



PHILIPS

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.: TYR87-2016 Date : 03 July, 2002 Page : Page 1 of 32		
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. : A3KM111 Model Name : 180MT10P Serial Number : TY0204046 Description : 18" XGA LCD color monitor, Max. resolution 1280x1024/75Hz				
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 : 01 Jul. 2002 Date of performance of test : 02 Jul., 2002 to 02 Jul., 2002				
<table border="0"><tr><td style="text-align: center;"> C.C. Wu - EMC Test Engineer</td><td style="text-align: center;"> Ronnie Yang - EMC Manager NVLAP Signatory</td></tr></table>			 C.C. Wu - EMC Test Engineer	 Ronnie Yang - EMC Manager NVLAP Signatory
 C.C. Wu - EMC Test Engineer	 Ronnie Yang - EMC Manager NVLAP Signatory			

Philips Electronics Industries (Taiwan) Ltd

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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, 18" color monitor :

Model No. : 180MT10P

FCC ID : A3KM111

Brand : Philips

The color monitor automatically scans horizontal frequencies between 30KHz and 80KHz , and vertical frequencies between 56Hz and 75Hz. This color monitor displays sharp and brilliant images of text and graphics with a maximum resolution up to 1280x1024 pixels.

The monitor has 17 factory-preset modes as indicated in the following table:

#	Resolution	Frequency	Pixel rate	Sync	Comment
1	640X350	31.5K/70HZ	25.175	(+/-)	IBM VGA
2	720X400	31.5K/70HZ	28.322	(-/ +)	IBM VGA
3	640X480	31.5K/60HZ	25.175	(-/-)	IBM VGA
4	640X480	35.0K/67HZ	30.24	(-/-)	MAC
5	640X480	37.9K/72HZ	31.5	(-/-)	VESA
6	640X480	37.5K/75HZ	31.501	(-/-)	VESA
7	800X600	35.2K/56HZ	36	(+/+)	VESA
8	800X600	37.9K/60HZ	40	(+/+)	VESA
9	800X600	48.1K/72HZ	50	(+/+)	VESA
10	800X600	46.9K/75HZ	49.498	(+/+)	VESA
11	832X624	49.7K/75HZ	57.28	(+/+)	MAC
12	1024X768	48.4K/60HZ	65	(-/-)	VESA
13	1024X768	56.5K/70HZ	75	(-/-)	VESA
14	1024X768	60.0K/75HZ	78.75	(+/+)	VESA
15	1152X870	68.7K/75Hz	100	(-/-)	MAC
16	1280X1024	64.0K/60Hz	108	(+/+)	VESA
17	1280X1024	80K/75Hz	135	(+/+)	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

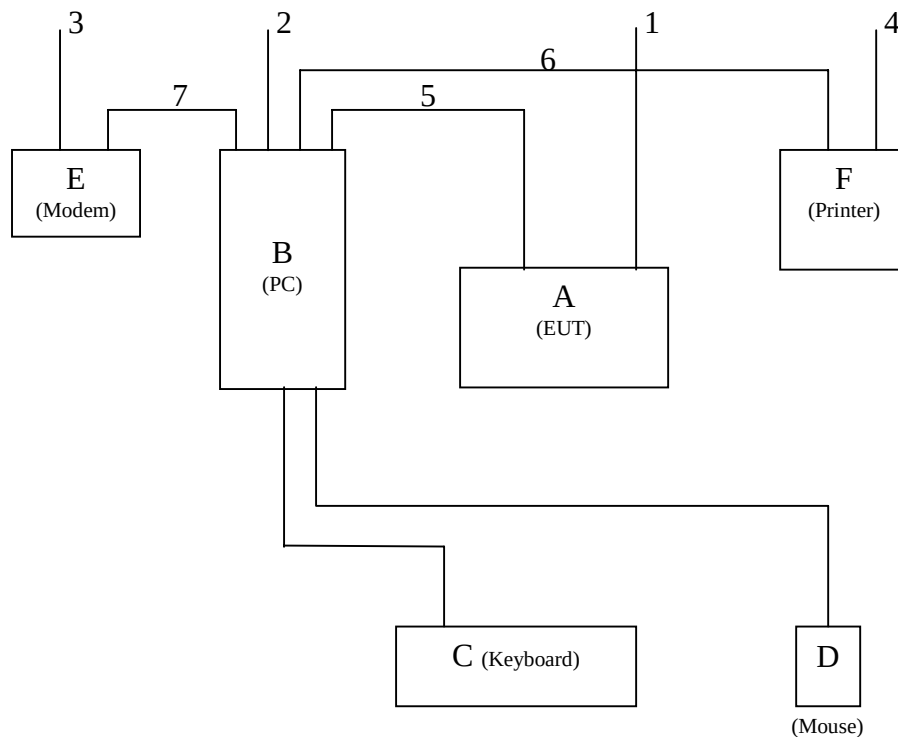
The system was configured for testing in a typical fashion (as a customer would normally use it) according to ANSI C63.4-1992, please see the photographs for detail. For system measurement, the EUT “180MT10P” were connected to:

	Description	Brand/ Model No.	Serial No.	FCC ID	Remark
A	Monitor	Philips 180MT10P	TY0204046	A3KM111	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 2 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.

Extra cables (Stereo audio, S-VHS video and AV cable) with dummy loads were use.

Tested and reported modes as following:

Test Item	File No.	Resolution	Frequencies	I/F Cable
Conducted	EMI02-029-C	1280x1024	80KHz/75Hz	D-sub
	EMI02-029-C	1024x768	60KHz/75Hz	D-sub
Radiated	EMI02-029-R	1280x1024	80KHz/75Hz	D-sub
	EMI02-029-R	1024x768	60KHz/75Hz	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” pattern 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

: 02 Jul., 2002 to 02 Jul., 2002

Test Engineer

: C.C.Wu

For detail measurement results see next pages.

