

Acoustic Test Report

Model Name : **SR10569**

Rev : **A**



Approved by: **Jounghwa Lin**

Issued by: **Doreen Lee**

Report No.: **E2008071104**
Revision 1.0
Date: **2008/07/23**

CHENBRO MICOM CO., LTD.

15Fl., No.150, Jian Yi Road, Chung Ho City, Taipei Hsien, Taiwan R.O.C.,
Tel: +886 2 82265500 Fax: +886 2 82265392 Email: info@chenbro.com.tw

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY OF RESULTS	3
2. INTRODUCTION	3
3. TEST CONFIGURATION	3
4. CHASSIS DESCRIPTION (AS TESTED).....	4
5. TEST FACILITY USED	4
6. TEST SETUP	5
7. TEST AMBIENT	6
8. TEST RESULTS	6
9. CONCLUSION	6
10. APPENDIX A - SYSTEM SETUP	7
11. APPENDIX B - ACOUSTIC DIAGRAM (IDLE MODE)	8
11. APPENDIX B - ACOUSTIC DIAGRAM (50% MODE)	9
11. APPENDIX B - ACOUSTIC DIAGRAM (80% MODE)	10
12. APPENDIX C - ACOUSTIC DIAGRAM (100%LOADING).....	11

1. Executive Summary of Results

The Chenbro Micom [SR10569](#) Chassis balances the noise level with adequate thermal performance for the [ASUS P5E-VM HDMI](#) motherboard with [Noise Limit](#) Heatsink.

Operation Mode	Test Results
Idle Mode	28.6 dB(A)
50%Loading Mode	28.8 dB(A)
80%Loading Mode	29.0 dB(A)
100%Loading Mode	29.7 dB(A)

Table 1 – Summary of Results

2. Introduction

The purpose of this test is to ensure that the design of tested chassis model can balance the noise level with the thermal goal under specific configuration which is either inquired or the most critical one.

This report has defined test configuration and all the relevant modifications. The test result would be valid only when the same circumstance has been applied.

The test was done by Chenbro Micom Co., Ltd. which is located at following address:

15Fl., No.150,Jian Yi Road, Chung Ho City, Taipei Hsien, Taiwan, R.O.C.

3. Test Configuration

The tested system configuration is as following.

Component	Manufacturer	Model Number	Q'ty	Specification
Chassis	Chenbro	SR10569	1	Pedestal Server chassis
Main Board	ASUS	P5E-VM HDMI	1	Full function
CPU Type	Intel	Core 2 Quad Q6600	1	2.4GHz PCG05A
Memory	ADATA	DDR2 800(5) 1GX8	2	1GB DDR2
Chipset	Intel	I946GZ	1	Full Function
VGA(on board)	Intel	GMA 3000	1	On board
Hard Drive	Western Digital	WD50000YS-01MPB1	4	SATAII 500GB
CD-ROM	ASUS	CD-S520/A4	1	52X speed CD-ROM
PSU	FSP	Engineer Sample (FSP600-80GLN)	1	600W
HDD Cooling Fan (middle)	TOP MOTOR	DF121225SL-3	1	120x120x25/1500RPM
System Fan (Rear)	Magic	MGT12012LB-O25	1	120x120x25/1500RPM
CPU Cooler	Noise Limit	Engineer Sample	1	Active Heatsink (1600RPM)

Table 2 – System Configuration

4. Chassis Description (as Tested)

The SR10569 chassis is a Pedestal Server chassis that may ship with a FSP 600W power supply (optional) and two system fans. It has one exposed Standard CD-ROM drive bay and four 3.5" Hot-swap HDD drive bays.

The dimensions of this chassis are 20.9"D x 7.8"W x 16.7"H

The chassis is manufactured by Chenbro Micom Co., Ltd. which is located at following address:

15Fl., No.150,Jian Yi Road, Chung Ho City, Taipei Hsien, Taiwan, R.O.C.

5. Test Facility Used

Test Facility

Item	Manufacturer	Model
Semi-Anechoic Chamber	Free Field Acoustic	N/A
Microphone	B&K	4190-L-001
Acoustic Analyzer	B&K	2827-002

Semi-Anechoic Chamber

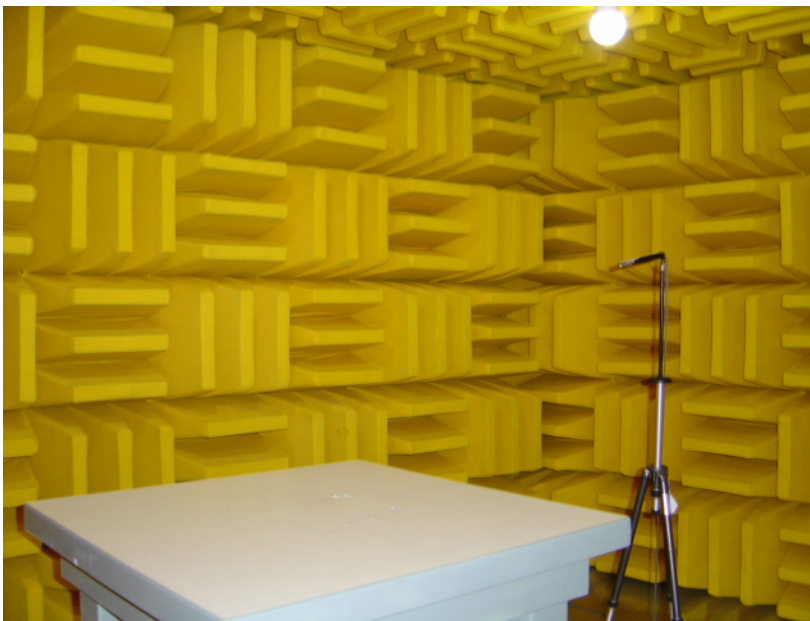


Fig. 1 –Semi-Anechoic Chamber

6. Test Setup

The test was performed in accordance with the ISO 7779:1999 standard. The microphone position was placed at operator position i.e., 1.20m ± 0.03m above the floor and 1.00m ± 0.03m horizontally.

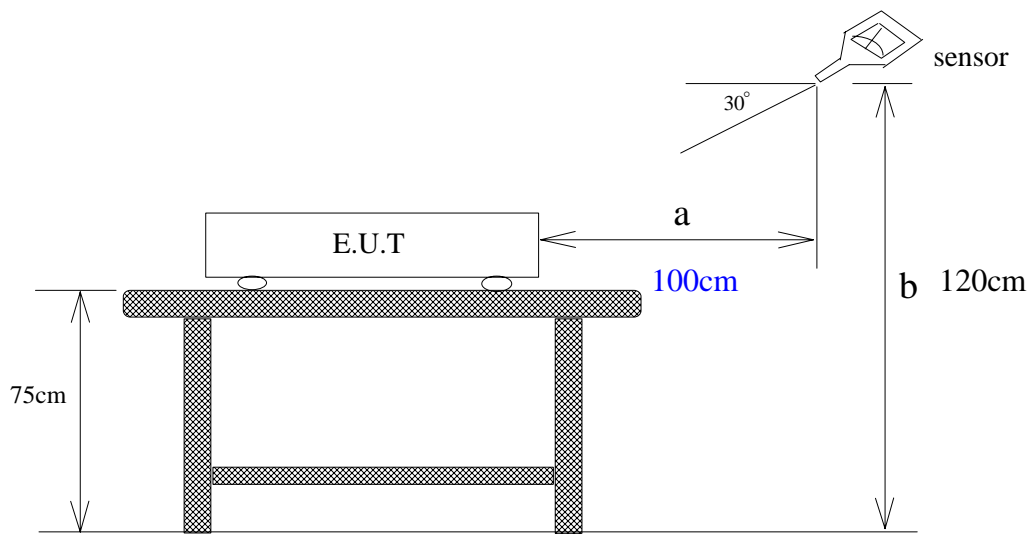


Fig. 2 – Test Position

7. Test Ambient

- ♦ Ambient Pressure: 985 mbar
- ♦ Ambient Temperature: 27.4 degree C
- ♦ Relative Humidity: 60.7%RH
- ♦ Background Noise: 15.8dB(A)

8. Test Results

Operation Mode	Test Results
Idle Mode	28.6 dB(A)
50%Loading Mode	28.8 dB(A)
80%Loading Mode	29.0 dB(A)
100%Loading Mode	29.7 dB(A)

Table 3 – Test Results

9. Conclusion

The SR10569 chassis (as tested) does balance the noise level under 40dB(A) with adequate thermal performance at specific configuration.

The tested system does not necessarily represent the absolute worst-case that the system is subject to.

10. Appendix A - System Setup



Fig. 3 – System Setup



Fig.4 –Side Venting

CHENBRO MICOM CO., LTD.

15Fl., No.150, Jian Yi Road, Chung Ho City, Taipei Hsien, Taiwan R.O.C.,
Tel: +886 2 82265500 Fax: +886 2 82265392 Email: info@chenbro.com.tw

11. Appendix B – Acoustic Diagram (Idle Mode)

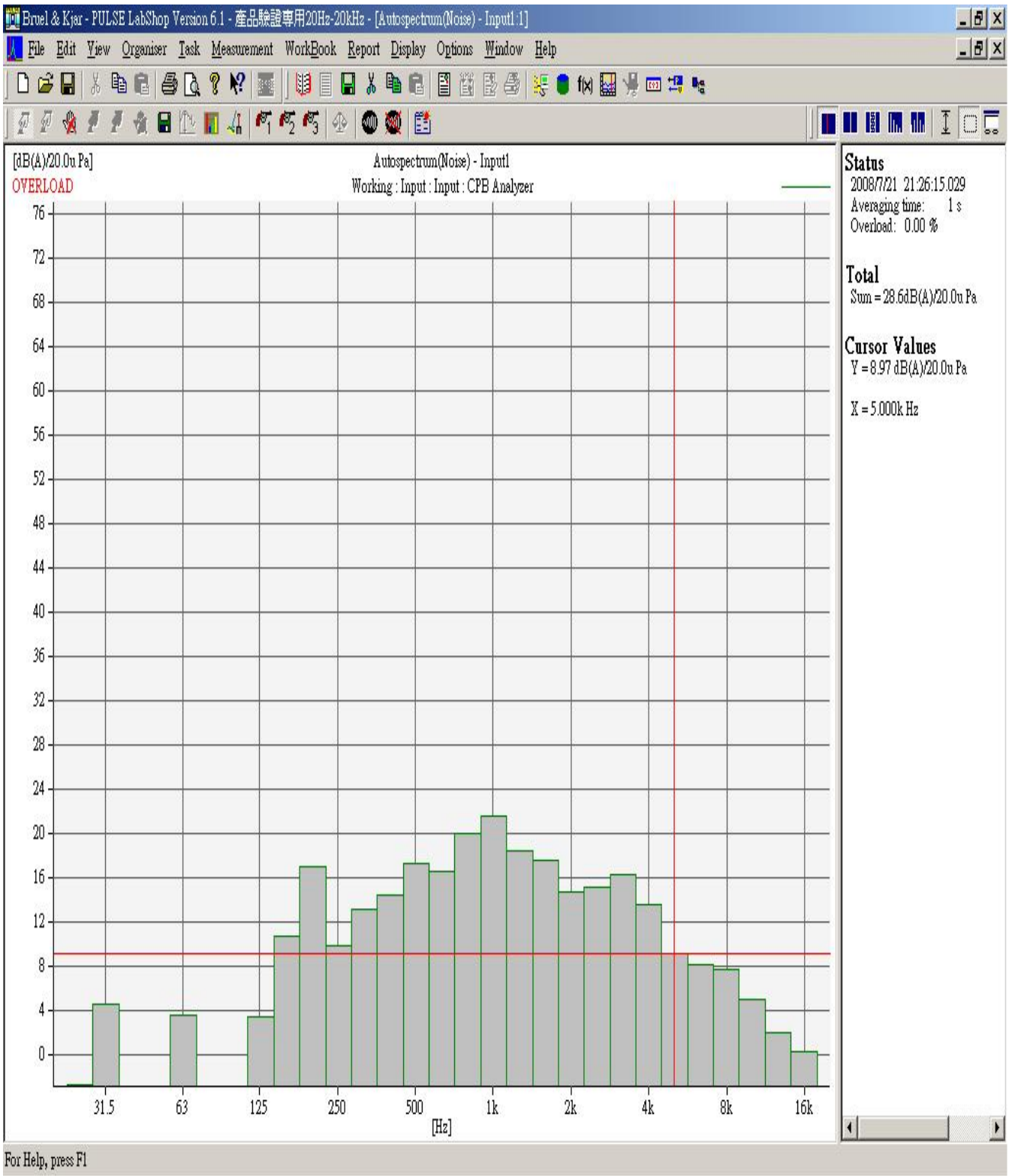


Fig. 5 – Acoustic Diagram (Idle Mode)

CHENBRO MICOM CO., LTD.

15Fl., No.150, Jian Yi Road, Chung Ho City, Taipei Hsien, Taiwan R.O.C.,
 Tel: +886 2 82265500 Fax: +886 2 82265392 Email: info@chenbro.com.tw

12. Appendix C – Acoustic Diagram (50%Loading)

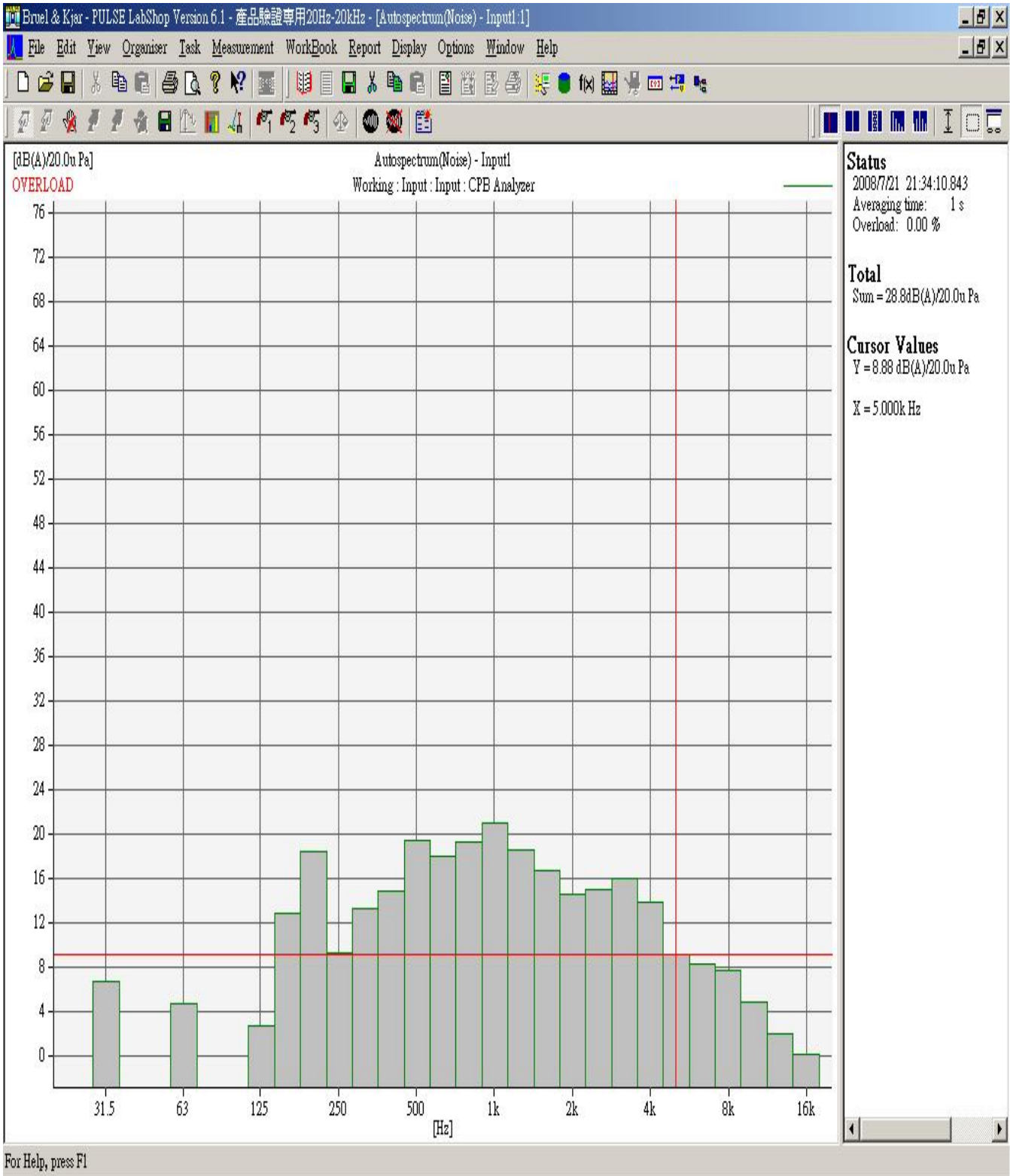


Fig. 6 – Acoustic Diagram (50%Loading)

CHENBRO MICOM CO., LTD.

15Fl., No.150, Jian Yi Road, Chung Ho City, Taipei Hsien, Taiwan R.O.C.,
 Tel: +886 2 82265500 Fax: +886 2 82265392 Email: info@chenbro.com.tw

13. Appendix D – Acoustic Diagram (80%Loading)

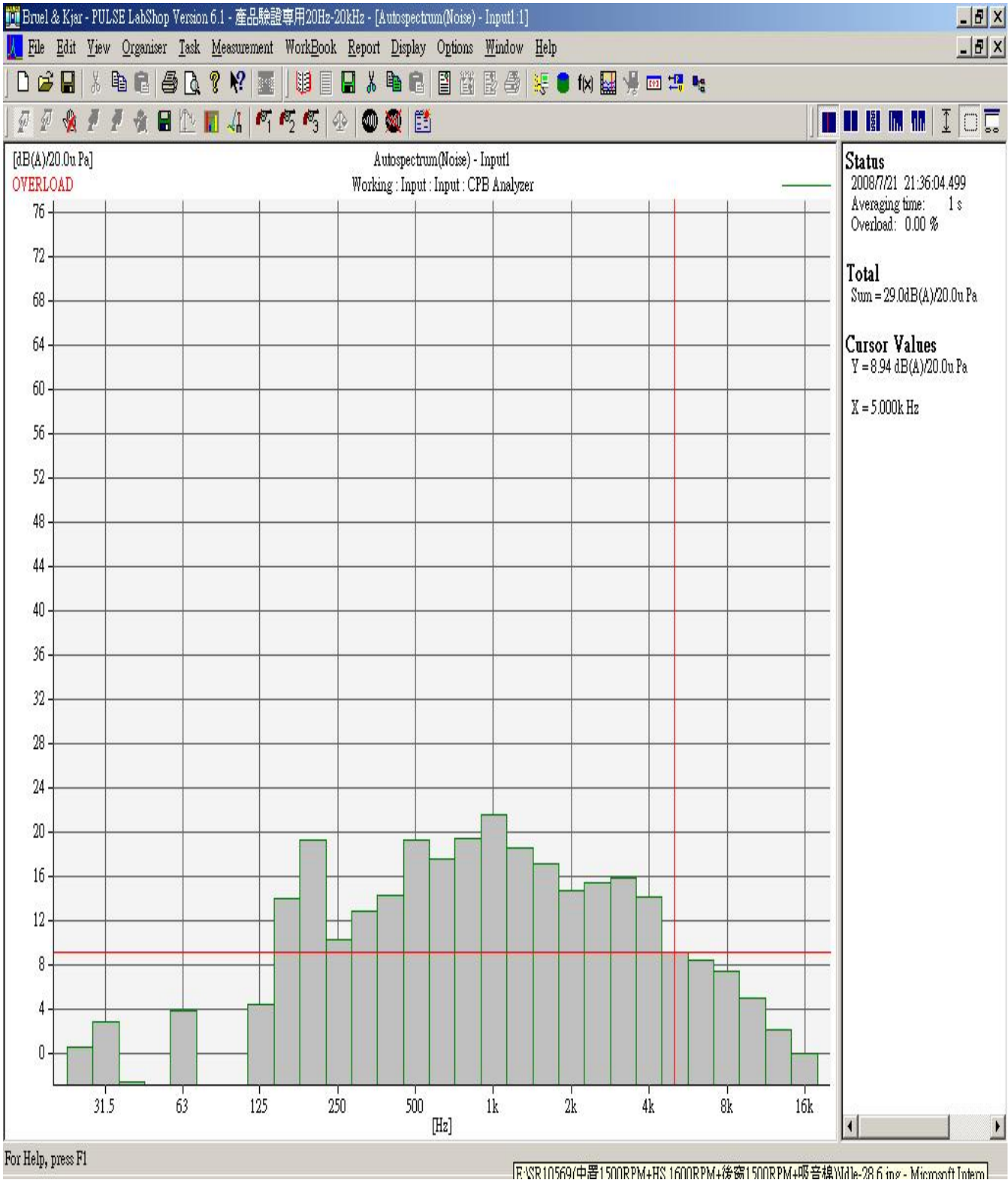


Fig. 7 – Acoustic Diagram (80%Loading)

CHENBRO MICOM CO., LTD.

15Fl., No.150, Jian Yi Road, Chung Ho City, Taipei Hsien, Taiwan R.O.C.,
Tel: +886 2 82265500 Fax: +886 2 82265392 Email: info@chenbro.com.tw

14. Appendix E – Acoustic Diagram (100%Loading)

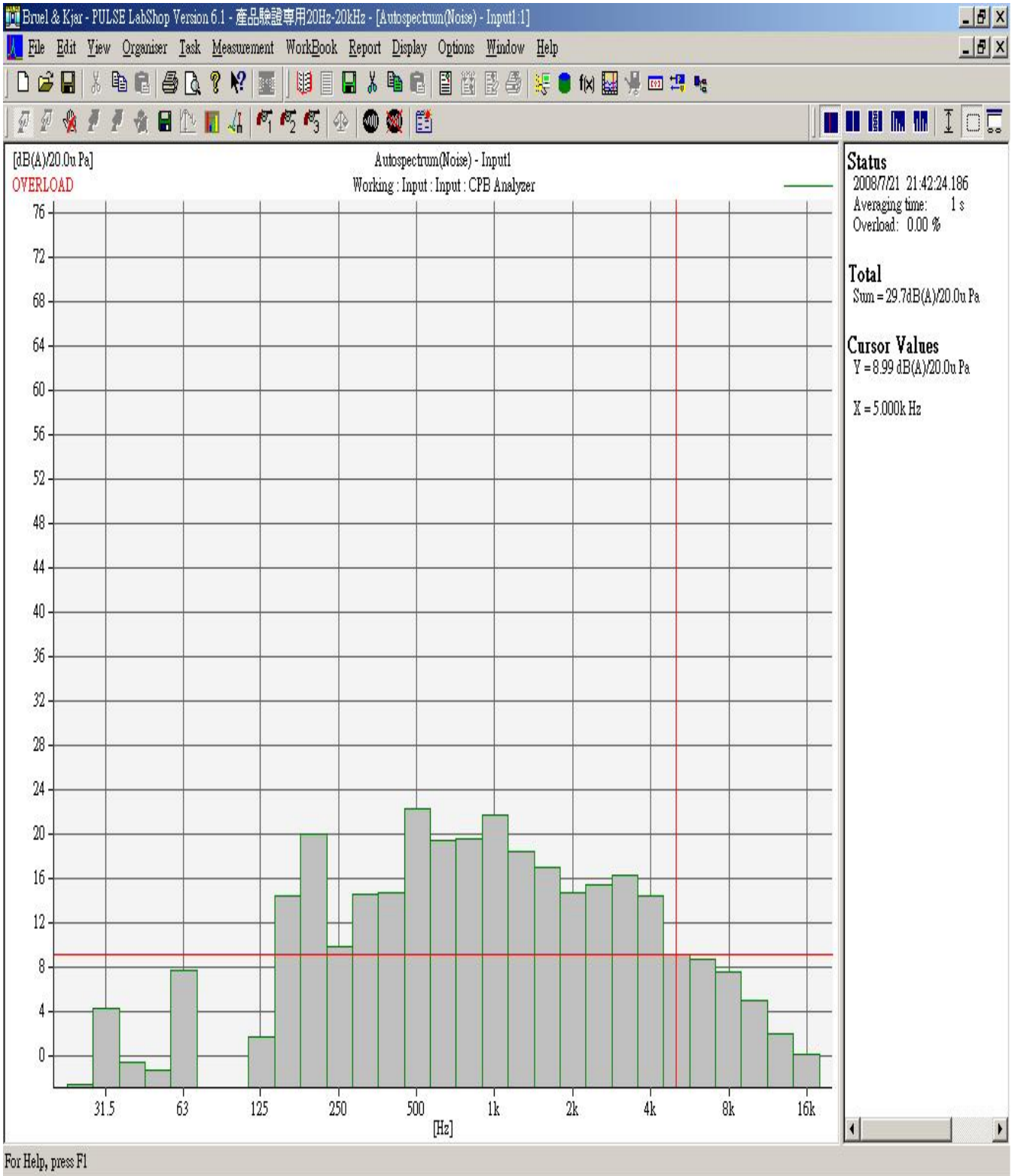


Fig. 8 – Acoustic Diagram (100%Loading)

CHENBRO MICOM CO., LTD.

15Fl., No.150, Jian Yi Road, Chung Ho City, Taipei Hsien, Taiwan R.O.C.,
Tel: +886 2 82265500 Fax: +886 2 82265392 Email: info@chenbro.com.tw