

Certificate of Compliance

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

The product : CPU BOARD

Trade Name : AAEON

Model No. : SBC-597

Applicant : AAEON TECHNOLOGY INC.

one sample of the designation has been tested in our facility from June 15 ~ 23, 1999. The test record, data evaluation and Equipment Under Test (EUT) configuration represented in our report No. **CE88061511**, 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

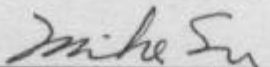
EN 61000-4-3: 1996

EN 61000-4-4: 1995

EN 61000-4-6: 1996

EN 61000-4-8: 1994

ENV 50204: 1995



Mike Su / Project Manager



Issue Date: July 01, 1999



ADVANCE DATA TECHNOLOGY CORP.

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EMC

TEST REPORT

REPORT NO. : CE88061511
MODEL NO. : SBC-597
DATE OF TEST : June 15 - June 23, 1999

PREPARED FOR: AAEON TECHNOLOGY INC.

ADDRESS : 1F, NO. 6, ALLEY 6, LANE 45, PAO-HSIN 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: June 30, 1999

Product	:	CPU BOARD	
Trade Name	:	AAEON	
Model No.	:	SBC-597	
Applicant	:	AAEON TECHNOLOGY INC.	
Standard	:	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: 1994 ENV 50204: 1995

We hereby certify that one sample of the designation has been tested in our facility from June 15 to June 23, 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 (Emission)	:	<u>Kenny Meng</u> (Kenny Meng)	, DATE:	<u>6/30/99</u>
TESTED BY (Immunity)	:	<u>S.S. Wang</u> (S. S. Wang)	, DATE:	<u>6/30/99</u>
CHECKED BY	:	<u>Stacy Chang</u> (Stacy Chang)	, DATE:	<u>6/30/99</u>
APPROVED BY	:	<u>Mike Su</u> (Mike Su)	, DATE:	<u>6/30/99</u>

ADVANCE DATA TECHNOLOGY CORPORATION





2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product : CPU BOARD
Model No. : SBC-597
Power Supply : Switching (from PC)

Note: During the test, the EUT was installed in a metal enclosure with a slot board to form an industrial PC.

The EUT was tested under the following configurations:

CPU	AMD, K6III, 450MHz
HDD	MAXTOR, 72700AP
FDD	TEAC, FD-235HF
CHASSIS	AAEON, AIPC-110
SPS	SEASONIC, SSG-250G

The EUT has a resolution up to 1024x768, 256 color.

For more detailed features description, please refer to Manufacturer's Specification or User's Manual.

2.2 GENERAL DESCRIPTION OF APPLIED STANDARD

The EUT is a kind of Information Technology Equipment which could be used in industrial area and according to the manufacturer's specifications, it was tested according to 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: 1994

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 a PC system 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	ADI	937G	649015T00102096 A	Nonshielded Signal (1.5m) Shielded Power (1.8m)
2	PRINTER	HP	2225C+	3030S79138	Nonshielded Signal (1.0m) Shielded Power (1.2m)
3	MODEM	ACEEX	1414	980020503	Shielded signal (1.2m) Nonshielded Power (1.2m)
4	MODEM	ACEEX	1414	980020508	Shielded signal (1.2m) Nonshielded Power (1.2m)
5	KEYBOARD	FORWARD	FDA-104GA	FDKB8110024	Shielded Signal (1.4m)
6	MOUSE	DEXIN	A2P800A	80102122	Shielded signal (1.5m)
7	USB KEYBOARD	BTC	7932	178190030	Shielded Signal (1.5m)
8	USB MOUSE	DEXIN	A2U800A	71001821	Shielded Signal (1.5m)
9	PC	IBM	6587-TFT	90A54WX	Nonshielded power (10.0m) Shielded Signal (1.8m)
10	MONITOR	ADI	PD-959	730020U00100373	Nonshielded Signal (1.5m) Shielded Power (1.8m)
11	KEYBOARD	HP	C3757A	C3757-60223	Shielded Signal (1.4m)
12	MOUSE	DEXIN	A2P800A	80102121	Shielded signal (1.5m)

Note: 1. Support unit 1-8 acted as SERVER PC and communicated with support unit 9-12 which acted as HOST PC and systems of communication partner via a UTP cable (10m).

2. Support unit 7 & 8 were connected to the USB ports of EUT.



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	PRINTER	HP	C2145A	SG59N16035	Shielded signal (1.5m) Nonshielded Power (1.8m)
3	MODEM	GVC	F-1128V1R6	96-191-113003	Shielded signal (1.25m) Nonshielded Power (1.5m)
4	MODEM	GVC	F-1128V1R6	96-191-113004	Shielded signal (1.25m) Nonshielded Power (1.5m)
5	KEYBOARD	BTC	5140	75B110606	Shielded Signal (1.5m)
6	MOUSE	COMPAQ	M-S28	LCA50224522	Shielded signal (1.5m)
7	USB KEYBOARD	BTC	7932	D7A140017	Shielded Signal (1.5m)
8	USB MOUSE	DEXIN	A2U800A	71001821	Shielded Signal (1.5m)
9	PC	IBM	6587-T8T	90A54WX	Nonshielded power (10.0m) Shielded Signal (1.8m)
10	MONITOR	ADI	PD-959	730020U00100373	Nonshielded Signal (1.5m) Shielded Power (1.8m)
11	KEYBOARD	ACER	6311	K6355122516	Shielded Signal (1.8m)
12	MOUSE	DEXIN	A2P800A	80102121	Shielded signal (1.5m)

Note: 1. Support unit 1-8 acted as SERVER PC and communicated with support unit 9-12 which acted as HOST PC and systems of communication partner via a UTP cable (10m).

