



# FCC VERIFICATION TEST REPORT

**REPORT NO.:** F921105A04B

**MODEL NO.:** PT4231

**RECEIVED:** Nov. 05, 2003

**TESTED:** Nov. 12 to 13, 2003

**APPLICANT:** TOP VICTORY ELECTRONICS (TAIWAN)  
CO., LTD.

**ADDRESS:** 18F, No. 738, Chung Cheng Road, Chung  
Ho, Taipei Hsien, Taiwan 235

**ISSUED BY:** Advance Data Technology Corporation

**LAB LOCATION:** 47 14th Lin, Chiapau Tsun, Linko, Taipei,  
Taiwan, R.O.C.

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0528  
ILAC MRA



Lab Code: 200102-0



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## 1 CERTIFICATION

**PRODUCT:** 42" PDP  
**BRAND NAME:** AOC  
**MODEL NO.:** PT4231  
**TEST ITEM:** ENGINEERING SAMPLE  
**APPLICANT:** TOP VICTORY ELECTRONICS (TAIWAN) CO., LTD.  
**STANDARDS:** FCC Part 15, Subpart B, Class B  
ANSI C63.4-1992

We, **Advance Data Technology Corporation**, hereby certify that one sample of the designation has been tested in our facility from Nov. 12 to 13, 2003. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

**PREPARED BY:** Rita Yi, **DATE:** Nov. 25, 2003  
( Rita Yi )

**APPROVED BY:** Mike Su, **DATE:** Nov. 25, 2003  
( Mike Su, Manager )



## 2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Remarks
FCC Part 15, Subpart B, Class B	Conducted Test	PASS	Meets Class B Limit Minimum passing margin is -6.61 dB at 0.597 MHz
	Radiated Test	PASS	Meets Class B Limit Minimum passing margin is -3.23 dB at 38.09 MHz

**Note:** 1. The information of measurement uncertainty is available upon the customer's request.



### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	42" PDP
<b>MODEL NO.</b>	PT4231
<b>POWER SUPPLY</b>	Switching AC I/P: 100-240Vac, 50/60Hz AC Non-shielded , 3-pin (3m) without core
<b>DATA CABLE</b>	D-Sub Shielded cable, (3m) with two ferrite cores DVI Shielded cable, (3m) with two ferrite cores

**NOTE:** The EUT is a 42" PDP with built-in TV tuner and audio output function. The EUT has TV Tuner, Composite, AV input and S-Video connector.

This report covers EUT monitor function only (DVI & D-Sub). Its TV function testing is covered in another test report no.: F921105A04.

For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

#### 3.2 DESCRIPTION OF TEST MODES

The EUT was pre-tested under the following resolution & horizontal synchronization speed modes:

PORT	RESOLUTION
D-Sub / DVI	1024x768 (75Hz / 60kHz)
	800x600 (75Hz / 47kHz)
	640x480 (60Hz / 31.5kHz)

The worst emission levels were found under 1280x1024 for both ports and therefore the test data of the following modes are recorded in the report.

TEST MODE	PORT	RESOLUTION
MODE 1	DVI	1024x768 (75Hz / 60kHz)
MODE 2	D-Sub	1024x768 (75Hz / 60kHz)



### 3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	PERSONAL COMPUTER	LEO	Persica 8620G	1A36I98A0002 11	FCC DoC Approved
2	TV MONITOR	HACE	CC14A	237190110004 00	VERIFICATION
3	PRINTER	EPSON	LQ-300+	DCGY017076	FCC DoC Approved
4	MODEM	ACEEX	1414	980020516	IFAXDM1414
5	DVD player	SONY	DVP-NS305	1002010	FCC DoC Approve
6	PS/2 KEYBOARD	BTC	5200T	F24800256	E5XKB5122WTH011 0
7	PS/2 MOUSE	LOGITECH	M-S61	HCA13110096	JNZ211403
8	SPEAKER	Wei Ran	AX-2001	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A
2	1.8 m unshielded AV Cable, w/o core.
3	1.2m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core
4	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
5	2.0 m AV unshielded cable (3x3). 1.8 m S-Video unshielded cable. 2.0 m Y Cb Cr unshielded cable.
6	1.6 m foil shielded wire, terminated with PS/2 connector via metallic frame, w/o core.
7	1.8 m Non shielded wire, terminated with PS/2 connector via drain wire, w/o core.
8	1.8 m wrapped shielded wire, terminated via drain wire, with 3.5 mm phone plug, w/o core.

