVERAGE
7	0.592	0.10	0.20	32.15	32.45	56.00	23.55	QP
8	0.592	0.10	0.20	25.11	25.41	46.00	20.59	AVERAGE
9	5.001	0.12	0.60	35.50	36.22	60.00	23.78	QP
10	5.001	0.12	0.60	30.10	30.82	50.00	19.18	AVERAGE
11	18.965	0.28	0.70	40.18	41.16	60.00	18.84	QP
12	18.965	0.28	0.70	33.04	34.02	50.00	15.98	AVERAGE

Remarks: 1. Emission Level = LISN 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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Trace: (Discrete)

Site : NO.5 Shielded room Data : 39

Condition : KMW-407 (8-1539-2) Phase : NEUTRAL

Limit : FCC 15B-B

Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim

EUT : Flat Panel Color Monitor M/N:230WP7

Power Rating : 120Vac/60Hz

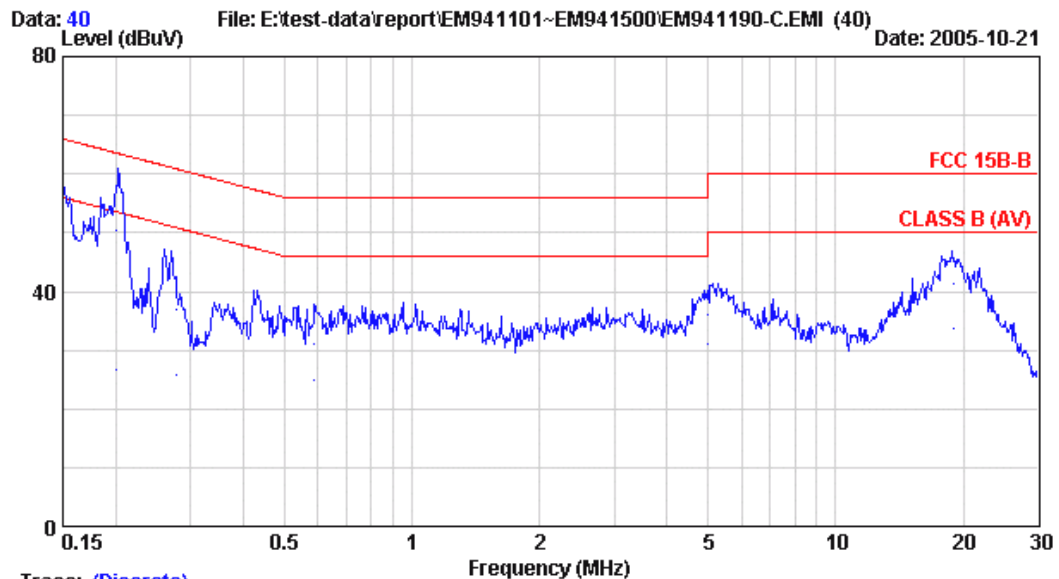
Test Mode : 768\*1024/60Hz (DVI) Rotate

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.20	0.20	50.96	51.36	65.99	14.63	QP
2	0.150	0.20	0.20	37.88	38.28	55.99	17.71	AVERAGE
3	0.200	0.10	0.20	47.77	48.07	63.59	15.52	QP
4	0.200	0.10	0.20	25.68	25.98	53.59	27.61	AVERAGE
5	0.266	0.10	0.20	38.56	38.86	61.23	22.37	QP
6	0.266	0.10	0.20	28.33	28.63	51.23	22.60	AVERAGE
7	0.588	0.10	0.20	31.90	32.20	56.00	23.80	QP
8	0.588	0.10	0.20	26.87	27.17	46.00	18.83	AVERAGE
9	4.996	0.12	0.60	37.08	37.80	56.00	18.20	QP
10	4.996	0.12	0.60	32.70	33.42	46.00	12.58	AVERAGE
11	18.961	0.36	0.70	40.46	41.52	60.00	18.48	QP
12	18.961	0.36	0.70	33.33	34.39	50.00	15.61	AVERAGE

Remarks: 1. Emission Level = LISN 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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Site : NO.5 Shielded room Data : 40  
 Condition : KMW-407 (8-1539-2) Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 24°C/63% ESCS30 Engineer: Tim  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac/60Hz  
 Test Mode : 768\*1024/60Hz (DVI) Rotate

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.150	0.30	0.20	51.44	51.94	65.99	14.05	QP
2	0.150	0.30	0.20	42.36	42.86	55.99	13.13	AVERAGE
3	0.201	0.10	0.20	50.06	50.36	63.56	13.20	QP
4	0.201	0.10	0.20	26.47	26.77	53.56	26.79	AVERAGE
5	0.277	0.10	0.20	36.63	36.93	60.90	23.97	QP
6	0.277	0.10	0.20	25.63	25.93	50.90	24.97	AVERAGE
7	0.587	0.10	0.20	30.86	31.16	56.00	24.84	QP
8	0.587	0.10	0.20	24.73	25.03	46.00	20.97	AVERAGE
9	4.998	0.12	0.60	35.42	36.14	56.00	19.86	QP
10	4.998	0.12	0.60	30.41	31.13	46.00	14.87	AVERAGE
11	18.963	0.28	0.70	40.40	41.38	60.00	18.62	QP
12	18.963	0.28	0.70	32.66	33.64	50.00	16.36	AVERAGE

Remarks: 1. Emission Level = LISN 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 EMISSION MEASUREMENT

#### 3.1. Test Equipment

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

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

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000133	Jul. 06, 05'	Jul. 05, 06'
2.	Amplifier	HP	8447D	2944A06669	Aug. 03, 05'	Aug. 02, 06'
3.	Bilog Antenna	Schaffner	CBL6112B	2818	May 17, 05'	May 16, 06'

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

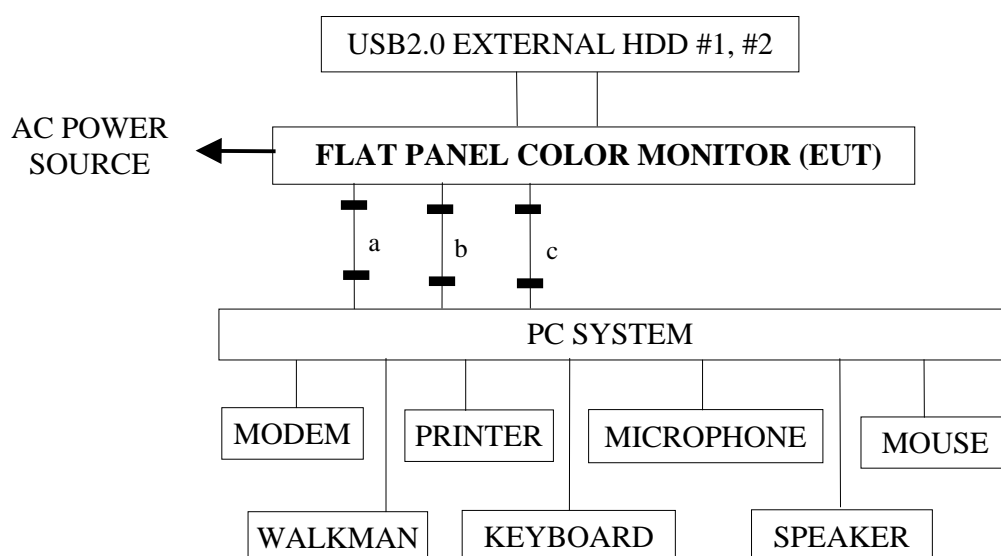
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8590L	3710A01838	N/A	N/A
2.	Test Receiver	R & S	ESVS10	845165/002	Apr. 22, 05'	Apr. 21, 06'
3.	Amplifier	HP	8447D	2727A05737	N/A	N/A
4.	Biconical Antenna	Chase	VBA6106A	1227	Nov. 15, 04'	Nov. 14, 05'
5.	Log Periodic Antenna	Chase	UPA6109	1027	Nov. 15, 04'	Nov. 14, 05'

##### 3.1.3. For 1GHz~2GHz Frequency (At No. 3 Open Area Test Site)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000132	Jun. 04, 05'	Jun. 03, 06'
2.	Amplifier	HP	8449B	3008A01284	Jul. 05, 05'	Jul. 04, 06'
3.	Horn Antenna	EMCO	3115	9609-4927	Jul. 08, 05'	Jul. 07, 06'

