

Certificate of Compliance

We, **ADVANCE DATA TECHNOLOGY CORP.**, hereby certify that:

The product : INDUSTRIAL PANEL COMPUTER

Trade Name : AASIC

Model No. : T2-15DI, T2-10DI, T2-12DI, T2-10DR, T2-12DR

Applicant : AASIC COMPUTER INC.

one sample of the designation has been tested in our facility from June 30 to July 03, 1999. The test record, data evaluation and Equipment Under Test (EUT) configuration represented in our report no. **CE88062212**, are in compliance with the following standards:

EN 55022: 1994+A1: 1995+A2: 1997, Class A

EN 50082-2: 1995

EN 61000-4-2: 1995

EN 61000-4-3: 1996

EN 61000-4-4: 1995

EN 61000-4-6: 1996

EN 61000-4-8: 1993

ENV 50204: 1995



Mike Su / Project Manager

Issue Date: July 10, 1999



ADVANCE DATA TECHNOLOGY CORP.

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TEST REPORT & CERTIFICATION SERVICES QUESTIONNAIRE

We, ADT Corp., would like to provide you a high quality report and certification in a timely manner. To achieve this goal, we would like you to response to the brief questions listed below in this questionnaire. Therefore your feed back is vital to us in order to determine how good our services are, and what areas could be improved.

*Please indicate beside each question what you feel is the rating. Also, feel free to make comments and suggestions directly on this questionnaire, or by attaching separate sheet. The completed form should then be returned by mail or FAX to **Harris W. Lai**, Director. Your cooperation and effort are truly appreciated.*

TEST REPORT NUMBER : _____

	YES	NO
1. Was the information presented clearly	[]	[]
2. Was the report complete ?	[]	[]
3. Was the report timely ?	[]	[]
4. Did the report satisfy your requirement ?	[]	[]
5. Was the Certification (if any) completed in the scheduled time ?	[]	[]
Your working field ?	[] Engineering	[] Manufacturing
	[] Marketing	[] Other

YOUR CONTACT INFORMATION (OPTIONAL) : _____

OPTIONAL COMMENTS : _____



Advance Data Technology Corporation 誠信科技股份有限公司

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致產品行銷歐洲之客戶 (CE Marking)

自 85 年 1 月 1 日起, 銷歐產品必需符合 EMC 指令之後才能上市.

自 86 年 1 月 1 日起, 銷歐產品必需符合低電壓指令(LVD---Safety) 之後才能上市.

下列文件是在行銷前必須準備齊全, 以備歐體國家機構隨時抽查:

1. EMC Compliance folder(含測試報告)和 LVD TCF (Technical Construction File) --- 可由實驗室核發或透過認證機構
2. Declaration of Conformity (DoC) Form --- 必須由歐洲分公司或進口商簽名負責 (見附件樣本)
3. 原始之設計圖稿及規格書 (如: 線路圖, 方塊圖, PCB Layout 圖, User's Manual 和 Service Manual 等)
4. 敘述製造時之生產檢查程序, 以確保 EMC 和 SAFETY 特性之維持
5. 任何會影響到 EMC 和 SAFETY 的變更敘述和必要之測試記錄



附註:

- * 產品上要貼上 CE 要求之 Label 標示, 如右
- * DoC 簽名負責之廠商, 有責任確保銷售之產品在 EMC 方面仍符合規定
- * 以上文件必需一份置於 DoC 簽名負責人手中備查

(附件樣本)

CE Declaration of Conformity

For the following equipment

(Product Name)

(Model designation)

is herewith confirmed to comply with the requirements set out in the council directive on the Approximation of the Law of the Member States relating to Electromagnetic Compatibility (89/336/EEC), Low-voltage Directive (73/23EEC) and the Amendment Directive (93/68/EEC). For the evaluation regarding the Directives, the following standards, were applied.

The following importer/manufacturer is responsible for this declaration:

(Company Name, Importer)

(Company Name, Manufacturer)

(Company Address)

(Company Address)

Person responsible for this declaration:

Person responsible for this declaration:

(Name, Surname, Importer)

(Name, Surname, Manufacturer)

(Position / Title)

(Position / Title)

(Place)

(Date)

(Place)

(Date)

EXHIBIT 1
DECLARATION OF CONFORMITY
(DoC) FORM

EXHIBIT 2
TEST REPORT



EMC

TEST REPORT

REPORT NO. : CE88062212
MODEL NO. : T2-15DI, T2-10DI, T2-12DI,
T2-10DR, T2-12DR
DATE OF TEST : June 30 ~ July 03, 1999

PREPARED FOR : AASIC COMPUTER INC.

ADDRESS : 5F, NO. 5, ALLEY 6, LANE 45, PAO-HSHIN RD.
HSIN-TIEN CITY, TAIPEI, TAIWAN, R. O. C.

PREPARED BY: ADVANCE DATA TECHNOLOGY CORPORATION



Accredited Laboratory

11F, NO.1, SEC.4, NAN-KING EAST RD.,
TAIPEI, TAIWAN, R.O.C.

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1.

CERTIFICATION

Issue date: July 10, 1999

Product : INDUSTRIAL PANEL COMPUTER
Trade Name : AASIC
Model No. : T2-15DI, T2-10DI, T2-12DI, T2-10DR, T2-12DR
Applicant : AASIC COMPUTER INC.
Standard : EN 55022:1994+A1: 1995+A2: 1997, **EN 50082-2: 1995**
Class A EN 61000-4-2: 1995
EN 61000-4-3: 1996
EN 61000-4-4: 1995
EN 61000-4-6: 1996
EN 61000-4-8: 1993
ENV 50204: 1995

We hereby certify that one sample (IPC-622P4-30RD) of the designation has been tested in our facility from June 30 to July 03, 1999. The test record, data evaluation and Equipment Under Test (EUT) configurations represent herein are true and accurate representation of the measurements of the sample's EMC characteristics under the conditions herein specified.

TESTED BY : Kent Chen, DATE: 7/10/99
(Emission) (Kent Chen)

TESTED BY : S.S. Wang, DATE: 7/10/99
(Immunity) (S. S. Wang)

CHECKED BY : Stacy Chang, DATE: 7/10/99
(Stacy Chang)

APPROVED BY : Mike Su, DATE: 7/10/99
(Mike Su)



ADVANCE DATA TECHNOLOGY CORPORATION

Accredited Laboratory



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2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product : INDUSTRIAL PANEL COMPUTER
Model No. : T2-15DI, T2-10DI, T2-12DI, T2-10DR, T2-12DR
Power Supply Type : Switching (from DC power supply)
Power Cord : NA

Note: The EUT is an INDUSTRIAL PANEL COMPUTER using 24Vdc.

The EUT has five model names, which are identical to each other in all aspects except for their size of LCD panel and the touch screen type:

MODEL	LCD PANEL	TOUCH SCREEN TYPE
T2-15DI	15"	INFRARED TOUCH
T2-12DR	12"	ANALOG RESISTIVE
T2-12DI	12"	INFRARED TOUCH
T2-10DR	10"	ANALOG RESISTIVE
T2-10DI	10"	INFRARED TOUCH

From the above models, model: T2-15DI, model: T2-12DR, model: T2-10DR are selected as mode 1, 2 & 3, and the data are recorded in this report:

- Mode 1: T2-15DI
- Mode 2: T2-12DR
- Mode 3: T2-10DR

The EUT was tested under the following configuration:

* CONSTRUCTION : Inside/Outside heavy duty stainless steel
* COOLING SYSTEM : Three 11.5 CFM (flow-out) fans
* HDD : EIDE HDD interface (2.5" industrial grade)
* FDD : 3.5" slim line FDD
* CPU : Intel Pentium MMX 233MHz
* SYSTEM MEMORY : 8-128MB SIMM or DIMM

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



2.2 GENERAL DESCRIPTION OF APPLIED STANDARD

According to the manufacturer's request, the EUT was tested with the requirements of the following standards:

EN 55022: 1994+A1: 1995+A2: 1997, Class A

EN 50082-2: 1995

EN 61000-4-2: 1995

EN 61000-4-3: 1996

EN 61000-4-4: 1995

EN 61000-4-6: 1996

EN 61000-4-8: 1993

ENV 50204: 1995

All tests are performed and recorded as per above standards.



2.3 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 are used to form representative test configuration during the tests.

FOR EMISSION TEST

No	Product	Brand	Model No.	Serial No.	I/O Cable
1.	COLOR MONITOR	ACER	7134T	M500233562	Shielded Signal (1.5m) Nonshielded Power (1.8m)
2.	KEYBOARD	FORWARD	FDA-104GA	FDKB8110124	Shielded Signal (1.4m)
3.	USB KEYBOARD	BTC	7932	D7A140018	Shielded Signal (1.4m)
4.	MOUSE	DEXIN	A2P800A	80102110	Shielded Signal (1.5m)
5.	USB MOUSE	DEXIN	A2U800A	71001830	Shielded Signal (1.5m)
6.	MODEM	ACEEX	1414	980020524	Shielded Signal (1.8m) Nonshielded Power (1.8m)
7.	MODEM	ACEEX	1414	980020502	Shielded Signal (1.8m) Nonshielded Power (1.8m)
8.	MODEM	ACEEX	1414	980020510	Shielded Signal (1.8m) Nonshielded Power (1.8m)
9.	PRINTER	HP	2225C+	3208S05355	Shielded Signal (2.2m) Nonshielded Power (1.8m)
10.	PERSONAL COMPUTER	IBM	6560-T7T	9983708	Shielded Signal (1.5m) Nonshielded Power (1.8m)
11.	COLOR MONITOR	ACER	7134T	M500233562	Shielded Signal (1.5m) Nonshielded Power (1.8m)
12.	KEYBOARD	HP	C3758A	NA	Shielded Signal (1.5m)
13.	MOUSE	DEXIN	A2P800A	80110011	Shielded Signal (1.8m)
14.	LAN CARD	INTEL	S82555	00A0C9A6CB5 25271	Shielded UTP/S Cable (10.0m)

Note: 1. Support unit 3 & 5 were connected to the USB port of EUT.

2. Two RS-422/485 open loop cables (1.8m) were connected to the EUT.

3. The EUT acted as SERVER PC and communicated with support units 10-14 which acted as HOST PC and partners of communication system via a UTP cable (10.0m)



FOR IMMUNITY TEST

No	Product	Brand	Model No.	Serial No.	I/O Cable
1.	COLOR MONITOR	ACER	7234e	9174302003	Shielded Signal (1.5m) Nonshielded Power (1.8m)
2.	KEYBOARD	HP	C3758A	NA	Shielded Signal (1.8m)
3.	USB KEYBOARD	BTC	7932	174250046	Shielded Signal (1.5m)
4.	MOUSE	COMPAQ	M-S28	LCA50224522	Shielded Signal (1.5m)
5.	USB MOUSE	DEXIN	A2U800A	71001824	Shielded Signal (1.5m)
6.	MODEM	GVC	F-1114V/R6	853E100	Shielded Signal (1.25m) Nonshielded Power (1.5m)
7.	MODEM	GVC	F-1128V1R6	96-191-113004	Shielded Signal (1.25m) Nonshielded Power (1.5m)
8.	MODEM	GVC	F-1128V1R6	96-191-113003	Shielded Signal (1.25m) Nonshielded Power (1.5m)
9.	PRINTER	HP	C2145A	SG59N16035	Shielded Signal (1.5m) Nonshielded Power (1.8m)
10.	PERSONAL COMPUTER	IBM	6560-T7T	9983708	Shielded Signal (10.0m) Nonshielded Power (1.8m)
11.	COLOR MONITOR	AXTION	0951	NA	Shielded Signal (1.5m) Nonshielded Power (2.5m)
12.	KEYBOARD	HP	C3758A	NA	Shielded Signal (1.5m)
13.	MOUSE	DEXIN	A2P800A	80102107	Shielded Signal (1.5m)
14.	LAN CARD	INTEL	S82555	00A0C98B9F76 35713	Shielded UTP/S Cable (10.0m)

Note: 1. Support unit 3 & 5 were connected to the USB port of EUT.

2. Two RS-422/485 open loop cables (1.8m) were connected to the EUT.

3. The EUT acted as SERVER PC and communicated with support units 10-14 which acted as HOST PC and partners of communication system via a UTP cable (10.0m)

2.4 TEST SETUP

Please refer to the photos of test configuration in Item 6.



3. TEST INSTRUMENTS

3.1 TEST INSTRUMENTS (EMISSION)

CONDUCTED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ROHDE & SCHWARZ Test Receiver	ESHS30	828765/002	July 29, 1999
ROHDE & SCHWARZ Artificial Mains Network	ESH2-Z5	828075/003	July 27, 1999
EMCO-L.I.S.N. Shielded Room	3825/2 Site 5	90031627 ADT-C05	July 27, 1999 NA

Note: 1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per 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.

RADIATED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Calibrated until
HP Spectrum Analyzer	8590L	3544A00941	Dec. 06, 1999
HP Pre-Amplifier	8447D	2944A08312	Sept. 15, 1999
HP Preamplifier	8347A	3307A01088	Sept. 9, 1999
R&S Receiver	ESVS10	844594/010	Sept. 24, 1999
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 25, 1999
CHASE BILOG Antenna	CBL6111A	1500	Sept. 4, 1999
EMCO Double Ridged Guide Antenna	3115	9312-4192	April 5, 2000
EMCO Turn Table	1060-04	1196	NA
EMCO Tower	1051	1264	NA
Open Field Test Site	Site 1	ADT-R01	Aug. 28, 1999

Note: 1. The measurement uncertainty is less than +/- 3dB, which is calculated as per 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.



3.2 TEST INSTRUMENTS (IMMUNITY)

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
KeyTek, ESD Test System	2000	9105240/41	Aug. 9, 1999
KeyTek, ESD Simulator	MZ-15/EC	92022232	April 14, 2000
KeyTek, EFT Generator	CE-40	9508257	Sept. 8, 1999
KeyTek, Capacitive Clamp	CE-40-CCL	9508259	Sept. 8, 1999
ROHDE & SCHWARZ Signal Generator	SMY01	840490/009	Sept. 30, 1999
KALMUS Power Amplifier	LA1000V	091995-1	NA
KALMUS Power Amplifier	757LC	091995-2	NA
HOLADAY Field Probe	HI-4422	89915	Oct. 27, 1999
EMCO BiconiLog Antenna	3141	1001	NA
FCC Coupling Decoupling Network	FCC-801-M3-25	48	NA
FCC Coupling Decoupling Network	FCC-801-M2-25	20	NA
FISCHER CUSTOM COMMUNICATIONS EM Injection Clamp	FCC-203I	50	NA
FCC Coupling Decoupling Network	FCC-801-M1-25	17	NA
BOONTON RF Voltage Meter	9200B	331801AE	Dec. 17, 1999
COMTEST Compact Full Anechoic Chamber (7x3x3 m)	CFAC	ADT-S01	Aug. 4, 1999
HAEFELY Magnetic Field Tester	MAG 100.1	083794-06	NA
COMBINOVA Magnetic Field Meter	MFM10	224	Aug. 26, 1999

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



3.3 LIMITS OF CONDUCTED AND RADIATED EMISSION

LIMIT OF RADIATED EMISSION OF EN 55022

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

- 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.

LIMIT OF CONDUCTED EMISSION OF EN 55022

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

- Note: (1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz
(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. TEST RESULTS (EMISSION)

4.1 RADIO DISTURBANCE

Product Family Standard : EN 55022+A1: 1995+A2: 1997, Class A
Frequency Range : 0.15 - 30 MHz (Conducted Emission)
30 - 1000 MHz (Radiated Emission)
Input Voltage : 230 Vac, 50 Hz
Temperature : 26 °C
Humidity : 67 %
Atmospheric Pressure : 1006 mbar

TEST RESULT	Remarks
PASS	Minimum passing margin of conducted emission: -22.0 dB at 3.609 & 3.608 MHz Minimum passing margin of radiated emission: -2.6 dB at 200.48 MHz

4.2 EUT OPERATION CONDITION

1. Turn on the power of all equipment.
2. Industrial Panel Computer (EUT) reads a test program to enable all functions.
3. Industrial Panel Computer (EUT) reads and writes messages from HDD and FDD.
4. Industrial Panel Computer (EUT) sends "H" messages to monitor and monitor displays "H" patterns on screen.
5. Industrial Panel Computer (EUT) sends "H" messages to modem.
6. Industrial Panel Computer (EUT) sends "H" messages to printer and the printer prints them on paper.
7. Repeat steps 2-7.



