Product Name:	5.7" Ethernet Operator Panel
Model No.:	AOP-8060
Applicant:	AAEON TECHNOLOGY INC. 5F, NO. 135, LANE 235, PAO CHIAO RD., HSIN-TIEN CITY, TAIPEI, TAIWAN, R.O.C.
Date of Receipt:	Jul. 15, 2004
Finished date of Test:	Aug. 16, 2004
Applicable Standards:	

Emission

EN 55011:1998+A1:1999+A2:2002 Group 1 Class A

EN 55022:1998+A1:2000+A2:2003, Class B

Immunity

EN 61000-6-1:2001

EN55024:1998+A1:2001+A2:2003

- IEC 61000-4-2:1995+A1:1998+A2:2001
- IEC 61000-4-3:2002+A1:2002
- ENV 50204:1995
- IEC 61000-4-4:1995+A1:2001+A2:2001
- IEC 61000-4-6:1996+A1:2001
- IEC 61000-4-8:1993+A1:2001

We, **Spectrum Research & Testing Laboratory Inc.**, hereby certify that one sample of the above was tested in our laboratory with positive results according to the above-mentioned standards. The records in the report are an accurate account of the results. Details of the results are given in the subsequent pages of this report.

Checked By : Sunyou Chen , Date: 8/17/2004

(Sunyou Chen)

Approved By : , Date: 8/17/2004

(Johnson Ho, Director)

NVLAP®

Lab Code: 200099-0

Table of Contents

1. DOCUMENT POLICY AND TEST STATEMENT

1.1 DOCUMENT POLICY

- The report shall not be reproduced except in full, without the written approval of SRT Lab, Inc.
- The report must not be used by the applicant to claim that the product is endorsed by NVLAP, TÜV, NEMKO and SRT.
- The NVLAP logo applies only to the applicable standards specified in this report.

1.2 TEST STATEMENT

- The test results in the report apply only to the unit tested by SRT Lab.
- There was no deviation from the requirements of test standards during the test.
- DC 24V (for EUT) and AC 230V/50Hz (for support units) were used for all the test items.
- The EN 61000-3-2 edition 2:2000(Harmonic test) and EN 61000-3-3:1995+A1:2001 (Flicker test) are not included in the scope of NVLAP logo usage.
- The EN 61000-3-2 edition 2:2000(Harmonic test) and EN 61000-3-3:1995+A1:2001 (Flicker test) are included in the scope of TÜV, NEMKO and SRT logo usage.

1.3 EUT MODIFICATION

- No modification in SRT Lab.

2. DESCRIPTION OF EUT AND TEST MODE

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	5.7" Ethernet Operator Panel
MODEL NO.	AOP-8060
POWER SUPPLY	DC 24V
CABLE	Shielded power cable (1.5m) with one ferrite core, Unshielded PS/2 cable (0.15m)

NOTE :

For more detailed information, please refer to the EUT' s specification or user' s manual provided by manufacturer.

2.2 DESCRIPTION OF EUT INTERNAL DEVICE

DEVICE	BRAND / MAKER	MODEL #	REMARK
PANEL	HITACHI	SX14Q004	
CF CARD	SanDisk	SDCFB	

NOTE :

1. The highest clock is 32MHz.
2. The CPU installed on main board is 200MHz, clock chip is 100MHz.
3. Max. resolution is 320 x 240.
4. Frequency range to be measured.
   Radiated emission is 30MHz to 1GHz.

2.3 DESCRIPTION OF TEST MODE

N/A (It is only applicable to more than one test mode.)

2.4 DESCRIPTION OF SUPPORT UNIT

The EUT was configured by the requirement of EN 55011:1998+A1:1999+A2:2002 Group 1 Class A and EN 55022:1998+A1:2000+A2:2002. All interface ports were connected to the appropriate support units via specific cables. The support units and cables are listed below.

NO	DEVICE	BRAND	MODEL #	CABLE
1	DC POWER SUPPLY	SHENG 1	SPS-300	1.8m unshielded power cable
2	PRINTER	EPSON	STYLUS C20SX	1.5m unshielded power cord 1.5m shielded data cable
3	SPEAKER	JS	J-205A	1.8m unshielded power cable 1.2m unshielded data cable
4	KEYBOARD	ACER	6312-TA4C/6	1.5m shielded data cable
5	MOUSE	HP	M-S34	1.5m shielded data cable
6	USB MOUSE	LOGITECH	M-BE58	1.5m shielded data cable
7	USB MOUSE	HP	MO19UCA	1.5m shielded data cable

NOTE: For the actual test configuration, please refer to the photos of testing.

3. DESCRIPTION OF APPLIED STANDARDS

The EUT is a kind of ITE interface device and according to the specifications provided by the applicant, it must comply with the requirements of the following standards:

EN 55011:1998+A1:1999+A2:2002 Group 1 Class A

EN 55022:1998+A1:2000+A2:2003, Class B

EN 61000-3-2 edition 2:2000

EN 61000-3-3:1995+A1:2001

EN 61000-6-1:2001

EN 55024:1998+A1:2001+A2:2003

- IEC 61000-4-2:1995+A1:1998+A2:2001
- IEC 61000-4-3:2002+A1:2002
- ENV 50204:1995
- IEC 61000-4-4:1995+A1:2001+A2:2001
- IEC 61000-4-5:1995+A1:2001
- IEC 61000-4-6:1996+A1:2001
- IEC 61000-4-8:1993+A1:2001
- IEC 61000-4-11:1994+A1:2001

But the standards of EN 61000-3-2, EN 61000-3-3, IEC 61000-4-5 and IEC 61000-4-11 were not measured, because the EUT' s power source is DC 24V from an external power supply.

All tests have been performed and recorded as the above standards.

4. EMISSION TEST

4.1 CONDUCTED EMISSION TEST FOR MAIN PORT

The conducted emission test were not measured, because the EUT' s power source is DC 24V from an external power supply.

4.2 RADIATED EMISSION TEST

4.2.1 RADIATED EMISSION LIMIT

EN 55011:1998+A1:1999+A2:2002 Group 1 Class A and EN 55022:1998+A1:2000 +A2:2003 limits of radiated emission measurement for frequency below 1000 MHz

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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBμV/m) = 20 log Emission level (μV/m).

