

TRC

Certificate of Compliance

Training Research Co., Ltd.

hereby certifies that

EMC TEST

Web-enabled 4-port Digital Video Server with Recording function

Model No.: FMS-3154R

Made by

Advantech Co., Ltd.

**No. 1, Alley 20, Lane 26, Rueiguang Road,
Neihu District, Taipei 114, R.O.C.**

is fulfilled

**EMI : EN 55022/1998, EN 61000-3-2/1995+A1/1998+A2/1998, EN 61000-3-3/1995
EMS: EN 55024/1998→ EN 61000-4-2/1995, EN 61000-4-3/1996, EN 61000-4-4/1995,
EN 61000-4-5/1995, EN 61000-4-6/1996, EN 61000-4-8/1993, EN 61000-4-11/1994**

Test Date: December 27, 2001

Certificate Registration No.: A55CE248

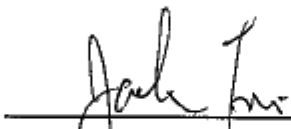
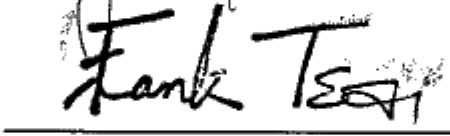
April 29, 2002

Frank Tsai

General Manager, Frank Tsai

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Training Research Co., Ltd. (NVLAP LAB CODE : 200174-0)

Report No.	A55CE248
Specifications	EMC, Class A
Applicant address	No. 1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, R.O.C.
Applicant	Advantech Co., Ltd.
Items tested Model No.	Web-enabled 4-port Digital Video Server with Recording function FMS-3154R (Sample # E17938)
Results Date	Compliance (As detailed within this report) 04/19/2002 (month / day / year) (Sample received) 12/27/2001 (month / day / year) (Test)
Prepared by	 Project Engineer
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Tested by	Training Research Co., Ltd.
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- (2) This report must not be used by the client to claim product endorsement by NVLAP or any agency of U.S. Government.
- (3) This test report, measurements made by TRC are traceable to the NIST only Conducted and Radiated Method.

★ NVLAP LAB CODE: 200174-0

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Chapter 0 Emission and Susceptibility Standards

Emission Standards

Emission Standard	European Standard	International Standard
(X)	EN 50081-1/1992	
()	EN 50081-1/8.93	
()	EN 55014/4.93	CISPR 14: 1993
()	EN 55015/12.93	CISPR 15: 1992
()	EN 55011/91	CISPR 11: 1990
(X)	EN 55022/98	CISPR 22: 1997
(X)	EN 61000-3-2/1995 +A1/1998+A2/1998	IEC 61000-3-2: 1997 A1:1997 / A2:1998
(X)	EN 61000-3-3/1995	IEC 61000-3-3: 1994

Susceptibility Standards

Susceptibility Standard	European Standard	International Standard
()	EN 50082-1/1997	
(X)	EN 55024/1998	
()	EN 50082-2/1994	
()		IEC 801-2/1984
()		IEC 801-3/1984
()		IEC 801-4/1988
()		IEC 804-5
(X)	EN 61000-4-2:1995	IEC 61000-4-2:1995
(X)	EN 61000-4-3:1996	IEC 61000-4-3:1995
(X)	EN 61000-4-4:1995	IEC 61000-4-4:1995
(X)	EN 61000-4-5:1995	IEC 61000-4-5:1995
(X)	EN 61000-4-6:1996	IEC 61000-4-6:1996
(X)	EN 61000-4-8:1993	IEC 61000-4-8:1993
(X)	EN 61000-4-11:1994	IEC 61000-4-11:1994
()	EN 55014-2:1993	CISPR/F (Sec) 159

Chapter 1 Introduction

Description of EUT

This EUT is designed for use to turner image system, The EUT supports embedded VGA controller can support simultaneous display of CRT and LCD. With four BNC (video-in) connectors, two RS232 ports, two USB interface, one PS/2 interface, and LAN function, make it more suitable for networking systems.

Connections of EUT

- (1) The power jack of EUT is connected with AC power source via a power adaptor.
- (2) The BNC-1 connector is connected with the video connector of nearby camera, other three BNC connectors each connected a BNC cable unterminal.
- (3) Connect the VGA Port of EUT via a monitor.
- (4) Connect the Serial Port-1 of EUT to external modem, the other Serial Port-2 via a RS232 cable unterminal.
- (5) The Alarm port is connected with a dummy load.
- (6) The PS/2 Port via an adaptor connected the keyboard and mouse.
- (7) Connect two USB Port-1 and Port-2 via two USB mouse.
- (8) Connect the SPK. Jack and the MIC. Jack via a headpiece with microphone.
- (9) The LAN-1 jack via a RJ45 cable unterminal, the other LAN-2 jack connected to RJ45 jack of LAN card, which install in personal computer located remotely.

Test method

Pretest was found that the emission of operating mode is worse than standby mode. So, The final test is made at the operating mode.