4.3 TEST DATA OF CONDUCTED EMISSION (A)

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-15DI

MODE: 1

6 dB Bandwidth: 10 kHz

PHASE: LINE (L)

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.
0.201	0.2	43.8	-	44.0	-	79.0	66.0	-35.0	-
0.339	0.2	36.6	-	36.8	-	79.0	66.0	-42.2	-
2.325	0.3	45.5	-	45.8	-	73.0	60.0	-27.2	-
3.609	0.4	50.6	-	51.0	-	73.0	60.0	-22.0	-
5.786	0.6	41.0	-	41.6	-	73.0	60.0	-31.4	-
7.691	0.7	39.3	-	40.0	-	73.0	60.0	-33.0	-

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

ADT CO. Shielded Room 5

30. Jun 99 18:36

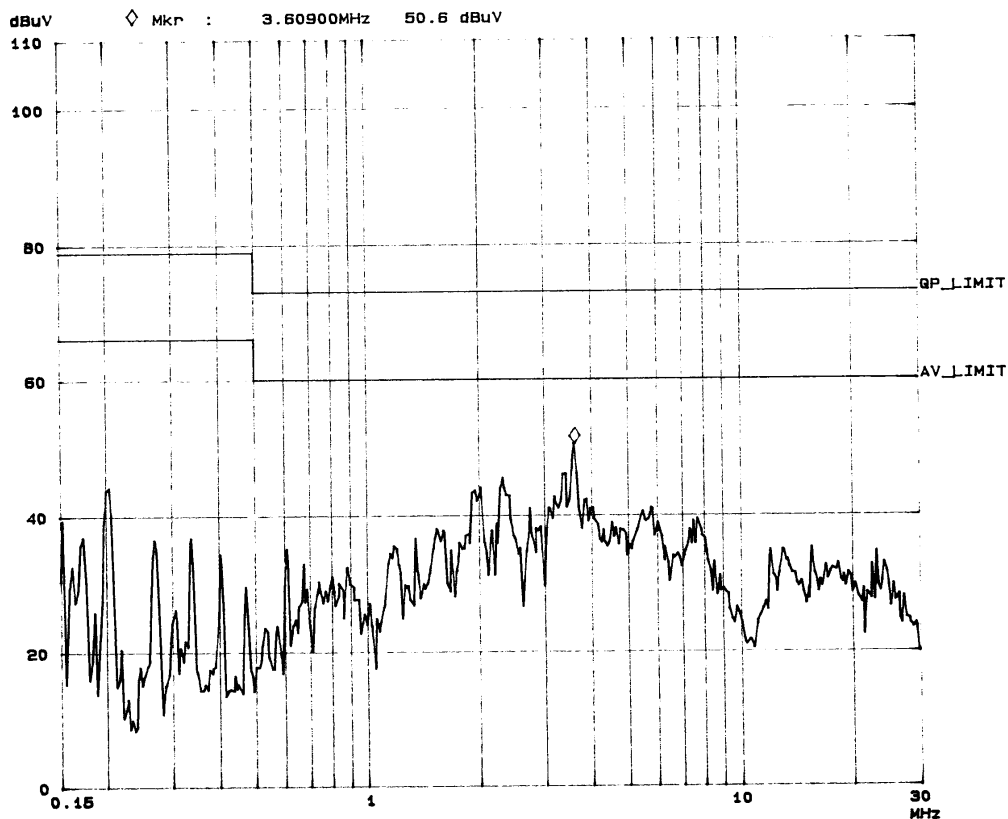
EN55022 CLASS A

EUT: T2-15DI
Manuf: FULL SYSTEM
Test Spec: LISN : L
Comment: 230V AC/50Hz

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Page (> - |
Tested by Kent Chen

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	450k	3k	10k	PK	0.05ms	10dB LN	OFF	60dB
450k	5M	3k	10k	PK	0.05ms	10dB LN	OFF	60dB
5M	30M	3k	10k	PK	0.05ms	10dB LN	OFF	60dB





TEST DATA OF CONDUCTED EMISSION

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-15DI

MODE: 1 6 dB Bandwidth: 10 kHz

PHASE: LINE (N)

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.
0.201	0.2	47.9	-	48.1	-	79.0	66.0	-30.9	-
0.339	0.2	41.7	-	41.9	-	79.0	66.0	-37.1	-
2.325	0.3	45.6	-	45.9	-	73.0	60.0	-27.1	-
3.609	0.3	45.9	-	46.2	-	73.0	60.0	-26.8	-
5.786	0.5	37.4	-	37.9	-	73.0	60.0	-35.1	-
7.691	0.5	33.1	-	33.6	-	73.0	60.0	-39.4	-

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

ADT CO. Shielded Room 5
 EN55022 CLASS A

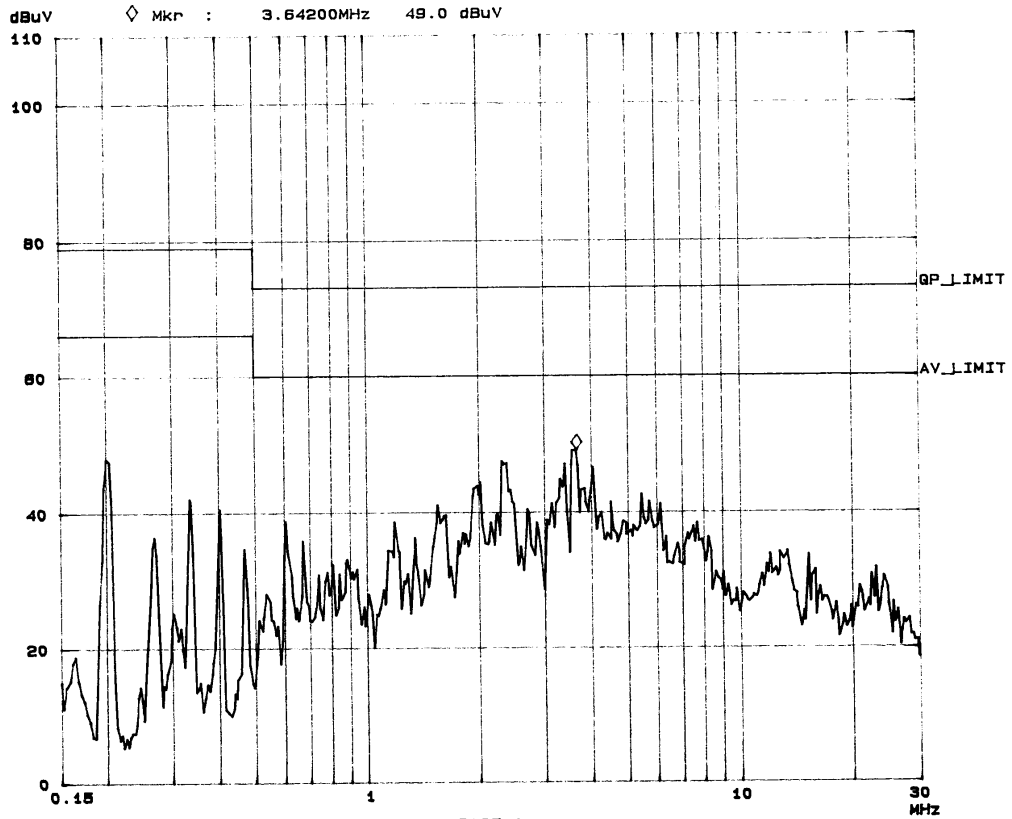
30. Jun 99 18:29

EUT: T2-150II
 Manuf: FULL SYSTEM
 Test Spec: LISN : N
 Comment: 230V AC/50Hz

Report No. *CZ 8806 >> 1 >*
 Page *13-1*
 Tested by *Kant Chen*

Fast Scan Settings (3 Ranges)

Fast Scan Settings (3 Ranges)			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	450k	3k	10k	PK	0.05ms	10dB	OFF	60dB
450k	5M	3k	10k	PK	0.05ms	10dB	OFF	60dB
5M	30M	3k	10k	PK	0.05ms	10dB	OFF	60dB





4.4 TEST DATA OF CONDUCTED EMISSION (B)

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-12DR

MODE: 2 6 dB Bandwidth: 10 kHz

PHASE: LINE (L)

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.
0.200	0.2	43.6	-	43.8	-	79.0	66.0	-35.2	-
0.339	0.2	36.6	-	36.8	-	79.0	66.0	-42.2	-
2.325	0.3	45.5	-	45.8	-	73.0	60.0	-27.2	-
3.608	0.4	50.6	-	51.0	-	73.0	60.0	-22.0	-
5.780	0.6	41.0	-	41.6	-	73.0	60.0	-31.4	-
7.690	0.7	39.3	-	40.0	-	73.0	60.0	-33.0	-

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

ADT CO. Shielded Room 5
EN55022 CLASS A

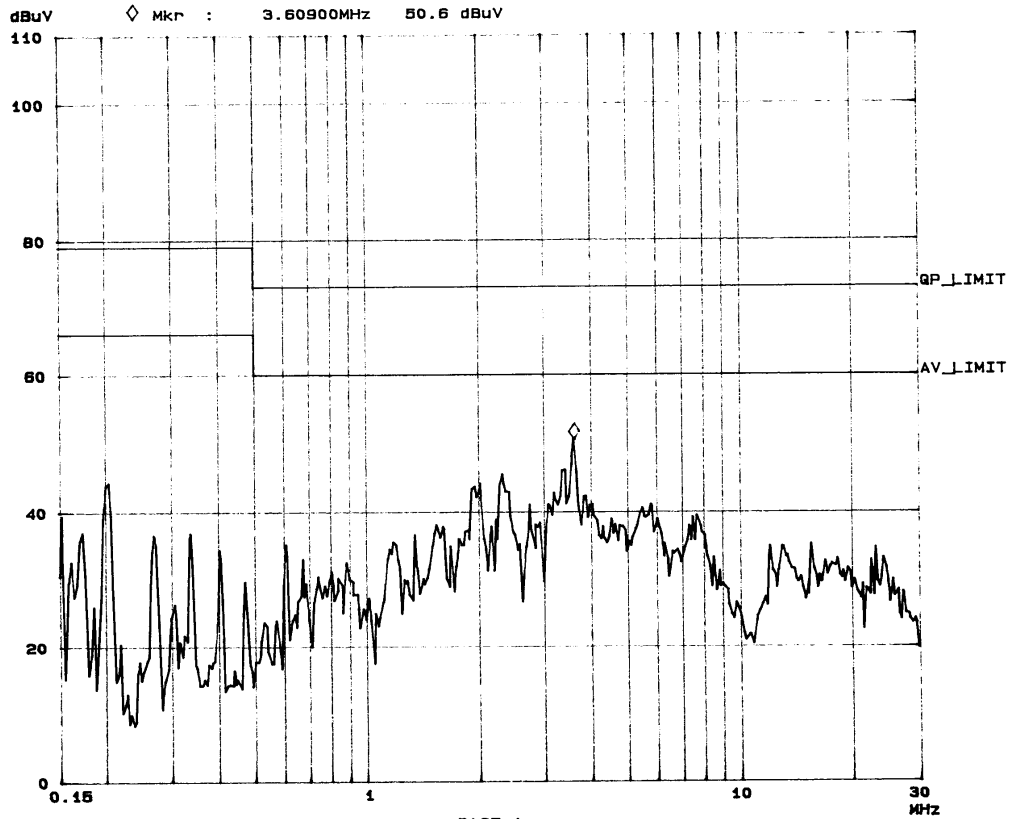
30. Jun 99 18:36

EUT: T2-12DR1
Manuf: FULL SYSTEM
Test Spec: LISN : L
Comment: 230V AC/50Hz

Report No CZ 8806712
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Tested by Kent Chen

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	450k	3k	10k	PK	0.05ms	10dB	BLN OFF	60dB
450k	5M	3k	10k	PK	0.05ms	10dB	BLN OFF	60dB
5M	30M	3k	10k	PK	0.05ms	10dB	BLN OFF	60dB





TEST DATA OF CONDUCTED EMISSION

EUT: **INDUSTRIAL PANEL COMPUTER** MODEL: **T2-12DR**

MODE: **2** 6 dB Bandwidth: **10 kHz**

PHASE: **LINE (N)**

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.
0.200	0.2	47.8	-	48.0	-	79.0	66.0	-31.0	-
0.339	0.2	41.7	-	41.9	-	79.0	66.0	-37.1	-
2.325	0.3	45.6	-	45.9	-	73.0	60.0	-27.1	-
3.608	0.3	45.9	-	46.2	-	73.0	60.0	-26.8	-
5.780	0.5	37.4	-	37.9	-	73.0	60.0	-35.1	-
7.690	0.5	33.1	-	33.6	-	73.0	60.0	-39.4	-

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



4.6 TEST DATA OF RADIATED EMISSION (A)

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-15DI
MODE: 1 ANT. POLARITY: Horizontal
DETECTOR FUNCTION: Quasi-peak 6 dB BANDWIDTH: 120 kHz
FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
137.50	14.4	17.6	32.0	40.0	-8.0	400	351
176.02	11.7	10.3	22.0	40.0	-18.0	400	275
181.54	11.6	10.3	21.9	40.0	-18.1	400	287
192.50	11.6	16.5	28.1	40.0	-11.9	400	247
200.50	11.6	24.1	35.7	40.0	-4.3	400	11
203.55	11.8	19.5	31.3	40.0	-8.7	400	27
209.04	12.2	15.9	28.1	40.0	-11.9	400	254
247.49	14.8	15.3	30.1	47.0	-16.9	400	237
275.00	15.5	21.3	36.8	47.0	-10.2	315	119
291.51	16.1	14.6	30.7	47.0	-16.3	285	83
336.47	17.7	20.8	38.5	47.0	-8.5	400	140

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



TEST DATA OF RADIATED EMISSION

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-15DI
MODE: 1 ANT. POLARITY: Vertical
DETECTOR FUNCTION: Quasi-peak 6 dB BANDWIDTH: 120 kHz
FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
66.82	7.9	21.5	29.4	40.0	-10.6	100	61
118.64	13.1	19.8	32.9	40.0	-7.1	100	136
133.64	14.8	22.4	37.2	40.0	-2.8	100	224
137.49	15.2	13.4	28.6	40.0	-11.4	100	290
145.84	14.7	20.7	35.4	40.0	-4.6	100	358
152.04	13.9	17.5	31.4	40.0	-8.6	100	356
200.46	12.1	24.0	36.1	40.0	-3.9	100	25
203.51	12.2	19.0	31.2	40.0	-8.8	100	33
336.46	19.2	19.3	38.5	47.0	-8.5	100	285

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



4.7 TEST DATA OF RADIATED EMISSION (B)

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-12DR
MODE: 2 ANT. POLARITY: Horizontal
DETECTOR FUNCTION: Quasi-peak 6 dB BANDWIDTH: 120 kHz
FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
139.42	14.4	13.2	27.6	40.0	-12.4	400	131
151.78	13.0	16.7	29.7	40.0	-10.3	400	351
192.27	11.6	15.4	27.0	40.0	-13.0	400	147
200.44	11.6	24.6	36.2	40.0	-3.8	400	337
208.03	12.1	16.2	28.3	40.0	-11.7	374	325
215.72	12.6	16.4	29.0	40.0	-11.0	400	343
512.04	22.6	14.7	37.3	47.0	-9.7	334	123

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



TEST DATA OF RADIATED EMISSION

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-12DR
MODE: 2 ANT. POLARITY: Vertical
DETECTOR FUNCTION: Quasi-peak 6 dB BANDWIDTH: 120 kHz
FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
70.42	8.0	18.9	26.9	40.0	-13.1	155	54
77.26	7.3	19.7	27.0	40.0	-13.0	100	239
140.01	15.5	18.4	33.9	40.0	-6.1	100	41
152.66	13.8	16.0	29.8	40.0	-10.2	100	177
182.44	11.5	11.6	23.1	40.0	-16.9	100	1
200.45	12.1	23.9	36.0	40.0	-4.0	100	60
208.02	12.4	20.8	33.2	40.0	-6.8	100	56
233.64	13.4	15.2	28.6	47.0	-18.4	100	38
278.43	14.9	14.7	29.6	47.0	-17.4	100	343
512.03	22.3	19.7	42.0	47.0	-5.0	285	190

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



4.8 TEST DATA OF RADIATED EMISSION (C)

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-10DR
MODE: 3 ANT. POLARITY: Horizontal
DETECTOR FUNCTION: Quasi-peak 6 dB BANDWIDTH: 120 kHz
FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
152.70	12.9	16.4	29.3	40.0	-10.7	400	2
200.48	11.6	25.8	37.4	40.0	-2.6	400	355
209.34	12.2	12.0	24.2	40.0	-15.8	400	351
215.74	12.6	17.4	30.0	40.0	-10.0	346	115
226.54	13.3	15.7	29.0	40.0	-11.0	400	274
553.75	24.2	18.4	42.6	47.0	-4.4	400	281
604.12	23.9	14.0	37.9	47.0	-9.1	153	205

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



TEST DATA OF RADIATED EMISSION

EUT: INDUSTRIAL PANEL COMPUTER MODEL: T2-10DR
MODE: 3 ANT. POLARITY: Vertical
DETECTOR FUNCTION: Quasi-peak 6 dB BANDWIDTH: 120 kHz
FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
200.47	12.1	25.0	37.1	40.0	-2.9	100	51
209.34	12.4	15.3	27.7	40.0	-12.3	100	186
215.69	12.7	17.8	30.5	40.0	-9.5	100	180
226.54	13.1	18.1	31.2	40.0	-8.8	100	20
250.02	14.1	18.1	32.2	47.0	-14.8	100	150
289.48	15.3	18.6	33.9	47.0	-13.1	100	97
441.60	19.8	13.7	33.5	47.0	-13.5	319	354
553.79	24.7	18.6	43.3	47.0	-3.7	400	1
604.09	24.4	15.7	40.1	47.0	-6.9	328	9

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



5. TEST RESULTS (IMMUNITY)

5.1 GENERAL DESCRIPTION

Generic Standard	:	EN 50082-2: 1995	
Basic Standard	:	EN 61000-4-2	(Electrostatic Discharge, ESD, 8kV air discharge, 4kV Contact discharge, Performance Criterion B)
Specification and Performance Criteria	:	EN 61000-4-3	(Radio-Frequency Electromagnetic Field Susceptibility Test, RS, 80-1000 MHz, 10V/m, 80% AM (1kHz), Performance Criterion A)
	:	EN 61000-4-4	(Electrical Fast Transient/Burst, EFT, Power line: 2kV, Signal line: 1kV, Performance Criterion B)
	:	EN 61000-4-6	(Conducted Radio Frequency Disturbances Test, CS, 0.15-80 MHz, 10V/m, 80% AM, 1kHz, Performance Criterion A)
	:	EN 61000-4-8	(Power Frequency Magnetic Field Test, 50 Hz, 30A/m, Performance Criterion A)
	:	ENV 50204	(Radio-Frequency Electromagnetic Field, Pulse modulated, 900+/-5 MHz, 10V/m, 50 % duty cycle, Rep. Frequency 200 Hz, Performance Criterion A)
Input Voltage	:	48 Vdc	
Temperature	:	26 °C	
Humidity	:	58 %	
Atmospheric Pressure	:	1006 mbar	

5.2 PERFORMANCE CRITERIA DESCRIPTION

- Criterion A - The apparatus shall continue to operate as intended. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- Criterion B - The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended.
- Criterion C - Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

5.3 EUT OPERATION CONDITION

Same as item 4.2.



5.5 TEST RESULT OF RADIATED ELECTROMAGNETIC FIELDS (RS)

Basic Standard : EN 61000-4-3
Frequency range : 80 MHz - 1000 MHz
Field strength : 10 V/m
Modulation : 1kHz Sine Wave, 80%, AM Modulation
Frequency step : 1 % of fundamental
Polarity of Antenna : Horizontal and Vertical
Test distance : 3 m

Test Result		Remarks
Criterion A	PASS	MODE 1, 2 & 3

Note: Four sides of EUT are verified separately.

Description of test result:

There was no change compared with initial operation during the test.



5.6 TEST RESULT OF ELECTRICAL FAST TRANSIENT (EFT)

Basic Standard : EN 61000-4-4
Test Voltage : Power Line - 2 kV
Signal/Control Line - 1kV
Polarity : Positive/Negative
Impulse Frequency : 5 kHz
Tr / Tn : 5/50 ns
Burst Duration : 15 ms
Burst Period : 300 ms
Test Duration : Not less than 1 min.

Test Result		Remarks
Criterion B	PASS	MODE 1, 2 & 3

OBSERVATION DESCRIPTION

Test Point	Polarity	Test Level (kV)	Result
L1	+/-	2	Note 1
L2	+/-	2	Note 1
GND	+/-	2	Note 1
Singal/Control Line	+/-	1	Note 1

Description of test result:

Note 1: The message of LAN work disappear during the test, but self-recoverable after the test.



5.7 TEST RESULT OF CONDUCTED RADIO FREQUENCY

DISTURBANCES (CS)

Basic Standard : EN 61000-4-6
Frequency range : 0.15 MHz - 80 MHz
Field strength : 10 V/m
Modulation : 1kHz Sine Wave, 80%, AM Modulation
Frequency step : 1 % of fundamental
Coupled cable : DC power, Anode and Cathode (Unshielded)
Coupling device : CDN-M3 (3 wires), Clamp

Test Result		Remarks
Criterion A	PASS	MODE 1, 2 & 3

OBSERVATION DESCRIPTION

There was no change compared with initial operation during the test.