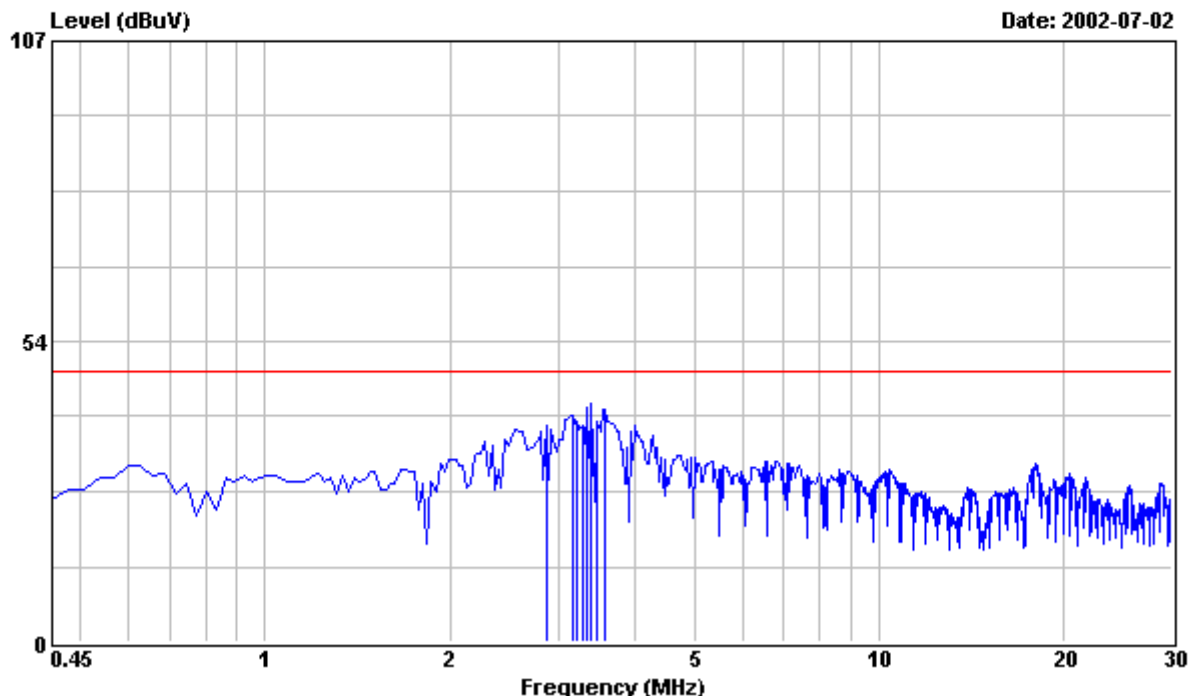


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Data#: 1

File#: C:\Program Files\em3\EMI02-029-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1280x1024/75Hz 80KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ LINE
2.873	38.20	48.00	0.40	38.60	-9.40	
3.169	39.80	48.00	0.40	40.20	-7.80	
3.228	38.70	48.00	0.40	39.10	-8.90	
3.287	38.20	48.00	0.40	38.60	-9.40	
3.346	41.40	48.00	0.40	41.80	-6.20	
3.405	42.10	48.00	0.40	42.50	-5.50	
3.464	38.80	48.00	0.40	39.20	-8.80	
3.582	40.80	48.00	0.40	41.20	-6.80	

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

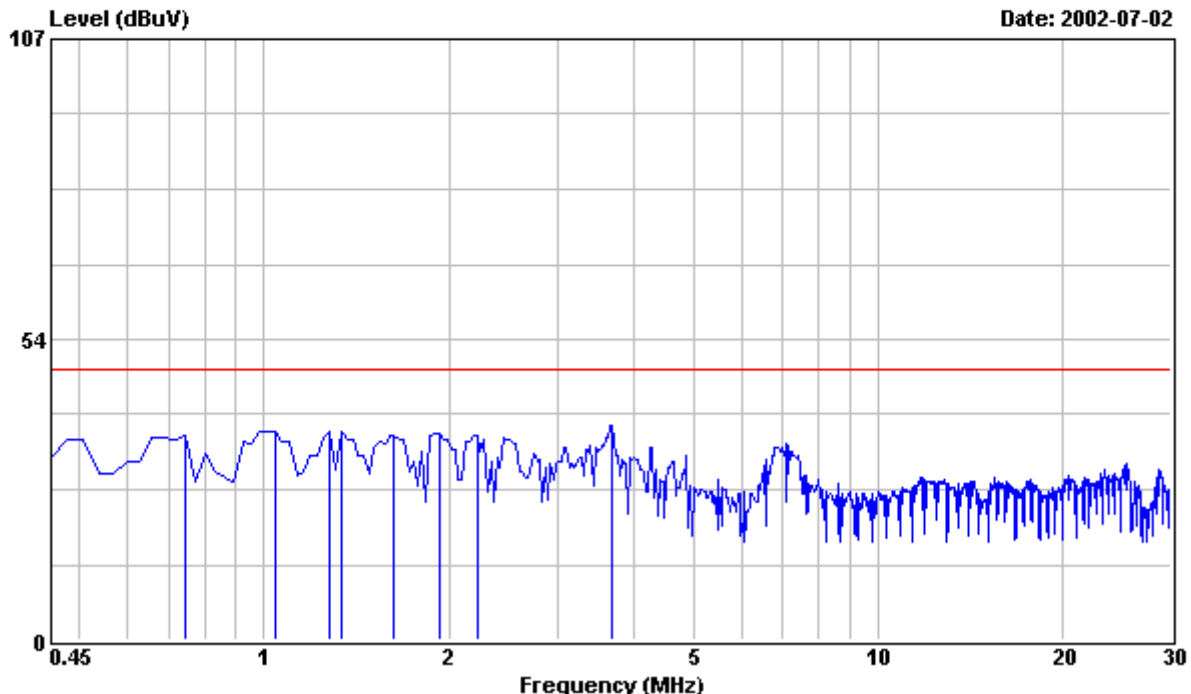


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Data#: 2

File#: C:\Program Files\em3\EMI02-029-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 180MT10P Serial No:TYO204046
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1280x1024/75Hz 80KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ NEUTRAL
0.746	36.20	48.00	0.33	36.53	-11.47	
1.041	36.60	48.00	0.40	37.00	-11.00	
1.277	36.60	48.00	0.40	37.00	-11.00	
1.337	36.60	48.00	0.40	37.00	-11.00	
1.632	35.90	48.00	0.40	36.30	-11.70	
1.928	36.20	48.00	0.40	36.60	-11.40	
2.223	36.00	48.00	0.40	36.40	-11.60	
3.701	37.60	48.00	0.40	38.00	-10.00	