**NOTE:** 1. All power cords of the above support units are non-shielded (1.8m).

## 4 EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

- NOTES:**
- (1) The lower limit shall apply at the transition frequencies.
  - (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
  - (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	838251/021	Jan. 20, 2004
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	100218	Dec. 18, 2003
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	100219	Dec. 18, 2003
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	100220	Dec. 18, 2003
ROHDE & SCHWARZ 4-wire ISN	ENY41	837032/016	Nov. 29 2003
ROHDE & SCHWARZ 2-wire ISN	ENY22	837497/016	Nov. 29 2003
Software	Cond-V3	NA	NA
RF cable (JYEBAO)	5D-FB	Cable-C10.01	May. 01, 2004
SUHNER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-010770	Mar. 24, 2004
SUHNER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-010773	Apr. 06, 2004

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  2. "(\*)": These equipment are used for conducted telecom port test only (if tested).
  3. The test was performed in ADT Shielded Room No. 10.
  4. The VCCI Site Registration No. is C-1312.

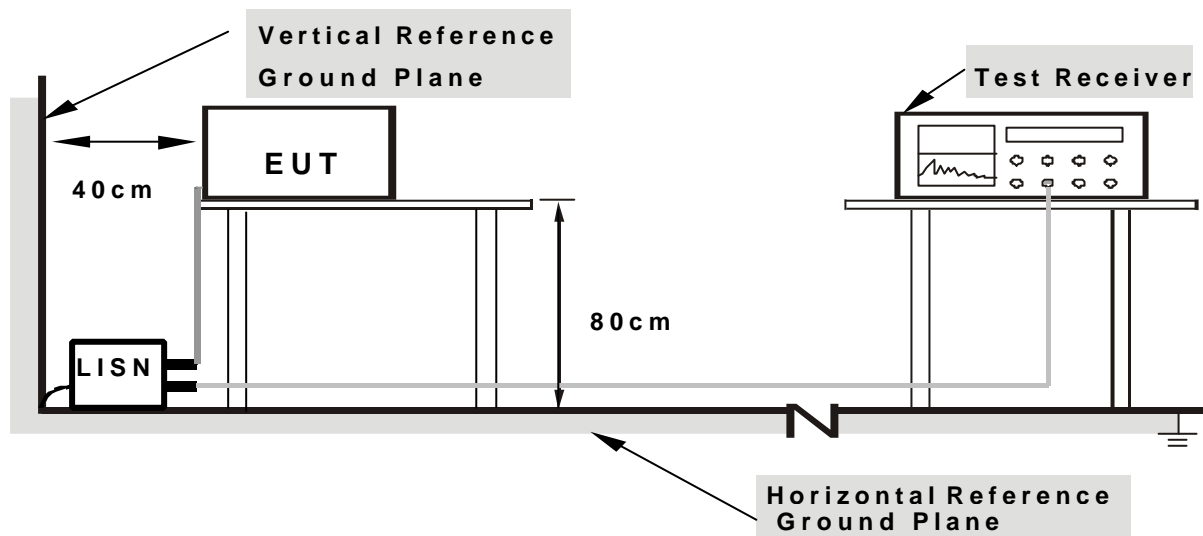
### 4.1.3 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported.

### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation

### 4.1.5 TEST SETUP



- Note:**
1. Support units were connected to second LISN.
  2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.





#### **4.1.6 EUT OPERATING CONDITIONS**

- a. Turned on the power of all equipment.
- b. PC ran a test program to enable all functions.
- c. PC read and wrote messages from FDD and HDD.
- d. PC sent "H" messages to 42" PDP (EUT) and PDP displayed "H" patterns on screen.
- e. PC sent "Audio" messages to EUT and sent out via its speaker.
- f. PC sent "H" messages to modem.
- g. PC sent "H" messages to printer, and the printer printed them on paper.
- h. Steps c-h were repeated.