ADT CO. Shielded Room 5
EN55022 CLASS A

30. Jun 99 18:59

EUT: T2-120R
Manuf: FULL SYSTEM
Test Spec: LISN : N
Comment: 230V AC/50Hz

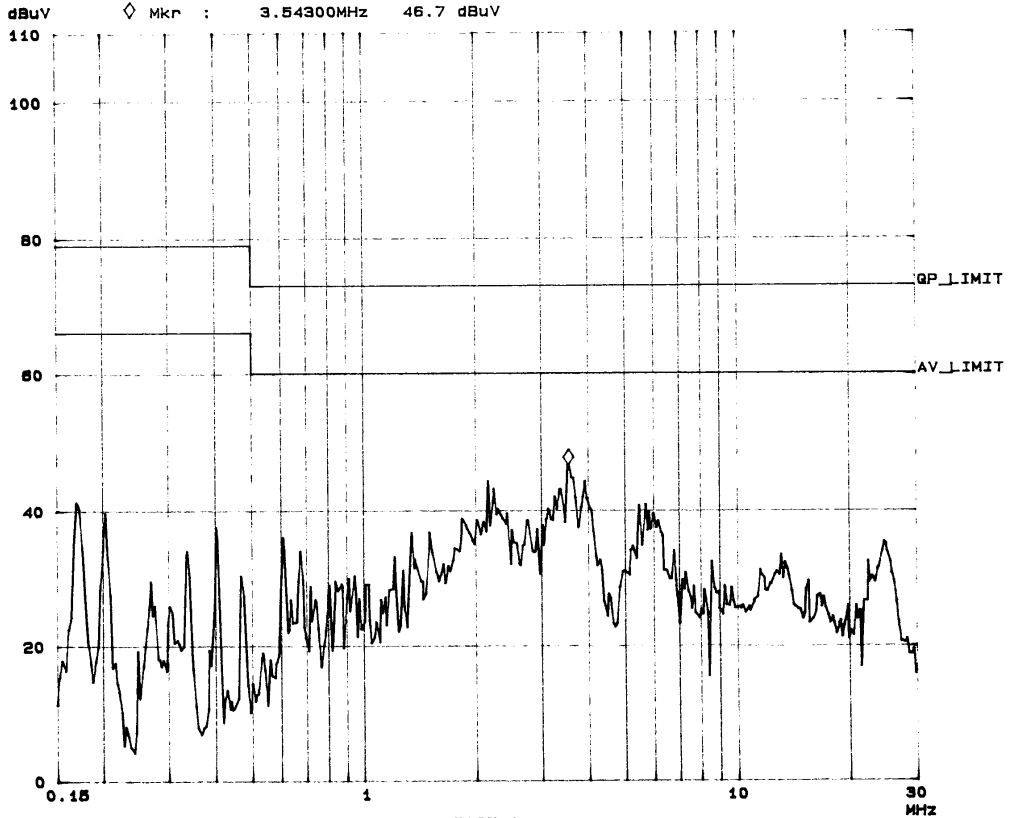
Report No CE 8806 > > >

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Tested by Kent Chen

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	450k	3k	10k	PK	0.05ms	10dB	OFF	60dB
450k	5M	3k	10k	PK	0.05ms	10dB	OFF	60dB
5M	30M	3k	10k	PK	0.05ms	10dB	OFF	60dB



ADT CO. Shielded Room 5
 EN55022 CLASS A

30. Jun 99 18:36

EUT: T2-10DF
 Manuf: FULL SYSTEM
 Test Spec: LISN : L
 Comment: 230V AC/50Hz

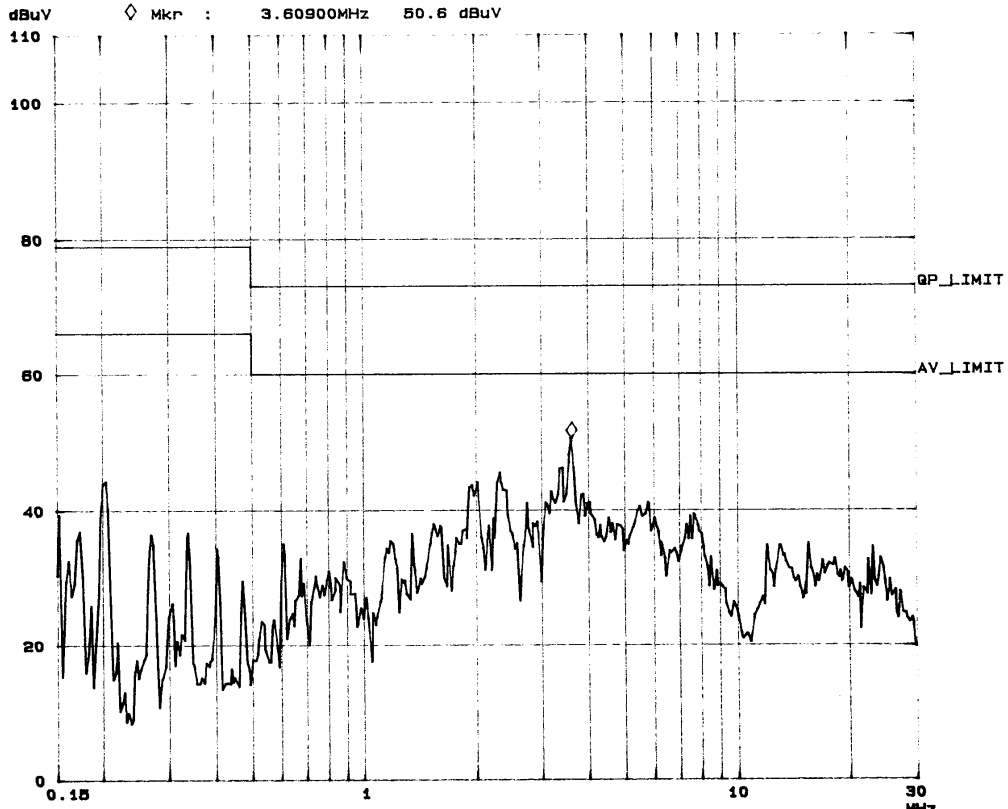
Report No. CE8806>>12

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Tested by Kent Chen

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	450k	3k	10k	PK	0.05ms	10dB	OFF	60dB
450k	5M	3k	10k	PK	0.05ms	10dB	OFF	60dB
5M	30M	3k	10k	PK	0.05ms	10dB	OFF	60dB





TEST DATA OF CONDUCTED EMISSION

EUT: **INDUSTRIAL PANEL COMPUTER** MODEL: **T2-10DR**

MODE: **3** 6 dB Bandwidth: **10 kHz**

PHASE: **LINE (N)**

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.
0.201	0.2	47.8	-	48.0	-	79.0	66.0	-31.0	-
0.339	0.2	41.7	-	41.9	-	79.0	66.0	-37.1	-
2.325	0.3	45.6	-	45.9	-	73.0	60.0	-27.1	-
3.608	0.3	45.9	-	46.2	-	73.0	60.0	-26.8	-
5.780	0.5	37.4	-	37.9	-	73.0	60.0	-35.1	-
7.690	0.5	33.1	-	33.6	-	73.0	60.0	-39.4	-

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

ADT CO. Shielded Room 5
EN55022 CLASS A

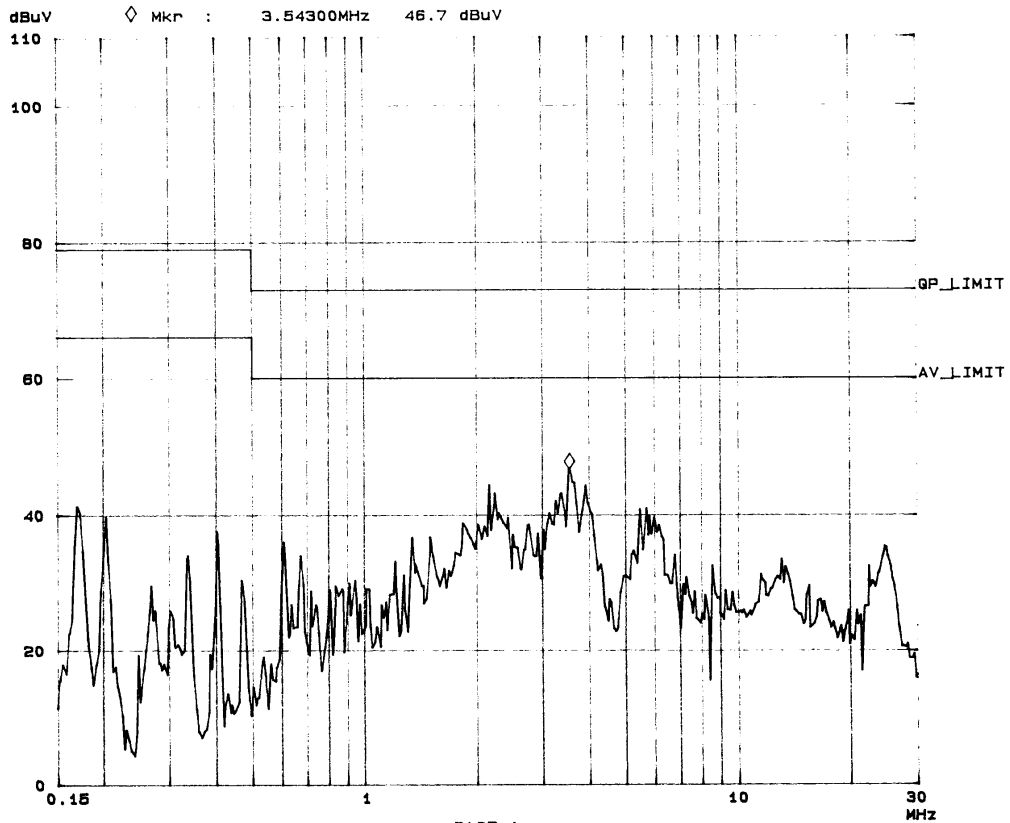
30. Jun 99 18:59

EUT: T2-10DR1
Manuf: FULL SYSTEM
Test Spec: LISN : N
Comment: 230V AC/50Hz

Report No. CE8806212
Page 17-1
Tested by Kuit Chen

Fast Scan Settings (3 Ranges)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150k	450k	3k	10k	PK	0.05ms	10dB	BLN OFF	60dB
450k	5M	3k	10k	PK	0.05ms	10dB	BLN OFF	60dB
5M	30M	3k	10k	PK	0.05ms	10dB	BLN OFF	60dB





5.9 TEST RESULT OF RADIO-FREQUENCY ELECTROMAGNETIC FIELD, PULSE MODULATED

Basic Standard : ENV 50204
Frequency range : 900 +/- 5 MHz
Field strength : 10 V/m
Modulation : 200Hz, Square Wave, 50% Duty Cycle
Dwell Time : 30 second
Polarity of Antenna : Horizontal and Vertical
Test distance : 3 m

Test Result		Remarks
Criterion A	PASS	MODE 1,3 & 3

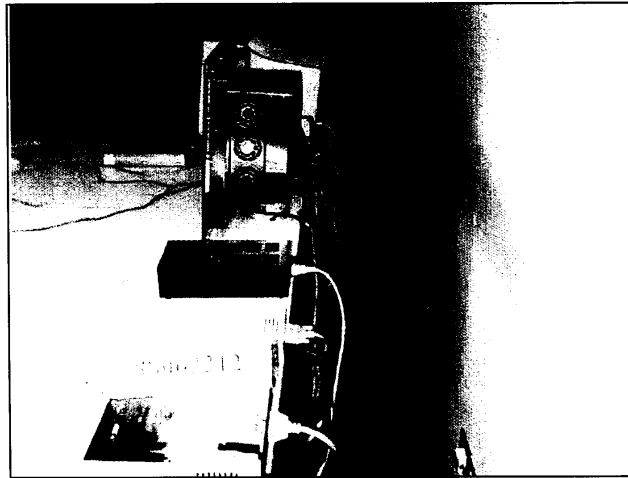
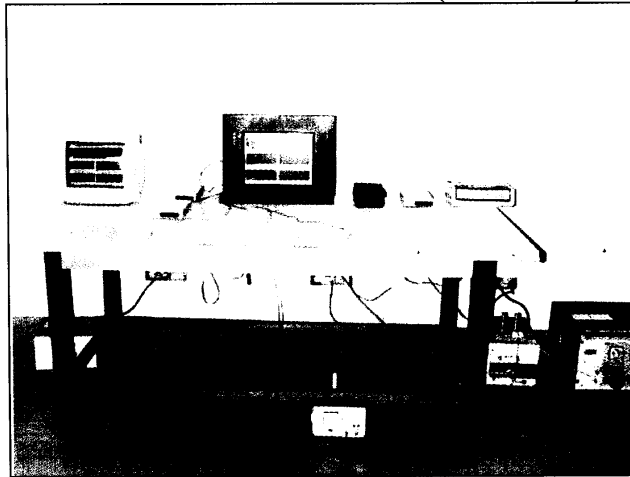
Note: Four sides of EUT are verified separately.

OBSERVATION DESCRIPTION

There was no change compared with initial operation during the test.

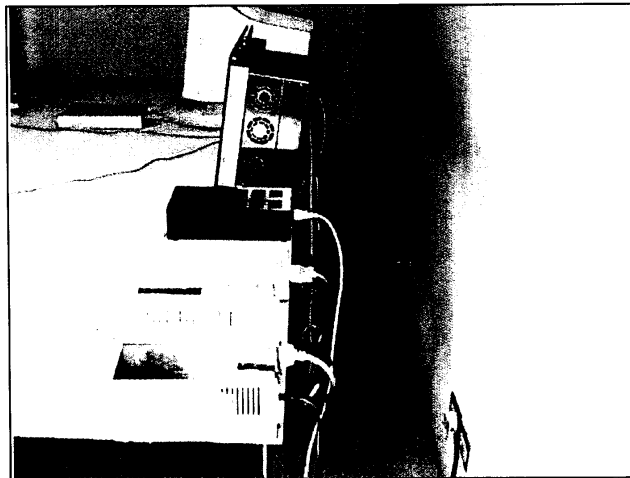
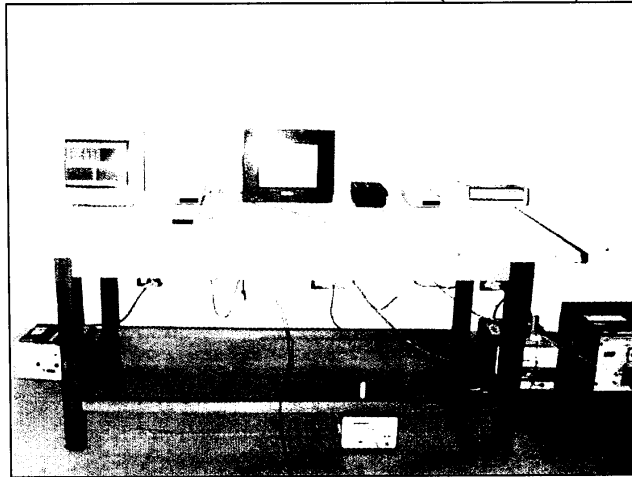


**6. PHOTOGRAPHS OF THE TEST CONFIGURATION
CONDUCTED EMISSION TEST (for mode 1)**



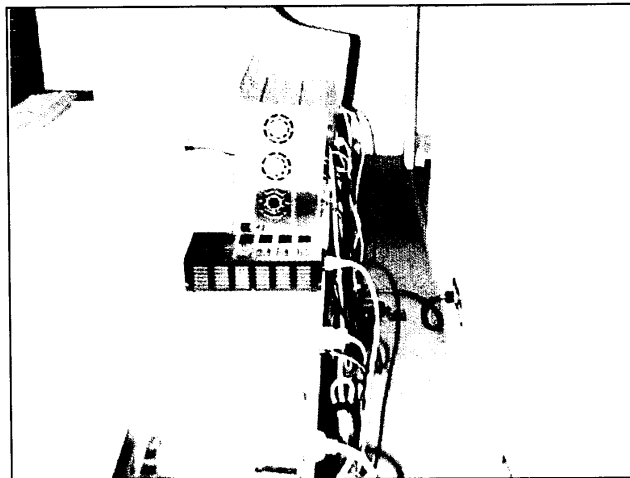
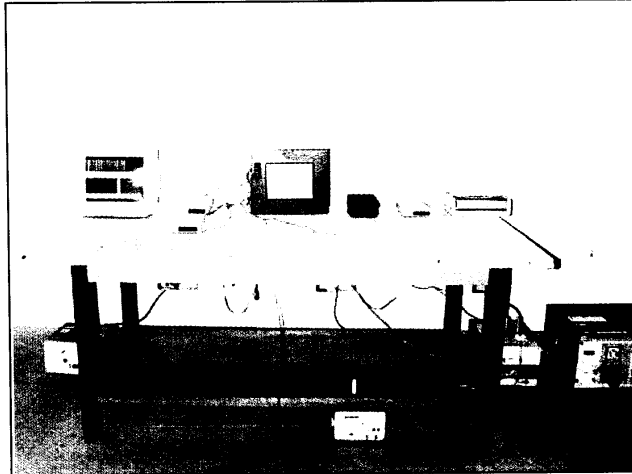


CONDUCTED EMISSION TEST (for mode 2)



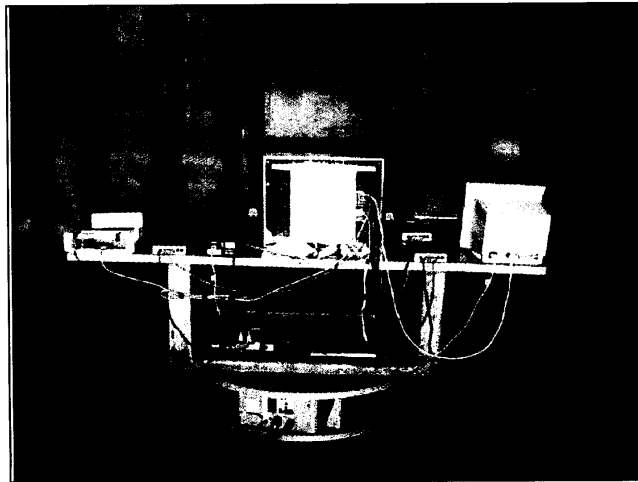
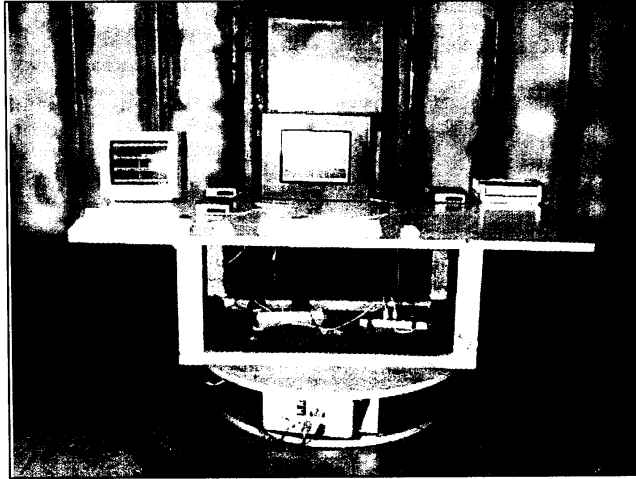


CONDUCTED EMISSION TEST (for mode 3)



