

# FCC TEST REPORT

**REPORT NO.:** F910221A06

**MODEL NO.:** LM-500, LM-510

**RECEIVED:** Feb. 21, 2002

**TESTED:** Feb. 23 ~ Mar. 6, 2002

**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



## Table of Contents

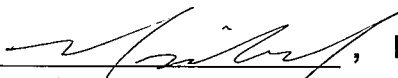
1	CERTIFICATION.....	3
2	SUMMARY OF TEST RESULTS .....	4
3	GENERAL INFORMATION .....	5
3.1	GENERAL DESCRIPTION OF EUT .....	5
3.2	DESCRIPTION OF TEST MODES .....	6
3.3	DESCRIPTION OF SUPPORT UNITS .....	7
4	EMISSION TEST .....	8
4.1	CONDUCTED EMISSION MEASUREMENT.....	8
4.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT .....	8
4.1.2	TEST INSTRUMENTS.....	8
4.1.3	TEST PROCEDURE.....	9
4.1.4	DEVIATION FROM TEST STANDARD.....	9
4.1.5	TEST SETUP.....	9
4.1.6	EUT OPERATING CONDITIONS .....	10
4.1.7	TEST RESULTS (A).....	11
4.1.8	TEST RESULTS (B).....	13
4.2	RADIATED EMISSION MEASUREMENT.....	15
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT .....	15
4.2.2	TEST INSTRUMENTS.....	16
4.2.3	TEST PROCEDURE.....	16
4.2.4	DEVIATION FROM TEST STANDARD.....	17
4.2.5	TEST SETUP.....	18
4.2.6	EUT OPERATING CONDITIONS .....	18
4.2.7	TEST RESULTS (A).....	19
4.2.8	TEST RESULTS (B).....	21
5	PHOTOGRAPHS OF THE TEST CONFIGURATION .....	23
6	APPENDIX - INFORMATION ON THE TESTING LABORATORIES .....	27

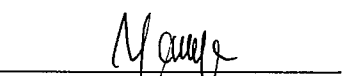


## 1 CERTIFICATION

**PRODUCT:** 15" LCD MONITOR  
**BRAND NAME:** AOC  
**MODEL NO.:** LM-500, LM-510  
**TEST ITEM:** ENGINEERING SAMPLE  
**APPLICANT:** TOP VICTORY ELECTRONICS (TAIWAN) CO., LTD.  
**STANDARDS:** FCC Part 15, Subpart B, Class B  
CISPR 22: 1997, Class B  
ANSI C63.4-1992

We, **Advance Data Technology Corporation**, hereby certify that two samples (model: LM-500, LM-510) of the designation have been tested in our facility from Feb. 23 to Mar. 6, 2002. 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.

**TESTED BY:** , **DATE:** Mar. 9, 2002  
( Michael Wang )

**CHECKED BY:** , **DATE:** mar. 9, 2002  
( Yemmy Soong )

**APPROVED BY:** , **DATE:** March 9, 2002  
( 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 -6.66 dB at 0.177 MHz
CISPR 22: 1997, Class B	Radiated Test	PASS	Meets Class B Limit Minimum passing margin is -4.1 dB at 204.03MHz

**NOTE:** For conducted emission test, the test limit used is according to FCC Part 15.107. In this part, conducted emission test for telecom port is not mentioned and therefore this item is not tested.

### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	15" LCD MONITOR
<b>MODEL NO.</b>	LM-500, LM-510
<b>POWER SUPPLY</b>	Switching (for model: LM-500) Input rating: 100-240V, 50/60Hz Power Cord: Non-shielded, 3 pin, AC (1.8m)
	Power adapter (for model: LM-510) Brand: LI SHIN, model: LSE9901B1250 I/P: 100-240V, 50/60Hz, 1.5A O/P: 12V, 4.16A Non-shielded AC 3-pin ( 1.8m) Non-shielded DC (1.8m) with a ferrite core
<b>DATA CABLE</b>	Shielded (1.8m) with a ferrite core

**NOTE:** The EUT is a 15" LCD MONITOR with resolution up to 1024x768.

The EUT has two model names, which are identical to each other except for model names, constructions and their outer appearances, as follows:

Brand name	Model name	Differences
AOC	LM-500	With built-in power, Thick outer case
AOC	LM-510	With power adapter, Slim outer case

Both models were tested and their data are recorded in this report.