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

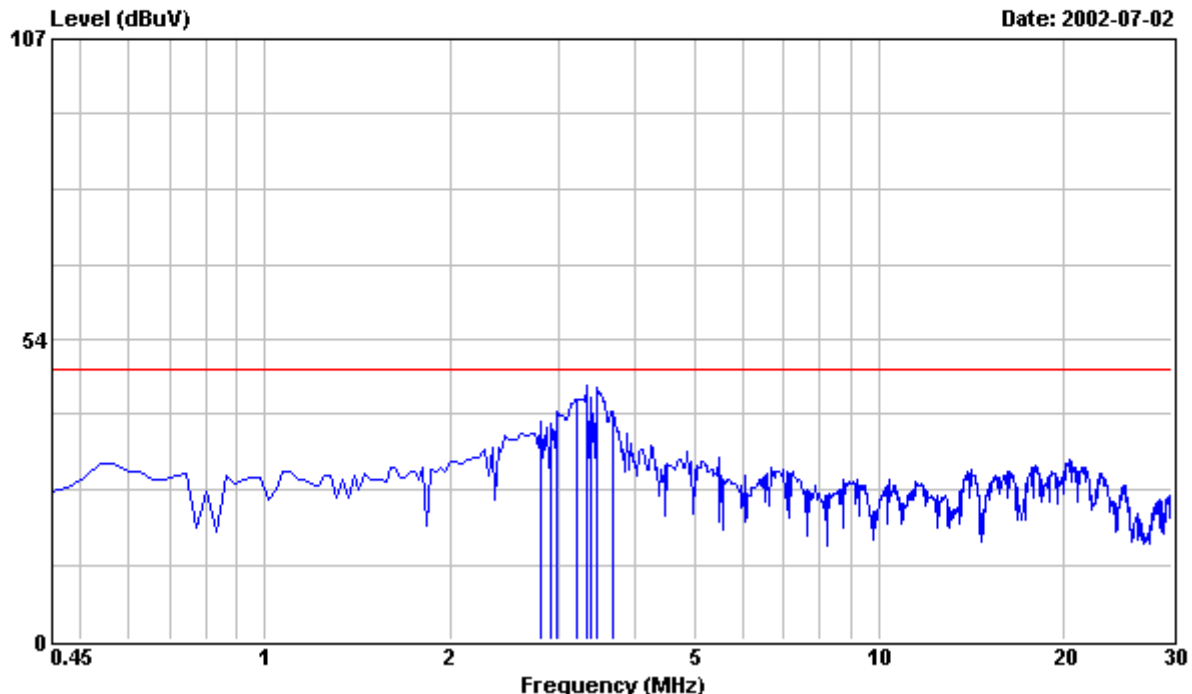


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Data#: 3

File#: C:\Program Files\em3\EMI02-029-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1280x1024/75Hz 80KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ LINE
2.814	38.60	48.00	0.40	39.00	-9.00	
2.932	38.00	48.00	0.40	38.40	-9.60	
2.991	40.20	48.00	0.40	40.60	-7.40	
3.228	42.50	48.00	0.40	42.90	-5.10	
3.346	44.90	48.00	0.40	45.30	-2.70	
3.405	42.60	48.00	0.40	43.00	-5.00	
3.464	44.60	48.00	0.40	45.00	-3.00	
3.701	40.10	48.00	0.40	40.50	-7.50	

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

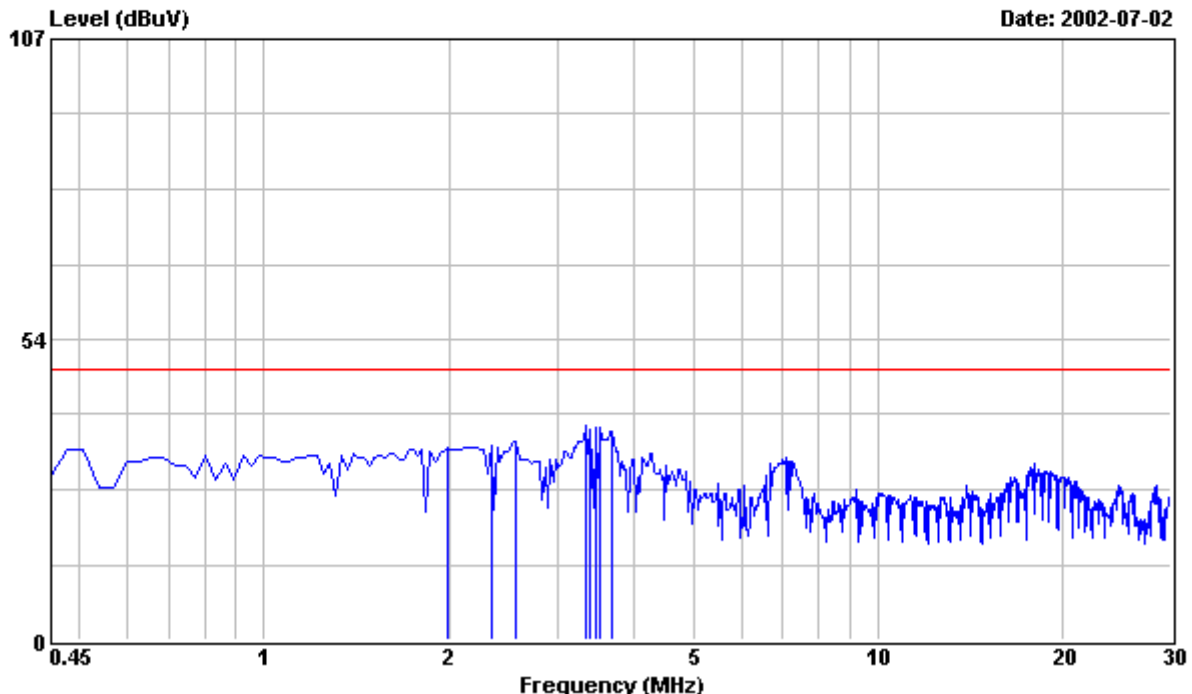


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Data#: 4

File#: C:\Program Files\em3\EMI02-029-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 180MT10P Serial No:TYO204046
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1280x1024/75Hz 80KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ NEUTRAL
1.987	33.90	48.00	0.40	34.30	-13.70	
2.341	34.20	48.00	0.40	34.60	-13.40	
2.578	35.00	48.00	0.40	35.40	-12.60	
3.346	37.60	48.00	0.40	38.00	-10.00	
3.405	37.20	48.00	0.40	37.60	-10.40	
3.464	37.30	48.00	0.40	37.70	-10.30	
3.523	37.30	48.00	0.40	37.70	-10.30	
3.701	36.70	48.00	0.40	37.10	-10.90	

