

EXHIBIT B

Test Report

Report No.
Specifications
Test Method

Applicant
address

Applicant
Items tested
Model No.

Results
Sample received
date

Prepared by
Authorized by

Issue date
Modifications

Tested by
Office at
Open site at

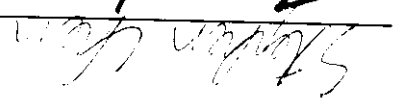
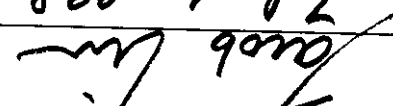
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★ FCC ID: IOWCM-B700

Report No. C3115660, Combo Mouse, FCC Class B

Test date: 06/25/98, Training Research Co., Ltd, TEL: 886-2-27881332, Fax: 886-2-27857408

C3115660	FCC Part 15.109 (g), Class B	ANSI C63.4 1992
3F, No. 15, Alley 11, Lane 327, Sec. 2, Chung Shan Road, Chung Ho City, Taipei Hsien, Taiwan, R.O.C.	Chic Technology Corp.	Combo Mouse
CM-B700 (Sample # C31660)	As detailed within this report	06/19/98 (month / day / year)
project engineer	 Shouan Chen	Vice General Manager
(Jacob Lin)	 Jacob Lin	July 6, 1998
(month / day / year)	None	Training Research Co., Ltd.
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Contents

Chapter 1 Introduction

Description of EUT	3
Configuration of Test Setup	4
List of Support Equipment	5
Chapter 2 Conducted Emission Test	
Test Condition and Setup	6
Conduction Test Placement	7
Chapter 3 Radiated Emission Test	
Test Condition and Setup	8
Radiated Test Placement	9
Appendix A:	
Conducted test result	10
Appendix B :	
Radiated test result	11

Chapter 1 Introduction

Description of EUT :

This device is a PS/2 mouse . It is suitable for HP or compatible one .

Connections of EUT :

(1)Connect the EUT to the mouse Port of PC .

Test method :

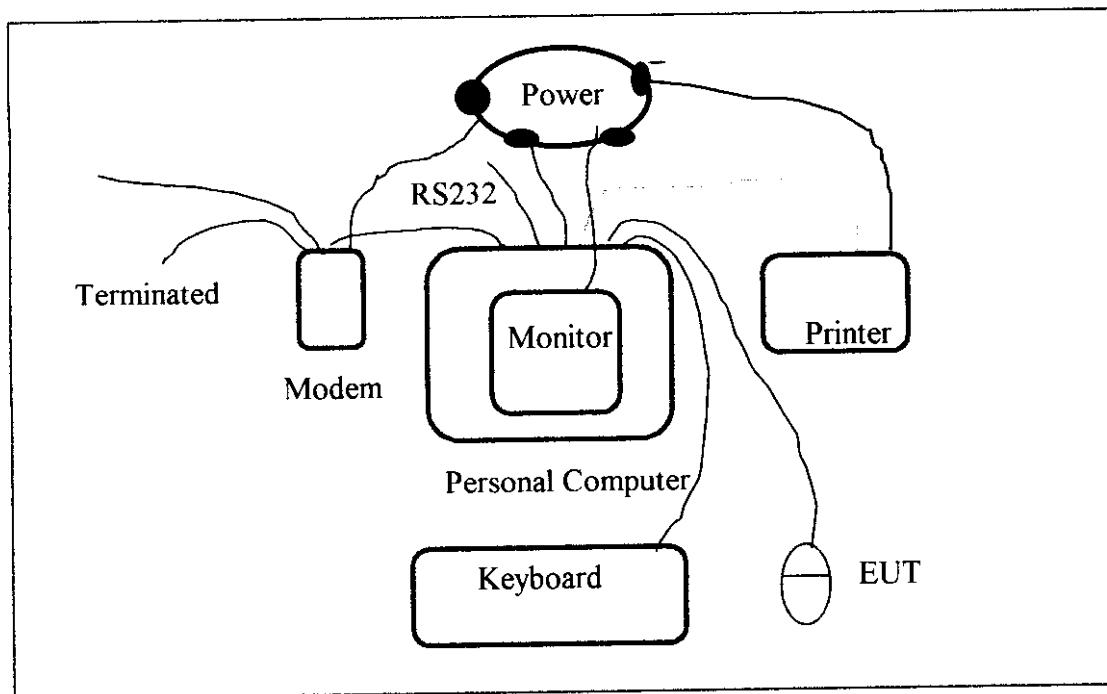
All measurement contained in this report were performed according to the techniques described in Measurement procedure ANSI C63.4-1992.

