Philips Electronics Industries (Taiwan) Ltd - EMC Lab. 5, Tze Chiang 1 Road, Chungli Industrial Park, Chungli, Taoyuan, Taiwan Tel.: +886-3-454-9862 Fax.: +886-3-454-9887 E-mail: ronnie.yang@philips.com	FCC Test Report	Report No.: TYR87-2014 Date : 01 July, 2002 Page : Page 1 of 48

Customer : Philips Electronics Industries

Name : Mr. S.T. Huang – EE LCD
Address : 5, Tze Chiang 1 Road,
Zip/City : Chungli Industrial Park,
Country : Chungli, Taiwan, R.O.C.

Equipment Under Test (including peripherals) :

FCC ID. : A3KM114
Model Name : 109B40, 109S40
Serial Number : TY0205273, TY0205302
Description : 19” XGA color monitor, Max. resolution 1600x1200/75Hz

EMC Standards : FCC Part 15 of October 01,1999 Class B
ANSI C63.4-1992

Result : PASSED the limits/test-levels in the standards.

Note : The results in this report apply only to the sample(s) and mode(s) tested. It is the manufacturer’s responsibility to assume the continued EMC compliance of production models.

Date of receipt of EUT : 24 Jun. 2002

Date of performance of test : 25 Jun., 2002 to 30 Jun., 2002

C.C. Wu - EMC Test Engineer

Ronnie Yang - EMC Manager
NVLAP Signatory

Table of contents

1. Summary of test results

Test	Standard	Result	Note
Emission, ANSI C63.4-1992			
Conducted emission	FCC Part 15	**Passed**	
Radiated emission	FCC Part 15	**Passed**	

Remark:

The test sample fully complies with the requirements set forth in : FCC Part 15 Class B.

2. General Information of EUT

The EUT, 19" color monitor :

Model No. : 109B40, 109S40
FCC ID : A3KM114
Brand : Philips

The color monitor automatically scans horizontal frequencies between 30KHz and 97KHz , and vertical frequencies between 50Hz and 160Hz. This color monitor displays sharp and brilliant images of text and graphics with a maximum resolution up to 1600x1200 pixels.

The monitor has 6 factory-preset modes as indicated in the following table:

Item	Resolution	Freq. V x H	Pixel rate(Mhz)	Remark
1	800x600	85(53.674k)	56.250	VESA
2	1024x768	75(60.000k)	78.750	VESA
3	1024x768	85(68.677k)	94.500	VESA
4	1280x1024	75(79.976k)	135.000	VESA
5	1280x1024	85(91.146k)	157.500	VESA
6	1600x1200	75(93.750k)	202.500	VESA

3. Test Equipment

Test equipment used for line Conducted and Radiated emissions as following.
All equipment were calibrated according to ANSI C63.4-1992 and ISO-9000 requirement unless otherwise specified.
Traceability to R.O.C. and international standards is assured by using calibrated all equipment.

- For Conducted Emissions Test:

Test Equipment	Model No.	Serial No.	Last Calibrate	Next Calibrate
Spectrum	HP8568B	2415A00346	08/15/2001	08/15/2002
EMI Receiver	R & S ESVS30	841977/006	06/13/2002	06/13/2003
LISN	EMCO 3825/2	9311-2153	06/13/2002	06/13/2003
LISN	EMCO 3825/2	9311-2154	06/13/2002	06/13/2003
RF Cable	8-meter	N/A	05/29-2002	05/29/2003

- For Radiated Emissions Test:

Test Equipment	Model No.	Serial No.	Last Calibrate	Next Calibrate
Spectrum	HP8568B	2415A00346	08/15/2001	08/15/2002
RF Preselector	HP85685A	2901A00946	08/15/2001	08/15/2002
QP Adapter	HP85650A	2043A00366	08/15/2001	08/15/2002
EMI Receiver	HP85460A	3441A00199	09/11/2001	09/11/2002
RFI Filter Section	HP85460A	3330A00177	09/11/2001	09/11/2002
EMI Receiver	R & S ESVS30	841977/006	05/29/2002	05/29/2003
Biconical Antenna	EMCO 3110B	3222	06/04/2002	06/04/2003
Biconical Antenna	EMCO 3110B	3224	06/04/2002	06/04/2003
Log-Periodic Antenna	EMCO 3146A	1424	06/04/2002	06/04/2003
Log-Periodic Antenna	EMCO 3146A	1425	06/04/2002	06/04/2003
Turn Table	EMCO 1060	1068	05/27/2002	05/27/2003
Antenna Tower	EMCO 1050	1113	05/27/2002	05/27/2003
RF Cable	M17/75-RG214-NE	N/A	05/27/2002	05/27/2003

4. Test Configuration of EUT and Peripherals

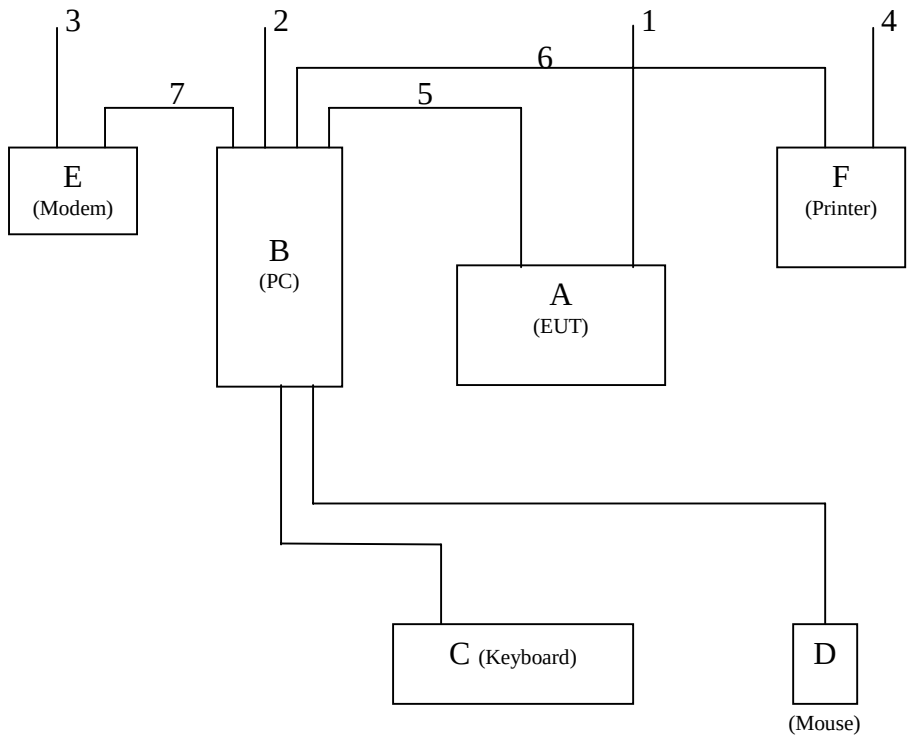
The system was configured for testing in a typical fashion (as a customer would normally use it) according to ANSI C63.4-1992, please see the photographs for detail. For system measurement, the EUT "109B40, 109S40" were connected to:

	Description	Brand/ Model No.	Serial No.	FCC ID	Remark
A	Monitor	Philips 109B40 109S40	TY0205273 TY0205302	A3KM114	EUT
B	PC	Compaq ENC P866	5K15FXHZ2013	FCC Logo	
C	Keyboard	Compaq KB-9963	B26950GGALP13Q	FCC Logo	
D	Mouse	Compaq M-S48a		JNZ201213	
E	Modem	USRobotics 268	2680559278575	CJE-0318	
F	Printer	HP 2225C	3145S02419	DSI6XU2225	

Connected Cables

No.	Description	Manufacturer	Length	Shielded	Remark
1	Power Cord	Long Shine	1.8 meters	No	for EUT
2	Power Cord	Acer	1.8 meters	No	for PC
3	Power Cord	Aceex	2.0 meters	No	for Modem
4	Power Cord	HP	1.8 meters	No	for Printer
5	Video Cable	Long Shine	1.5 meters	Yes	
6	Printer Cable	HP	1.8 meters	Yes	
7	Modem Cable	Aceex	1.5 meters	Yes	

System Block Diagram of Test Configuration



5. Test Procedure

Test was performed by:

PHILIPS ELECTRONICS INDUSTRIES (TAIWAN) LTD.
CONSUMER ELECTRONICS DIVISION
- EMC LAB

5, Tze Chiang 1 Road, Chungli Industrial Park
P.O. Box 123, Chungli, Taoyuan, Taiwan
Tel : 886-3-4549862 Fax : 886-3-4549887
Internet: ronnie.yang@philips.com

The test was performed in accordance with ANSI C63.4-1992, "AMERICAN NATIONAL STANDARD FOR MEASUREMENT OF RADIO-NOISE EMISSION FROM LOW-VOLTAGE ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE OF 9KHz TO 40GHz"

Both conducted and radiated testing were performed according to the procedure in ANSI C63.4-1992. Conducted testing was performed in screen room and radiated testing was performed in open site at an antenna to EUT distance of 3-meter on horizontal and vertical polarization.

First, pre-scan all modes in screen room then select 3 higher modes (worst case) were tested and reported.

The line conductive interference was tested with 110VAC and 220VAC receptively.

Unshielded power cord was used during test.
D-sub I/F cable with two ferrite cores was used.

Tested and reported modes as following:

Test Item	File No.	Resolution	Frequencies	I/F Cable
Conducted	EMI02-024-C	1600x1200	93.7KHz/75Hz	D-sub
	EMI02-024-C EMI02-025-C	1280x1024	91.1KHz/85Hz	D-sub
	EMI02-025-C	1024x768	68.7KHz/85Hz	D-sub
Radiated	EMI02-024-R	1600x1200	93.7KHz/75Hz	D-sub
	EMI02-024-R EMI02-025-R	1280x1024	91.1KHz/85Hz	D-sub
	EMI02-025-R	1024x768	68.7KHz/85Hz	D-sub

Set up the EUT and all peripherals as chapter 6 of ANSI C63.4-1992 for AC power line conducted emissions testing and radiated emissions testing.

Turn on the power of EUT and all peripherals, select an appropriate displaying mode using the "setup" software. Then run an EMI test program "HTEST.EMI" as a basic software to execute the EUT operating under test. A pattern of scrolling H's should be displayed on the monitor.

Step 1 : Run the "HTEST.EMI" on personal computer then sends "H" character to monitor continuously until full screen.

Step 2 : Personal computer sends a complete line of continuously repeating "H" to HP 2225C printer.

Step 3 : Personal computer sends a file of "H" pattern to floppy disk then read a file of "H" pattern from floppy disk.

Step 4 : Personal computer sends a file of "H" pattern to hard disk then read a file of "H" pattern from hard disk.

Step 5 : Personal computer sends a file of "H" patter to USRobotics 268 modem.

Step 6 : Return to step 1

All data in this report are "PEAK" value within 15dB margin unless otherwise noted.

6. Measurement Uncertainty

The system uncertainty listed below are based on the instrument absolute specifications, and do not include uncertainties of the equipment under test.

Uncertainty for Radiated Emissions Test at 3 meters Test Site.

Source of Measurement Uncertainty	Uncertainty/dB
Antenna factor calibration	+/-2.0
Cable loss calibration	+/-0.5
Receiver specification	+/-1.0
Antenna position ver.	+/-2.0
Measurement distance ver.	+/-0.5
Site imperfections	+/-2.0
Mismatch	+/-1.1
System repeatability	+/-0.5

Uncertainty for Conducted Emissions Test at 3 meters Test Site.

Source of Measurement Uncertainty	Uncertainty/dB
LISN specification	+/-2.0
Cable loss calibration	+/-0.5
Receiver specification	+/-1.0
Pulse limiter Spec.	+/-0.3
Measurement distance ver.	+/-0.5
Site imperfections	+/-2.0
System repeatability	+/-0.5

7. Conducted Emissions Test

Conducted Emissions

FCC Part 15

Operating conditions EUT:

EUT powered on with scrolling “H” pattern.

Limits:

Frequency range (MHz)	Class A (dBuv) QP	Class B (dBuv) QP
0.45 – 1.705	60.0	48.0
1.705 – 30.0	69.5	48.0

Test Result :

Passed FCC Class B Limits

Option:

The following option may be employed if the conducted emissions exceed the limits, as appropriate, when measured using instrumentation employing a quasi-peak detector function: If the level of the emission measured using the quasi-peak instrumentation is 6dB, or, more higher than the level of the same emission measured with instrumentation having an average detector and a 9KHz minimum bandwidth, that emission is considered broadband and the level obtained with the quasi-peak detector may be reduced by 13dB for comparison to the limits.

Remark:

Date of Test	: 25 Jun., 2002 to 30 Jun., 2002
Test Engineer	: C.C.Wu

For detail measurement results see next pages.

