EXHIBIT B

Test Report

Report No.

C0915022

Specifications

FCC Part 15.109(g), Class B ANSI C63.4 1992

Test Method

Applicant address

16F, No. 75 Hsin Tai Wu RD., Sec. 1 Bldg #A

Hsi-Chih, Taipei Hsien, Taiwan

**Applicant** 

CIS TECHNOLOGY INC.

Items tested Model No.

Internal 56K Fax/Data Modem M3-5614PM3 (Sample # C09022)

Results

Compliance (As detailed within this report)

e received 03/08/1999 (month / day / year)

Sample received data

Prepared by

Authorized by

Issue date

project engineer

Vice General Manager

(Jacob Lin)

(month / day / year)

**Modifications** 

Tested by

Office and

Open site at

None

Training Research Co., Ltd.

No. 15, Lane 530, Pa-Lian RD., Sec. 1, Hsi-Chih Town,

Taipei Hsien, Taiwan, R.O.C.

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: L40M3-5614PM3

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# Chapter 1 Introduction

# Description of EUT:

This 56K Fax/Data modem card is a data communication device. It is designed to install in the personal computer and makes your data equipment available to transmit and receive data via the public telephone network.

#### Connections of EUT:

- (1)Put the EUT into a personal computer's bus and screw it.
- (2)Line jack of EUT connects with a line cable to the PABX located remotely.
- (3)Phone jack of EUT connects with a telephone set.

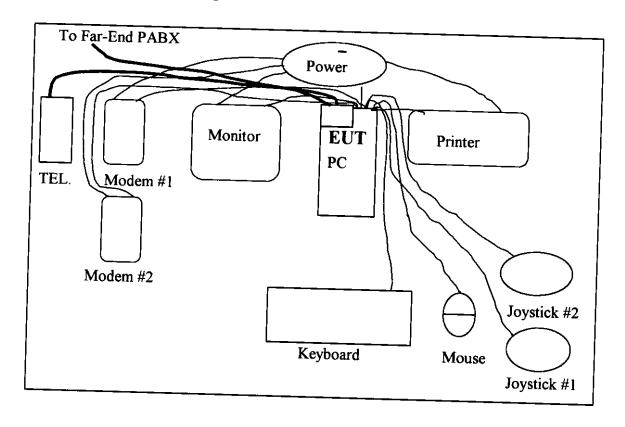
#### Test method:

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 telephone 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:

#### PC:

- \*Serial A port --- a external modem
- \*Serial B port --- a external modem
- \*Printer port --- a Printer
- \*Monitor port --- a monitor
- \*Keyboard port --- a Keyboard
- \*Mouse port --- a Mouse
- \*USB ports --- two USB joysticks.

(Each port on PC is connected with suitable device)

#### EUT:

- \*Line jack --- via 15 m RJ11C cable to PABX located remotely
- \*Phone jack --- via a 7 feet RJ11C cable to telephone set

#### List of support equipment

# Conducted (Radiated) test:

PC

ACER

Model

VKT33T -X30 -0637X

Serial No.

TV69584

FCC ID

HLZV65X-IDCATX

Power type

AC 110~120 / 220~240 VAC, Switching

Power cord

non-Shielded, 1.7m long, Plastic, no ferrite core

Monitor

HP

Model No.

D2821

Serial No.

TW 73512262 (TW 73147163)

FCC ID

A3KMO64

Power type

AC 110~120 / 220~240 VAC, Switching

Power cord

Non-Shielded, 3m long, no ferrite core

Data cable

Shielded, 1.8m long, with ferrite core

Keyboard

Digital

Model No.

KB-5923

Serial No.

9\$74904837 (9\$74904665)

FCC ID

E8HKB-5923

Power type

By PC

Data cable

Shielded, 1.8m long, with 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 long, no ferrite core (1.7m)

Modem : ACEEX

Model No. : XDM-9624, XDM-1414

FCC ID : IFAXDM-9624, IFAXDM-1414

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

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

Joystick: Padix

Model : QF-606U, QF-707U (DoC Approval)

Power Type : By PC

PABX : King Design
Model No. : KD8705-A

Serial No. : GV101101186

Power type : 220VAC 50Hz

Power type : 220VAC, 50Hz Power cord : Non - Shielded

# Chapter 2 Conducted emission test

# Test condition and setup:

All the equipment is placed and setup according to the CISPR 22.

The EUT is assembled on a wooden table that 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, it will be measured by CISPR's quasi-peak detection mode.

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

#### List of test Instrument:

<u>Calibrati</u>	on Date
Last time	Next tim

Instrument Name	Model No.	Brand	Serial No.	Last time	Next time
Spectrum analyzer	8594EM	ΗP	3710A00279	01/07/99	01/07/00
LISN (EUT)	3825/2	<b>EMCO</b>	9411-2284	05/15/98	05/15/99
LISN (Support E.)	AC3-001	TRC		05/15/98	05/15/99
Preamplifier	AC3-002	TRC		05/15/98	05/15/99
Line switch box	AC3-003	TRC		05/15/98	05/15/99

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

# Test Result: Pass (Appendix A)

Test date: 03/08/99, Training Research Co., Ltd., TEL: 886-2-26461146, Fax: 886-2-26461778

# Chapter 3 Radiated emission test

# Test condition and setup:

**Pretest:** Prior to the final test (OATS test), the EUT is placed in a anechoic chamber and scan from 30MHz to 1GHz. This is done to ensure the radiation exactly emits form the EUT.

**Final test:** Final radiation measurements are made on a 10 - meter, open-field test site. The EUT is placed on a nonconductive table that is 0.8m height, the top surface is  $1.0 \times 1.5$  meter. The placement is according to CISPR 22.

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 anechoic chamber will be taken as the final data.

### List of test Instrument:

C-	1:1	4 *	T .
La	HD	ration	Date

Instrument Name	Model No.	Brand	Serial No.	Last	Next
Spectrum analyzer	8594EM	ΗP	3619A00198	11/17/98	11/17/99
RF Pre-selector	AC4-001	TRC		05/15/98	05/15/99
Antenna (30M-2G Hz)	3141	EMCO	9711-1076	12/17/98	12/17/99
Open test side (Antenna	ı, Amplify, cabl	le calibrate	ed together)	05/15/98	05/15/99

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

### Test Result: Pass (Appendix B)

# Appendix A

# Conducted Emission Test Result:

Testing room: Temperature : 28 ° C Humidity: 46 % RH

Line 1

	REAL	DING AMPL	ITUDE	LI	MIT	**************************************
FREQUENCY ( KHz)	Peak (dBμV/m)	Quasi-peak (dBµV/m)	Average (dBµV/m)	Quasi-Peak (dBμV/m)	Average (dBµV/m)	MARGIN (dB)
155	48.03	*** **	*** **	65.86	55.86	-7.83
579	34.39	***,**	*** **	56.00	46.00	-11.61
637	34.86	*** **	*** **	56.00	46.00	-11.14
769	35.09	*** **	*** **	56.00	46.00	-10.91
880	36.19	*** **	***	56.00	46.00	-9.81
1009	35.90	*** **	*** **	56.00	46.00	-10.10
1224	34.15	*** **	*** **	56.00	46.00	-11.85
1340	36.49	*** **	*** **	56.00	46.00	-9.51
1583	34.70	*** **	*** **	56.00	46.00	-11.30
21560	43.76	***.**	*** **	60.00	50.00	-6.24

Line 2

	REAL	DING AMPL	ITUDE	LIN	MIT	
FREQUENCY ( KHz)	Peak (dBμV/m)	Quasi-peak (dBµV/m)	Average (dBµV/m)	Quasi-Peak (dBµV/m)	Average (dBμV/m)	MARGIN (dB)
155	46.72	*** **	*** **	65.86	55.86	-9.14
457	36.34	*** **	*** **	57.23	47.23	-10.89
579	35.08	*** **	*** **	56.00	46.00	-10.92
641	34.42	***.**	*** **	56.00	46.00	-11.58
769	35.71	*** **	***	56.00	46.00	-10.29
880	34.39	***	***	56.00	46.00	-11.61
1003	35.66	*** **	***	56.00	46.00	-10.34
1224	34.92	*** **	***	56.00	46.00	-11.08
1340	34.45	*** **	***	56.00	46.00	-11.55
21560	44.02	*** **	***	60.00	50.00	-5.98

<sup>\*</sup> The reading amplitudes are all under average limit.

### Appendix B

### Radiated Emission Test Result: (Horizontal)

Test Conditions:

Testing room: Temperature:

19 ° C

Humidity:

54 % RH

Testing site : Temperature :

20 ° C

Humidity:

55 % RH

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B	Margin
MHz	dBμV	m	degree	dB/m	dBμV/m	dBμV/m	dB
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508.040	46.82	2.50	52	-13.43	33.39	37.00	-3.61
600.180	44.51	0.99	323	-14.56	29.95	37.00	-7.05
648.160	46.93	4.00	325	-17.15	29.78	37.00	-7.22
762.070	47.12	0.99	324	-16.83	30.29	37.00	-6.71
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#### 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	.	Correction Factors	Corrected Amplitude	Class B	Margin
MHz	dBμV	m	degree	dB/m	dBμV/m	dBμV/m	dB

46.07	0.00	100	00.54	T	T	
40.27	0.99	189	-22.74	23.53	30.00	-6.47
51.15	4.00	167	-23.63	27.52	30.00	-2.48
48.79	0.99	339	-20.39	28.40	37.00	-8.60
47.46	0.99	258	-13.43	34.03	37.00	-2.97
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	48.79	51.15     4.00       48.79     0.99	51.15     4.00     167       48.79     0.99     339	51.15     4.00     167     -23.63       48.79     0.99     339     -20.39	51.15     4.00     167     -23.63     27.52       48.79     0.99     339     -20.39     28.40	51.15     4.00     167     -23.63     27.52     30.00       48.79     0.99     339     -20.39     28.40     37.00

# Final statement:

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