EXHIBIT 4

Test Report

Test Report

ACS-F99013

APPLICATION FOR CERTIFICATION
On Behalf of
Shenzhen Sunspring Electronics Co., Ltd.
Keyboard

Model : CG107C

Prepared for : Shenzhen Sunspring Electronics Co., Ltd.
Room 805, ShanDa Building, Hua Fa North Road,
Shenzhen, China

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6 Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

Tel: (0755)663-9496

Report Number	:	ACS-F99013
Date of Test	:	May 04 / 05, 1999
Date of Report	:	May 12, 1999

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H 0399-F001

TEST REPORT CERTIFICATION

Applicant	:	Shenzhen Sunspring Electronics Co., Ltd.
Manufacturer	:	Shenzhen Sunspring Electronics Co., Ltd.
EUT Description	:	Keyboard
		(A) MODEL NO. : CG107C
		(B) SERIAL NO. : N/A
		(C) POWER SUPPLY : +5V DC

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B October 1997 & FCC / ANSI C63.4-1992

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart Class B limits both radiated and conducted emissions.
The measurement results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.
This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Date of Test : May 04 / 05, 1999

Prepared by : Katherine Ge May 17/5
(ASSISTANT: KATHERINE GE)

Reviewer : Martin Lu 17/5
(SUPERVISOR: MARTIN LU)

For and on behalf of
AUDIX TECHNOLOGY (SHENZHEN) CO.,LTD.

Approved & Authorized Signer : Leon Liu May. 24 1999
Authorized Signature(s)
(MANAGER: LEON LIU)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Keyboard
Model Number	:	CG107C
Applicant	:	Shenzhen Sunspring Electronics Co., Ltd. Room 805, ShanDa Building, Hua Fa North Road, ShenZhen, China
Manufacturer	:	Shenzhen Sunspring Electronics Co., Ltd. Room 805, ShanDa Building, Hua Fa North Road, ShenZhen, China
Data Cable	:	Shielded, Nondetachable, 1.5m with a ferrite core
Date of Test	:	May 04 / 05, 1999

1.2. Tested Supporting System Details

1.2.1. PERSONAL COMPUTER

Model Number	:	P2L97
Serial Number	:	No. 1
FCC ID	:	DoC
Manufacturer	:	Asus Computer International Co.
Switching Power Supply	:	Model FSP300-60GT Sparkle Power Int'l Ltd.
Floppy Driver	:	Teac Corp. Model FC-235HF
Hard Disk Driver	:	Quantum, Model 7218A2C
Disk Ctrl Card	:	Within Mother Board
Serial/Parallel Card	:	Within Mother Board
Power Cord	:	Unshielded, Detachable, 1.8m

VGA CARD

Model Number	:	DSV3365
Serial Number	:	E601604161
Manufacturer	:	Dataexpert Co., Ltd.
FCC ID	:	LUT-DSV3365

1.2.2. MONITOR

Model Number	:	CM752ET
Serial Number	:	T8D003257
Manufacturer	:	HITACHI
Data Cable	:	Shielded, Detachable, 1.5m
Power Cord	:	Unshielded, Detachable, 1.8m
FCC ID	:	DoC

1.2.3. PRINTER

Model Number	:	2225C+
Serial Number	:	2937S56660
FCC ID	:	DSI6XU2225
Manufacturer	:	Hewlett Packard
Power Adapter	:	Hewlett Packard, Model 82241A
Data Cable	:	Shielded, Detachable, 1.5m

1.2.4. MODEM #1

Model Number	:	MODEM 1414
Serial Number	:	980013578
FCC ID	:	IFAXDM1414
Manufacturer	:	Aceex
Data Cable	:	Shielded, Detachable, 1.5m
AC Adapter	:	M/N: SCP41-91000A

1.2.5. MODEM #2

Model Number	:	MODEM 1414
Serial Number	:	980013579
FCC ID	:	IFAXDM1414
Manufacturer	:	Aceex
Data Cable	:	Shielded, Detachable, 1.5m
AC Adapter	:	M/N: SCP41-91000A

1.2.6. MOUSE

Model Number	:	M-S34
Serial Number	:	LZA81403347
FCC ID	:	DZL211029
Manufacturer	:	LOGITECH
Data Cable	:	Unshielded, Nondetachable, 2.5m

1.3. Test Facility

Site Description

3m Anechoic Chamber	:	certificated by FCC, USA Aug. 18, 1997
3m & 10m Open Site	:	certificated by FCC, USA Feb. 13, 1998
EMC Lab.	:	certificated by TUV Rheinland Taiwan Dec.05, 1995
		certificated by COMMERCE, New Zealand May 19, 1997
		certificated by NEMKO, Norway Feb. 28, 1998
		certificated by VCCI, Japan Oct. 29, 1998
		certificated by DATech, German Feb. 02, 1999
		certificated by NVLAP, USA until Mar. 03, 2000 NVLAP Code: 200372-0
Name of Firm	:	Audix Technology (Shenzhen) Co., Ltd.
Site Location	:	No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

