

SERVICE MANUAL

M570A / M575A

notebook



Notebook Computer

M570A/M575A

Service Manual

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About this Manual

This manual is intended for service personnel who have completed sufficient training to undertake the maintenance and inspection of personal computers.

It is organized to allow you to look up basic information for servicing and/or upgrading components of the *M570A/M575A* series notebook PC.

The following information is included:

Chapter 1, Introduction, provides general information about the location of system elements and their specifications.

Chapter 2, Disassembly, provides step-by-step instructions for disassembling parts and subsystems and how to upgrade elements of the system.

Appendix A, Part Lists

Appendix B, Schematic Diagrams

IMPORTANT SAFETY INSTRUCTIONS

Follow basic safety precautions, including those listed below, to reduce the risk of fire, electric shock and injury to persons when using any electrical equipment:

1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. This product is intended to be supplied by a Listed Power Unit (DC Output 20V, 6.0A minimum AC/DC Adapter,

CAUTION

Always disconnect all telephone lines from the wall outlet before servicing or disassembling this equipment.

**TO REDUCE THE RISK OF FIRE, USE ONLY NO. 26 AWG OR LARGER,
TELECOMMUNICATION LINE CORD**

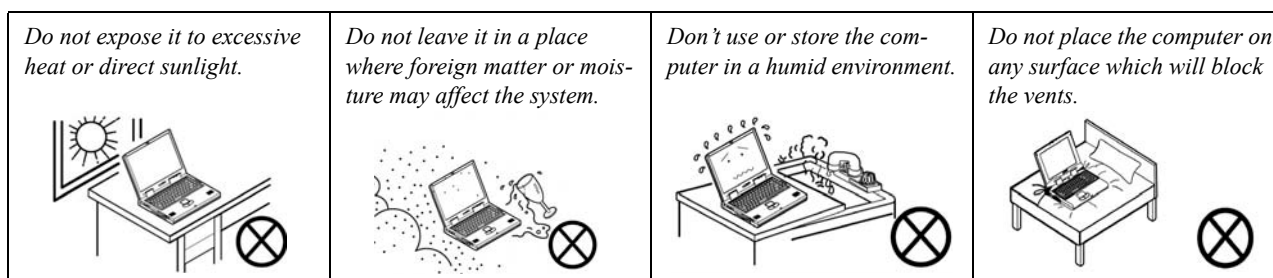
Instructions for Care and Operation

The notebook computer is quite rugged, but it can be damaged. To prevent this, follow these suggestions:

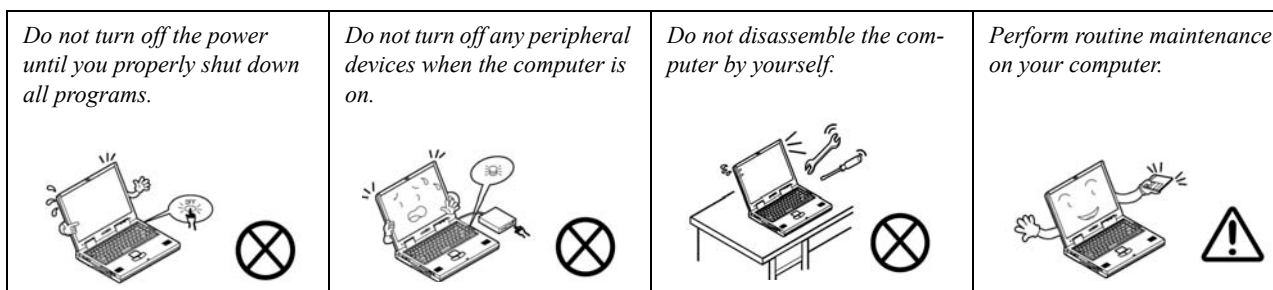
1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.



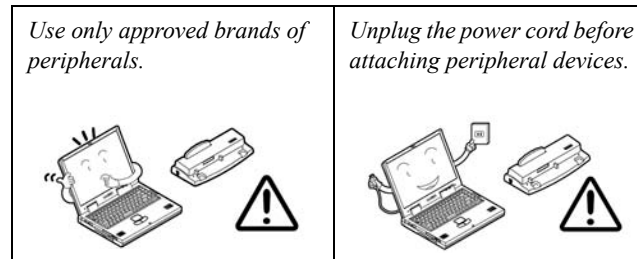
2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.



3. **Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.



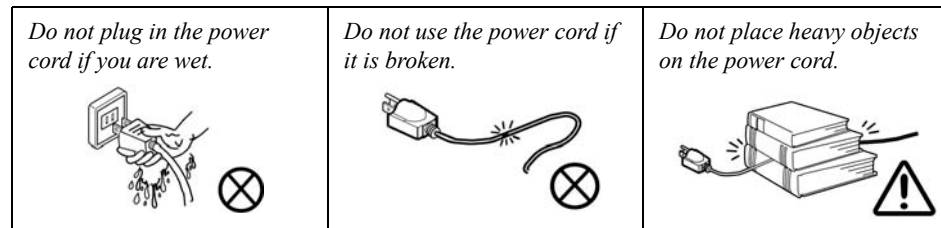
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



Power Safety

The computer has specific power requirements:

- Only use a power adapter approved for use with this computer.
- Your AC adapter may be designed for international travel but it still requires a steady, uninterrupted power supply. If you are unsure of your local power specifications, consult your service representative or local power company.
- The power adapter may have either a 2-prong or a 3-prong grounded plug. The third prong is an important safety feature; do not defeat its purpose. If you do not have access to a compatible outlet, have a qualified electrician install one.
- When you want to unplug the power cord, be sure to disconnect it by the plug head, not by its wire.
- Make sure the socket and any extension cord(s) you use can support the total current load of all the connected devices.
- Before cleaning the computer, make sure it is disconnected from any external power supplies.



Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not continue to use a battery that has been dropped, or that appears damaged (e.g. bent or twisted) in any way. Even if the computer continues to work with a damaged battery in place, it may cause circuit damage, which may possibly result in fire.
- Recharge the batteries using the notebook's system. Incorrect recharging may make the battery explode.
- Do not try to repair a battery pack. Refer any battery pack repair or replacement to your service representative or qualified service personnel.
- Keep children away from, and promptly dispose of a damaged battery. Always dispose of batteries carefully. Batteries may explode or leak if exposed to fire, or improperly handled or discarded.
- Keep the battery away from metal appliances.
- Affix tape to the battery contacts before disposing of the battery.
- Do not touch the battery contacts with your hands or metal objects.



Battery Disposal

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Caution

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used battery according to the manufacturer's instructions.

Related Documents

You may also need to consult the following manual for additional information:

User's Manual on CD

This describes the notebook PC's features and the procedures for operating the computer and its ROM-based setup program. It also describes the installation and operation of the utility programs provided with the notebook PC.

Contents

Introduction1-1

Overview	1-1
System Specifications	1-2
Model Differences	1-5
External Locator - Top View with LCD Panel Open	1-6
External Locator - Front (Audio "DJ")& Rear Views	1-7
External Locator - Left Side & Right Side View	1-8
External Locator - Bottom View	1-9
M570A/M575A Mainboard Overview - Top (Key Parts)	1-10
M570A/M575A Mainboard Overview - Bottom (Key Parts)	1-11
M570A/M575A Mainboard Overview - Top (Connectors)	1-12
M570A/M575A Mainboard Overview - Bottom (Connectors)	1-13

Disassembly2-1

Overview	2-1
Maintenance Tools	2-2
Connections	2-2
Maintenance Precautions	2-3
Disassembly Steps	2-4
Removing the Battery	2-5
Removing the Hard Disk Drive	2-6
Removing the System Memory (RAM)	2-7
Removing the Wireless LAN Module	2-8
Removing the Bluetooth Module	2-9
Removing the TV Tuner Card	2-10
Removing the Optical (CD/DVD) Device	2-11
Removing the Processor	2-12
Removing the VGA Card	2-14
Removing the Keyboard	2-15

Part ListsA-1

Part List Illustration Location	A-2
Top (M570A/M575A)	A-3
Bottom (M570A/M575A)	A-4
LCD (M570A/M575A)	A-5
Combo Drive (M570A/M575A)	A-6
DVD Drive (M570A/M575A)	A-7
DVD-RW Drive (M570A/M575A)	A-8
HDD (M570A/M575A)	A-9
Second-HDD (M570A/M575A)	A-10

Schematic Diagrams.....B-1

System Block Diagram	B-2
CLOCK GENERATOR	B-3
CPU-1	B-4
CPU-2	B-5
Alviso-1	B-6
Alviso-2	B-7
Alviso-3	B-8
DIMM A	B-9
DIMM B	B-10
VGA CARD CONNECTOR	B-11
ICH6M-1	B-12
ICH6M-2	B-13
ICH6M-3	B-14
USB & CCD CONN	B-15
CARD BUS & 1394-1	B-16
CARD BUS &1394-2	B-17
MINIPCI	B-18
REALTEK GIGA LAN	B-19
PCIE GIGA LAN	B-20
AC97	B-21

Preface


AUDIO-DJ	B-22
Azalia Codec & AMP	B-23
Pre Amp AP8202	B-24
SIO FWH IR & CIR	B-25
H8	B-26
VCORE	B-27
+1.05VS, +2.5VS	B-28
+1.8V, 0.9, +1.5V	B-29
+VDD3, +VDD5, +VDD12	B-30
CHARGER, DC IN	B-31
BUTTON BOARD	B-32
CARD READER BOARD	B-33
USB BOARD M560A	B-34
USB BOARD M570A	B-35
COM PORT BOARD	B-36
AUDIO DJ BOARD	B-37
CLICK BOARD	B-38
PATA HDD BOARD	B-39
SATA HDD BOARD	B-40
SECOND HDD BOARD	B-41

1: Introduction

Overview

This manual covers the information you need to service or upgrade the *M570A/M575A* series notebook computer. Information about operating the computer (e.g. getting started, and the *Setup* utility) is in the *User's Manual*. Information about drivers (e.g. VGA & audio) is also found in *User's Manual*. That manual is shipped with the computer.


Operating systems (e.g. *Windows XP*) have their own manuals as do application software (e.g. word processing and database programs). If you have questions about those programs, you should consult those manuals.

The *M570A/M575A* series notebook is designed to be upgradeable. See *“Disassembly” on page 2 - 1* for a detailed description of the upgrade procedures for each specific component. Please note the warning and safety information indicated by the “” symbol.

The balance of this chapter reviews the computer's technical specifications and features.

System Specifications

Feature	Specification
Processor	Intel Pentium® M Processor (478-pin) Micro-FC-PGA Package Models 730/ 740/ 750/ 760/ 770/ 780 (μ0.09) 0.09 Micron Process Technology 2MB On-die L2 Cache & 533MHz FSB 1.6/ 1.73/ 1.86/ 2/ 2.13/ 2.26 GHz
Core Logic	Intel 915PM + ICH6-M
Memory	Two 200 Pin SO-DIMM Sockets Supporting DDRII (DDR2) With Speeds Up To 533 MHz Memory Expandable up to 2GB (256/ 512/ 1024 MB DDRII Modules) (Note: Do Not Use Other Module Types)
Security	Security (Kensington® Type) Lock Slot BIOS Password
BIOS	One 4MB Flash ROM Phoenix™ BIOS, Plug and Play
LCD	17.0" WXGA (1440*900) Flat Panel TFT OR 17.0" WSXGA+ (1680*1050) Flat Panel TFT OR 17.0" WUXGA (1920*1200) Glare Type Flat Panel TFT

Feature	Specification
Video Card Options	<p>ATI Mobility Radeon X700 (M26) PCI Express Video Card 128MB DDR Video RAM On Board 256-bit Video Memory Interface PCI Express * 16 Fully Supports DirectX® 9.0</p> <p>ATI Mobility Radeon X800 XT (M28 PRO) PCI Express Video Card 256MB DDR-III (DDR3) Video RAM On Board 256-bit Video Memory Interface PCI Express * 16 Fully Supports DirectX® 9 HDTV Output Support</p> <p>NVIDIA GeForce Go 7800 GTX (G70M) PCI Express Video Card 256MB DDR-III (DDR3) Video RAM On Board 256 bit Memory Interface PCI Express * 16 Fully Supports DirectX® 9.0C HDTV Output Support</p>
Storage	<p>One Changeable 12.7mm(h) Optical Device (CD/DVD) Type Drive in Removable Bay</p> <p>One Removable Bay for 2nd Battery or 2nd PATA Hard Disk Drive or Optical Disk Drive</p> <p>Easy Changeable 2.5" 9.5 mm (h) Hard Disk Drive Supporting ATA 100/ 66/ 33 or SATA 150 The System Supports both PATA (Parallel) and SATA (Serial) Interfaces</p>
Audio	<p>7.1 Channel High Definition Audio Chipset (AZALIA) with UAA (Universal Audio Architecture) EAX™ 1.0 & 2.0 Compatible Direct Sound 3D™ Compatible A3D™ Compatible 16/ 20/ 24-bit S/PDIF-Out Supporting 44.1KHz/ 48KHz/ 96KHz Sample Rate 2 * Built-In Hi-Fi Speakers Built-In Standalone Audio "DJ" CD Player (Supports MP3 Formats) S/PDIF Digital Output (7.1CH)</p> <p> SRS WOW Surround Sound (SRS/ TruSurround/ TruBass / Focus Enhancement)</p>

Introduction

Feature	Specification
Interface & Communication	<p>Four USB 2.0 Ports One Mini-IEEE 1394 Port One DVI-Out Port One Microphone-In Jack One Line-In Jack One Headphone-Out Jack One S/PDIF Output Jack One Serial Port One S-Video-Out Jack</p> <p>300K Pixel PC Video Camera Module with USB Interface (Factory Option) OR 1.3M Pixel PC Video Camera Module with USB Interface (Factory Option)</p> <p>Bluetooth 1.2 Module with USB Interface (Optional)</p> <p>Wireless Network Options Intel PRO/Wireless 2915ABG (802.11a/b/g) (Optional)</p> <p>One RJ-11 Jack for Plug & Play Fax/Modem AZALIA 56K Plug & Play Fax/Modem V.90/92 Compliant</p> <p>One RJ-45 Jack (Local Area Network) 10MB/100MB/1Gbit PCI-Express Fast Ethernet On Board</p> <p>One Infrared Transceiver IrDA 1.1 Compliant (IrDA 1.1/ FIR/ SIR/ ASKIR) Infrared Transfer 1cm ~ 30 cm Operating Distance 115.2K bps SIR 4M bps FIR</p> <p>One CATV-In Jack (Functions with Optional TV Tuner Module) One Consumer Infrared (CIR) Transceiver for TV Remote (Functions with Optional TV Tuner Module)</p>
Card Reader	Built-In 4-in-1 Card Reader (MS/ MS PRO/ SD/ MMC)
Keyboard & Pointing Device	Winkey Keyboard Built-In TouchPad with Scrolling Function
PCMCIA	One Type-II PCMCIA CardBus PC Card Slot
Power Management	Supports ACPI 2.0 Supports Hibernate Mode Supports Standby
Power	Full Range AC/DC Adapter 20V, 6.0A (120 Watts), 100~240V, 47~63Hz 8 Cell Smart Lithium-Ion Battery Pack, 4.4AH (for ATI X700 + ATI X800 + NVIDIA 7800 GTX) 2 nd Optional Battery - 6 Cell Smart Lithium-Ion Battery Pack, 3.8AH (for ATI X700 + ATI X800)
Environmental Spec	<p>Temperature Operating: 5°C ~ 35°C Non-Operating: -20°C ~ 60°C</p> <p>Relative Humidity Operating: 20% ~ 80% Non-Operating: 10% ~ 90%</p>

1 - 4 System Specifications

Feature	Specification	
Physical Dimensions & Weight	397mm (w) * 294mm (d) * 22 - 44mm (h) 3.7 kg With 8 Cell Battery & Optical Device	
Optional	Optical Drive Module Options: DVD/CD-RW Combo Drive Module DVD-Dual Drive Module 8 Cell Smart Lithium-Ion Battery Pack, 4.4AH 300K Pixel PC Video Camera Module with USB Interface (Factory Option) OR 1.3M Pixel PC Video Camera Module with USB Interface (Factory Option) Wireless Network Options Intel PRO/Wireless 2915ABG (802.11a/b/g) (Optional)	Bluetooth 1.2 Module with USB Interface USB Floppy Disk Drive 2 nd Battery - 6 Cell Smart Lithium-Ion Battery Pack, 3.8AH 2 nd PATA Hard Disk Drive Mini-PCI Hybrid TV Tuner Card Mini-PCI MCE TV Tuner Card (Hardware Decoder)

Model Differences

The models vary slightly in external cover design and color.



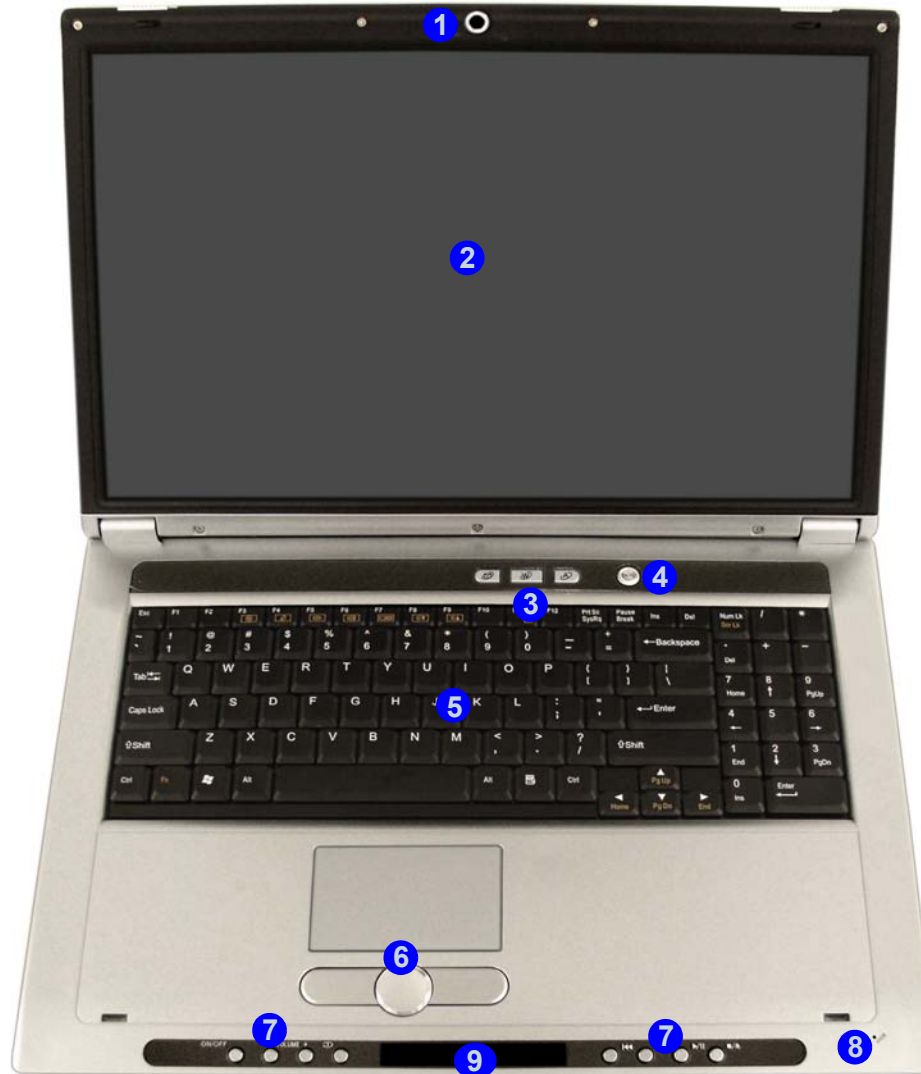
Figure 1
Model difference

Introduction

External Locator - Top View with LCD Panel Open

Figure 2
Top View

1. Optional Built-In PC Camera
2. LCD
3. Ap-Key Buttons
4. Power Button
5. Keyboard
6. TouchPad and Buttons
7. Audio "DJ" Controls
8. Built-In Microphone
9. Audio "DJ" LED Display Panel (Including LED Indicators)



Audio "DJ" & Power Button

Make sure that the Audio "DJ" player is off before pressing the power button to turn the computer on.

External Locator - Front (Audio "DJ")& Rear Views



Figure 3
Front Views

1. Audio "DJ" Power Button
2. Volume Down
3. Volume Up
4. Repeat
5. LED Display
6. Previous Track
7. Next Track
8. Play/Pause
9. Stop (Press Twice To Eject The CD/DVD)
10. Repeat Mode Indicator
11. Track Indicator
12. Time Indicator
13. Disc Indicator



Figure 4
Rear Views

1. Vent/Fan Intake/Outlet
2. S/PDIF-Out Jack
3. Line-In Jack
4. 2 * USB 2.0 Ports
5. DVI-Out Port
6. TV-In Jack (Enabled With TV Tuner Only)
7. RJ-11 Phone Jack
8. RJ-45 LAN Jack
9. S-Video-Out Jack
10. DC-In Jack
11. Serial Port

Introduction

External Locator - Left Side & Right Side View

Figure 5
Left Side View

1. Headphone-Out Jack
2. Microphone-In Jack
3. 4-in-1 Card Reader
4. PC Card Slot
5. Mini-IEEE 1394a Port
6. 2 * USB 2.0 Ports
7. Speaker



Figure 6
Right Side View

1. Security Lock Slot
2. Speaker
3. Optional Device Drive Bay



External Locator - Bottom View

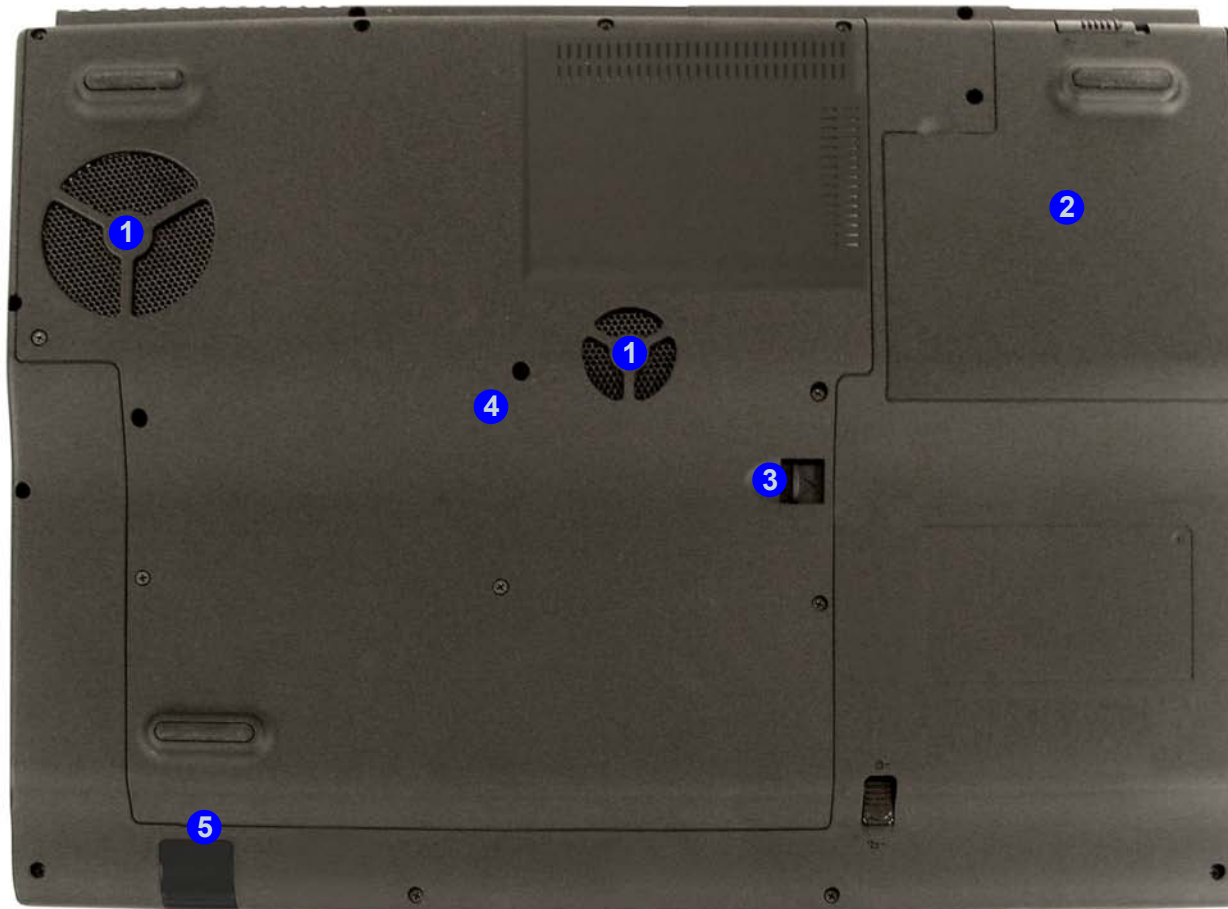


Figure 7
Bottom View

1. Vent/Fan Intake/Outlet
2. Battery
3. Optical Device Release Latches
4. Component bay Cover
5. Infrared & Consumer Infrared Transceiver



Overheating

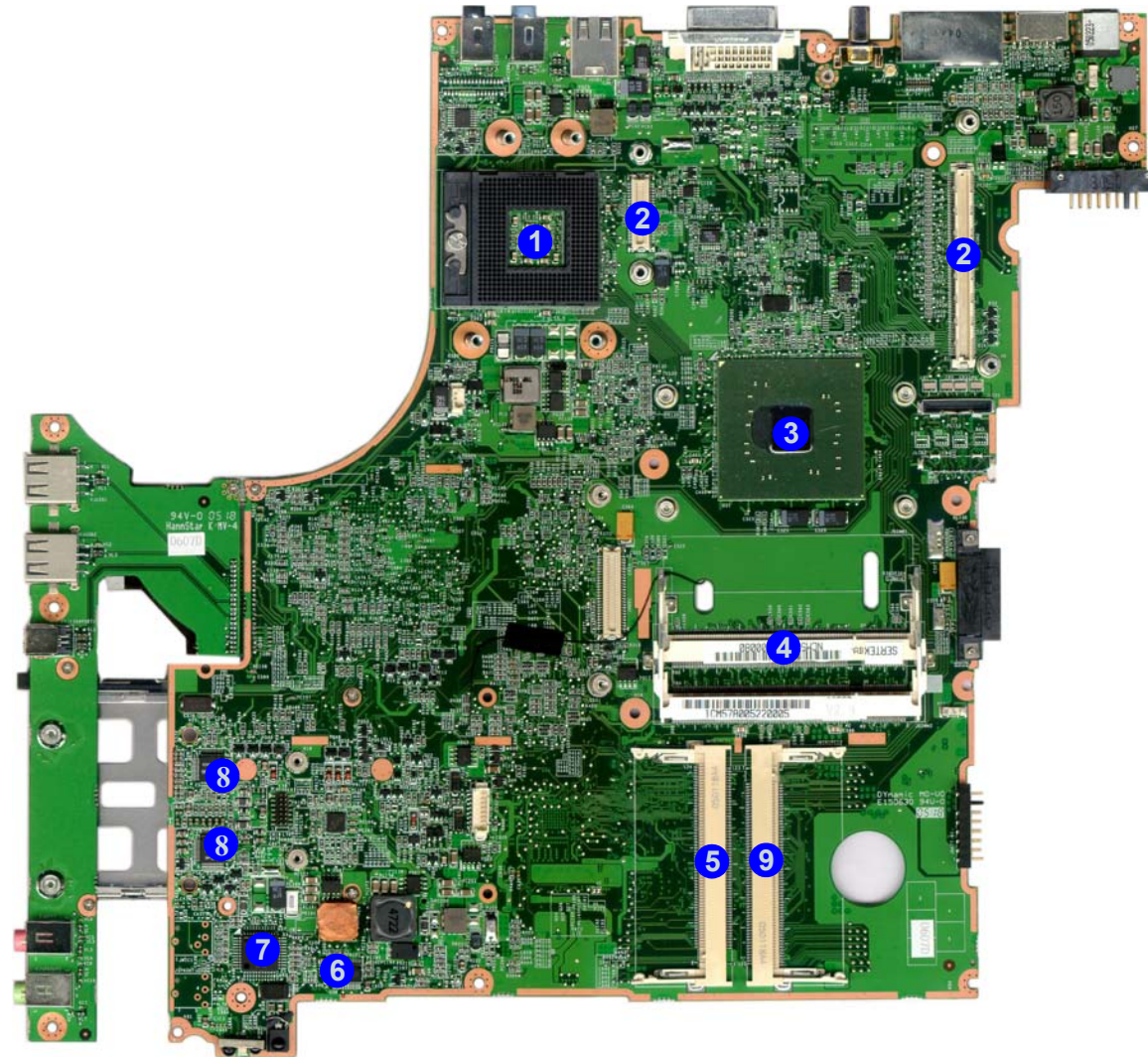
To prevent your computer from overheating make sure nothing blocks the vent/fan intakes while the computer is in use.

Introduction

Figure 8
**Mainboard Top
Key Parts**

1. CPU Socket (no CPU installed)
2. VGA Sockets
3. Northbridge-Intel 915PM
4. Memory Slots
DDR2 So-DIMM
5. Mini-PCI Socket
(Wireless Lan Module)
6. Audion Amp.
7. ASP WOW
8. Audio Codec
9. TV tuner Socket

M570A/M575A Mainboard Overview - Top (Key Parts)



M570A/M575A Mainboard Overview - Bottom (Key Parts)

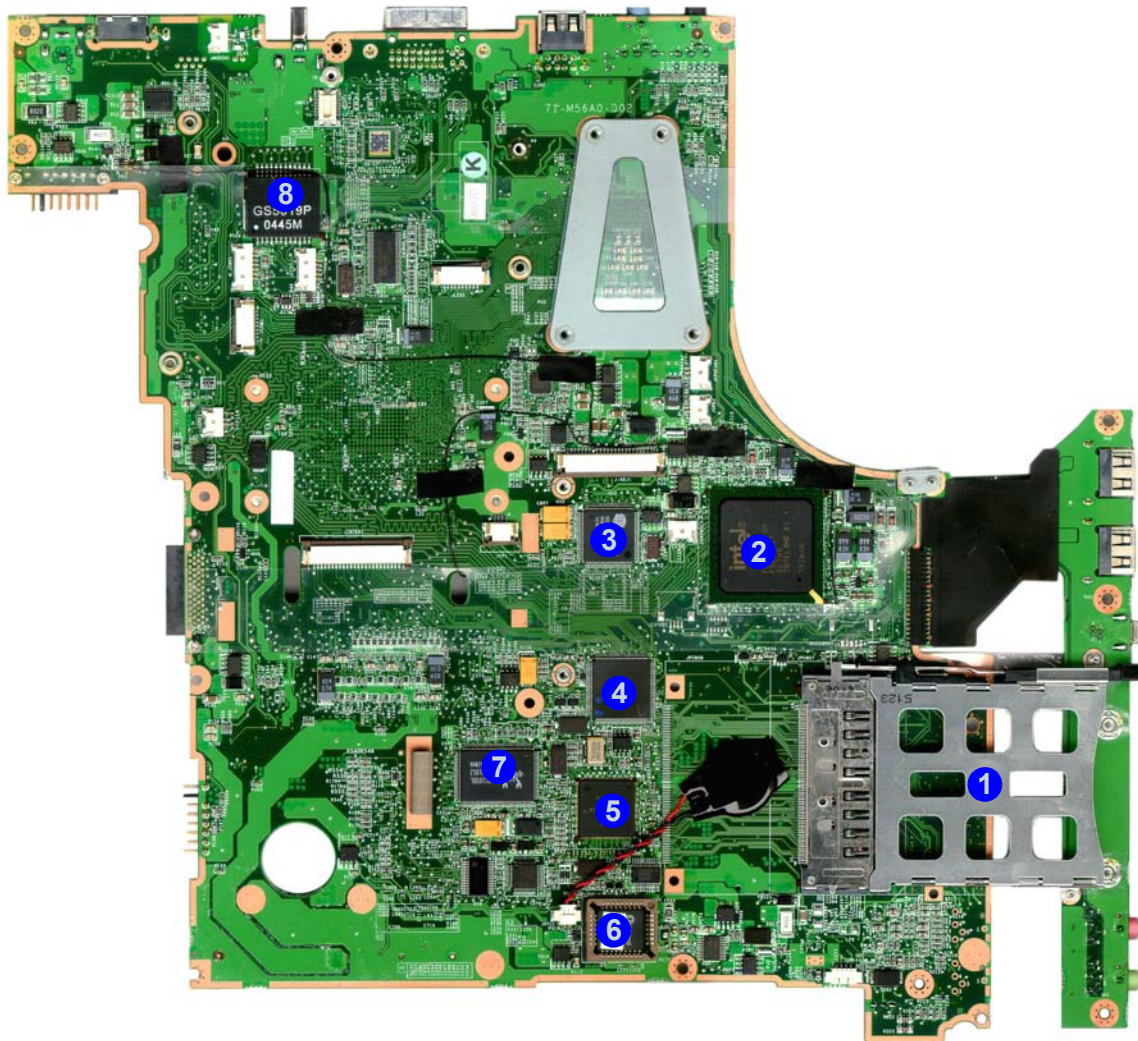


Figure 9
**Mainboard Bottom
Key Parts**

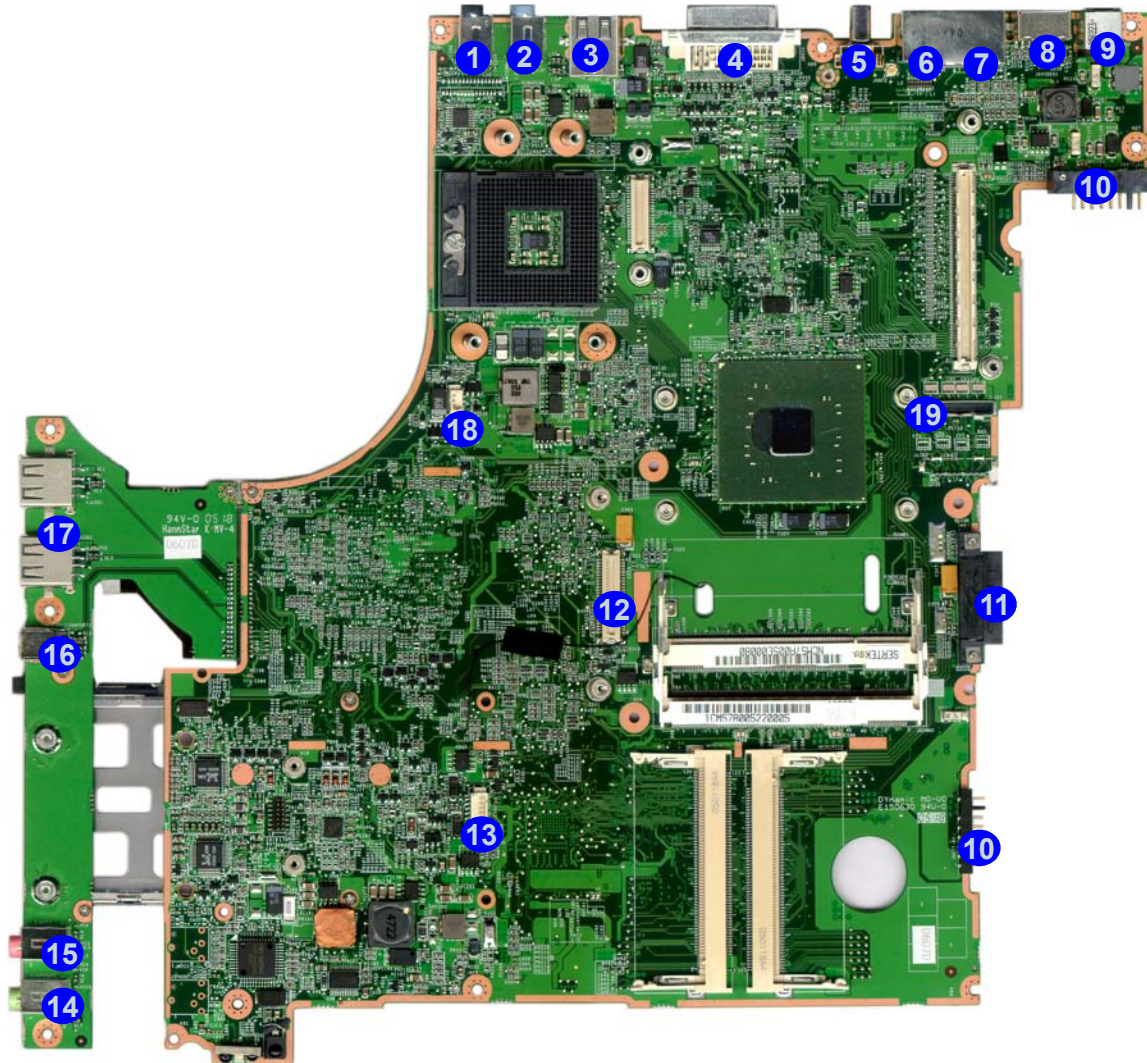
1. PC Card Assembly
2. Southbridge-Intel ICH6-M
3. Bluebird VLT
4. H85/211
5. Ultra Media
6. Flash BIOS ROM
7. RTL8110
8. GS5019P

Introduction

Figure 10
**Mainboard Top
Connectors**

1. S/PDIF-Out Jack
2. Line-In Jack
3. USB Port
4. DVI-Port
5. TV-In Jack
6. RJ-11 Jack
7. RJ-45 Jack
8. S-Video Jack
9. DC-In Jack
10. Battery
Connectors
11. CD Connector
12. HDD Connector
13. Bluetooth
Connector
14. Headphone-Out
Jack
15. Microphone-In
Jack
16. Mini-IEEE 1394a
Port
17. USB Ports
18. System Fan
Connector
19. LCD Connector

M570A/M575A Mainboard Overview - Top (Connectors)



M570A/M575A Mainboard Overview - Bottom (Connectors)

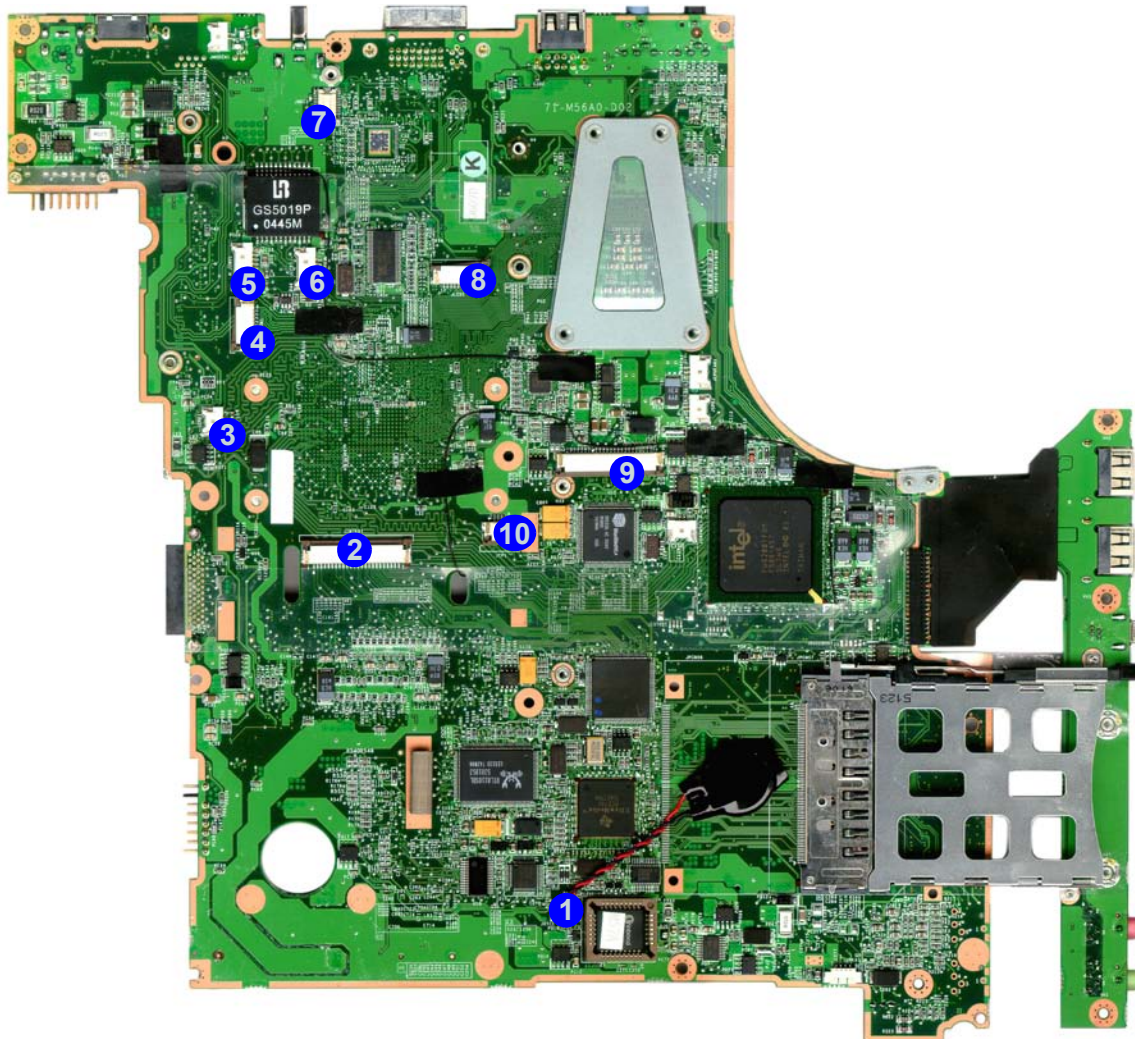


Figure 11
**Mainboard Bottom
Connectors**

1. CMOS Bat. Connector
2. Keyboard Connector
3. Speaker-1 Connector
4. Com Connector
5. Inverter Board Connector
6. CCD Connector
7. Modem Module Connector
8. LED Connector
9. ADJ Connector
10. Touch Pad Connector


2: Disassembly



Overview

This chapter provides step-by-step instructions for disassembling the *M570A/M575A* series notebook's parts and sub-systems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

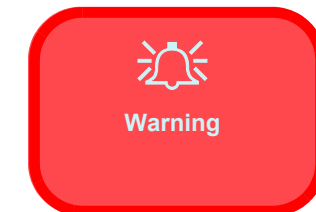
We suggest you completely review any procedure before you take the computer apart.

Procedures such as upgrading/replacing the RAM, CD device and hard disk are included in the User's Manual but are repeated here for your convenience.

To make the disassembly process easier each section may have a box in the page margin. Information contained under the figure # will give a synopsis of the sequence of procedures involved in the disassembly procedure. A box with a  lists the relevant parts you will have after the disassembly process is complete. **Note:** The parts listed will be for the disassembly procedure listed ONLY, and not any previous disassembly step(s) required. Refer to the part list for the previous disassembly procedure. The amount of screws you should be left with will be listed here also.

A box with a  will also provide any possible helpful information. A box with a  contains warnings.

An example of these types of boxes are shown in the sidebar.



Disassembly

NOTE: All disassembly procedures assume that the system is turned **OFF**, and disconnected from any power supply (the battery is removed too).

Maintenance Tools

The following tools are recommended when working on the notebook PC:

- M3 Philips-head screwdriver
- M2.5 Philips-head screwdriver (magnetized)
- M2 Philips-head screwdriver
- Small flat-head screwdriver
- Pair of needle-nose pliers
- Anti-static wrist-strap

Connections

Connections within the computer are one of four types:

Locking collar sockets for ribbon connectors	To release these connectors, use a small flat-head screwdriver to gently pry the locking collar away from its base. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Pressure sockets for multi-wire connectors	To release this connector type, grasp it at its head and gently rock it from side to side as you pull it out. Do not pull on the wires themselves. When replacing the connection, do not try to force it. The socket only fits one way.
Pressure sockets for ribbon connectors	To release these connectors, use a small pair of needle-nose pliers to gently lift the connector away from its socket. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Board-to-board or multi-pin sockets	To separate the boards, gently rock them from side to side as you pull them apart. If the connection is very tight, use a small flat-head screwdriver - use just enough force to start.

Maintenance Precautions

The following precautions are a reminder. To avoid personal injury or damage to the computer while performing a removal and/or replacement job, take the following precautions:

1. **Don't drop it.** Perform your repairs and/or upgrades on a stable surface. If the computer falls, the case and other components could be damaged.
2. **Don't overheat it.** Note the proximity of any heating elements. Keep the computer out of direct sunlight.
3. **Avoid interference.** Note the proximity of any high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage components and/or data. You should also monitor the position of magnetized tools (i.e. screwdrivers).
4. **Keep it dry.** This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.
5. **Be careful with power.** Avoid accidental shocks, discharges or explosions.
 - Before removing or servicing any part from the computer, turn the computer off and detach any power supplies.
 - When you want to unplug the power cord or any cable/wire, be sure to disconnect it by the plug head. Do not pull on the wire.
6. **Peripherals** – Turn off and detach any peripherals.
7. **Beware of static discharge.** ICs, such as the CPU and main support chips, are vulnerable to static electricity. Before handling any part in the computer, discharge any static electricity inside the computer. When handling a printed circuit board, do not use gloves or other materials which allow static electricity buildup. We suggest that you use an anti-static wrist strap instead.
8. **Beware of corrosion.** As you perform your job, avoid touching any connector leads. Even the cleanest hands produce oils which can attract corrosive elements.
9. **Keep your work environment clean.** Tobacco smoke, dust or other air-borne particulate matter is often attracted to charged surfaces, reducing performance.
10. **Keep track of the components.** When removing or replacing any part, be careful not to leave small parts, such as screws, loose inside the computer.

Cleaning

Do not apply cleaner directly to the computer, use a soft clean cloth.

Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.



Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Disassembly Steps

The following table lists the disassembly steps, and on which page to find the related information. **PLEASE PERFORM THE DISASSEMBLY STEPS IN THE ORDER INDICATED.**

To remove the Battery:

1. Remove the battery [page 2 - 5](#)

To remove the HDD:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)

To remove the System Memory:

1. Remove the battery [page 2 - 5](#)
2. Remove the system memory [page 2 - 7](#)

To remove the Wireless LAN Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the Wireless LAN [page 2 - 8](#)

To remove the Bluetooth Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the Bluetooth Module [page 2 - 9](#)

To remove the TV Tuner Card:

1. Remove the battery [page 2 - 5](#)
2. Remove the TV Tuner Card [page 2 - 10](#)

To remove the Optical Device:

1. Remove the battery [page 2 - 5](#)
2. Remove the Optical device [page 2 - 11](#)

To remove the Processor:

1. Remove the battery [page 2 - 5](#)
2. Remove the processor [page 2 - 12](#)

To remove the VGA Card:

1. Remove the battery [page 2 - 5](#)
2. Remove the VGA Card [page 2 - 14](#)

To remove the Keyboard:

1. Remove the battery [page 2 - 5](#)
2. Remove the keyboard [page 2 - 15](#)

Removing the Battery

1. Turn the computer off, and turn it over.
2. Slide the latch ① in the direction of the arrow, and hold it in place.
3. Lift the battery out at point ②, in the direction of the arrow ③.
4. Lift the battery out ④ (Figure c) up and out off the computer..

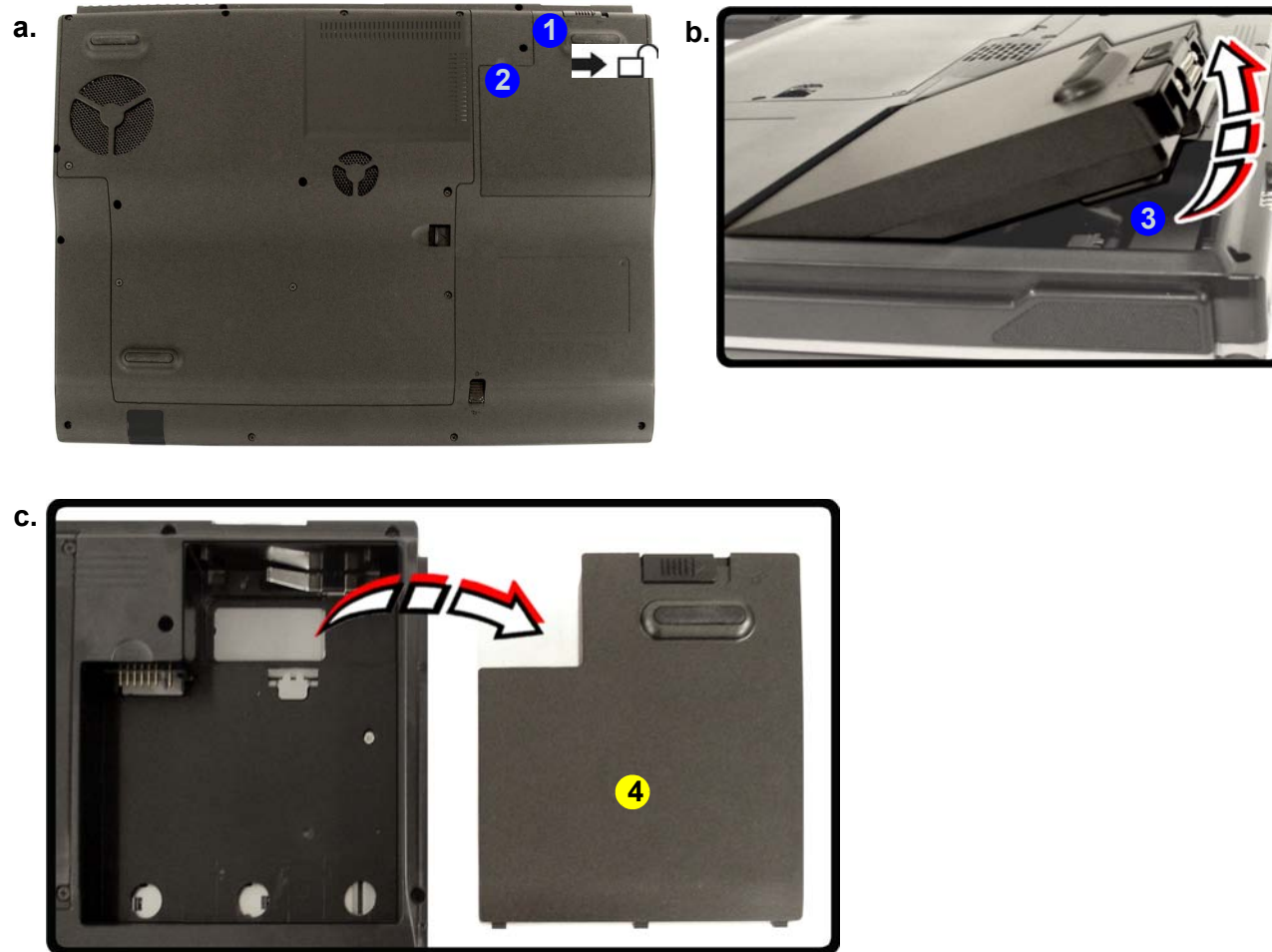
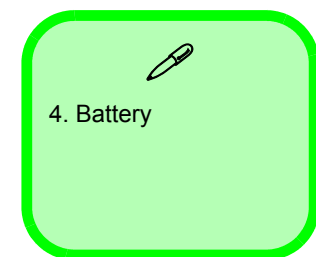


Figure 1
Battery Removal

- a. Slide the latch and hold in place.
- b. Lift the battery in the direction of the arrow.
- c. Lift the battery out.



Disassembly

Figure 2
HDD Assembly Removal

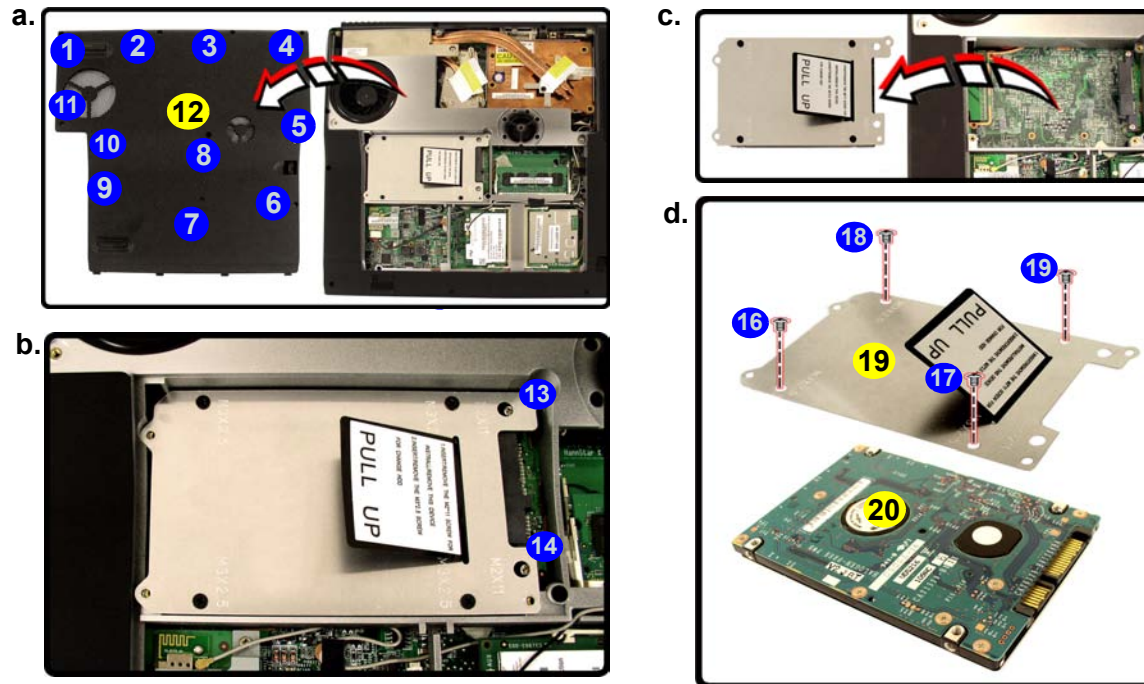
- Remove the screws and the bay cover.
- Remove the screws.
- Pull the HDD assembly out of the bay.
- Remove the screws and separate the cover and HDD.

Removing the Hard Disk Drive

The hard disk drive is mounted in a removable case and can be taken out to accommodate other 2.5" IDE hard disk drives with a height of 9.5mm (h). Follow your operating system's installation instructions, and install all necessary drivers and utilities (as outlined in **Chapter 4 of the User's Manual**) when setting up a new hard disk.

Hard Disk Upgrade Process

- Turn **off** the computer, and turn it over and remove the battery ([page 2 - 5](#)).
- Remove screws **1** - **11** and remove the component bay cover **12**.
- Remove screws **13** - **14** from the hard disk assembly.
- Pull the tab upward and lift the assembly out of the computer.
- Remove the 4 screws **15** - **18** to release the hard disk **20** from the assembly cover **19**.
- Reverse the process to install any new hard disk.



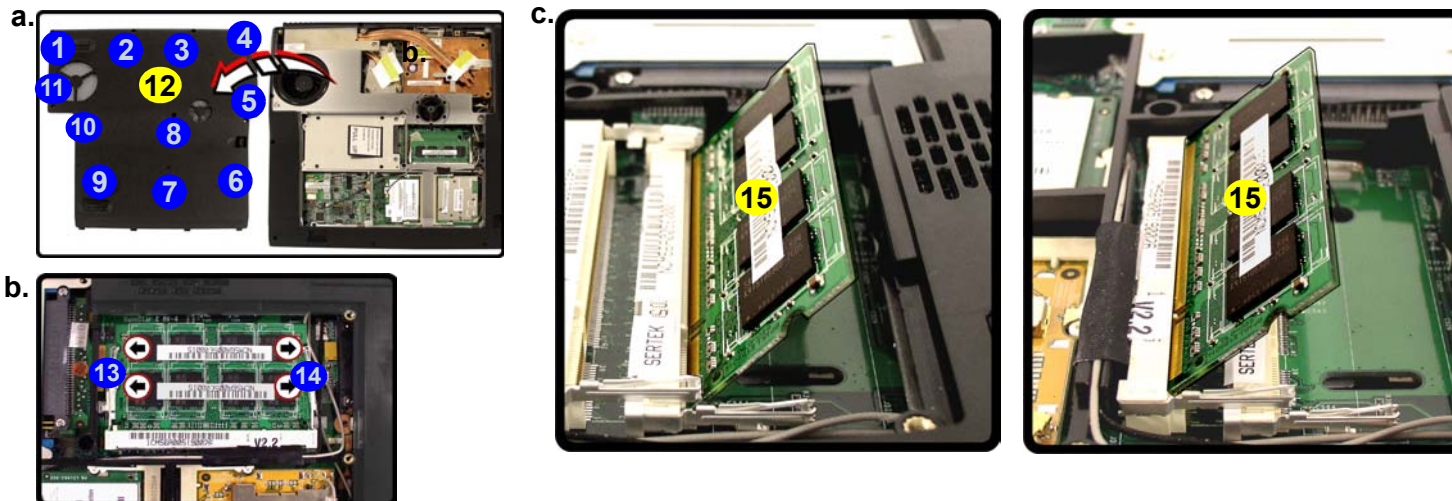
- 12. Component Bay Cover
- 19. HDD Assembly Cover
- 20. HDD
- 17 Screws

Removing the System Memory (RAM)

The computer has two memory sockets for 200 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDRII (DDR2) 533 MHz. The main memory can be expanded up to 2GB. The SO-DIMM modules supported are 256MB, 512MB and 1024MB **DDRII** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

Memory Upgrade Process

1. Turn **off** the computer, and turn it over remove the battery ([page 2 - 5](#)).
2. Remove screws **1** - **11** and remove the component bay cover **12**.
3. Gently pull the two release latches **13** - **14** on the sides of the memory socket in the direction indicated by the arrows ([Figure b](#)).



4. The RAM module **15** will pop-up ([Figure 3c](#)), and you can then remove it.
5. Pull the latches to release the second module if necessary.
6. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
7. The module will only fit one way as defined by its pin alignment. Make sure the module is seated as far into the slot as it will go. **DO NOT FORCE IT**; it should fit without much pressure.
8. Press the module down towards the mainboard until the slot levers click into place to secure the module.
9. Replace the bay cover and the screws ([Figure 3a](#)).
10. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

Figure 3
RAM Module Removal

- a. Remove the screws and the cover.
- b. Pull the release latch(es).
- c. Remove the module(s).



Contact Warning

Be careful not to touch the metal pins on the module's connecting edge. Even the cleanest hands have oils which can attract particles, and degrade the module's performance.



12. Component Bay Cover
15. RAM Module

- 11 Screws

Disassembly

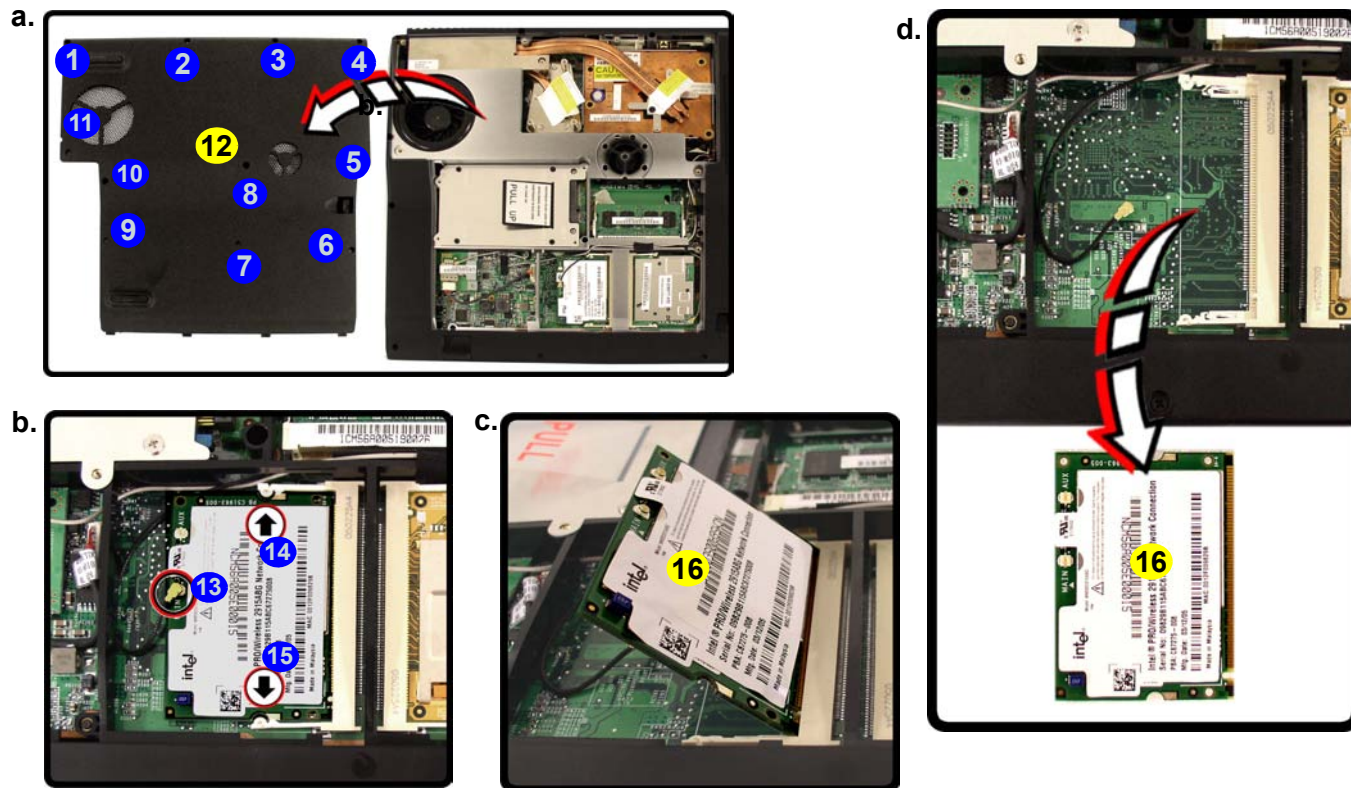
Figure 4
**Wireless LAN
 Module Removal**

- Remove the screws and the cover.
- Disconnect the cable and pull the release latches.
- The WLAN module will pop up.
- Remove the Wireless LAN module.

Note: Make sure you re-connect the antenna cable to the "Main" socket (*Figure 4b*).

Removing the Wireless LAN Module

- Turn **off** the computer, and turn it over remove the battery (*page 2 - 5*).
- Remove screws **1 - 11** and remove the component bay cover **12**.
- Carefully disconnect cable **13**, then gently pull the two release latches **14 - 15** on the sides of the module socket.
- The Wireless LAN Module **16** (*Figure c*) will pop-up, and you can remove it.



12. Component Bay Cover
 10. Wireless LAN Module

- 11 Screws

Removing the Bluetooth Module

1. Turn **off** the computer, and turn it over remove the battery ([page 2 - 5](#)).
2. Remove screws **1** - **11** and remove the component bay cover **12**.
3. Disconnect the cable **13** and carefully separate the Bluetooth Module from the connector **14**.
4. Lift the Bluetooth Module **15** ([Figure c](#)) up and off the computer.

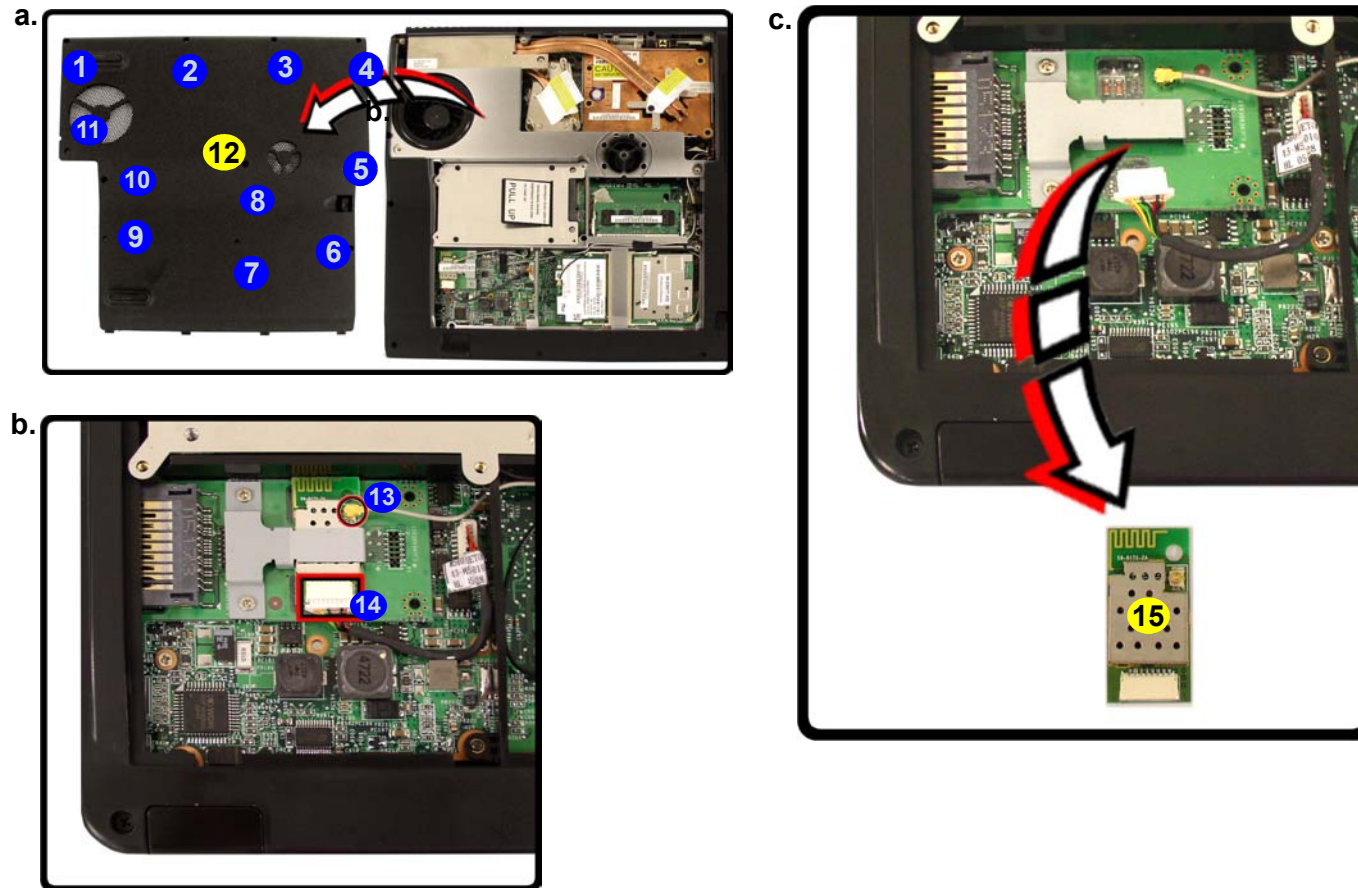



Figure 5
Bluetooth Module Removal

- a. Remove the screws and the bay cover.
- b. Disconnect the cable and the connector from the bluetooth module.
- c. Lift the bluetooth module out.



12. Component Bay Cover
15. Bluetooth Module

- 11 Screws

Disassembly

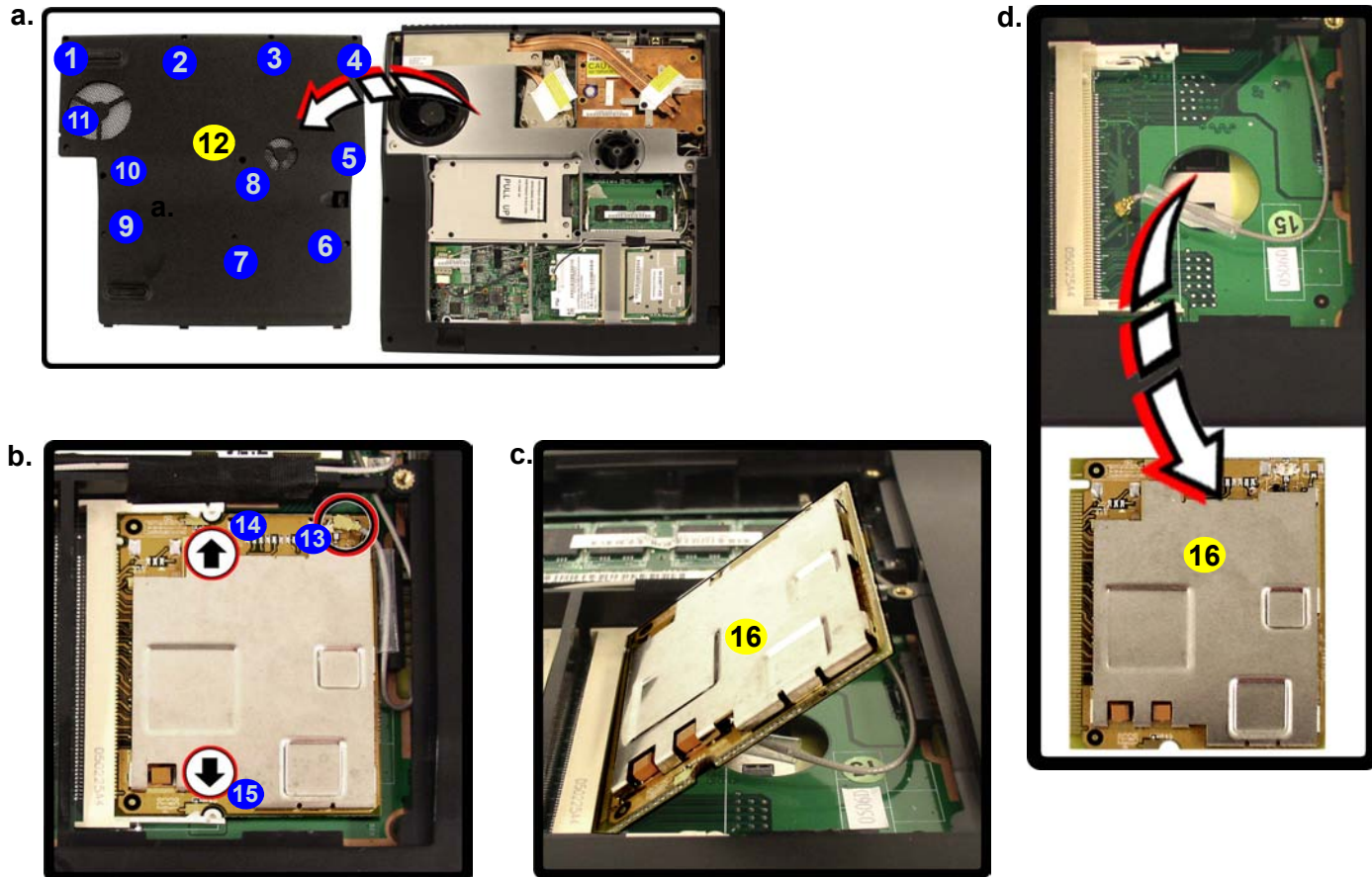
Figure 6

TV Tuner Removal

- Remove the screws and the cover.
- Disconnect the cable and pull the release latches.
- The TV Tuner card will pop up.
- Remove the TV Tuner card.

Removing the TV Tuner Card.

- Turn off the computer, and turn it over remove the battery ([page 2 - 5](#)).
- Remove screws **1** - **11** and remove the component bay cover **12**.
- Carefully disconnect cable **13**, then gently pull the two release latches **14** - **15** on the sides of the tuner socket.
- The TV Tuner card **16** ([Figure d](#)) will pop-up, and you can remove it.



12. Bluetooth Bay Cover
16. TV Tuner Card

- 11 Screws

Removing the Optical (CD/DVD) Device

1. Turn **off** the computer, and turn it over and remove the battery.
2. Slide the latch **1** in the direction of the arrow, and hold it in place.
3. Eject the optical device **3** by carefully sliding the latch **2** in the direction of the arrow.
4. Reverse the process to install the new device.

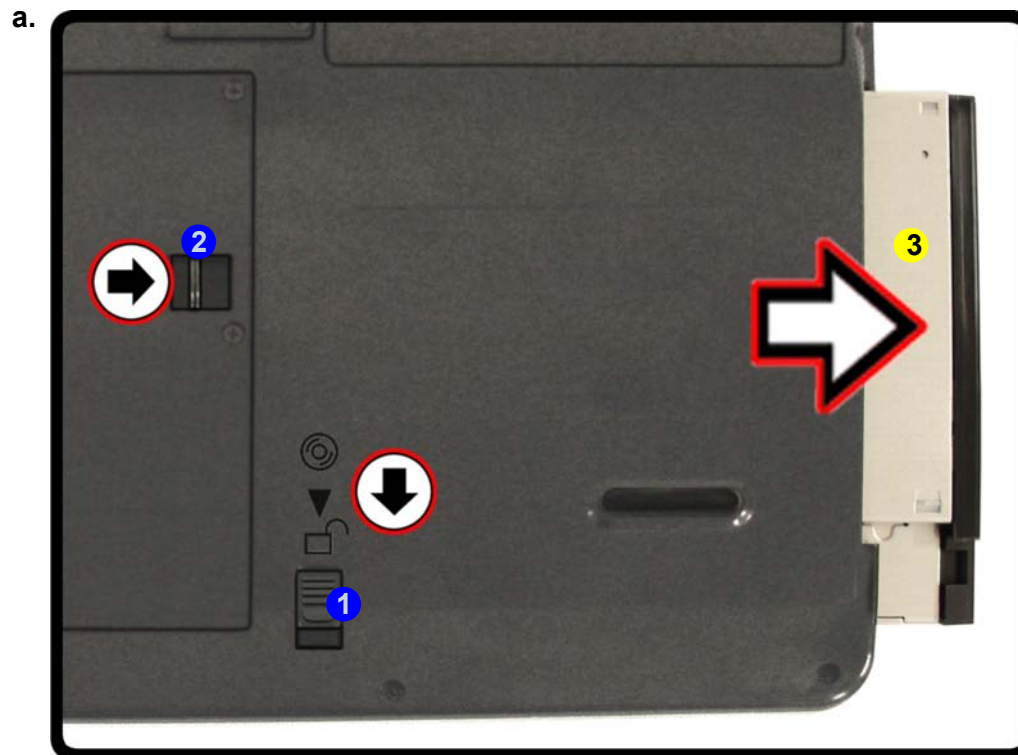
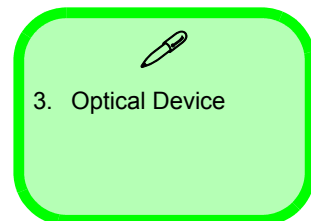


Figure 7
**Optical Device
Removal**

- a. Slide the latch at point 1 in the direction of the arrow, and hold it in place. Push the optical device out off the computer at point 2.



Disassembly

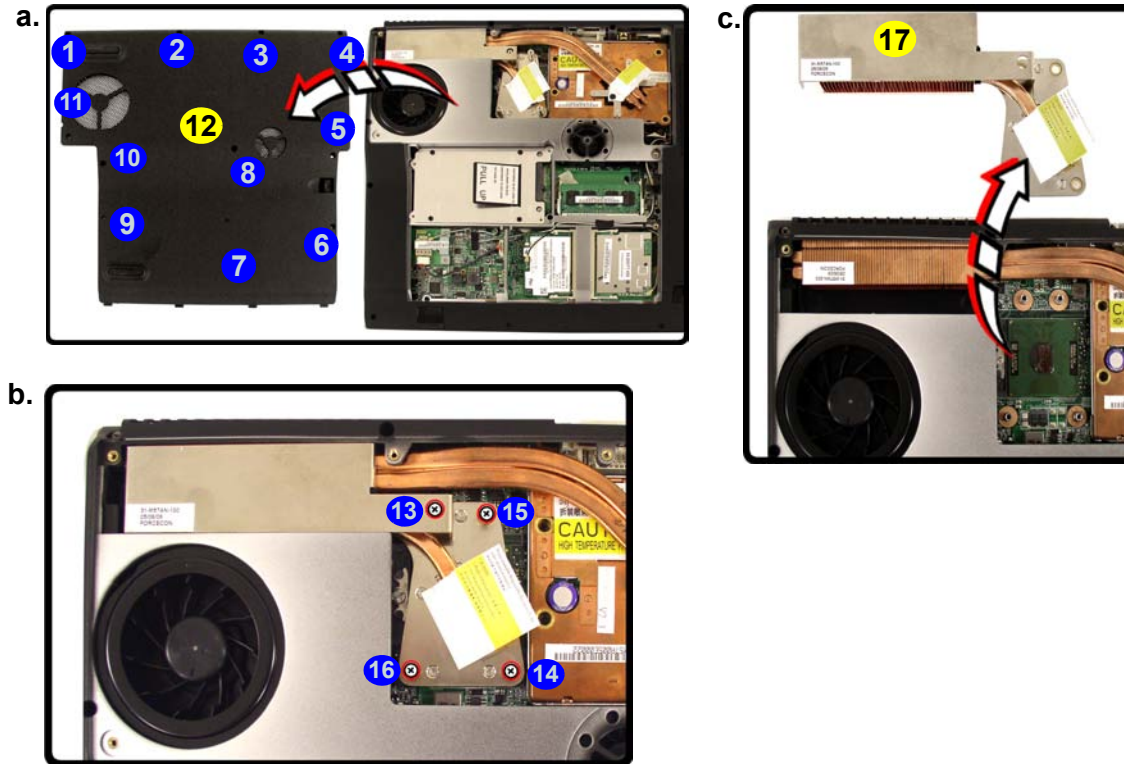
Figure 8

Processor Removal

- Remove the screws and the bay cover.
- Remove the screws in the order indicated.
- Remove the heat sink.

Removing the Processor

- Turn off the computer, and turn it over remove the battery ([page 2 - 5](#)).
- Remove screws ① - ⑪ and remove the component bay cover ⑫.
- Remove screws ⑬ - ⑯ ([Figure b](#)) from the heat sink in the order indicated.
- Carefully lift the heat sink ⑰ ([Figure c](#)) up off the computer.



12. Component bay Cover
17. Heat Sink

- 15 Screws


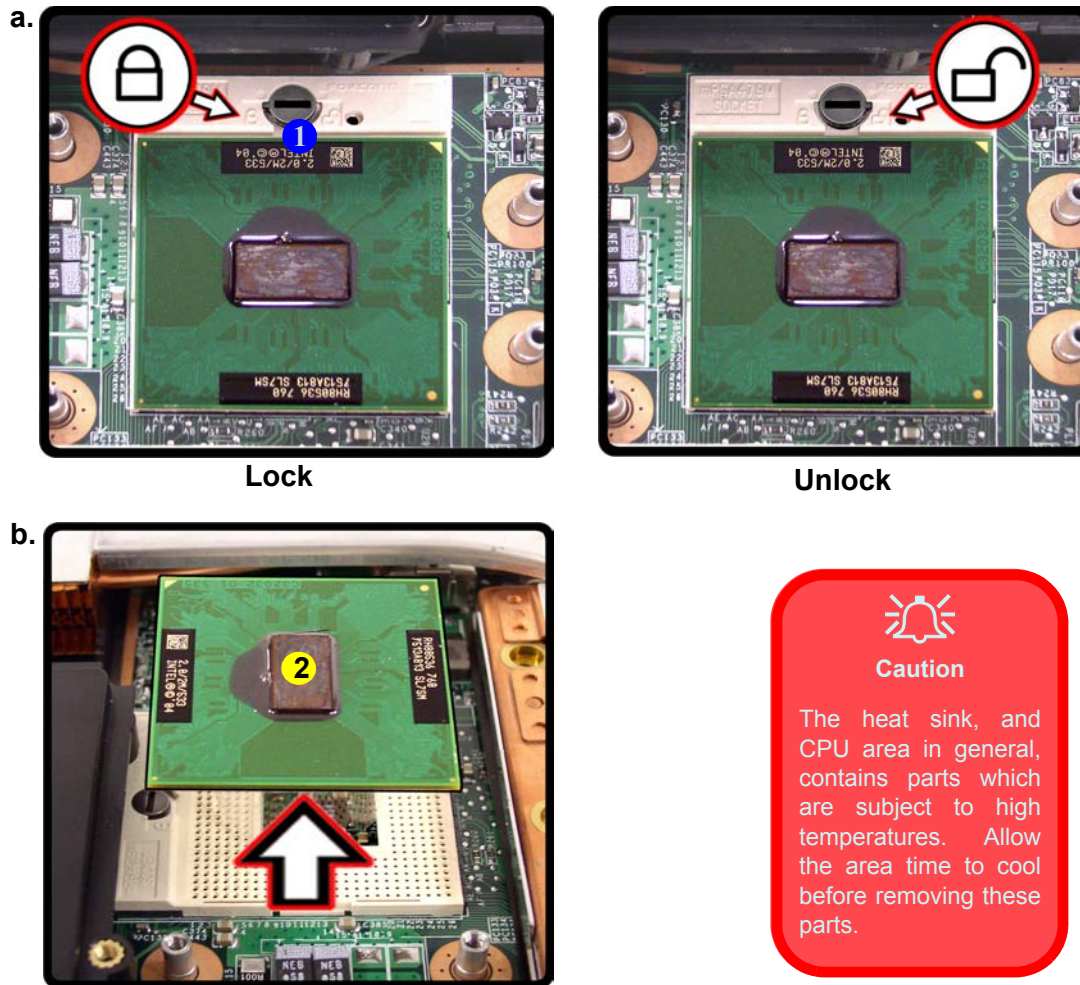
5. Turn the release latch ① towards the unlock symbol , to release the CPU (*Figure a*).
6. Carefully (it may be hot) lift the CPU ② up out of the socket (*Figure b*).
7. Reverse the process to install a new CPU.
8. When re-inserting the CPU, pay careful attention to the pin alignment, it will fit only one way (DO NOT FORCE IT!).

Figure 9
Processor Removal
(cont'd)

- a. Turn the release latch to unlock the CPU.
- b. Lift the CPU out of the socket.



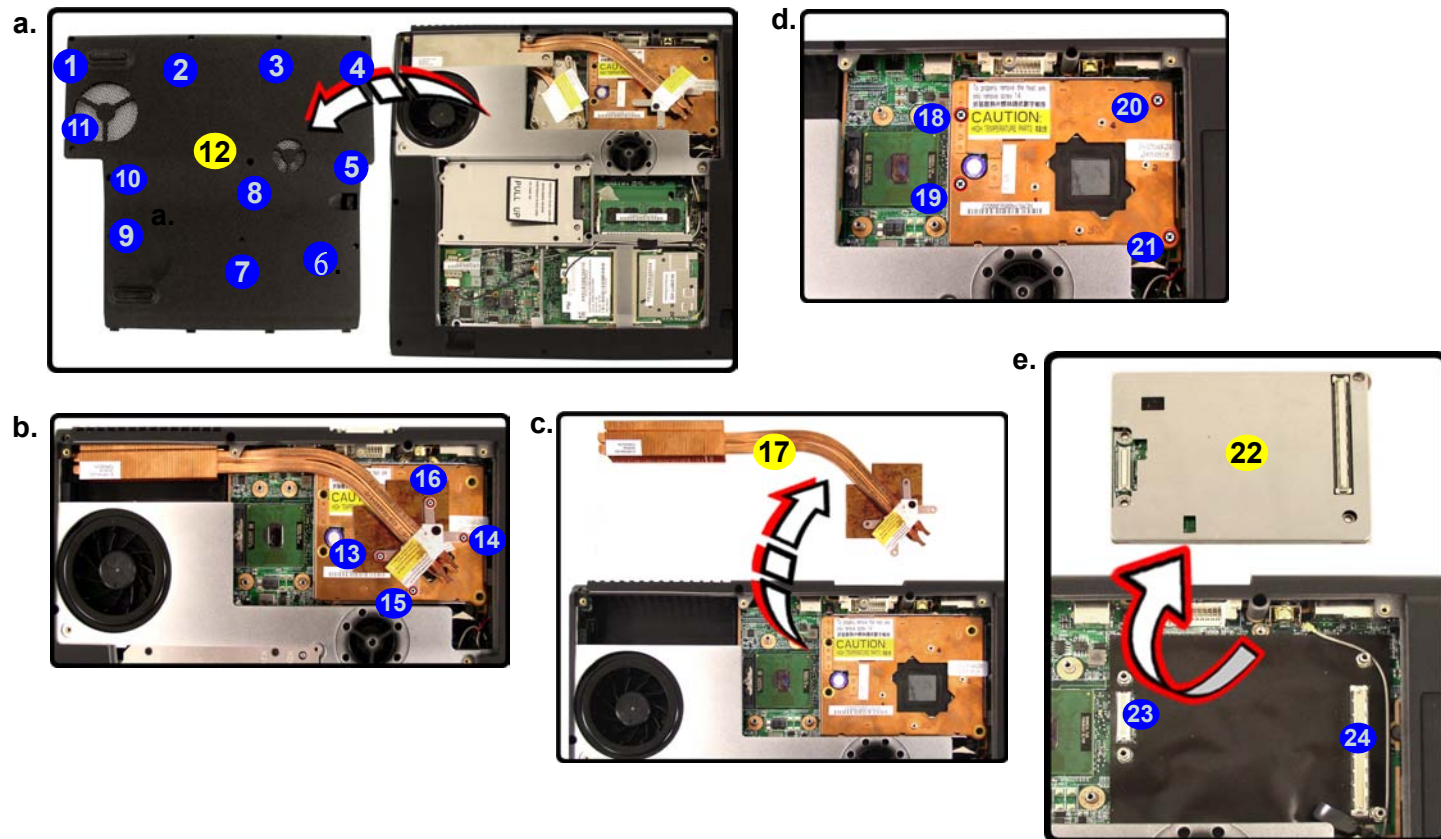
Disassembly

Figure 10
VGA Card Removal

- Remove the screws and the cover.
- Remove the screws in the order indicated.
- Remove the heat sink.
- Remove the screws.
- Carefully separate the VGA Card out of the connectors.

Removing the VGA Card

- Turn off the computer, and turn it over remove the battery ([page 2 - 5](#)).
- Remove screws ① - ⑪ and remove the component bay cover ⑫.
- Remove screws ⑬ - ⑯ ([Figure b](#)) from the heat sink in the order indicated.
- Carefully lift the heat sink ⑰ ([Figure d](#)) up off the computer.
- Remove the 4 screws ⑱ - ㉑ to release the VGA Card ㉒.
- Carefully separate the VGA Card from the connectors ㉓ - ㉔, and lift the VGA Card up off the computer.
- Reverse the process to install the new VGA Card.



- 12. Component Cover
- 17. Heat Sink
- 22. VGA Card
- 15 Screws

Removing the Keyboard

1. Turn **off** the computer, and remove the battery ([page 2 - 5](#)).
2. Press the **three** keyboard latches at the top of the keyboard to elevate the keyboard from its normal position (you may need to use a small screwdriver to do this).
3. Carefully lift the keyboard **4** up, being careful not to bend the keyboard ribbon cable **5** ([Figure c](#)).
4. Disconnect the keyboard ribbon cable **5** from the locking collar socket **6**.
5. Carefully lift up the keyboard **4** ([Figure d](#)) off the computer.

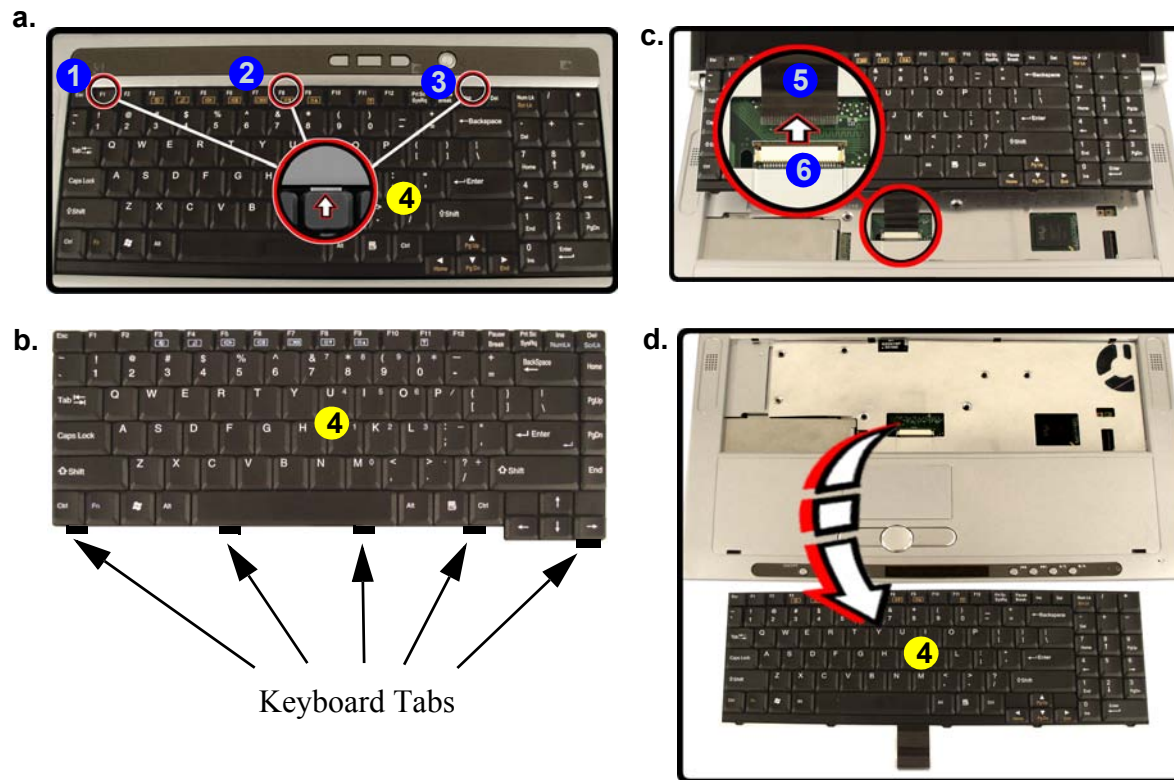


Figure 11
Keyboard Removal

- a. Press the three latches to release the keyboard.
- b. Lift the keyboard up.
- c. Disconnect the cable from the locking collar.
- d. Remove the keyboard.



Re-Inserting the Keyboard

When re-inserting the keyboard firstly align the **five** keyboard tabs at the bottom ([Figure b](#)) at the bottom of the keyboard with the slots in the case.



4. Keyboard

Appendix A:Part Lists

This appendix breaks down the *M570A/M575A* series notebook's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

Note: This section indicates the *manufacturer's* part numbers. Your organization may use a different system, so be sure to cross-check any relevant documentation.

Note: Some assemblies may have parts in common (especially screws). However, the part lists DO NOT indicate the total number of duplicated parts used.

Note: Be sure to check any update notices. The parts shown in these illustrations are appropriate for the system at the time of publication. Over the product life, some parts may be improved or re-configured, resulting in *new* part numbers.

Part List Illustration Location

The following table indicates where to find the appropriate part list illustration.

Table A - 1
**Part List Illustration
Location**

Part	M570A/M575A
Top - (M570A/M575A)	<i>page A - 3</i>
Bottom - (M570A/M575A)	<i>page A - 4</i>
LCD - (M570A/M575A)	<i>page A - 5</i>
Combo Drive - (M570A/M575A)	<i>page A - 6</i>
DVD Drive - (M570A/M575A)	<i>page A - 7</i>
DVD-RW Drive - (M570A/M575A)	<i>page A - 8</i>
HDD - (M570A/M575A)	<i>page A - 9</i>
Second-HDD - (M570A/M575A)	<i>page A - 10</i>

Top (M570A/M575A)

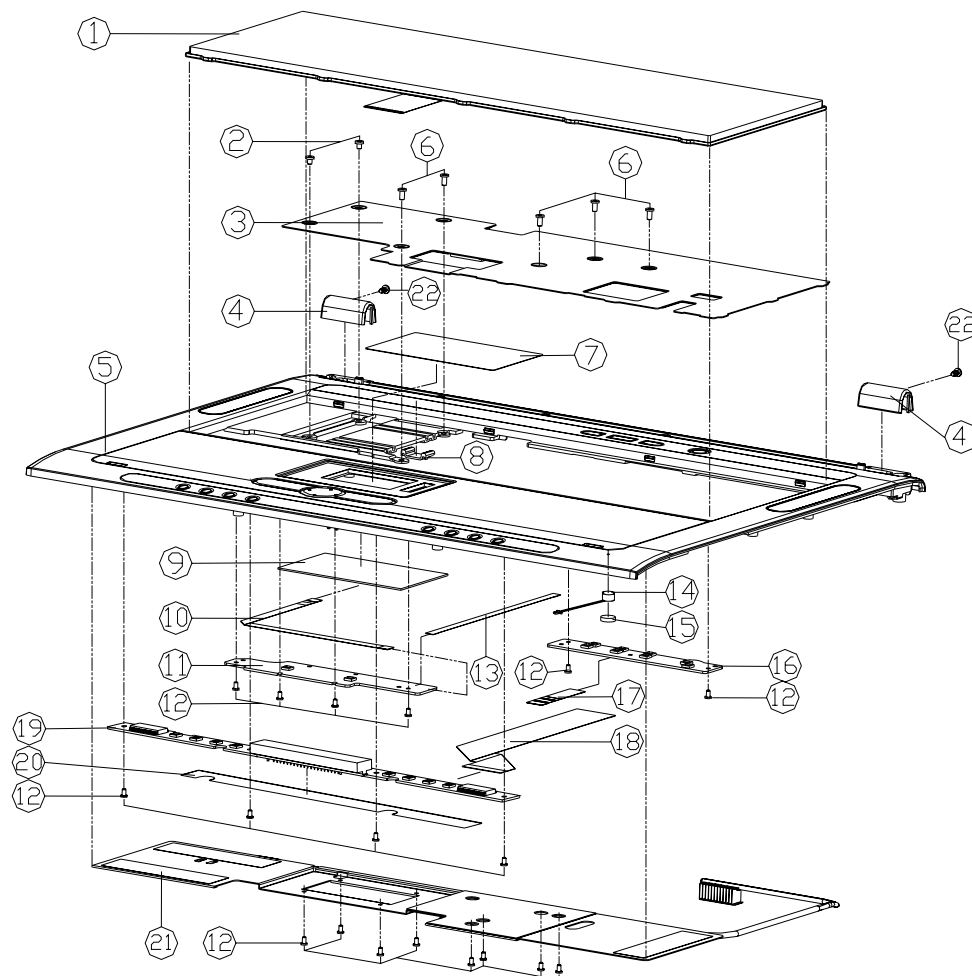


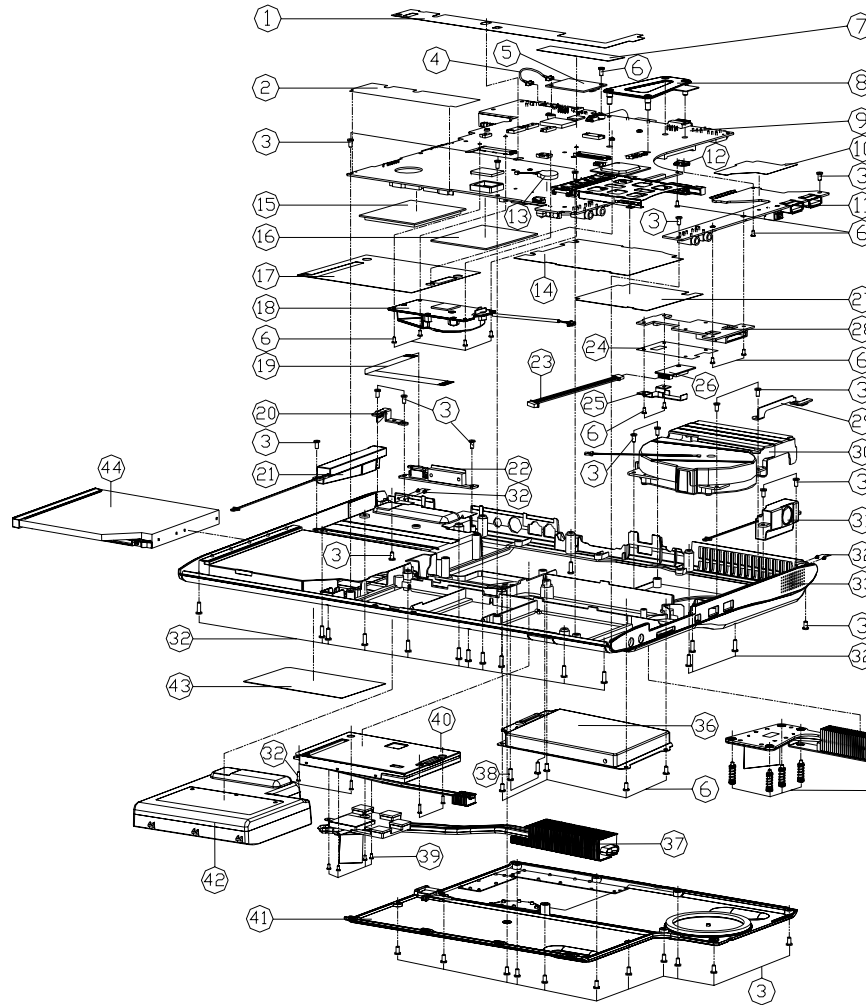
Figure A - 1
Top (M570A/
M575A)

ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD(OPTION)	80-M57A0-010-1	
2	SCREW M2.5*3L KI BZ ICT NY	35-B6125-3R0	
3	KB SHIELDING M570A 無鉛	33-M57A7-010	
4	HINGE COVER ADD 05MM M570A 無鉛	42-M57A2-091	
5	TOP CASE MODULE M570A 無鉛	39-M57A2-012	
5	TOP CASE MODULE M575A 無鉛	39-M5752-012	
6	SCREW M2.5*5L KI BK/2 ICT NY	35-B6125-5RA	
7	TOUCH PAD MYLAR M570A 無鉛	40-M57A2-010	
8	CABLE FIX HOLDER 無鉛	42-M56A2-020	
9	TOUCH PAD ELANTECH 810594-2602 M570A 無鉛	49-M57A2-020	
10	FFC CABLE FOR TOUCH PAD @ PITCH=10 L=129	43-M56A0-010	
11	CLICK BOARD V D3.0A	77-M57A2-D03A	
12	SCREW M2*3.5L KI NI ICT NY	35-B1120-350	
13	FFC CABLE FOR CLICK I2P PITCH=05 L=179MM	43-M56A0-050	
14	MIC 0MM*24V*6.0A 2V-DIV 22K 2P V/CABLE	23-EM56A-010	
15	MICROPHONE SPONGE M570A 無鉛	47-M57AF-010	
16	BUTTON BOARD V D3.0	77-M57AF-D03	
17	FFC CABLE FOR BUTTON BOARD I2P L=14MM 無鉛	43-M56A0-020	
18	FFC CABLE FOR AUDIO DJ BOARD 24P PITCH=10	43-M57A0-010	
19	AUDIO DJ BOARD V D3.0A	77-M56AY-D03A	
20	MYLAR FOR AUDIO DJ BOARD 無鉛	40-M56AS-091	
21	PCMCIA REINFORCE MODULE 無鉛	33-M57A3-900	
22	SCREW M2*3L KI NI ICT GY-PATCH 無鉛	35-B1120-3RE	

A.Part Lists

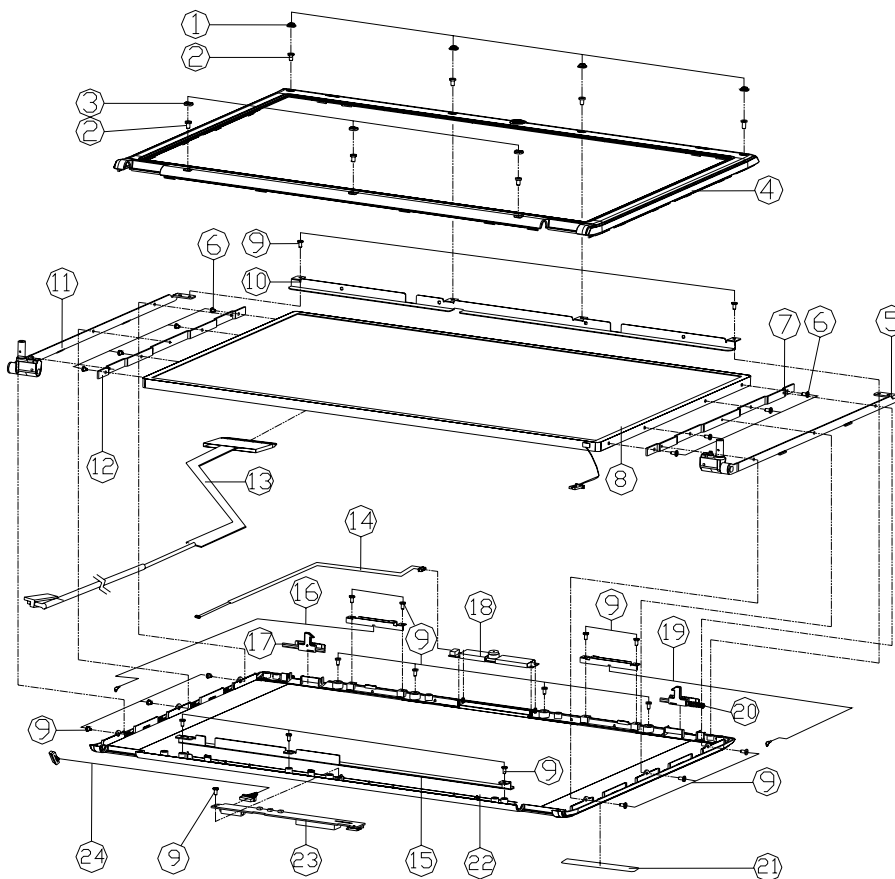
Bottom (M570A/M575A)

Figure A - 2
Bottom (M570A/
M575A)



ITEM	PART NAME	PART NO	REMARK
1	M/B MYLAR-C	40-M56AS-040	
2	CLICK PCB MYLAR CN M/B	40-M56AS-010	
3	SCREW M2.5*SL KI BK/Z ICT NY	35-B6125-5RA	
4	MBC CABLE FOR M560A	43-M56AU-010	
5	MODEM HI AUDIO BILLOTON (M262-A) (M00KT)	88-M56A1-390	
5	MODEM HI AUDIO CASTLETON (M262-A) (M00LIS C)	88-M56A1-530	
6	SCREW M2*3.5L KI NI ICT NY	35-B1120-350	
7	M/B MYLAR-A	40-M56AS-020	
8	CPU SUPPORT MODULE	33-M56AS-300	
9	MAIN BOARD	77-M57A0-004	
10	MYLAR FOR USB BOARD	40-M57AS-020	
11	USB BOARD V D2.0	77-M57A3-002	
12	REINFORCE BRACKET MB	33-M56AS-070	
13	BAL. FMM BY 23MM V/CABLE SWM L2622	23-22015-P80	
14	MYLAR FOR HDD CN MB	40-M56AS-060	
15	SW NCL TV TUNER REMOTE CONTROL THROUOUT	88-D9017-670-R	(OPTION)
15	TV TUNER CARD LOCAL (M262) (M00-PCI-3I W)	88-M56A7-592	(OPTION)
15	TV TUNER CARD ANALOG L2619 M560A	88-M56A7-591	(OPTION)
16	WLAN B220A*4G (M00-PCI-3I) (M00) (M560A)	88-M40A2-424	(OPTION)
16	WLAN B220A*4G (M00-PCI-3I) (M00) (M570A)	88-M37E2-420	(OPTION)
17	VGA BOARD MYLAR CN MB	40-M56AS-040	
18	FAN MODULE FOR SYSTEM	31-M56AS-101	
19	ITE CABLE FOR COM PORT SP PITCH=1.27	43-M56A0-040	
20	HINGE BRACKET R M570A	33-M57A3-020	
21	SPEAKER-LOGIC/2 W/CABLE 2P (M570A)	23-M57A-021	
22	COM PORT BOARD	77-M56A7-002	
23	WIRE CABLE FOR BLUE TOOTH L2620 (M570A)	43-M56A8-010	
24	MYLAR FOR CARD READER BOARD	40-M56AS-050	
25	BLUETOOTH BRACKET	33-M57A8-010	
26	BLUETOOTH VIZ MODULE 8 PIN (M570A)	88-M39A5-622	
27	MYLAR FOR PCMCIA CN MB	40-M56AS-070	
28	CARD READER V D3.0	77-M57AV-003	
29	HINGE BRACKET R M570A	33-M57A3-010	
30	CPU FAN MODULE	31-M57AS-101	
31	SPEAKER-LOGIC/2 W/CABLE 2P (M570A)	23-M57A-011	
32	SCREW M2.5*BL KI BK/Z NY ICT	35-B6125-8R0	
33	BOTTOM CASE MODULE/CEM GASKET	39-M57A3-012	
34	CPU HEATSINK MODULE/CEM GASKET	31-M57AN-102	
35	SCREW M2.5*45*0.5-35L-955-25 B	35-41025-095	
36	W/D IDE HDD ASS'Y M560A	79-M56AJ-010	(OPTION)
36	W/D SATA HDD ASS'Y M560A	79-M56AJ-020	(OPTION)
37	VGA HEATSINK MODULE/CEM GASKET	31-M57AN-202	
38	SCREW M2*3L B NI ICT NY	35-01120-11A	
39	SCREW M2*3L B NI ICT NY	35-41120-3RA	
40	VGA BOARD BL (M262) (M00) (M570A)	77-D70TL-D12-B	(OPTION)
40	VGA BOARD (M262) (M00) (M570A)	77-D70TL-D02-J	(OPTION)
40	NVIDIA VGA G70 (M262) (M00) (M570A)	77-D90TL-D21-A	(OPTION)
41	BOTTOM COVER MODULE/VGA ASS 2 MB	42-M57A3-201	
42	BATTERY 4.4AH FOR M570A/CP1 /3500mAh	87-M57AS-474	
42	BATTERY 4.4AH FOR M570A/CP1 /3500mAh	87-M57AS-4D	
43	PRODUCT LABEL FOR M570A	45-M57A3-011-C	
44	COMBO (OPTION) M570A	79-M57AX-000	
44	DVD/RW (OPTION) M570A	79-M57AX-000	
44	DVD (OPTION) M570A	79-M57AV-000	
44	2ND BATTERY (OPTION) M570A	87-M57AS-4CC	
44	2ND HDD (OPTION) M570A	79-M57AJ-030	

LCD (M570A/M575A)



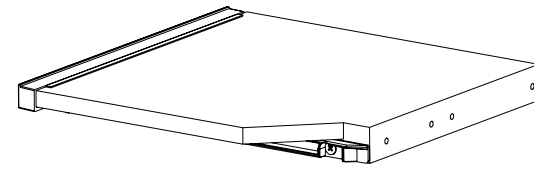
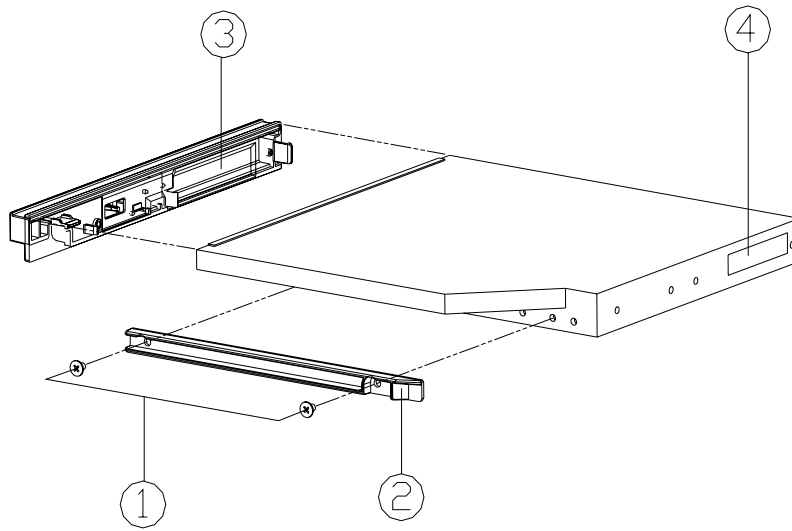
ITEM	PART NAME	PART NO	REMARK
1	RUBBER LCD TOP	47-M57A1-010	
2	SCREW M2.5xSL KI NI ICT NY	35-B1125-5RA	
3	RUBBER LCD DOWN	47-M57A1-020	
4	LCD FRONT COVER MODULE	39-M57A1-010	
5	LCD HINGE ASSY R	33-M57A1-0A1	
6	SCREW M2xSL KI NI ICT NY	35-B1120-3RA	
7	CONVERT BRACKET R FOR LG17	33-M57A1-060	FDR LG/SAMSUNG
7	CONVERT BRACKET R FOR AU17	33-M57A1-030	FDR AU
8	LCD T SAMSUNG L1N70V01-L02GLARE TYPE D7	50-NB269-M01	FDR SAMSUNG
8	LCD T LG LP17W02-A6G7/PSD 171Y WSXGA	50-NA269-L01	FDR LG
8	LCD 17" LG LP17W02-A4(WXGA) 1440x900	50-N7265-L03	FDR LG
8	LCD 17" AU 8070P(WXGA) 1440x900 7"	50-N7207-G00	FDR AU
8	LCD T LG LP17W03-AK2GLARE TYPE D7 WX	50-NB266-L00	FDR LG
9	SCREW M2x4L KI BNI ICT NY	35-B9120-4RA	
10	LCD BRACKET TOP FOR AU17	33-M57A1-050	
11	LCD HINGE ASSY L	33-M57A1-0B1	
12	CONVERT BRACKET L FOR LG17	33-M57A1-070	
12	CONVERT BRACKET L FOR AU17	33-M57A1-040	
13	LCD COAXIAL CABLE FOR WXGA	43-M57A1-030	FDR SAMSUNG
13	LCD COAXIAL CABLE FOR WXGA	43-M57A1-010	FDR LG
13	LCD COAXIAL CABLE FOR WXGA	43-M57A1-020	FDR LG
14	CAMERA CABLE 5P AVGC0 USB20 WIRE L-402MM	43-M57AC-010	
15	LCD BRACKET DOWN	33-M57A1-080	
16	MOVM PPA BAK AND DTMZ QMT FOR BLACKBOX	23-7M57A-010	
17	HOOBK KNOB L	42-M57A1-080	
18	CMOS VIDEO CAMERA INPC-F0030-B 300K PIXEL	88-M56AC-610	(OPTION)
18	CMOS VIDEO CAMERA INPC-DV9630-B-500K 1.3M	88-M56GC-610	(OPTION)
19	MOVM PPA BAK AND DTMZ QMT FOR WAI	23-7M57A-020	
20	HOOBK KNOB R MODULE	42-M57A1-700	
21	FDR M540G (LOGO STYLE-NOTE)	45-M54G1-020	
22	LCD BACK COVER MODULE	39-M57A1-020	
22	LCD BACK COVER MODULE	39-M5751-020	
23	INVERTER MODULE FOR 880P (NPT) WITHOUT L	76-DB00R-011-1	
24	INVERTER CABLE 12P AVGC2 L-380MM	43-M57AR-010	

Figure A - 3
LCD (M570A/
M575A)

A.Part Lists

Combo Drive (M570A/M575A)

Figure A - 4
Combo Drive
(M570A/M575A)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2.5L K1 NI ICT NY C04 t=0.3	35-B1120-2R5	
2	DVD ROM LOCK HOLDER	42-M56AV-060	
3	CD-RW/DVD 5 1/4\" 24X 12.7MM TS-L462A TOSHI	85-907DX-T01	
3	CD-RW/DVD 5 1/4\" 24X 12.7MM UJDA770CL-A PA	85-907PX-P00	
4	COMBO G-BEZEL MODULE M570A	42-M57AX-200	

DVD Drive (M570A/M575A)

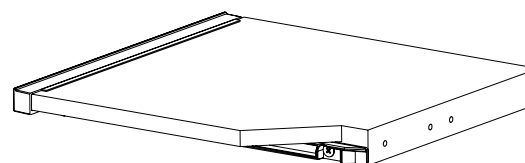
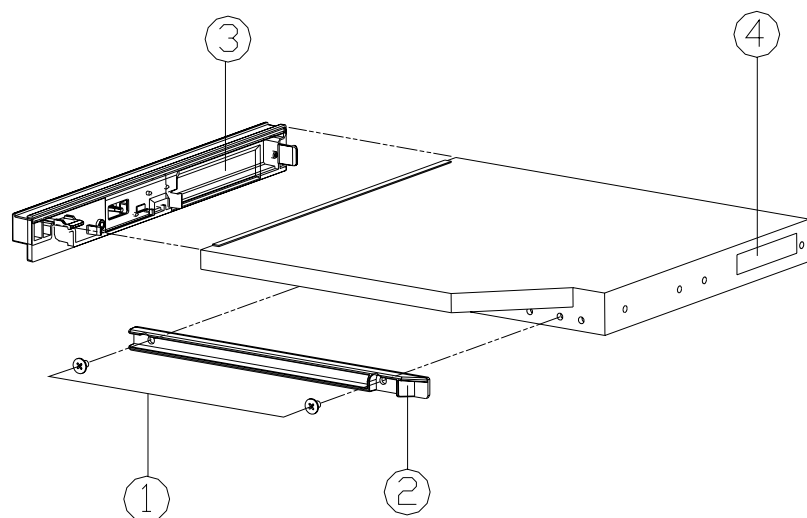


Figure A - 5
DVD Drive
(M570A/M575A)

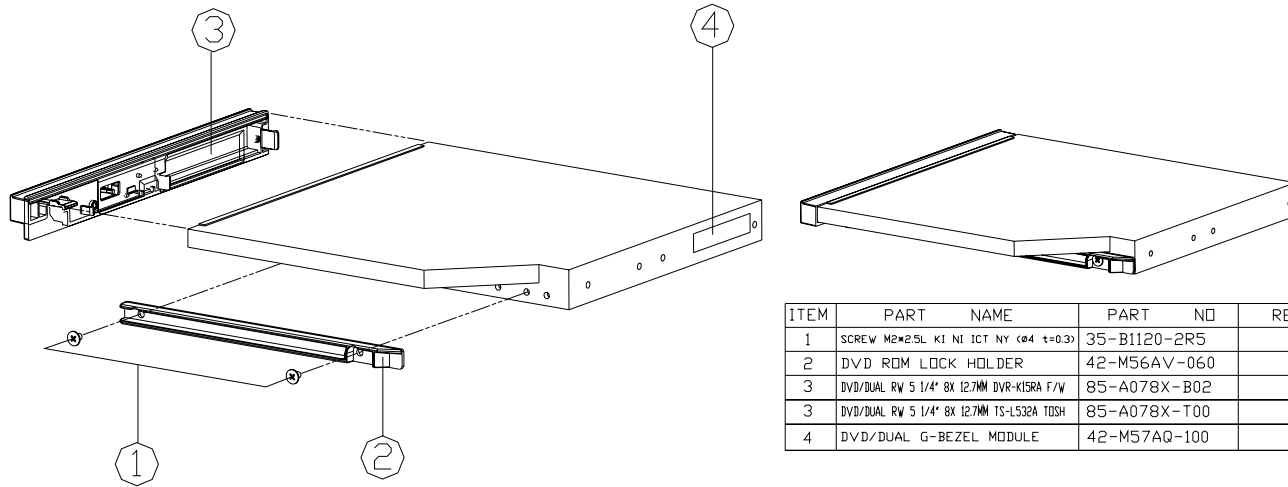
ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2.5L K1 NI ICT NY (Ø4 t=0.3)	35-B1120-2R5	
2	DVD ROM LOCK HOLDER	42-M56AV-060	
3	DVD 5 1/4" 8X 12.7MM SD-C2732 TOSHIBA	85-7078X-T06	
4	DVD G-BEZEL MODULE	42-M57AV-200	

A.Part Lists

Part Lists

DVD-RW Drive (M570A/M575A)

Figure A - 6
DVD-RW Drive
(M570A/M575A)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2.5L K1 NI ICT NY (ø4 t=0.3)	35-B1120-2R5	
2	DVD ROM LOCK HOLDER	42-M56AV-060	
3	DVD/DUAL RW 5 1/4\" 8X 12.7MM DVR-KISRA F/W	85-A078X-B02	
3	DVD/DUAL RW 5 1/4\" 8X 12.7MM TS-L532A TOSH	85-A078X-T00	
4	DVD/DUAL G-BEZEL MODULE	42-M57AQ-100	

HDD (M570A/M575A)

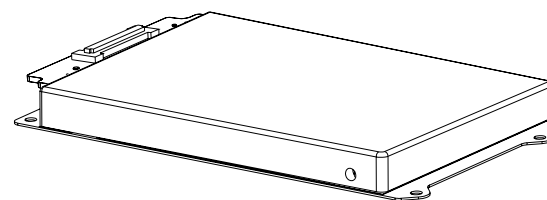
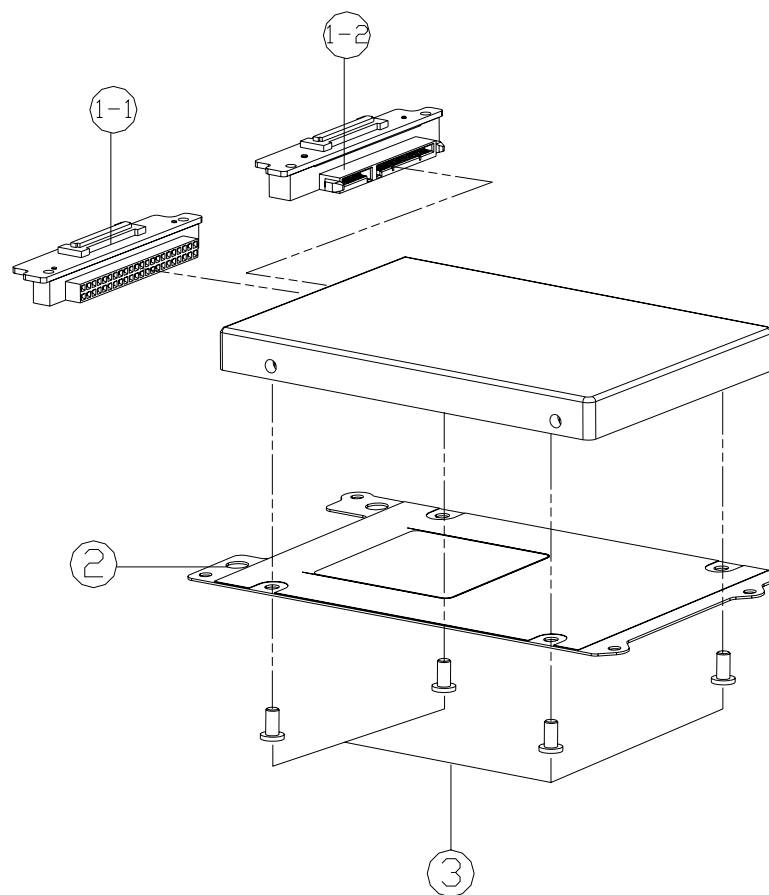


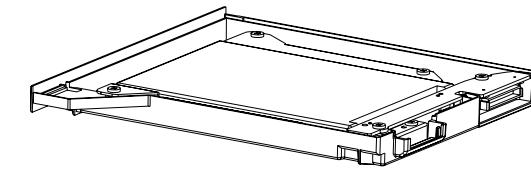
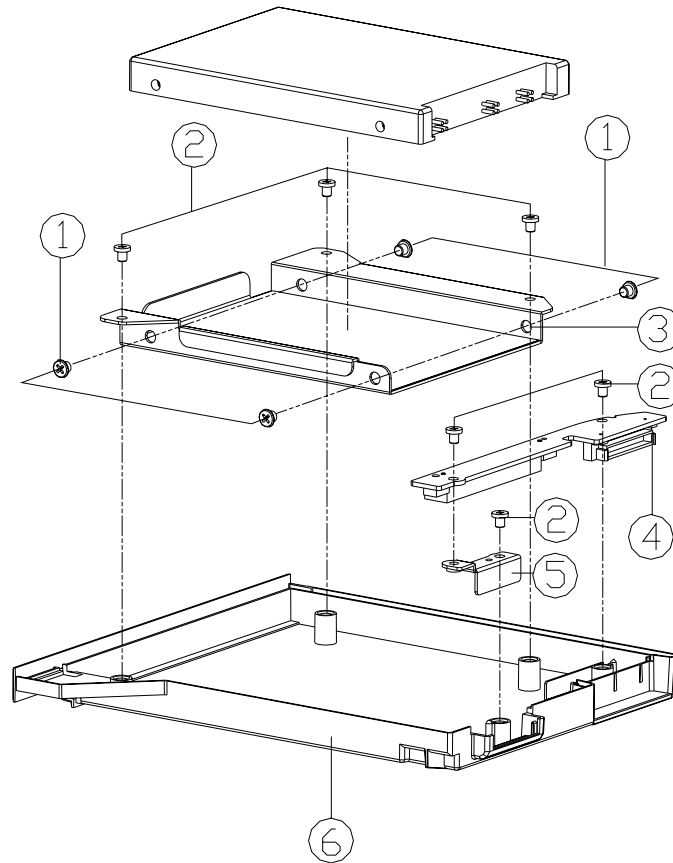
Figure A - 7
HDD (M570A/
M575A)

ITEM	PART NAME	PART NO	REMARK
1-1	PATA HDD BOARD VD1.0	77-M56AJ-D01	
1-2	SATA HDD BOARD VD1.0	77-M56AJ-D21	
2	HDD BRACKET	33-M57AJ-010	
3	SCREW M3*2.5L KI NI ICT NY	35-B1130-2R5	

A.Part Lists

Second-HDD (M570A/M575A)

Figure A - 8
Second HDD
(M570A/M575A)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M3*2.5L KI NI ICT NY	35-B1130-2R5	
2	SCREW M2.5*0.45P*3L KI BN ICT NY	35-B9125-3R0	
3	SECOND HDD FIX BRACKET	33-M57AJ-060	
4	SECOND HDD BOARD V D1.0	77-M56AJ-D11	
5	SECOND HDD BOSS BRACKET	33-M56AJ-050	
6	SECOND HDD CASE M570A	42-M57AJ-030	

Appendix B:Schematic Diagrams

This appendix has circuit diagrams of the *M570A/M575A* notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

Diagram - Page	Diagram - Page	Diagram - Page
<i>System Block Diagram - Page B - 2</i>	<i>CARD BUS & I394-1 - Page B - 16</i>	<i>+VDD3, +VDD5, +VDD12 - Page B - 30</i>
<i>CLOCK GENERATOR - Page B - 3</i>	<i>CARD BUS & I394-2 - Page B - 17</i>	<i>CHARGER, DC IN - Page B - 31</i>
<i>CPU-1 - Page B - 4</i>	<i>MINIPCI - Page B - 18</i>	<i>BUTTON BOARD - Page B - 32</i>
<i>CPU-2 - Page B - 5</i>	<i>REALTEK GIGA LAN - Page B - 19</i>	<i>CARD READER BOARD - Page B - 33</i>
<i>Alviso-1 - Page B - 6</i>	<i>PCIE GIGA LAN - Page B - 20</i>	<i>USB BOARD M560A - Page B - 34</i>
<i>Alviso-2 - Page B - 7</i>	<i>AC97 - Page B - 21</i>	<i>USB BOARD M570A - Page B - 35</i>
<i>Alviso-3 - Page B - 8</i>	<i>AUDIO-DJ - Page B - 22</i>	<i>COM PORT BOARD - Page B - 36</i>
<i>DIMM A - Page B - 9</i>	<i>Azalia Codec & AMP - Page B - 23</i>	<i>AUDIO DJ BOARD - Page B - 37</i>
<i>DIMM B - Page B - 10</i>	<i>Pre Amp AP8202 - Page B - 24</i>	<i>CLICK BOARD - Page B - 38</i>
<i>VGA CARD CONNECTOR - Page B - 11</i>	<i>SIO FWH IR & CIR - Page B - 25</i>	<i>PATA HDD BOARD - Page B - 39</i>
<i>ICH6M-1 - Page B - 12</i>	<i>H8 - Page B - 26</i>	<i>SATA HDD BOARD - Page B - 40</i>
<i>ICH6M-2 - Page B - 13</i>	<i>VCORE - Page B - 27</i>	<i>SECOND HDD BOARD - Page B - 41</i>
<i>ICH6M-3 - Page B - 14</i>	<i>+1.05VS, +2.5VS - Page B - 28</i>	
<i>USB & CCD CONN - Page B - 15</i>	<i>+1.8V, 0.9, +1.5V - Page B - 29</i>	

Table B - 1
**Schematic
Diagrams**



Version Note

The schematic diagrams in this chapter are based upon version **71-M56A0-D04**. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

System Block Diagram

Sheet 1 of 40
System Block
Diagram

BOTTON BOARD	
1.POWER BOTTON	
2.INSTANT KEY X 3	
3.LID SWITCH	
71-M56AF-D01	SHEET 31

CARD READER BOARD	
1.CARD READER	
71-M56AV-D01	SHEET 32

USB BOARD M560A	
1.USB PORT X 2	
2.1394 PORT	
71-M56A3-D01	SHEET 33

USB BOARD M570A	
1.USB PORT X 2	
2.1394 PORT	
3.AUDIO JACK X 2	
71-M56A3-D01	SHEET 34

COM PORT BOARD	
1.COM PORT CONNECTOR	
71-M56A7-D01	SHEET 35

AUDIO DJ BOARD	
1.LED DISPLAY	
2.AUDIO DJ BOTTON X 8	
71-M56AY-D01	SHEET 36

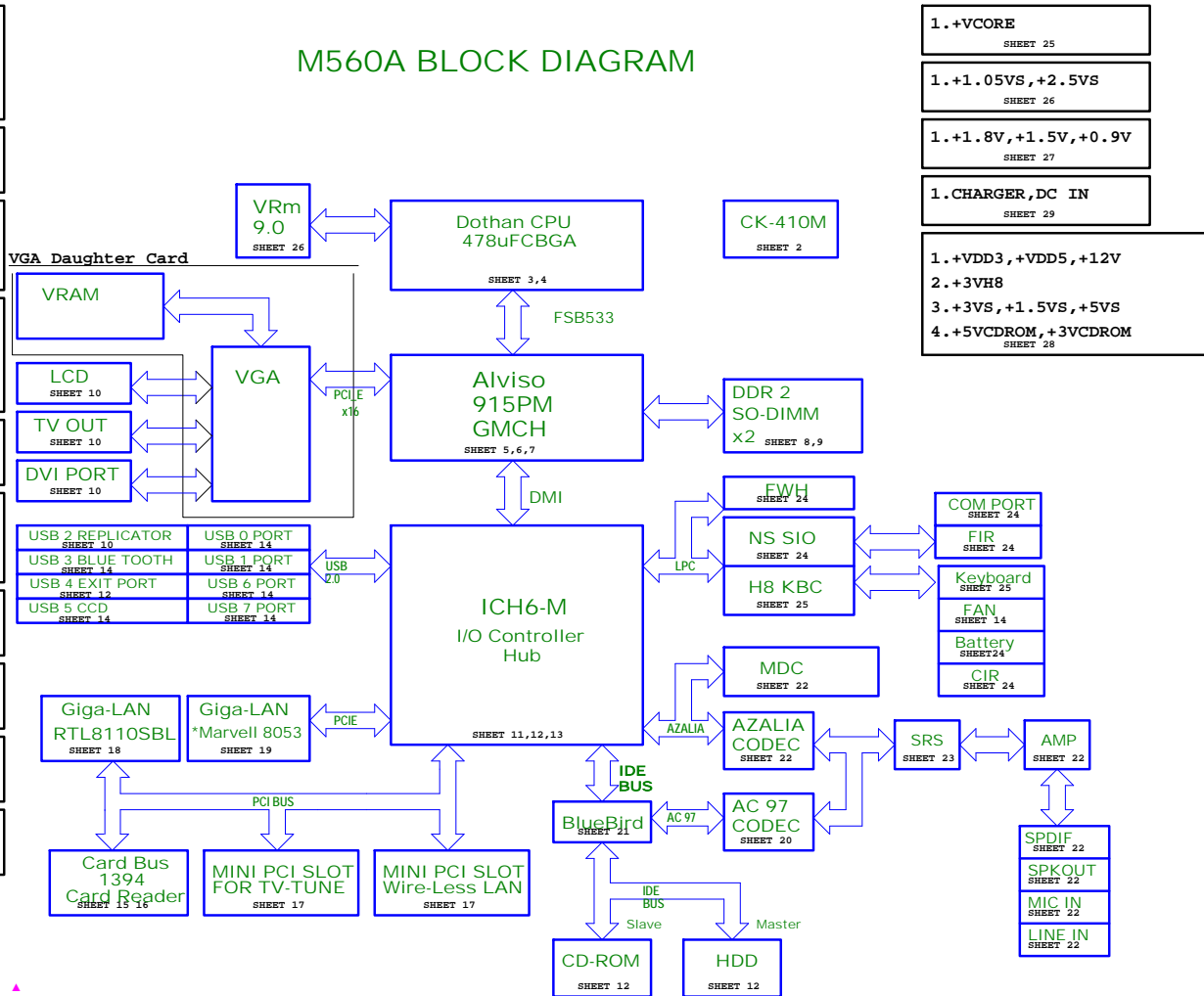
CLICK BOARD	
1.CLICK BOTTON X 2	
71-M56A2-D01	SHEET 37

PATA HDD BOARD	
1.PATA HDD	
71-M56A2-D01	SHEET 38

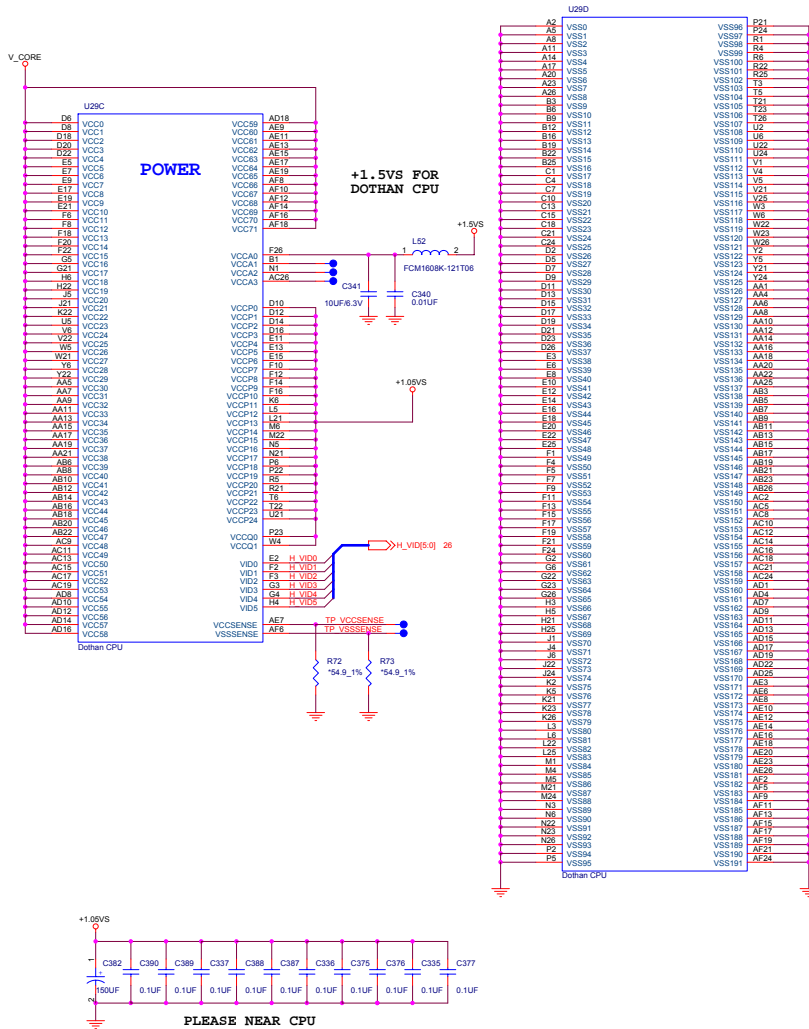
SATA HDD BOARD	
1.SATA HDD	
71-M56A2-D01	SHEET 39

SECOND HDD BOARD	
1.SECOND PATA HDD	
71-M56A2-D01	SHEET 40

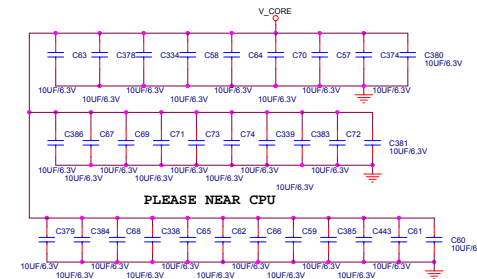
M560A BLOCK DIAGRAM



CPU-2



VID					Vcc	VID					Vcc							
5	4	3	2	1	0	5	4	3	2	1	0	5	4	3	2	1	0	
0	0	0	0	0	0	1.708	1	0	0	0	0	1.196						
0	0	0	0	0	1	1.692	1	0	0	0	1	1.180						
0	0	0	0	1	0	1.676	1	0	0	1	0	1.164						
0	0	0	1	1	0	1.660	1	0	0	1	1	1.148						
0	0	1	0	0	0	1.644	1	0	1	0	0	1.132						
0	0	1	0	1	0	1.628	1	0	1	1	0	1.116						
0	0	1	1	0	0	1.612	1	0	1	1	1	1.100						
0	0	1	1	1	0	1.596	1	0	1	1	1	1.084						
0	0	1	0	0	0	1.580	1	0	1	0	0	1.068						
0	0	1	0	0	1	1.564	1	0	1	0	1	1.052						
0	0	1	0	1	0	1.548	1	0	1	0	1	1.036						
0	0	1	0	1	1	1.532	1	0	1	0	1	1.020						
0	0	1	1	0	0	1.516	1	0	1	1	0	1.004						
0	0	1	1	0	1	1.500	1	0	1	1	0	0.988						
0	0	1	1	1	0	1.484	1	0	1	1	1	0.972						
0	0	1	1	1	1	1.468	1	0	1	1	1	0.956						
0	1	0	0	0	0	1.452	1	1	0	0	0	0.940						
0	1	0	0	0	1	1.436	1	1	0	0	1	0.924						
0	1	0	0	1	0	1.420	1	1	0	0	1	0.908						
0	1	0	1	0	0	1.404	1	1	0	1	0	0.892						
0	1	0	1	0	1	1.388	1	1	0	1	0	0.876						
0	1	0	1	1	0	1.372	1	1	0	1	0	0.860						
0	1	0	1	1	1	1.356	1	1	0	1	1	0.844						
0	1	1	0	0	0	1.340	1	1	1	0	0	0.828						
0	1	1	0	0	1	1.324	1	1	1	0	0	0.812						
0	1	1	0	1	0	1.308	1	1	1	0	1	0.796						
0	1	1	0	1	1	1.292	1	1	1	0	1	0.780						
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0	1	1	1	0	1	1.260	1	1	1	0	0	0.748						
0	1	1	1	1	0	1.244	1	1	1	0	1	0.732						
0	1	1	1	1	1	1.228	1	1	1	1	0	0.716						
0	1	1	1	1	1	1.212	1	1	1	1	1	0.700						

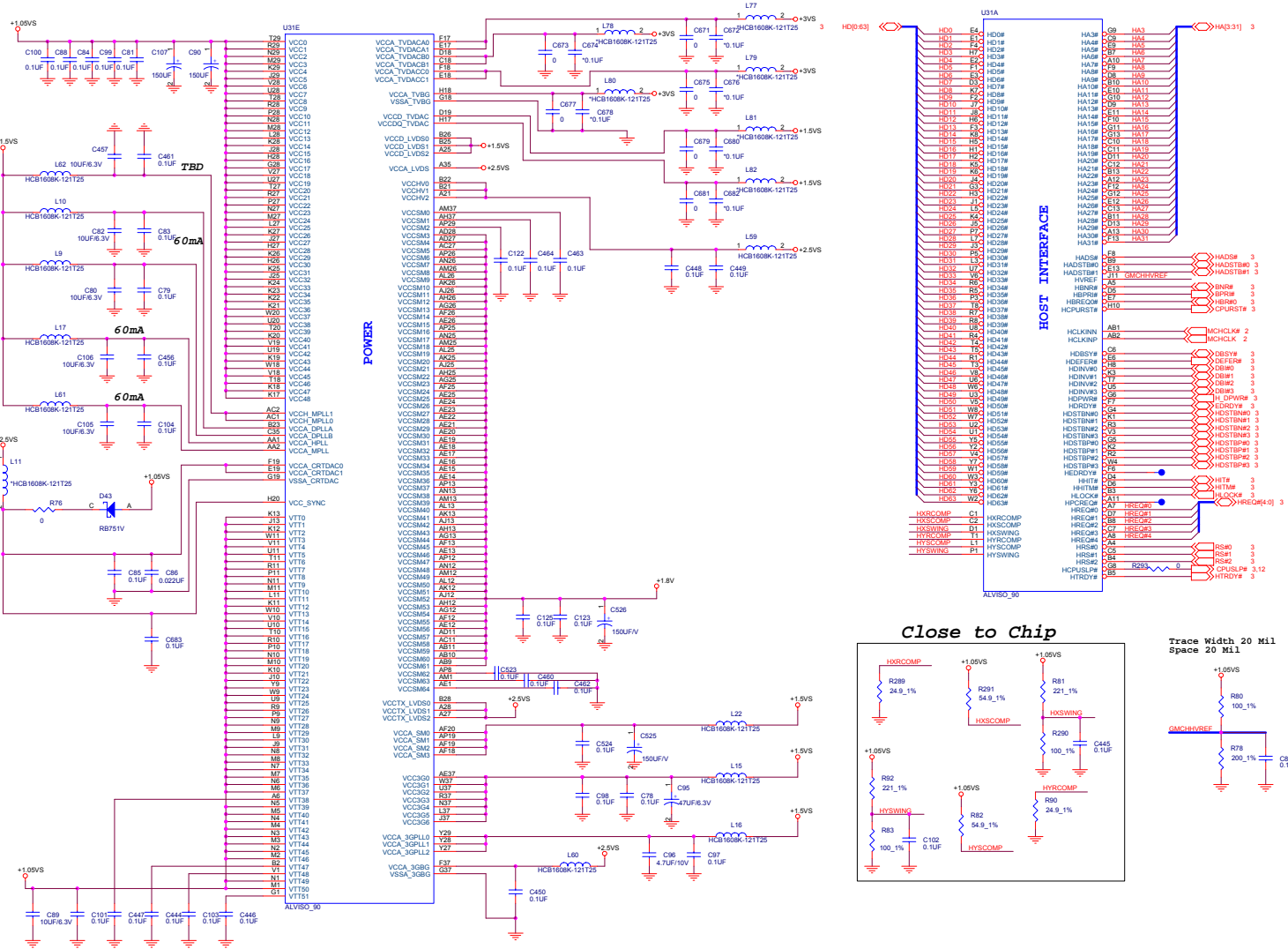


Sheet 4 of 40
CPU-2

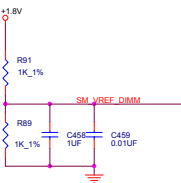
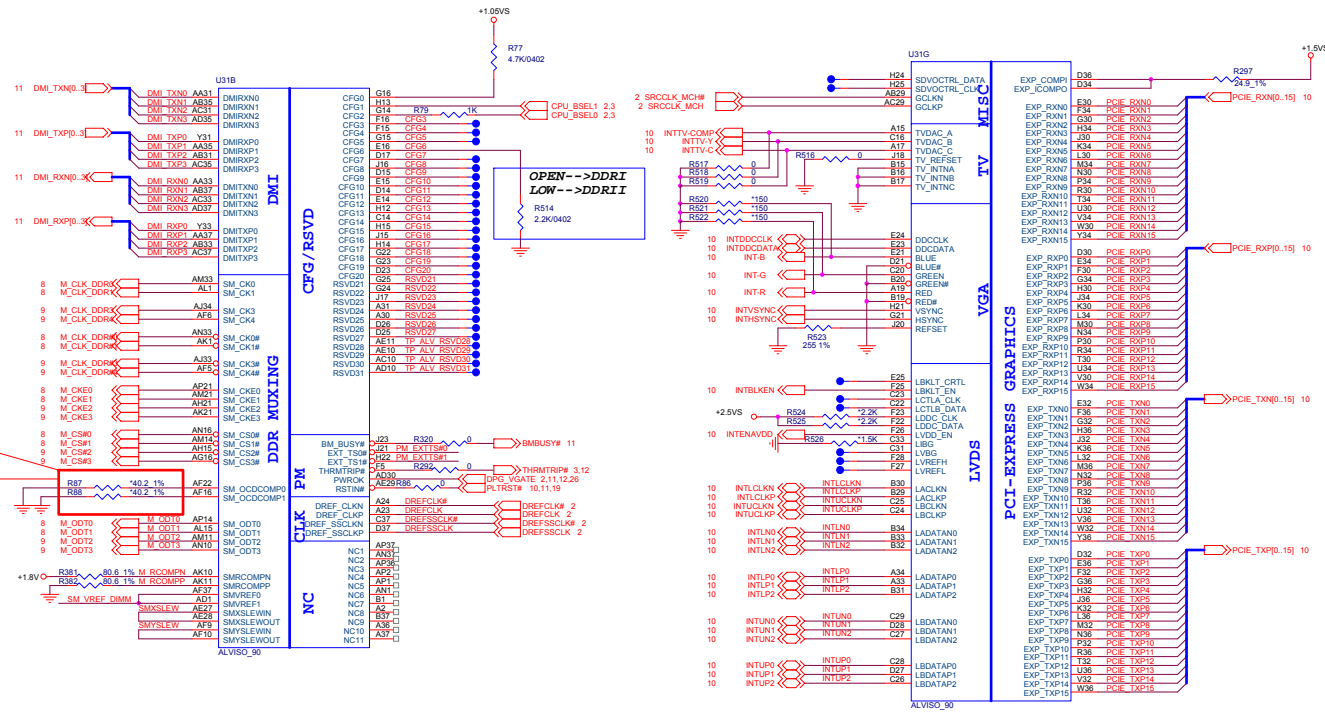
Alviso-1

B.Schematic Diagrams

Sheet 5 of 40
Alviso-1



Alviso-2

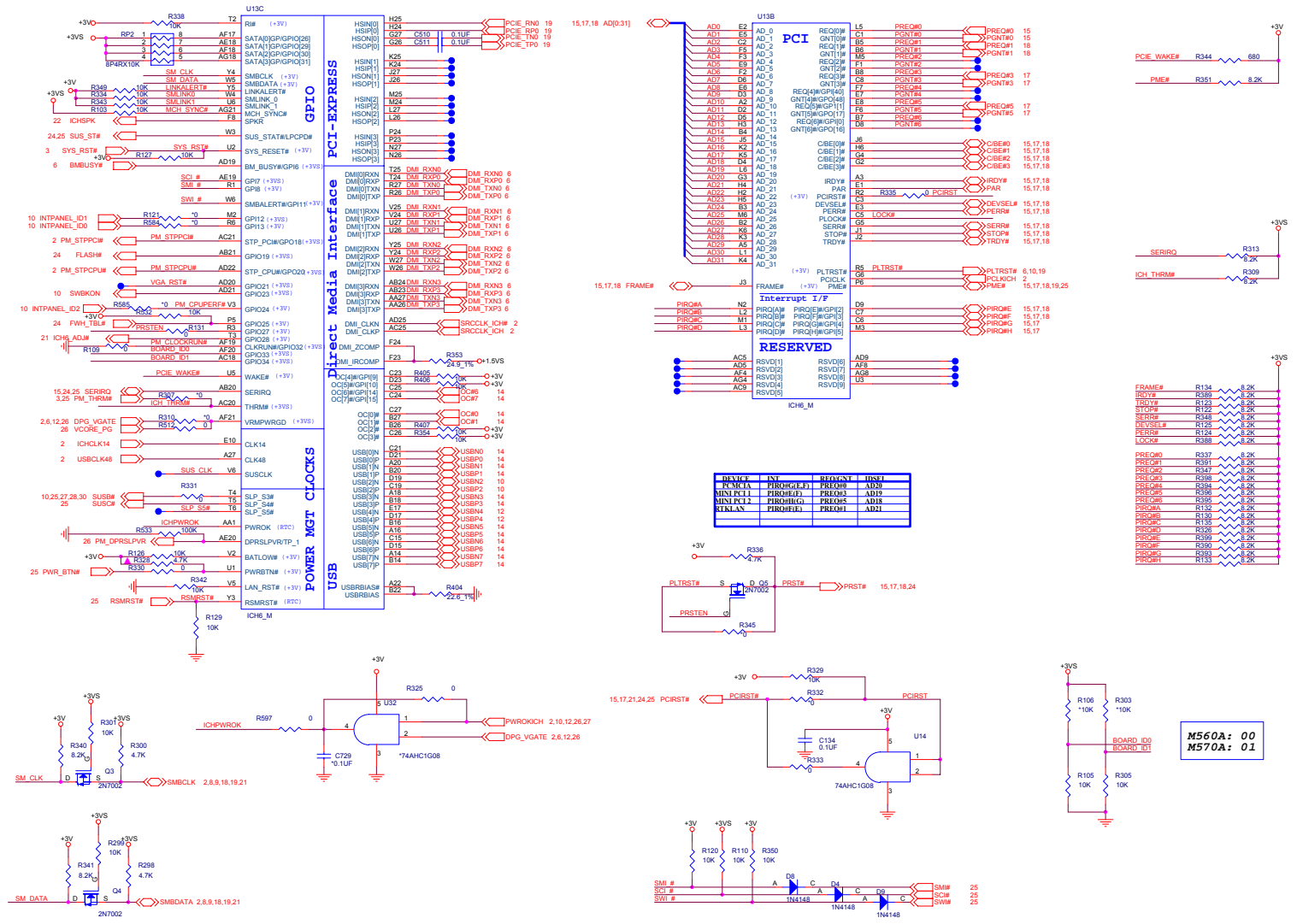


Sheet 6 of 40
Alviso-2

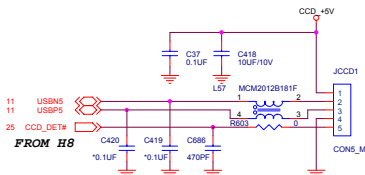
B.Schematic Diagrams

ICH6M-1

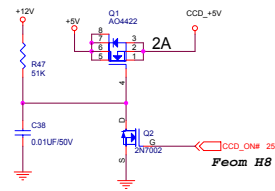
Sheet 11 of 40
ICH6M-1



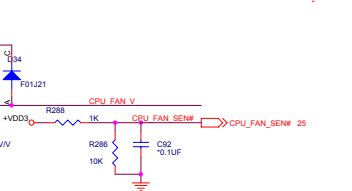
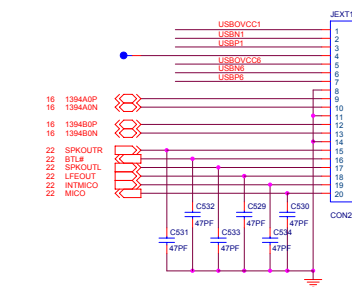
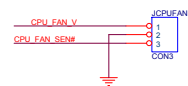
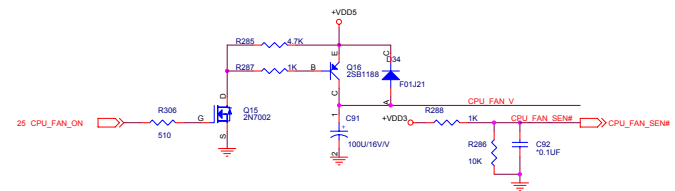
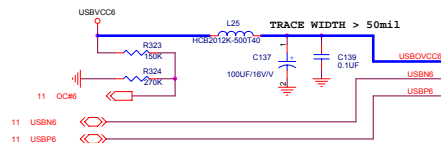
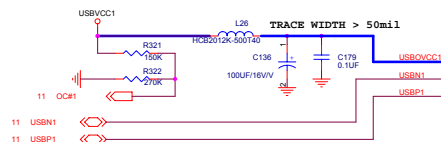
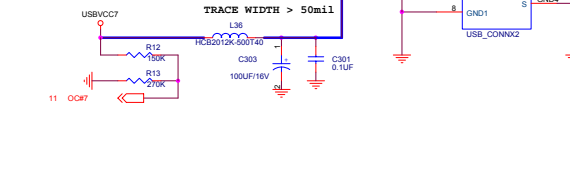
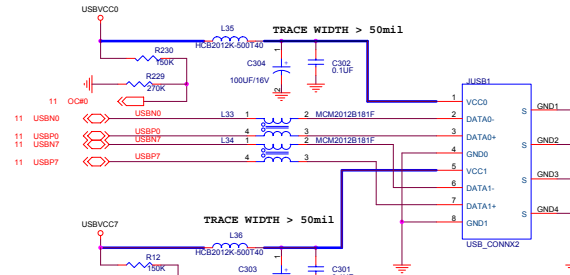
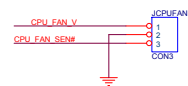
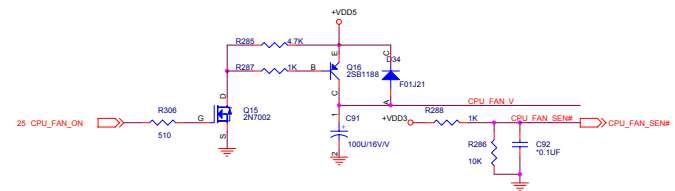
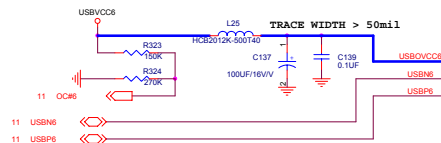
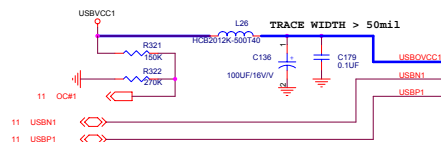
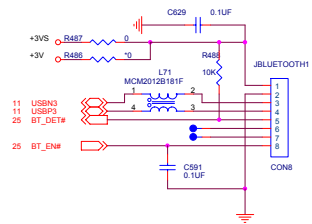
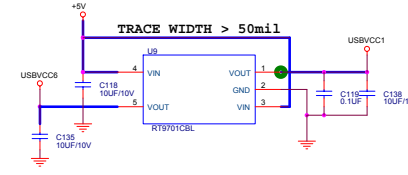
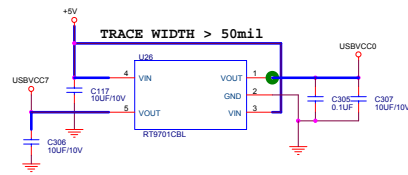
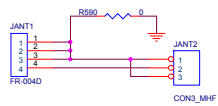
USB & CCD CONN



CCD POWER

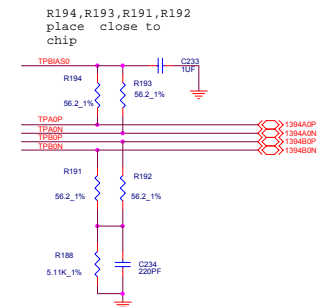
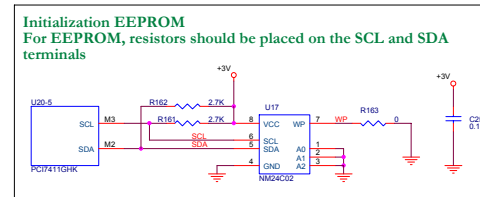
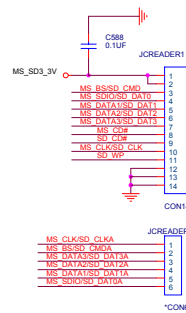
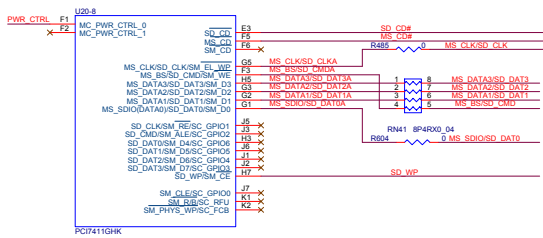


TV ANTENNA



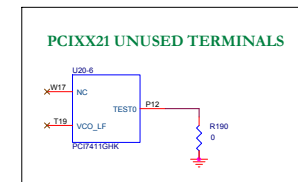
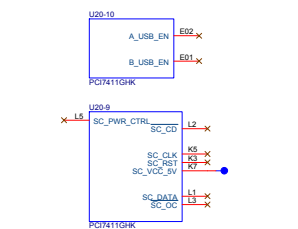
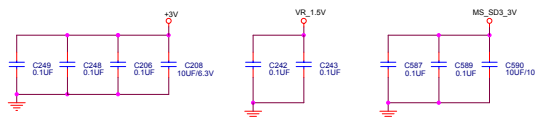
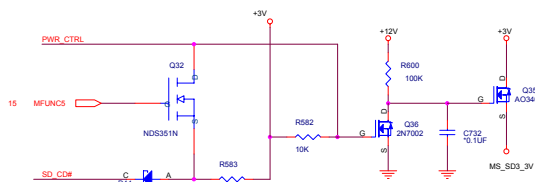
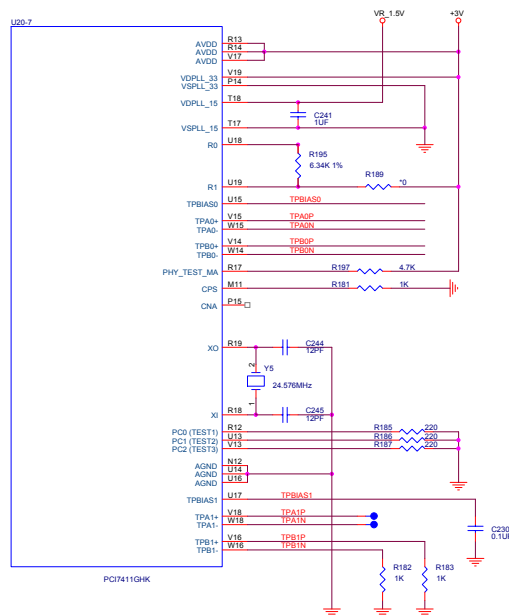
Sheet 14 of 40
USB & CCD CONN

CARD BUS & 1394-2



Sheet 16 of 40
CARD BUS & 1394-2

B. Schematic Diagrams

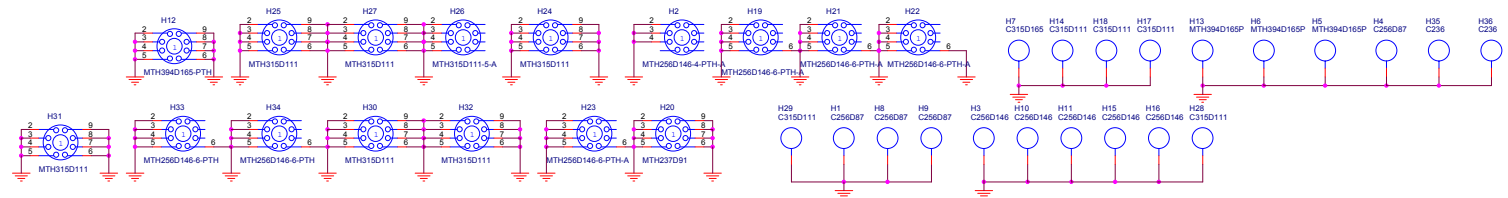
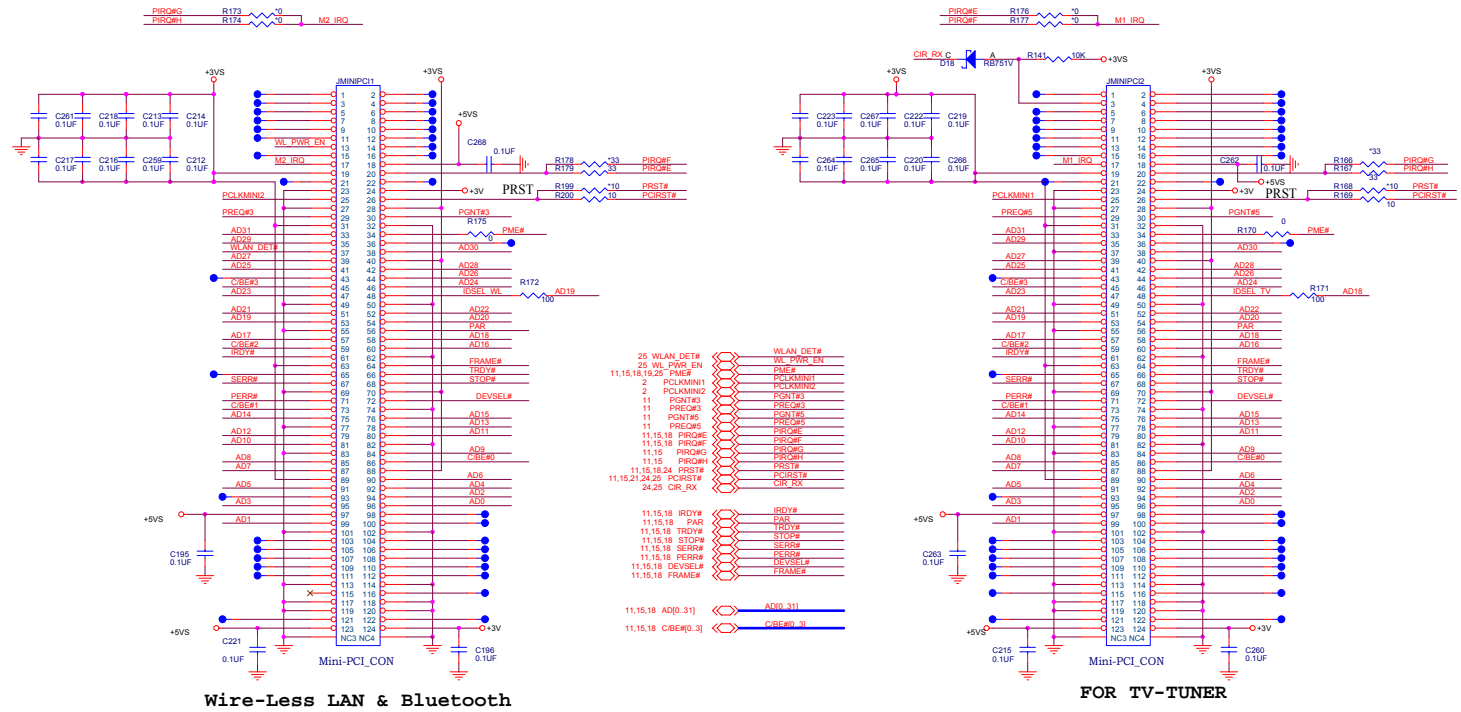


Schematic Diagrams

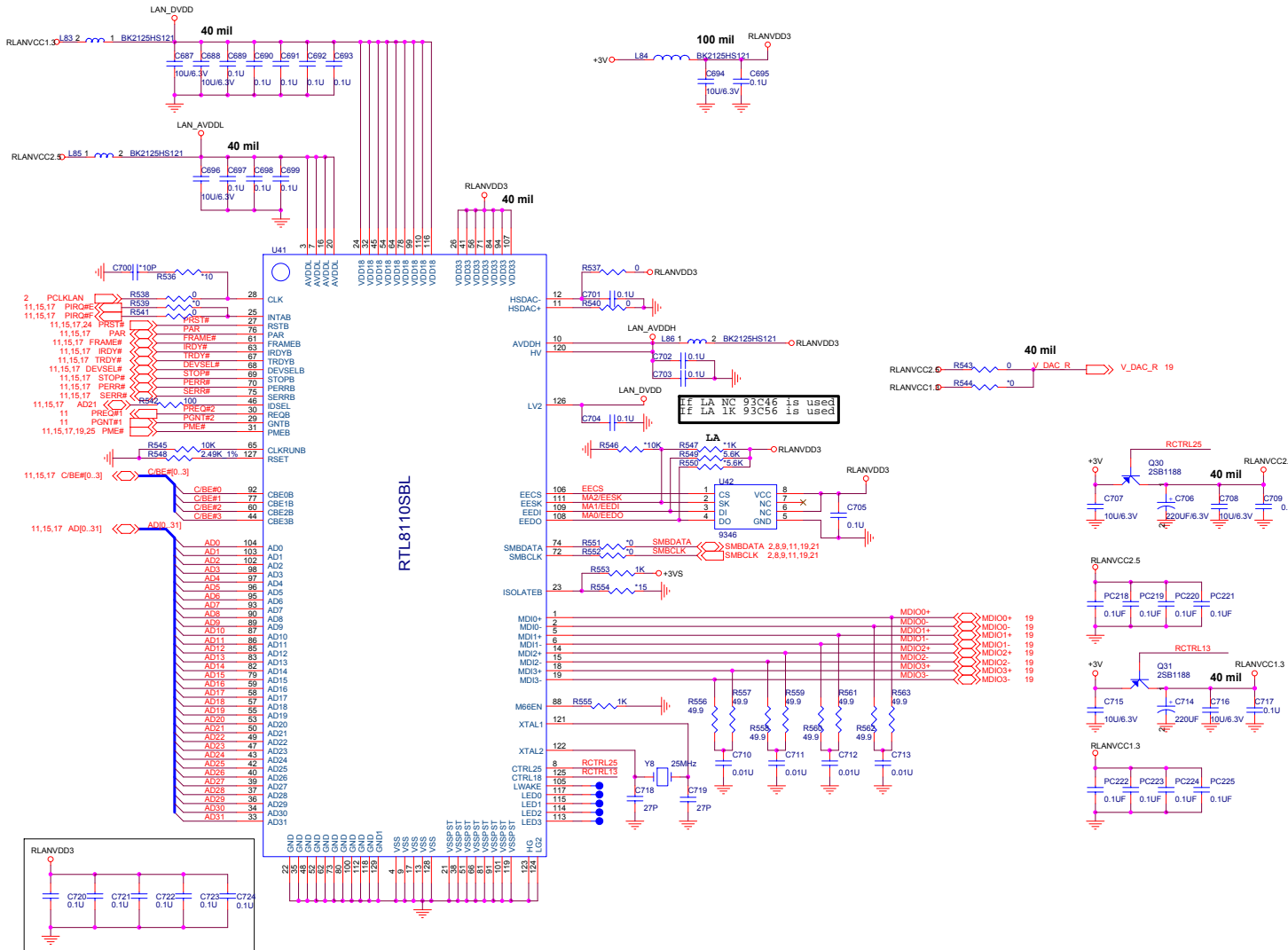
MINIPCI

B.Schematic Diagrams

Sheet 17 of 40
MINIPCI



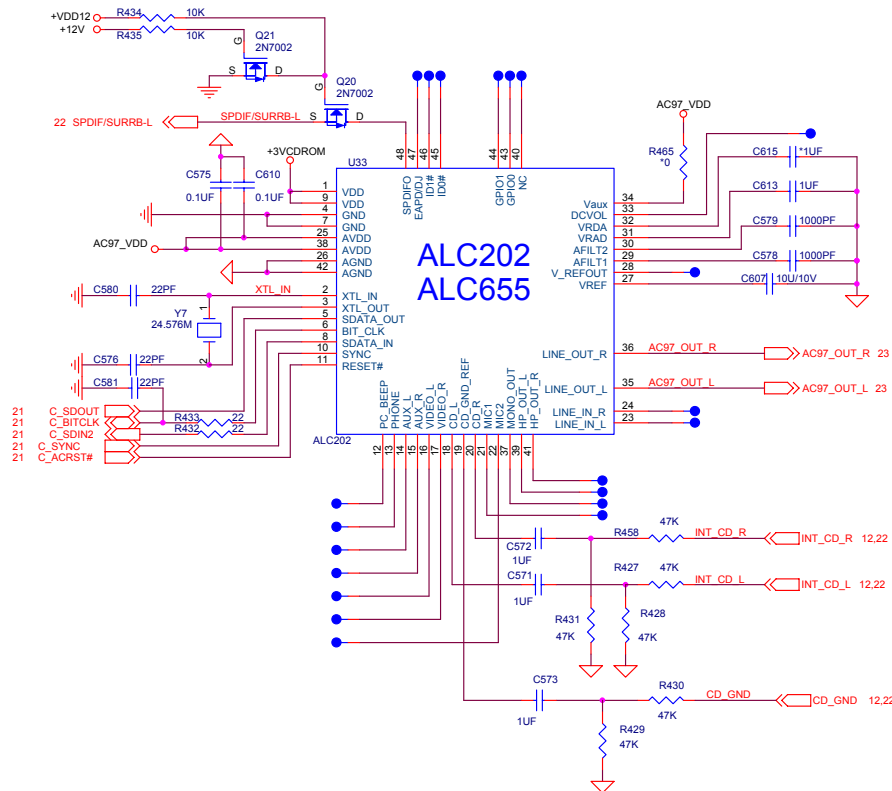
REALTEK GIGA LAN



Sheet 18 of 40
REALTEK GIGA
LAN

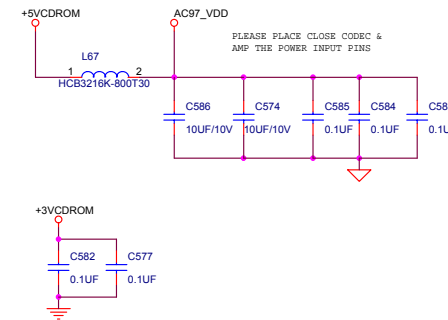
B.Schematic Diagrams

AC97

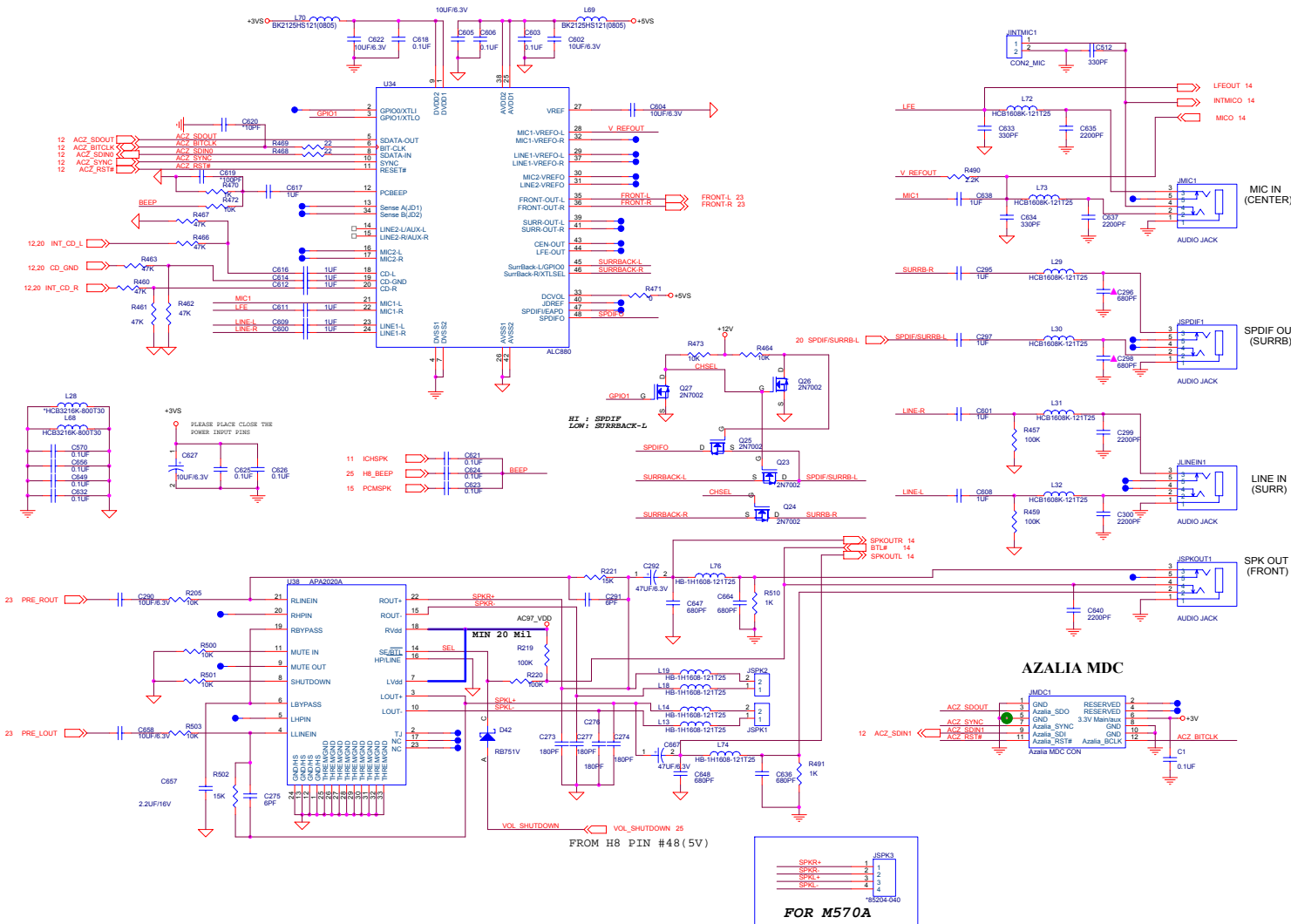


	ALC202	ALC655
C615	1UF	DEL

Sheet 20 of 40
AC97



Azalia Codec & AMP

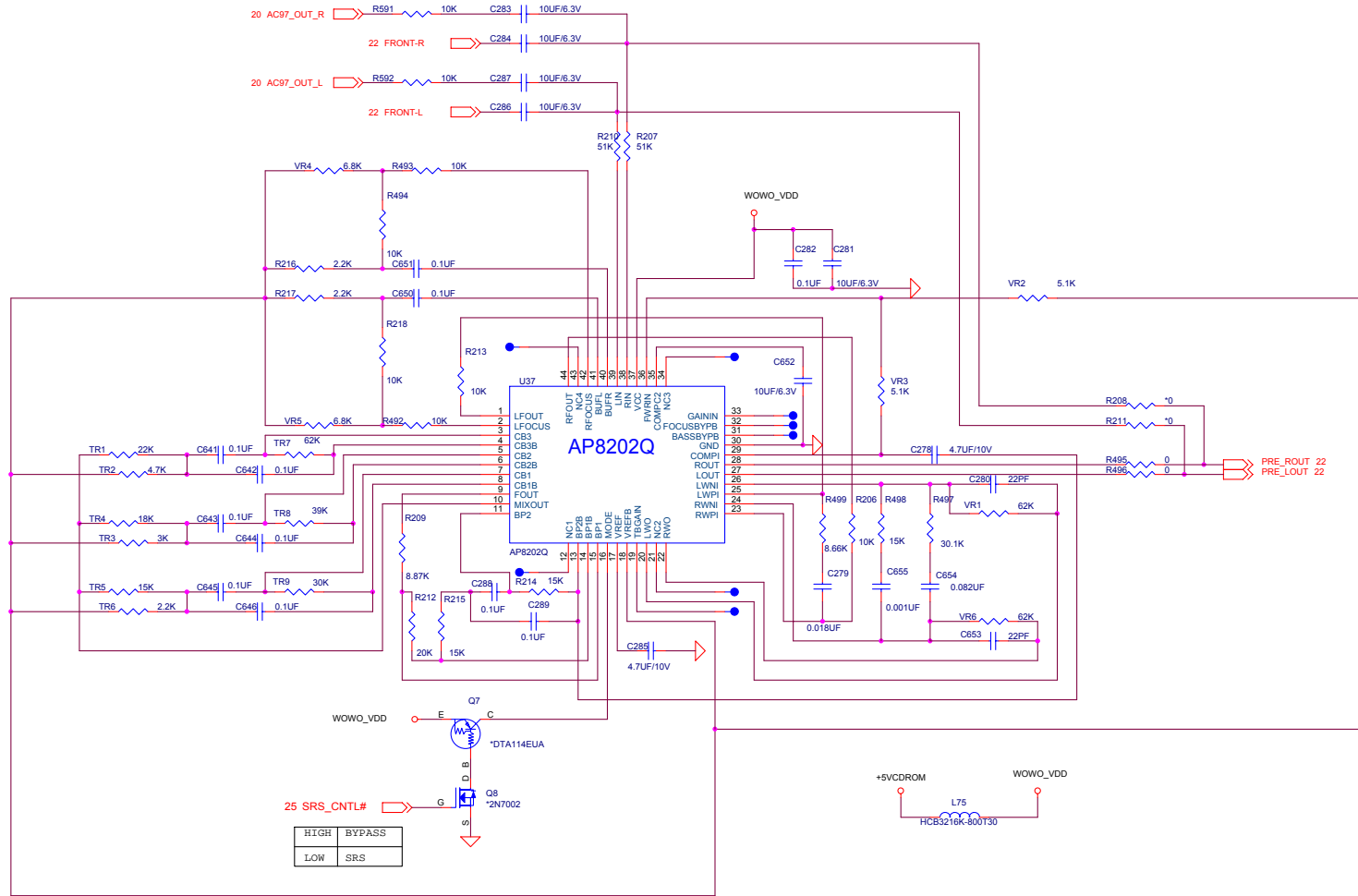


Sheet 22 of 40
Azalia Codec & AMP

B. Schematic Diagrams

Pre Amp AP8202

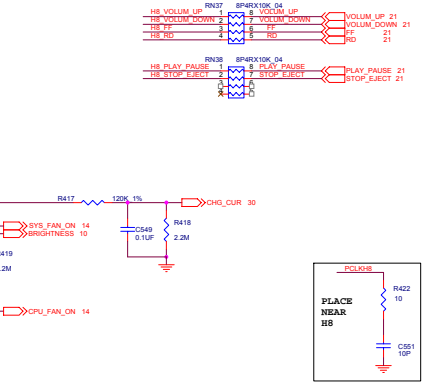
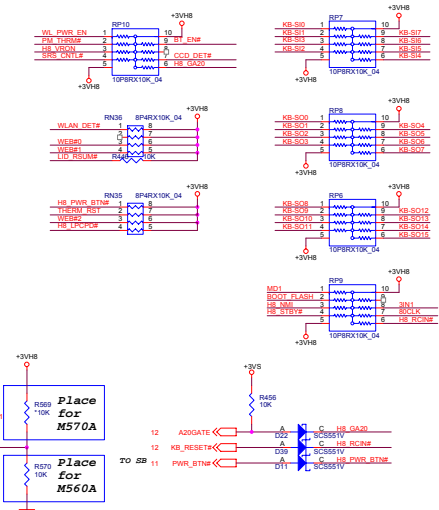
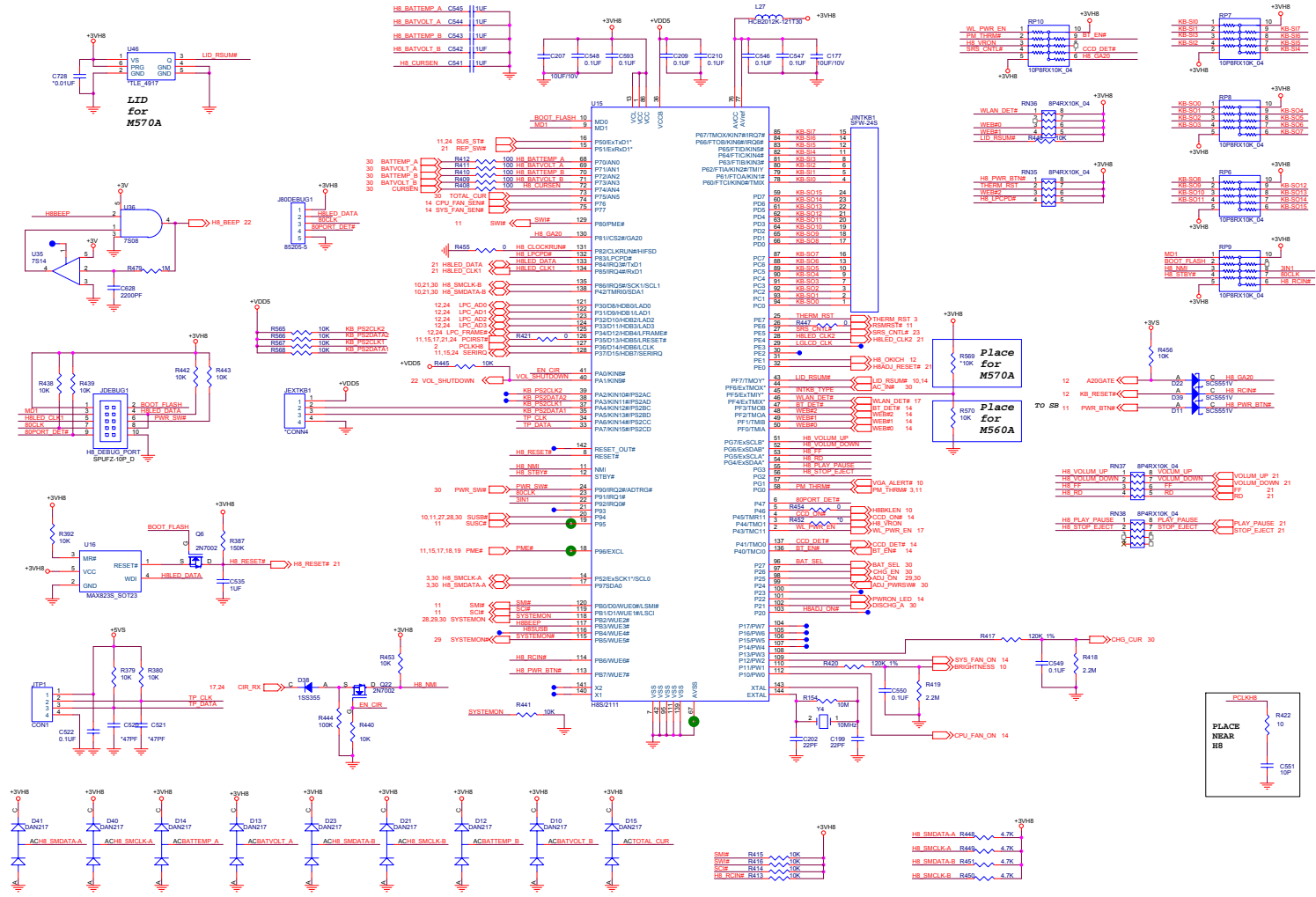
Sheet 23 of 40
Pre Amp AP8202



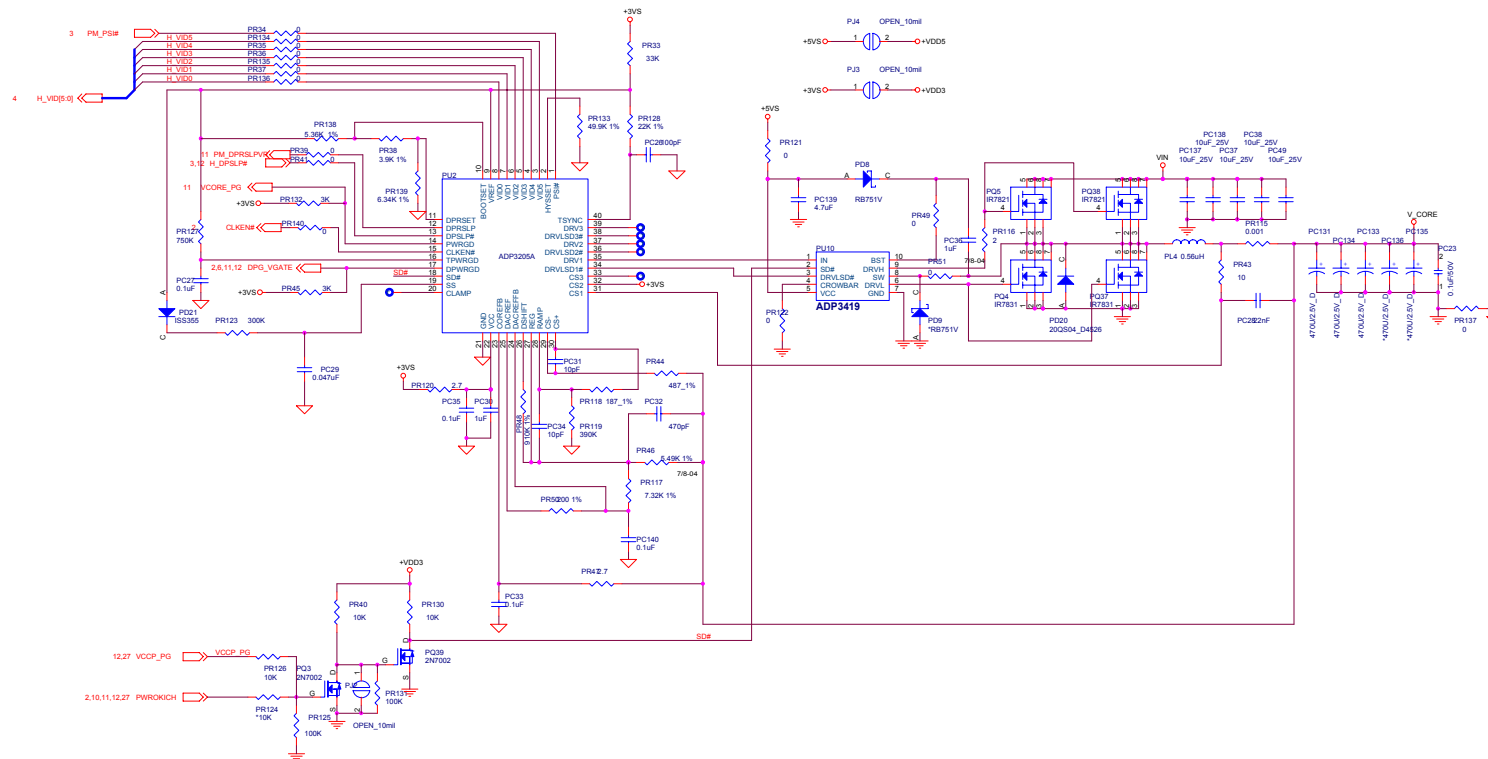
Schematic Diagrams

H8

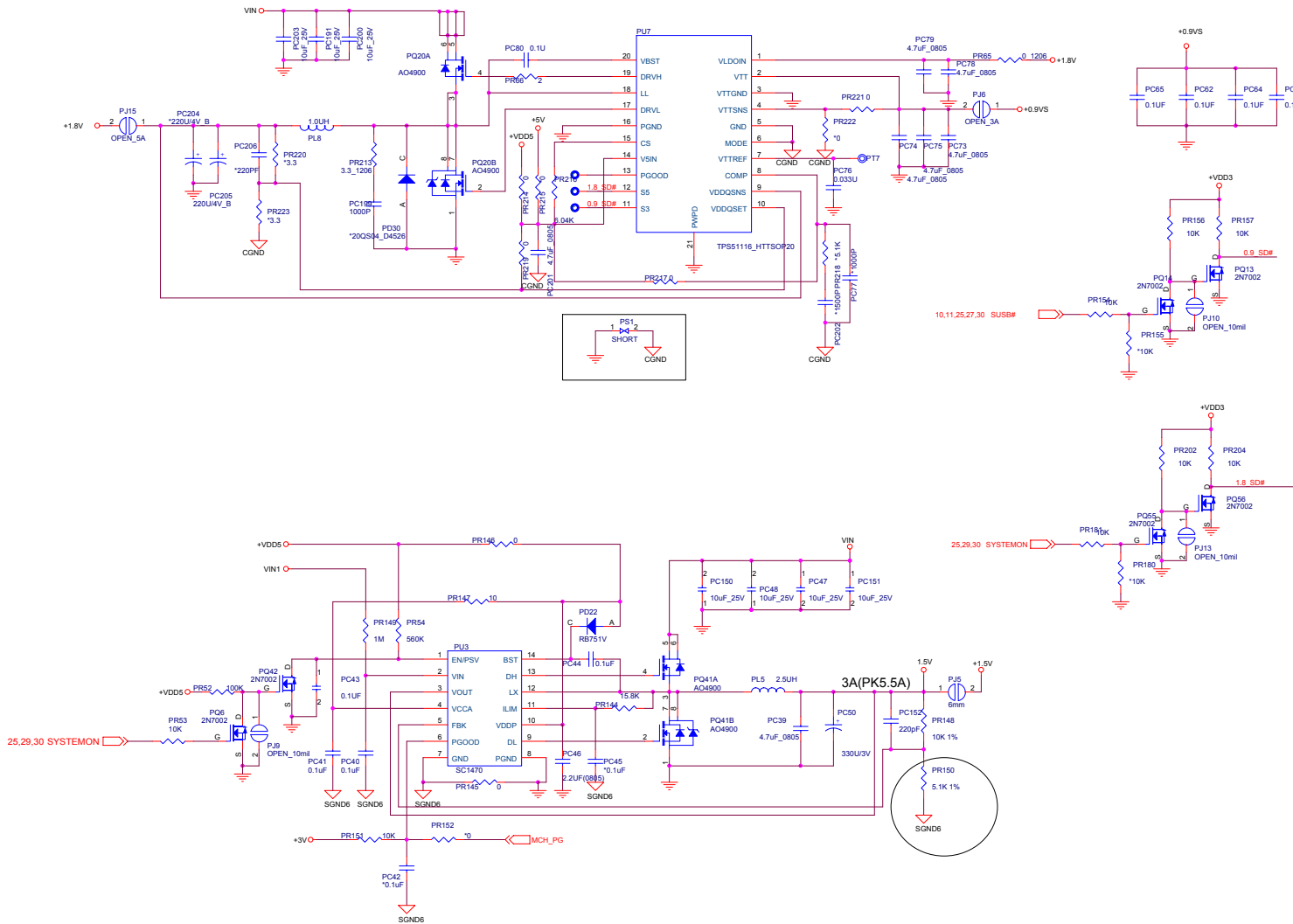
Sheet 25 of 40
H8



VCORE

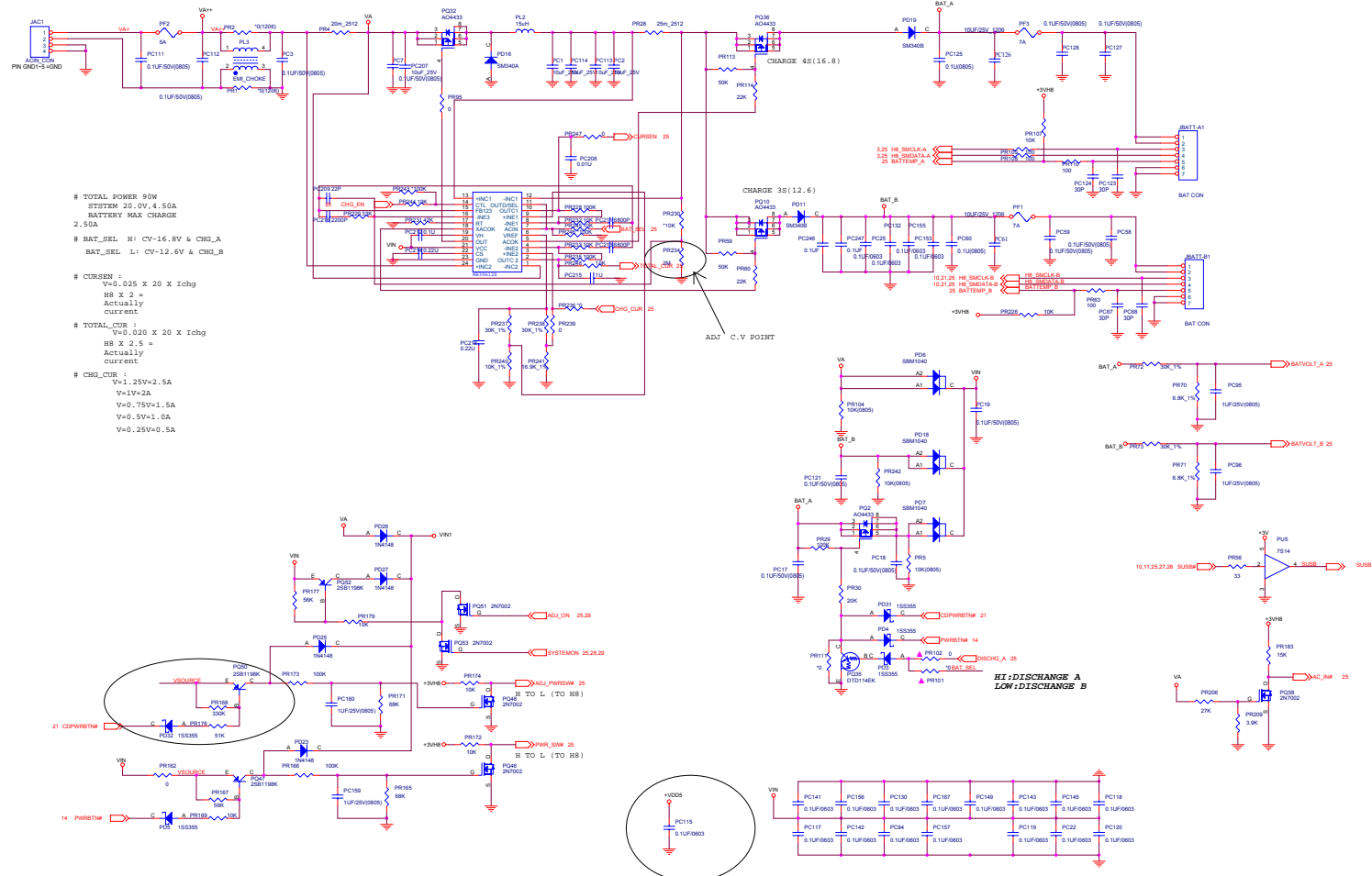


+1.8V, 0.9, +1.5V



Sheet 28 of 40
+1.8V, 0.9, +1.5V

CHARGER, DC IN



TOTAL POWER 90W
 SYSTEM 20.0V, 4.50A
 BATTERY MAX CHARGE 2.50A

BAT_SEL_H: CV-16.8V & CHG_A
 BAT_SEL_L: CV-12.6V & CHG_B

CURSEN :
 $V = 0.025 \times 20 \times I_{chg}$
 HB X 2 =
 Actually current

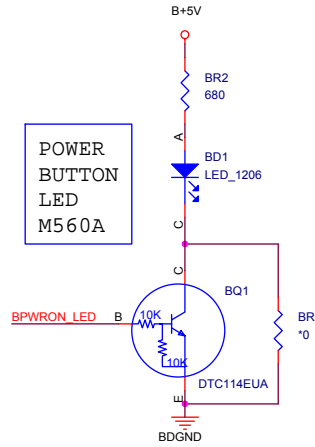
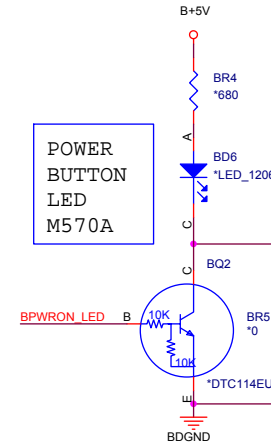
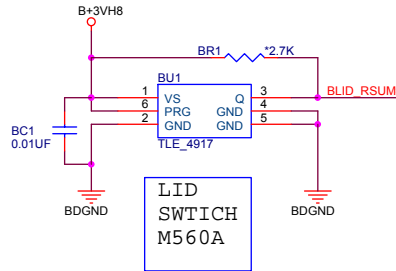
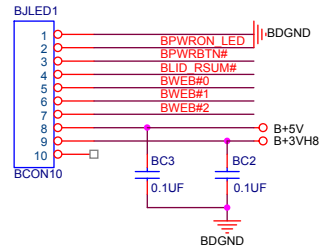
TOTAL_CUR :
 $V = 0.020 \times 20 \times I_{chg}$
 HB X 2.5 =
 Actually current

CHG_CUR :
 $V = 1.25V = 2.5A$
 $V = 1V = 2A$
 $V = 0.75V = 1.5A$
 $V = 0.5V = 1.0A$
 $V = 0.25V = 0.5A$

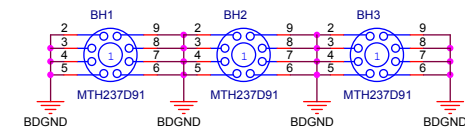
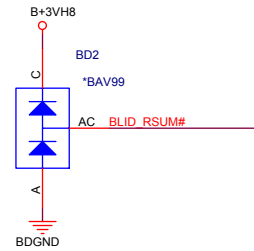
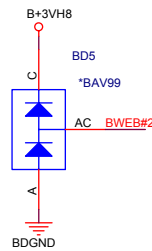
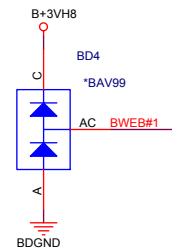
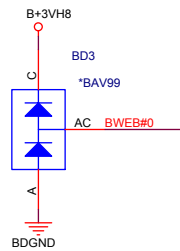
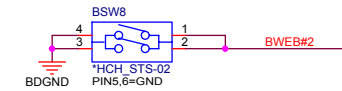
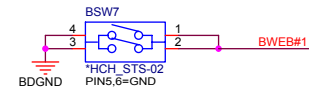
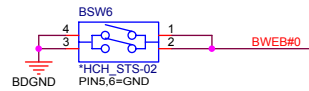
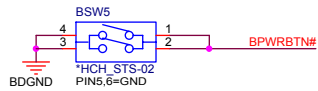
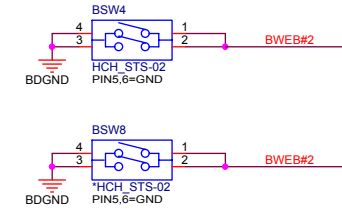
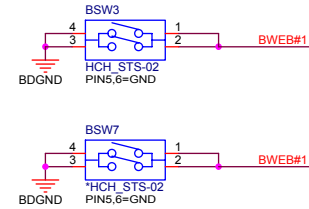
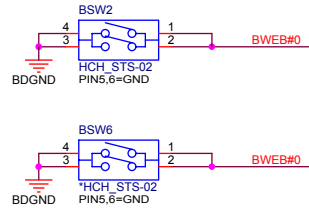
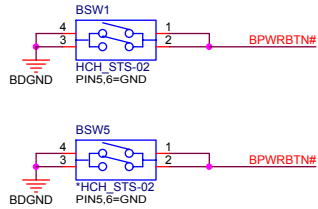
Sheet 30 of 40
 CHARGER, DC IN

B.Schematic Diagrams

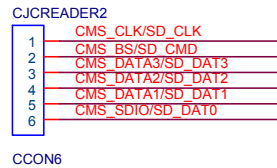
BUTTON BOARD



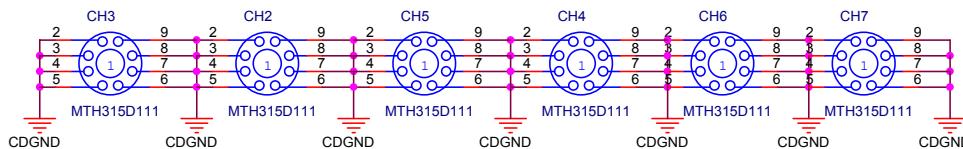
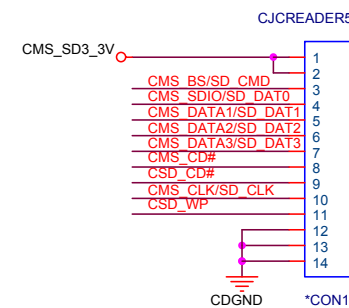
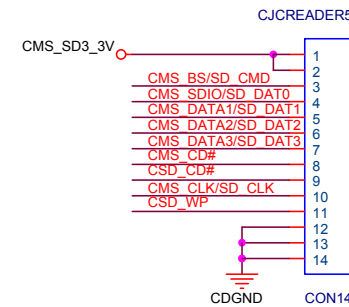
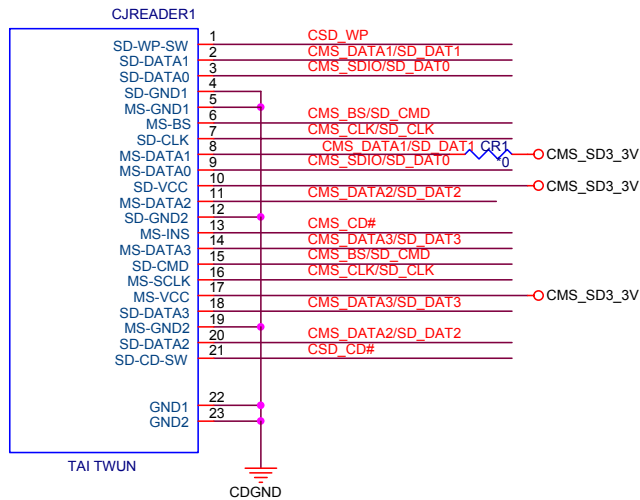
Sheet 31 of 40
BUTTON BOARD



CARD READER BOARD



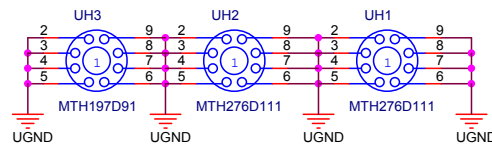
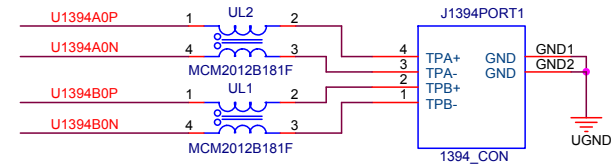
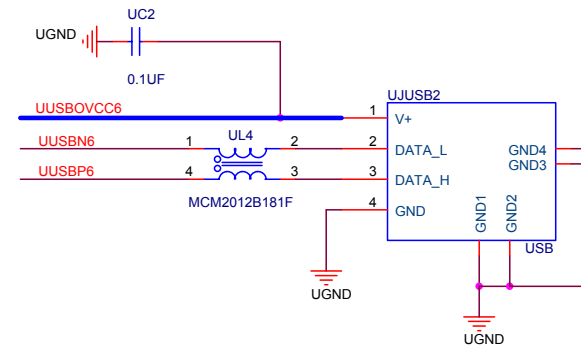
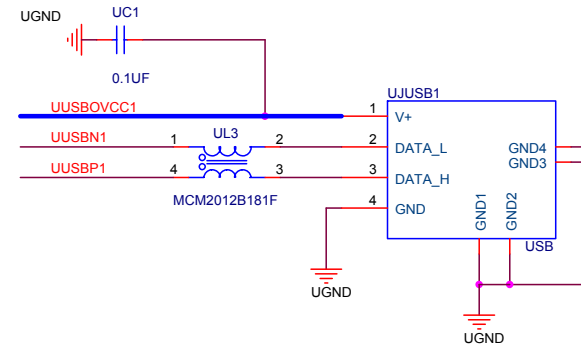
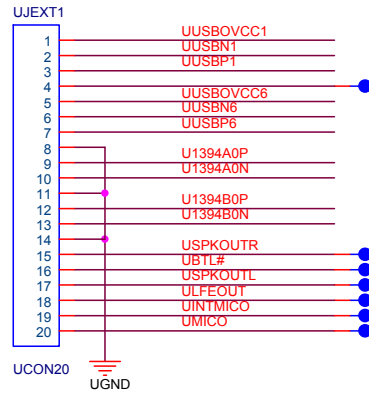
新增排阻 for 隔離干擾



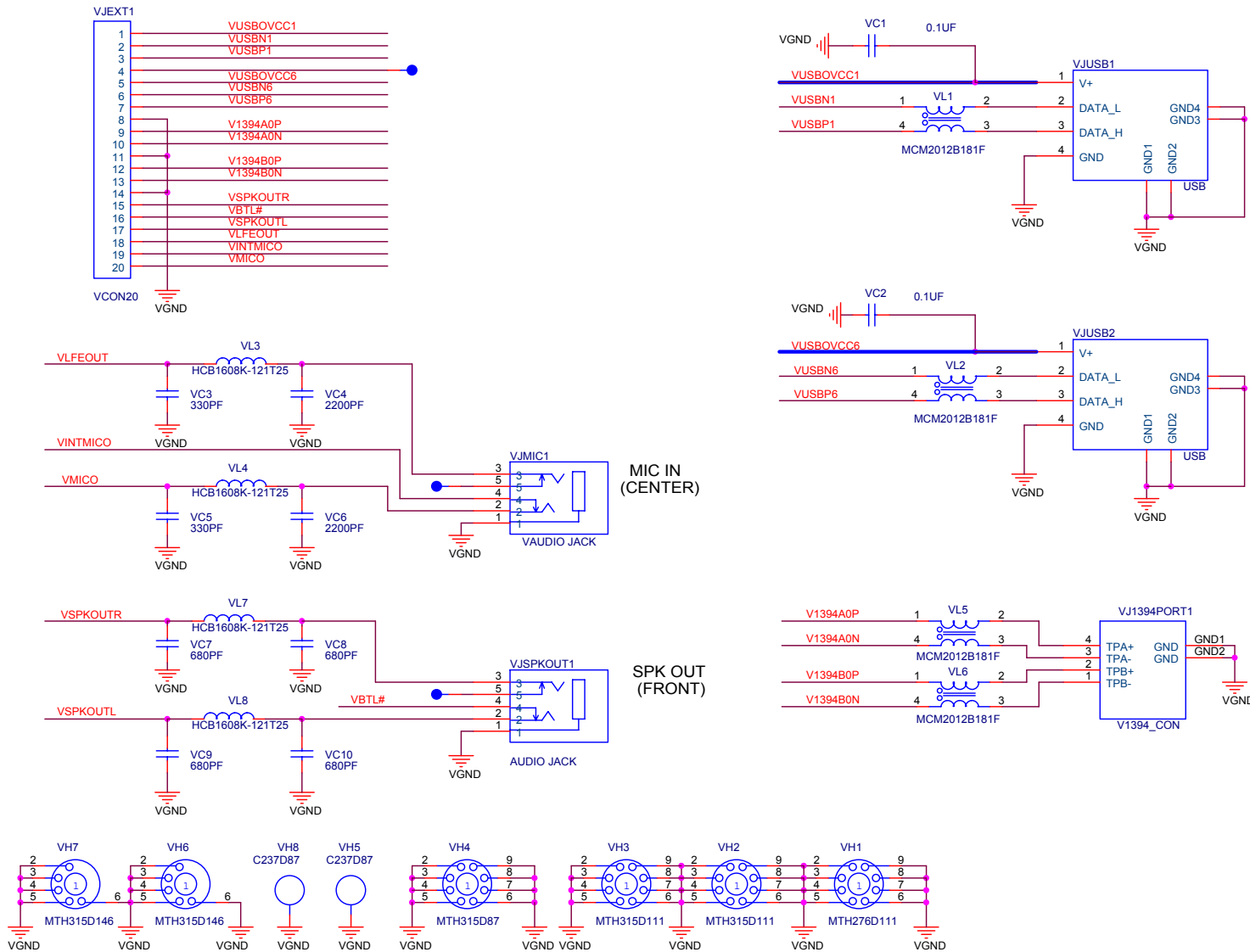
Sheet 32 of 40
CARD READER
BOARD

USB BOARD M560A

Sheet 33 of 40
USB BOARD
M560A

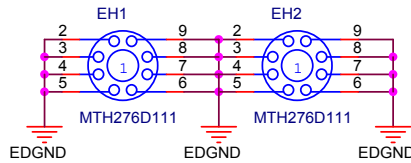
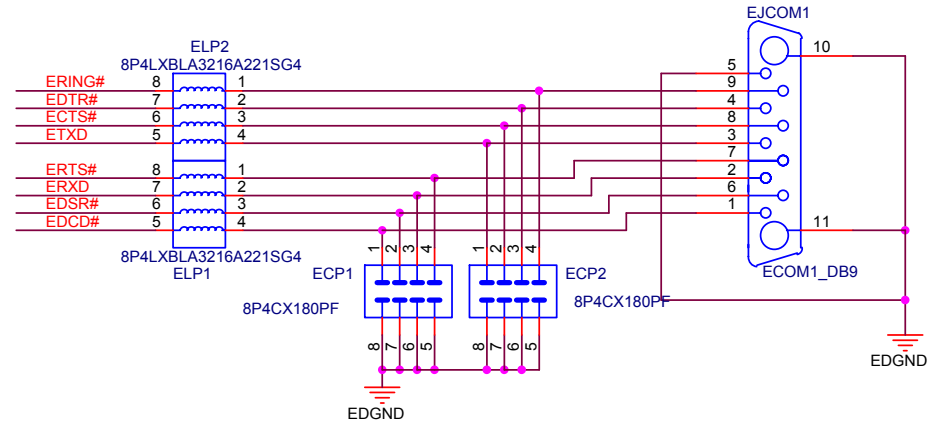
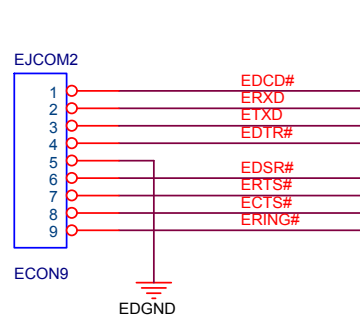


USB BOARD M570A



Sheet 34 of 40
USB BOARD
M570A

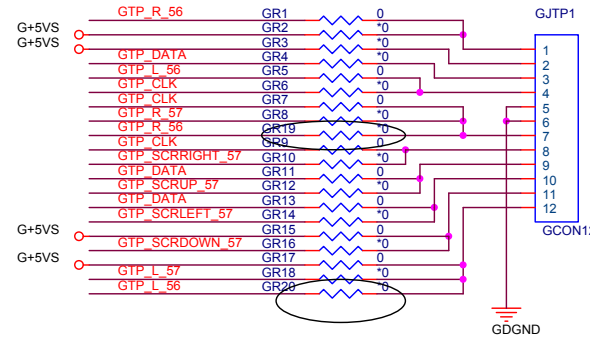
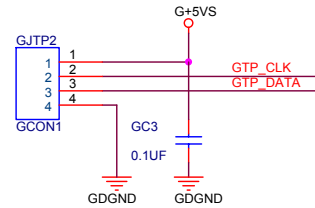
COM PORT BOARD



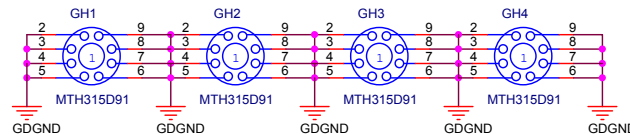
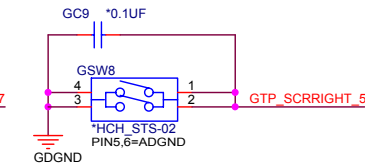
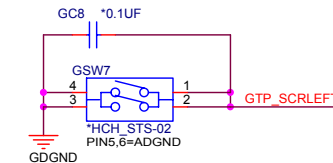
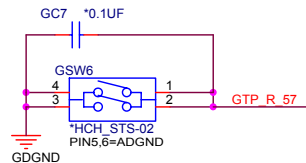
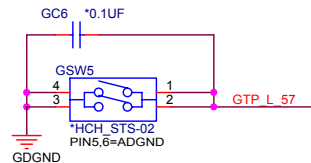
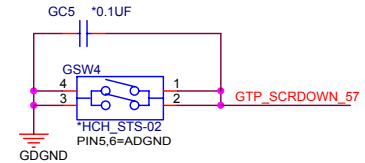
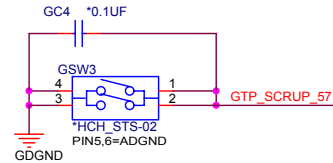
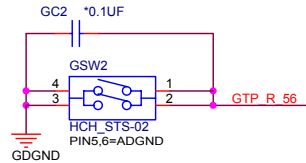
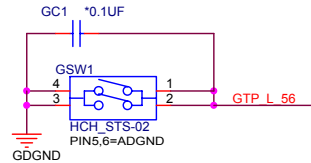
Sheet 35 of 40
COM PORT BOARD

CLICK BOARD

Sheet 37 of 40
CLICK BOARD

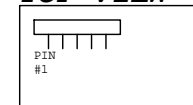


M560A AYNAPTICS	M570A AYNAPTICS ELANTECH	M560A ELANTECH
GR1	GR2	GR2
GR5	GR3	GR3
GR7	GR4	GR4
GR9	GR6	GR6
GR11	GR8	GR8
GR13	GR10	GR10
GR15	GR12	GR12
GR17	GR14	GR14
GSW1	GR16	GR16
GSW2	GR18	GR18
	GSW3	GSW1
	GSW4	GSW2
	GSW5	GR19
	GSW6	GR20
	GSW7	
	GSW8	

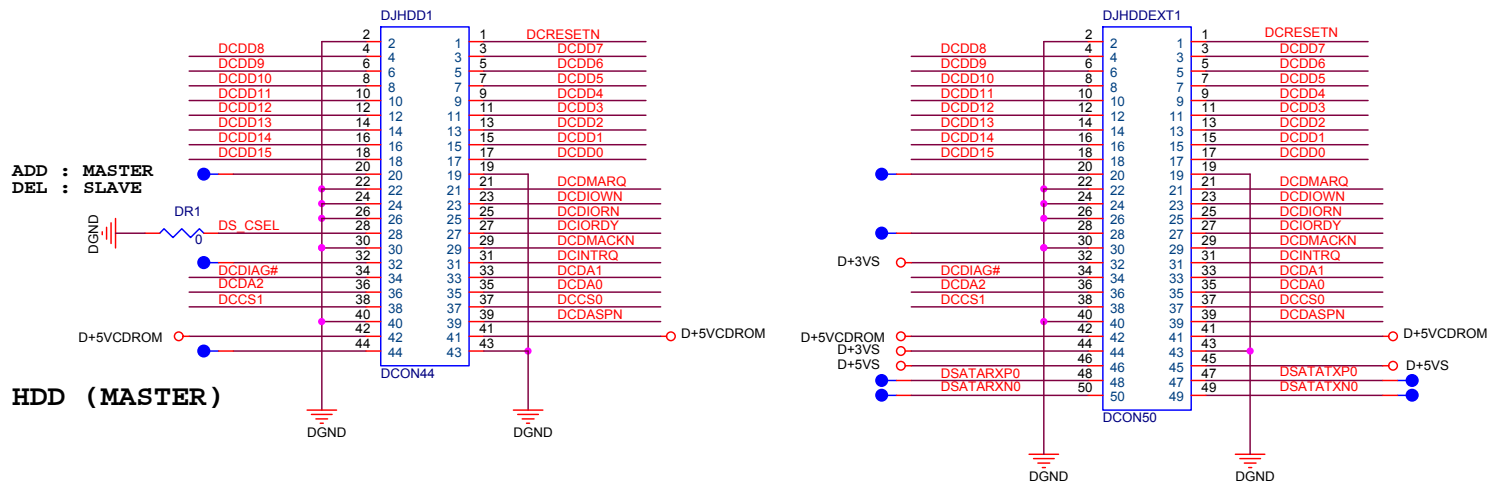


SYNAPTICS
P/N: TM61P-307 (M560A)
P/N: TM42P-372 (M570A)
ELANTECH
P/N: 800504-2602 (M56&57)

TOP VIEW



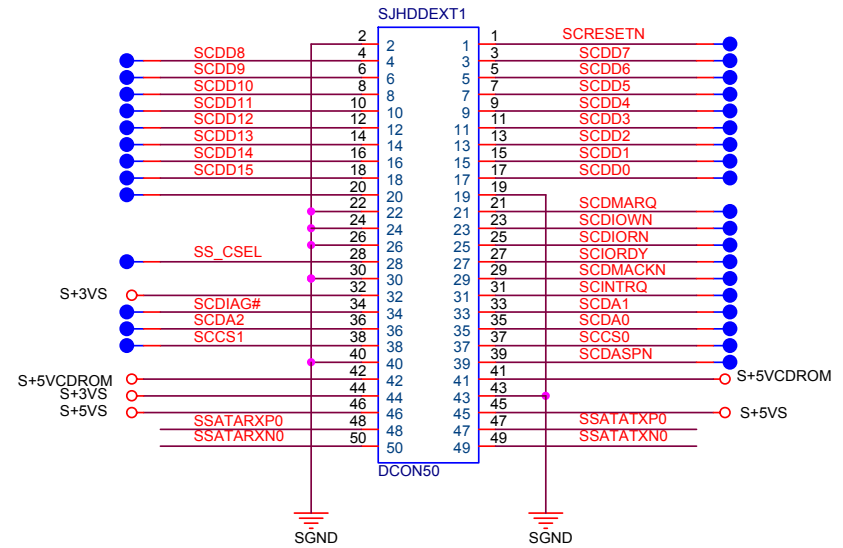
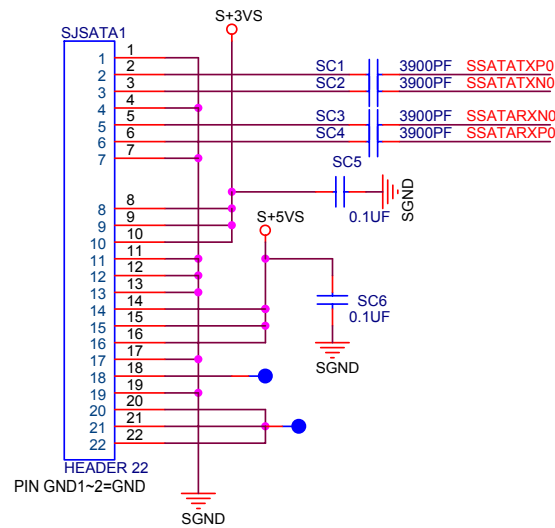
PATA HDD BOARD



Sheet 38 of 40
PATA HDD BOARD

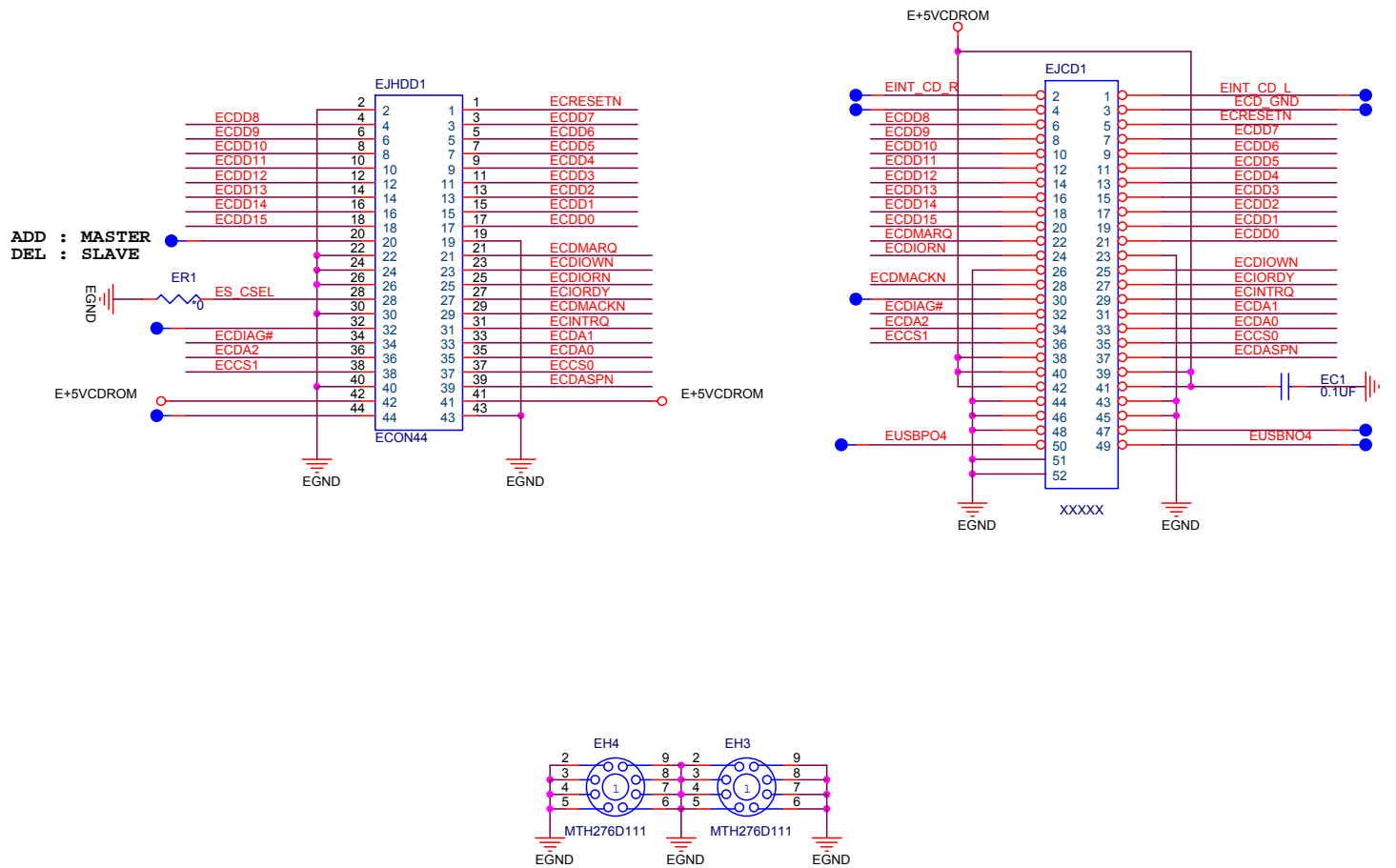
SATA HDD BOARD

SATA CONN



Sheet 39 of 40
SATA HDD BOARD

SECOND HDD BOARD



Sheet 40 of 40
SECOND HDD
BOARD

Schematic Diagrams