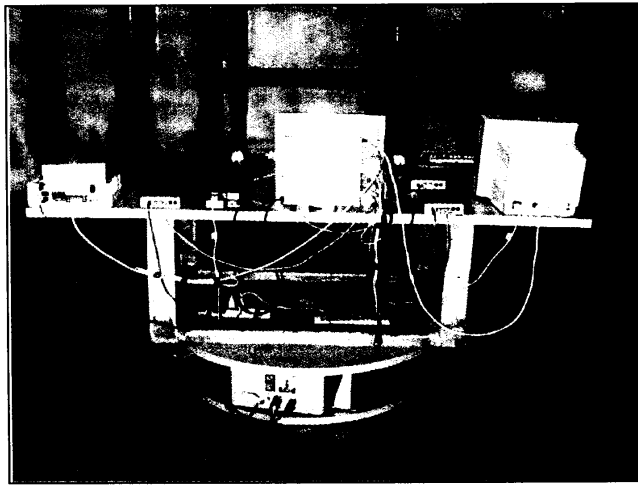
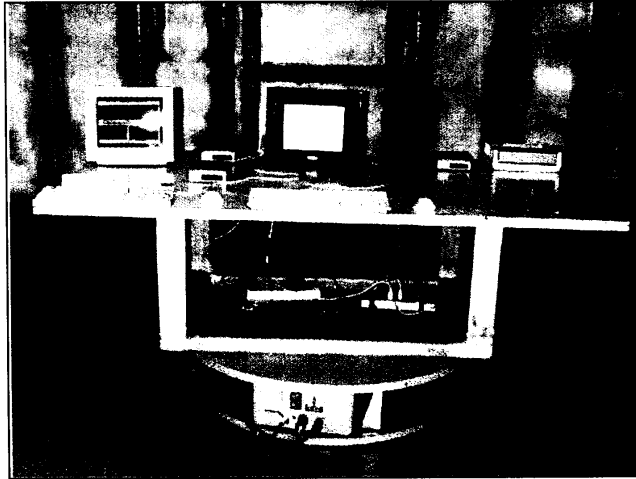


RADIATED EMISSION TEST (for mode 1)



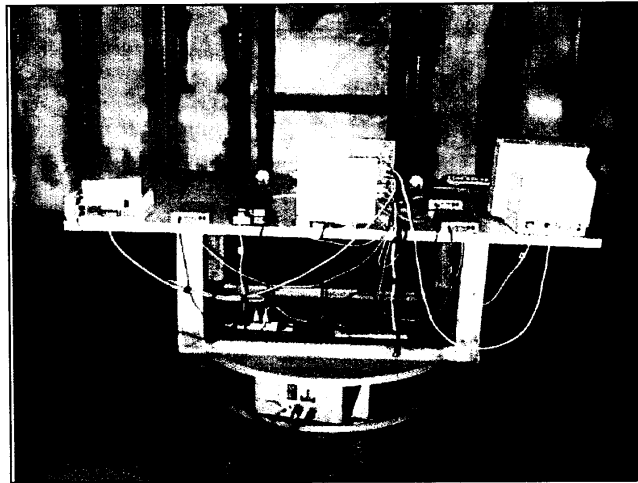
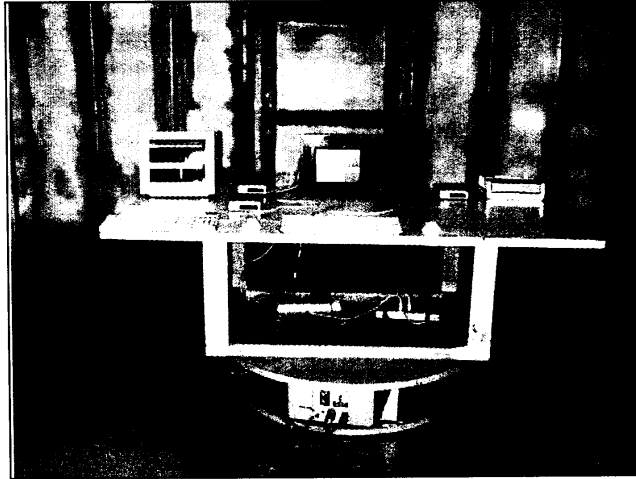


RADIATED EMISSION TEST (for mode 2)



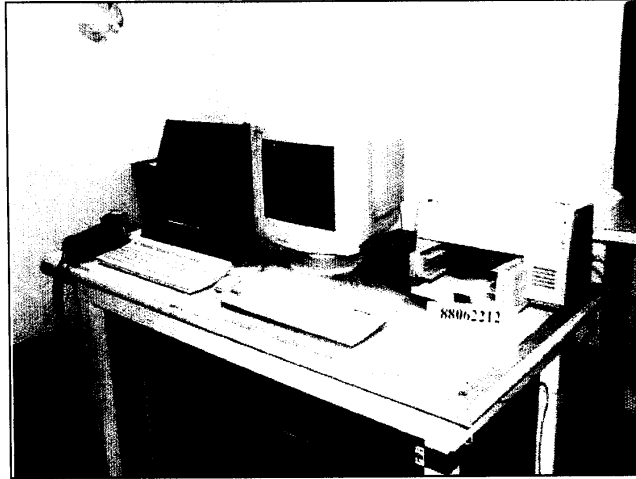


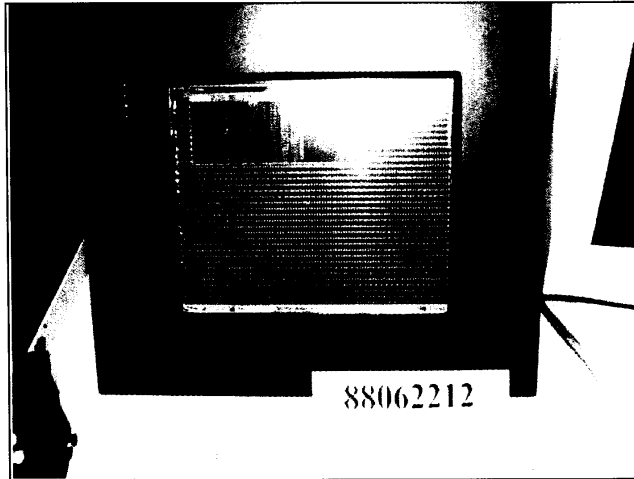
RADIATED EMISSION TEST (for mode 3)





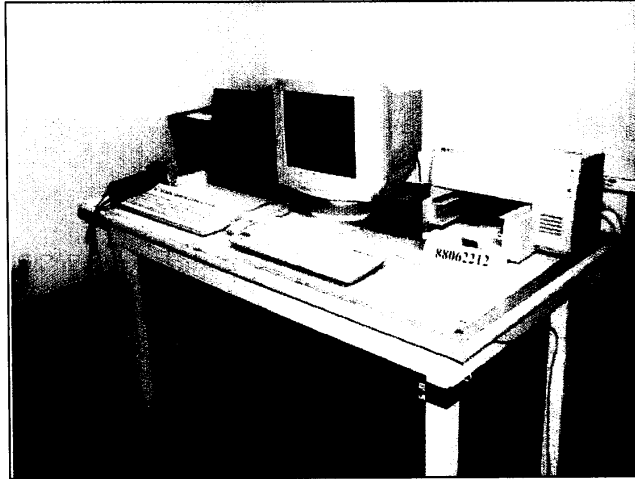
ESD TEST (for mode 1)

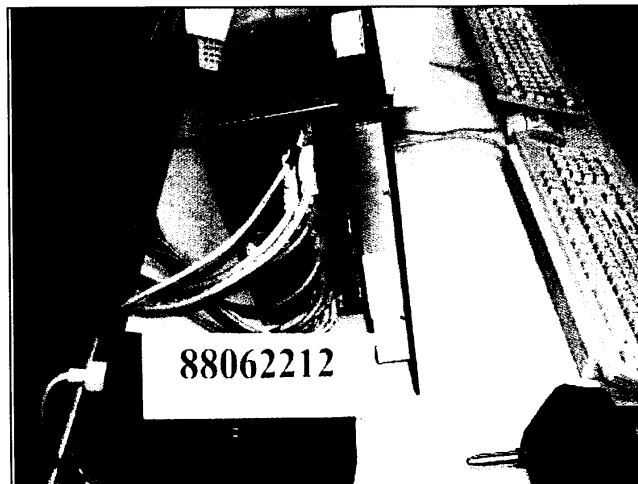
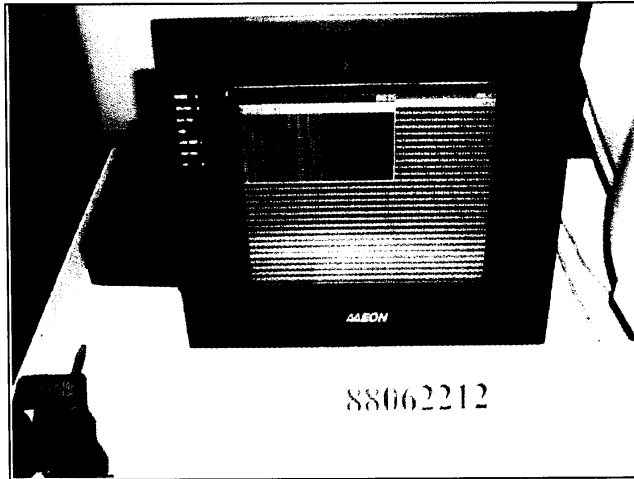






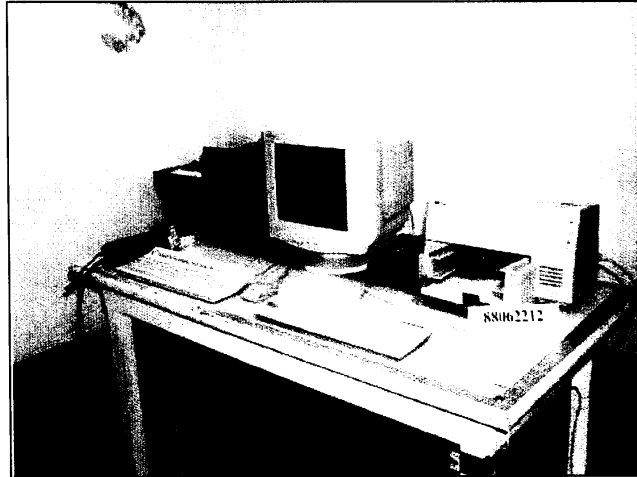
ESD TEST (for mode 2)

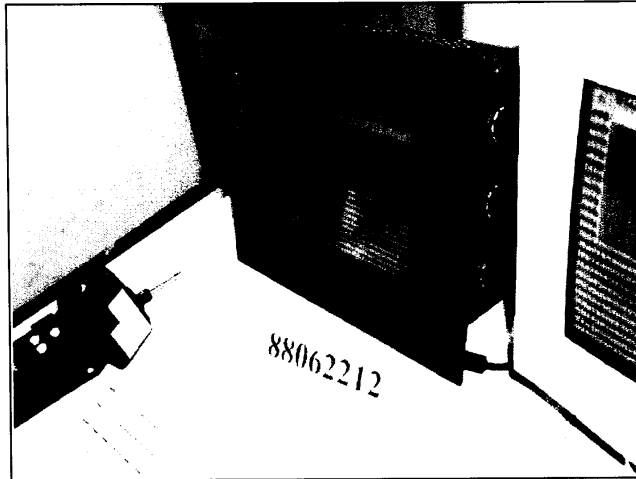






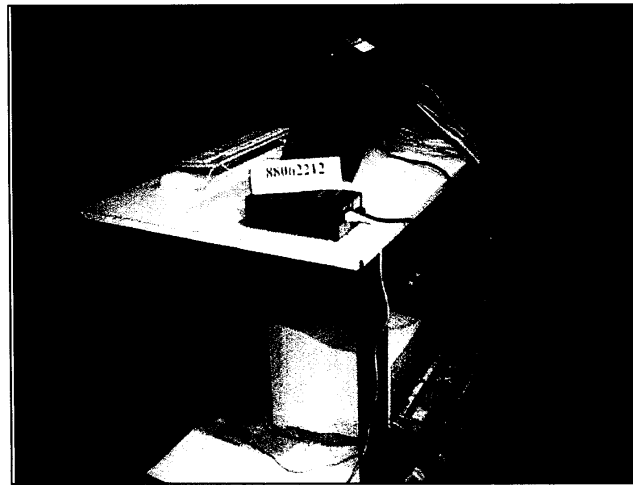
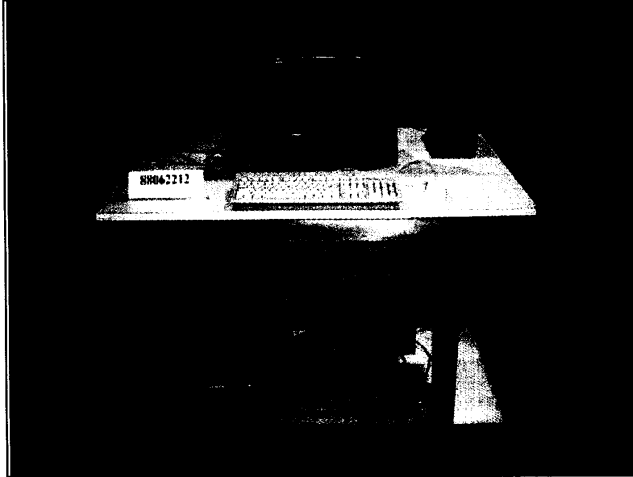
ESD TEST (for mode 3)





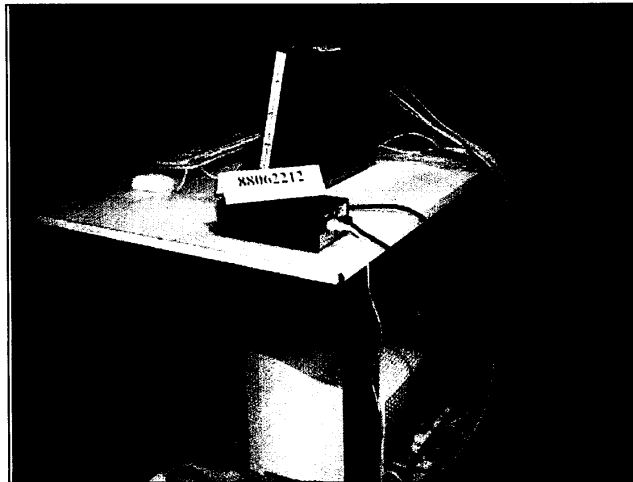


RS TEST & PULSE MODULATION TEST (for mode 1)



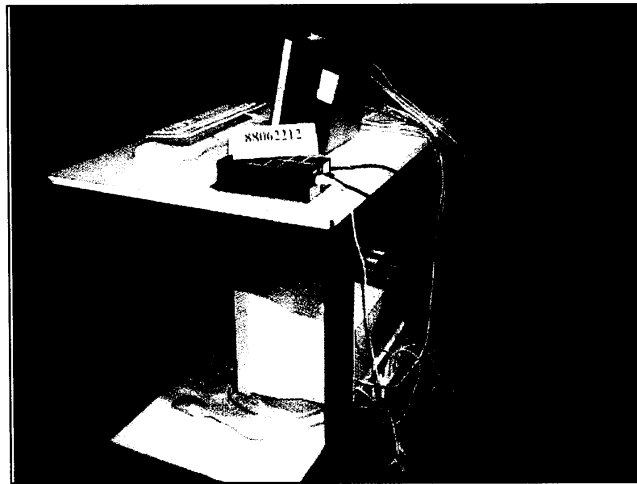


RS TEST & PULSE MODULATION TEST (for mode 2)





RS TEST & PULSE MODULATION TEST (for mode 3)





EFT TEST (for mode 1)



CONDUCTED SUSCEPTIBILITY TEST (for mode 1)

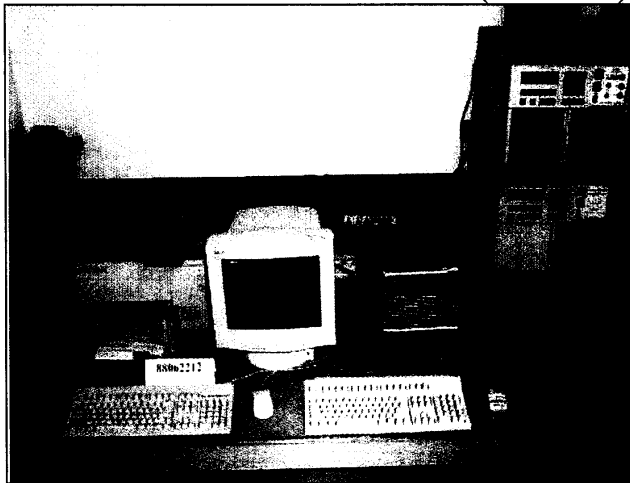




EFT TEST (for mode 2)

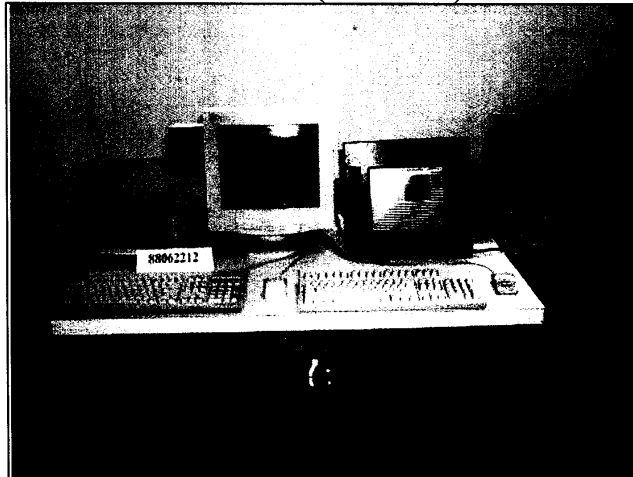


CONDUCTED SUSCEPTIBILITY TEST (for mode 2)





EFT TEST (for mode 3)

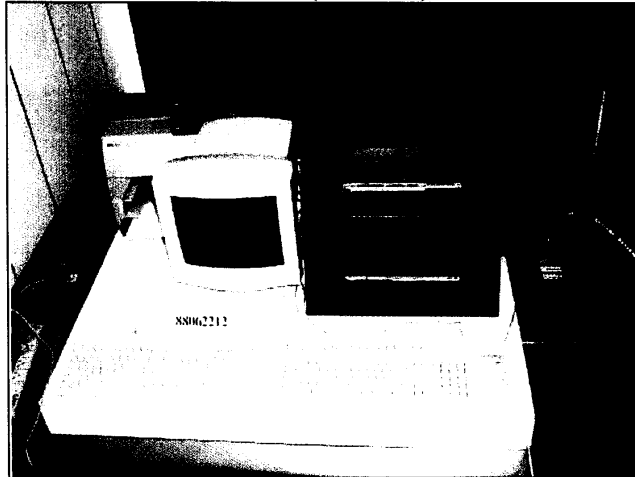


CONDUCTED SUSCEPTIBILITY TEST (for mode 3)

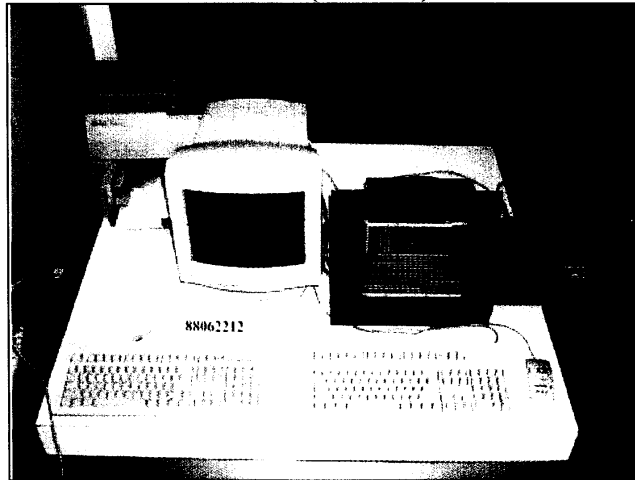




CS TEST (for mode 1)