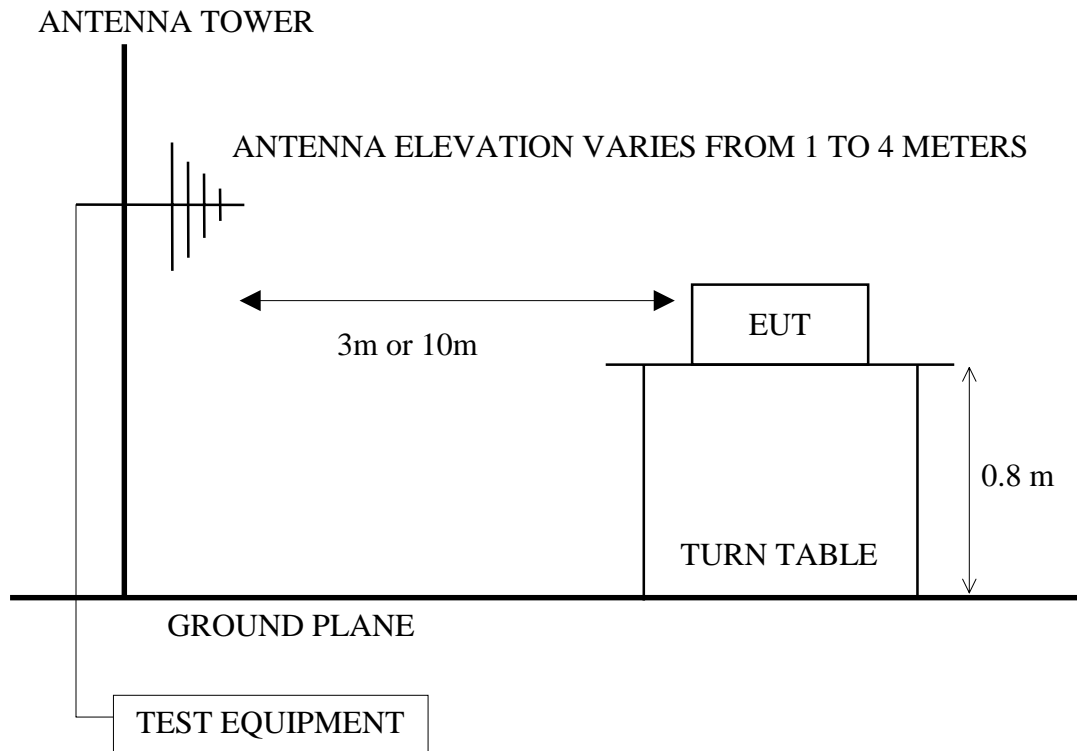
#### 3.2. Block Diagram of Test Setup

##### 3.2.1. Block Diagram of connection between EUT and simulators

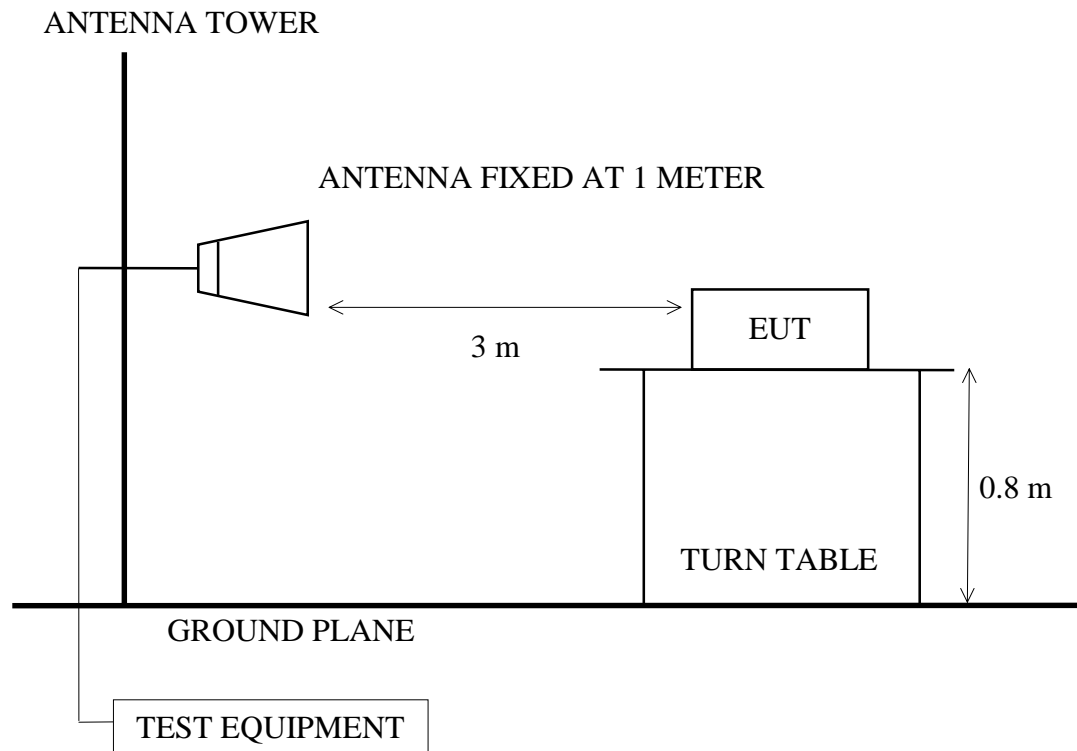


■: FERRITE CORE    a: D-SUB CABLE,    b: DVI CABLE,    c: USB CABLE

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



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





### 3.3. Radiation Limit (§15.109/CISPR 22, Class B)

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

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dB $\mu$ V/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 (a)(g).
  - (4) ( ) is 3 meters limit.

### 3.4. EUT's Configuration during Compliance Measurement

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

### 3.5. Operating Condition of EUT

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

### 3.6. Test Procedure

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

The EUT 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 (or 3 meters at simple-anechoic chamber) 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 bilog antenna at simple-anechoic chamber, biconical and log periodical antenna at open area test site) were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4-2003 and CISPR 22 on radiated measurement.

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

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

3.6.2. For Frequency Range 1GHz-2GHz measurement at distance of 3m at an open area test site:

The EUT and its simulators were placed on a turn table which was 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level, EUT was set 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna was fixed at 1 meter high (maximum emission level receiving position) above the ground. A calibrated horn antenna was used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement, and both average and peak emission level were recorded from spectrum analyzer. In order to find the maximum emission level, all the interface cables were manipulated according to ANSI C63.4-2003 on radiated measurement.

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

The frequency range from 1GHz to 2GHz was pre-scanned with Peak detector and Average detector.

The all final readings from spectrum analyzer were measured with Peak detector and Average detector.

### 3.7. Radiated Emission Measurement Results

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

EUT: Flat Panel Color Monitor Model No.: 230WP7

**For 30MHz~1000MHz frequency range:**

3.7.1. The EUT with following test modes were measured at simple-anechoic chamber and all the scanning waveform are attached in next pages.

Test Date : Oct. 25, 2005 Temperature : 24 Humidity : 69%

The details of test modes are as follows:

Mode	Input Port	Resolution/ Frequency	Panel Position	Reference Test Data No.	
				Horizontal	Horizontal
1.	D-Sub	640*480/60Hz, 31kHz	0°/Horizontal	# 25	# 26
2.		1024*768/85Hz, 69kHz	0°/Horizontal	# 24	# 23
3.		1280*1024/75Hz, 80kHz	0°/Horizontal	# 28	# 27
4.		1600*1200/75Hz, 94kHz	0°/Horizontal	# 21	# 22
5.		1200*1600/60Hz	90°/Vertical	# 20	# 19
6.	DVI	640*480/60Hz, 31kHz	0°/Horizontal	# 35	# 36
7.		1024*768/85Hz, 69kHz	0°/Horizontal	# 34	# 33
8.		1280*1024/75Hz, 80kHz	0°/Horizontal	# 37	# 38
9.		1600*1200/60Hz, 76kHz	0°/Horizontal	# 32	# 31
10.		1920*1200/60Hz, 76kHz	0°/Horizontal	# 29	# 30

3.7.2. Finally, selected the worst test mode [**Mode 8**] was measured at No. 3 open area test site and all the test results are attached in next pages

Test Date : Oct. 25, 2005      Temperature : 27      Humidity : 44%

The details of test modes are as follows:

Mode	Input Port	Resolution/ Frequency	Panel Position	Reference Test Data No.	
				Horizontal	Horizontal
8.	DVI	1280*1024/75Hz, 80kHz	0°/Horizontal	# 2	# 1

**For 1GHz~2GHz frequency range:**

3.7.3. The test mode [ **mode 4** ] was selected and measured at No. 3 Open Area Test Site and the test results are attached in next pages.

Test Date : Oct. 25, 2005      Temperature : 27      Humidity : 44%

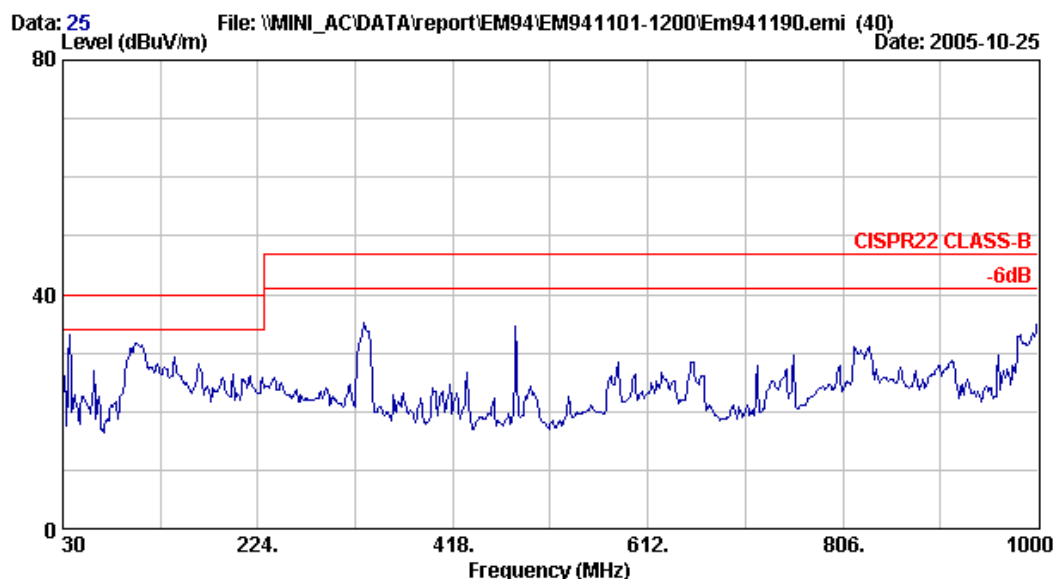
The details of test modes are as follows:

Mode	Input Port	Resolution/ Frequency	Panel Position		Reference Test Data No.	
					Horizontal	Vertical
4.	D-Sub	1600*1200/75Hz, 94kHz	0°/Horizontal	Peak	# 5	# 3
				Average	# 6	# 4

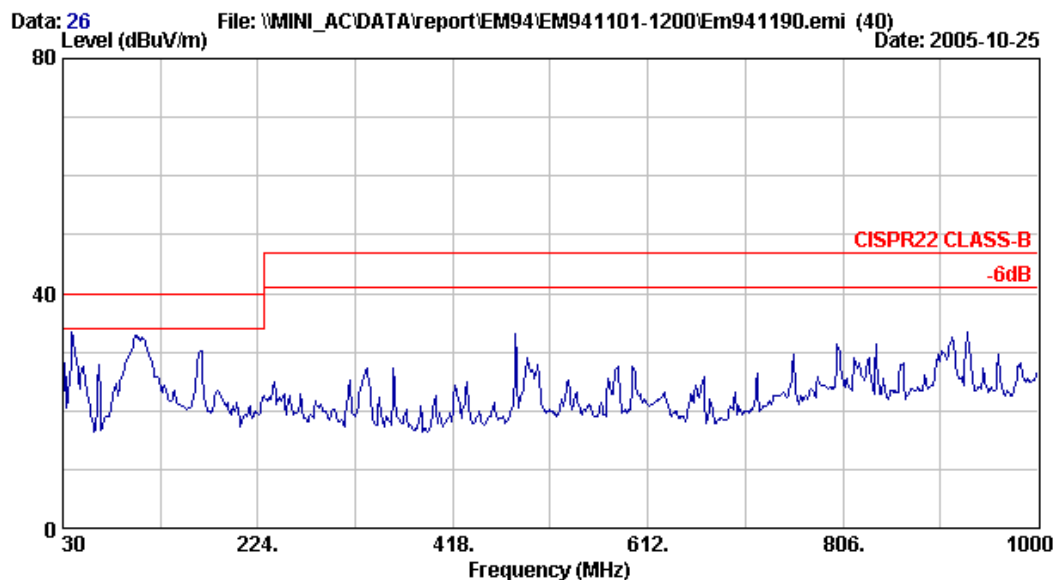
## [ 30MHz to 1000MHz Frequency Range Measurement Results at Simple-Anechoic Chamber ]