4.2.2 TEST EQUIPMENT

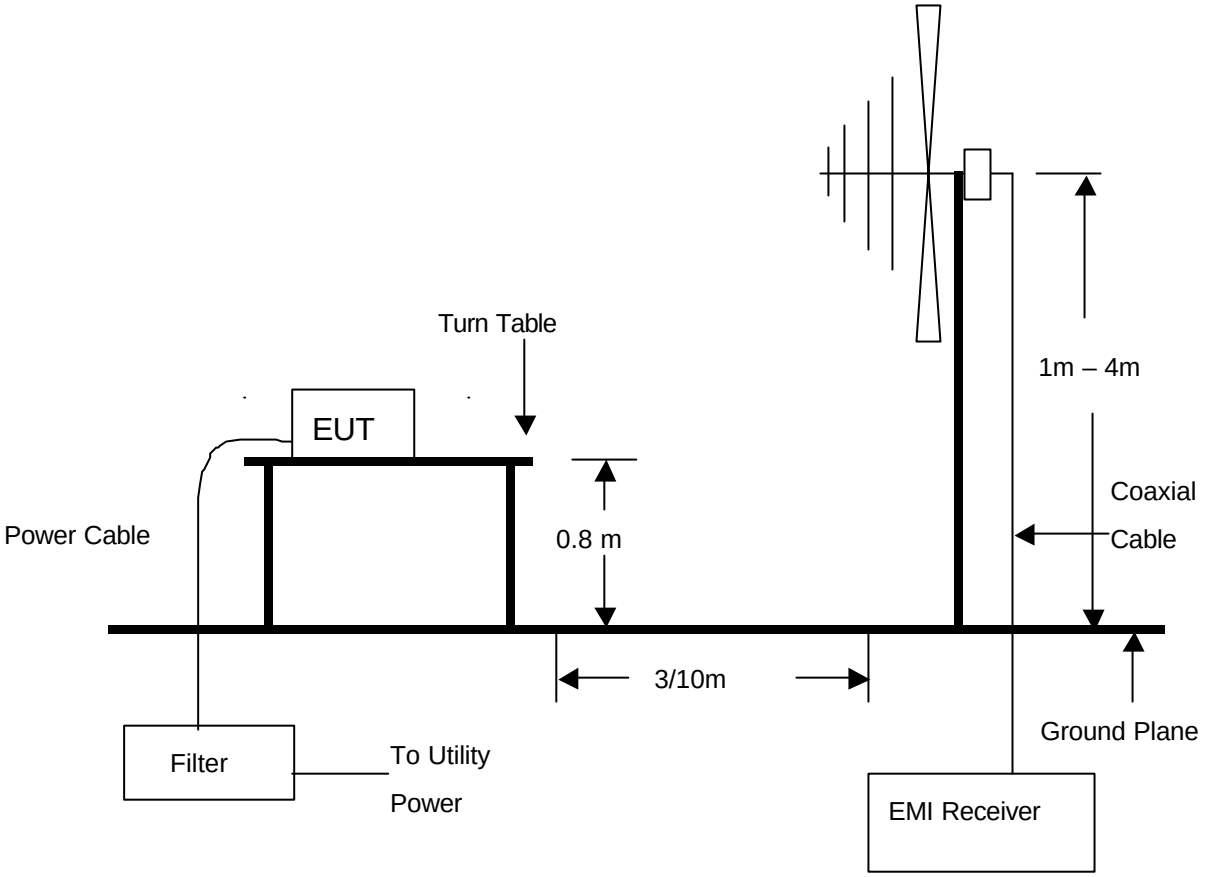
The following test equipment was used during the radiated emission test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST RECEIVER	20 MHz TO 1000 MHz	ROHDE & SCHWARZ	ESVS30/ 841997/003	AUG. 2004 ETC
BI-LOG ANTENNA	25 MHz TO 2 GHz	EMCO	3142/ 9701-1124	APR. 2005 SRT
OATS	3 – 10 M MEASUREMENT	SRT	SRT-1	APR. 2005 SRT
COAXIAL CABLE	25M	SUNCITY	J400/ 25M	AUG. 2004 SRT
FILTER	2 LINE, 30A	FIL.COIL	FC-943/ 869	N/A
FREQUENCY CONVERTER	N/A	APC	AFC-2KBB/ F100030031	AUG. 2005 SRT

NOTE:

1. The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.
2. The Open Area Test Site (SRT-1) is registered by FCC with No. 90957 and VCCI with No. R-1081.
3. The Open Area Test Site (SRT-2) is registered by FCC with No. 98458 and VCCI with No. R-1168.

4.2.3 TEST SET-UP



NOTE:

1. The EUT system was put on a wooden table with 0.8m heights above a ground plane.
2. For the actual test configuration, please refer to the photos of testing.

4.2.4 TEST PROCEDURE

The EUT was tested according to the requirement of EN 55011:1998+A1:1999+A2:2002 Group 1 Class A and EN 55022:1998+A1:2000+A2:2003. The measurements were made at an open area test site with 10 meter measurement distance. The frequency spectrum measured from 30 MHz to 1 GHz. All readings were quasi-peak values with 120 kHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. The cables connected to EUT and support units were moved to find the maximum emission levels for each frequency.
First, find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.

4.2.5 EUT OPERATING CONDITION

Under Win CE ran “ Media Player“ program.

4.2.6 TEST RESULT

Temperature:	29° C	Humidity:	54 %RH
Ferquency Range:	30 – 1000 MHz	Measured Distance:	10m
Receiver Detector:	Q.P.	Tested Mode:	N/A
Tested By:	Yvonne Chen	Tested Date:	Aug. 12, 2004

Antenna Polarization:Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
133.6600	2.01	7.37	17.8	27.2	30.0	-2.8	165.3	4.0
402.8900	4.45	15.84	11.2	31.5	37.0	-5.5	247.8	3.5
501.5700	4.98	21.26	8.6	34.8	37.0	-2.2	100.2	2.0
565.2950	5.48	19.72	6.3	31.5	37.0	-5.5	98.7	2.0
577.5750	5.55	20.06	9.4	35.0	37.0	-2.0	130.9	1.5
668.1550	6.02	21.28	6.2	33.5	37.0	-3.5	321.4	1.5

Antenna Polarization:Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
51.7480	1.18	8.40	16.2	25.8	30.0	-4.2	255.1	1.2
402.8910	4.45	15.84	10.7	31.0	37.0	-6.0	231.2	1.4
501.4775	4.98	21.26	8.3	34.5	37.0	-2.5	50.0	2.1
533.9500	5.25	19.98	8.0	33.2	37.0	-3.8	198.6	2.1
565.2830	5.48	19.72	6.2	31.4	37.0	-5.6	121.2	2.5
577.5720	5.55	20.06	7.0	32.6	37.0	-4.4	174.8	2.5

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "*": Measurement does not apply for this frequency.
3. Emissiom Level = Reading Value + Ant. Factor + Cable Loss.
4. The field strength of other emission frequencies were very low against the limit.

5. ELECTROSTATIC DISCHARGE IMMUNITY TEST

5.1 TEST EQUIPMENT

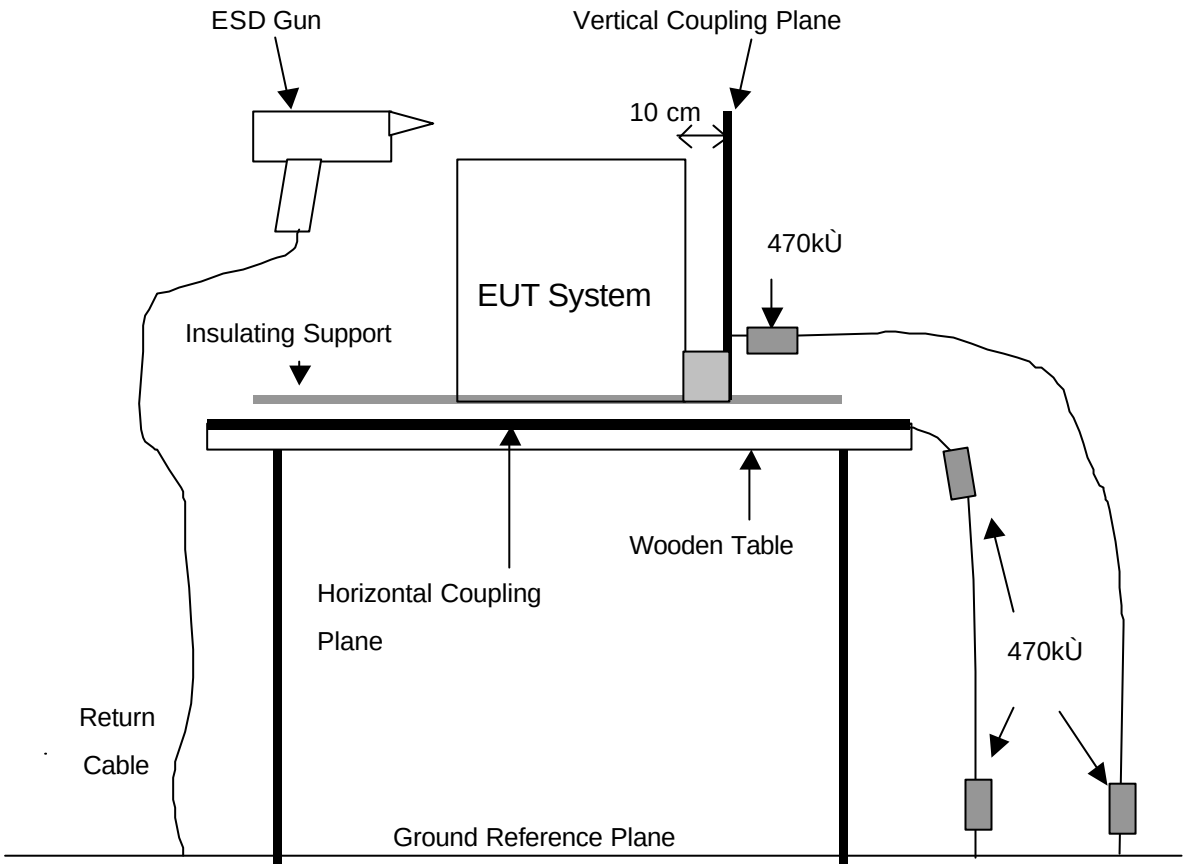
EQUIPMENT / FACILITIES	MANUFACTURER	MODEL # / SERIAL #	DUE DATE OF CAL. & CAL. CENTER
ESD SIMULATOR	NOISEKEN	ESS-100L(A)/TC-815P/ 8099C02238/7099C02	NOV. 2004 ETC
HCP (1.6M x 0.8M)	SRT	WITH TWO 470k OHM CABLE	N/A
VCP (0.5M x 0.5M)	SRT	WITH TWO 470k OHM CABLE	N/A
GROUND PLANE (3.4M x 2.4M)	SRT	N/A	N/A

