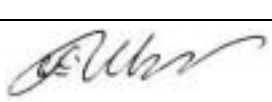




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Philips Electronics Industries (Taiwan) Ltd - EMC Lab. 5, Tze Chiang 1 Road, Chungli Industrial Park, Chungli, Taoyuan, Taiwan Tel.: +886-3-454-9862 Fax.: +886-3-454-9887 E-mail: ronnie.yang@philips.com	FCC Test Report	Report No.: TYR87-2028 Date : 17 September, 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. : A3KM076 Model Name : E772p Serial Number : TY0205052 Description : 17" XGA color monitor, Max. resolution 1280x1024/60Hz		
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 : 11 Sep. 2002 Date of performance of test : 13 Sep., 2002 to 16 Sep., 2002		
 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, 17" color monitor :

Model No. : E772p
FCC ID : A3KM076
Brand : DELL

The color monitor automatically scans horizontal frequencies between 30KHz and 70KHz , 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 1280x1024 pixels.

The monitor has 8 factory-preset modes as indicated in the following table:

#	Resolution	Hor (kHz)	Ver (Hz)	H-pol	V-pol
1	720x400	31.469	70.087	-	+
2	640 x 480	31.469	59.940	-	-
3	640 x 480	43.269	85.008	-	-
4	800 x 600	46.875	75.000	+	+
5	800 x 600	53.674	85.061	+	+
6	1024 x 768	60.023	75.029	+	+
7	1024 x 768	68.677	84.997	+	+
8	1280x1024	64.0	60.0	+	+

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	2928A04640	06/27/2002	06/27/2003
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	2928A04640	06/27/2002	06/27/2003
RF Preselector	HP85685A	2620A00338	06/27/2002	06/27/2003
QP Adapter	HP85650A	2811A01324	06/27/2002	06/27/2003
EMI Receiver	HP85460A	3441A00199	11/09/2001	11/09/2002
RFI Filter Section	HP85460A	3330A00177	11/09/2001	11/09/2002
EMI Receiver	R & S ESVS30	841977/006	06/13/2002	06/13/2003
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

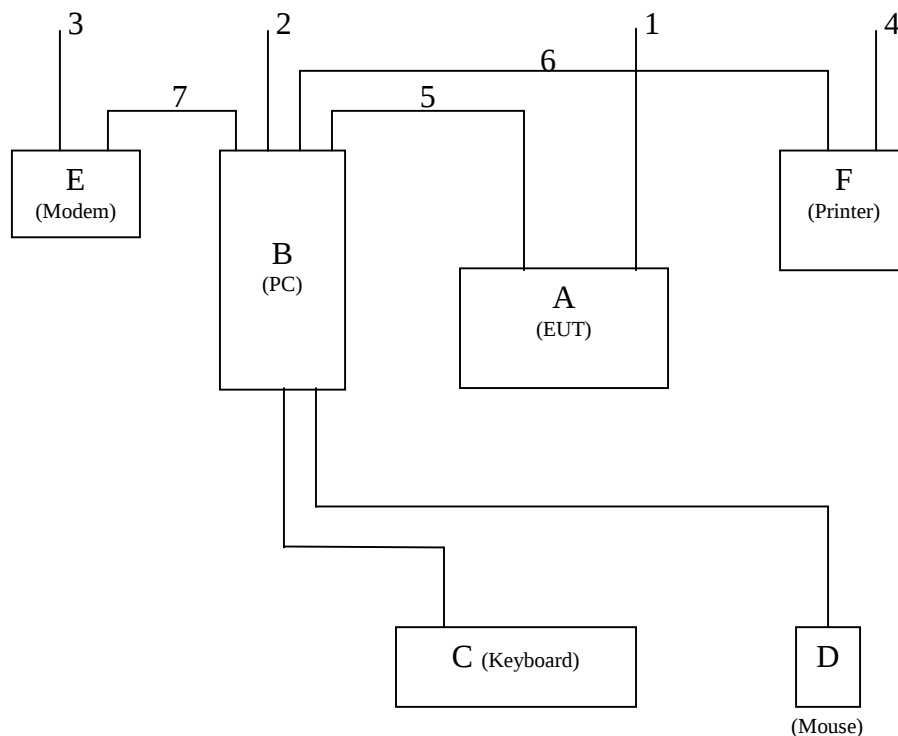
The system was configured for testing in a typical fashion (as a customer would normally use it) according to ANSI C63.4-1992, please see the photographs for detail. For system measurement, the EUT “E772p” were connected to:

	Description	Brand/ Model No.	Serial No.	FCC ID	Remark
A	Monitor	DELL E772p	TY0205052	A3KM076	EUT
B	PC	DELL DHM	GV8P21X	FCC logo	
C	Keyboard	DELL SK-8100	CN-09C487-38844-193-7480	FCC logo	
D	Mouse	Logitech M-S34	LNA14011260	DZL211029	
E	Modem	Hayes 231AA	A22231081770	BFJ9D9308US	
F	Printer	HP 2225C	2934S55406	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 three ferrite cores was used.

Tested and reported modes as following:

Test Item	File No.	Resolution	Frequencies	I/F Cable
Conducted	EMI02-052-C	1280x1024	64KHz/65Hz	D-sub
		1024x768	68.7KHz/85Hz	D-sub
Radiated	EMI02-052-R	1280x1024	64KHz/65Hz	D-sub
		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" 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

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	: 13 Sep., 2002 to 16 Sep., 2002
Test Engineer	: C.C.Wu

For detail measurement results see next pages.

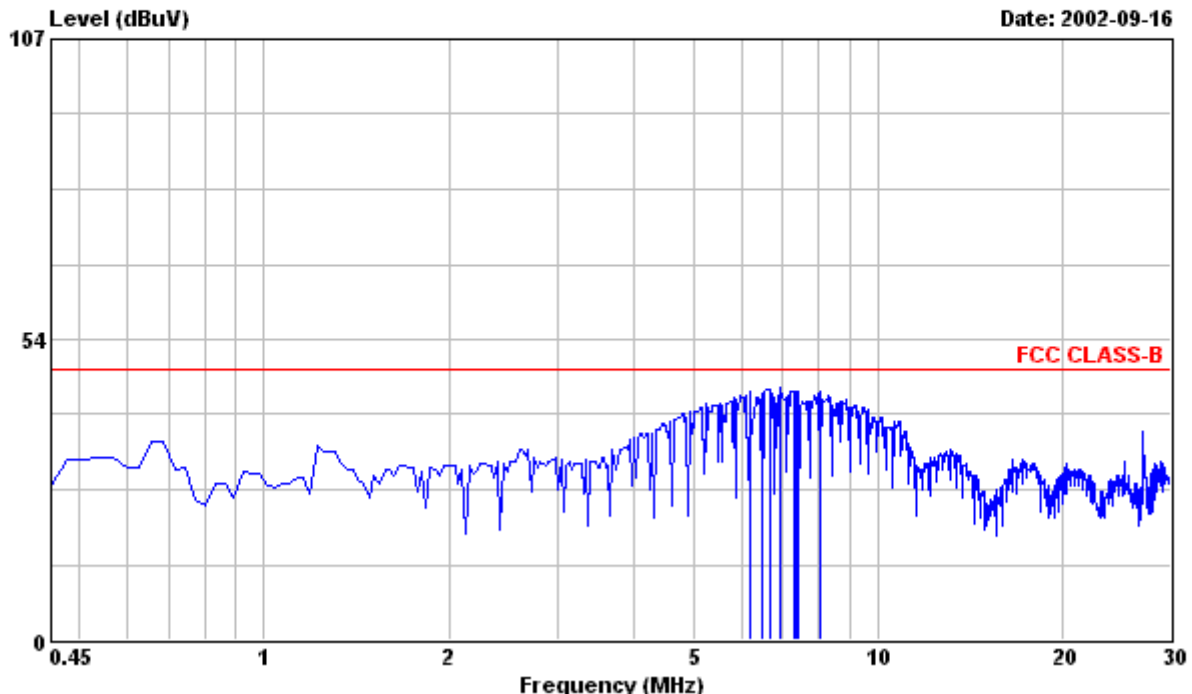


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Data#: 1

File#: C:\Program Files\em3\EMI02-052-C.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL E772P Serial No:TY0205052
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ LINE
6.183	43.70	48.00	0.40	44.10	-3.90	
6.478	43.60	48.00	0.40	44.00	-4.00	
6.655	44.10	48.00	0.40	44.50	-3.50	
6.951	44.40	48.00	0.40	44.80	-3.20	
7.306	44.00	48.00	0.40	44.40	-3.60	
7.365	43.80	48.00	0.40	44.20	-3.80	
7.424	43.70	48.00	0.40	44.10	-3.90	
8.074	43.80	48.00	0.41	44.21	-3.79	

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

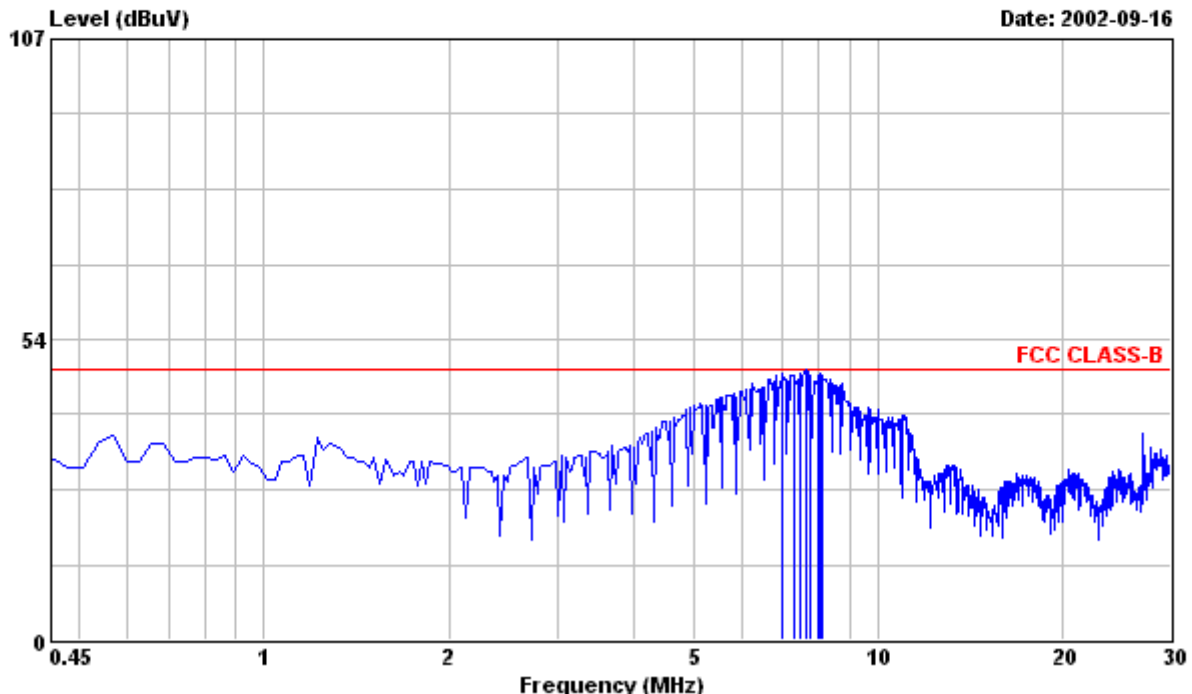


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Data#: 2

File#: C:\Program Files\em3\EMI02-052-C.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL E772P Serial No:TY0205052
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ NEUTRAL
7.010	47.00	48.00	0.40	47.40	-0.60	
7.306	46.80	48.00	0.40	47.20	-0.80	
7.483	46.90	48.00	0.40	47.30	-0.70	
7.660	47.60	48.00	0.40	48.00	0.00	
7.778	46.60	48.00	0.40	47.00	-1.00	
8.015	46.70	48.00	0.40	47.10	-0.90	
8.074	47.10	48.00	0.41	47.51	-0.49	
8.133	46.70	48.00	0.41	47.11	-0.89	

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

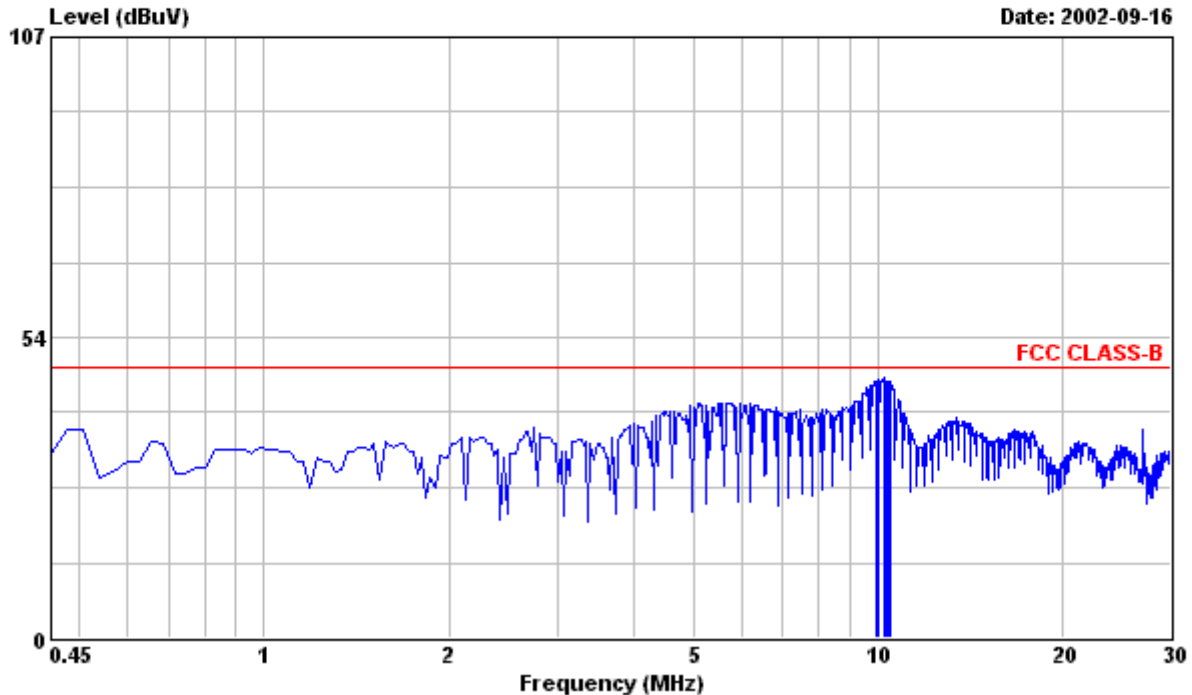


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Data#: 3

File#: C:\Program Files\emi\EMI02-052-C.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL E772P Serial No:TY0205052
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit * dBuV	LINE
9.906	45.20	48.00	0.59	45.79	-2.21	
9.965	44.80	48.00	0.60	45.40	-2.60	
10.024	45.50	48.00	0.60	46.10	-1.90	
10.261	45.60	48.00	0.61	46.21	-1.79	
10.320	45.20	48.00	0.61	45.81	-2.19	
10.379	45.20	48.00	0.61	45.81	-2.19	
10.438	45.00	48.00	0.61	45.61	-2.39	
10.497	44.90	48.00	0.61	45.51	-2.49	

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

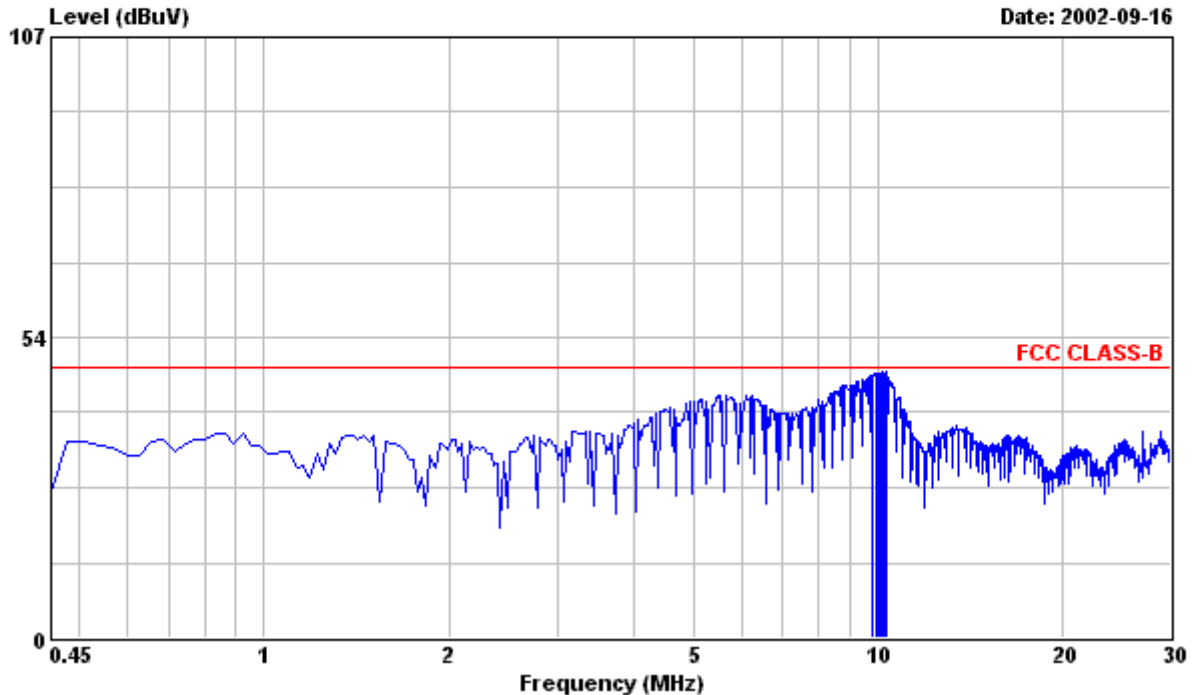


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Data#: 4

File#: C:\Program Files\em3\EMI02-052-C.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL E772P Serial No:TY0205052
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ NEUTRAL
9.788	46.30	48.00	0.58	46.88	-1.12	
9.906	46.60	48.00	0.59	47.19	-0.81	
9.965	46.60	48.00	0.60	47.20	-0.80	
10.024	46.60	48.00	0.60	47.20	-0.80	
10.083	46.30	48.00	0.60	46.90	-1.10	
10.202	46.80	48.00	0.61	47.41	-0.59	
10.261	46.40	48.00	0.61	47.01	-0.99	
10.320	46.80	48.00	0.61	47.41	-0.59	

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

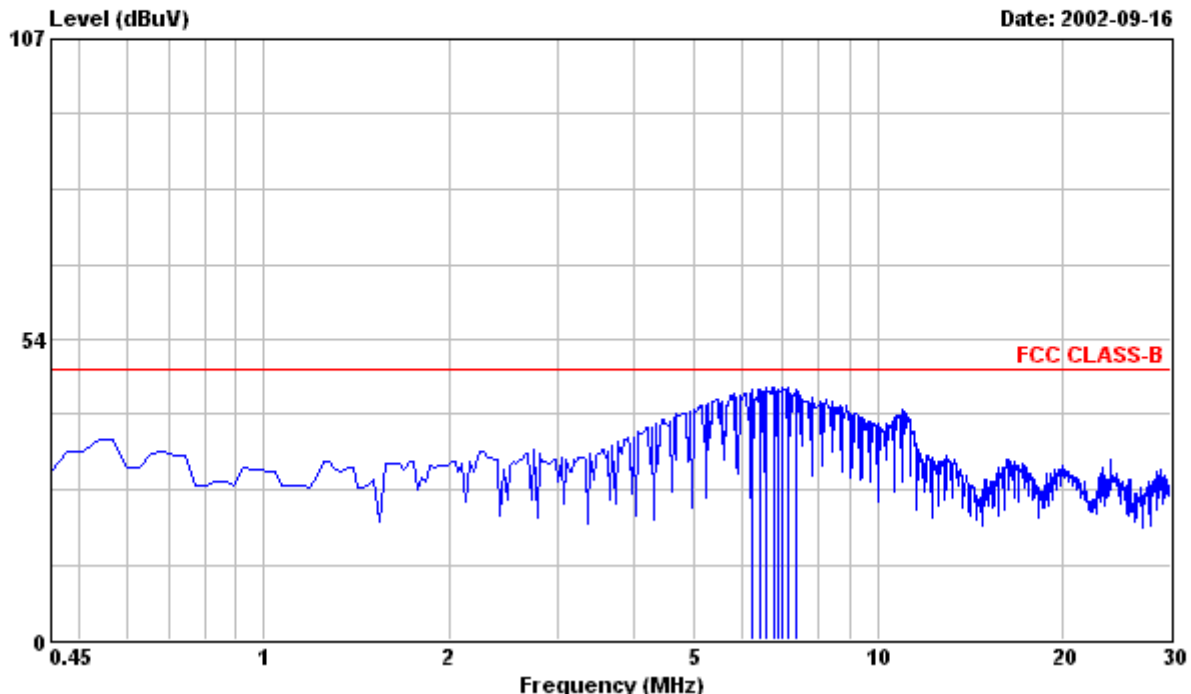


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Data#: 5

File#: C:\Program Files\em3\EMI02-052-C.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL E772P Serial No:TY0205052
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1280x1024/60Hz 64KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ LINE
6.242	44.30	48.00	0.40	44.70	-3.30	
6.419	44.10	48.00	0.40	44.50	-3.50	
6.596	44.40	48.00	0.40	44.80	-3.20	
6.774	44.50	48.00	0.40	44.90	-3.10	
6.892	44.10	48.00	0.40	44.50	-3.50	
7.010	44.40	48.00	0.40	44.80	-3.20	
7.128	44.70	48.00	0.40	45.10	-2.90	
7.365	44.10	48.00	0.40	44.50	-3.50	

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

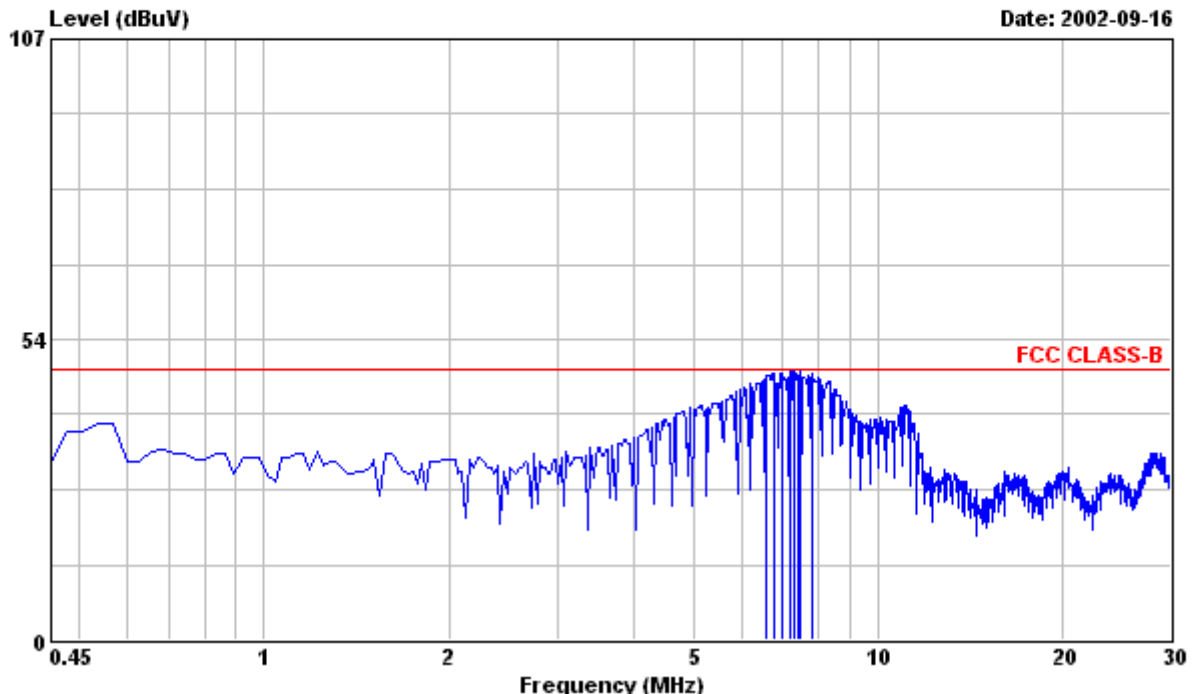


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Data#: 6

File#: C:\Program Files\em3\EMI02-052-C.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL E772P Serial No:TY0205052
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1280x1024/60Hz 64KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ NEUTRAL
6.596	46.70	48.00	0.40	47.10	-0.90	
6.774	47.00	48.00	0.40	47.40	-0.60	
7.010	47.10	48.00	0.40	47.50	-0.50	
7.187	47.30	48.00	0.40	47.70	-0.30	
7.306	47.30	48.00	0.40	47.70	-0.30	
7.424	46.60	48.00	0.40	47.00	-1.00	
7.483	47.40	48.00	0.40	47.80	-0.20	
7.838	46.90	48.00	0.40	47.30	-0.70	

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

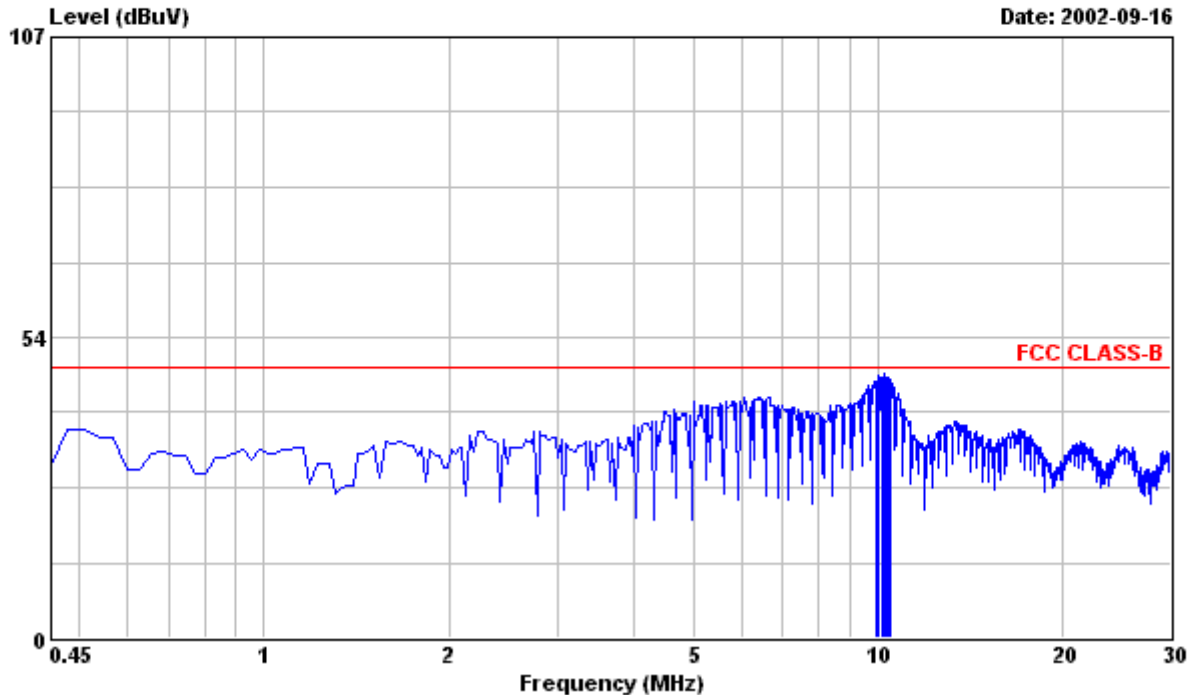


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Data#: 7

File#: C:\Program Files\em3\EMI02-052-C.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL E772P Serial No:TY0205052
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1280x1024/60Hz 64KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit * dBuV	LINE
9.906	45.10	48.00	0.59	45.69	-2.31	
9.965	44.90	48.00	0.60	45.50	-2.50	
10.024	46.00	48.00	0.60	46.60	-1.40	
10.142	45.60	48.00	0.60	46.20	-1.80	
10.261	46.40	48.00	0.61	47.01	-0.99	
10.320	45.70	48.00	0.61	46.31	-1.69	
10.379	45.70	48.00	0.61	46.31	-1.69	
10.497	45.30	48.00	0.61	45.91	-2.09	

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

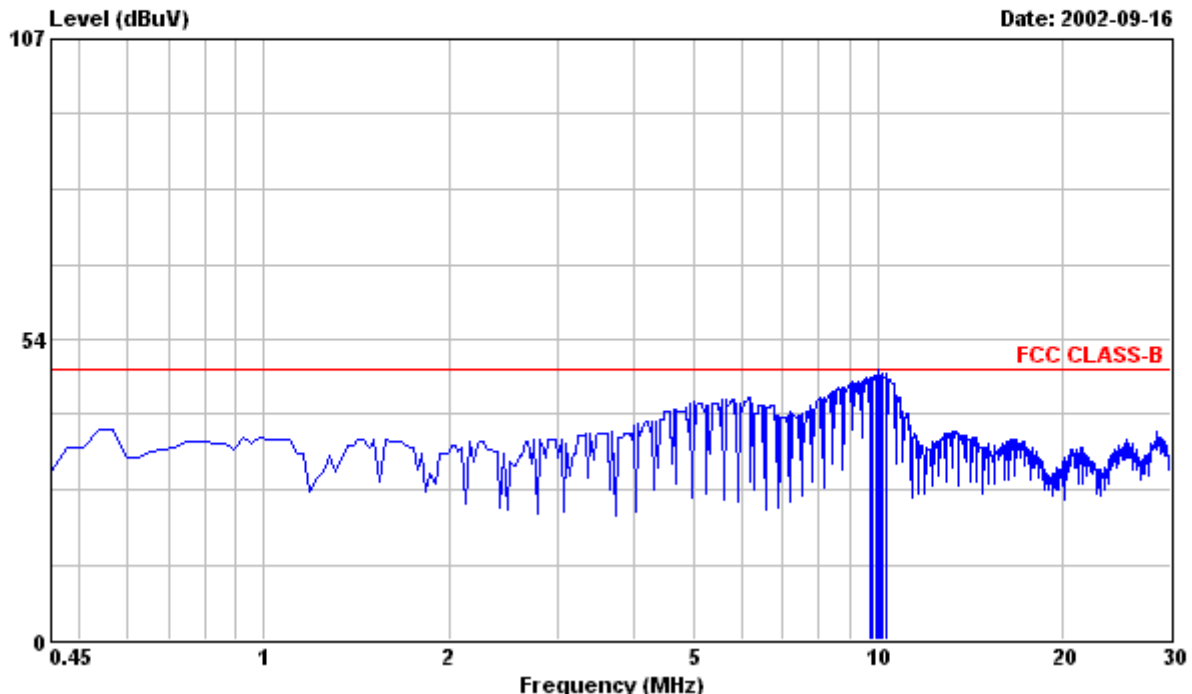


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Data#: 8

File#: C:\Program Files\em3\EMI02-052-C.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL E772P Serial No:TY0205052
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1280x1024/60Hz 64KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency MHz	Peak Reading dBuV	Limit dBuV	Factor dB	Emission Level dBuV	Over Limit dBuV	※ NEUTRAL
9.729	46.10	48.00	0.58	46.68	-1.32	
9.788	46.10	48.00	0.58	46.68	-1.32	
9.965	46.50	48.00	0.60	47.10	-0.90	
10.024	47.40	48.00	0.60	48.00	0.00	
10.083	46.60	48.00	0.60	47.20	-0.80	
10.142	46.90	48.00	0.60	47.50	-0.50	
10.202	46.50	48.00	0.61	47.11	-0.89	
10.320	47.00	48.00	0.61	47.61	-0.39	

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

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 Quasi-Peak
88.0 – 216.0	43.5	43.5 Quasi-Peak
216.0 – 960.0	46.5	46.0 Quasi-Peak
960.0 – 1000.0	49.5	54.0 Quasi-Peak
Above 1000.0	49.5	54.0 Average

Test Result :

Passed FCC Class B Limits

Remark:

Date of Test

: 13 Sep., 2002 to 16 Sep., 2002

Test Engineer

: C.C.Wu

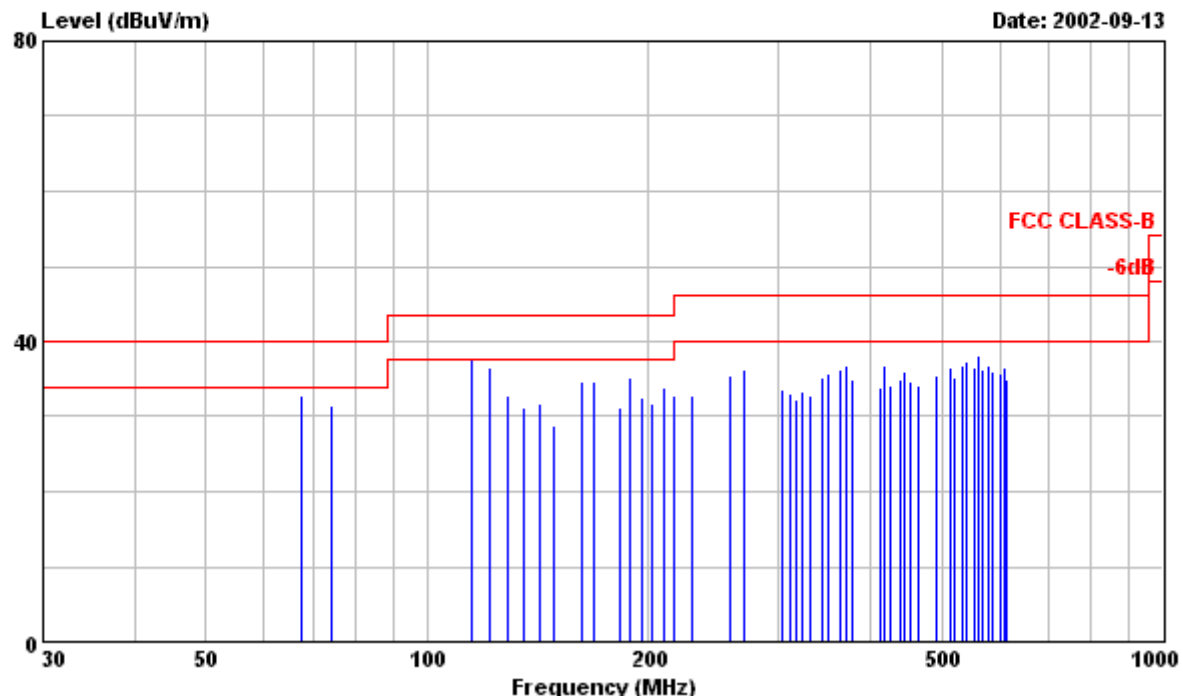
For detail measurement results see next pages.



PHILIPS

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Data#: 1 File#: C:\Program Files\em3\EMI02-052-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : DELL E772P Serial No:TY0205052
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Level Over Limit Remark
HORIZONTAL

MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
67.520	22.80	---	40.00	9.98	32.78	-7.22	Peak
74.260	21.40	---	40.00	10.17	31.57	-8.43	Peak
! 114.770	25.50	---	43.50	12.15	37.65	-5.85	Peak
114.770	---	24.16	43.50	12.15	36.31	-7.19	QP
121.510	24.20	---	43.50	12.42	36.62	-6.88	Peak
128.270	20.10	---	43.50	12.62	32.72	-10.78	Peak
135.030	18.20	---	43.50	12.89	31.09	-12.41	Peak
141.770	18.50	---	43.50	13.13	31.63	-11.87	Peak
148.510	15.40	---	43.50	13.36	28.76	-14.74	Peak
162.030	20.89	---	43.50	13.76	34.65	-8.85	Peak
168.770	20.70	---	43.50	13.94	34.64	-8.86	Peak
182.270	16.60	---	43.50	14.65	31.25	-12.25	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.
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	Remark
HORIZONTAL							
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
189.020	20.00	---	43.50	15.29	35.29	-8.21	Peak
195.770	16.60	---	43.50	15.92	32.52	-10.98	Peak
202.520	15.20	---	43.50	16.56	31.76	-11.74	Peak
209.270	16.80	---	43.50	17.15	33.95	-9.55	Peak
216.020	15.10	---	46.00	17.74	32.84	-13.16	Peak
229.520	13.90	---	46.00	18.86	32.76	-13.24	Peak
258.070	14.50	---	46.00	20.97	35.47	-10.53	Peak
270.070	14.70	---	46.00	21.64	36.34	-9.66	Peak
303.780	17.10	---	46.00	16.55	33.65	-12.35	Peak
310.520	16.50	---	46.00	16.69	33.19	-12.81	Peak
317.280	15.40	---	46.00	16.85	32.25	-13.75	Peak
324.040	16.30	---	46.00	16.99	33.29	-12.71	Peak
330.790	15.60	---	46.00	17.13	32.73	-13.27	Peak
344.290	17.90	---	46.00	17.39	35.29	-10.71	Peak
351.040	18.30	---	46.00	17.51	35.81	-10.19	Peak
364.540	18.50	---	46.00	17.77	36.27	-9.73	Peak
371.290	18.80	---	46.00	17.88	36.68	-9.32	Peak
378.040	16.80	---	46.00	18.02	34.82	-11.18	Peak
411.790	15.30	---	46.00	18.57	33.87	-12.13	Peak
418.540	18.10	---	46.00	18.67	36.77	-9.23	Peak
425.290	15.60	---	46.00	18.75	34.35	-11.65	Peak
438.790	16.00	---	46.00	18.94	34.94	-11.06	Peak
445.540	16.90	---	46.00	19.02	35.92	-10.08	Peak
452.290	15.60	---	46.00	19.12	34.72	-11.28	Peak
465.790	15.20	---	46.00	19.29	34.49	-11.51	Peak
492.790	15.90	---	46.00	19.62	35.52	-10.48	Peak
513.040	16.60	---	46.00	19.93	36.53	-9.47	Peak
519.790	15.30	---	46.00	20.02	35.32	-10.68	Peak
533.290	16.50	---	46.00	20.25	36.75	-9.25	Peak
540.050	16.90	---	46.00	20.33	37.23	-8.77	Peak
553.540	16.10	---	46.00	20.54	36.64	-9.36	Peak
560.300	17.60	---	46.00	20.65	38.25	-7.75	Peak
567.050	15.40	---	46.00	20.74	36.14	-9.86	Peak
580.550	15.80	---	46.00	20.94	36.74	-9.26	Peak
587.300	15.00	---	46.00	21.03	36.03	-9.97	Peak
600.800	14.60	---	46.00	21.25	35.85	-10.15	Peak
607.550	15.00	---	46.00	21.41	36.41	-9.59	Peak
614.300	13.30	---	46.00	21.57	34.87	-11.13	Peak

- Remarks: 1. All Readings are Peak & Quasi-peak values.
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

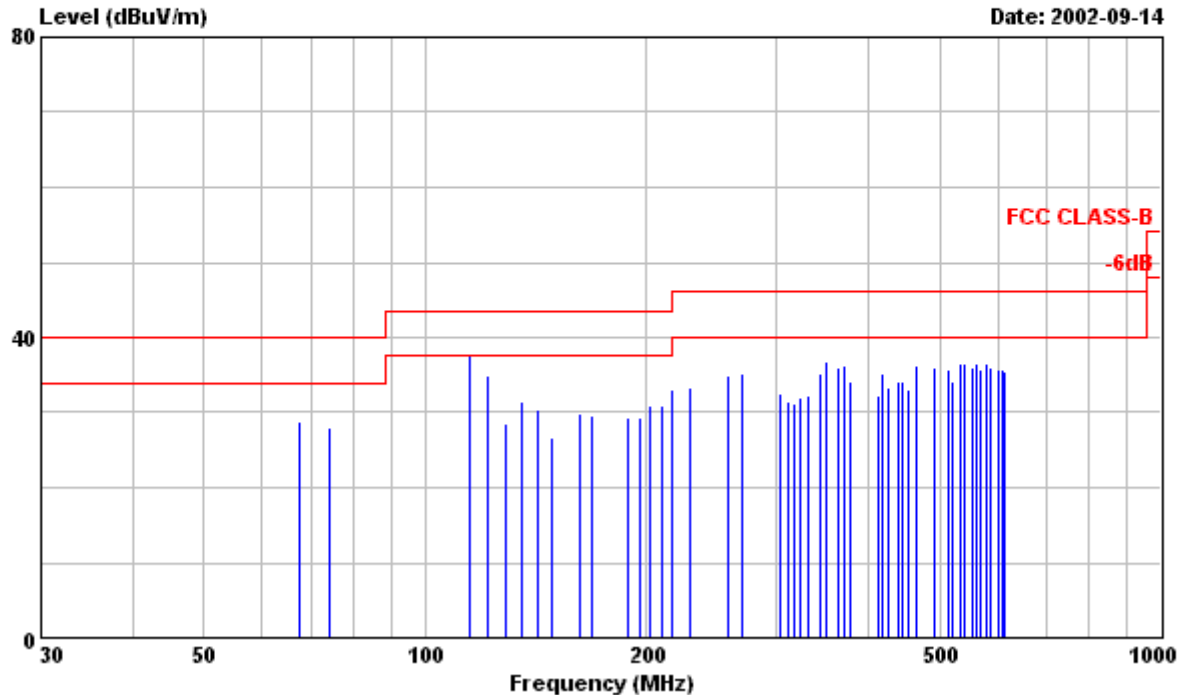


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Data#: 2

File#: C:\Program Files\em3\EMI02-052-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : DELL E772P Serial No:TY0205052
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1024x768/85Hz 68.7KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Level Over Limit Remark
VERTICAL

MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
67.520	18.70	---	40.00	9.98	28.68	-11.32	Peak
74.260	17.80	---	40.00	10.17	27.97	-12.03	Peak
! 114.770	25.40	---	43.50	12.15	37.55	-5.95	Peak
114.770	---	23.94	43.50	12.15	36.09	-7.41	QP
121.510	22.50	---	43.50	12.42	34.92	-8.58	Peak
128.270	15.90	---	43.50	12.62	28.52	-14.98	Peak
135.030	18.50	---	43.50	12.89	31.39	-12.11	Peak
141.770	17.30	---	43.50	13.13	30.43	-13.07	Peak
148.510	13.20	---	43.50	13.36	26.56	-16.94	Peak
162.030	16.09	---	43.50	13.76	29.85	-13.65	Peak
168.770	15.70	---	43.50	13.94	29.64	-13.86	Peak
189.020	14.00	---	43.50	15.29	29.29	-14.21	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.
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	Remark
					VERTICAL		
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
195.770	13.40	---	43.50	15.92	29.32	-14.18	Peak
202.520	14.30	---	43.50	16.56	30.86	-12.64	Peak
209.270	13.90	---	43.50	17.15	31.05	-12.45	Peak
216.020	15.30	---	46.00	17.74	33.04	-12.96	Peak
229.520	14.50	---	46.00	18.86	33.36	-12.64	Peak
258.070	13.90	---	46.00	20.97	34.87	-11.13	Peak
270.070	13.50	---	46.00	21.64	35.14	-10.86	Peak
303.780	15.90	---	46.00	16.55	32.45	-13.55	Peak
310.520	14.80	---	46.00	16.69	31.49	-14.51	Peak
317.280	14.40	---	46.00	16.85	31.25	-14.75	Peak
324.040	14.90	---	46.00	16.99	31.89	-14.11	Peak
330.790	15.20	---	46.00	17.13	32.33	-13.67	Peak
344.290	17.90	---	46.00	17.39	35.29	-10.71	Peak
351.040	19.20	---	46.00	17.51	36.71	-9.29	Peak
364.540	18.30	---	46.00	17.77	36.07	-9.93	Peak
371.290	18.40	---	46.00	17.88	36.28	-9.72	Peak
378.040	16.00	---	46.00	18.02	34.02	-11.98	Peak
411.790	13.70	---	46.00	18.57	32.27	-13.73	Peak
418.540	16.60	---	46.00	18.67	35.27	-10.73	Peak
425.290	14.50	---	46.00	18.75	33.25	-12.75	Peak
438.790	15.10	---	46.00	18.94	34.04	-11.96	Peak
445.540	15.50	---	46.00	19.02	34.52	-11.48	Peak
452.290	14.00	---	46.00	19.12	33.12	-12.88	Peak
465.790	17.10	---	46.00	19.29	36.39	-9.61	Peak
492.790	16.30	---	46.00	19.62	35.92	-10.08	Peak
513.040	15.90	---	46.00	19.93	35.83	-10.17	Peak
519.790	14.40	---	46.00	20.02	34.42	-11.58	Peak
533.290	16.20	---	46.00	20.25	36.45	-9.55	Peak
540.050	16.30	---	46.00	20.33	36.63	-9.37	Peak
553.540	15.50	---	46.00	20.54	36.04	-9.96	Peak
560.300	15.90	---	46.00	20.65	36.55	-9.45	Peak
567.050	15.10	---	46.00	20.74	35.84	-10.16	Peak
580.550	15.60	---	46.00	20.94	36.54	-9.46	Peak
587.300	14.90	---	46.00	21.03	35.93	-10.07	Peak
600.800	14.50	---	46.00	21.25	35.75	-10.25	Peak
607.550	14.20	---	46.00	21.41	35.61	-10.39	Peak
614.300	14.00	---	46.00	21.57	35.57	-10.43	Peak

- Remarks: 1. All Readings are Peak & Quasi-peak values.
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

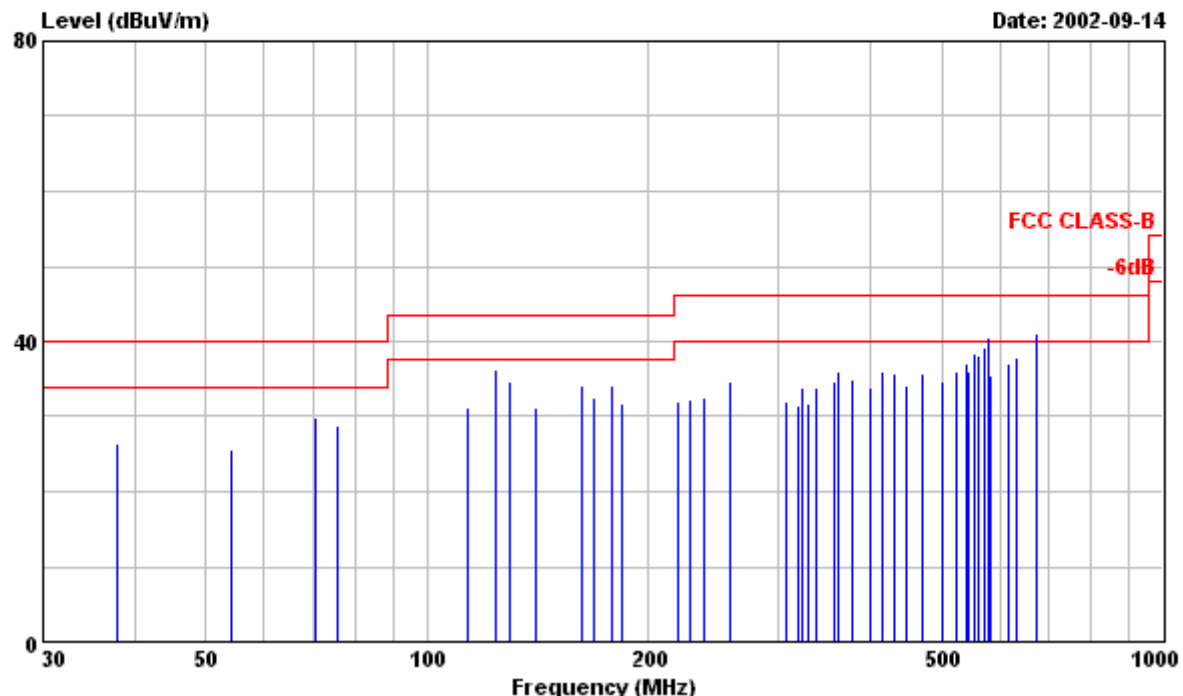


PHILIPS

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Data#: 3

File#: C:\Program Files\em3\EMI02-052-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : DELL E772P Serial No:TY0205052
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1280x1024/60Hz 64KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Level Over Limit Remark
HORIZONTAL

MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
37.790	13.80	---	40.00	12.69	26.49	-13.51	Peak
54.000	15.50	---	40.00	10.42	25.92	-14.08	Peak
70.190	19.90	---	40.00	10.00	29.90	-10.10	Peak
75.610	18.50	---	40.00	10.23	28.73	-11.27	Peak
113.390	19.00	---	43.50	12.08	31.08	-12.42	Peak
124.190	23.70	---	43.50	12.48	36.18	-7.32	Peak
129.610	22.10	---	43.50	12.68	34.78	-8.72	Peak
140.390	18.00	---	43.50	13.08	31.08	-12.42	Peak
162.010	20.50	---	43.50	13.76	34.26	-9.24	Peak
168.050	18.60	---	43.50	13.91	32.51	-10.99	Peak
178.190	19.80	---	43.50	14.29	34.09	-9.41	Peak
183.610	16.90	---	43.50	14.78	31.68	-11.82	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.
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	Remark
HORIZONTAL							
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
219.050	14.00	---	46.00	18.01	32.01	-13.99	Peak
228.050	13.50	---	46.00	18.73	32.23	-13.77	Peak
237.060	13.10	---	46.00	19.52	32.62	-13.38	Peak
258.070	13.80	---	46.00	20.97	34.77	-11.23	Peak
307.780	15.30	---	46.00	16.64	31.94	-14.06	Peak
318.580	14.60	---	46.00	16.88	31.48	-14.52	Peak
323.980	16.80	---	46.00	16.99	33.79	-12.21	Peak
329.380	14.70	---	46.00	17.09	31.79	-14.21	Peak
337.170	16.60	---	46.00	17.25	33.85	-12.15	Peak
356.370	17.00	---	46.00	17.63	34.63	-11.37	Peak
361.780	18.20	---	46.00	17.72	35.92	-10.08	Peak
377.980	16.90	---	46.00	18.02	34.92	-11.08	Peak
399.570	15.40	---	46.00	18.38	33.78	-12.22	Peak
415.780	17.30	---	46.00	18.63	35.93	-10.07	Peak
431.980	16.90	---	46.00	18.85	35.75	-10.25	Peak
448.160	15.20	---	46.00	19.06	34.26	-11.74	Peak
469.780	16.50	---	46.00	19.35	35.85	-10.15	Peak
502.160	14.90	---	46.00	19.76	34.66	-11.34	Peak
523.770	16.00	---	46.00	20.10	36.10	-9.90	Peak
539.980	16.80	---	46.00	20.33	37.13	-8.87	Peak
545.370	15.70	---	46.00	20.42	36.12	-9.88	Peak
556.160	17.80	---	46.00	20.59	38.39	-7.61	Peak
561.570	17.60	---	46.00	20.65	38.25	-7.75	Peak
572.360	18.40	---	46.00	20.83	39.23	-6.77	Peak
! 577.770	19.70	---	46.00	20.91	40.61	-5.39	Peak
577.770	---	18.06	46.00	20.91	38.97	-7.03	QP
583.170	14.60	---	46.00	20.97	35.57	-10.43	Peak
615.570	15.40	---	46.00	21.62	37.02	-8.98	Peak
631.770	15.80	---	46.00	21.98	37.78	-8.22	Peak
673.030	---	16.69	46.00	22.92	39.61	-6.39	QP
! 673.030	18.20	---	46.00	22.92	41.12	-4.88	Peak

- Remarks: 1. All Readings are Peak & Quasi-peak values.
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

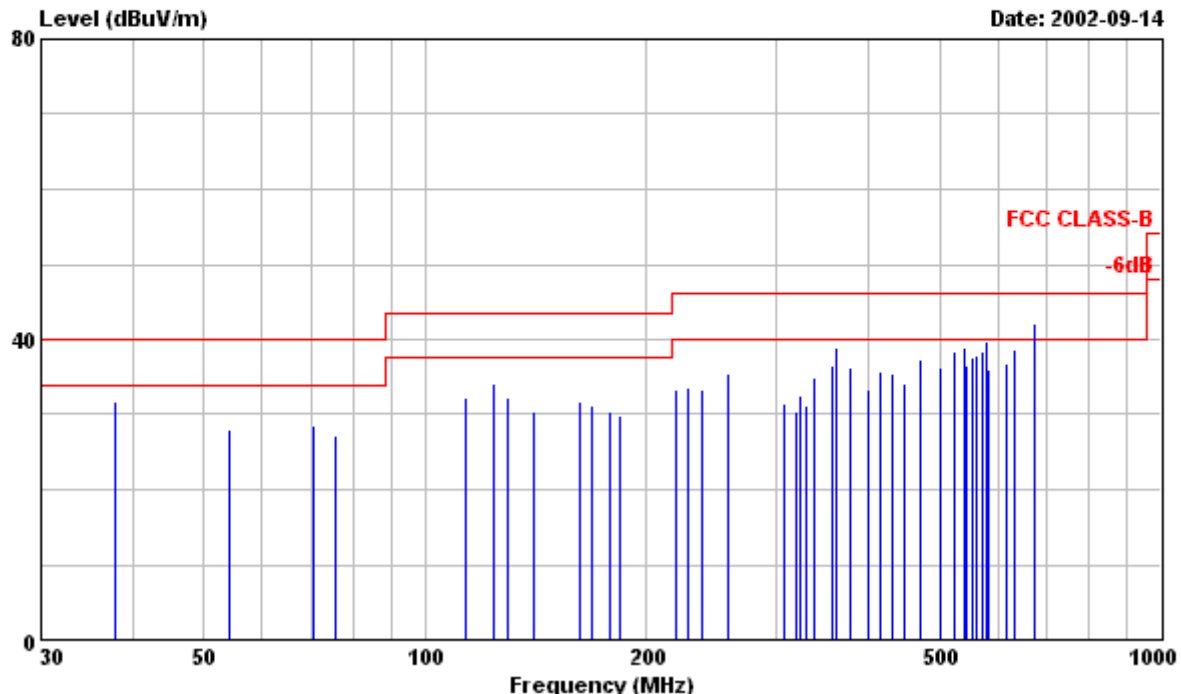


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Data#: 4

File#: C:\Program Files\em3\EMI02-052-R.emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : DELL E772P Serial No:TY0205052
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. T/R MODEL CPT TUBE,RUN DELL "H"
: PATTERN.
: 3. 1280x1024/60Hz 64KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce 3 Ti 200 VIDEO
: CARD WAS TESTED.

Frequency Peak Reading QP reading Limit Factor Emission Level Over Limit Remark
VERTICAL

MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
37.790	---	19.00	40.00	12.69	31.69	-8.31	QP
54.000	17.60	---	40.00	10.42	28.02	-11.98	Peak
70.190	18.60	---	40.00	10.00	28.60	-11.40	Peak
75.610	17.00	---	40.00	10.23	27.23	-12.77	Peak
113.390	20.10	---	43.50	12.08	32.18	-11.32	Peak
124.190	21.90	---	43.50	12.48	34.38	-9.12	Peak
129.610	19.60	---	43.50	12.68	32.28	-11.22	Peak
140.390	17.20	---	43.50	13.08	30.28	-13.22	Peak
162.010	18.09	---	43.50	13.76	31.85	-11.65	Peak
168.050	17.30	---	43.50	13.91	31.21	-12.29	Peak
178.190	16.20	---	43.50	14.29	30.49	-13.01	Peak
183.610	15.10	---	43.50	14.78	29.88	-13.62	Peak

Remarks: 1. All Readings are Peak & Quasi-peak values.
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	Remark
					VERTICAL		
MHz	dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
219.050	15.30	---	46.00	18.01	33.31	-12.69	Peak
228.050	14.90	---	46.00	18.73	33.63	-12.37	Peak
237.060	13.70	---	46.00	19.52	33.22	-12.78	Peak
258.070	14.50	---	46.00	20.97	35.47	-10.53	Peak
307.780	14.70	---	46.00	16.64	31.34	-14.66	Peak
318.580	13.60	---	46.00	16.88	30.48	-15.52	Peak
323.980	15.50	---	46.00	16.99	32.49	-13.51	Peak
329.380	14.20	---	46.00	17.09	31.29	-14.71	Peak
337.170	17.70	---	46.00	17.25	34.95	-11.05	Peak
356.370	19.00	---	46.00	17.63	36.63	-9.37	Peak
361.780	21.30	---	46.00	17.72	39.02	-6.98	Peak
377.980	18.30	---	46.00	18.02	36.32	-9.68	Peak
399.570	15.00	---	46.00	18.38	33.38	-12.62	Peak
415.780	17.20	---	46.00	18.63	35.83	-10.17	Peak
431.980	16.70	---	46.00	18.85	35.55	-10.45	Peak
448.160	15.30	---	46.00	19.06	34.36	-11.64	Peak
469.780	18.00	---	46.00	19.35	37.35	-8.65	Peak
502.160	16.50	---	46.00	19.76	36.26	-9.74	Peak
523.770	18.20	---	46.00	20.10	38.30	-7.70	Peak
539.980	18.70	---	46.00	20.33	39.03	-6.97	Peak
545.370	16.20	---	46.00	20.42	36.62	-9.38	Peak
556.160	17.10	---	46.00	20.59	37.69	-8.31	Peak
561.570	17.30	---	46.00	20.65	37.95	-8.05	Peak
572.360	17.70	---	46.00	20.83	38.53	-7.47	Peak
577.770	18.80	---	46.00	20.91	39.71	-6.29	Peak
583.170	14.90	---	46.00	20.97	35.87	-10.13	Peak
615.570	15.10	---	46.00	21.62	36.72	-9.28	Peak
631.770	16.60	---	46.00	21.98	38.58	-7.42	Peak
! 673.030	---	17.98	46.00	22.92	40.90	-5.10	QP
! 673.030	19.30	---	46.00	22.92	42.22	-3.78	Peak

- Remarks: 1. All Readings are Peak & Quasi-peak values.
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