

**TRC**

***Certificate of Compliance***

***Training Research Co., Ltd.***

**hereby certifies that**

**EMC TEST**

**8-Port 10/100Mbps+1-Port Gigabit Ethernet Switch  
Model No.: TEG-S18TXE**

**Made by**

**TRENDWare International Inc.**

**3135 Kashiwa Street Torrance, CA 90505, U.S.A.**

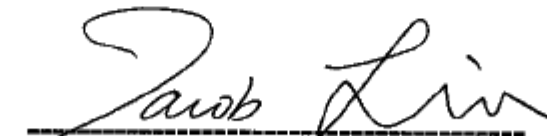
**is fulfilled**

**EMI: EN 55022:1998, EN61000-3-2: 2000, EN61000-3-3: 1995+A1: 2001  
EMS: EN 61000-6-1/2001→ 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: March 14, 2003**

**Verification Registration No.: C51CE266**

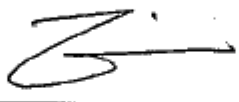
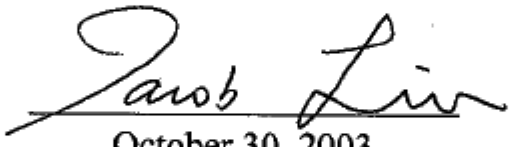
***October 30, 2003***



**V. General Manager, Jacob Lin**

**CE CE CE CE CE**

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

|                        |   |
|------------------------|---|
| Report No.             | C51CE266  |
| Directives Standard    | 89/336/EEC EMC, Class B<br>EN 61000-6-3/EN 55024 (CE), ICES-003 (Canada)  |
| Applicant              | TRENDWare International Inc.  |
| Applicant address      | 3135 Kashiwa Street Torrance, CA 90505, U.S.A.  |
| Items tested Model No. | 8-Port 10/100Mbps+1-Port Gigabit Ethernet Switch<br>TEG-S18TXE (Sample # C51266)  |
| Results Date           | <b>Compliance</b> (As detailed within this report)<br>03/14/2003 (month / day / year)(Sample received)<br>04/02/2003 (month / day / year)(Tested) |
| Prepared by            | <br>Project Engineer  |
| Authorized by          | <br>V. General Manager<br>(Jacob Lin)                         |
| Issue date             | October 30, 2003<br>(month / day / year)  |
| <b>Modifications</b>   | <b>None</b>   |
| Tested by              | Training Research Co., Ltd. ( <b>Accredited by NVLAP</b> )  |
| Office at              | 1F, No. 255, Nan Yang Street, Hsichih, Taipei Hsien 221, Taiwan   |
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**Conditions of issue :**

- *This test report shall not be reproduced except in full, without written approval of TRC. And the test result contained within this report only relate to the sample submitted for testing.*
- *The test data in this test report are following the procedures in accordance with the terms of accreditation.*
- *This test report and measurements made by TRC are traceable to the NIST only Conducted and Radiated Method (TRC is accredited by NVLAP, code No.: 200174-0).*
- *The device has been tested is fully complied with the requirements the Directive 89/336/EEC (CE), AS/NZS CISPR 22: 2002 (C-Tick) and ICES-003 (Canada).*

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## Chapter 0 Emission and Susceptibility Standards

### *Emission Standards*

| Emission Standard | European Standard          | International Standard         |
|-------------------|----------------------------|--------------------------------|
| (X)               | EN 61000-6-3/2001          | IEC 61000-6-1/1996             |
| ( )               | EN 61000-6-4/2001          | IEC 61000-6-1/1997             |
| ( )               | EN 50081-1/1992            |                                |
| ( )               | EN 50081-1/8.93            |                                |
| ( )               | EN 55014/4.93              | CISPR 14: 1993                 |
| ( )               | EN 55015/12.93             | CISPR 15: 1992                 |
| ( )               | EN 55013/2001              | CISPR 13: 2001                 |
| (X)               | EN 55022/98                | CISPR 22: 1997                 |
| (X)               | EN 61000-3-2/2000          | IEC 61000-3-2: 2000 + A1: 2001 |
| (X)               | EN 61000-3-3/1995+A1: 2001 | IEC 61000-3-3: 1994 + A1: 2001 |

### *Susceptibility Standards*

| Susceptibility Standard | European Standard  | International Standard |
|-------------------------|--------------------|------------------------|
| (X)                     | EN 61000-6-1/2001  | IEC 61000-6-1/1997     |
| ( )                     | EN 61000-6-2/2001  | IEC 61000-6-1/1999     |
| ( )                     | EN 50082-1/1997    |                        |
| ( )                     | EN 50082-2/1994    |                        |
| (X)                     | EN 55024/1998      | CISPR 24/1997          |
| ( )                     | EN 55020/2002      | CISPR 20/2002          |
| (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    |

## Chapter 1 Introduction

### Description of EUT:

This EUT is a data transmission / receiving facility. It was connected to LAN card installed in the PC or compatible computer and makes your data equipment available to transmit / receive data via the EUT.

### 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.

This EUT has two kinds of Power adaptor, one is DVE DV-751AUP, the other is LEI 48075100-C5.

During testing, there are eight modes were tested:

- DVE DV-751AUP 10 x 10 Mbps
- DVE DV-751AUP 100 x 100 Mbps
- DVE DV-751AUP 1000 x 10 Mbps
- DVE DV-751AUP 1000 x 100 Mbps
- LEI 48075100-C5 10 x 10 Mbps
- LEI 48075100-C5 100 x 100 Mbps
- LEI 48075100-C5 1000 x 10 Mbps
- LEI 48075100-C5 1000 x 100 Mbps

The radiation pretest was found out the testing mode: "DVE DV-751AUP 100 x 100 Mbps" was the worst case.

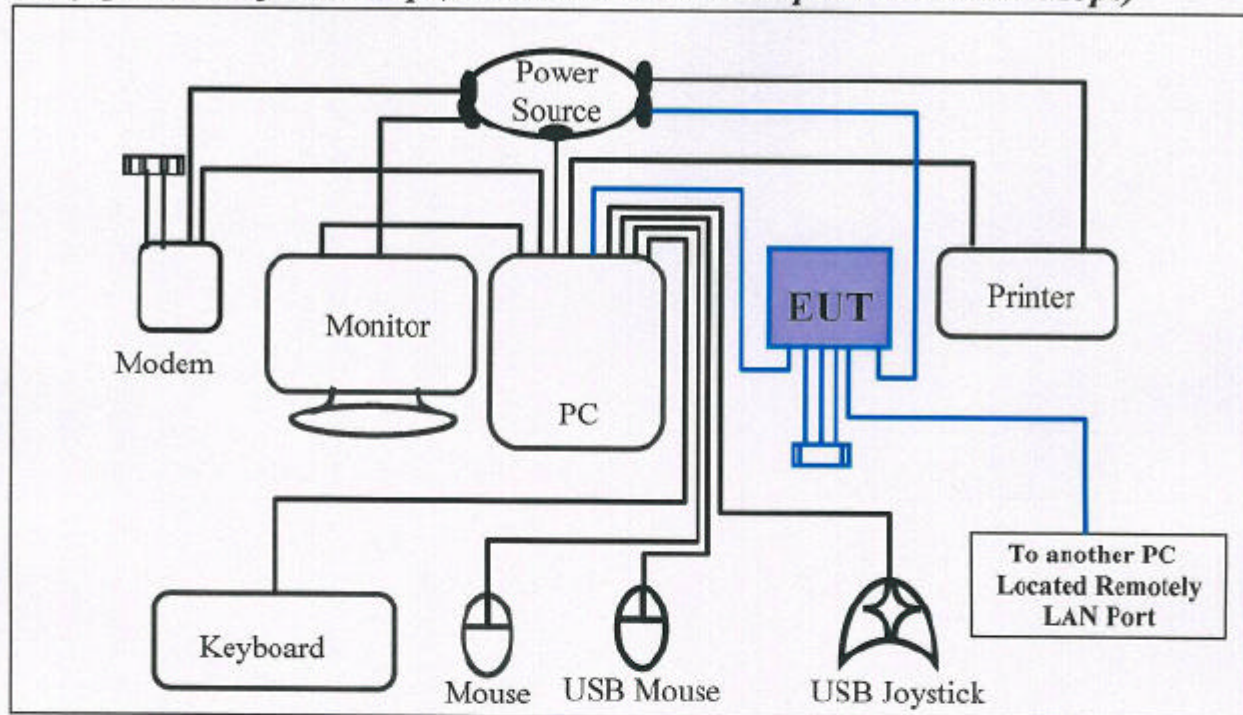
During testing, the EUT was operated at "transmitting" and "receiving" mode simultaneously. The test voltage is 230Vac / 50Hz.

The test placement as the photographs showed is the worst 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 (Test Mode: 10 x 10Mbps & 100 x 100 Mbps)



#### Connections:

##### PC:

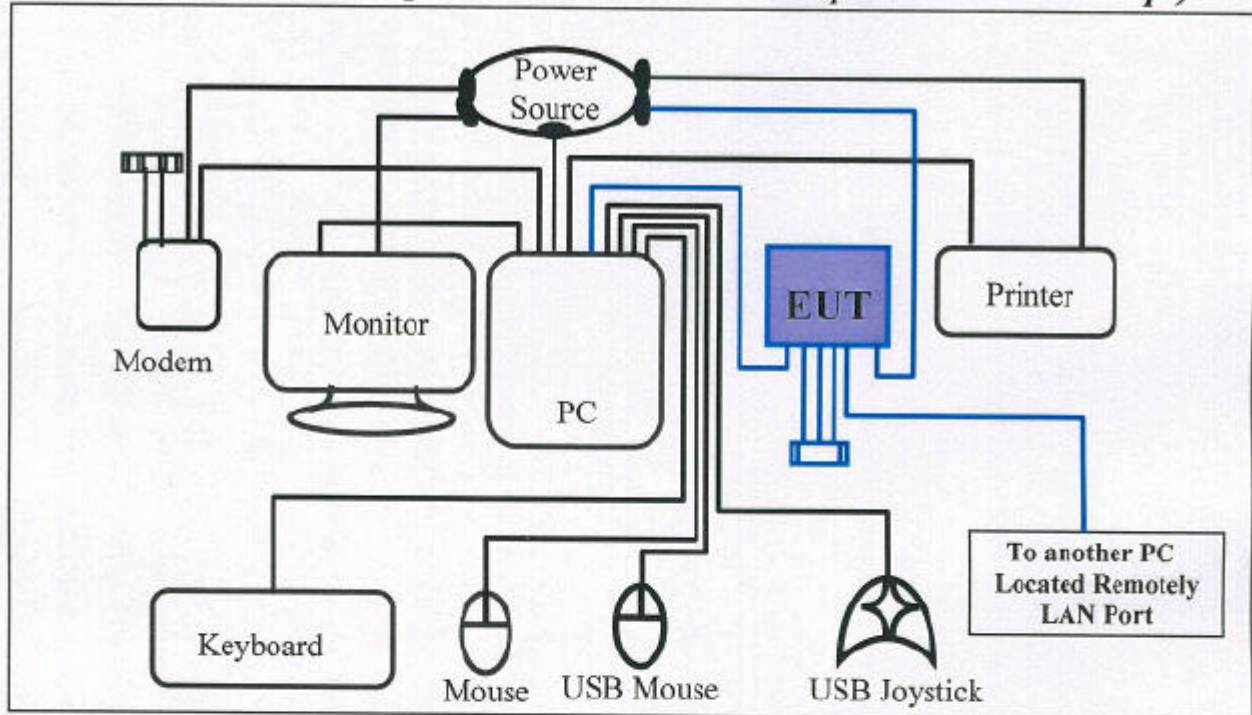
- \*Serial Port --- via a 110cm shielded RS-232 cable to modem.
- \*Monitor Port --- a monitor with 1.5m length data cable.
- \*Keyboard port --- a keyboard with 1.50m length data cable.
- \*Mouse port --- a mouse with 1.50m length data cable.
- \*USB port A --- a USB joystick with 1.5m long, shielded, no ferrite bead data cable.
- \*USB port B --- a USB mouse with 1.8m long, shielded, no ferrite bead data cable.
- \*Printer port --- a printer with 1.80m length data cable.