1.4. Measurement Uncertainty

Conduction Uncertainty	=	± 2.66dB
Radiation Uncertainty	=	± 4.26dB

2. POWER LINE CONDUCTED MEASUREMENT

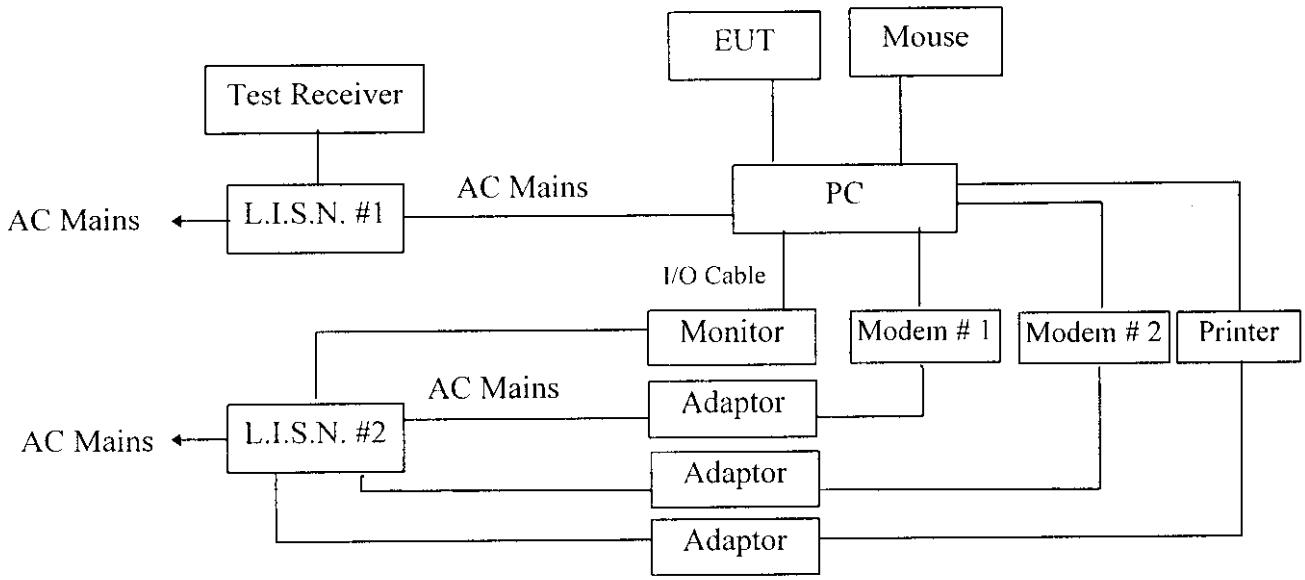
2.1. Test Equipment

The following test equipments are used during the power line conducted measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS20	836600/006	Jun. 07, 98	1 Year
2.	L.I.S.N. #1	Kyoritsu	KNW-407	8-541-4	Jun. 07, 98	1 Year
3.	L.I.S.N. #2	EMCO	3825/2	9006-1660	Jun. 07, 98	1 Year
4.	Terminator	N/A	50Ω	No. 1	N/A	N/A
5.	Terminator	N/A	50Ω	No. 2	N/A	N/A
6.	RF Cable	FUJIKURA	RG-55/U	LISN Cable	Mar. 01, 99	1/2 Year

2.2. Block Diagram of Test Setup

2.2.1. Block diagram of connection between the EUT and simulators



(EUT: Keyboard)

2.3. Power Line Conducted Emission Measurement Limits (Class B)

Frequency MHz	Maximum RF Line Voltage	
	μV	dB(μV)
0.45 ~ 30	250	48

Remarks: RF Line Voltage (dB(μV)) = 20 log RF Line Voltage (μV)

2.4. Configuration of EUT on Measurement

The following equipment are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

2.4.1. Keyboard (EUT)

Model Number	:	CG107C
Serial Number	:	N/A
Manufacturer	:	Shenzhen Sunspring Electronics Co., Ltd.

2.5. Operating Condition of EUT

2.5.1. Setup the EUT and simulator as shown as Section 2.2.
2.5.2. Turn on the power of all equipment.
2.5.3. Let the EUT work in test mode (Running) and measure it.

2.6. Test Procedure

The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm coupling impedance for the EUT. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.4-1992 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESHS20) is set at 10KHz.

The frequency range from 450KHz to 30MHz is checked.

The test result are reported on Section 2.7., all the scanning waveforms for Conducted Emission Measurement are attached in Appendix I.

2.7. Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 450KHz to 30 MHz is investigated.
All emissions not reported below are too low against the prescribed limits.

Date of Test :	May 05, 1999	Temperature :	25 ℃
EUT :	Keyboard	Humidity :	50 %
Model No. :	CG107C	Test Mode :	Running
Test Engineer :	Cherry Zhou		

Frequency MHz	Reading		Limit dB(μV)
	Phase VA dB(μV)	Phase VB dB(μV)	
0.522	23.2	*	48.0
0.523	*	23.5	48.0
6.270	**31.9**	**31.5**	**48.0**
9.000	25.0	25.3	48.0
27.750	19.2	19.2	48.0

Remark : 1. All readings are Quasi-Peak values.
2. The worst emission is detected at 6.270MHz with corrected signal level of 31.9dB(μV) (limit is 48dB(μV)) when the VA side of the EUT is connected to L.I.S.N.