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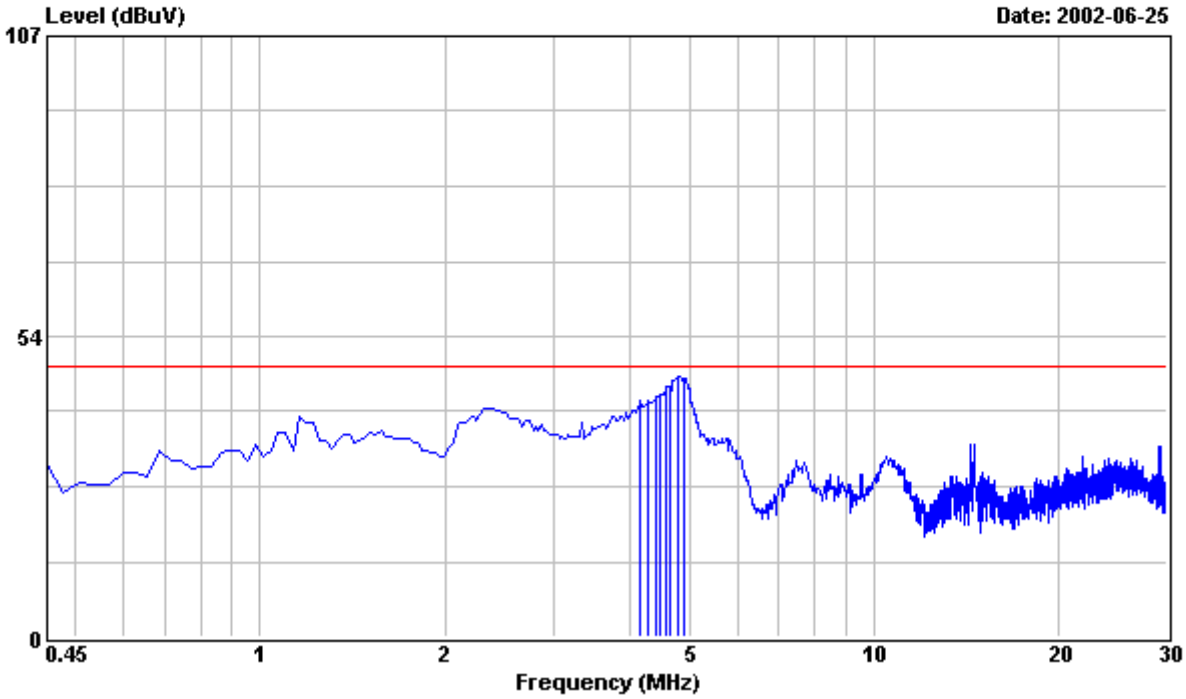

Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1600x1200/75Hz 93.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ LINE dBuV
4.173	41.70	48.00	0.38	42.08	-5.92
4.292	41.80	48.00	0.37	42.17	-5.83
4.410	42.60	48.00	0.36	42.96	-5.04
4.498	42.90	48.00	0.35	43.25	-4.75
4.587	44.20	48.00	0.34	44.54	-3.46
4.646	44.40	48.00	0.33	44.73	-3.27
4.794	46.10	48.00	0.32	46.42	-1.58
4.912	45.70	48.00	0.31	46.01	-1.99

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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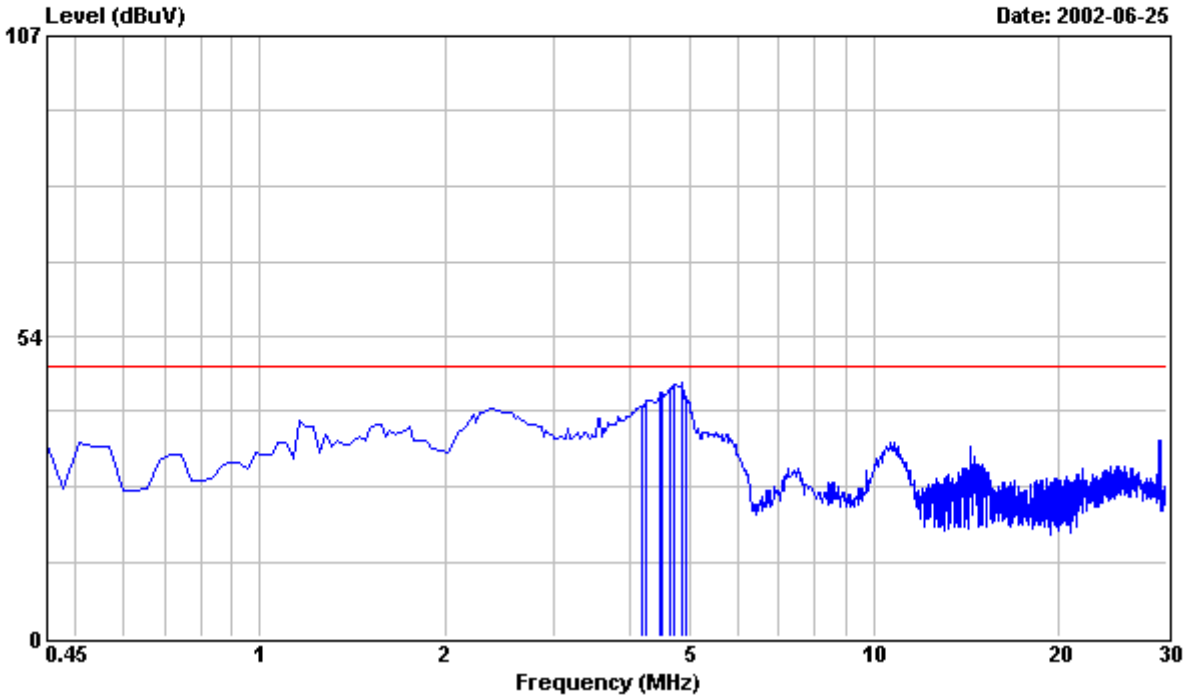

Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1600x1200/75Hz 93.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ NEUTRAL dBuV
4.203	40.70	48.00	0.38	41.08	-6.92
4.262	41.70	48.00	0.37	42.07	-5.93
4.469	43.00	48.00	0.35	43.35	-4.65
4.528	43.11	48.00	0.34	43.45	-4.55
4.646	43.90	48.00	0.33	44.23	-3.77
4.735	44.50	48.00	0.32	44.82	-3.18
4.853	44.90	48.00	0.31	45.21	-2.79
4.942	42.61	48.00	0.30	42.91	-5.09

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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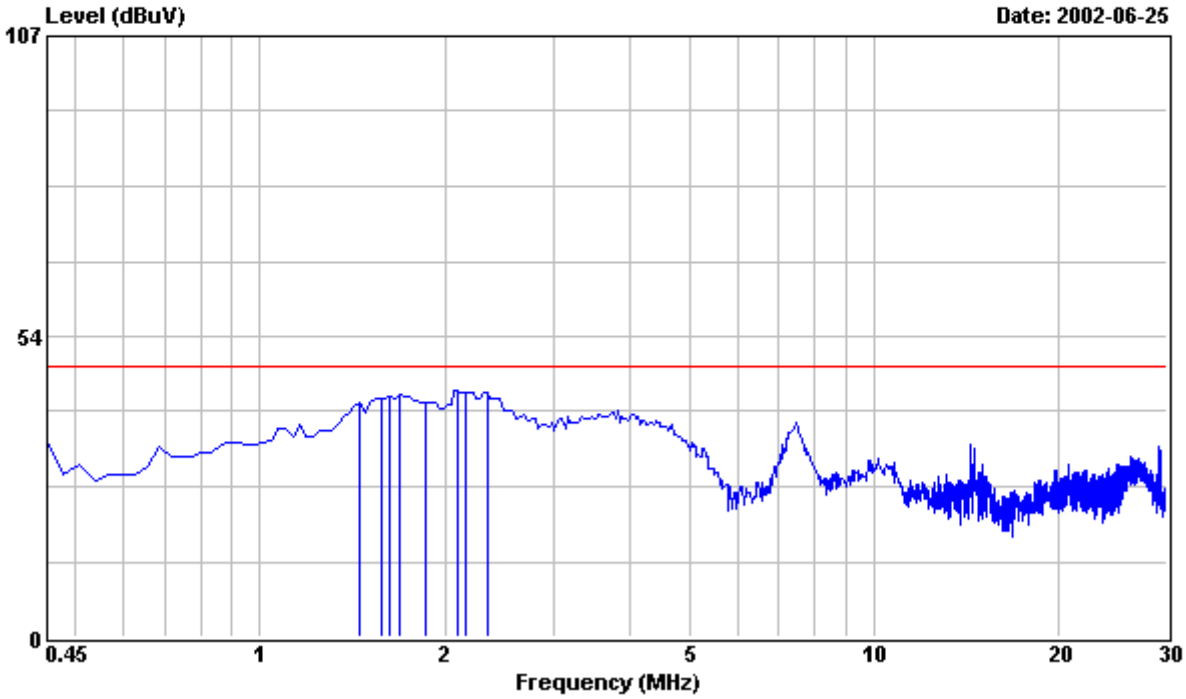

Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1600x1200/75Hz 93.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ LINE dBuV
1.455	41.50	48.00	0.40	41.90	-6.10
1.573	42.20	48.00	0.40	42.60	-5.40
1.632	42.40	48.00	0.40	42.80	-5.20
1.691	42.60	48.00	0.40	43.00	-5.00
1.868	41.50	48.00	0.40	41.90	-6.10
2.105	43.30	48.00	0.40	43.70	-4.30
2.164	43.20	48.00	0.40	43.60	-4.40
2.341	43.00	48.00	0.40	43.40	-4.60

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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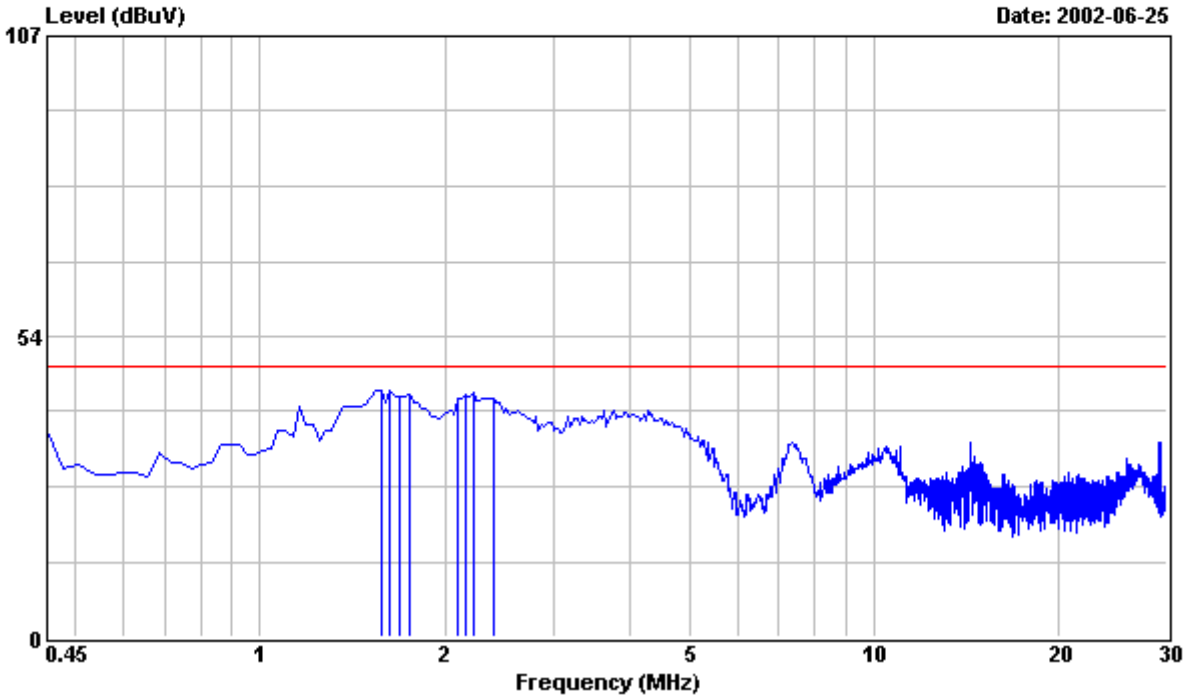

Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1600x1200/75Hz 93.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ NEUTRAL dBuV
1.573	43.40	48.00	0.40	43.80	-4.20
1.632	43.50	48.00	0.40	43.90	-4.10
1.691	42.40	48.00	0.40	42.80	-5.20
1.750	42.60	48.00	0.40	43.00	-5.00
2.105	42.20	48.00	0.40	42.60	-5.40
2.164	42.70	48.00	0.40	43.10	-4.90
2.223	43.00	48.00	0.40	43.40	-4.60
2.400	42.20	48.00	0.40	42.60	-5.40

