

# **CE MARK TECHNICAL FILE**

## **AUSTRALIA EMC CONSTRUCTION FILE**

of

**Socket 370 CPU Board**

Model/ Type/ Machine Type

**PCM-9576F**

Contains:

1. Declaration of Conformity
2. EN55022/CISPR 22, EN55011/CISPR 11, AS/NZS 3548 Class A EMI test report
3. EN50082-2, AS/NZS 4252.1, EN61000-3-2, and EN61000-3-3 test report
4. Block Diagram and Schematics
5. User`s manual



**Date: 2001/03/22**

ISL-01B022E

## Declaration of Conformity

Name of Manufacturer: Advantech Co., Ltd.

Address of Manufacturer: FL.4, No. 108-3, Ming-Chuan Road  
Shing-Tien City, Ta  
Taiwan, R. O. C.

Declares that product: Socket 370 CPU Board

Model/ Type/ Machine Type: PCM-9576F

Assembled by: Same as above

Address: Same as above

Conforms to the EMC Directive 89/336/EEC as attested by conformity with the following harmonized standards:

EN55022 Class A: 1998:EN55011 Class A Limits and Methods of Measurement of Radio Interference characteristics of Information Technology Equipment

EN55082:1995: Information technology equipment--Immunity characteristics --Limits and methods of measurement

EN61000-3-2: 1995: A1:1998/A2:1998: Limits for harmonics current emissions

EN61000-3-3: 1995: Limits for voltage fluctuations and flicker in low-voltage supply systems

Conforms to the Low Voltage Directive 73/23/EEC as attested by conformity with the following harmonized standard:

Conforms to the C-Tick Mark requirement as attested by conformity with the following standards:

AS/NZS 3548: 1995 /A1:1997 /A2:1997: Information technology equipment  
AS/NZS 4252.1:1994: Generic Immunity

-----  
Charles Chang / Manager  
Advantech Co., Ltd.

-----  
Date

ISL-01B022E



# Certificate

Test Report No.: 01B022C/ 01B022E

Date of Test: 2001/03/15/2001/03/22

Product Name:	Socket 370 CPU Board
Model Number(s):	<b>PCM-9576F</b>
Responsible Party	<b>Advantech Co., Ltd.</b>
Address:	FL.4, No. 108-3, Ming-Chuan RoadShing-Tien City,
TaTaiwan, R. O. C.	
Contact Person:	Charles Chang / Manager
Phone No.:	886-2-2118-4567 Ext : 293
FAX No.:	886-2-2118-0045

We, **International Standards Laboratory**, hereby certify that:

The device bearing the trade name and model specified above has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in EUROPEAN COUNCIL DIRECTIVE 89/336/EEC. The device was passed the test performed according to :

<b>EN55022/CISPR 22</b>	<b>EN55082-2 / AS/NZS 4252.1</b>
<b>EN55011/CISPR 11</b>	<b>EN61000-4-2 1995</b>
<b>AS/NZS 3548 Class A</b>	<b>EN61000-4-3 1996</b>
<b>EN61000-3-2 1995A1:1998/A2:1998</b>	<b>EN61000-4-4 1995</b>
<b>EN61000-3-3 1995</b>	<b>EN61000-4-5 1995</b>
	<b>EN61000-4-6 1996</b>
	<b>EN61000-4-8 1993</b>
	<b>EN61000-4-11 1994</b>

I attest to the accuracy of data and all measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.



(NVLAP Lab. Code: 200234-0)

-----  
L. Y. Soong / Director  
International Standards Laboratory

**EN55082-2 / AS/NZS 4252.1 / IMMUNITY**  
**EN61000-3-2 / HARMONICS**  
**EN61000-3-3 / VOLTAGE FLUCTUATIONS**

**TEST REPORT**

*of*

**Socket 370 CPU Board**

*Model/ Type/ Machine Type*

**PCM-9576F**

*Applied by:*

Advantech Co., Ltd.  
FL.4, No. 108-3, Ming-Chuan Road  
Shing-Tien City, Ta  
Taiwan, R. O. C.

*Test Performed by:*

**(NVLAP Lab. Code: 200234-0)**  
International Standards Laboratory  
No. 21, Alley 37, Lane 122, Sec. 2  
Hsiwan Rd. Hsichih  
Taipei Hsien 22117  
Taiwan, R.O.C.

Tel:(02)2646-2550  
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**Report Number: ISL-01B022E Version: 0**

**Test Date: 2001/03/22**

NVLAP Lab. Code: 200234-0; VCCI: R-341, C-354; NEMKO Aut. No: ELA 113; BSMI Lab. Code: SL2-IN-E-0013

## Contents of Report

1.	General.....	1
2.	Summary .....	3
3.	Electrostatic discharge (ESD) immunity .....	8
4.	Radio-Frequency, Electromagnetic Field immunity .....	10
5.	Electrical Fast transients/burst immunity.....	11
6.	Surge Immunity .....	14
7.	Immunity to Conductive Disturbance .....	15
8.	Power Frequency Magnetic Field immunity .....	16
9.	Voltage Dips, Short Interruption and Voltage Variation immunity.....	17
10.	Harmonics.....	18
11.	Voltage Fluctuations .....	21
12.	Test Equipment List.....	22
13.	Photographs.....	23



## 1. General

### 1.1 Certification of Accuracy of Test Data

The immunity tests which this report describes were conducted by an independent electromagnetic compatibility consultant, International Standards Laboratory in accordance with the EN55082-2:1995 / AS/NZS 4252.1:1994 which include EN61000-4 series regulations, Harmonic Current Emissions EN61000-3-2: 1995: A1:1998/A2:1998, and Voltage Fluctuations EN61000-3-3: 1995.

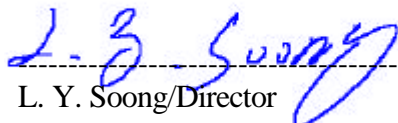
**Equipment Tested:** Socket 370 CPU Board  
Model/ Type/ Machine Type: PCM-9576F  
Applied by Advantech Co., Ltd.

**Date of test:** 2001/03/22

**Test Engineer:** Alan Tsai

Standard	Comment	Test Results
EN61000-3-2: 1995 A1:1998/A2:1998	Harmonic Current Emissions	Complies
EN61000-3-3: 1995	Voltage Fluctuations	Complies
EN61000-4-2: 1995	Electrostatic Discharge	Complies
EN61000-4-3: 1996	Radio-Frequency, Electromagnetic Field	Complies
EN61000-4-4: 1995	Electrical Fast Transient/Burst	Complies
EN61000-4-5: 1995	Surge	Complies
EN61000-4-6: 1996	Conductive Disturbance	Complies
EN61000-4-8: 1993	Power Frequency Magnetic Field	Complies
EN61000-4-11: 1994	Voltage Dips / Short Interruption and Voltage Variation	Complies

Approve & Signature

  
L. Y. Soong/Director

This test report accurately contains the test results of the above standards at the time of the test.

The results in this report apply only to the sample(s) tested.

This test report shall not be reproduced except in full, without the written approval of International Standards Laboratory.

