



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.: TYR87-2059 Date : 20 November, 2003 Page : Page 1 of 40
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. : A3KM130 Model Name : W2300 Serial Number : TY0304621 Description : 23" SXGA LCD TV monitor, Max. resolution 1280x768/75Hz		
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 : 07 Nov. 2003 Date of performance of test : 08 Nov., 2003 to 11 Nov., 2003		
 C.C. Wu - EMC Test Engineer  Ronnie Yang - EMC Manager		

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, 23" color monitor :

Model No. : W2300
 FCC ID : A3KM130
 Brand : DELL

The color monitor automatically scans horizontal frequencies between 30KHz and 61KHz , 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 1280x768 pixels.

The monitor has 10 factory-preset modes as indicated in the following table:

Mode	Resolution	H. freq. / V. freq	Standard
1.	720 x 400	31.469Khz/70.087Hz	VGA
2.	640 x 480	31.469Khz/59.940Hz	VGA
3.	640 x 480	37.500Khz/75.000Hz	VESA
4.	800 x 600	37.879Khz/60.317Hz	VESA
5.	800 x 600	46.875Khz/75.000Hz	VESA
6.	1024 x 768	48.363Khz/60.004Hz	VESA
7.	1024 x 768	60.023Khz/75.029Hz	VESA
8.	1280 x 768	47.776Khz/59.87Hz	CVT
9.	1280 x 768	60.289Khz/74.893Hz	CVT
10.	1280 x 768	47.396Khz/59.995Hz	CVT-R

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	02/27/2003	02/27/2004
EMI Receiver	R & S ESVS30	841977/006	02/27/2003	02/27/2004
LISN	EMCO 3825/2	9311-2153	06/16/2003	06/16/2004
LISN	EMCO 3825/2	9311-2154	06/16/2003	06/16/2004
RF Cable	8-meter	N/A	08/21/2003	08/21/2004

- For Radiated Emissions Test:

Test Equipment	Model No.	Serial No.	Last Calibrate	Next Calibrate
Spectrum	HP8568B	2928A04640	09/23/2003	09/23/2004
RF Preselector	HP85685A	2620A00338	09/23/2003	09/23/2004
QP Adapter	HP85650A	2811A01324	09/23/2003	09/23/2004
EMI Receiver	R & S ESVS30	841977/006	02/27/2003	02/27/2004
Biconical Antenna	EMCO 3110B	3224	08/21/2003	08/21/2004
Log-Periodic Antenna	EMCO 3146A	1425	08/21/2003	08/21/2004
Turn Table	EMCO 1060	1068	08/21/2003	08/21/2004
Antenna Tower	EMCO 1050	1113	08/21/2003	08/21/2004
RF Cable	M17/75-RG214-NE	N/A	08/21/2003	08/21/2004

4. Test Configuration of EUT and Peripherals

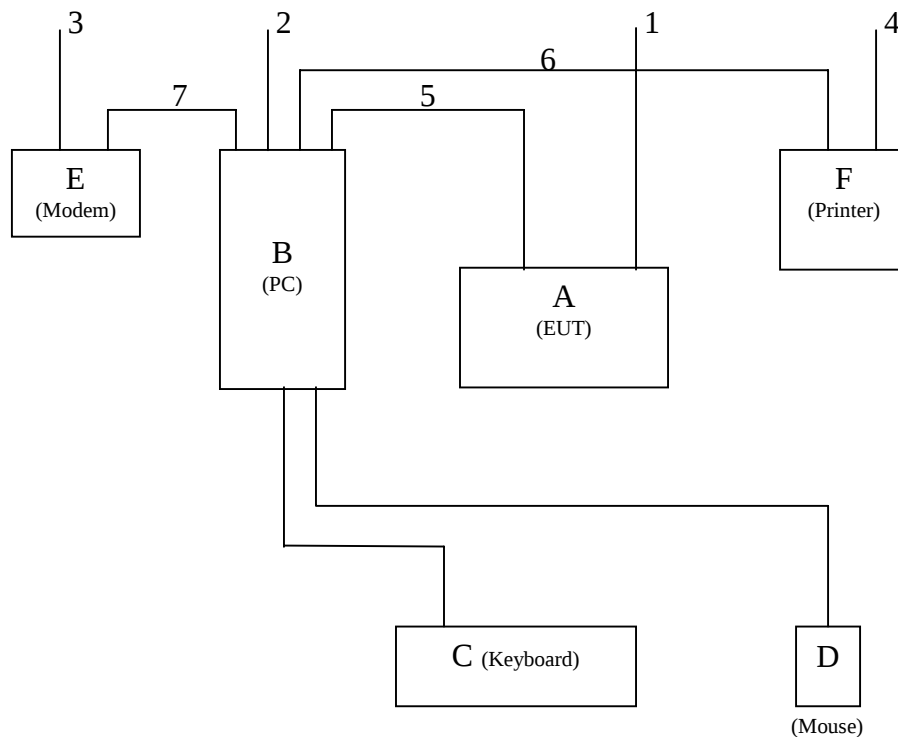
The system was configured for testing in a typical fashion (as a customer would normally use it) according to ANSI C63.4-1992, please see the photographs for detail. For system measurement, the EUT “W2300” were connected to:

	Description	Brand/ Model No.	Serial No.	FCC ID	Remark
A	Monitor	DELL W2300	TY0304621	A3KM130	EUT
B	PC	DELL DHM	FK25Y21	FCC Logo	
C	Keyboard	DELL SK-8100	38844-193-7480	FCC Logo	
D	Mouse	DELL M-S69	LZA31578847	JNZ211443	
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 and DVI I/F cable with two ferrite cores was used.

Audio cable with one ferrite core was used.

Video cable with two ferrite core was used.

Tested and reported modes as following:

Test Item	File No.	Resolution	Frequencies	I/F Cable
Conducted	EMI03-040-C	1280x768	60KHz/75Hz	D-sub
		1280x768	48KHz/60Hz	D-Sub & DVI
Radiated	EMI03-040-R	1280x768	60KHz/75Hz	D-sub
		1280x768	48KHz/60Hz	D-Sub & DVI

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

: 08 Nov., 2003 to 11 Nov., 2003

Test Engineer

: C.C.Wu

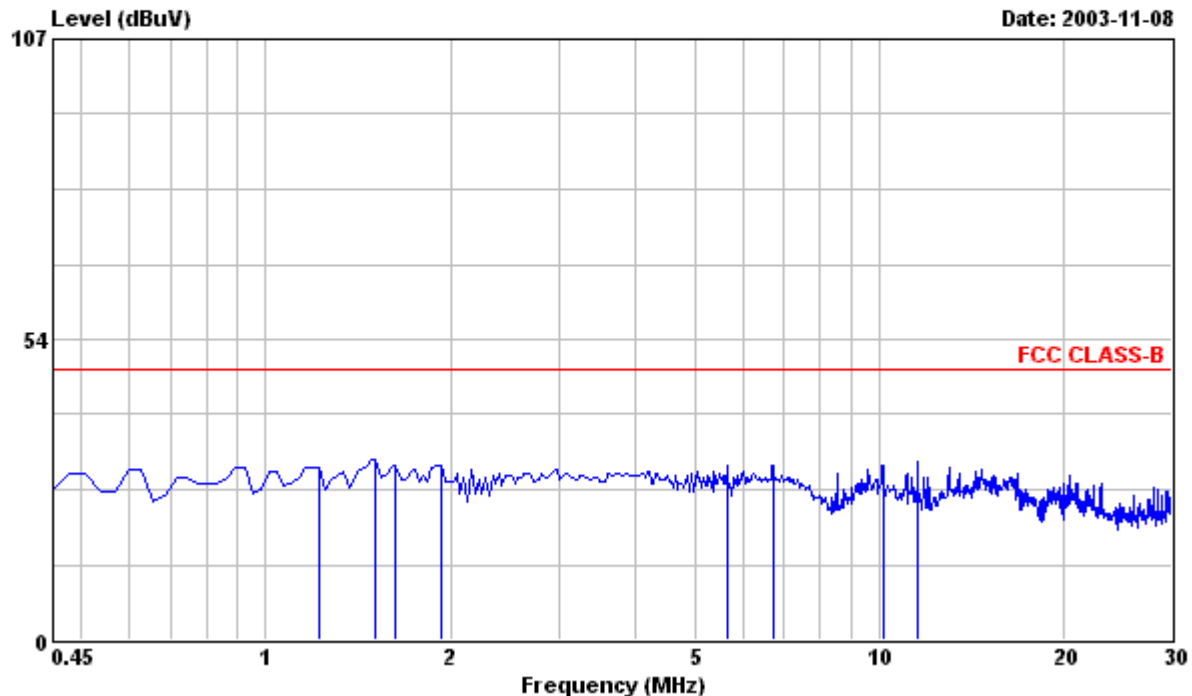
For detail measurement results see next pages.