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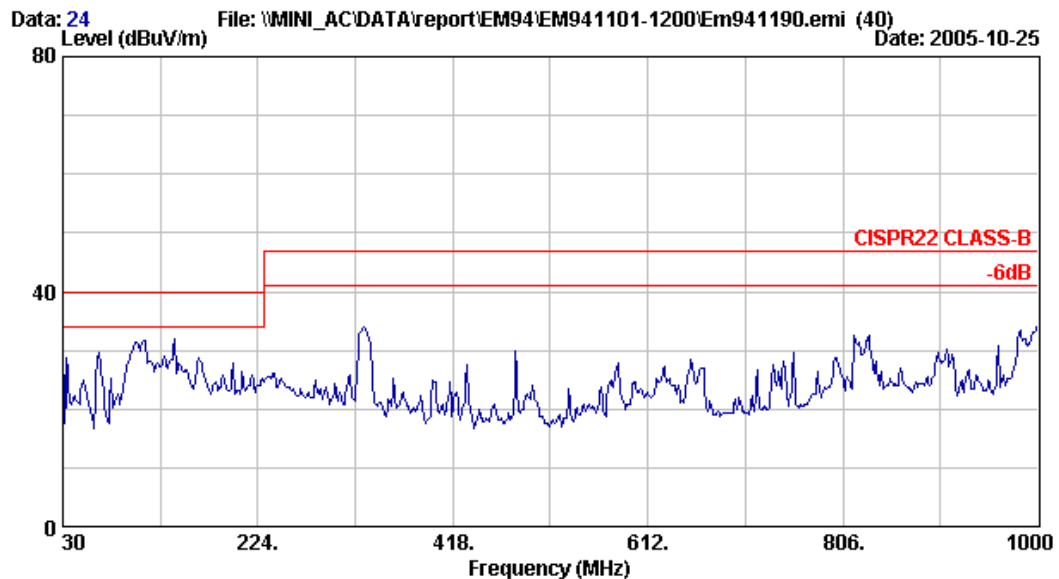
Site no. : AUDIX Mini Chamber Data no. : 25  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 640\*480/60Hz 31KHz (D-SUB)



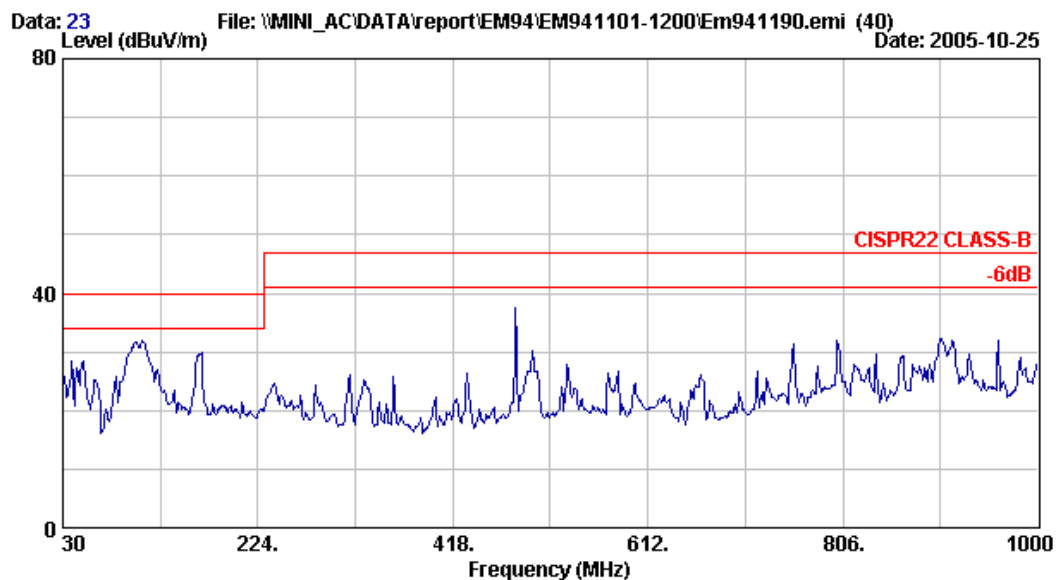
Site no. : AUDIX Mini Chamber Data no. : 26  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 640\*480/60Hz 31KHz (D-SUB)



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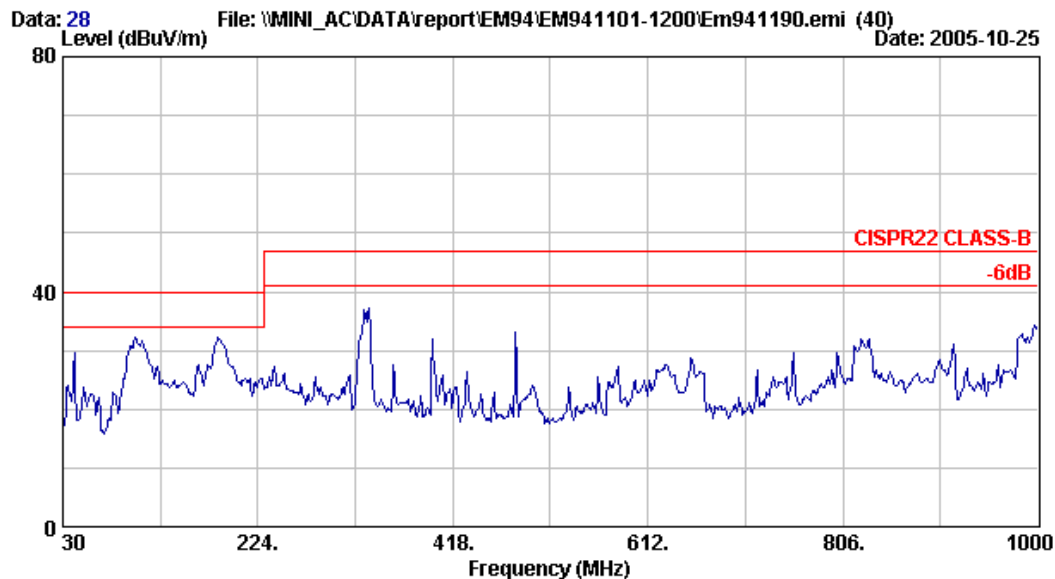
Site no. : AUDIX Mini Chamber Data no. : 24  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1024\*768/85Hz 69KHz (D-SUB)



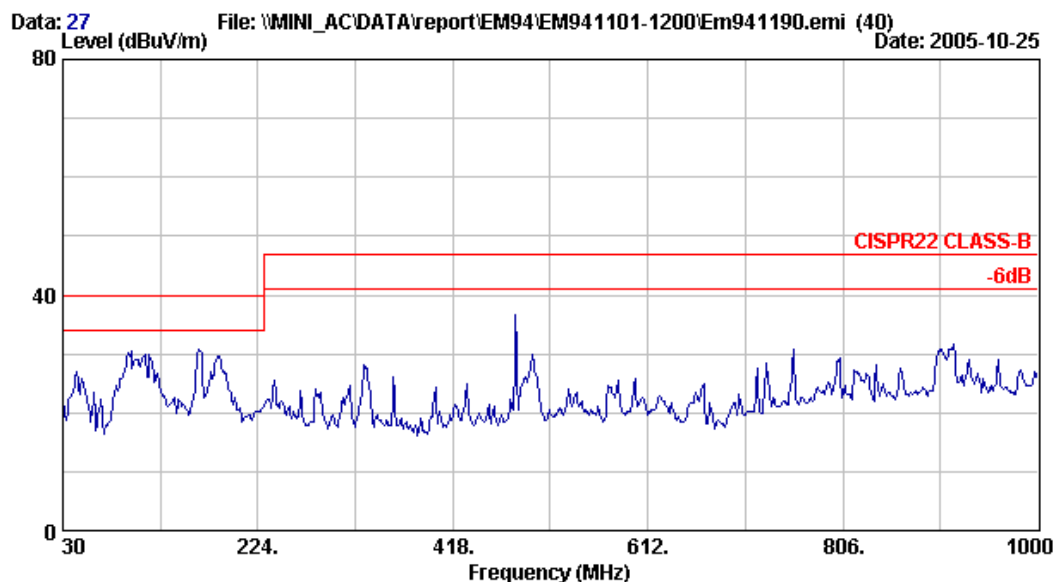
Site no. : AUDIX Mini Chamber Data no. : 23  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1024\*768/85Hz 69KHz (D-SUB)



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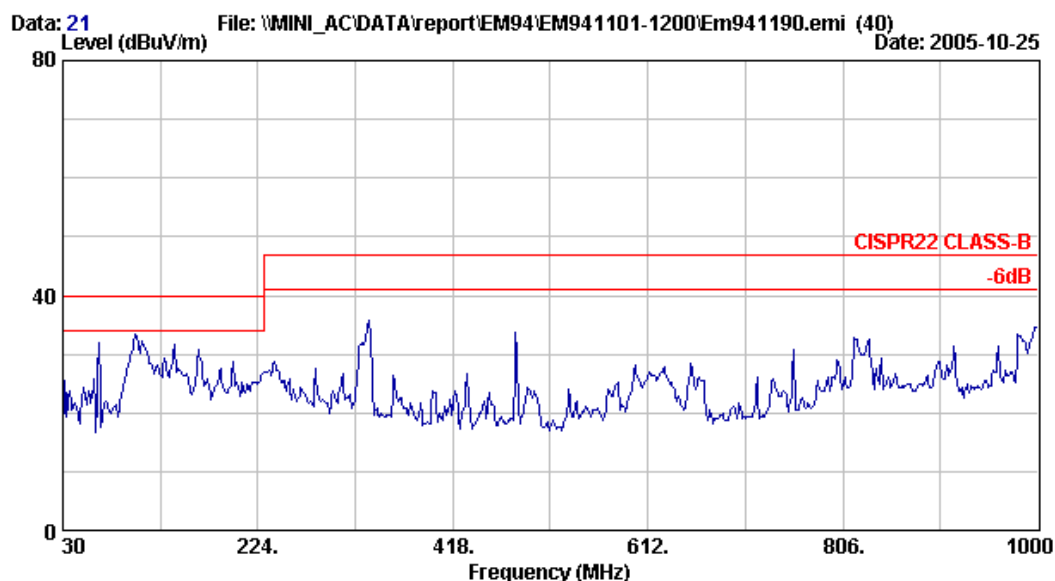
Site no. : AUDIX Mini Chamber Data no. : 28  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1280\*1024/75Hz 80KHz (D-SUB)



