Acoustic Test Report

Model Name : SR107

Rev : A

Approved by: Jounghwa Lin Issued by: Max Cheng

Report No.: E67738
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TABLE OF CONTENTS

1. Executive Summary of Results

The Chenbro Micom SR107 Chassis balances the noise level with adequate thermal performance for the SUPERMICRO X6DVA-4G mainboard with Cpumate cooler for 3.6GHz Intel Nocona Heatsink.

Operation Mode	Test Results
Idle Mode	43.5 dB(A)
50%Loading	43.8 dB(A)
80%Loading	43.9 dB(A)
100%Loading	44.1 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	SR107	1	Pedestal Server chassis
Main Board	SUPERMICRO	X6DVA-4G	1	Full function
CPU Type	Intel	3.6GHz Nocona	2	Socket 604
Memory	Kingston	KVR266X72RC25L/1G	6	PC2100 DDR With ECC Registered memory modules
Chipset	Intel	E7320	1	Full Function
VGA (on board)	ATI	ATI Rage XL	1	8M on board
LAN (on board)	Intel	82541GI	2	1Gb/s Controller
SCSI (on board)	LSI	53C1020	1	Ultra 320 SCSI
SATA (on board)	Intel	6300ESB	2	SATA 150
Hard Drive	Western Digital	WD800JD-22LSA0	1	SATAII 80GB
Hard Drive	Seagate	ST3250823AS	8	SATA 250GB
CD-ROM	ASUS	CD-S520/A4	1	52X speed
SATA RAID CARD	3Ware	8506-8	1	SATA RAID CARD
PSU	Seasonic	SS500HT	1	Action 500W PSU
System Fan (middle)	MAGIC	MGT12012ZB-W25	2	120x120x25/3400RPM
System Fan (Rear)	MAGIC	MGT12012ZB-W25	1	120x120x25/3400RPM
CPU Cooler	CPUMATE	Engineer Sample	2	Active Heatsink

Table 2 – System Configuration

4. Chassis Description (as Tested)

The SR107 chassis is a Pedestal Server chassis that may ship with a Seasonic 500W power supply (optional) and three system fans. It has three exposed Standard CD-ROM drive bays,one exposed standard FDD drive bay and eight 3.5" Hotswap HDD drive bays..

The dimensions of this chassis are 24.4"D x 8.7"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.

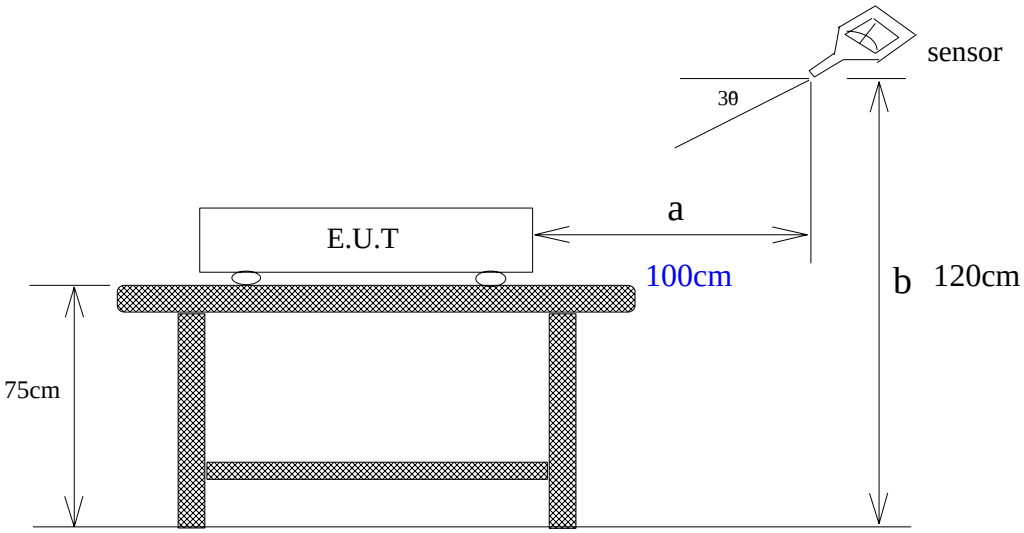

Fig. 2 – Test Position

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	43.5 dB(A)
50%Loading	43.8 dB(A)
80%Loading	43.9 dB(A)
100%Loading	44.1 dB(A)

