

# ***SERVICE MANUAL***

**M540SE / M550SE**

*notebook*





**Notebook Computer**

**M540SE/M550SE**

**Service Manual**

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February 2007

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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 *M540SE*/*M550SE* 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 19V, 3.42A or 18.5V, 3.5A (**65W**) 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**

**This Computer's Optical Device is a Laser Class 1 Product**

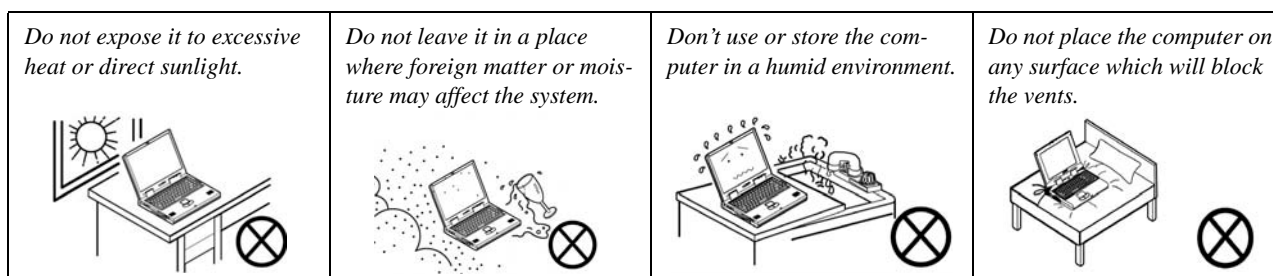
## Instructions for Care and Operation

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

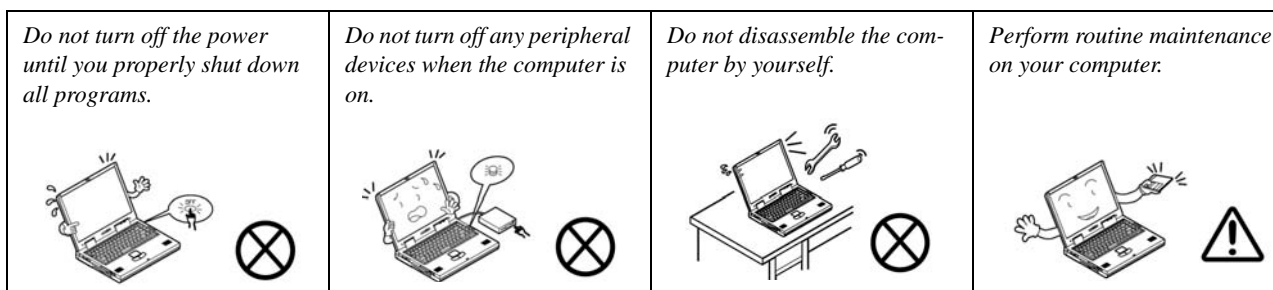
1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.



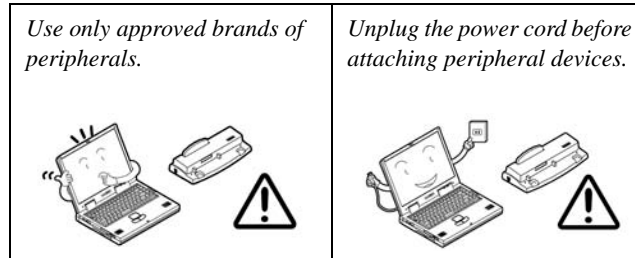
2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.



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.



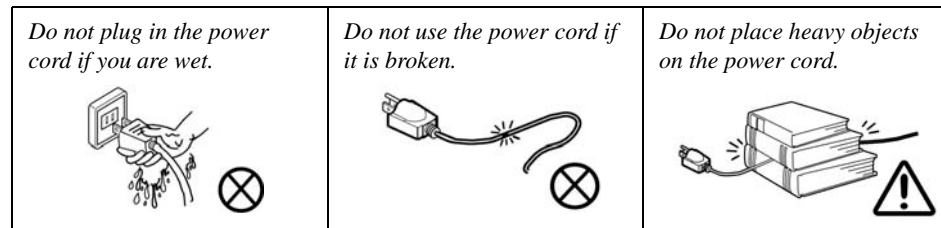
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



## 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.

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# Chapter 1: Introduction

## Overview

This manual covers the information you need to service or upgrade the *M540SE/M550SE* 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*, *Windows Vista*, etc.) 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 *M540SE/M550SE* 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® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package <b>T7200/ T7400/ T7600</b>	65nm (65 Nanometer) Process Technology 4MB On-die L2 Cache & 667MHz FSB 2.0/ 2.16/ 2.33 GHz	
	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package <b>T5500/ T5600</b>	65nm (65 Nanometer) Process Technology 2MB On-die L2 Cache & 667MHz FSB 1.66/ 1.83 GHz	
	Intel® Celeron® M Processor (478-pin) Micro-FCPGA Package <b>410/ 420/ 430/ 440/ 450</b>	65nm (65 Nanometer) Process Technology 1MB On-die L2 Cache & 533MHz FSB 1.46/ 1.60/ 1.73/ 1.86/ 2.0 GHz	
Core Logic	VIA VN896 + VT8237A Chipset		
Memory	<b><i>M550SE</i></b> Two 200 Pin SO-DIMM Sockets Supporting <b>DDRII (DDR2)</b> 533/667 MHz 64-bit Wide <b>DDRII (DDR2)</b> Data Channel Memory Expandable up to <b>2GB</b> (256/ 512/ 1024 MB <b>DDRII</b> Module)  (Note: Do Not Use Other Module Types)	<b><i>M540SE</i></b> One 200 Pin SO-DIMM Socket Supporting <b>DDRII (DDR2)</b> 533/667 MHz 64-bit Wide <b>DDRII (DDR2)</b> Data Channel Memory Expandable up to <b>1GB</b> (256/ 512/ 1024 MB <b>DDRII</b> Module)  (Note: Do Not Use Other Module Types)	
	Security	Security (Kensington® Type) Lock Slot	BIOS Password
BIOS	One 4Mb Flash ROM	Phoenix™ BIOS	
LCD	<b><i>M550SE</i></b>  15.0" XGA (1024*768) Flat Panel TFT <b>OR</b> 15.0" XGA (1024*768) Glare Type Flat Panel TFT	<b><i>M540SE</i></b>  14.1" WXGA (1280*800) Flat Panel TFT <b>OR</b> 14.1" WXGA (1280*800) Glare Type Flat Panel TFT	
	Video Adapter	<b>VIA VN896 Integrated Video System</b> Chrome9 HC™ Pro 2D/3D Graphics Integrated 128bit 2D/3D Graphic Engine and Clock up to 250MHz Supports CRT Resolutions up to 2048 * 1536 at 75Hz Supports Microsoft DirectX 9.0	

Feature	Specification	
<b>Storage</b>	One Changeable 12.7mm(h) Optical Device (CD/DVD) Type Drive (see <i>“Optional” on page 1 - 4</i> for drive options) Easy Changeable 2.5" 9.5 mm (h) HDD with <b>SATA</b> (Serial) Interface	
<b>Audio</b>	Integrated Azalia Compliant Interface 3D Stereo Enhanced Sound System Sound-Blaster PRO™ Compatible	2 * Built-In Speakers Built-In Microphone
<b>Keyboard &amp; Pointing Device</b>	Winkey Keyboard	Built-In TouchPad with Scrolling Function
<b>Interface</b>	Three USB 2.0 Ports One External Monitor Port One Headphone-Out Jack One Microphone-In Jack One Line-In Jack	One S/PDIF Output Jack One RJ-11 Modem Jack One RJ-45 LAN Jack One DC-in Jack
<b>Card Reader</b>	Embedded 7-in-1 Card Reader (MS/ MS Pro/ SD/ Mini SD/ MMC/ RS MMC/ MS Duo) <b>Note:</b> MS Duo/ Mini SD/ RS MMC Cards require a PC adapter	
<b>ExpressCard Slot</b>	One ExpressCard/34/54 Slot	
<b>Communication</b>	56K Plug & Play Fax/Modem v90/92 Compliant 10M/100M Base-TX Ethernet ( <b>Factory Option</b> ) 300K or 1.3M Pixel PC Camera with USB Interface ( <b>Factory Option</b> ) Bluetooth Module - Version 2.0 ( <b>Option</b> ) 802.11b/g Wireless LAN Module with USB Interface	
<b>Power Management</b>	Supports ACPI 2.0 Supports Suspend to RAM (S3) Supports Suspend to Disk (S4) Supports Soft Off (S5)	Supports Battery Low Suspend Supports Resume from Modem Ring Supports Wake on LAN
<b>Power</b>	Full Range AC/DC Adapter 19V, 3.42A or 18.5V, 3.5A ( <b>65 Watts</b> ), 100~240V, 47~63Hz  6 Cell Smart Lithium-Ion Battery Pack, 4000mAH (44.4W)	
<b>Environmental Spec</b>	Temperature Operating: 5°C ~ 35°C Non-Operating: -20°C ~ 60°C	Relative Humidity Operating: 20% ~ 80% Non-Operating: 10% ~ 90%


## Introduction

Feature	Specification	
<b>Physical Dimensions &amp; Weight</b>	<b><i>M550SE</i></b> 333mm (w) * 276mm (d) * 24-33mm (h) 2.5 kg With 6 Cell Battery	<b><i>M540SE</i></b> 333mm (w) * 243mm (d) * 24-33mm (h) 2.2 kg With 6 Cell Battery
<b>Optional</b>	<b><u>Optical Drive Module Options:</u></b> DVD-ROM Drive Module DVD/CD-RW Combo Drive Module DVD-Dual Drive Module	802.11b/g Wireless LAN Module with USB Interface  ( <b>Factory Option</b> ) PC Camera with USB Interface  ( <b>Factory Option</b> ) Bluetooth Module - Version 2.0



## Model Differences

This notebook series includes **two** different model types (each model includes two design styles). The models differ slightly in design style including the LCD type, and the location of the card reader (the easiest way to differentiate between the model types is the location of the card reader).

Feature	M550SE	M540SE
LCD Type	15.0" XGA (1024*768) Flat Panel TFT OR 15.0" XGA (1024*768) Glare Type Flat Panel TFT	14.1" WXGA (1280*800) Flat Panel TFT OR 14.1" WXGA (1280*800) Glare Type Flat Panel TFT
Card Reader Location	Left Side	Front
Design Styles		

*Table 1 - 1*  
Model difference

## Introduction

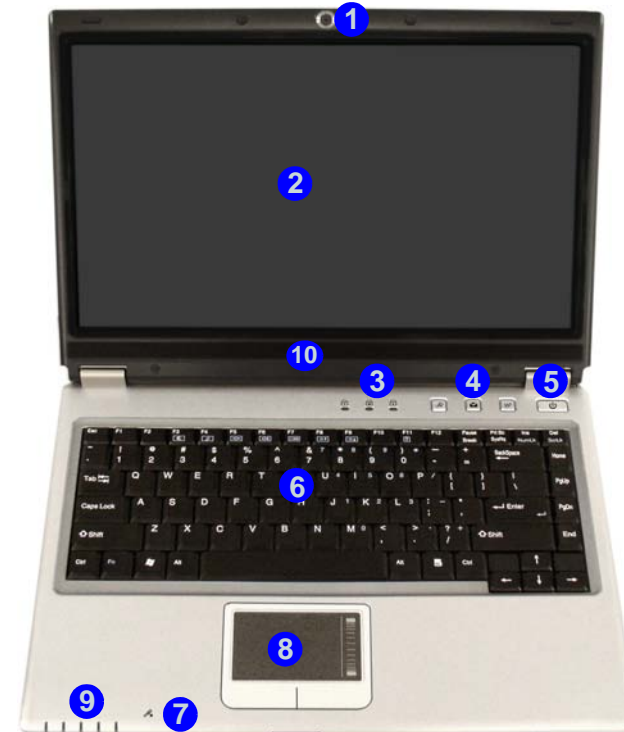
# External Locator - Top View with LCD Panel Open

Figure 1  
Top View

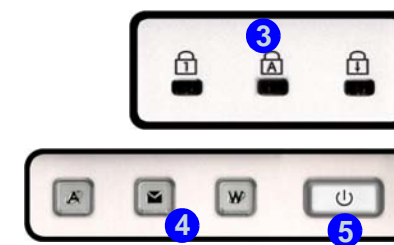
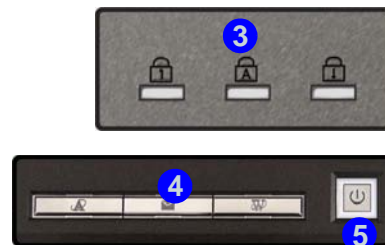
1. Optional Built-In PC Camera
2. LCD
3. LED Status Indicators
4. Hot Key Buttons
5. Power Button
6. Keyboard
7. Built-In Microphone
8. TouchPad and Buttons
9. LED Power & Communication Indicators
10. Speaker



M550SE



M540SE



## External Locator - Front & Right side Views



*Figure 2*  
**Front Views**

1. LED Power & Communication Indicators
2. LCD Latch (M550SE Only)
3. 7-in-1 Card Reader (M540SE Only)

*Figure 3*  
**Right Side Views**

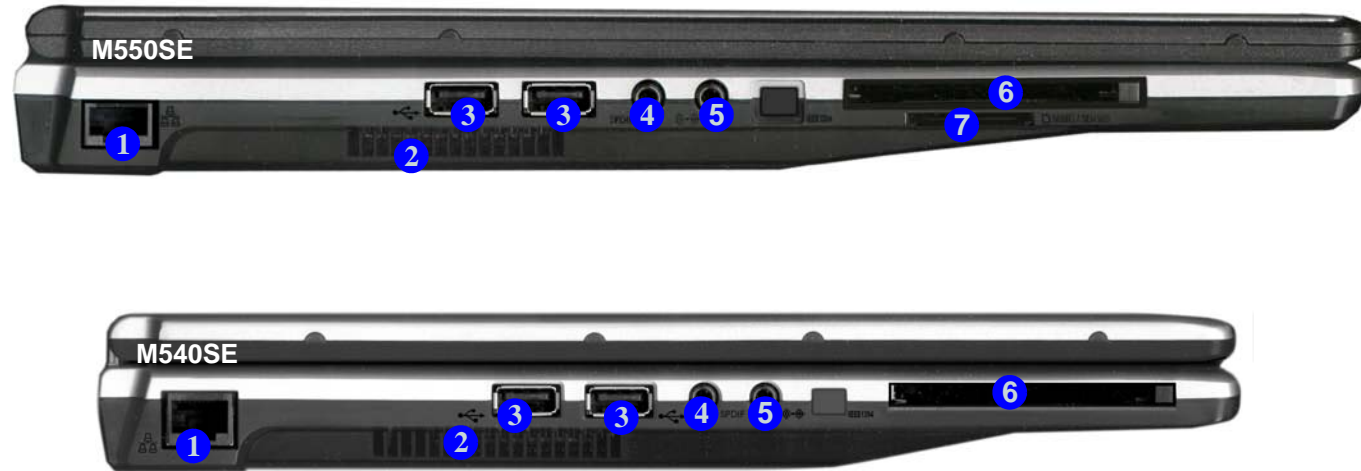
1. Headphone-Out Jack
2. Microphone-In Jack
3. USB 2.0 Port
4. RJ-11 Modem Jack
5. Optical Device Drive Bay
6. DC-In Jack

## Introduction

### External Locator - Left Side & Rear View

*Figure 4*  
**Left Side View**

1. RJ-45 LAN Jack
2. Vent/Fan Intake
3. 2 \* USB 2.0 Ports
4. S/PDIF-Out Jack
5. Line-In Jack
6. ExpressCard Slot
7. 7-in-1 Card Reader (**M550SE** Only)

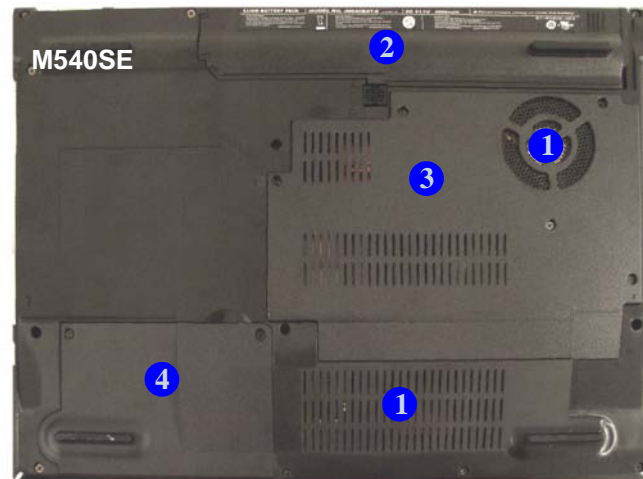
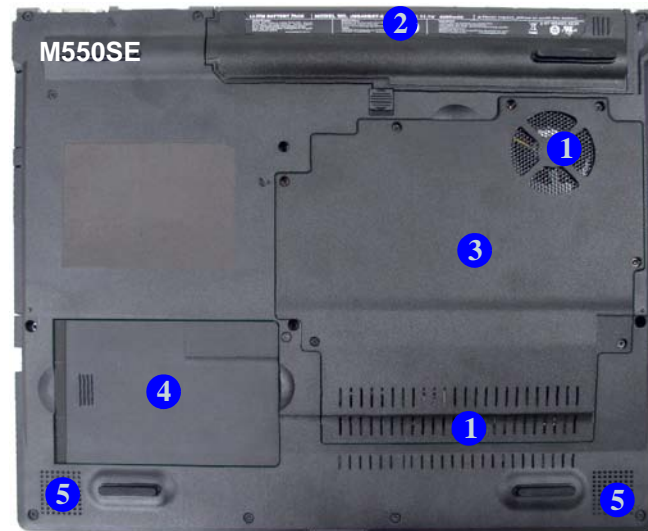


*Figure 5*  
**Rear View**

1. External Monitor Port
2. Security Lock Slot
3. Battery



## External Locator - Bottom View



*Figure 6*  
**Bottom View**

1. Vent/Fan Intake
2. Battery
3. Component Bay Cover
4. Hard Disk Cover
5. Speakers (M550SE Only)



### Overheating

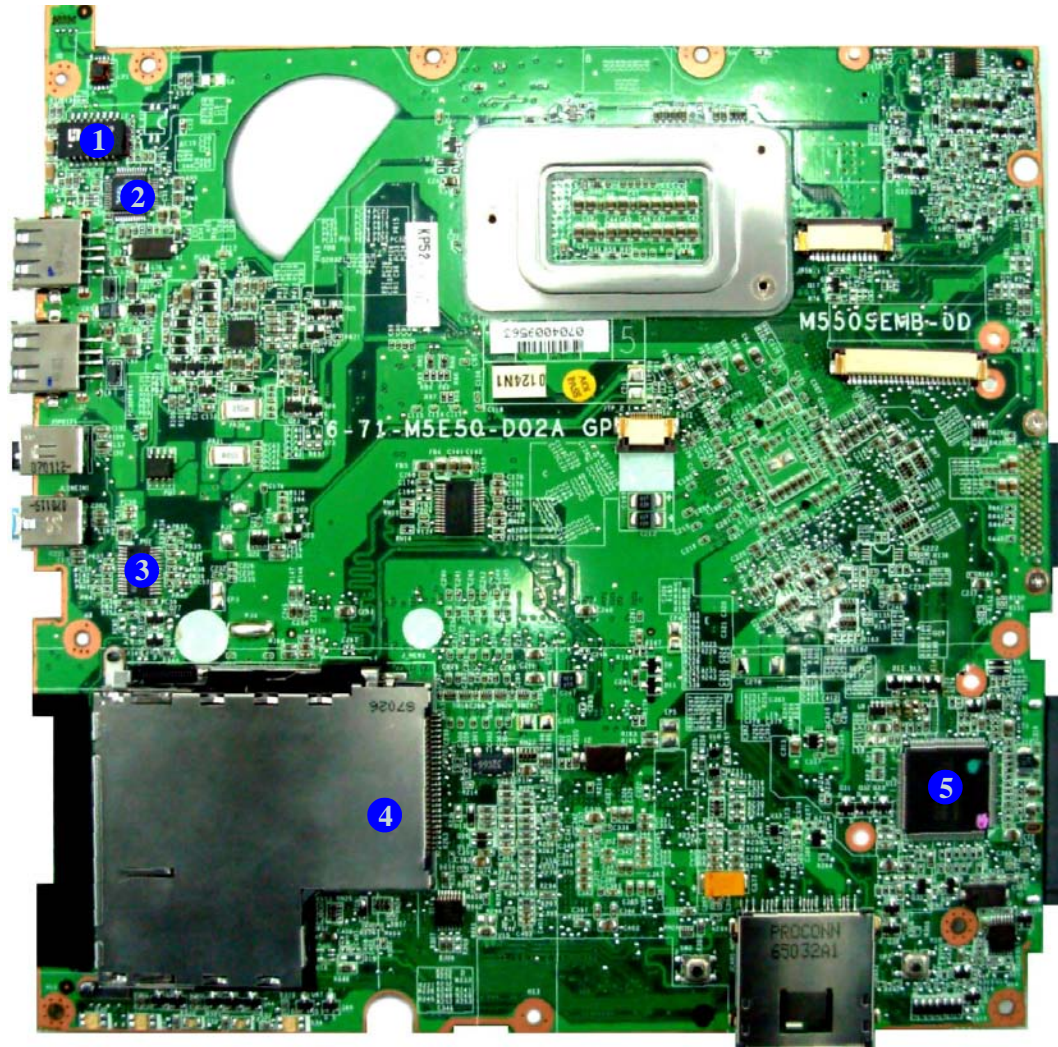
To prevent your computer from overheating make sure nothing blocks the vent/fan intakes while the computer is in use.

## Introduction

*Figure 7*  
**Mainboard Top  
Key Parts**

1. Transformer
2. VIA LVDS  
VT-1634
3. PWM Controller  
(+1.05VS, +1.5V)
4. ExpressCard  
Connector
5. H8-2111

## M540SE Mainboard Overview - Top (Key Parts)



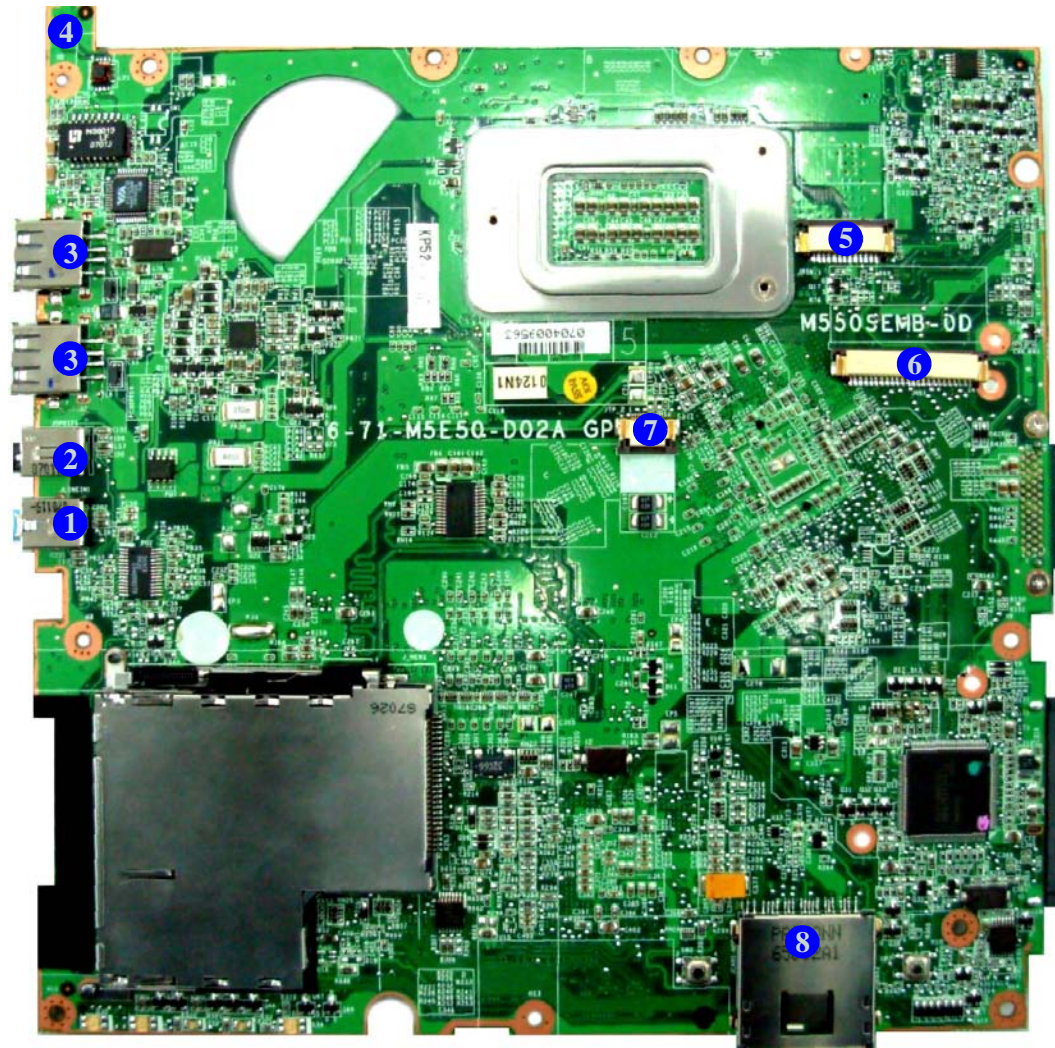


## Introduction

*Figure 9*  
**Mainboard Top  
Connectors**

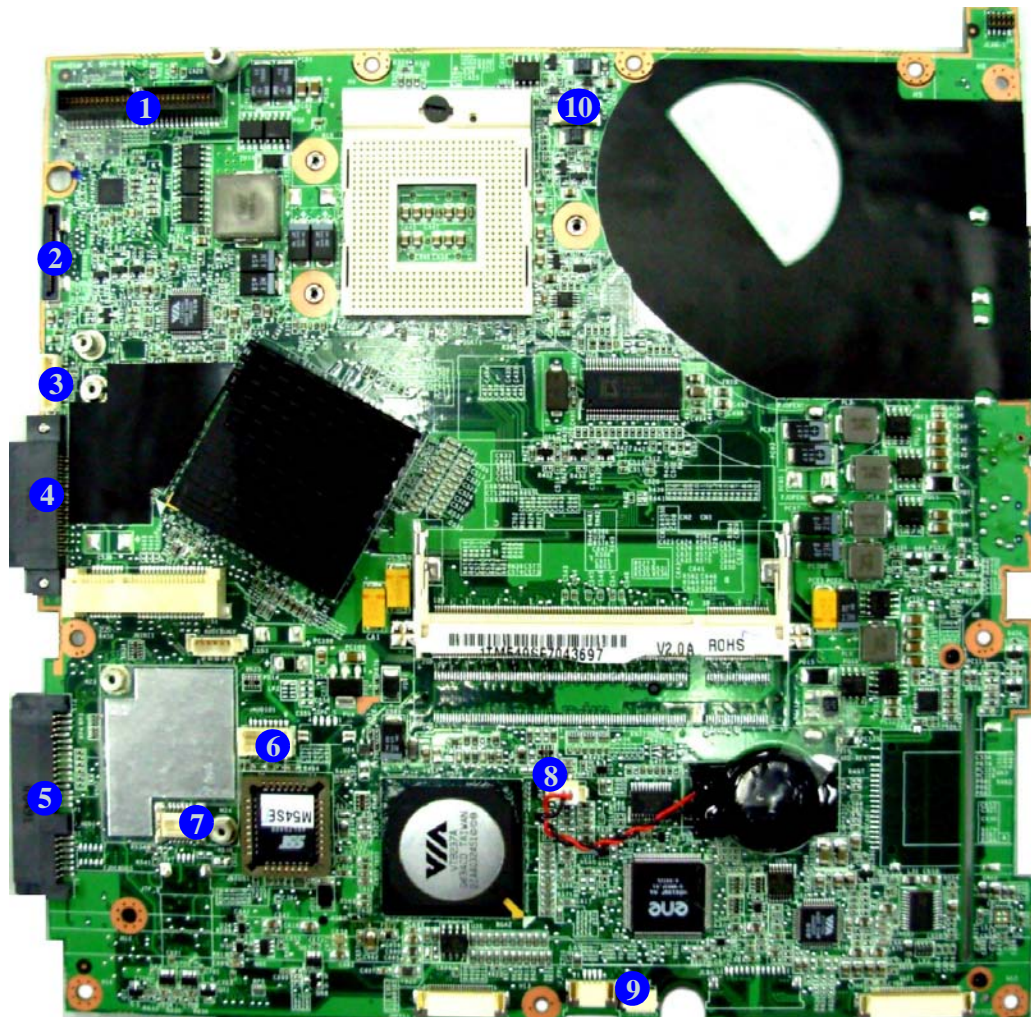
1. Line-In Jack
2. S/PDIF-Out Jack
3. USB Port
4. LAN Board Connector
5. Hot-key board Connector
6. Keyboard Cable Connector
7. TouchPad Cable Connector
8. Card Reader Socket

## M540SE Mainboard Overview - Top (Connectors)





## M540SE Mainboard Overview - Bottom (Connectors)



*Figure 10*  
**Mainboard Bottom  
Connectors**

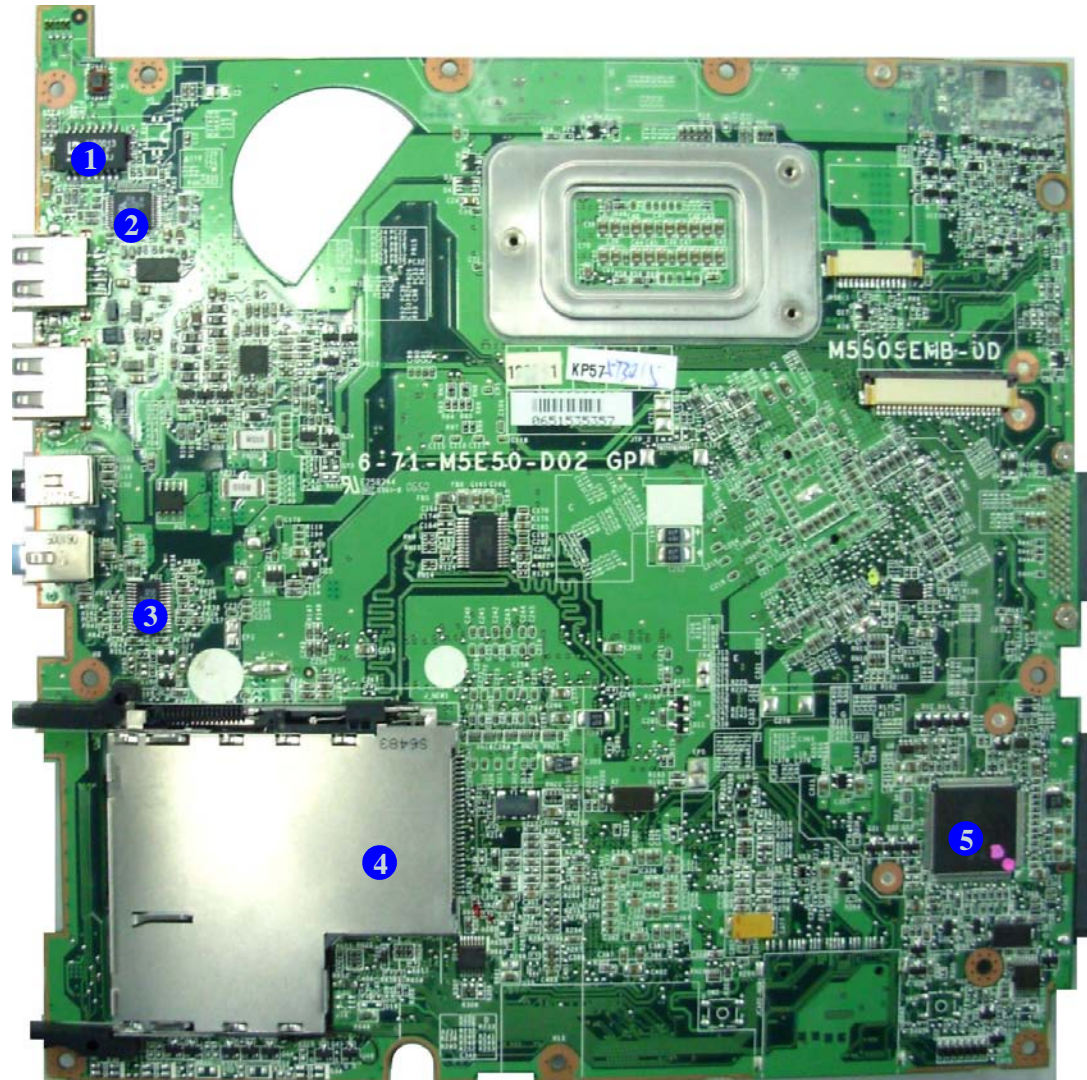
1. D/D Board Connector
2. LCD Connector
3. BT Cable Connector
4. CD-ROM Connector
5. HDD Connector
6. Audio Board Connector
7. Modem Module Connector
8. CMOS Bat. Connector
9. Microphone Cable Connector
10. CPU Fan Cable Connector

## Introduction

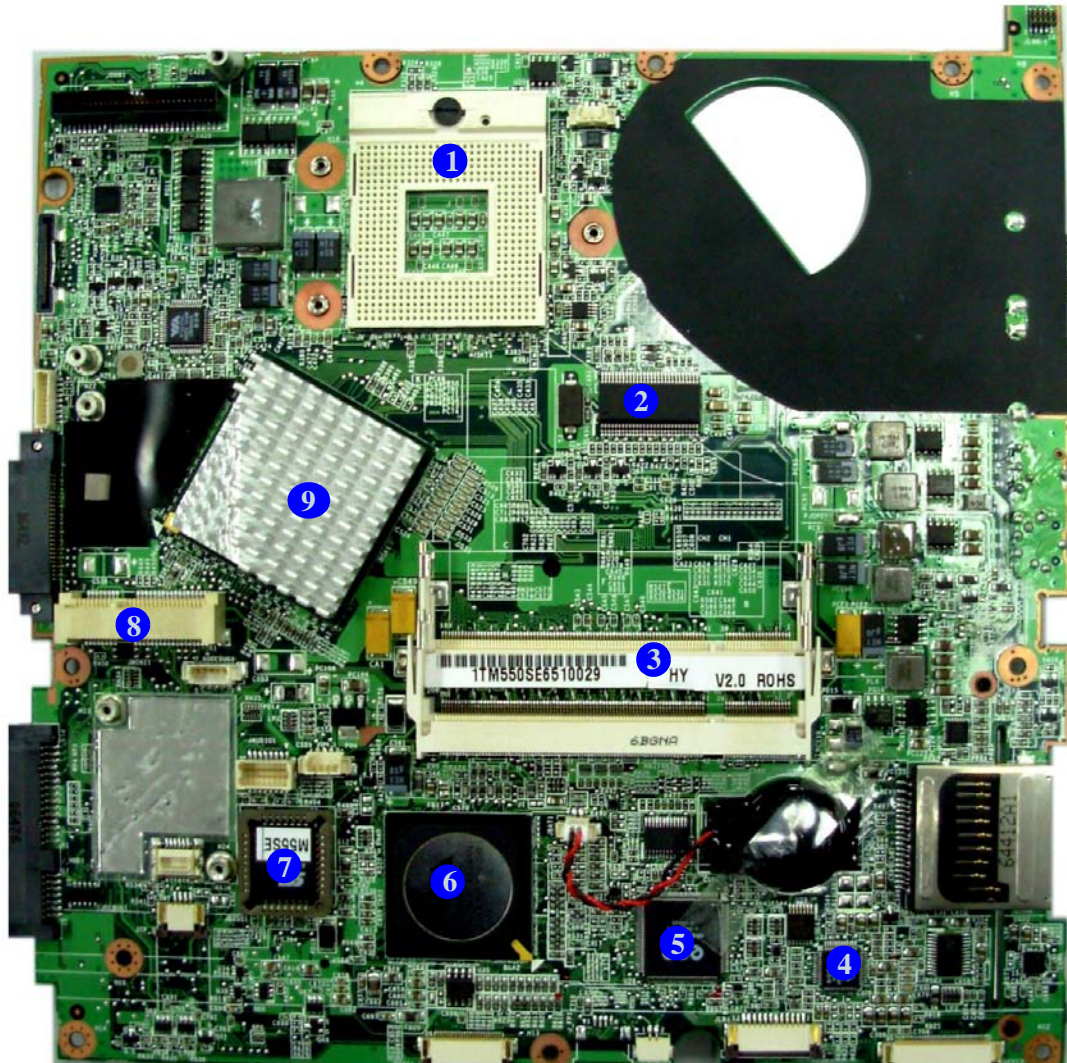
*Figure 11*  
**Mainboard Top  
Key Parts**

1. Transformer
2. VIA LVDS  
VT-1634
3. PWM Controller  
(+1.05VS, +1.5V)
4. ExpressCard  
Connector
5. H8-2111

## M550SE Mainboard Overview - Top (Key Parts)



## M550SE Mainboard Overview - Bottom (Key Parts)



*Figure 12*  
**Mainboard Bottom  
Key Parts**

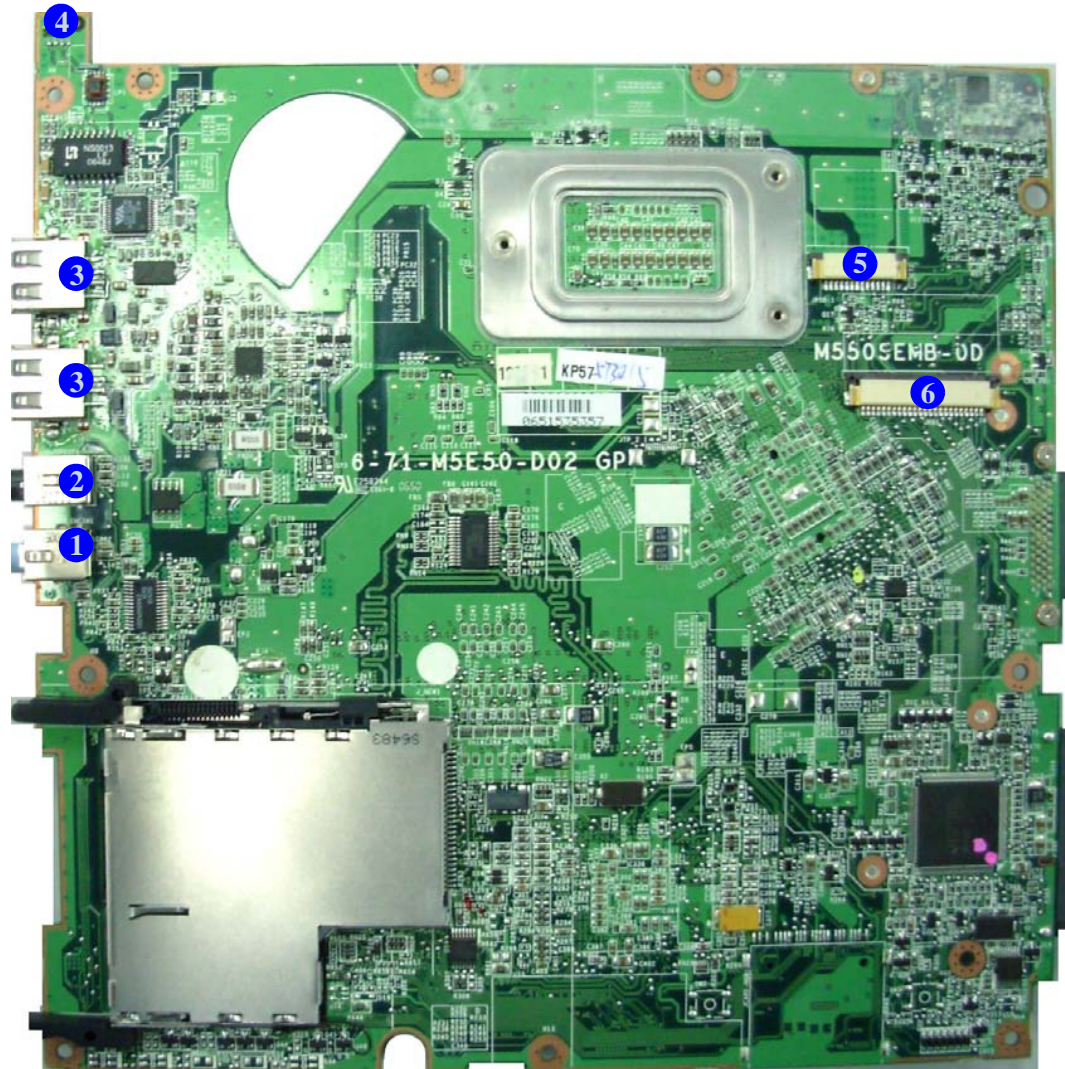
1. CPU Socket (no CPU installed)
2. Clock Generator
3. Memory Slots  
DDR2 SO-DIMM
4. VIA VT1708
5. NR510
6. VIA VT8237
7. Flash BIOS ROM
8. Mini-Card  
Connector (WLAN  
Module)
9. North Bride  
VIA VN896

## Introduction

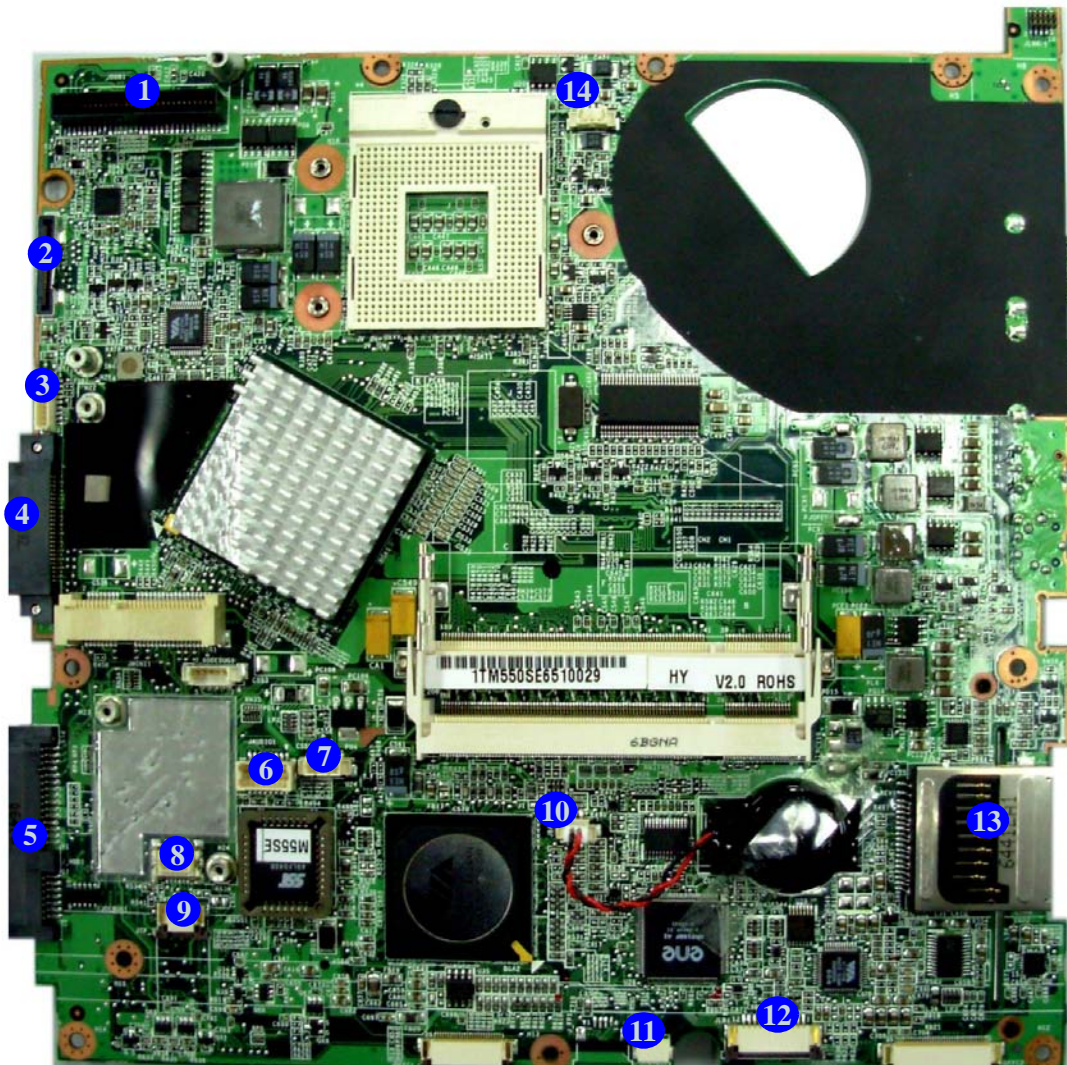
*Figure 13*  
**Mainboard Top  
Connectors**

1. Line-In Jack
2. S/PDIF-Out Jack
3. USB Port
4. LAN Board Connector
5. Hot-key board Connector
6. Keyboard Cable Connector

## M550SE Mainboard Overview - Top (Connectors)



## M550SE Mainboard Overview - Bottom (Connectors)



*Figure 14*  
**Mainboard Bottom  
Connectors**

1. D/D Board Connector
2. LCD Connector
3. BT Cable Connector
4. CD-ROM Connector
5. HDD Connector
6. Audio Board Connector
7. Speaker Cable Connector
8. Modem Module Connector
9. TouchPad Cable Connector
10. CMOS Bat. Connector
11. Microphone Cable Connector
12. LED Board Cable Connector
13. Card Reader Socket
14. CPU Fan Cable Connector




# Chapter 2: Disassembly



## Overview

This chapter provides step-by-step instructions for disassembling the *M540SE/M550SE* series notebook's parts and sub-systems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

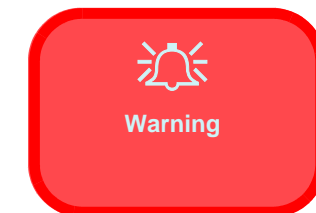
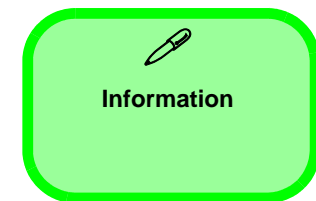
We suggest you completely review any procedure before you take the computer apart.

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 - 9](#)

#### To remove the Optical Device:

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

#### To remove and install a Processor:

1. Remove the battery [page 2 - 5](#)
2. Remove the processor [page 2 - 12](#)
3. Install the processor [page 2 - 14](#)

#### To remove the Wireless LAN Module:

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

#### To remove the Bluetooth Modules:

1. Remove the battery [page 2 - 5](#)
2. Remove the Bluetooth [page 2 - 16](#)

#### To remove the Modem:

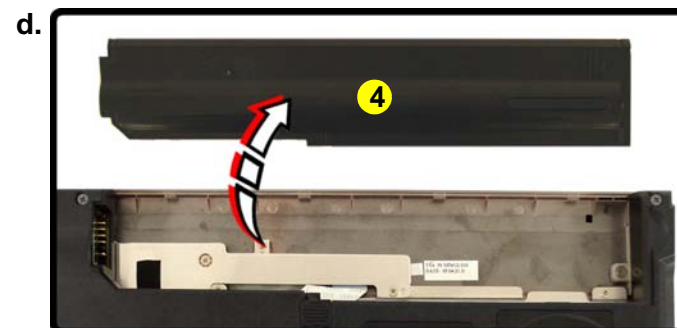
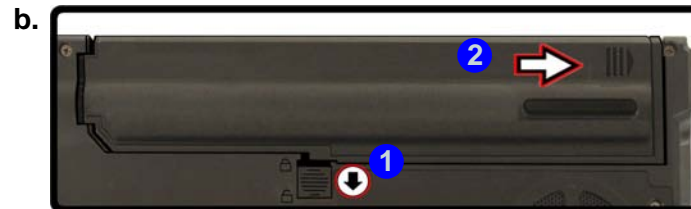
1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the system memory [page 2 - 9](#)
4. Remove the Optical device [page 2 - 11](#)
5. Remove the processor [page 2 - 12](#)
6. Remove the modem [page 2 - 17](#)

#### To remove the Keyboard:

1. Remove the battery [page 2 - 5](#)
2. Remove the keyboard [page 2 - 19](#)

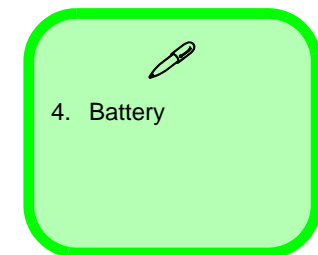
## Removing the Battery

1. Turn the computer **off**, and turn it over.
2. Locate the battery bay at point **1** (*Figure 1a*).
3. Slide the latch **1** in the direction of the arrow, and hold it in place.
4. Slide the battery in the direction of the arrow **2**.
5. Lift the battery out in the direction of the arrow **3**.
6. Lift the battery **4** out off the computer.



*Figure 1*  
**Battery Removal**

- a. Locate the battery release latch.
- b. Slide the latch and hold in place, and slide the battery in the direction of the arrow.
- c. Lift the battery out in the direction of the arrow.
- d. Lift the battery out.



# Removing the Hard Disk Drive

*Figure 2*  
**HDD Assembly  
Removal**

The hard disk drive can be taken out to accommodate other 2.5" serial (SATA) 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

- a. Locate the HDD bay cover and remove the screw(s).

1. Turn **off** the computer, and remove the battery ([page 2 - 5](#)).
2. Locate the hard disk bay cover **4** and remove screw **1** **M550SE**, OR screws **2** - **3** **M540SE**.



### 4. HDD Bay Cover

- 1 Screw (M550SE)
- 2 Screws (M540SE)



### HDD System Warning

New HDD's are blank. Before you begin make sure:

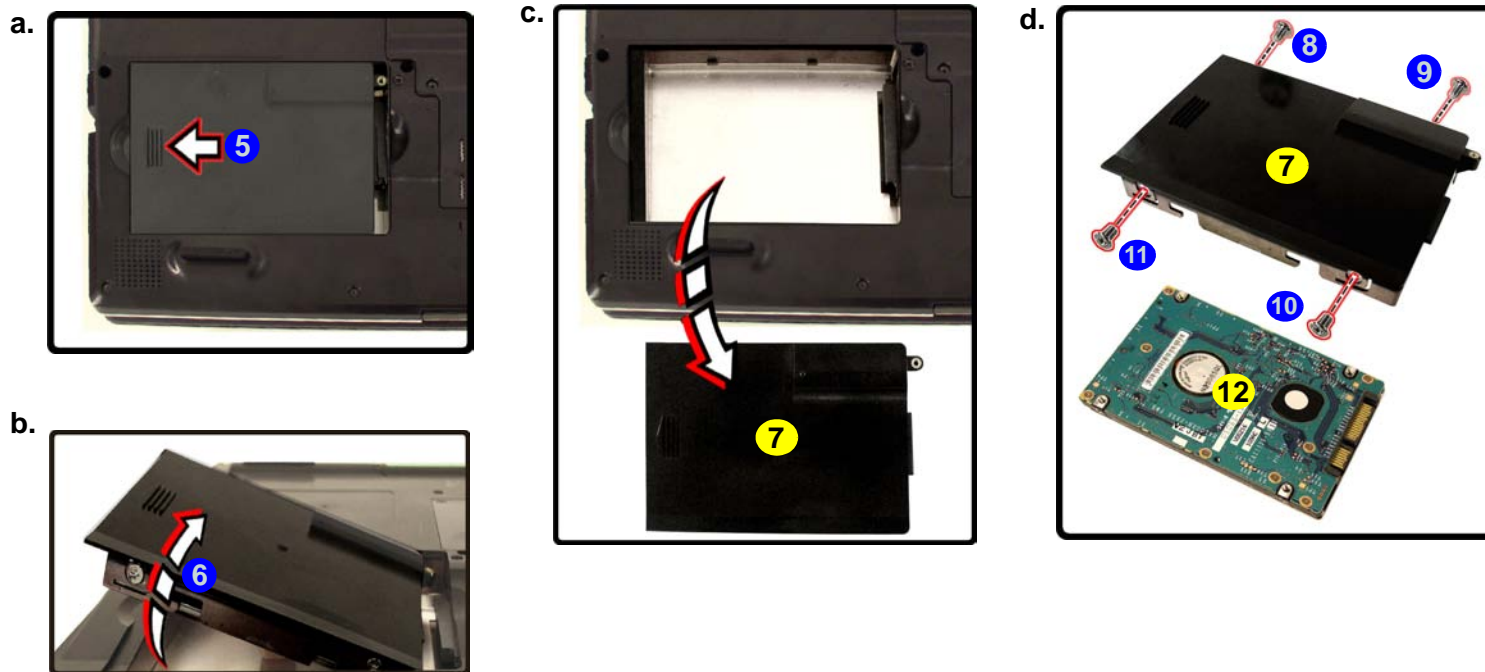
You have backed up any data you want to keep from your old HDD.

You have all the CD-ROMs and FDDs required to install your operating system and programs.

If you have access to the internet, download the latest application and hardware driver updates for the operating system you plan to install. Copy these to a removable medium.

For **M550SE computers**:

3. Slide the hard disk and cover assembly in the direction of arrow **5**.
4. Lift the hard disk and cover assembly up in the direction of arrow **6**.
5. Remove the hard disk and cover assembly **7** (*Figure 3c*).
6. Remove screws **8** - **11** to release the hard disk **12** from the assembly cover, and reverse the process to install any new hard disk.



*Figure 3*  
**HDD & Case Assembly Removal (M550SE)**

- a. Slide out the HDD assembly.
- b. Lift the HDD assembly up.
- c. Remove the HDD assembly.
- d. Remove the screws and separate the cover and HDD.



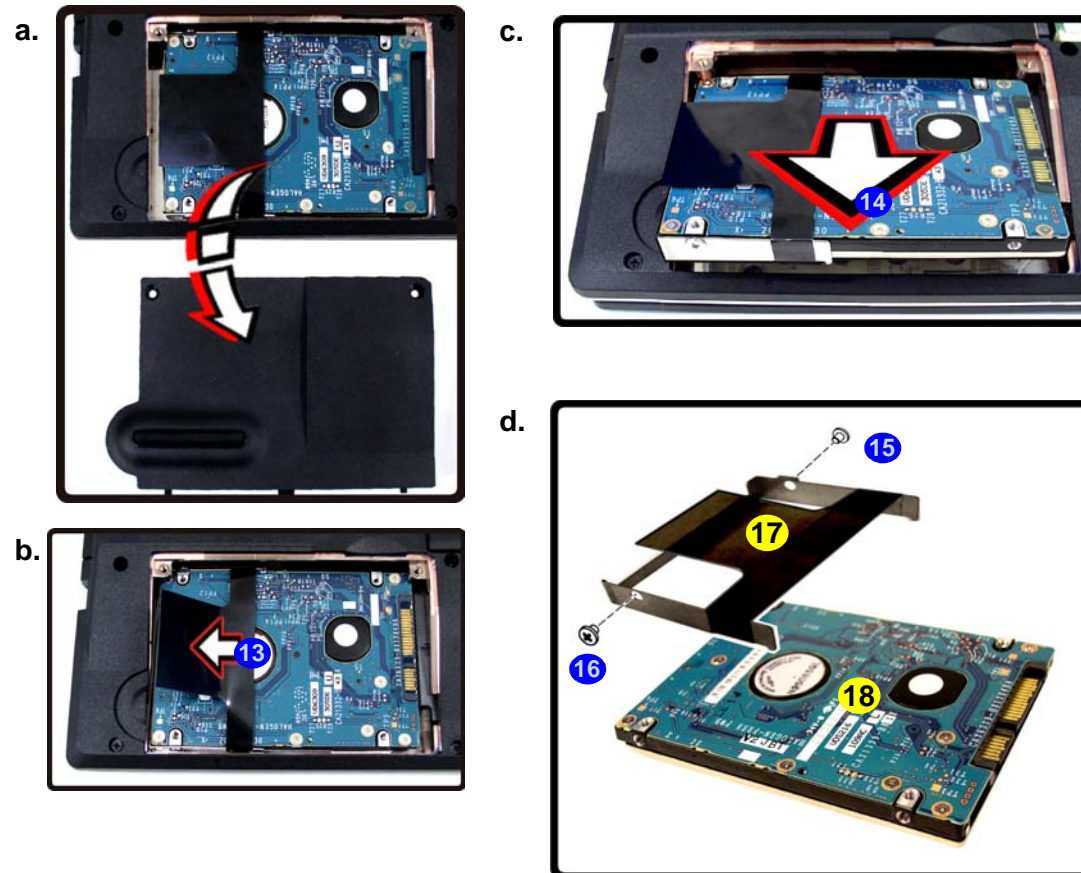
## Disassembly

### Figure 4 HDD & Case Assembly Removal (M540SE)

- Remove the HDD Bay Cover.
- Slide out the HDD assembly.
- Lift the HDD assembly out of the bay.
- Remove the screws and separate the case and HDD.

For **M540SE** computers:

- Remove the HDD Bay Cover.
- Pull the tab to slide the hard disk and case assembly in the direction of arrow **13**.
- Lift the hard disk and case assembly out of the bay in the direction of arrow **14**.
- Remove screws **15** - **16** to release the hard disk **18** from the case **17**, and reverse the process to install any new hard disk.



17. HDD Case  
18. HDD

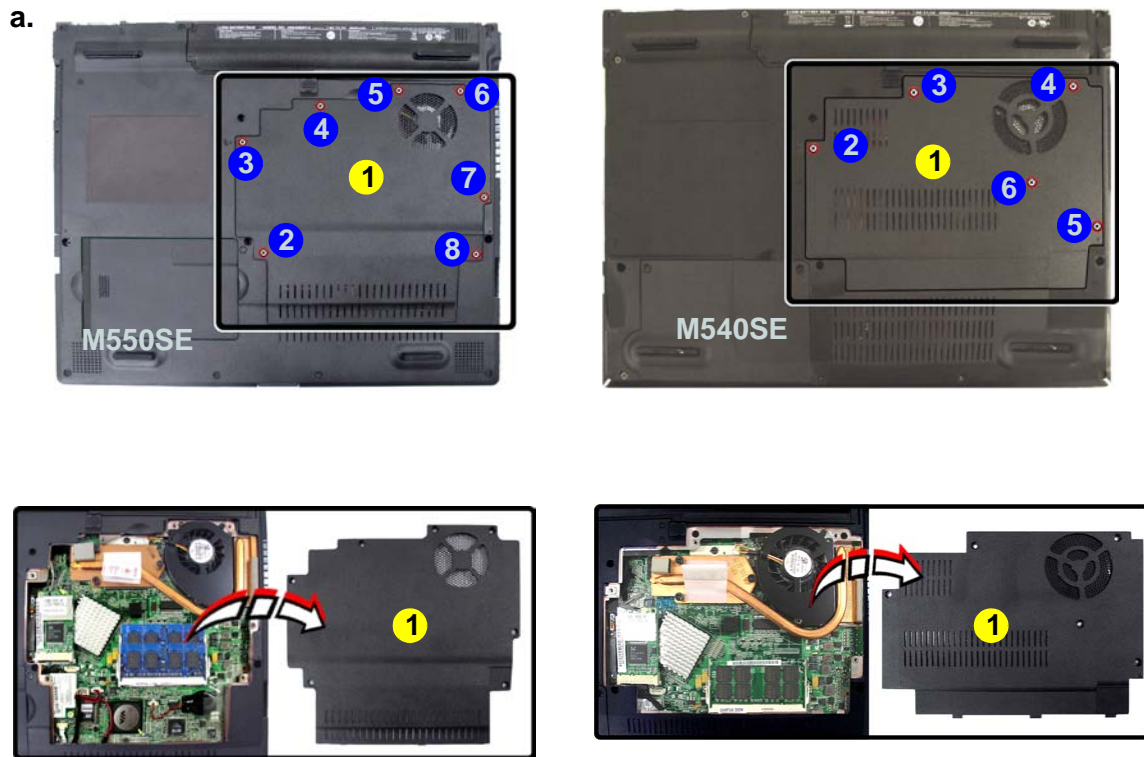
- 2 Screws

## Removing the System Memory (RAM)

The computer has two memory sockets for 200 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting **DDR2** 533MHz. The main memory can be expanded up to 2GB. The SO-DIMM modules supported are 256MB, 512MB and 1024MB **DDR2** 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, remove the battery ([page 2 - 5](#)).
2. Locate the bay cover **1**, and remove screws **2 - 8** (for **M550SE**) OR screws **2 - 6** (for **M540SE**).
3. Remove the bay cover **1**.



*Figure 5*  
**RAM Module Removal**

- a. Remove the screws.
- b. Remove the cover.



#### 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.



#### 1. Bay Cover

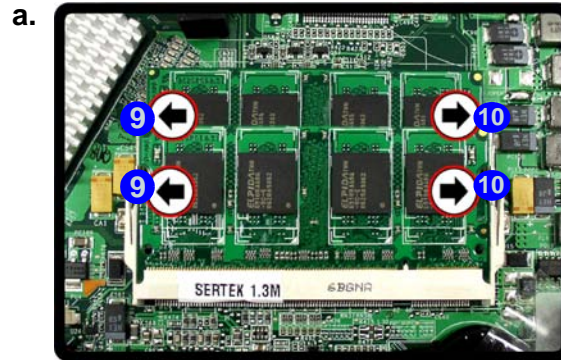
- 7 Screws (M550SE)
- 5 Screws (M540SE)

## Disassembly

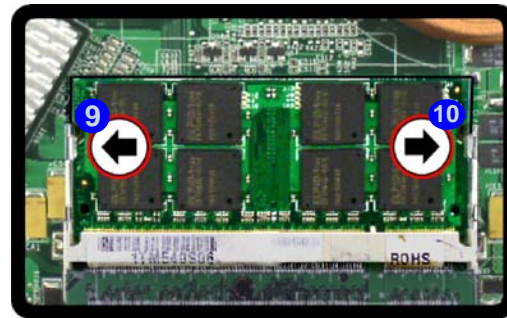
### Figure 6 Memory Removal Sequence

- Pull the release latch(es).
- Remove the module(s).

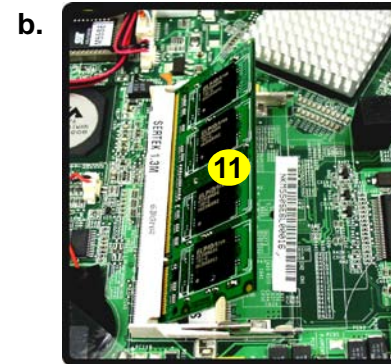
- Gently pull the two release latches (9 & 10) on the sides of the memory socket in the direction indicated by the arrows (*Figure 6a*).



M550SE (2 RAM Sockets)



M540SE (1 RAM Socket)



M550SE (2 RAM Sockets)



M540SE (1 RAM Socket)

- The RAM module(s) 11 will pop-up (*Figure 6b*), and you can then remove it.
- Pull the latches to release the second module if necessary.
- Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
- The module's pin alignment will allow it to only fit one way. Make sure the module is seated as far into the slot as it will go. DO NOT FORCE the module; it should fit without much pressure.
- Press the module down towards the mainboard until the slot levers click into place to secure the module.
- Replace the memory socket cover and the screws (see [page 2 - 9](#)).
- Restart the computer to allow the BIOS to register the new memory configuration as it starts up.



11. RAM Module(s)

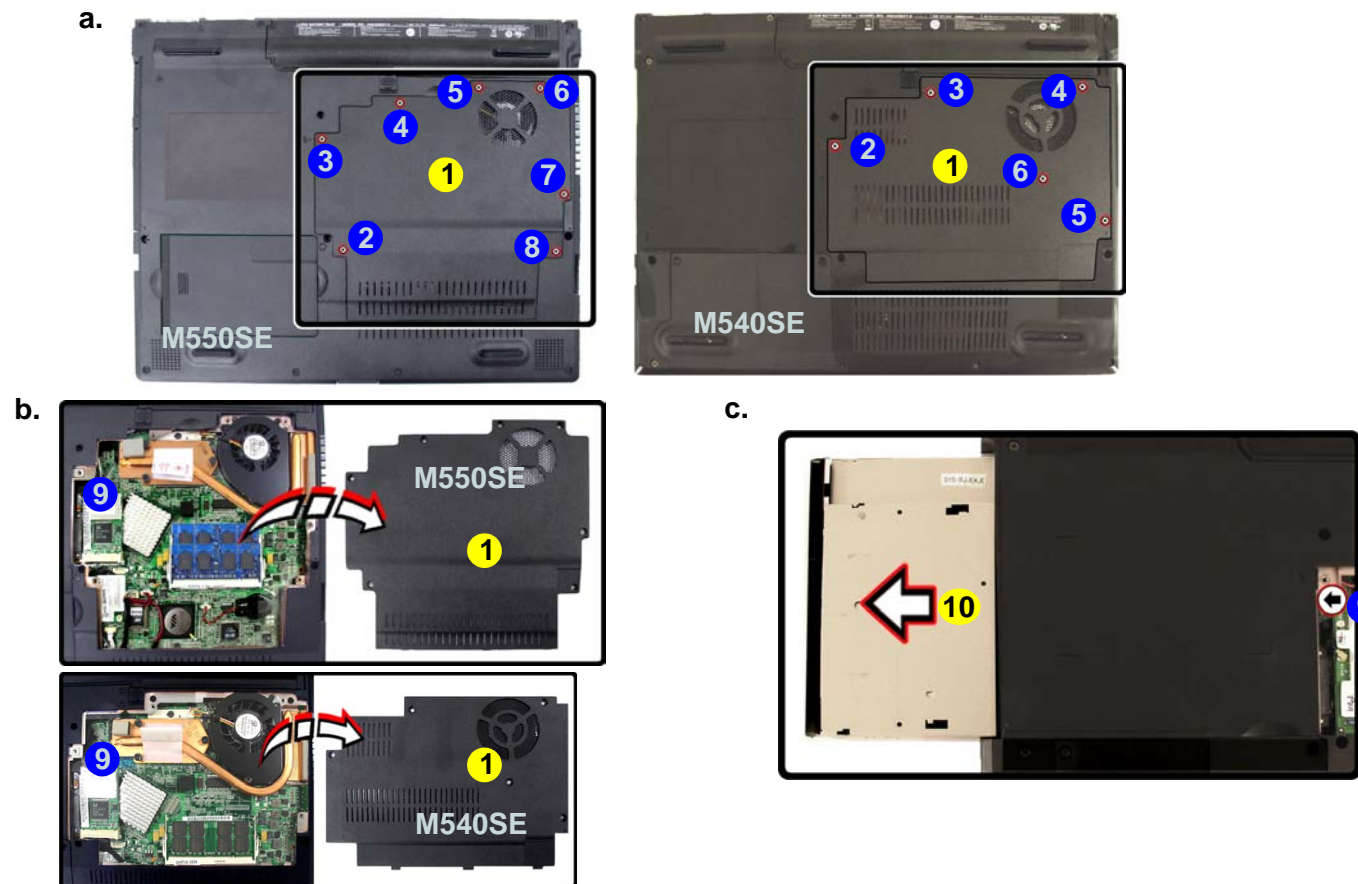



## Removing the Optical (CD/DVD) Device

1. Turn **off** the computer, and remove the battery ([page 2 - 5](#)).
2. Locate the component bay cover **1**, and remove screws **2 - 8** (for **M550SE**) OR screws **2 - 6** (for **M540SE**).
3. Remove the component bay cover **1**.
4. Use a screwdriver to carefully push out the optical device **10** at point **9**.
5. Insert the new device and carefully slide it into the computer (the device only fits one way. **DO NOT FORCE IT**; The screw holes should line up).
6. Restart the computer to allow it to automatically detect the new device.

*Figure 7*  
**Optical Device Removal**

- a. Remove the screws.
- b. Remove the cover.
- c. Push the optical device out off the computer at point 9.





1. Component Bay Cover  
10. Optical Device

- 7 Screws (M550SE)
- 5 Screws (M540SE)

## Removing and Installing the Processor

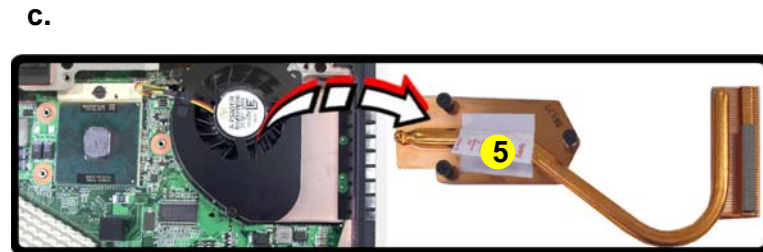
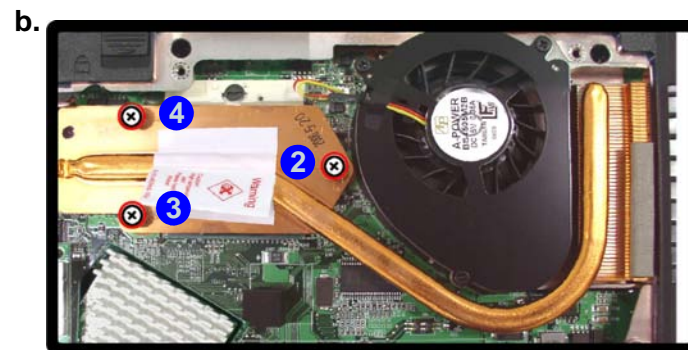
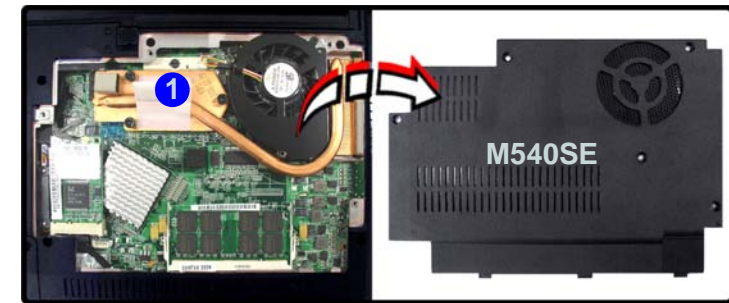
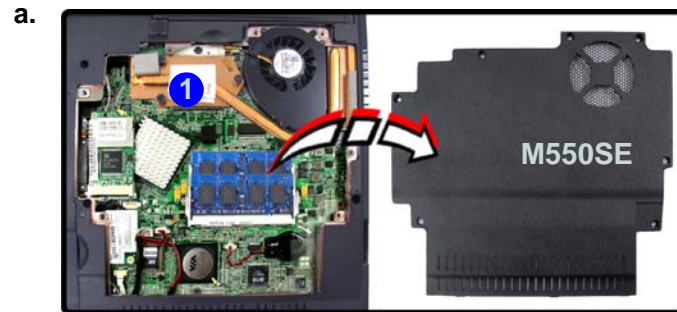
### Processor Removal Procedure

1. Turn off the computer, remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 9](#)).
2. The CPU heat sink will be visible at point **1** on the mainboard.
3. Remove screws **2** - **4** ([Figure 8b](#)) from the heat sink in the order indicated.
4. Carefully lift up the heat sink **5** ([Figure 8c](#)) off the computer.

Figure 8


#### Processor Removal

- a. Remove the cover and locate the heat sink.
- b. Remove the screws in the order indicated.
- c. Remove the heat sink.



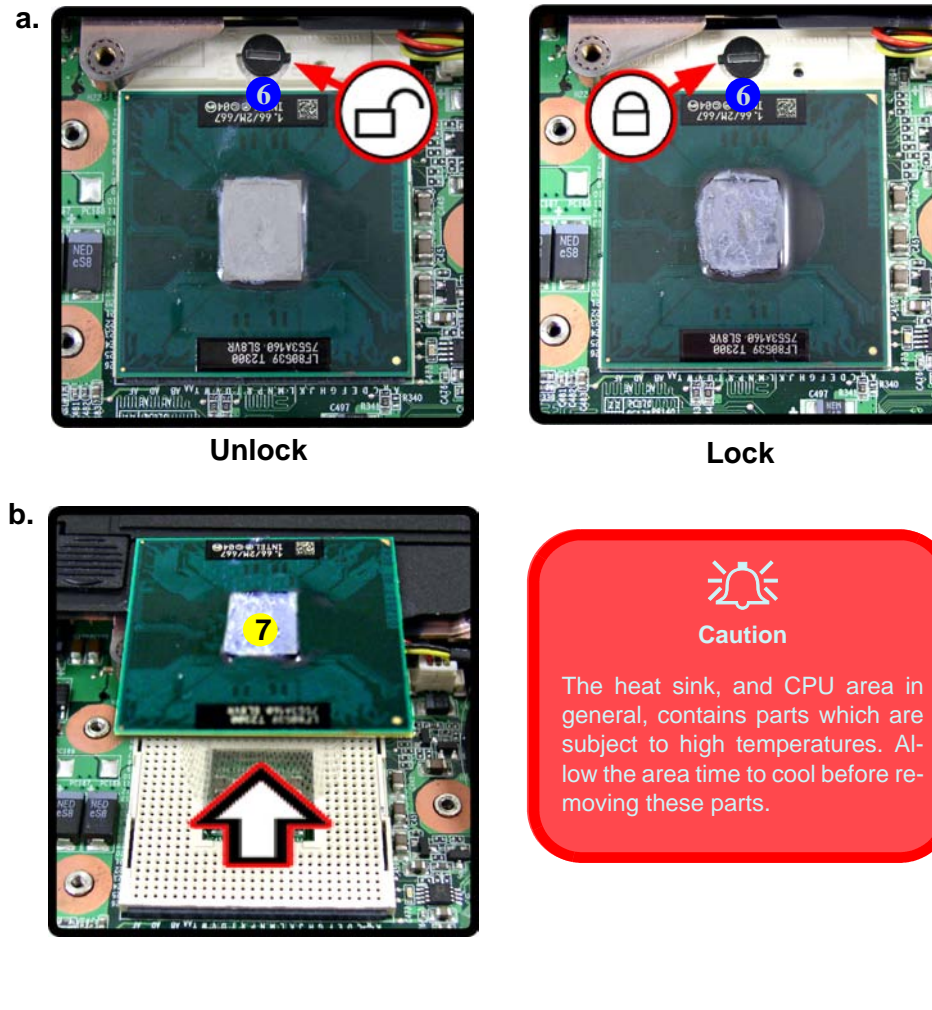
5. Heat Sink

- 3 Screws

5. Turn the release latch **6** towards the unlock symbol , to release the CPU (*Figure 9a*).
6. Carefully (it may be hot) lift the CPU **7** up out of the socket (*Figure 9b*).
7. See [page 2 - 14](#) for information on inserting 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.




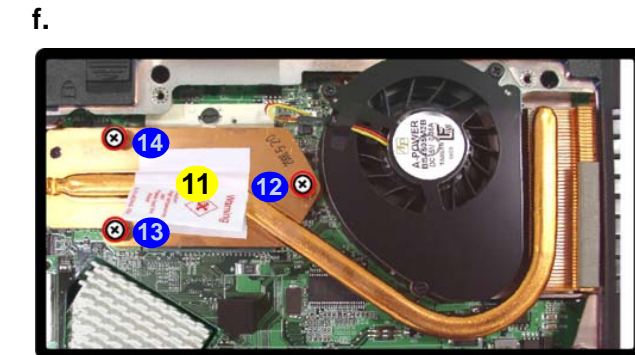
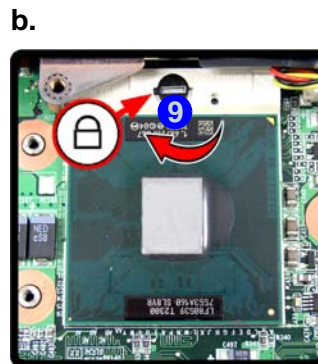
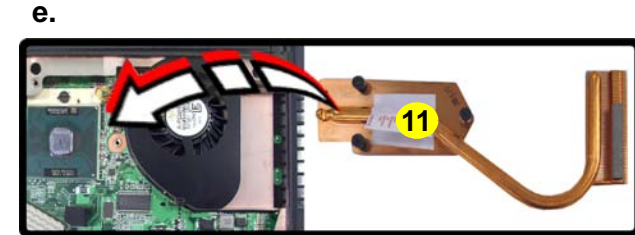
## Disassembly


*Figure 10*  
**Processor Installation**

- Insert the CPU.
- Turn the release latch towards the lock symbol.
- Apply thermal grease to the top of the CPU.
- Remove the sticker from the heat sink.
- Insert the heat sink.
- Tighten the screws.

### Processor Installation Procedure

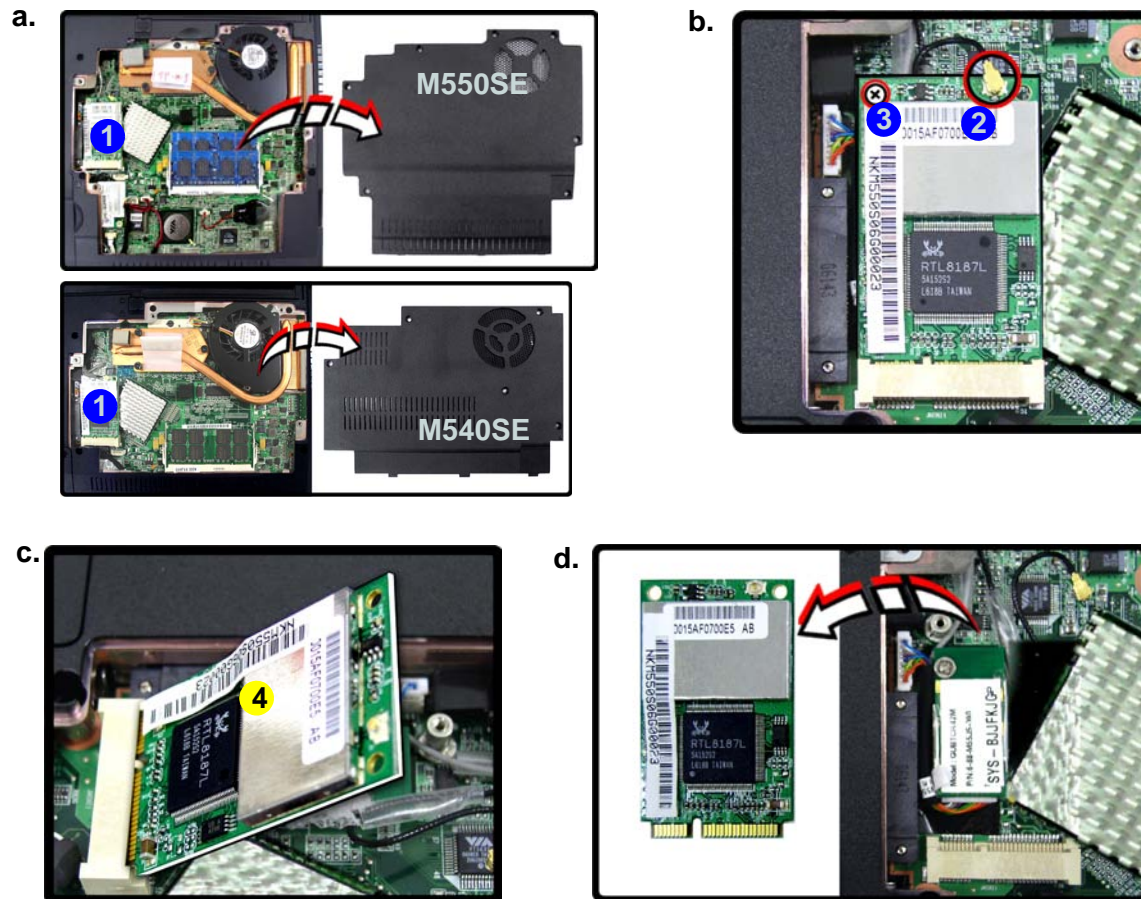
- Insert the CPU **8**, pay careful attention to the pin alignment, it will fit only one way (DO NOT FORCE IT!), and turn the release latch **9** towards the lock symbol  (*Figure 10b*).
- Apply the thermal grease to the top of the CPU **8**.
- Remove the sticker **10**** (*Figure 10d*) from the heat sink.
- Insert the heat sink **11** as indicated in *Figure 10e*.
- Tighten screws **12** - **14** in the order indicated on the label.
- Replace the component bay cover and tighten the screws (*page 2 - 12*).



- 
- 8. CPU
  - 11. Heat Sink
  - 3 Screws

## Removing the Wireless LAN Module

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 9](#)).
2. The Wireless LAN module will be visible at point **1** on the mainboard.
3. Carefully disconnect cable **2**, then remove the screw **3** from the module socket.
4. The Wireless LAN module **4** will pop-up.
5. Lift the Wireless LAN module ([Figure 11d](#)) up and off the computer.



*Figure 11*  
**Wireless LAN  
Module Removal**

- a. Remove the cover and locate the heat sink.
- b. Disconnect the cable and remove the screw.
- c. The WLAN module will pop up.
- d. Lift the WLAN module out.

Note: Make sure you reconnect the antenna cable to the “Main” socket ([Figure b](#)).

✍

4. WLAN Module.

- 1 Screw

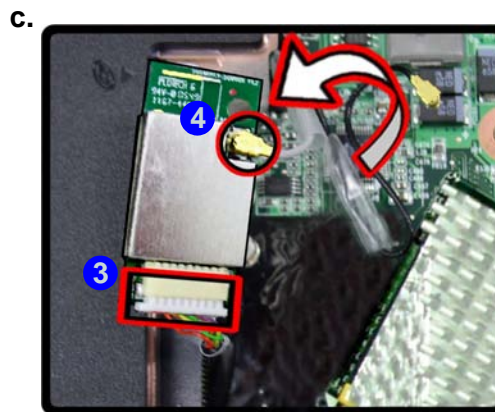
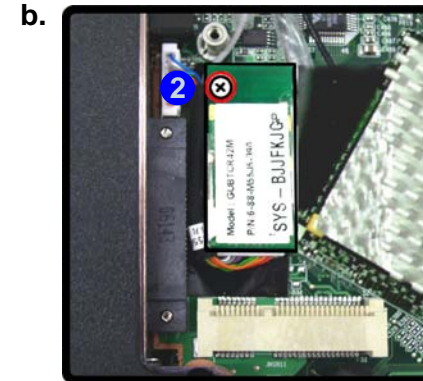
## Disassembly

### Removing the Bluetooth Module

Figure 12

#### Bluetooth Removal

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)), the component bay cover ([page 2 - 9](#)) and remove the WLAN module ([page 2 - 9](#)).
  2. The Bluetooth module **1** is located under the Wireless LAN Module.
  3. Remove the screw **2** and turn it over.
  4. Carefully separate the Bluetooth module from the connector **3** and disconnect the cable **4**.
  5. Lift the Bluetooth module **5** ([Figure 12d](#)) up and off the computer.
- a. Remove the WLAN and locate the bluetooth.
  - b. Remove the screw.
  - c. Disconnect the cable and the connector.
  - d. Lift the Bluetooth up off the socket.



5. Bluetooth Module

- 1 Screw

## Removing the Modem

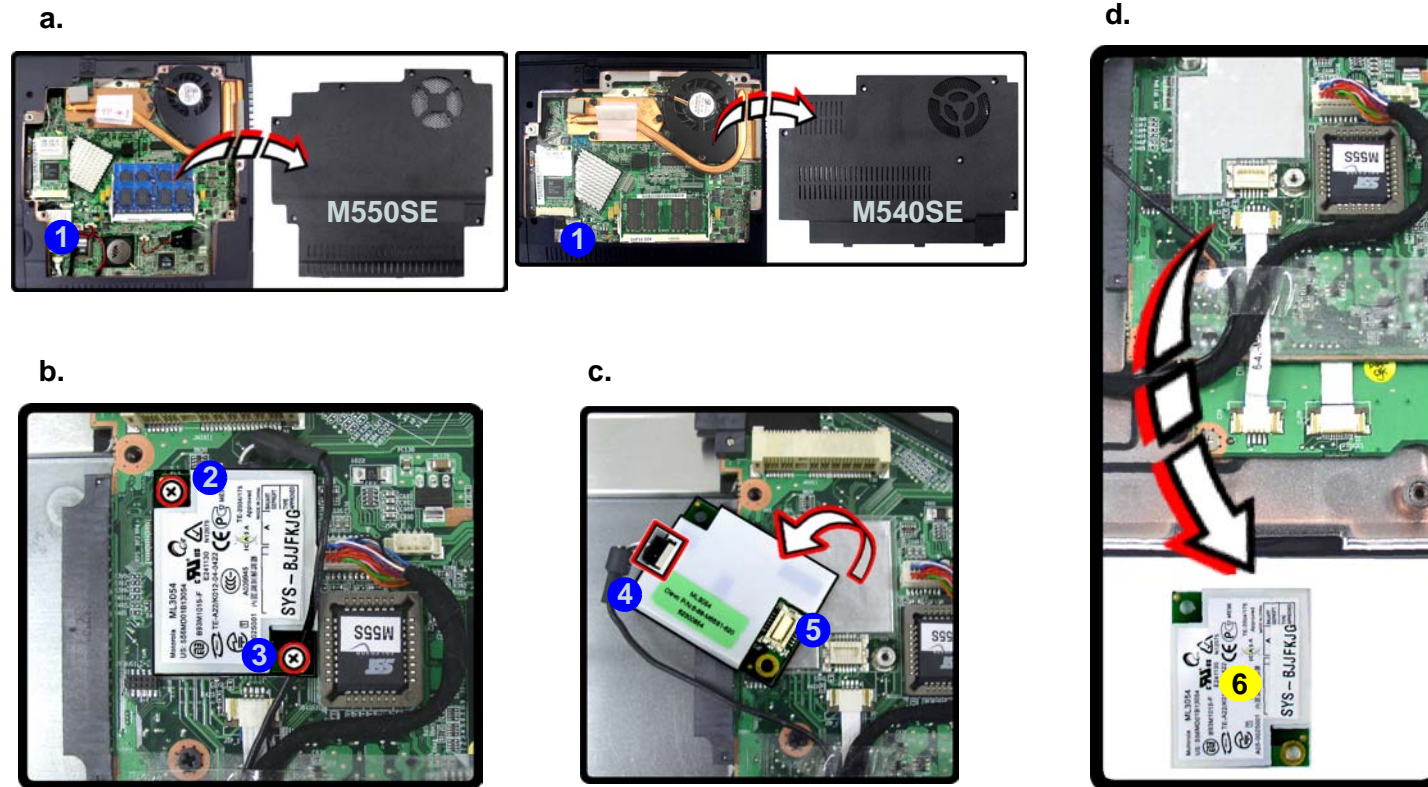
1. Turn **off** the computer, remove the battery ([page 2 - 5](#)), HDD ([page 2 - 6](#)), component bay cover ([page 2 - 9](#)), and optical device ([page 2 - 11](#)), and CPU ([page 2 - 12](#)).
2. The modem will be visible at point **1** on the mainboard.

For **M550SE** computers:

3. Remove screws **2** - **3** ([Figure 13b](#)) from the modem module.
4. Lift the modem up and off the socket **4** and separate the modem from the connector **5**.
5. Lift the modem **6** off the computer.

*Figure 13*  
**Modem Removal (M550SE)**

- a. Remove the cover and locate the modem.
- b. Remove the screws.
- c. Lift the modem up off the socket and disconnect the connector.
- d. Lift the modem out.



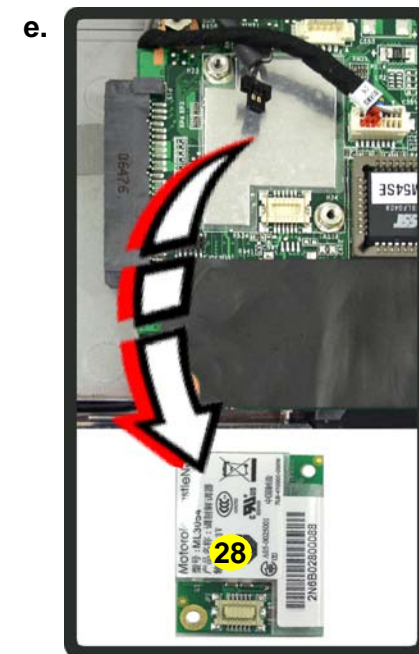
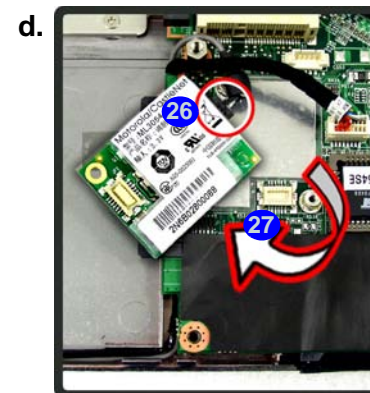
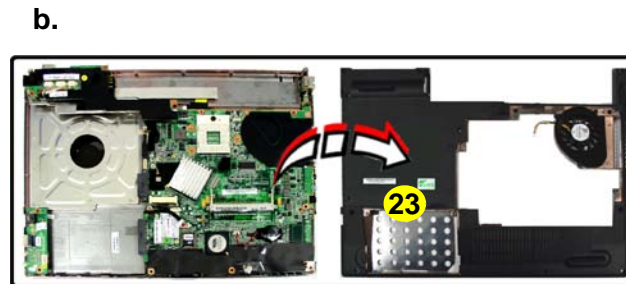
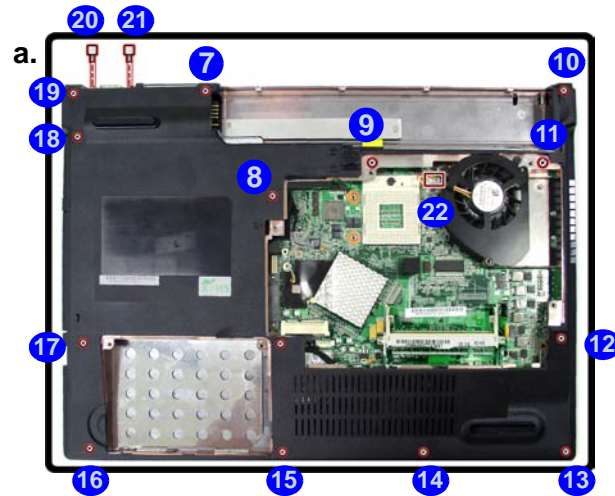
## Disassembly

*Figure 14*  
**Modem Removal**  
**(M540SE)**

- Remove the screws.
- Remove the bottom case.
- Remove the screws.
- Lift the modem up off the socket and disconnect the connector.
- Lift the modem out.

For **M540SE** computers:

- Remove screws **7** - **21** from the bottom case and carefully disconnect the fan cable **22** from the mainboard (*Figure 14a*).
- Carefully lift the bottom case **23** up and off the computer (*Figure 14b*).
- Remove screws **24** - **25** (*Figure 14c*) from the modem module.
- Lift the modem up and off the socket **26** and separate the modem from the connector **27**.
- Lift the modem **28** off the computer.



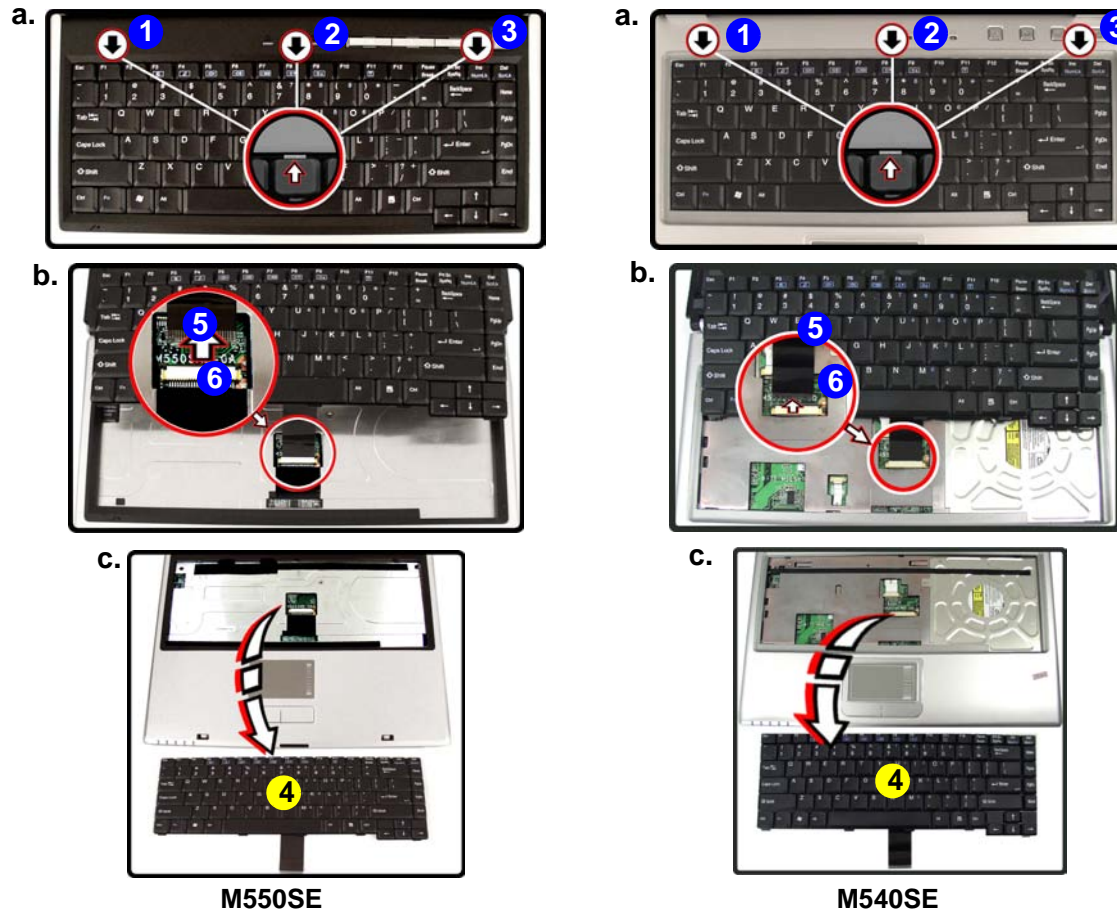
23. Bottom Case  
28. Modem

- 17 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 ([Figure 15b](#)).
4. Disconnect the keyboard ribbon cable **5** from the locking collar socket **6**.



*Figure 15*  
**Keyboard Removal**

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



### Re-Inserting the Keyboard

When re-inserting the keyboard firstly align the **five** keyboard tabs at the bottom of the keyboard with the slots in the case.



4. Keyboard



# Appendix A:Part Lists

This appendix breaks down the *M540SE/M550SE* 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.

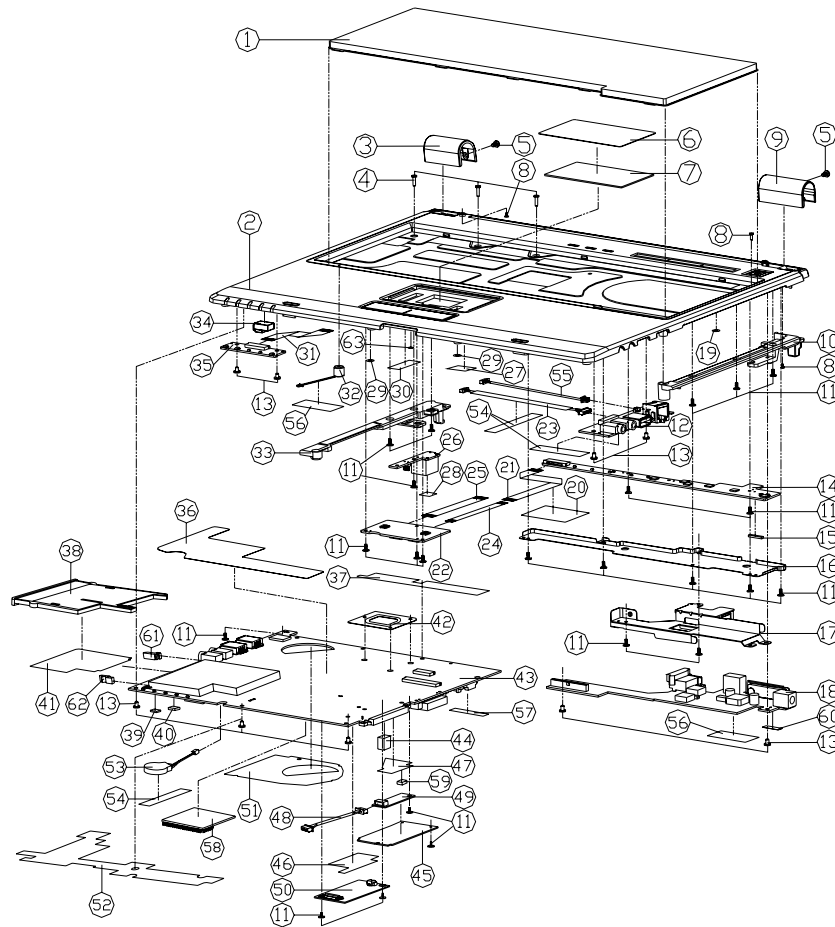
## Part List Illustration Location

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

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

Parts	M550SE/M540SE
Top - (M550SE)	<i>page A - 3</i>
Bottom - (M550SE)	<i>page A - 4</i>
LCD - (M550SE)	<i>page A - 5</i>
COMBO - (M550SE)	<i>page A - 6</i>
DVD-RW Drive - (M550SE)	<i>page A - 7</i>
Top - (M540SE)	<i>page A - 8</i>
Bottom - (M540SE)	<i>page A - 9</i>
LCD - (M540SE)	<i>page A - 10</i>
COMBO - (M540SE)	<i>page A - 11</i>
DVD-RW Drive - (M540SE)	<i>page A - 12</i>
Top - (M540SE-C)	<i>page A - 13</i>
Bottom - (M540SE-C)	<i>page A - 14</i>
LCD - (M540SE-C)	<i>page A - 15</i>
COMBO - (M540SE-C)	<i>page A - 16</i>
DVD-RW Drive - (M540SE-C)	<i>page A - 17</i>

# Top (M550SE)



ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD (OPTION) M5X0G	6-88-M55G0-011-1	
2	TOP CASE MODULE M550G	6-39-M55G2-018	
3	HINGE COVER (L) PC	6-42-M55G0-021	
4	SCREW M2.5X4L KI BK/Z ICT NY	6-35-B6125-9RA	
5	SCREW M2.5X4L KI BK/Z ICT NY	6-35-B6120-3RE	
6	TRACKPAD PAD MYLAR	6-40-M55G2-025	
7	TOUCH PAD TM6P02H389 M660JE	6-49-M66E2-010	
8	SCREW M2.5X4L KI BK/Z ICT NY	6-35-B6120-6RB	
9	HINGE COVER (R) PC	6-42-M55G0-011	
10	TOP CASE DIECASTING (R) M550G	6-33-M55J2-021	
11	SCREW M2.5X4L KI NI ICT G1Y-PATCH	6-35-B1120-3RE	
12	AUDIO BOARD V2.0 M550SE	6-77-M5E58-002	
13	SCREW M2.5X4L KI BK/Z ICT NY	6-35-B6125-5RA	
14	HOT KEY BOARD V1.0 M550S	6-77-M55S5-001	
15	GASKET (44X40X1.0) FOR HOTKEY M550G	6-47-00190-115	
16	HOTKEY BRACKET,AL M550G	6-33-M55G2-041	
17	CHANGER BRACKET,SECC M550J	6-33-M55J2-011	
18	DC/DC BOARD V2.0 M550S	6-77-M5E58-002	
19	MYLAR (64X40X0.4) WASHER FOR F80 CASE	6-40-11A5J-020	
20	HOTKEY CABLE MYLAR,MYLAR M550G	6-40-M55G2-060	
21	FFC CABLE FOR HOTKEY TO M/B L616MM TOP	6-43-M55G0-040	
22	CLICK BOARD V1.0 M550N	6-77-M55N2-001	
23	WIRE CABLE FOR AUDIO BOARD TO M/B TOP M550N	6-43-M55N0-031	
24	FFC CABLE FOR CLICK TO M/B TOP M550G	6-43-M55G0-010	
25	FFC CABLE FOR CLICK TO TOUCH PAD TOP M550G	6-43-M55G2-010	
26	LAN BOARD V3.0 M550G	6-77-M55G2-003	
27	TOUCH PAD GROUND AL FOLIO (749) FOR DUAL	6-47-M55G2-010	
28	GASKET (10X10X1.0)MM M550S	6-47-00190-1A3	
29	WASHER (64X40X0.4)MM FOR 30X10 LED	6-37-02000-603	
30	TOUCH PAD GROUND AL FOLIO (224) FOR DUAL	6-47-M55G2-020	
31	FFC CABLE FOR LED TO M/B TOP M550G	6-43-M55G0-021	
32	MC 64M35E6655-FEL-010V2V 22K W/C	6-23-EM55G-011	
33	TOP CASE DIECASTING (L) M550G	6-33-M55J2-031	
34	1394 RUBBER,SILICONE M550V	6-47-M55V0-010	
35	LED BOARD V3.0 M550G	6-77-M55G4-003	
36	M/B TOP MYLAR (B) M550JE	6-40-M55E5-030	
37	M/B TOP MYLAR (A) M550JE	6-40-M55E5-020	
38	NEW CARD DUMMY FOR M550N	6-42-M55NP-010	
39	GASKET (74X40X0.4) FOR CARD READER M550J	6-47-00190-076	
40	GASKET (74X40X0.4) FOR CARD READER M550J	6-47-00190-088	
41	M/B NEW CARD MYLAR M550N	6-40-M55NS-010	
42	CPU SUPPORT BRACKET,SUS M550N	6-33-M55NS-020	
43	MAIN BOARD V2.0A M550SE	6-77-M5E50-002A	
44	RUBBER FOR CPU COVER SUPPORT M550J	6-47-M54JS-020	
45	82C11 816 MINI CAROUSEL REALTEK CHIPSET	6-88-M7702-701	
46	MYLAR FOR M/B M540G	6-47-M54G2-010	
47	MYLAR FOR BLUETOOTH M540SE	6-40-M5E4B-010	
48	WIRE CABLE FOR BLUETOOTH TO M/B TOP M550G	6-43-M55G0-071	
49	BLUETOOTH 2.0 PIN MODULE QUADPACK BILLOW (30)	6-88-M55J5-390	
50	WIRE 2 PIN NETWORK SOLUTION 1.254 GROUND LEVEL BNC CON	6-88-M66S1-620	
50	WIRE 2 PIN NETWORK SOLUTION 1.254 GROUND LEVEL BNC CON	6-88-M55S1-531	
51	M/B BOTTOM USB MYLAR,F883 M550J	6-40-M55JS-040	
52	M/B BOTTOM MYLAR A M550N	6-40-M55NS-020	
53	BAT 2000 3V 200MAH W/CABLE SOAK CR0202C1	6-23-22015-P2C	
54	TAPE MYLAR (A) MYLAR M550J	6-40-M55J2-010	
55	WIRE CABLE FOR AUDIO BOARD TO M550N	6-43-M55N0-013	
56	TAPE MYLAR (C) MYLAR M550J	6-40-M55J2-030	
57	TAPE MYLAR (B) MYLAR M550J	6-40-M55J2-020	
58	HEATSIK FOR CHIPSET,V896 M540SE	6-31-M5E4N-010	
59	EMI GASKET (5*5*2)MM	6-47-00190-05G	
60	GASKET (124X44X0.5)MM M550S	6-47-00190-248	
61	NEWCARD RUBBER A FOR 'MCJ' M550J	6-47-M55JA-010	
62	NEWCARD RUBBER B FOR 'MCJ' M550J	6-47-M55JA-020	
63	MYLAR (6*3*0.31) FOR L8950B	6-40-00150-603	

Figure A - 1  
Top (M550SE)

A.Part Lists

# Bottom (M550SE)

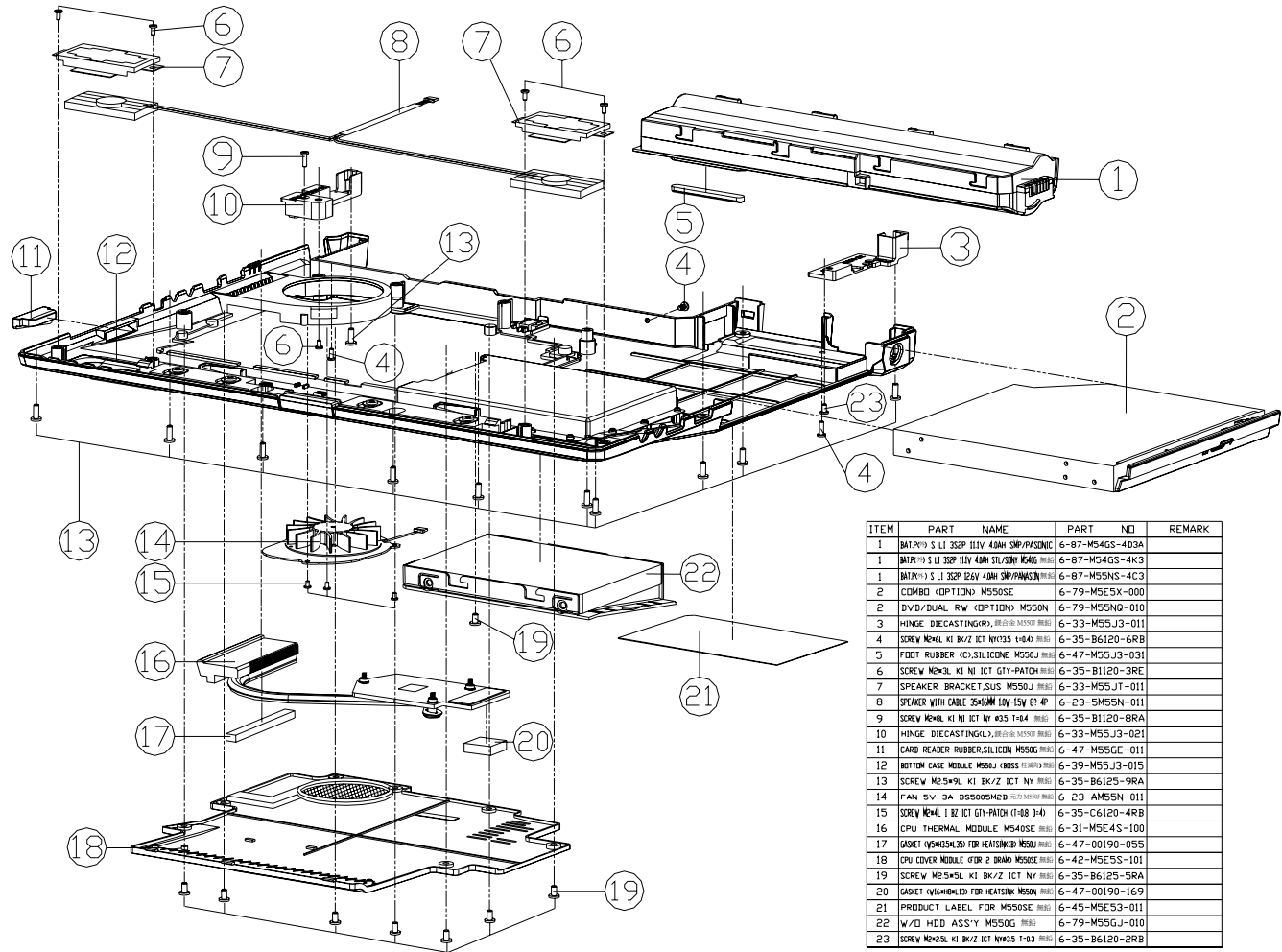


Figure A - 2  
Bottom  
(M550SE)

A.Part Lists

ITEM	PART NAME	PART NO	REMARK
1	BATTERY S LI 32P 11V 40AH S/P/PANSONIC	6-87-M54GS-4D3A	
1	BATTERY S LI 32P 11V 40AH S/P/SANY M54G	6-87-M54GS-4C3	
1	BATTERY S LI 32P 12.6V 40AH S/P/PANASONIC	6-87-M55GNS-4C3	
2	COMBO (OPTION) M550SE	6-79-M5E5X-000	
2	DVD/DUAL RW (OPTION) M550N	6-79-M55ND-010	
3	HINGE DIECASTING(R), REF ID: M550J	6-33-M55J3-011	
4	SCREW N6XL KI BK/Z ICT NY35 1-04	6-35-B6120-6RB	
5	FOOT RUBBER (C), SILICONE M550J	6-47-M55J3-031	
6	SCREW N6XL KI NI ICT GY-PATCH	6-35-B1120-3RE	
7	SPEAKER BRACKET,SUS M550J	6-33-M55JT-011	
8	SPEAKER WITH CABLE 50X30MM 10W 15V 8T 4P	6-23-SM55N-011	
9	SCREW N6XL KI NI ICT NY 435 1-04	6-35-B1120-6RA	
10	HINGE DIECASTING(L), REF ID: M550J	6-33-M55J3-021	
11	CARD READER RUBBER,SILICON M550G	6-47-M55G3-011	
12	BOTTOM CASE MIDDLE M550J / M555	6-39-M55J3-015	
13	SCREW M2.5X9L KI BK/Z ICT NY	6-35-B6125-9RA	
14	FAN 5V 3A B550004EB REF ID: M550J	6-23-AM55N-011	
15	SCREW N6XL I BZ ICT GY-PATCH (1-08 B-H)	6-35-C6120-4RB	
16	CPU THERMAL MIDDLE M540SE	6-31-M5E4S-100	
17	GASKET (N6X8X12) FOR HEATSINK M550J	6-47-00190-055	
18	CPU COVER MIDDLE (FOR 2 BRAND) M550SE	6-42-M5E5S-101	
19	SCREW M2.5X9L KI BK/Z ICT NY	6-35-B6125-5RA	
20	GASKET (N6X8X12) FOR HEATSINK M550N	6-47-00190-169	
21	PRODUCT LABEL FOR M550SE	6-45-M5E53-011	
22	W/O HDD ASS'Y M550G	6-79-M55GJ-010	
23	SCREW N6X2.5L KI BK/Z ICT NY#35 1-03	6-35-B6120-2RB	

# LCD (M550SE)

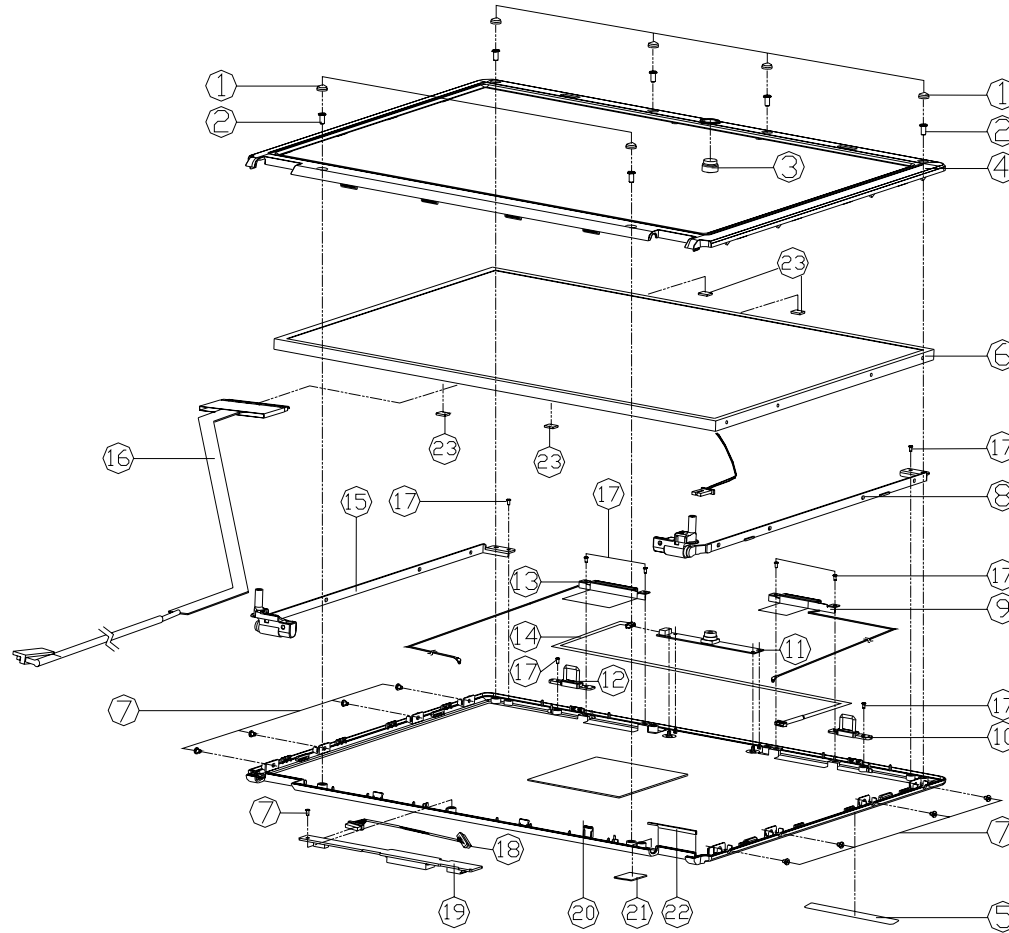


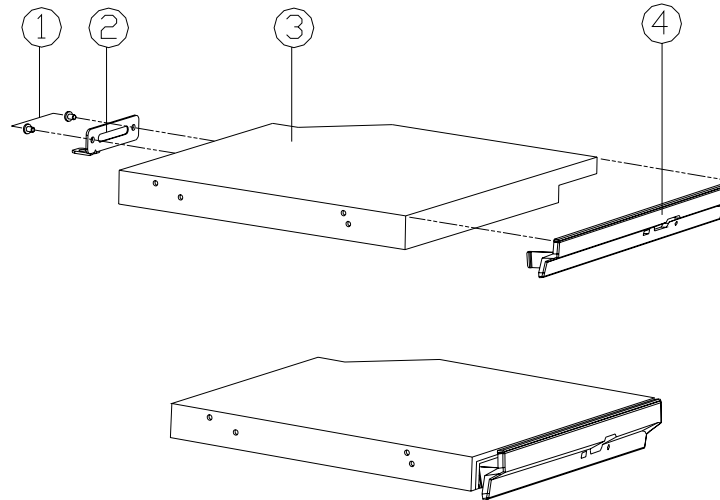
Figure A - 3  
LCD (M550SE)

ITEM	PART NAME	PART NO	REMARK
1	LCD RUBBER PAD	6-47-D701-0C0	
2	SCREW M2.5x5L KI BK/Z ICT NY-#888	6-35-B6125-5RA	
3	W/D CCD RUBBER/RUBBER M550G	6-47-M55GT-020	FOR W/D CCD
4	LCD FRONT COVER MODULE M550G	6-39-M55G1-017-12	
5	FOR M550G (THE LOGO STYLE-NOTE)	6-45-M55G1-020	
6	LCD T.LG(LP55008-TL)GLARE TYPE) 15" XGA	6-50-L2259-L02	FOR LG
7	SCREW M4x1 BZ ICT GY-PATCH (148-D4) #888	6-35-C6120-4RB	
8	LCD BRACKET (R),SUS M550G	6-33-M55G1-012	
9	SCREW M4x1 BZ ICT GY-PATCH (148-D4) #888	6-23-7M55S-010	
10	LCD LATCH (R),ZINC M550G	6-33-M55G1-051	
11	CMOS VIBED CAMERA IN2C-DV7668-D 300K PIXEL	6-88-M56NC-491	<OPTION>
11	CMOS VIBED CAMERA IN2C-DV9550-D 500K 1.3M	6-88-M55GC-612	<OPTION>
12	LCD LATCH (L),ZINC M550G	6-33-M55G1-061	
13	ANTENNA BLUETOOTH DUAL BAND PIFA SCOM G2A	6-23-7M55N-010	
14	WIRE CABLE FOR CCD TO W/D SP M550G	6-43-M55N0-022	
15	LCD BRACKET (L),SUS M550G	6-33-M55G1-022	
16	SCREW M4x1 BZ ICT GY-PATCH (148-D4) #888	6-43-M55S1-010	
17	SCREW M4x1 KI BK/Z ICT NY-#888 (140.2) #888	6-35-B6120-3RE	
18	WIRE CABLE FOR INVERTER BOARD TO W/D SP M550G	6-43-M55S0-010	
19	INVERTER MODULE (EPS) V15 M550G	6-76-M55GR-015	
19	INVERTER MODULE M550G (EPS) (140.2) #888 (140.2) #888	6-76-M55GR-031	
20	LCD BACK COVER MODULE M550G (140.2) #888 (140.2) #888	6-39-M55G1-025-2	
21	PC MYLAR (27*20*0.15) FOR M540G	6-40-00150-270	
22	PC MYLAR (40*6.5*1) FOR M550G	6-40-00150-409	
23	PERON (5*7*2) FOR TOP CASE M550G	6-47-00192-500	

A.Part Lists

# COMBO (M550SE)

Figure A - 4  
COMBO (M550SE)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2x3L K1 NI ICT GTY-PATCH 無鉛	6-35-B1120-3RE	
2	CD-R/DV LOCK BRACKET_SECC M550G 無鉛	6-33-M55GZ-011	
3	CD-RW/DVD 5 1/4" 24X 12.7MM 1S-1420 G/R/W/DV 1SST 無鉛	6-85-907PX-T01	
3	CD-RW/DVD 5 1/4" 24X 12.7MM CR8800A SHD(0SD) 無鉛	6-85-907PX-C03	
4	COMBO BEZEL MODULE M550G 無鉛	6-42-M55GX-103	



# DVD-RW Drive (M550SE)

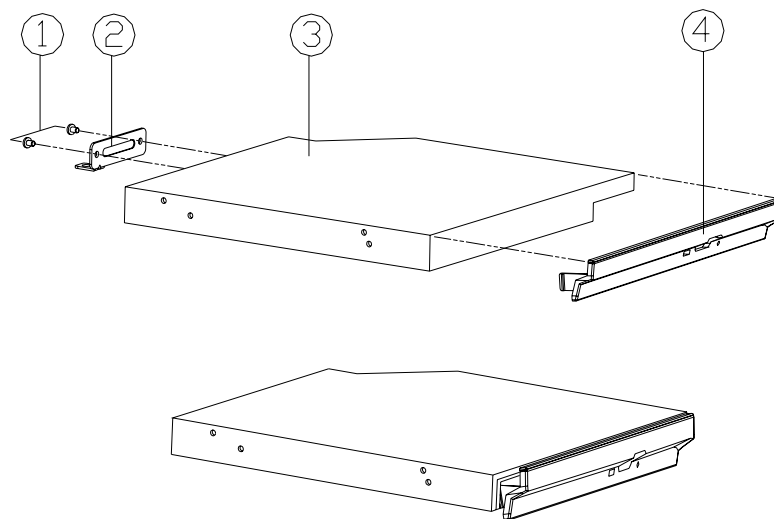


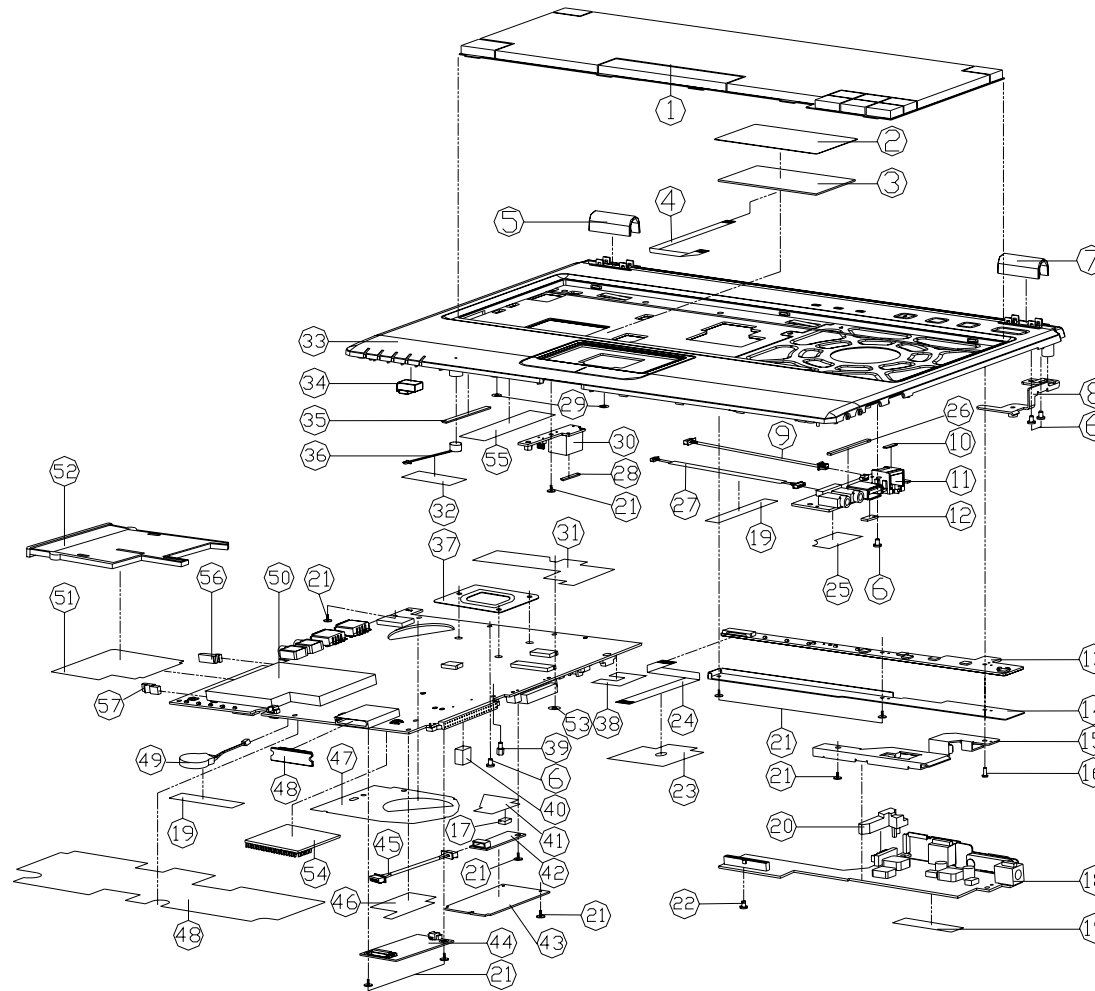
Figure A - 5  
DVD-RW Drive  
(M550SE)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT GTY-PATCH	6-35-B1120-3RE	
2	CD-ROM LOCK BRACKET,SECC M550G	6-33-M55GZ-011	
3	DUAL DVD RW (2X) OPTICAL DRIVE (M550) 4.8X 12.7MM 6MM SLIP SHEET	6-85-A078X-T02	
4	DUAL DVD MULTI BEZEL MODULE M550N	6-42-M55NQ-100	

A.Part Lists

# Top (M540SE)

Figure A - 6  
Top (M540SE)



ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD (OPTION) M540G	6-80-M55G0-011-1	
2	TOUCH PAD MYLAR T=0.22 M540G	6-40-M54G2-021	
3	TOUCH PAD TMS6PDR389 M660JE	6-49-M66E2-010	
4	FFC CABLE FOR TOUCH PAD W/B ICP M54G	6-43-M54G0-011	
5	HINGE COVER (L) M540N	6-42-M54NY-020	
6	SCREW M2.5x4L F NI ICT NY	6-35-21125-4R0	
7	HINGE COVER (R) M540N	6-42-M54NY-010	
8	TOP CASE SUPPORT (R) SUS T=1.0 M540G	6-33-M54G2-033	
9	FFC CABLE FOR AUDIO BOARD TO MAIN BOARD	6-43-M55NJ-013	
10	GASKET (L) W/4HOLE FOR USB BOARD M54N	6-47-00190-12J	
11	AUDIO BOARD V2.0 M550SE	6-77-M5E58-002	
12	GASKET (L) W/5HOLE FOR HINGE BRACKET M54N	6-47-00190-12D	
13	HOT KEY BOARD V1.0 M540S	6-77-M54SS-001	
14	HOTKEY SHIELDINGAL T=0.5 M540G	6-33-M54G2-020	
15	CABLE SUPPORT BRACKET M540J	6-33-M54J2-011	
16	SCREW M2x4L KI ICT (H4.5 T=0.4)	6-35-B0120-4R0	
17	EMI GASKET (S) W/5x2x3MM	6-47-00190-05G	
18	DC/DC BOARD V2.0 M540S	6-77-M54SC-002	
19	TAPE MYLAR (A) MYLAR M550J	6-40-M55J2-010	
20	RUBBER FOR BATTERY CON M540G	6-47-M54G2-011	
21	SCREW M2x3L KI NI ICT GTY-PATCH	6-35-B1120-3RE	
22	SCREW M2.5x6L KI NI ICT NY (H1.5 T=0.5)	6-35-B1125-6RB	
23	HOTKEY CABLE MYLAR M540G	6-40-M54G2-070	
24	FFC CABLE FOR HOTKEY BOARD TO MAIN BOARD	6-43-M54G0-042-1	
25	W/4HOLE FOR AUDIO BOARD TO MAIN BOARD	6-43-M54N8-010	
26	GASKET (L) W/5HOLE FOR USB BOARD M54N	6-47-00190-390	
27	FFC CABLE FOR AUDIO BOARD TO W/B AND MIC	6-43-M54N8-010	
28	GASKET (L) W/4HOLE FOR W/B USB CON M54N	6-47-00190-12E	
29	WASHER (H) W/2.5x0.25x1 (MYLAR)	6-37-02000-500	
30	LAN BOARD V3.0 M550G	6-77-M55GZ-003	
31	W/B MYLAR FOR KEYBOARD CON M540N	6-40-M54N7-020	
32	TAPE MYLAR (C) MYLAR M550J	6-40-M55J2-030	
33	TOP CASE MIDDLE M540S	6-39-M54S2-010	
34	1394 RUBBER M540G	6-47-M54GP-010	
35	GASKET (H) W/4HOLE FOR AUDIO BOARD M54G	6-47-00190-006	
36	NEW CARD RUBBER FOR MAIN BOARD	6-43-M54G-012	
37	CPU SUPPORT BRACKET SUS M550N	6-33-M55NS-020	
38	MYLAR FOR MB/DD CON M540J	6-40-M54JS-040	
39	STUD (H) W/2x2MM FOR W/B M540G	6-34-M54GS-020	
40	RUBBER FOR CPU COVER SUPPORT M540J	6-47-M54JS-020	
41	MYLAR FOR BLUETOOTH W/B M540SE	6-40-M5E4B-010	
42	BLUETOOTH 2.0 B PA MODULE GIGABYTE BLUETOOTH	6-88-M55JS-390	
43	80211 B/G MINI CARDSLOT REALTEK CHIPSET	6-88-M7702-701	
44	W/4HOLE FOR W/B BLUETOOTH W/B M540G	6-88-M55S1-531	
45	FFC CABLE FOR BLUETOOTH TO W/B M540G	6-43-M55G0-071	
46	MYLAR FOR W/B M540G	6-47-M54GS-010	
47	W/B BOTTOM USB MYLAR FOR M550J	6-40-M55JS-040	
48	RUBBER FOR CARD READER (S) W/4HOLE	6-47-M54GE-011	
49	W/4HOLE FOR W/B M540G	6-40-M54SS-020	
50	20M 2V ZINBAH W/2x4L 20M 2000201	6-23-22015-2PC	
51	MAIN BOARD V2.0A M540SE	6-77-M5E40-002A-2	
52	MAIN BOARD V2.0A W/CARD READER M540SE	6-77-M5E40-002A-2	
53	W/B NEW CARD MYLAR M550N	6-40-M55NS-010	
54	NEW CARD BLANK FOR M550N	6-42-M55NP-010	
55	WASHER (H) W/2.5x0.25x1 (MYLAR)	6-37-02000-601	
56	W/4HOLE FOR CPU COVER SUPPORT M540G	6-31-M5E4N-010	
57	SPRING CONTACT SHIELDING W/4HOLE	6-47-00190-702	
58	NEW CARD RUBBER A FOR M54J M550J	6-47-M55JA-010	
	NEW CARD RUBBER B FOR M54J M550J	6-47-M55JA-020	

# Bottom (M540SE)

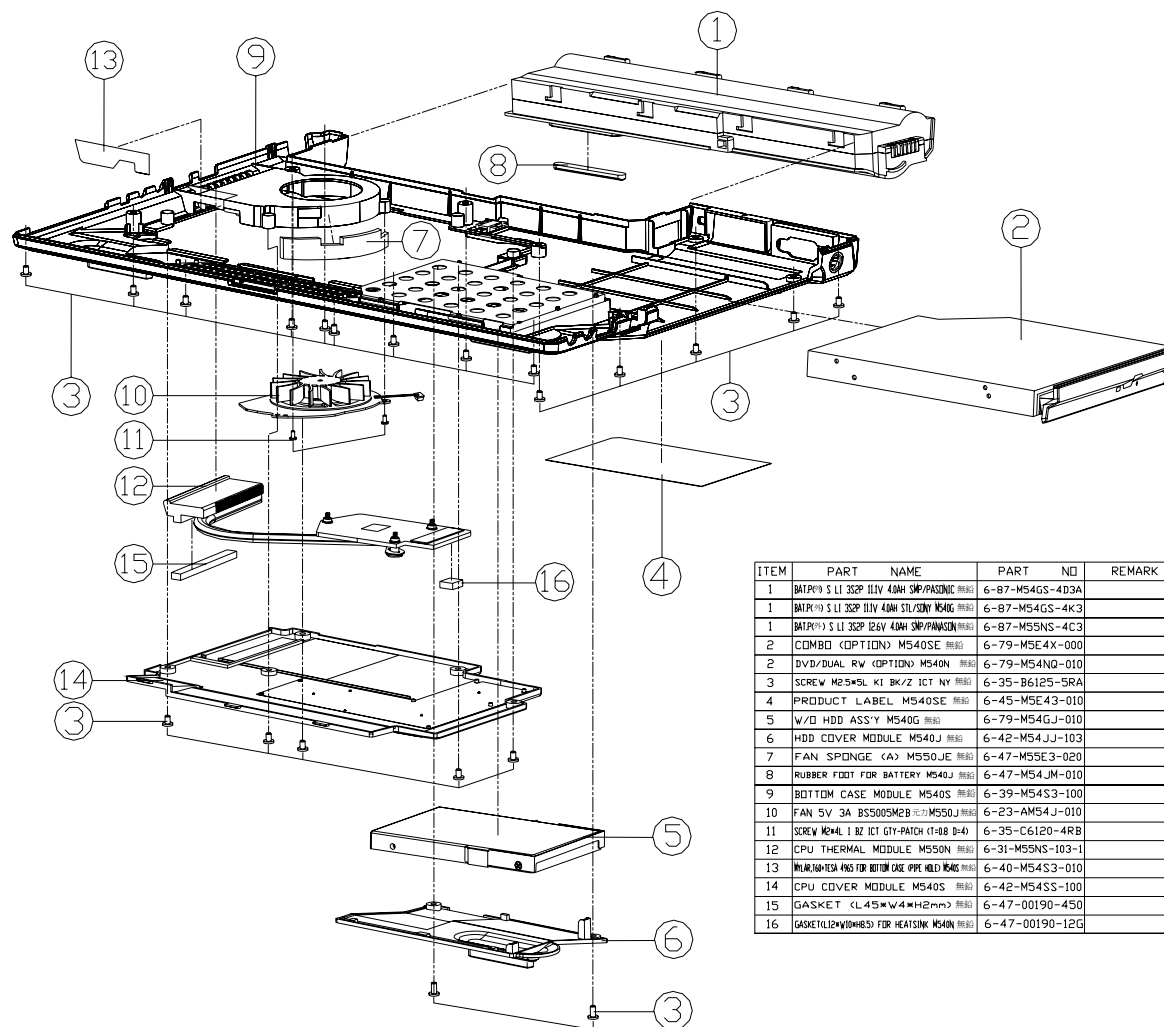


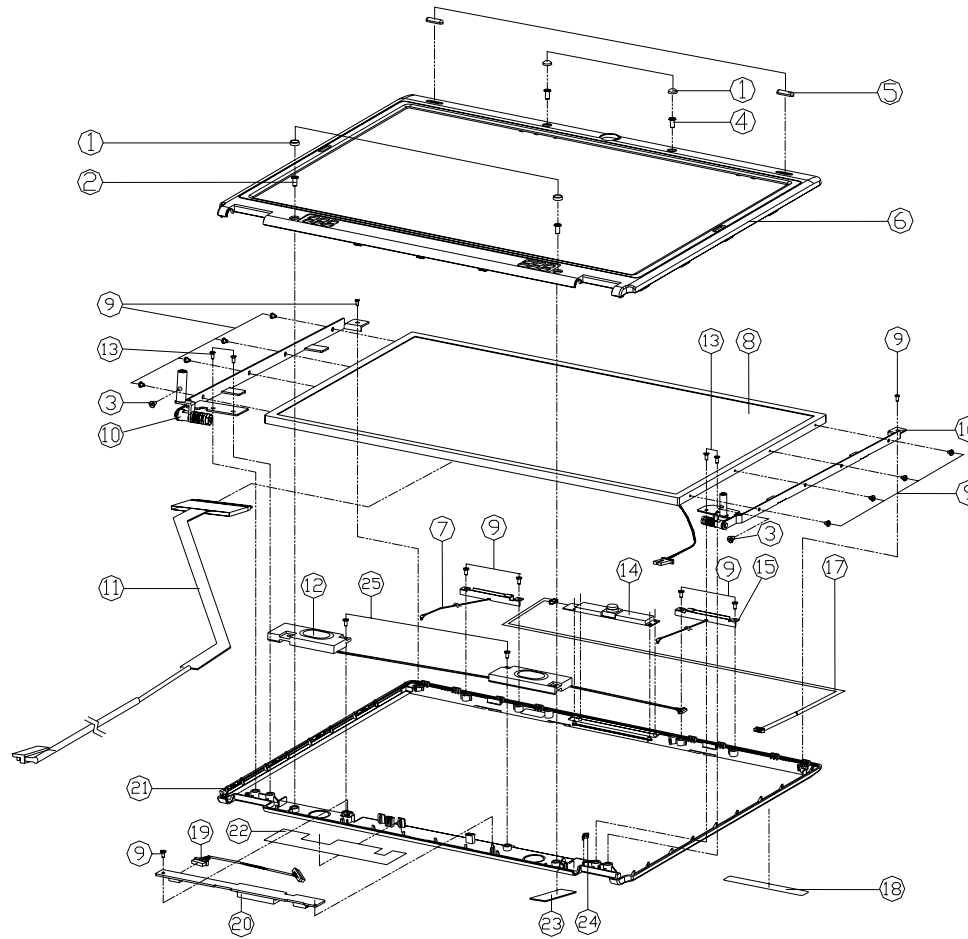
Figure A - 7  
Bottom (M540SE)

ITEM	PART NAME	PART NO	REMARK
1	BATRY S LI 32P 11V 40AH SMP/PASOHC 無鉛	6-87-M54GS-4D3A	
1	BATRY S LI 32P 11V 40AH STL/SOBY M54G 無鉛	6-87-M54GS-4K3	
1	BATRY S LI 32P 12.6V 40AH SMP/PASOHC 無鉛	6-87-M5SNS-4C3	
2	COMBO (OPTION) M540SE 無鉛	6-79-M5E4X-000	
2	DVD/DUAL RW (OPTION) M540N 無鉛	6-79-M54NQ-010	
3	SCREW M2.5xSL K1 BK/2 ICT NY 無鉛	6-35-B6125-5RA	
4	PRODUCT LABEL M540SE 無鉛	6-45-M5E43-010	
5	W/D HDD ASS'Y M540G 無鉛	6-79-M54GJ-010	
6	HDD COVER MODULE M540J 無鉛	6-42-M54JJ-103	
7	FAN SPONGE (A) M550JE 無鉛	6-47-M55E3-020	
8	RUBBER FOOT FOR BATTERY M540J 無鉛	6-47-M54JM-010	
9	BOTTOM CASE MODULE M540S 無鉛	6-39-M54S3-100	
10	FAN 5V 3A BS5005M2B 無鉛	6-23-AM54J-010	
11	SCREW M2xL 1 BZ ICT GTY-PATCH (T=08 D=4) 無鉛	6-35-C6120-4RB	
12	CPU THERMAL MODULE M550N 無鉛	6-31-M5SNS-103-1	
13	MILK HIGH-RES RES FOR BOTTOM CASE OPTI HLD M54S 無鉛	6-40-M54S3-010	
14	CPU COVER MODULE M540S 無鉛	6-42-M54SS-100	
15	GASKET <L45xW4xH2mm> 無鉛	6-47-00190-450	
16	GASKET(L2xW10xH5) FOR HEATSINK M54N 無鉛	6-47-00190-12C	

A.Part Lists

# LCD (M540SE)

Figure A - 8  
LCD (M540SE)



ITEM	PART NAME	PART NO	REMARK
1	RUBBER FOR LCD FRONT COVER CIRCLE	6-47-M54G1-041	
2	SCREW M2.5xSL K1 BK/Z ICT NY	6-35-B6125-5RA	
3	SCREW M2.5xSL F NI ICT NY	6-35-21125-4R0	
4	SCREW M2xSL I BZ ICT	6-35-C6120-5R0	
5	RUBBER FOR LCD FRONT COVER (ELLIPSE)	6-47-M54G1-052	
6	LCD FRONT COVER MODULE (41W)	6-39-M54S1-013	
7	LED LIGHT BAR (141W) (41W)	6-23-7M54S-010	
8	LED LIGHT BAR (141W) (41W)	6-50-J8255-G00	
9	SCREW M2xSL I NI ICT NY	6-35-C1120-3R8	
10	HINGE L.M51-SECC L0 (141W) M540S	6-33-M54S1-020	
11	CABLE FOR OPTICAL MODULE (41W)	6-43-M54S1-010	
12	SPACER WITH CABLE (2X2MM) (141W)	6-23-5M54S-010	
13	SCREW M2.5xSL F NI ICT NY	6-35-21125-5RA	
14	ODS VIDEO CAMERA (8MP-DV/660-D 200K PIXEL)	6-88-M66NC-491	<OPTION>
14	ODS VIDEO CAMERA (8MP-DV/660-D 500K LCM)	6-88-M55GC-612	<OPTION>
15	HINGE R.M51-SECC L0 (141W) M540S	6-33-7M54S-020	
16	HINGE R.M51-SECC L0 (141W) M540S	6-33-M54S1-011	
17	WIRE CABLE FOR CCD TO MAIN BOARD	6-43-M54N0-024	
18	M540G (HOLE LOGO) STYLE (NOTE)	6-45-M54G1-020	
19	WIRE CABLE FOR INVERTER MODULE TO MAIN BOARD	6-43-M54S0-010	
20	INVERTER MODULE (EPS) V15 M550G	6-76-M55GR-015	
20	INVERTER MODULE M550G	6-76-M55GR-031	
21	LCD 141" BACK COVER MODULE M540E	6-39-M54E1-021	
21	LCD BACK COVER MODULE (41W) M540E	6-39-M54G1-225-2C	
22	SHIELDING FOR INVERTER M540J	6-47-M54JS-030	
23	CABLE FOR INVERTER MODULE TO MAIN BOARD	6-40-00150-540	
24	RUBBER FOR INVERTER MODULE (41W)	6-47-00120-503	
25	SCREW M2xSL K1 BNI ICT NY	6-35-B9120-4R4	

# COMBO (M540SE)

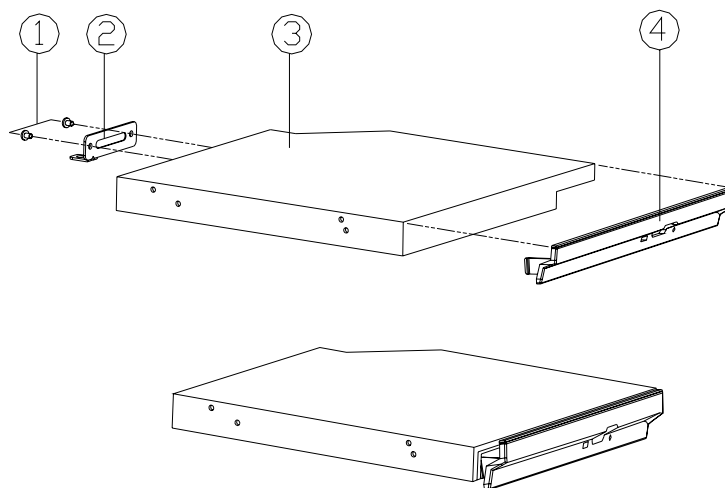


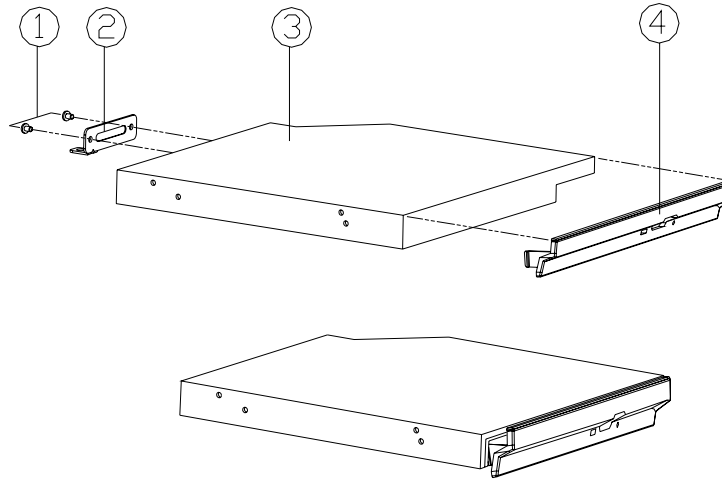
Figure A - 9  
COMBO (M540SE)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT GTY-PATCH 無鉛	6-35-B1120-3RE	
2	CD-RDM LCKK BRACKET,SECC M550G 無鉛	6-33-M55GZ-011	
3	CD-RW/DVD 5 1/4" 24X 12.7MM CRX880A SMD/OSD 無鉛	6-85-907PX-C03	
3	CD-RW/DVD 5 1/4" 24X 12.7MM TS-L462D 無鉛	6-85-907PX-T01	
4	COMBO BEZEL MODULE M540V 無鉛	6-42-M54VX-100	

A.Part Lists

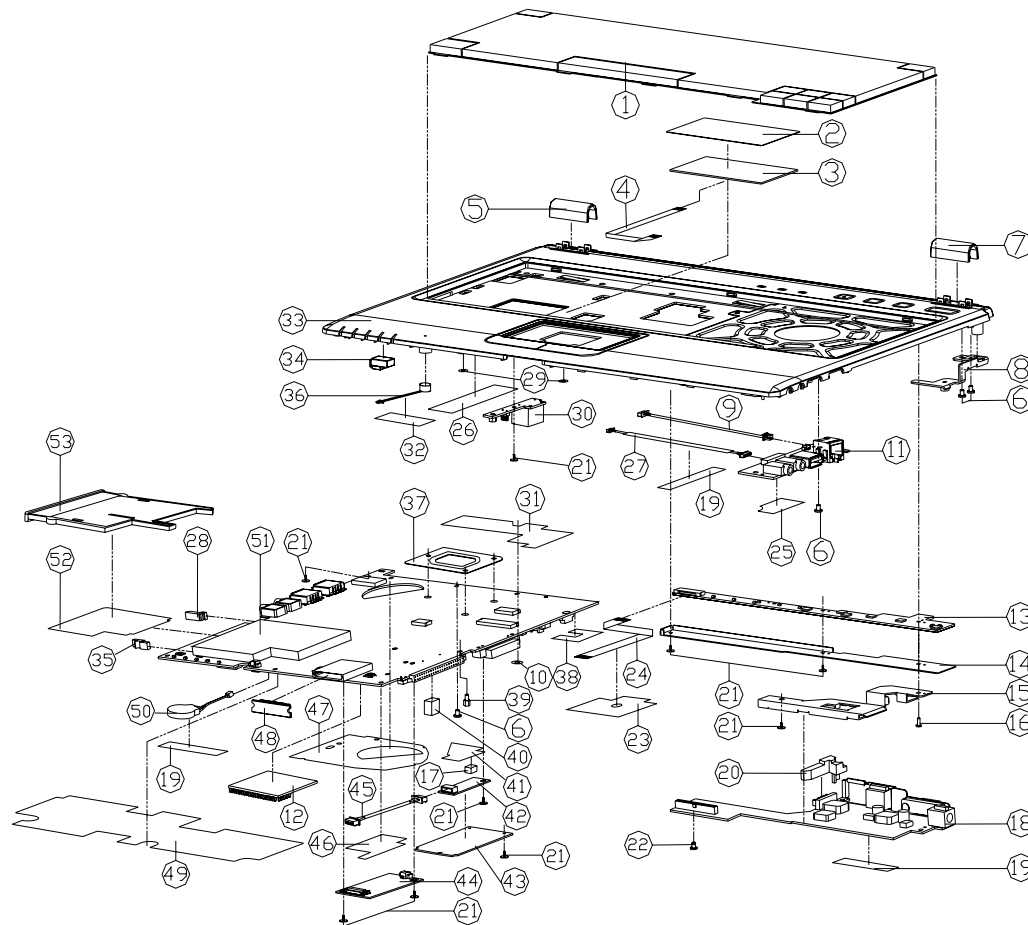
## DVD-RW Drive (M540SE)

Figure A - 10  
DVD-RW Drive  
(M540SE)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT GTY-PATCH 無鉛	6-35-B1120-3RE	
2	CD-ROM LOCK BRACKET,SECC M590G 無鉛	6-33-M55GZ-011	
3	DVD/DUAL RW 5 1/4" 8X 12/7MM TS-L6320 無鉛	6-85-A078X-T02	
4	COMBO BEZEL MODULE M540V 無鉛	6-42-M54VX-100	

# Top (M540SE-C)



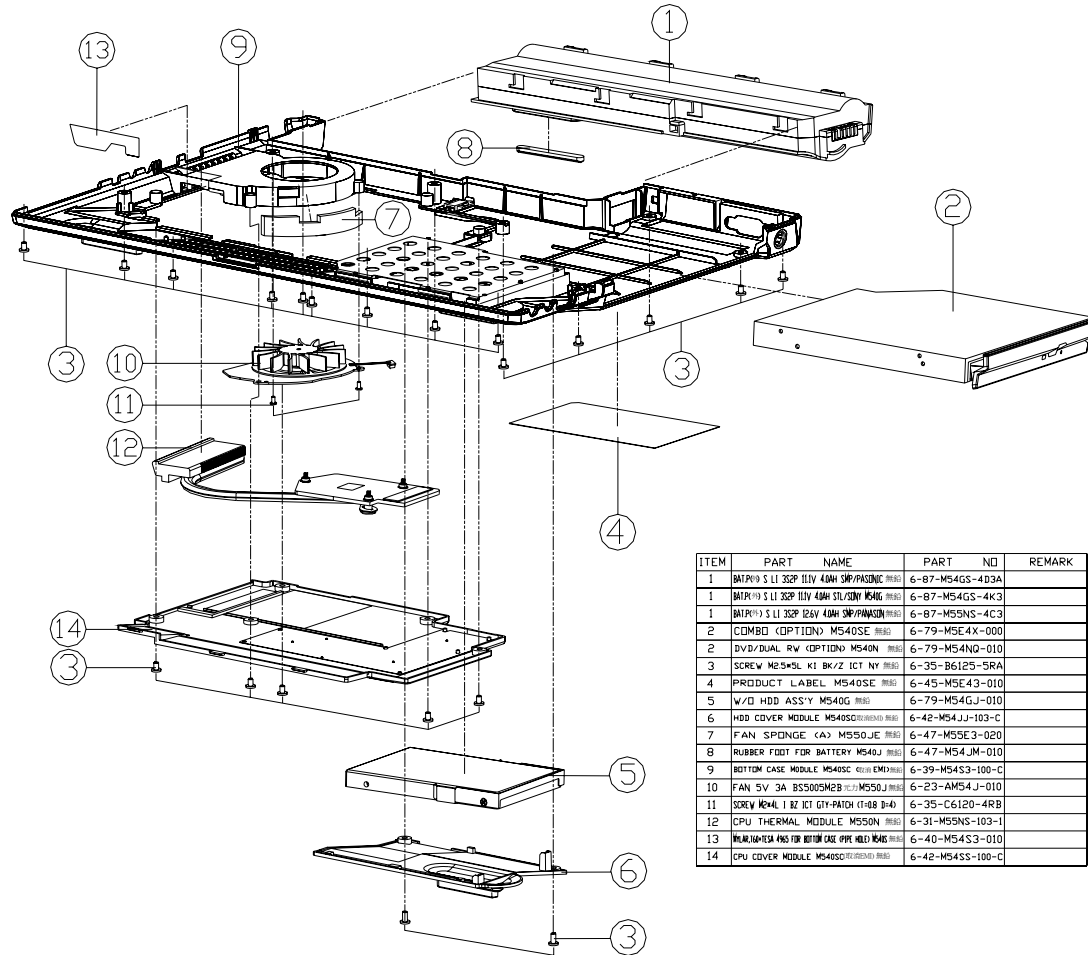
ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD (OPTIO) M50G	6-80-M55G0-011-1	
2	TOUCH PAD NYLAR T+02E M540G	6-40-M54G2-021	
3	TOUCH PAD T+02E M540G	6-49-M66E2-010	
4	FTC CABLE FOR TOUCH PAD TO W/B RP M54G	6-43-M54G0-011	
5	HINGE COVER (L) M540N	6-42-M54NY-020	
6	SCREW M2.5x4L F NI ICT NY	6-35-21125-4R0	
7	HINGE COVER (R) M540N	6-42-M54NY-010	
8	TOP CASE SUPPORT (0.305 TH) M54G	6-33-M54G0-033	
9	W/B CBL FOR AUDIO BOARD TO MAIN BOARD	6-43-M54NP-013	
10	WASHER Ø4x2.5x0.251 NYLAR	6-37-02000-601	
11	AUDIO BOARD V2.0 M550SE	6-77-M5E58-D02	
12	HEATSINK FOR CHIPSET/MPM M54G	6-31-M5E4N-010	
13	HOT KEY BOARD V1.0 M540S	6-77-M54SS-001	
14	HOTKEY SHIELDING AL T+0.5 M54G	6-33-M54G2-020	
15	CABLE SUPPORT BRACKET M540J	6-33-M54J2-011	
16	SCREW M2x4L KI ICT (Ø4.5 T+0.4)	6-35-B0120-4R0	
17	EMI GASKET (5x9x2)MM	6-47-00190-05G	
18	DC/DC BOARD V2.0 M540S	6-77-M54SC-002	
19	TAPE NYLAR (C) NYLAR M550J	6-40-M55J2-010	
20	RUBBER FOR BATTERY CON M540G	6-47-M54G2-011	
21	SCREW M2x4L KI NI ICT GY-PATCH	6-35-B1120-3RE	
22	SCREW M2x4L KI NI ICT NY (Ø1.5T+0.5)	6-35-B1125-6RB	
23	HOTKEY CABLE NYLAR M540G	6-40-M54G2-070	
24	FTC CABLE FOR HOTKEY BOARD TO W/B M54G	6-43-M54G0-042-1	
25	W/B CBL FOR HOTKEY BOARD TO MAIN BOARD	6-40-M54SS-011	
26	SPRING/PLATE WITH CONTACT M54G	6-47-00194-702	
27	W/B CABLE FOR AUDIO BOARD TO W/B AND W/B	6-43-M54NB-010	
28	NEWCARD RUBBER A FOR 'M'J M550J	6-47-M55JA-010	
29	WASHER Ø4x2.5x0.251 (NYLAR)	6-37-02000-500	
30	LAN BOARD V3.0 M550G	6-77-M55G2-003	
31	W/B NYLAR FOR KEYBOARD CON M540N	6-40-M54N7-020	
32	TAPE NYLAR (C) NYLAR M550J	6-40-M55J2-030	
33	TOP CASE MODULE M540SC	6-39-M54S2-010-C	
34	1394 RUBBER R M540G	6-47-M54GP-010	
35	NEWCARD RUBBER B FOR 'M'J M550J	6-47-M55JA-020	
36	W/B CABLE FOR CPU COVER TO W/B M54G	6-23-EM54G-012	
37	CPU SUPPORT BRACKET/SUS M550N	6-23-M55NS-020	
38	NYLAR FOR MB/DD CON M540J	6-40-M54JS-040	
39	STUD (H)Ø4M M2.5MM FOR W/B M540G	6-34-M54GS-020	
40	RUBBER FOR CPU COVER SUPPORT M54G	6-47-M54JS-020	
41	NYLAR FOR BLUE TOOTH W/B M540G	6-40-M5E4B-010	
42	BLUETOOTH 2.0 FPC NYLAR COVERER M540N	6-88-M55JS-390	
43	Ø3.013 Ø1.0 NYL CARBON/RELAY CONTACT	6-88-Ø7702-701	
44	W/B CABLE FOR M540G TO W/B M540G	6-88-M56S1-531	
45	W/B CBL FOR M540G TO W/B M540G	6-88-M56S1-620	
46	W/B CABLE FOR BLUETOOTH TO W/B M540G	6-43-M55G0-071	
47	NYLAR FOR USB NYLAR F883 M550J	6-47-M54GS-010	
48	W/B BOTTOM USB NYLAR F883 M550J	6-40-M55JS-040	
49	CARD READER RUBBER M540SE-C	6-47-M5E42-011	
50	W/B CABLE FOR W/B BOTTOM USB	6-40-M54SS-020	
51	Ø1.25MM Ø1.25MM VISIBLE SCAM CR032C1	6-23-22015-P2C	
52	MAIN BOARD V2.0A M540SE	6-77-M5C40-D02A	
53	MAIN BOARD V20A V1CAREADER M540SE	6-77-M5C40-D02A-2	
54	W/B NEW CARD NYLAR M550N	6-40-M55NS-010	
55	NEW CARD DUMMY FOR M550N	6-42-M55NP-010	

Figure A - 11  
Top (M540SE-C)

A. Part Lists

# Bottom (M540SE-C)

Figure A - 12  
Bottom  
(M540SE-C)



ITEM	PART NAME	PART NO	REMARK
1	BATTERY S LI 352P 11V 40AH SMP/PASGDC (R66)	6-87-MS4GS-4D3A	
1	BATTERY S LI 352P 11V 40AH ST/SDNY (R66)	6-87-MS4GS-4K3	
1	BATTERY S LI 352P 11V 40AH SMP/PASGDC (R66)	6-87-MS4GS-4C3	
2	COMBO (OPTION) M540SE (R66)	6-79-MS4X-000	
2	DVD/DUAL RW (OPTION) M540N (R66)	6-79-MS4ND-010	
3	SCREW M2.5*5L K1 BK/Z ICT NY (R66)	6-35-B6125-5RA	
4	PRODUCT LABEL M540SE (R66)	6-45-M5E43-010	
5	W/O HDD ASS'Y M540G (R66)	6-79-MS4GJ-010	
6	HDD COVER MODULE M540SD (R66)	6-42-MS4JJ-103-C	
7	FAN SPONGE (A) M550JE (R66)	6-47-M55E3-020	
8	RUBBER FOOT FOR BATTERY M540J (R66)	6-47-MS4JM-010	
9	BOTTOM CASE MODULE M540SC (R66)	6-39-MS4S3-100-C	
10	FAN SV 3A BSS005M2B (R66)	6-23-AMS4J-010	
11	SCREW M2.5*1.8Z ICT GY-PATCH (1-08 3-4)	6-35-C6120-4RB	
12	CPU THERMAL MODULE M550N (R66)	6-31-MS5NS-103-I	
13	HEATSHIELD FOR BOTTOM CASE (R66)	6-40-M54S3-010	
14	CPU COVER MODULE M540SD (R66)	6-42-MS4SS-100-C	



# LCD (M540SE-C)

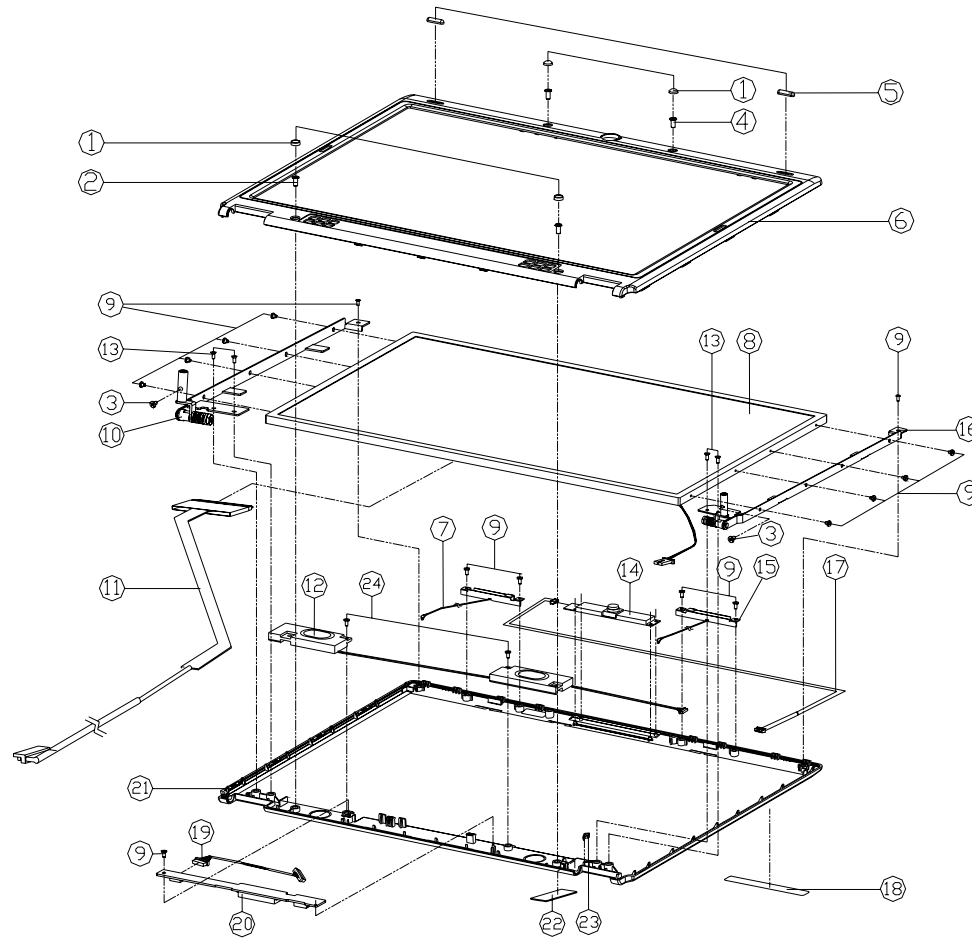


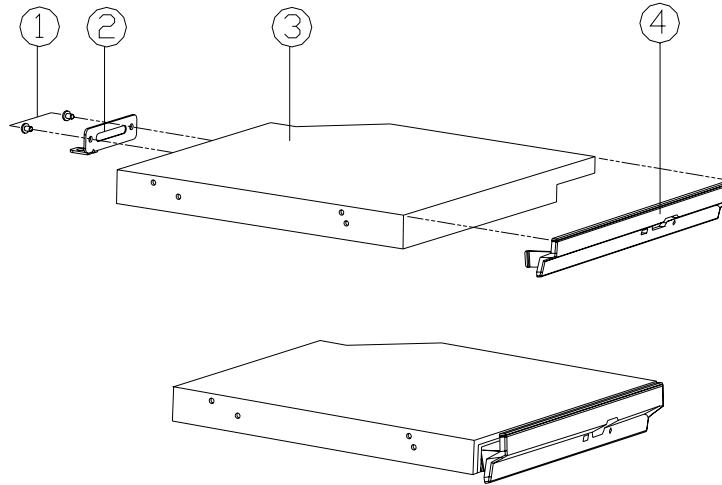
Figure A - 13  
LCD (M540SE-C)

ITEM	PART NAME	PART NO	REMARK
1	RUBBER FOR LCD FRONT COVER (CIRCLE) M54G	6-47-M54G1-041	
2	SCREW M2.5x5L KI BK/Z ICT NY	6-35-B6125-5RA	
3	SCREW M2.5x4L F NI ICT NY	6-35-21125-4R0	
4	SCREW M2x5L 1 BZ ICT	6-35-C6120-5R0	
5	RUBBER FOR LCD FRONT COVER (ELLIPSE) M54G	6-47-M54G1-052	
6	LCD FRONT COVER MODULE (141W) M54GS	6-39-M54S1-013	
7	BEZEL (FRONT) M54G	6-23-7M54S-010	
8	LCD INVERTER (141W) M54G	6-50-J8255-000	
9	SCREW M2.5x4L F NI ICT NY	6-35-C1120-3R0	
10	HINGE L.MS1+SECC 1.0 (141W) M54GS	6-33-M54S1-020	
11	CORNER CABLE FOR (PHILIPS) M54G	6-43-M54S1-010	
12	SPRING WIRE CABLE (25MM) (BY IP) (6-23) M54G	6-23-5M54S-010	
13	SCREW M2.5x5L F NI ICT	6-35-21125-5RA	
14	CMOS VIDEO CAMERA (M24-DV7680-D-300K PIXEL)	6-88-M66NC-491	(OPT IDN)
14	CMOS VIDEO CAMERA (M24-DV9650-D-500K PIXEL)	6-88-M55GC-612	(OPT IDN)
15	BEZEL (FRONT) M54G	6-23-7M54S-020	
16	HINGE R.MS1+SECC 1.0 (141W) M54GS	6-33-M54S1-011	
17	WIRE CABLE FOR CCD TO M54G	6-43-M54ND-024	
18	M54OG (TYPE LOGO) STYLE-NOTICE	6-45-M54G1-020	
19	WIRE CABLE FOR INVERTER MODULE TO M54G	6-43-M54S0-010	
20	INVERTER MODULE (EPS) V15 M550G	6-76-M55GR-015	
20	INVERTER MODULE M550G	6-76-M55GR-031	
21	LCD 141" BACK COVER MODULE M54G.E	6-39-M54E1-021	
21	LCD BACK COVER MODULE (141W) M54GVC	6-39-M54E1-225-2C	
22	RUBBER FOR (8-CV) M54G	6-47-00120-503	
23	WIRE CABLE (154) M54G FOR M54 LCD CABLE	6-40-00150-540	
24	SCREW M2x4L KI BNI ICT NY	6-35-B9120-4RA	

A.Part Lists

# COMBO (M540SE-C)

Figure A - 14  
COMBO  
(M540SE-C)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT GTY-PATCH 無鉛	6-35-B1120-3RE	
2	CD-RDM L DCK BRACKET,SECC M550G 無鉛	6-33-M55GZ-011	
3	CD-RW/DVD 5 1/4' 24X 12.7MM CRX880A SHD0SD 無鉛	6-85-907PX-C03	
3	CD-RW/DVD 5 1/4' 24X 12.7MM TS-L462D 無鉛	6-85-907PX-T01	
4	COMBO BEZEL MODULE M540V 無鉛	6-42-M54VX-100	

# DVD-RW Drive (M540SE-C)

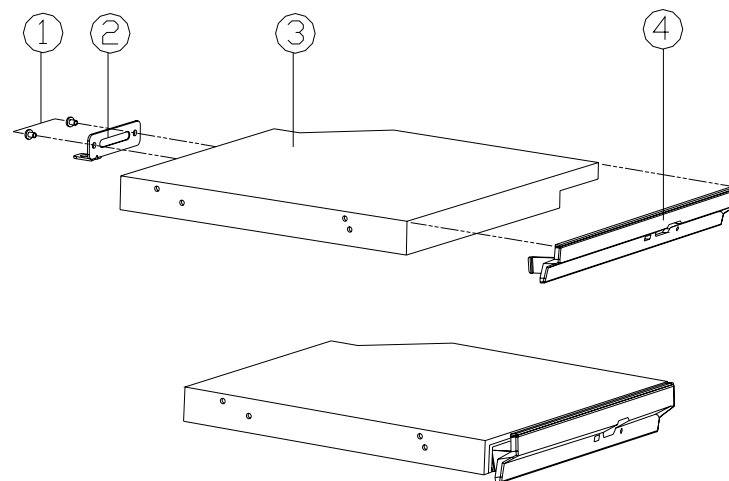


Figure A - 15  
DVD-RW Drive  
(M540SE-C)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT GTY-PATCH 無鉛	6-35-B1120-3RE	
2	CD-RDM LOCK BRACKET,SECC M550G 無鉛	6-33-M55GZ-011	
3	DVD/DUAL RW 5 1/4" 8X 12.7MM TS-L632D 無鉛	6-85-A078X-T02	
4	COMBO BEZEL MODULE M540V 無鉛	6-42-M54VX-100	

A.Part Lists



# Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the *M540SE/M550SE* 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>VT8237 2/3 - Page B - 15</i>	<i>+1.8V, +VTT_MEM - Page B - 28</i>
<i>PROCESSOR 1/2 - Page B - 3</i>	<i>VT8237 3/3 - Page B - 16</i>	<i>VCORE - Page B - 29</i>
<i>PROCESSOR 2/2 - Page B - 4</i>	<i>MINI PCI, MINI Card, USB2.0*2, FP - Page B - 17</i>	<i>+1.05VS, 1.5V, 1.5VS - Page B - 30</i>
<i>VN896 1/4 - Page B - 5</i>	<i>SATA HDD, CD-ROM, H8 BEEP, CCD - Page B - 18</i>	<i>+VDD3, +VDD5 - Page B - 31</i>
<i>VN896 2/4 - Page B - 6</i>	<i>LAN PHY - Page B - 19</i>	<i>D/D BD (CRT, INVERTER, CCD, RJ-11) - Page B - 32</i>
<i>VN896 3/4 - Page B - 7</i>	<i>LPC ROM, TOUCH PAD, LED - Page B - 20</i>	<i>D/D BD (CHARGER, DC IN) - Page B - 33</i>
<i>VN896 4/4 - Page B - 8</i>	<i>H8-2111 - Page B - 21</i>	<i>AUDIO BD (PHONE JACK, USB, RJ-11) - Page B - 34</i>
<i>DDR2-1 - Page B - 9</i>	<i>MDC, USB BT, PWRGD, DDB CON - Page B - 22</i>	<i>HOT KEY BD (HOT KEY, LED, LID) - Page B - 35</i>
<i>DDR2-2 - Page B - 10</i>	<i>Audio VT1708A/ALC883 - Page B - 23</i>	<i>LED BOARD - Page B - 36</i>
<i>CLOCK GENERATOR - Page B - 11</i>	<i>AUDIO AMP, USB2.0*2 - Page B - 24</i>	<i>CLICK BOARD - Page B - 37</i>
<i>PANEL, FAN - Page B - 12</i>	<i>PCI ENE MR510 - Page B - 25</i>	<i>RJ-45 BOARD - Page B - 38</i>
<i>VIA LVDS VT-1634AL - Page B - 13</i>	<i>NEW CARD, 3-IN-1 SOCKET - Page B - 26</i>	<i>USB DONGLE BOARD - Page B - 39</i>
<i>VT8237 1/3 - Page B - 14</i>	<i>5V, 3V, 5VS, 3VS, 2.5V, 2.5VS - Page B - 27</i>	<i>FINGERPRINT BOARD - Page B - 40</i>

*Table B - 1*  
**Schematic Diagrams**

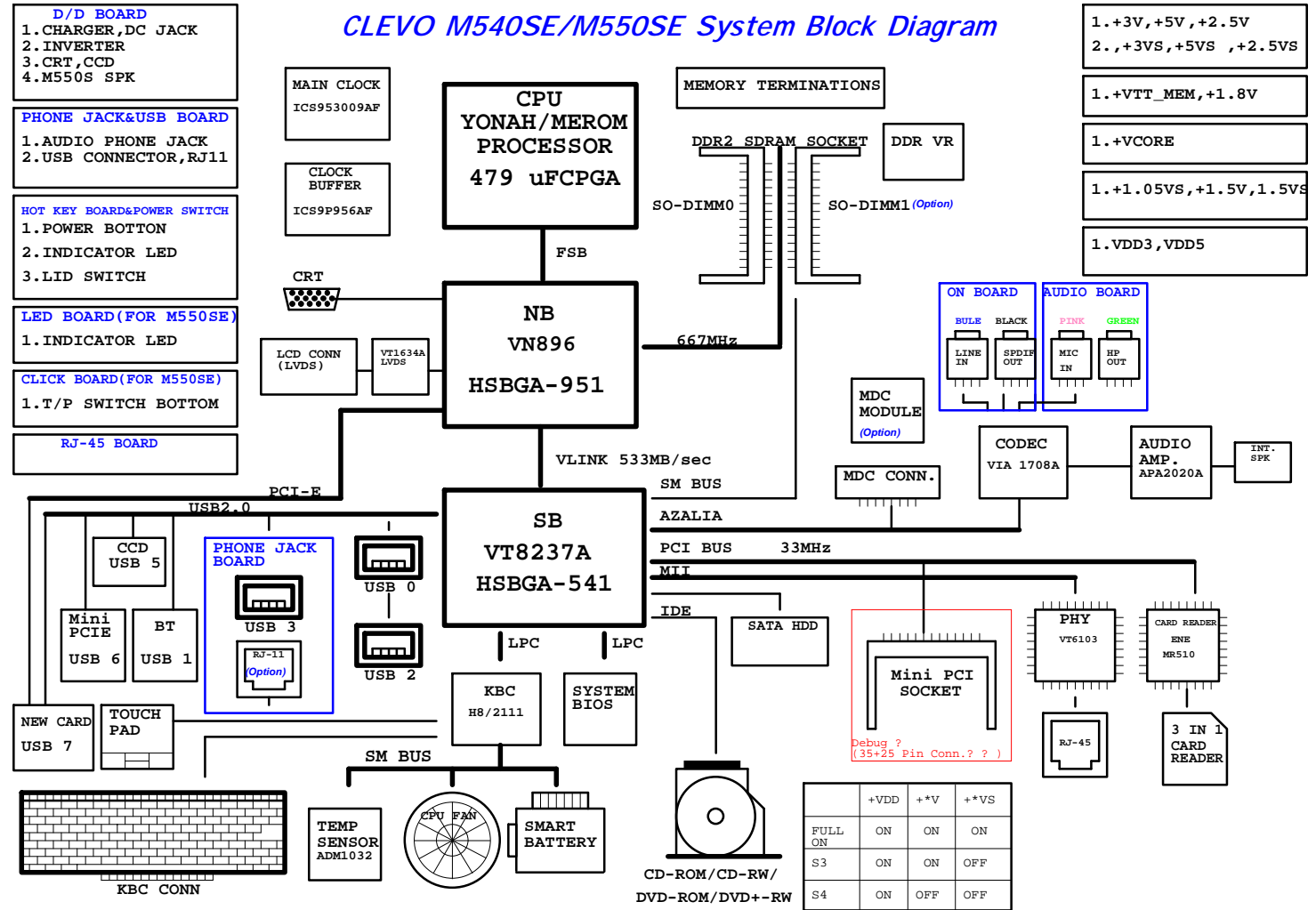


### Version Note

The schematic diagrams in this chapter are based upon version 6-71-M5E50-D02A. If your main-board (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

# System Block Diagram

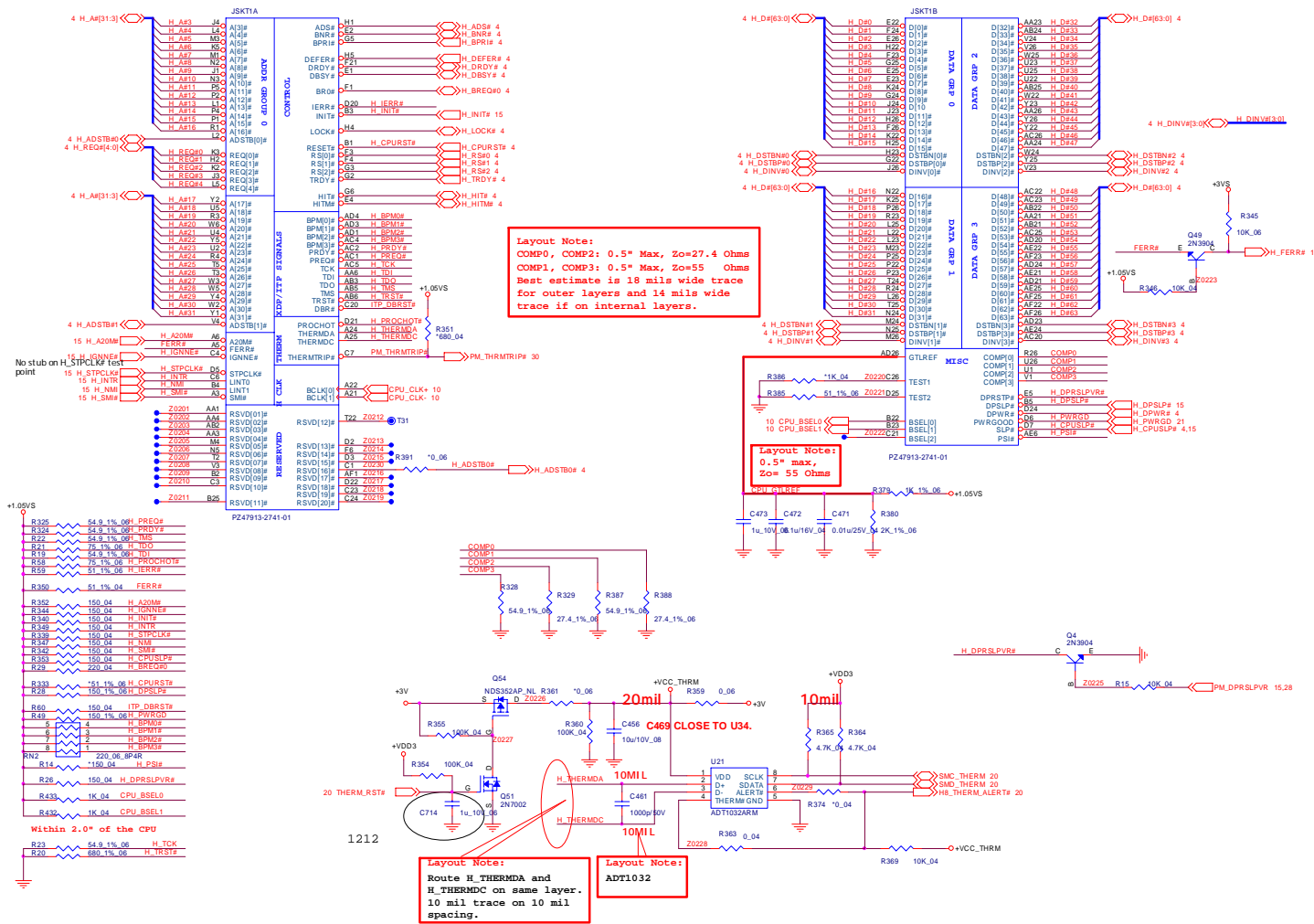
Sheet 1 of 39  
System Block  
Diagram



# PROCESSOR 1/2

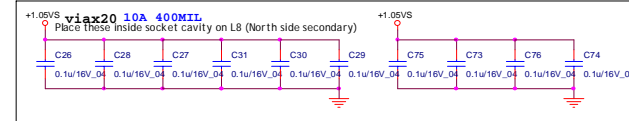
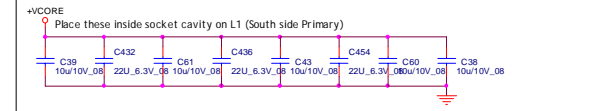
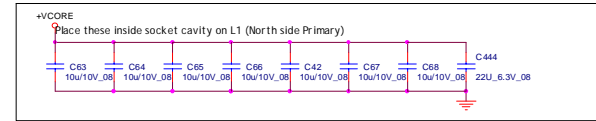
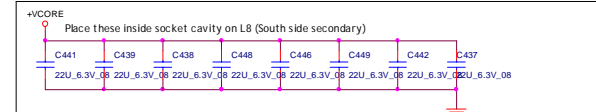
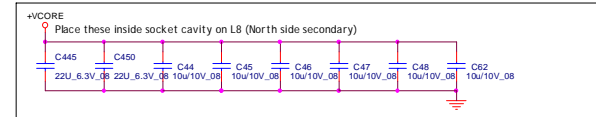
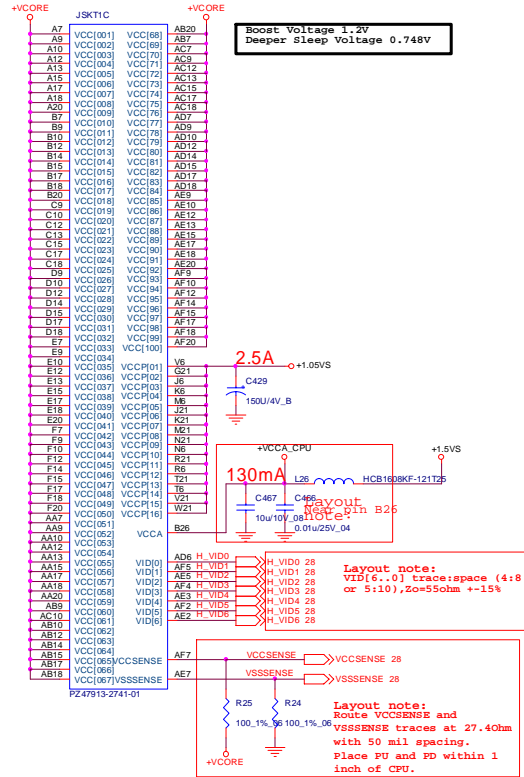
Sheet 2 of 39  
PROCESSOR 1/2

B.Schematic Diagrams

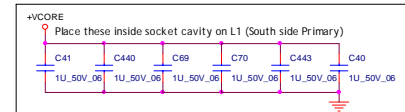
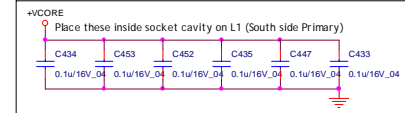


# PROCESSOR 2/2

Sheet 3 of 39  
PROCESSOR 2/2



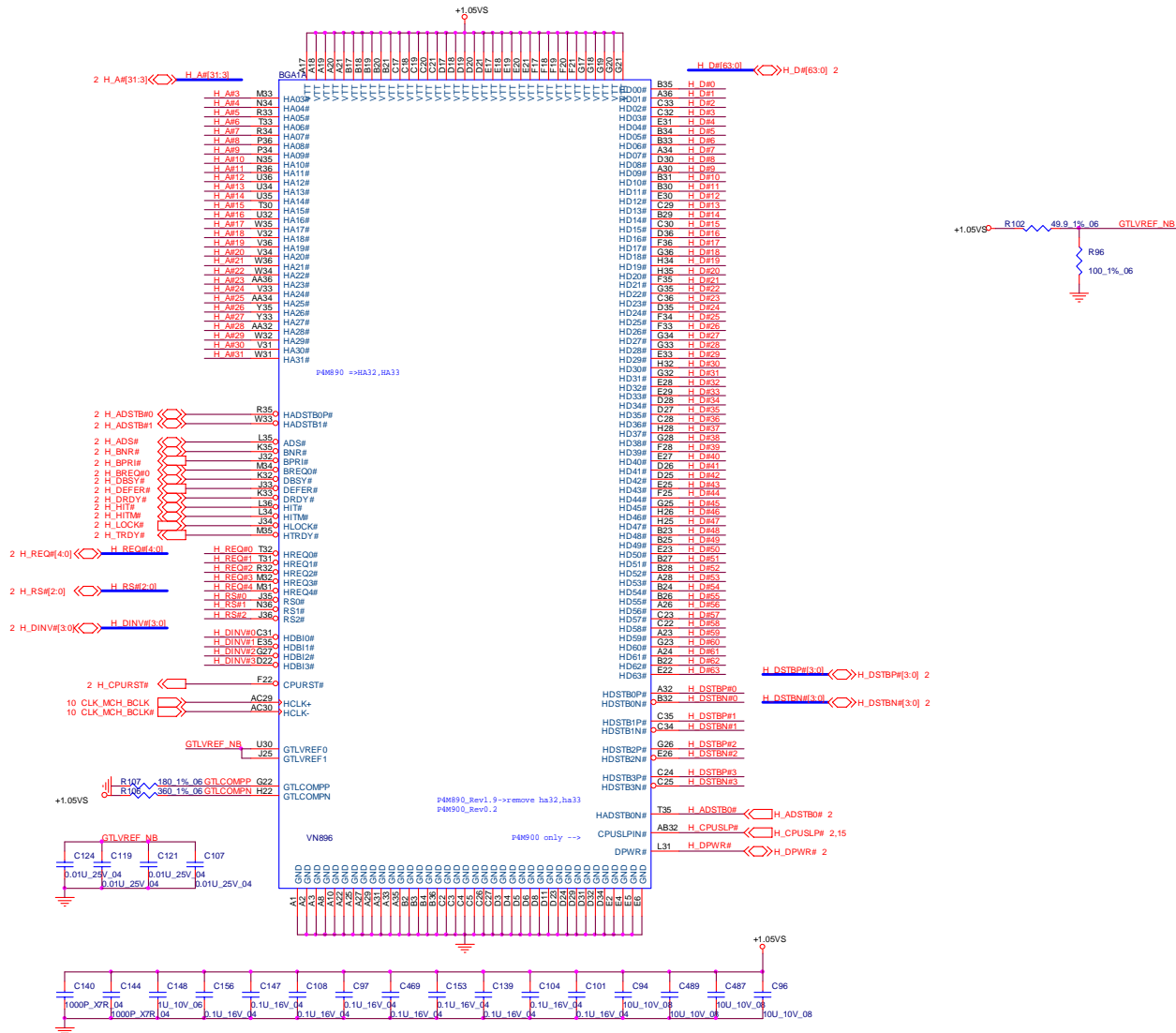
**CPUVS Decoupling Guidelines:** 1.5mOhm used 330uF \* 6 ( max ESR = 9mohm / cap. ) & 3mOhm used 22uF \* 32 MILCC



JSKT1D			
A4	VSS[001]	VSS[002]	P6
A8	VSS[002]	VSS[003]	P21
A11	VSS[003]	VSS[004]	P24
A14	VSS[004]	VSS[005]	R2
A16	VSS[005]	VSS[006]	R5
A19	VSS[006]	VSS[007]	R22
A23	VSS[007]	VSS[008]	R25
B6	VSS[008]	VSS[009]	T4
B8	VSS[009]	VSS[010]	T9
B11	VSS[010]	VSS[011]	T23
B13	VSS[011]	VSS[012]	T29
B16	VSS[012]	VSS[013]	U3
B19	VSS[013]	VSS[014]	U6
B21	VSS[014]	VSS[015]	U21
B24	VSS[015]	VSS[016]	U24
C5	VSS[016]	VSS[017]	V2
C6	VSS[017]	VSS[018]	V5
C11	VSS[018]	VSS[019]	V25
C16	VSS[019]	VSS[020]	W4
C19	VSS[020]	VSS[021]	W1
C16	VSS[021]	VSS[022]	W23
C27	VSS[022]	VSS[023]	W26
C22	VSS[023]	VSS[024]	Y3
C26	VSS[024]	VSS[025]	Y6
D1	VSS[025]	VSS[026]	Y21
D4	VSS[026]	VSS[027]	Y34
D8	VSS[027]	VSS[028]	AA2
D11	VSS[028]	VSS[029]	AA5
D13	VSS[029]	VSS[030]	AA8
D16	VSS[030]	VSS[031]	AA11
D19	VSS[031]	VSS[032]	AA14
D23	VSS[032]	VSS[033]	AA19
D26	VSS[033]	VSS[034]	AA22
E3	VSS[034]	VSS[035]	AA25
E6	VSS[035]	VSS[036]	AA28
E8	VSS[036]	VSS[037]	AA31
E11	VSS[037]	VSS[038]	AA34
E14	VSS[038]	VSS[039]	AA37
E16	VSS[039]	VSS[040]	AA40
E19	VSS[040]	VSS[041]	AA43
E21	VSS[041]	VSS[042]	AA46
E24	VSS[042]	VSS[043]	AA49
F5	VSS[043]	VSS[044]	AA52
F8	VSS[044]	VSS[045]	AA55
F11	VSS[045]	VSS[046]	AA58
F13	VSS[046]	VSS[047]	AA61
F16	VSS[047]	VSS[048]	AA64
F19	VSS[048]	VSS[049]	AA67
F2	VSS[049]	VSS[050]	AA70
F22	VSS[050]	VSS[051]	AA73
F25	VSS[051]	VSS[052]	AA76
G4	VSS[052]	VSS[053]	AA79
G1	VSS[053]	VSS[054]	AA82
G3	VSS[054]	VSS[055]	AA85
G28	VSS[055]	VSS[056]	AA88
H3	VSS[056]	VSS[057]	AA91
H6	VSS[057]	VSS[058]	AA94
H21	VSS[058]	VSS[059]	AA97
H24	VSS[059]	VSS[060]	AA100
J2	VSS[060]	VSS[061]	AA103
J5	VSS[061]	VSS[062]	AA106
J22	VSS[062]	VSS[063]	AA109
J25	VSS[063]	VSS[064]	AA112
K1	VSS[064]	VSS[065]	AA115
K4	VSS[065]	VSS[066]	AA118
K23	VSS[066]	VSS[067]	AA121
K26	VSS[067]	VSS[068]	AA124
L3	VSS[068]	VSS[069]	AA127
L6	VSS[069]	VSS[070]	AA130
L21	VSS[070]	VSS[071]	AA133
L24	VSS[071]	VSS[072]	AA136
M2	VSS[072]	VSS[073]	AA139
M5	VSS[073]	VSS[074]	AA142
M27	VSS[074]	VSS[075]	AA145
M25	VSS[075]	VSS[076]	AA148
N1	VSS[076]	VSS[077]	AA151
N4	VSS[077]	VSS[078]	AA154
N23	VSS[078]	VSS[079]	AA157
N26	VSS[079]	VSS[080]	AA160
N3	VSS[080]	VSS[081]	AA163
P3	VSS[081]	VSS[082]	AA166



# VN896 1/4

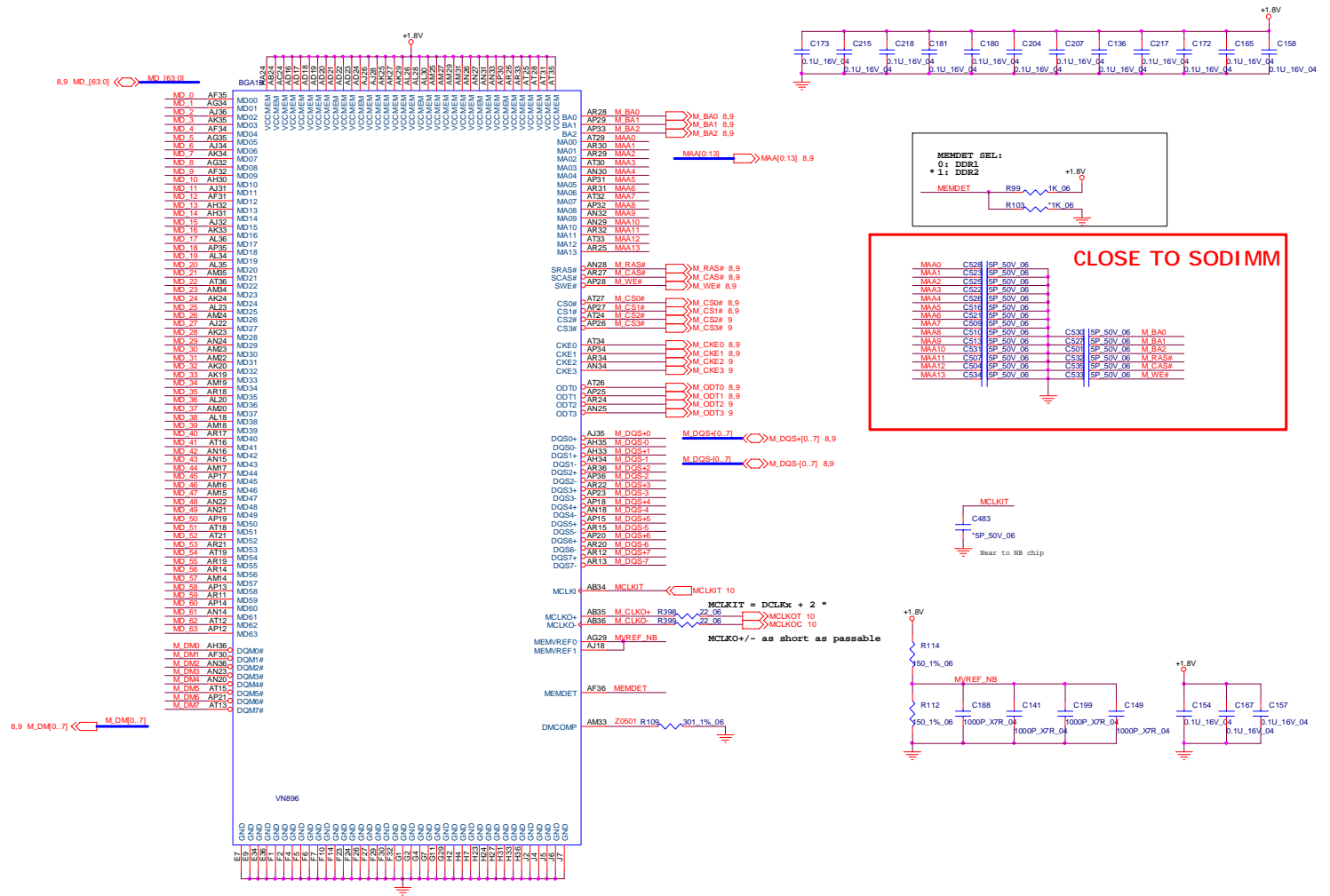


Sheet 4 of 39  
VN896 1/4

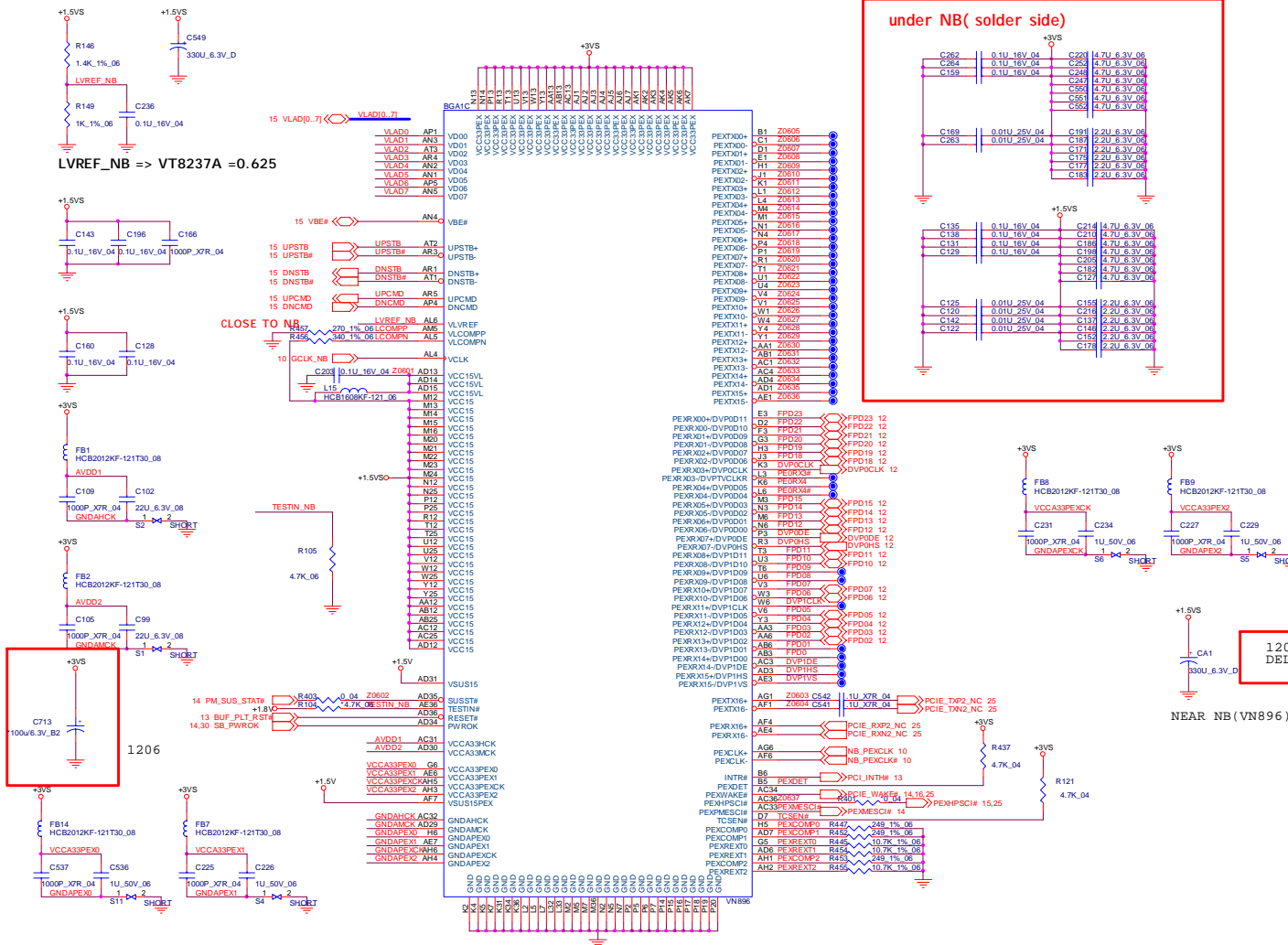
B. Schematic Diagrams

# VN896 2/4

Sheet 5 of 39  
VN896 2/4



# VN896 3/4

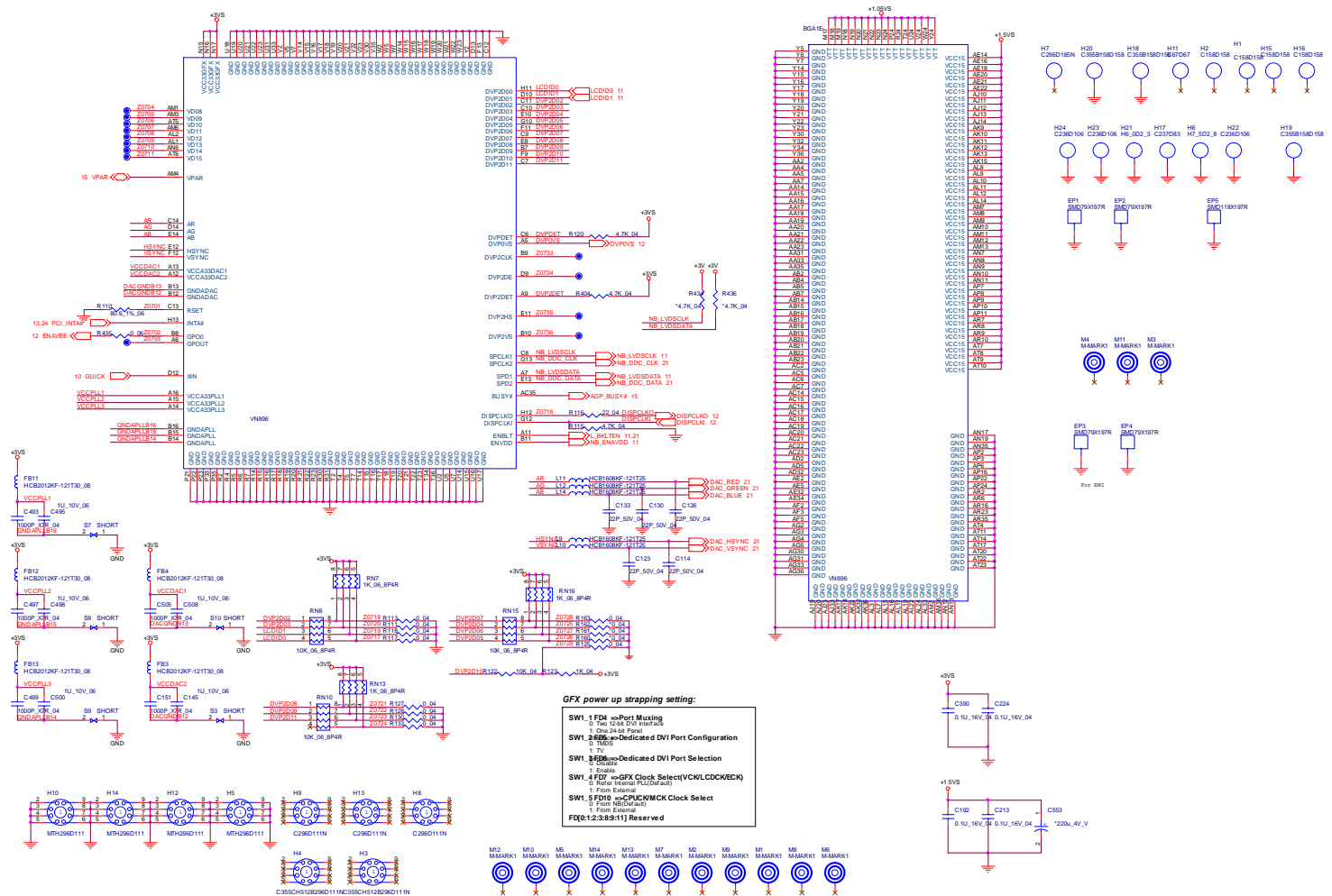


Sheet 6 of 39  
VN896 3/4

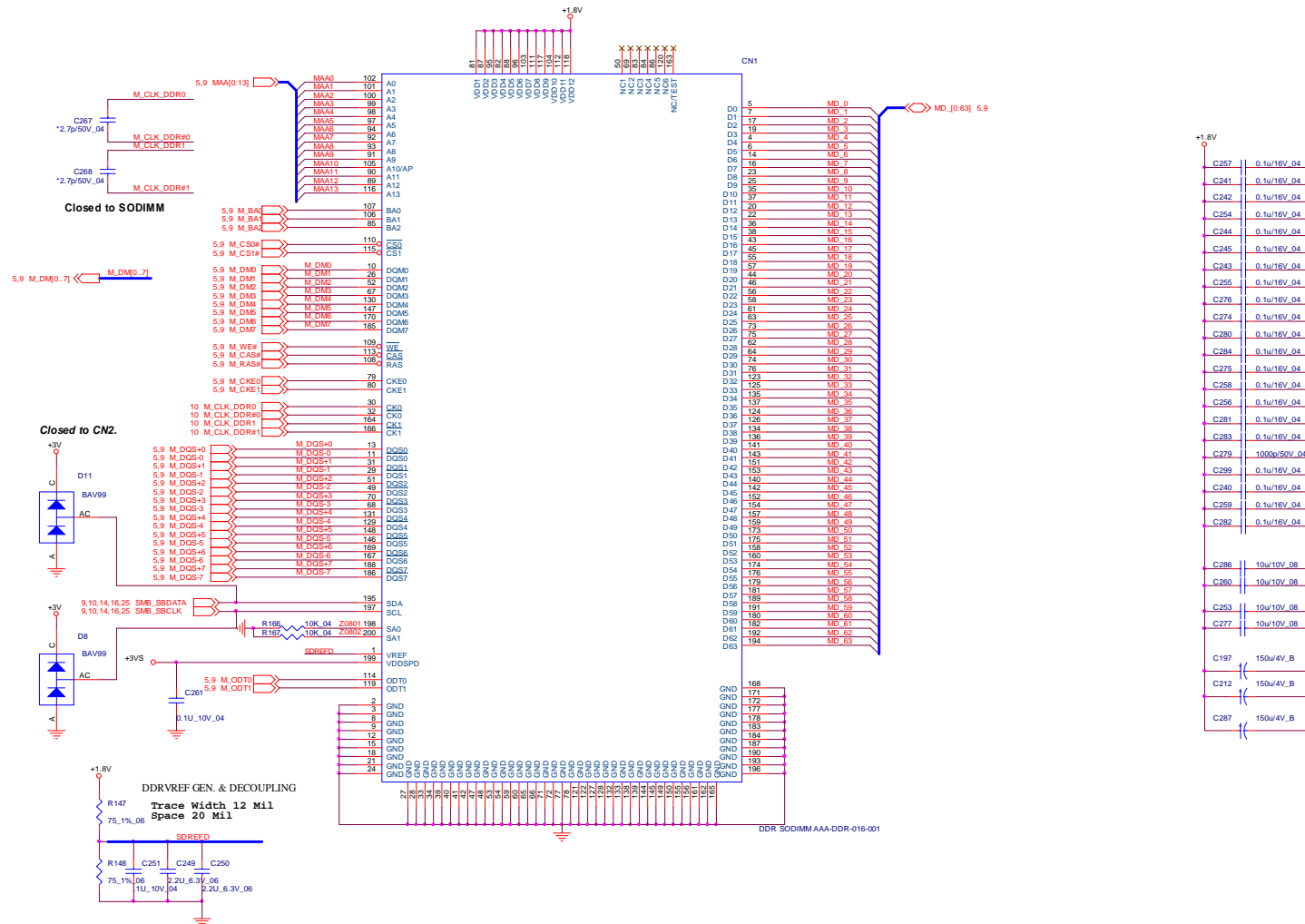
# VN896 4/4

Sheet 7 of 39  
VN896 4/4

B.Schematic Diagrams



# DDR2-1

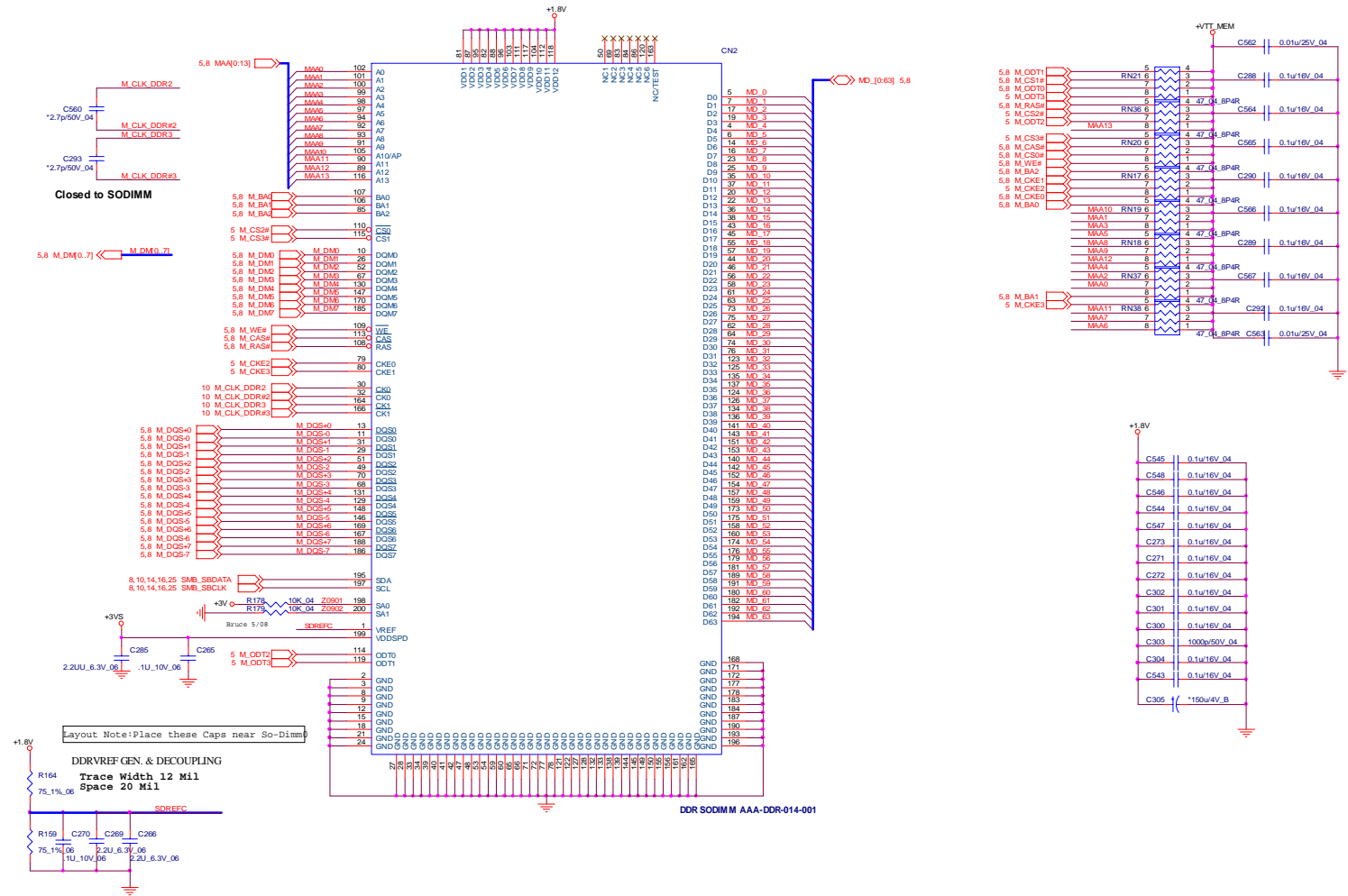


Sheet 8 of 39  
DDR2-1

B.Schematic Diagrams

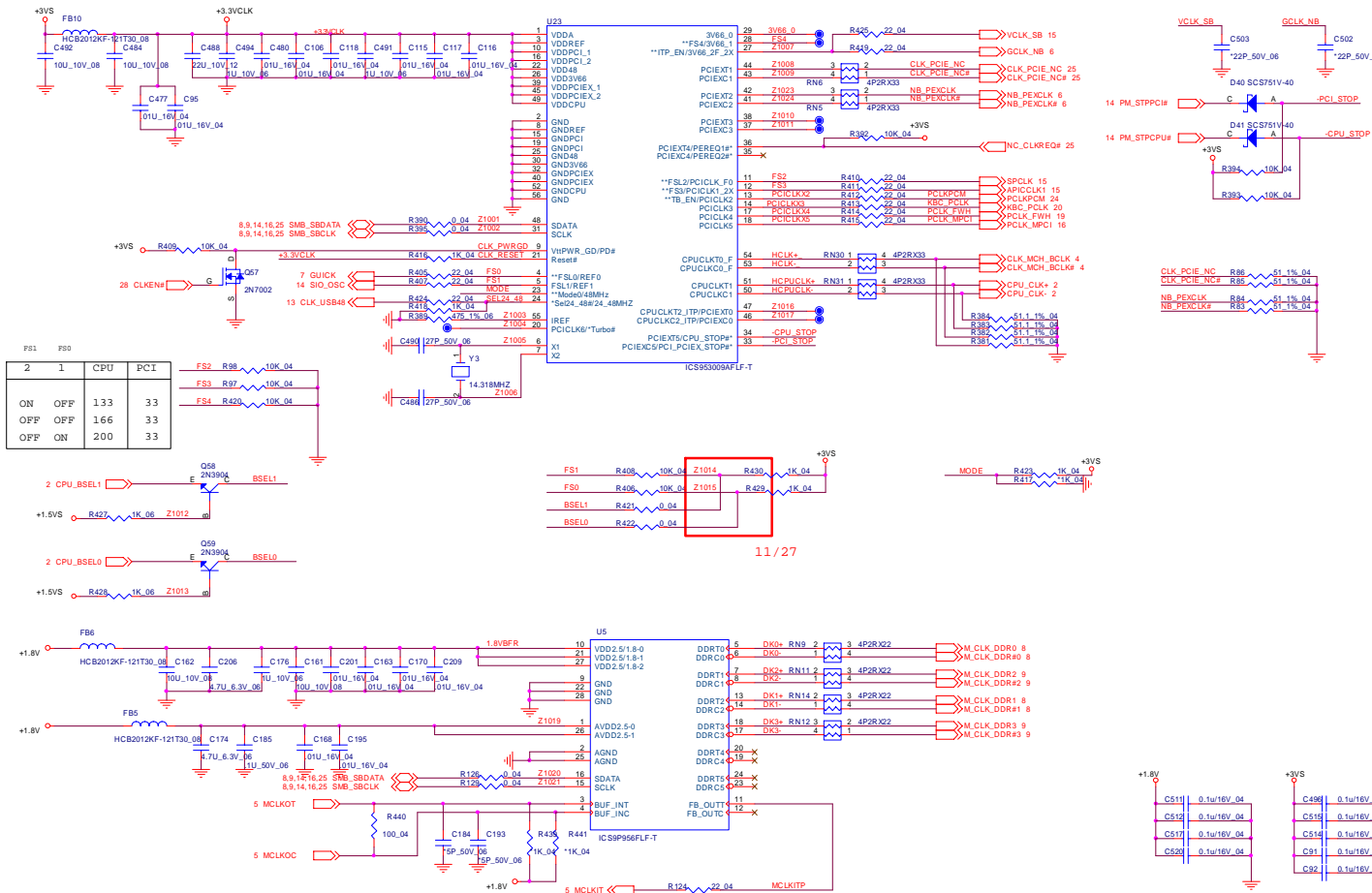
# DDR2-2

Sheet 9 of 39  
DDR2-2



# CLOCK GENERATOR

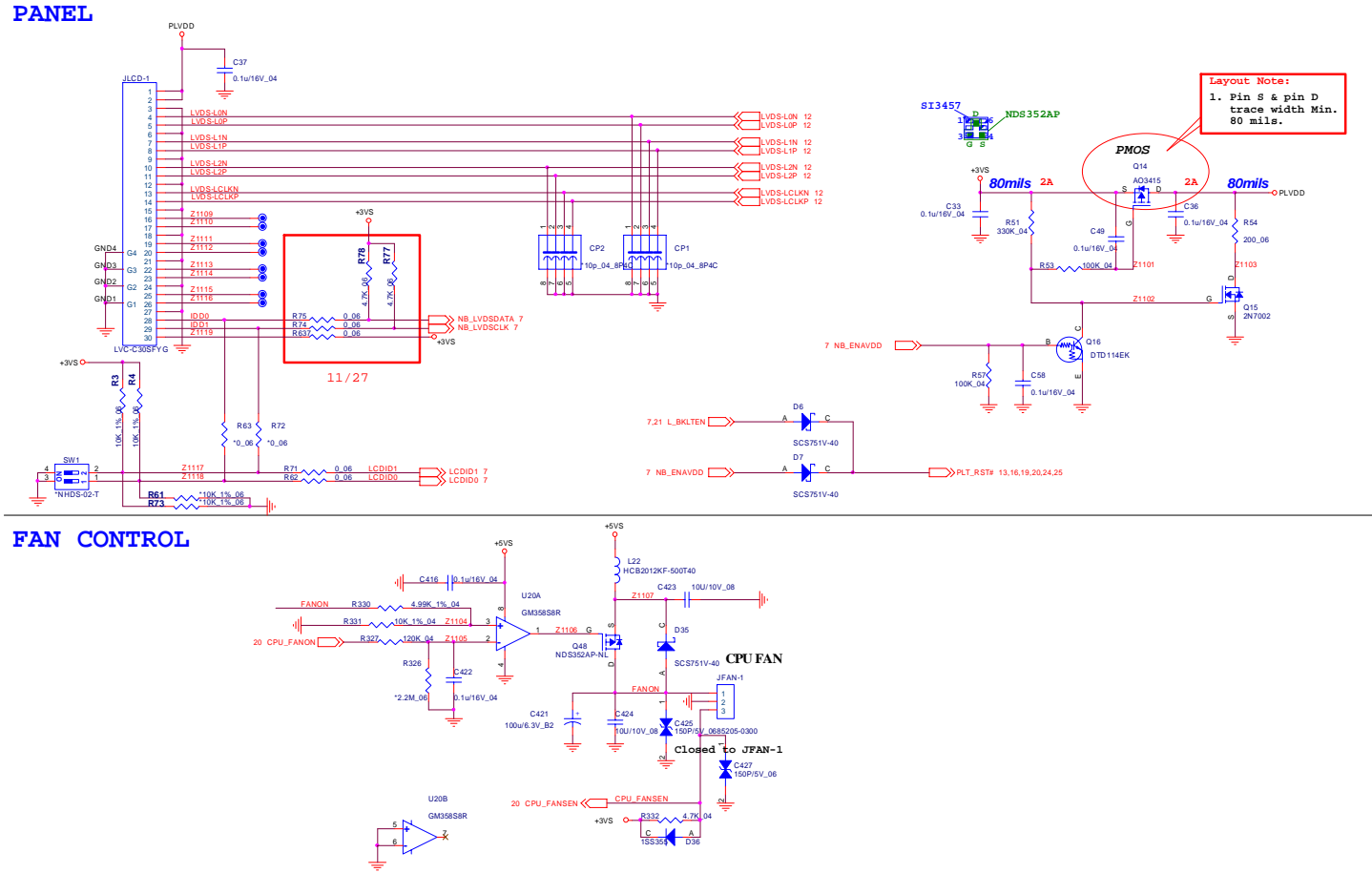
## CLOCK GENERATOR



Sheet 10 of 39  
CLOCK GENERATOR

# PANEL, FAN

Sheet 11 of 39  
PANEL, FAN

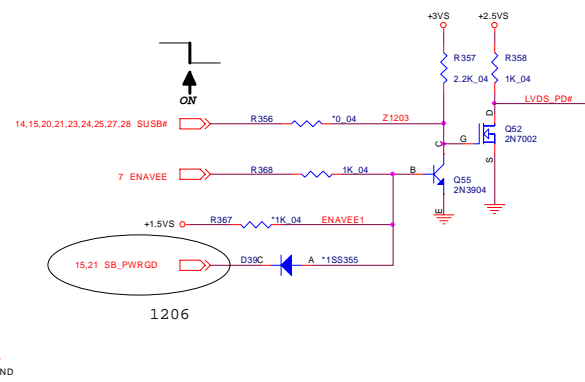
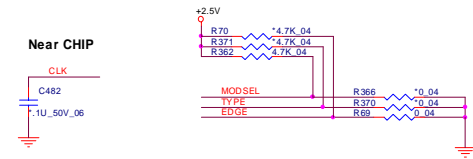
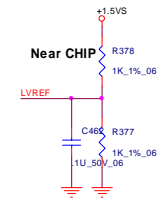
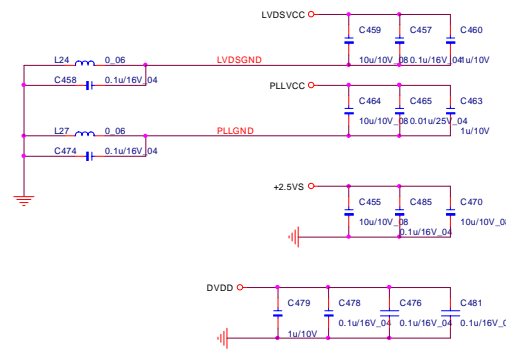
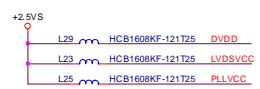
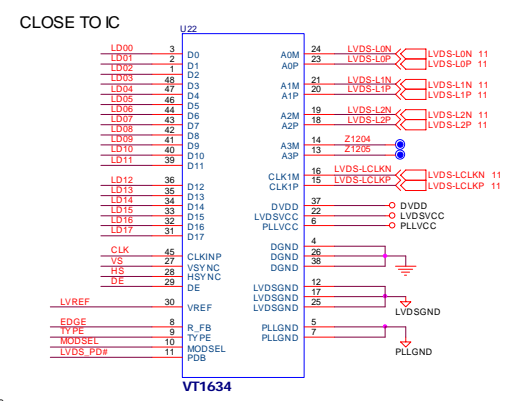
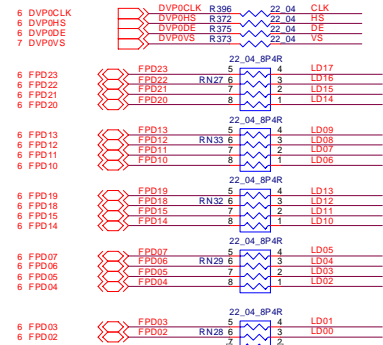
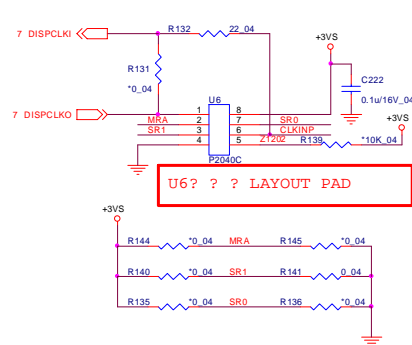




# VIA LVDS VT-1634AL

B.Schematic Diagrams

Sheet 12 of 39  
VIA LVDS  
VT-1634AL

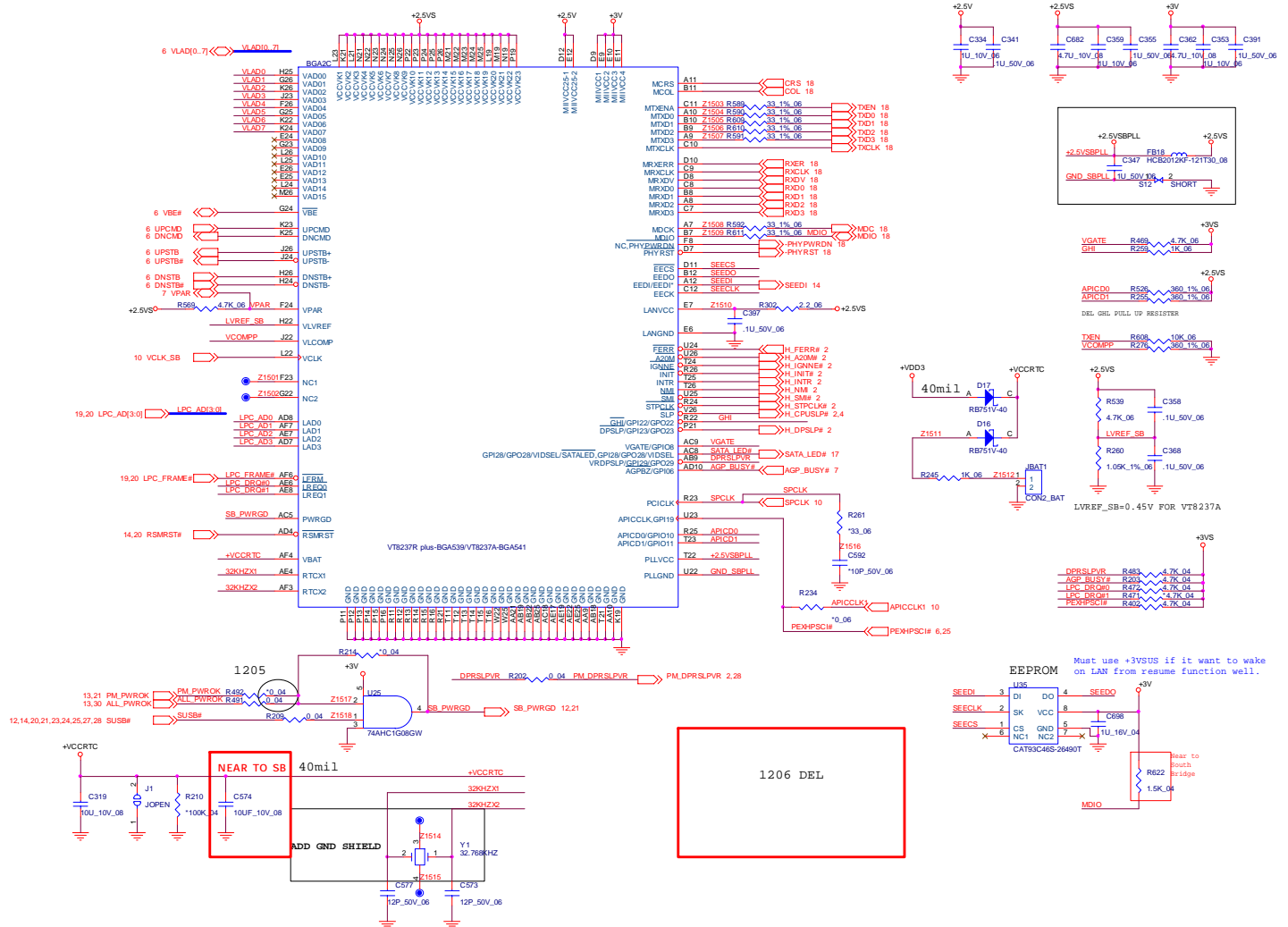




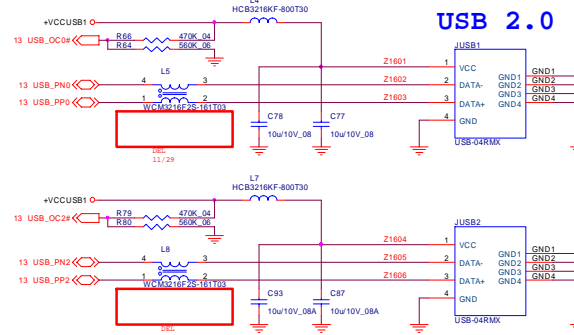
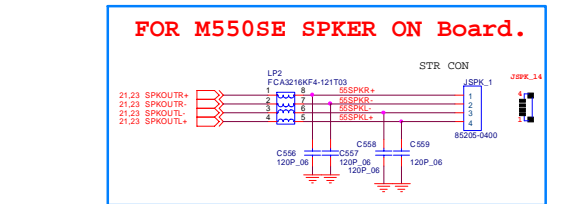
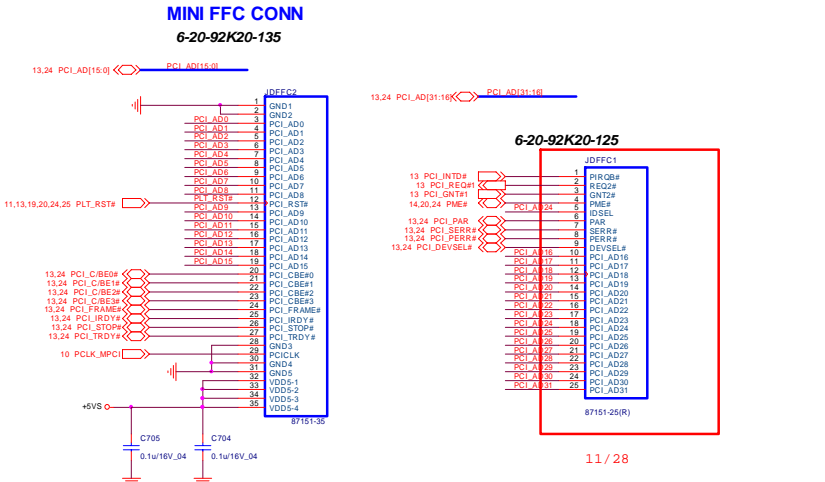


# VT8237 3/3

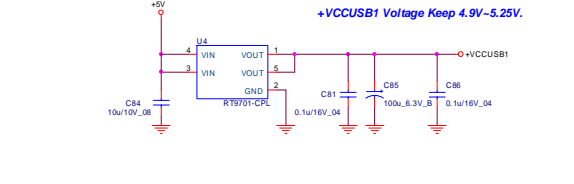
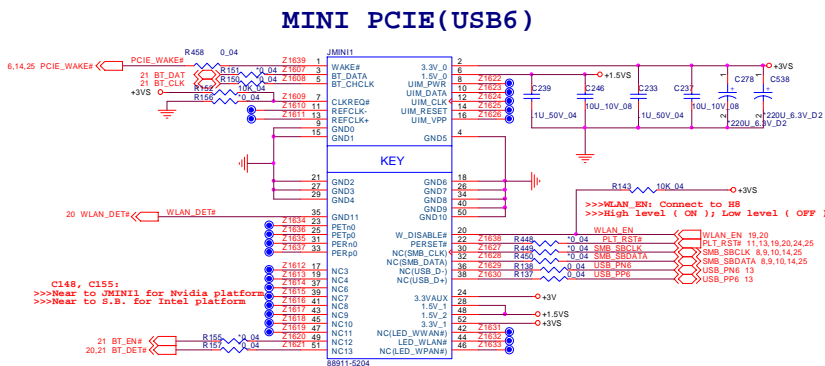
Sheet 15 of 39  
VT8237 3/3



# MINI PCI, MINI Card, USB2.0\*2, FP



Sheet 16 of 39  
MINI PCI,  
MINI Card,  
USB2.0\*2, FP

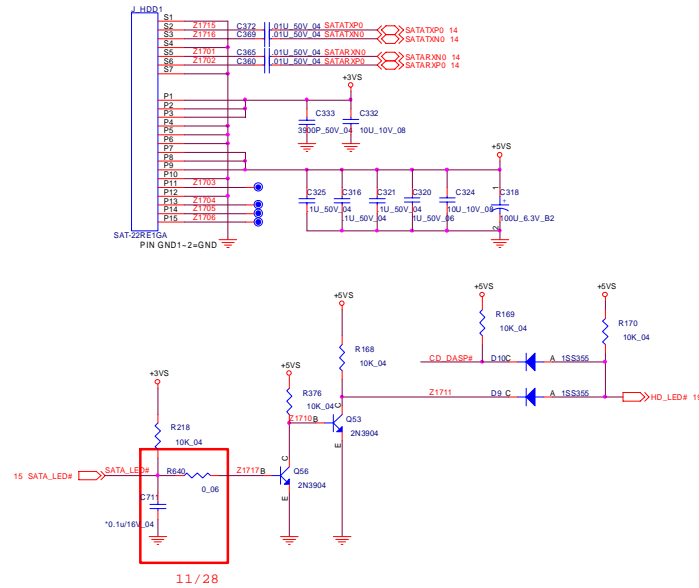


B.Schematic Diagrams

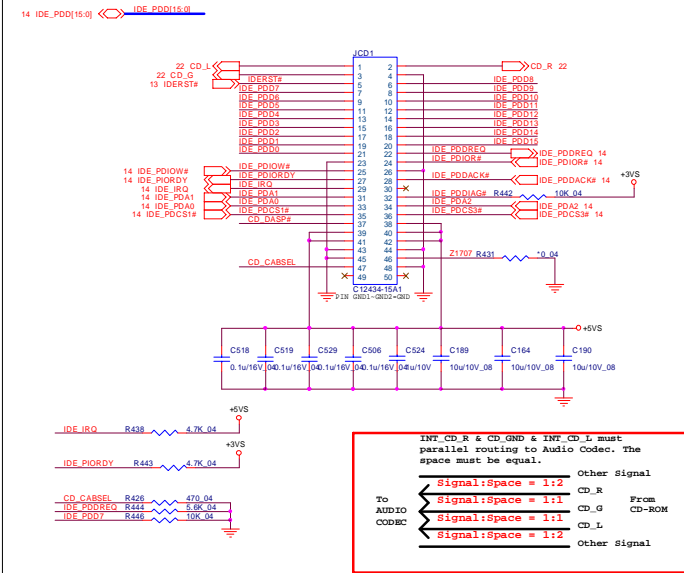
# SATA HDD, CD-ROM, H8 BEEP, CCD

Sheet 17 of 39  
SATA HDD,  
CD-ROM, H8 BEEP,  
CCD

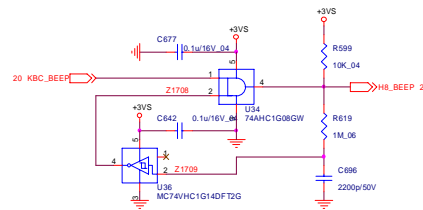
## SATA HDD



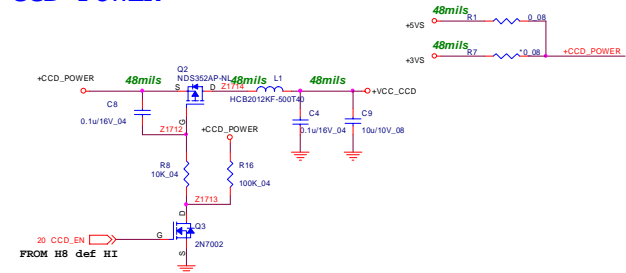
## CD-ROM



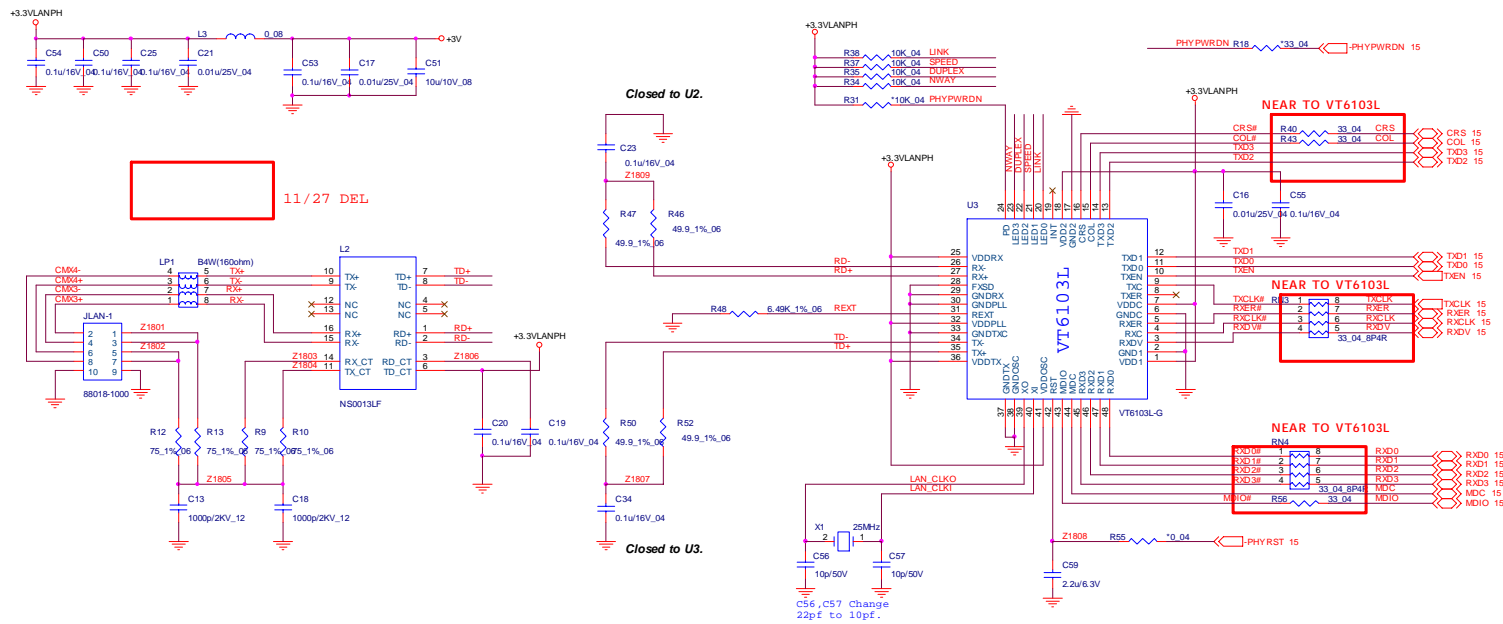
## PC BEEP



## CCD POWER



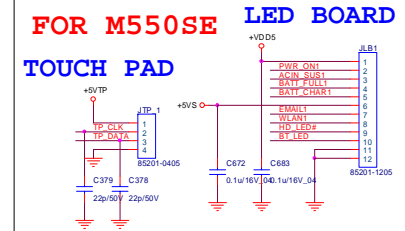
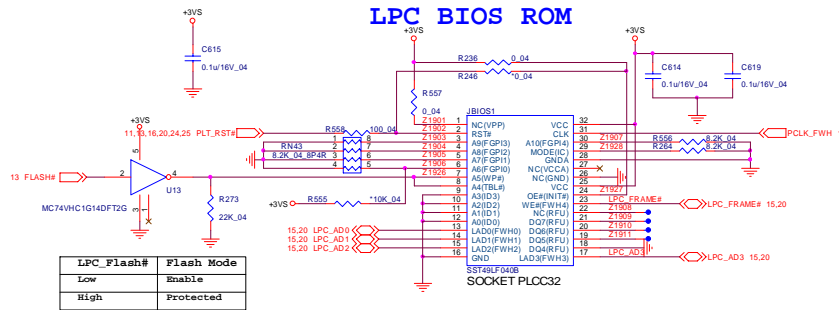
# LAN PHY



Sheet 18 of 39  
LAN PHY

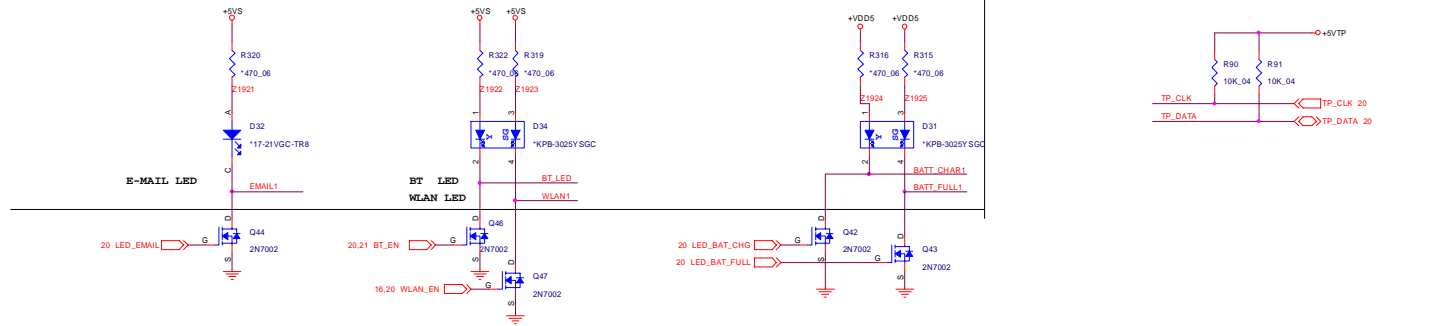
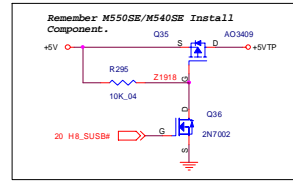
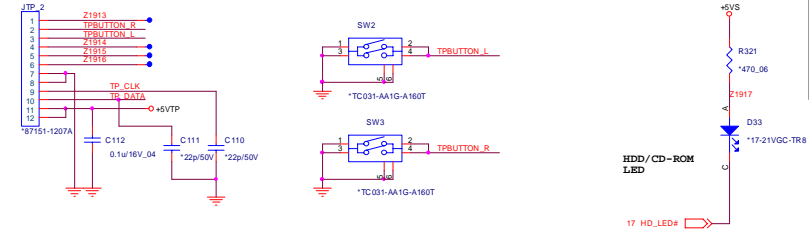
# LPC ROM, TOUCH PAD, LED

Sheet 19 of 39  
LPC ROM,  
TOUCH PAD, LED



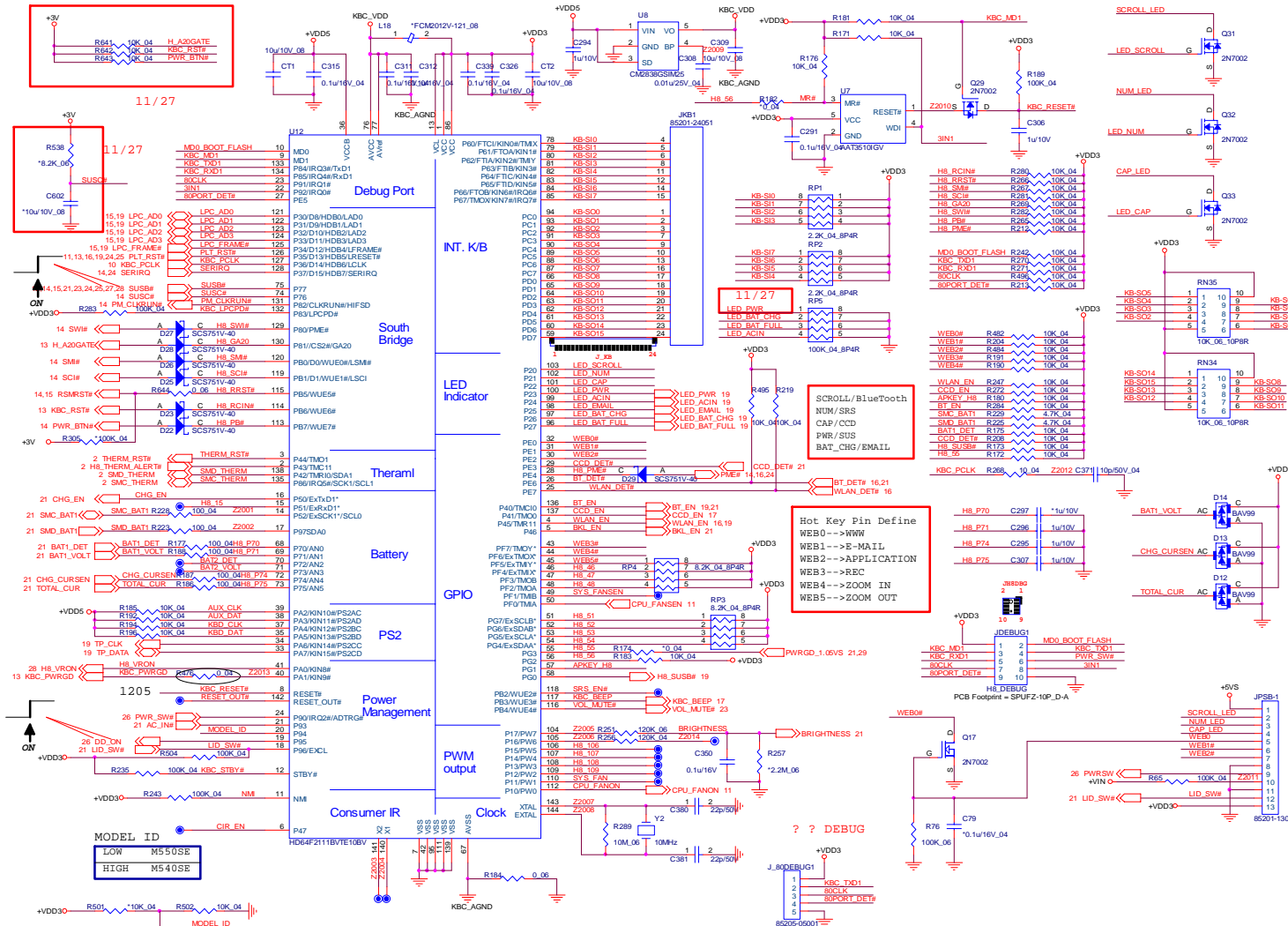
VENDOR	PART NUMBER
Synaptics	800409-5102
E-LAN	800409-5102

## TOUCH PAD FOR M540SE LED





# H8-2111

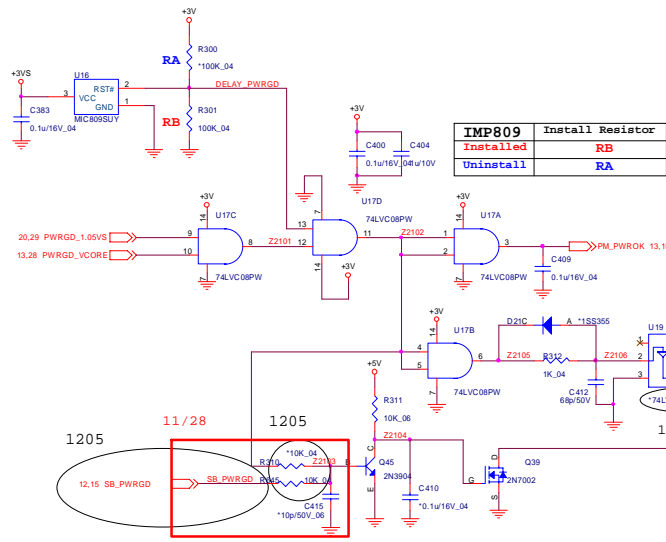


Sheet 20 of 39  
H8-2111

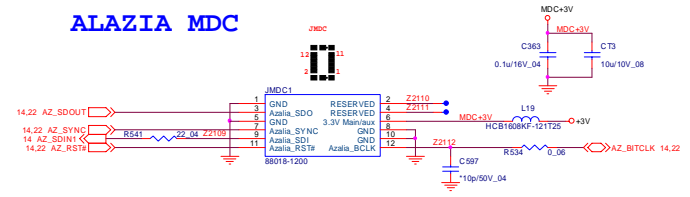
B.Schematic Diagrams

# MDC, USB BT, PWRGD, DDB CON

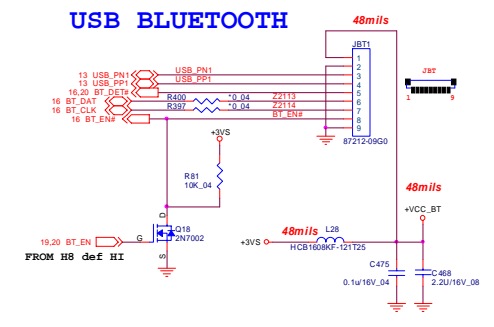
## ALL POWER OK TO SB



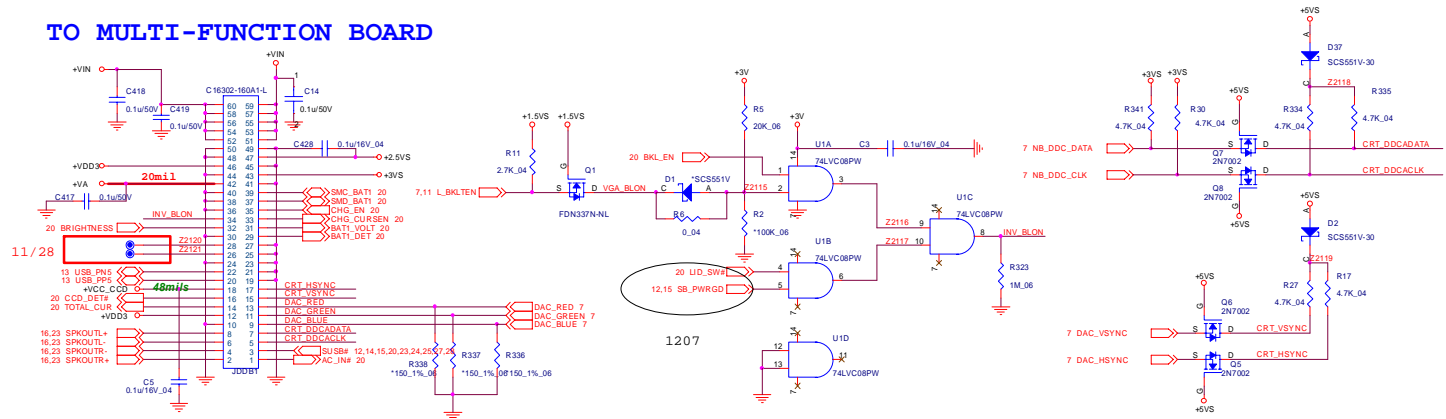
## ALAZIA MDC



## USB BLUETOOTH

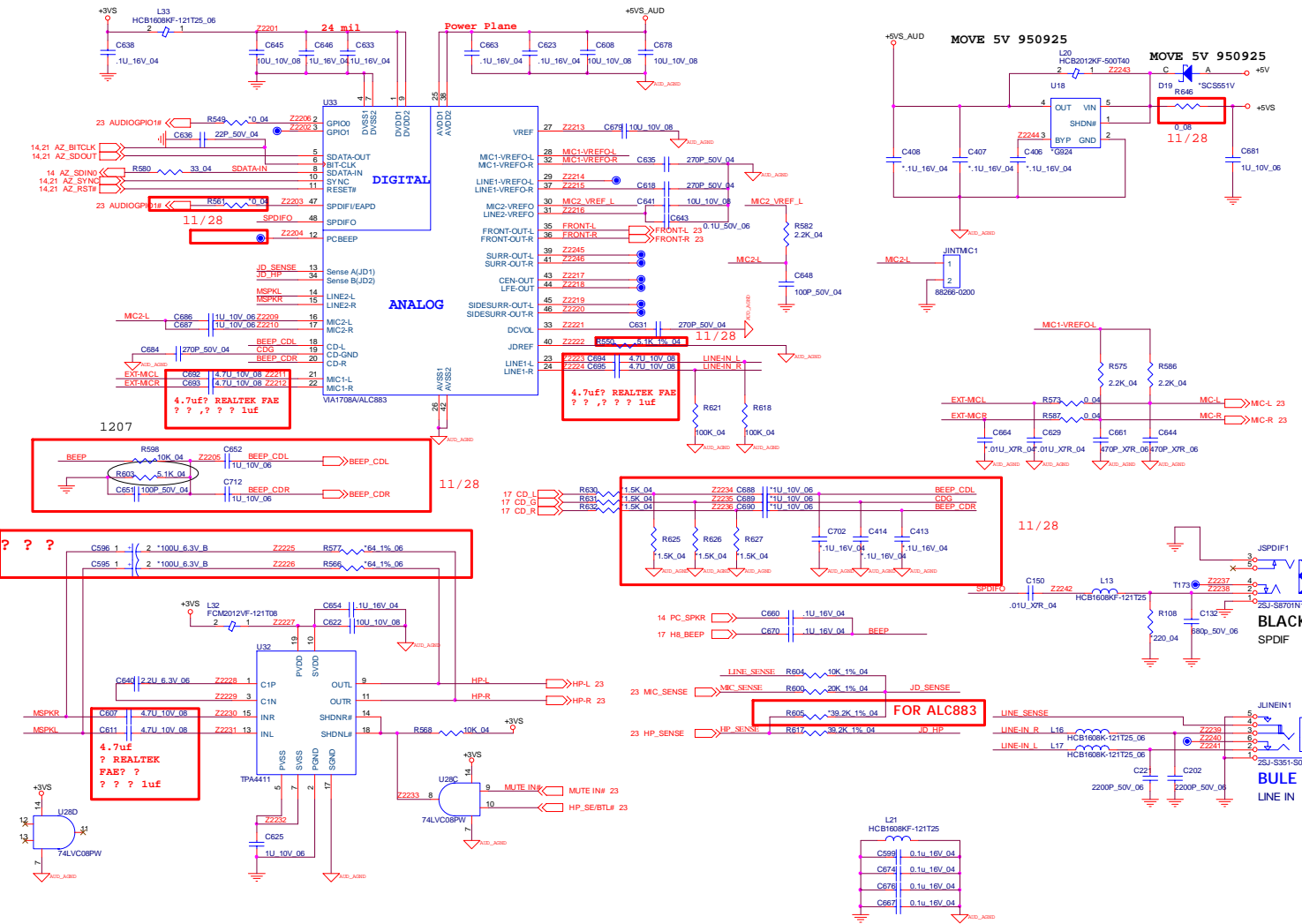


## TO MULTI-FUNCTION BOARD



Sheet 21 of 39  
MDC, USB BT,  
PWRGD, DDB CON

# Audio VT1708A/ALC883

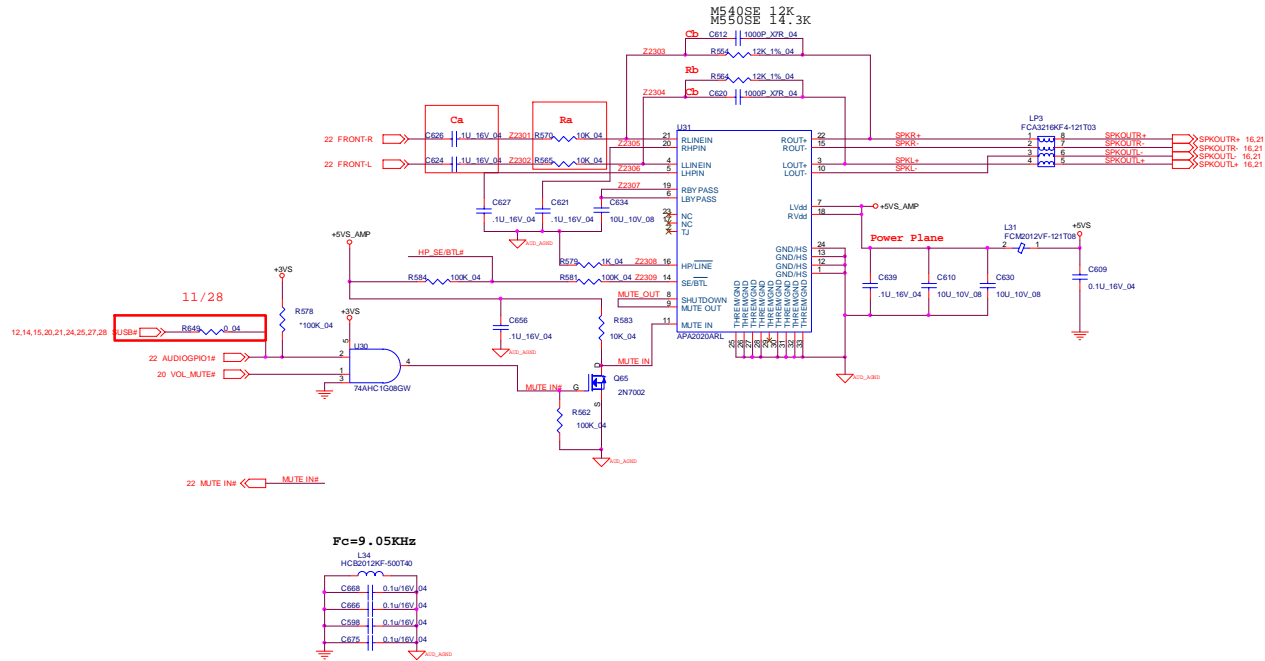


Sheet 22 of 39  
Audio VT1708A/  
ALC883

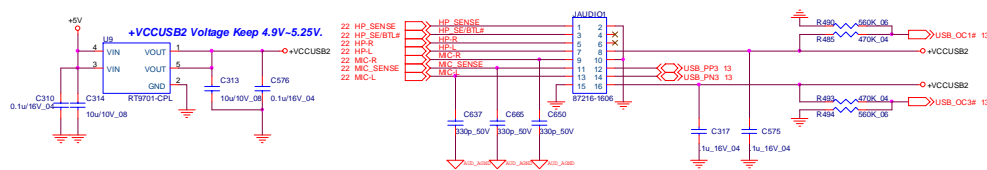
B.Schematic Diagrams

# AUDIO AMP, USB2.0\*2

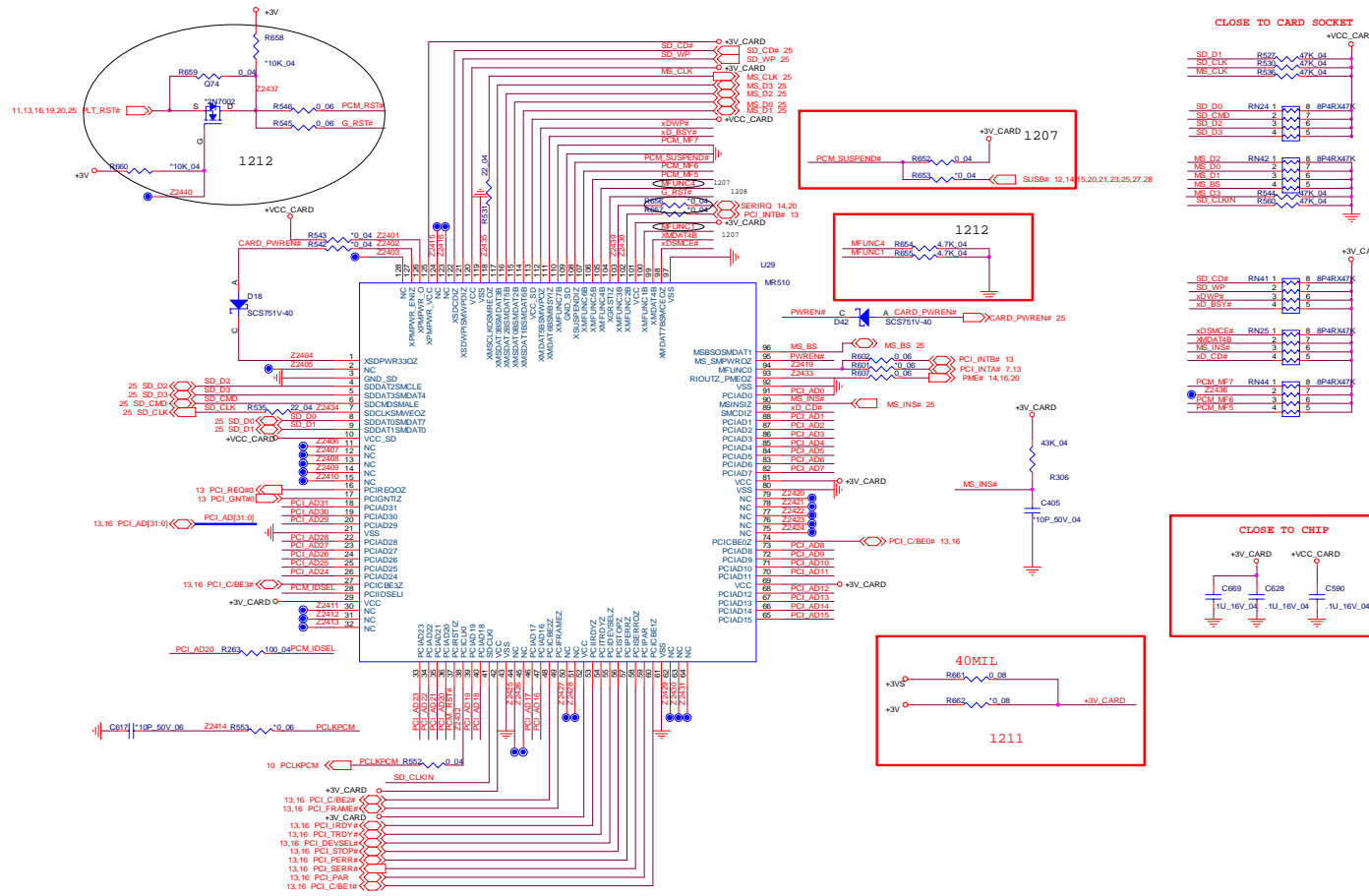
Sheet 23 of 39  
AUDIO AMP,  
USB2.0\*2



TO PHONE JACK  
B'D USB CONN.



# PCI ENE MR510

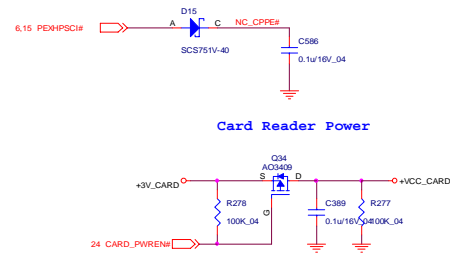
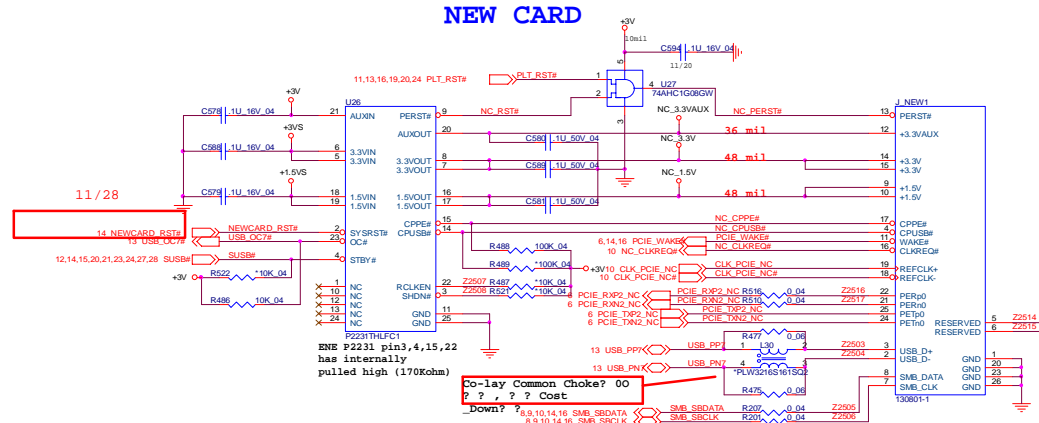


Sheet 24 of 39  
PCI ENE MR510

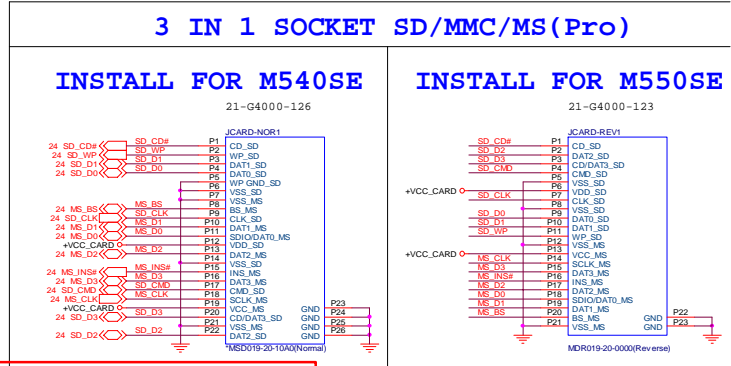
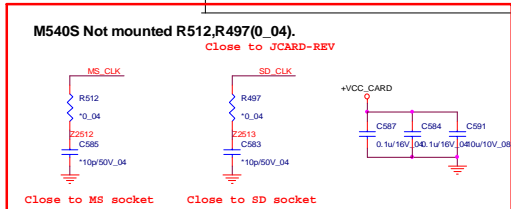
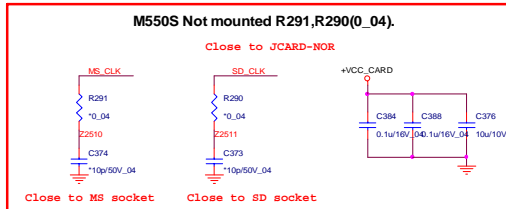
# NEW CARD, 3-IN-1 SOCKET

B.Schematic Diagrams

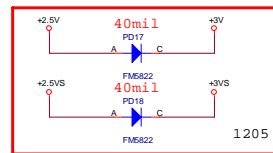
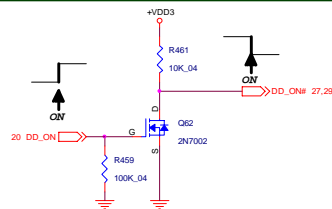
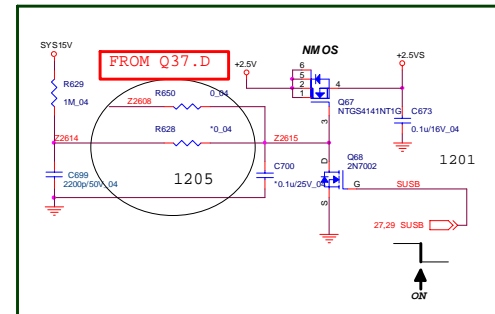
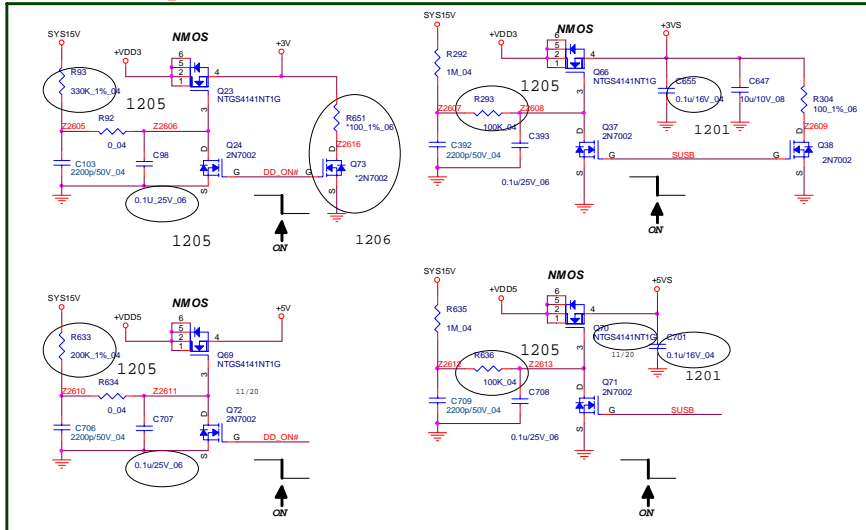
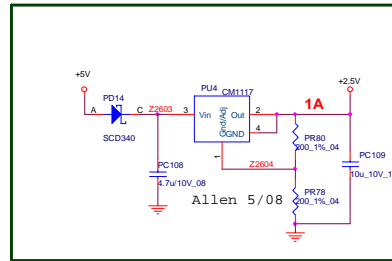
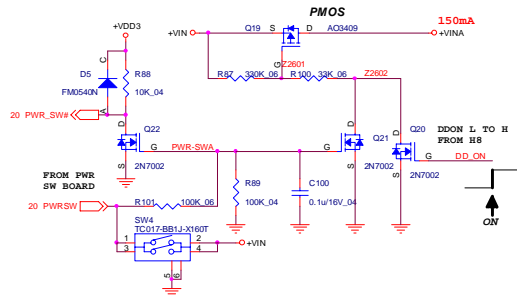
Sheet 25 of 39  
NEW CARD,  
3-IN-1 SOCKET



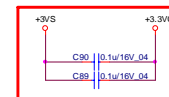
Close to cardbus socket



# 5V, 3V, 5VS, 3VS, 2.5V, 2.5VS



FOR EMI

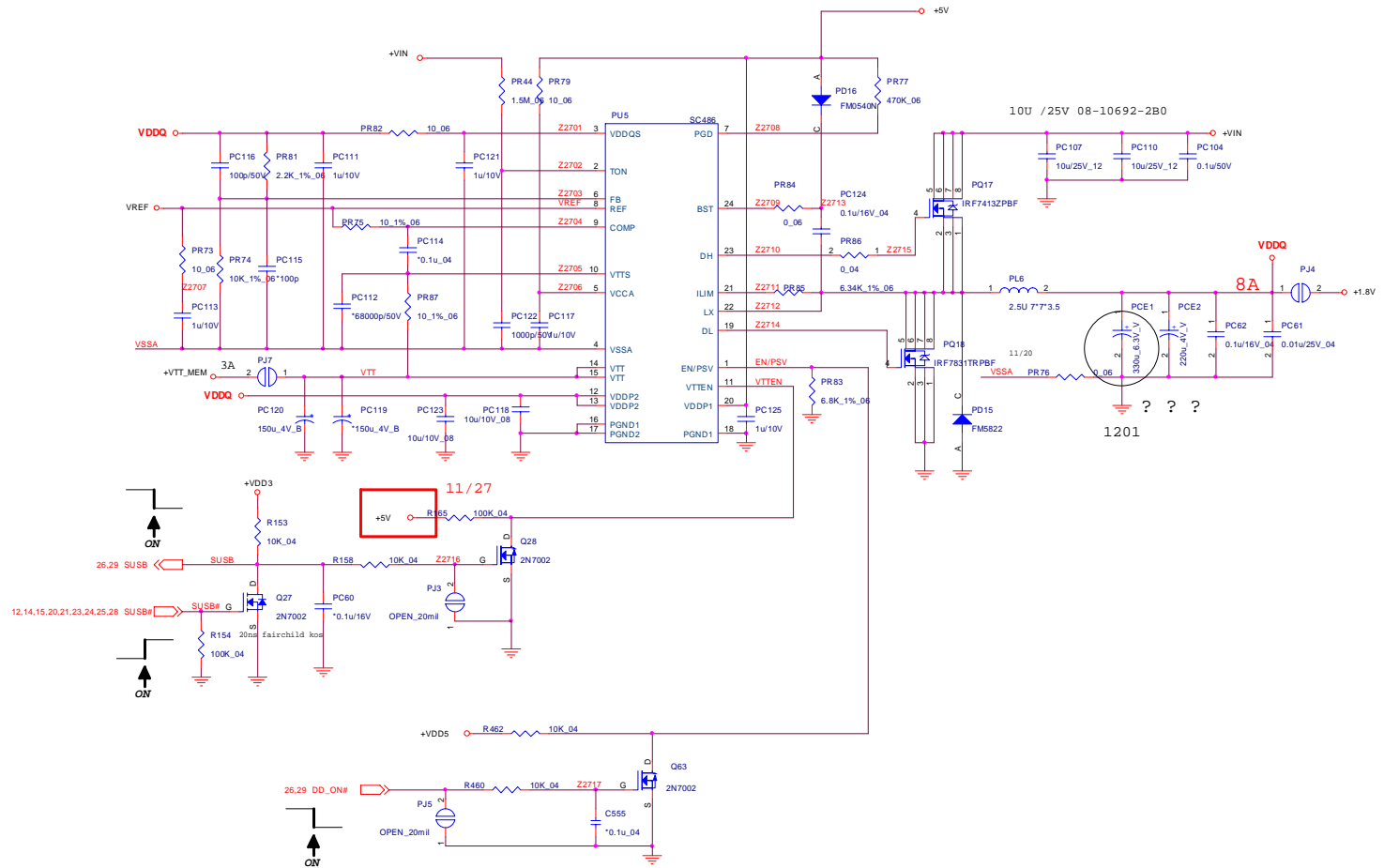


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5V, 3V, 5VS, 3VS,  
2.5V, 2.5VS

Schematic Diagrams

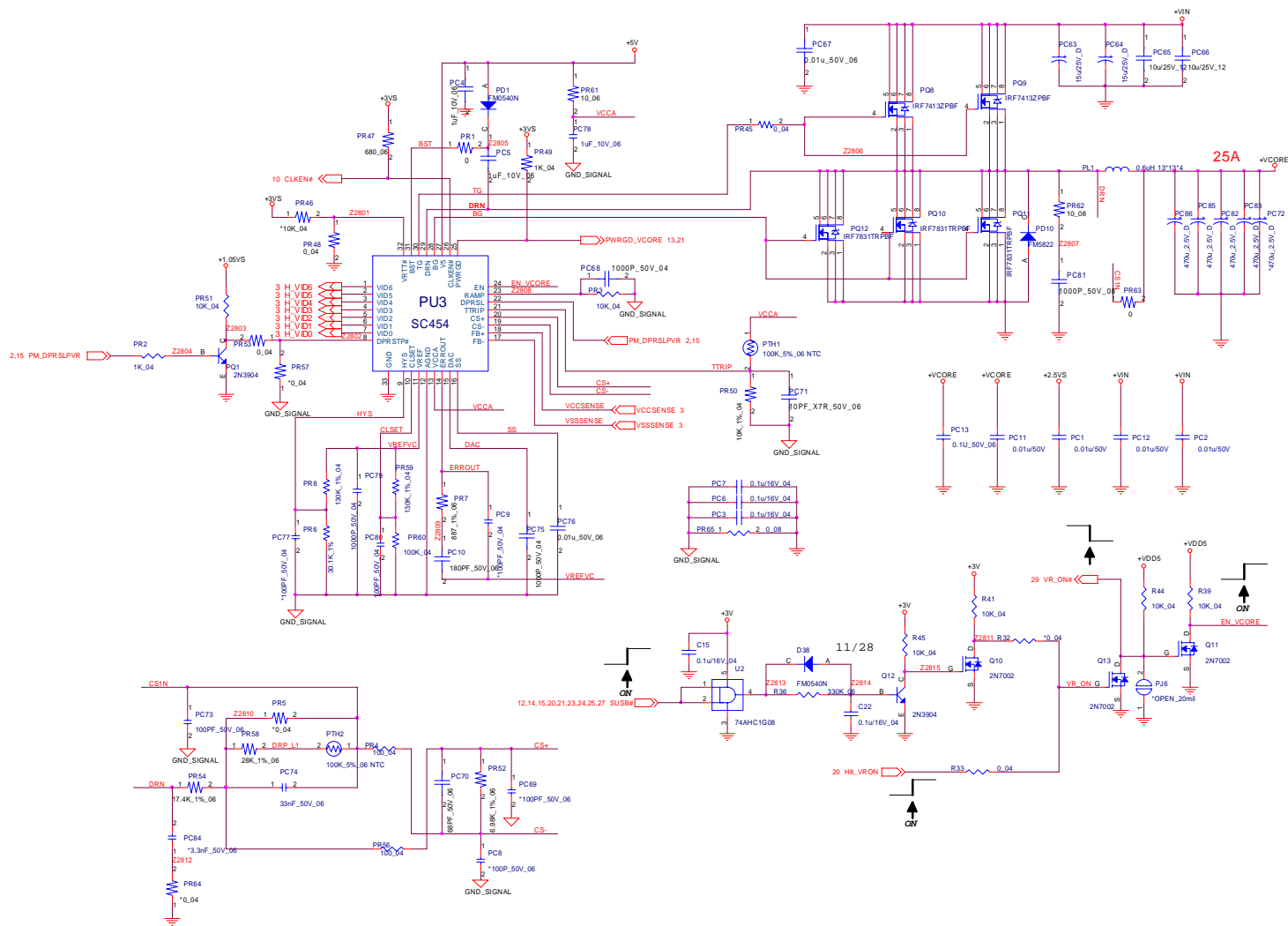
+1.8V, +VTT\_MEM

Sheet 27 of 39  
+1.8V,+VTT\_MEM





# VCORE

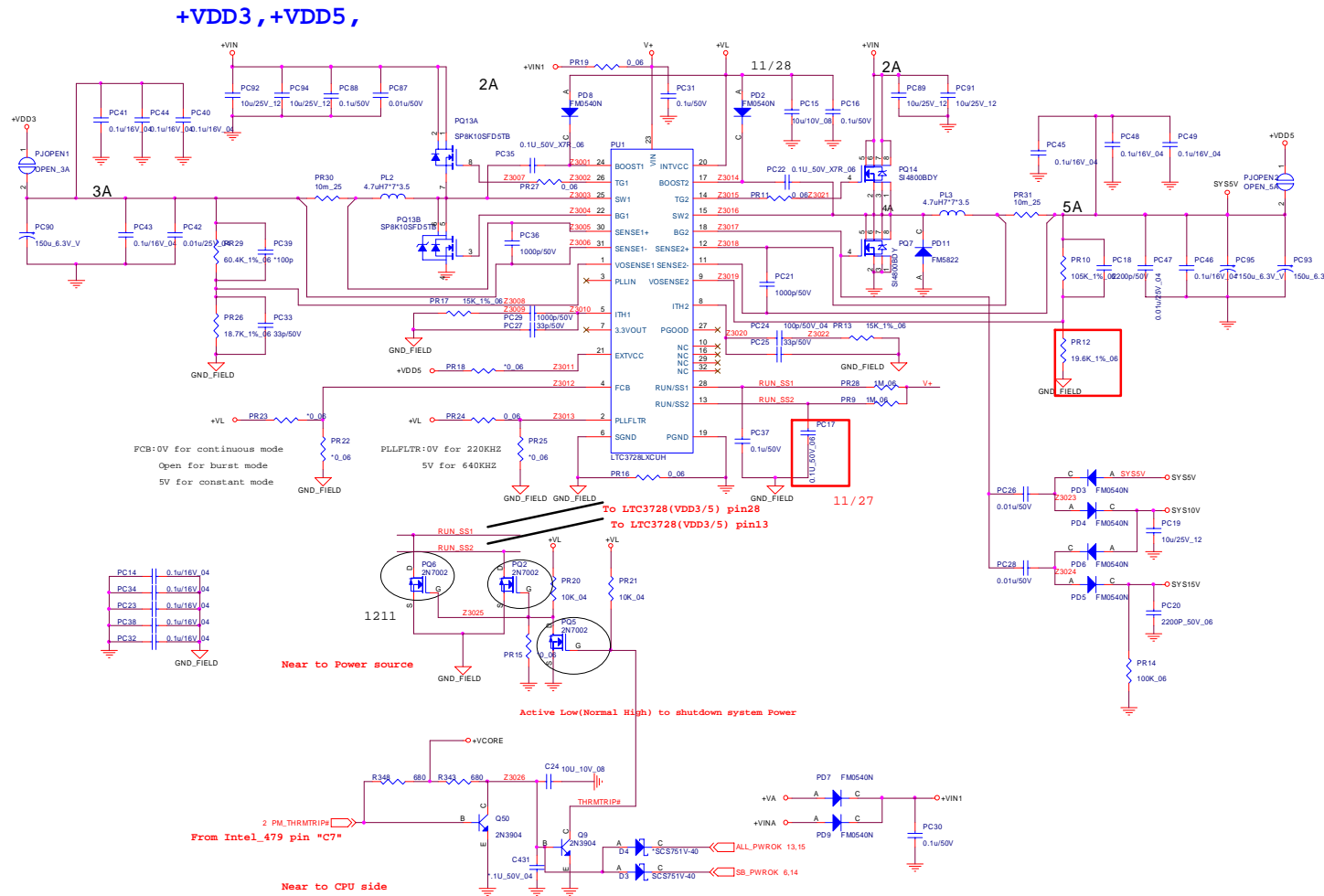


Sheet 28 of 39  
VCORE



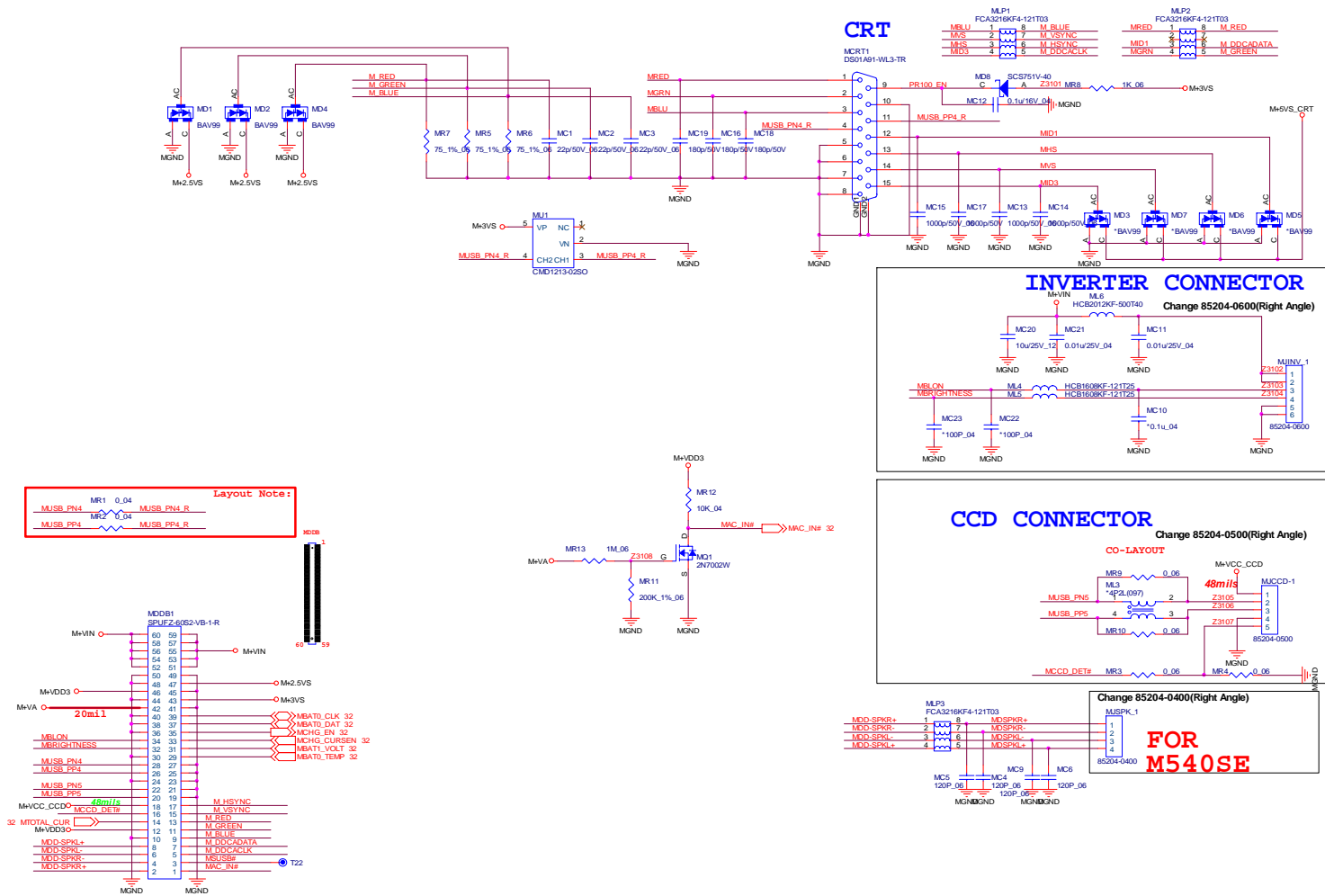
# +VDD3, +VDD5

Sheet 30 of 39  
+VDD3, +VDD5

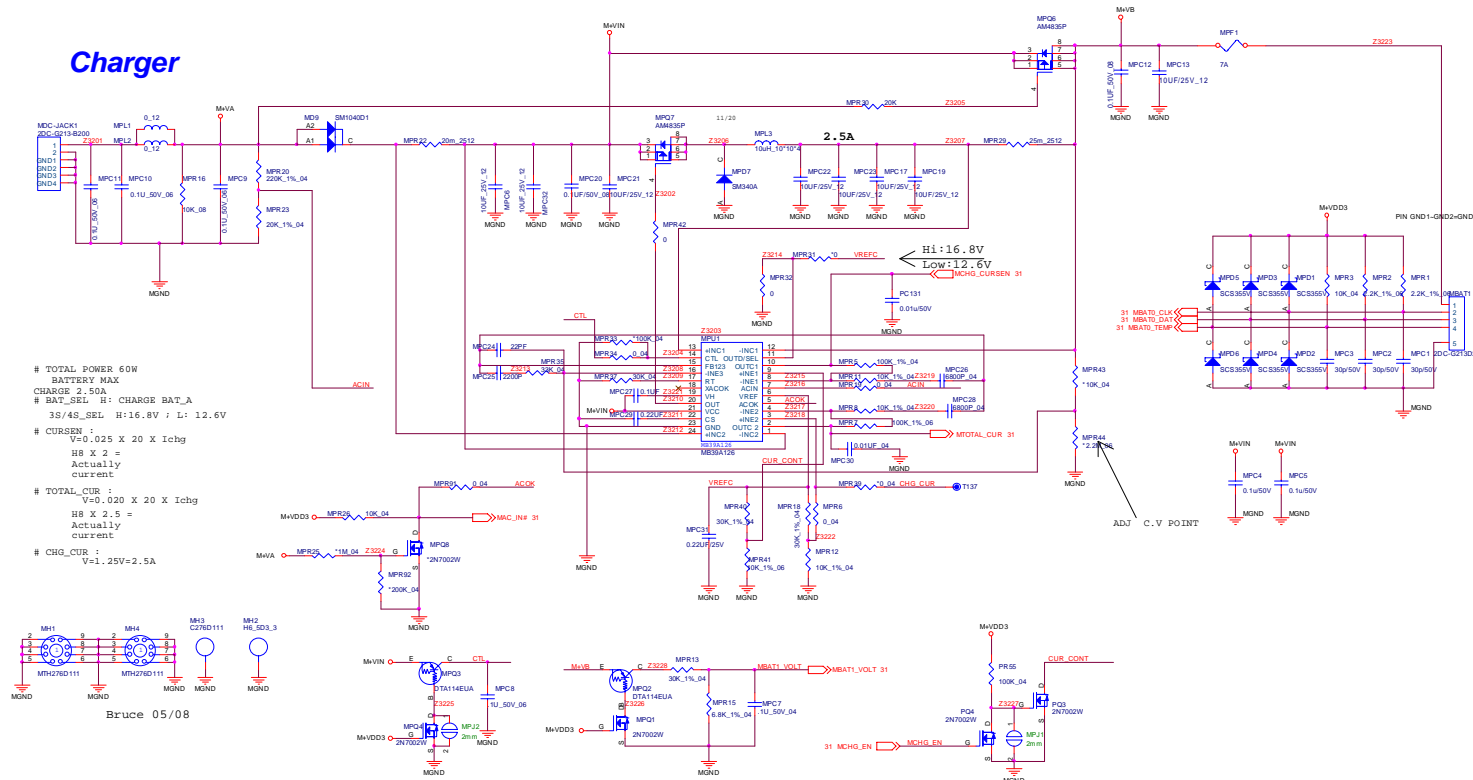


# D/D BD (CRT, INVERTER, CCD, RJ-11)

Sheet 31 of 39  
D/D BD (CRT,  
INVERTER, CCD,  
RJ-11)



# D/D BD (CHARGER, DC IN)



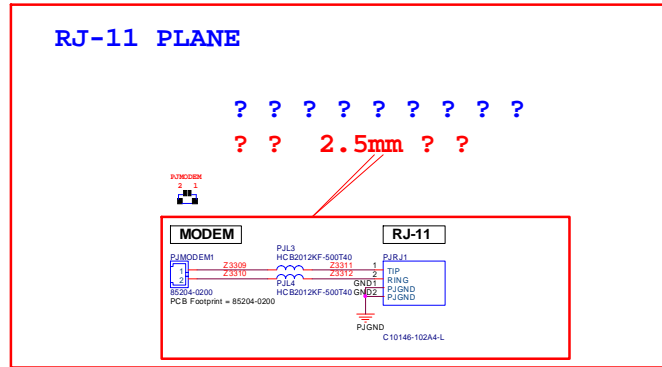
Sheet 32 of 39  
 D/D BD  
 (CHARGER, DC IN)

B.Schematic Diagrams

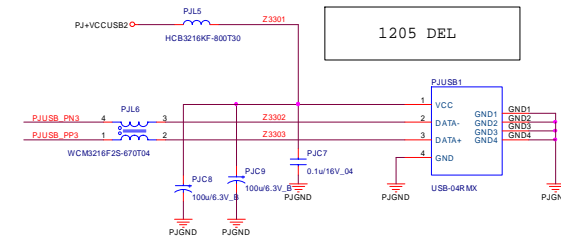
# AUDIO BD (PHONE JACK, USB, RJ-11)

B.Schematic Diagrams

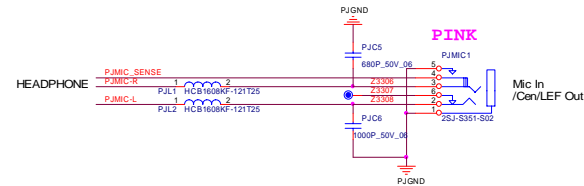
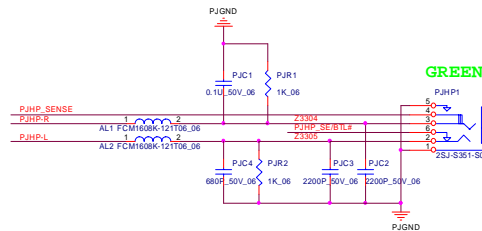
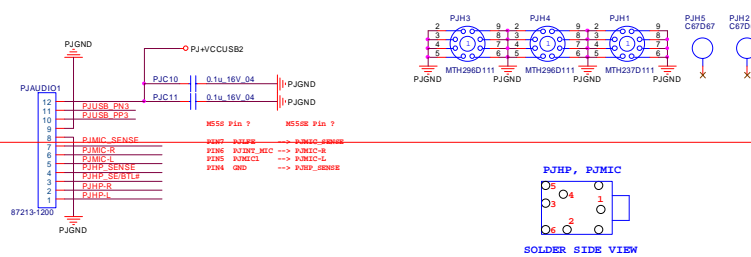
Sheet 33 of 39  
AUDIO BD  
(PHONE JACK,  
USB, RJ-11)



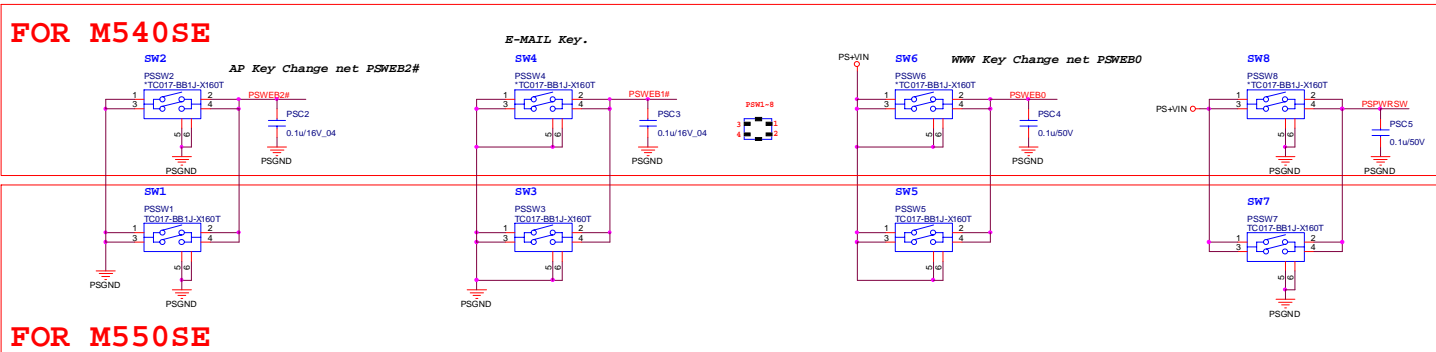
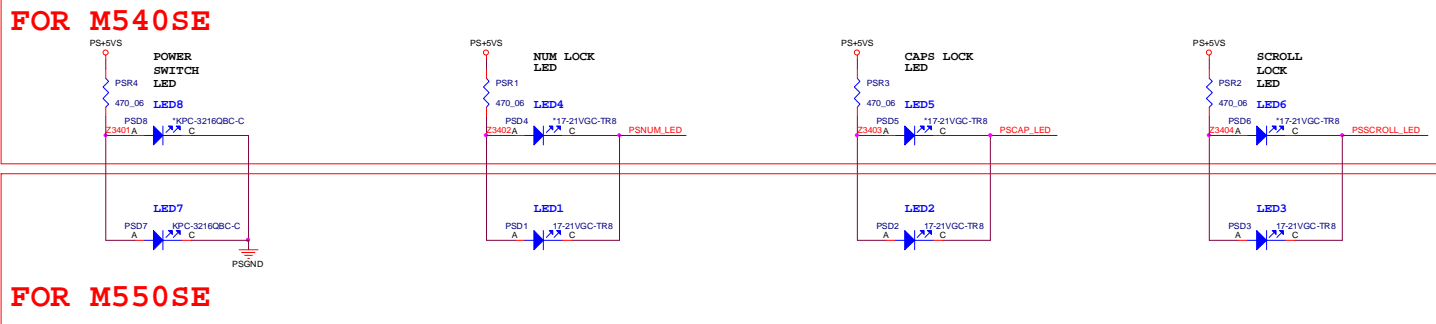
Analog Plane = Digital Plane



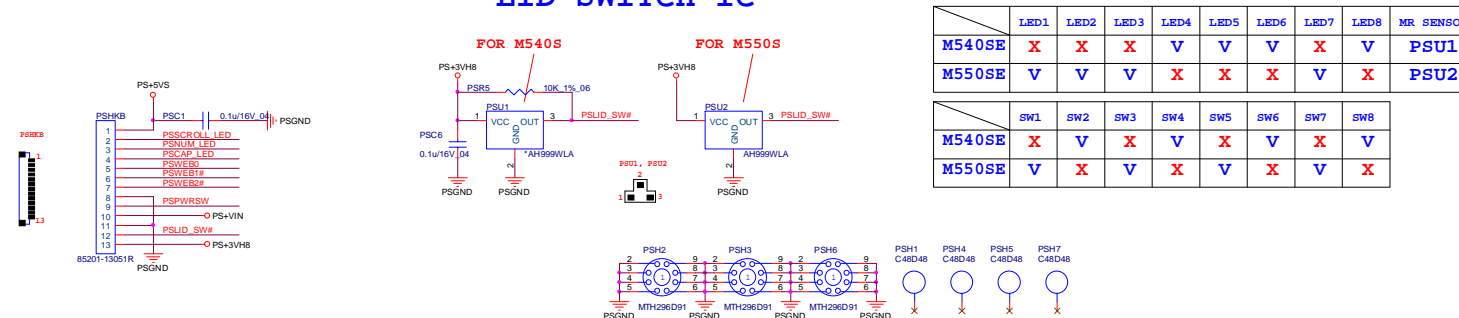
Analog Plane = Digital Plane



# HOT KEY BD (HOT KEY, LED, LID)



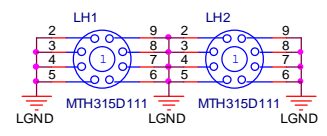
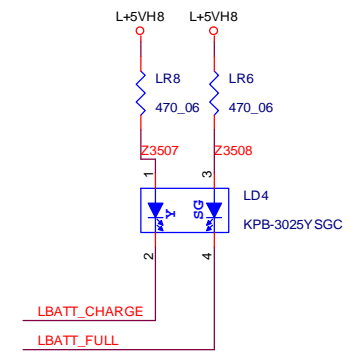
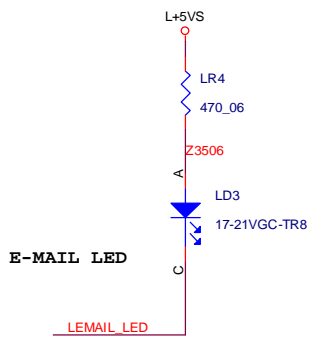
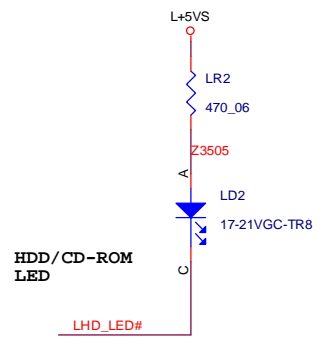
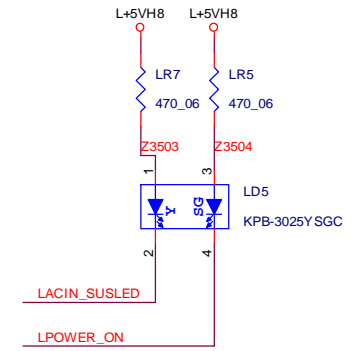
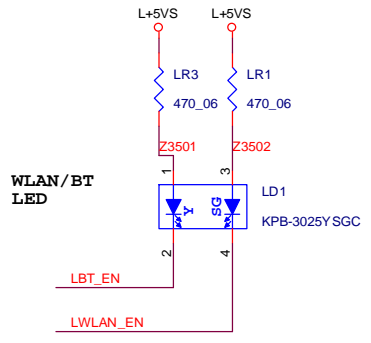
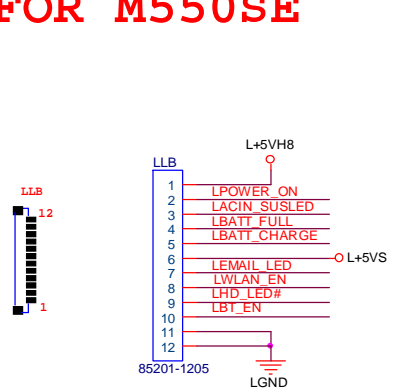
## LID SWITCH IC



# LED BOARD

FOR M550SE

Sheet 35 of 39  
LED BOARD  
(FOR M550SE)

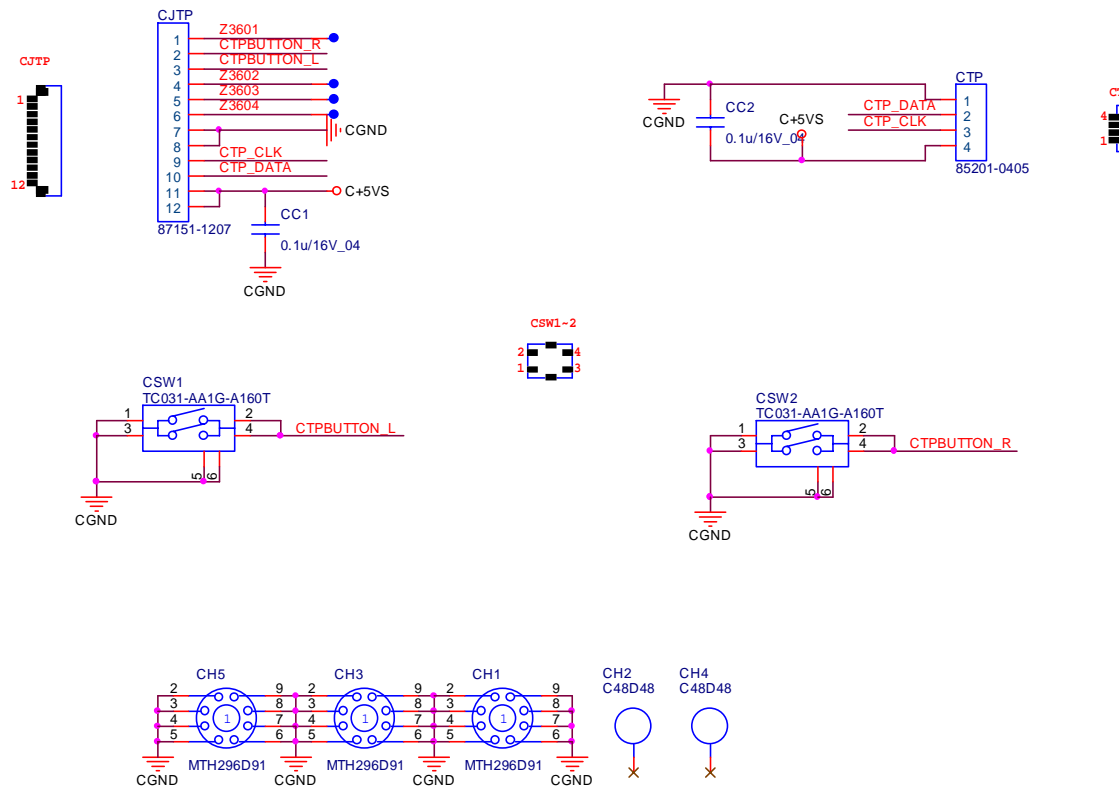




# CLICK BOARD

FOR M550SE

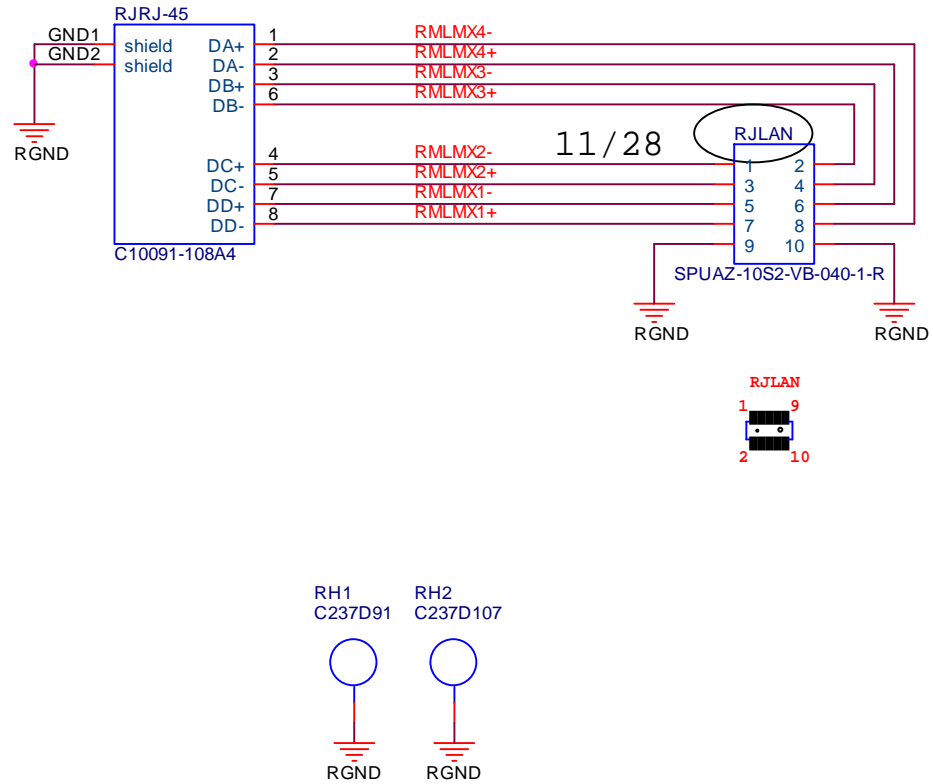
VENDOR	PART NUMBER
Synaptics	
E-LAN	800409-5102



Sheet 36 of 39  
CLICK BOARD  
(FOR M550SE)

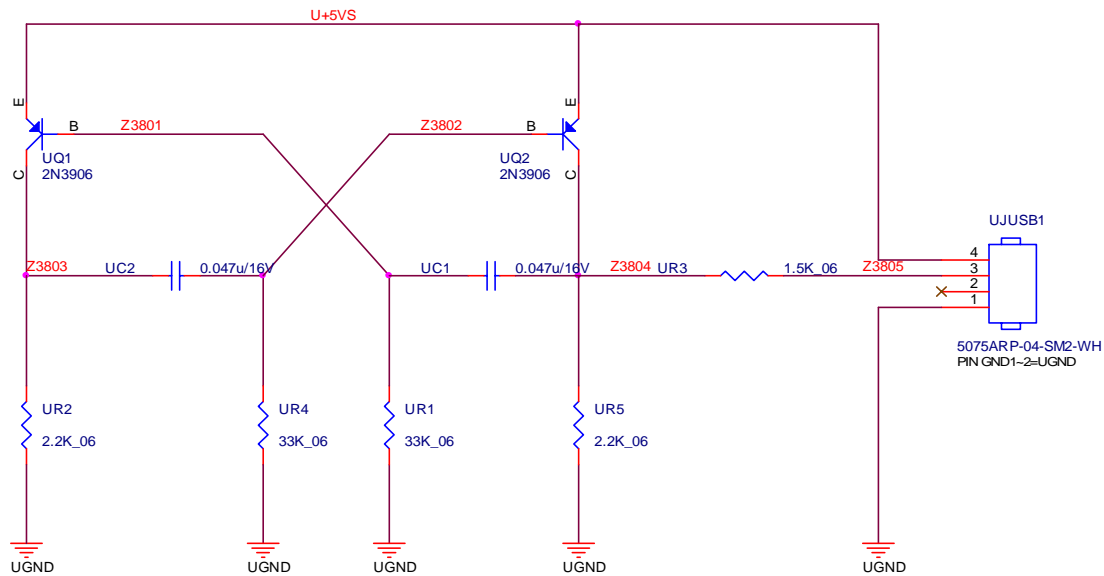
# RJ-45 BOARD

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RJ-45 BOARD



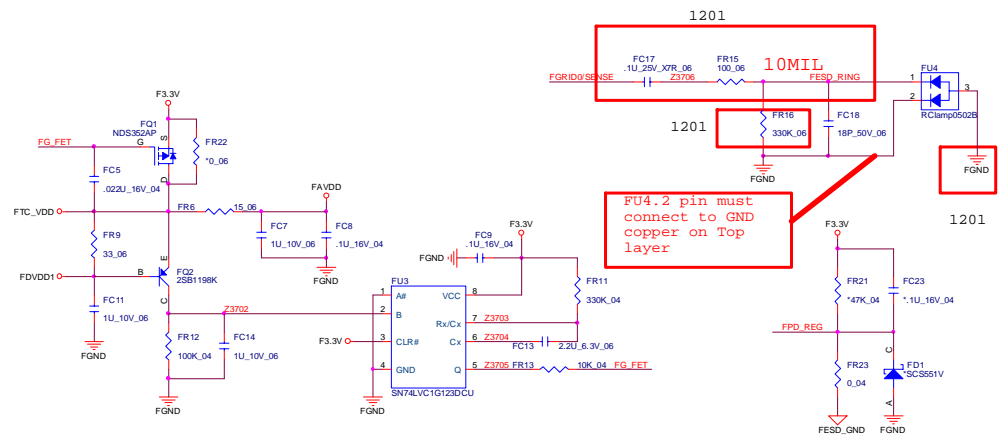
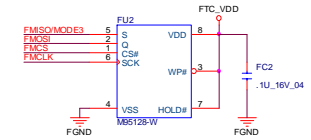
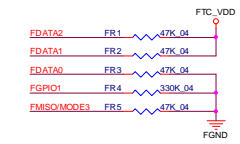
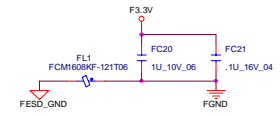
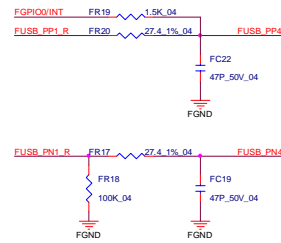
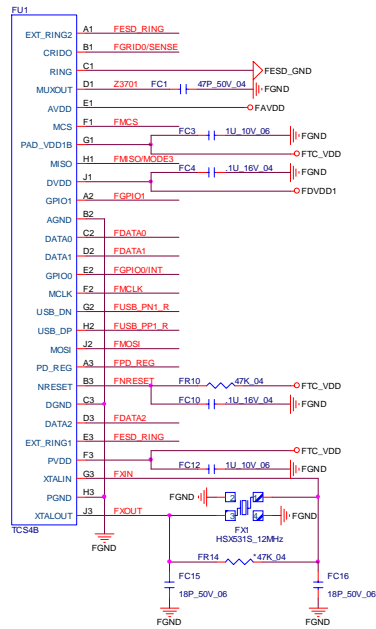
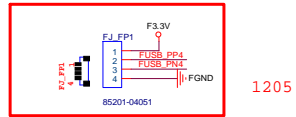
# USB DONGLE BOARD

## USB DANGLE BOARD



Sheet 38 of 39  
USB DONGLE  
BOARD

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B.Schematic Diagrams

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