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Data#: 1 File#: C:\Program Files\em3\EMI03-040-C(DELL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL W2300 Serial No:TYO304621
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/75Hz 60KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
LINE							
1.218	30.40	---	48.00	0.40	30.80	-17.20	Peak
1.514	31.60	---	48.00	0.40	32.00	-16.00	Peak
1.632	30.50	---	48.00	0.40	30.90	-17.10	Peak
1.928	30.80	---	48.00	0.40	31.20	-16.80	Peak
5.651	30.50	---	48.00	0.37	30.87	-17.13	Peak
6.715	30.50	---	48.00	0.40	30.90	-17.10	Peak
10.142	30.30	---	48.00	0.60	30.90	-17.10	Peak
11.561	31.10	---	48.00	0.64	31.74	-16.26	Peak

Remarks: 1. All Readings are Peak & Quasi-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

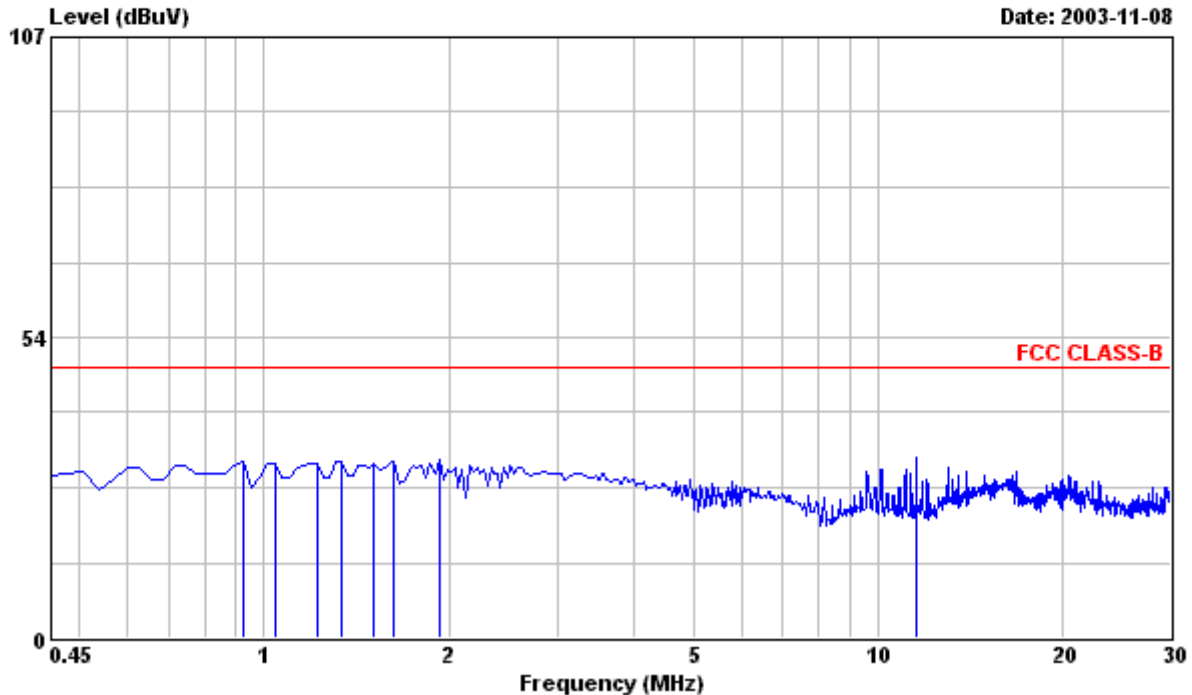


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Data#: 2

File#: C:\Program Files\em3\EMI03-040-C(DEL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/75Hz 60KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
NEUTRAL							

0.923	31.10	---	48.00	0.38	31.48	-16.52	Peak
1.041	30.80	---	48.00	0.40	31.20	-16.80	Peak
1.218	30.60	---	48.00	0.40	31.00	-17.00	Peak
1.337	30.90	---	48.00	0.40	31.30	-16.70	Peak
1.514	30.60	---	48.00	0.40	31.00	-17.00	Peak
1.632	31.00	---	48.00	0.40	31.40	-16.60	Peak
1.928	31.20	---	48.00	0.40	31.60	-16.40	Peak
11.561	31.50	---	48.00	0.64	32.14	-15.86	Peak

Remarks: 1. All Readings are Peak & Quasi-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

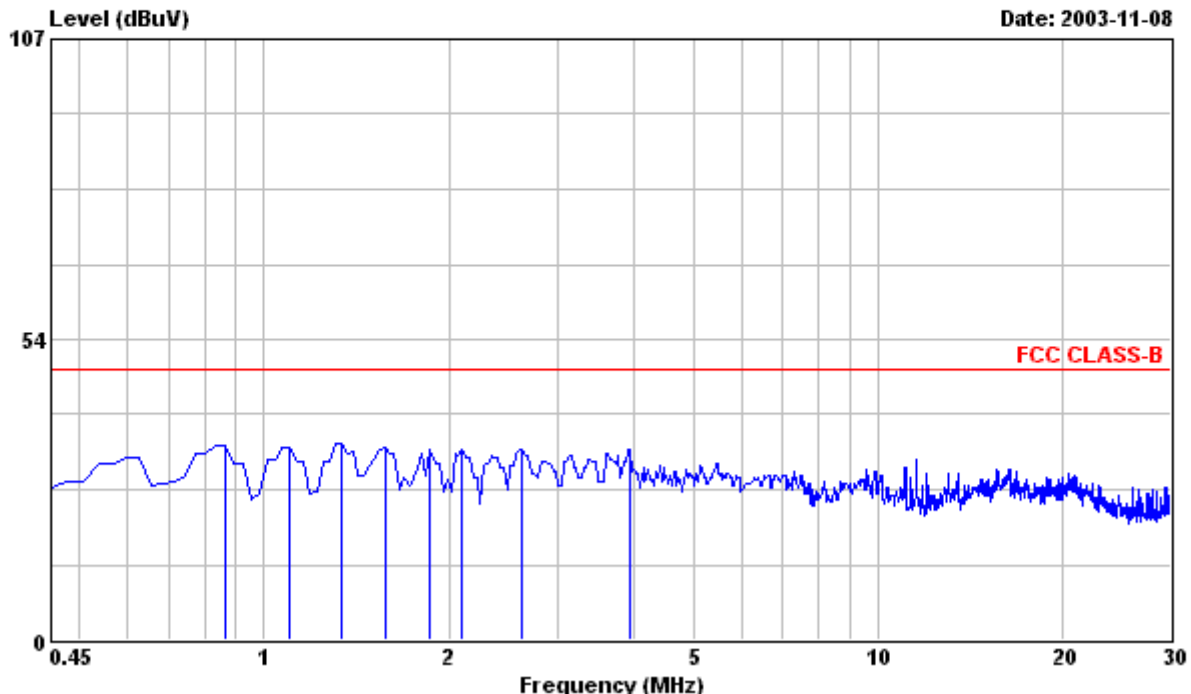


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Data#: 3

File#: C:\Program Files\em3\EMI03-040-C(DEL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL W2300 Serial No:TY0304621
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/75Hz 60KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
0.864	34.20	---	48.00	0.36	34.56	-13.44	Peak
1.100	33.90	---	48.00	0.40	34.30	-13.70	Peak
1.337	34.70	---	48.00	0.40	35.10	-12.90	Peak
1.573	33.80	---	48.00	0.40	34.20	-13.80	Peak
1.868	33.60	---	48.00	0.40	34.00	-14.00	Peak
2.105	33.60	---	48.00	0.40	34.00	-14.00	Peak
2.637	33.40	---	48.00	0.40	33.80	-14.20	Peak
3.937	33.60	---	48.00	0.40	34.00	-14.00	Peak

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
0.864	34.20	---	48.00	0.36	34.56	-13.44	Peak
1.100	33.90	---	48.00	0.40	34.30	-13.70	Peak
1.337	34.70	---	48.00	0.40	35.10	-12.90	Peak
1.573	33.80	---	48.00	0.40	34.20	-13.80	Peak
1.868	33.60	---	48.00	0.40	34.00	-14.00	Peak
2.105	33.60	---	48.00	0.40	34.00	-14.00	Peak
2.637	33.40	---	48.00	0.40	33.80	-14.20	Peak
3.937	33.60	---	48.00	0.40	34.00	-14.00	Peak

Remarks: 1. All Readings are Peak & Quasi-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

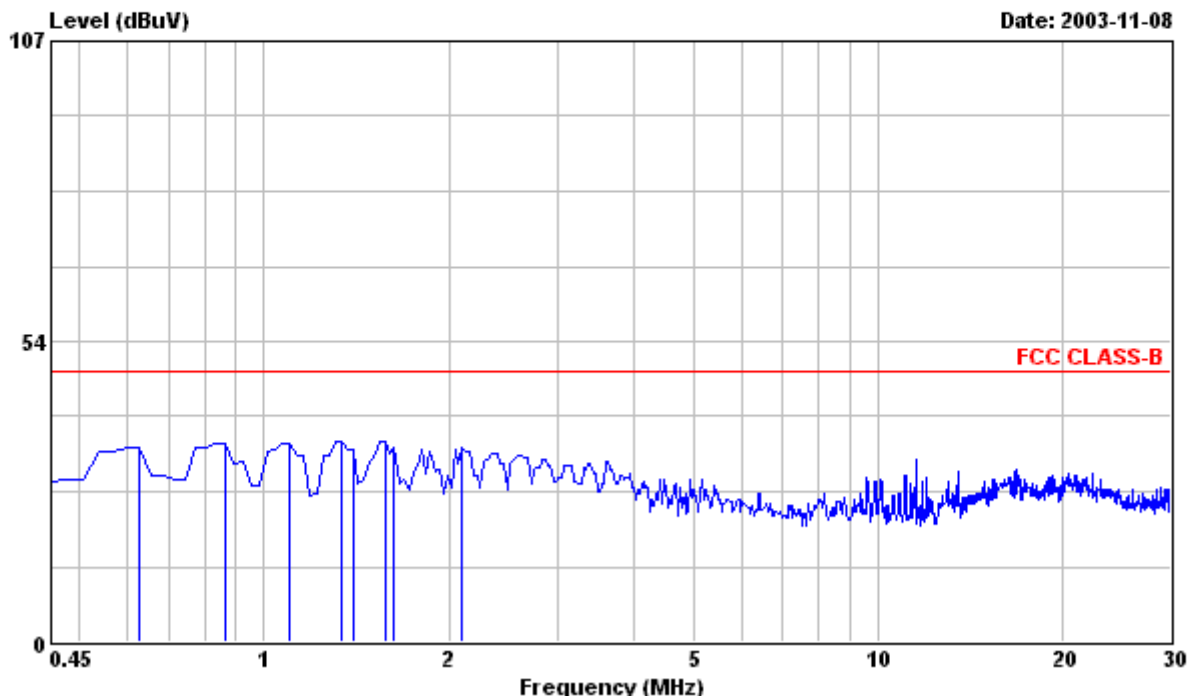


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Data#: 4

File#: C:\Program Files\em3\EMI03-040-C(DEL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL W2300 Serial No:TY0304621
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/75Hz 60KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
NEUTRAL							