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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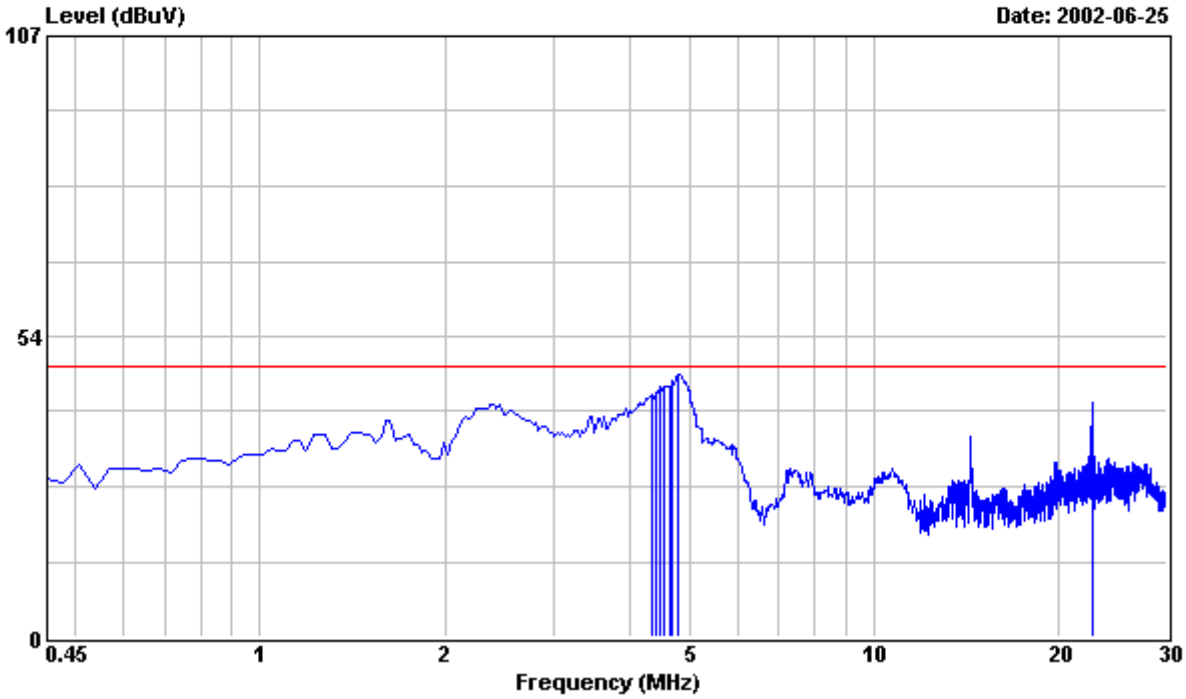

Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ LINE dBuV
4.351	42.90	48.00	0.36	43.26	-4.74
4.410	43.30	48.00	0.36	43.66	-4.34
4.469	44.40	48.00	0.35	44.75	-3.25
4.557	44.30	48.00	0.34	44.64	-3.36
4.646	44.40	48.00	0.33	44.73	-3.27
4.705	45.20	48.00	0.33	45.53	-2.47
4.794	46.30	48.00	0.32	46.62	-1.38
22.672	40.90	48.00	0.86	41.76	-6.24

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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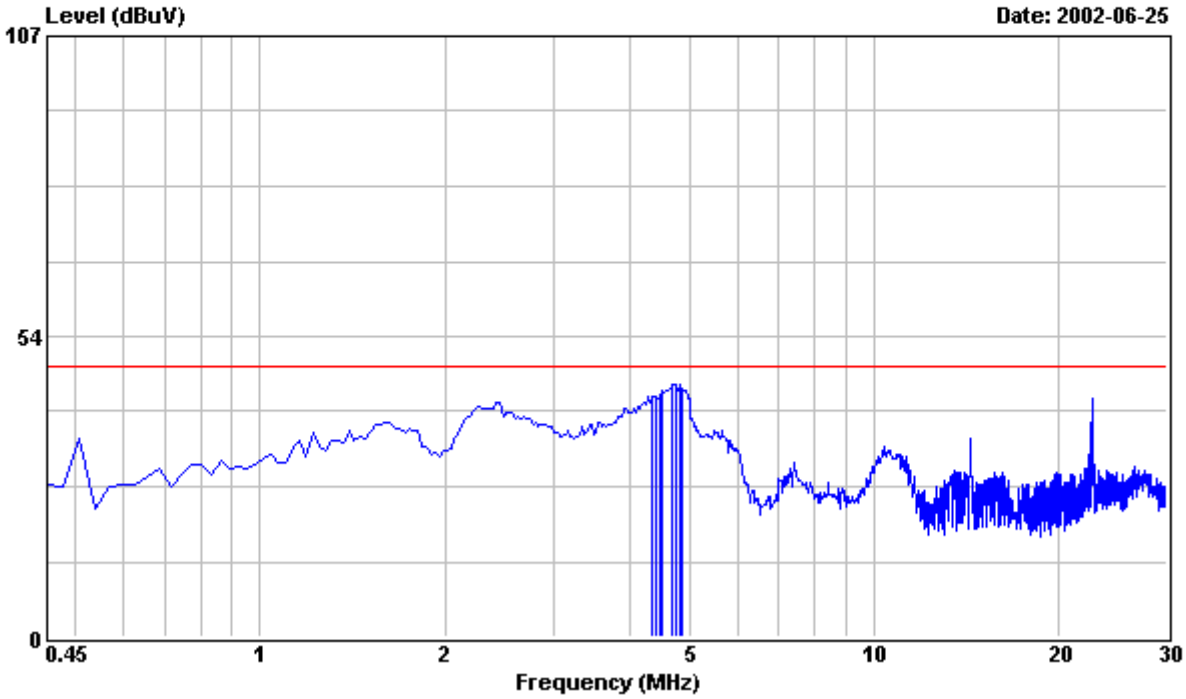

Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ NEUTRAL dBuV
4.351	42.50	48.00	0.36	42.86	-5.14
4.410	42.60	48.00	0.36	42.96	-5.04
4.469	42.40	48.00	0.35	42.75	-5.25
4.528	43.71	48.00	0.34	44.05	-3.95
4.705	44.70	48.00	0.33	45.03	-2.97
4.764	44.70	48.00	0.32	45.02	-2.98
4.823	44.60	48.00	0.32	44.92	-3.08
4.883	43.90	48.00	0.31	44.21	-3.79

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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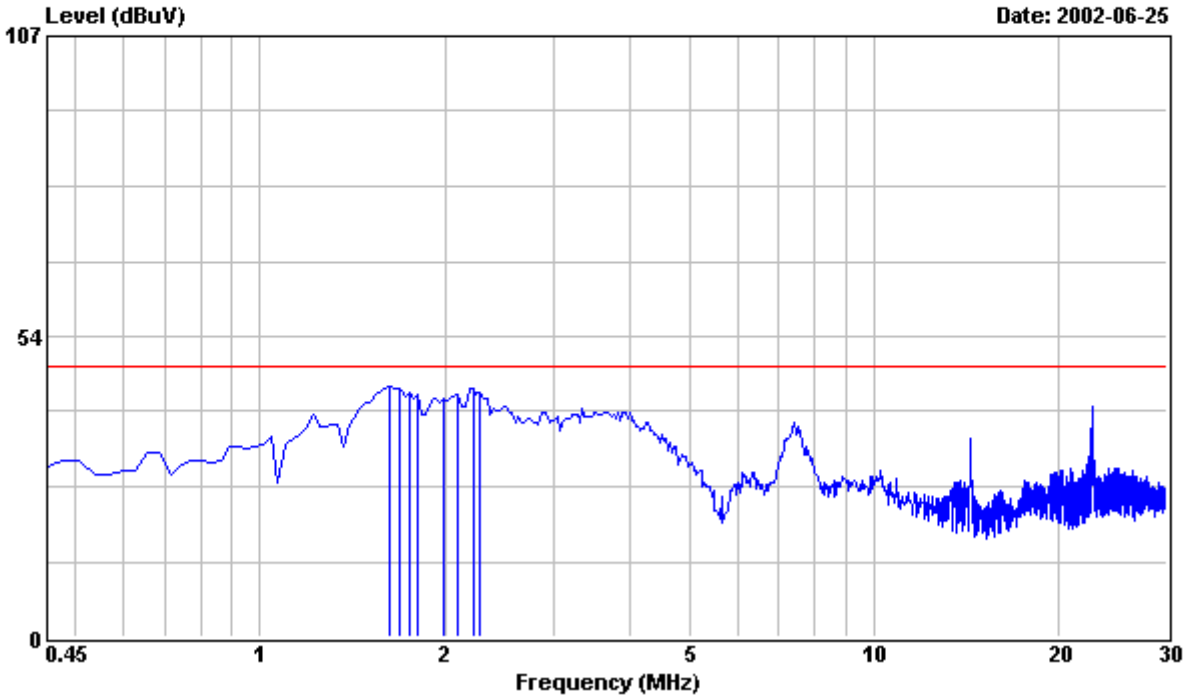

Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ LINE dBuV
1.632	44.10	48.00	0.40	44.50	-3.50
1.691	43.90	48.00	0.40	44.30	-3.70
1.750	43.20	48.00	0.40	43.60	-4.40
1.809	42.70	48.00	0.40	43.10	-4.90
1.987	41.90	48.00	0.40	42.30	-5.70
2.105	42.90	48.00	0.40	43.30	-4.70
2.223	44.00	48.00	0.40	44.40	-3.60
2.282	43.10	48.00	0.40	43.50	-4.50

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

PHILIPS
Philips Electronics Inductries (Taiwan)., Ltd.
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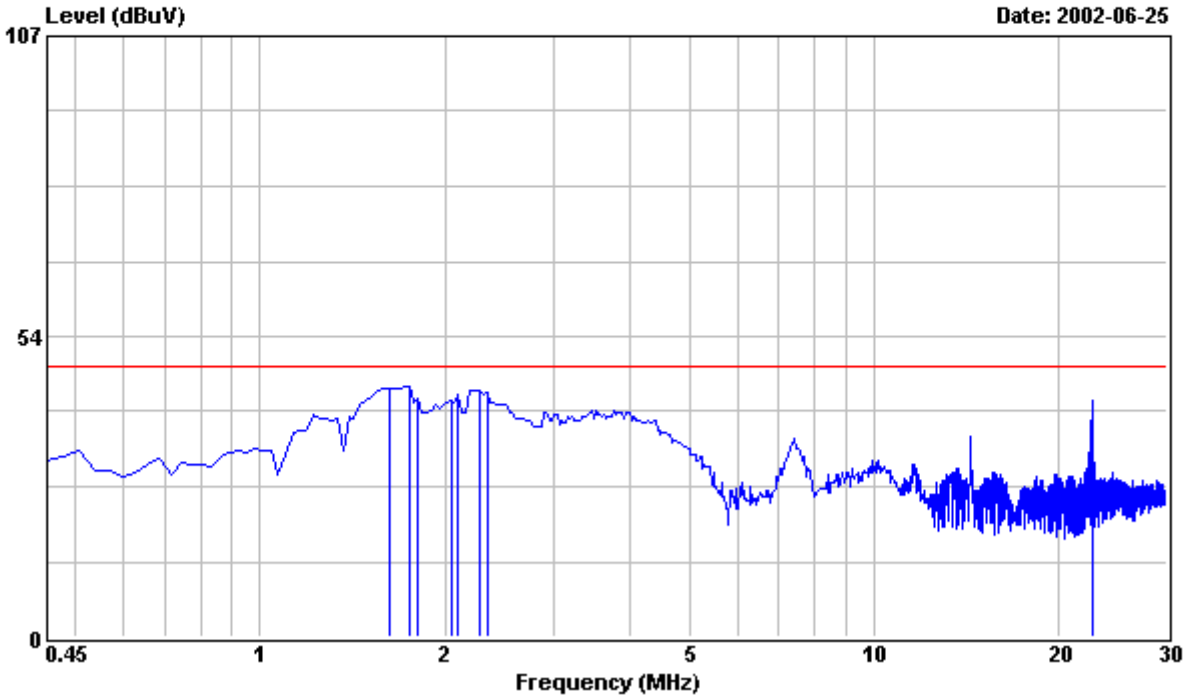
Data#: 8 File#: C:\Program Files\e3\EMI02-024-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ NEUTRAL dBuV
1.632	44.00	48.00	0.40	44.40	-3.60
1.750	44.20	48.00	0.40	44.60	-3.40
1.809	41.90	48.00	0.40	42.30	-5.70
2.046	41.70	48.00	0.40	42.10	-5.90
2.105	42.80	48.00	0.40	43.20	-4.80
2.282	43.60	48.00	0.40	44.00	-4.00
2.341	43.20	48.00	0.40	43.60	-4.40
22.672	41.00	48.00	0.96	41.96	-6.04

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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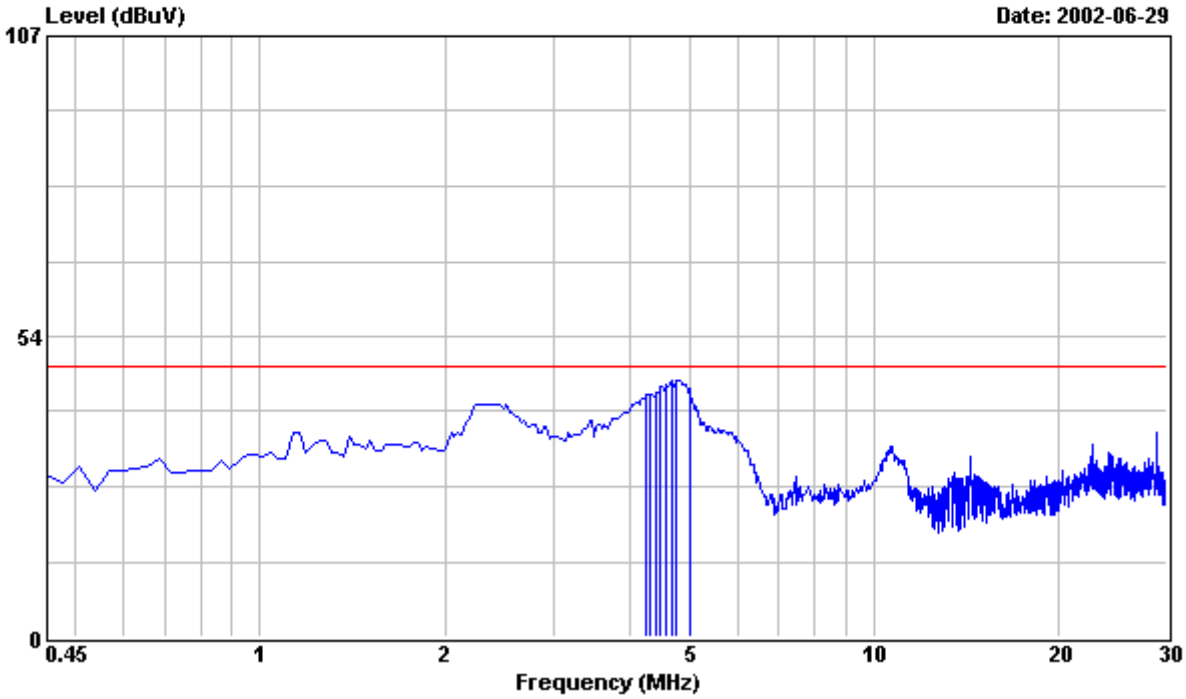
Data#: 1 File#: C:\Program Files\e3\EMI02-025-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ LINE dBuV
4.262	42.70	48.00	0.37	43.07	-4.93
4.321	42.81	48.00	0.36	43.17	-4.83
4.410	43.20	48.00	0.36	43.56	-4.44
4.498	44.20	48.00	0.35	44.55	-3.45
4.587	44.50	48.00	0.34	44.84	-3.16
4.676	45.30	48.00	0.33	45.63	-2.37
4.764	45.40	48.00	0.32	45.72	-2.28
5.001	43.90	48.00	0.30	44.20	-3.80

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

PHILIPS

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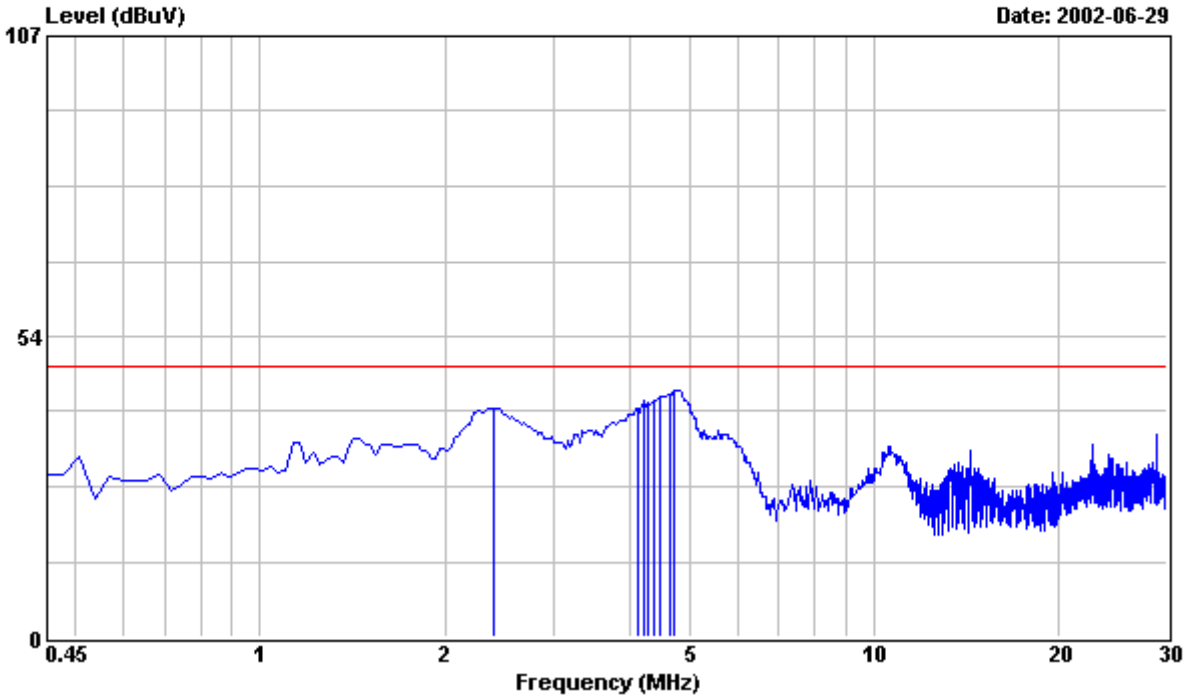
Data#: 2 File#: C:\Program Files\e3\EMI02-025-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ NEUTRAL dBuV
2.400	40.30	48.00	0.40	40.70	-7.30
4.114	40.20	48.00	0.39	40.59	-7.41
4.232	41.61	48.00	0.37	41.98	-6.02
4.292	41.20	48.00	0.37	41.57	-6.43
4.380	41.60	48.00	0.36	41.96	-6.04
4.498	42.50	48.00	0.35	42.85	-5.15
4.646	42.90	48.00	0.33	43.23	-4.77
4.735	43.70	48.00	0.32	44.02	-3.98

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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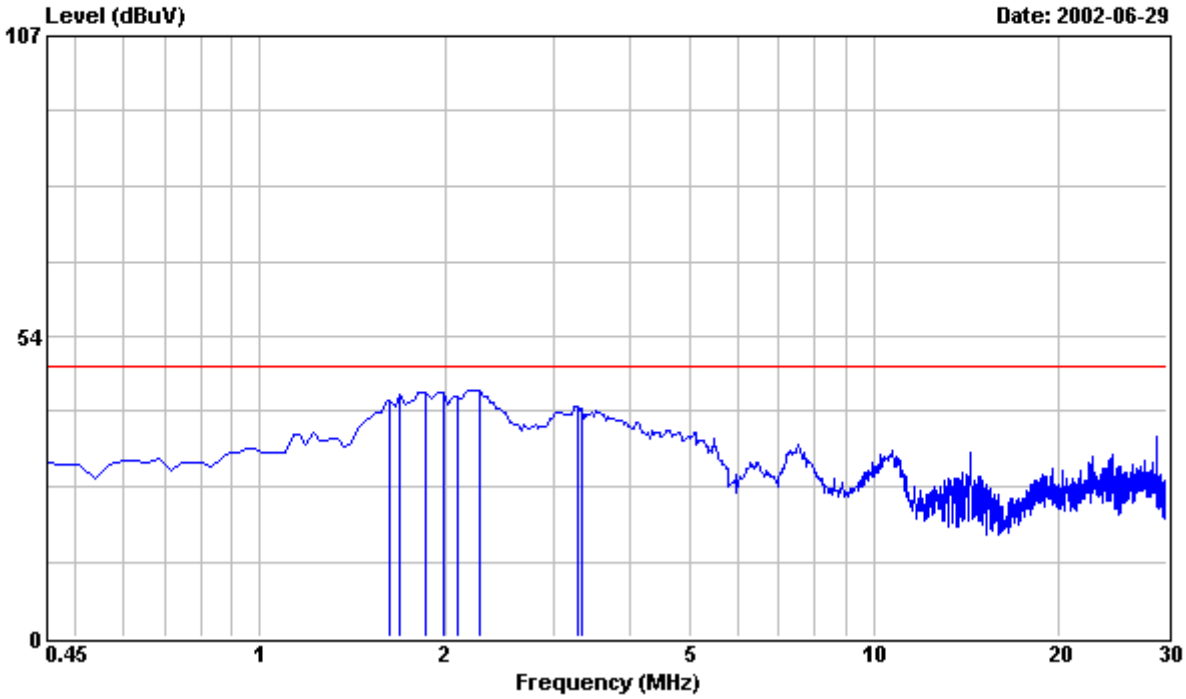
Data#: 3 File#: C:\Program Files\e3\EMI02-025-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ LINE dBuV
1.632	41.60	48.00	0.40	42.00	-6.00
1.691	42.90	48.00	0.40	43.30	-4.70
1.868	43.20	48.00	0.40	43.60	-4.40
1.987	43.00	48.00	0.40	43.40	-4.60
2.105	42.40	48.00	0.40	42.80	-5.20
2.282	43.50	48.00	0.40	43.90	-4.10
3.287	40.50	48.00	0.40	40.90	-7.10
3.346	40.10	48.00	0.40	40.50	-7.50

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

PHILIPS

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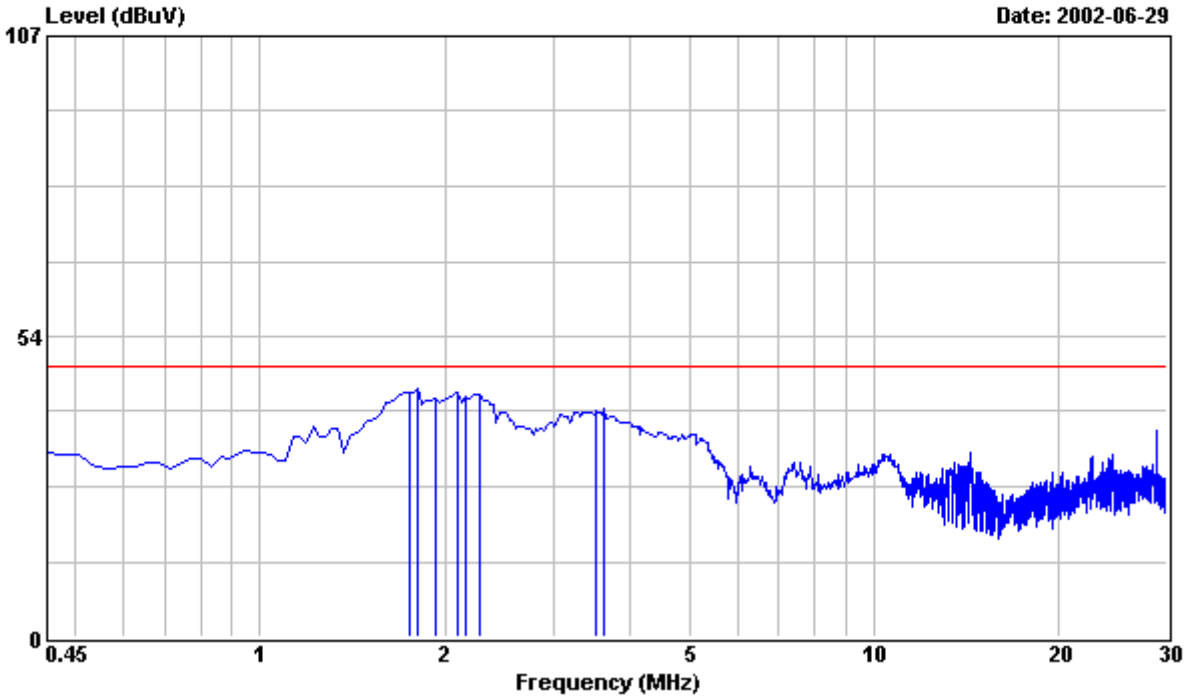
Data#: 4 File#: C:\Program Files\e3\EMI02-025-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ NEUTRAL dBuV
1.750	43.10	48.00	0.40	43.50	-4.50
1.809	43.70	48.00	0.40	44.10	-3.90
1.928	41.90	48.00	0.40	42.30	-5.70
2.105	43.00	48.00	0.40	43.40	-4.60
2.164	42.40	48.00	0.40	42.80	-5.20
2.282	42.70	48.00	0.40	43.10	-4.90
3.523	39.80	48.00	0.40	40.20	-7.80
3.641	40.10	48.00	0.40	40.50	-7.50

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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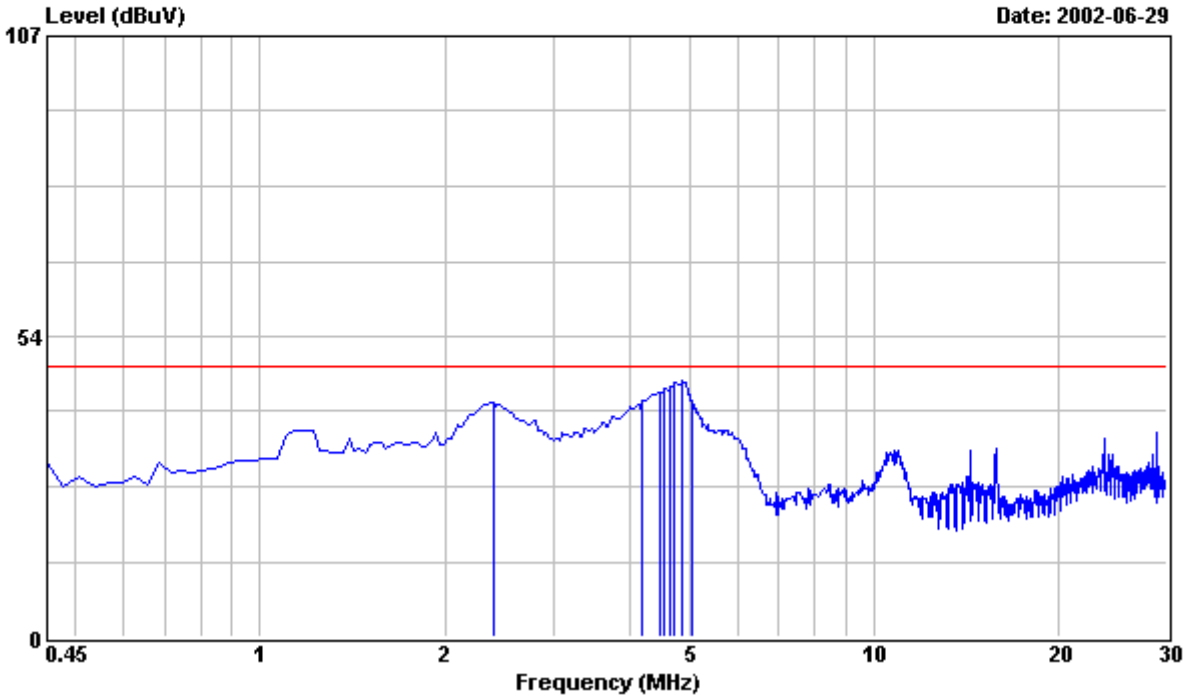
Data#: 5 File#: C:\Program Files\e3\EMI02-025-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ LINE dBuV
2.400	41.40	48.00	0.40	41.80	-6.20
4.203	41.80	48.00	0.38	42.18	-5.82
4.469	43.30	48.00	0.35	43.65	-4.35
4.557	44.00	48.00	0.34	44.34	-3.66
4.646	44.40	48.00	0.33	44.73	-3.27
4.735	45.00	48.00	0.32	45.32	-2.68
4.853	45.20	48.00	0.31	45.51	-2.49
5.060	41.80	48.00	0.31	42.11	-5.89

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

PHILIPS

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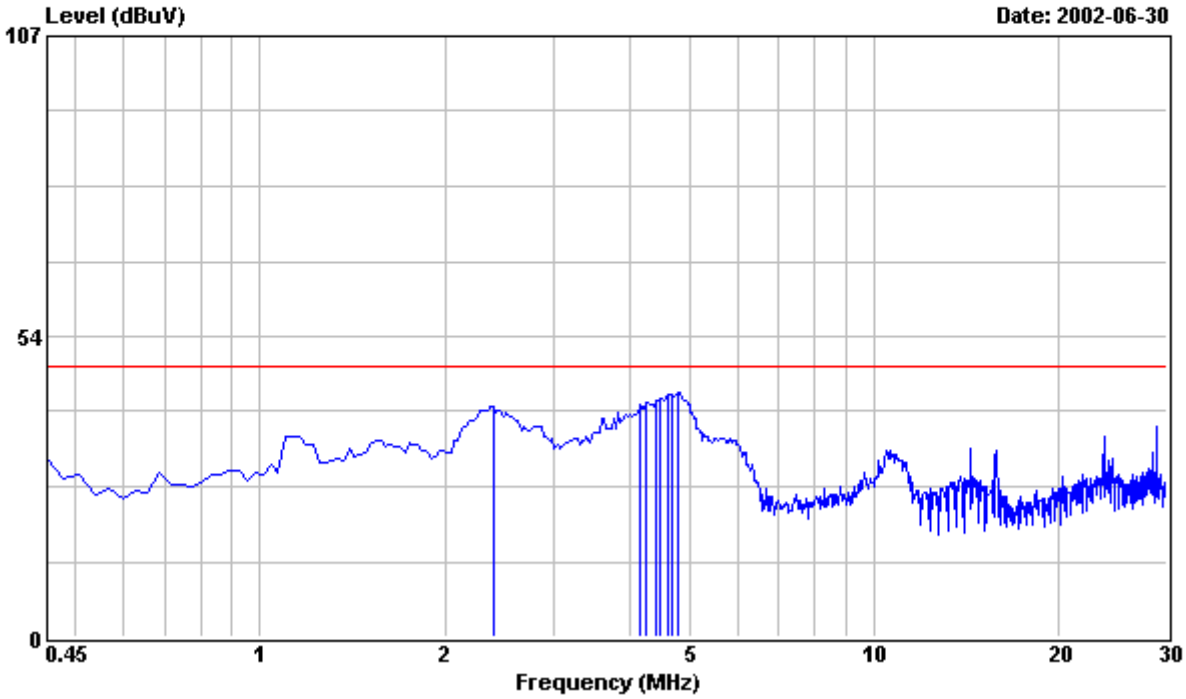
Data#: 6 File#: C:\Program Files\e3\EMI02-025-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ NEUTRAL dBuV
2.400	41.10	48.00	0.00	41.10	-6.90
4.144	41.28	48.00	0.00	41.28	-6.72
4.262	41.57	48.00	0.00	41.57	-6.43
4.410	42.16	48.00	0.00	42.16	-5.84
4.469	42.55	48.00	0.00	42.55	-5.45
4.617	43.24	48.00	0.00	43.24	-4.76
4.705	43.33	48.00	0.00	43.33	-4.67
4.794	43.52	48.00	0.00	43.52	-4.48

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

PHILIPS

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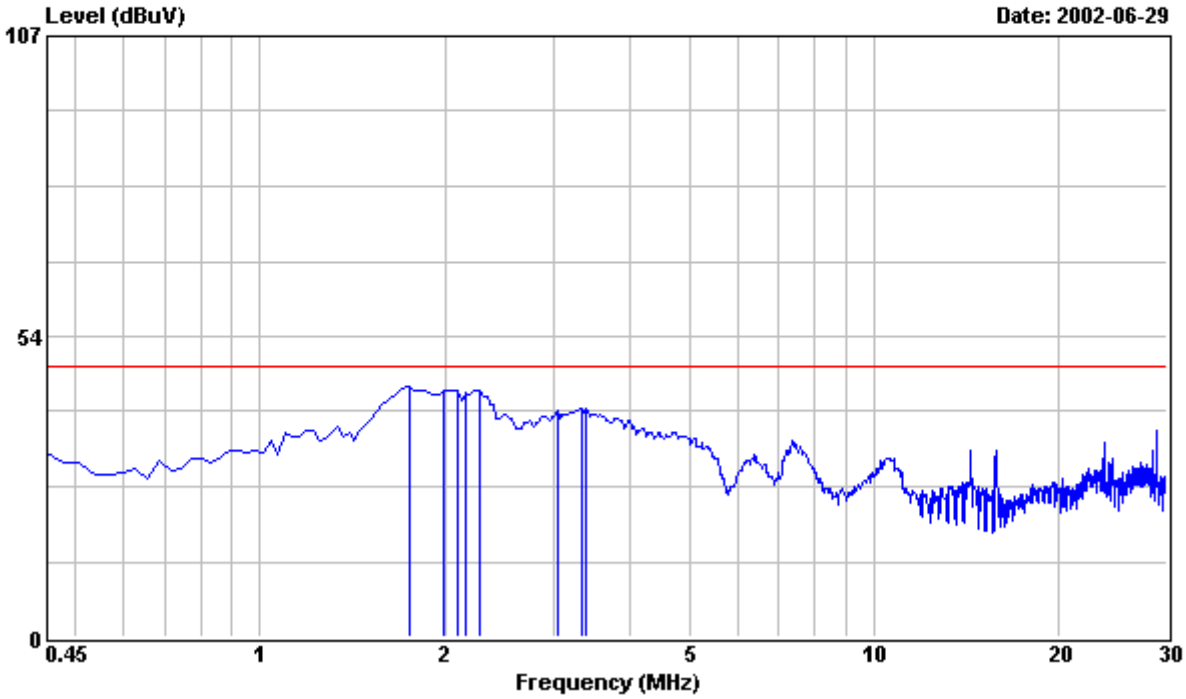
Data#: 7 File#: C:\Program Files\e3\EMI02-025-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ LINE dBuV
1.750	44.20	48.00	0.40	44.60	-3.40
1.987	43.40	48.00	0.40	43.80	-4.20
2.105	43.50	48.00	0.40	43.90	-4.10
2.164	43.20	48.00	0.40	43.60	-4.40
2.282	43.40	48.00	0.40	43.80	-4.20
3.050	39.80	48.00	0.40	40.20	-7.80
3.346	40.20	48.00	0.40	40.60	-7.40
3.405	40.30	48.00	0.40	40.70	-7.30

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

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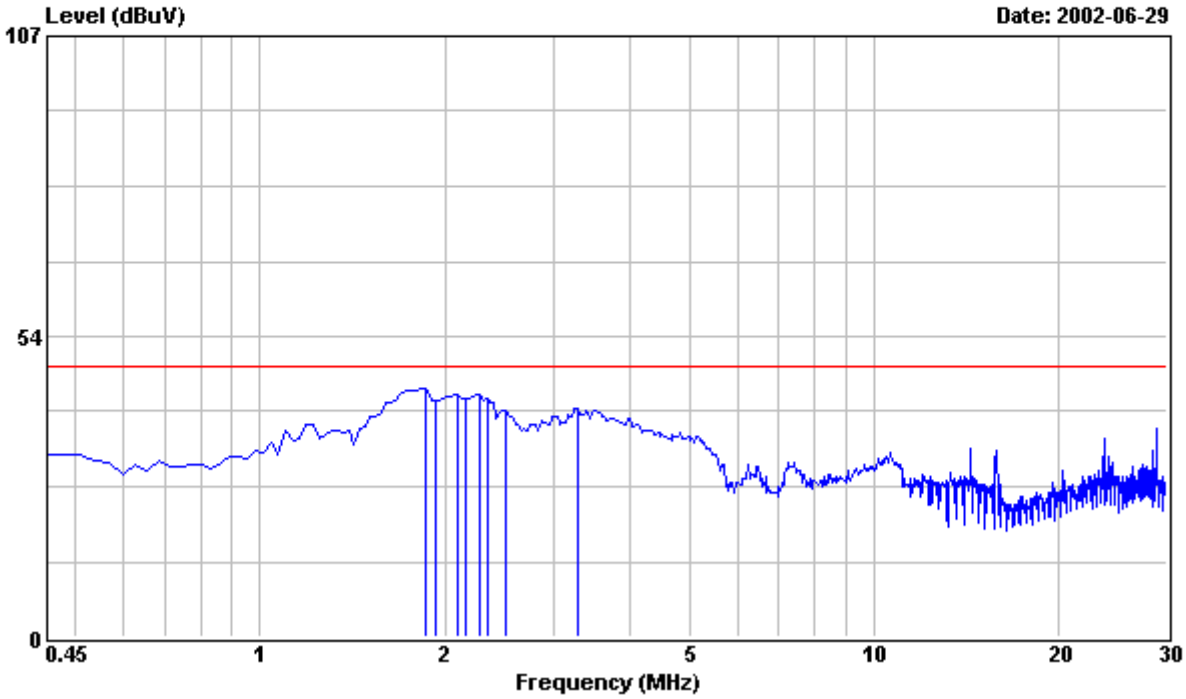
Data#: 8 File#: C:\Program Files\e3\EMI02-025-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Lavel dBuV	Over Limit ※ NEUTRAL dBuV
1.868	43.70	48.00	0.40	44.10	-3.90
1.928	41.80	48.00	0.40	42.20	-5.80
2.105	42.90	48.00	0.40	43.30	-4.70
2.164	42.20	48.00	0.40	42.60	-5.40
2.282	42.70	48.00	0.40	43.10	-4.90
2.341	41.90	48.00	0.40	42.30	-5.70
2.519	40.00	48.00	0.40	40.40	-7.60
3.287	40.20	48.00	0.40	40.60	-7.40

Remarks: 1. All Readings are Peak .
2. Emission Lavel (dBuV) = Factor (dB) + Meter Reading (dBuV)
3. Factor (dB/m) = LISN Loss (dB) + Cable Loss (dB)

Tested by : C.C.Wu

8. .Radiated Emission Test

Radiated Emissions

FCC Part 15

Operating conditions EUT:

EUT powered on with scrolling “H” pattern.