Table 3 – Test Results

9. Conclusion

The SR107 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

11. Appendix B – Acoustic Diagram (Idle Mode)

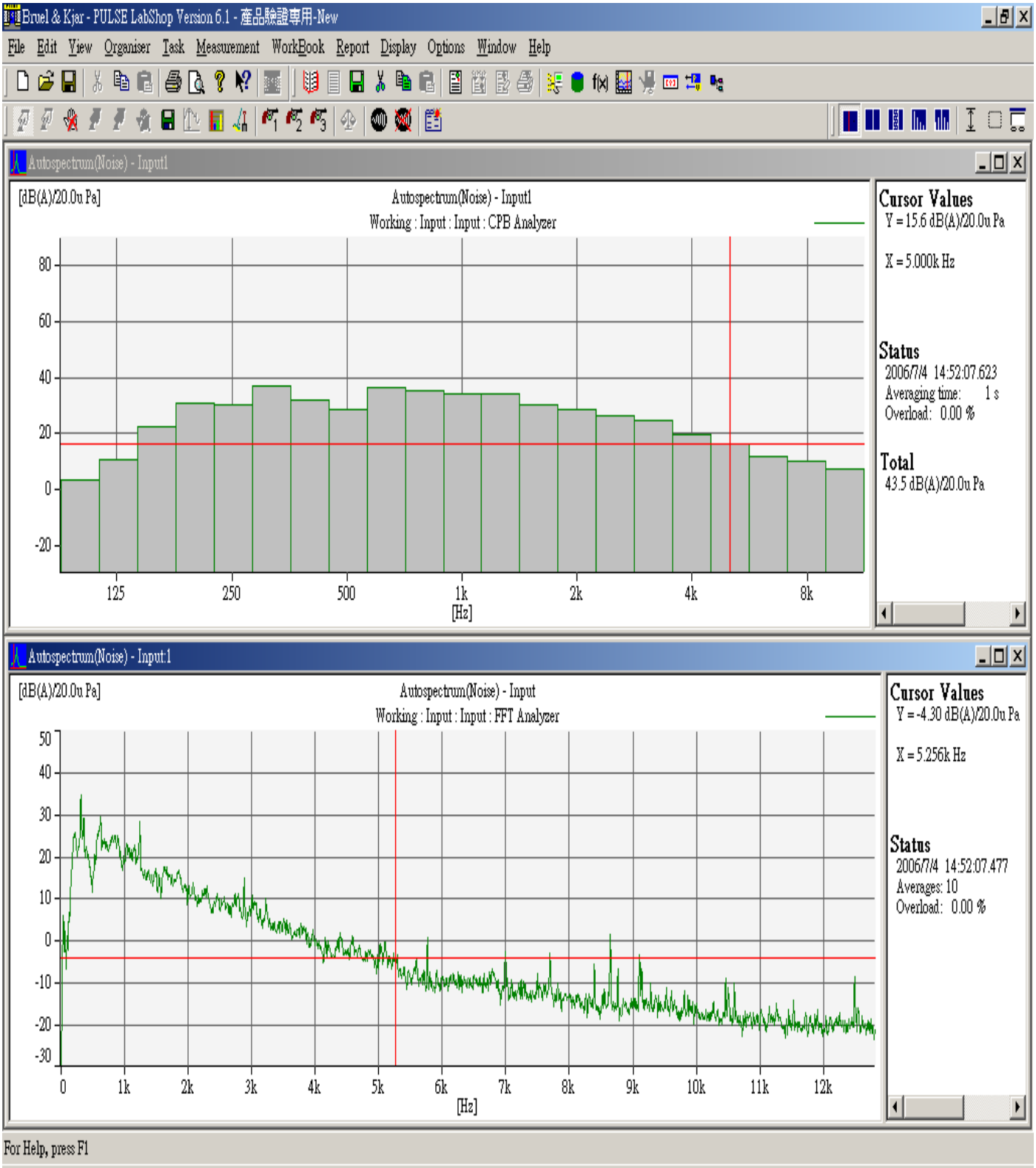

Fig. 5 – Acoustic Diagram (Idle Mode)

11. Appendix B – Acoustic Diagram (50%Loading)

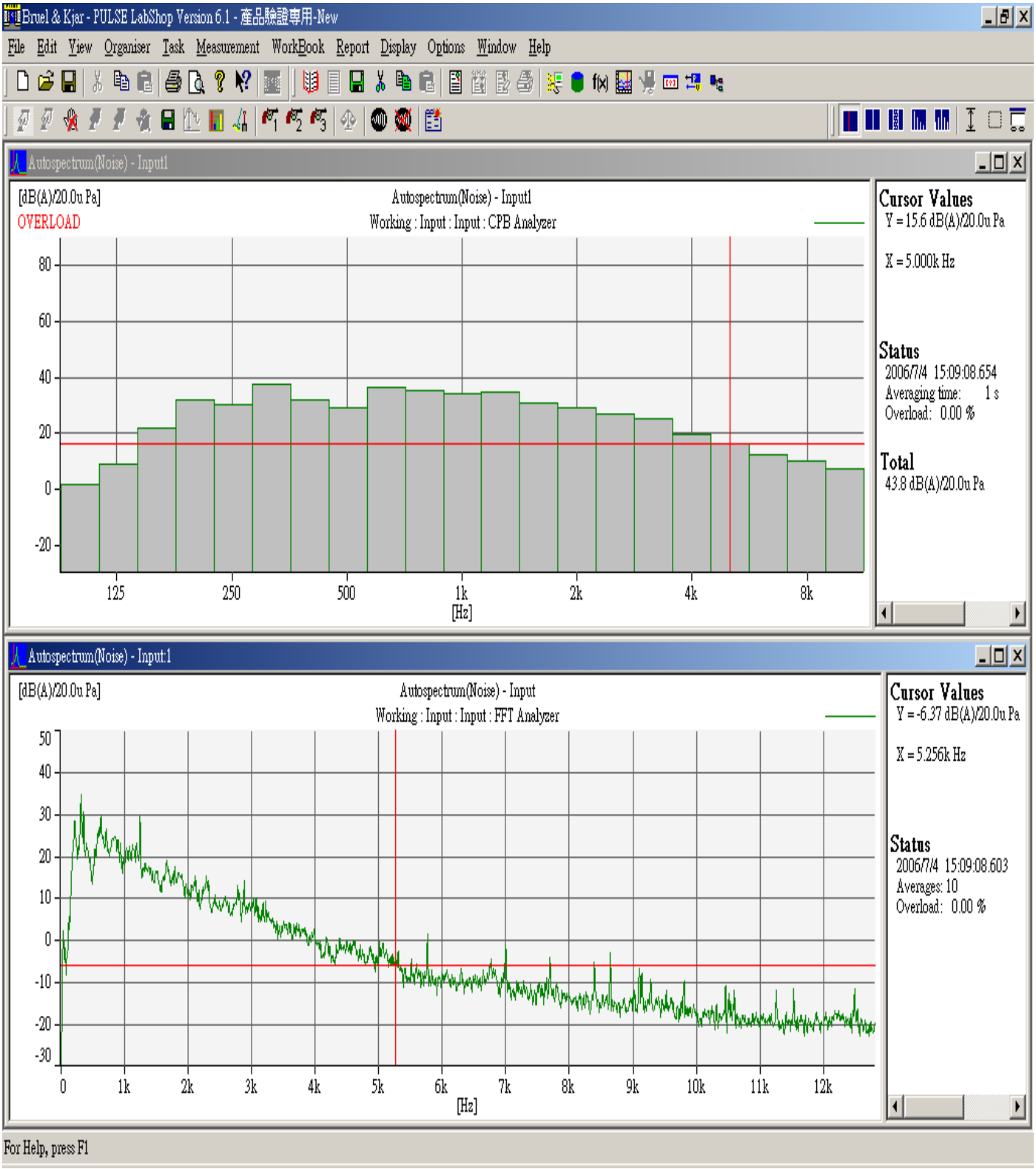

Fig. 6 – Acoustic Diagram (50%Loading)

11. Appendix C – Acoustic Diagram (80%Loading)

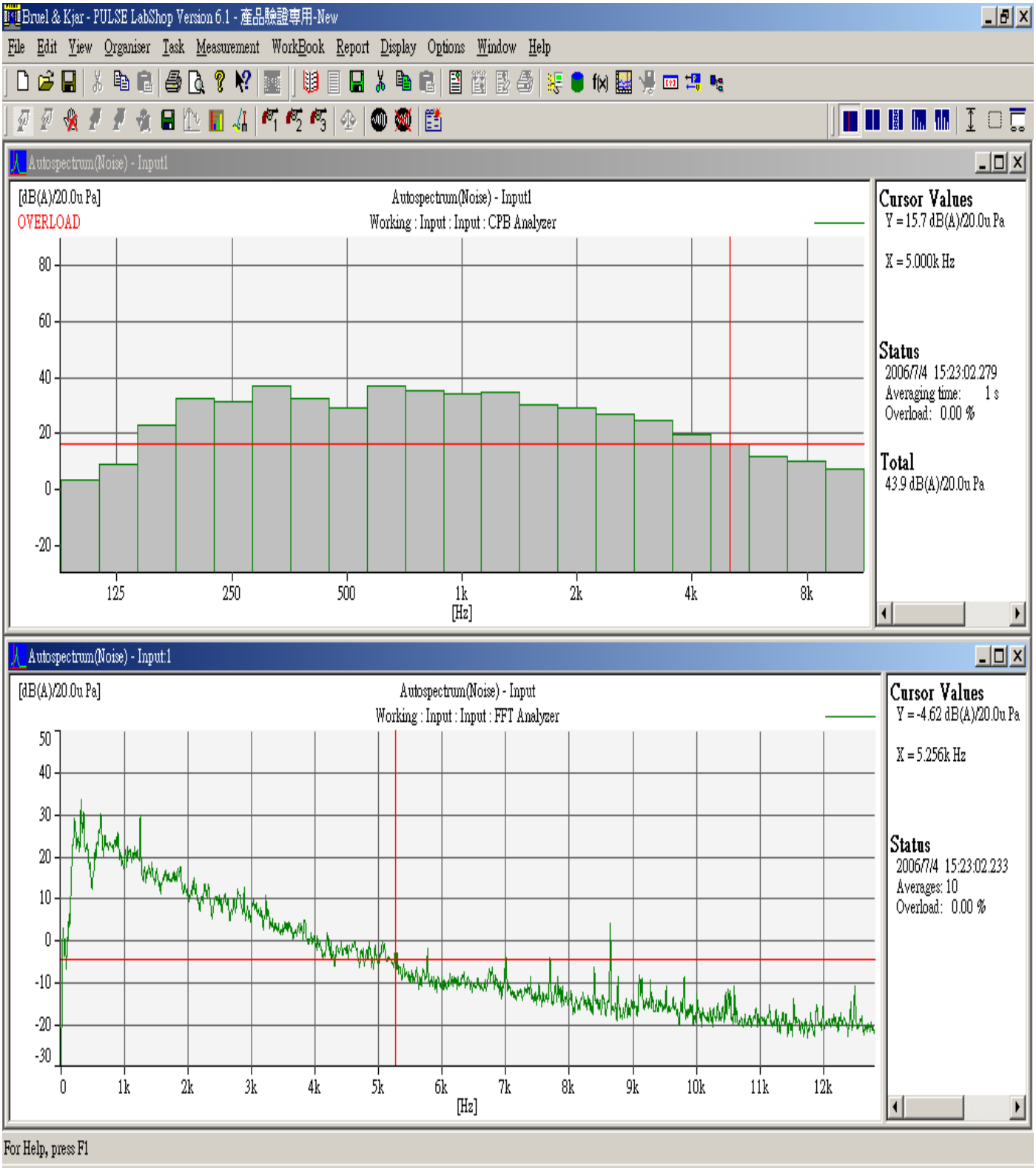

Fig. 7 – Acoustic Diagram (80%Loading)

11. Appendix D – Acoustic Diagram (100%Loading)

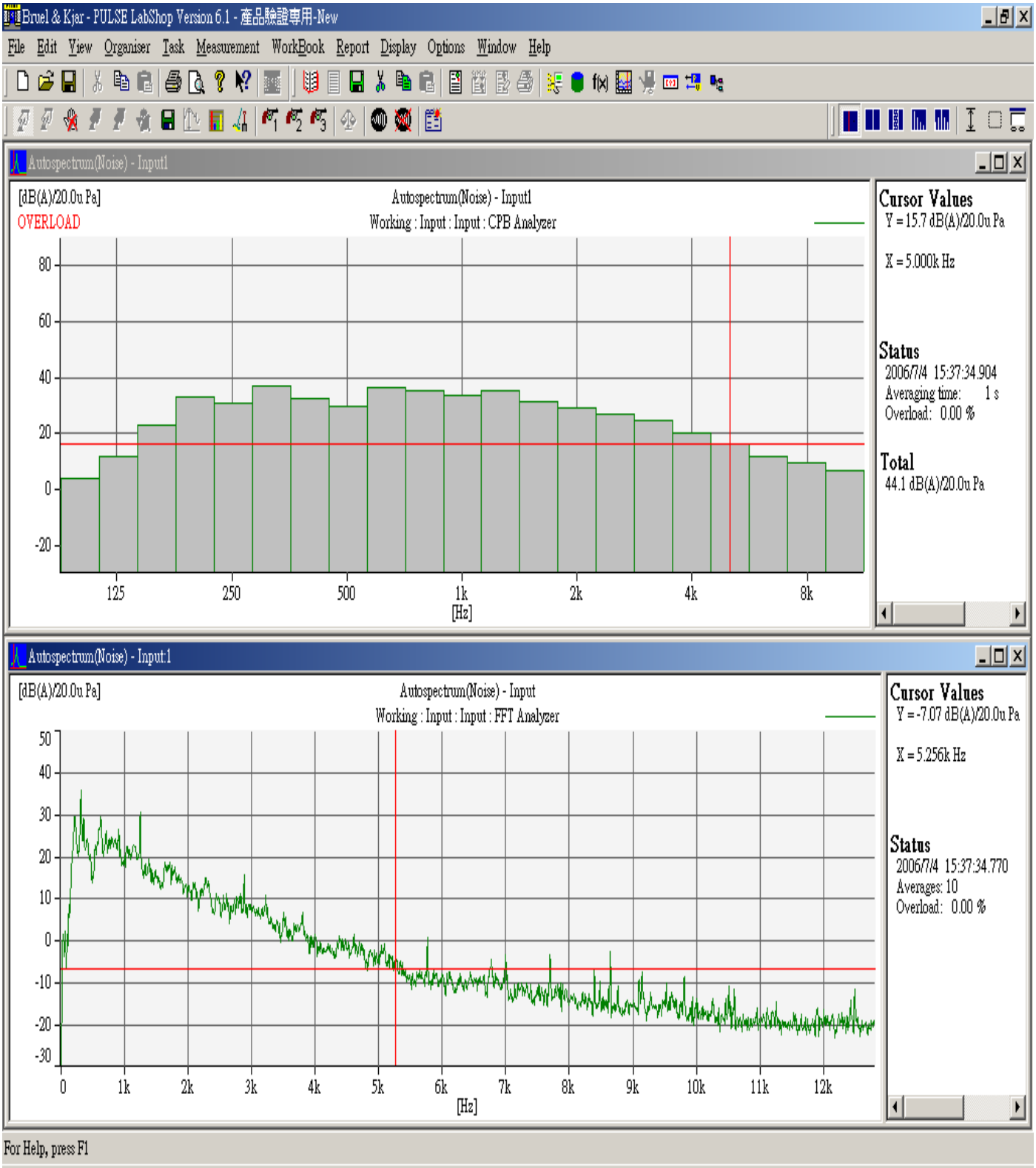

Fig. 8 – Acoustic Diagram (100%Loading)