0.627	34.30	---	48.00	0.28	34.58	-13.42	Peak
0.864	35.00	---	48.00	0.36	35.36	-12.64	Peak
1.100	35.00	---	48.00	0.40	35.40	-12.60	Peak
1.337	35.30	---	48.00	0.40	35.70	-12.30	Peak
1.396	34.00	---	48.00	0.40	34.40	-13.60	Peak
1.573	35.40	---	48.00	0.40	35.80	-12.20	Peak
1.632	34.30	---	48.00	0.40	34.70	-13.30	Peak
2.105	34.10	---	48.00	0.40	34.50	-13.50	Peak

Remarks: 1. All Readings are Peak & Quasi-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

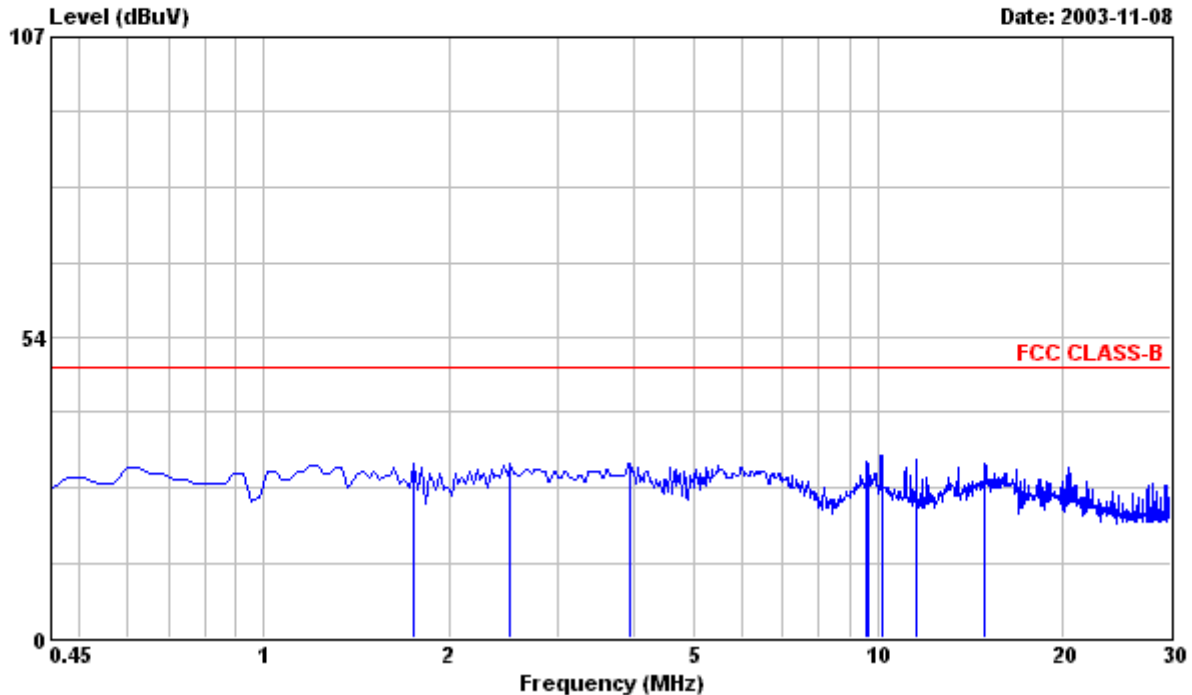


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Data#: 5

File#: C:\Program Files\em3\EMI03-040-C(DEL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL W2300 Serial No:TY0304621
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
1.750	30.50	---	48.00	0.40	30.90	-17.10	Peak
2.519	30.50	---	48.00	0.40	30.90	-17.10	Peak
3.937	30.60	---	48.00	0.40	31.00	-17.00	Peak
9.610	31.00	---	48.00	0.56	31.56	-16.44	Peak
9.670	30.30	---	48.00	0.57	30.87	-17.13	Peak
10.142	31.80	---	48.00	0.60	32.40	-15.60	Peak
11.561	31.00	---	48.00	0.64	31.64	-16.36	Peak
14.930	30.30	---	48.00	0.70	31.00	-17.00	Peak

LINE

Remarks: 1. All Readings are Peak & Quasi-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

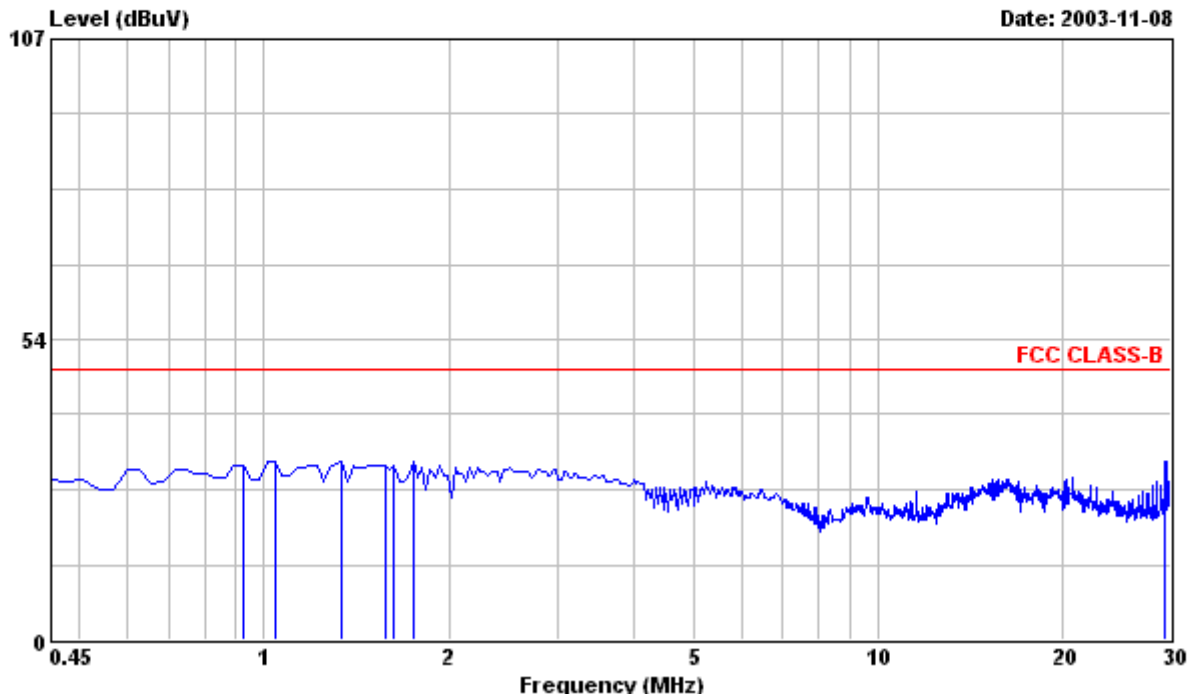


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Data#: 6

File#: C:\Program Files\em3\EMI03-040-C(DEL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
NEUTRAL							

0.923	30.80	---	48.00	0.38	31.18	-16.82	Peak
1.041	31.30	---	48.00	0.40	31.70	-16.30	Peak
1.337	31.20	---	48.00	0.40	31.60	-16.40	Peak
1.573	30.70	---	48.00	0.40	31.10	-16.90	Peak
1.632	30.80	---	48.00	0.40	31.20	-16.80	Peak
1.750	31.30	---	48.00	0.40	31.70	-16.30	Peak
29.439	31.00	---	48.00	0.91	31.91	-16.09	Peak
29.911	31.10	---	48.00	0.90	32.00	-16.00	Peak

Remarks: 1. All Readings are Peak & Quasi-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

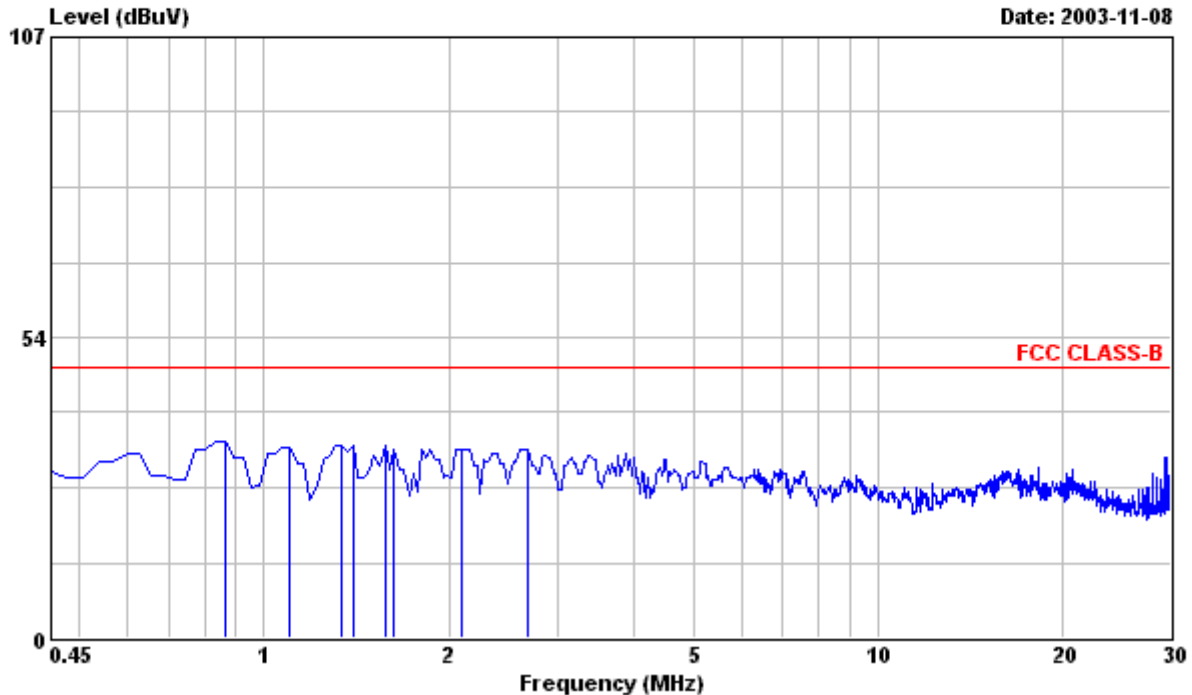


PHILIPS

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Data#: 7

File#: C:\Program Files\em3\EMI03-040-C(DELL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL W2300 Serial No:TY0304621
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE WAS TESTED.