Limits:

Frequency range (MHz)	Class A at 10m (dBuv) QP	Class B at 3m (dBuv) QP
30.0 – 88.0	39.0	40.0
88.0 – 216.0	43.5	43.5
216.0 – 960.0	46.5	46.0
960.0 – 1000.0	49.5	54.0
Above 1000.0	49.5	54.0 Average

Test Result :

Passed FCC Class B Limits

Remark:

Date of Test	: 25 Jun., 2002 to 30 Jun., 2002
Test Engineer	: C.C.Wu

For detail measurement results see next pages.

PHILIPS
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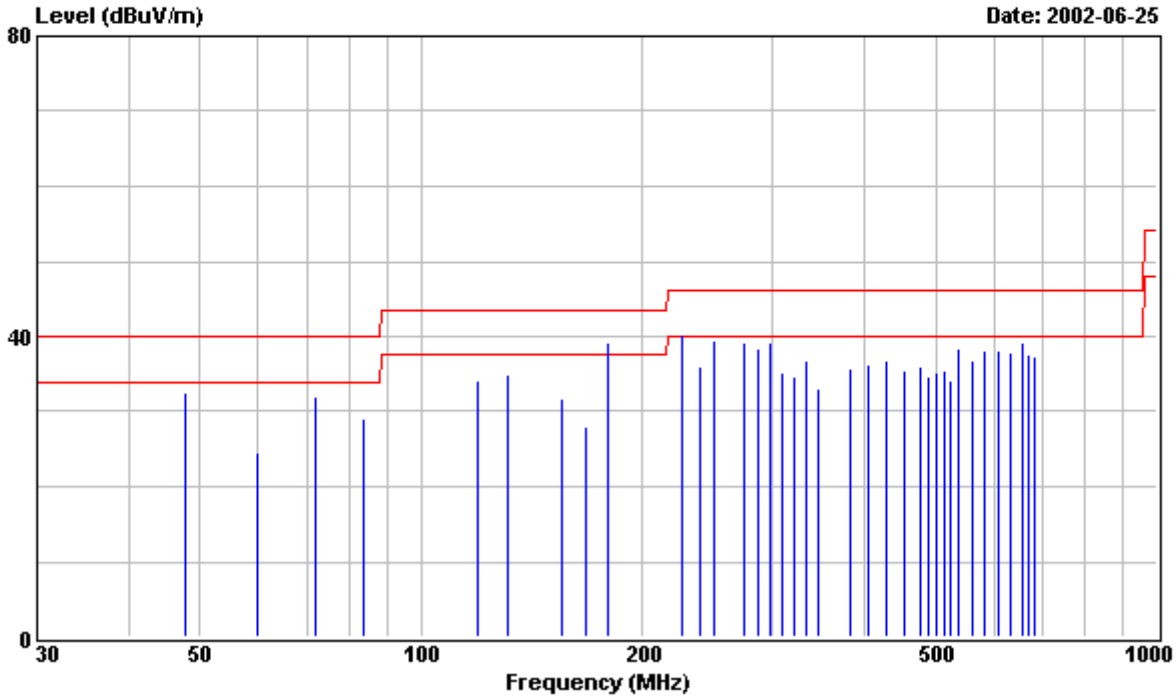
Data#: 1 File#: C:\Program Files\e3\EMI02-024-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1600x1200/75Hz 93.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
47.730	21.50	---	40.00	11.13	32.63	-7.37
59.680	14.70	---	40.00	9.93	24.63	-15.37
71.600	22.00	---	40.00	10.06	32.06	-7.94
83.520	18.40	---	40.00	10.58	28.98	-11.02
119.350	21.90	---	43.50	12.36	34.26	-9.24
131.290	22.20	---	43.50	12.74	34.94	-8.56
155.160	18.10	---	43.50	13.57	31.67	-11.83
167.100	14.00	---	43.50	13.90	27.90	-15.60
179.030	24.80	---	43.50	14.32	39.12	-4.38
179.030	---	23.51	43.50	14.32	37.83	-5.67
226.730	---	19.92	46.00	18.66	38.58	-7.42
226.730	21.70	---	46.00	18.66	40.36	-5.64

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

PHILIPS

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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
238.670	16.30	---	46.00	19.58	35.88	-10.12
250.600	19.00	---	46.00	20.50	39.50	-6.50
274.460	17.40	---	46.00	21.85	39.25	-6.75
286.400	15.90	---	46.00	22.47	38.37	-7.63
298.340	16.10	---	46.00	23.10	39.20	-6.80
310.280	18.50	---	46.00	16.69	35.19	-10.81
322.220	17.80	---	46.00	16.95	34.75	-11.25
334.150	19.50	---	46.00	17.18	36.68	-9.32
346.090	15.70	---	46.00	17.41	33.11	-12.89
381.890	17.60	---	46.00	18.07	35.67	-10.33
405.740	17.90	---	46.00	18.48	36.38	-9.62
429.590	18.10	---	46.00	18.81	36.91	-9.09
453.470	16.40	---	46.00	19.12	35.52	-10.48
477.340	16.60	---	46.00	19.43	36.03	-9.97
489.270	15.10	---	46.00	19.58	34.68	-11.32
501.210	15.40	---	46.00	19.73	35.13	-10.87
513.140	15.60	---	46.00	19.93	35.53	-10.47
525.080	14.00	---	46.00	20.10	34.10	-11.90
537.020	18.20	---	46.00	20.31	38.51	-7.49
560.890	16.10	---	46.00	20.65	36.75	-9.25
584.740	17.20	---	46.00	21.00	38.20	-7.80
608.610	16.60	---	46.00	21.41	38.01	-7.99
632.470	16.00	---	46.00	21.98	37.98	-8.02
656.340	16.70	---	46.00	22.56	39.26	-6.74
668.280	14.70	---	46.00	22.82	37.52	-8.48
680.220	14.30	---	46.00	23.08	37.38	-8.62

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

PHILIPS
Philips Electronics Inductries (Taiwan)., Ltd.
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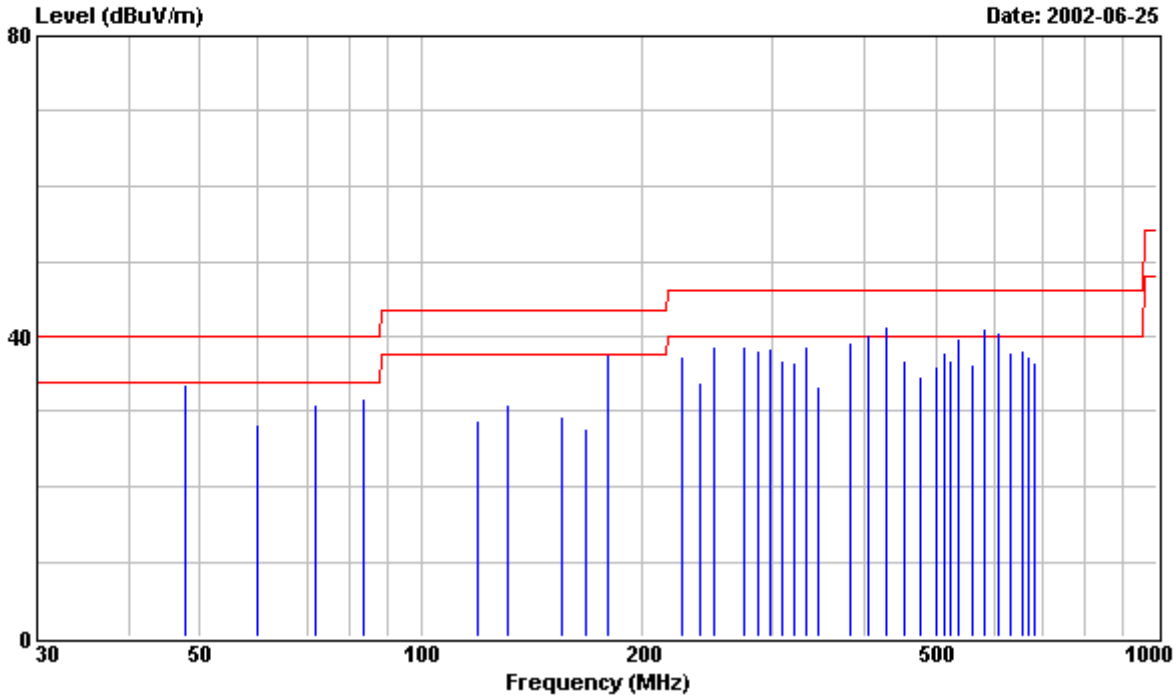
Data#: 2 File#: C:\Program Files\e3\EMI02-024-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 16 "H" PATTERN.
: 3. 1600x1200/75Hz 93.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
47.730	22.40	---	40.00	11.13	33.53	-6.47
59.680	18.40	---	40.00	9.93	28.33	-11.67
71.600	20.90	---	40.00	10.06	30.96	-9.04
83.520	21.10	---	40.00	10.58	31.68	-8.32
119.350	16.40	---	43.50	12.36	28.76	-14.74
131.290	18.31	---	43.50	12.74	31.05	-12.45
155.160	15.80	---	43.50	13.57	29.37	-14.13
167.100	13.80	---	43.50	13.90	27.70	-15.80
179.030	23.21	---	43.50	14.32	37.53	-5.97
179.030	---	21.40	43.50	14.32	35.72	-7.78
226.730	18.80	---	46.00	18.66	37.46	-8.54
238.670	14.30	---	46.00	19.58	33.88	-12.12

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

PHILIPS

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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
250.600	18.30	---	46.00	20.50	38.80	-7.20
274.460	16.80	---	46.00	21.85	38.65	-7.35
286.400	15.70	---	46.00	22.47	38.17	-7.83
298.340	15.20	---	46.00	23.10	38.30	-7.70
310.280	20.20	---	46.00	16.69	36.89	-9.11
322.220	19.50	---	46.00	16.95	36.45	-9.55
334.150	21.60	---	46.00	17.18	38.78	-7.22
346.090	16.00	---	46.00	17.41	33.41	-12.59
381.890	21.20	---	46.00	18.07	39.27	-6.73
405.740	21.80	---	46.00	18.48	40.28	-5.72
429.590	---	20.90	46.00	18.81	39.71	-6.29
429.590	22.50	---	46.00	18.81	41.31	-4.69
453.470	17.70	---	46.00	19.12	36.82	-9.18
477.340	15.30	---	46.00	19.43	34.73	-11.27
501.210	16.40	---	46.00	19.73	36.13	-9.87
513.140	17.90	---	46.00	19.93	37.83	-8.17
525.080	16.80	---	46.00	20.10	36.90	-9.10
537.020	19.40	---	46.00	20.31	39.71	-6.29
560.890	15.50	---	46.00	20.65	36.15	-9.85
584.740	---	18.30	46.00	21.00	39.30	-6.70
584.740	20.10	---	46.00	21.00	41.10	-4.90
608.610	---	17.01	46.00	21.41	38.42	-7.58
608.610	19.10	---	46.00	21.41	40.51	-5.49
632.470	15.90	---	46.00	21.98	37.88	-8.12
656.340	15.50	---	46.00	22.56	38.06	-7.94
668.280	14.50	---	46.00	22.82	37.32	-8.68
680.220	13.50	---	46.00	23.08	36.58	-9.42

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

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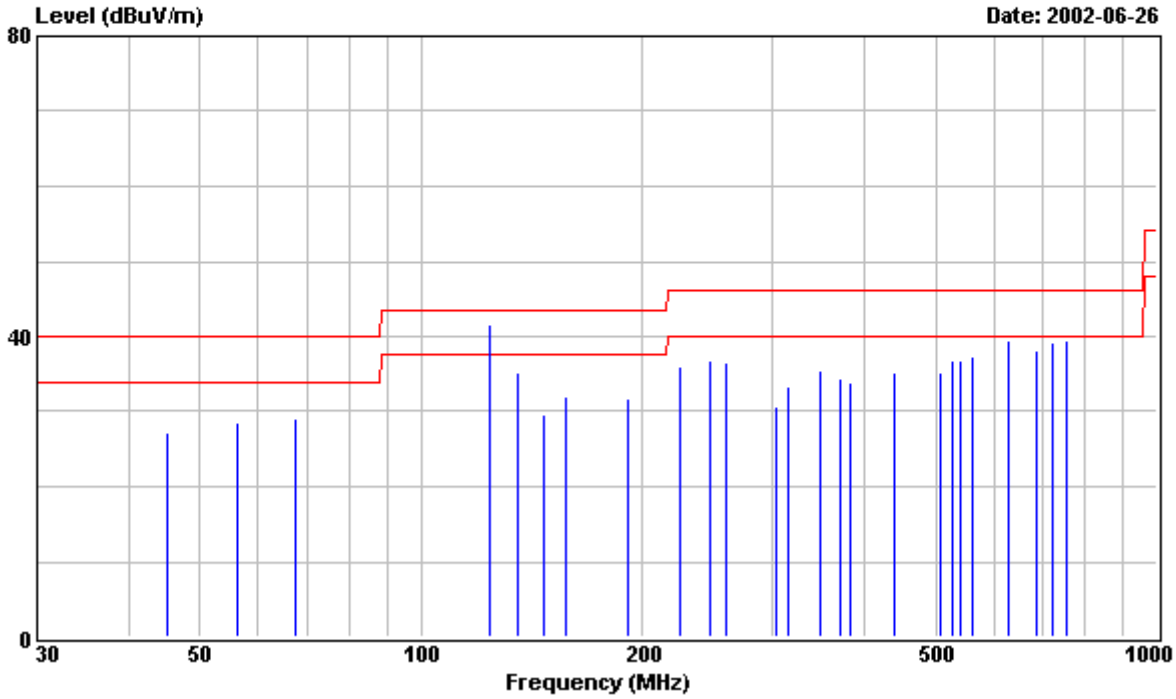
Data#: 3 File#: C:\Program Files\e3\EMI02-024-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
45.020	15.70	---	40.00	11.50	27.20	-12.80
56.250	18.40	---	40.00	10.23	28.63	-11.37
67.520	19.10	---	40.00	9.98	29.08	-10.92
123.790	---	28.00	43.50	12.47	40.47	-3.03
123.790	29.20	---	43.50	12.47	41.67	-1.83
135.020	22.39	---	43.50	12.89	35.28	-8.22
146.260	16.20	---	43.50	13.29	29.49	-14.01
157.520	18.50	---	43.50	13.63	32.13	-11.37
191.260	16.30	---	43.50	15.48	31.78	-11.72
225.060	17.60	---	46.00	18.53	36.13	-9.87
247.550	16.50	---	46.00	20.30	36.80	-9.20
258.800	15.50	---	46.00	21.02	36.52	-9.48