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

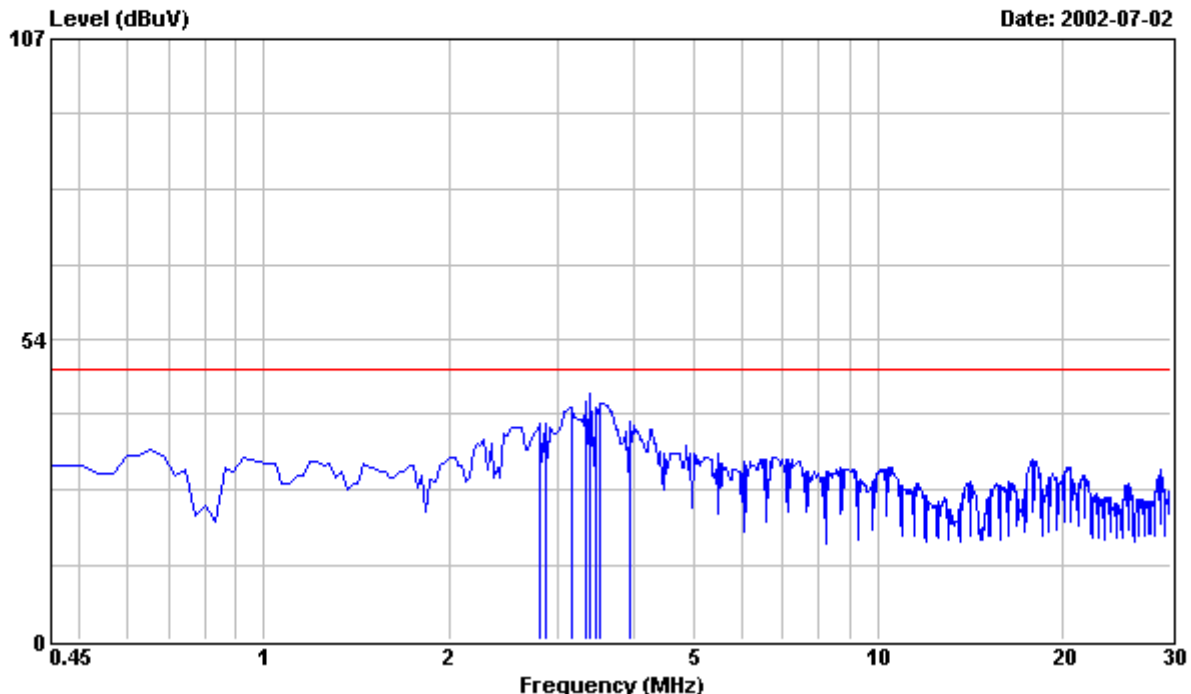


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Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 12 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1024x768/75Hz 60KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ LINE
2.814	38.20	48.00	0.40	38.60	-9.40	
2.873	38.20	48.00	0.40	38.60	-9.40	
3.169	40.80	48.00	0.40	41.20	-6.80	
3.346	42.10	48.00	0.40	42.50	-5.50	
3.405	43.60	48.00	0.40	44.00	-4.00	
3.464	41.00	48.00	0.40	41.40	-6.60	
3.523	41.80	48.00	0.40	42.20	-5.80	
3.937	38.40	48.00	0.40	38.80	-9.20	

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

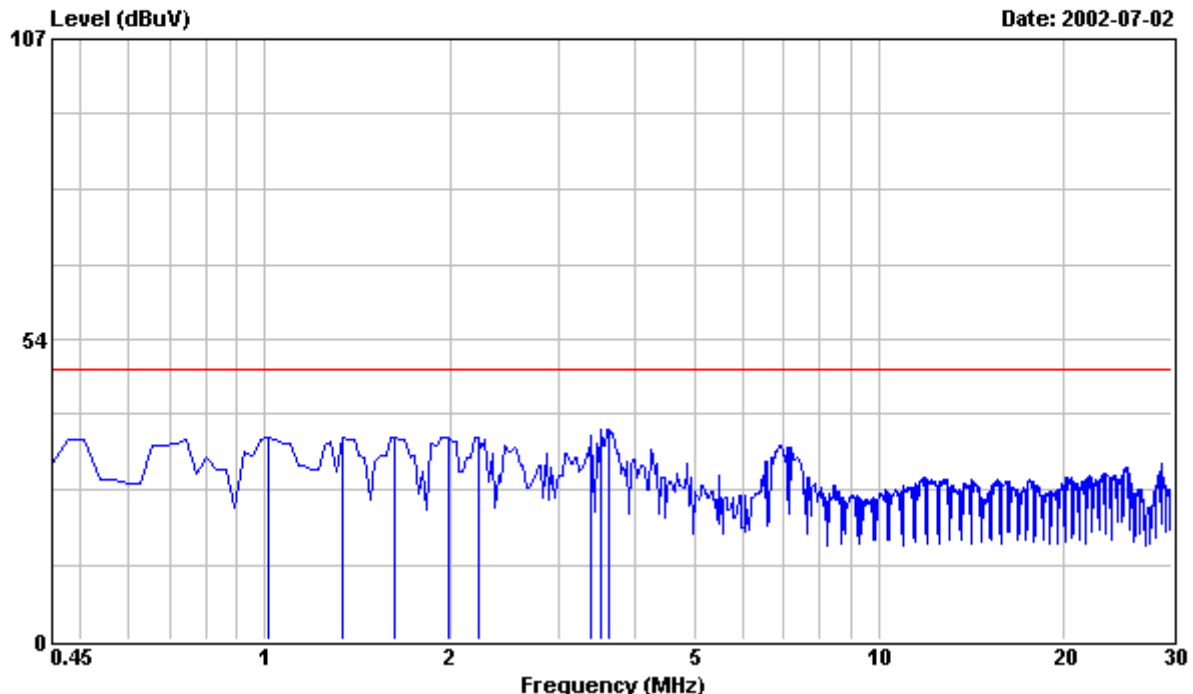


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Data#: 6

File#: C:\Program Files\em3\EMI02-029-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 180MT10P Serial No:TYO204046
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL, RUN IBM
: V1.8 FONT 12 "H" PATTERN.
: 3. EXTRA PC AUDIO, S-VHS AUDIO, VIDEO,
: AV IN, COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1024x768/75Hz 60KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC, S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ NEUTRAL
1.011	35.60	48.00	0.40	36.00	-12.00	
1.337	35.60	48.00	0.40	36.00	-12.00	
1.632	35.50	48.00	0.40	35.90	-12.10	
1.987	35.50	48.00	0.40	35.90	-12.10	
2.223	35.70	48.00	0.40	36.10	-11.90	
3.405	36.00	48.00	0.40	36.40	-11.60	
3.523	37.00	48.00	0.40	37.40	-10.60	
3.641	37.00	48.00	0.40	37.40	-10.60	

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

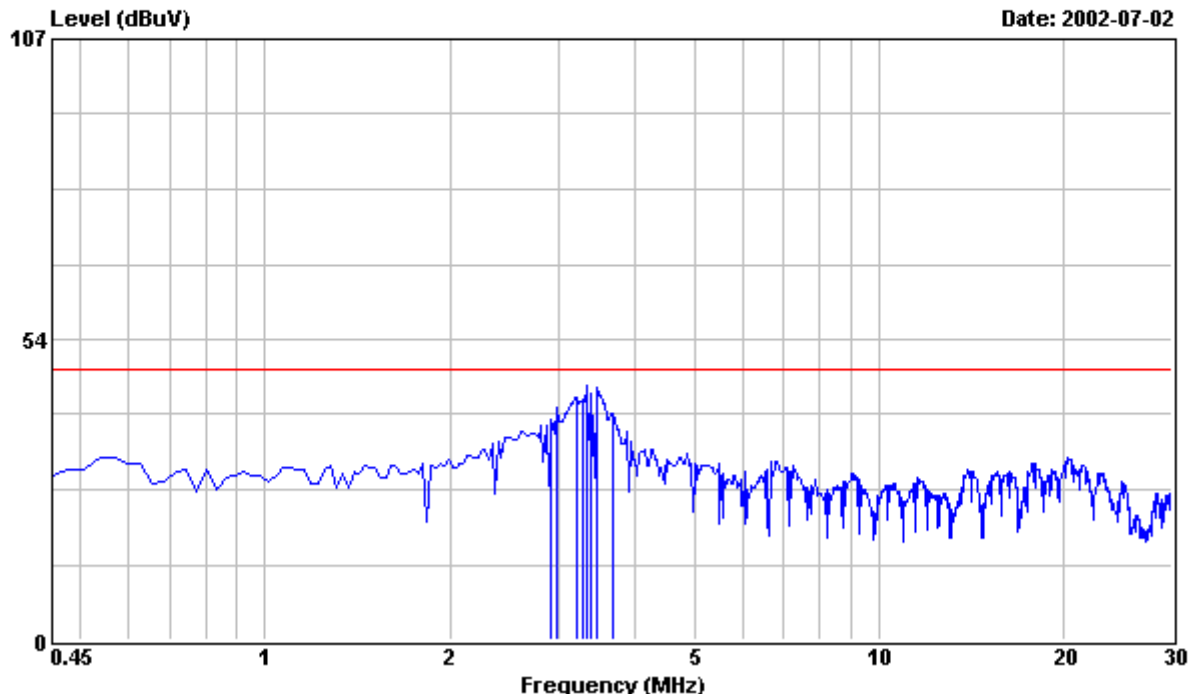


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Data#: 7

File#: C:\Program Files\em3\EMI02-029-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 12 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1024x768/75Hz 60KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ LINE
2.932	39.00	48.00	0.40	39.40	-8.60	
2.991	41.00	48.00	0.40	41.40	-6.60	
3.228	42.60	48.00	0.40	43.00	-5.00	
3.287	42.40	48.00	0.40	42.80	-5.20	
3.346	44.80	48.00	0.40	45.20	-2.80	
3.405	43.40	48.00	0.40	43.80	-4.20	
3.464	44.50	48.00	0.40	44.90	-3.10	
3.701	39.90	48.00	0.40	40.30	-7.70	