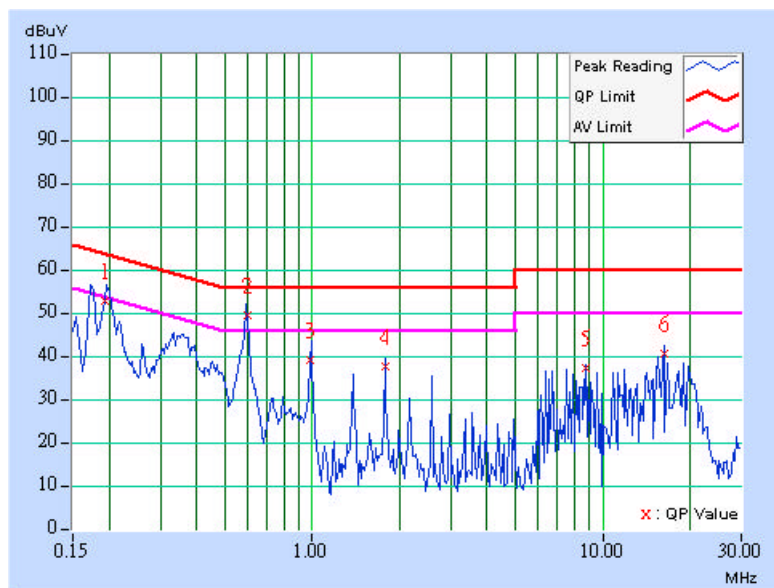


### 4.1.7 TEST RESULTS (A)

<b>EUT</b>	42" PDP	<b>MODEL NO.</b>	PT4231
<b>TEST MODE</b>	MODE 1: DVI	<b>6dB BANDWIDTH</b>	9 kHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	24 deg. C, 65 % RH, 1005 hPa	<b>TESTED BY:</b> JN Chen	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.194	0.06	52.43	-	52.49	-	63.88	53.88	-11.39	-
2	0.597	0.09	49.08	34.18	49.17	34.27	56.00	46.00	-6.83	-11.73
3	0.986	0.16	38.84	-	39.00	-	56.00	46.00	-17.00	-
4	1.783	0.18	37.12	-	37.30	-	56.00	46.00	-18.70	-
5	8.715	0.37	36.81	-	37.18	-	60.00	50.00	-22.82	-
6	16.237	0.58	40.12	-	40.70	-	60.00	50.00	-19.30	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.

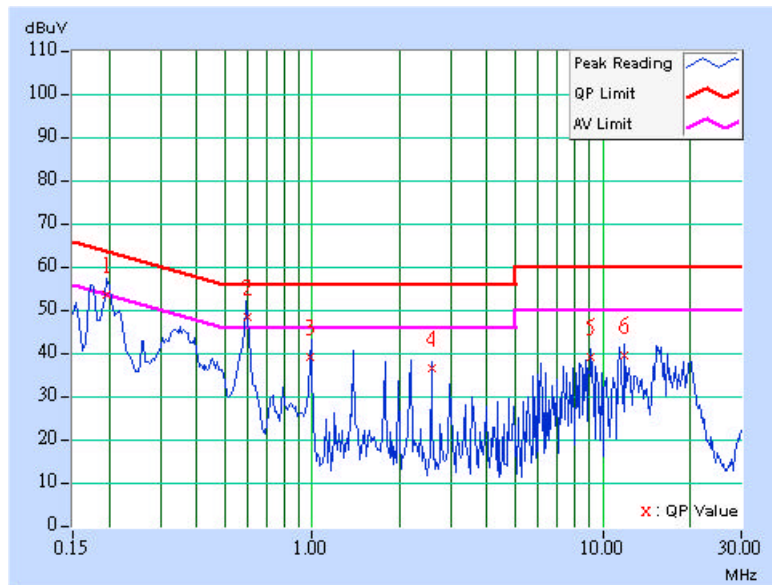




<b>EUT</b>	42" PDP	<b>MODEL NO.</b>	PT4231
<b>TEST MODE</b>	MODE 1: DVI	<b>6dB BANDWIDTH</b>	9 kHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	24 deg. C, 65 % RH, 1005 hPa	<b>TESTED BY:</b> JN Chen	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.196	0.05	53.14	-	53.19	-	63.77	53.77	-10.58	-
2	0.598	0.08	48.13	33.42	48.21	33.50	56.00	46.00	-7.79	-12.50
3	0.983	0.16	38.97	-	39.13	-	56.00	46.00	-16.87	-
4	2.577	0.19	36.21	-	36.40	-	56.00	46.00	-19.60	-
5	9.107	0.36	38.67	-	39.03	-	60.00	50.00	-20.97	-
6	11.887	0.43	39.11	-	39.54	-	60.00	50.00	-20.46	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.