## 1.2 Product Information

Description:	Socket 370 CPU Board
Condition:	Pre-Production
AC Power During Test:	230VAC/50Hz
Model:	PCM-9576F
Serial Number:	N/A
Parallel Port:	one 25-pin
Serial Port:	four 9-pin
Keyboard Connector:	6-pin
Mouse Connector:	6-pin
USB Connector:	two 4-pin
LAN Connector:	one 4-pin
VGA Port:	one 15-pin
DRAM (Option):	32 MB*1

Speed & CPU	
Speed	CPU
66MHz	Celeron 466 MHz

The worst data using CPU: Celeron 466 MHz, SPS: ADVAN TECH (Model: PS-55A), Hard Disk Driver: IBM (Model: DBCA-203240) 3.25GB in this test report.

EMI Noise Source:

Crystal: 14.318MHz (Y1), 32.768KHz (Y2), 25MHz (X1), 25MHz (X2), 25MHz (X3)

Clock Generator: U18

Description:	Housing
Model:	N/A
Power Rating:	100-240VAC , 47-63Hz, 1-2.5A
Power Supply Type:	ADVAN TECH (Model: PS-55A)
Hard Disk Driver:	IBM (Model: DBCA-203240) 3.25GB
Power Cord:	Non-shielded, Detachable

## 2. Summary

### 2.1 Applicant Information

Applicant: Advantech Co., Ltd.  
FL.4, No. 108-3, Ming-Chuan Road  
Shing-Tien City, Ta  
Taiwan, R. O. C.

### 2.2 Operation Environment

Power supply : 230 Vac / 50 Hz

### 2.3 Description of Equipment Under Test

## Support Unit 1.

Description:	Acer USB Mouse
Model Number:	MUSXT
Serial Number:	81130159
Power Supply Type:	N/A
Power Cord:	N/A
FCC ID:	(comply with FCC DOC)

## Support Unit 2.

Description:	Acer USB Keyboard
Model Number:	6511-P
Serial Number:	9152P0701183I31025S00000
Power Supply Type:	N/A
Power Cord:	N/A
FCC ID:	JVP6511-P

## Support Unit 3.

Description:	HP Printer (for parallel interface port)
Model Number:	2225C
Serial Number:	N/A
Power Supply Type:	Switching (AC to AC Xfmr, Wall Mounted Type)
Power Cord:	Nonshielded, Detachable With Grounding Pin
FCC ID:	DSI6XU2225



## Support Unit 4.

Description:	Logitech Mouse
Model Number:	M-SAH
Serial Number:	LZB81251703
Power Supply Type:	N/A
Power Cord:	N/A
FCC ID:	DZL211029

## Support Unit 5.

Description:	Aceex Modem (for serial interface port 1)
Model Number:	DM1414
Serial Number:	960092566
Power Supply Type:	Linear, Power Adapter ( AC to AC Xfmr, Wall Mounted Type )
Power Cord:	Nonshielded, Without Grounding Pin
FCC ID:	IFAXDM1414

## Support Unit 6.

Description:	Aceex Modem (for serial interface port 2)
Model Number:	DM1414
Serial Number:	960092574
Power Supply Type:	Linear, Power Adapter ( AC to AC Xfmr, Wall Mounted Type )
Power Cord:	Nonshielded, Without Grounding Pin
FCC ID:	IFAXDM1414

## Support Unit 7.

Description:	Aceex Modem (for serial interface port 3)
Model Number:	DM1414
Serial Number:	960063772
Power Supply Type:	Linear, Power Adapter ( AC to AC Xfmr, Wall Mounted Type )
Power Cord:	Nonshielded, Without Grounding Pin
FCC ID:	IFAXDM1414

## Support Unit 8.

Description:	Aceex Modem (for serial interface port 4)
Model Number:	DM1414
Serial Number:	960063771
Power Supply Type:	Linear, Power Adapter ( AC to AC Xfmr, Wall Mounted Type )
Power Cord:	Nonshielded, Without Grounding Pin
FCC ID:	IFAXDM1414

## Support Unit 9.

Description:	Acer Monitor
Model:	7377xe
Serial Number:	999027100501700055P644E1 P
Power Supply Type:	Switching
Power Cord:	Nonshielded, Detachable
FCC ID:	(Comply with FCC DOC)

## Support Unit 10.

Description:	Acer Keyboard
Model Number:	6511-TW4C
Serial Number:	916600704C83D11076S00000
Power Supply Type:	N/A
Power Cord:	N/A
FCC ID:	JVPKBS-WIN

## Support Unit 11.

Description:	Personal Computer
Model:	IBM 2170
Serial No.:	N/A
Power Supply Type :	Switching
	Delta (Model: DPS-145PB-80A)
Hard Disk Drive:	Maxtor (Model: 91303D6) 13.3GB
Floppy Driver:	Panasonic (Model: JU256A276P )
CD-ROM Drive:	AOpen (Model: CD-940E/TKU PRO)
ZIP Driver:	Iomega (Model:Z100ATAPI)
LAN Card	Accton (Model: EN1207D-TX1)
FDD/HDD Controller and	
VGA port/ Parallel/	
Serial port:	Built on Motherboard
VGA port:	one 15-pin
Parallel Port:	one 25-pin
Serial Port:	one 9-pin
Keyboard Connector:	6-pin
Mouse Connector:	6-pin
USB Connector:	two 4-pin
Game Port:	one 15-pin
Speaker Port:	one
Microphone Port:	one
Line In Port:	one
Power Cord:	Nonshielded, Detachable
FCC ID:	N/A (comply with FCC DOC)

### 2.3.1 Software for Controlling Support Unit

Test programs exercising various part of EUT were used. The programs were executed as follows:

- A. Read and write to the disk drives.
- B. Send H pattern to the parallel port device (Printer).
- C. Send H pattern to the serial port device (Modem 1).
- D. Send H pattern to the serial port device (Modem 2).
- E. Send H pattern to the serial port device (Modem 3).
- F. Send H pattern to the serial port device (Modem 4).
- G. Send H pattern to the video port device (Monitor).
- H. Send H pattern to server and receive H pattern from server.
- I. Repeat the above steps.

	Filename	Issued Date
LAN	EMC.exe	11/22/1996
Monitor	HH.bat	8/20/1991
Modem 1	Hm.bat	8/20/1991
Modem 2	Hm.bat	8/20/1991
Modem 3	Hm.bat	8/20/1991
Modem 4	Hm.bat	8/20/1991
Printer1	Wordpad.exe	11/11/1999

### 2.3.2 I/O Cable Condition of EUT and Support Units

Description	Path	Cable Length	Cable Type	Connector Type
AC Power Cord	110V (~240V) to AC Power Cord Inlet (3-pin)	1.8M	Nonshielded, Detachable	Plastic Head Plastic Hood
Server Data Cable	Server to EUT LAN port	33 feet	Shielded, Detachable	RJ-45, with Metal Head, Metal Hood
Keyboard Data Cable	Keyboard to PC Keyboard port	1.8M	Shielded, Undetachable	Metal Head Plastic Hood
Monitor Data Cable	Monitor to PC VGA port	1.6M	Shielded, Detachable	Metal Head Plastic Hood
Modem Data Cable	Modem to PC COM 1 port	1.5M	Shielded, Detachable	Metal Head Metal Hood
Modem Data Cable	Modem to PC COM 2 port	1.5M	Shielded, Detachable	Metal Head Metal Hood
Modem Data Cable	Modem to PC COM 3 port	1.5M	Shielded, Detachable	Metal Head Metal Hood
Modem Data Cable	Modem to PC COM 4 port	1.5M	Shielded, Detachable	Metal Head Metal Hood
Mouse Data Cable	Mouse to PC Mouse port	1.8M	Shielded, Undetachable	Metal Head without Hood
Printer Data Cable	Printer to PC Parallel port	1.5M	Shielded, Detachable	Metal Head Plastic Hood
USB Keyboard Data Cable	Keyboard to PC USB port	1.8M	Shielded, Undetachable	Metal Head Plastic Hood
USB Mouse Data Cable	Mouse to PC USB port	1.8M	Shielded, Undetachable	Metal Head without Hood

