# EXHIBIT C

Test Report

Report No.

C0915351

Specifications

Test Method

Applicant address

Applicant Items tested Model No.

Results
Sample received data

Prepared by

Authorized by

Issue date

**Modifications** 

Tested by Office and Open site at

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

16F, No. 75 Hsin Tai Wu RD., Sec. 1 Bldg #A Hsi-Chih, Taipei Hsien, Taiwan

CIS TECHNOLOGY INC.

56K FAX/DATA MODEM CARD M1-5614PM3 (Sample # C09351)

As detailed within this report 06/19/1998 (month / day / year)

project engineer

Vice General Manager (Jacob Lin)

(month / day / year)

None

Training Research Co., Ltd.

1cm 30, 1995

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

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FCC ID: L40M1-5614PM3

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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:

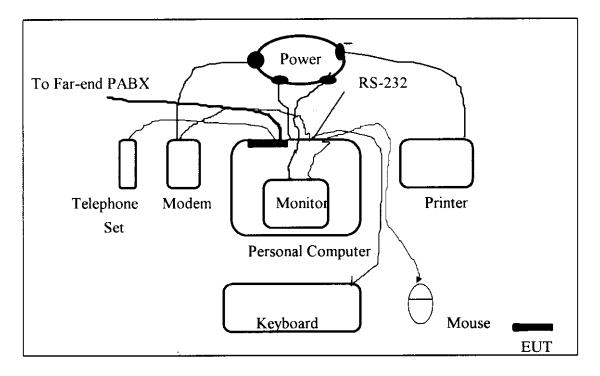
Pretest was found that the emission of operating mode is worse than standby mode. So, The final test is made at the operating mode.

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 76 cm shielded RS232 cable
- \*Printer port --- a Printer
- \*Keyboard port --- a Keyboard
- \*Mouse port --- a Mouse
- \*Monitor port --- a monitor

(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: HP

Model : Vectra VE 5/166 SERIES 3

Serial No. : SG72450161

FCC ID B94VECTRAVE53

Power type : AC 117 VAC, switching

Power cord : non-Shielded, 1.7m long, Plastic, no ferrite core

Monitor : HP

Model No. : D2821

Serial No. : TW73107071 (TW73512262)

FCC ID : A3KM064

Power type : 117VAC, Switching

Power cord : Non-Shielded, 3m long, no ferrite core

Data cable Shielded, 1.8m long, with ferrite core

Keyboard : COMPAQ

Model No. : KB-5923

Serial No. 9S74904768 (9S74904741)

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 : 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

PABX : King Design

Model No. : KD8705-A

Serial No. : GV101101186

Power type : 110 VAC 50/60Hz

Power cord : Non - Shielded

# Chapter 2 Conducted emission test

### Test condition and setup:

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

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 ,it will be measured by CISPR's quasi-peak 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:

				Calibration Date		
Instrument Name	Model No.	Brand	Serial No.	Last time	Next time	
Spectrum analyzer	8591EM	ΗP	3619A00821	10/06/97	10/06/98	
LISN (EUT)	3825/2	EMCO	9411-2284	05/15/98	05/15/99	
LISN (Support E.)	3825/2	EMCO	9210-2007	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  $\pm$  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 EN 55022.

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	ΗP	2521A00984	05/15/98	05/15/99
RF Pre-selector	85685A	ΗP	294 <b>7A</b> 01011	05/15/98	05/15/99
Spectrum analyzer	8594EM	ΗP	3619A00198	08/13/97	08/13/98
Antenna (30M-2G Hz)	3141	EMCO	9706-1049	01/30/97	12/30/98
Open test side (Antenna	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 :  $26 \,^{\circ}$  C Humidity :  $50 \,\%$  RH

### Line 1

Frequency (MHz)	Amplitude (dBuV)	Limit (dBuV/m)	Margin (dB)
0.300	44.22	51.71	-7.49
1.871	37.28	46.00	-8.72
2.619	33.24	46.00	-12.76
3.665	33.02	46.00	-12.98
4.860	32.46	46.00	-13.54
5.531	29.74	50.00	-20.26
6.650	29.32	50.00	-20.68
16.691	29.21	50.00	-20.79
17.804	29.46	50.00	-20.54
22.616	28.26	50.00	-21.74