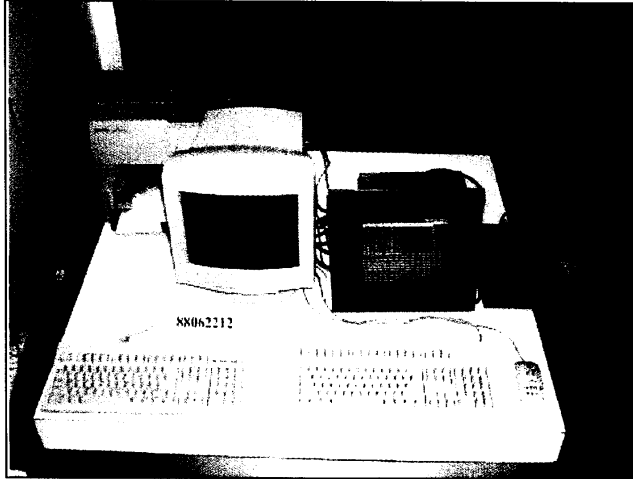


CS TEST (for mode 2)



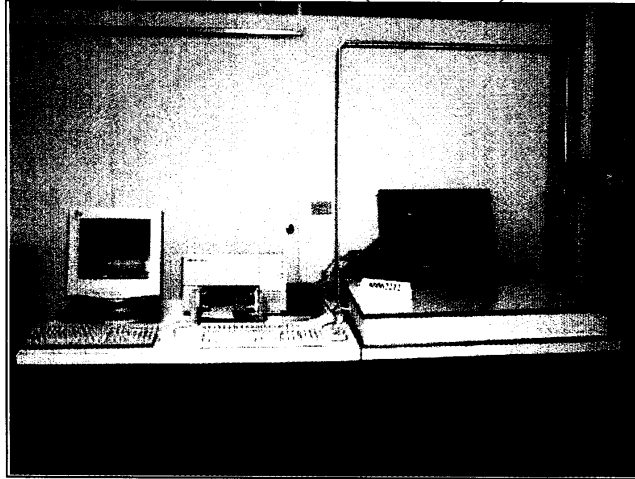


CS TEST (for mode 3)

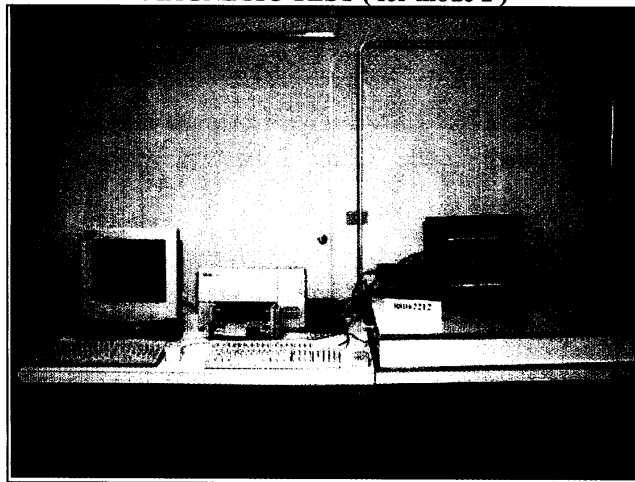




MAGNETIC TEST (for mode 1)

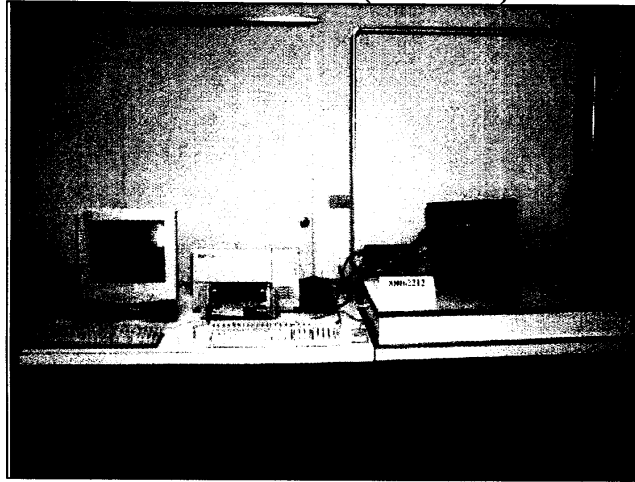


MAGNETIC TEST (for mode 2)



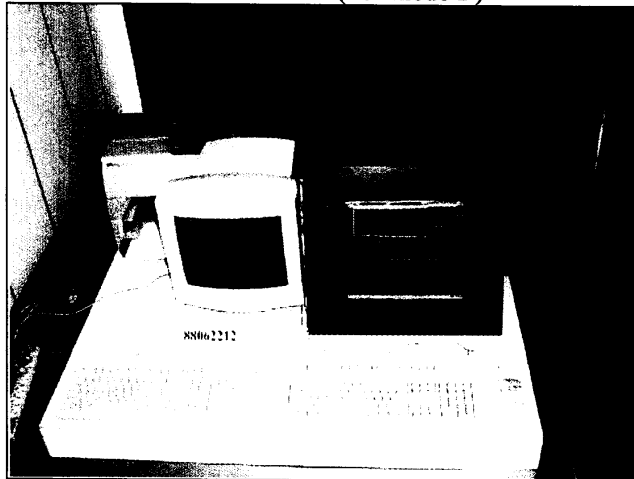


MAGNETIC TEST (for mode 3)





CLAMP TEST (for mode 1)



CLAMP TEST (for mode 2)





CLAMP TEST (for mode 3)





7. APPENDIX - INFORMATION OF THE TESTING LABORATORY

Information of the testing laboratory

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

- | | |
|---------------|--------------------------------------|
| ● USA | FCC, UL, NVLAP |
| ● Germany | TUV Rheinland
TUV Product Service |
| ● Japan | VCCI |
| ● New Zealand | RFS |
| ● Norway | NEMKO, DNV |
| ● U.K. | INCHCAPE, SGS |
| ● R.O.C. | BSMI |

Enclosed please find some certificates of our laboratory obtained from approval agencies. If you have any comments, please feel free to contact us with the following:

Lin Kou EMC Lab.:
Tel: 886-2-26032180
Fax: 886-2-26022943

Hsin Chu EMC Lab:
Tel: 886-35-935343
Fax: 886-35-935342

Lin Kou Safety Lab.:
Tel: 886-2-26093195
Fax: 886-2-26093184

Design Center:
Tel: 886-2-26093195
Fax: 886-2-26093184

E-mail: service@mail.adt.com.tw
<http://www.adt.com.tw>

FEDERAL COMMUNICATIONS COMMISSION
 1435 Oakland Mills Road
 Columbia, MD 21046
 Telephone: 301-725-1588 (toll-free) 301-725-1588
 Facsimile: 301-344-3390
 October 21, 1998

Re: Measurement facility located at above address, Site No. 1
 (3 and 10 meters)


Attention: Hams W. Lai

Re: Measurement facility located at above address, Site No. 1
 (3 and 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,

 Thomas W. Phillips
 Electronics Engineer
 Customer Service Branch

Enclosure:
 PAL, PN

FEDERAL COMMUNICATIONS COMMISSION
 1435 Oakland Mills Road
 Columbia, MD 21046
 Telephone: 301-725-1588 (toll-free) 301-725-1588
 Facsimile: 301-344-3390
 September 15, 1998

Re: Measurement facility located at Lin Kou, Sites 2 & 3
 (3 & 10 meters)


Attention: Hams Lai

Re: Measurement facility located at Lin Kou, Sites 2 & 3
 (3 & 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. An up-to-date list is available on the internet at the FCC Website www.fcc.gov under Electronic Filing.

Sincerely,

 Thomas W. Phillips
 Electronics Engineer
 Customer Service Branch

FEDERAL COMMUNICATIONS COMMISSION
 1435 Oakland Mills Road
 Columbia, MD 21046
 Telephone: 301-725-1588 (toll-free) 301-725-1588
 Facsimile: 301-344-3390
 April 17, 1998

Re: Measurement facility located at above address
 Site No. 4 (3 and 10 meters)


Attention: Hams W. Lai

Re: Measurement facility located at above address
 Site No. 4 (3 and 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,

 Thomas W. Phillips
 Electronics Engineer
 Customer Service Branch

Enclosure:
 PAL, PN

FEDERAL COMMUNICATIONS COMMISSION
 1435 Oakland Mills Road
 Columbia, MD 21046
 Telephone: 301-725-1588 (toll-free) 301-725-1588
 Facsimile: 301-344-3390
 October 21, 1998

Re: Measurement facility located at above address, Site No. 5
 (3 and 10 meters)


Attention: Hams W. Lai

Re: Measurement facility located at above address, Site No. 5
 (3 and 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in conjunction with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the radiated and AC line conducted test site criteria in ANSI C63.4-1992. Please note that this filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been also added to our list of those who perform these measurement services for the public on a fee basis. This list is published periodically and is also available on the Laboratory's Public Access Link as described in the enclosed Public Notice.

Sincerely,

 Thomas W. Phillips
 Electronics Engineer
 Customer Service Branch

Enclosure:
 PAL, PN

FEDERAL COMMUNICATIONS COMMISSION
 1425 Oakland Mills Road
 Columbia, MD 21046
 Telephone: 301-725-1588 (toll-free)
 Facsimile: 301-344-2050
 February 25, 1998

*with file in
31040/SIT
1300P2

Advance Data Technology Corporation
 12F, No. 1, Sec. 4
 Nan-King East Rd.
 Taipei, Taiwan


Attention: Hams W. Lu

Re: Measurement facility located at above address. Site No. 6
 (3 and 10 meters)

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in connection with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the released and AC line conducted test use criteria in ANSI C83.4-1992. Please note that the filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has been added to our list of those who perform these measurement services for the public on a fee basis. This list is updated monthly and is available on the Laboratory's Public Access Link (PAL) at 301-725-1072, and also on the Internet at the FCC Website www.fcc.gov/eis/infotables/teststat/.

Sincerely,

 Thomas W. Phillips
 Electronics Engineer
 Customer Service Branch

FEDERAL COMMUNICATIONS COMMISSION
 1425 Oakland Mills Road
 Columbia, MD 21046
 Telephone: 301-725-1588 (toll-free)
 Facsimile: 301-344-2050
 July 18, 1998

*with file in
31040/SIT
1300P2

Advance Data Technology Corporation
 12F, No. 1, Sec. 4
 Nan-King East Rd.
 Taipei, Taiwan, R.O.C.


Attention: Hams W. Lu

Re: Measurement facility located at Hsin Chu 1 3 & 10 meter site

Gentlemen:

Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in connection with applications for certification or notification under Parts 15 or 18 of the Commission's Rules. Our list will also indicate that the facility complies with the released and AC line conducted test use criteria in ANSI C83.4-1992. Please note that the filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

Per your request, the above mentioned facility has also been added to our list of those who perform these measurement services for the public on a fee basis. An up-to-date list is available on the Internet at the FCC Website www.fcc.gov/eis/infotables/teststat/.

Sincerely,

 Thomas W. Phillips
 Electronics Engineer
 Customer Service Branch

FEDERAL COMMUNICATIONS COMMISSION
 Equipment Authorization Division
 1425 Oakland Mills Road
 Columbia, MD 21046
 December 23, 1998

Registration Number: 92755

Advance Data Technology Corporation
 12F, No. 1, Sec. 4
 Nan-King East Road
 Taipei
 Taiwan, R.O.C.


Attention: Hams Lu

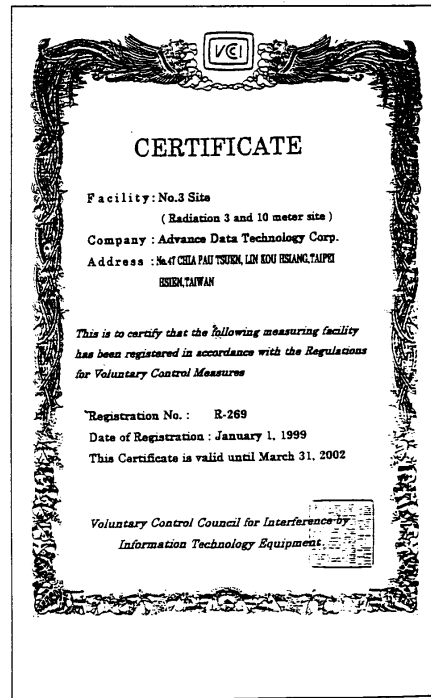
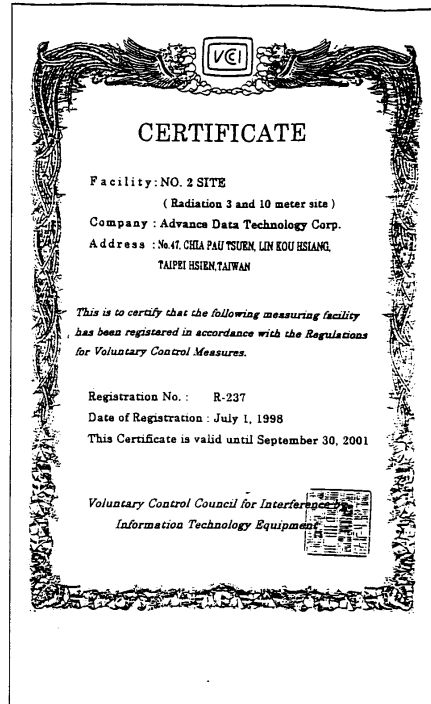
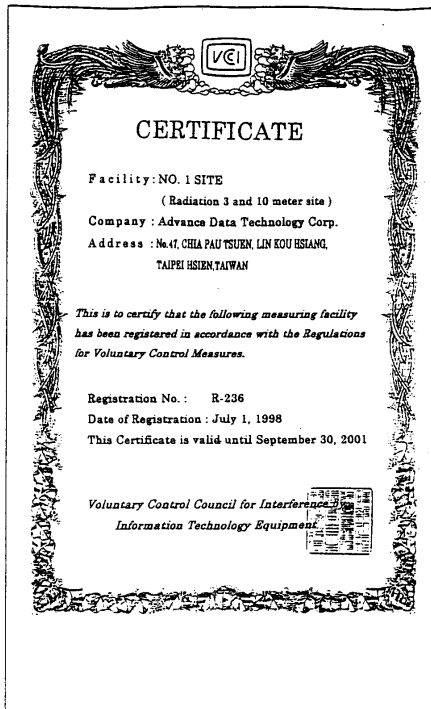
Re: Measurement facility located at Hsin-Chu, Site B
 3 & 10 meter site

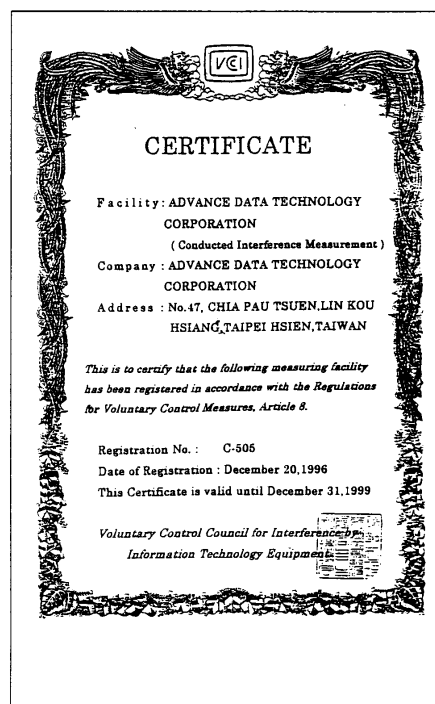
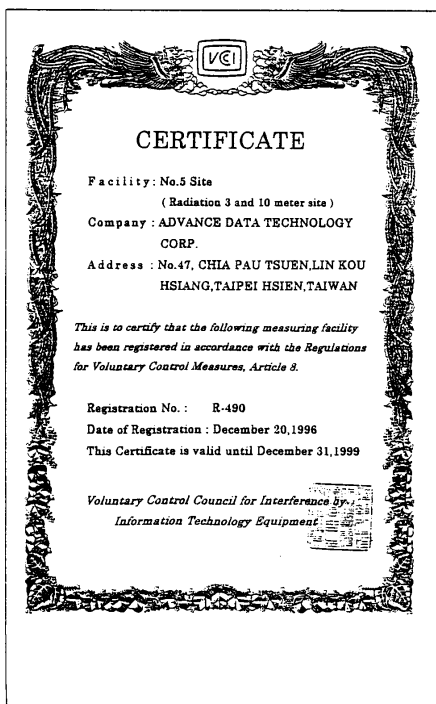
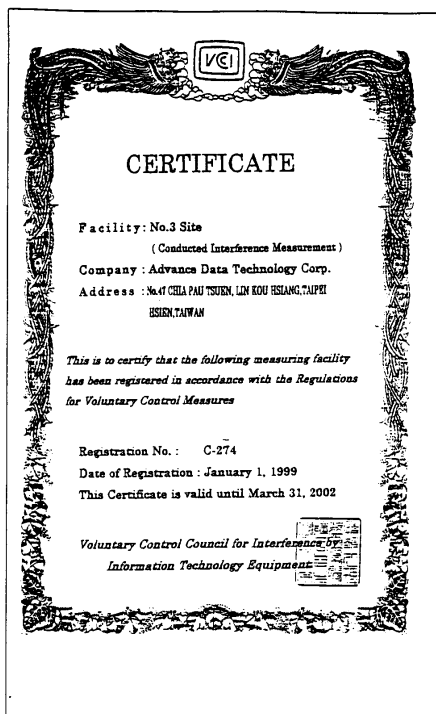
Gentlemen:

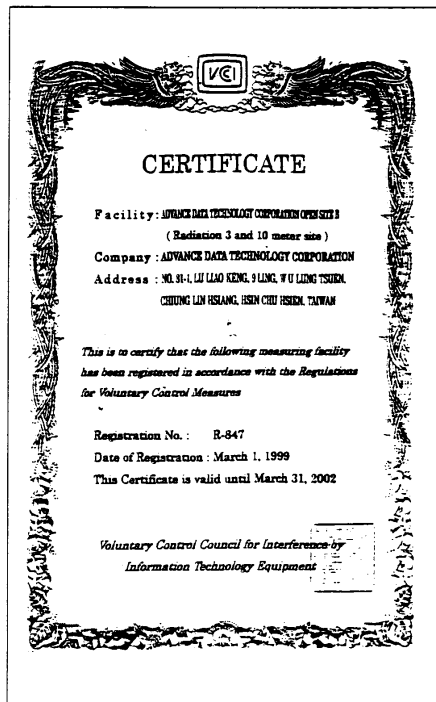
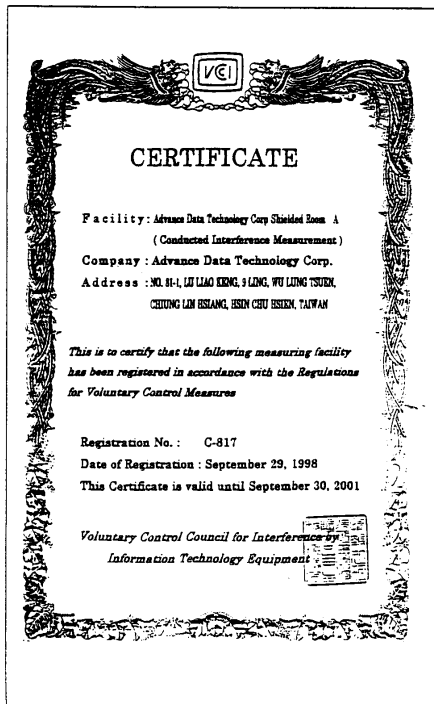
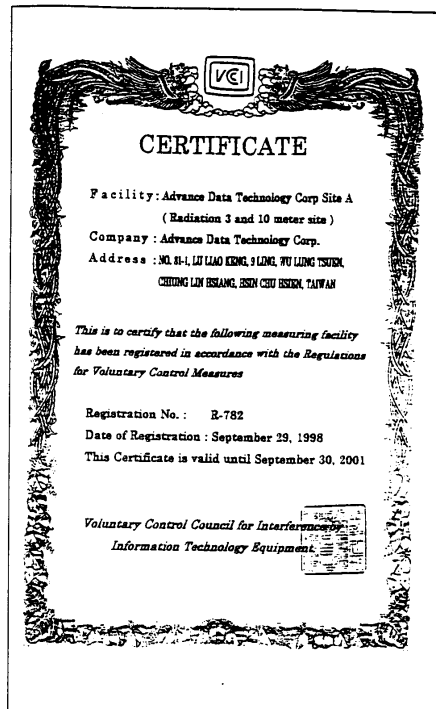
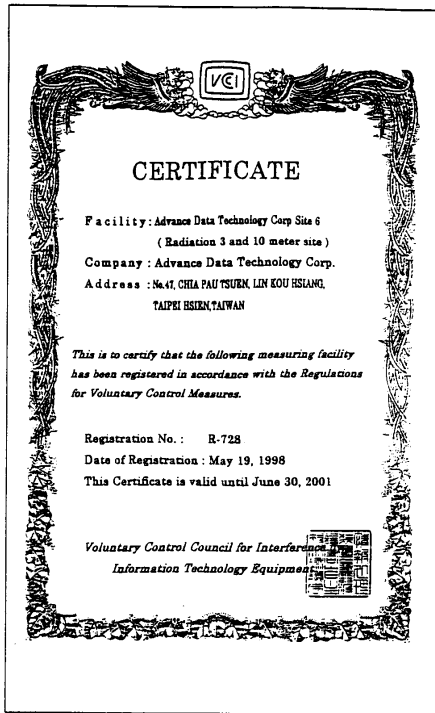
Your submission of the description of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC Rules. The description has, therefore, been placed on file and the name of your organization added to the Commission's list of facilities whose measurement data will be accepted in connection with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that the filing must be updated for any changes made to the facility, and at least every three years the data on file must be certified as current.