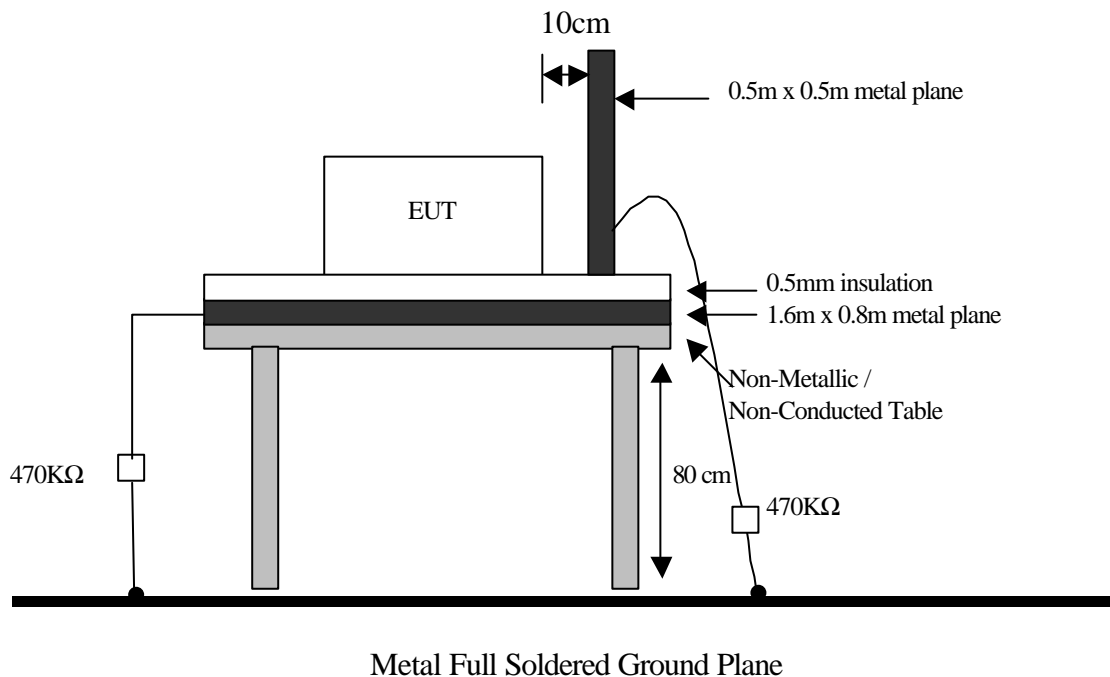
### 3. Electrostatic discharge (ESD) immunity

#### 3.1 Electrostatic discharge (ESD) immunity test

Port:	Enclosure
Basic Standard:	EN61000-4-2
Requirements:	Air      +/- 8 kV
	Contact   +/- 4 kV
Criteria:	B
Temperature:	21 degree C
Humidity:	57%

##### Test Setup

EUT is 1m from the wall and other metallic structure.



**Observation Description**

Direct Application			Test Result	
Discharge Level (kV)	Polarity (+/-)	Test point	Horizontal Coupling	Vertical Coupling
8	+/-	1-4	N/A	Note
4	+/-	1-4	Note	N/A

Description of test point

- |                          |                      |
|--------------------------|----------------------|
| 1. Nonmetallic connector | 3. Nonmetallic Screw |
| 2. Metallic Connector    | 4. Metallic Screw    |

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

Indirect Application			Test Result	
Discharge Level (kV)	Polarity (+/-)	Test point	Horizontal Coupling	Vertical Coupling
4	+/-	1-4	Pass	N/A

Description of test point

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

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

**Test Result**

**Performance of EUT complies with the given specification.**



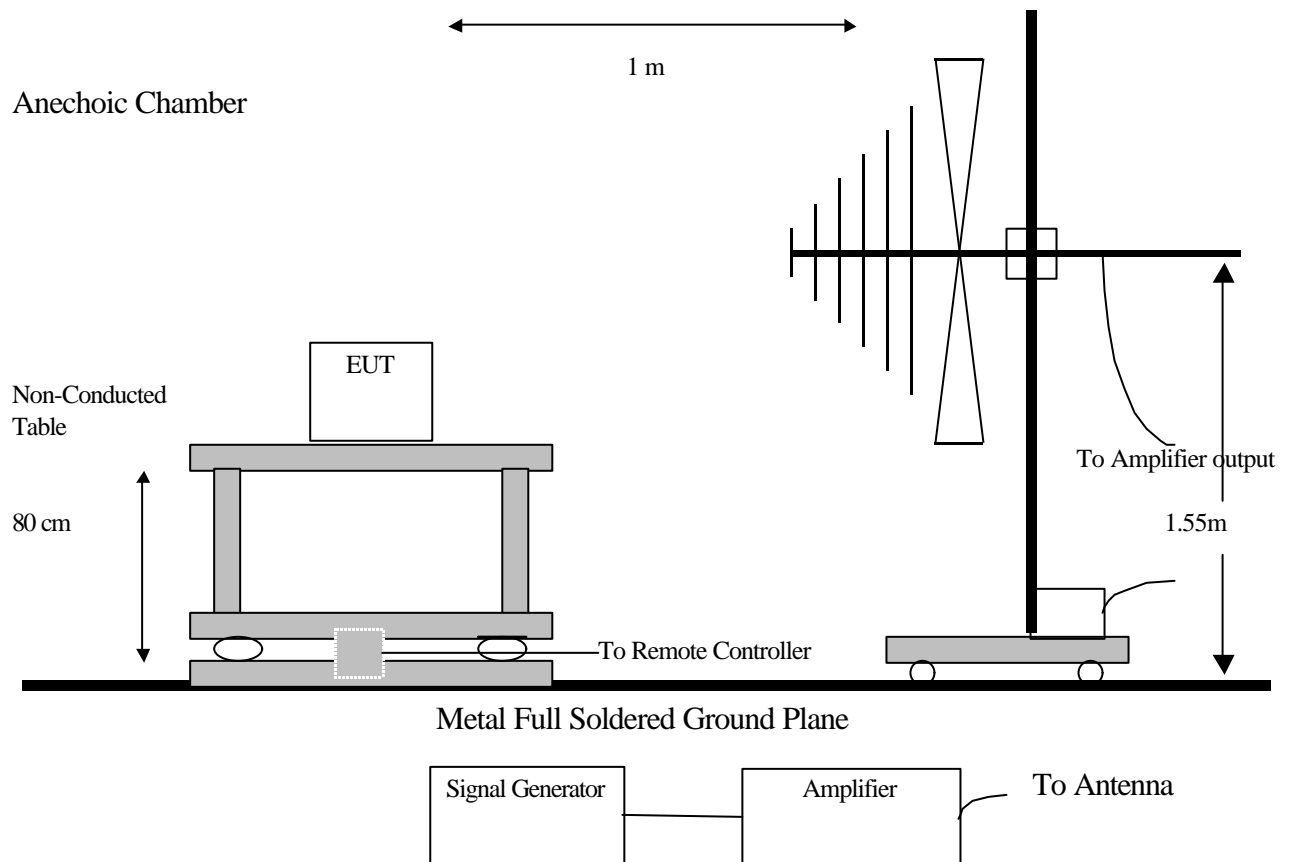
## 4. Radio-Frequency, Electromagnetic Field immunity