Frequency	Peak	Reading	QP	Reading	Limit	Factor	Emission	Level	Over	Limit	Remark
LINE											
0.864	34.60	---	48.00	0.36	34.96	-13.04	Peak				
1.100	33.50	---	48.00	0.40	33.90	-14.10	Peak				
1.337	34.00	---	48.00	0.40	34.40	-13.60	Peak				
1.396	34.00	---	48.00	0.40	34.40	-13.60	Peak				
1.573	33.80	---	48.00	0.40	34.20	-13.80	Peak				
1.632	33.20	---	48.00	0.40	33.60	-14.40	Peak				
2.105	33.30	---	48.00	0.40	33.70	-14.30	Peak				
2.696	33.30	---	48.00	0.40	33.70	-14.30	Peak				

Remarks: 1. All Readings are Peak & Quasi-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

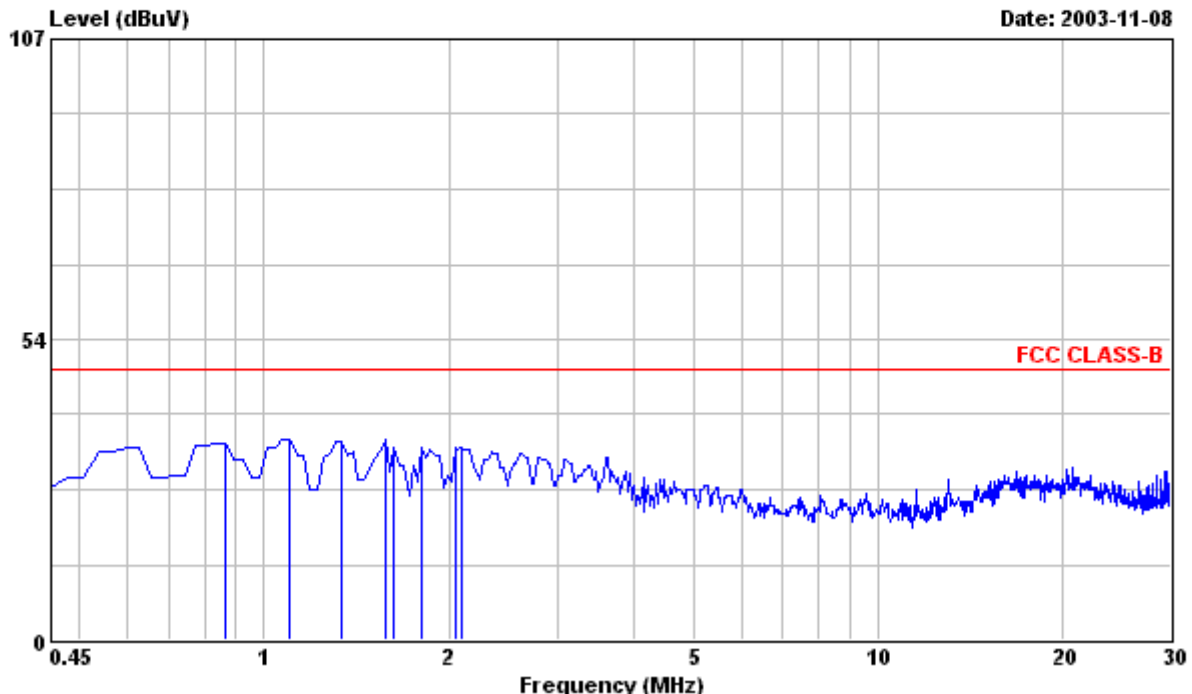


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Data#: 8

File#: C:\Program Files\em3\EMI03-040-C(DEL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL W2300 Serial No:TY0304621
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
NEUTRAL							
0.864	34.60	---	48.00	0.36	34.96	-13.04	Peak
1.100	35.40	---	48.00	0.40	35.80	-12.20	Peak
1.337	35.00	---	48.00	0.40	35.40	-12.60	Peak
1.573	35.20	---	48.00	0.40	35.60	-12.40	Peak
1.632	33.70	---	48.00	0.40	34.10	-13.90	Peak
1.809	33.90	---	48.00	0.40	34.30	-13.70	Peak
2.046	33.70	---	48.00	0.40	34.10	-13.90	Peak
2.105	33.80	---	48.00	0.40	34.20	-13.80	Peak

Remarks: 1. All Readings are Peak & Quasi-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

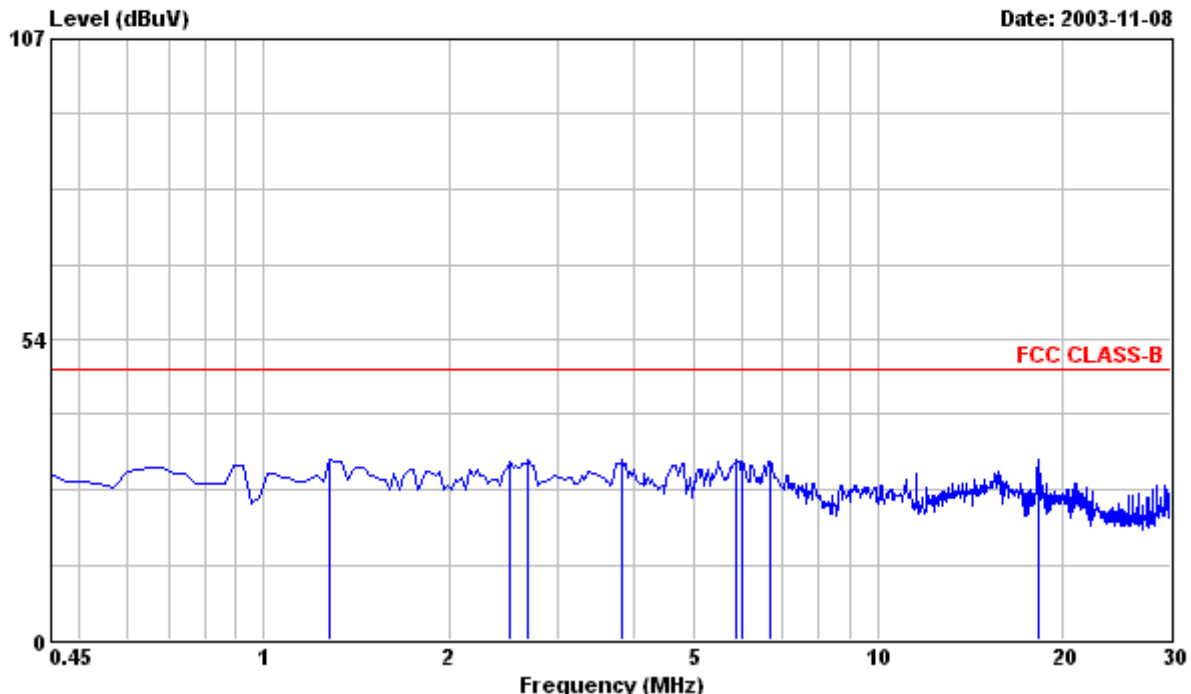


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Data#: 9

File#: C:\Program Files\em3\EMI03-040-C(DELL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL W2300 Serial No:TY0304621
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & DVI I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
LINE							
1.277	31.70	---	48.00	0.40	32.10	-15.90	Peak
2.519	31.40	---	48.00	0.40	31.80	-16.20	Peak
2.696	31.70	---	48.00	0.40	32.10	-15.90	Peak
3.819	31.60	---	48.00	0.40	32.00	-16.00	Peak
5.887	31.70	---	48.00	0.39	32.09	-15.91	Peak
6.005	31.40	---	48.00	0.40	31.80	-16.20	Peak
6.655	31.30	---	48.00	0.40	31.70	-16.30	Peak
18.298	31.40	---	48.00	0.77	32.17	-15.83	Peak

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
1.277	31.70	---	48.00	0.40	32.10	-15.90	Peak
2.519	31.40	---	48.00	0.40	31.80	-16.20	Peak
2.696	31.70	---	48.00	0.40	32.10	-15.90	Peak
3.819	31.60	---	48.00	0.40	32.00	-16.00	Peak
5.887	31.70	---	48.00	0.39	32.09	-15.91	Peak
6.005	31.40	---	48.00	0.40	31.80	-16.20	Peak
6.655	31.30	---	48.00	0.40	31.70	-16.30	Peak
18.298	31.40	---	48.00	0.77	32.17	-15.83	Peak