If requested, the above mentioned facility has been added to our list of those who perform these measurement services for the public on a fee basis. An up-to-date list of such public test facilities is available on the Internet on the FCC Website at www.fcc.gov/eis/infotables/teststat/.

Sincerely,

 Thomas W. Phillips
 Electronics Engineer







Nemko Worldwide Testing and Certification ELA 4

**EMC Laboratory
Authorization**
Aut. No.: ELA 112

EMC Laboratory: ADT Advance Data Technology Corporation
No. 47, 14 Liang, Chia Pse Tsean,
Lin Kou Hsiang, Taipei Hsien,
Taiwan R.O.C.

Scope of Authorization: All CENELEC standards (ENs) for EMC that are listed on the accompanying page, and, all of the corresponding CISPR, IEC, and ISO EMC standards that are listed on the accompanying page.

This Authorization Document confirms that the above mentioned EMC Laboratory has been validated against EN 45001 and found to be compliant. The laboratory also fulfills the conditions described in Nemko Document ELA 10. During Nemko's visit to the laboratory on 9. October 1996, an assessment was made of the relevant parts of your organization: i.e. facilities, personnel qualifications, test equipment, and testing practices. It was found that the EMC Laboratory is capable of performing tests within the Scope of Authorization given on the accompanying page. Accordingly, Nemko will accept your test reports as a basis for assessing conformity to these EMC Standards for the products in question under either the European Union EMC Directive or the European Union Automotive EMC Directive (as applicable).

In case of applications for Product Certifications to be issued by Nemko, your EMC Laboratory's test reports will be accepted by Nemko if they are enclosed with the Application Form submitted by the manufacturer.

In order to maintain the Authorization, the information given in the enclosed ELA-INFOs (if any) must be carefully followed. Nemko is to be promptly notified about any changes in the situation at your EMC Laboratory which may affect the basis for this authorization. The Authorization may at any time be withdrawn if the conditions are no longer considered to be fulfilled.

The Authorization is valid through February 28, 1999.

Oslo, 13 March 1998
For Nemko AS:
Kjell Bergh
Kjell Bergh, Head of EMC Section

Postal address: P.O. Box 90, 0403 Oslo, Norway
Telephone: +47 22 00 00 00
Fax: +47 22 00 00 00

Nemko Worldwide Testing and Certification ELA 4

EMC Laboratory Authorisation
Aut. No.: ELA 112
(Page 2 of 2)

SCOPE OF AUTHORIZATION

GENERIC & PRODUCT-FAMILY STANDARDS

EN 50081-1, EN 50081-2	EN 50087-1, EN 50087-2	EN 55011, Gr. 1, CISPR 11
EN 55012, CISPR 13	EN 55014-1, CISPR 14-1	EN 55015, CISPR 15
EN 55022	EN 60555-2, IEC 355-2, EN 61000-2-2, IEC 61000-2-2	EN 60555-3, IEC 355-3, EN 61000-3-2, IEC 61000-3-2

BASIC STANDARDS

EN 61000-4-2, IEC 61000-4-2, IEC 301-2	EN 61000-4-3, ENV 50140, ENV 50204, IEC 61000-4-3, IEC 301-3	EN 61000-4-4, IEC 61000-4-4, IEC 301-4
EN 61000-4-5, IEC 61000-4-5	EN 61000-4-6, ENV 50141, IEC 61000-4-6	EN 61000-4-8, IEC 61000-4-8
EN 61000-4-11, IEC 61000-4-11		

Oslo, 13 March 1998
Kjell Bergh
Kjell Bergh, Nemko EMC Services

Postal address: P.O. Box 90, 0403 Oslo, Norway
Telephone: +47 22 00 00 00
Fax: +47 22 00 00 00

Nemko World-wide Testing and Certification ELA 4

**EMC Laboratory
Authorization**
Aut. No.: ELA 112-b
Hsin Cha EMC Laboratory

EMC Laboratory: ADT Advance Data Technology Corporation
Hsin Cha EMC Laboratory
No. 81-1, La Liao Kang, 9 Liang,
Wu Lang Tsean, Chiang Lin Hsiang,
Hsin Cha Hsien, Taiwan R.O.C.

Scope of Authorization: All CENELEC standards (ENs) for EMC that are listed on the accompanying page, and, all of the corresponding CISPR, IEC, and ISO EMC standards that are listed on the accompanying page.

This Authorization Document confirms that the above mentioned EMC Laboratory has been validated against EN 45001 and found to be compliant. The laboratory also fulfills the conditions described in Nemko Document ELA 10. Based on submitted material, an assessment has been made of the relevant parts of your organization: i.e. facilities, personnel qualifications, test equipment, and testing practices. It was found that the EMC Laboratory is capable of performing tests within the Scope of Authorization given on the accompanying page. Accordingly, Nemko will accept your test reports as a basis for assessing conformity to these EMC Standards for the products in question under the European Union EMC Directive.

In case of applications for Product Certifications to be issued by Nemko, your EMC Laboratory's test reports will be accepted by Nemko if they are enclosed with the Application Form submitted by the manufacturer.

In order to maintain the Authorization, the information given in the enclosed ELA-INFOs (if any) must be carefully followed. Nemko is to be promptly notified about any changes in the situation at your EMC Laboratory which may affect the basis for this Authorization. The Authorization may at any time be withdrawn if the conditions are no longer considered to be fulfilled.

The Authorization is valid through February 28, 1999.

Oslo, 15 December 1998
For Nemko AS:
Kjell Bergh
Kjell Bergh, Head of EMC Section

Postal address: P.O. Box 90, 0403 Oslo, Norway
Telephone: +47 22 00 00 00
Fax: +47 22 00 00 00

Nemko World-wide Testing and Certification ELA 4

EMC Laboratory Authorisation
Aut. No.: ELA 112-b
Hsin Cha EMC Laboratory
(Page 2 of 2)

SCOPE OF AUTHORIZATION

GENERIC & PRODUCT-FAMILY STANDARDS


EN 50081-1, EN 50081-2	EN 50087-1, EN 50087-2	EN 55011, Gr. 1, CISPR 11
EN 55014-1, CISPR 14-1	EN 55014-2, CISPR 14-2	EN 55022, CISPR 22
EN 55024, CISPR 24	EN 60555-2, IEC 355-2, EN 61000-2-2, IEC 61000-2-2	EN 60555-3, IEC 355-3, EN 61000-3-2, IEC 61000-3-2

BASIC STANDARDS

EN 61000-4-2, IEC 61000-4-2, IEC 301-2	EN 61000-4-3, IEC 61000-4-3, ENV 50204	EN 61000-4-4, IEC 61000-4-4, IEC 301-4
EN 61000-4-5, IEC 61000-4-5	EN 61000-4-6, ENV 50141, IEC 61000-4-6	EN 61000-4-8, IEC 61000-4-8
EN 61000-4-11, IEC 61000-4-11		

Oslo, 15 December 1998
Kjell Bergh
Kjell Bergh, Nemko EMC Services

Postal address: P.O. Box 90, 0403 Oslo, Norway
Telephone: +47 22 00 00 00
Fax: +47 22 00 00 00



 National Institute of Standards and Technology
 National Voluntary Laboratory Accreditation Program


ISO/IEC GUIDE 25:1990
 ISO 9002:1987
 Scope of Accreditation

Page 1 of 1

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
NVLAP LAB CODE 206102-4


ADVANCE DATA TECHNOLOGY CORPORATION
 No. 47, 14 Limg, Chia Pui Tsuen,
 Liu Kuo Hsiang
 Taipei Hsien
 TAIWAN
 Mr. Harris W. Lu
 Phone: 886-2-6032180 Fax: 886-2-6022943

NVLAP Code Description / Description
 International Special Committee on Radio Interference (CISPR) Methods
 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
 Federal Communications Commission (FCC) Methods
 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
 12/F01b Radiated Emissions
 Australian Standards referred to by clauses in AUSTEL Technical Standards
 12/T51 AS/NZS 3548: Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment

December 31, 1999

 Director

NVLAP 015-111-20

United States Department of Commerce
 National Institute of Standards and Technology

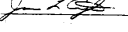


ISO/IEC GUIDE 25:1990
 ISO 9002:1987
 Certificate of Accreditation


ADVANCE DATA TECHNOLOGY CORPORATION
 TAIWAN

It is recognized under the National Voluntary Laboratory Accreditation Program that the calibration competence of this laboratory is established in Table 1, Part 2B.1 of the Code of Federal Regulations. These criteria require the compliance with the requirements of 15 CFR, 900.12, and the relevant requirements of ISO 9002:1987, ISO 17025:1999, and the relevant requirements of the International Organization for Standardization. Accreditation is awarded for the services listed on the Scope of Accreditation.

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
 FCC

December 31, 1999

 Director

NVLAP Lab Code 206102-4



 National Institute of Standards and Technology
 National Voluntary Laboratory Accreditation Program


ISO/IEC GUIDE 25:1990
 ISO 9002:1987
 Scope of Accreditation

Page 1 of 1

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
NVLAP LAB CODE 206376-0


ADVANCE DATA TECHNOLOGY CORPORATION HSIIN CHU EMC LABORATORY
 No. 31-1, Lu Liao Kang, 9 Limg, Wu Liang
 Tamsui, Changin Liu Hsiang
 Hsin Chu Hsien
 TAIWAN
 Mr. Harris Lu
 Phone: 886-2-26032180 Fax: 886-2-26022943
 E-Mail: harris@mail.adt.com.tw

NVLAP Code Description / Description
 International Special Committee on Radio Interference (CISPR) Methods
 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
 Federal Communications Commission (FCC) Methods
 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
 12/F01b Radiated Emissions
 Australian Standards referred to by clauses in ACA Technical Standards
 12/T51 AS/NZS 3548: Electromagnetic Interference - Limits and Methods of Measurement of Information Technology Equipment

March 31, 2000

 Director

NVLAP 015-111-20

United States Department of Commerce
 National Institute of Standards and Technology

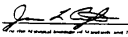


ISO/IEC GUIDE 25:1990
 ISO 9002:1987
 Certificate of Accreditation


ADVANCE DATA TECHNOLOGY CORPORATION HSIIN CHU EMC LABORATORY
 HSIIN CHU HSIEN
 TAIWAN

It is recognized under the National Voluntary Laboratory Accreditation Program that the calibration competence of this laboratory is established in Table 1, Part 2B.1 of the Code of Federal Regulations. These criteria require the compliance with the requirements of 15 CFR, 900.12, and the relevant requirements of ISO 9002:1987, ISO 17025:1999, and the relevant requirements of the International Organization for Standardization. Accreditation is awarded for the services listed on the Scope of Accreditation.

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS
 FCC

March 31, 2000

 Director

NVLAP Lab Code 206376-0



DET NORSKE VERITAS

STATEMENT OF RECOGNITION

STATEMENT No. 413 - 99 - LAB12
The statement consists of 3 pages

This is to certify that the
EMC AND SAFETY LABORATORIES


under
ADT

The main office with legal identity
**ADT Corporation, No. 47, 14 Ling, Chiapas Town,
Lia Kou Hsiang, Taipei Hsien, Taiwan, R.O.C.**

*has been found in conformity with the requirements of DNV towards subcontractors of EMC
and Safety testing services in conjunction with the EMC and Low Voltage Directives and in
the necessary field.*


The acceptance is based on a formal Quality Audit and follow-ups according to relevant parts of
EN 45001 and ISO/IEC Guide 23, in accordance with the requirements of the DNV Laboratory
Quality Manual towards subcontractors.

Place and date
Havik, 23 February, 1999
Ste Ole, Norske Veritas AS
(Notified Body no. 3754/94)




Auditors
Head of Section


This Statement is valid until
23 February, 2000



Lead Auditor



DET NORSKE VERITAS AS
Postboks 25, 2007
Haugesund, Norway
T: +47 51 95 00 00
F: +47 51 95 00 00
Page 1 of 3



Statement No. 413 - 99 - LAB12

Audit information

Issued on:

- Date of Audit: 1998-11-18 and 1998-11-19
- Issued Audit Report: 1998-11-22
- Closing of Non-conformances: 99-02-12

Site Address

Lia Kou EMC Laboratory:
No. 47, 14 Ling, Chiapas Town, Lia Kou Hsiang, Taipei Hsien, Taiwan, R.O.C.

Hsin Chu EMC Laboratory:
No. 41-1, Lu-Lin Kong, Y-Ling, Wu-Lung Town, Chiung-Lin Hsiang, Hsin-Chu Hsien,
Taiwan, R.O.C.

Lia Kou Safety Laboratory:
No. 46, Lane 204, Chung-Hsiao Road, Lia Kou Hsiang, Taipei, Taiwan, R.O.C.

Scope of recognition

EMC testing according to the following standards:


- EN 50081-1/-2
- EN 50082-1/-2
- EN 55011 / CISPR 11
- EN 55013 / CISPR 13
- EN 55014-1/-2 / CISPR 14-1/-2
- EN 55015 / CISPR 15
- EN 55022 / CISPR 22
- EN 61000-2-2 / IEC 1000-2-2 / EN 60555-2 / IEC 555-2
- EN 61000-3-2 / IEC 1000-3-2 / EN 60555-3 / IEC 555-3
- EN 61000-3-3 / IEC 1000-3-3 / EN 50140 / IEC 501-3
- EN 61000-4-2 / IEC 1000-4-2 / IEC 301-2
- EN 61000-4-3 / IEC 1000-4-3 / EN 50140 / IEC 301-3
- EN 61000-4-4 / IEC 1000-4-4 / IEC 301-4
- EN 61000-5-2 / IEC 1000-5-2 / EN 50142
- EN 61000-6-2 / IEC 1000-6-2 / EN 50141
- EN 61000-4-1 / IEC 1000-4-1
- EN 61000-11 / IEC 1000-11

Safety testing according to the following standards:


- EN 60950 / IEC 95
- EN 60950 / IEC 950

Applications/Limitations

Testing of single- and three phase systems



DET NORSKE VERITAS AS
Postboks 25, 2007
Haugesund, Norway
T: +47 51 95 00 00
F: +47 51 95 00 00
Page 2 of 3



COMMERCE

MINISTRY OF COMMERCE
Te Whiriwhiri

ENG 39
AUD

5th January 1999

Advance Data Technology Corporation
No. 47
14 Ling
Chiapas Town
Lia Kou Hsiang
Taiwan
R.O.C.

Attention: Ms Sharon Hsiung

Dear Ms Hsiung


LABORATORY APPROVAL

Thank you for your submission of 5th January regarding the re-certification of your testing laboratory to the Ministry of Commerce's laboratory approval criteria.

I am pleased to advise that your submission has been successful and your approval has been extended until 20th June 1999. At that time, the Approved Laboratory scheme will cease operation with the implementation of the new telecommunications regulations. Test reports from your laboratory will be accepted under the new framework. Please find enclosed a copy of the Ministry's discussion paper, DP10, outlining the proposed compliance process from 1 January 1999.

If you have any further questions on this matter please do not hesitate to contact me.

Yours faithfully



Shaun Emmett

Technical Officer (Regulatory)
e-mail: shaun.emmett@comoc.govt.nz

RADIO SPECTRUM MANAGEMENT GROUP

Communications and Public Management Branch, Level 6, 225, Te Whariki Street, Wellington, New Zealand
P.O. Box 1042, Te Whariki, Wellington 6142, New Zealand



Certificate of Assessment

This is to Certify

That **ADVANCE DATA TECHNOLOGY CORP.**

Has been approved as a supplier of

"EMC TESTING SERVICES"

and in particular for specifications implemented by

The EC DIRECTIVE on EMC

SGS EMC SERVICES

in accordance with


SGS Laboratory Approval Scheme

The scope of approval is detailed in the

Schedule of Assessment

SGS EMC Services
South East East
Bancroft
Co Durham
DNV 540
UNITED KINGDOM

Issued For and on behalf of
SGS EMC Services
J.E. WEALEY
General Manager
Date: 02/01/99


TUV Rheinland

Technischer Überwachungs-Verein Rheinland
Certificate
 of
Appointment
 No. I-9763928-9707

The applicant:
Advance Data Technology (ADT) Corporation
 No. 47, 14 Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien,
 Taiwan, R.O.C.


has been authorized to carry out EMC tests by order and under supervision of
 TUV Rheinland according to


CISPR16, EN 55 011:1991, EN 55 014:1993, EN 55 015:1993, EN 55 022:1994/A1,
 EN 55 104:1995, EN 68 525-2:1987, EN 61 000-3-1:1995, EN 61 000-3-3:1995,
 EN 50 081-1:1992, EN 50 082-1:1992, EN 50 081-2:1993, EN 50 082-2:1995,
 IEC 801-2:1991, IEC 801-3:1984, IEC 801-4:1988, IEC 801-5:1990, EN 61 000-4-2:1995,
 EN 50 148:1993, EN 50 141:1993, IEC 1 000-4-3:1995, EN 61 000-4-1:1995,
 EN 61 000-4-5:1995, EN 61 000-4-2:1993, EN 61 000-4-1:1994, EN 60 601-1-2:1993

An inspection of the facility was conducted according to the Document
 "Approval of Test Site" with reference to EN 45 001 by a TUV Rheinland inspector.