### 4.1 Radio-Frequency, Electromagnetic Field immunity test

Port:	Enclosure
Basic Standard:	EN61000-4-3
Modulation	AM 1KHz 80%
Requirements:	10 V/m
Frequency range:	80 MHz~1 GHz
Step:	1% of last step frequency
Step time:	800 ms
Polarization:	Vertical and Horizontal
Criteria:	A
Temperature:	22 degree C
Humidity:	67%

#### Test Setup

The field sensor is placed at one calibration grid point to check the intensity of the established fields on both polarizations. EUT is adjust to have each side of EUT face coincident with the calibration plane. A CCD camera is used to monitor the condition of EUT for the performance judgment.



#### Test Result

**Performance of EUT complies with the given specification.**

## 5. Electrical Fast transients/burst immunity

### 5.1 Electrical Fast transient/burst immunity test

Port: AC mains  
Basic Standard: EN61000-4-4  
Requirements: 2 KV  
Criteria: B  
Rise Time: 5ns  
Hold Time: 50ns  
Repetition Frequency: 5KHz  
Temperature: 21 degree C  
Humidity: 57%

#### **Test Procedure**

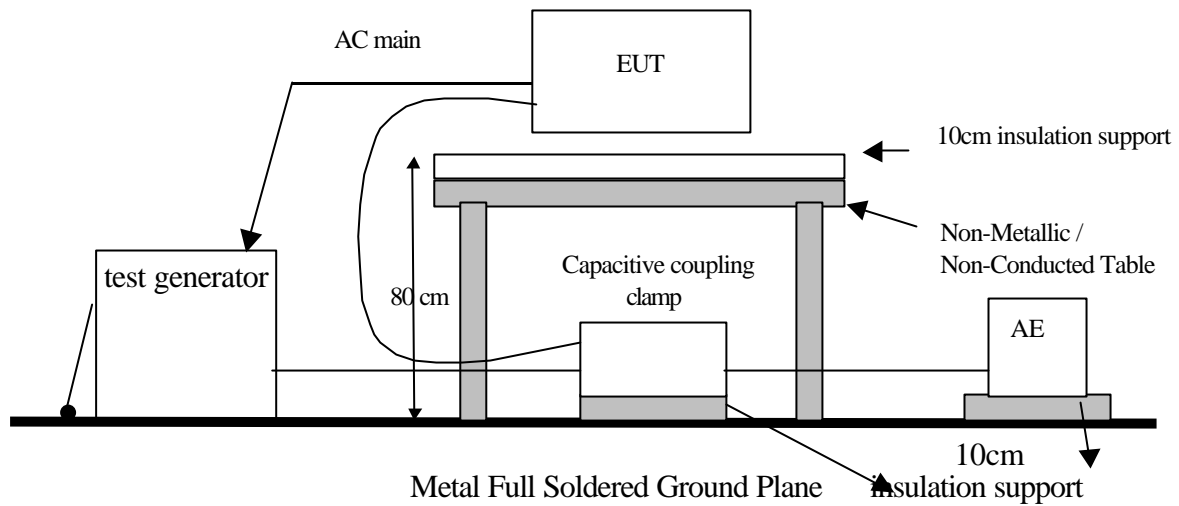
The EUT was setup on a nonconductive table 0.8 m above a reference ground plane.

	Voltage	1 KV	
Test Points	Polarity	Result	Comment
Line	+	N	60 sec
	-	N	60 sec
Neutral	+	N	60 sec
	-	N	60 sec
Ground	+	N	60 sec
	-	N	60 sec
Line to Neutral	+	N	60 sec
	-	N	60 sec
Line to Ground	+	N	60 sec
	-	N	60 sec
Neutral to Ground	+	N	60 sec
	-	N	60 sec
Line to Neutral to Ground	+	N	60 sec
	-	N	60 sec

**Note: 'N' means normal, the EUT function is correct during the test.**

### **Test Setup**

EUT is at least 50cm from the conductive structure .



### **Test Result**

**Performance of EUT complies with the given specification.**

## 5.2 Electrical Fast transient/burst immunity test for I/O cable

Port:	phone, twisted pairs LAN port
Basic Standard:	EN61000-4-4
Requirements:	1 kV
Criteria:	B
Rise Time:	5ns
Hold Time:	50ns
Repetition Frequency:	5KHz
Temperature:	21 degree C
Humidity:	57%

### **Test Result**

**Performance of EUT complies with the given specification.**

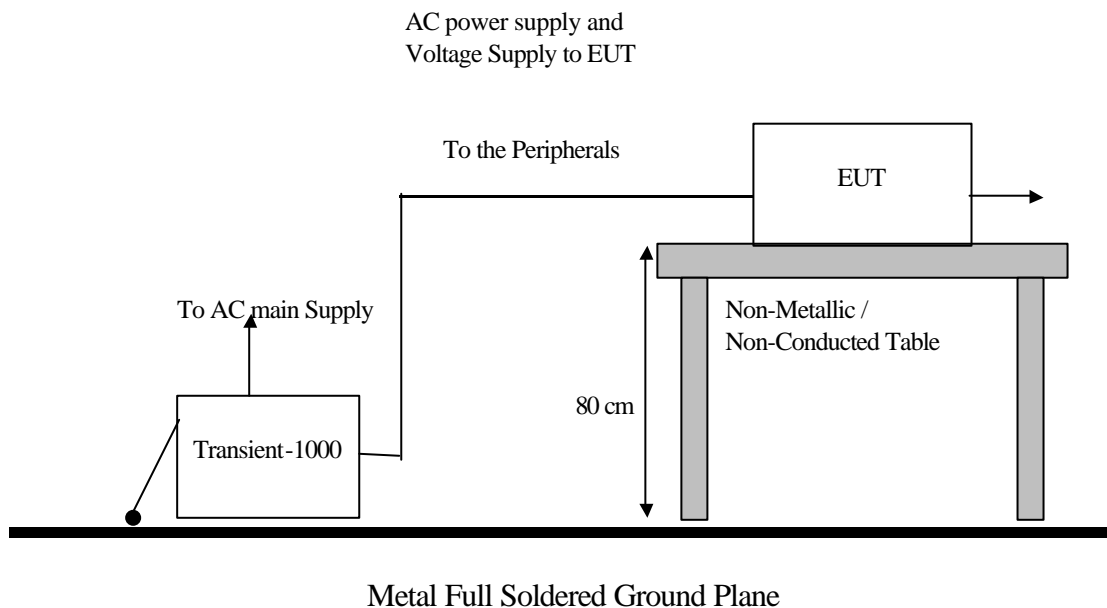
## 6. Surge Immunity

### 6.1 Surge immunity test

Port: AC mains and Telephone Line  
Basic Standard: EN61000-4-5  
Criteria: B  
Rise Time: 1.2us  
Hold Time: 50us  
Temperature: 21 degree C  
Humidity: 57%  
Test Level: AC Power Port: 1 kV (line to line), 2kV (line to earth)  
Telephone Line: 1kV (line to ground)