Reviewer : Martin Li 17/5

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

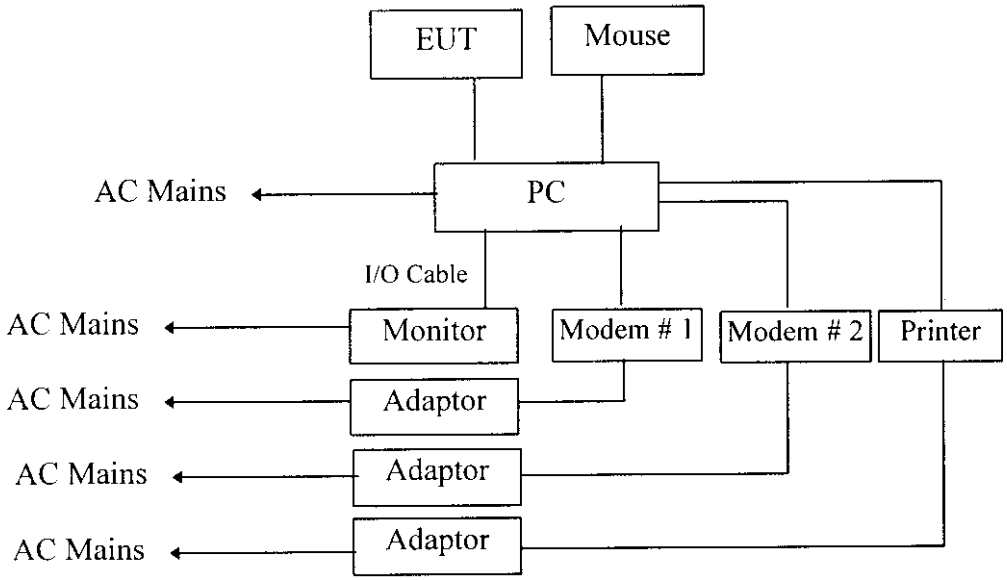
The following test equipments are used during the radiated emission measurement:

3.1.1. For Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	HP	85422E	3625A00181	Jun. 07, 98	1 Year
2.	Test Receiver	Rohde & Schwarz	ESVS20	830350/005	Jun. 07, 98	1 Year
3.	Amplifier	HP	8447D	2944A07794	Feb. 12, 99	1/2 Year
4.	Bilog Antenna	Chase	CBL6112A	2176	Sep. 27, 98	1 Year
5.	Computer	N/A	N/A	N/A	N/A	N/A
6.	Printer	NEC	P3800	568101448	N/A	N/A
7.	Coaxial Switch	Anritsu	MP59B	M20531	Jun. 07, 98	1 Year
8.	FR Cable	MIYAZAKI	5D-2W	3# Chamber No.1	Feb. 12, 99	1/2 Year
9.	FR Cable	MIYAZAKI	5D-2W	3# Chamber No.2	Feb. 12, 99	1/2 Year
10.	FR Cable	FUJIKURA	RG-55/U	3# Chamber No.3	Feb. 12, 99	1/2 Year
11.	FR Cable	FUJIKURA	RG-55/U	3# Chamber No.4	Feb. 12, 99	1/2 Year

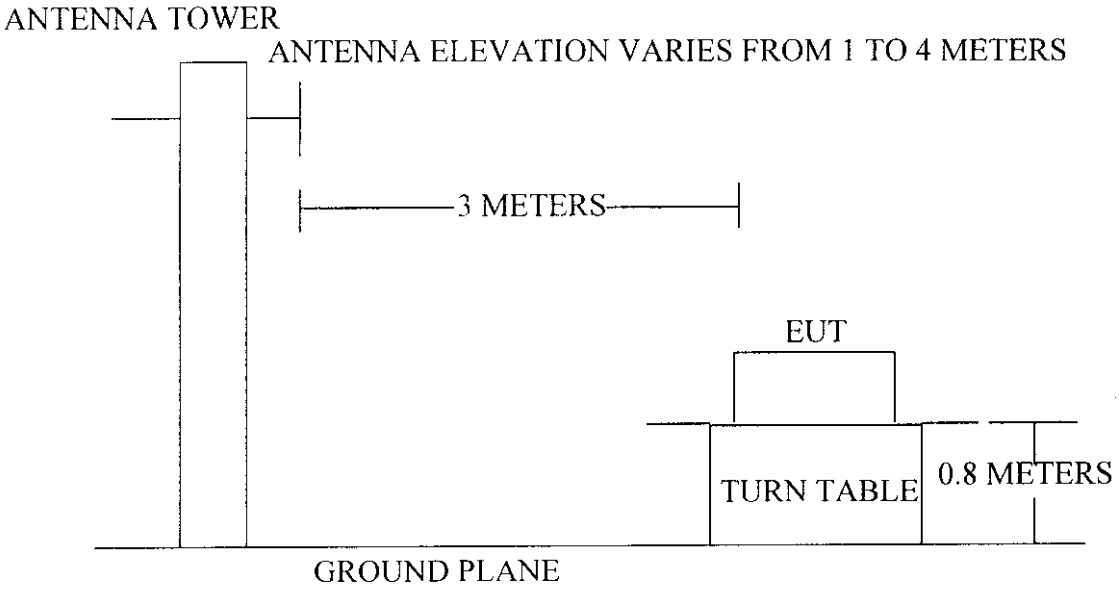
3.2. Block Diagram of Test Setup

3.2.1. Block diagram of connection between the EUT and simulators



(EUT: Keyboard)

3.2.2. Chamber # 3 Test Setup Diagram



3.3. Radiated Emission Limit (Class B)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

Remark : (1) Emission level (dB)μV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.4. EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

3.4.1. Keyboard (EUT)

Model Number	:	CG107C
Serial Number	:	N/A
Manufacturer	:	Shenzhen Sunspring Electronics Co., Ltd.