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:

- ◆ 1024x768 mode (75Hz/60kHz),
- ◆ 800x600 mode (75Hz/47kHz)
- ◆ 640x480 mode (60Hz/31.5kHz)

The worst emission levels were found when the EUT was tested under **1024x768 mode (75Hz/60kHz)** resolution. Therefore, only the test data of EUT tested under this mode is recorded in this report.



### 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	COMPAQ	EXM/P733/15C/9/64V TAI	7045FR4Z0022	FCC DoC Approved
2	PRINTER	HP	2225C+	2949S63865	DSI6XU2225
3	MODEM	ACEEX	1414	980020504	IFAXDM1414
4	PS/2 KEYBOARD	BTC	5121W	A00801379	E5XKB5121WTH0110
5	PS2/MOUSE	LOGITECH	M-S61	HCA10801957	JNZ211403
6	VGA CARD	ELSA	ERAZOR III LT	0105017188	FCC DoC Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.2m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core.
3	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
4	1.6 m foil shielded wire, terminated with PS/2 connector via metallic frame, w/o core.
5	1.8 m non-shielded wire, terminated with PS/2 connector via drain wire, w/o core.
6	NA

**NOTE:** 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	ESHS30	828109/007	July 4, 2002
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	839135/006	July 3, 2002
* ROHDE & SCHWARZ 4-wire ISN	ENY41	838119/028	Dec. 2, 2002
* ROHDE & SCHWARZ 2-wire ISN	ENY22	837497/016	Dec. 2, 2002
EMCO-L.I.S.N. (for peripheral)	3825/2	9204-1964	July 3, 2002
Software	Cond-V2L	NA	NA
RF cable (JYEBAO)	5D-FB	Cable-C02.01	July 5, 2002
HP Terminator (For EMCO LISN)	11593A	E1-01-298	Feb. 20, 2003
HP Terminator (For EMCO LISN)	11593A	E1-01-299	Feb. 20, 2003
Shielded Room	Site 2	ADT-C02	NA
VCCI Site Registration No.	Site 2	C-240	NA

- NOTE:**
1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
  2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  3. “\*”: These equipment are used for conducted telecom port test only (if tested).



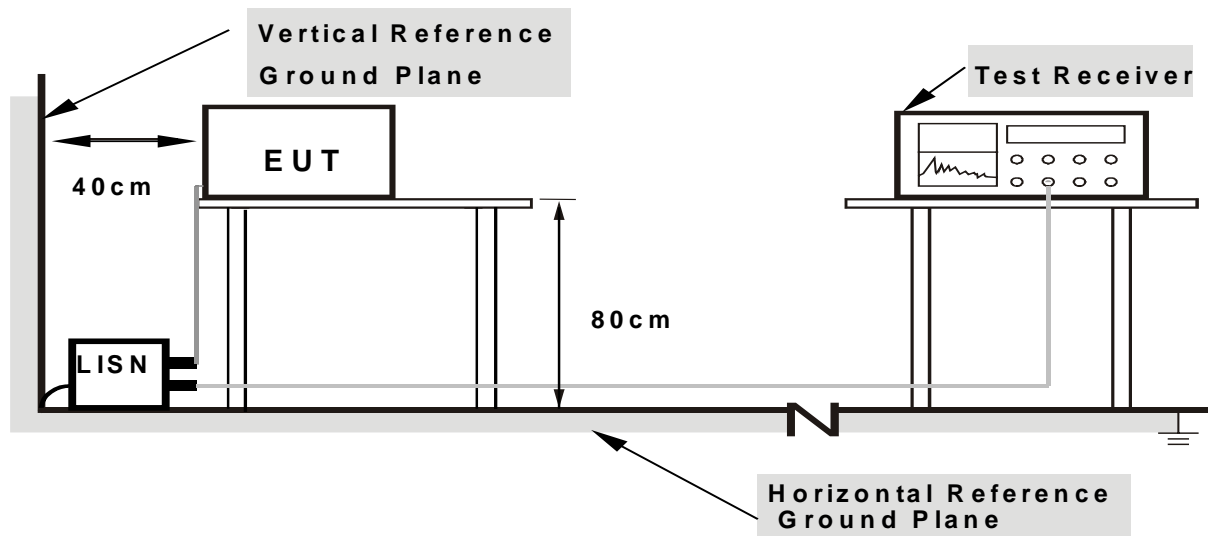
### 4.1.3 TEST PROCEDURE

- 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 LCD monitor (EUT) and monitor displayed "H" patterns on screen.
- e. PC sent "H" messages to modem.
- f. PC sent "H" messages to printer, and the printer printed them on paper.
- g. Steps c-g were repeated.