#### Line 2

Frequency (MHz)	Amplitude (dBuV)	Limit (dBuV)	Margin (dB)
0.150	37.00	56.00	-19.00
1.497	34.12	46.00	-11.88
2.095	32.94	46.00	-13.06
3.216	33.06	46.00	-12.94_
3.889	30.07	46.00	-15.93
4.860	29.29	46.00	-16.71
5.531	28.72	50.00	-21.28
18.396	29.62	50.00	-20.38
19.730	29.15	50.00	-20.85
20.248	28.50	50.00	-21.50

# Appendix B

## Radiated Emission Test Result: (Horizontal)

Test Conditions:

Testing room: Temperature : 27 ° C Humidity: 30 % RH
Testing site : Temperature : 27 ° C Humidity: 45 % RH

530.540     49.88     2.52     298     -15.23     34.65     37.00     -2.35       596.840     46.10     4.02     219     -14.63     31.47     37.00     -5.53	Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B	Margin
530.540       49.88       2.52       298       -15.23       34.65       37.00       -2.35         596.840       46.10       4.02       219       -14.63       31.47       37.00       -5.53         629.990       46.06       2.52       37       -17.00       29.06       37.00       -7.94         663.180       46.79       0.99       300       -16.05       30.74       37.00       -6.26         729.450       43.73       4.02       344       -15.30       28.43       37.00       -8.57         795.780       45.39       0.99       48       -18.22       27.17       37.00       -9.83	MHz	dBuV	m	degree	dB/m	dBuV/m	dBuV/m	dB
530.540       49.88       2.52       298       -15.23       34.65       37.00       -2.35         596.840       46.10       4.02       219       -14.63       31.47       37.00       -5.53         629.990       46.06       2.52       37       -17.00       29.06       37.00       -7.94         663.180       46.79       0.99       300       -16.05       30.74       37.00       -6.26         729.450       43.73       4.02       344       -15.30       28.43       37.00       -8.57         795.780       45.39       0.99       48       -18.22       27.17       37.00       -9.83								
596.840       46.10       4.02       219       -14.63       31.47       37.00       -5.53         629.990       46.06       2.52       37       -17.00       29.06       37.00       -7.94         663.180       46.79       0.99       300       -16.05       30.74       37.00       -6.26         729.450       43.73       4.02       344       -15.30       28.43       37.00       -8.57         795.780       45.39       0.99       48       -18.22       27.17       37.00       -9.83	464.190	44.05	2.51	40	-13.74	30.31	37.00	-6.69
629.990       46.06       2.52       37       -17.00       29.06       37.00       -7.94         663.180       46.79       0.99       300       -16.05       30.74       37.00       -6.26         729.450       43.73       4.02       344       -15.30       28.43       37.00       -8.57         795.780       45.39       0.99       48       -18.22       27.17       37.00       -9.83	530.540	49.88	2.52	298	-15.23	34.65	37.00	-2.35
663.180     46.79     0.99     300     -16.05     30.74     37.00     -6.26       729.450     43.73     4.02     344     -15.30     28.43     37.00     -8.57       795.780     45.39     0.99     48     -18.22     27.17     37.00     -9.83	596.840	46.10	4.02	219	-14.63	31.47	37.00	-5.53
729.450     43.73     4.02     344     -15.30     28.43     37.00     -8.57       795.780     45.39     0.99     48     -18.22     27.17     37.00     -9.83	629,990	46.06	2.52	37	-17.00	29.06	37.00	-7.94
795.780 45.39 0.99 48 -18.22 27.17 37.00 -9.83	663.180	46.79	0.99	300	-16.05	30.74	37.00	-6.26
775.780 45.57 6.55 10 10.22	729.450	43.73	4.02	344	-15.30	28.43	37.00	-8.57
***	795.780	45.39	0.99	48	-18.22	27.17	37.00	-9.83
	***							
							<u></u>	

#### 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)

4.02

0

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
74.890	43.00	2.50	7	-23.67	19.33	30.00	-10.67
141.110	50.21	2.50	98	-23.53	26.68	30.00	-3.32
148.380	46.25	0.99	10	-22.66	23.59	30.00	-6.41
1656.790	48.06	0.99	316	-23.08	24.98	30.00	-5.02
198.960	45.92	0.99	5	-22.80	23.12	30.00	-6.88
464.190	42.31	0.99	111	-13.74	28.57	37.00	-8.43

-15.90

31.10

37.00

-5.90

### Final statement:

565.850

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47.00

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

Test date: 06/30/98, Training Research Co., Ltd., TEL: 886-2-26461146, Fax: 886-2-26461778