3.4.2. Support Equipment : As Tested Supporting System Detail, in Section 1.2.

3.5. Operating Condition of EUT

1. Setup the EUT as shown in Section 3.2..
2. Let the the EUT work in test mode (Running) and measure it.

3.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-1992 on radiated emission measurement.

The bandwidth of the EMI test receiver (R&S ESVS20) is set at 120KHz.

The frequency range from 30MHz to 1000MHz is checked.

The two test modes (Running) are tested in Anechoic Chamber and all the scanning waveforms are attached in Appendix II.

3.7. Radiated Emission Noise Measurement Result

PASS.

The frequency range from 30MHz to 1000MHz is investigated. Please see the following pages.

Date of Test :	May 04. 1999	Temperature :	22 ℃
EUT :	Keyboard	Humidity :	50 %
Model No. :	CG107C	Test Mode :	Running
Test Engineer:	Cherry Zhou		

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dBμV/m	Limits dBμV/m
48.00	9.60	1.19	19.00	29.79	-10.21	40.00
75.090	7.45	1.60	19.10	28.15	-11.85	40.00
200.000	10.21	2.62	15.00	27.83	-15.67	43.50
336.063	15.25	3.49	13.40	32.14	-13.86	46.00
816.150	20.22	5.76	10.03	36.00	-10.00	46.00

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

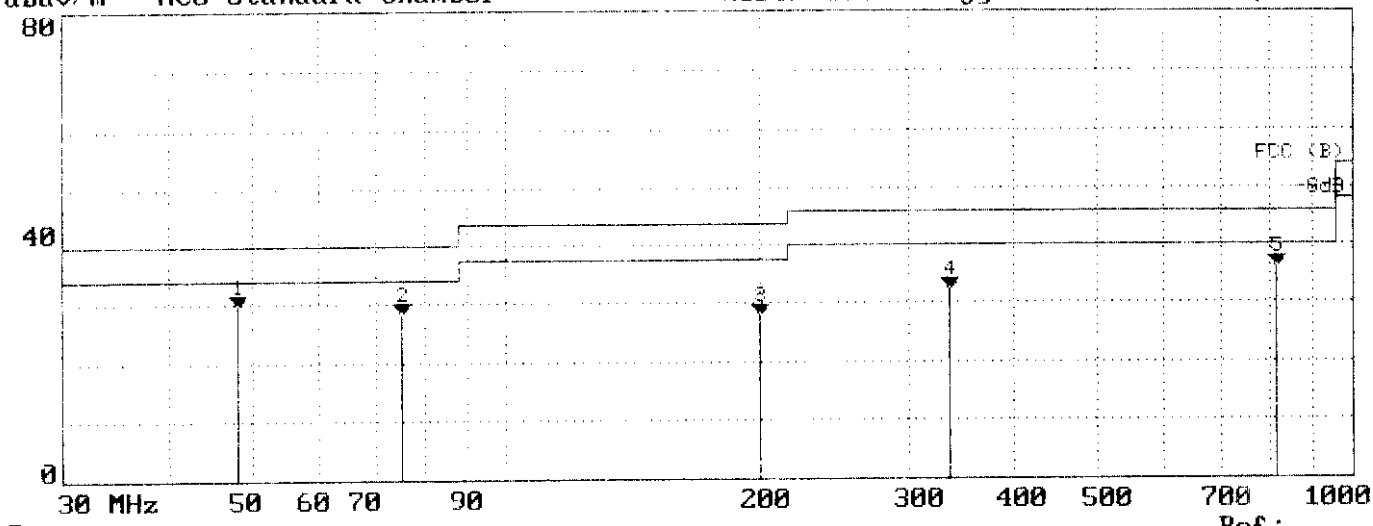
Date of Test :	May 04, 1999	Temperature :	22 ℃
EUT :	Keyboard	Humidity :	50 %
Model No. :	CG107C	Test Mode :	Running
Test Engineer:	Cherry Zhou		

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Over Limits dBμV/m	Limits dBμV/m
48.100	5.45	1.19	16.40	23.04	-16.96	40.00
75.250	6.77	1.60	18.40	26.77	-13.23	40.00
336.060	14.75	3.49	15.00	33.24	-12.76	46.00
568.475	18.33	4.64	10.40	33.37	-12.63	46.00
590.180	18.93	4.84	11.00	34.77	-11.23	46.00

Remark: 1. All readings are Quasi-Peak values.
2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

Reviewer : Martin Lin 12/5

Data#: 29 File#: SUN.EM1 Date: 05-04-1999 Time: 10:11:38
dBuV/m ACS Standard Chamber AUDIX Technology (Shenzhen) Co., Ltd.