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

PHILIPS

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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
303.790	14.20	---	46.00	16.55	30.75	-15.25
315.040	16.60	---	46.00	16.80	33.40	-12.60
348.790	18.10	---	46.00	17.49	35.59	-10.41
371.280	16.60	---	46.00	17.88	34.48	-11.52
382.560	15.90	---	46.00	18.10	34.00	-12.00
438.830	16.30	---	46.00	18.94	35.24	-10.76
506.320	15.50	---	46.00	19.82	35.32	-10.68
528.820	16.70	---	46.00	20.16	36.86	-9.14
540.070	16.40	---	46.00	20.33	36.73	-9.27
562.570	16.60	---	46.00	20.68	37.28	-8.72
630.070	17.50	---	46.00	21.93	39.43	-6.57
686.330	14.90	---	46.00	23.24	38.14	-7.86
720.090	15.50	---	46.00	23.77	39.27	-6.73
753.840	15.30	---	46.00	24.22	39.52	-6.48

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

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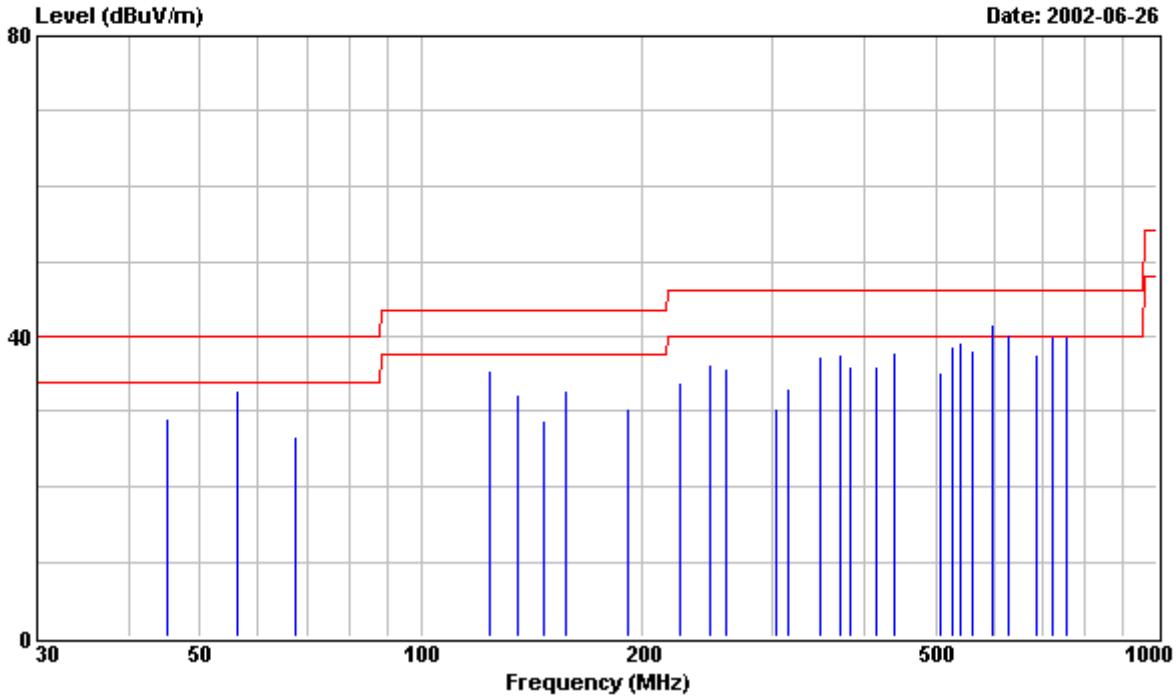

Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : PHILIPS 109B40 Serial No:TY0205273
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL SAMSUNG TUBE,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio 3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
45.020	17.60	---	40.00	11.50	29.10	-10.90
56.250	22.50	---	40.00	10.23	32.73	-7.27
67.520	16.70	---	40.00	9.98	26.68	-13.32
123.790	22.90	---	43.50	12.47	35.37	-8.13
135.020	19.50	---	43.50	12.89	32.39	-11.11
146.260	15.60	---	43.50	13.29	28.89	-14.61
157.520	19.20	---	43.50	13.63	32.83	-10.67
191.260	15.00	---	43.50	15.48	30.48	-13.02
225.060	15.30	---	46.00	18.53	33.83	-12.17
247.550	15.90	---	46.00	20.30	36.20	-9.80
258.800	14.70	---	46.00	21.02	35.72	-10.28
303.790	13.90	---	46.00	16.55	30.45	-15.55

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

PHILIPS
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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
315.040	16.20	---	46.00	16.80	33.00	-13.00
348.790	19.80	---	46.00	17.49	37.29	-8.71
371.280	19.60	---	46.00	17.88	37.48	-8.52
382.560	17.80	---	46.00	18.10	35.90	-10.10
416.310	17.50	---	46.00	18.63	36.13	-9.87
438.830	19.00	---	46.00	18.94	37.94	-8.06
506.320	15.50	---	46.00	19.82	35.32	-10.68
528.820	18.40	---	46.00	20.16	38.56	-7.44
540.070	18.80	---	46.00	20.33	39.13	-6.87
562.570	17.50	---	46.00	20.68	38.18	-7.82
596.320	---	18.20	46.00	21.17	39.37	-6.63
596.320	20.30	---	46.00	21.17	41.47	-4.53
630.070	---	16.70	46.00	21.93	38.63	-7.37
630.070	18.40	---	46.00	21.93	40.33	-5.67
686.330	14.30	---	46.00	23.24	37.54	-8.46
720.090	16.10	---	46.00	23.77	39.87	-6.13
753.840	15.70	---	46.00	24.22	39.92	-6.08

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

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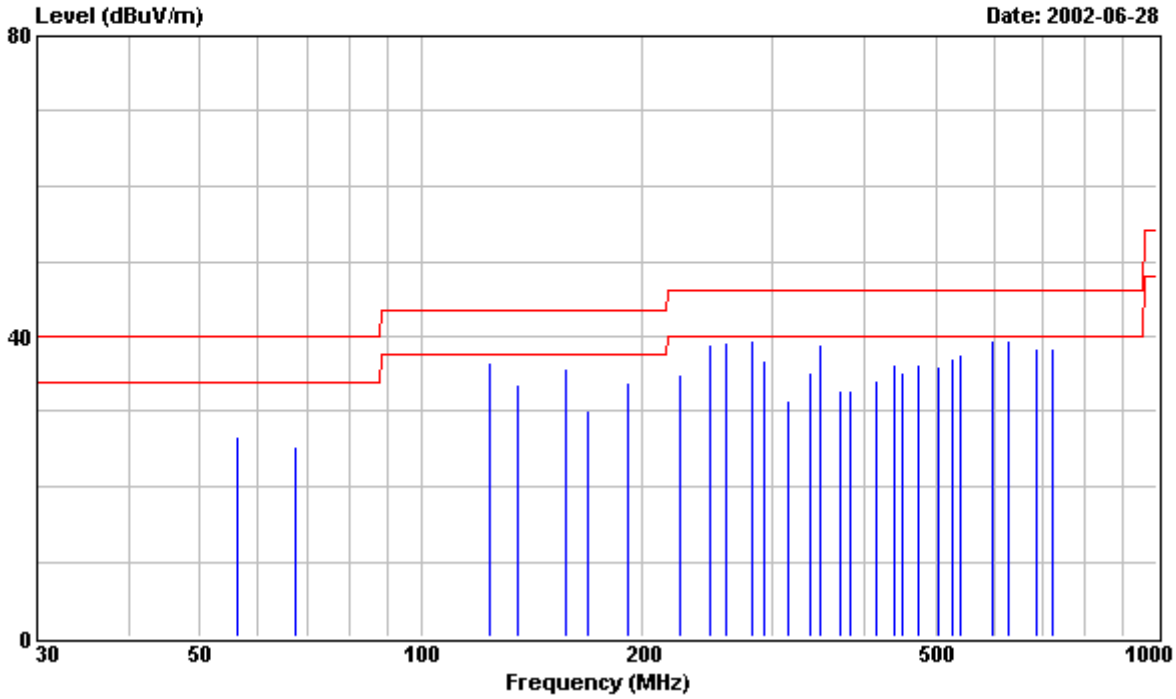
Data#: 1 File#: C:\Program Files\e3\EMI02-025-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
56.260	16.40	---	40.00	10.23	26.63	-13.37
67.520	15.29	---	40.00	9.98	25.27	-14.73
123.790	24.00	---	43.50	12.47	36.47	-7.03
135.030	20.60	---	43.50	12.89	33.49	-10.01
157.520	22.10	---	43.50	13.63	35.73	-7.77
168.760	16.20	---	43.50	13.94	30.14	-13.36
191.260	18.30	---	43.50	15.48	33.78	-9.72
225.070	16.40	---	46.00	18.53	34.93	-11.07
247.530	18.60	---	46.00	20.30	38.90	-7.10
258.800	18.10	---	46.00	21.02	39.12	-6.88
281.240	17.30	---	46.00	22.21	39.51	-6.49
292.510	13.90	---	46.00	22.78	36.68	-9.32

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
315.040	14.70	---	46.00	16.80	31.50	-14.50
337.560	18.00	---	46.00	17.25	35.25	-10.75
348.790	21.50	---	46.00	17.49	38.99	-7.01
371.290	15.00	---	46.00	17.88	32.88	-13.12
382.550	14.80	---	46.00	18.10	32.90	-13.10
416.310	15.50	---	46.00	18.63	34.13	-11.87
438.830	17.30	---	46.00	18.94	36.24	-9.76
450.060	16.20	---	46.00	19.08	35.28	-10.72
472.580	17.00	---	46.00	19.37	36.37	-9.63
506.300	16.20	---	46.00	19.82	36.02	-9.98
528.820	16.90	---	46.00	20.16	37.06	-8.94
540.080	17.20	---	46.00	20.33	37.53	-8.47
596.350	18.20	---	46.00	21.17	39.37	-6.63
630.080	17.60	---	46.00	21.93	39.53	-6.47
686.330	15.10	---	46.00	23.24	38.34	-7.66
720.110	14.50	---	46.00	23.77	38.27	-7.73