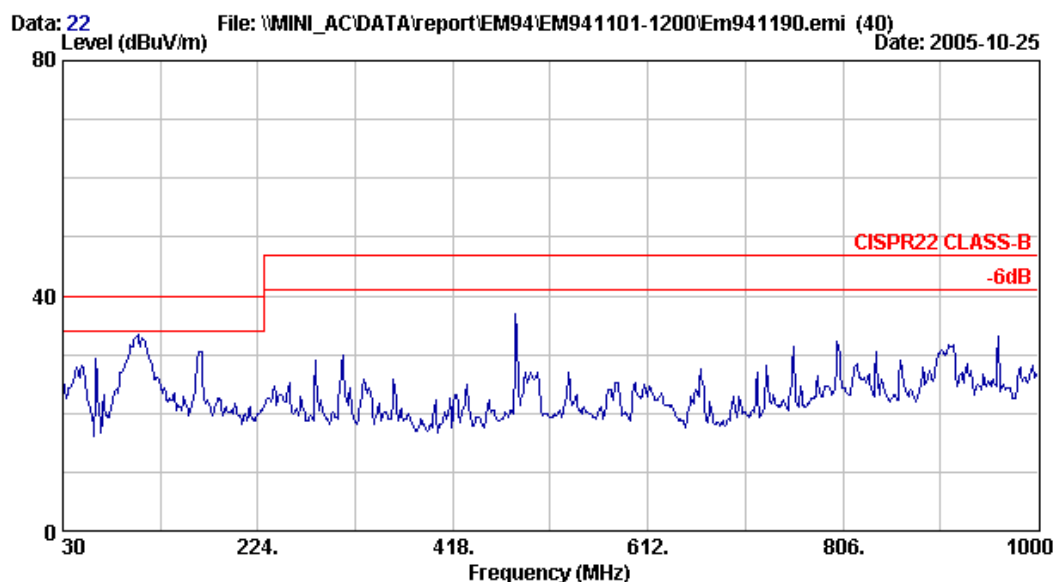
Site no. : AUDIX Mini Chamber Data no. : 27  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1280\*1024/75Hz 80KHz (D-SUB)



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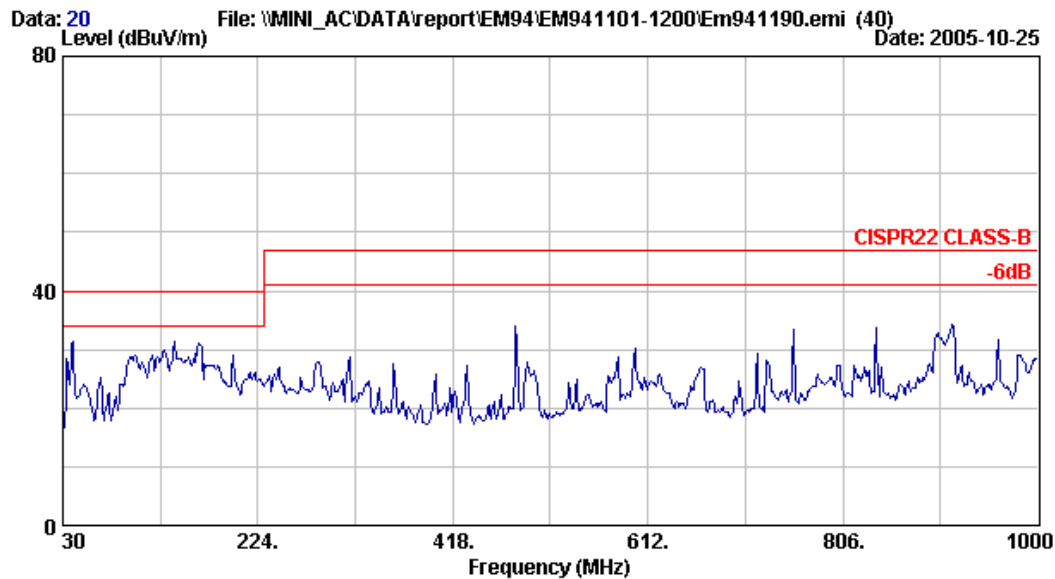
Site no. : AUDIX Mini Chamber Data no. : 21  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1600\*1200/75Hz 94KHz (D-SUB)



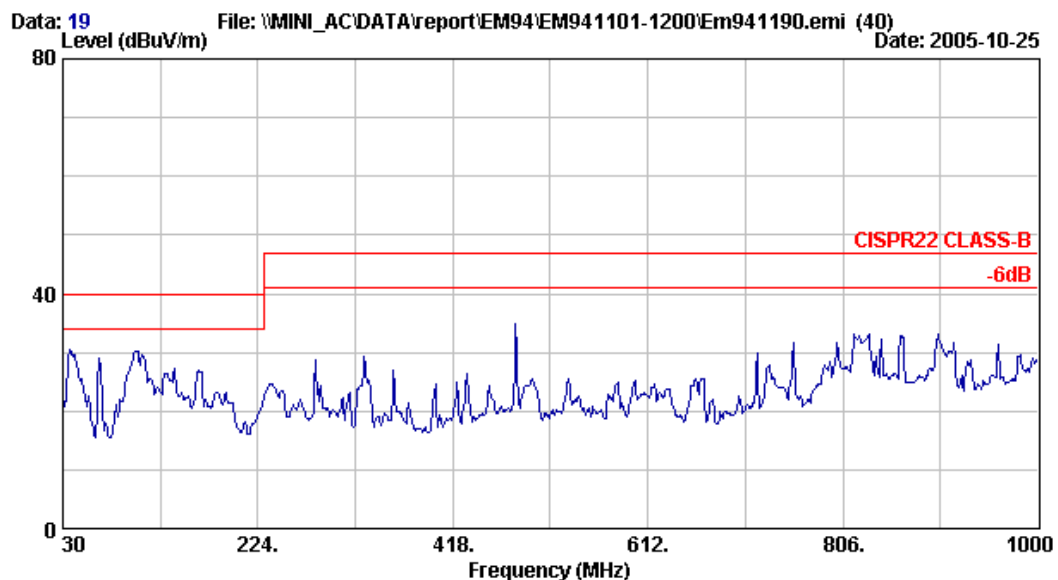
Site no. : AUDIX Mini Chamber Data no. : 22  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1600\*1200/75Hz 94KHz (D-SUB)



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Site no. : AUDIX Mini Chamber Data no. : 20  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1200\*1600/60Hz (D-SUB) Rotate

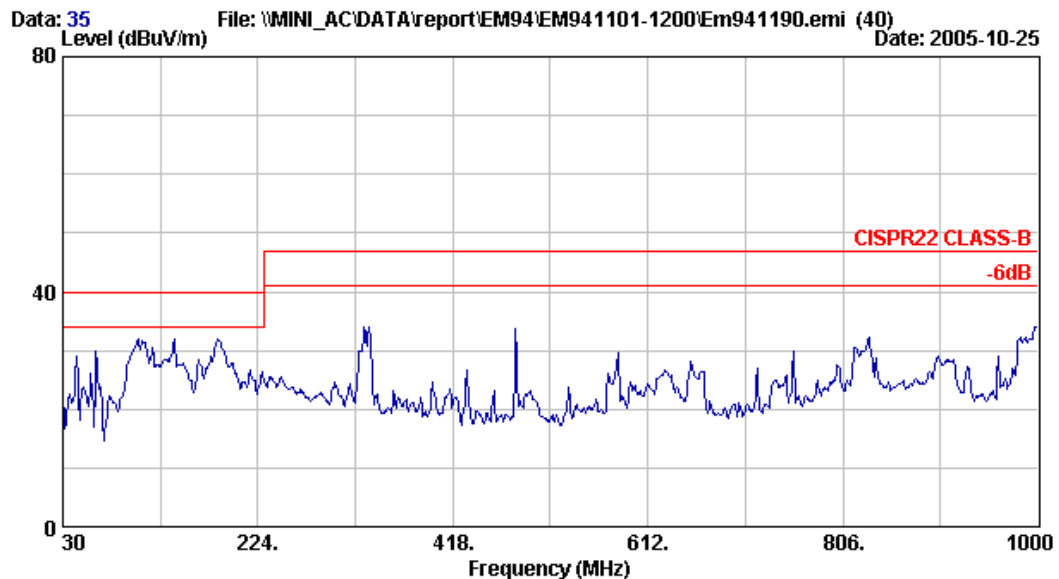


Site no. : AUDIX Mini Chamber Data no. : 19  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1200\*1600/60Hz (D-SUB) Rotate