Audit Report No. P 9763928E01, Rev. A
 This certificate is valid until the next scheduled inspection or up to 15 month,
 at the discretion of TUV Rheinland.

TUV Rheinland Taiwan Ltd.
 Taipei, 16.07.1997


 Dipl.-Ing. U. Lubken
 Vice General Manager
 Product Safety Department


 Dipl.-Ing. U. Meyer
 Auditor

The conditions of the Terms and Conditions Regulations are an integral part of this certificate.


TUV Rheinland

Technischer Überwachungs-Verein Rheinland
Certificate
 of
Appointment
 No. I-9665711-9905

The applicant:
Advance Data Technology (ADT) Corporation
 Hsin Chu EMC Laboratory
 No. 81-1, Lu Liao Kang, 3 Ling, Wu Lung Tsuen, Chung Lin Hsiang,
 Hsin Chu Hsien, Taiwan, R.O.C.


has been authorized to carry out EMC tests by order and under supervision of
 TUV Rheinland according to

EN 55 011:1991, EN 55 014:1993, EN 55 015:1993, EN 55 022:1994/A1/A2
 EN 55 014-2:1997, EN 68 525-2:1987, EN 61 000-3-1:1995, EN 61 000-3-3:1995
 EN 50 081-1:1992, EN 50 082-1:1992, EN 50 081-2:1993, EN 50 082-2:1995
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 EN 50 148:1993, EN 50 141:1993, IEC 1 000-4-3:1995, EN 61 000-4-1:1995
 EN 61 000-4-5:1995, EN 61 000-4-2:1993, EN 61 000-4-1:1994, EN 60 601-1-2:1993

An inspection of the facility was conducted according to the Document
 "Approval of Test Site" with reference to EN 45 001 by a TUV Rheinland inspector.

Audit Report No. P 9665711E01, Rev. -
 This certificate is valid until the next scheduled inspection or up to 15 month,
 at the discretion of TUV Rheinland.

TUV Rheinland Taiwan Ltd.
 Taipei, 15. May 1998


 Dipl.-Ing. A. Klinke

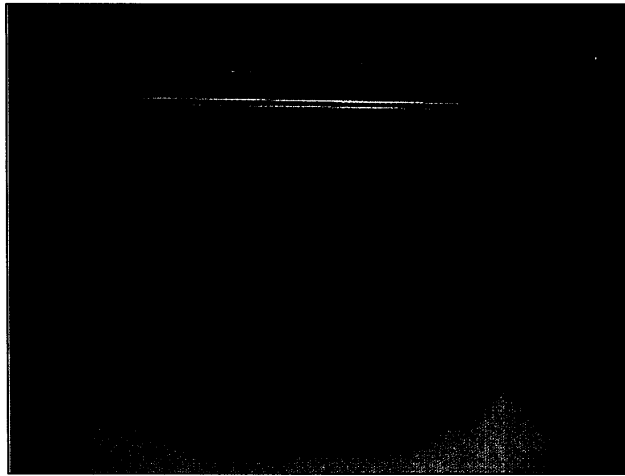
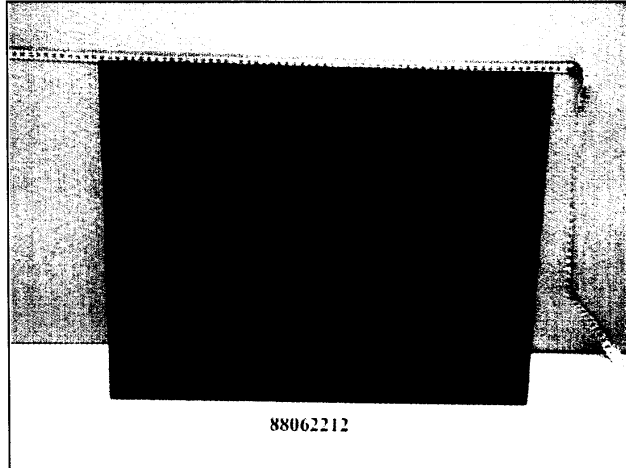

 Dipl.-Ing. R. Charbon
 Auditor

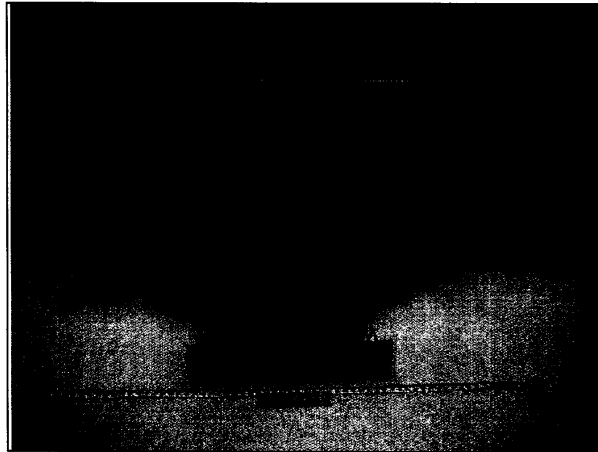
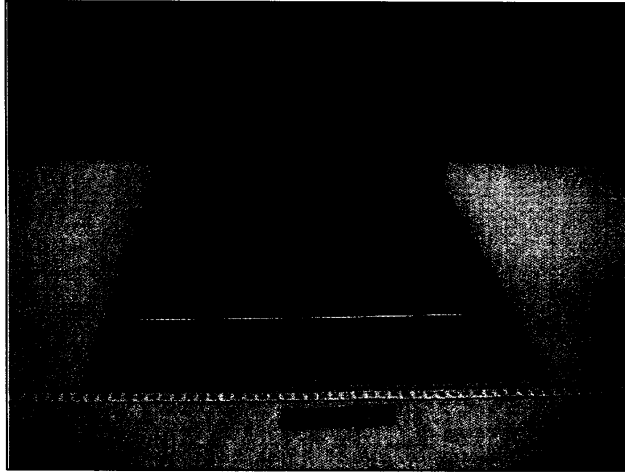


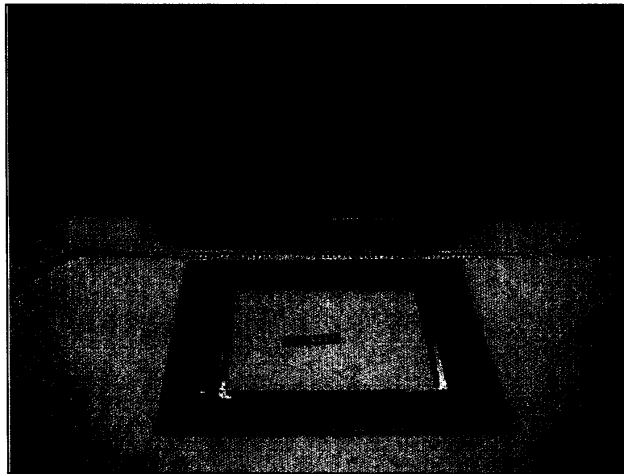
EXHIBIT 3
CONSTRUCTION PHOTOS OF EUT

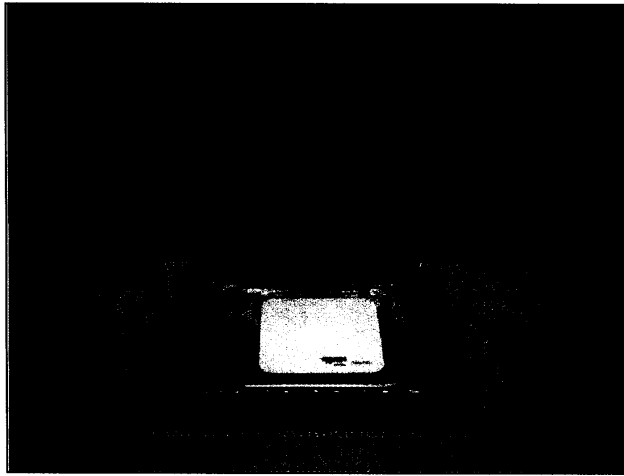
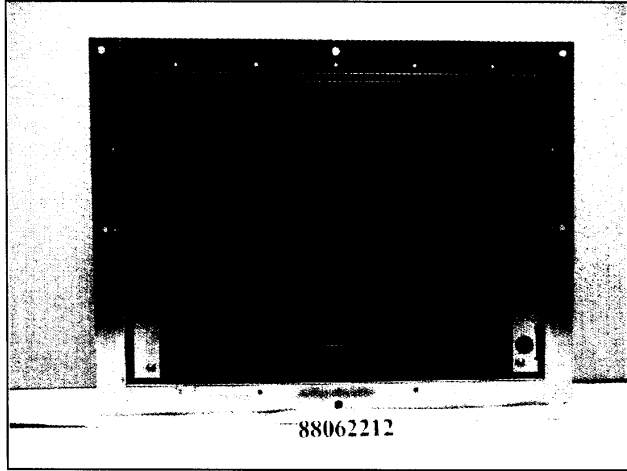


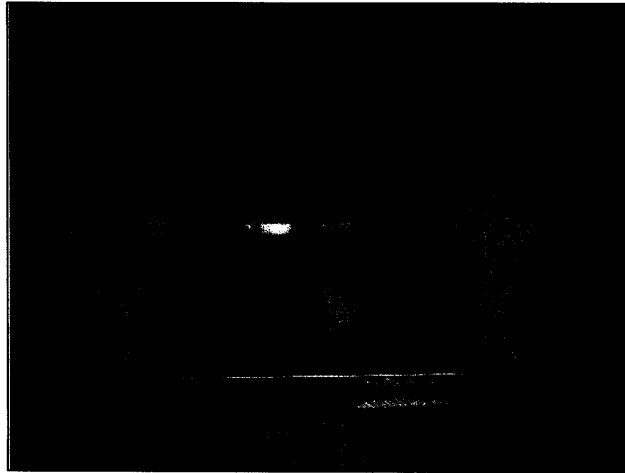
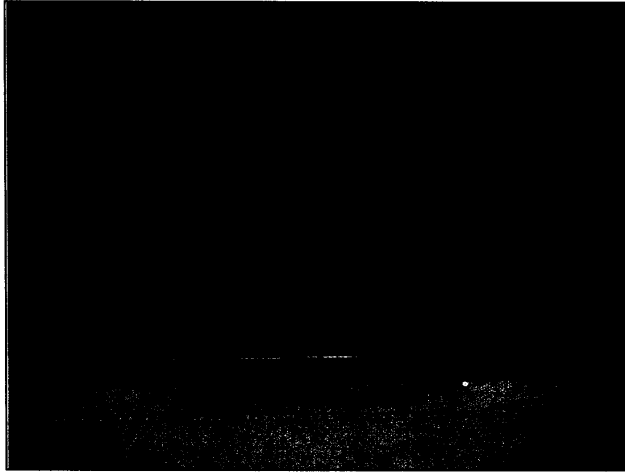
CONSTRUCTION PHOTOS OF EUT

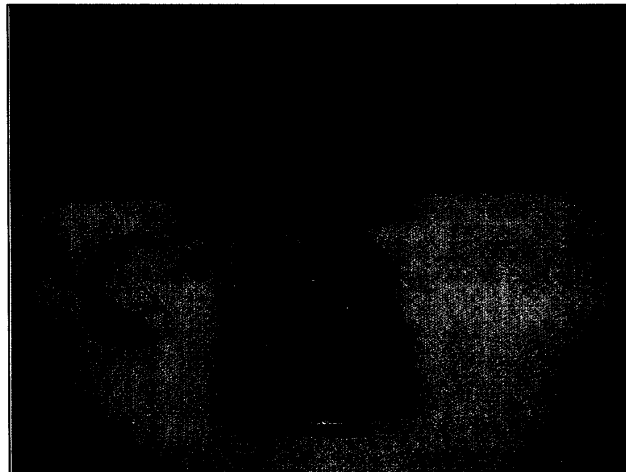
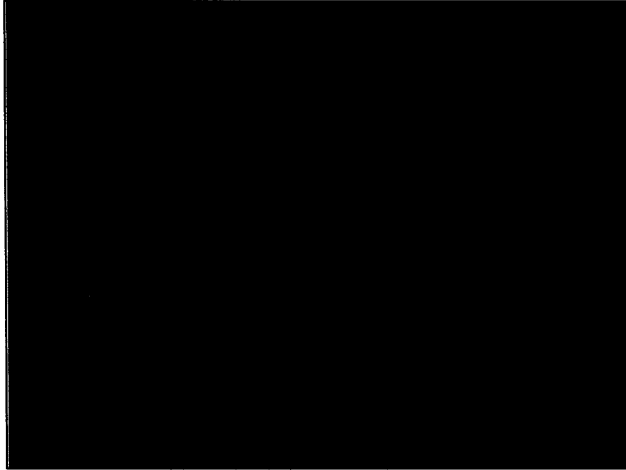


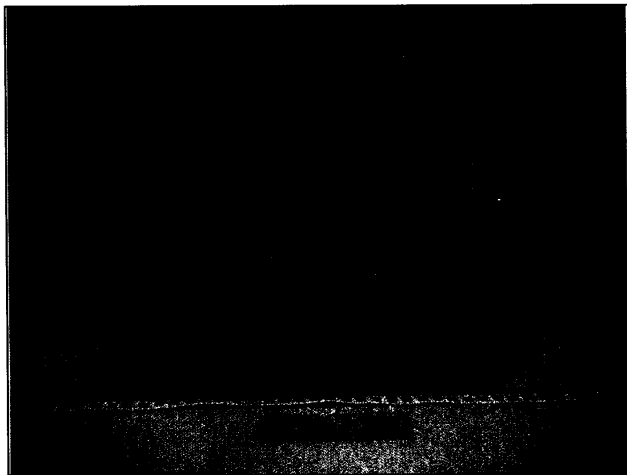
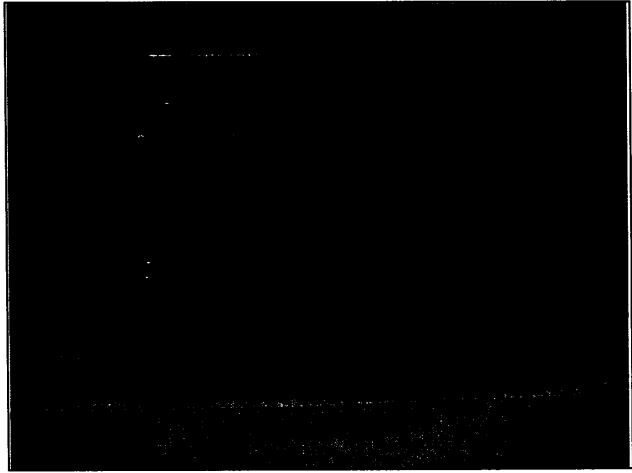




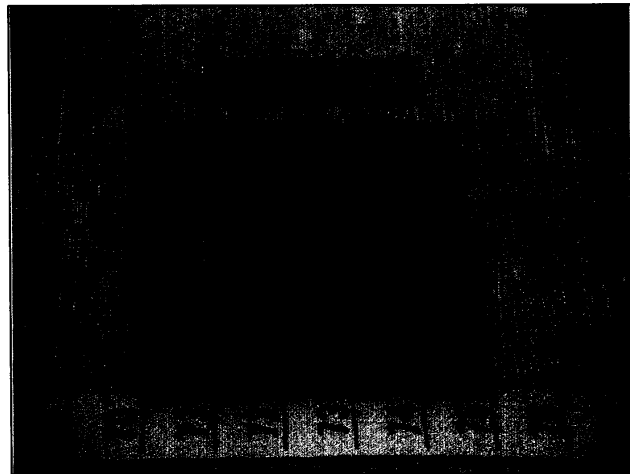
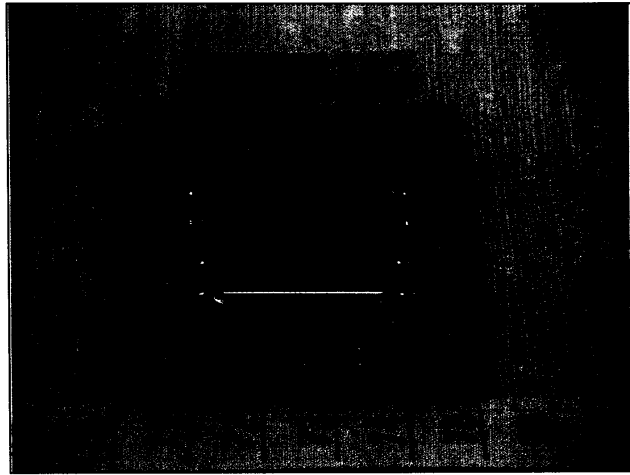


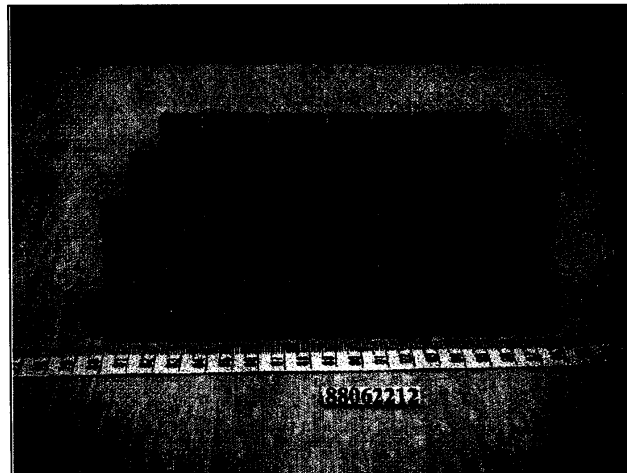
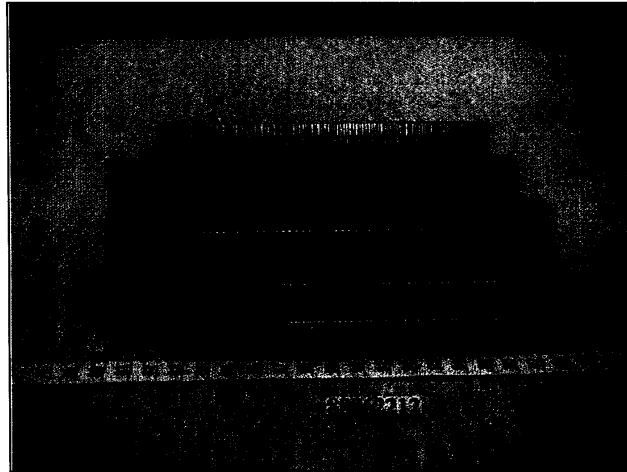