2. Support unit: 7 & 8 were connected to the USB ports of EUT.

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	ESH3	893495/006	July 15, 1999
ROHDE & SCHWARZ Spectrum Monitor	EZM	893787/013	July 16, 1999
ROHDE & SCHWARZ Artificial Mains Network	ESH3-Z5	839135/006	July 14, 1999
EMCO-L.I.S.N.	3825/2	9204-1964	July 14, 1999
Shielded Room	Site 2	ADT-C02	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	3544A01176	April 22, 2000
HP Preamplifier	8447D	2944A08485	April 21, 2000
HP Preamplifier	8347A	3307A01088	Sept. 9, 1999
ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Aug. 27, 1999
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 25, 1999
CHASE BILOG Antenna	CBL6112A	2221	Aug. 10, 1999
EMCO Turn Table	1060	1115	NA
SHOSHIN Tower	AP-4701	A6Y005	NA
Open Field Test Site	Site 5	ADT-R05	Aug 9, 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. 9, 1999
KeyTek, Control Center	E103	9508347	NA
KeyTek, Surge Combination Wave	B501A	9508349	Sept. 3, 1999
KeyTek, Surge Coupler/Decoupler	E551	9508350	Sept. 3, 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
FCC Coupling Decoupling Network	FCC-801-M1-25	17	NA
BOONTON RF Voltage Meter	9200R	331801AE	Dec. 17, 1999
COMTEST Compact Full Anechoic Chamber (7x3x3 m)	CFAC	ADT-S01	Aug. 4, 1999
HAEFELY Mains Interference Simulator	PLINE 1610	083690-17	July 6, 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: 1994+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 (to PC)
Temperature : 23 °C
Humidity : 56 %
Atmospheric Pressure : 1003 mbar

TEST RESULT	Remarks
	Minimum passing margin of conducted emission: -19.6 dB at 9.518 MHz
	Minimum passing margin of radiated emission: -3.7 dB at 181.94 MHz

4.2 EUT OPERATION CONDITION

1. Turn on the power of all equipment.
2. Industrial PC reads a test program to enable all functions.
3. Industrial PC reads and writes messages from HDD.
4. Industrial PC sends and receives messages to and from HOST PC via a UTP cable.
5. Industrial PC sends "H" messages to monitor and monitor display "H" patterns on screen.
6. Industrial PC sends "H" messages to modem.
7. Industrial PC sends "H" messages to printer, and the printer prints them on paper.
8. Repeat steps 2-8.



4.3 TEST DATA OF CONDUCTED EMISSION

EUT: CPU BOARD

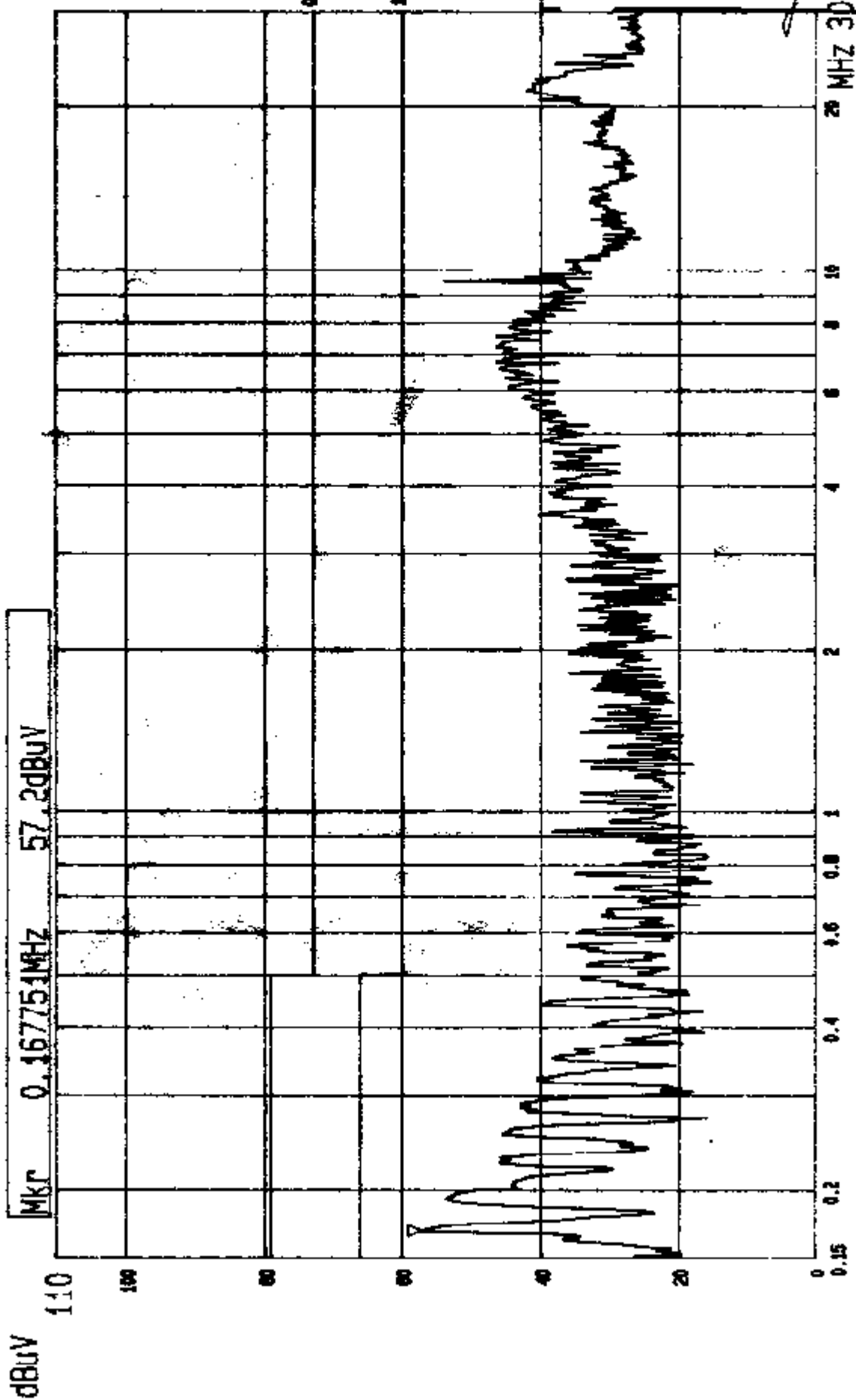
MODEL: SBC-597

6 dB Bandwidth: 10 kHz

PHASE: LINE (L)

Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.167	0.2	57.2	-	57.4	-	79.0	66.0	-21.6	-
0.192	0.2	52.6	-	52.8	-	79.0	66.0	-26.2	-
3.540	0.2	39.7	-	39.9	-	73.0	60.0	-33.1	-
6.765	0.5	45.2	-	45.7	-	73.0	60.0	-27.3	-
9.518	0.7	52.7	-	53.4	-	73.0	60.0	-19.6	-
21.700	1.3	40.1	-	41.4	-	73.0	60.0	-31.6	-

- Remarks:
1. "-": Undetectable
 2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 3. "-": The Emission Level reading value 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.



