

EXHIBIT B

Test Report

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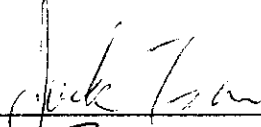
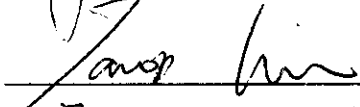
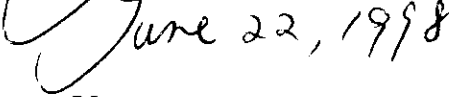
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Report No.	U0415582	
Specifications	FCC Part 15.109(g), CISPR 22	
Test Method	ANSI C63.4 1992	
Applicant address	1F, No. 1, Lane 15, Chih Chiang Street, Tu Cheng City, Taipei Hsien, Taiwan, R.O.C.	
Applicant Items tested	Uniform Industrial Corp. ISDN S/T interface PCMCIA card	
Model No.	PIC 100 (Sample # U04582)	
Results	As detailed within this report	
Sample received data	05/11/1998 (month / day / year)	
Prepared by		project engineer
Authorized by		Vice General Manager (Jacob Lin)
Issue date	 June 22, 1998	(month / day / year)
Modifications	None	
Tested by	Training Research Co., Ltd.	
Office at	2F, No. 571, Chung Hsiao E. Road, Sec.7, Taipei, Taiwan	
Open site at	No. 5-3, Lane 21, Yen Chiu Yuan Rd., Sec. 4, Taipei, Taiwan	

Conditions of issue:

- (1) *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.*
- (2) *This report must not be used by the client to claim product endorsement by NVLAP or any agency of U.S. Government.*

★ FCC ID: NLUPIC 100

Chapter 1 Introduction

Description of EUT:

This ISDN S/T interface PCMCIA card is a data communication device. It is designed to install in the Notebook and makes your data equipment available to transmit and receive data via the public telephone network.

Connections of EUT:

- (1) Put the EUT into the Notebook's PCMCIA socket.
- (2) Connect the Line cord of EUT to the ISDN PBX which is located remotely.
- (3) Connect the headset & Mic to voice port of EUT.

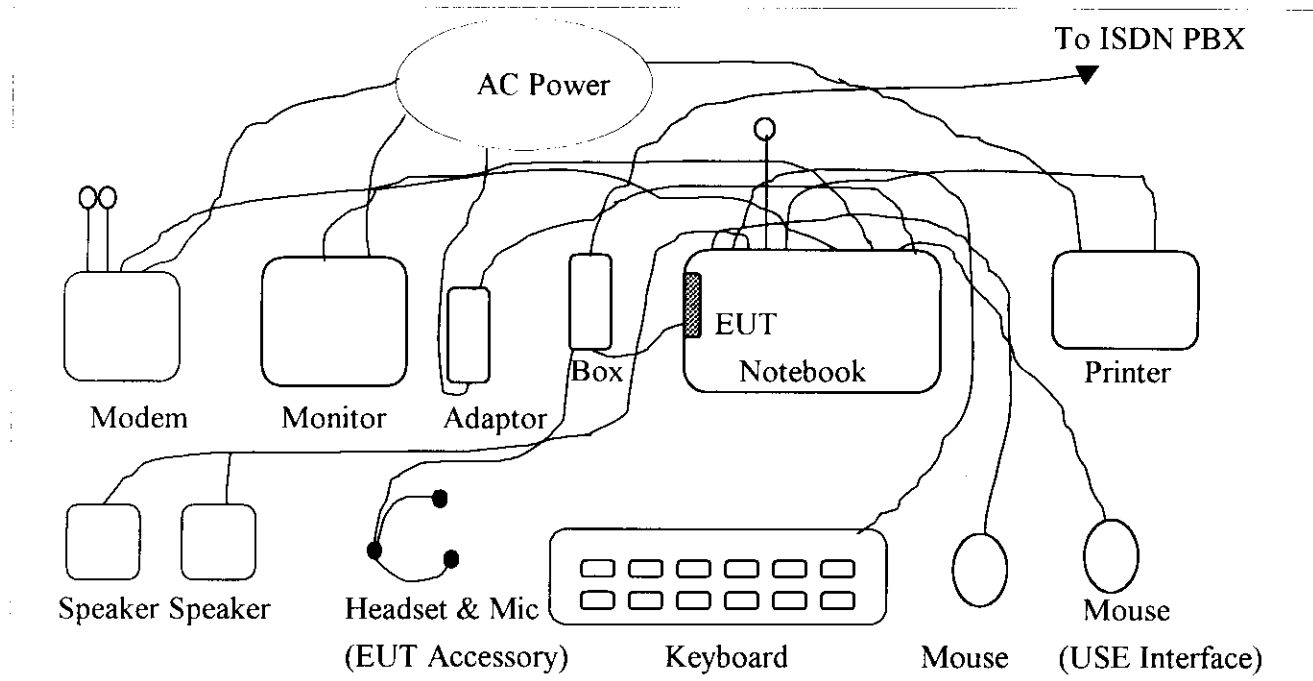
Test method:

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

During testing, the EUT was operated at "transmitting" and "receiving" mode simultaneously.

While testing, the transmitting rate was set to "AUTO" which means it transmitted the test file depending on the ISDN line condition, normally the operating rate is the highest speed. The test placement as the photographs showed is the worst case emission placed. (If the emission is close to the ambient, the resolution BW and view resolution will be reduced and the data will be recorded by detection of maximum hold peak mode.)

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

Configuration of test setup**Connections:**

****Notebook:**

SERIAL PORT: EXTERNAL MODEM

PARALLEL PORT: PRINTER

MONITOR PORT: MONITOR

PCMCIA SOCKET: EUT

KEYBOARD PORT: KEYBOARD

MOUSE PORT: MOUSE

USB INTERFACE: MOUSE

(Each port in Notebook is connected, No one port is unconnected)

****EUT: TO ISDN PBX LOCATED REMOTELY**

Cable: 18 m (non-shielded, no ferrite core)

****VOICE PORT: Connected to headset & Mic (EUT Accessory)**

****Headset & Mic PORT: Cable 1.8 m (non-shielded, no ferrite core)**

List of support equipment

Conducted (Radiated) test:

Notebook : Twinhead
Model : P79
Serial No. : G0108053
Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.
Power type : AC 100~250VAC, switching Adaptor (model no.: PA-1470-1T)
Power cord : non-Shielded, 6 feet long * 2, Plastic, a ferrite core

Monitor : **HP**
Model No. : D2084 (D2813)
Serial No. : KR4397004 (TW63803597)
FCC ID : CSYSC-428VSP (A3KM043)
Power type : 117VAC, Switching
Power cord : Non-Shielded, 3m long, no ferrite core
Data cable : Shielded, 1.8m long, with ferrite core

Keyboard : **HP**
Model No. : C3757 #ABO (C3346A #ABO)
Serial No. : C3757-60423 (C3346-60231)
FCC ID : CIGE03614
Power type : By PC
Data cable : Shielded, 1.8m long, with ferrite core

Printer : **EPSON**
Model No. : P78PA (P70RA)
Serial No. : 0EE0014030 (10010386)
FCC ID : BKM9A8P70RA
Power type : Linear
Power cord : Non-shielded, 2m long, no ferrite core
Data cable : Shielded, 1.84m long, no ferrite core (1.7m)

Modem : ACEEX
 Model No. : XDM-9624
 FCC ID : IFAXDM-9624
 Power type : Linear
 Power cord : Non-shielded, 1.9m long, no ferrite cord
 Data cable : RS232, Shielded, 1.2m long, no ferrite core
 RJ11C x 2, 7' long non-shielded, no ferrite core

ISDN Basic Rate Interface Central Office Emulator: Merge Technologies Group, Inc.
 Model No. : ISDN 2000A
 Serial No. : A951206533
 Power type : 110 VAC 50/60Hz
 Power cord : Non - Shielded

Mouse : Hewlett Packard mouse
 Model No. : C3751B
 Serial No. : LCA52707170
 FCC ID : DZL210582
 Power type : Powered by PC
 Power Cable : Non - Shielded, 5.5' long, Plastic hoods, No ferrite bead

USB Mouse : Chic Technology Corporation
 Model No. : CM-USB
 Serial No. : N/A
 FCC ID : IOWCM-USB
 Power type : Powered by PC
 Power Cable : Shielded, 160 cm long, Plastic hoods, No ferrite bead

Chapter 2 Conducted emission test

Test condition and setup:

All the equipment is placed and setup according to the ANSI C63.4 - 1992. The EUT is assembled on a wooden table which is 80 cm high, is placed 40 cm from the back-wall which is a vertical conducting plane. One LISN is for EUT, the other LISN is for support equipment. They are all placed on the conductive ground .The EUT's LISN connect a line switch box for selecting L1 or L2, then connect to a preamplifier and spectrum.

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

While testing, there is a 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:

<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>
Spectrum analyzer	8591EM	H P	3619A00821	10/06/97	10/06/98
LISN (EUT)	3825/2	EMCO	9411-2284	05/15/98	05/15/99
Preamplifier	8447F	H P	2944A03706	05/13/98	05/15/99
Line switch box	AC1-003	TRC	-----	05/15/98	05/15/99
Line selector	AC1-002	TRC	-----	05/15/98	05/15/99

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

Test Result: Pass (Appendix A)

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, GTEM, and scan from 30MHz to 1GHz. This is done to ensure the radiation exactly emits form 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 0.8 m height, the top surface is 1.0 x 1.5 meter. All the placement is according to ANSI C63.4 - 1992.

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

The EMCO whole range Antenna is used to measure frequency from 30 MHz to 1GHz. The final test is used the spectrum HP 8594EM.

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

If the emission is close to the frequency band of ambient, the 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 GTEM will be taken as the final data.

List of test Instrument:

Calibration Date

Instrument name	Model No.	Brand	Serial No.	Last	Next
Spectrum analyzer	8568B	H P	3004A18617	05/15/98	05/15/99
Quasi-peak Adapter	85650A	H P	2521A00984	05/15/98	05/15/99
RF Pre-selector	85685A	H P	2947A01011	05/15/98	05/15/99
Spectrum analyzer	8594EM	H P	3619A00198	08/13/97	08/13/98
Antenna (30M-2G Hz)	3142	EMCO	9610-1094	10/30/97	10/30/98
Open test side (Antenna, Amplify, cable calibrated together)				05/15/98	05/15/99

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

Test Result: Pass (Appendix B)

Appendix A

Conducted Emission Test Result:

Testing room : Temperature : 25 ° C Humidity : 75 % RH

Line 1

<i>Frequency (MHz)</i>	<i>Amplitude (dBuV)</i>	<i>Limit (dBuV/m)</i>	<i>Margin (dB)</i>
0.150	43.21	56.00	-12.79
2.909	37.73	46.00	-8.27
3.580	41.49	46.00	-4.51
6.185	37.67	50.00	-12.33
6.928	36.35	50.00	-13.65
7.672	34.76	50.00	-15.24
15.829	27.56	50.00	-22.44
16.643	25.97	50.00	-24.03
28.805	27.29	50.00	-22.71
29.687	29.11	50.00	-20.89

Line 2

<i>Frequency (MHz)</i>	<i>Amplitude (dBuV)</i>	<i>Limit (dBuV)</i>	<i>Margin (dB)</i>
0.150	43.54	56.00	-12.46
2.164	32.86	46.00	-13.14
2.909	36.89	46.00	-9.11
3.580	40.85	46.00	-5.15
6.928	35.44	50.00	-14.56
12.052	30.96	50.00	-19.04
12.941	30.63	50.00	-19.37
28.070	28.03	50.00	-21.97
28.364	30.13	50.00	-19.87
29.760	30.06	50.00	-19.94

* The reading amplitudes are all under average limit.

Appendix B

Radiated Emission Test Result: (Horizontal)

Test Conditions:

Testing room : Temperature : 26 ° C Humidity : 66 % RH
 Testing site : Temperature : 24 ° C Humidity : 85 % RH

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B limit	Margin
MHz	dBuV	m	degree	dB/m	dBuV/m	dBuV/m	dB

153.595	38.57	1.00	297	-12.34	26.23	30.00	-3.77
168.954	38.07	1.00	196	-11.42	26.65	30.00	-3.35
184.314	38.43	1.00	156	-10.82	27.61	30.00	-2.39
245.759	36.95	1.00	3	-7.72	29.23	37.00	-7.77
261.119	36.72	1.00	324	-7.21	29.51	37.00	-7.49
314.870	41.05	1.00	172	-19.73	21.32	37.00	-15.68
337.910	41.07	1.00	172	-18.91	22.16	37.00	-14.84
345.589	40.04	1.00	0	-18.40	21.64	37.00	-15.36

Note:

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

Radiated Emission Test Result: (Vertical)

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B limit	Margin
MHz	dBuV	m	degree	dB/m	dBuV/m	dBuV/m	dB

153.595	38.60	1.00	302	-12.34	26.26	30.00	-3.74
168.954	39.20	1.00	60	-11.42	27.78	30.00	-2.22
184.314	38.27	1.00	15	-10.82	27.45	30.00	-2.55
245.759	37.20	1.00	231	-7.72	29.48	37.00	-7.52
261.119	36.93	1.00	166	-7.21	29.72	37.00	-7.28
314.870	39.56	1.00	173	-19.73	19.83	37.00	-17.17
337.910	38.08	1.00	78	-18.91	19.17	37.00	-17.83
345.589	38.68	1.00	1	-18.40	20.28	37.00	-16.72

Final statement:

This test report, measurements made by TRC are traceable to the NIST.