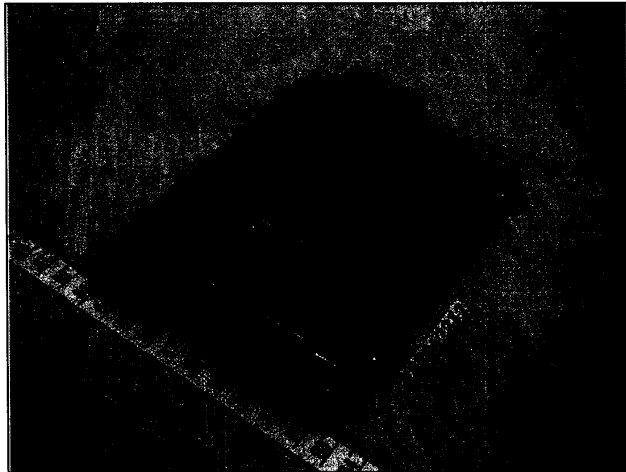
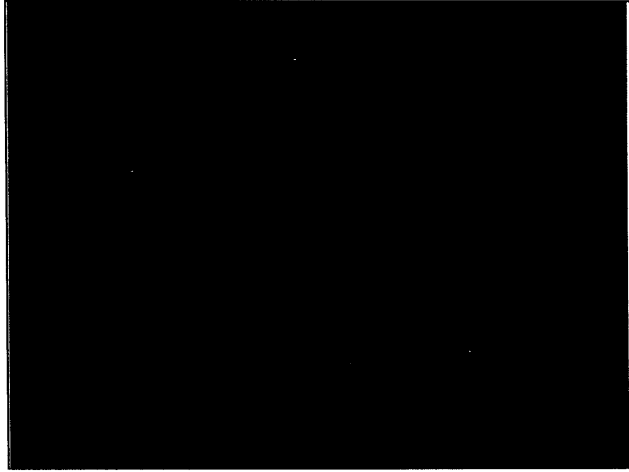


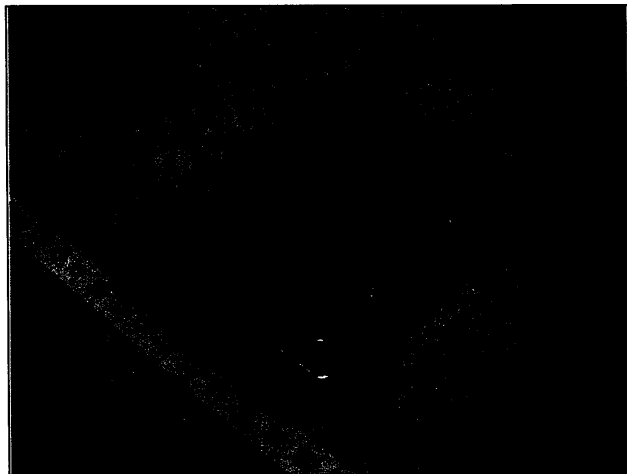


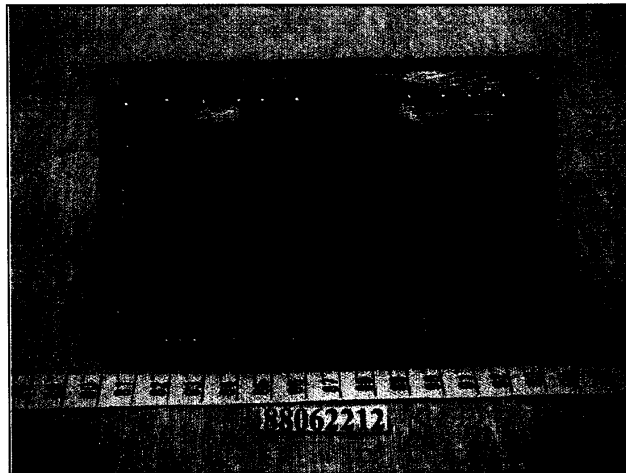
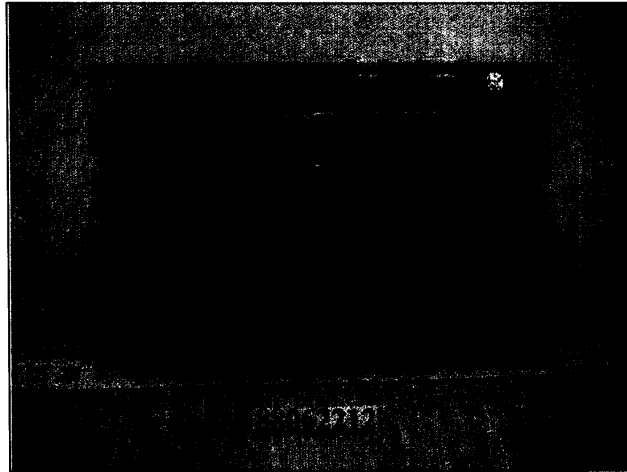


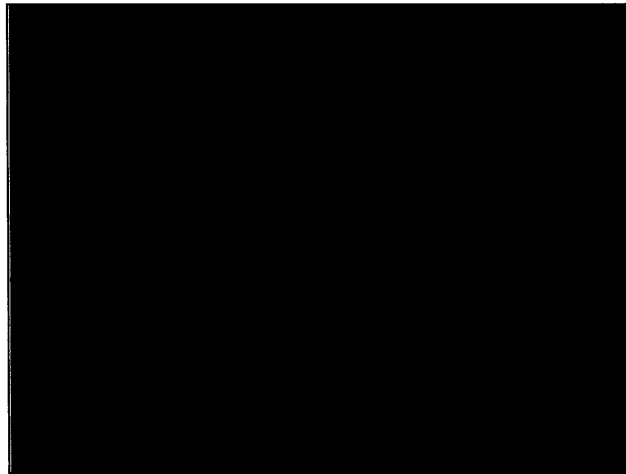


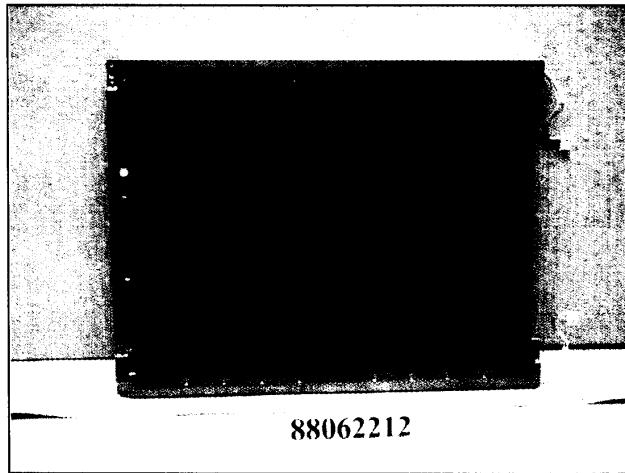
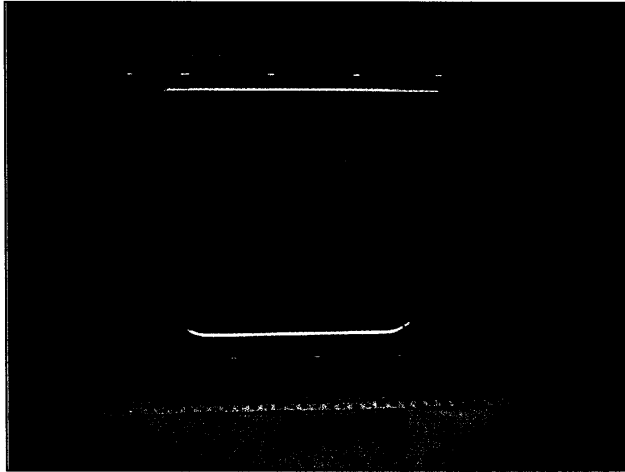


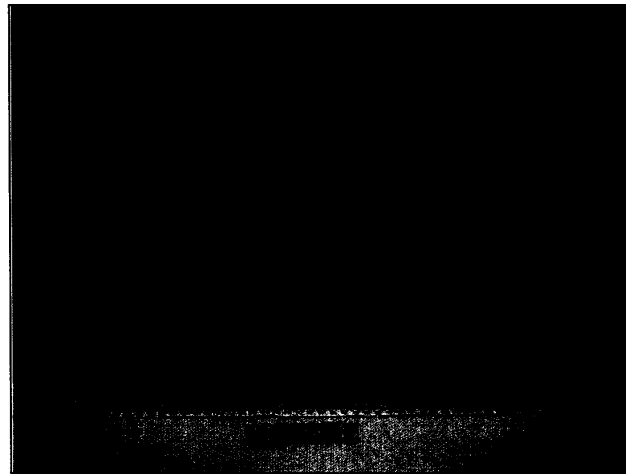


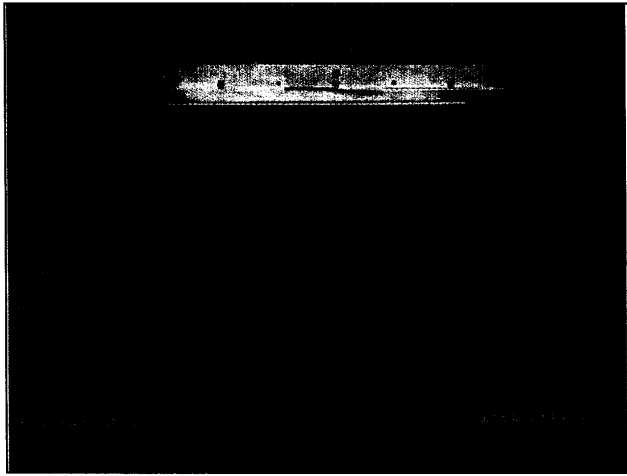
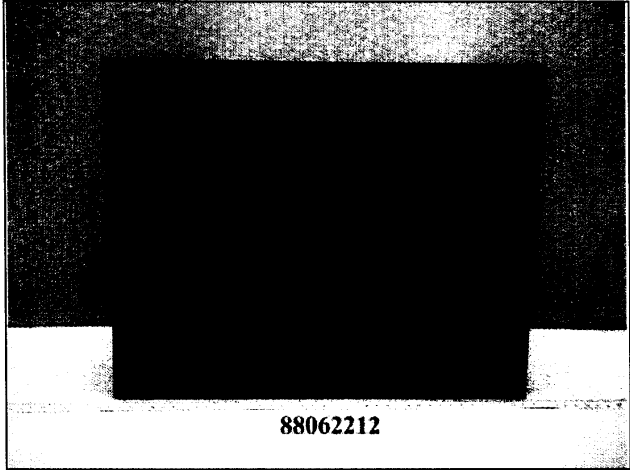


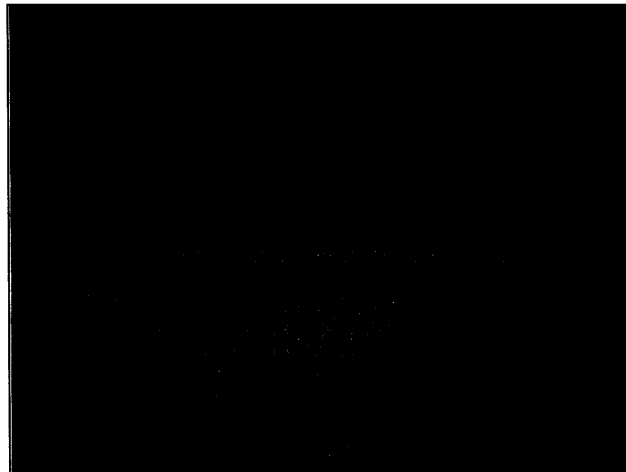
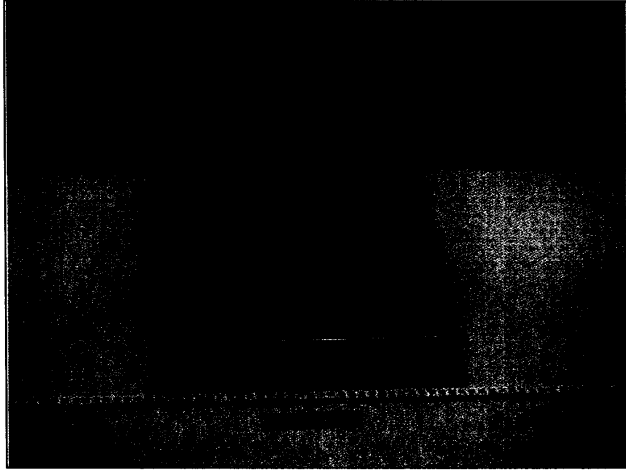


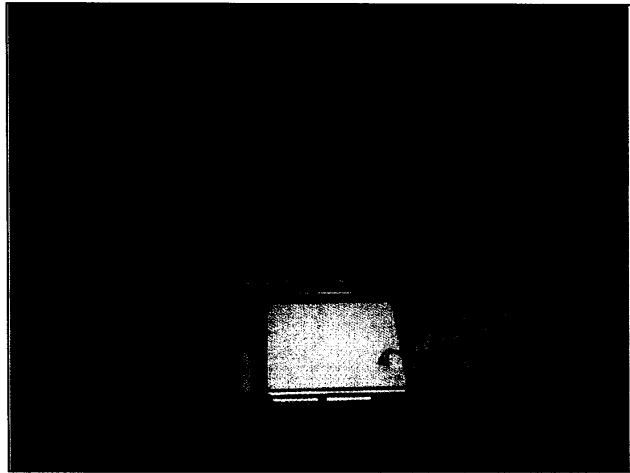




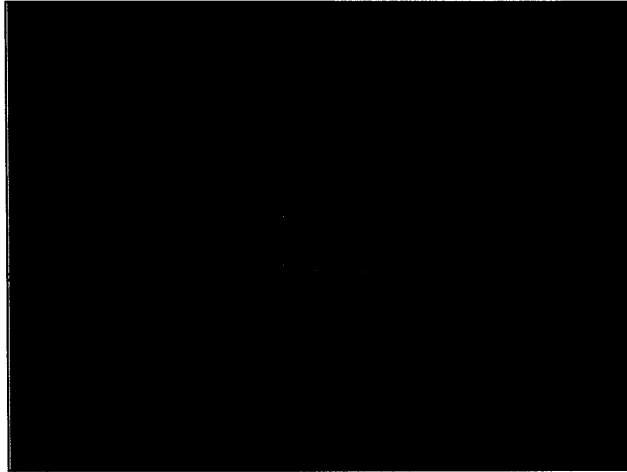


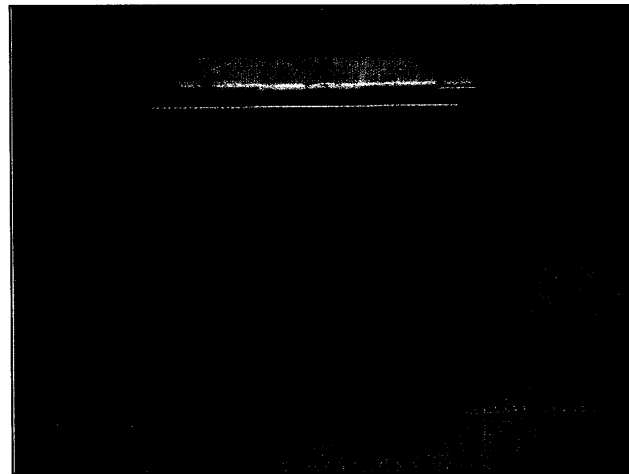


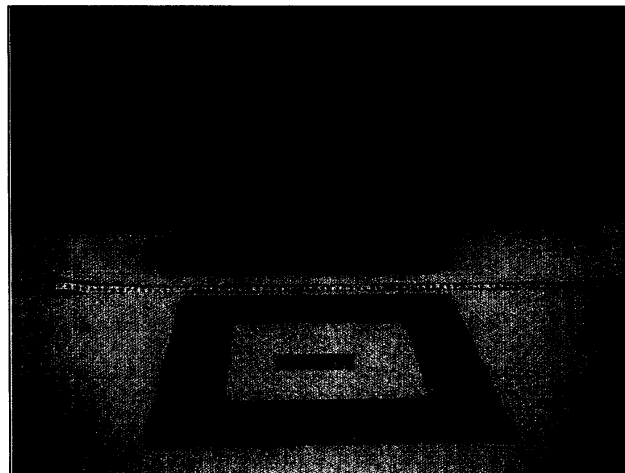


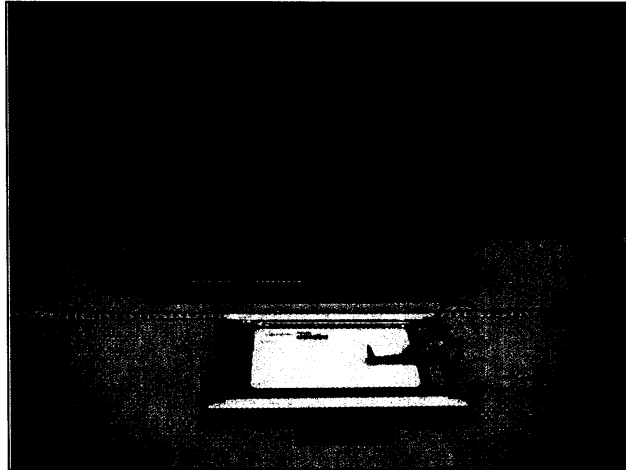


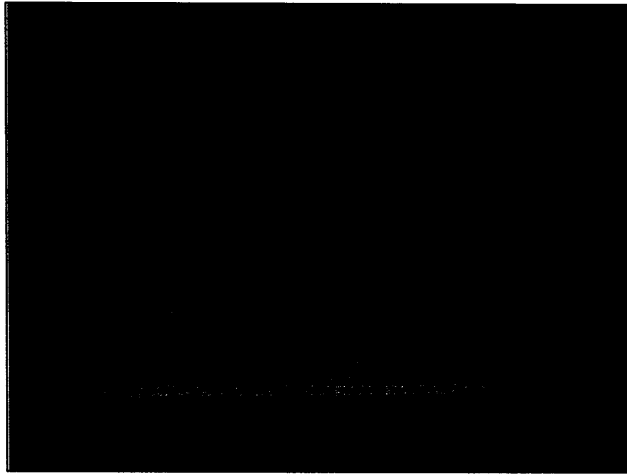












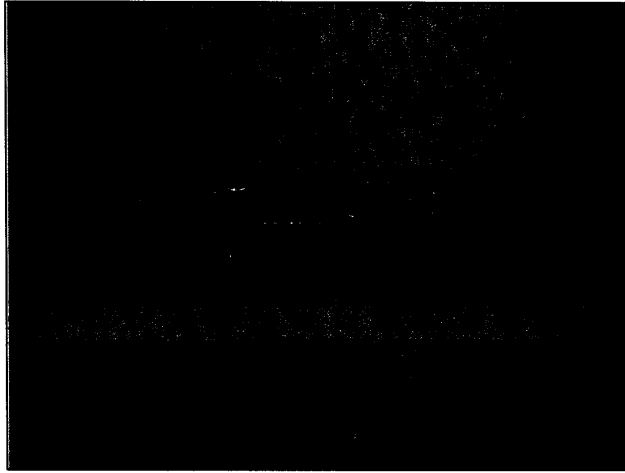




EXHIBIT 4

**ORIGINAL DESIGN DRAWING AND
SPECIFICATIONS INCLUDING SCHEMATIC
AND BLOCK DIAGRAM, USER'S MANUAL OR
SERVICE MANUAL**

EXHIBIT 5

ALL MODIFICATIONS THAT MAY AFFECT

COMPLIANCE WITH THE EMI

REQUIREMENTS AND NECESSARY TEST DATA