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

During testing ,the PC was in Windows 95 and make sure that the EUT can work .

The test placement as the photographs showed is the worst case emission placed. (If the emission is close to the ambience, 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 set up is showing in the next page.

Configuration of test setup**Connections :****PC :**

- *Serial A port --- a modem .
 - *Serial B port --- a 76 cm shielded RS232 cable
 - *Printer port --- a Printer
 - *Keyboard port --- a Keyboard
 - *Mouse port --- EUT
 - *Monitor port --- a monitor
- (Each port on PC is connected with suitable device)

EUT :

- *Connect to mouse port of PC (1.2 m long, no ferrite cord)

List of support equipment**Conducted (Radiated) test :**

PC : HP
Model : Vectra VE2
Serial No. : SG61803151(SG61802786)
FCC ID : HCJVECTRAVL5
Power type : AC 117 VAC ,switching
Power cord : non-Shielded, 1.7m long ,Plastic ,no 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 : 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 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

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, 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:

Instrument Name	Model No.	Brand	Serial No.	Last time	Next time	Calibration Date
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 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 0.8 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 from 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 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 GTEM will be taken as the final data.

List of test Instrument:

Instrument Name	Model No.	Brand	Serial No.	Calibration Date	
				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 : 65 % RH

Line 1

Frequency (MHz)	Amplitude (dBuV)	Limit (dBuV/m)	Margin (dB)
14.052	36.54	50.00	-13.46
15.681	38.14	50.00	-11.86
17.013	37.79	50.00	-12.21
17.530	38.95	50.00	-11.05
18.934	40.02	50.00	-9.98
20.042	45.30	50.00	-4.70
20.927	42.51	50.00	-7.49
22.034	40.12	50.00	-9.88
22.624	36.42	50.00	-13.58
24.097	38.43	50.00	-11.57

Line 2

Frequency (MHz)	Amplitude (dBuV)	Limit (dBuV)	Margin (dB)
10.420	36.29	50.00	-13.71
10.642	39.22	50.00	-10.78
11.977	36.93	50.00	-13.07
15.533	36.83	50.00	-13.17
19.008	38.31	50.00	-11.69
20.042	44.51	50.00	-5.49
21.001	42.08	50.00	-7.92
21.739	39.50	50.00	-10.50
22.402	37.18	50.00	-12.82
24.097	36.26	50.00	-13.74

All emissions are under average limit.

Appendix B

Radiated Emission Test Result :(Horizontal)

Test Conditions:

Testing room Temperature : 28 ° C Humidity : 67 % RH
 Testing site Temperature : 33° C Humidity : 70 % 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

171.843	49.88	3.02	107	-22.39	27.49	30.00	-2.51
224.026	37.42	1.00	71	-20.18	17.24	30.00	-12.76
229.090	37.82	3.02	104	-19.86	17.96	30.00	-12.04
343.688	38.75	1.00	208	-14.48	24.27	37.00	-12.73
489.423	33.49	3.02	97	-9.91	23.58	37.00	-13.42
497.372	42.39	1.00	62	-9.69	32.70	37.00	-4.30
643.763	38.75	1.00	224	-12.98	25.77	37.00	-11.23
667.788	38.10	3.02	93	-12.22	25.88	37.00	-11.12
744.555	37.33	1.00	288	-12.58	24.75	37.00	-12.25

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

171.843	48.20	1.00	54	-22.39	25.81	30.00	-4.19
224.026	44.57	1.00	289	-20.18	24.39	30.00	-5.61
229.090	40.19	1.00	25	-19.86	20.33	30.00	-9.67
343.688	39.34	1.00	90	-14.48	24.86	37.00	-12.14
489.423	36.50	3.02	298	-9.91	26.59	37.00	-10.41
497.372	41.06	1.00	2	-9.69	31.37	37.00	-5.63
643.763	39.99	1.00	214	-12.98	27.01	37.00	-9.99
667.788	38.43	1.00	155	-12.22	26.21	37.00	-10.79
744.555	37.60	3.02	255	-12.58	25.02	37.00	-11.98

Final statement:

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