Date 15 JUN '99 Time 20:22:46
 CISPR 22 CLASS A CONDUCTION TEST (PEAK VALUE)
 MODEL: SBC-597 K6/3 450 1024X768 256 COLOR

ADT CORP.
 LISN: L



TEST DATA OF CONDUCTED EMISSION

EUT: CPU BOARD

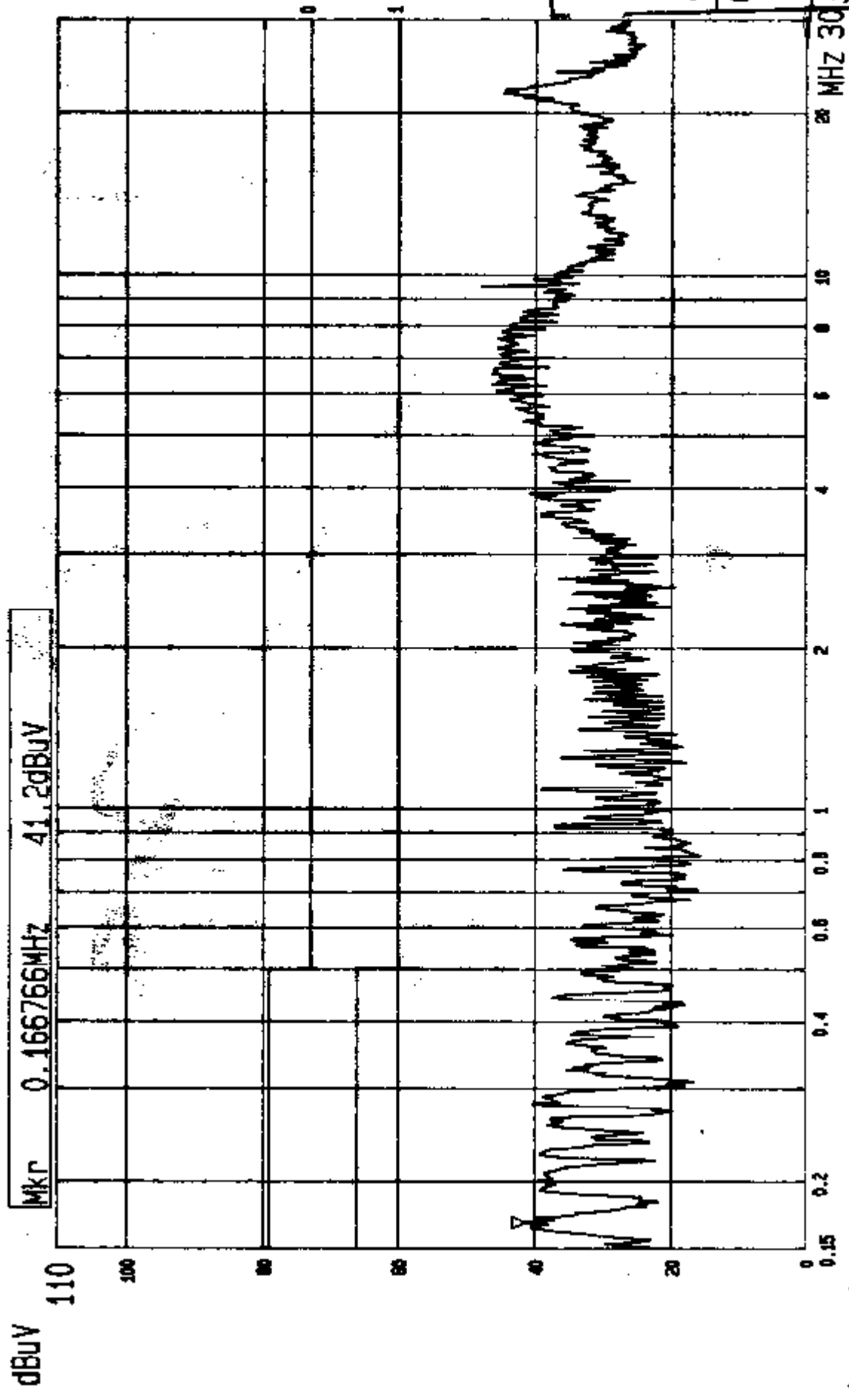
MODEL: SBC-597

6 dB Bandwidth: 10 kHz

PHASE: NEUTRAL (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.
0.167	0.2	41.2	-	41.4	-	79.0	66.0	-37.6	-
0.192	0.2	39.1	-	39.3	-	79.0	66.0	-39.7	-
3.540	0.3	39.1	-	39.4	-	73.0	60.0	-33.6	-
6.765	0.5	45.1	-	45.6	-	73.0	60.0	-27.4	-
9.518	0.7	47.8	-	48.5	-	73.0	60.0	-24.5	-
21.700	1.3	43.2	-	44.5	-	73.0	60.0	-28.5	-

- Remarks:
1. "**": Undetectable
 2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 3. "-": The Emission Level reading value 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.



--- Date 15.JUN.'99 Time 20:30:44
CISPR 22 CLASS A CONDUCTION TEST (PEAK VALUE)
MODEL: SBC-597 K6/3 450 1024X768 256 COLOR

ADT CORP.
LISN: N



4.4 TEST DATA OF RADIATED EMISSION

EUT: CPU BOARD

MODEL: SBC-597

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)
77.97	8.3	21.9	30.2	40.0	-9.8	400	272
116.96	14.5	17.3	31.8	40.0	-8.2	400	346
181.94	11.8	24.5	36.3	40.0	-3.7	400	327
200.43	12.4	20.3	32.7	40.0	-7.3	400	138
208.82	12.9	19.1	32.0	40.0	-8.0	400	244
214.75	13.2	16.9	30.1	40.0	-9.9	400	93
225.50	13.7	16.3	30.0	40.0	-10.0	400	113
300.68	16.3	21.5	37.8	47.0	-9.2	400	87
400.98	20.4	17.2	37.6	47.0	-9.4	209	131
451.00	21.7	17.8	39.5	47.0	-7.5	264	201
501.14	22.1	17.0	39.1	47.0	-7.9	242	34
701.70	25.1	9.0	34.1	47.0	-12.9	215	324

- 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: CPU BOARD

MODEL: SBC-597

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)
78.02	8.3	25.1	33.4	40.0	-6.6	155	320
178.84	12.0	18.5	30.5	40.0	-9.5	100	289
181.93	12.1	19.5	31.6	40.0	-8.4	100	290
200.47	13.0	19.8	32.8	40.0	-7.2	100	63
208.84	13.3	15.3	28.6	40.0	-11.4	100	221
214.70	13.5	17.7	31.2	40.0	-8.8	100	186
225.51	13.9	16.4	30.3	40.0	-9.7	100	133
233.80	14.2	18.9	33.1	47.0	-13.9	100	288
300.67	16.3	23.2	39.5	47.0	-7.5	100	300
400.91	20.0	18.7	38.7	47.0	-8.3	400	176
451.09	22.1	21.1	43.2	47.0	-3.8	333	184
701.70	26.0	17.0	43.0	47.0	-4.0	218	209
901.97	28.1	7.7	35.8	47.0	-11.2	200	51

- 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 and Performance Criteria	:	EN 61000-4-2 (Electrostatic Discharge, ESD, 8kV air discharge, 4kV Contact discharge, Performance Criterion B)
		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	:	230 Vac, 50 Hz (to power of Industrial PC)
Temperature	:	26 °C
Humidity	:	60 %
Atmospheric Pressure	:	990 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

Industrial PC runs a test program to access FDD/HDD/MODEM/PRINTER sequentially and show the result on monitor screen.



5.4 TEST RESULT OF ELECTROSTATIC DISCHARGE (ESD)

Basic Standard : EN 61000-4-2
 Generic Standard : EN 50082-2
 Discharge Impedance : 330 ohm / 150 pF
 Discharge Voltage : Air Discharge - 8 kV (Direct)
 Contact Discharge - 4 kV (Direct/ Indirect)
 Polarity : Positive/Negative
 Number of Discharge : Minimum 10 times at each test point
 Discharge Mode : Single Discharge
 Discharge Period : 1-second minimum

Test Result	Remarks
Criterion A PASS	MODEL: SBC-597

OBSERVATION DESCRIPTION

Direct Application			Test Result	
Discharge Level (kV)	Polarity (+/-)	Test Point	Contact Discharge	Air Discharge
8	+/-	1 ~ 9	NA	Note 1
4	+/-	3 ~ 9	Note 1	NA

Description of test point: (Please refer to ESD photo)

- | | |
|-----------------|------------------|
| 1. Floppy | 2. Switch |
| 3. Metal case | 4. USB ports |
| 5. Serial ports | 6. Parallel port |
| 7. PS2 port | 8. RJ 45 port |
| 9. VGA port | |

Indirect Application			Test Result	
Discharge Level (kV)	Polarity (+/-)	Test Point	Horizontal Coupling	Vertical Coupling
4	+/-	1 ~ 4	Note 1	Note 1

Description of test point:

- | | |
|---------------|---------------|
| 1. Front side | 2. Right side |
| 3. Left side | 4. Rear side |

Description of test result:

Note 1: There was no change compared with initial operation during the test.



5.5 TEST RESULT OF RADIATED RADIO FREQUENCY

DISTURBANCES (RS)

Basic Standard : EN 61000-4-3
Generic Standard : EN 50082-2
Frequency range : 80 MHz - 1000 MHz
Field strength : 10 V/m
Modulation : 1kHz Sine Wave, 80%, AM Modulation
Dwell Time : 3 seconds
Frequency step : 1 % of fundamental
Polarity of Antenna : Horizontal and Vertical
Test distance : 3 m

Test Result	Remarks
Criterion A : PASS	MODEL: SBC-597

Note: Four sides of EUT are verified separately.

OBSERVATION DESCRIPTION

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



5.6 TEST RESULT OF ELECTRICAL FAST TRANSIENT/BURST (EFT/BURST)

Basic Standard : EN 61000-4-4
Generic Standard : EN 50082-2
Test Voltage : Power Line - 2 kV (to power of Industrial PC)
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 A	MODEL: SBC-597

OBSERVATION DESCRIPTION

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

Description of test result:

Note 1: There was no change compared with initial operation during the test.



5.7 TEST RESULT OF CONDUCTED RADIO FREQUENCY DISTURBANCES (CS)

Basic Standard : EN 61000-4-6
Generic Standard : EN 50082-2
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 : Power Mains, Unshielded
Coupling device : CDN-M3 (3 wires), Clamp

Test Result		Remarks
Criterion A	PASS	MODEL: SBC-597

OBSERVATION DESCRIPTION

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



5.8 TEST RESULT OF POWER FREQUENCY MAGNETIC FIELD

Basic Standard : EN 61000-4-8
Generic Standard : EN 50082-2
Frequency range : 50 Hz
Field strength : 30 A/m
Observation Time : 1 minute
Inductance coil : Rectangular type, 1mx1m

Test Result		Remarks
Criterion A	PASS	MODEL: SBC-597

OBSERVATION DESCRIPTION

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



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

Basic Standard : ENV 50204
Generic Standard : EN 50082-2
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	MODEL: SBC-597

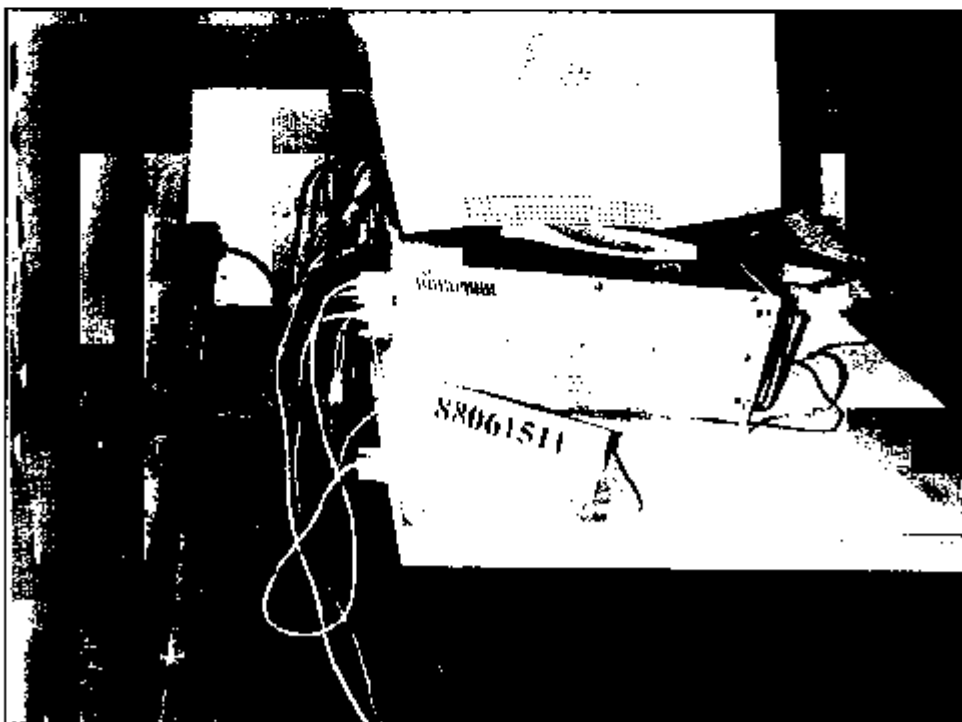
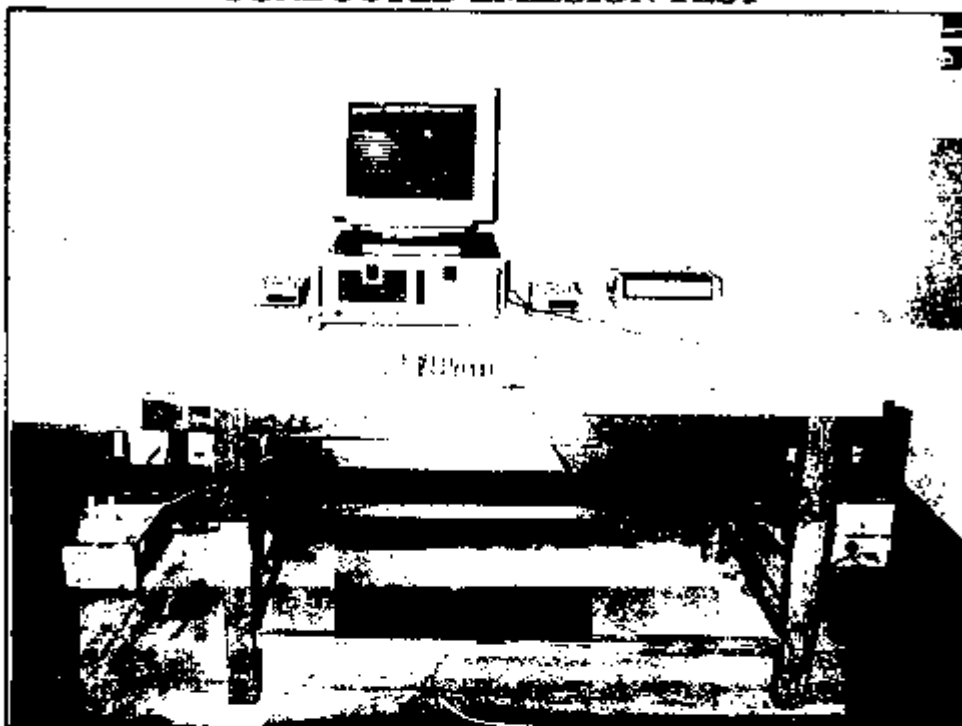
Note: Four sides of EUT are verified separately.

OBSERVATION DESCRIPTION

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

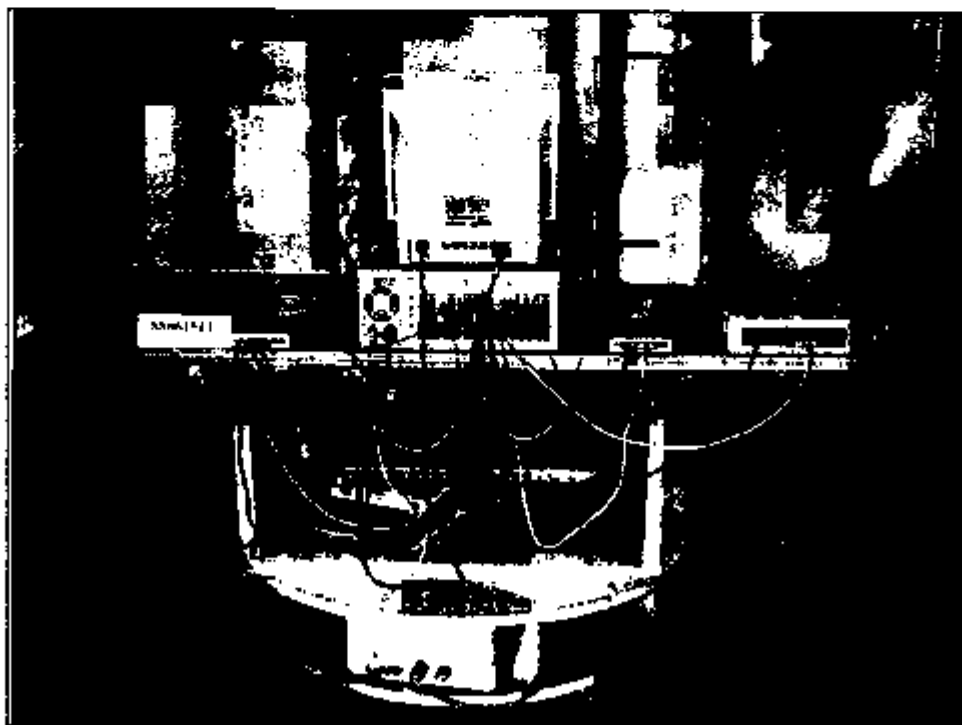


**6. PHOTOGRAPHS OF THE TEST CONFIGURATION
CONDUCTED EMISSION TEST**





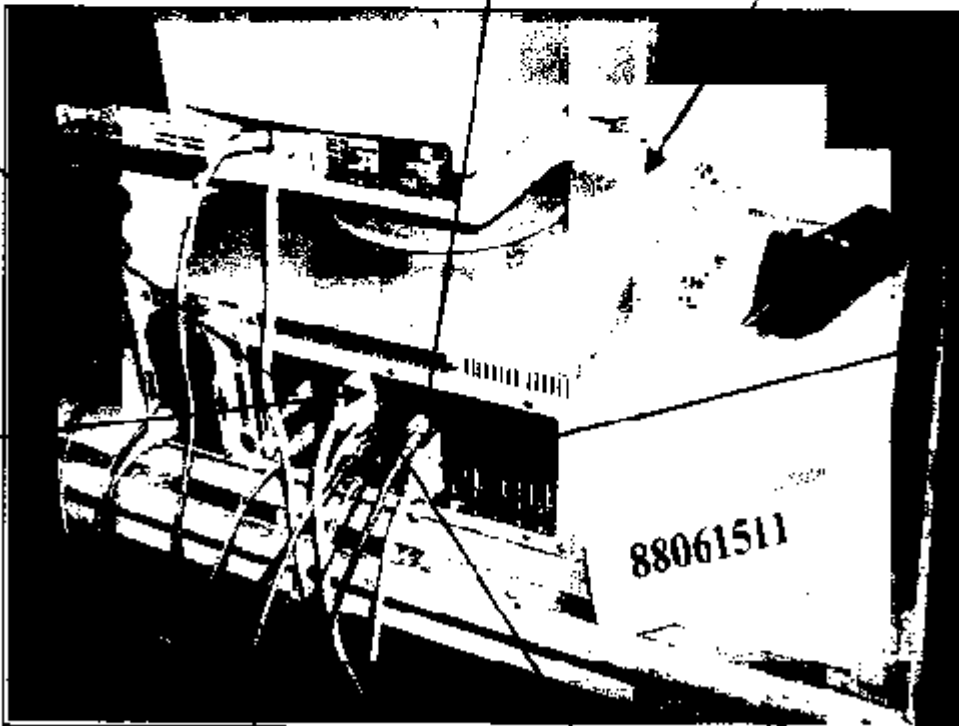
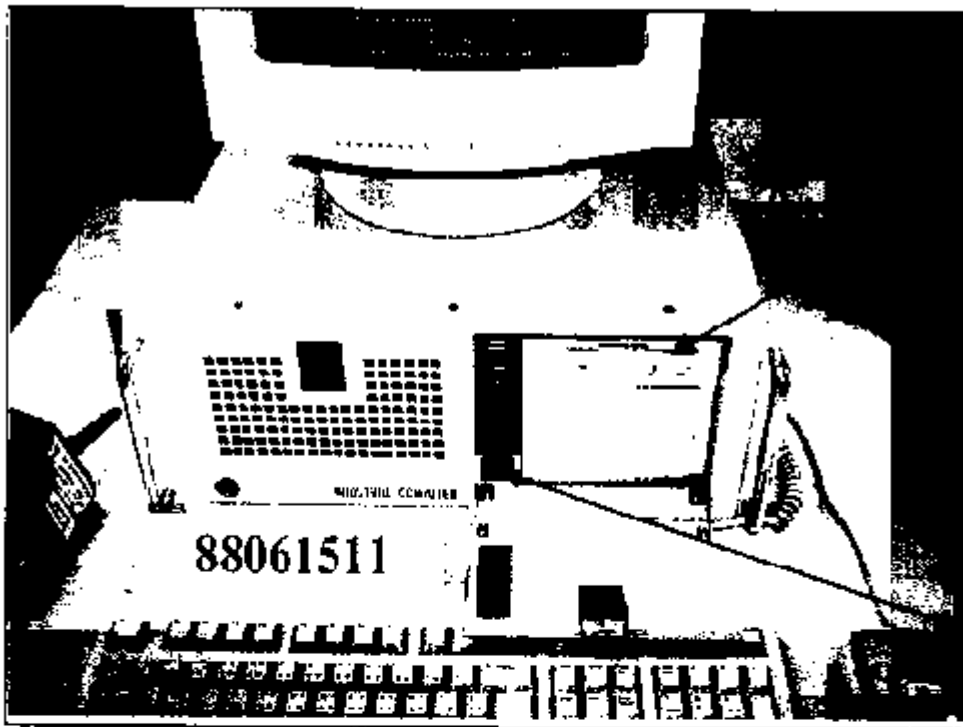
RADIATED EMISSION TEST





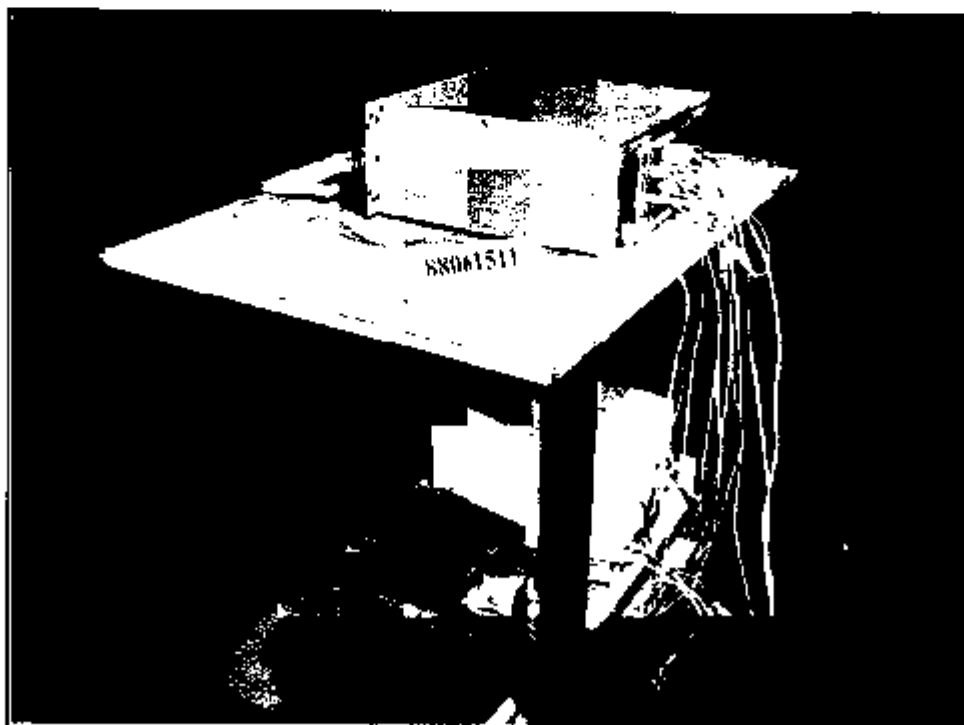
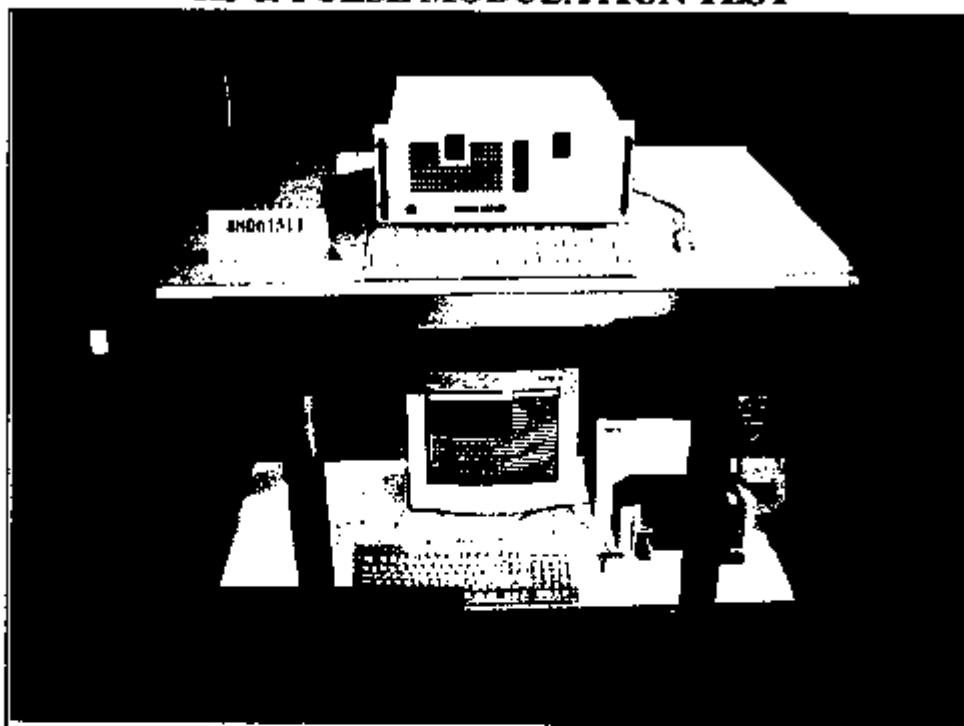
ESD TEST





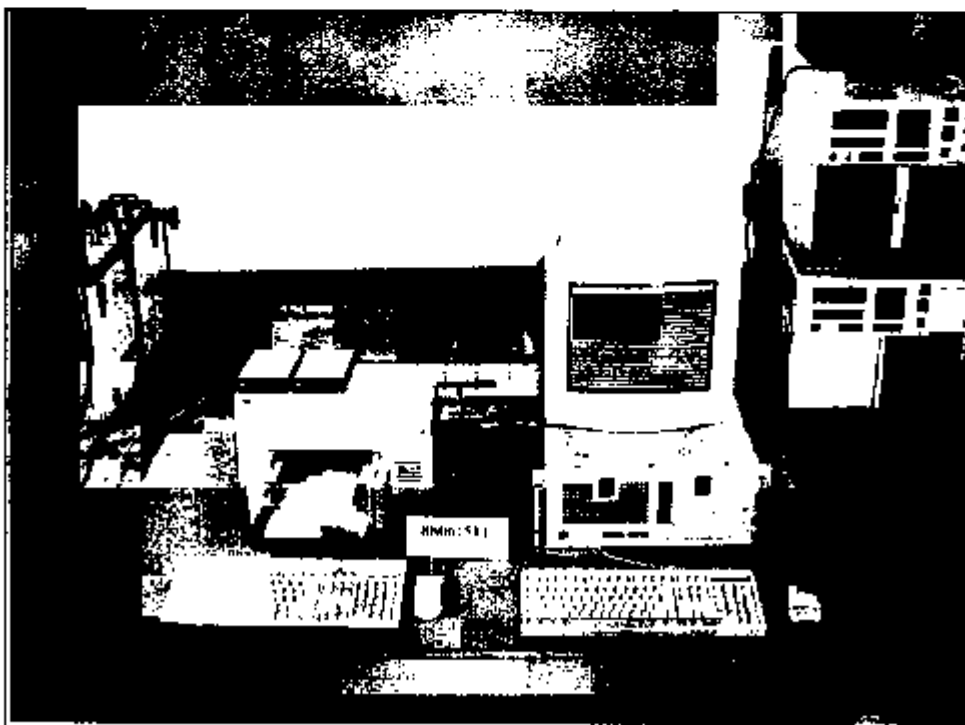
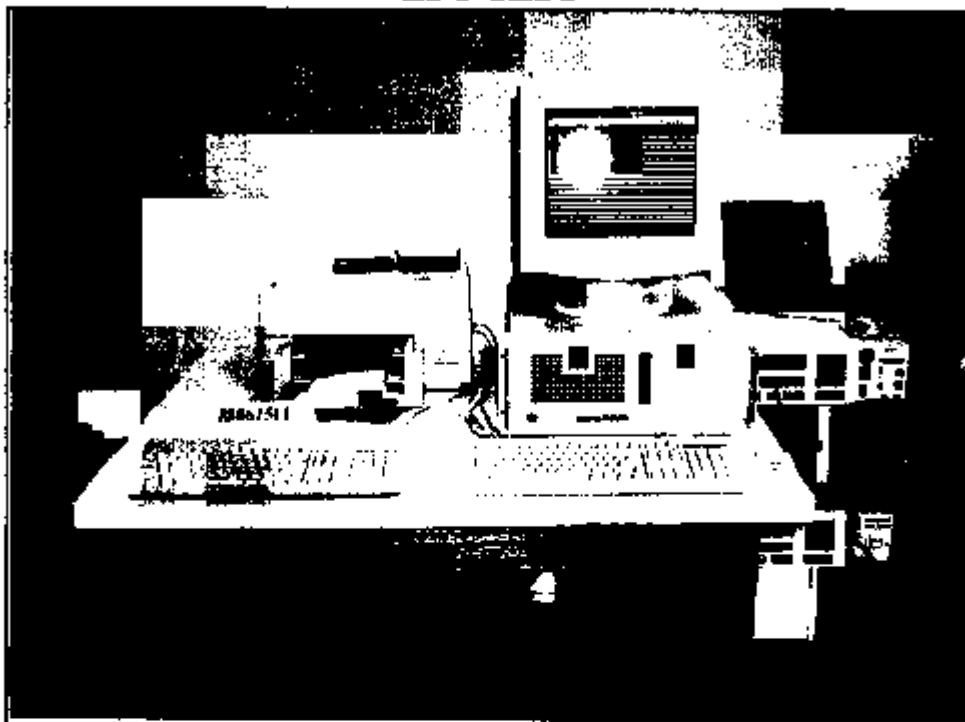


RS & PULSE MODULATION TEST



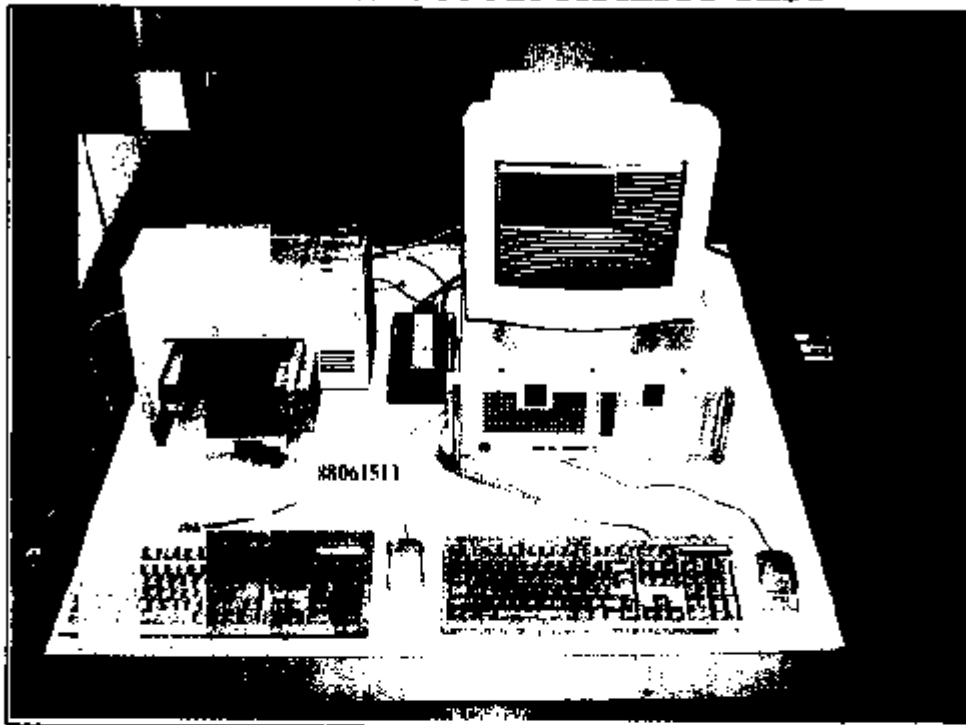


EFT TEST

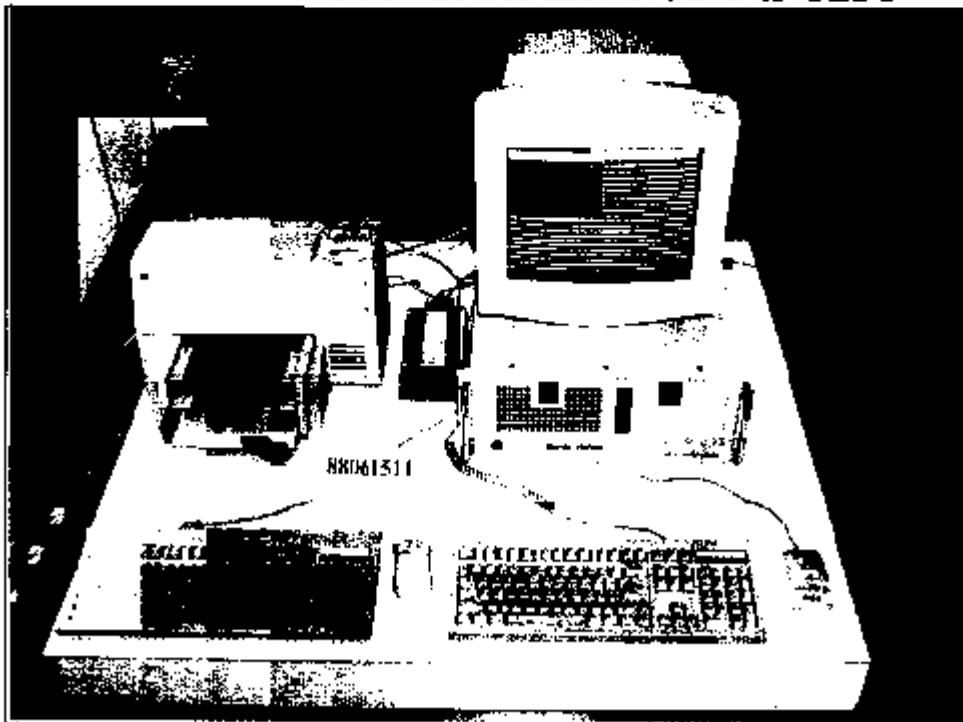




CONDUCTED SUSCEPTIBILITY TEST

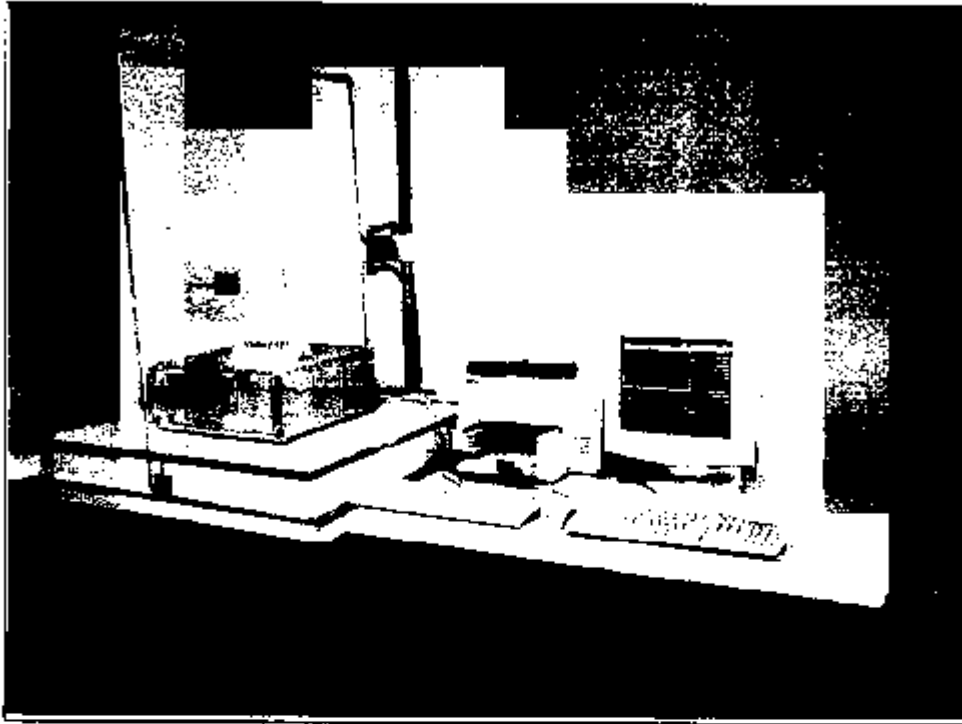


CONDUCTED SUSCEPTIBILITY CLAMP TEST





MAGNETIC TEST





7. APPENDIX - INFORMATION OF THE TESTING LABORATORY

Information of the testing laboratory

We, ADT Corp., is 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>



CONSTRUCTION PHOTOS OF EUT