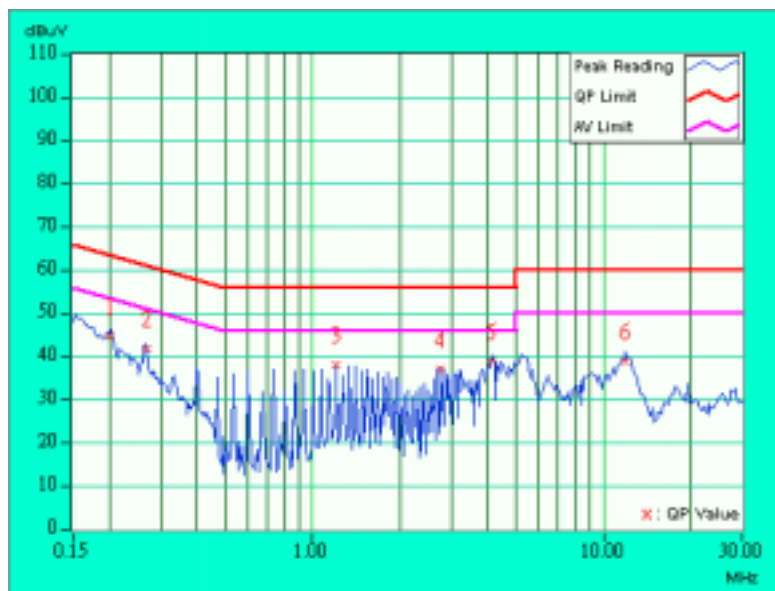


### 4.1.7 TEST RESULTS (A)

<b>EUT</b>	15" LCD MONITOR	<b>MODEL NO.</b>	LM-500
<b>MODE</b>	1024x768 (75Hz/60kHz)	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	21 deg. C, 50 % RH, 1005 hPa	<b>TESTED BY:</b> Michael Wang	

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	0.201	0.10	44.07	-	44.17	-	63.57	53.57	-19.40	-
2	0.269	0.10	41.13	-	41.23	-	61.14	51.14	-19.91	-
3	1.205	0.10	37.36	-	37.46	-	56.00	46.00	-18.54	-
4	2.743	0.17	36.28	-	36.45	-	56.00	46.00	-19.55	-
5	4.148	0.30	38.23	-	38.53	-	56.00	46.00	-17.47	-
6	11.913	0.61	38.34	-	38.95	-	60.00	50.00	-21.05	-

- 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.

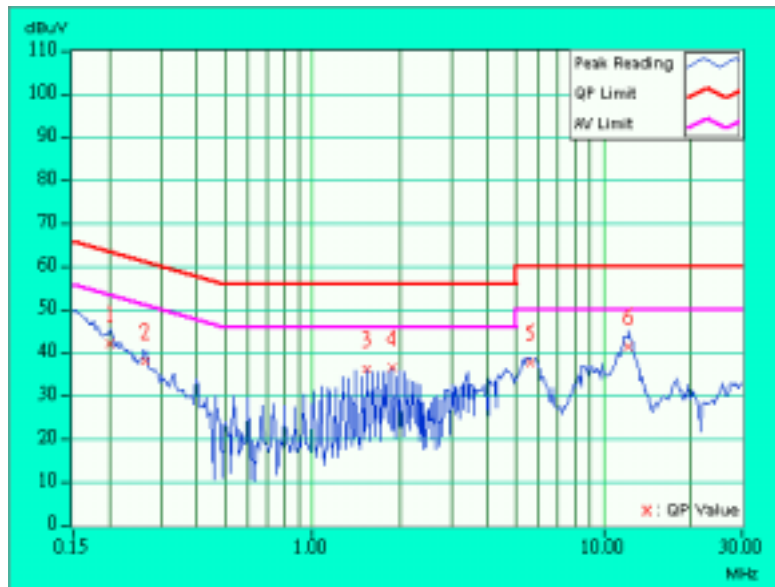




<b>EUT</b>	15" LCD MONITOR	<b>MODEL NO.</b>	LM-500
<b>MODE</b>	1024x768 (75Hz/60kHz)	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	21 deg. C, 50 % RH, 1005 hPa	<b>TESTED BY:</b> Michael Wang	

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	0.201	0.10	41.71	-	41.81	-	63.57	53.57	-21.76	-
2	0.266	0.10	37.52	-	37.62	-	61.23	51.23	-23.61	-
3	1.539	0.10	35.79	-	35.89	-	56.00	46.00	-20.11	-
4	1.872	0.10	36.26	-	36.36	-	56.00	46.00	-19.64	-
5	5.621	0.33	37.25	-	37.58	-	60.00	50.00	-22.42	-
6	12.245	0.49	41.12	-	41.61	-	60.00	50.00	-18.39	-

- 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.