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

PHILIPS
Philips Electronics Industries (Taiwan)., Ltd.
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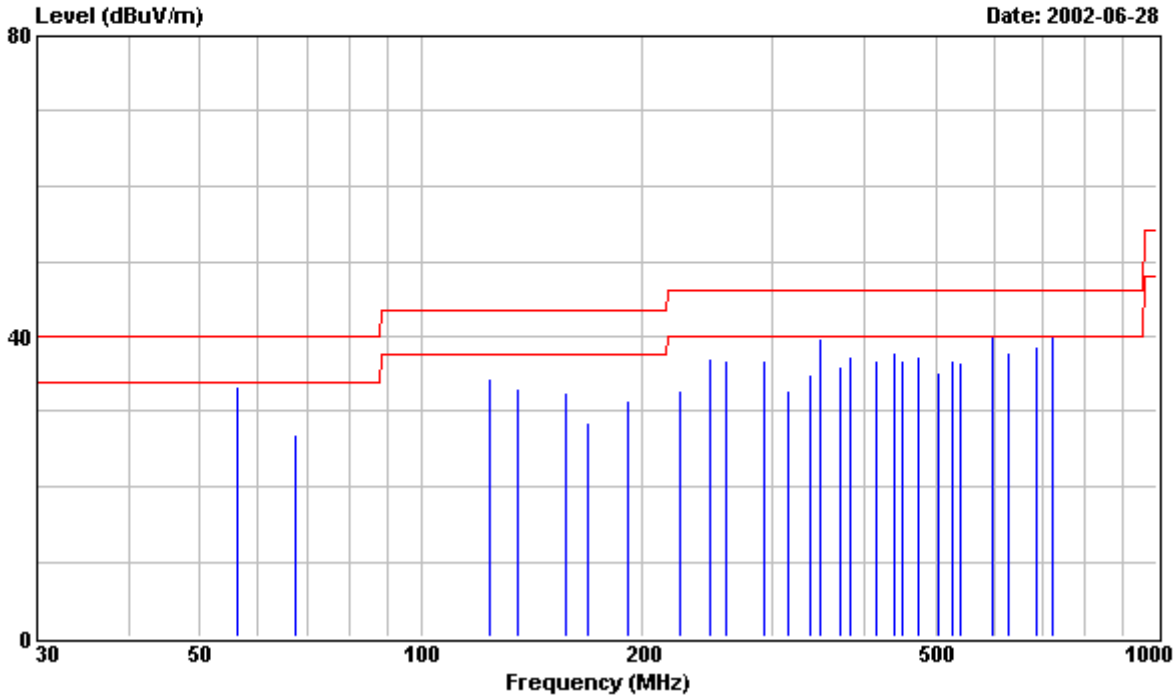
Data#: 2 File#: C:\Program Files\e3\EMI02-025-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1280x1024/85Hz 91.1KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
56.260	23.00	---	40.00	10.23	33.23	-6.77
67.520	17.00	---	40.00	9.98	26.98	-13.02
123.790	21.80	---	43.50	12.47	34.27	-9.23
135.030	20.19	---	43.50	12.89	33.08	-10.42
157.520	18.80	---	43.50	13.63	32.43	-11.07
168.760	14.50	---	43.50	13.94	28.44	-15.06
191.260	15.90	---	43.50	15.48	31.38	-12.12
225.070	14.20	---	46.00	18.53	32.73	-13.27
247.530	16.70	---	46.00	20.30	37.00	-9.00
258.800	15.90	---	46.00	21.02	36.92	-9.08
292.510	14.10	---	46.00	22.78	36.88	-9.12
315.040	16.00	---	46.00	16.80	32.80	-13.20

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
337.560	17.80	---	46.00	17.25	35.05	-10.95
348.790	22.20	---	46.00	17.49	39.69	-6.31
371.290	18.10	---	46.00	17.88	35.98	-10.02
382.550	19.20	---	46.00	18.10	37.30	-8.70
416.310	18.20	---	46.00	18.63	36.83	-9.17
438.830	19.00	---	46.00	18.94	37.94	-8.06
450.060	17.60	---	46.00	19.08	36.68	-9.32
472.560	18.00	---	46.00	19.37	37.37	-8.63
506.300	15.50	---	46.00	19.82	35.32	-10.68
528.820	16.60	---	46.00	20.16	36.76	-9.24
540.080	16.20	---	46.00	20.33	36.53	-9.47
596.350	18.80	---	46.00	21.17	39.97	-6.03
630.080	15.90	---	46.00	21.93	37.83	-8.17
686.330	15.30	---	46.00	23.24	38.54	-7.46
720.090	16.20	---	46.00	23.77	39.97	-6.03

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

PHILIPS
Philips Electronics Industries (Taiwan)., Ltd.
No.5, Tze Chiang 1 Road, Chungli Inductrial Park,
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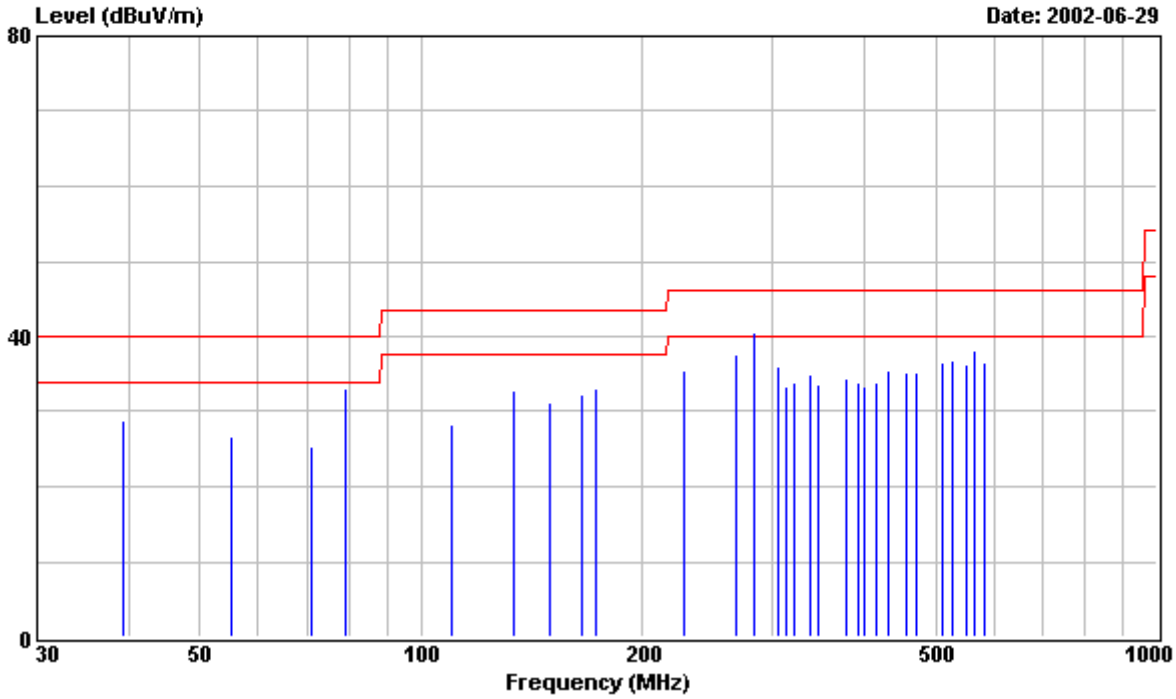
Data#: 3 File#: C:\Program Files\e3\EMI02-025-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
39.280	16.40	---	40.00	12.28	28.68	-11.32
55.000	16.40	---	40.00	10.33	26.73	-13.27
70.720	15.20	---	40.00	10.03	25.23	-14.77
78.580	22.70	---	40.00	10.35	33.05	-6.95
110.000	16.30	---	43.50	11.93	28.23	-15.27
133.550	20.10	---	43.50	12.83	32.93	-10.57
149.270	17.70	---	43.50	13.39	31.09	-12.41
165.000	18.40	---	43.50	13.83	32.23	-11.27
172.850	19.10	---	43.50	14.04	33.14	-10.36
227.840	16.70	---	46.00	18.73	35.43	-10.57
267.140	16.20	---	46.00	21.49	37.69	-8.31
282.820	18.10	---	46.00	22.32	40.42	-5.58

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel HORIZONTAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
282.820	16.30	---	46.00	22.32	38.62	-7.38
306.390	19.50	---	46.00	16.62	36.12	-9.88
314.240	16.50	---	46.00	16.78	33.28	-12.72
322.100	16.90	---	46.00	16.95	33.85	-12.15
337.820	17.60	---	46.00	17.27	34.87	-11.13
345.680	16.20	---	46.00	17.41	33.61	-12.39
377.110	16.40	---	46.00	18.00	34.40	-11.60
392.820	15.50	---	46.00	18.28	33.78	-12.22
400.670	14.80	---	46.00	18.40	33.20	-12.80
416.370	15.30	---	46.00	18.63	33.93	-12.07
432.080	16.70	---	46.00	18.85	35.55	-10.45
455.650	16.10	---	46.00	19.16	35.26	-10.74
471.370	15.80	---	46.00	19.37	35.17	-10.83
510.630	16.70	---	46.00	19.87	36.57	-9.43
526.360	16.70	---	46.00	20.13	36.83	-9.17
549.940	15.80	---	46.00	20.48	36.28	-9.72
565.660	17.30	---	46.00	20.74	38.04	-7.96
581.360	15.50	---	46.00	20.94	36.44	-9.56

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu

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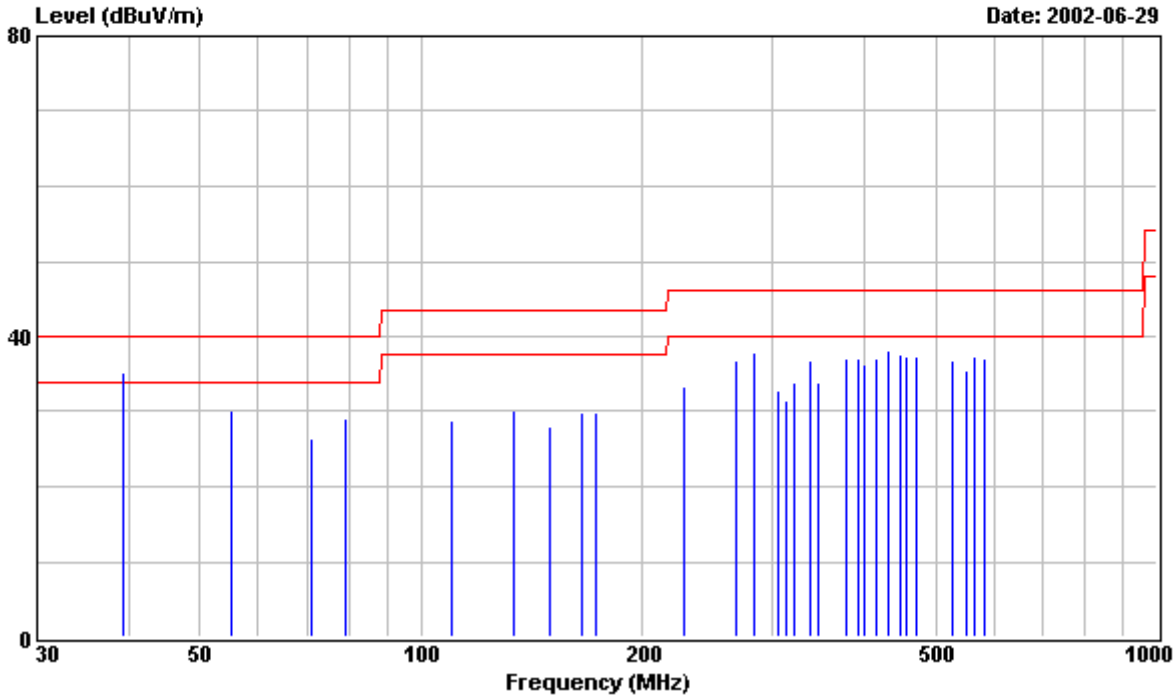
Data#: 4 File#: C:\Program Files\e3\EMI02-025-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : PHILIPS 109S40 Serial No:TY0205302
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN IBM V1.8
: FONT 14 "H" PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH
: COMPAQ ENC/P866/20E/8/128A TAI PC,
: S3 Trio3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
39.280	22.90	---	40.00	12.28	35.18	-4.82
39.280	---	20.74	40.00	12.28	33.02	-6.98
55.000	19.90	---	40.00	10.33	30.23	-9.77
70.720	16.50	---	40.00	10.03	26.53	-13.47
78.580	18.70	---	40.00	10.35	29.05	-10.95
110.000	17.00	---	43.50	11.93	28.93	-14.57
133.550	17.30	---	43.50	12.83	30.13	-13.37
149.270	14.70	---	43.50	13.39	28.09	-15.41
165.000	16.00	---	43.50	13.83	29.83	-13.67
172.850	15.80	---	43.50	14.04	29.84	-13.66
227.840	14.70	---	46.00	18.73	33.43	-12.57
267.140	15.20	---	46.00	21.49	36.69	-9.31

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Lavel VERTICAL	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
282.820	15.50	---	46.00	22.32	37.82	-8.18
306.390	16.10	---	46.00	16.62	32.72	-13.28
314.240	14.60	---	46.00	16.78	31.38	-14.62
322.100	16.90	---	46.00	16.95	33.85	-12.15
337.820	19.50	---	46.00	17.27	36.77	-9.23
345.680	16.40	---	46.00	17.41	33.81	-12.19
377.110	19.10	---	46.00	18.00	37.10	-8.90
392.820	18.80	---	46.00	18.28	37.08	-8.92
400.670	17.90	---	46.00	18.40	36.30	-9.70
416.370	18.50	---	46.00	18.63	37.13	-8.87
432.080	19.20	---	46.00	18.85	38.05	-7.95
447.800	18.60	---	46.00	19.06	37.66	-8.34
455.670	18.30	---	46.00	19.16	37.46	-8.54
471.370	17.90	---	46.00	19.37	37.27	-8.73
526.360	16.70	---	46.00	20.13	36.83	-9.17
549.940	15.10	---	46.00	20.48	35.58	-10.42
565.660	16.50	---	46.00	20.74	37.24	-8.76
581.360	16.20	---	46.00	20.94	37.14	-8.86

Remarks: 1. All Readings are Peak & Quasi-peak values.
2. Emission Lavel (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Tested by : C C.Wu