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

5.2 TEST PROCEDURE

According to IEC/EN 61000-4-2:1995+A1:1998+A2:2001

5.3 TEST SET-UP



NOTE :

1. The wooden table should be 0.8m high for table top EUT and 0.1m for floor-standing EUT.
2. For the actual test configuration, please refer to the photos of testing.
3. A distance of 1m minimum was provided between EUT and walls / other metallic structure.

5.4 TEST CONDITION AND PERFORMANCE CRITERION

1. Test condition

(1) R-C Network		330 Ù, 150 pF
(2) Test level: Air Discharge	:	±2kV, ±4kV, ±8kV
Contact discharge	:	±2kV, ±4kV
HCP discharge :		±2kV, ±4kV
VCP discharge :		±2kV, ±4kV
(3) Discharge mode	:	Single discharge
(4) Discharge period	:	at least 1 s
(5) Discharge polarity	:	Positive and Negative
(6) Number of discharge	:	Minimum 50 times at each test point of contact discharge and at least 200 times of discharge to EUT in total. Minium 10 times at each test area of air discharge selected.

2. Standard requirement : Criterion B

3. Performance criterion

(1) Criterion A	:	Normal performance during test
(2) Criterion B	:	Temporary degradation or loss of function or performance which is self-recoverable
(3) Criterion C	:	Temporary degradation or loss of function or performance which requires operator intervention system reset

5.5 SUMMARY OF TEST RESULT

Temperature:	24 °C	Humidity:	55% RH
Tested Mode:	N/A	Tested By:	Yvonne Chen
Atmospheric Air Pressure:	101.2 kPa	Tested Date:	Aug. 16, 2004

Test Result: Criterion A pass

SEVERITY LEVEL	COUPLING MODE & TEST OBSERVATION			
	AIR DISCHARGE	CONTACT DISCHARGE	HCP	VCP
±2kV	A	A	A	A
±4kV	A	A	A	A
±8kV	A	NR	NR	NR

NOTE:

Description of test observation:

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

NR: No requirement

Description of test points:

1. Screws of EUT.
2. Enclosure of EUT.
3. LED of EUT.
4. Power port of EUT.
5. HCP.
6. VCP.

6. RADIATED IMMUNITY TEST

6.1 TEST EQUIPMENT

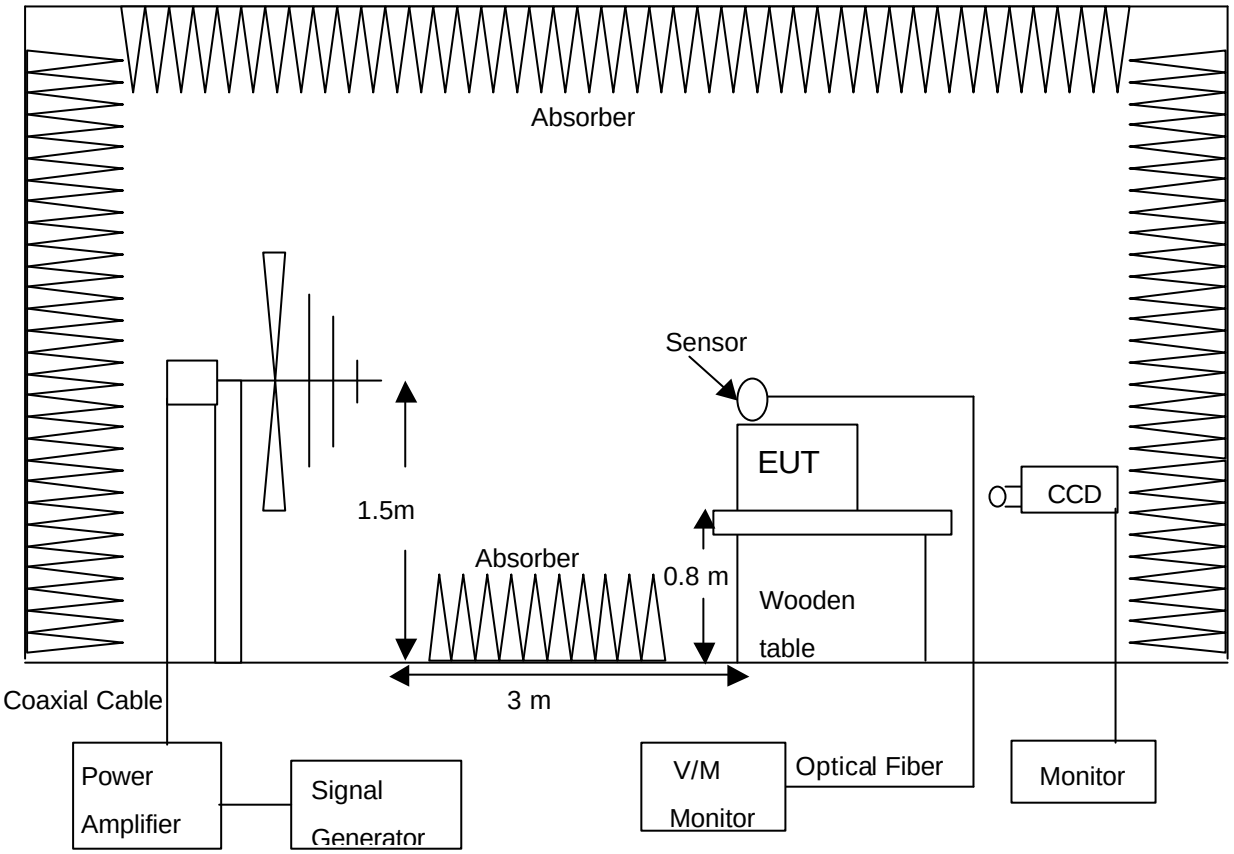
EQUIPMENT / FACILITIES	MANUFACTURER	MODEL # / SERIAL #	DUE DATE OF CAL. & CAL. CENTER
SIGNAL GENERATOR	HP	8648D/ 3847M00637	MAY. 2005 AGLIENT
ANTENNA	SCHAFFNER CHASE	CBL6141A / 4181	SEP. 2004 SRT
FIELD SENSOR	AMPLIFIER RESEARCH	FP2000/ 28499	DEC. 2004 ETC
POWER AMPLIFIER	AMPLIFIER RESEARCH	100W1000M1/ 19509	JUN. 2005 ETC
AMPLIFIER	A.R.	50S1G4A/ 308703	APR. 2005 A.R.
DUAL DIRECTIONAL COUPLER	A.R.	DC7420 / 308626	MAR. 2005 A.R.
ISOTROPIC "E" FIELD PROBE	A.R.	FP4080 KIT	MAR. 2005 A.R.
POWER SENSOR	BOONTON	51011EMC / 31181	NOV. 2004 ETC
POWER SENSOR	BOONTON	51011EMC / 31184	JUN. 2005 ETC
DUAL DIRECTIONAL COUPLER	A.R.	DC6080 / 25755	JUN. 2005 ETC
ANECHOIC CHAMBER	SRT	A05/ SRT005	OCT. 2004 SRT
V/M MONITOR	A.R.	FM2000/ 15970	N/A
MONITOR	SHIN	SI-609/ 905130	N/A
CCD	TOPVIEW	N/A/ 95113762	N/A
ABSORBER	ETS	N/A	N/A
COAXIAL CABLE	SUNCITY	J400/ 30CM	APR. 2005 SRT
COAXIAL CABLE	TIME	LMR-400/ 4M	APR. 2005 SRT