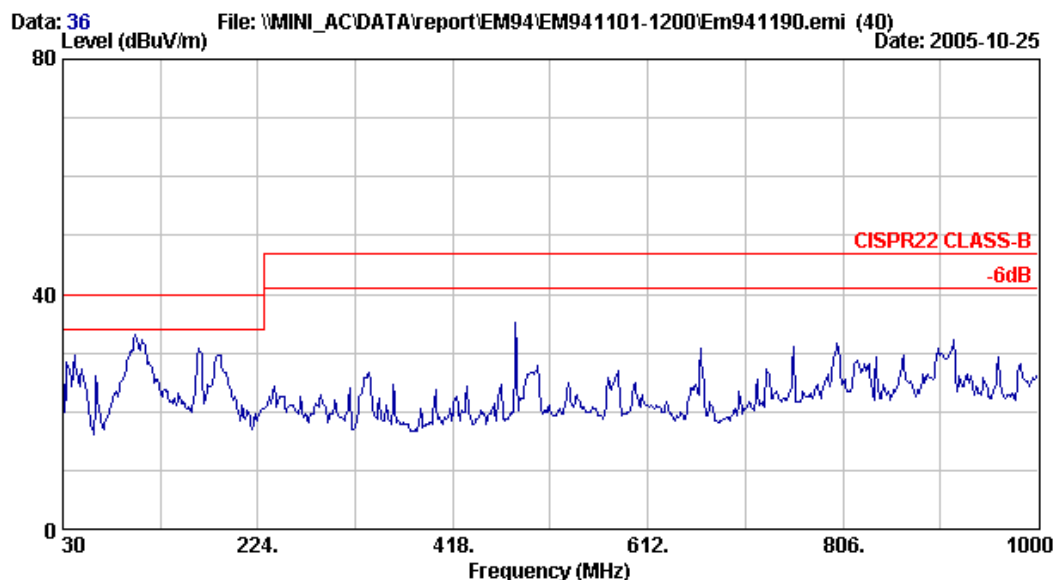




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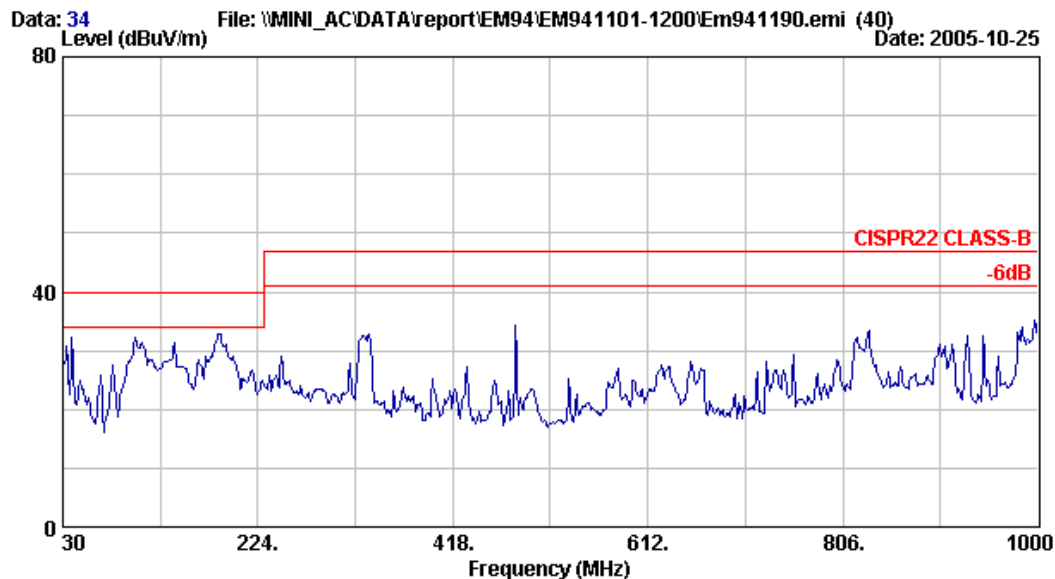
Site no. : AUDIX Mini Chamber Data no. : 35  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 640\*480/60Hz 31KHz (DVI)



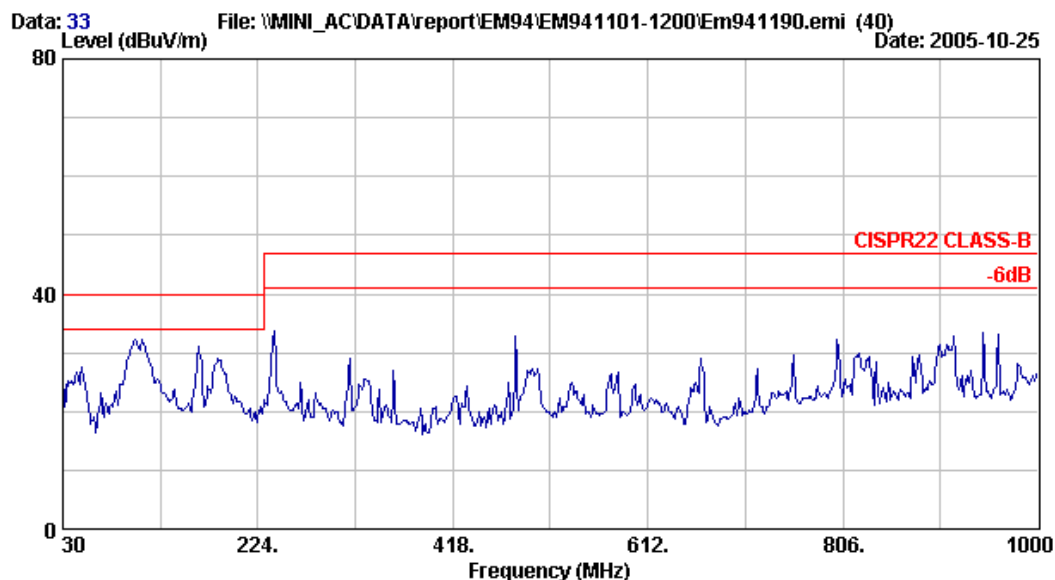
Site no. : AUDIX Mini Chamber Data no. : 36  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 640\*480/60Hz 31KHz (DVI)



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Site no. : AUDIX Mini Chamber Data no. : 34  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1024\*768/85Hz 69KHz (DVI)

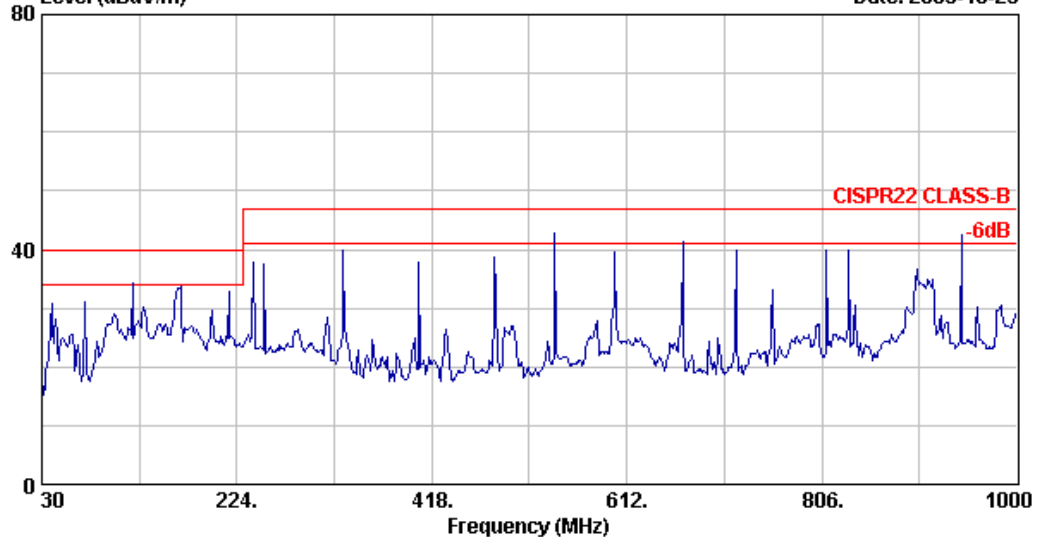


Site no. : AUDIX Mini Chamber Data no. : 33  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1024\*768/85Hz 69KHz (DVI)



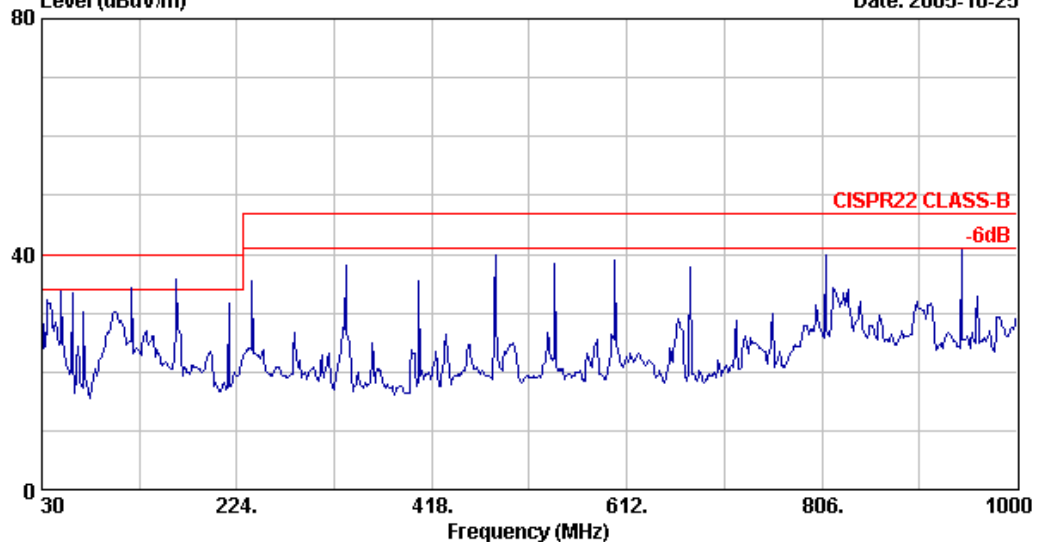
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Data: 37 File: \\MINI\_AC\\DATA\\report\\EM94\\EM941101-1200\\Em941190.emi (40) Date: 2005-10-25



Site no. : AUDIX Mini Chamber Data no. : 37  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1280\*1024/75Hz 80KHz (DVI)

Data: 38 File: \\MINI\_AC\\DATA\\report\\EM94\\EM941101-1200\\Em941190.emi (40) Date: 2005-10-25

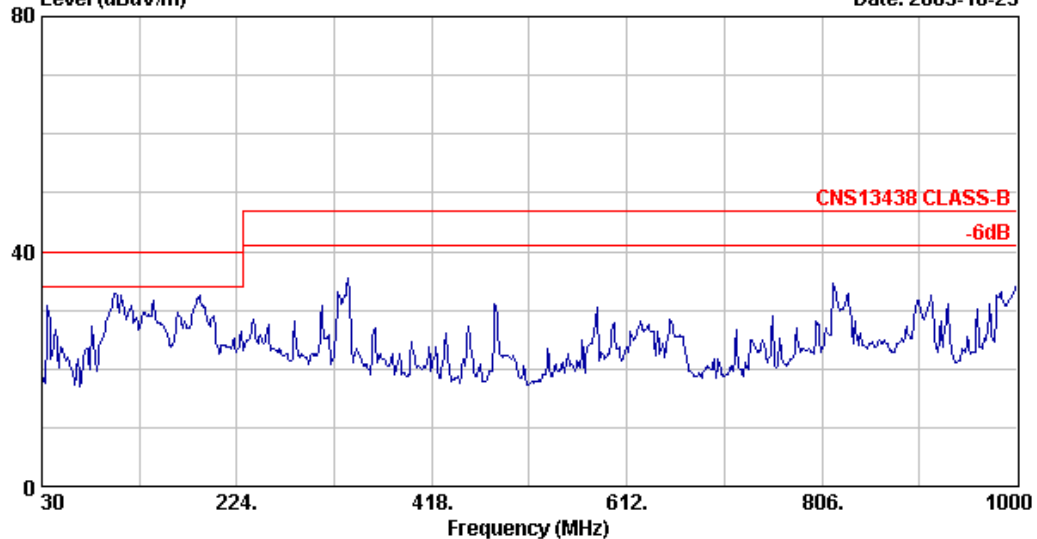


Site no. : AUDIX Mini Chamber Data no. : 38  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1280\*1024/75Hz 80KHz (DVI)