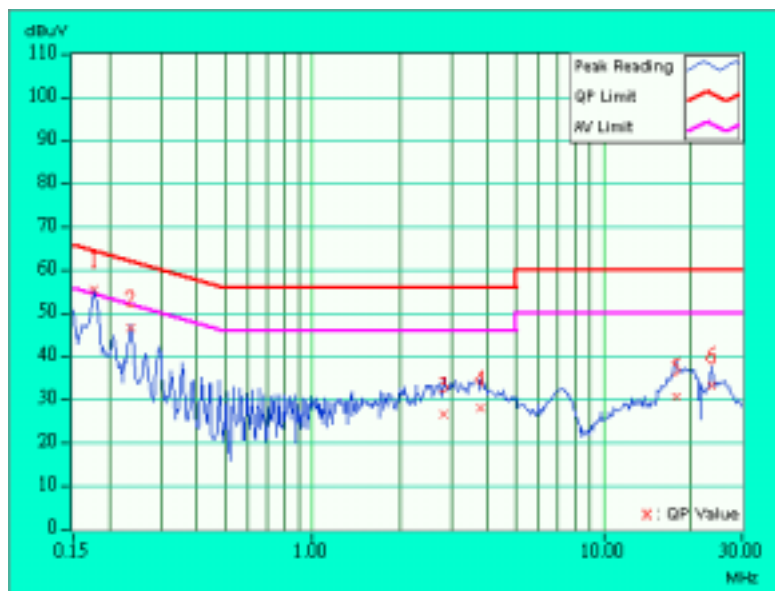


### 4.1.8 TEST RESULTS (B)

<b>EUT</b>	15" LCD MONITOR	<b>MODEL NO.</b>	LM-510
<b>MODE</b>	1024x768 (75Hz/60kHz)	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	21 deg. C, 50 % RH, 1005 hPa	<b>TESTED BY:</b> Michael Wang	

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	0.177	0.10	54.63	47.15	54.73	47.25	64.63	54.63	-9.90	-7.38
2	0.237	0.10	45.76	-	45.86	-	62.20	52.20	-16.34	-
3	2.808	0.18	25.75	-	25.93	-	56.00	46.00	-30.07	-
4	3.801	0.28	27.11	-	27.39	-	56.00	46.00	-28.61	-
5	17.714	0.91	29.64	-	30.55	-	60.00	50.00	-29.45	-
6	23.588	1.07	32.16	-	33.23	-	60.00	50.00	-26.77	-

- 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.

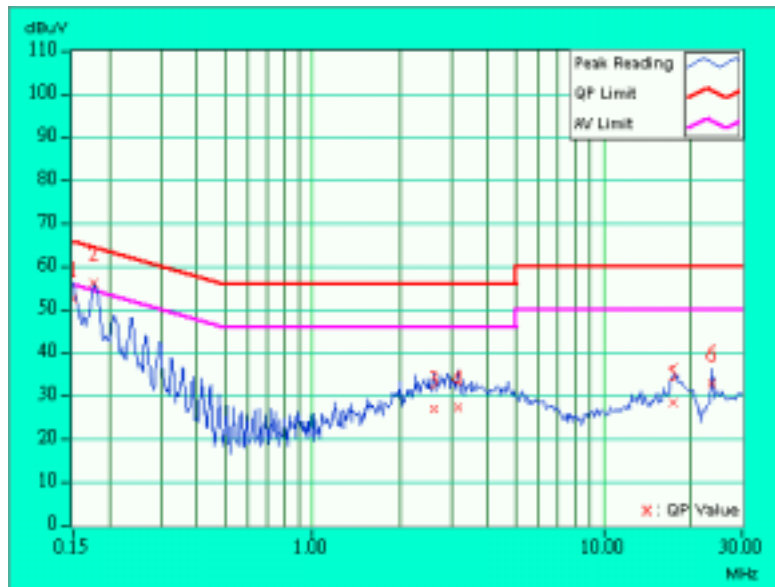




<b>EUT</b>	15" LCD MONITOR	<b>MODEL NO.</b>	LM-510
<b>MODE</b>	1024x768 (75Hz/60kHz)	<b>6dB BANDWIDTH</b>	10 kHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	21 deg. C, 50 % RH, 1005 hPa	<b>TESTED BY:</b> Michael Wang	

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	0.150	0.10	51.79	-	51.89	-	66.00	56.00	-14.11	-
2	0.177	0.10	55.34	47.87	55.44	47.97	64.63	54.63	-9.19	-6.66
3	2.604	0.16	26.34	-	26.50	-	56.00	46.00	-29.50	-
4	3.171	0.22	26.50	-	26.72	-	56.00	46.00	-29.28	-
5	17.393	0.70	27.56	-	28.26	-	60.00	50.00	-31.74	-
6	23.648	0.87	32.24	-	33.11	-	60.00	50.00	-26.89	-

- 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.