Remarks: 1. All Readings are Peak & Quasi-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

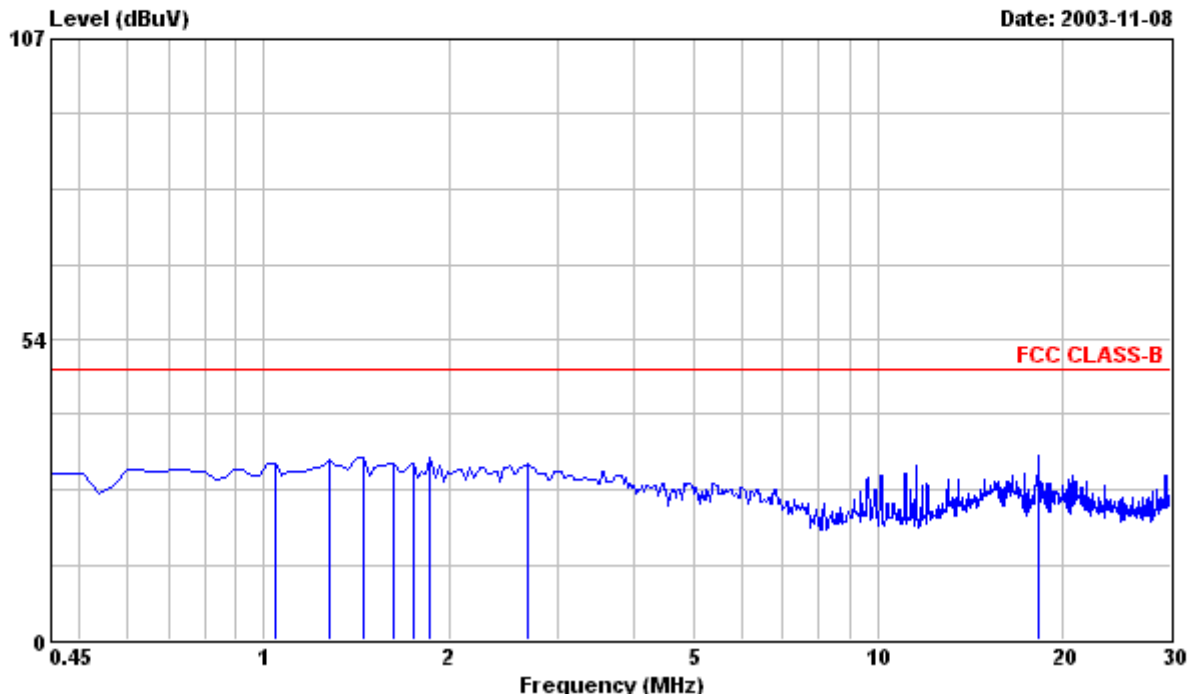


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Data#: 10

File#: C:\Program Files\es\EMI03-040-C(DEL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & DVI I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
NEUTRAL							

1.041	30.90	---	48.00	0.40	31.30	-16.70	Peak
1.277	31.60	---	48.00	0.40	32.00	-16.00	Peak
1.455	32.20	---	48.00	0.40	32.60	-15.40	Peak
1.632	31.00	---	48.00	0.40	31.40	-16.60	Peak
1.750	30.90	---	48.00	0.40	31.30	-16.70	Peak
1.868	31.90	---	48.00	0.40	32.30	-15.70	Peak
2.696	30.90	---	48.00	0.40	31.30	-16.70	Peak
18.269	31.80	---	48.00	0.84	32.64	-15.36	Peak

Remarks: 1. All Readings are Peak & Quasi-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

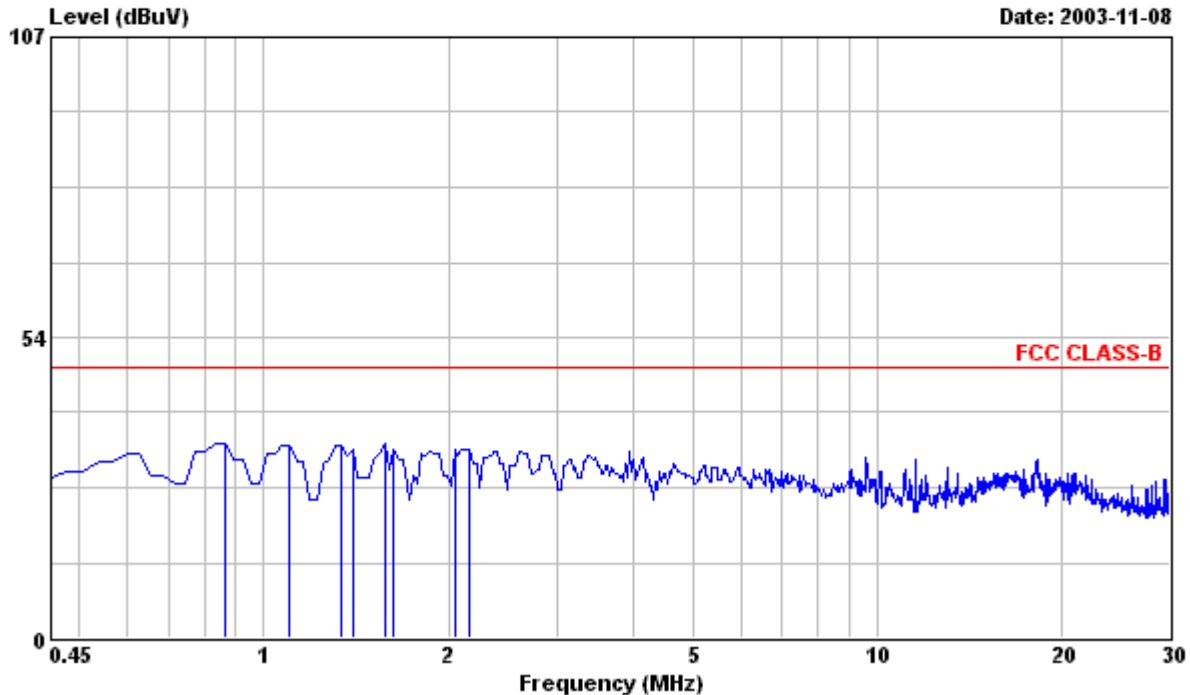


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Data#: 11

File#: C:\Program Files\em3\EMI03-040-C(DELL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L1 LINE
EUT : DELL W2300 Serial No:TY0304621
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & DVI I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
LINE							
0.864	34.40	---	48.00	0.36	34.76	-13.24	Peak
1.100	33.80	---	48.00	0.40	34.20	-13.80	Peak
1.337	33.90	---	48.00	0.40	34.30	-13.70	Peak
1.396	33.20	---	48.00	0.40	33.60	-14.40	Peak
1.573	34.30	---	48.00	0.40	34.70	-13.30	Peak
1.632	33.30	---	48.00	0.40	33.70	-14.30	Peak
2.046	33.00	---	48.00	0.40	33.40	-14.60	Peak
2.164	33.30	---	48.00	0.40	33.70	-14.30	Peak

Remarks: 1. All Readings are Peak & Quasi-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

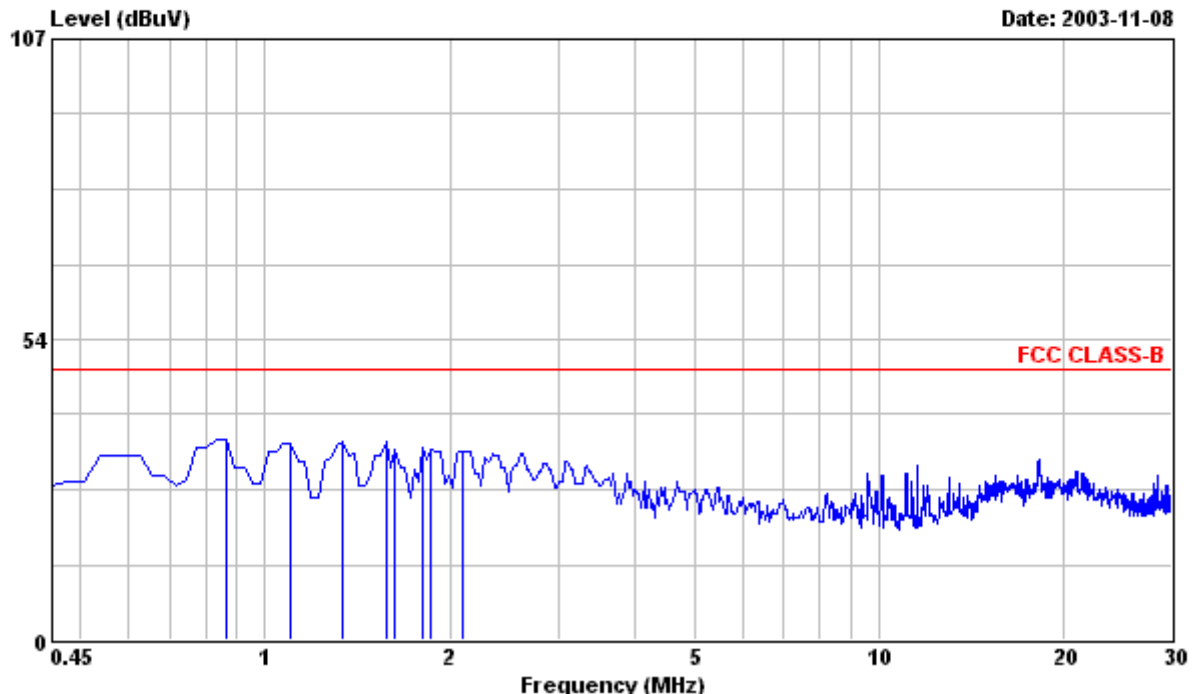


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Data#: 12

File#: C:\Program Files\em3\EMI03-040-C(DEL W2300).emi



Site : PHILIPS EMI Shielding Room
Condition : FCC CLASS-B FCC_LCI_L2 NEUTRAL
EUT : DELL W2300 Serial No:TY0304621
Power : 220VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & DVI I/O CABLE WAS TESTED.