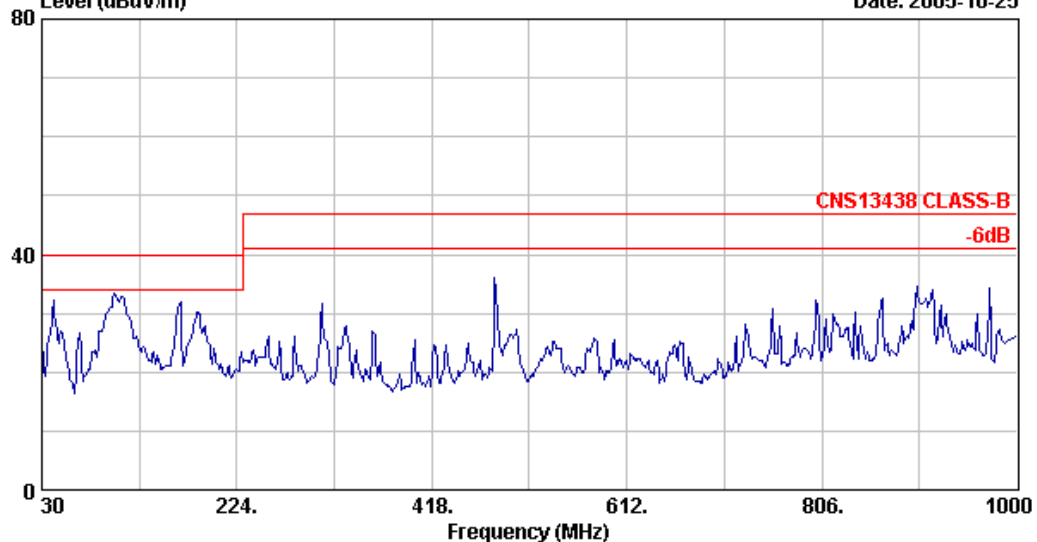
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Email:ttenc@ttenc.com.tw

Data: 32 File: \\MINI\_AC\\DATA\\report\\EM94\\EM941101-1200\\Em941190.emi (40) Date: 2005-10-25



Site no. : AUDIX Mini Chamber Data no. : 32  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CNS13438 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac / 60Hz  
Test Mode : 1600\*1200/60Hz 76KHz (DVI)

Data: 31 File: \\MINI\_AC\\DATA\\report\\EM94\\EM941101-1200\\Em941190.emi (40) Date: 2005-10-25

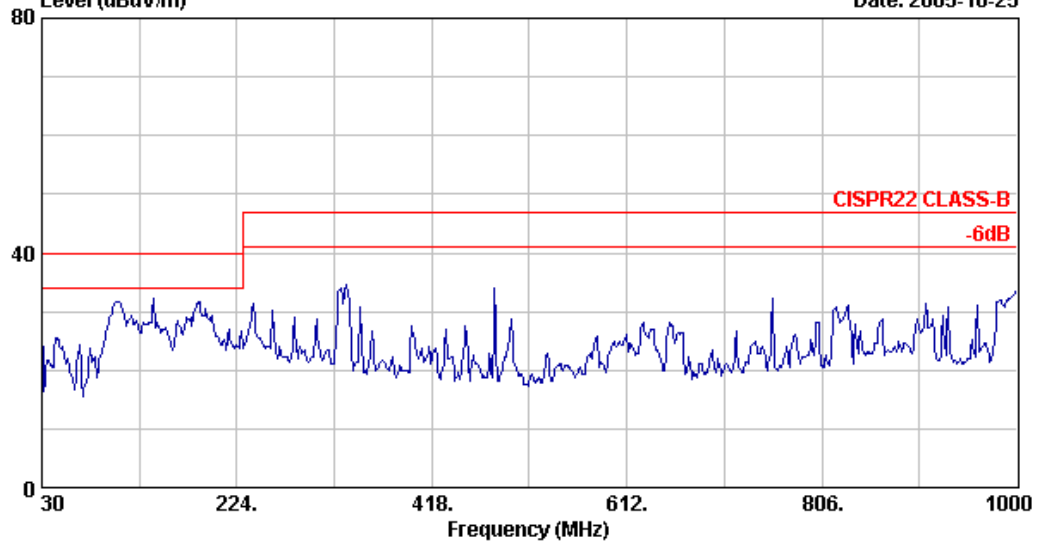


Site no. : AUDIX Mini Chamber Data no. : 31  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CNS13438 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac / 60Hz  
Test Mode : 1600\*1200/60Hz 76KHz (DVI)



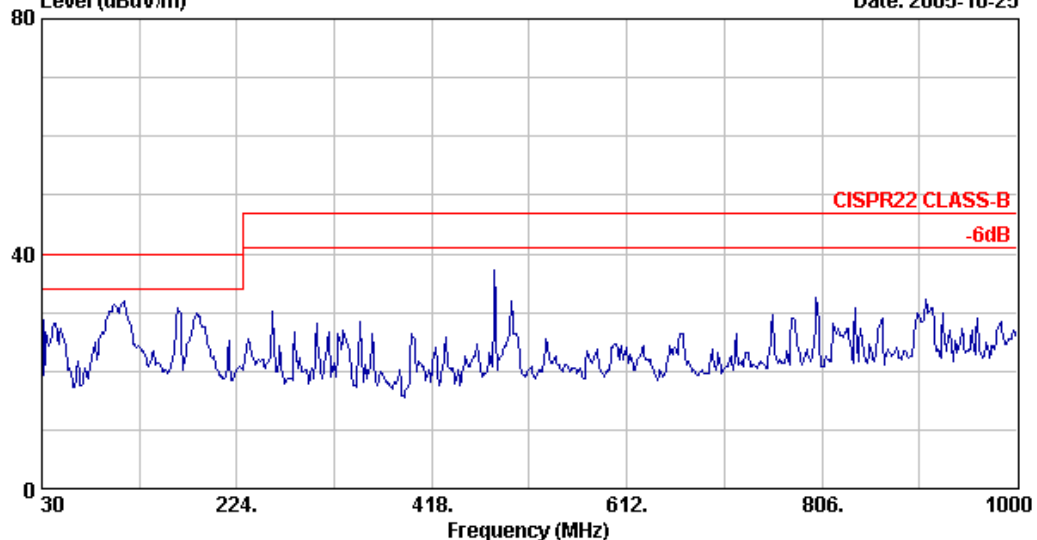
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Data: 29 File: \\MINI\_AC\\DATA\\report\\EM94\\EM941101-1200\\Em941190.emi (40) Date: 2005-10-25



Site no. : AUDIX Mini Chamber Data no. : 29  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : HORIZONTAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1920\*1200/60Hz 76KHz (DVI)

Data: 30 File: \\MINI\_AC\\DATA\\report\\EM94\\EM941101-1200\\Em941190.emi (40) Date: 2005-10-25

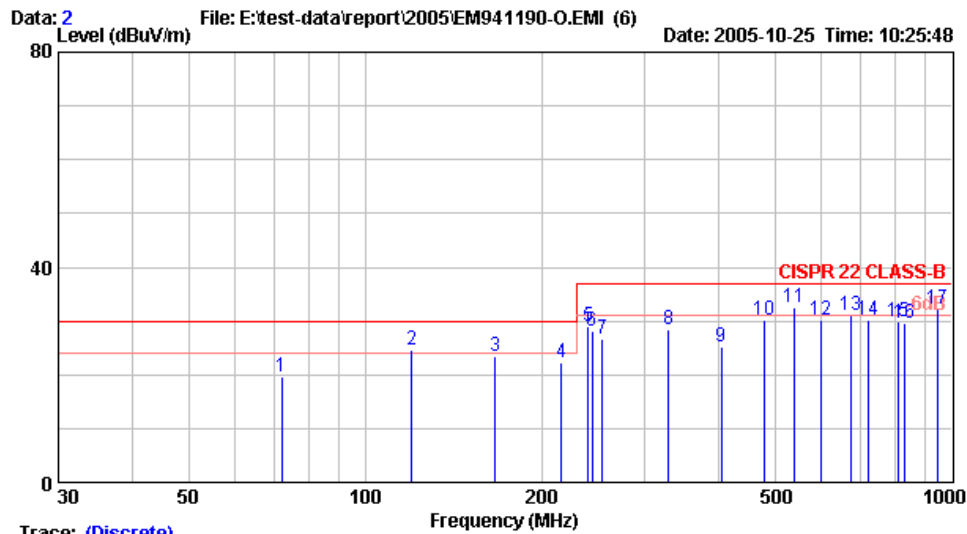


Site no. : AUDIX Mini Chamber Data no. : 30  
Dis. / Ant. : 3m CBL6112B(2818) Ant. pol. : VERTICAL  
Limit : CISPR22 CLASS-B  
Env. / Ins. : 24°C / 69% ; Agilent E7405A Engineer : Tim  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac/60Hz  
Test Mode : 1920\*1200/60Hz 76KHz (DVI)

## [ 30MHz to 1000MHz Frequency Range Measurement Results at No. 3 Open Area Test Site ]



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Email:ttmc@ttmc.com.tw  
Web:www.ttmc.com



Trace: (Discrete)

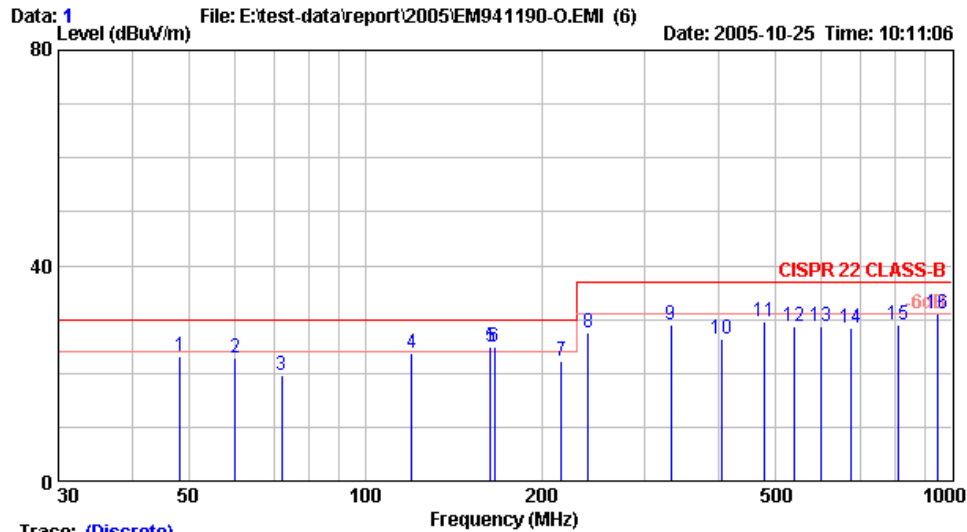
Site no. : NO.3 Open Site Data no. : 2  
Dis. / Ant. : 10m 6106A/6109(0104) Ant. pol. : HORIZONTAL  
Limit : CISPR 22 CLASS-B  
Env. / Ins. : 27°C / 44% ESVS 10 Engineer : kent sun  
EUT : Flat Panel Color Monitor M/N:230WP7  
Power Rating : 120Vac / 60Hz  
Test Mode : 1280\*1024/75Hz 80KHz (DVI)  
S/N:TY0405310