##### EUT:

- \*UTP Gigabit port --- connect with a 2m length, RJ-45 cable that terminated with 200ohm.
- \*UTP port 1 --- via a 1m length RJ-45 cable to the RJ-45 jack of the LAN card that installed in nearby PC.
- \*UTP port 2~7 --- connect with a 2m length RJ-45 cable that terminated with 200ohm.
- \*UTP port 8 --- via a 10m long, non-shielded, no ferrite bead, RJ-45 cable to the RJ-45 jack of the LAN card that installed in the PC located remotely.
- \*Power port --- via a 1.80m long power cable to a power adaptor plug into the power source.
- \*Power adaptor --- Trade: DVE; Model: DV-751AUP; I/P: 230VAC 50Hz 16VA;  
O/P: 7.5VDC 1A
- \*Power adaptor --- Trade: LEI; Model: 48075100-C5; I/P: 230VAC 50Hz 90mA;  
O/P: 7.5VDC 1000mA



### Configuration of test setup (Test Mode: 1000 x 10Mbps & 1000 x 100 Mbps)



#### Connections:

##### PC:

- \*Serial Port --- via a 110cm shielded RS-232 cable to modem.
- \*Monitor Port --- a monitor with 1.5m length data cable.
- \*Keyboard port --- a keyboard with 1.50m length data cable.
- \*Mouse port --- a mouse with 1.50m length data cable.
- \*USB port A --- a USB joystick with 1.5m long, shielded, no ferrite bead data cable.
- \*USB port B --- a USB mouse with 1.8m long, shielded, no ferrite bead data cable.
- \*Printer port --- a printer with 1.80m length data cable.

##### EUT:

- \*UTP Gigabit port --- via a 1m length RJ-45 cable to the RJ-45 jack of the LAN card that installed in nearby PC.
- \*UTP port 1 --- connect with a 2m length, RJ-45 cable that terminated with 200ohm.
- \*UTP port 2~7 --- connect with a 2m length RJ-45 cable that terminated with 200ohm.
- \*UTP port 8 --- via a 10m long, non-shielded, no ferrite bead, RJ-45 cable to the RJ-45 jack of the LAN card that installed in the PC located remotely.
- \*Power port --- via a 1.80m long power cable to a power adaptor plug into the power source.
- \*Power adaptor --- Trade: DVE; Model: DV-751AUP; I/P: 230VAC 50Hz 16VA;  
O/P: 7.5VDC 1A
- \*Power adaptor --- Trade: LEI; Model: 48075100-C5; I/P: 230VAC 50Hz 90mA;  
O/P: 7.5VDC 1000mA

**List of support equipment**

**Conducted (Radiated) test:**

**PC** : **HP Brio 85xx 6/350**  
Model No. : D6928A  
Serial No. : SG91801432; SG91801552  
FCC ID : Doc Approved  
Power type : 100 ~ 230VAC / 50 ~ 60Hz, 5A, Switching  
Power cord : Non-shielded, 2.33m long, Plastic, No ferrite core

**Monitor** : **HP 15' Color Monitor**  
Model No. : D2827A  
Serial No. : KR91161719  
FCC ID : C5F7NFCMC1518X  
Power type : 110 ~ 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. : MR80700789  
FCC ID : GYUR38SK  
Power type : By PC  
Data cable : Shielded, 1.73m long, with ferrite core

**Mouse** : **HP**  
Model No. : M-S34  
Serial No. : LZB90714106  
FCC ID : DZL211029  
Power type : By PC  
Power cord : Non-shielded, 1.88m long, No ferrite core

**USB Mouse** : **Logitech Wheel Mouse**  
Model No. : M-BJ-58  
Serial No. : LN20901985  
FCC ID : Doc Approved  
Power type : By PC  
Power cord : Non-shielded, 1.88m long, No ferrite core



**Modem** : **ACEEX**  
Model No. : XDM-9624  
FCC ID : IFAXDM-9624  
Power type : 220VAC, 50Hz / 9VAC, 1A  
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

**Printer** : **HP**  
Model No. : C2642A  
Serial No. : SG69A196GV  
FCC ID : B94C2642X  
Power type : 220 VAC, 50Hz  
Power cord : Non-shielded, 2m long, no ferrite core  
Data cable : Shielded, 1.84m (1.7m) long, no ferrite core

**USB Joystick** : **Rockfire**  
Model No. : QF-337uv  
Serial No. : 10600545  
FCC ID : CE Approval  
Power type : Powered by PC  
Power cable : Shielded, 1.8m long, No ferrite bead data cable

**PC** : **HP Vectra VE**  
Model No. : D6970A  
Serial No. : SG53000707  
FCC ID : Doc Approved  
Power type : 100 ~ 230VAC / 50 ~ 60Hz, 5A, Switching  
Power cord : Non-shielded, 2.30m long, Plastic, No ferrite core

## Chapter 2 Conducted Emission Test

### Test condition and setup:

#### (1) Mains:

All the equipment is placed and setup according to the EN 55022. The EUT is assembled on a wooden table that is 80 cm high, is placed 40 cm from the back-wall that 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 for pretest.

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

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.

#### (2) Telecommunication ports:

The EUT is placed as mains disturbance test. The communication line connected to the ISN and then the measuring receiver connected to the ISN to measured the level of voltage disturbance.

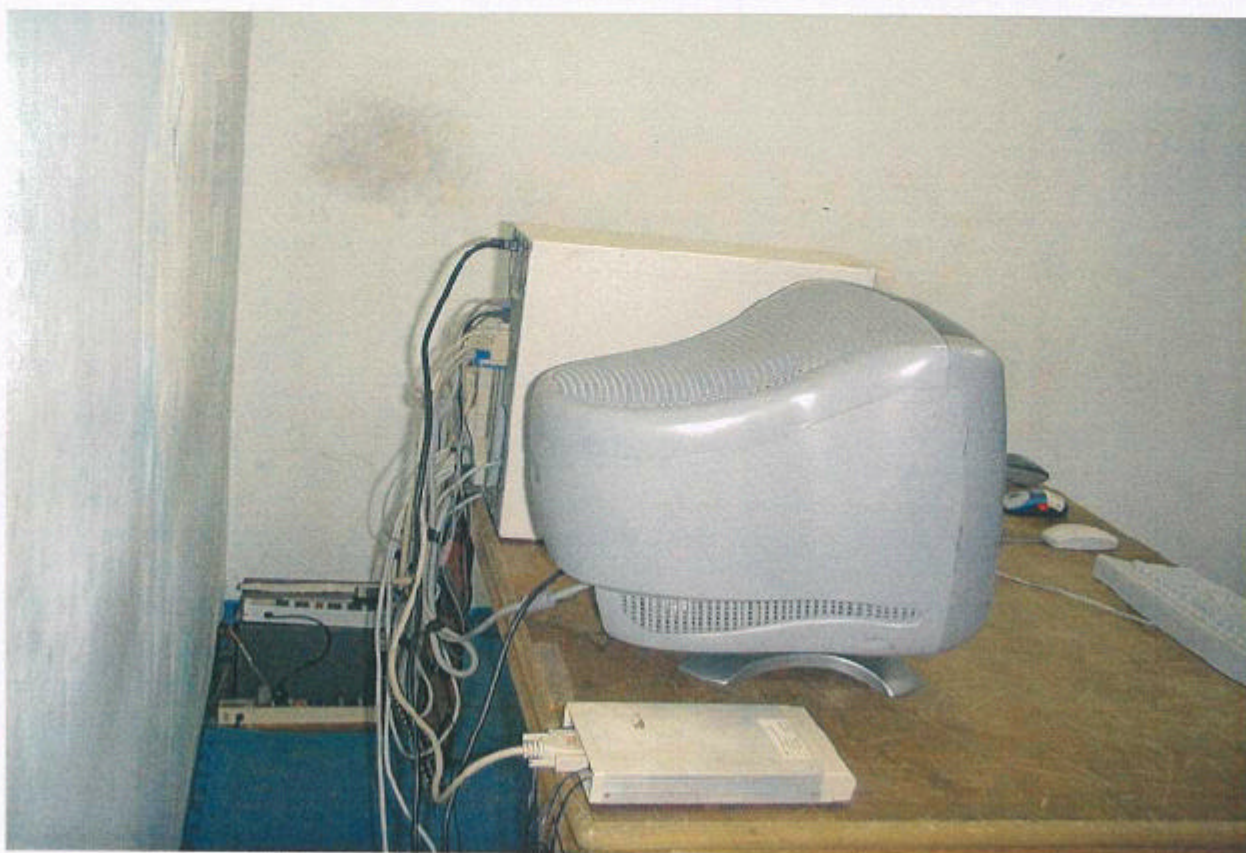
### List of test Instrument :

| Instrument Name    | Model No.     | Brand         | Serial No.      | Calibration Date |           |
|--------------------|---------------|---------------|-----------------|------------------|-----------|
|                    |               |               |                 | Last time        | Next time |
| Receiver           | SCR3102       | SCHAFFNER     | 012             | 04/22/03         | 04/21/04  |
| LISN (EUT)         | 3825/2        | EMCO          | 9411-2284       | 07/21/03         | 07/20/04  |
| LISN (Support E.)  | 3825/2        | EMCO          | 9210-2007       | 09/03/03         | 09/02/04  |
| Preamplifier       | CB-001        | TRC           | 98-02           | 05/29/03         | 05/28/04  |
| Line switch box    | CB-01         | TRC           | 98-04           | 05/29/03         | 05/28/04  |
| 1dB Attenuator     | CAT-1         | mini-circuits | -----           | 05/29/03         | 05/28/04  |
| FTB-1-6 Attenuator | 15542         | mini-circuits | 9620 03         | 05/29/03         | 05/28/04  |
| 20dB Attenuator    | CAT-20        | mini-circuits | 9620 13         | 05/29/03         | 05/28/04  |
| 3dB Attenuator     | CAT-3         | mini-circuits | 9620 14         | 05/29/03         | 05/28/04  |
| Coaxial Cable      | BNC3200B-0058 | Jyebao        | CL-05           | 05/29/03         | 05/28/04  |
| Coaxial Cable      | BNC31VB-0316  | Jyebao        | IF-01ca0069-036 | 05/29/03         | 05/28/04  |
| 50ohm terminator   | 370BNM        | NARDA         | PWR5W           | 07/21/03         | 07/20/04  |
| 50ohm terminator   | 370BNM        | NARDA         | PWR5W           | 07/21/03         | 07/20/04  |
| 50ohm terminator   | 370BNM        | NARDA         | PWR5W           | 09/03/03         | 09/02/04  |
| 50ohm terminator   | 370BNM        | NARDA         | PWR5W           | 09/03/03         | 09/02/04  |
| ISN                | ISN T400      | SCHAFFNER     | 16596           | 04/16/03         | 04/16/04  |

The level of confidence of 95% , the uncertainty of measurement of conducted emission is +3.1/-4.84 dB .

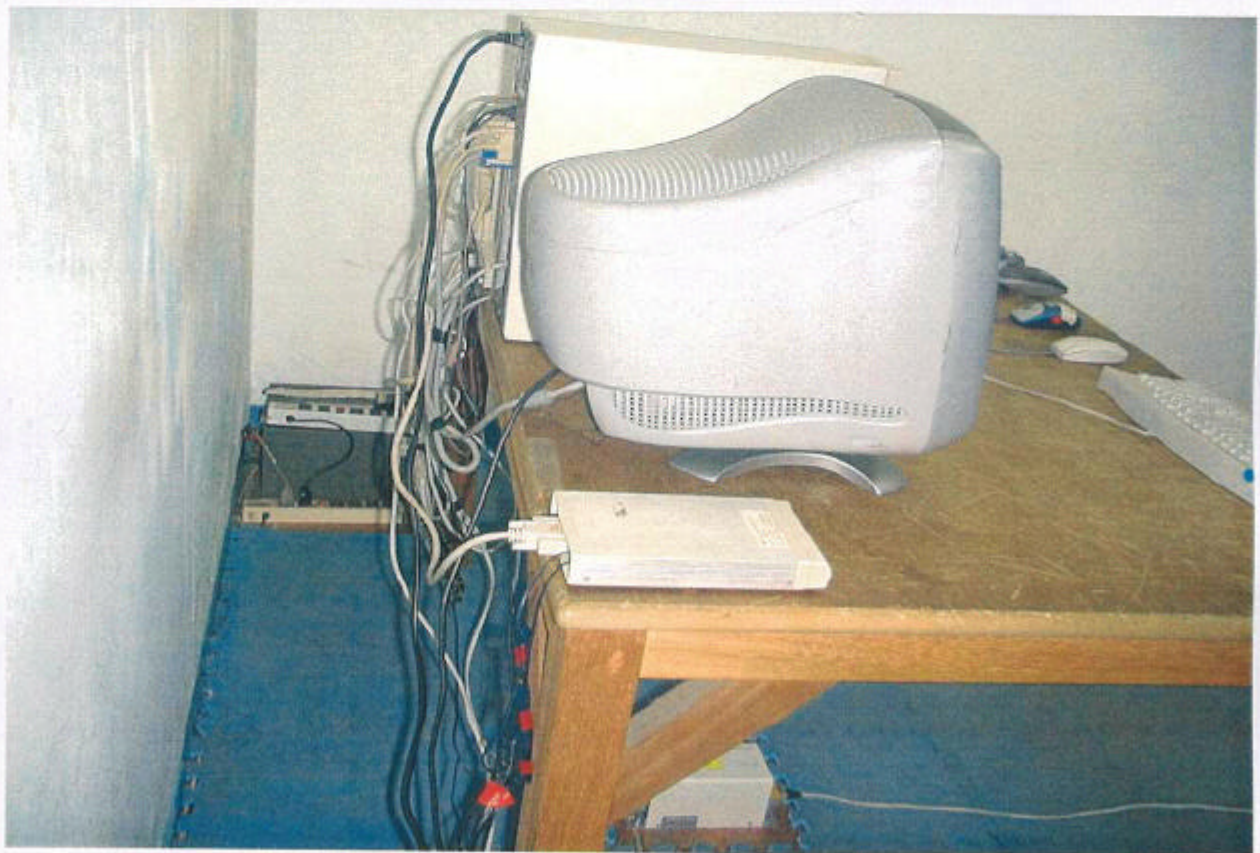
### Test Result : Pass (Appendix A)

**Conducted Test Placement: (Photographs) (Power Line)**





**Conducted Test Placement: (Photographs) (Data Line)**





### **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 is 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 placement is according to EN 55022.

The M. E. whole range Antenna is used to measure frequency from 30 MHz to 1GHz. The final test is used the Receiver.

Measure more than six top marked frequencies generated form 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 that is made by TRC is used for improving sensitivity and precaution is taken to avoid overloading. The spectrum analyzer’s 6dB bandwidth is set to 120 K Hz, 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 :**

| <u>Instrument Name</u>                                       | <u>Model No.</u> | <u>Brand</u> | <u>Serial No.</u> | <u>Calibration Date</u> |                  |
|--|------------------|--------------|-------------------|-------------------------|------------------|
|  |                  |              |                   | <u>Last time</u>        | <u>Next time</u> |
| Receiver   | SCR3102          | SCHAFFNER    | 012               | 04/22/03                | 04/21/04         |
| Control Box  | TWR95-4          | TRC          | C9001-2           | N/A                     | N/A              |
| Antenna  | CBL6141A         | SCHAFFNER    | 4206              | 05/27/03                | 05/26/04         |
| Open test side (Antenna, Amplify, cable calibrated together) |                  |              |                   | 05/29/03                | 05/28/04         |
| Pre-amplifier  | TRC-CB-2         | TRC          | CB-002            | 05/29/03                | 05/28/04         |
| Coixal Cable(20meter)  | RG-214/U         | Jyebao       | CL-002            | 05/29/03                | 05/28/04         |
| Coixal Cable(50cm)   | BNC31VB-0316     | Jyebao       | CL-002            | 05/29/03                | 05/28/04         |
| Coixal Cable(20cm)   | BNC31VB-0318     | Jyebao       | CL-007            | 05/29/03                | 05/28/04         |
| Coixal Cable(55cm)   | BNC31VB-0316     | Jyebao       | CL-006            | 05/29/03                | 05/28/04         |
| Coixal Cable(55cm)   | BNC31VB-0316     | Jyebao       | CL-005            | 05/29/03                | 05/28/04         |

The level of confidence of 95%, the uncertainty of measurement of radiated emission is +2.85/-2.77 dB.

**Test Result : Pass (Appendix B)**

***Radiated Test Placement: (Photographs)***





## Chapter 4 Radio Frequency Immunity Test (RS)

**Test information:**

Test setup: Anechoic Chamber

Test Frequency:     80 ~ 1000 MHz  
                            27 ~ 500 MHz Without Modulation

Modulation:         FM %  
                            80% AM Modulation with 1KHz  
                            900 KHz ± 5 KHz with PM 200 Hz and 100% depth

Step size:          ≤ 1% step size

Sweep time:        2.5 Second

Field strength:    1V/m            3V/m            10V/m

Test mode: Ref. Test method of Chapter 1

Test instruments:

| Name              | Model Number | Serial Number | Selected |
|-------------------|--------------|---------------|----------|
| Shielding Room    | AC5-001      | N / A         | X        |
| DC Power Supply   | GPR-3520H    | 7090069       | X        |
| Signal Generator  | 900          | 287104        | X        |
| Amplifier         | AC5-002      | N / A         | X        |
| Power Meter       | 1219-D-007   | 157           | X        |
| Spectrum Analyzer | 8594EM       | 3710A00198    | X        |
| Preamplifier      | AC3-002      | N / A         | X        |

Comment:

Performance Criteria    A    B    C

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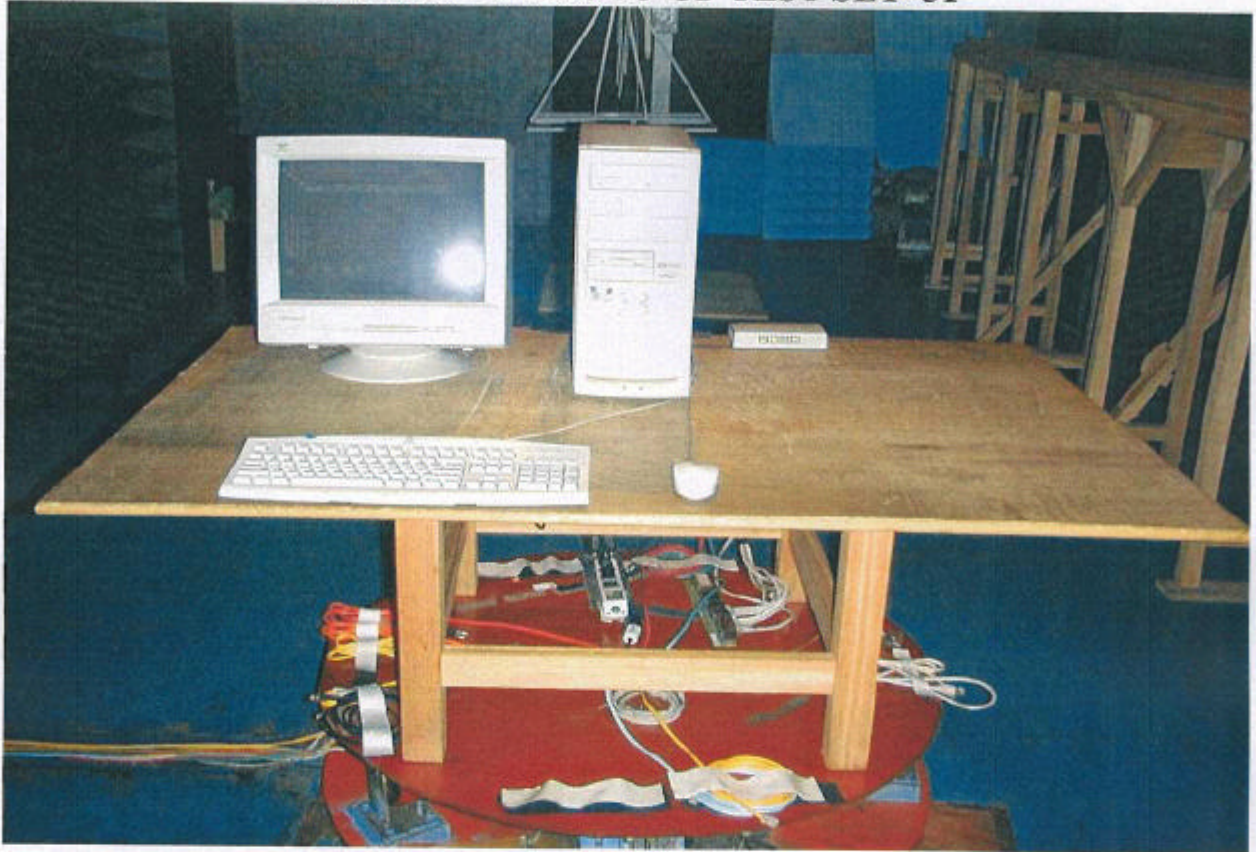
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**Test Result : Pass**

**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       (X) 1 KV, 5 KHz  
                   Signal & Control line (X) 0.5 KV, 5 KHz  
   ( ) 1 KV, 5 KHz

Polarity:           (X) Positive       (X) Negative

Test Duration:   ( ) 1 minute       (X) 3 minutes

Connected lines: ( ) Power line shielded  
                           (X) Power line non-shielded  
                           (X) Signal & Control line non-shielded  
                           ( ) Signal & Control line shielded

Test mode: Ref. 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 (X) B ( ) C

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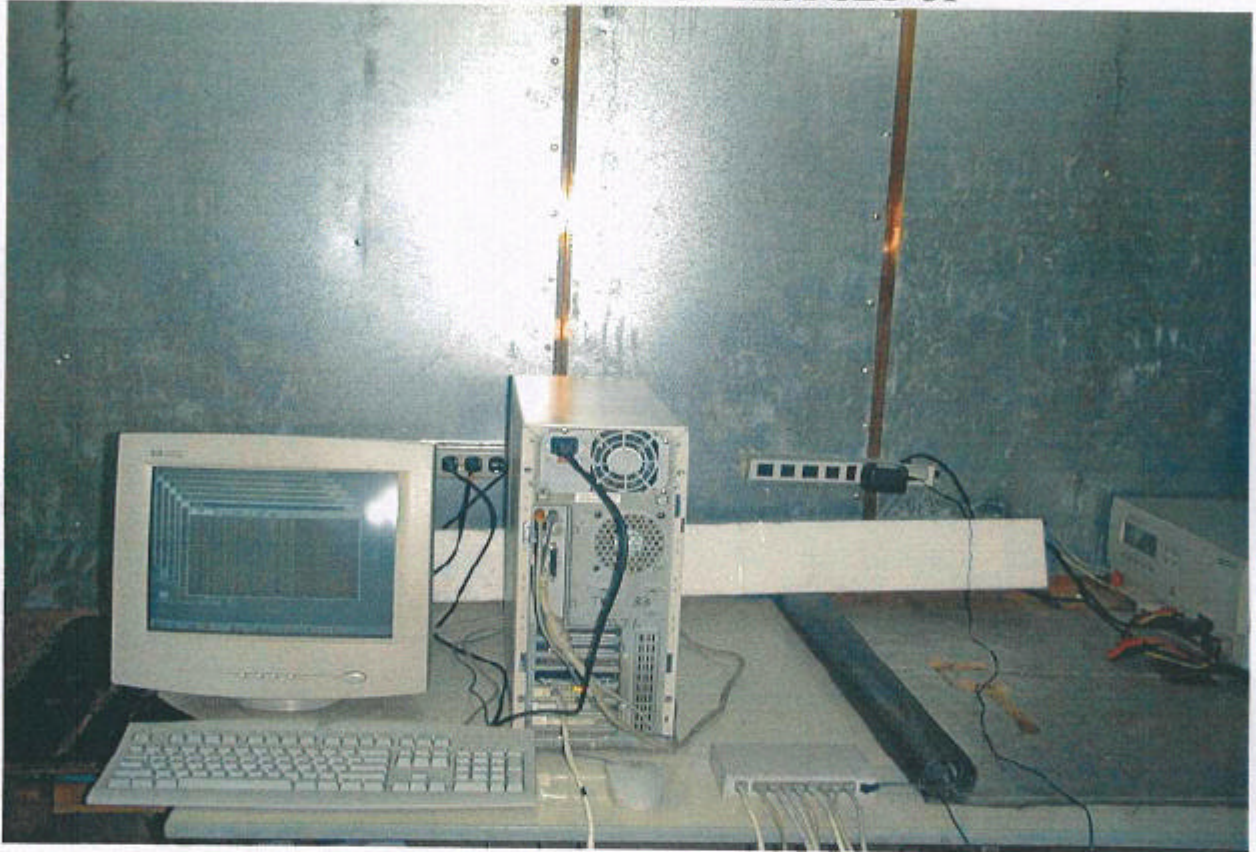
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**Test Result : Pass**

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



## **Chapter 6 Electrostatic Discharges Immunity Test**

**Test information:**

Test setup: Shielded Room

Test Voltage:         4KV contact discharge

8KV air discharge

Indirect Discharges:  HCP

VCP

Polarity:             positive    negative

Test mode: Ref. Test method of Chapter 1

Test points: Each Port of EUT

Test instruments:

| Name                                       | Model Number | Serial Number | Selected |
|--|--------------|---------------|----------|
| NoiseKen Electrostatic Discharge Simulator | ESS-100L(A)  | 2100C03605    | X        |
| NoiseKen Electrostatic Discharge Gun       | TC-815P      | 2100C03566    | X        |
|  |              |               |          |

Comment:

Performance Criteria    A    B    C

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**Test Result : Pass**



EN 61000-4-2 PHOTO OF TEST SET-UP





## Chapter 7 Surge Immunity Test

### Test information:

Test setup: According to EN 61000-4-5

Test Voltage: DC Power line ( ) 0.5 KV  
 AC Power line (X) 2 KV  
 Control line ( ) 0.5 KV  
 Signal ( ) 2 KV

Time : (X) 1.2/50 $\mu$ s (8/20 $\mu$ s)

Polarity: (X) Positive (X) Negative

Connected lines: ( ) Power line shielded (X) Power line non-shielded  
 ( ) Signal & Control line non-shielded ( ) Signal & Control line shielded

Test mode: Ref. Test method of Chapter 1.

Test instrument:

| 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        |
| KeyTek Pulsed-EMI Test System | E103, E501B, E502B, E503, E505A, E4552A | 0008260 ~0008264, 0008254 |          |

Comment:

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

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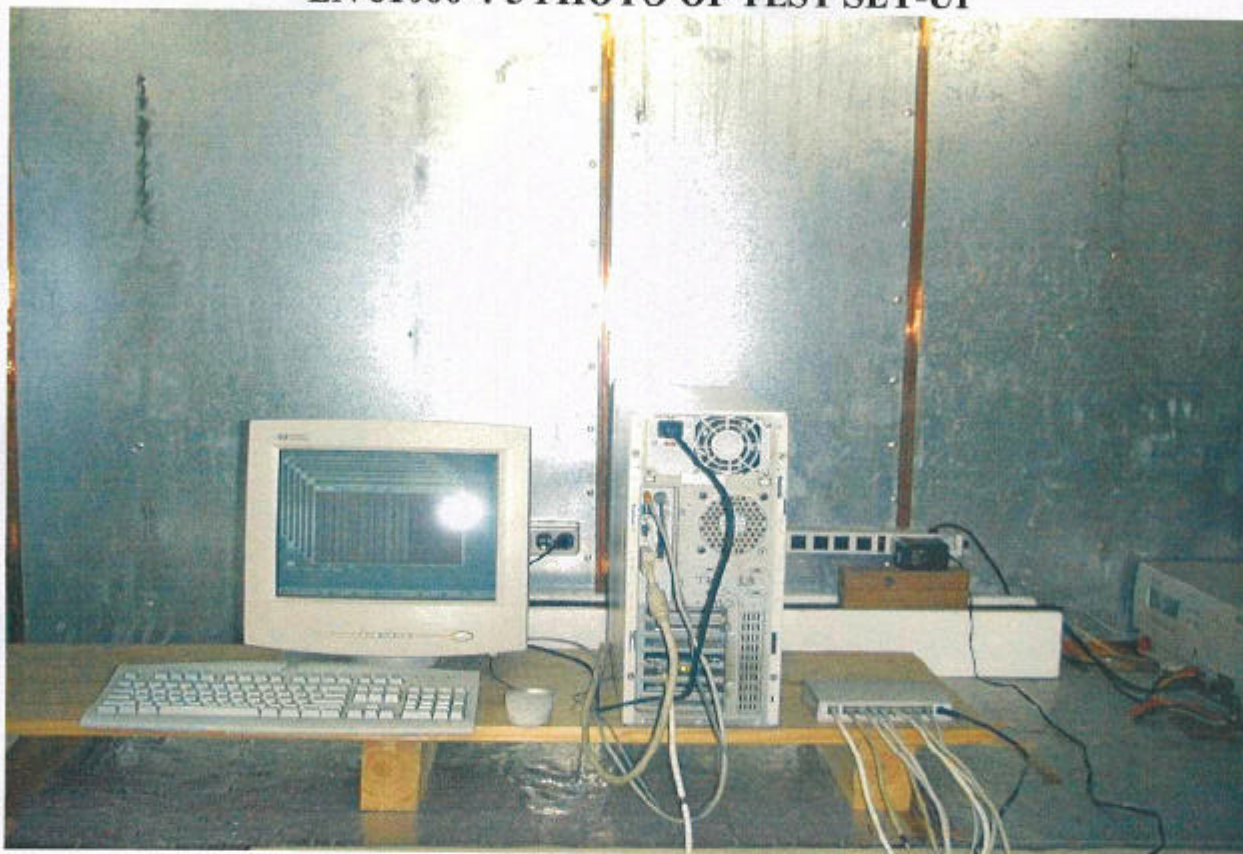
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**Test Result : Pass**

**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  
                           900 MHz ± 5 MHz with PM 200 Hz and 50% duty cycle

Step size:             ≤ 1% step size

Field strength:     1V         3V         10V

Test mode: Ref. Test method of Chapter 1

Test instruments:

| Name                                  | Model Number | Serial Number | Selected |
|---------------------------------------|--------------|---------------|----------|
| SCHAFFNER<br>RF-SYNTHESIZER/AMPLIFIER | NSG 2070-1   | 1020          | X        |
| SCHAFFNER CDN                         | M325         | 13773         | X        |
| SCHAFFNER CDN                         | M216         | 15604         |          |
| SCHAFFNER CDN                         | T004         | 15230         | X        |
| SCHAFFNER CDN                         | S501         | 15167         |          |
| SCHAFFNER FM-Koppelzange              | KEMZ 801     | 14301         |          |

Comment:

Performance Criteria:  A     B     C

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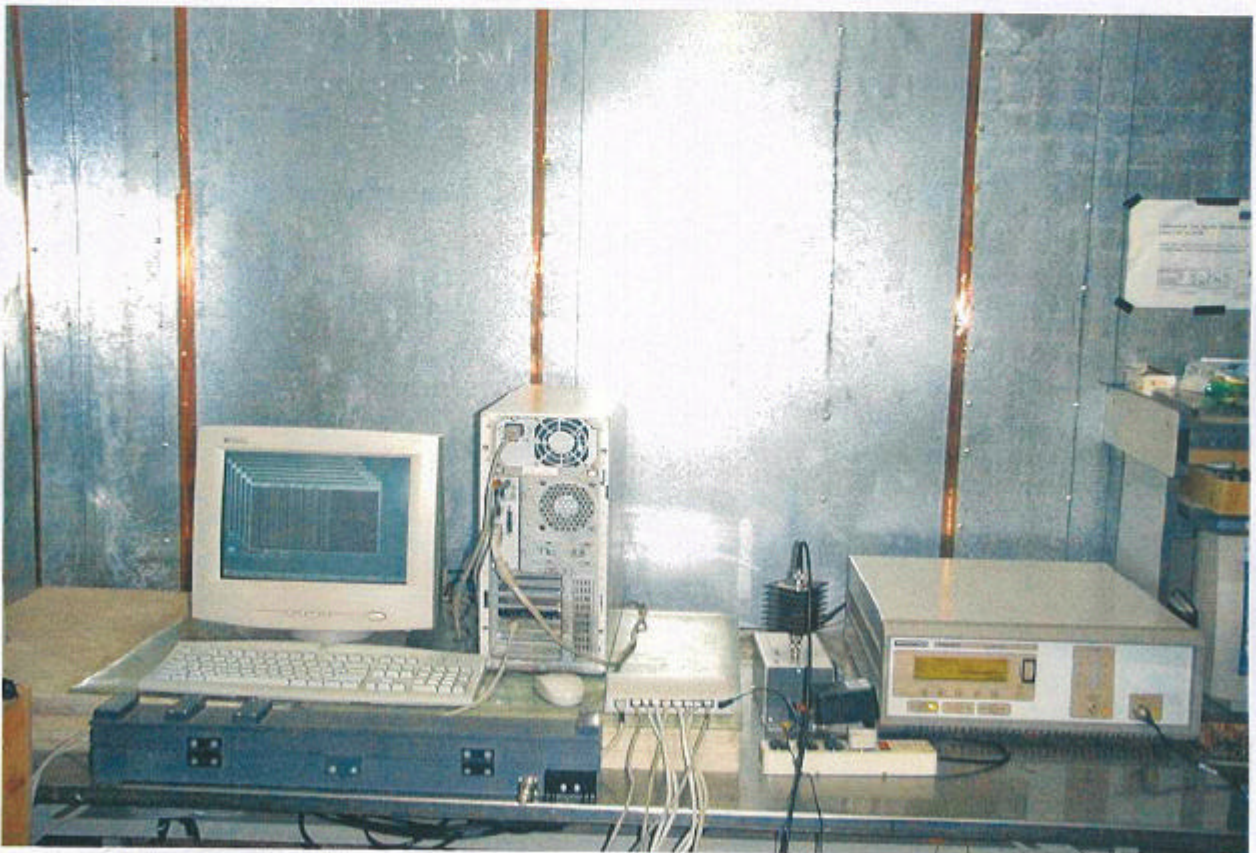


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**Test Result : Pass**

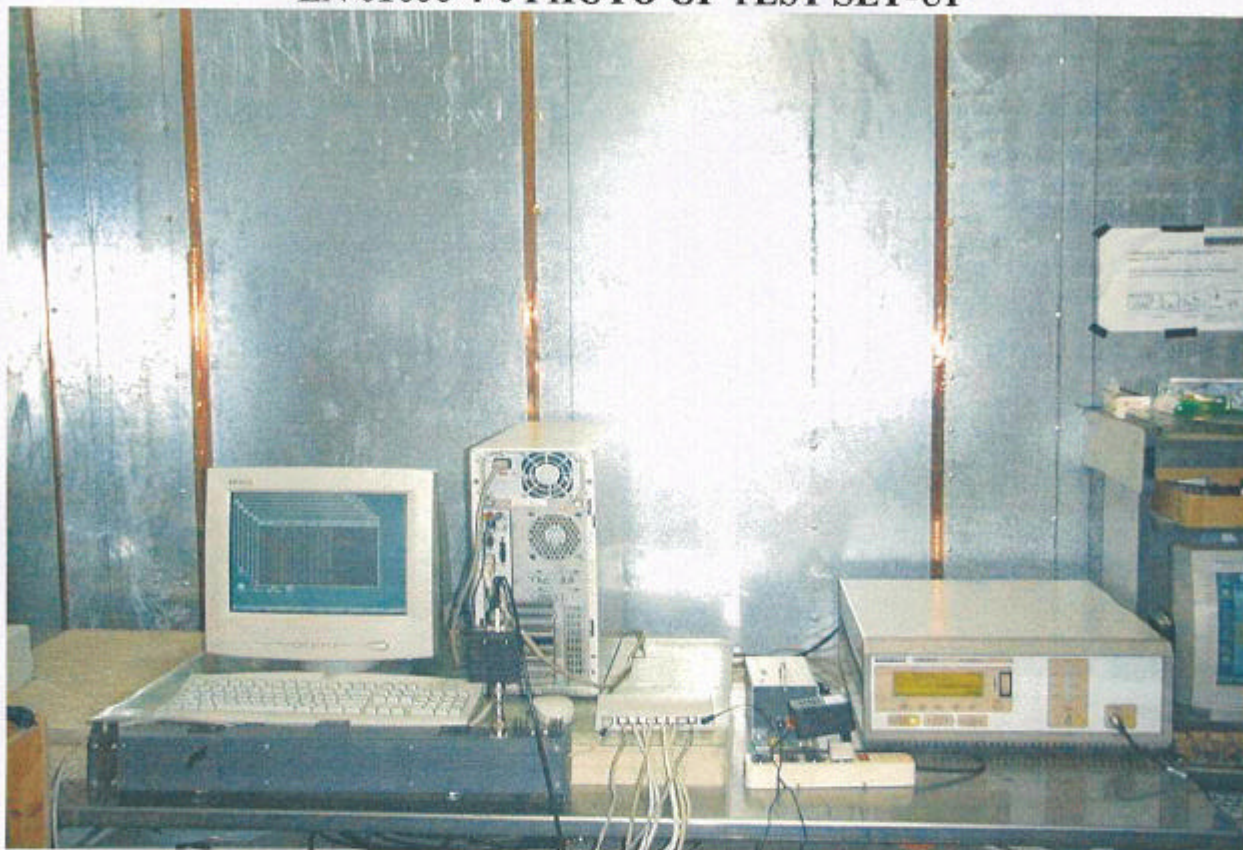


EN 61000-4-6 PHOTO OF TEST SET-UP





**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 mode: Ref. Test method of Chapter 1

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 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:

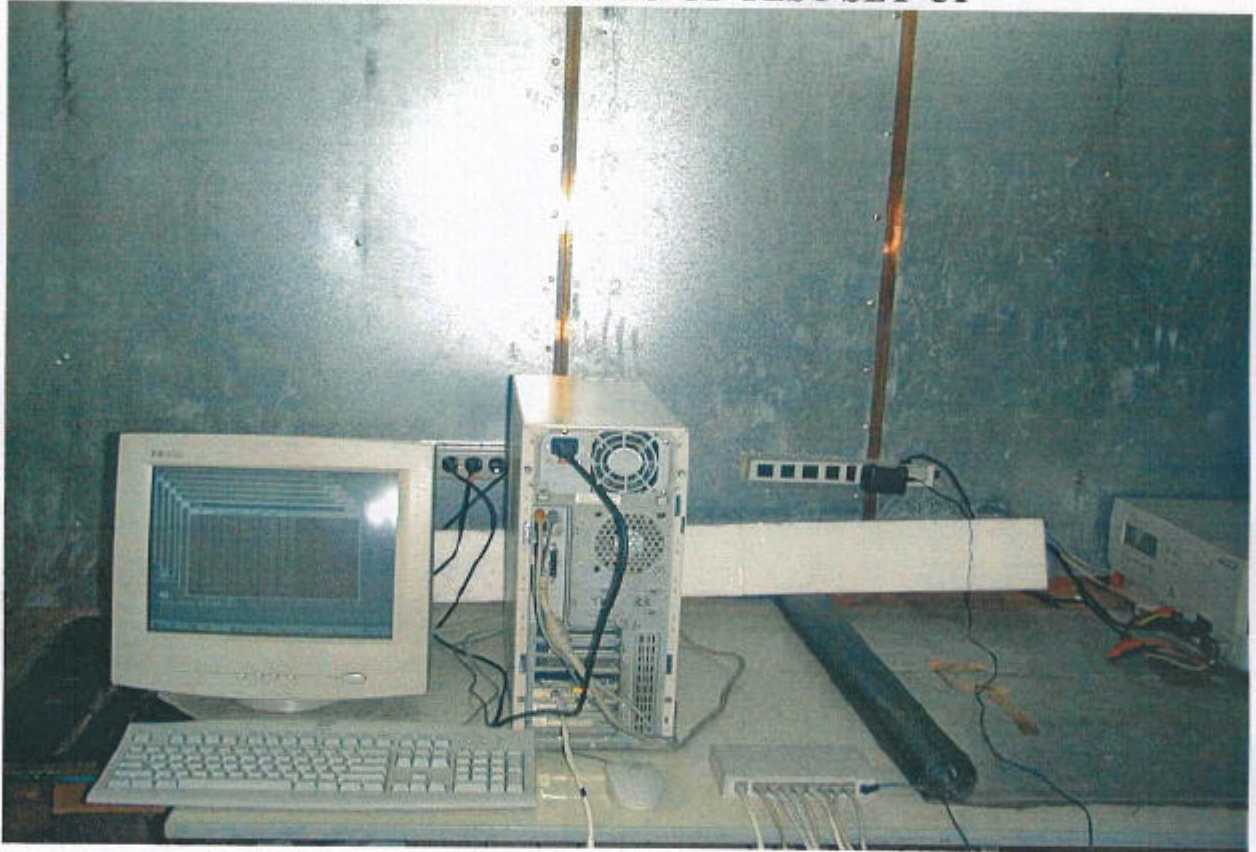
Performance Criteria:  A  B  C

**Test Result : Pass**





**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              | D                                       | D                                  |
| 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: (Test Mode: DVE DV-751AUP 10 x 10 Mbps)**

Testing room :      Temperature : 24 ° C      Humidity : 81 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 7210.00            | 26.84             | ***. **              | ***. **           | 60.00                | 50.00             | -23.16         |
| 9000.00            | 28.38             | ***. **              | ***. **           | 60.00                | 50.00             | -21.62         |
| 9320.00            | 29.15             | ***. **              | ***. **           | 60.00                | 50.00             | -20.85         |
| 10020.00           | 28.39             | ***. **              | ***. **           | 60.00                | 50.00             | -21.61         |
| 10740.00           | 26.55             | ***. **              | ***. **           | 60.00                | 50.00             | -23.45         |
| 21110.00           | 25.69             | ***. **              | ***. **           | 60.00                | 50.00             | -24.31         |
| 21560.00           | 27.44             | ***. **              | ***. **           | 60.00                | 50.00             | -22.56         |
| 22610.00           | 25.44             | ***. **              | ***. **           | 60.00                | 50.00             | -24.56         |
| 24470.00           | 27.74             | ***. **              | ***. **           | 60.00                | 50.00             | -22.26         |
| 27260.00           | 25.72             | ***. **              | ***. **           | 60.00                | 50.00             | -24.28         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 9200.00            | 29.49             | ***. **              | ***. **           | 60.00                | 50.00             | -20.51         |
| 9520.00            | 30.50             | ***. **              | ***. **           | 60.00                | 50.00             | -19.50         |
| 9930.00            | 28.53             | ***. **              | ***. **           | 60.00                | 50.00             | -21.47         |
| 10360.00           | 30.02             | ***. **              | ***. **           | 60.00                | 50.00             | -19.98         |
| 10590.00           | 29.20             | ***. **              | ***. **           | 60.00                | 50.00             | -20.80         |
| 10960.00           | 29.10             | ***. **              | ***. **           | 60.00                | 50.00             | -20.90         |
| 11330.00           | 28.69             | ***. **              | ***. **           | 60.00                | 50.00             | -21.31         |
| 12280.00           | 30.68             | ***. **              | ***. **           | 60.00                | 50.00             | -19.32         |
| 21560.00           | 28.47             | ***. **              | ***. **           | 60.00                | 50.00             | -21.53         |
| 24470.00           | 29.51             | ***. **              | ***. **           | 60.00                | 50.00             | -20.49         |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: DVE DV-751AUP 100 x 100 Mbps)**

Testing room :      Temperature : 24 °C      Humidity : 81 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 9520.00            | 28.88             | ***.***              | ***.***           | 60.00                | 60.00             | -21.12         |
| 10090.00           | 27.24             | ***.***              | ***.***           | 60.00                | 60.00             | -22.76         |
| 10440.00           | 27.12             | ***.***              | ***.***           | 60.00                | 60.00             | -22.88         |
| 19750.00           | 27.32             | ***.***              | ***.***           | 60.00                | 60.00             | -22.68         |
| 21560.00           | 29.84             | ***.***              | ***.***           | 60.00                | 60.00             | -20.16         |
| 22610.00           | 28.02             | ***.***              | ***.***           | 60.00                | 60.00             | -21.98         |
| 23050.00           | 28.84             | ***.***              | ***.***           | 60.00                | 60.00             | -21.16         |
| 24470.00           | 27.77             | ***.***              | ***.***           | 60.00                | 60.00             | -22.23         |
| 26570.00           | 29.79             | ***.***              | ***.***           | 60.00                | 60.00             | -20.21         |
| 29180.00           | 28.51             | ***.***              | ***.***           | 60.00                | 60.00             | -21.49         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 9450.00            | 28.90             | ***.***              | ***.***           | 60.00                | 60.00             | 21.10          |
| 10020.00           | 30.71             | ***.***              | ***.***           | 60.00                | 60.00             | -19.29         |
| 10440.00           | 29.16             | ***.***              | ***.***           | 60.00                | 60.00             | -20.84         |
| 11040.00           | 29.50             | ***.***              | ***.***           | 60.00                | 60.00             | -20.50         |
| 11260.00           | 29.17             | ***.***              | ***.***           | 60.00                | 60.00             | -20.83         |
| 11930.00           | 29.03             | ***.***              | ***.***           | 60.00                | 60.00             | -20.97         |
| 12630.00           | 29.31             | ***.***              | ***.***           | 60.00                | 60.00             | -20.69         |
| 12890.00           | 28.23             | ***.***              | ***.***           | 60.00                | 60.00             | -21.77         |
| 21560.00           | 33.72             | ***.***              | ***.***           | 60.00                | 60.00             | -16.28         |
| 23200.00           | 28.18             | ***.***              | ***.***           | 60.00                | 60.00             | -21.82         |

\*The reading amplitudes are all under limit.



**Conducted Emission Test Result: (Test Mode: DVE DV-751AUP 1000 x 10 Mbps)**

Testing room :      Temperature : 24 ° C      Humidity : 81 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 9000.00            | 27.38             | ***.***              | ***.***           | 60.00                | 60.00             | -22.62         |
| 9320.00            | 28.56             | ***.***              | ***.***           | 60.00                | 60.00             | -21.44         |
| 9520.00            | 28.04             | ***.***              | ***.***           | 60.00                | 60.00             | -21.96         |
| 10090.00           | 27.06             | ***.***              | ***.***           | 60.00                | 60.00             | -22.94         |
| 10440.00           | 26.98             | ***.***              | ***.***           | 60.00                | 60.00             | -23.02         |
| 21710.00           | 27.66             | ***.***              | ***.***           | 60.00                | 60.00             | -22.34         |
| 24470.00           | 27.65             | ***.***              | ***.***           | 60.00                | 60.00             | -22.35         |
| 26740.00           | 26.87             | ***.***              | ***.***           | 60.00                | 60.00             | -23.13         |
| 28160.00           | 26.56             | ***.***              | ***.***           | 60.00                | 60.00             | -23.44         |
| 29180.00           | 20.06             | ***.***              | ***.***           | 60.00                | 60.00             | -23.94         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 9200.00            | 30.62             | ***.***              | ***.***           | 60.00                | 60.00             | -19.38         |
| 9830.00            | 29.30             | ***.***              | ***.***           | 60.00                | 60.00             | -20.70         |
| 10150.00           | 29.91             | ***.***              | ***.***           | 60.00                | 60.00             | -20.09         |
| 10440.00           | 28.55             | ***.***              | ***.***           | 60.00                | 60.00             | -21.45         |
| 11330.00           | 28.41             | ***.***              | ***.***           | 60.00                | 60.00             | -21.59         |
| 12710.00           | 30.08             | ***.***              | ***.***           | 60.00                | 60.00             | -19.92         |
| 12980.00           | 29.02             | ***.***              | ***.***           | 60.00                | 60.00             | -20.98         |
| 14020.00           | 29.73             | ***.***              | ***.***           | 60.00                | 60.00             | -20.27         |
| 21560.00           | 28.76             | ***.***              | ***.***           | 60.00                | 60.00             | -21.24         |
| 23650.00           | 36.77             | ***.***              | ***.***           | 60.00                | 60.00             | -13.23         |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: DVE DV-751AUP 100 x 100 Mbps)**

Testing room :      Temperature : 24 °C      Humidity : 81 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 8640.00            | 27.56             | ***. **              | ***. **           | 60.00                | 60.00             | -22.44         |
| 9000.00            | 28.29             | ***. **              | ***. **           | 60.00                | 60.00             | -21.71         |
| 9260.00            | 28.76             | ***. **              | ***. **           | 60.00                | 60.00             | -21.24         |
| 9830.00            | 28.63             | ***. **              | ***. **           | 60.00                | 60.00             | -21.37         |
| 10090.00           | 27.72             | ***. **              | ***. **           | 60.00                | 60.00             | -22.28         |
| 16150.00           | 27.12             | ***. **              | ***. **           | 60.00                | 60.00             | -22.88         |
| 21560.00           | 30.46             | ***. **              | ***. **           | 60.00                | 60.00             | -19.54         |
| 26570.00           | 28.74             | ***. **              | ***. **           | 60.00                | 60.00             | -21.26         |
| 27090.00           | 28.20             | ***. **              | ***. **           | 60.00                | 60.00             | -21.80         |
| 27780.00           | 27.31             | ***. **              | ***. **           | 60.00                | 60.00             | -22.69         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 8940.00            | 29.28             | ***. **              | ***. **           | 60.00                | 60.00             | -20.72         |
| 9390.00            | 29.76             | ***. **              | ***. **           | 60.00                | 60.00             | -20.24         |
| 10020.00           | 28.98             | ***. **              | ***. **           | 60.00                | 60.00             | -21.02         |
| 10210.00           | 30.43             | ***. **              | ***. **           | 60.00                | 60.00             | -19.57         |
| 11930.00           | 29.06             | ***. **              | ***. **           | 60.00                | 60.00             | -20.94         |
| 12360.00           | 28.52             | ***. **              | ***. **           | 60.00                | 60.00             | -21.48         |
| 12800.00           | 29.13             | ***. **              | ***. **           | 60.00                | 60.00             | -20.87         |
| 13260.00           | 28.40             | ***. **              | ***. **           | 60.00                | 60.00             | -21.60         |
| 21560.00           | 32.94             | ***. **              | ***. **           | 60.00                | 60.00             | -17.06         |
| 24470.00           | 28.55             | ***. **              | ***. **           | 60.00                | 60.00             | -21.45         |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: LEI 48075100-C5 10 x 10 Mbps)**

Testing room :      Temperature : 23 °C      Humidity : 76 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 153.00             | 41.01             | ***.**               | ***.**            | 65.91                | 55.91             | -14.90         |
| 163.00             | 40.82             | ***.**               | ***.**            | 65.63                | 55.63             | -14.81         |
| 173.00             | 40.08             | ***.**               | ***.**            | 65.34                | 55.34             | -15.27         |
| 177.00             | 40.01             | ***.**               | ***.**            | 65.23                | 55.23             | -15.21         |
| 189.00             | 39.14             | ***.**               | ***.**            | 64.89                | 54.89             | -15.74         |
| 203.00             | 38.41             | ***.**               | ***.**            | 64.49                | 54.49             | -16.07         |
| 209.00             | 38.52             | ***.**               | ***.**            | 64.31                | 54.31             | -15.80         |
| 215.00             | 37.62             | ***.**               | ***.**            | 64.14                | 54.14             | -16.52         |
| 223.00             | 37.48             | ***.**               | ***.**            | 63.91                | 53.91             | -16.43         |
| 236.00             | 37.13             | ***.**               | ***.**            | 63.54                | 53.54             | -16.41         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 461.00             | 36.74             | ***.**               | ***.**            | 57.11                | 47.11             | -10.38         |
| 470.00             | 36.78             | ***.**               | ***.**            | 56.86                | 46.86             | -10.08         |
| 486.00             | 36.56             | ***.**               | ***.**            | 56.40                | 46.40             | -9.84          |
| 505.00             | 36.30             | ***.**               | ***.**            | 56.00                | 46.00             | -9.70          |
| 527.00             | 36.26             | ***.**               | ***.**            | 56.00                | 46.00             | -9.74          |
| 542.00             | 36.09             | ***.**               | ***.**            | 56.00                | 46.00             | -9.91          |
| 553.00             | 36.05             | ***.**               | ***.**            | 56.00                | 46.00             | -9.95          |
| 571.00             | 35.96             | ***.**               | ***.**            | 56.00                | 46.00             | -10.04         |
| 593.00             | 35.85             | ***.**               | ***.**            | 56.00                | 46.00             | -10.15         |
| 637.00             | 35.71             | ***.**               | ***.**            | 56.00                | 46.00             | -10.26         |

\*The reading amplitudes are all under limit.



**Conducted Emission Test Result: (Test Mode: LEI 48075100-C5 100 x 100 Mbps)**

Testing room :      Temperature : 23 °C      Humidity : 76 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 151.00             | 42.43             | ***.***              | ***.***           | 65.97                | 55.97             | -13.55         |
| 159.00             | 42.05             | ***.***              | ***.***           | 65.74                | 55.74             | -13.69         |
| 164.00             | 41.63             | ***.***              | ***.***           | 65.60                | 55.60             | -13.97         |
| 173.00             | 41.10             | ***.***              | ***.***           | 65.34                | 55.34             | -14.25         |
| 178.00             | 40.87             | ***.***              | ***.***           | 65.20                | 55.20             | -14.33         |
| 192.00             | 40.02             | ***.***              | ***.***           | 64.80                | 54.80             | -14.78         |
| 208.00             | 39.14             | ***.***              | ***.***           | 64.34                | 54.34             | -15.20         |
| 218.00             | 39.12             | ***.***              | ***.***           | 64.06                | 54.06             | -14.94         |
| 222.00             | 38.37             | ***.***              | ***.***           | 63.94                | 53.94             | -15.57         |
| 11330.00           | 36.03             | ***.***              | ***.***           | 60.00                | 50.00             | -13.97         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 436.00             | 37.27             | ***.***              | ***.***           | 57.83                | 47.83             | -10.56         |
| 473.00             | 37.13             | ***.***              | ***.***           | 56.77                | 46.77             | -9.65          |
| 499.00             | 36.70             | ***.***              | ***.***           | 56.03                | 46.03             | -9.32          |
| 527.00             | 36.40             | ***.***              | ***.***           | 56.00                | 46.00             | -9.60          |
| 542.00             | 36.42             | ***.***              | ***.***           | 56.00                | 46.00             | -9.58          |
| 560.00             | 35.80             | ***.***              | ***.***           | 56.00                | 46.00             | -10.20         |
| 571.00             | 35.87             | ***.***              | ***.***           | 56.00                | 46.00             | -10.13         |
| 601.00             | 35.98             | ***.***              | ***.***           | 56.00                | 46.00             | -10.02         |
| 624.00             | 36.16             | ***.***              | ***.***           | 56.00                | 46.00             | -9.84          |
| 654.00             | 35.67             | ***.***              | ***.***           | 56.00                | 46.00             | -10.33         |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: LEI 48075100-C5 1000 x 10 Mbps)**

Testing room :      Temperature : 23 ° C      Humidity : 76 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 150.00             | 41.14             | ***.***              | ***.***           | 66.00                | 56.00             | -14.86         |
| 157.00             | 41.23             | ***.***              | ***.***           | 65.80                | 55.80             | -14.57         |
| 166.00             | 40.61             | ***.***              | ***.***           | 65.54                | 55.54             | -14.94         |
| 171.00             | 40.31             | ***.***              | ***.***           | 65.40                | 55.40             | -15.09         |
| 183.00             | 39.63             | ***.***              | ***.***           | 65.06                | 55.06             | -15.43         |
| 191.00             | 39.04             | ***.***              | ***.***           | 64.83                | 54.83             | -15.79         |
| 198.00             | 39.04             | ***.***              | ***.***           | 64.63                | 54.63             | -15.59         |
| 205.00             | 38.28             | ***.***              | ***.***           | 64.43                | 54.43             | -16.15         |
| 211.00             | 38.15             | ***.***              | ***.***           | 64.26                | 54.26             | -16.11         |
| 226.00             | 37.65             | ***.***              | ***.***           | 63.83                | 53.83             | -16.18         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 449.00             | 37.04             | ***.***              | ***.***           | 57.46                | 47.46             | -10.42         |
| 461.00             | 36.66             | ***.***              | ***.***           | 57.11                | 47.11             | -10.46         |
| 473.00             | 36.57             | ***.***              | ***.***           | 56.77                | 46.77             | -10.21         |
| 489.00             | 36.75             | ***.***              | ***.***           | 56.31                | 46.31             | -9.56          |
| 505.00             | 36.16             | ***.***              | ***.***           | 56.00                | 46.00             | -9.84          |
| 518.00             | 36.08             | ***.***              | ***.***           | 56.00                | 46.00             | -9.92          |
| 534.00             | 36.01             | ***.***              | ***.***           | 56.00                | 46.00             | -9.99          |
| 556.00             | 36.03             | ***.***              | ***.***           | 56.00                | 46.00             | -9.97          |
| 568.00             | 36.03             | ***.***              | ***.***           | 56.00                | 46.00             | -9.97          |
| 597.00             | 35.64             | ***.***              | ***.***           | 56.00                | 46.00             | -10.36         |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: LEI 48075100-C5 1000 x 10 Mbps)**

Testing room :      Temperature : 23 °C      Humidity : 76 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 153.00             | 41.27             | ***.**               | ***.**            | 65.91                | 55.91             | -14.64         |
| 164.00             | 40.79             | ***.**               | ***.**            | 65.60                | 55.60             | -14.81         |
| 167.00             | 40.55             | ***.**               | ***.**            | 65.51                | 55.51             | -14.96         |
| 173.00             | 40.33             | ***.**               | ***.**            | 65.34                | 55.34             | -15.02         |
| 178.00             | 39.96             | ***.**               | ***.**            | 65.20                | 55.20             | -15.24         |
| 186.00             | 39.18             | ***.**               | ***.**            | 64.97                | 54.97             | -15.79         |
| 191.00             | 39.07             | ***.**               | ***.**            | 64.83                | 54.83             | -15.76         |
| 203.00             | 38.53             | ***.**               | ***.**            | 64.49                | 54.49             | -15.95         |
| 215.00             | 38.09             | ***.**               | ***.**            | 64.14                | 54.14             | -16.05         |
| 222.00             | 37.77             | ***.**               | ***.**            | 63.94                | 53.94             | -16.17         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 436.00             | 37.27             | ***.**               | ***.**            | 57.83                | 47.83             | -10.56         |
| 455.00             | 36.99             | ***.**               | ***.**            | 57.29                | 47.29             | -10.30         |
| 477.00             | 37.02             | ***.**               | ***.**            | 56.66                | 46.66             | -9.64          |
| 486.00             | 35.85             | ***.**               | ***.**            | 56.40                | 46.40             | -10.55         |
| 502.00             | 35.89             | ***.**               | ***.**            | 56.00                | 46.00             | -10.11         |
| 515.00             | 36.98             | ***.**               | ***.**            | 56.00                | 46.00             | -9.02          |
| 538.00             | 36.12             | ***.**               | ***.**            | 56.00                | 46.00             | -9.88          |
| 579.00             | 35.68             | ***.**               | ***.**            | 56.00                | 46.00             | -10.32         |
| 597.00             | 35.80             | ***.**               | ***.**            | 56.00                | 46.00             | -10.20         |
| 612.00             | 35.59             | ***.**               | ***.**            | 56.00                | 46.00             | -10.41         |

\*The reading amplitudes are all under limit.



**Conducted Emission Test Result: (Test Mode: LEI 48075100-C5 ISN 10 x 10 Mbps)**

Testing room :      Temperature : 24 ° C      Humidity : 83 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 3730.00            | 43.49             | ***.**               | ***.**            | 74.00                | 64.00             | -20.51         |
| 5080.00            | 43.56             | ***.**               | ***.**            | 74.00                | 64.00             | -20.44         |
| 6260.00            | 53.26             | ***.**               | ***.**            | 74.00                | 64.00             | -10.74         |
| 7990.00            | 44.09             | ***.**               | ***.**            | 74.00                | 64.00             | -19.91         |
| 9450.00            | 42.38             | ***.**               | ***.**            | 74.00                | 64.00             | -21.62         |
| 9770.00            | 50.29             | ***.**               | ***.**            | 74.00                | 64.00             | -13.71         |
| 10440.00           | 44.78             | ***.**               | ***.**            | 74.00                | 64.00             | -19.22         |
| 12190.00           | 44.68             | ***.**               | ***.**            | 74.00                | 64.00             | -19.32         |
| 13640.00           | 46.43             | ***.**               | ***.**            | 74.00                | 64.00             | -17.57         |
| 13930.00           | 43.35             | ***.**               | ***.**            | 74.00                | 64.00             | -20.65         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 874.00             | 45.11             | ***.**               | ***.**            | 74.00                | 64.00             | -18.89         |
| 941.00             | 44.63             | ***.**               | ***.**            | 74.00                | 64.00             | -19.37         |
| 978.00             | 43.31             | ***.**               | ***.**            | 74.00                | 64.00             | -20.69         |
| 3700.00            | 46.21             | ***.**               | ***.**            | 74.00                | 64.00             | -17.79         |
| 4980.00            | 46.55             | ***.**               | ***.**            | 74.00                | 64.00             | -17.45         |
| 6260.00            | 53.16             | ***.**               | ***.**            | 74.00                | 64.00             | -10.84         |
| 8750.00            | 50.28             | ***.**               | ***.**            | 74.00                | 64.00             | -13.72         |
| 9450.00            | 43.82             | ***.**               | ***.**            | 74.00                | 64.00             | -20.18         |
| 9770.00            | 50.98             | ***.**               | ***.**            | 74.00                | 64.00             | -13.02         |
| 13740.00           | 45.93             | ***.**               | ***.**            | 74.00                | 64.00             | -18.007        |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: LEI 48075100-C5 ISN 100 x 100 Mbps)**

Testing room :      Temperature : 24 ° C      Humidity : 83 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE    |                            |                         | LIMIT                      |                         | Margin<br>(dB) |
|--------------------|----------------------|----------------------------|-------------------------|----------------------------|-------------------------|----------------|
|                    | Peak<br>(dB $\mu$ V) | Quasi-Peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) | Quasi-Peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) |                |
| 13450.00           | 55.36                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -8.64          |
| 16150.00           | 59.47                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -4.53          |
| 17700.00           | 58.45                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -5.55          |
| 18210.00           | 59.85                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -4.15          |
| 18980.00           | 56.05                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -7.95          |
| 19750.00           | 58.50                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -5.50          |
| 20260.00           | 58.23                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -5.77          |
| 21560.00           | 57.99                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -6.01          |
| 22460.00           | 55.58                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -8.42          |
| 23050.00           | 59.85                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -4.15          |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE    |                            |                         | LIMIT                      |                         | Margin<br>(dB) |
|--------------------|----------------------|----------------------------|-------------------------|----------------------------|-------------------------|----------------|
|                    | Peak<br>(dB $\mu$ V) | Quasi-Peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) | Quasi-Peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) |                |
| 14210.00           | 55.33                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -8.67          |
| 16150.00           | 59.79                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -4.21          |
| 17700.00           | 58.97                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -5.03          |
| 18210.00           | 59.19                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -4.81          |
| 18850.00           | 55.93                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -8.07          |
| 19750.00           | 57.82                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -6.18          |
| 20260.00           | 58.23                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -5.77          |
| 21560.00           | 57.28                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -6.72          |
| 22460.00           | 55.42                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -8.58          |
| 23050.00           | 59.26                | ***. **                    | ***. **                 | 74.00                      | 64.00                   | -4.74          |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: LEI 48075100-C5 ISN 1000 x 10 Mbps)**

Testing room :      Temperature : 24 ° C      Humidity : 83 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 3700.00            | 45.50             | ***.***              | ***.***           | 74.00                | 64.00             | -18.50         |
| 4980.00            | 48.25             | ***.***              | ***.***           | 74.00                | 64.00             | -15.75         |
| 6060.00            | 41.68             | ***.***              | ***.***           | 74.00                | 64.00             | -22.32         |
| 6260.00            | 47.74             | ***.***              | ***.***           | 74.00                | 64.00             | -16.26         |
| 7990.00            | 46.69             | ***.***              | ***.***           | 74.00                | 64.00             | -17.31         |
| 9640.00            | 44.51             | ***.***              | ***.***           | 74.00                | 64.00             | -19.49         |
| 9900.00            | 42.09             | ***.***              | ***.***           | 74.00                | 64.00             | -21.91         |
| 10290.00           | 42.46             | ***.***              | ***.***           | 74.00                | 64.00             | -21.54         |
| 12010.00           | 41.65             | ***.***              | ***.***           | 74.00                | 64.00             | -22.35         |
| 13740.00           | 48.16             | ***.***              | ***.***           | 74.00                | 64.00             | -15.84         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 3750.00            | 46.64             | ***.***              | ***.***           | 74.00                | 64.00             | -17.36         |
| 4950.00            | 44.87             | ***.***              | ***.***           | 74.00                | 64.00             | -19.13         |
| 5080.00            | 41.81             | ***.***              | ***.***           | 74.00                | 64.00             | -22.19         |
| 6180.00            | 43.43             | ***.***              | ***.***           | 74.00                | 64.00             | -20.57         |
| 7260.00            | 41.62             | ***.***              | ***.***           | 74.00                | 64.00             | -22.38         |
| 7820.00            | 41.42             | ***.***              | ***.***           | 74.00                | 64.00             | -22.58         |
| 7990.00            | 47.34             | ***.***              | ***.***           | 74.00                | 64.00             | -16.66         |
| 8530.00            | 44.01             | ***.***              | ***.***           | 74.00                | 64.00             | -19.99         |
| 9960.00            | 53.39             | ***.***              | ***.***           | 74.00                | 64.00             | -10.61         |
| 10360.00           | 42.35             | ***.***              | ***.***           | 74.00                | 64.00             | -21.65         |

\*The reading amplitudes are all under limit.



**Conducted Emission Test Result: (Test Mode: LEI 48075100-C5 ISN 1000 x 100 Mbps)**

Testing room :      Temperature : 24 °C      Humidity : 83 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 13360.00           | 52.63             | ***.**               | ***.**            | 74.00                | 64.00             | -11.37         |
| 16150.00           | 57.10             | ***.**               | ***.**            | 74.00                | 64.00             | -6.90          |
| 17700.00           | 56.66             | ***.**               | ***.**            | 74.00                | 64.00             | -7.34          |
| 18340.00           | 55.01             | ***.**               | ***.**            | 74.00                | 64.00             | -8.99          |
| 18850.00           | 54.17             | ***.**               | ***.**            | 74.00                | 64.00             | -9.83          |
| 19750.00           | 56.06             | ***.**               | ***.**            | 74.00                | 64.00             | -7.94          |
| 20260.00           | 55.47             | ***.**               | ***.**            | 74.00                | 64.00             | -8.53          |
| 21560.00           | 55.75             | ***.**               | ***.**            | 74.00                | 64.00             | -8.25          |
| 22460.00           | 53.19             | ***.**               | ***.**            | 74.00                | 64.00             | -10.81         |
| 23050.00           | 57.02             | ***.**               | ***.**            | 74.00                | 64.00             | -6.98          |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 13450.00           | 52.41             | ***.**               | ***.**            | 74.00                | 64.00             | -11.59         |
| 16150.00           | 57.22             | ***.**               | ***.**            | 74.00                | 64.00             | -6.78          |
| 17700.00           | 57.05             | ***.**               | ***.**            | 74.00                | 64.00             | -6.95          |
| 18210.00           | 56.91             | ***.**               | ***.**            | 74.00                | 64.00             | -7.09          |
| 18980.00           | 53.85             | ***.**               | ***.**            | 74.00                | 64.00             | -10.15         |
| 19750.00           | 56.51             | ***.**               | ***.**            | 74.00                | 64.00             | -7.49          |
| 20260.00           | 56.05             | ***.**               | ***.**            | 74.00                | 64.00             | -7.95          |
| 21560.00           | 55.64             | ***.**               | ***.**            | 74.00                | 64.00             | -8.36          |
| 22460.00           | 52.49             | ***.**               | ***.**            | 74.00                | 64.00             | -11.51         |
| 23200.00           | 57.36             | ***.**               | ***.**            | 74.00                | 64.00             | -6.64          |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: DVE DV-751AUP ISN 10 x 10 Mbps)**

Testing room :      Temperature : 23 °C      Humidity : 73 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 874.00             | 47.10             | ***.**               | ***.**            | 74.00                | 64.00             | -16.90         |
| 898.00             | 47.31             | ***.**               | ***.**            | 74.00                | 64.00             | -16.69         |
| 929.00             | 47.10             | ***.**               | ***.**            | 74.00                | 64.00             | -16.90         |
| 960.00             | 45.83             | ***.**               | ***.**            | 74.00                | 64.00             | -18.17         |
| 4980.00            | 45.73             | ***.**               | ***.**            | 74.00                | 64.00             | -18.27         |
| 6260.00            | 47.97             | ***.**               | ***.**            | 74.00                | 64.00             | -16.03         |
| 8690.00            | 49.67             | ***.**               | ***.**            | 74.00                | 64.00             | -14.33         |
| 10290.00           | 45.26             | ***.**               | ***.**            | 74.00                | 64.00             | -18.74         |
| 11260.00           | 47.58             | ***.**               | ***.**            | 74.00                | 64.00             | -16.42         |
| 13740.00           | 51.16             | ***.**               | ***.**            | 74.00                | 64.00             | -12.84         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBμV)    | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) | Quasi-Peak<br>(dBμV) | Average<br>(dBμV) |                |
| 868.00             | 44.59             | ***.**               | ***.**            | 74.00                | 64.00             | -19.41         |
| 898.00             | 45.20             | ***.**               | ***.**            | 74.00                | 64.00             | -18.80         |
| 935.00             | 44.12             | ***.**               | ***.**            | 74.00                | 64.00             | -19.88         |
| 5050.00            | 43.12             | ***.**               | ***.**            | 74.00                | 64.00             | -20.88         |
| 9450.00            | 43.26             | ***.**               | ***.**            | 74.00                | 64.00             | -20.74         |
| 9770.00            | 45.25             | ***.**               | ***.**            | 74.00                | 64.00             | -18.75         |
| 10290.00           | 44.81             | ***.**               | ***.**            | 74.00                | 64.00             | -19.19         |
| 11260.00           | 49.57             | ***.**               | ***.**            | 74.00                | 64.00             | -14.43         |
| 13740.00           | 45.65             | ***.**               | ***.**            | 74.00                | 64.00             | -18.35         |
| 14950.00           | 43.05             | ***.**               | ***.**            | 74.00                | 64.00             | -20.95         |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: DVE DV-751AUP ISN 100 x 100 Mbps)**

Testing room :      Temperature : 23 ° C      Humidity : 73 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE    |                            |                         | LIMIT                      |                         | Margin<br>(dB) |
|--------------------|----------------------|----------------------------|-------------------------|----------------------------|-------------------------|----------------|
|                    | Peak<br>(dB $\mu$ V) | Quasi-Peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) | Quasi-Peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) |                |
| 13450.00           | 51.03                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -12.97         |
| 14300.00           | 50.34                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -13.66         |
| 16150.00           | 54.73                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -9.27          |
| 17700.00           | 53.28                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -10.72         |
| 18210.00           | 55.19                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -8.81          |
| 18850.00           | 51.87                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -12.13         |
| 19750.00           | 54.48                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -9.52          |
| 20260.00           | 53.74                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -10.26         |
| 21560.00           | 53.49                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -10.51         |
| 23200.00           | 52.29                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -11.71         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE    |                            |                         | LIMIT                      |                         | Margin<br>(dB) |
|--------------------|----------------------|----------------------------|-------------------------|----------------------------|-------------------------|----------------|
|                    | Peak<br>(dB $\mu$ V) | Quasi-Peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) | Quasi-Peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) |                |
| 13450.00           | 51.53                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -12.47         |
| 14210.00           | 51.10                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -12.90         |
| 16150.00           | 54.42                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -9.58          |
| 17700.00           | 53.51                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -10.49         |
| 18210.00           | 54.67                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -9.33          |
| 18980.00           | 51.88                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -12.12         |
| 19750.00           | 53.87                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -10.13         |
| 20260.00           | 53.74                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -10.26         |
| 21560.00           | 53.37                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -10.63         |
| 23200.00           | 54.47                | ***.***                    | ***.***                 | 74.00                      | 64.00                   | -9.53          |

\*The reading amplitudes are all under limit.



**Conducted Emission Test Result: (Test Mode: DVE DV-751AUP ISN 1000 x 10 Mbps)**

Testing room :      Temperature : 23 °C      Humidity : 73 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 857.00             | 44.09             | ***.**               | ***.**            | 74.00                | 64.00             | -19.91         |
| 874.00             | 43.45             | ***.**               | ***.**            | 74.00                | 64.00             | -20.55         |
| 916.00             | 45.35             | ***.**               | ***.**            | 74.00                | 64.00             | -19.65         |
| 3750.00            | 46.14             | ***.**               | ***.**            | 74.00                | 64.00             | -17.86         |
| 4950.00            | 43.56             | ***.**               | ***.**            | 74.00                | 64.00             | -20.44         |
| 6260.00            | 46.10             | ***.**               | ***.**            | 74.00                | 64.00             | -17.90         |
| 11260.00           | 44.74             | ***.**               | ***.**            | 74.00                | 64.00             | -19.26         |
| 12010.00           | 45.04             | ***.**               | ***.**            | 74.00                | 64.00             | -18.96         |
| 13740.00           | 48.95             | ***.**               | ***.**            | 74.00                | 64.00             | -15.05         |
| 14950.00           | 44.29             | ***.**               | ***.**            | 74.00                | 64.00             | -19.71         |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 880.00             | 45.04             | ***.**               | ***.**            | 74.00                | 64.00             | -18.96         |
| 910.00             | 45.20             | ***.**               | ***.**            | 74.00                | 64.00             | -18.80         |
| 935.00             | 43.63             | ***.**               | ***.**            | 74.00                | 64.00             | -20.37         |
| 4980.00            | 49.10             | ***.**               | ***.**            | 74.00                | 64.00             | -14.90         |
| 6220.00            | 46.54             | ***.**               | ***.**            | 74.00                | 64.00             | -17.46         |
| 7990.00            | 47.99             | ***.**               | ***.**            | 74.00                | 64.00             | -16.01         |
| 10020.00           | 50.85             | ***.**               | ***.**            | 74.00                | 64.00             | -13.15         |
| 11260.00           | 44.06             | ***.**               | ***.**            | 74.00                | 64.00             | -19.94         |
| 12010.00           | 43.58             | ***.**               | ***.**            | 74.00                | 64.00             | -20.42         |
| 13740.00           | 50.89             | ***.**               | ***.**            | 74.00                | 64.00             | -13.11         |

\*The reading amplitudes are all under limit.

**Conducted Emission Test Result: (Test Mode: DVE DV-751AUP ISN 1000 x 100 Mbps)**

Testing room :      Temperature : 23 °C      Humidity : 73 % RH

**Line 1**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 13450.00           | 51.54             | ***.***              | ***.***           | 74.00                | 64.00             | -12.46         |
| 16150.00           | 56.47             | ***.***              | ***.***           | 74.00                | 64.00             | -7.53          |
| 16910.00           | 52.07             | ***.***              | ***.***           | 74.00                | 64.00             | -11.93         |
| 17700.00           | 55.03             | ***.***              | ***.***           | 74.00                | 64.00             | -8.97          |
| 18210.00           | 57.02             | ***.***              | ***.***           | 74.00                | 64.00             | -6.98          |
| 18850.00           | 52.93             | ***.***              | ***.***           | 74.00                | 64.00             | -11.07         |
| 19750.00           | 55.47             | ***.***              | ***.***           | 74.00                | 64.00             | -8.53          |
| 20260.00           | 54.85             | ***.***              | ***.***           | 74.00                | 64.00             | -9.15          |
| 21560.00           | 54.25             | ***.***              | ***.***           | 74.00                | 64.00             | -9.75          |
| 23200.00           | 55.65             | ***.***              | ***.***           | 74.00                | 64.00             | -8.35          |

**Line 2**

| Frequency<br>(KHz) | READING AMPLITUDE |                      |                   | LIMIT                |                   | Margin<br>(dB) |
|--------------------|-------------------|----------------------|-------------------|----------------------|-------------------|----------------|
|                    | Peak<br>(dBµV)    | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) | Quasi-Peak<br>(dBµV) | Average<br>(dBµV) |                |
| 13450.00           | 52.22             | ***.***              | ***.***           | 74.00                | 64.00             | -11.78         |
| 16150.00           | 56.64             | ***.***              | ***.***           | 74.00                | 64.00             | -7.36          |
| 16910.00           | 51.77             | ***.***              | ***.***           | 74.00                | 64.00             | -12.23         |
| 17700.00           | 56.05             | ***.***              | ***.***           | 74.00                | 64.00             | -7.95          |
| 18210.00           | 57.19             | ***.***              | ***.***           | 74.00                | 64.00             | -6.81          |
| 18850.00           | 53.61             | ***.***              | ***.***           | 74.00                | 64.00             | -10.39         |
| 19750.00           | 54.13             | ***.***              | ***.***           | 74.00                | 64.00             | -9.87          |
| 20260.00           | 55.17             | ***.***              | ***.***           | 74.00                | 64.00             | -8.83          |
| 21560.00           | 54.23             | ***.***              | ***.***           | 74.00                | 64.00             | -9.77          |
| 23200.00           | 55.93             | ***.***              | ***.***           | 74.00                | 64.00             | -8.07          |

\*The reading amplitudes are all under limit.

## Appendix B

### Radiated Emission Test Result:

Test Conditions:

Testing site :      Temperature : 25° C      Humidity : 73 % RH

| Frequency | Reading Amplitude | Ant. Height | Table  | Correction Factors | Corrected Amplitude | Class B Limit | Margin |
|-----------|-------------------|-------------|--------|--------------------|---------------------|---------------|--------|
| MHz       | dB $\mu$ V/m      | m           | degree | dB                 | dB $\mu$ V/m        | dB $\mu$ V/m  | dB     |

#### (Horizontal)

|          |       |      |     |       |       |       |       |
|----------|-------|------|-----|-------|-------|-------|-------|
| 125.0088 | 30.93 | 1.00 | 73  | -4.70 | 26.23 | 30.00 | -3.77 |
| 150.0000 | 29.68 | 1.00 | 126 | -4.80 | 24.88 | 30.00 | -5.12 |
| 199.9963 | 31.69 | 1.00 | 224 | -3.90 | 27.79 | 30.00 | -2.21 |
| 250.0025 | 34.84 | 1.00 | 9   | -1.80 | 33.04 | 37.00 | -3.96 |
| 500.0000 | 24.66 | 1.00 | 49  | 6.80  | 31.46 | 37.00 | -5.54 |
| 749.9963 | 21.35 | 1.00 | 40  | 14.30 | 35.65 | 37.00 | -1.35 |
| ***      |       |      |     |       |       |       |       |

#### (Vertical)

|          |       |      |     |       |       |       |       |
|----------|-------|------|-----|-------|-------|-------|-------|
| 51.1125  | 31.34 | 3.97 | 140 | -5.11 | 26.23 | 30.00 | -3.77 |
| 54.0000  | 34.55 | 0.97 | 44  | -6.18 | 28.37 | 30.00 | -1.63 |
| 56.7780  | 34.73 | 0.97 | 56  | -7.21 | 27.52 | 30.00 | -2.48 |
| 63.1500  | 38.01 | 0.97 | 103 | -9.03 | 28.98 | 30.00 | -1.02 |
| 67.5825  | 36.70 | 3.97 | 224 | -9.92 | 26.78 | 30.00 | -3.22 |
| 200.0000 | 32.53 | 0.97 | 227 | -3.90 | 28.63 | 30.00 | -1.37 |
| 249.9963 | 33.59 | 0.97 | 33  | -1.80 | 31.79 | 37.00 | -5.21 |
| 750.0025 | 20.97 | 2.50 | 41  | 14.30 | 35.27 | 37.00 | -1.73 |
| ***      |       |      |     |       |       |       |       |

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)



*Appendix C*  
*Photographs of EUT*