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

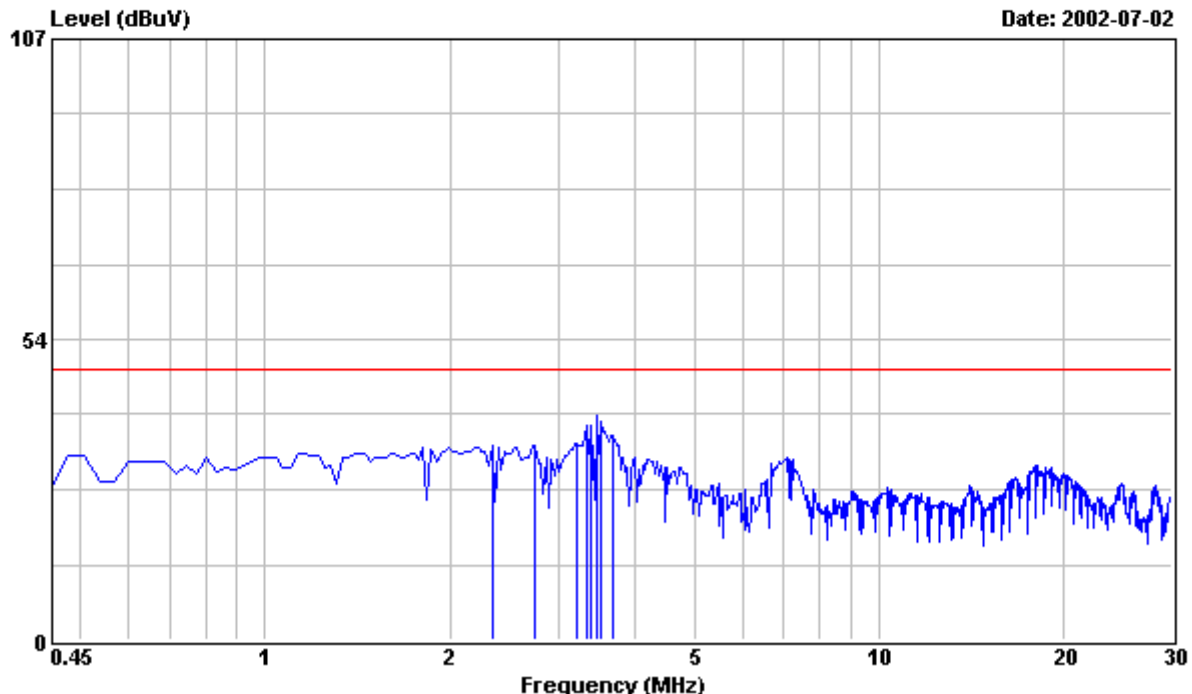


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Data#: 8

File#: C:\Program Files\em3\EMI02-029-C.emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 12 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1024x768/75Hz 60KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ NEUTRAL
2.341	34.20	48.00	0.40	34.60	-13.40	
2.755	34.30	48.00	0.40	34.70	-13.30	
3.228	34.40	48.00	0.40	34.80	-13.20	
3.346	37.70	48.00	0.40	38.10	-9.90	
3.405	37.60	48.00	0.40	38.00	-10.00	
3.464	39.60	48.00	0.40	40.00	-8.00	
3.523	38.30	48.00	0.40	38.70	-9.30	
3.701	36.10	48.00	0.40	36.50	-11.50	

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

Radiated Emissions FCC Part 15																				
Operating conditions EUT: EUT powered on with scrolling “H” pattern.																				
Limits: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">Frequency range (MHz)</th> <th style="width: 33%;">Class A at 10m (dBuv) QP</th> <th style="width: 33%;">Class B at 3m (dBuv) QP</th> </tr> </thead> <tbody> <tr> <td>30.0 – 88.0</td> <td>39.0</td> <td>40.0</td> </tr> <tr> <td>88.0 – 216.0</td> <td>43.5</td> <td>43.5</td> </tr> <tr> <td>216.0 – 960.0</td> <td>46.5</td> <td>46.0</td> </tr> <tr> <td>960.0 – 1000.0</td> <td>49.5</td> <td>54.0</td> </tr> <tr> <td>Above 1000.0</td> <td>49.5</td> <td>54.0 Average</td> </tr> </tbody> </table>			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
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 Test Engineer	: 02 Jul., 2002 to 02 Jul., 2002 : C.C.Wu																			
For detail measurement results see next pages.																				

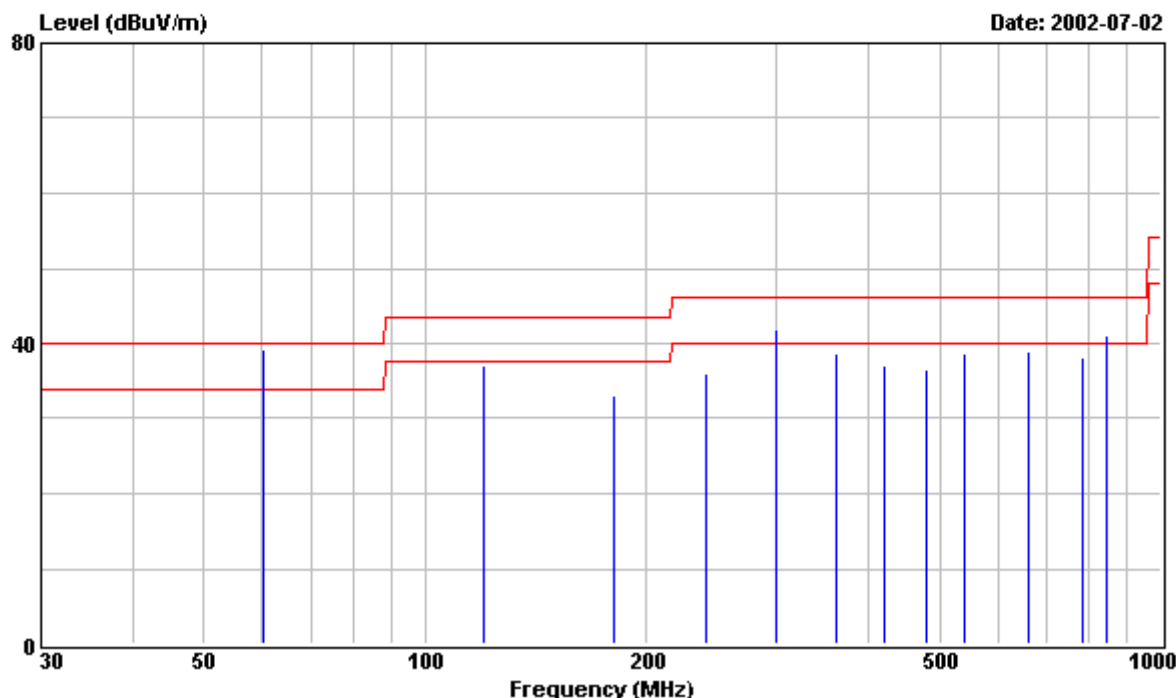


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Data#: 1

File#: C:\Program Files\em3\EMI02-029-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 12 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1024x768/75Hz 60KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Level	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	HORIZONTAL dBuV/m	dBuV/m
60.140	29.30	---	40.00	9.90	39.20	-0.80
60.140	---	27.71	40.00	9.90	37.61	-2.39
120.280	24.80	---	43.50	12.39	37.19	-6.31
180.420	18.70	---	43.50	14.46	33.16	-10.34
240.560	16.30	---	46.00	19.78	36.08	-9.92
300.690	18.70	---	46.00	23.20	41.90	-4.10
300.690	---	17.32	46.00	23.20	40.52	-5.48
360.840	---	21.10	46.00	17.70	38.80	-7.20
420.980	18.30	---	46.00	18.69	36.99	-9.01

2. Emission Level (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Re



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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Level	Over Limit
					HORIZONTAL	
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
481.120	17.10	---	46.00	19.47	36.57	-9.43
541.260	18.30	---	46.00	20.36	38.66	-7.34
661.540	16.30	---	46.00	22.66	38.96	-7.04
781.820	13.60	---	46.00	24.59	38.19	-7.81
841.960	15.70	---	46.00	25.46	41.16	-4.84
841.960	---	13.00	46.00	25.46	38.46	-7.54