## 4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
HP Spectrum Analyzer	8590L	3544A01042	April 16, 2002
HP Preamplifier	8447D	2944A08313	April 3, 2002
* HP Preamplifier	8449B	3008A01201	Dec. 06, 2002
* HP Preamplifier	8449B	3008A01292	Aug. 21, 2002
* ROHDE & SCHWARZ TEST RECEIVER	ESI 7	838496/016	Feb. 21, 2003
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 23, 2002
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Jan. 27, 2003
* CHASE BILOG Antenna	CBL6111A	1647	June 27, 2002
* SCHWARZBECK Horn Antenna	BBHA9120-D1	D130	July 6, 2002
* EMCO Horn Antenna	3115	9312-4192	April 15, 2002
* EMCO Turn Table	1016	1722	NA
* EMCO Tower	1051	1825	NA
* Software	AS61D4	NA	NA
* ANRITSU RF Switches	MP59B	M28342	June 27, 2002
* TIMES RF cable	LMR-600	CABLE-ST4-01	June 27, 2002
Open Field Test Site	Site 4	ADT-R04	June 8, 2002
VCCI Site Registration No.	Site 4	R-1038	NA

**NOTE:** 1. The measurement uncertainty is less than +/- 3.0dB, which is calculated as per the NAMAS document NIS81.

2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

3. "\*" = These equipment are used for the final measurement.

4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

## 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.

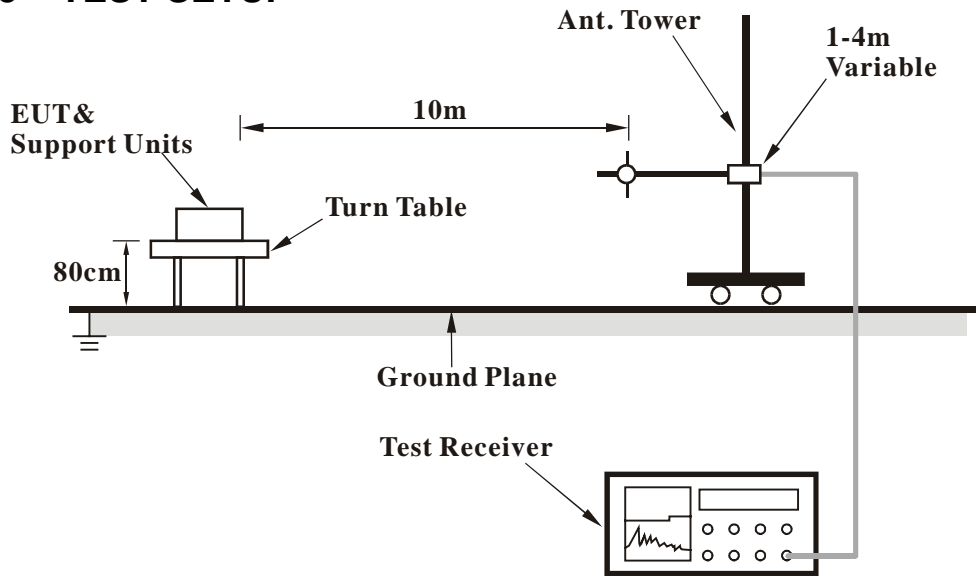
**NOTE:**

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and 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.



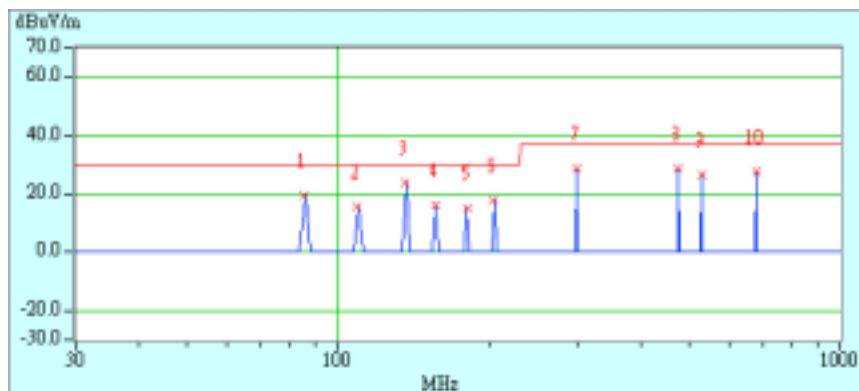
### 4.2.7 TEST RESULTS (A)

<b>EUT</b>	15" LCD MONITOR	<b>MODEL NO.</b>	LM-500
<b>MODE</b>	1024x768 (75Hz/60kHz)	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	19 deg. C, 67 % RH, 1005 hPa	<b>TESTED BY:</b> Michael Wang	

#### 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)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Gain (dB)	Correction Factor (dB/m)
1	85.15	19.3 QP	30.00	-10.70	4.00H	0	10.40	7.98	0.93	0.00	-8.90
2	109.05	15.6 QP	30.00	-14.40	4.00H	164	3.46	11.19	0.95	0.00	-12.14
3	136.05	23.6 QP	30.00	-6.40	4.00H	241	10.90	11.68	1.02	0.00	-12.70
4	156.45	16.1 QP	30.00	-13.90	4.00H	259	4.53	10.34	1.23	0.00	-11.57
5	181.15	14.9 QP	30.00	-15.10	4.00H	226	4.71	8.86	1.33	0.00	-10.20
6	204.03	17.8 QP	30.00	-12.20	4.00H	0	7.04	9.33	1.43	0.00	-10.76
7	299.28	28.9 QP	37.00	-8.10	3.31H	211	13.96	13.36	1.58	0.00	-14.94
8	476.08	28.7 QP	37.00	-8.30	2.22H	201	8.86	17.65	2.20	0.00	-19.84
9	530.41	26.7 QP	37.00	-10.30	2.10H	246	4.74	19.68	2.28	0.00	-21.96
10	680.11	27.8 QP	37.00	-9.20	1.99H	274	4.46	20.62	2.72	0.00	-23.35

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) – Correction Factor(dB)
  2. Correction Factor(dB/m) = Pre-Amplifier Gain (dB) - Antenna Factor (dB/m) - Cable Factor (dB)
  3. Pre-Amplifier Gain (dB) = 0, when the test receiver is used to read the value and because it did not use the Pre-Amplifier.
  4. The other emission levels were very low against the limit.
  5. Margin value = Emission level – Limit value.



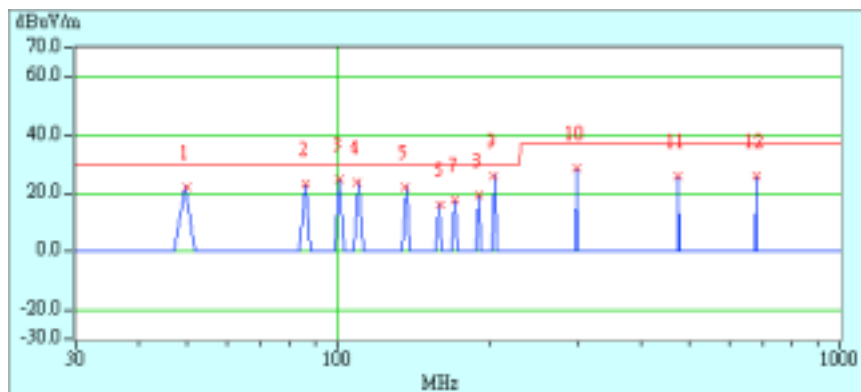


<b>EUT</b>	15" LCD MONITOR	<b>MODEL NO.</b>	LM-500
<b>MODE</b>	1024x768 (75Hz/60kHz)	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	19 deg. C, 67 % RH, 1005 hPa	<b>TESTED BY:</b> Michael Wang	

**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)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Gain (dB)	Correction Factor (dB/m)
1	49.72	22.4 QP	30.00	-7.60	1.00V	208	11.59	10.08	0.74	0.00	-10.81
2	85.88	23.5 QP	30.00	-6.50	1.37V	195	14.60	7.98	0.93	0.00	-8.91
3	100.42	25.0 QP	30.00	-5.00	1.13V	0	13.93	10.15	0.94	0.00	-11.10
4	108.96	23.9 QP	30.00	-6.10	1.00V	179	11.76	11.19	0.95	0.00	-12.14
5	136.05	22.1 QP	30.00	-7.90	1.00V	239	9.40	11.68	1.02	0.00	-12.70
6	159.48	16.4 QP	30.00	-13.60	1.00V	156	4.99	10.15	1.26	0.00	-11.41
7	170.06	17.9 QP	30.00	-12.10	1.00V	360	7.18	9.41	1.31	0.00	-10.72
8	190.40	19.5 QP	30.00	-10.50	1.00V	262	9.18	8.94	1.38	0.00	-10.32
9	204.03	25.9 QP	30.00	-4.10	1.00V	0	15.14	9.33	1.43	0.00	-10.76
10	299.26	28.8 QP	37.00	-8.20	1.00V	282	13.86	13.36	1.58	0.00	-14.94
11	476.10	26.3 QP	37.00	-10.70	4.00V	274	6.46	17.65	2.20	0.00	-19.84
12	680.12	25.9 QP	37.00	-11.10	2.75V	31	2.56	20.62	2.72	0.00	-23.34

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) – Correction Factor(dB)
  2. Correction Factor(dB/m) = Pre-Amplifier Gain (dB) - Antenna Factor (dB/m) - Cable Factor (dB)
  3. Pre-Amplifier Gain (dB) = 0, when the test receiver is used to read the value and because it did not use the Pre-Amplifier.
  4. The other emission levels were very low against the limit.
  5. Margin value = Emission level – Limit value.





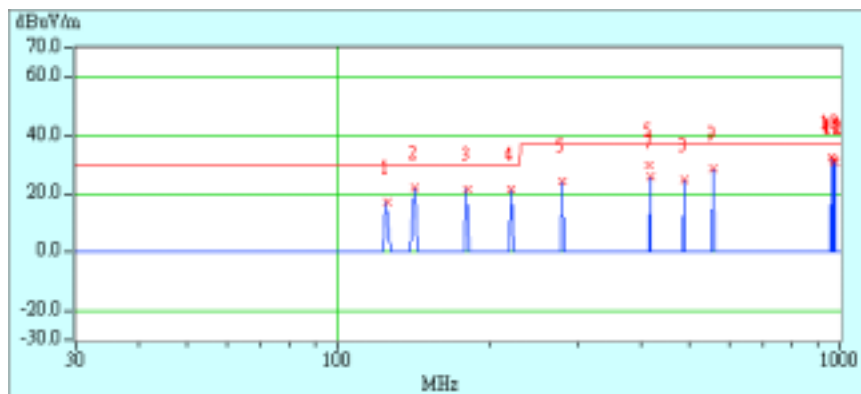
### 4.2.8 TEST RESULTS (B)

<b>EUT</b>	15" LCD MONITOR	<b>MODEL NO.</b>	LM-510
<b>MODE</b>	1024x768 (75Hz/60kHz)	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	19 deg. C, 67 % RH, 1005 hPa	<b>TESTED BY:</b> Michael Wang	

#### 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)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Gain (dB)	Correction Factor (dB/m)
1	125.65	17.2 QP	30.00	-12.80	4.00H	115	4.13	12.09	0.98	0.00	-13.07
2	141.78	22.4 QP	30.00	-7.60	4.00H	320	9.90	11.45	1.05	0.00	-12.51
3	181.15	21.8 QP	30.00	-8.20	4.00H	84	11.61	8.86	1.33	0.00	-10.19
4	220.50	21.6 QP	30.00	-8.40	4.00H	195	9.66	10.46	1.48	0.00	-11.95
5	279.00	24.6 QP	37.00	-12.40	4.00H	36	10.39	12.59	1.62	0.00	-14.21
6	417.43	29.9 QP	37.00	-7.10	2.63H	181	11.39	16.36	2.15	0.00	-18.51
7	418.80	26.3 QP	37.00	-10.70	2.63H	196	7.79	16.36	2.15	0.00	-18.51
8	488.60	24.8 QP	37.00	-12.20	2.44H	101	4.71	17.95	2.15	0.00	-20.09
9	558.42	28.9 QP	37.00	-8.10	1.07H	236	5.89	20.58	2.43	0.00	-23.02
10	960.84	32.7 QP	37.00	-4.30	1.10H	225	4.37	25.07	3.26	0.00	-28.34
11	968.72	31.3 QP	37.00	-5.70	1.00H	236	3.05	24.98	3.27	0.00	-28.26
12	977.21	31.1 QP	37.00	-5.90	1.00H	225	2.96	24.85	3.29	0.00	-28.15

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) – Correction Factor(dB)
  2. Correction Factor(dB/m) = Pre-Amplifier Gain (dB) - Antenna Factor (dB/m) - Cable Factor (dB)
  3. Pre-Amplifier Gain (dB) = 0, when the test receiver is used to read the value and because it did not use the Pre-Amplifier.
  4. The other emission levels were very low against the limit.
  5. Margin value = Emission level – Limit value.



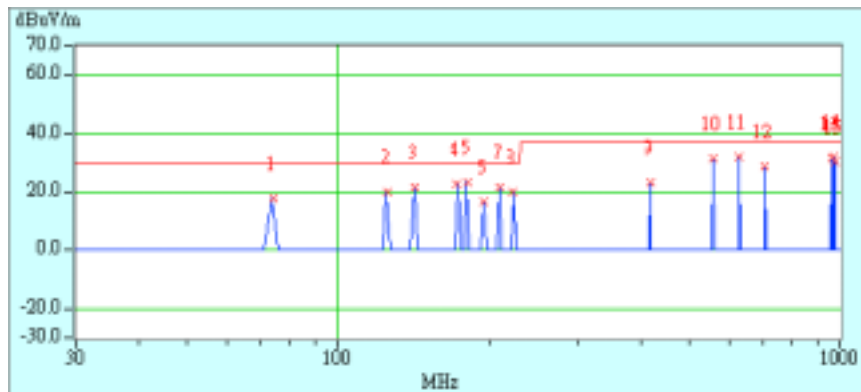


<b>EUT</b>	15" LCD MONITOR	<b>MODEL NO.</b>	LM-510
<b>MODE</b>	1024x768 (75Hz/60kHz)	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>INPUT POWER</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak, 120kHz
<b>ENVIRONMENTAL CONDITIONS</b>	19 deg. C, 67 % RH, 1005 hPa	<b>TESTED BY:</b> Michael Wang	

**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)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Gain (dB)	Correction Factor (dB/m)
1	74.07	17.6 QP	30.00	-12.40	1.36V	83	11.11	5.69	0.80	0.00	-6.49
2	125.63	20.1 QP	30.00	-9.90	1.00V	158	7.03	12.09	0.98	0.00	-13.07
3	141.79	21.7 QP	30.00	-8.30	1.00V	154	9.20	11.45	1.05	0.00	-12.50
4	171.95	22.8 QP	30.00	-7.20	1.00V	119	12.22	9.27	1.31	0.00	-10.58
5	181.15	23.2 QP	30.00	-6.80	1.00V	360	13.01	8.86	1.33	0.00	-10.19
6	195.41	16.9 QP	30.00	-13.10	1.00V	144	6.52	8.98	1.40	0.00	-10.38
7	209.31	21.6 QP	30.00	-8.40	1.00V	216	10.50	9.65	1.44	0.00	-11.10
8	223.31	19.9 QP	30.00	-10.10	1.00V	245	7.79	10.62	1.48	0.00	-12.11
9	418.80	23.2 QP	37.00	-13.80	4.00V	239	4.69	16.36	2.15	0.00	-18.51
10	558.38	31.6 QP	37.00	-5.40	3.45V	207	8.59	20.58	2.43	0.00	-23.01
11	630.07	32.2 QP	37.00	-4.80	2.79V	212	9.11	20.48	2.61	0.00	-23.09
12	708.92	28.7 QP	37.00	-8.30	3.05V	166	5.06	20.86	2.78	0.00	-23.64
13	960.86	31.7 QP	37.00	-5.30	3.25V	203	3.37	25.07	3.26	0.00	-28.33
14	968.72	31.9 QP	37.00	-5.10	3.31V	180	3.65	24.98	3.27	0.00	-28.25
15	977.21	30.3 QP	37.00	-6.70	2.92V	204	2.16	24.85	3.29	0.00	-28.14

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) – Correction Factor(dB)
  2. Correction Factor(dB/m) = Pre-Amplifier Gain (dB) - Antenna Factor (dB/m) - Cable Factor (dB)
  3. Pre-Amplifier Gain (dB) = 0, when the test receiver is used to read the value and because it did not use the Pre-Amplifier.
  4. The other emission levels were very low against the limit.
  5. Margin value = Emission level – Limit value.



## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST (Model: LM-500)



CONDUCTED EMISSION TEST (Model: LM-510)





### RADIATED EMISSION TEST (Model: LM-500)



### RADIATED EMISSION TEST (Model: LM-510)





## 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, DNV
<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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**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.