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

6.2 TEST PROCEDURE

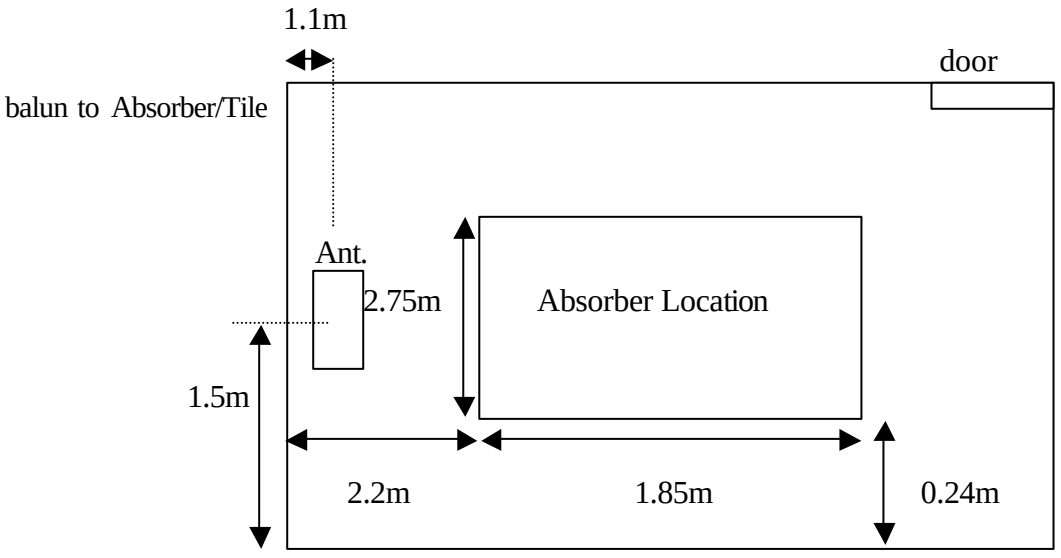
According to IEC/EN 61000-4-3:2002+A1:2002

6.3 TEST SETUP



NOTE :

1. The wooden table should be 0.8m high for table top EUT and 0.1m for floor-standing EUT.
2. For the actual test configuration, please refer to the photos of testing.



chamber (7m x 3m x 3m)

6.4 TEST CONDITION / PERFORMANCE CRITERIA

1. Test condition
   (1) Source voltage and frequency :230V/50Hz, single phase
   (2) Sweeping frequency : 80MHz – 1 GHz
   (3) Test level :3V/m, the frequncy step is 1%
   (4) The four sides of EUT are tested :front, rear, left, right
   (5) Modulation :80%AM, 1kHz Dwell time for each frequency is 3 sec.
   (6) Antenna Polarization :Horizontal and Vertical
   (7) Standard requirement :Criterion A

2. Performance criterion
   (1) Criterion A : Normal performance during test
   (2) Criterion B : Temporary degradation or loss of function or performance which is self-recoverable.
   (3) Criterion C : Temporary degradation or loss of function or performance which requires operator intervention system reset.

6.5 TEST RESULT

Temperature:	25° C	Humidity:	55 % RH
Tested Mode:	N/A	Tested By:	Yvonne Chen
		Tested Date:	Aug. 13, 2004

Test Result : Criterion A pass

FREQUENCY	LEVEL	MODULATION	DIRECTION	TEST RESULT (CRITERION)	
				H	V
80MHz - 1GHz	3V/m	80%AM, 1kHz	FRONT	A	A
80MHz - 1GHz	3V/m	80%AM, 1kHz	REAR	A	A
80MHz - 1GHz	3V/m	80%AM, 1kHz	LEFT	A	A
80MHz - 1GHz	3V/m	80%AM, 1kHz	RIGHT	A	A

NOTE:
Description of test observation:
A: There was no change compared with initial operation during the test.