Re

2. Emission Level (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

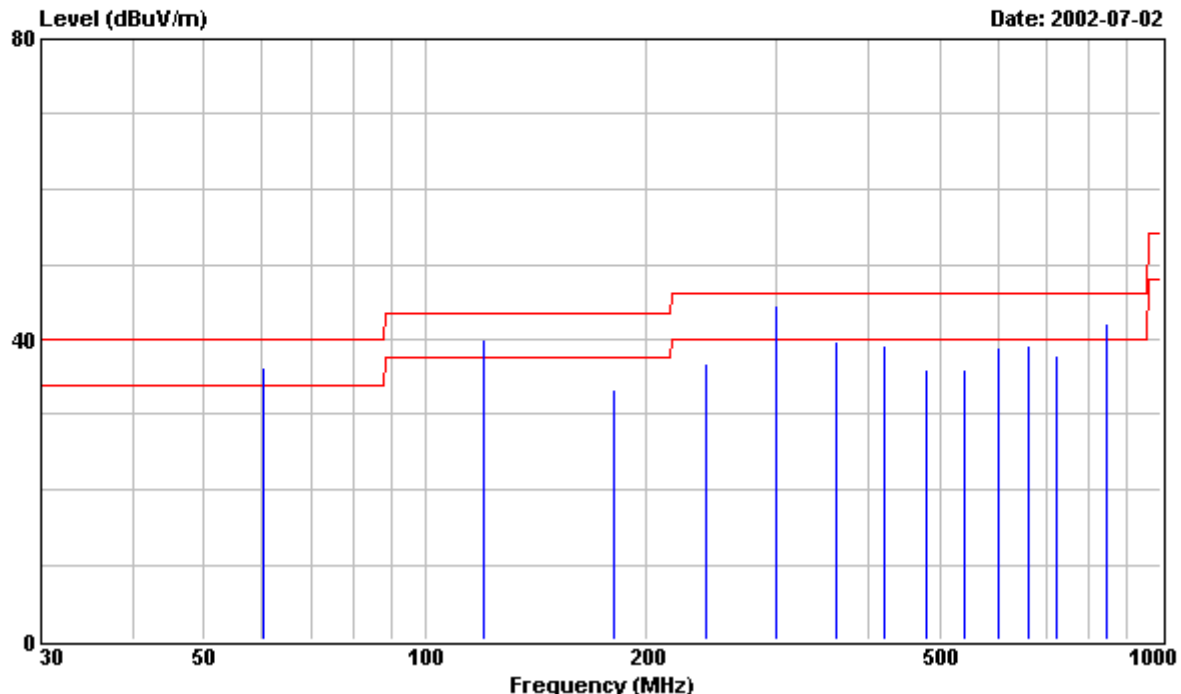


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Data#: 2

File#: C:\Program Files\em3\EMI02-029-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 12 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1024x768/75Hz 60KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Level	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	VERTICAL dBuV/m	dBuV/m
60.140	---	25.10	40.00	9.90	35.00	-5.00
60.140	26.30	---	40.00	9.90	36.20	-3.80
120.280	---	26.38	43.50	12.39	38.77	-4.73
120.280	27.70	---	43.50	12.39	40.09	-3.41
180.420	18.80	---	43.50	14.46	33.26	-10.24
240.560	17.00	---	46.00	19.78	36.78	-9.22
300.690	---	20.23	46.00	23.20	43.43	-2.57
300.690	21.30	---	46.00	23.20	44.50	-1.50
360.840	22.10	---	46.00	17.70	39.80	-6.20

2. Emission Level (dBuV/m) = Factor (dB/m) + Meter Reading (dBuV/m)
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB)

Re



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Frequency	Peak Reading	QP reading	Limit	Factor	Emission Level	Over Limit
					VERTICAL	
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
420.980	20.50	---	46.00	18.69	39.19	-6.81
481.120	16.50	---	46.00	19.47	35.97	-10.03
541.260	15.70	---	46.00	20.36	36.06	-9.94
601.390	17.60	---	46.00	21.25	38.85	-7.15
661.540	16.50	---	46.00	22.66	39.16	-6.84
721.680	14.10	---	46.00	23.81	37.91	-8.09
841.960	---	14.30	46.00	25.46	39.76	-6.24
841.960	16.70	---	46.00	25.46	42.16	-3.84

2. Emission Level (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

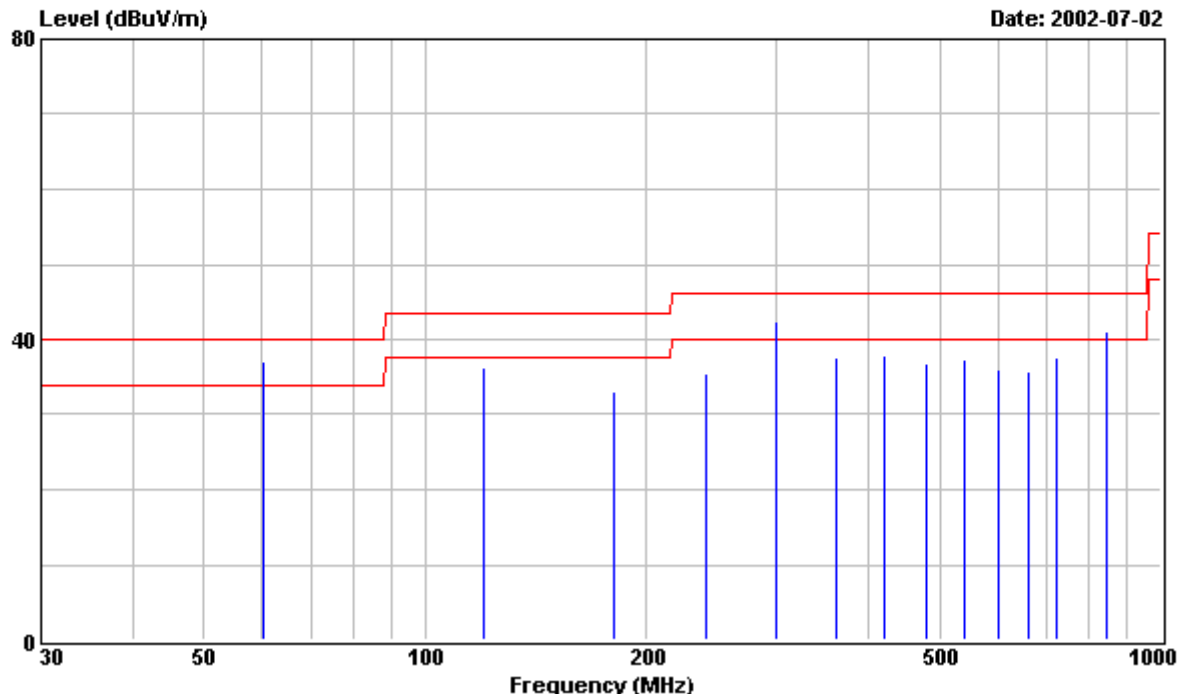


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Data#: 3

File#: C:\Program Files\em3\EMI02-029-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1280x1024/75Hz 80KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Level	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	HORIZONTAL dBuV/m	dBuV/m
60.140	27.20	---	40.00	9.90	37.10	-2.90
60.140	---	25.60	40.00	9.90	35.50	-4.50
120.280	23.90	---	43.50	12.39	36.29	-7.21
180.430	18.70	---	43.50	14.46	33.16	-10.34
240.570	15.70	---	46.00	19.78	35.48	-10.52
300.690	19.30	---	46.00	23.20	42.50	-3.50
300.690	---	18.07	46.00	23.20	41.27	-4.73
360.840	20.00	---	46.00	17.70	37.70	-8.30
420.980	19.20	---	46.00	18.69	37.89	-8.11

