emma

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傳送日期: 2003年10月28日 下午 04:57
主旨: From VCCI: Certificate of Acceptance, 2003/10/28/, VCCI

Certificate of Acceptance
Your submitted Report of Compliance (New) was approved as the contents below.
By issuing the accetance No. and sending this email,
this is the completeion of internet submission of your report of compliance.

Application Number: 1278-0193-9060-829
Acceptance Number: 1835312
Report of Compliance: New
Member Number: 448
Company: D -Link Corporation
Address: 2F, No. 233-2, Pao-Chiao Rd., Hsin-Tien, Taipei, R.O.C.
Responsible Person: Mr. Wonder Wang
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Acceptance No. of the original report:
Type of ITE: 24Port 10/100+2Port 10/100/1000 Ethernet Switch
Clasification of ITE: class_a
Clasification Code: W1
Type, etc. (Model No.): DES-1026G
Type to be added/modified:
Name of testing agency or company: TRAINING RESEARCH CO., LTD.
Radiated Test Site: R-1455
Conducted Test Site (mains ports): C-1539
Date of Testing_Year: 2003
Date of Testing_Month: 9
Date of Testing_Day: 17
Serial No. of the certificate of the test result: D18VC218
Measurement Distance: 10
Comment:
VOLUNTARY CONTROL FOR INTERFERENCE BY INFORMATION TECHNOLOGY EQUIPMENT (VCCI)

Report No.	D18VC218
Specifications	VCCI V-3/2000.04
Test Method	VCCI V-4/1999.05
Applicant	D-Link Corp.
Applicant address	2F, No. 233-2, Pao-Chiao Rd., Hsin-Tien, Taipei, R.O.C.
Items tested	24Port 10/100+2Port 10/100/1000 Ethernet Switch
Model No.	DES-1026G (Sample # C51064)
Results	**Compliance** (As detailed within this report)
Date	09/05/2003 (month / day / year)(Sample received) 09/17/2003 (month / day / year)(Tested)
Prepared by	Project Engineer
Authorized by	V. General Manager (Jacob Lin)
Issue date	October 22, 2003 (month / day / year)
Modifications	**None**
Tested by	Training Research Co., Ltd. **(Accredited by NVLAP)**
Office at	1F, No. 255, Nan Yang Street, Hsichih, Taipei Hsien 221, Taiwan
Open site at	No. 15, Lane 530, Pa-Lian RD., Sec. 1, Hsichih City, Taipei Hsien, Taiwan, R.O.C..

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.

VCCI Registration No. C-1539 (Conducted Interference Measurement)
VCCI Registration No. R-1455 (Radiation 10 Meter Site)

Contents

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 Supply, one is "UMEC UP0131A-05", the other is "DVE DSO-15W-05".

During testing, the EUT was operated at "transmitting" and "receiving" mode simultaneously. The test voltage is 100Vac / 60Hz.

During testing, there are ten modes were tested:

- UMEC UP0131A-05 10 x 10 Mbps
- UMEC UP0131A-05 100 x 100 Mbps
- UMEC UP0131A-05 1000 x 1000 Mbps
- UMEC UP0131A-05 1000 x 10 Mbps
- UMEC UP0131A-05 1000 x 100 Mbps
- DVE DSO-15W-05 10 x 10 Mbps
- DVE DSO-15W-05 100 x 100 Mbps
- DVE DSO-15W-05 1000 x 1000 Mbps
- DVE DSO-15W-05 1000 x 10 Mbps
- DVE DSO-15W-05 1000 x 100 Mbps

The conduction pretest was found out the testing mode: "UMEC UP0131A-05 100 x 100 Mbps" was the worst cases.

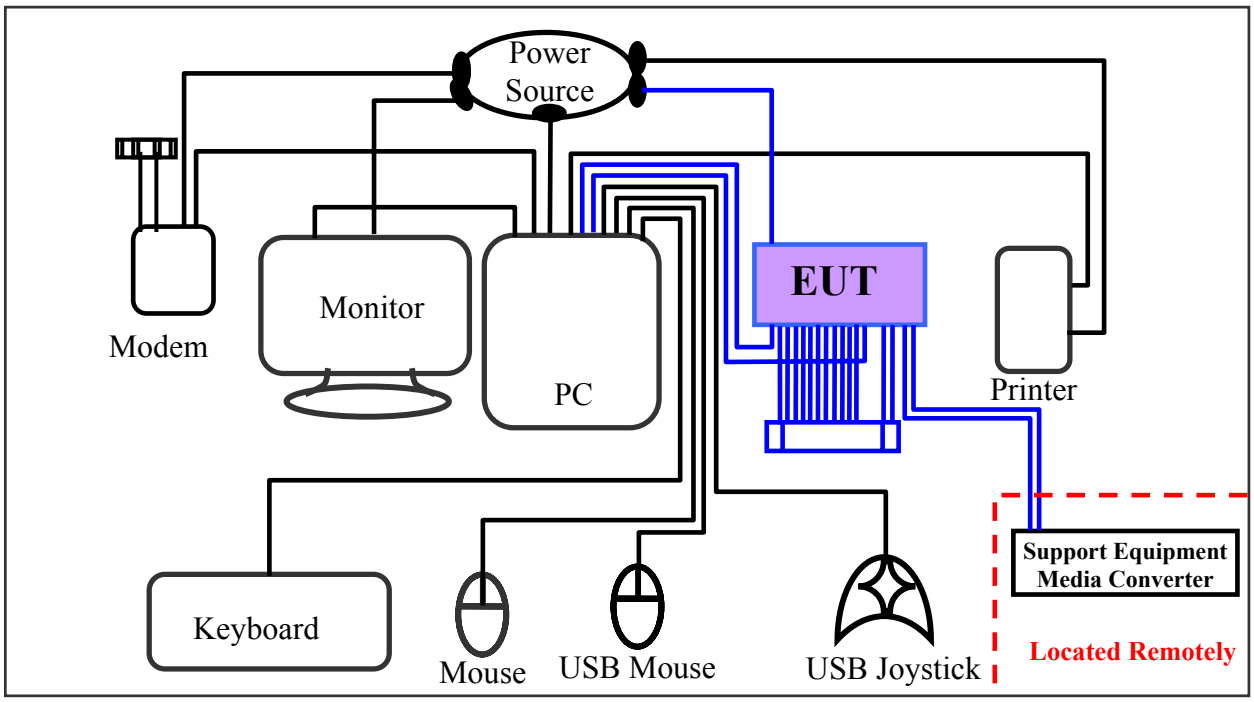
The radiation pretest was found out the testing mode: "UMEC UP0131A-05 1000 x 1000 Mbps" was the worst cases.

We only recorded the worst case in this report.

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

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

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



Connections:

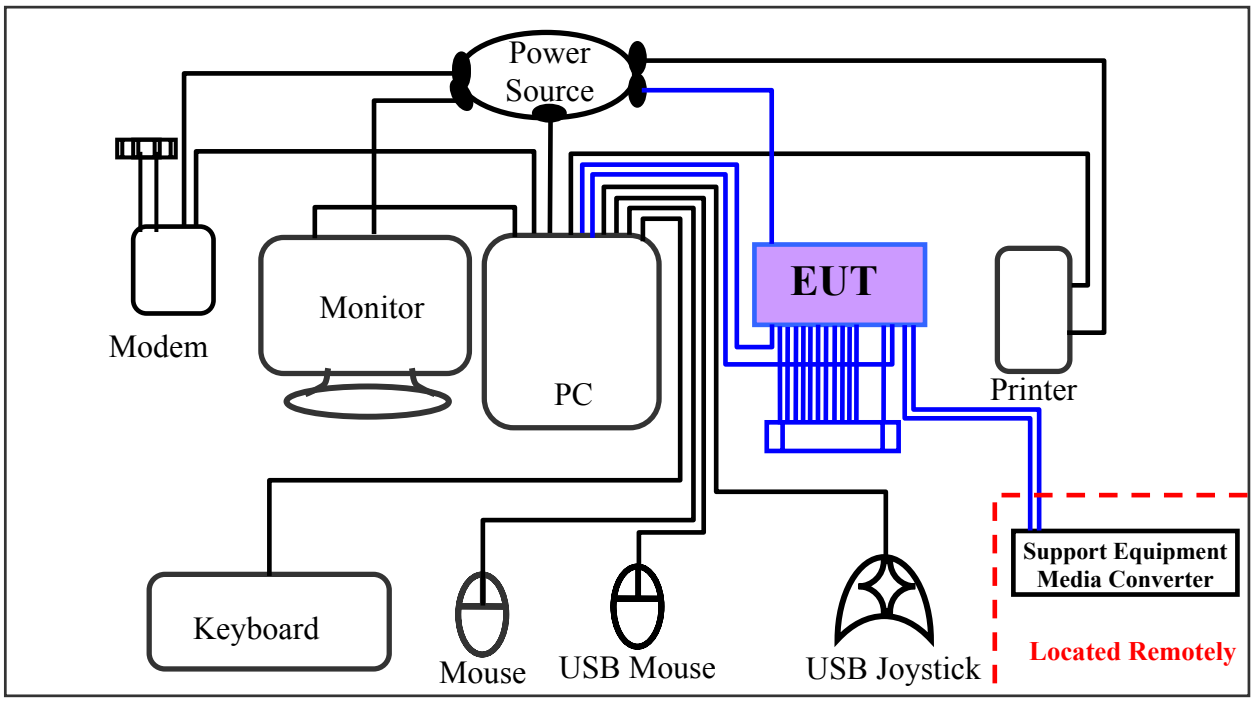
PC:

*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 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 2~23 --- connect with a 2m length RJ-45 cable that terminated with 200ohm.
*UTP port 24 --- via a 10m long, non-shielded, no ferrite bead, RJ-45 cable to the RJ-45 jack of the LAN card that installed in nearby PC.
*Gigabit UTP port 1, 2 --- connect with a 2m length RJ-45 cable that terminated with 200ohm.
*Fiber port 1, 2 --- with a Gigabit module and via a 5m length fiber cable to the support equipment media converter..
*Power port --- via a 1.80m length power cable with a power adaptor to the power source.
*Power module --- Trade: DVE; Model: DSO-15W-05; I/P: 100-240Vac; O/P: 5Vdc 3.0A
*Power module --- Trade: UMEC; Model: UP0131A-05; I/P: 100-240Vac; O/P: 5Vdc 3.0A

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



Connections:

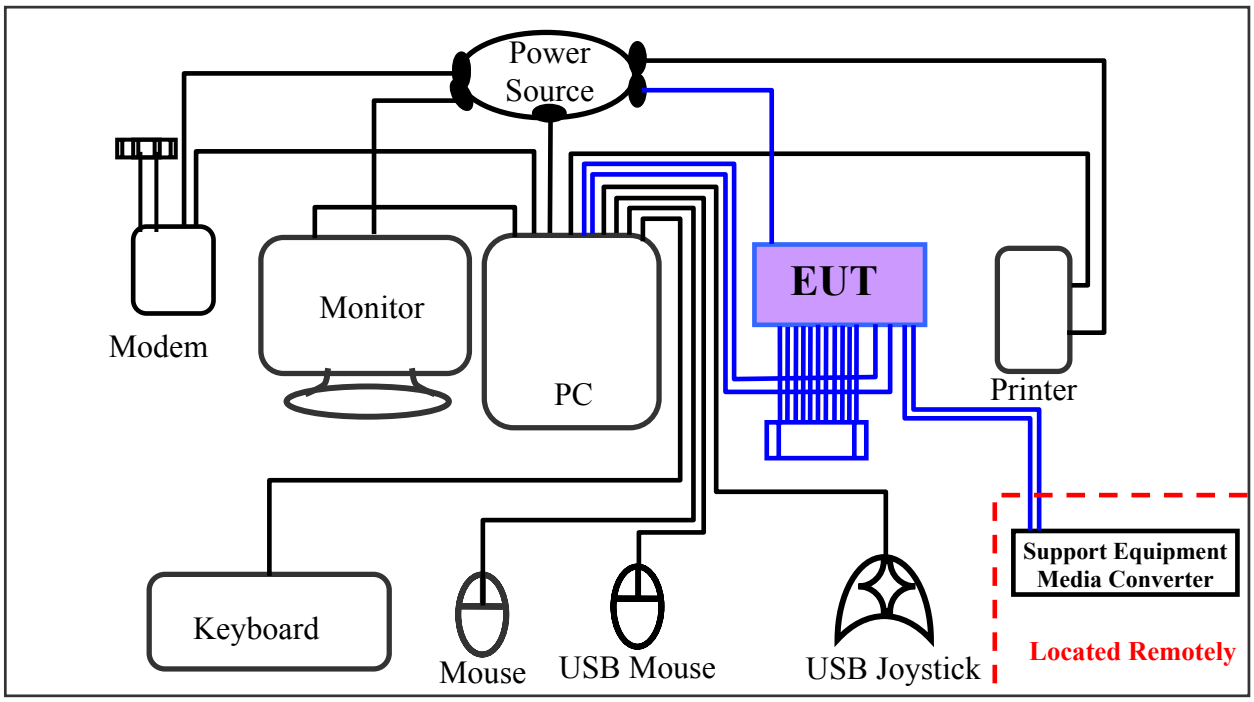
PC:

*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 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 2~24 --- connect with a 2m length RJ-45 cable that terminated with 200ohm.
*Gigabit UTP port 1 --- connect with a 2m length RJ-45 cable that terminated with 200ohm.
*Gigabit UTP port 2 --- via a 10m long, non-shielded, no ferrite bead, RJ-45 cable to the RJ-45 jack of the LAN card that installed in nearby PC.
*Fiber port 1, 2 --- with a Gigabit module and via a 5m length fiber cable to the support equipment media converter..
*Power port --- via a 1.80m length power cable with a power adaptor to the power source.
*Power module --- Trade: DVE; Model: DSO-15W-05; I/P: 100-240Vac; O/P: 5Vdc 3.0A
*Power module --- Trade: UMEC; Model: UP0131A-05; I/P: 100-240Vac; O/P: 5Vdc 3.0A

Configuration of test setup (Test Mode: 1000 x 1000 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 port 1~24 --- connect with a 2m length RJ-45 cable that terminated with 200ohm.

*Gigabit UTP port 1, 2 --- via a 10m long, non-shielded, no ferrite bead, RJ-45 cable to the RJ-45 jack of the LAN card that installed in nearby PC.

*Fiber port 1, 2 --- with a Gigabit module and via a 5m length fiber cable to the support equipment media converter..

*Power port --- via a 1.80m length power cable with a power adaptor to the power source.

*Power module --- Trade: DVE; Model: DSO-15W-05; I/P: 100-240Vac; O/P: 5Vdc 3.0A

*Power module --- Trade: UMEC; Model: UP0131A-05; I/P: 100-240Vac; O/P: 5Vdc 3.0A

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:

All the equipment is placed and setup according to the VCCI V-4/1999.05.
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.

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.

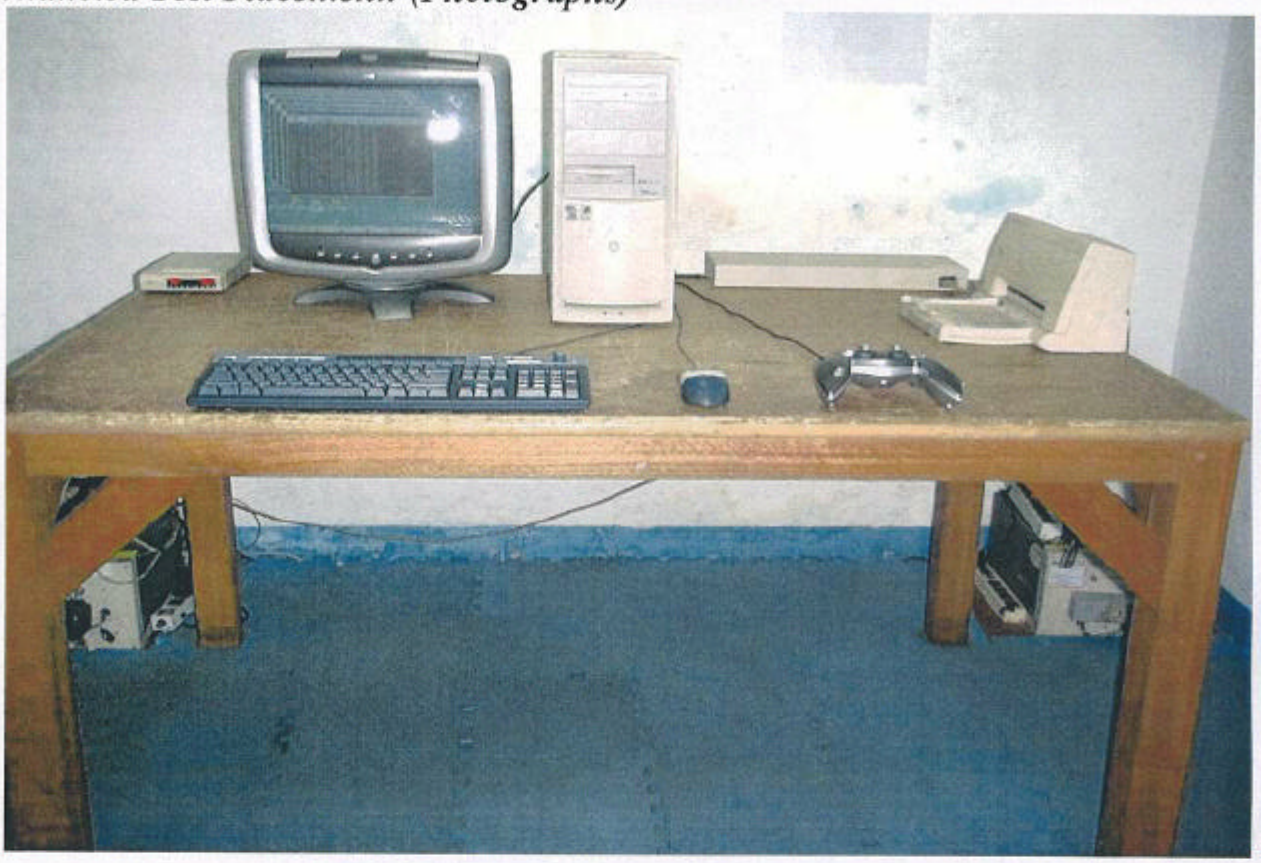
List of test Instrument :

				Calibration Date	
Instrument Name	Model No.	Brand	Serial No.	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	05/31/03	05/30/04
Preamplifier	EQ3-006	TRC	---------	05/29/03	05/28/04
Line switch box	EQ3-007	TRC	---------	05/29/03	05/29/04

The level of confidence of 95% , the uncertainty of measurement of conducted emission is ± 2.02 dB .

Test Result: Pass (Appendix A)

Conducted Test Placement: (Photographs)



Chapter 3 Radiated emission test

Test condition and setup :

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

Final test : Final radiation measurements 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 VCCI V-4/1999.05.

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 data will be rechecked by the tester 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.

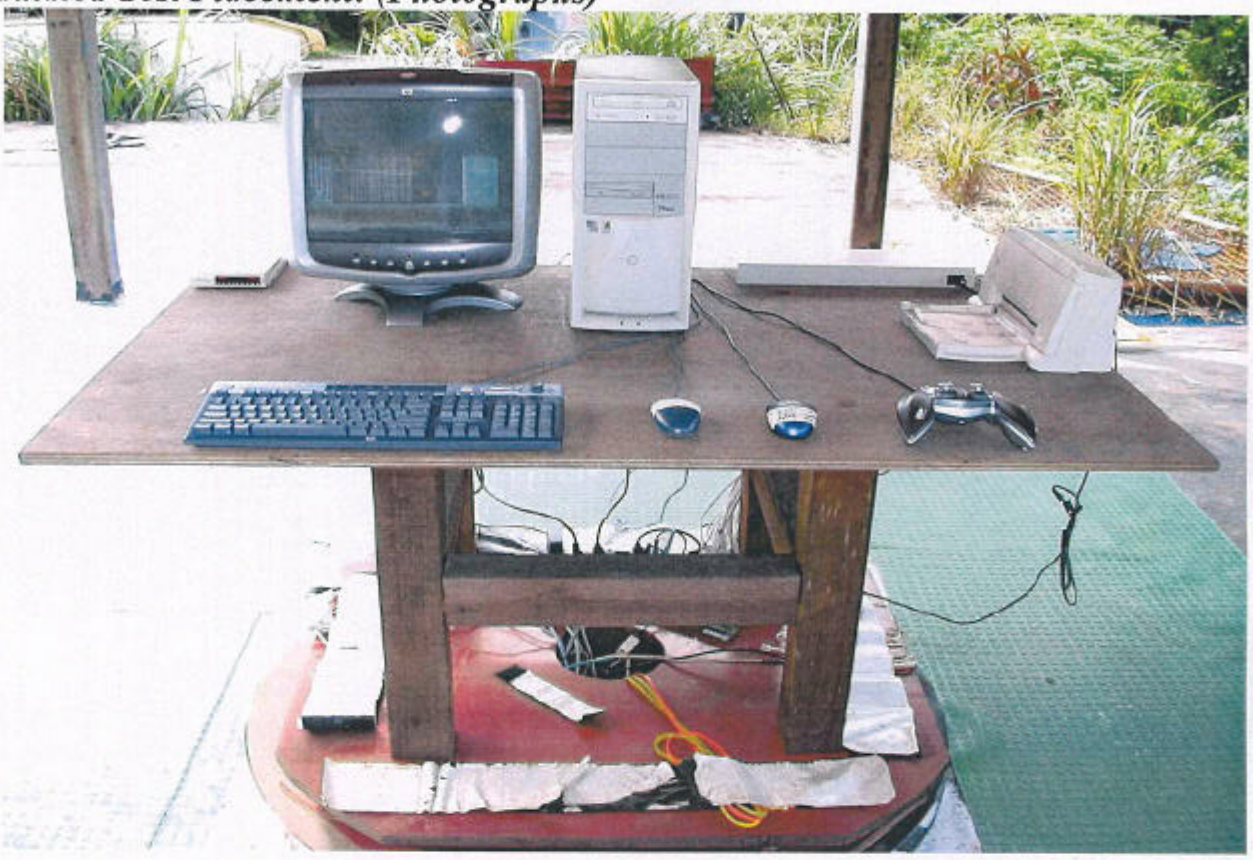
List of test Instrument :

				Calibration Date	
Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
Receiver	SCR3102	SCHAFFNER	021	04/22/03	04/21/04
Control Box	TWR95-4	TRC	CB-002	N/A	N/A
Antenna	CBL6141A	SCHAFFNER	4188	05/29/03	05/28/04
Open test side (Antenna, Amplify, cable calibrated together)				05/29/03	05/28/04

The level of confidence of 95% , the uncertainty of measurement of radiated emission is ± 3.44 dB .

Test Result : Pass (Appendix B)

Radiated Test Placement: (Photographs)



Appendix A

Conducted Emission Test Result: (Power Line)(DVE DSO-15W-05 100 x 100 Mbps)

Testing room : Temperature : 23 ° C Humidity : 56 % RH

Line 1

Frequency (KHz)	*READING AMPLITUDE*			*LIMIT*		*Margin (dB)*
	Peak (dBμV)	*Quasi-Peak (dBμV*	*Average (dBμV)*	*Quasi-Peak (dBμV)*	*Average (dBμV)*	
225.00	41.99	***.**	***.**	79.00	66.00	-24.01
15490.00	36.38	***.**	***.**	73.00	60.00	-23.62
16260.00	46.10	***.**	***.**	73.00	60.00	-13.90
16800.00	44.45	***.**	***.**	73.00	60.00	-15.55
17700.00	49.58	***.**	***.**	73.00	60.00	-10.42
18210.00	49.84	***.**	***.**	73.00	60.00	-10.16
18980.00	42.20	***.**	***.**	73.00	60.00	-17.80
19750.00	38.31	***.**	***.**	73.00	60.00	-21.69
24120.00	37.60	***.**	***.**	73.00	60.00	-22.40
25700.00	36.36	***.**	***.**	73.00	60.00	-23.64

Line 2

Frequency (KHz)	*READING AMPLITUDE*			*LIMIT*		*Margin (dB)*
	Peak (dBμV)	*Quasi-Peak (dBμV)*	*Average (dBμV)*	*Quasi-Peak (dBμV)*	*Average (dBμV)*	
234.00	44.22	***.**	***.**	79.00	66.00	-21.78
244.00	43.47	***.**	***.**	79.00	66.00	-22.53
15600.00	41.95	***.**	***.**	73.00	60.00	-18.05
16260.00	49.23	***.**	***.**	73.00	60.00	-10.77
16910.00	48.10	***.**	***.**	73.00	60.00	-11.90
17700.00	50.24	***.**	***.**	73.00	60.00	-9.76
18210.00	49.40	***.**	***.**	73.00	60.00	-10.60
18850.00	45.14	***.**	***.**	73.00	60.00	-14.86
19750.00	42.20	***.**	***.**	73.00	60.00	-17.80
24120.00	37.46	***.**	***.**	73.00	60.00	-22.54

*The reading amplitudes are all under limit.

Appendix B

Radiated Emission Test Result: (Test mode: UMEC UP0131A-05 1000 x 1000 Mbps)

Test Conditions:

Testing site : Temperature : 28° C Humidity : 70 % RH

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class A Limit	Margin
MHz	dBμV/m	m	degree	dB	dBμV/m	dBμV/m	dB
(Horizontal)							
125.0038	29.28	2.51	1	-4.70	24.58	40.00	-15.42
375.0050	36.97	2.51	284	3.15	40.12	47.00	-6.88
500.0063	29.51	2.51	45	6.80	36.31	47.00	-10.69
625.0088	31.21	3.98	270	10.40	41.61	47.00	-5.39
750.0088	23.85	2.51	306	14.30	38.15	47.00	-8.85
***							
(Vertical)							
125.0038	29.99	1.00	89	-4.70	25.29	40.00	-14.71
375.0050	32.11	3.98	222	3.15	35.26	47.00	-11.74
500.0063	29.49	1.00	89	6.80	36.29	47.00	-10.71
625.0088	27.53	1.00	294	10.40	37.93	47.00	-9.07
750.0088	24.27	2.51	302	14.30	38.57	47.00	-8.43
***							

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)