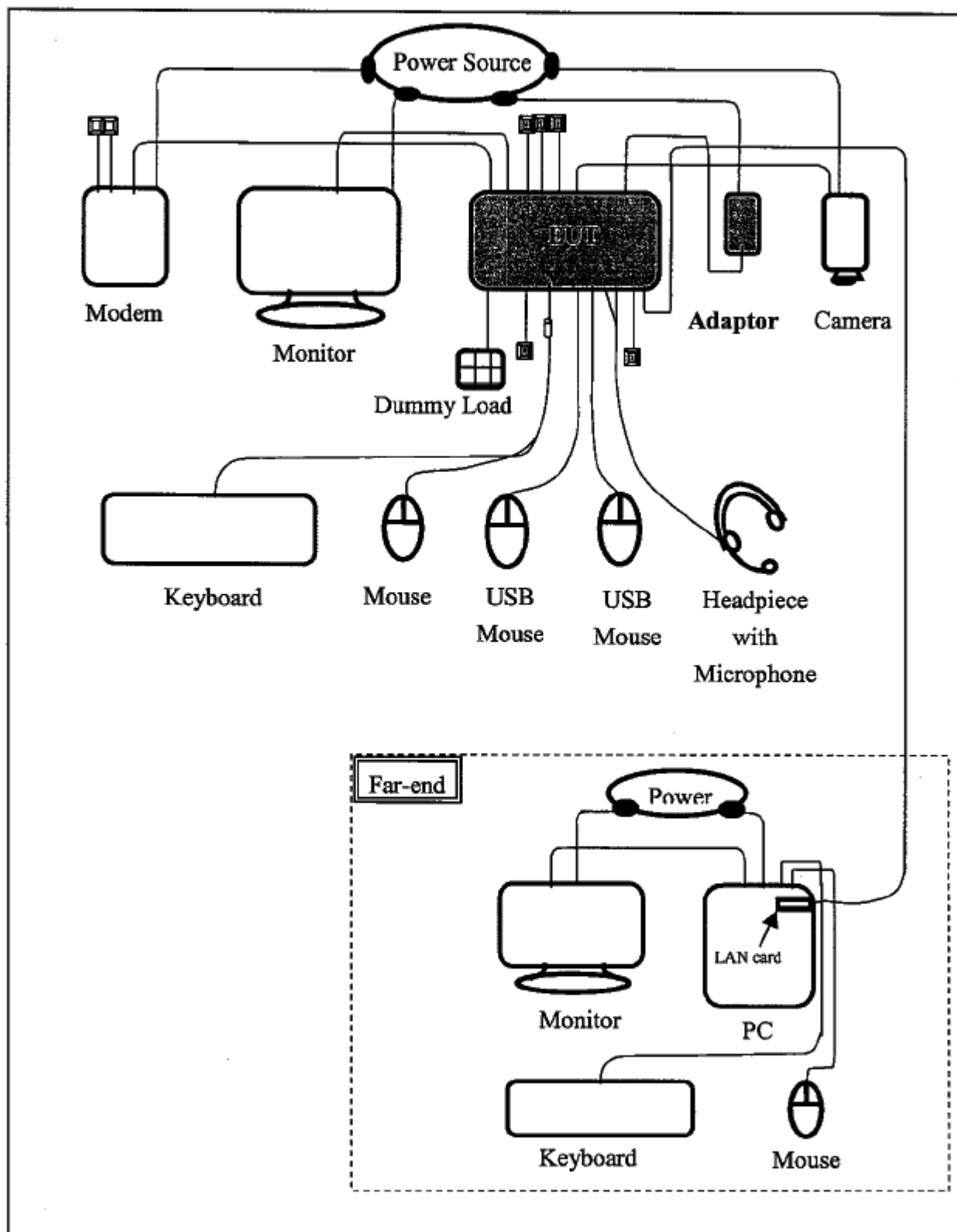
During the measurement, there are following modes tested: "10 × 10Mbps" mode, and "100 × 100Mbps" mode. The pretest was found out that the testing mode: "100 x 100Mbps" was the worst case.

During testing, make sure the EUT can work functionally with support equipment. The EUT was operated at "receiving image" and "transmitting image" mode simultaneous.

The test placement as the photographs showed is the worst case emission placed. (If the emission is close to the ambient, the resolution BW and view resolution will be reduced and the data will be recorded by detection of maximum hold peak mode.)

The testing configuration of test setup is showing in the next page.

Configuration of Test Setup



Connections of EUT

EUT:

***Power adaptor x 1**

--- Model: EA1050D-240;

I/P: 100 ~ 240V, 50 ~ 60Hz, 1.8A;

O/P: 24V, 2.1A

***Power cable (between EUT and adaptor) x 1**

--- 120cm long, shielded, with ferrite core

***Power cable (between AC source and adaptor) x 1**

--- 176cm long, non-shielded, no ferrite core

***BNC Cable x 3**

--- 1.2m long, shielded, no ferrite core

***BNC Cable x 1**

--- 2m long, shielded, no ferrite core

***RS232 Cable x 2**

--- 180cm long, shielded, no ferrite core

***RJ45 Cable x 1**

--- 1.2m long, non-shielded, no ferrite core

***RJ45 Cable x 1**

--- 15m long, non-shielded, no ferrite core

***Robber Cable x 1**

--- 10cm long, non-shielded, no ferrite core

List of Support Equipment

Monitor : **HP 15' Color Monitor; ACER 15' Color Display**
Model No. : D2827A; 1555
Serial No. : KR91161717; 917160230583601429P5C431
FCC ID : C5F7NFCMC1518X; JVP7254E
檢磁 : 3872B039; 4872A030
Power type : 100 ~ 240 VAC / 50 ~ 60 Hz, Switching
Power cord : Shielded, 1.83m long, No ferrite core
Data cable : Shielded, 1.46m long, with two ferrite cores

Keyboard : **HP**
Model No. : SK-2501K
Serial No. : M981216213; M990308909
FCC ID : GYUR38SK
檢磁 : 3862A621
Power type : By PC
Data cable : Shielded, 1.70m long, with ferrite core

Mouse : **HP**
Model No. : M-S34
Serial No. : LZC84446151; LZB90714122
FCC ID : DZL211029
檢磁 : 4862A011
Power type : By PC
Power cord : Non-shielded, 1.80m long, No ferrite core

Modem : **ACEEX**
Model No. : XDM41414
Serial No. : 964111217
FCC ID : IFAXDM1414
Power type : Linear
Power cord : Non-shielded, 1.9m long, No ferrite cord
Data cable : RS232, Shielded, 1.2m long, No ferrite core
RJ11C x 2, 7' long non-shielded, No ferrite core

USB Mouse : **Logitech; Chic Technology Corporation**
Model No. : M-BA47; CM-USB
Serial No. : LZE92250027; N/A
FCC ID : DoC Approved; IOWCM-USB
檢磁 : 4872A220; N/A
Power type : Powered by PC
Power Cable : Shielded, 1.5m long, Plastic hoods, No ferrite bead

LAN Card : **CIS Technology Inc.**
Model No. : R430W
Serial No. : 0020188DA046
FCC ID : L4OR430W
Power type : Powered by PC

Camera : **EverFocus**
Model No. : EQ200A/P
Serial No. : 144090410181
FCC ID : DoC Approved
Power type : Linear
Power cord : non-shielded, 1.8m long, no ferrite core

Headset with Microphone : **MIC**
Model No. : MIC-03
Data cable : Non-shielded, 1.6m length, no ferrite core

Chapter 2 Conducted Emission Test

Test condition and setup

All the equipment is placed and setup according to the EN 55022.

Power Line: The EUT is assembled on a wooden table, which is 80 cm high, is placed 40 cm from the back-wall, which is a vertical conducting plane. One LISN is for EUT, the other LISN is for support equipment. They are all placed on the conductive ground. The EUT's LISN connect a line switch box for selecting L1 or L2, then connect to a preamplifier and spectrum.

The spectrum scans from 150KHz to 30MHz. Conducted emission levels are detected at maximum peak mode. But if the maximum peak mode failed or over average limit, it will be measured by average detection mode.

While testing, there is the worst-emission plot printed at peak detection mode, and there are more than 6 highest emissions relative to limit recorded. The plot is kept as the original data, not included in test report.

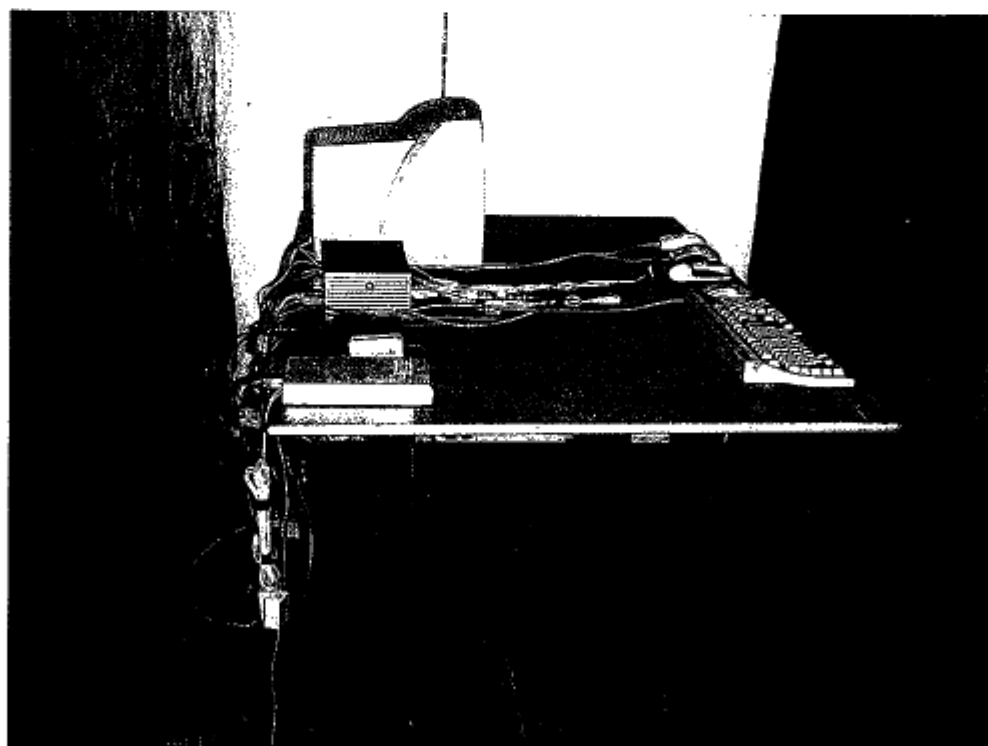
List of test Instrument

Instrument Name	Model No.	Brand	Serial No.	Calibration Date	
				Last time	Next time
Spectrum analyzer	8591EM	H P	3710A01203	02/22/01	02/22/02
Pre-selector (<30MHz)	AMP-01	TRC	REP-001	08/09/01	08/09/02
LISN (EUT)	TRC LISN01	TRC	LISN-01	08/21/01	08/21/02
LISN (Support E.)	LISN-01	TRC	9912-01, 02	12/13/01	12/13/02

The level of confidence of 95%, the uncertainty of measurement of conducted emission is ± 2.4 dB.

Test Result: Pass (Appendix A)

Conducted Test Placement: (Photographs)



Chapter 3 Radiated Emission Test

Test condition and setup

Pretest: Prior to the final test (OATS test), the EUT is placed in a shielded enclosure, and scan from 30MHz to 1GHz. This is done to ensure the radiation is exactly emitted from the EUT.

Final test: Final radiation measurements are made on a **10 – meter**, open-field test site. The EUT is placed on a nonconductive table, which is 0.8m height, the top surface is 1.0 x 1.5 meter. The entire placement is according to EN 55022.

The spectrum is examined from 30MHz to 1000MHz measured by HP spectrum.

The range Antenna is used to measure frequency from 30MHz to 1GHz. The final test is used the spectrum analyzer.

Measure more than six top marked frequencies generated from pretest by computer step by step at each frequency. The EUT is rotated 360 degrees, and antenna is raised and lowered from 1 to 4 meters to find the maximum emission levels. The antenna is used with both horizontal and vertical polarization.

Appropriated preamplifier which is made by TRC is used for improving sensitivity and precautions is taken to avoid overloading. The spectrum analyzer's 6dB bandwidth is set to 120 kHz, and the EUT is measured at quasi-peak mode.

If the emission is close to the frequency band of ambient, the tester will recheck the data and the corrected data will be written in the test data sheet. If the emission is just within the ambient, the data from shielded room will be taken as the final data.

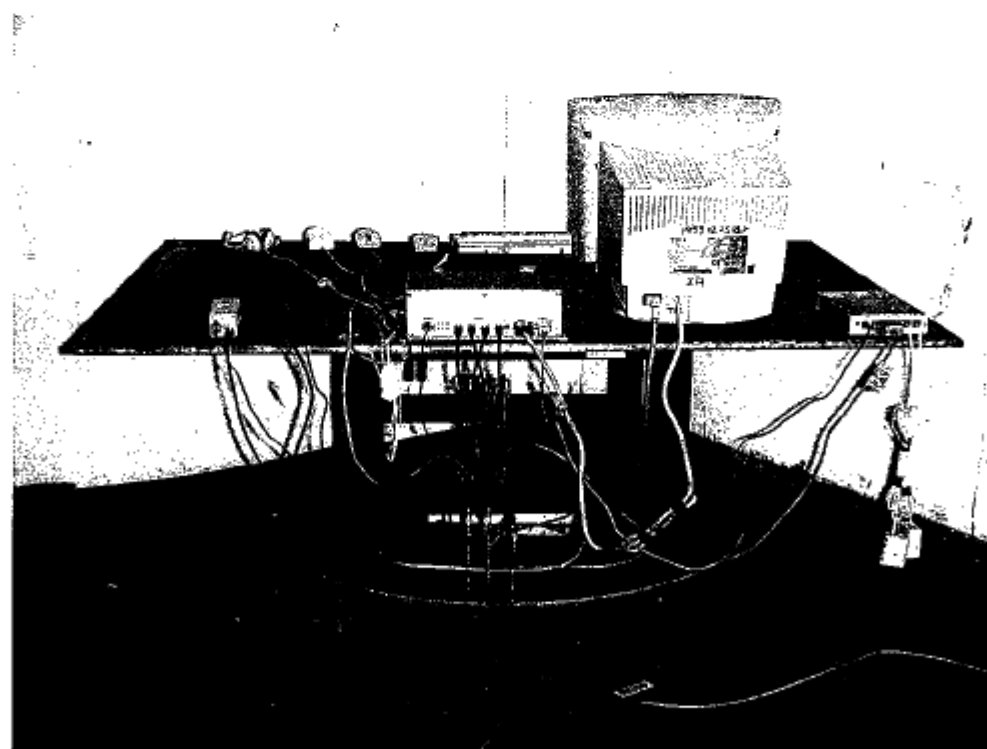
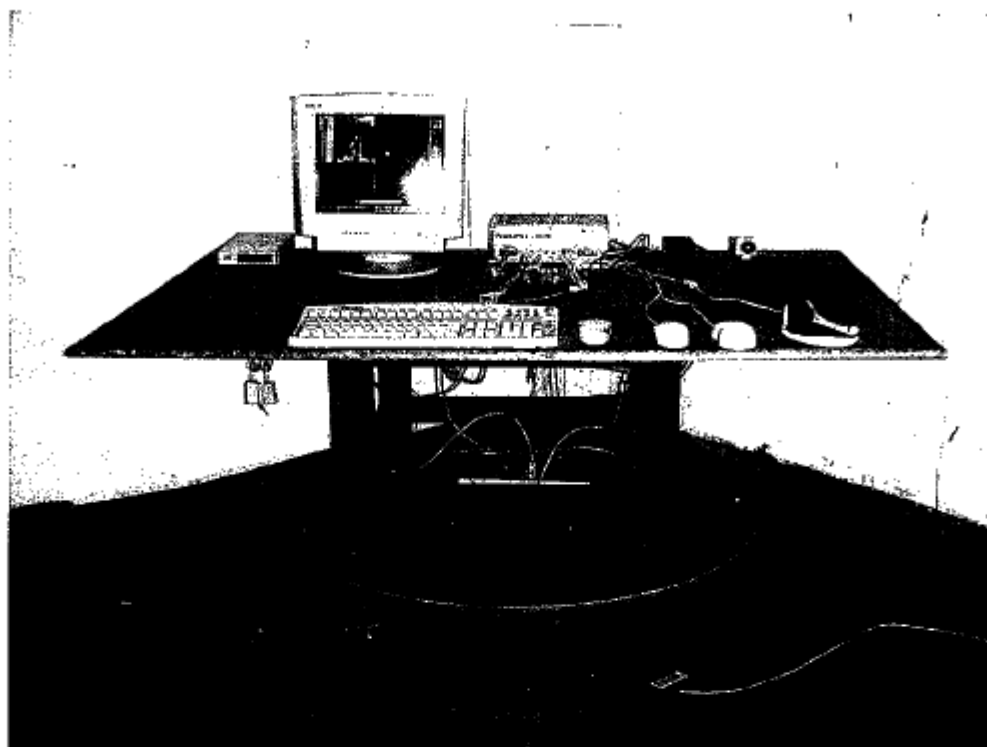
List of test Instrument

Instrument Name	Model No.	Brand	Serial No.	Calibration Date	
				Last time	Next time
Spectrum analyzer	8591EM	H P	3619A01203	02/22/01	02/22/02
Pre-selector (>30MHz)	AMP-01	TRC	REP-001	10/02/01	10/02/02
Spectrum analyzer	8568B	H P	3004A18617	06/04/01	06/04/02
Quasi-peak Adapter	85650A	H P	2521A00984	06/04/01	06/04/02
RF Pre-selector	85685A	H P	2947A01011	06/05/01	06/05/02
RF Pre-selector	AMP-01	TRC	REP-002	10/02/01	10/02/02
Bi-log Antenna	VULB9160	M. E.	3064	07/12/01	07/12/02
Antenna (30M-2GHz)	3142	EMCO	9610-1094	10/02/01	10/02/02
Open test side (Antenna, Amplify, cable calibrated together)				05/20/01	05/20/02

The level of confidence of 95% , the uncertainty of measurement of radiated emission is ± 4.96 dB .

Test Result: Pass (Appendix B)

Radiated Test Placement: (Photographs)



Chapter 4 Radio Frequency Immunity Test (RS)**Test information:**

Test setup: GTEM cell

Test Frequency: ☒ 80 ~ 1000 MHz☐ 27 ~ 500 MHz Without ModulationModulation: ☐ FM %☒ 80% AM Modulation with 1KHz☐ 900 KHz \pm 5 KHz with PM 200 Hz and 100% depthStep size: ☒ $\leq 1\%$ step sizeSweep time: ☒ 2.5 SecondField strength: ☐ 1V/m ☒ 3V/m ☐ 10V/m

Test mode: Reference Test method of Chapter 1

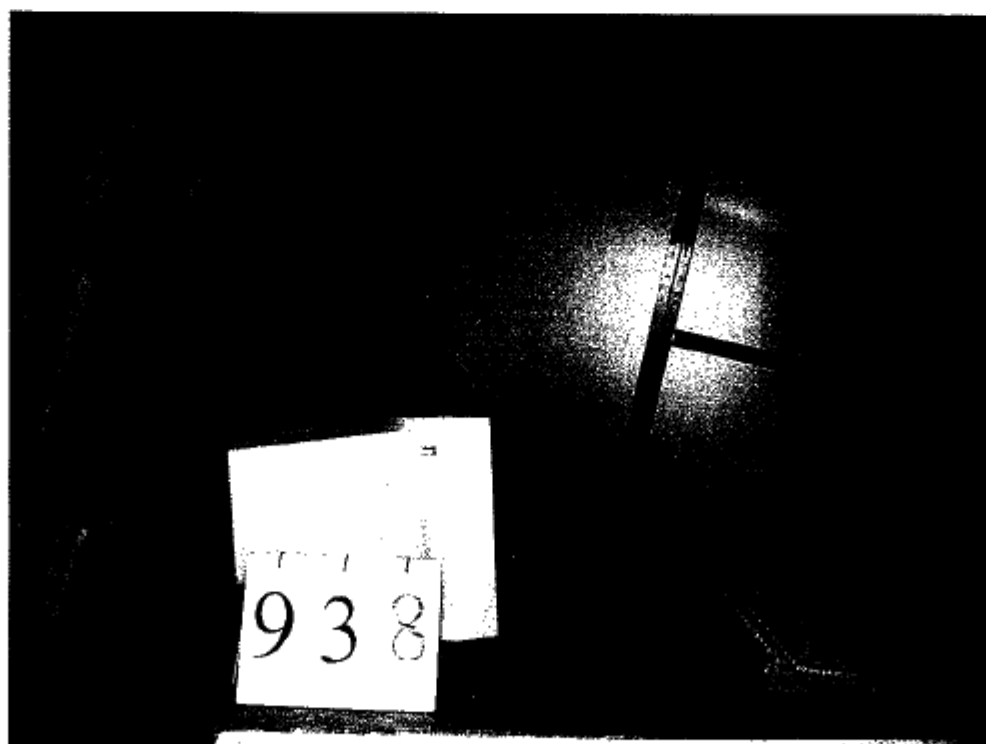
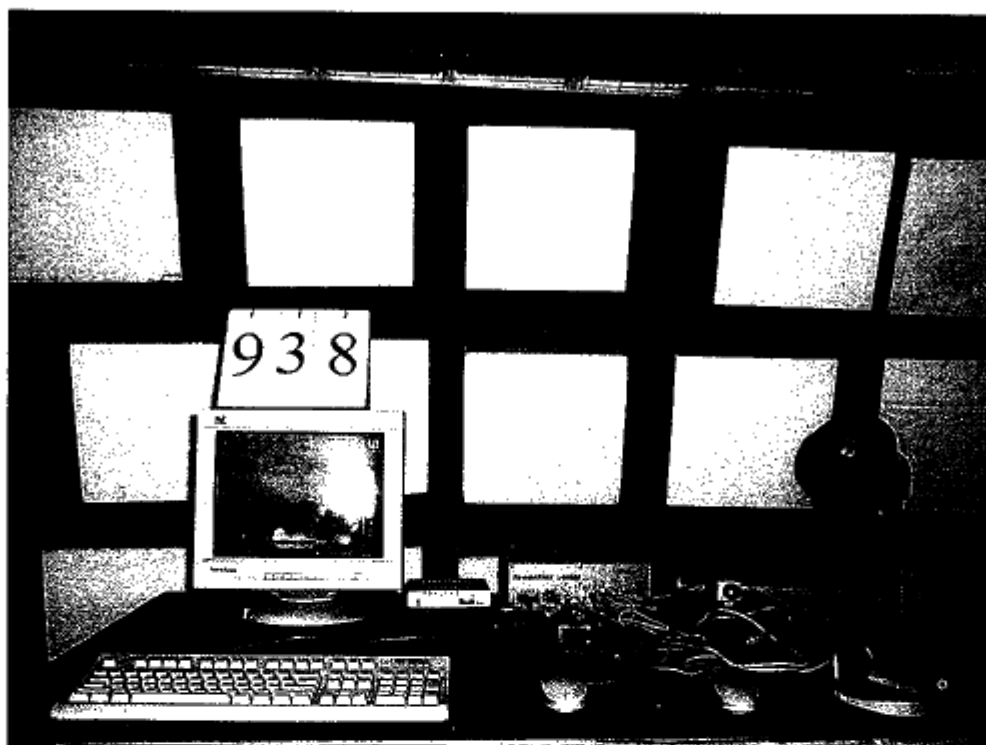
Test instruments:

Name	Model Number	Serial Number	Selected
EMCO GTEM	5317	9411-1123	X
EMCO Probe	7122	9406-1194	X
EMCO METERING UNIT	7122	9406-1194	X
EMCO data interface	7110	9410-1273	X
HP Personal Computer	D3178A	3438S00486	X
HP Signal Generator	8657B	2928U00286	X
IFI Wideband Amplifier	SMX50	467-0795	X

Comment:

Performance Criteria ☒ A ☐ B ☐ C

EN 61000-4-3 PHOTO OF TEST SET-UP



Chapter 5 Electric Fast Transient/Burst Requirements Test

Test information:

Test setup: According to EN 61000-4-4

Test Voltage: DC Power line ☐ 0.5 KV, 5 KH
 AC Power line ☒ 1 KV, 5 KHz
 Signal & Control line ☒ 0.5 KV, 5 KHz
 ☐ 1 KV, 5 KHz

Polarity: ☒ Positive ☒ Negative

Test Duration: ☒ 1 minute ☐ 3 minutes

Connected lines: ☐ Power line shielded
 ☒ Power line non-shielded
 ☒ Signal & Control line non-shielded
 ☐ Signal & Control line shielded

Test mode: Reference Test method of Chapter 1.

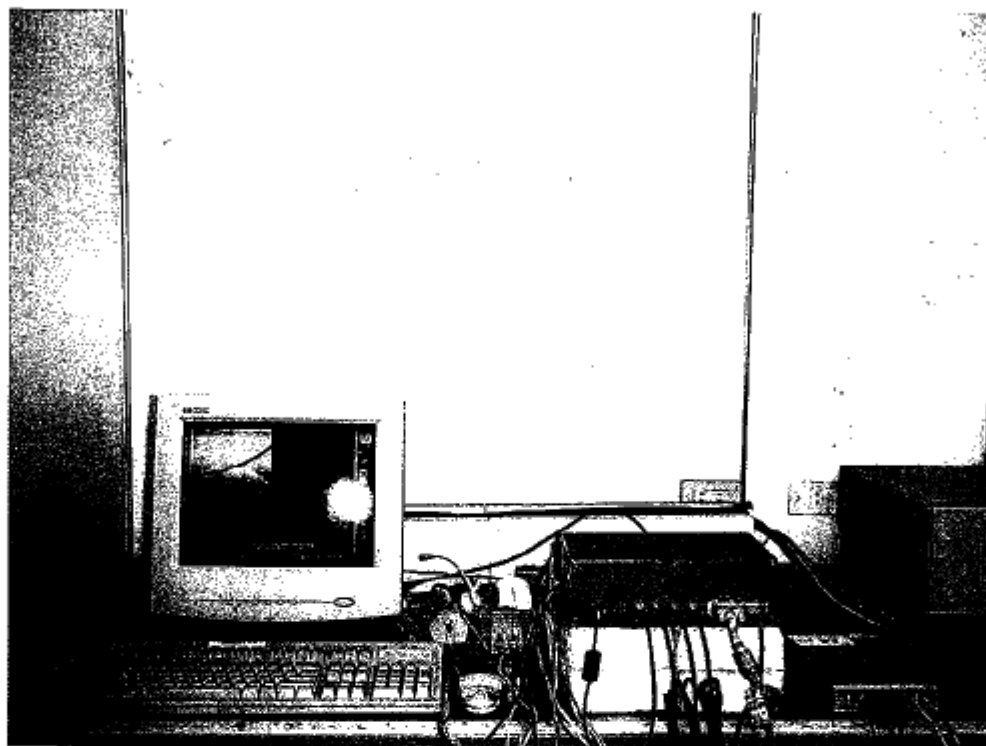
Test instrument:

Name	Model Number	Serial Number	Selected
Best Plus BURST ESD SURGE TRANSIENTS	Best Plus V6.2	199749-019SC	X
KeyTek Instrument EFT Test system	E412	9505206/505207	
BEST EMC Test Instrument	BEST EMC V2.3 (-8, -9)	199918-006SC	

Comment:

Performance Criteria ☐ A ☒ B ☐ C

EN 61000-4-4 PHOTO OF TEST SET-UP



Chapter 6 Electrostatic Discharges Immunity Test

Test information:

Test setup: Shielded room

Test Voltage: (X) 4KV contact discharge

(X) 8KV air discharge

Indirect Discharges: (X) HCP

(X) VCP

Polarity: (X) positive (X) negative

Test points: Connectors and Case

Test mode: Ref. Test method of Chapter 1

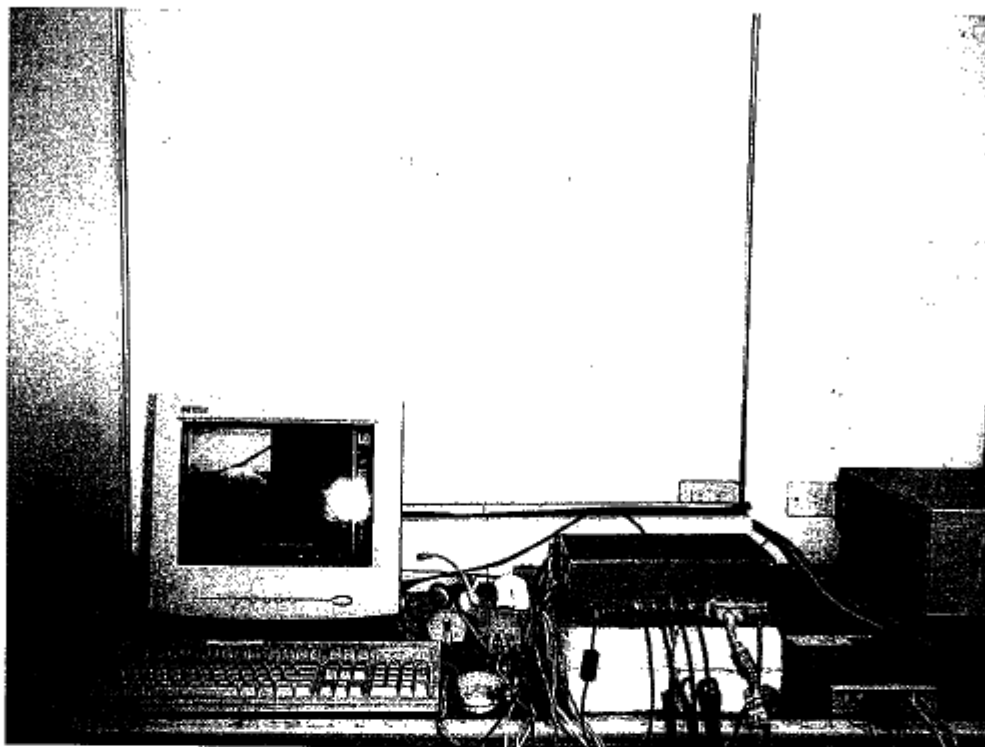
Test instruments:

Name	Model Number	Serial Number	Selected
Best Plus BURST ESD SURGE TRANSIENTS	Best Plus V6.2	199749-019SC	X
KeyTek Instrument ESD Test system	Series 2000	9204303/9204310 9209226/9301395	
BEST EMC Test Instrument	BEST EMC V2.3 (-8, -9)	199918-006SC	

Comment:

Performance Criteria () A (X) B () C

EN 61000-4-5 PHOTO OF TEST SET-UP



Chapter 8 Continuous Wave Voltage Immunity Test

Test information:

Test setup: According to EN 61000-4-6

Test Frequency: ☒ 0.15 ~ 80MHz

Modulation: ☐ FM %

☒ 80% AM Modulation with 1KHz

Step size: ☒ $\leq 1\%$ step size

Signal Strength: ☐ 1Vrms ☒ 3Vrms ☐ 10Vrms

Test mode: Ref. Test method of Chapter 1

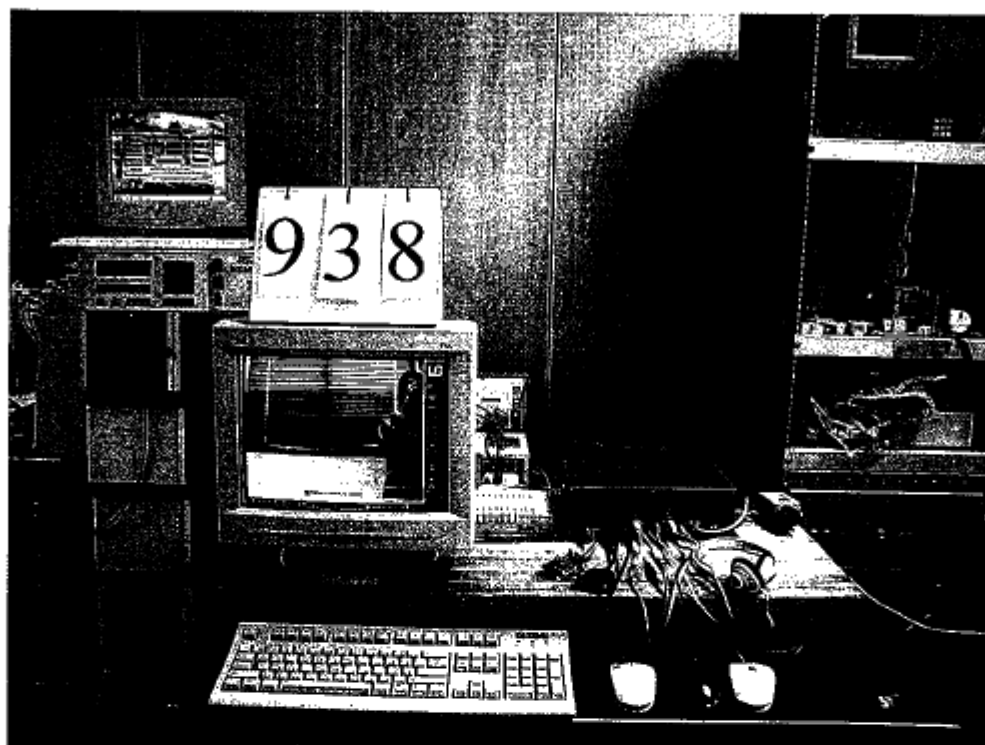
Test instruments:

Name	Model Number	Serial Number	Selected
FRANKONIA EMV-Mess-System	CIT-10	103A3113	X
FRANKONIA CDN	M2+M3	A3011015	X
FRANKONIA CDN	T2-801	A3010002	
FRANKONIA CDN	T4-801	A3015004	X
FRANKONIA CDN	S1-801	A3005002	
SCHAFFNER FM-Koppelzange	KEMZ 801	17045	
SCHAFFNER RF-SYNTHESIZER AMP21 FIER	NSG 2070-1	1020	
SCHAFFNER CDN	M325	13773	
SCHAFFNER CDN	M216	15604	
SCHAFFNER CDN	T004	15230	
SCHAFFNER CDN	S501	15167	
SCHAFFNER FM-Koppelzange	KEMZ 801	14301	

Comment:

Performance Criteria: ☒ A ☐ B ☐ C

EN 61000-4-6 PHOTO OF TEST SET-UP



Chapter 9 Power Frequency Magnetic Field Immunity Test

Test information:

Test setup: According to EN 61000-4-8

Test method: ☒ Continuous ☐ Short duration

Magnetic Field Strength: ☒ 1A/m

Frequency: 50Hz

Polarization: ☒ X polarization ☒ Y polarization ☒ Z polarization

Test Duration: ☐ 30 seconds ☒ 1~3 seconds

Connected lines: ☐ Power line shielded ☒ Power line non-shielded
☐ Signal & Control line non-shielded ☐ Signal & Control line shielded

**** Power Frequency Magnetic Field in the horizontal and vertical polarity.****

Test mode: Reference test method of Chapter 1

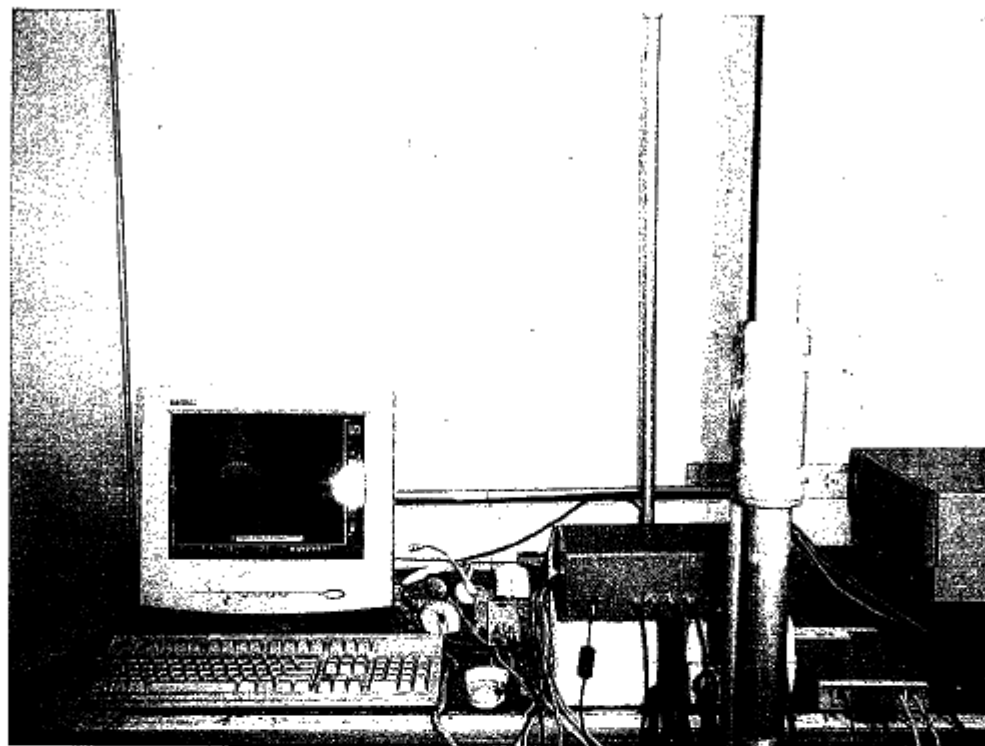
Test instruments:

Name	Model Number	Serial Number	Selected
BEST EMC Test Instrument	BEST EMC V2.3 (-8, -9)	199918-006SC	X
Induction Coil	INA 701 BEST	199922-001SC	X

Comment:

Performance Criteria: ☒ A ☐ B ☐ C

EN 61000-4-8 PHOTO OF TEST SET-UP



Chapter10 Voltage DIP / Interruption Test

Test information:

Test setup: According to EN 61000-4-11

Voltage dips: (X) > 95%, 0.5 Period

(X) 30%, 25 Period

Voltage interruptions: (X) > 95%, 250 Periods

Test mode: Ref. Test method of Chapter 1

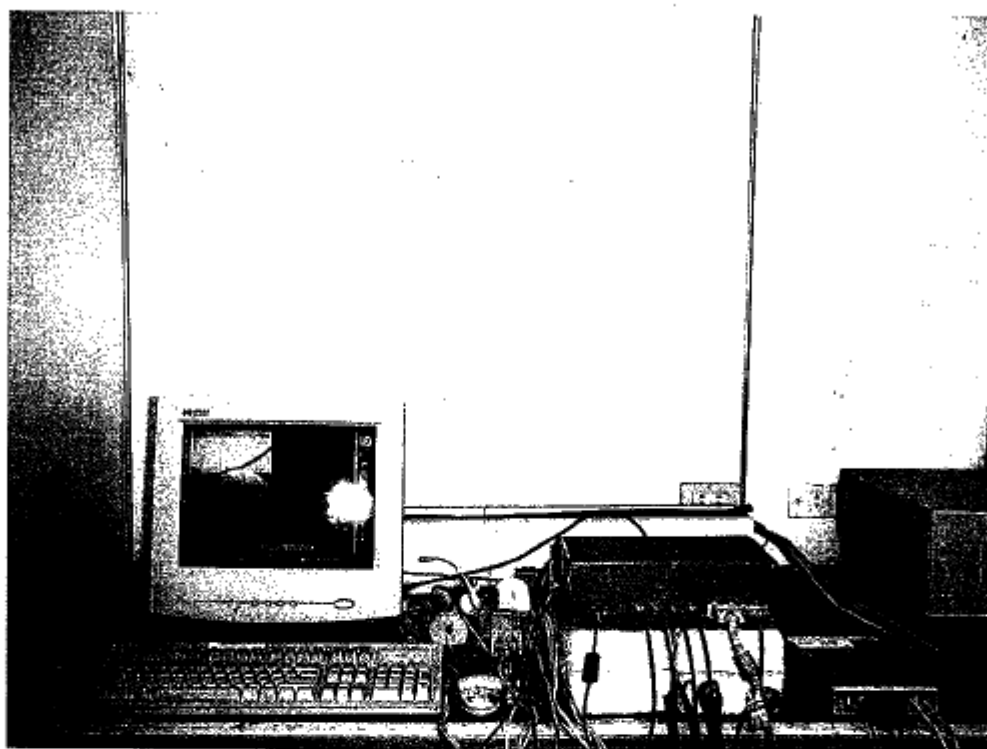
Test instruments:

Name	Model Number	Serial Number	Selected
Best Plus BURST ESD SURGE TRANSIENTS	Best Plus V6.2	199749-019SC	X
BEST EMC Test Instrument	BEST EMC V2.3 (-8, -9)	199918-006SC	
Partner EMS Tester	Transienter-1000	PIO	

Comment:

Performance Criteria:	Dips (1) >95%	() A	(X) B	() C
	Dips (2) 30%	() A	() B	(X) C
	Interruptions (1) >95%	() A	() B	(X) C

EN 61000-4-11 PHOTO OF TEST SET-UP



Chapter 11 Harmonics Test

Test information:

Test setup: According to EN 61000-3-2

Test Item: Quasi – stationary & Fluctuating Current Harmonics Test.

Test mode: Ref. Test method of Chapter 1

Test instrument:

Name	Model Number	Serial Number	Selected
Harmonic/Flicker Test System	HP 6842A	3531A-00102	x

Test Equipment Settings:	Quasi-stationary Current Harmonics Test	Fluctuating Current Harmonics Test
Line Voltage	230VAC	230VAC
Line Frequency	50Hz	50Hz
Device Class	A	A
Test Limit Overrides	None	None
Total Number of Failures:	None	None
Total Number of Errors:	None	None

Test Result: PASS

Chapter 12 Voltage Fluctuation and Flicker Test

Test information:

Test setup: According to EN 61000-3-3

Test mode: Ref. Test method of Chapter 1

Test instrument:

Name	Model Number	Serial Number	Selected
Harmonic/Flicker Test System	HP 6842A	3531A-00102	x

Test Equipment Settings:	
Line Voltage	230VAC
Line Frequency	50Hz
Test Limit Overrides	None
Total Number of Failures:	Pst: (0), Plt: (0)
	Dc: (0), Dmax (0), Dt (0)
Total Number of Errors:	None

Test Result: PASS

Appendix A**Conducted Emission Test Result (10 x 10Mbps)**

Testing room : Temperature : 21 ° C Humidity : 68 % RH

Line 1

Frequency (kHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)	
186.00	54.65	---	---	79.00	66.00	-11.35
560.00	43.75	---	---	73.00	60.00	-16.25
1127.00	43.38	---	---	73.00	60.00	-16.62
1439.00	43.31	---	---	73.00	60.00	-16.69
1814.00	43.15	---	---	73.00	60.00	-16.85
2000.00	43.98	---	---	73.00	60.00	-16.02
2370.00	43.21	---	---	73.00	60.00	-16.79
2560.00	43.87	---	---	73.00	60.00	-16.13
2750.00	43.92	---	---	73.00	60.00	-16.08
30000.00	27.61	---	---	73.00	60.00	-32.39

Line 2

Frequency (kHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)	
186.00	55.29	---	---	79.00	66.00	-10.71
1439.00	43.65	---	---	73.00	60.00	-16.35
1635.00	43.58	---	---	73.00	60.00	-16.42
2000.00	44.80	---	---	73.00	60.00	-15.20
2120.00	43.52	---	---	73.00	60.00	-16.48
2190.00	43.96	---	---	73.00	60.00	-16.04
2420.00	44.13	---	---	73.00	60.00	-15.87
2750.00	44.12	---	---	73.00	60.00	-15.88
2810.00	43.52	---	---	73.00	60.00	-16.48
30000.00	29.20	---	---	73.00	60.00	-30.80

***The reading amplitudes are all under limit.**

Conducted Emission Test Result (100 x 100Mbps)

Testing room : Temperature : 21 ° C Humidity : 68 % RH

Line 1

Frequency (kHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)	
186.00	54.46	---	---	79.00	66.00	-11.54
560.00	44.12	---	---	73.00	60.00	-15.88
874.00	43.83	---	---	73.00	60.00	-16.17
1249.00	44.69	---	---	73.00	60.00	-15.31
1814.00	43.64	---	---	73.00	60.00	-16.36
2000.00	43.64	---	---	73.00	60.00	-16.36
2420.00	43.66	---	---	73.00	60.00	-16.34
2490.00	43.51	---	---	73.00	60.00	-16.49
2560.00	43.80	---	---	73.00	60.00	-16.20
2750.00	44.82	---	---	73.00	60.00	-15.18

Line 2

Frequency (kHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)	Quasi-Peak (dBμV)	Average (dBμV)	
186.00	54.53	---	---	79.00	66.00	-11.47
1439.00	44.16	---	---	73.00	60.00	-15.84
1635.00	44.18	---	---	73.00	60.00	-15.82
1691.00	44.00	---	---	73.00	60.00	-16.00
1814.00	44.75	---	---	73.00	60.00	-15.25
2240.00	44.05	---	---	73.00	60.00	-15.95
2290.00	44.02	---	---	73.00	60.00	-15.98
2370.00	44.11	---	---	73.00	60.00	-15.89
2680.00	44.65	---	---	73.00	60.00	-15.35
30000.00	27.40	---	---	73.00	60.00	-32.60

***The reading amplitudes are all under limit.**

Appendix B

Radiated Emission Test Result (Horizontal, 100 x 100Mbps)

Test Conditions:

Testing room : Temperature : 20 ° C Humidity : 69 % RH
 Testing site : Temperature : 18 ° C Humidity : 81 % RH

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B Limit	Margin
MHz	dBμV/m	m	degree	dB/m	dBμV/m	dBμV/m	dB
120.000	41.70	4.00	73	-12.30	29.40	40.00	-10.60
165.950	41.60	2.56	59	-10.98	30.62	40.00	-9.38
298.680	40.50	4.00	53	-9.04	31.46	47.00	-15.54
319.760	40.00	4.00	43	-8.49	31.51	47.00	-15.49
351.000	40.50	2.56	239	-7.75	32.75	47.00	-14.25
365.000	39.50	4.00	92	-6.96	32.54	47.00	-14.46
378.000	39.30	2.56	226	-6.26	33.04	47.00	-13.96
479.640	38.60	2.56	129	-3.40	35.20	47.00	-11.80

Note:

1. Margin = Amplitude - limit, *if margin is minus means under limit.*
2. Corrected Amplitude = Reading Amplitude + Correction Factors
3. Correction factor = Antenna factor + (Cable Loss – Amplitude gain)
 (For example: 30MHz correction factor = 15.5 + (-15.26) = 0.24 dB/m)

Radiated Emission Test Result (Vertical, 100 x 100Mbps)

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B Limit	Margin
MHz	dB μ V/m	m	degree	dB/m	dB μ V/m	dB μ V/m	dB
79.940	48.90	4.00	169	-16.49	32.41	40.00	-7.59
84.350	46.80	1.00	35	-16.46	30.34	40.00	-9.66
165.900	44.50	1.00	283	-10.98	33.52	40.00	-6.48
232.280	43.40	1.00	112	-12.64	30.76	47.00	-16.24
298.690	39.50	1.00	201	-9.04	30.46	47.00	-16.54
319.760	38.90	1.00	290	-8.49	30.41	47.00	-16.59
350.990	38.10	1.00	235	-7.75	30.35	47.00	-16.65
364.990	36.00	1.00	128	-6.96	29.04	47.00	-17.96
378.000	35.60	4.00	109	-6.26	29.34	47.00	-17.66
405.010	33.50	1.00	310	-5.69	27.81	47.00	-19.19
639.520	27.90	4.00	165	0.15	28.05	47.00	-18.95

Appendix C
Photographs of EUT