Re

2. Emission Level (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 Level	Over Limit
					HORIZONTAL	
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
481.120	17.30	---	46.00	19.47	36.77	-9.23
541.260	17.00	---	46.00	20.36	37.36	-8.64
601.400	14.70	---	46.00	21.25	35.95	-10.05
661.540	13.10	---	46.00	22.66	35.76	-10.24
721.680	---	13.70	46.00	23.81	37.51	-8.49
841.960	---	12.80	46.00	25.46	38.26	-7.74
841.960	15.50	---	46.00	25.46	40.96	-5.04

Re

2. Emission Level (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

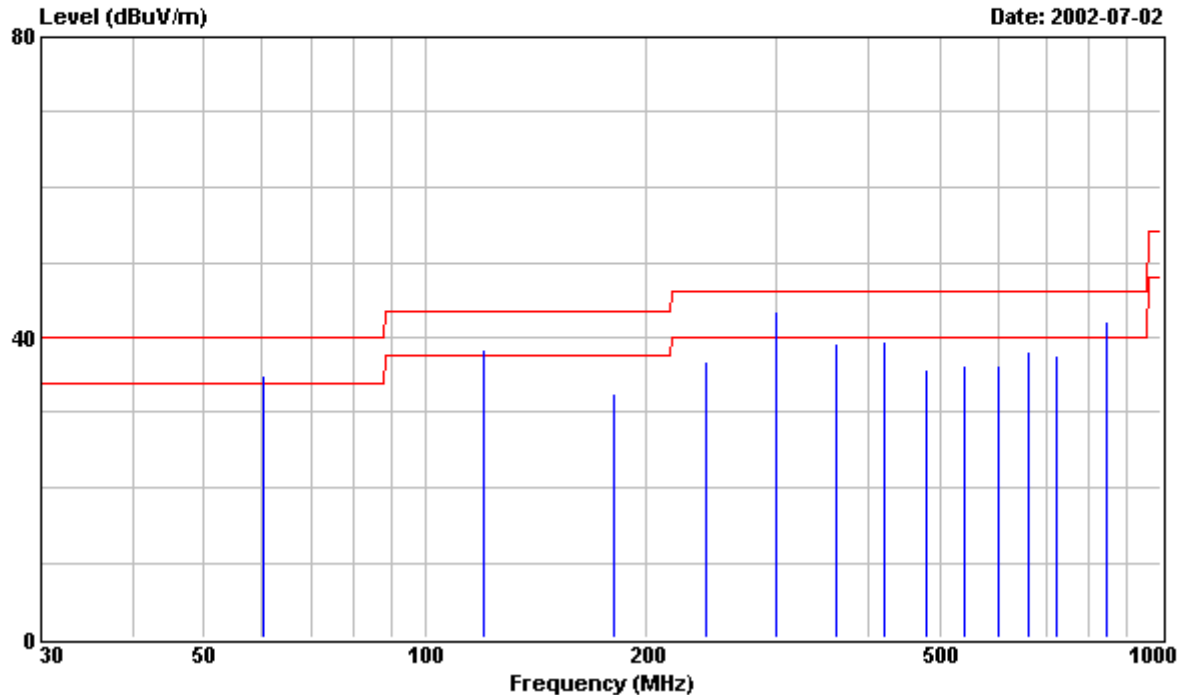


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Data#: 4

File#: C:\Program Files\es\EMI02-029-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : PHILIPS 180MT10P Serial No:TY0204046
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL HITACHI PANEL,RUN IBM
: V1.8 FONT 14 "H" PATTERN.
: 3. EXTRA PC AUDIO,S-VHS AUDIO,VIDEO,
: AV IN,COMPONENT & ANT CABLE WERE
: CONNECTED WITH DUMMY LOAD &
: WITH 2 HEADPHONE.
: 4. 1280x1024/75Hz 80KHz MODE WITH COMPAQ
: ENC/P866/2OE/8/128A TAI PC,S3 Trio
: 3D/2X VIDEO CARD WAS TESTED.

Frequency	Peak Reading	QP reading	Limit	Factor	Emission Level	Over Limit
MHz	dBuV	dBuV	dBuV/m	dB/m	VERTICAL dBuV/m	dBuV/m
60.140	---	23.40	40.00	9.90	33.30	-6.70
60.140	24.90	---	40.00	9.90	34.80	-5.20
120.280	26.00	---	43.50	12.39	38.39	-5.11
120.280	---	24.70	43.50	12.39	37.09	-6.41
180.430	18.00	---	43.50	14.46	32.46	-11.04
240.570	17.00	---	46.00	19.78	36.78	-9.22
300.690	20.20	---	46.00	23.20	43.40	-2.60
300.690	---	19.14	46.00	23.20	42.34	-3.66
360.840	21.60	---	46.00	17.70	39.30	-6.70

Re

2. Emission Level (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 Level	Over Limit
					VERTICAL	
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m
420.980	20.80	---	46.00	18.69	39.49	-6.51
481.120	16.30	---	46.00	19.47	35.77	-10.23
541.260	15.80	---	46.00	20.36	36.16	-9.84
601.400	15.00	---	46.00	21.25	36.25	-9.75
661.540	15.50	---	46.00	22.66	38.16	-7.84
721.680	13.70	---	46.00	23.81	37.51	-8.49
841.960	16.60	---	46.00	25.46	42.06	-3.94
841.960	---	9.67	46.00	25.46	35.13	-10.87

Re

2. Emission Level (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