7. RADIATED IMMUNITY TEST

7.1 TEST EQUIPMENT

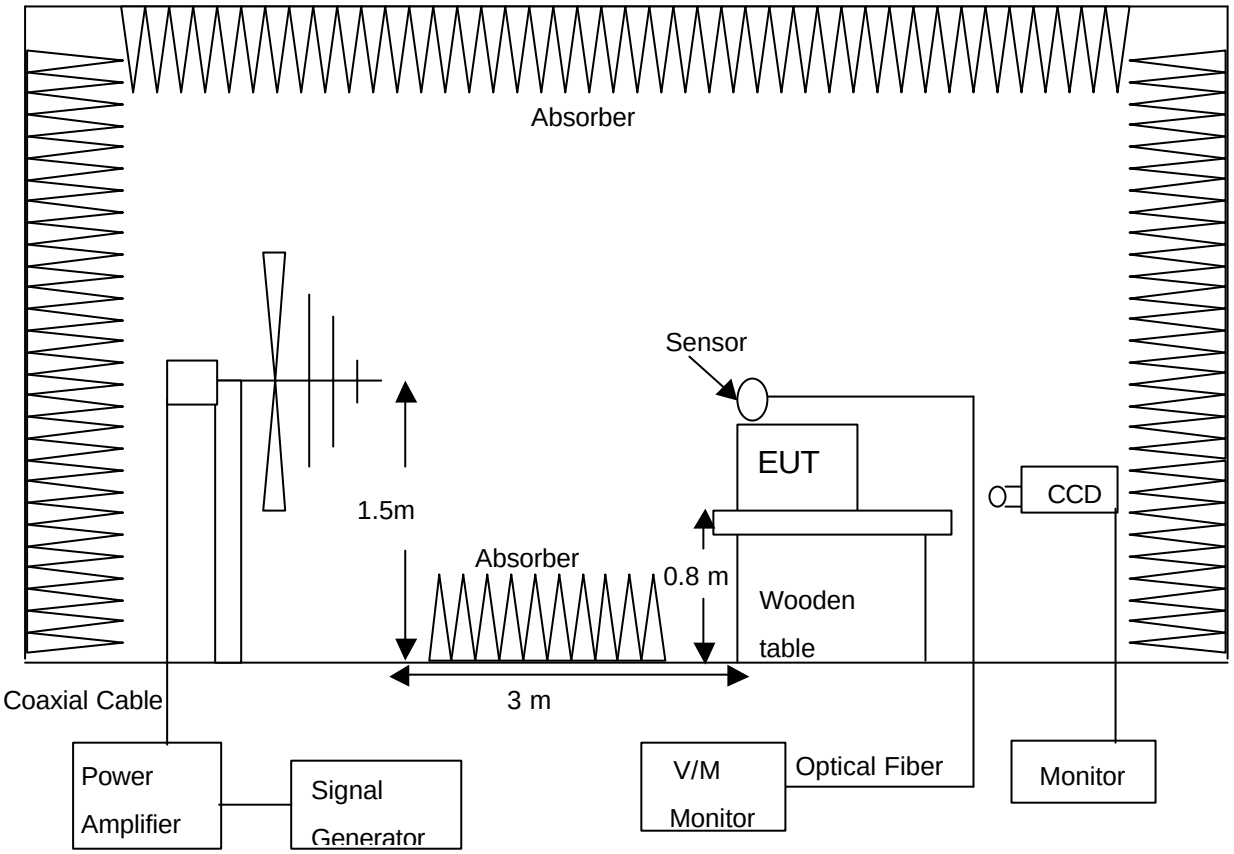
EQUIPMENT / FACILITIES	MANUFACTURER	MODEL # / SERIAL #	DUE DATE OF CAL. & CAL. CENTER
SIGNAL GENERATOR	HP	8648D/ 3847M00637	MAY. 2005 AGLIENT
ANTENNA	SCHAFFNER CHASE	CBL6141A / 4181	SEP. 2004 SRT
FIELD SENSOR	AMPLIFIER RESEARCH	FP2000/ 28499	DEC. 2004 ETC
POWER AMPLIFIER	AMPLIFIER RESEARCH	100W1000M1/ 19509	JUN. 2005 ETC
AMPLIFIER	A.R.	50S1G4A/ 308703	APR. 2005 A.R.
DUAL DIRECTIONAL COUPLER	A.R.	DC7420 / 308626	MAR. 2005 A.R.
ISOTROPIC "E" FIELD PROBE	A.R.	FP4080 KIT	MAR. 2005 A.R.
POWER SENSOR	BOONTON	51011EMC / 31181	NOV. 2004 ETC
POWER SENSOR	BOONTON	51011EMC / 31184	JUN. 2005 ETC
DUAL DIRECTIONAL COUPLER	A.R.	DC6080 / 25755	JUN. 2005 ETC
ANECHOIC CHAMBER	SRT	A05/ SRT005	OCT. 2004 SRT
V/M MONITOR	A.R.	FM2000/ 15970	N/A
MONITOR	SHIN	SI-609/ 905130	N/A
CCD	TOPVIEW	N/A/ 95113762	N/A
ABSORBER	ETS	N/A	N/A
COAXIAL CABLE	SUNCITY	J400/ 30CM	APR. 2005 SRT
COAXIAL CABLE	TIME	LMR-400/ 4M	APR. 2005 SRT

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

7.2 TEST PROCEDURE

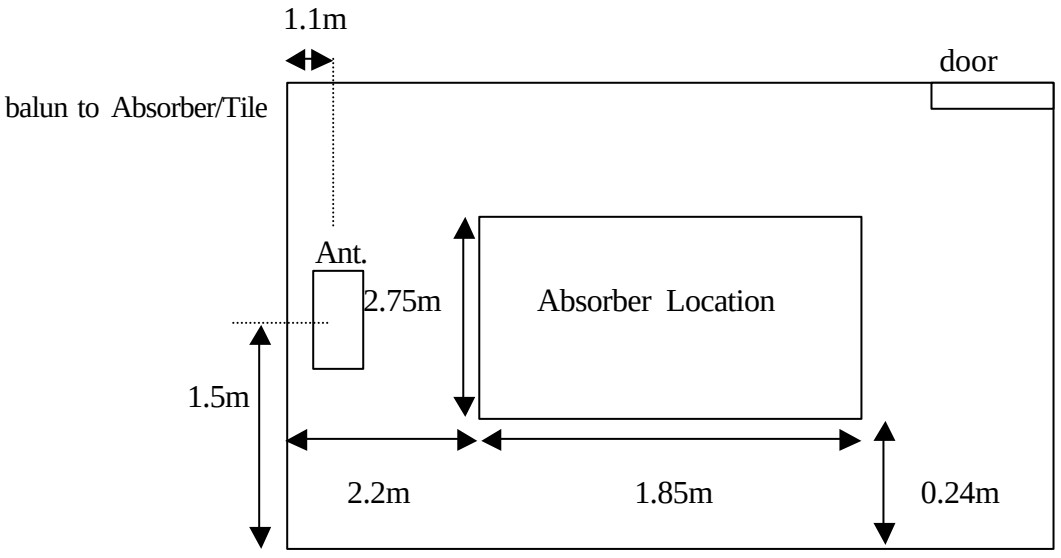
According to ENV 50204:1995

7.3 TEST SETUP



NOTE :

1. The wooden table should be 0.8m high for table top EUT and 0.1m for floor-standing EUT.
2. For the actual test configuration, please refer to the photos of testing.



chamber (7m x 3m x 3m)

7.4 TEST CONDITION / PERFORMANCE CRITERIA

1. Test condition
   (1) Source voltage and frequency :230V/50Hz, single phase
   (2) Sweeping frequency : 900 MHz +/-5 MHz
   (3) Test level :3V/m, the frequncy step is 1%
   (4) The four sides of EUT are tested :front, rear, left, right
   (5) Modulation :50% duty cycle(1Hz), 200Hz pluse Dwell time for each frequency at least 1sec..
   (6) Standard requirement :Criterion A

2. Performance criterion
   (1) Criterion A : Normal performance during test
   (2) Criterion B : Temporary degradation or loss of function or performance which is self-recoverable.
   (3) Criterion C : Temporary degradation or loss of function or performance which requires operator intervention system reset.

7.5 TEST RESULT

Temperature:	25° C	Humidity:	55% RH
Tested Mode:	N/A	Tested By:	Yvonne Chen
		Tested Date:	Aug. 13, 2004

Test Result : Criterion A pass

FREQUENCY	LEVEL	MODULATION	DIRECTION	TEST RESULT (CRITERION)	
				H	V
900MHz +/-5MHz	3V/m	50%pulse, 1Hz	FRONT	A	A
900MHz +/-5MHz	3V/m	50%pulse, 1Hz	REAR	A	A
900MHz +/-5MHz	3V/m	50%pulse, 1Hz	LEFT	A	A
900MHz +/-5MHz	3V/m	50%pulse, 1Hz	RIGHT	A	A

NOTE:
Description of test observation:
A: There was no change compared with initial operation during the test.

8. ELECTRICAL FAST TRANSIENT / BURST IMMUNITY TEST

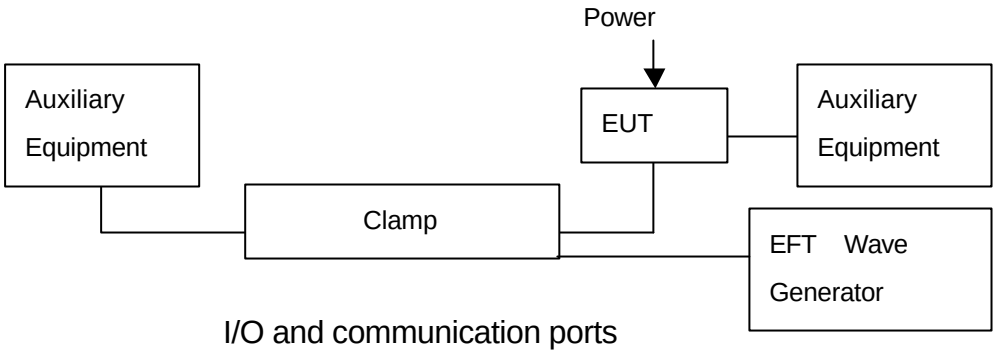
8.1 TEST EQUIPMENT

EQUIPMENT / FACILITIES	MANUFACTURER	MODEL # / SERIAL #	DUE DATE OF CAL & CAL CENTER
EFT GENERATOR	HAEFELY	PEFT-JUNIOR / 583-333-122	APR. 2005 ETC
CLAMP	HAEFELY	TRENCH / 080421-12	NOV. 2004 ETC
GROUND PLANE 2M x 3M	SRT	N/A	N/A