Limit : FCC (B) 3m
Probe : ANT2176 HORIZONTAL
Margin: 6dB
EUT : KEYBOARD M/N:CG 107C
Power : 120V/60HZ(PC Power)
Memo : Running
:
:

Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark
	MHz	dB	dB	dB	dB	dB	dB	dB	
1	48.000	29.79	-10.21	40.00	19.00	9.60	1.19	0.00	QP
2	75.090	28.15	-11.85	40.00	19.10	7.45	1.60	0.00	QP
3	200.000	27.83	-15.67	43.50	15.00	10.21	2.62	0.00	QP
4	336.063	32.14	-13.86	46.00	13.40	15.25	3.49	0.00	QP
5	816.150	36.00	-10.00	46.00	10.03	20.22	5.76	0.00	QP

Data#: 30 File#: SUN.EMI Date: 05-04-1999 Time: 10:26:17
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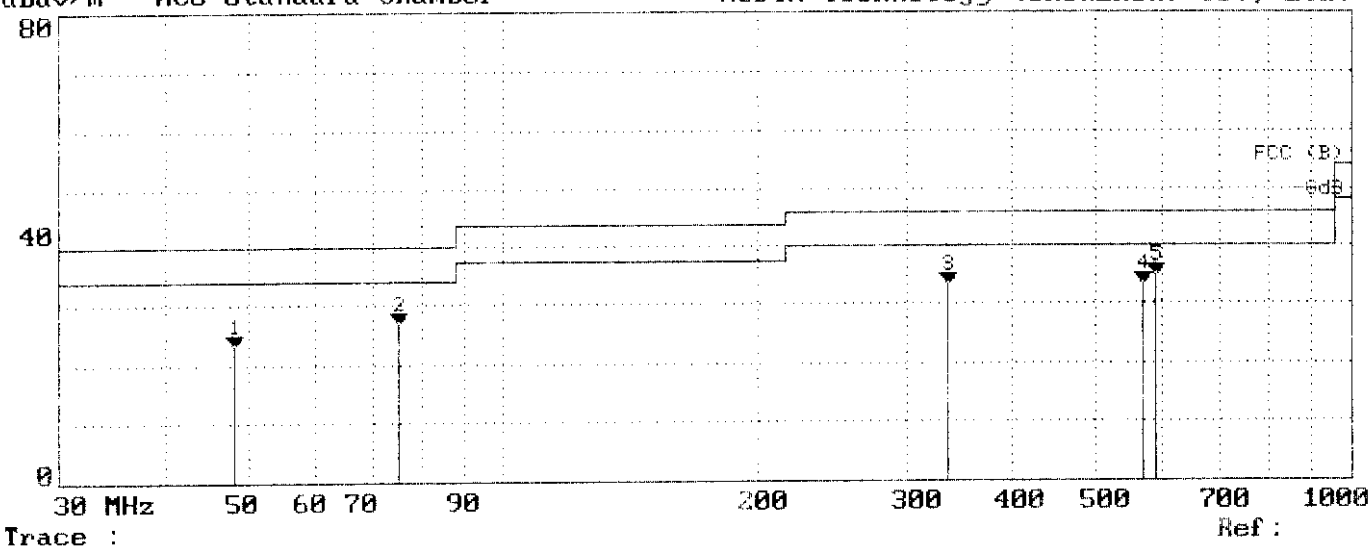

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Ref :

Limit : FCC (B) 3m
Probe : ANT2176 VERTICAL
Margin: -6dB
EUT : KEYBOARD M/N:CG 107C
Power : 120V/60HZ(PC Power)
Memo : Running
:
:

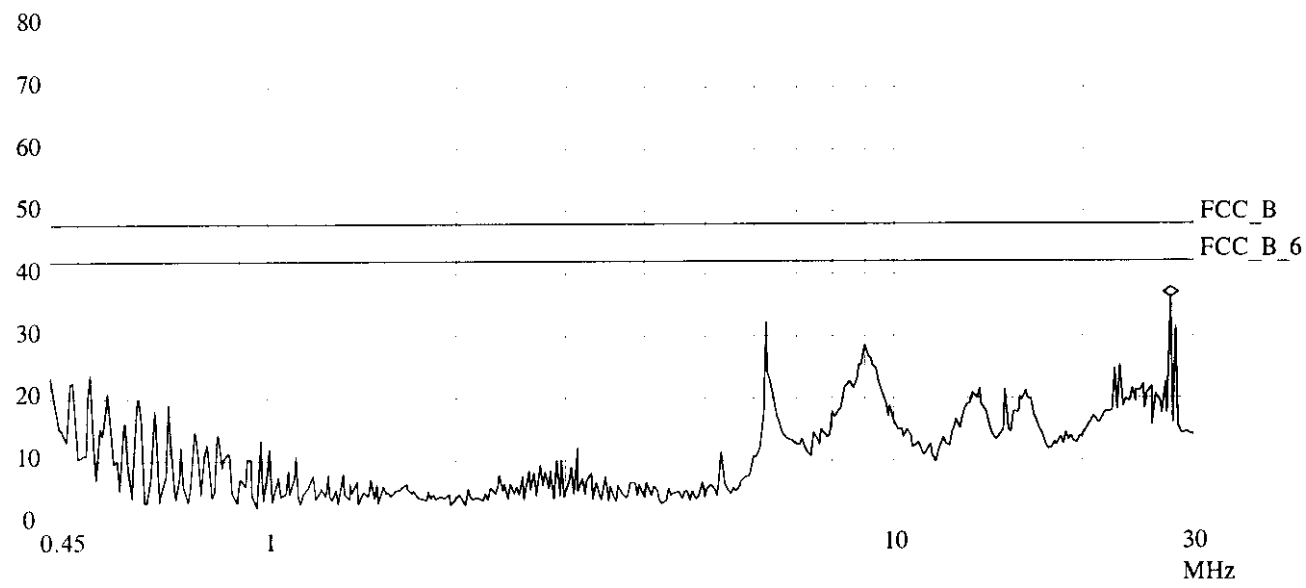
Page: 1

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark
	MHz	dB	dB	dB	dB	dB	dB	dB	
1	48.100	23.04	-16.96	40.00	16.40	5.45	1.19	0.00	QP
2	75.250	26.77	-13.23	40.00	18.40	6.77	1.60	0.00	QP
3	336.060	33.24	-12.76	46.00	15.00	14.75	3.49	0.00	QP
4	568.475	33.37	-12.63	46.00	10.40	18.33	4.64	0.00	QP
5	590.180	34.77	-11.23	46.00	11.00	18.93	4.84	0.00	QP

CONDUCTION TEST
FCC Part 15(B)

05. May 99 09:48

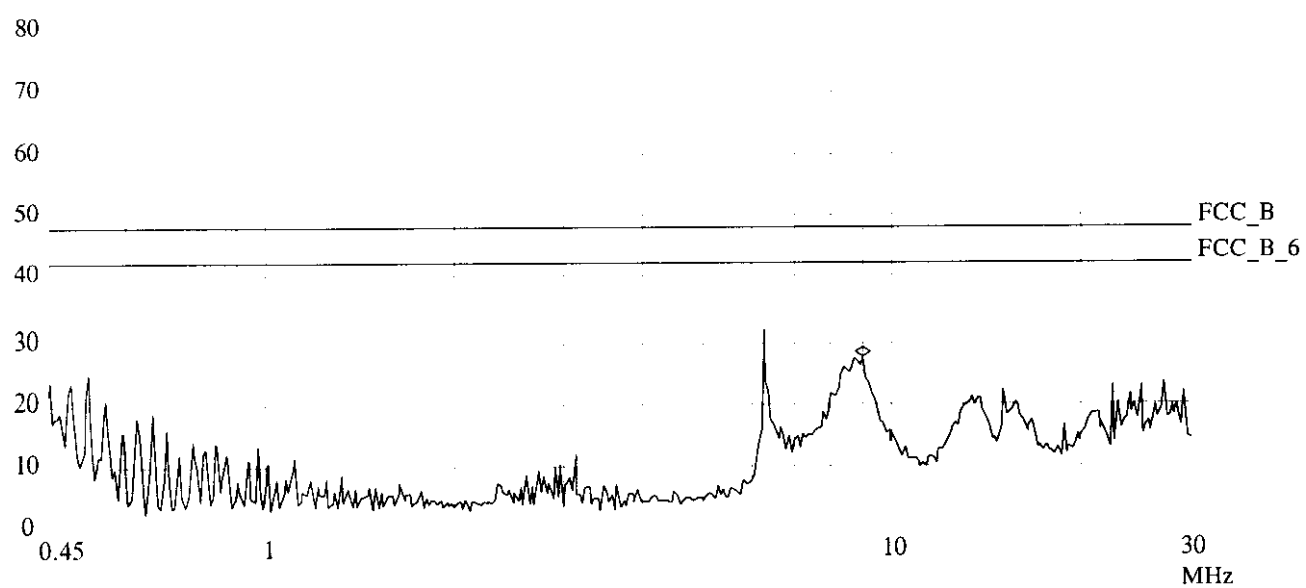
EUT: Keyboard M/N:CG 107C
Manuf: Sunspring
Op Cond: Running
Operator: Cherry
Test Spec: Va 120V/60Hz
Comment: temp:22'C
Humi:50%



CONDUCTION TEST
FCC Part 15(B)