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark
1	72.003	12.54	1.60	5.62	19.76	30.00	10.24	
2	120.028	18.82	2.20	3.69	24.71	30.00	5.29	
3	166.551	20.59	2.60	0.12	23.31	30.00	6.69	
4	216.005	21.21	3.00	-1.96	22.25	30.00	7.75	
5	240.018	21.97	3.20	3.75	28.92	37.00	8.08	
6	243.818	22.02	3.20	2.89	28.11	37.00	8.89	
7	253.968	22.65	3.20	0.80	26.65	37.00	10.35	
8	329.401	14.56	3.80	10.04	28.40	37.00	8.60	
9	405.002	16.40	4.20	4.63	25.23	37.00	11.77	
10	480.026	17.72	4.80	7.52	30.04	37.00	6.96	
11	540.002	19.28	5.20	8.07	32.55	37.00	4.45	*
12	600.026	20.46	5.40	4.43	30.29	37.00	6.71	
13	675.001	21.25	5.60	4.14	30.99	37.00	6.01	
14	720.034	21.12	6.00	2.92	30.04	37.00	6.96	
15	810.002	22.72	6.40	0.87	29.99	37.00	7.01	
16	832.763	23.40	6.60	-0.45	29.55	37.00	7.45	
17	945.002	24.48	7.20	0.68	32.36	37.00	4.64	

- 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 540.002MHz with corrected signal level of 32.55dB $\mu$ V/m (limit is 37.0dB $\mu$ V/m) when the antenna was at horizontal polarization and was at 4m high and the turn table was at 320°.  
4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.



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 Web:www.ttemc.com



Trace: (Discrete)

Site no. : NO.3 Open Site Data no. : 1  
 Dis. / Ant. : 10m 6106A/6109 (0104) Ant. pol. : VERTICAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 27°C / 44% ESVS 10 Engineer : kent sun  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac / 60Hz  
 Test Mode : 1280\*1024/75Hz 80KHz (DVI)  
 S/N:TY0405310

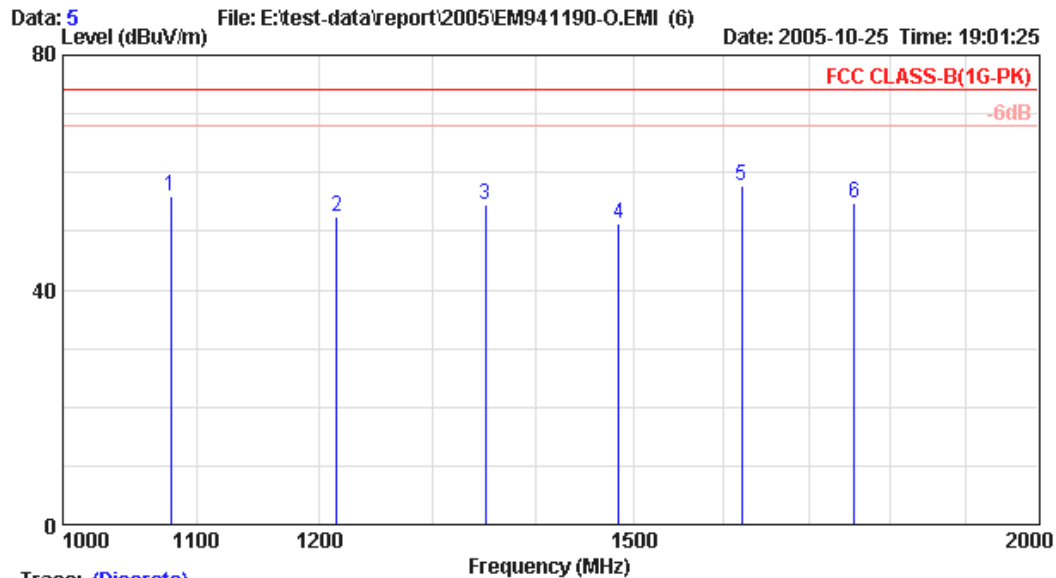
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark
1	48.302	16.61	1.20	5.48	23.29	30.00	6.71	
2	60.015	13.49	1.40	8.10	22.99	30.00	7.01	
3	72.003	12.30	1.60	5.60	19.50	30.00	10.50	
4	120.026	19.27	2.20	2.20	23.67	30.00	6.33	
5	163.690	19.90	2.60	2.54	25.04	30.00	4.96	*
6	166.263	19.62	2.60	2.73	24.95	30.00	5.05	
7	216.015	21.05	3.00	-1.82	22.23	30.00	7.77	
8	240.015	20.66	3.20	3.62	27.48	37.00	9.52	
9	332.502	14.90	3.80	10.34	29.04	37.00	7.96	
10	405.004	16.82	4.20	5.28	26.30	37.00	10.70	
11	480.028	18.52	4.80	6.20	29.52	37.00	7.48	
12	540.004	18.96	5.20	4.53	28.69	37.00	8.31	
13	600.028	20.61	5.40	2.68	28.69	37.00	8.31	
14	675.002	21.34	5.60	1.56	28.50	37.00	8.50	
15	810.002	22.61	6.40	0.12	29.13	37.00	7.87	
16	945.005	24.68	7.20	-0.68	31.20	37.00	5.80	

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 163.690MHz with corrected signal level of 25.04dB $\mu$ 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 45°.  
 4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

## [ 1GHz to 2GHz Frequency Range Measurement Results at No. 3 Open Area Test Site ]



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 Web:www.ttemc.com



Site no. : NO.3 Open Site Data no. : 5  
 Dis. / Ant. : 3m HORN ANT Ant. pol. : HORIZONTAL  
 Limit : FCC CLASS-B(1G-PK)  
 Env. / Ins. : 27°C / 44% E7405A Engineer : kent sun  
 EUT : Flat Panel Color Monitor M/N:230WP7  
 Power Rating : 120Vac / 60Hz  
 Test Mode : 1600\*1200/75Hz 94KHz (D-SUB)  
 S/N:TY0405310

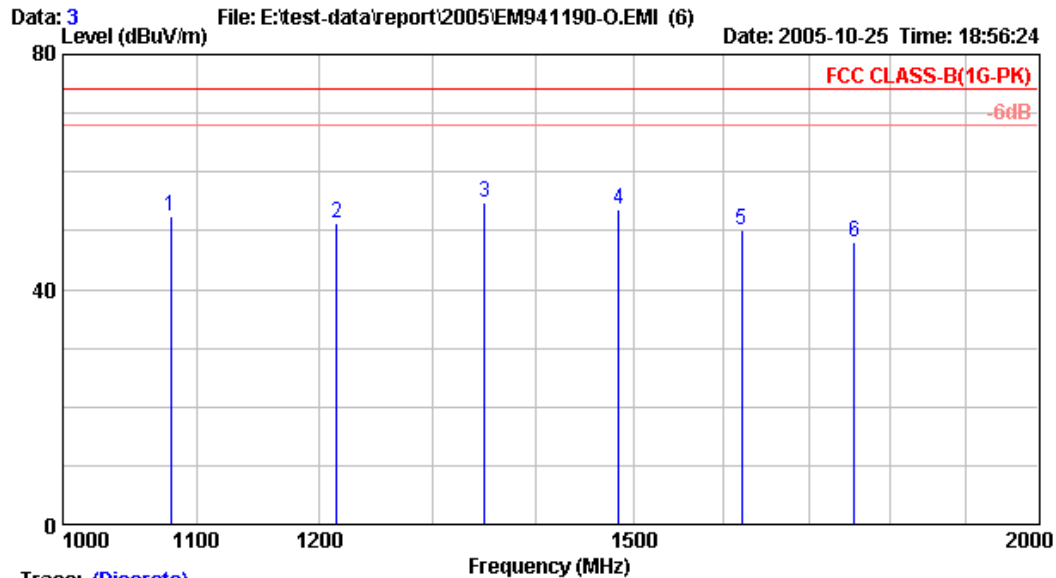
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark
1	1080.024	24.85	2.01	29.21	56.07	74.00	17.93	Peak
2	1215.030	25.21	2.03	25.19	52.44	74.00	21.56	Peak
3	1350.026	25.55	2.05	26.77	54.37	74.00	19.63	Peak
4	1485.017	25.86	2.07	23.33	51.26	74.00	22.74	Peak
5	1620.033	26.13	2.08	29.39	57.61	74.00	16.39	Peak
6	1755.032	26.39	2.10	26.35	54.83	74.00	19.17	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.