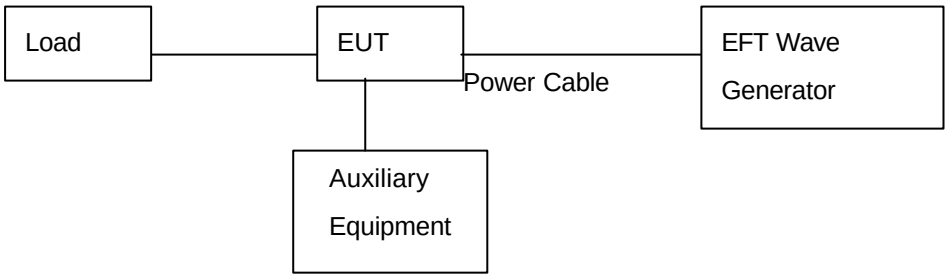
8.2 TEST PROCEDURE

According to IEC/EN 61000-4-4:1995+A1:2001+A2:2001

8.3 TEST SET-UP



I/O and communication ports



Power supply ports

NOTE :

1. The EUT system was put on a wooden table with 0.8m height for table top EUT and 0.1m for floor-standing EUT above ground reference plane.
2. For the actual test configuration, please refer to the photos of testing.
3. The minimum distance between the EUT and all other conductive structure was more than 0.5m.
4. The minimum distance between the coupling plates of the coupling clamps (if used) and all over conductive structures, except the ground plane beneath the coupling clamp and beneath the EUT was more than 0.5m.
5. The power cable connecting EUT was controlled under 1m.

8.4 TEST CONDITION / PERFORMANCE CRITERIA

1. Test condition
   (1) Source voltage and frequency : 230V/50Hz, single phase
   (2) Pulse risetime and duration : 5ns / 50ns
   (3) Pulse repetition :5kHz
   (4) Polarity :Positive Polarization and Negative Polarization
   (5) Burst duration and period :15ms / 300ms
   (6) Test duration :61sec each line
   (7) Time between test :10Sec
   (8) Severity levels :Power Line ±1kV
   Signal/Control Line ±0.5kV
   (9) Standard requirement :Criterion B

2. Performance criterion
   (1) Criterion A : Normal performance during test
   (2) Criterion B : Temporary degradation or loss of function or performance which is self-recoverable.
   (3) Criterion C : Temporary degradation or loss of function or performance which requires operator intervention system reset.

8.5 SUMMARY OF TEST RESULT

Temperature:	25 °C	Humidity:	56% RH
Tested Mode:	N/A	Tested By:	Yvonne Chen
Atmospheric Air Pressure:	101.2 kPa	Tested Date:	Aug. 12, 2004

Test Result : Criterion A pass

Voltage		0.25kV		0.5kV		1kV	
Polarity		+	-	+	-	+	-
Test Result	L1	NR	NR	A	A	A	A
	L2	NR	NR	A	A	A	A
	GND	NR	NR	A	A	A	A
	Signal/Control Line	A	A	A	A	NR	NR

NOTE:
Description of test observation:
A: There was no change compared with initial operation during the test.
NR: No requirement

9. INDUCED RF FIELDS (CONDUCTED SUSCEPTIBILITY) TEST

9.1 TEST EQUIPMENT

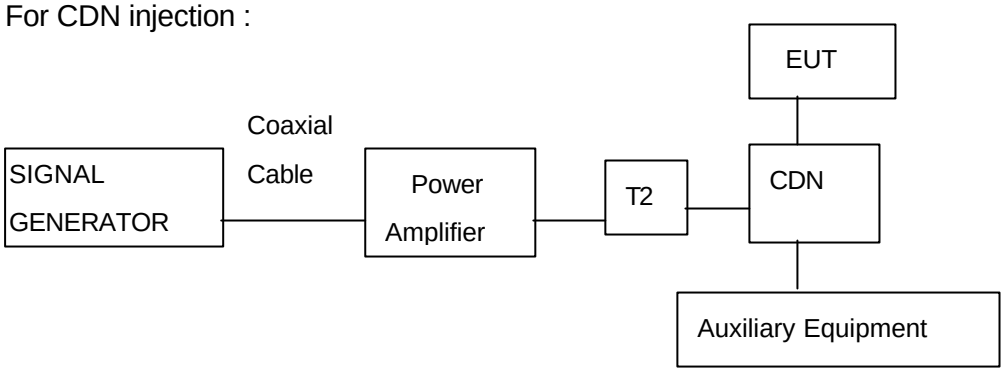
EQUIPMENT / FACILITIES	MANUFACTURER	MODEL # / SERIAL #	DUE DATE OF CAL. & CAL. CENTER	FINAL TEST BE USED
EM INJECTION CLAMP	FCC	F-203I-23mm/ 110	MAY 2005 ETC	
POWER LINE CDN	FCC	FCC-801-M5-32A/ 9812	MAY 2005 ETC	
POWER LINE CDN	FCC	FCC-801-M1-32A/ 9820	MAY 2005 ETC	
SIGNAL LINE CDN	FCC	FCC-801-T2/ 9830	MAY 2005 ETC	
SIGNAL LINE CDN	FCC	FCC-801-T6/ 9832	MAY 2005 ETC	
POWER LINE CDN	FCC	FCC-801-M2-32A/ 9840	NOV. 2004 ETC	
SIGNAL GENERATOR	HP	8648A/ 3636A02776	JUN. 2005 ETC	
POWER AMPLIFIER	A.R.	150A100A/ 19553	JUL. 2005 ETC	
DUAL DIRECTION COULPER	A.R.	DC2600/ 25893	AUG. 2004 ETC	
POWER METER	HP	435A/8481A/ 1810A08277	JAN. 2005 ETC	
SIGNAL LINE CDN	FCC	FCC-801-S25/ 9845	MAY 2005 ETC	
POWER LINE CDN	FCC	FCC-801-M3-32A/ 9874	MAY 2005 ETC	
T2	EM-TEST	ATT6/75/ 1001-40	N/A	
COAXIAL CABLE	SUNCITY	CABLE14/ #14-1M	APR. 2005 SRT	
COAXIAL CABLE	SUNCITY	CABLE05/ #5-5M	APR. 2005 SRT	
COAXIAL CABLE	SUNCITY	J400/ 2M	APR. 2005 SRT	

9.2 TEST PROCEDURE

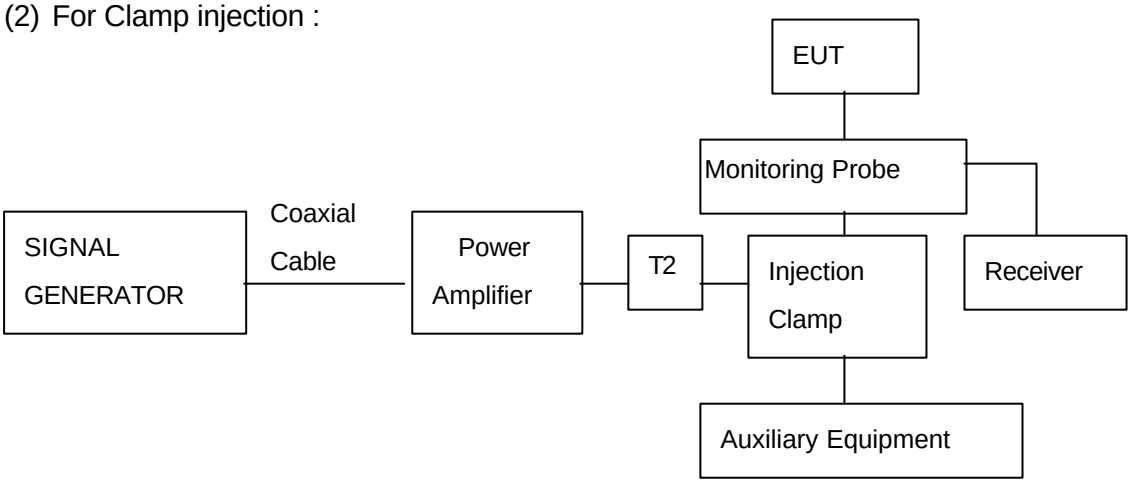
According to IEC/EN 61000-4-6:1996+A1:2001

9.3 TEST SET-UP

(1) For CDN injection :



(2) For Clamp injection :



NOTE :

1. The EUT system was put on a wooden table with 0.1m height above ground.
2. For the actual test configuration, please refer to the photos of testing.
3. The distance between CDN(Clamp) and EUT was controlled between 0.1m and 0.3m.
4. The model no. of the CDN connected to EUT is FCC-801-M3-32A.

9.4 TEST CONDITION / PERFORMANCE CRITERIA

1. Test condition
   (1) Source voltage and frequency : 230 V/ 50 Hz, single phase
   (2) Sweeping frequency : 150 kHz – 80 MHz
   (3) Test level : 3 V, the frequency step is 1%
   (4) Modulation : AM 80%, 1 kHz
   (5) Dwell time for each frequency : 3 sec
   (6) Standard requirement : Criterion A

2. Performance criterion
   (1) Criterion A : Normal performance during test
   (2) Criterion B : Temporary degradation or loss of function or performance which is self-recoverable
   (3) Criterion C : Temporary degradation or loss of function or performance which requires operator intervention system reset

9.5 SUMMARY OF TEST RESULT

Temperature:	26° C	Humidity:	56% RH
Tested Mode:	N/A	Tested By:	Yvonne Chen
		Tested Date:	Aug. 13, 2004

Test Result : Criterion A pass

FREQUENCY	LEVEL	MODULATION	INJECTION METHOD	TEST RESULT (CRITERION)
150kHz - 80MHz	3V	80% AM, 1 kHz	M2	A
150kHz - 80MHz	3V	80% AM, 1 kHz	CLAMP	A

NOTE:

Description of test observation:

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

10. POWER FREQUENCY MAGNETIC-FIELD TEST

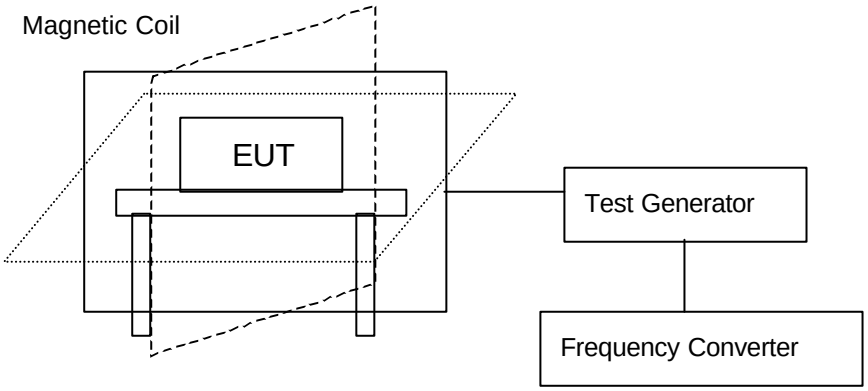
10.1 TEST EQUIPMENT

EQUIPMENT / FACILITIES	MANUFACTURER	MODEL # / SERIAL #	DUE DATE OF CAL. & CAL. CENTER
MAGNETIC FIELD TESTER	HAEFELY	MAG 100.1/ 080.015-04	JAN. 2005 SRT
MAGNETIC FIELD COIL	HAEFELY	MAG 100.1/ 080.015-04	JAN. 2005 SRT
MAGNETIC FIELD METER	F.W.BELL	4080/ 19990416	MAR. 2005 ITRI

10.2 TEST PROCEDURE

According to IEC/EN 61000-4-8:1993+A1:2001

10.3 TEST SET-UP



NOTE :

1. The EUT system was put on a wooden table with 0.8m height above ground.
2. For the actual test configuration, please refer to the photos of testing
3. 1A/m = 12.56mG, 3A/m = 37.68mG, 10A/m = 125.6mG,

10.4 TEST CONDITION / PERFORMANCE CRITERIA

1. Test condition
   (1) Test axis : X, Y and Z axes
   (2) Test time :5 min / each axis
   (3) Field strength :3 A/m
   (4) Standard requirement :Criterion A

2. Performance criterion
   (1) Criterion A : Normal performance during test
   (2) Criterion B : Temporary degradation or loss of function or performance which is self-recoverable
   (3) Criterion C : Temporary degradation or loss of function or performance which requires operator intervention system reset

10.5 SUMMARY OF TEST RESULT

Temperature:	25° C	Humidity:	54% RH
Tested Mode:	N/A	Tested By:	Yvonne Chen
Frequency of Magnetic Field:	▒50Hz, □60Hz	Tested Date:	Aug. 11, 2004

Test Result : Criterion A pass

ORIENTATION	FIELD STRENGTH	TEST RESULT (CRITERION)
X	3 A/m	A
Y	3 A/m	A
Z	3 A/m	A

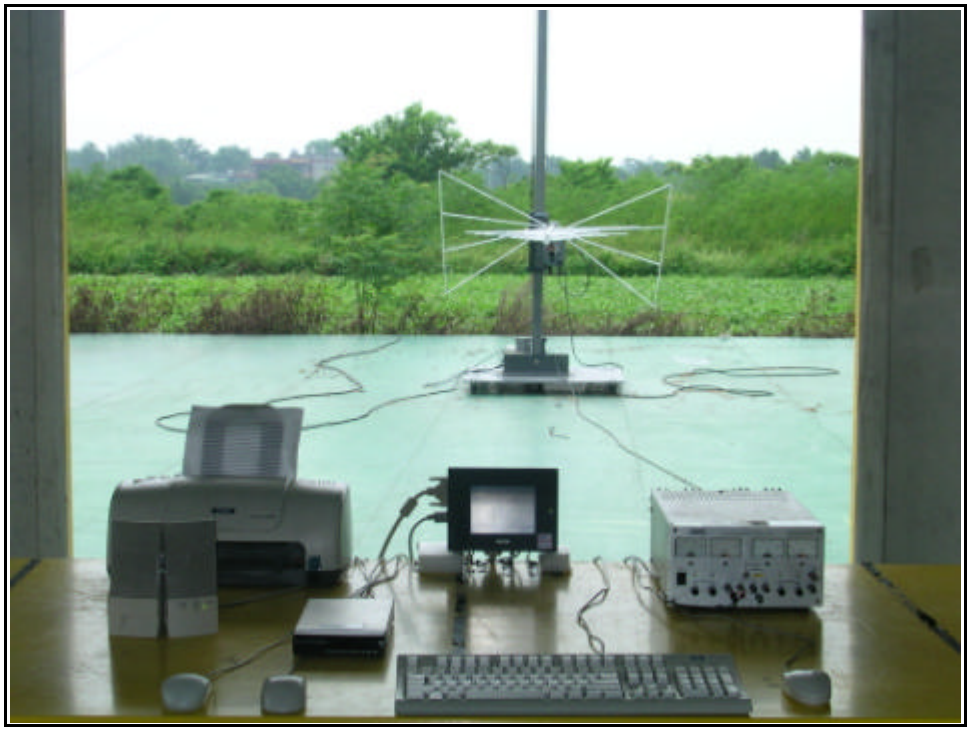
NOTE:

Description of test observation:

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

11. PHOTOS OF TESTING

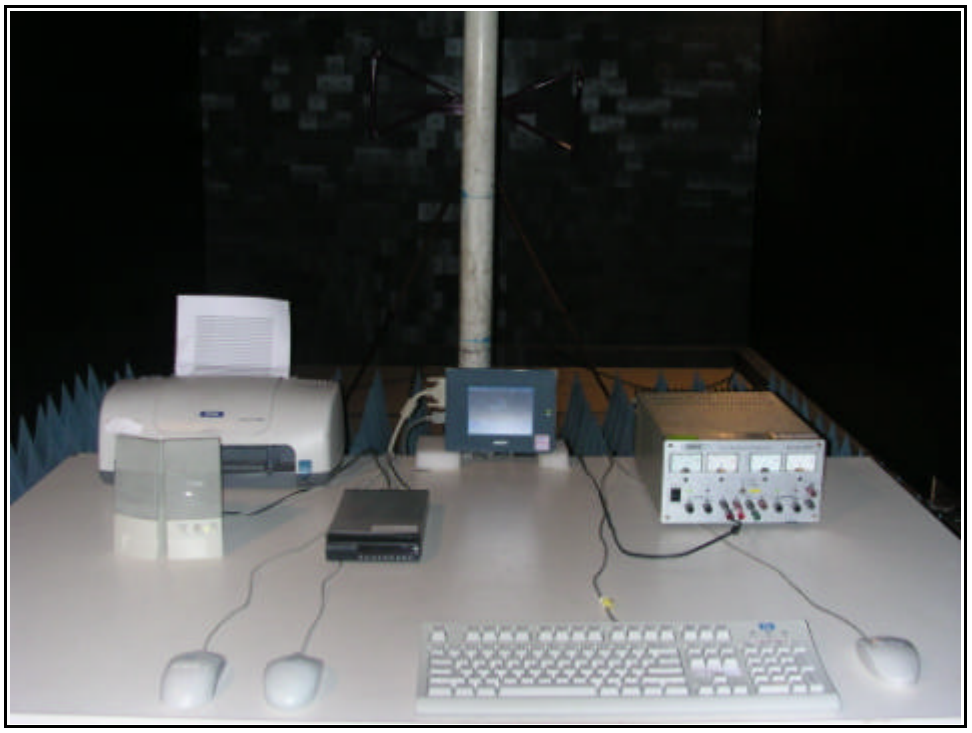
- Radiated test

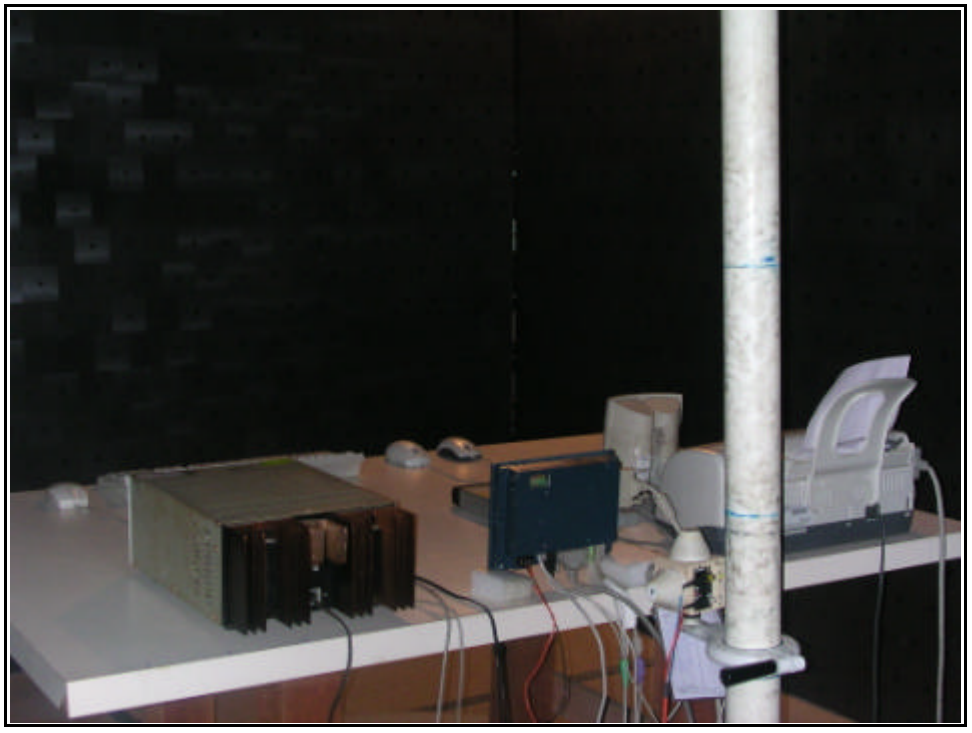


- Electrostatic discharge immunity test

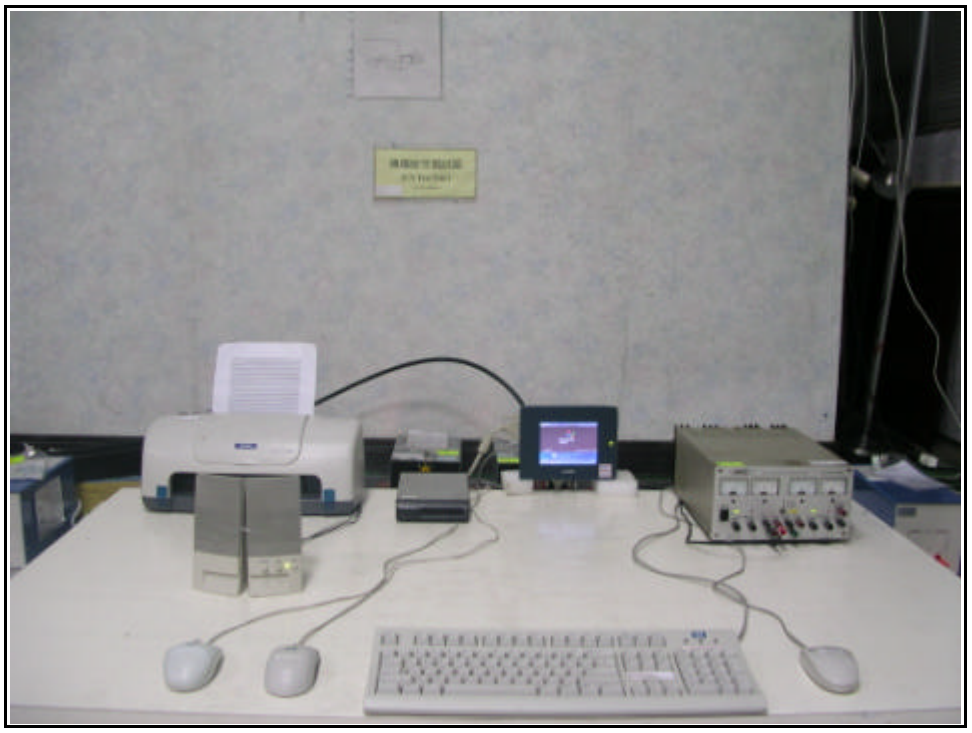
- Electrical fast transient / burst immunity test

- Radiated immunity test





- Inducted RF fields (conducted susceptibility) test



- Power frequency magnetic-field test

12. TERMS OF ABRIVATION

AV.	Average detection
AZ(°)	Turn table azimuth
Correct.	Correction
EL(m)	Antenna height (meter)
EUT	Equipment Under Test
Horiz.	Horizontal direction
LISN	Line Impedance Stabilization Network
NSA	Normalized Site Attenuation
Q.P.	Quasi-peak detection
SRT Lab	Spectrum Research & Testing Laboratory, Inc.
Vert.	Vertical direction