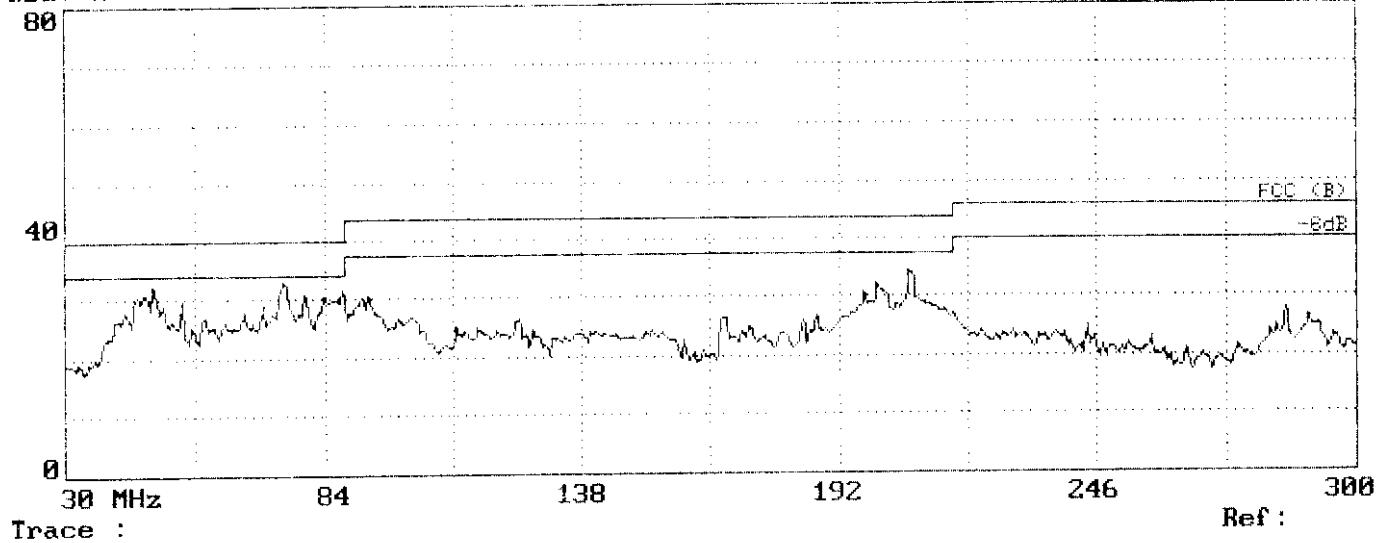
05. May 99 09:52

EUT: Keyboard M/N:CG 107C
Manuf: Sunspring
Op Cond: Running
Operator: Cherry
Test Spec: Vb 120V/60Hz
Comment: temp:22'C
Humi:50%



APPENDIX II

Data#: 27 File#: SUN.EMI Date: 05-04-1999 Time: 09:59:48
dBuV/m ACS Standard Chamber AUDIX Technology (Shenzhen) Co., Ltd.



Trace : Ref :

Limit : FCC (B) 3m
Probe : ANT2176 HORIZONTAL
Margin: -6dB
EUT : KEYBOARD M/N:CG 107C
Power : 120V/60HZ(PC Power)
Memo : Running
:
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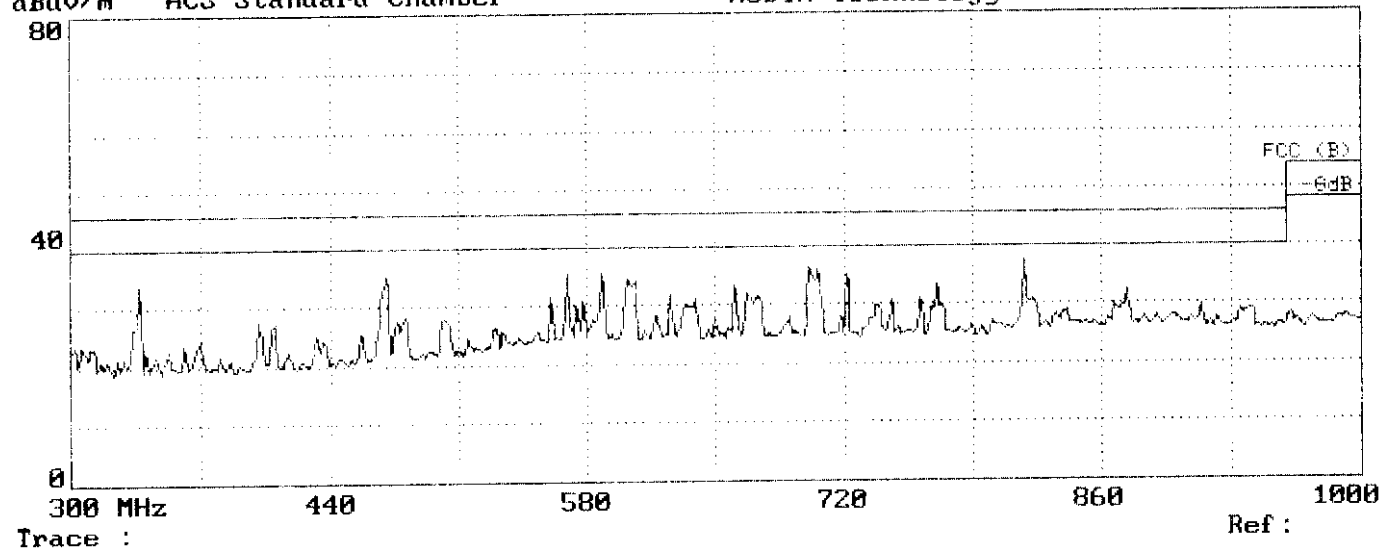