Repetition Rate: ☒ 30 second  
Angle: ☒ 0°  
☒ 90°  
☒ 270°  
Polarity: ☒ positive ☒ negative°

#### Test Setup



#### Test Result

**Performance of EUT complies with the given specification.**

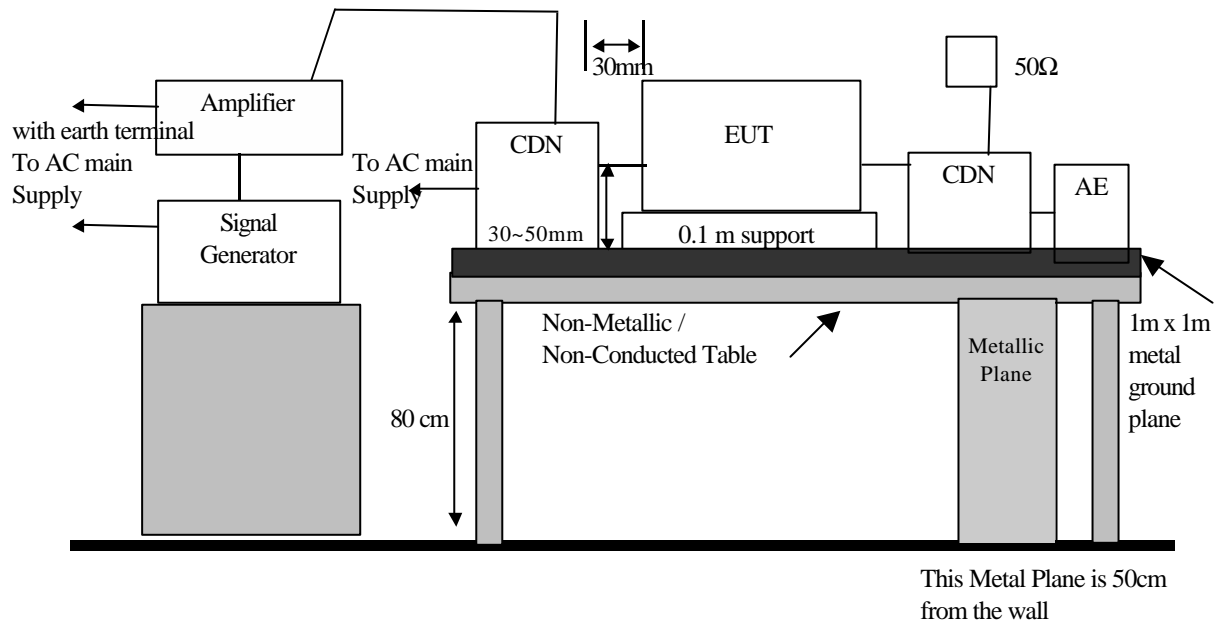
## 7. Immunity to Conductive Disturbance

### 7.1 Immunity to Conductive Disturbance

Port: AC mains & Telephone ports  
Basic Standard: EN61000-4-6  
Test Level: 10 V  
Modulation: AM 1KHz 80%  
Criteria: A

Frequency range: 0.15 MHz - 80MHz  
Step: 1% of last Frequency  
Step time: 1000 mS  
Temperature: 21 degree C  
Humidity: 57%

#### Test Setup



Metal Full Soldered Ground Plane

#### Test Result

Performance of EUT complies with the given specification.

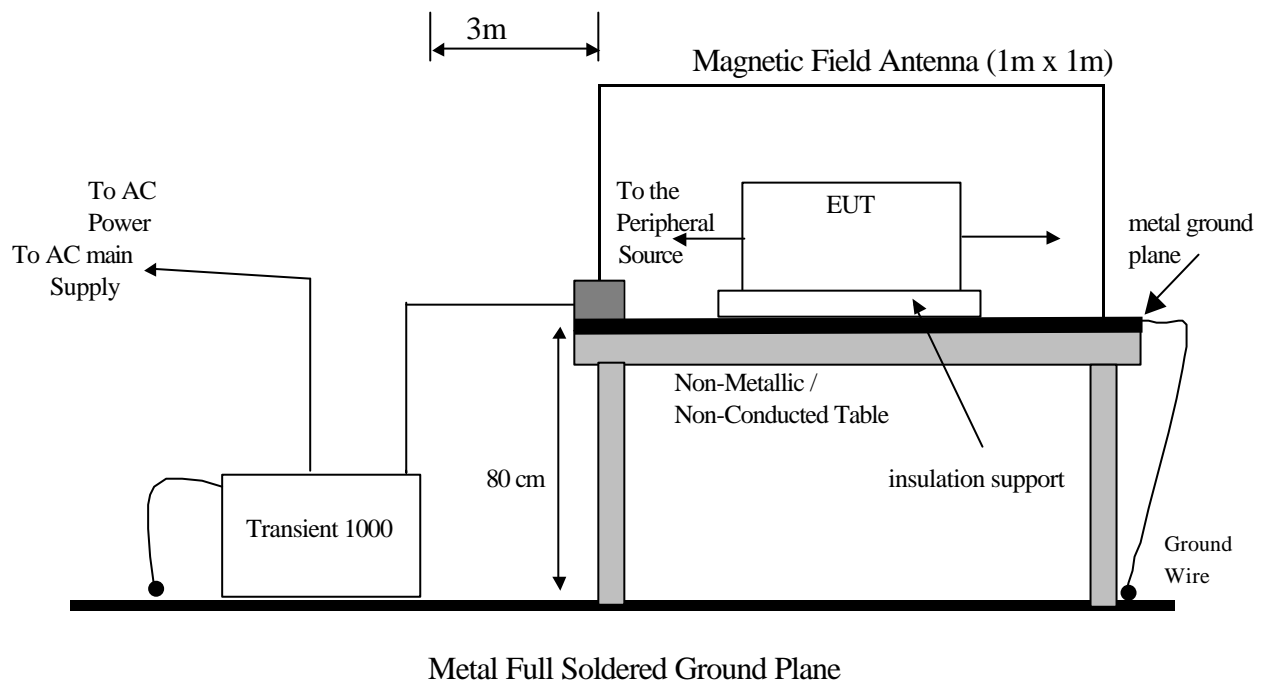


## 8. Power Frequency Magnetic Field immunity

### 8.1 Power Frequency Magnetic field immunity test

Port:	Enclosure
Basic Standard:	EN61000-4-8
Requirements:	30 A/m
Criteria:	A
Orientation:	X, Y, Z
Temperature:	21 degree C
Humidity:	57%

#### Test Setup



#### Test Result

**Performance of EUT complies with the given specification.**

## 9. Voltage Dips, Short Interruption and Voltage Variation immunity

### 9.1 Voltage Dips, Short Interruption and Voltage Variation immunity test

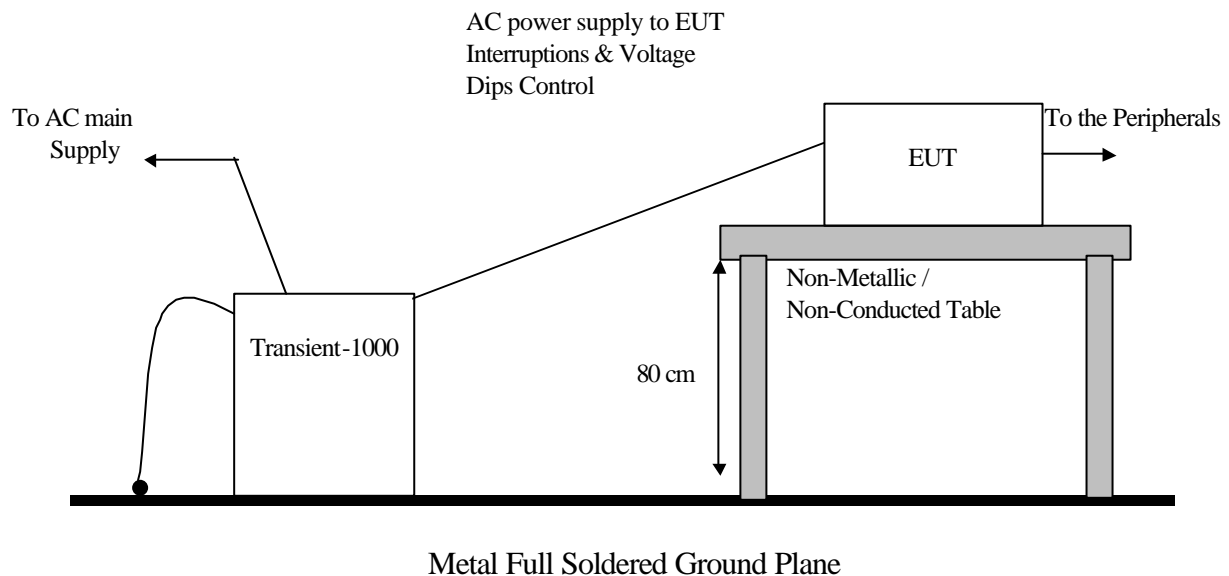
Port: AC mains  
Basic Standard: EN61000-4-11  
Phase: 0°  
Test intervals: 3 times with 10s each

Voltage Dips: >95% in 0.5 period  
Criteria: B

Voltage Dips: 30% in 25 period  
Criteria: C

Voltage Interruption: >95% in 250 period  
Criteria: C

#### Test Setup



#### Test Result

**Performance of EUT complies with the given specification.**

## 10. Harmonics

### 10.1 Harmonics test

Port:	AC mains
Active Input Power:	$\leq 75\text{W}$
Basic Standard:	EN61000-3-2
Test Duration:	3min.
Class:	A

#### **Test Procedure**

The EUT is supplied in series with shunts or current transformers from a source having the same nominal voltage and frequency as the rated supply voltage and frequency of the EUT. The EUT is configured to its rated current with additional resistive load when the testing is performed.

Equipment having more than one rated voltage shall be tested at the rated voltage producing the highest harmonics as compared with the limits.

#### **Result**

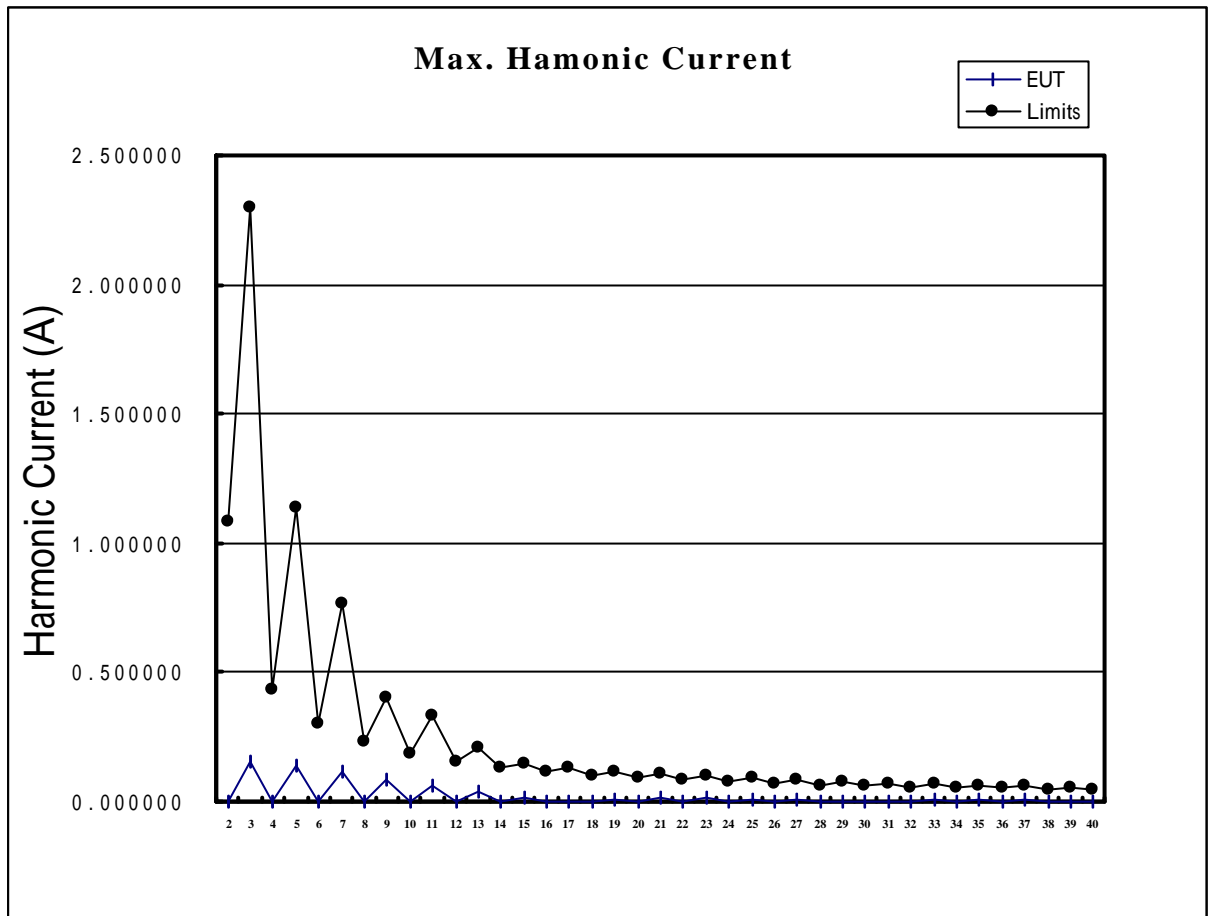
**Performance of EUT complies with the given specification.**

**Test Data**

Power (W)	Power Factor	Power Voltage	Power Current
38.752	0.531	229.615	0.174

Maximum permissible harmonic current (A)

Order	Data	Order	Data	Order	Data
1		16	0.0010	31	0.0033
2	0.0031	17	0.0018	32	0.0003
3	0.1536	18	0.0002	33	0.0051
4	0.0015	19	0.0107	34	0.0002
5	0.1362	20	0.0002	35	0.0053
6	0.0015	21	0.0147	36	0.0002
7	0.1132	22	0.0002	37	0.0043
8	0.0011	23	0.0146	38	0.0002
9	0.0869	24	0.0002	39	0.0027
10	0.0009	25	0.0116	40	0.0002
11	0.0600	26	0.0001	41	
12	0.0005	27	0.0069	42	
13	0.0352	28	0.0003	43	
14	0.0010	29	0.0024	44	
15	0.0147	30	0.0003	45	



## 11. Voltage Fluctuations

### 11.1 Voltage Fluctuations test

Port:	AC mains
Basic Standard:	EN61000-3-3
Observation period:	For Pst 10min For Plt 2 hours

#### **Test Procedure**

The EUT is supplied in series with reference impedance from a power source with the voltage and frequency as the nominal supply voltage and frequency of the EUT.

#### **Result**

**Performance of EUT complies with the given specification.**



## 12. Test Equipment List

Location Remark	Equipment	Brand	Model	Start Service Date	Last Cal. Date	Next Cal. Date
2,4,5,8,11	Test Generator	PRECISION	TRA1000-126 S/N: TRA1H01B	6/30/1994	8/9/2000	8/9/2001
3,6	Power meter	HP	438A S/N: 3513U06187	10/23/1997	10/23/2000	10/23/2001
3,6	Power Sensor	HP	8482A S/N: 3318A29614	10/23/1997	1/03/2000	1/03/2001
3	Signal Generator	HP	8648B S/N: 3642U01040	6/30/1997	3/13/2001	3/13/2003
3	BILOG Antenna	CHASE	CBL6112 S/N: 2077	10/20/1998	1/10/2001	1/09/2002
3	Power Amplifier	Amplifier Research	100W1000M1 S/N:	3/31/1996	N/A	N/A
3	Field Strength Sensor	Amplifier Research	FP2000 S/N: 15397	3/31/1996	N/A	N/A
3	Field Strength Meter	Amplifier Research	FM2000 S/N: A285000011	3/31/1996	N/A	N/A
3	Thermo-hygrometer	CRECER	S/N: ISL-C-003	11/26/1999	1/12/2001	1/11/2002
4	Clamp	Precision	1604242 S/N: CNEFT1000-103	6/30/1994	N/A	N/A
5,6	CDN	FCC Inc.	FCC-801-T2 S/N:9720	6/30/1994	1/11/2001	1/10/2002
6	CDN	FCC Inc.	FCC-801-T4 S/N: 9721	6/30/1994	1/11/2001	1/10/2002
6	CDN	FCC Inc.	FCC-801-M3-25A S/N: 2032	6/30/1994	1/11/2001	1/10/2002
6	Signal Generator	HP	8656B S/N: 2635A04675	6/30/1992	8/17/2000	8/17/2001
6	Power Amplifier	Amplifier Research	150A100 S/N: 1-1-R-02157	3/1/1996	N/A	N/A
6	Passive Impedance Adapter	FCC Inc.	FCC-801-150-50-CDN S/N: 9758 & 9759	3/1/1996	N/A	N/A
6	50 ohms load	Weinschel Corp	1429-4 S/N: DB3318	3/1/1996	N/A	N/A
6	6dB Attenuator	Weinschel Corp	33-6-34 S/N: BC5975	3/1/1996	N/A	N/A
8	Magnetic Field Antenna	Precision	TRAIZ44B S/N: MF1000-23	8/30/1997	N/A	N/A
*2, *3	3-Channel Power Analysis System	Xitron Technologies	2503AH S/N: 25015940001	6/30/1994	2/09/2001	2/09/2002
*2, *3	Frequency Converter	Extech Electronics	CFC-110	6/30/1994	N/A	N/A
2,4,5,6,8,11	Thermo-hygrometer	MICROLIFE	S/N: ISL-C-004	11/26/1999	1/12/2001	1/12/2002

Note: \*\*\*: The equipment is sent for calibration.

Location Remark List:

2: EN61000-4-2

3: EN61000-4-3

4: EN61000-4-4

5: EN61000-4-5

6: EN61000-4-6

8: EN61000-4-8

11: EN61000-4-11

\*2: EN61000-3-2

\*3: EN61000-3-3

## 13. Photographs

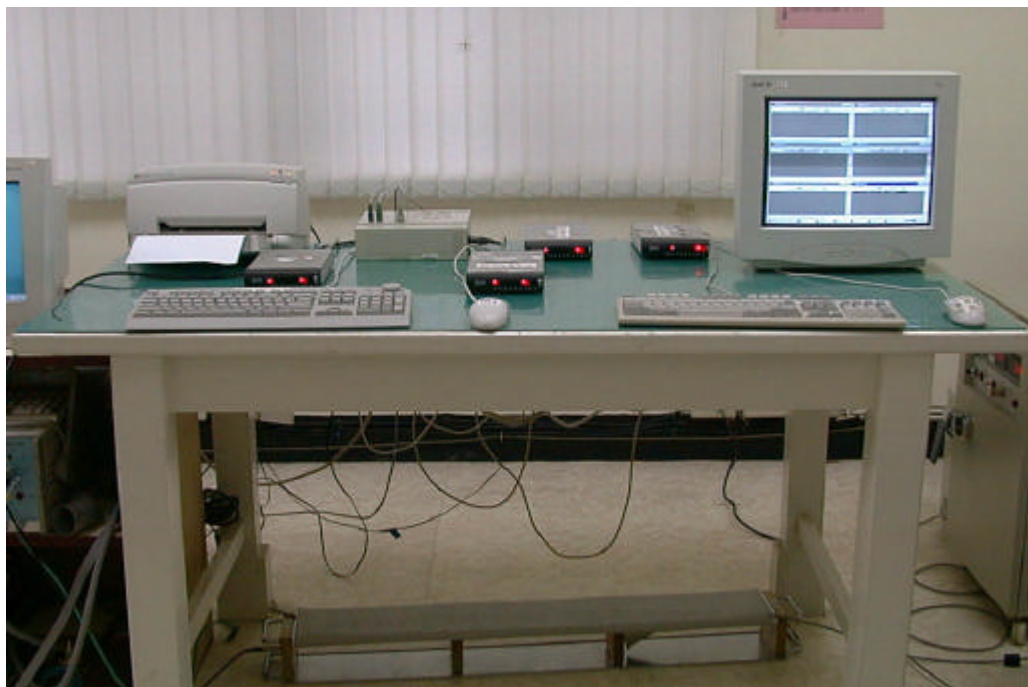
### 13.1 Photos of ESD measurement



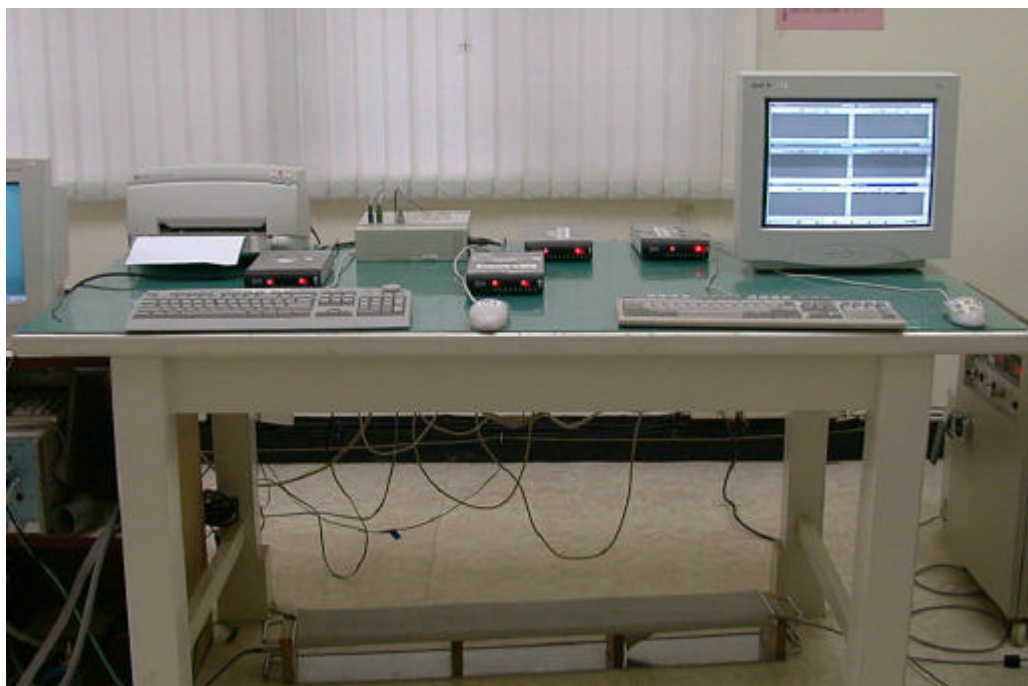
### 13.2 Photos of RF Field Strength Susceptibility Measurement



### 13.3 Photos of Electrical Fast Transient/Burst measurement



### 13.4 Photos of Surge measurement

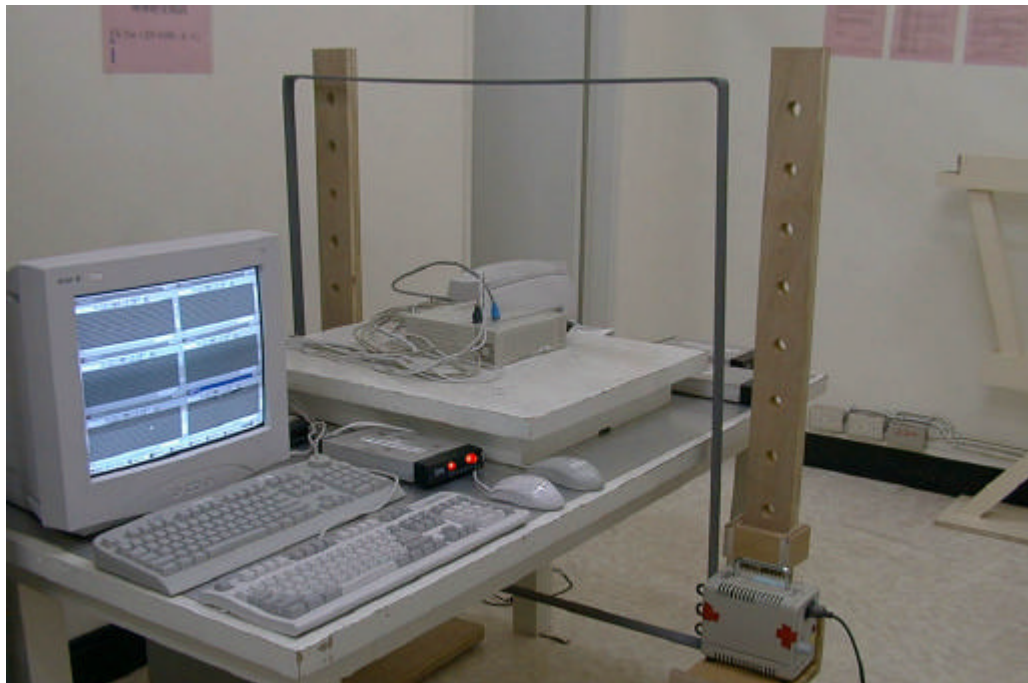




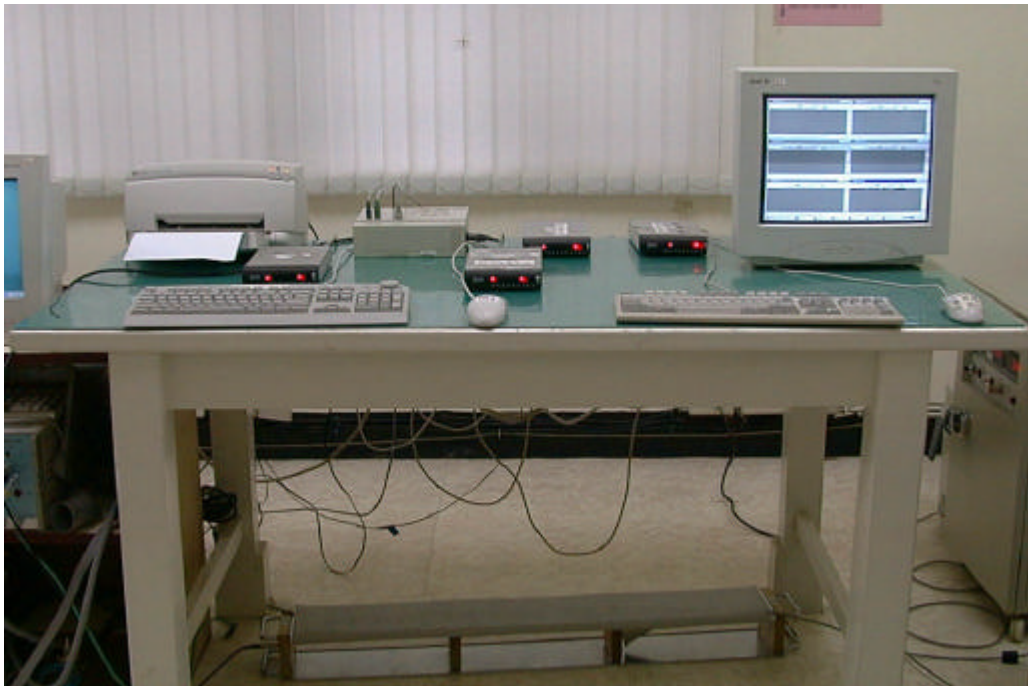
### 13.5 Photo of Conductive Measurement



### 13.6 Photo of Magnetic field measurement



### 13.7 Photos of Voltage Dips measurement



### 13.8 Photos of Harmonics and Voltage Fluctuations



### **13.9 Appendix: Photographs of EUT**

Please find this appendix in the File of **ISL-01B022P**