Frequency	Peak Reading	QP Reading	Limit	Factor	Emission Level	Over Limit	Remark
NEUTRAL							
0.864	35.30	---	48.00	0.36	35.66	-12.34	Peak
1.100	34.50	---	48.00	0.40	34.90	-13.10	Peak
1.337	34.90	---	48.00	0.40	35.30	-12.70	Peak
1.573	34.80	---	48.00	0.40	35.20	-12.80	Peak
1.632	33.60	---	48.00	0.40	34.00	-14.00	Peak
1.809	33.70	---	48.00	0.40	34.10	-13.90	Peak
1.868	33.40	---	48.00	0.40	33.80	-14.20	Peak
2.105	33.20	---	48.00	0.40	33.60	-14.40	Peak

Remarks: 1. All Readings are Peak & Quasi-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;"> <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		: 08 Nov., 2003 to 11 Nov., 2003 : C.C.Wu																		
For detail measurement results see next pages.																				

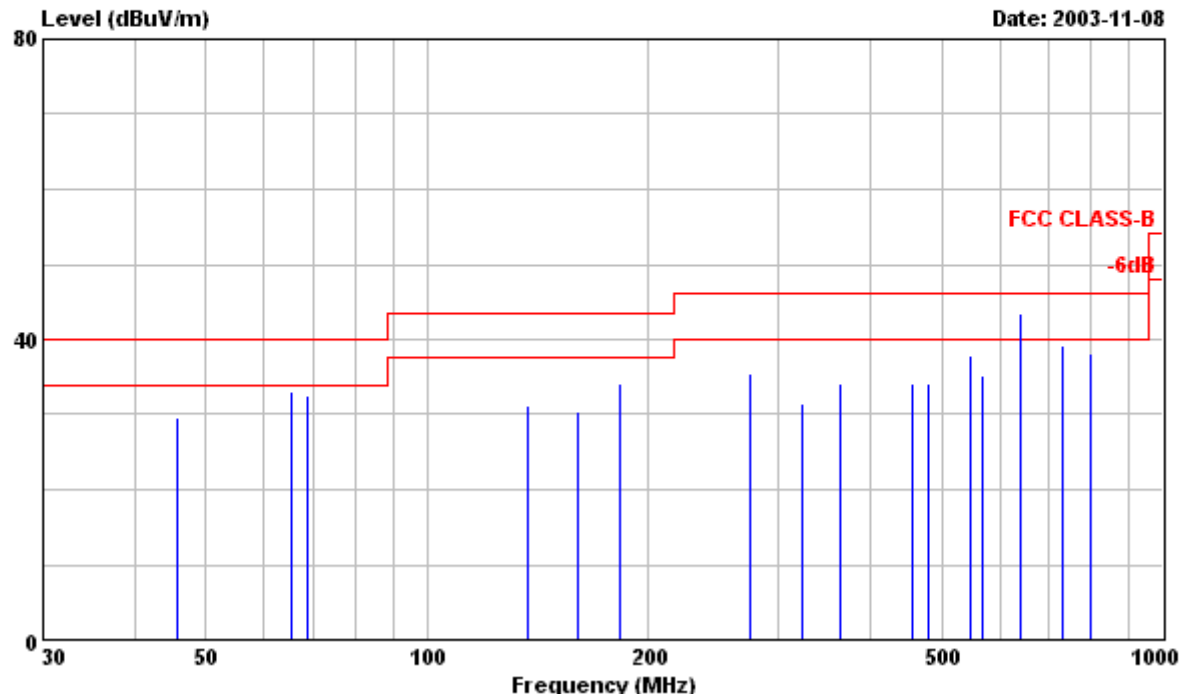


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Data#: 1

File#: C:\Program Files\em3\EMI03-040-R(DELL W2300).emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/75Hz 60KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE 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	
45.680	18.30	---	40.00	11.41	29.71	-10.29	Peak
65.190	23.10	---	40.00	9.95	33.05	-6.95	Peak
68.490	22.60	---	40.00	9.98	32.58	-7.42	Peak
136.940	18.31	---	43.50	12.95	31.26	-12.24	Peak
159.770	16.70	---	43.50	13.69	30.39	-13.11	Peak
182.560	19.40	---	43.50	14.65	34.05	-9.45	Peak
273.850	13.50	---	46.00	21.85	35.35	-10.65	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	
324.020	14.60	---	46.00	16.99	31.59	-14.41	Peak
365.120	16.70	---	46.00	17.79	34.49	-11.51	Peak
456.400	15.30	---	46.00	19.16	34.46	-11.54	Peak
480.200	14.90	---	46.00	19.47	34.37	-11.63	Peak
547.680	17.50	---	46.00	20.45	37.95	-8.05	Peak
567.240	14.40	---	46.00	20.74	35.14	-10.86	Peak
! 639.240	---	19.73	46.00	22.14	41.87	-4.13	QP
! 639.240	21.40	---	46.00	22.14	43.54	-2.46	Peak
730.520	15.40	---	46.00	23.91	39.31	-6.69	Peak
800.350	13.30	---	46.00	24.80	38.10	-7.90	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

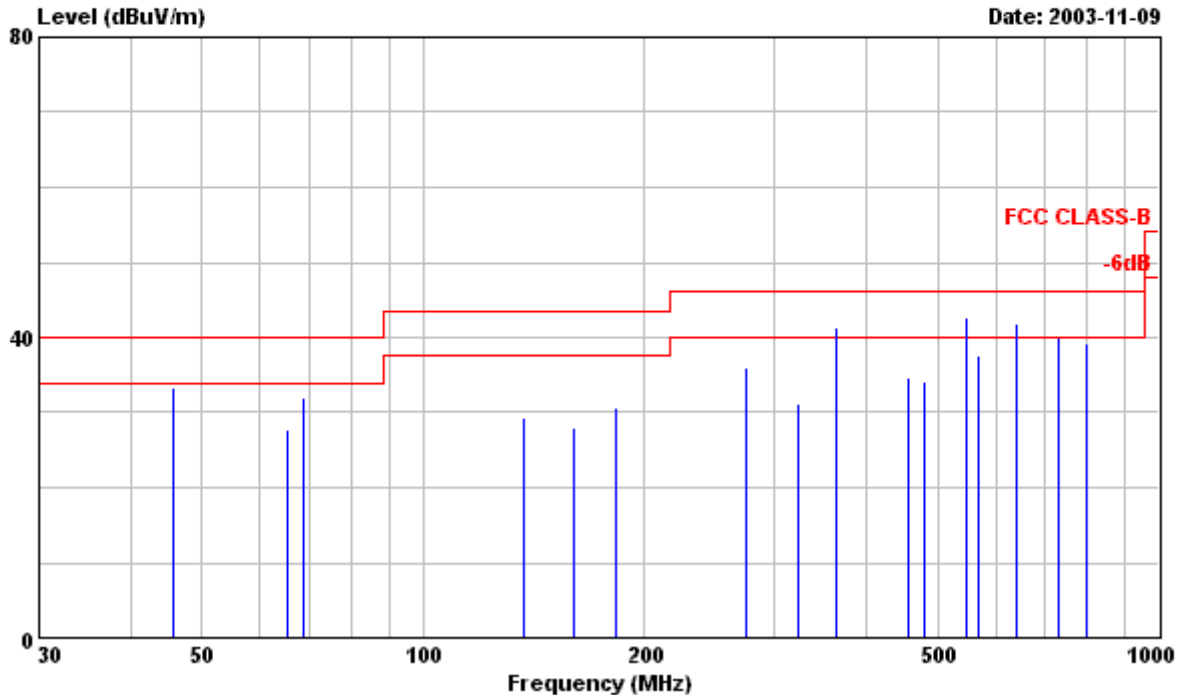


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Data#: 2

File#: C:\Program Files\em3\EMI03-040-R(DELL W2300).emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/75Hz 60KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE 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	
45.680	21.90	---	40.00	11.41	33.31	-6.69	Peak
65.190	17.80	---	40.00	9.95	27.75	-12.25	Peak
68.490	21.90	---	40.00	9.98	31.88	-8.12	Peak
136.940	16.41	---	43.50	12.95	29.36	-14.14	Peak
159.770	14.30	---	43.50	13.69	27.99	-15.51	Peak
182.560	15.90	---	43.50	14.65	30.55	-12.95	Peak
273.850	14.20	---	46.00	21.85	36.05	-9.95	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	
324.020	14.30	---	46.00	16.99	31.29	-14.71	Peak
! 365.120	23.60	---	46.00	17.79	41.39	-4.61	Peak
365.120	---	21.81	46.00	17.79	39.60	-6.40	QP
456.400	15.60	---	46.00	19.16	34.76	-11.24	Peak
480.200	14.90	---	46.00	19.47	34.37	-11.63	Peak
! 547.680	---	20.21	46.00	20.45	40.66	-5.34	QP
! 547.680	22.30	---	46.00	20.45	42.75	-3.25	Peak
567.240	16.80	---	46.00	20.74	37.54	-8.46	Peak
! 639.240	19.60	---	46.00	22.14	41.74	-4.26	Peak
639.240	---	17.55	46.00	22.14	39.69	-6.31	QP
730.520	16.00	---	46.00	23.91	39.91	-6.09	Peak
800.350	14.40	---	46.00	24.80	39.20	-6.80	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