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Trace: (Discrete)

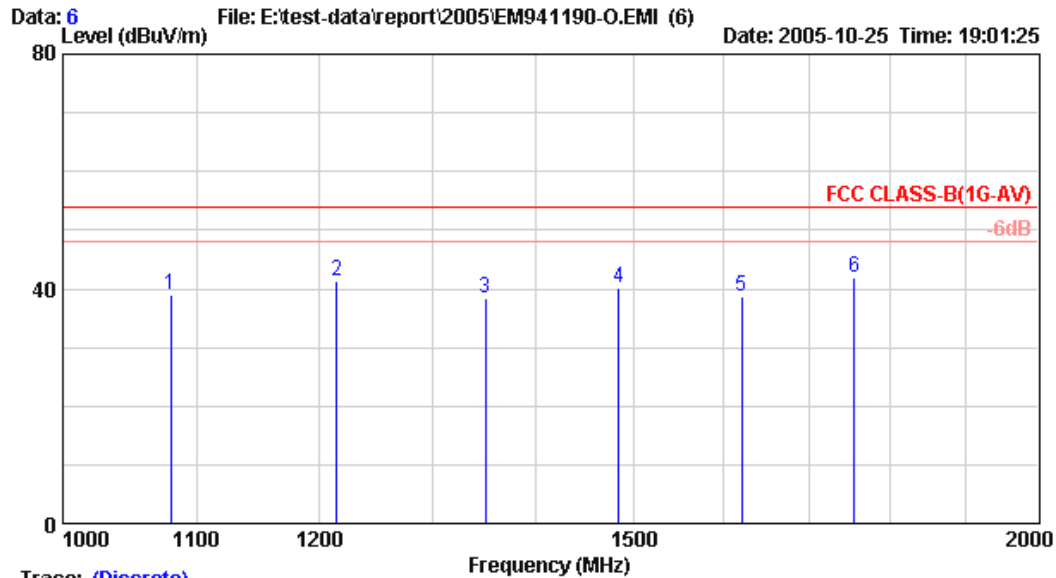
Site no.	: NO.3 Open Site	Data no.	: 3
Dis. / Ant.	: 3m HORN ANT	Ant. pol.	: VERTICAL
Limit	: FCC CLASS-B(1G-PK)		
Env. / Ins.	: 27°C / 44% E7405A	Engineer	: kent sun
EUT	: Flat Panel Color Monitor M/N:230WP7		
Power Rating	: 120Vac / 60Hz		
Test Mode	: 1600*1200/75Hz 94KHz (D-SUB)		
	S/N:TY0405310		

	Freq.	Ant.	Cable		Emission			
	(MHz)	Factor	Loss	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)	
1	1080.026	24.85	2.01	25.51	52.37	74.00	21.63	Peak
2	1215.026	25.21	2.03	23.89	51.14	74.00	22.86	Peak
3	1350.020	25.55	2.05	27.27	54.87	74.00	19.13	Peak
4	1485.023	25.86	2.07	25.83	53.76	74.00	20.24	Peak
5	1620.325	26.13	2.08	21.99	50.21	74.00	23.79	Peak
6	1755.024	26.39	2.10	19.65	48.13	74.00	25.87	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

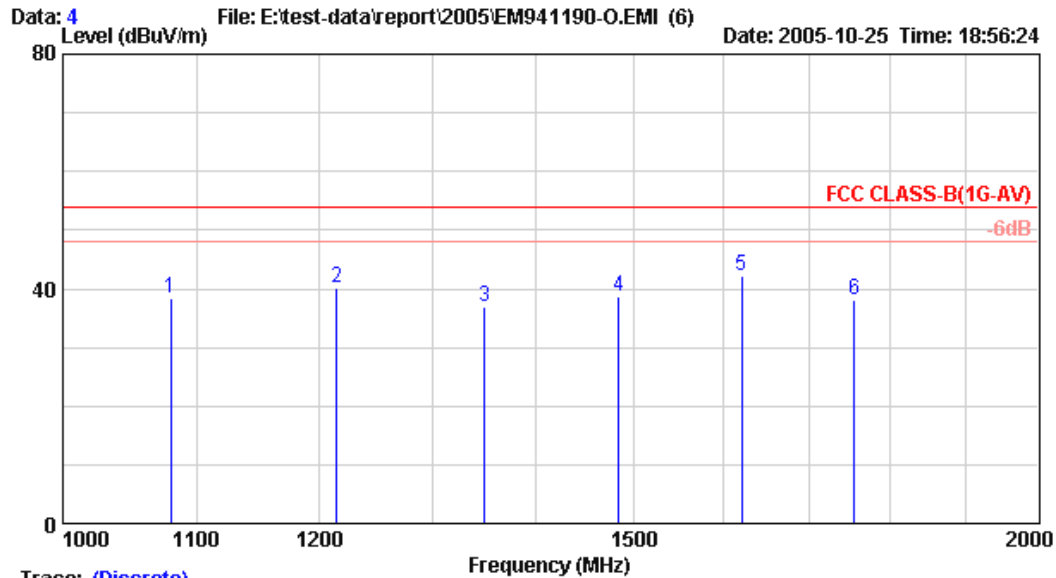
Site no.	: NO.3 Open Site	Data no.	: 6
Dis. / Ant.	: 3m HORN ANT	Ant. pol.	: HORIZONTAL
Limit	: FCC CLASS-B(1G-AV)		
Env. / Ins.	: 27°C / 44% E7405A	Engineer	: kent sun
EUT	: Flat Panel Color Monitor M/N:230WP7		
Power Rating	: 120Vac / 60Hz		
Test Mode	: 1600*1200/75Hz 94KHz (D-SUB)		
	S/N:TY0405310		

	Freq.	Ant.	Cable		Emission			
	(MHz)	Factor	Loss	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)	
1	1080.024	24.85	2.01	12.21	39.07	54.00	14.93	Average
2	1215.030	25.21	2.03	14.19	41.44	54.00	12.56	Average
3	1350.026	25.55	2.05	10.77	38.37	54.00	15.63	Average
4	1485.017	25.86	2.07	12.33	40.26	54.00	13.74	Average
5	1620.033	26.13	2.08	10.39	38.61	54.00	15.39	Average
6	1755.032	26.39	2.10	13.35	41.83	54.00	12.17	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Trace: (Discrete)

Site no.	: NO.3 Open Site	Data no.	: 4
Dis. / Ant.	: 3m HORN ANT	Ant. pol.	: VERTICAL
Limit	: FCC CLASS-B(1G-AV)		
Env. / Ins.	: 27°C / 44% E7405A	Engineer	: kent sun
EUT	: Flat Panel Color Monitor M/N:230WP7		
Power Rating	: 120Vac / 60Hz		
Test Mode	: 1600*1200/75Hz 94KHz (D-SUB)		
	S/N:TY0405310		

	Freq.	Ant.	Cable		Emission			
	(MHz)	Factor	Loss	Reading	Level	Limits	Margin	Remark
		(dB/m)	(dB)	(dB $\mu$ V)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)	
1	1080.026	24.85	2.01	11.51	38.37	54.00	15.63	Average
2	1215.026	25.21	2.03	12.89	40.14	54.00	13.86	Average
3	1350.020	25.55	2.05	9.27	36.87	54.00	17.13	Average
4	1485.023	25.86	2.07	10.83	38.76	54.00	15.24	Average
5	1620.325	26.13	2.08	13.99	42.21	54.00	11.79	Average
6	1755.024	26.39	2.10	9.65	38.13	54.00	15.87	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

#### **4. DEVIATION TO TEST SPECIFICATIONS**

During 1GHz to 2GHz frequency range measurement, due to low loss cable length limitation, the horn antenna couldn't move up and down between 1 to 4 meters. But the test result was not affected due to the worst receiving condition of horn antenna should be at 1 meter high for above 1 GHz radiation measurement.

## 5. PHOTOGRAPHS

### 5.1. Photos of Conducted Emission Measurement

Test Mode: D-Sub or DVI Input, Panel Position: 0°/Horizontal



FRONT VIEW OF CONDUCTED MEASUREMENT



BACK VIEW OF CONDUCTED MEASUREMENT



Test Mode: DVI Input, Panel Position: 90°/Vertical



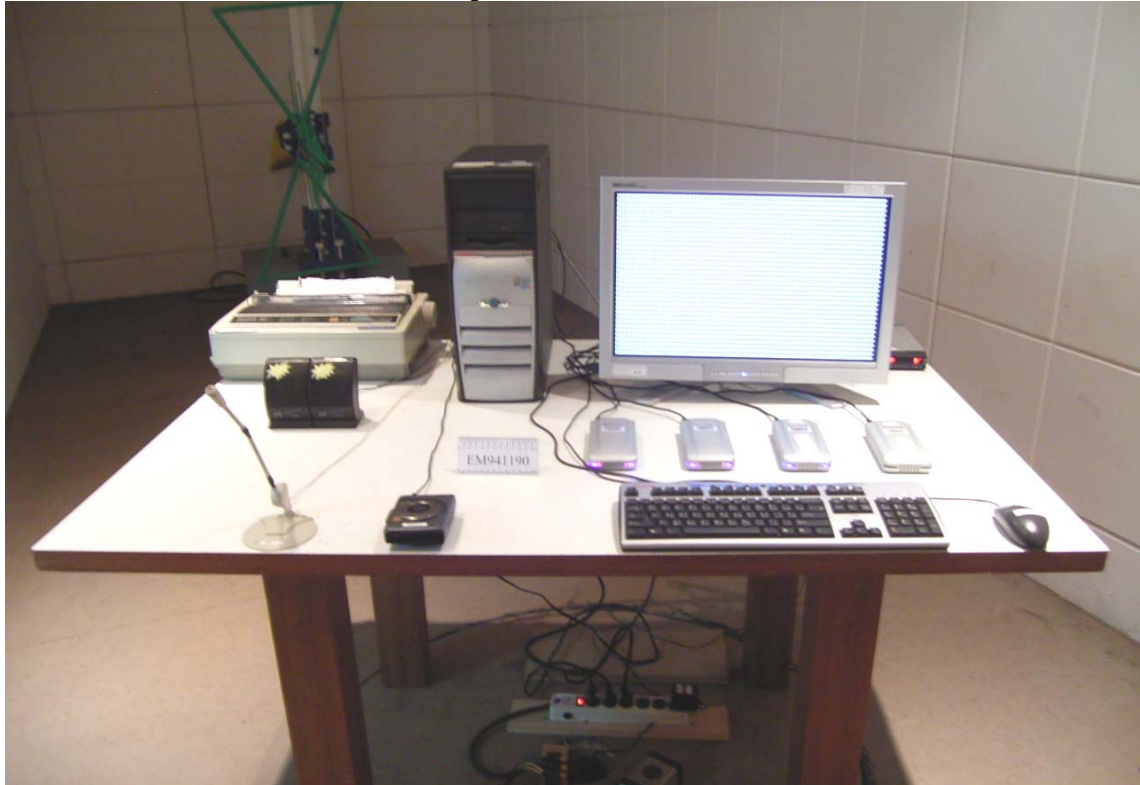
FRONT VIEW OF CONDUCTED MEASUREMENT



BACK VIEW OF CONDUCTED MEASUREMENT

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

Test Mode: D-Sub or DVI Input, Panel Position: 0°/Horizontal



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT



Test Mode: D-Sub Input, Panel Position: 90°/Vertical



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT



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

Test Mode: 1280\*1024/75Hz, 80kHz, DVI Input, Panel Position: 0°/Horizontal



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT



SETUP WITH MAXIMUM DETECTED EMISSION AT HORIZONTAL POLARIZATION



SETUP WITH MAXIMUM DETECTED EMISSION AT VERTICAL POLARIZATION



#### 5.4. Photos of Radiated Measurement at Open Area Test Site (1-2GHz)



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT