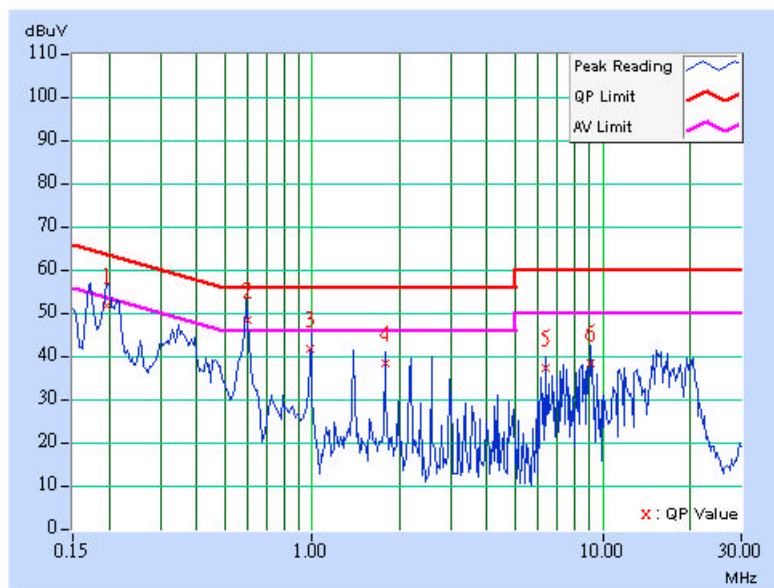


### 4.1.8 TEST RESULTS (B)

<b>EUT</b>	42" PDP	<b>MODEL NO.</b>	PT4231
<b>TEST MODE</b>	MODE 2: D-Sub	<b>6dB BANDWIDTH</b>	9 kHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	24 deg. C, 65 % RH, 1005 hPa	<b>TESTED BY:</b> JN Chen	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.195	0.06	51.43	-	51.49	-	63.81	53.81	-12.32	-
2	0.597	0.09	48.12	31.47	48.21	31.56	56.00	46.00	-7.79	-14.44
3	0.982	0.16	41.38	-	41.54	-	56.00	46.00	-14.46	-
4	1.785	0.18	38.12	-	38.30	-	56.00	46.00	-17.70	-
5	6.333	0.30	37.12	-	37.42	-	60.00	50.00	-22.58	-
6	9.105	0.38	38.03	-	38.41	-	60.00	50.00	-21.59	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.

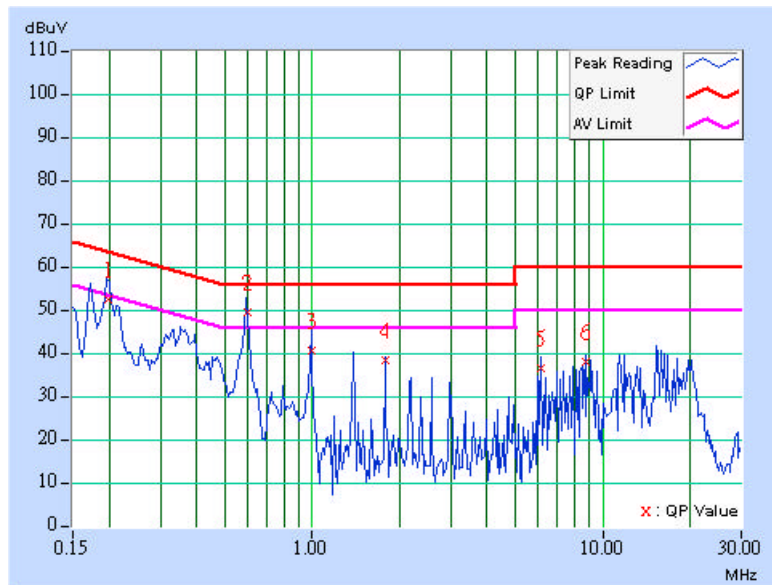




<b>EUT</b>	42" PDP	<b>MODEL NO.</b>	PT4231
<b>TEST MODE</b>	MODE 2: D-Sub	<b>6dB BANDWIDTH</b>	9 kHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	24 deg. C, 65 % RH, 1005 hPa	<b>TESTED BY:</b> JN Chen	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.197	0.05	52.14	-	52.19	-	63.73	53.73	-11.54	-
2	<b>0.597</b>	<b>0.08</b>	<b>49.31</b>	<b>34.01</b>	<b>49.39</b>	<b>34.09</b>	<b>56.00</b>	<b>46.00</b>	<b>-6.61</b>	<b>-11.91</b>
3	0.995	0.16	40.24	-	40.40	-	56.00	46.00	-15.60	-
4	1.784	0.18	38.04	-	38.22	-	56.00	46.00	-17.78	-
5	6.137	0.27	36.37	-	36.64	-	60.00	50.00	-23.36	-
6	8.720	0.35	37.64	-	37.99	-	60.00	50.00	-22.01	-

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
  2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
  3. The emission levels of other frequencies were very low against the limit.
  4. Margin value = Emission level - Limit value
  5. Correction factor = Insertion loss + Cable loss
  6. Emission Level = Correction Factor + Reading Value.





## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

#### FOR FREQUENCY BELOW 1000 MHz

FREQUENCY (MHz)	Class A (at 10m)	Class B (at 10m)
	dBuV/m	dBuV/m
30 – 230	40	30
230 - 1000	47	37

#### LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

**Note:** (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower



## 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
* HP Spectrum Analyzer	8591E	3308A01367	Mar. 09, 2004
HP Preamplifier	8447F	3113A05767	Sep. 22, 2004
* HP Preamplifier	8449B	3008A01924	Oct. 12, 2004
* HP Preamplifier	8449B	3008A01638	Oct. 17, 2004
* ROHDE & SCHWARZ TEST RECEIVER	ESVS 30	841977/008	Apr. 07, 2004
SCHAFFNER Tunable Dipole Antenna	VHBA 9123	459	Nov. 15, 2004
SCHWARZBECK Tunable Dipole Antenna	UHA 9105	977	
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Feb. 13, 2004
*CHASE BILOG Antenna	CBL6112A	2331	Oct. 17, 2004
* SCHWARZBECK Horn Antenna	BBHA9120-D1	D130	June 30, 2004
* EMCO Horn Antenna	3115	9312-4192	Mar. 23, 2004
* ADT. Turn Table	TT100	0308	NA
* ADT. Tower	AT100	0308	NA
* Software	ADT_Radiated _V5.14	NA	NA
* ANRITSU RF Switches	MP59B	M32159	Oct. 11, 2004
* TIMES RF cable	LMR-600	CABLE-ST8-01	Oct. 11, 2004

- NOTE:**
1. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.
  2. "\*" = These equipment are used for the final measurement.
  3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
  4. The test was performed in ADT Open Site No. 8.
  5. The VCCI Site Registration No. is R-877.



### 4.2.3 TEST PROCEDURE

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

**NOTE:**

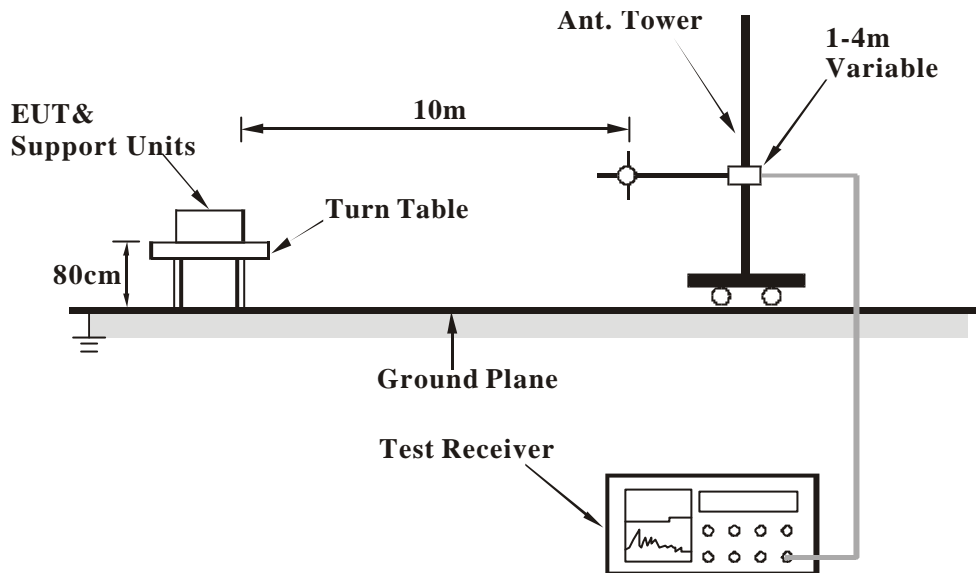
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 300 Hz for Average detection (AV) at frequency above 1GHz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the interference antenna.

### 4.2.4 DEVIATION FROM TEST STANDARD

No deviation



## 4.2.5 TEST SETUP



For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

## 4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

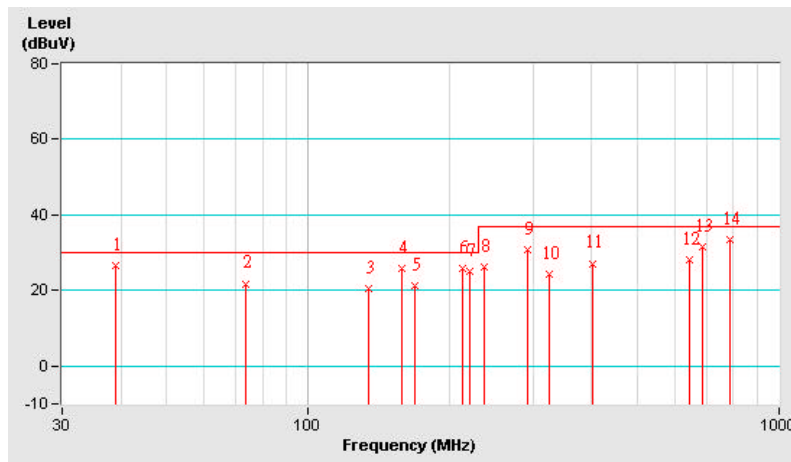


### 4.2.7 TEST RESULTS (A)

<b>EUT</b>	42" PDP	<b>MODEL NO.</b>	PT4231
<b>TEST MODE</b>	MODE 1: DVI	<b>INPUT POWER</b>	120Vac, 60 Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 68 % RH, 1005 hPa	<b>TESTED BY:</b> JN Chen	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	39.08	26.74 QP	30.00	-3.26	4.00 H	317	13.59	13.15
2	73.65	21.81 QP	30.00	-8.19	4.00 H	182	14.74	7.07
3	133.83	20.53 QP	30.00	-9.47	4.00 H	292	7.99	12.54
4	157.50	25.85 QP	30.00	-4.15	4.00 H	140	15.34	10.51
5	168.19	21.28 QP	30.00	-8.72	4.00 H	202	11.21	10.07
6	212.75	25.83 QP	30.00	-4.17	4.00 H	250	14.80	11.03
7	220.78	25.13 QP	30.00	-4.87	4.00 H	113	13.61	11.52
8	235.60	26.33 QP	37.00	-10.67	3.70 H	81	13.91	12.42
9	291.95	30.90 QP	37.00	-6.10	3.29 H	291	15.68	15.22
10	326.00	24.35 QP	37.00	-12.65	1.99 H	295	8.49	15.86
11	401.00	27.17 QP	37.00	-9.83	1.34 H	218	8.88	18.29
12	646.50	28.22 QP	37.00	-8.78	1.27 H	44	5.91	22.31
13	685.11	31.53 QP	37.00	-5.47	1.50 H	73	9.22	22.31
14	787.48	33.38 QP	37.00	-3.62	1.00 H	13	9.85	23.53

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



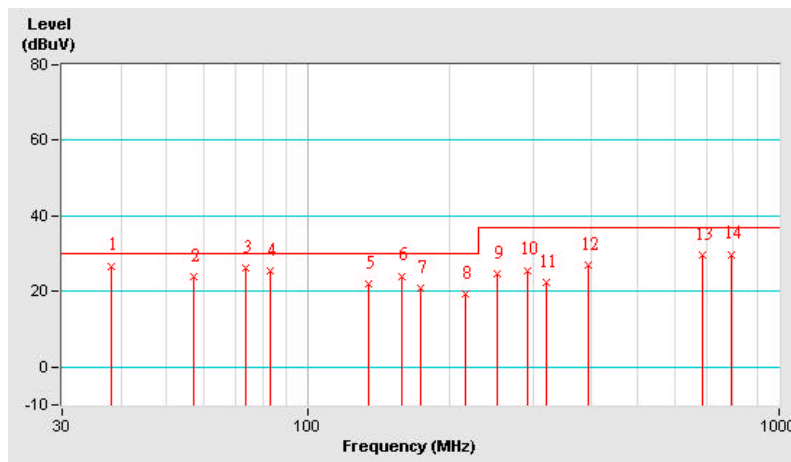


<b>EUT</b>	42" PDP	<b>MODEL NO.</b>	PT4231
<b>TEST MODE</b>	MODE 1: DVI	<b>INPUT POWER</b>	120Vac, 60 Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 68 % RH, 1005 hPa	<b>TESTED BY: JN Chen</b>	

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.09	26.77 QP	30.00	-3.23	1.46 V	65	12.55	14.22
2	57.25	23.85 QP	30.00	-6.15	1.00 V	0	16.50	7.35
3	73.69	26.36 QP	30.00	-3.64	2.19 V	187	19.29	7.07
4	83.07	25.42 QP	30.00	-4.58	1.42 V	232	17.06	8.36
5	134.04	22.14 QP	30.00	-7.86	1.00 V	153	9.61	12.53
6	157.50	24.13 QP	30.00	-5.87	1.00 V	39	13.62	10.51
7	173.44	20.70 QP	30.00	-9.30	1.00 V	255	10.75	9.95
8	216.20	19.49 QP	30.00	-10.51	1.00 V	82	8.25	11.24
9	252.23	24.60 QP	37.00	-12.40	1.00 V	283	11.02	13.58
10	291.78	25.64 QP	37.00	-11.36	1.00 V	229	10.43	15.21
11	320.50	22.30 QP	37.00	-14.70	1.00 V	312	6.53	15.77
12	394.50	26.86 QP	37.00	-10.14	1.00 V	55	8.80	18.06
13	687.50	29.66 QP	37.00	-7.34	2.68 V	232	7.35	22.31
14	790.00	29.82 QP	37.00	-7.18	2.06 V	160	6.28	23.54

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



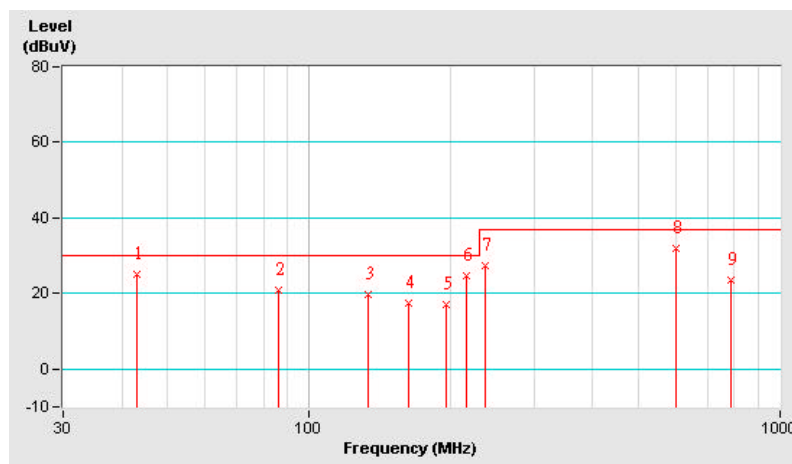


### 4.2.8 TEST RESULTS (B)

<b>EUT</b>	42" PDP	<b>MODEL NO.</b>	PT4231
<b>TEST MODE</b>	MODE 2: D-Sub	<b>INPUT POWER</b>	120Vac, 60 Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 68 % RH, 1005 hPa	<b>TESTED BY:</b> JN Chen	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.10	24.94 QP	30.00	-5.06	4.00 H	212	13.01	11.93
2	85.90	20.96 QP	30.00	-9.04	4.00 H	36	12.47	8.49
3	133.36	19.64 QP	30.00	-10.36	4.00 H	153	7.08	12.56
4	162.50	17.52 QP	30.00	-12.48	4.00 H	181	7.32	10.20
5	195.50	17.10 QP	30.00	-12.90	4.00 H	73	6.94	10.16
6	216.13	24.52 QP	30.00	-5.48	4.00 H	136	13.28	11.24
7	235.60	27.34 QP	37.00	-9.66	4.00 H	0	14.92	12.42
8	600.00	31.96 QP	37.00	-5.04	2.02 H	330	10.02	21.94
9	787.48	23.53 QP	37.00	-13.47	1.00 H	15	0.00	23.53

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

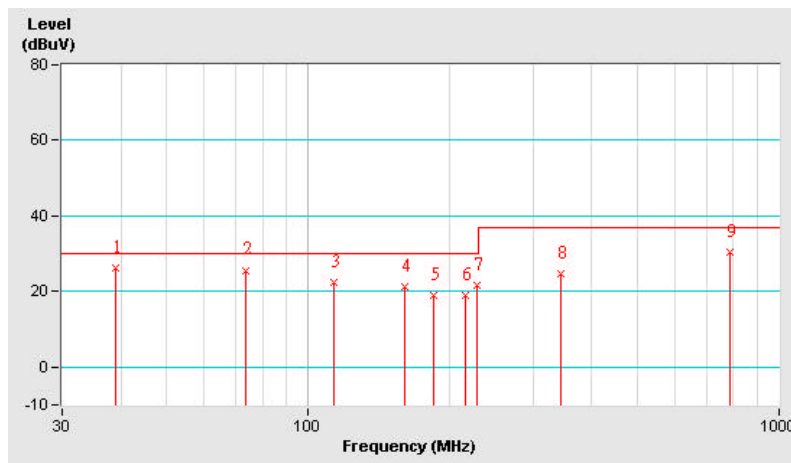




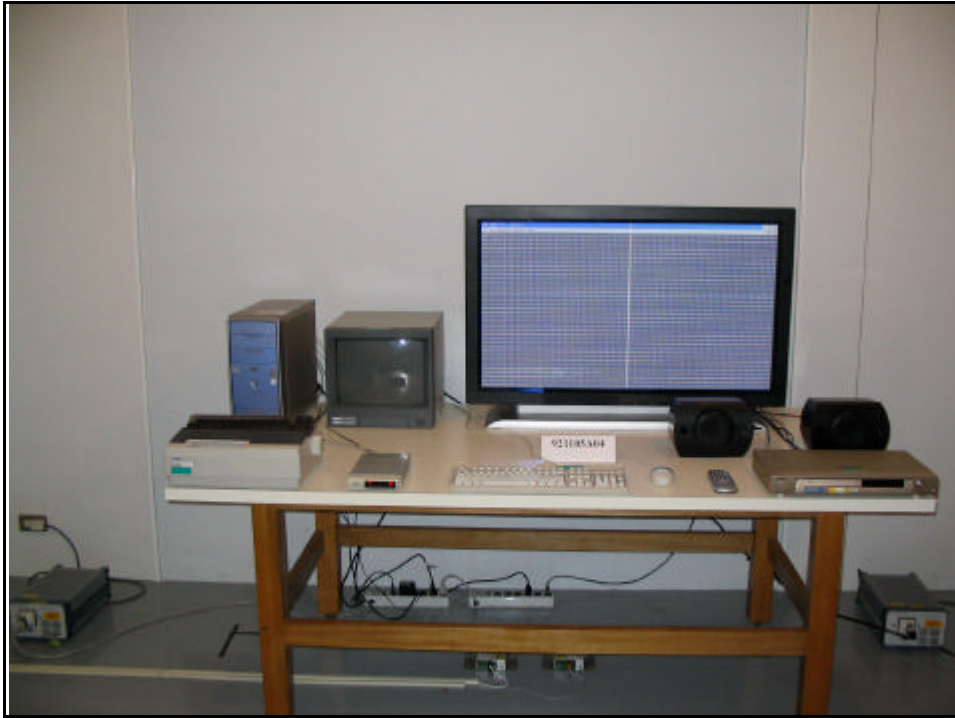
<b>EUT</b>	42" PDP	<b>MODEL NO.</b>	PT4231
<b>TEST MODE</b>	MODE 2: D-Sub	<b>INPUT POWER</b>	120Vac, 60 Hz
<b>FREQUENCY RANGE</b>	30-1000 MHz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	20 deg. C, 68 % RH, 1005 hPa	<b>TESTED BY:</b> JN Chen	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.96	26.18 QP	30.00	-3.82	2.65 V	273	12.89	13.29
2	73.55	25.65 QP	30.00	-4.35	1.56 V	190	18.60	7.05
3	113.67	22.26 QP	30.00	-7.74	1.00 V	177	9.97	12.29
4	160.06	21.17 QP	30.00	-8.83	1.00 V	88	10.92	10.25
5	184.38	19.10 QP	30.00	-10.90	1.00 V	0	9.19	9.91
6	216.13	19.05 QP	30.00	-10.95	1.00 V	269	7.81	11.24
7	227.60	21.72 QP	30.00	-8.28	1.00 V	322	9.79	11.93
8	343.50	24.71 QP	37.00	-12.29	1.00 V	99	8.57	16.14
9	787.49	30.50 QP	37.00	-6.50	3.21 V	241	6.97	23.53

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION CONDUCTED EMISSION TEST





### RADIATED EMISSION TEST





## 6 APPENDIX - INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, Guide 25 or EN 45001:

<b>USA</b>	FCC, NVLAP, UL
<b>Germany</b>	TUV Rheinland
<b>Japan</b>	VCCI
<b>New Zealand</b>	MoC
<b>Norway</b>	NEMKO
<b>Canada</b>	INDUSTRY CANADA
<b>R.O.C.</b>	CNLA, BSMI

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: [www.adt.com.tw/index.5/phtml](http://www.adt.com.tw/index.5/phtml). If you have any comments, please feel free to contact us at the following:

**Lin Kou EMC Lab:**

Tel: 886-2-26052180  
Fax: 886-2-26052943

**Hsin Chu EMC Lab:**

Tel: 886-35-935343  
Fax: 886-35-935342

**Lin Kou Safety Lab:**

Tel: 886-2-26093195  
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Tel: 886-3-3270910  
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**Email:** [service@mail.adt.com.tw](mailto:service@mail.adt.com.tw)

**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

The address and road map of all our labs can be found in our web site also.