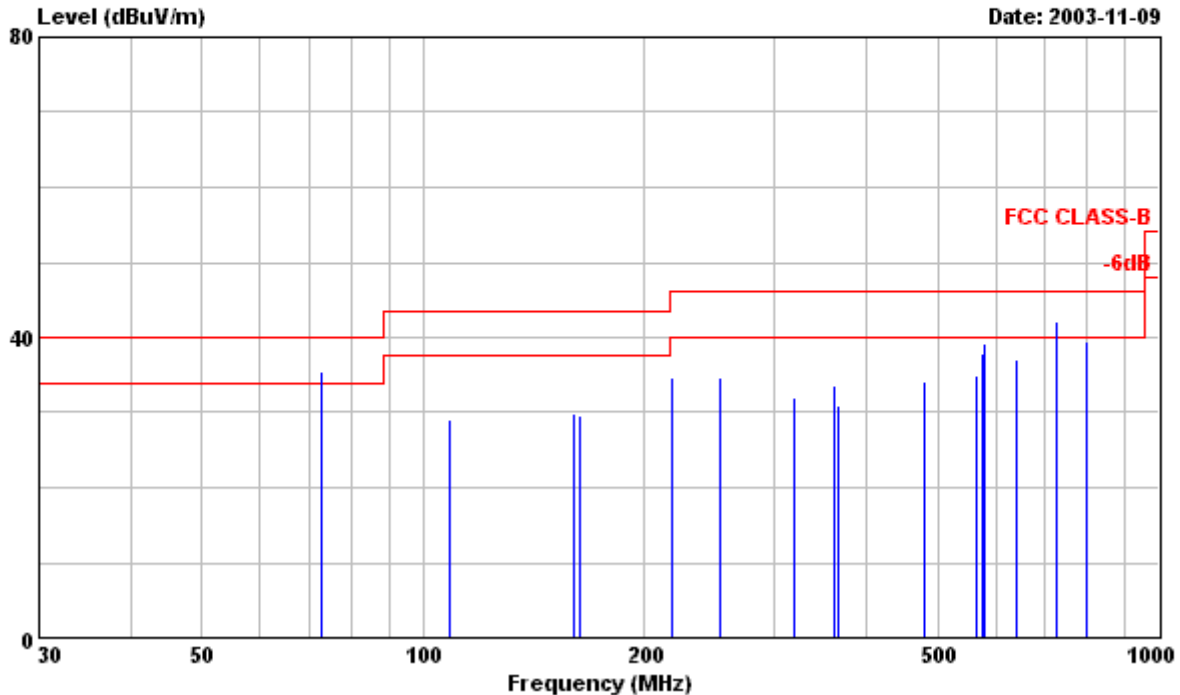


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Data#: 3

File#: C:\Program Files\em3\EMI03-040-R(DELL W2300).emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE 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	
! 72.490	25.40	---	40.00	10.11	35.51	-4.49	Peak
72.490	---	23.50	40.00	10.11	33.61	-6.39	QP
108.750	17.30	---	43.50	11.85	29.15	-14.35	Peak
160.070	16.10	---	43.50	13.71	29.81	-13.69	Peak
163.390	15.80	---	43.50	13.79	29.59	-13.91	Peak
217.470	16.70	---	46.00	17.88	34.58	-11.42	Peak
253.720	13.90	---	46.00	20.71	34.61	-11.39	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	
320.150	15.00	---	46.00	16.90	31.90	-14.10	Peak
362.430	15.90	---	46.00	17.74	33.64	-12.36	Peak
367.620	13.20	---	46.00	17.84	31.04	-14.96	Peak
480.220	15.00	---	46.00	19.47	34.47	-11.53	Peak
564.370	14.30	---	46.00	20.71	35.01	-10.99	Peak
574.720	17.10	---	46.00	20.85	37.95	-8.05	Peak
579.890	18.30	---	46.00	20.94	39.24	-6.76	Peak
640.280	14.80	---	46.00	22.19	36.99	-9.01	Peak
! 724.870	18.40	---	46.00	23.84	42.24	-3.76	Peak
724.870	---	16.06	46.00	23.84	39.90	-6.10	QP
797.360	14.70	---	46.00	24.77	39.47	-6.53	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

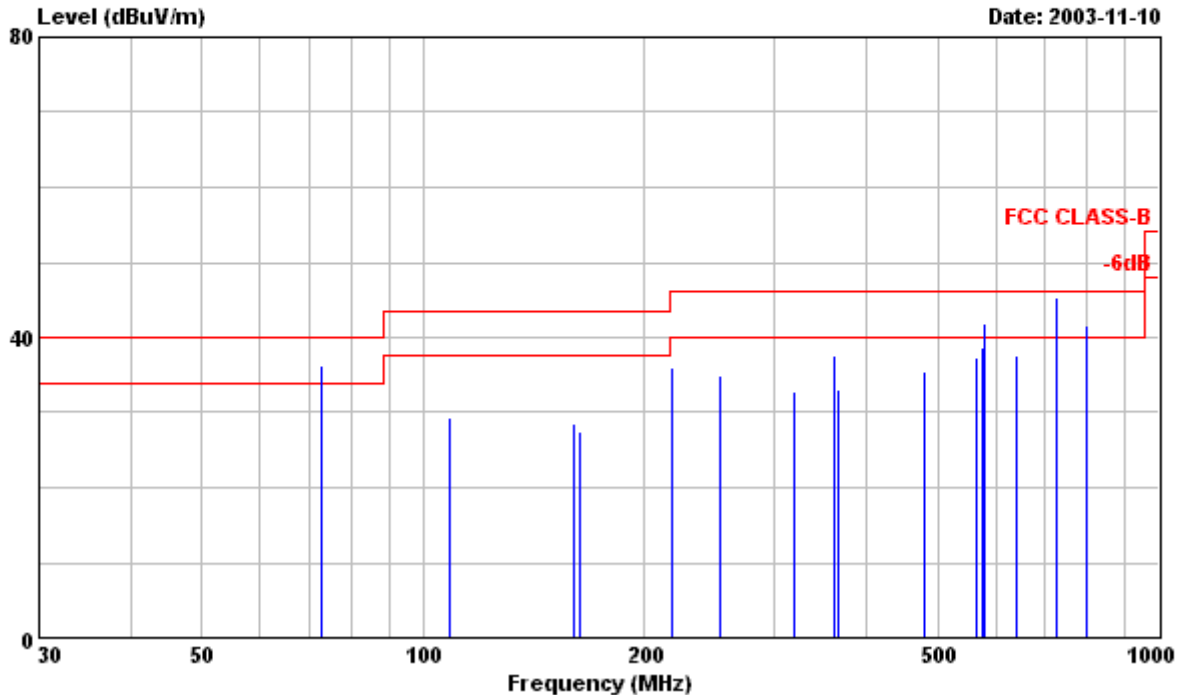


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Data#: 4

File#: C:\Program Files\em3\EMI03-040-R(DELL W2300).emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & D-SUB I/O CABLE 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	
! 72.490	26.10	---	40.00	10.11	36.21	-3.79	Peak
! 72.490	---	24.60	40.00	10.11	34.71	-5.29	QP
108.750	17.50	---	43.50	11.85	29.35	-14.15	Peak
160.070	14.70	---	43.50	13.71	28.41	-15.09	Peak
163.390	13.60	---	43.50	13.79	27.39	-16.11	Peak
217.470	18.10	---	46.00	17.88	35.98	-10.02	Peak
253.720	14.20	---	46.00	20.71	34.91	-11.09	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	
320.150	15.90	---	46.00	16.90	32.80	-13.20	Peak
362.430	19.90	---	46.00	17.74	37.64	-8.36	Peak
367.620	15.10	---	46.00	17.84	32.94	-13.06	Peak
480.220	15.90	---	46.00	19.47	35.37	-10.63	Peak
564.370	16.70	---	46.00	20.71	37.41	-8.59	Peak
574.720	17.90	---	46.00	20.85	38.75	-7.25	Peak
! 579.890	20.90	---	46.00	20.94	41.84	-4.16	Peak
579.890	---	18.78	46.00	20.94	39.72	-6.28	QP
640.280	15.40	---	46.00	22.19	37.59	-8.41	Peak
! 724.870	21.60	---	46.00	23.84	45.44	-0.56	Peak
! 724.870	---	19.40	46.00	23.84	43.24	-2.76	QP
! 797.360	16.80	---	46.00	24.77	41.57	-4.43	Peak
797.360	---	14.32	46.00	24.77	39.09	-6.91	QP

- 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

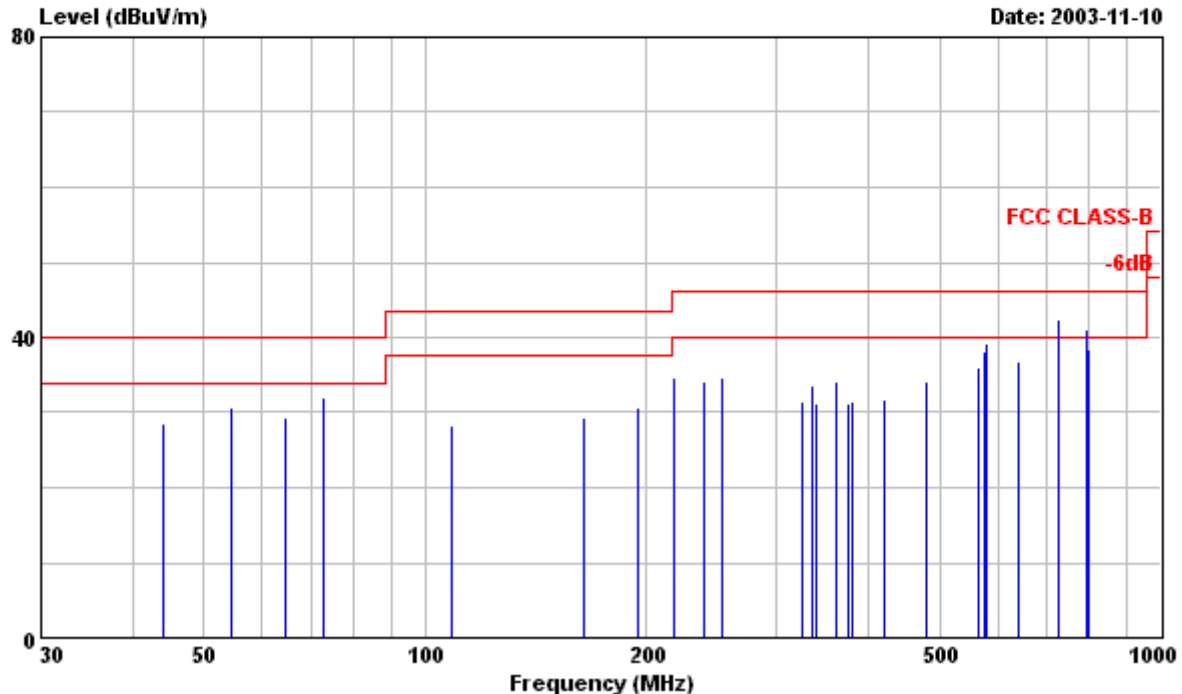


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Data#: 5

File#: C:\Program Files\em3\EMI03-040-R(DELL W2300).emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR HORIZONTAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & DVI I/O CABLE 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	
44.000	17.00	---	40.00	11.62	28.62	-11.38	Peak
54.430	20.20	---	40.00	10.38	30.58	-9.42	Peak
64.650	19.30	---	40.00	9.95	29.25	-10.75	Peak
72.490	21.90	---	40.00	10.11	32.01	-7.99	Peak
108.740	16.40	---	43.50	11.85	28.25	-15.25	Peak
163.720	15.60	---	43.50	13.80	29.40	-14.10	Peak
195.000	14.80	---	43.50	15.86	30.66	-12.84	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	
217.460	16.70	---	46.00	17.88	34.58	-11.42	Peak
238.520	14.50	---	46.00	19.58	34.08	-11.92	Peak
253.720	13.90	---	46.00	20.71	34.61	-11.39	Peak
325.000	14.40	---	46.00	16.99	31.39	-14.61	Peak
335.060	16.30	---	46.00	17.20	33.50	-12.50	Peak
340.730	13.80	---	46.00	17.32	31.12	-14.88	Peak
362.450	16.60	---	46.00	17.74	34.34	-11.66	Peak
374.800	13.30	---	46.00	17.95	31.25	-14.75	Peak
380.470	13.50	---	46.00	18.05	31.55	-14.45	Peak
420.250	13.10	---	46.00	18.69	31.79	-14.21	Peak
480.200	14.60	---	46.00	19.47	34.07	-11.93	Peak
564.360	15.40	---	46.00	20.71	36.11	-9.89	Peak
574.720	17.20	---	46.00	20.85	38.05	-7.95	Peak
579.890	18.30	---	46.00	20.94	39.24	-6.76	Peak
640.280	14.50	---	46.00	22.19	36.69	-9.31	Peak
! 724.870	18.50	---	46.00	23.84	42.34	-3.66	Peak
! 724.870	---	16.33	46.00	23.84	40.17	-5.83	QP
! 795.030	16.30	---	46.00	24.77	41.07	-4.93	Peak
795.030	---	14.20	46.00	24.77	38.97	-7.03	QP
800.360	13.70	---	46.00	24.80	38.50	-7.50	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

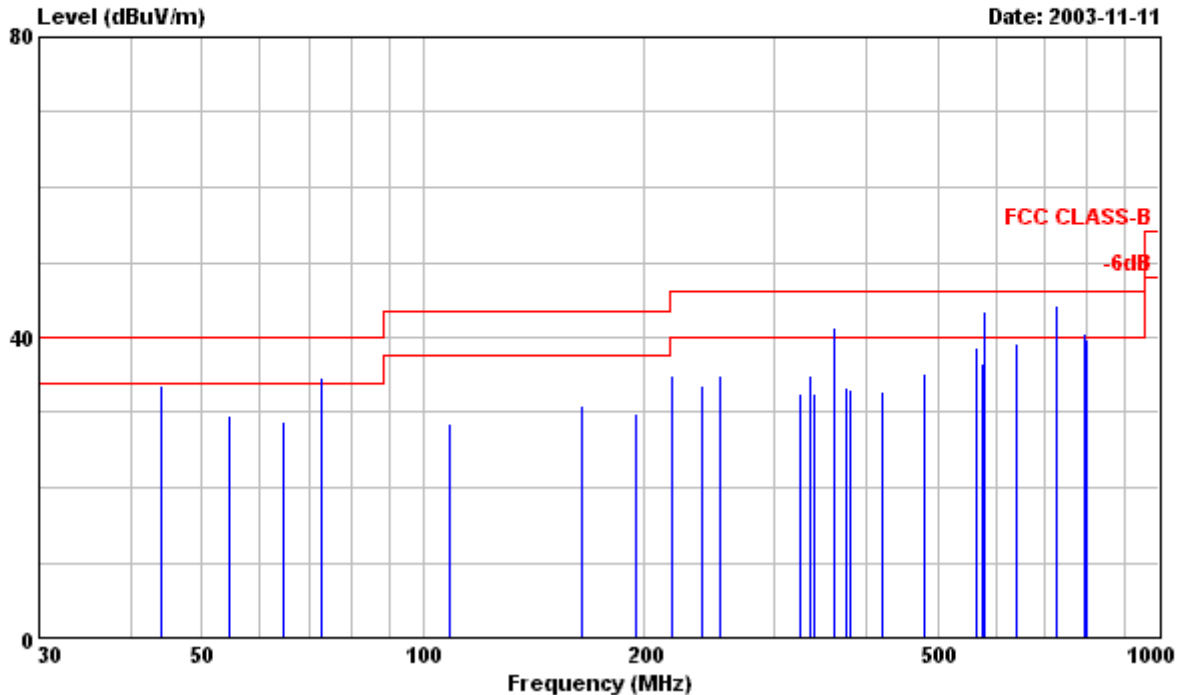


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Data#: 6

File#: C:\Program Files\em3\EMI03-040-R(DELL W2300).emi



Site : PHILIPS EMI 3M open site
Condition : FCC CLASS-B 3m FCC-3M-FACTOR VERTICAL
EUT : DELL W2300 Serial No:TY0304621
Power : 120-240VAC
Memo : 1. EMI EVALUATION FOR FCC SAMPLE.
: 2. 2ND MODEL LPL PANEL,DELL "H" PATTERN.
: 3. EXTRA PC AUDIO,VIDEO,S-VHS AUDIO,
: VIDEO, AV IN,COMPONENT & ANT CABLE
: WERE CONNECTED WITH DUMMY LOAD
: & WITH HEADPHONE.
: 4. 1280x768/60Hz 48KHz MODE WITH DELL
: DHM PC, NVIDIA GeForce FX5200 VIDEO
: CARD & DVI I/O CABLE WAS TESTED.

Frequency	Peak	Reading	QP reading	Limit	Factor	Emission Level	Over Limit	Remark
MHz		dBuV	dBuV	dBuV/m	dB/m	dBuV/m	dBuV/m	
44.000		22.10	---	40.00	11.62	33.72	-6.28	Peak
54.430		19.30	---	40.00	10.38	29.68	-10.32	Peak
64.650		18.80	---	40.00	9.95	28.75	-11.25	Peak
72.490		---	23.10	40.00	10.11	33.21	-6.79	QP
! 72.490		24.60	---	40.00	10.11	34.71	-5.29	Peak
108.740		16.60	---	43.50	11.85	28.45	-15.05	Peak
163.720		17.10	---	43.50	13.80	30.90	-12.60	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	
195.000	14.10	---	43.50	15.86	29.96	-13.54	Peak
217.460	17.09	---	46.00	17.88	34.97	-11.03	Peak
238.520	14.10	---	46.00	19.58	33.68	-12.32	Peak
253.720	14.30	---	46.00	20.71	35.01	-10.99	Peak
325.000	15.50	---	46.00	16.99	32.49	-13.51	Peak
335.060	17.80	---	46.00	17.20	35.00	-11.00	Peak
340.730	15.10	---	46.00	17.32	32.42	-13.58	Peak
362.450	---	21.97	46.00	17.74	39.71	-6.29	QP
! 362.450	23.70	---	46.00	17.74	41.44	-4.56	Peak
374.800	15.40	---	46.00	17.95	33.35	-12.65	Peak
380.470	15.00	---	46.00	18.05	33.05	-12.95	Peak
420.250	14.20	---	46.00	18.69	32.89	-13.11	Peak
480.200	15.70	---	46.00	19.47	35.17	-10.83	Peak
564.360	17.90	---	46.00	20.71	38.61	-7.39	Peak
574.720	15.70	---	46.00	20.85	36.55	-9.45	Peak
! 579.890	22.40	---	46.00	20.94	43.34	-2.66	Peak
! 579.890	---	19.64	46.00	20.94	40.58	-5.42	QP
640.280	16.90	---	46.00	22.19	39.09	-6.91	Peak
! 724.870	20.40	---	46.00	23.84	44.24	-1.76	Peak
! 724.870	---	18.71	46.00	23.84	42.55	-3.45	QP
! 795.030	15.80	---	46.00	24.77	40.57	-5.43	Peak
795.030	---	13.63	46.00	24.77	38.40	-7.60	QP
800.360	14.90	---	46.00	24.80	39.70	-6.30	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