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Limit : FCC (B) 3m
Probe : ANT2176 HORIZONTAL
Margin: -6dB
EUT : KEYBOARD M/N:CG 107C
Power : 120V/60HZ(PC Power)
Memo : Running
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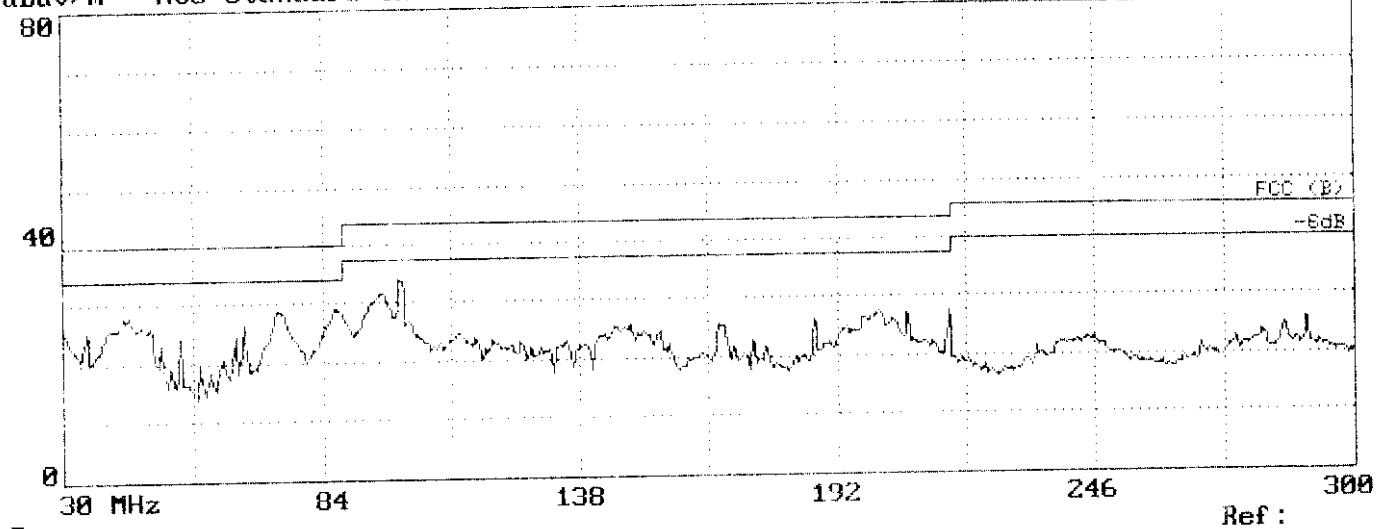

Trace :

Limit : FCC (B) 3m
Probe : ANT2176 VERTICAL
Margin: -6dB
EUT : KEYBOARD M/N:CG 107C
Power : 120V/60HZ(PC Power)
Memo : Running
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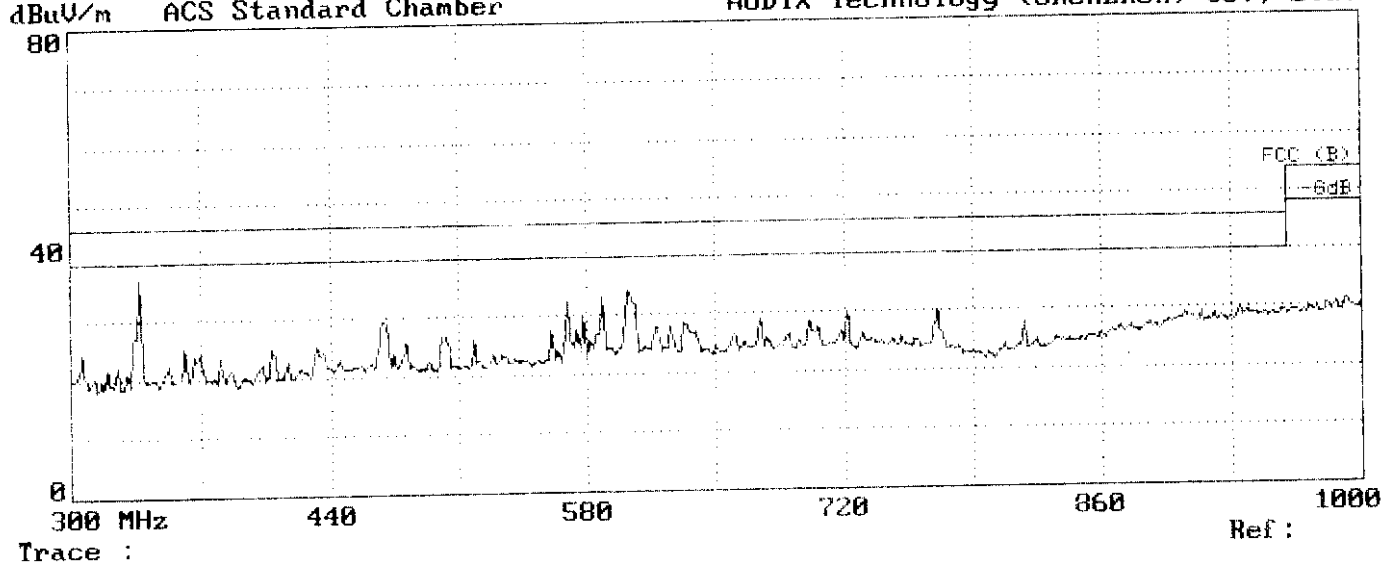

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Limit : FCC (B) 3m
Probe : ANT2176 VERTICAL
Margin: -6dB
EUT : KEYBOARD M/N:CG 107C
Power : 120V/60HZ(PC Power)
Memo : Running
:
: