

# SERVICE MANUAL

M730SR

*notebook*





**Notebook Computer**

**M73XSR**

**Service Manual**

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Version 1.0  
June 2008

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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 *M73XSR* 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

### FCC Statement (Federal Communications Commission)

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



#### Warning

Use only shielded cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not expressly approved by the manufacturer for compliance with the above standards could void your authority to operate the equipment.

If your purchase option includes both **Wireless LAN** and **3.5G** modules, then the appropriate antennas will be installed. Note that in order to comply with FCC RF exposure compliance requirements, the antenna must not be co-located or operate in conjunction with any other antenna or transmitter.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the service representative or an experienced radio/TV technician for help.

#### Operation is subject to the following two conditions:

1. This device may not cause interference.  
And
2. This device must accept any interference, including interference that may cause undesired operation of the device.

#### FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and you body.

## 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)** 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**

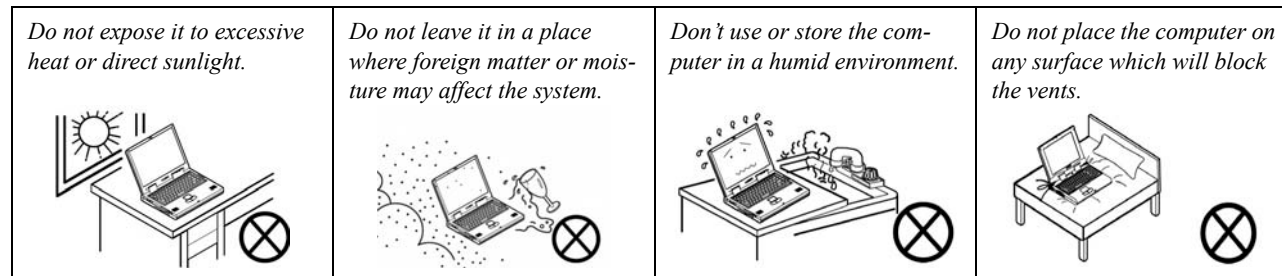
## Instructions for Care and Operation

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

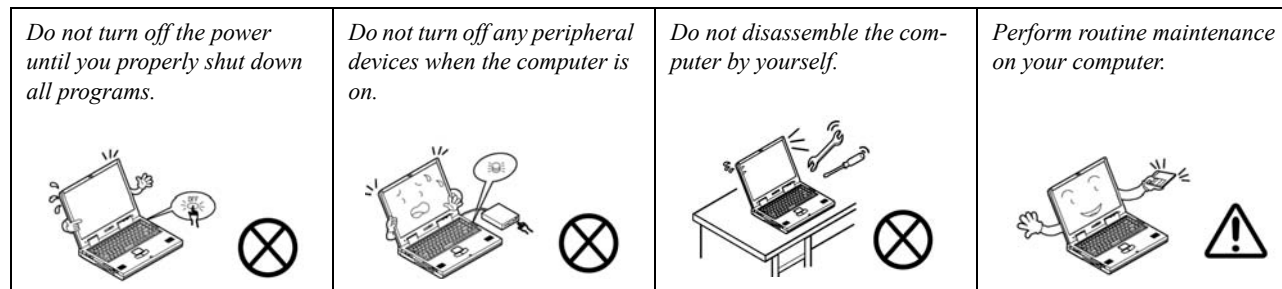
1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.



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.

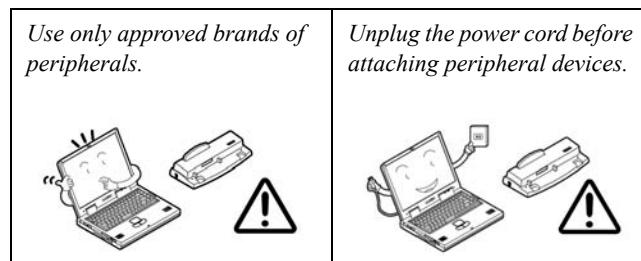


3. **Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.





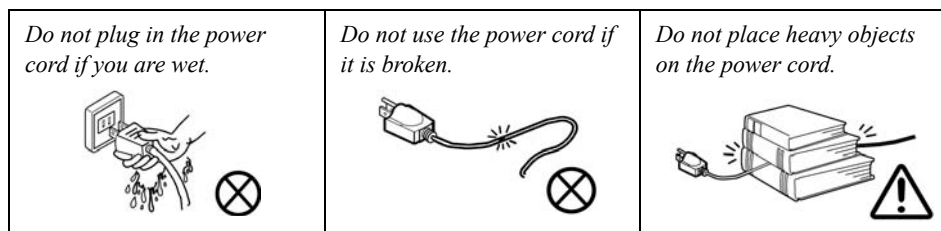
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



## 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 **M73XSR** 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 **M73XSR** 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




### Latest Specification Information

The specifications listed in this Appendix are correct at the time of going to press. Certain items (particularly processor types/speeds and CD/DVD device types) may be changed, delayed or updated due to the manufacturer's release schedule. Check with your service center for details.


Feature	Specification
<b>Processor</b>	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package, Socket P <b>T8100/ T8300</b> 45nm (45 Nanometer) Process Technology 3MB On-die L2 Cache & 800MHz FSB 2.12/ 2.4 GHz
	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package, Socket P <b>T7100/ T7250</b> 65nm (65 Nanometer) Process Technology 4MB On-die L2 Cache & 800MHz FSB 1.8/ 2.0 GHz
	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package, Socket P <b>T7300/ T7500/ T7700/ T7800</b> 65nm (65 Nanometer) Process Technology 4MB On-die L2 Cache & 800MHz FSB 2.0/ 2.2/ 2.4/ 2.6 GHz
	Intel® Celeron® M Processor (478-pin) Micro-FCPGA Package, Socket P <b>530/ 540/ 550/ 560</b> 65nm (65 Nanometer) Process Technology 1MB On-die L2 Cache & 533MHz FSB 1.73/ 1.86/ 2.0/ 2.13 GHz
<b>Core Logic</b>	SiS M672 + SiS968 Chipset
<b>LCD</b>	13.3" WXGA (1280 * 800) Glare / Non Glare TFT LCD)
<b>Memory</b>	Two 200 Pin SO-DIMM Sockets Supporting <b>DDRII (DDR2)</b> 667 MHz 64-bit Wide <b>DDRII (DDR2)</b> Data Channel Memory Expandable up to 2GB (1024/ 2048 MB <b>DDRII</b> Modules)

Feature	Specification	
<b>Video Adapter</b>	SiS M672 Integrated Video High Performance 2D/3D Graphics Accelerator Shared Memory Architecture up to 256MB Supports Microsoft DirectX 9.0 Supports Vertex Shader 2.0 and Pixel Shader 2.0	
<b>Security</b>	Security (Kensington® Type) Lock Slot Fingerprint ID Reader Module ( <b>Factory Option</b> )	BIOS Password
<b>BIOS</b>	One 8Mb SPI Flash ROM	Phoenix™ BIOS
<b>Storage</b>	One Changeable 12.7mm(h) Optical Device (CD/DVD) Type Drive (see " <b>Optional</b> " on page 5) Easy Changeable 2.5" 9.5 mm (h) <b>SATA</b> (Serial) HDD	
<b>Audio</b>	High Definition Audio (HDA) Compliant with Microsoft UAA (Universal Audio Architecture) Direct Sound 3D™ Compatible EAX™ 1.0 & 2.0 Compatible	A3D™ Compatible S/PDIF Digital Output 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 Headphone-Out Jack One Microphone-In Jack One S/PDIF Out Jack One Internal Microphone	One RJ-11 Modem Jack One RJ-45 LAN Jack One DC-In Jack One External Monitor Port
<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>Card SlotS</b>	One ExpressCard/34(54) Slot One Mini-Card Slot Supporting USB and PCIe Interfaces Second Mini-Card Slot Supporting USB Interface ( <b>Factory Option</b> )	

## Introduction

Feature	Specification	
<b>Communication</b> *Note: The Bluetooth and 3.5G Optional Modules cannot coexist. If one of these factory options is included in your purchase option, then the other is unavailable.	10M/100Mb Base-T Ethernet LAN 56K MDC Modem V.90 & V.92 Compliant 802.11 b/g Mini-Card USB Wireless LAN Module ( <b>Option</b> ) 1.3M or 2.0M Pixel USB PC Camera Module ( <b>Factory Option</b> )  Bluetooth OR 3.5G Module Options: *Bluetooth 2.0 + EDR (Enhanced Data Rate) Module ( <b>Factory Option</b> ) OR *UMTS/HSPDA-based 3.5G Module with Mini-Card Interface ( <b>Factory Option</b> ) Quad-band GSM/GPRS (850 MHz, 900 MHz, 1800 MHz, 1900 MHz) UMTS WCDMA FDD (2100 MHz)	 <b>UMTS Modes</b> Note that UMTS modes CAN NOT be used in North America.
<b>Operating Systems Supported</b>	Windows XP SP2	Windows Vista 64bit SP1 Home Premium/ Business/ Enterprise/ Ultimate
<b>Power Management</b>	Supports ACPI 3.0 Supports Resume from Modem Ring	Supports Wake on LAN Supports Wake on USB
<b>Power</b>	Full Range AC/DC Adapter AC input 100 - 240V, 50 - 60Hz, DC Output 19V, 3.42A or 18.5V, 3.5A (65 Watts)	
<b>Battery</b>	4 Cell Smart Lithium-Ion Battery Pack, 14.8V/2.4AH 8 Cell Smart Lithium-Ion Battery Pack, 14.8V/4.4AH ( <b>Option</b> )	
<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%
<b>Dimensions &amp; Weight</b>	310mm (w) * 233mm (d) * 30-36mm (h) 2.0 kg With 4 Cell Battery and ODD	



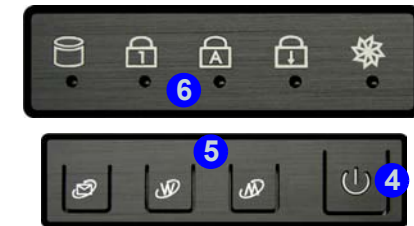
Feature	Specification	
<p><b>Optional</b></p> <p>*Note: The Bluetooth and 3.5G Optional Modules cannot coexist. If one of these factory options is included in your purchase option, then the other is unavailable.</p>	<p>Optical Drive Module Options: SATA DVD/CD-RW Combo Drive Module SATA Super Multi Drive Module</p> <p>USB Floppy Disk Drive</p> <p>802.11 b/g Mini-Card USB Wireless LAN Module</p> <p>8 Cell Smart Lithium-Ion Battery Pack</p> <p>1.3M or 2.0M Pixel USB PC Camera Module (<b>Factory Option</b>)</p> <p>Fingerprint ID Reader Module (<b>Factory Option</b>)</p>	<p>*Bluetooth 2.0 + EDR (Enhanced Data Rate) Module (<b>Factory Option</b>) OR *UMTS/HSPDA-based 3.5G Module with MiniCard Interface (<b>Factory Option</b>) Quad-band GSM/GPRS (850 MHz, 900 MHz, 1800 MHz, 1900 MHz) UMTS WCDMA FDD (2100 MHz)</p> <div data-bbox="1115 513 1653 737" style="border: 2px solid red; border-radius: 15px; padding: 10px; text-align: center;">  <p><b>UMTS Modes</b></p> <p>Note that UMTS modes CAN NOT be used in North America.</p> </div>

## Introduction

Figure 1  
Top View

## External Locator - Top View with LCD Panel Open

1. Built-In PC Camera (Optional)
2. LCD
3. Built-In Microphone
4. Power Button
5. Hot-Key Buttons
6. LED Status Indicators
7. Keyboard
8. Touchpad & Buttons
9. LED Power & Communication Indicators
10. Fingerprint Module (Optional)



## External Locator - Front & Rear Views



*Figure 2*  
**Front View**

1. LED Power & Communication Indicators
2. 7-in-1 Card Reader
3. S/PDIF-Out Jack
4. Microphone-In Jack
5. Headphone-Out Jack



*Figure 3*  
**Rear View**

1. Battery

## Introduction

### External Locator - Left & Right Side Views

*Figure 4*  
**Left Side View**

1. DC-In Jack
2. RJ-45 LAN Jack
3. External Monitor Port
4. Vent
5. 2 \* USB 2.0 Ports
6. ExpressCard/54(34) Slot

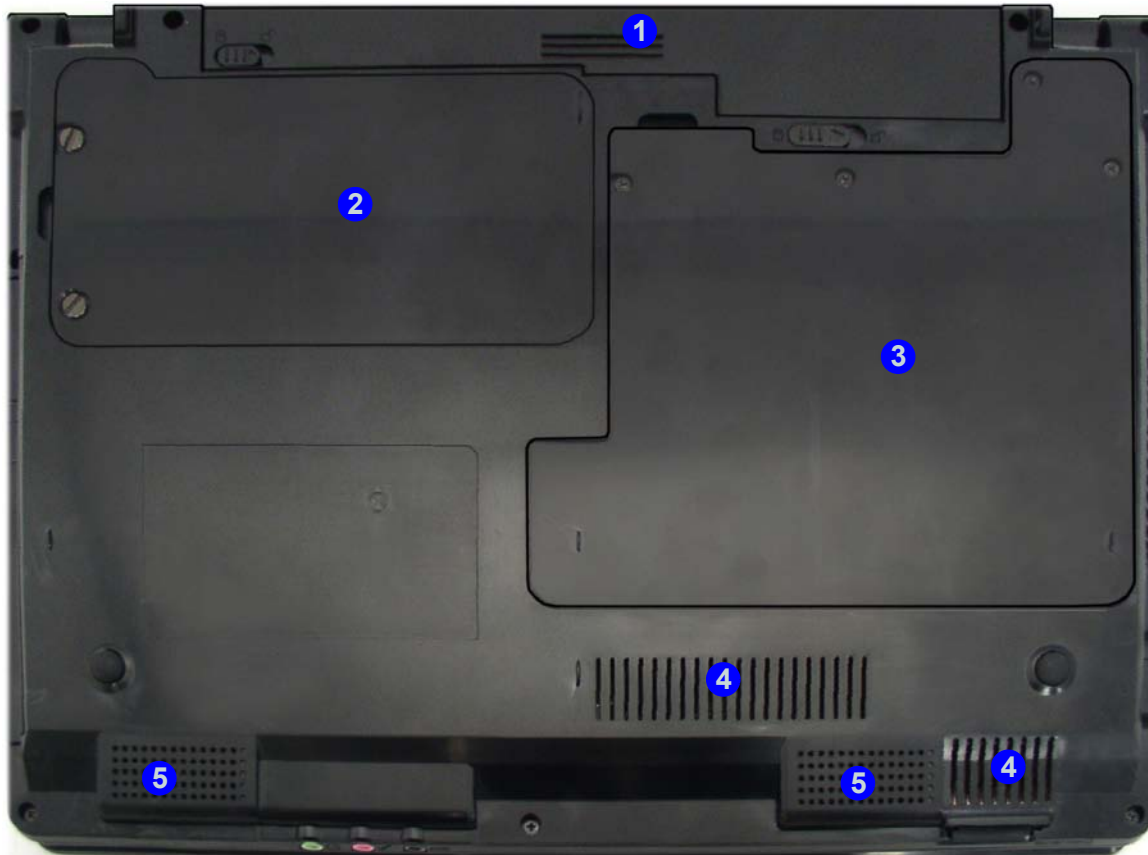


*Figure 5*  
**Right Side View**

1. Optical Device Drive Bay
2. Emergency Eject Hole
3. 1 \* USB 2.0 Port
4. RJ-11 Phone Jack
5. Security Lock Slot



## External Locator - Bottom View



*Figure 6*  
**Bottom View**

1. Battery
2. Hard Disk Bay Cover (3.5G Module)
3. RAM & CPU Bay Cover
4. Vent/Fan Intake/Outlet
5. Speakers



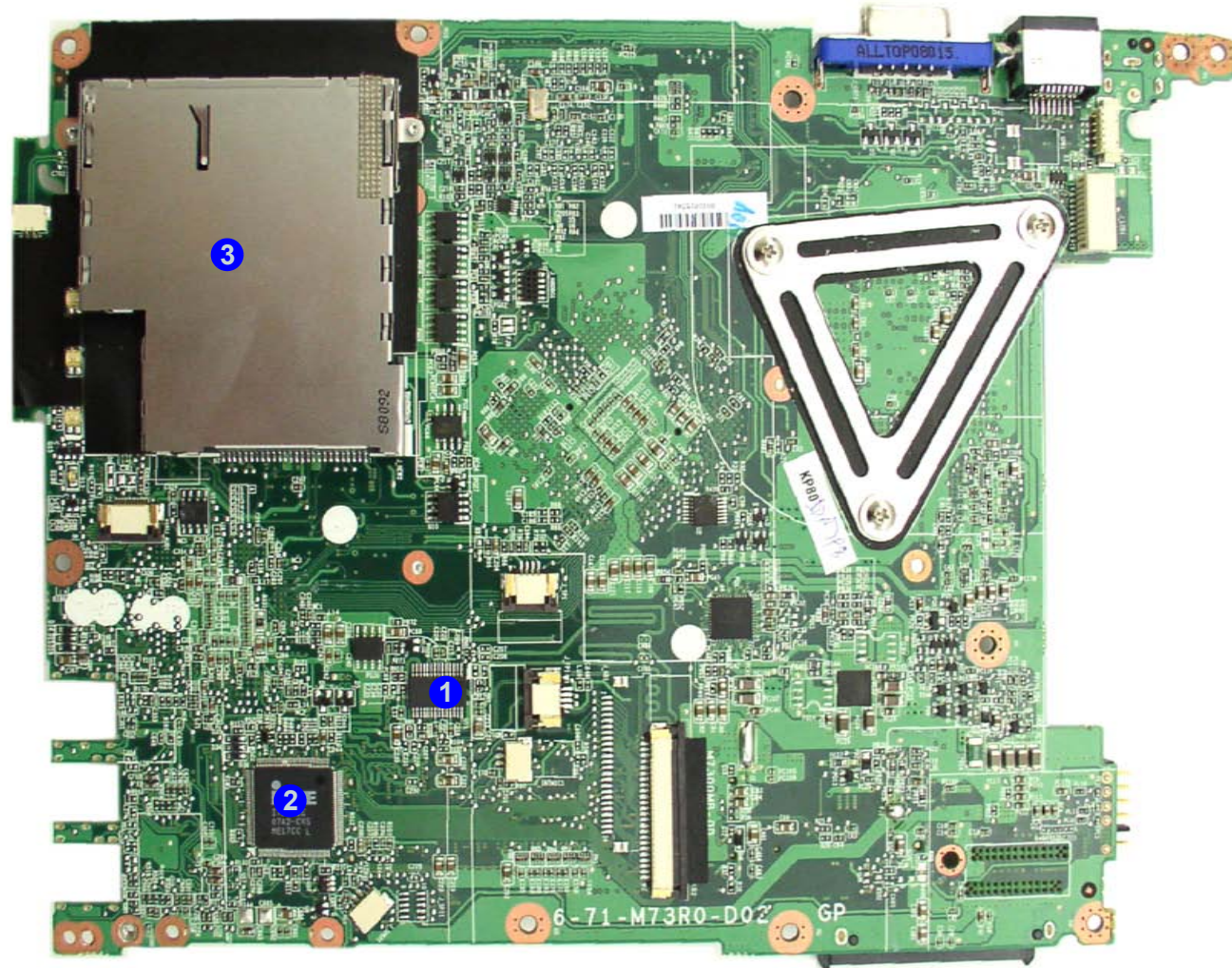
### Overheating

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

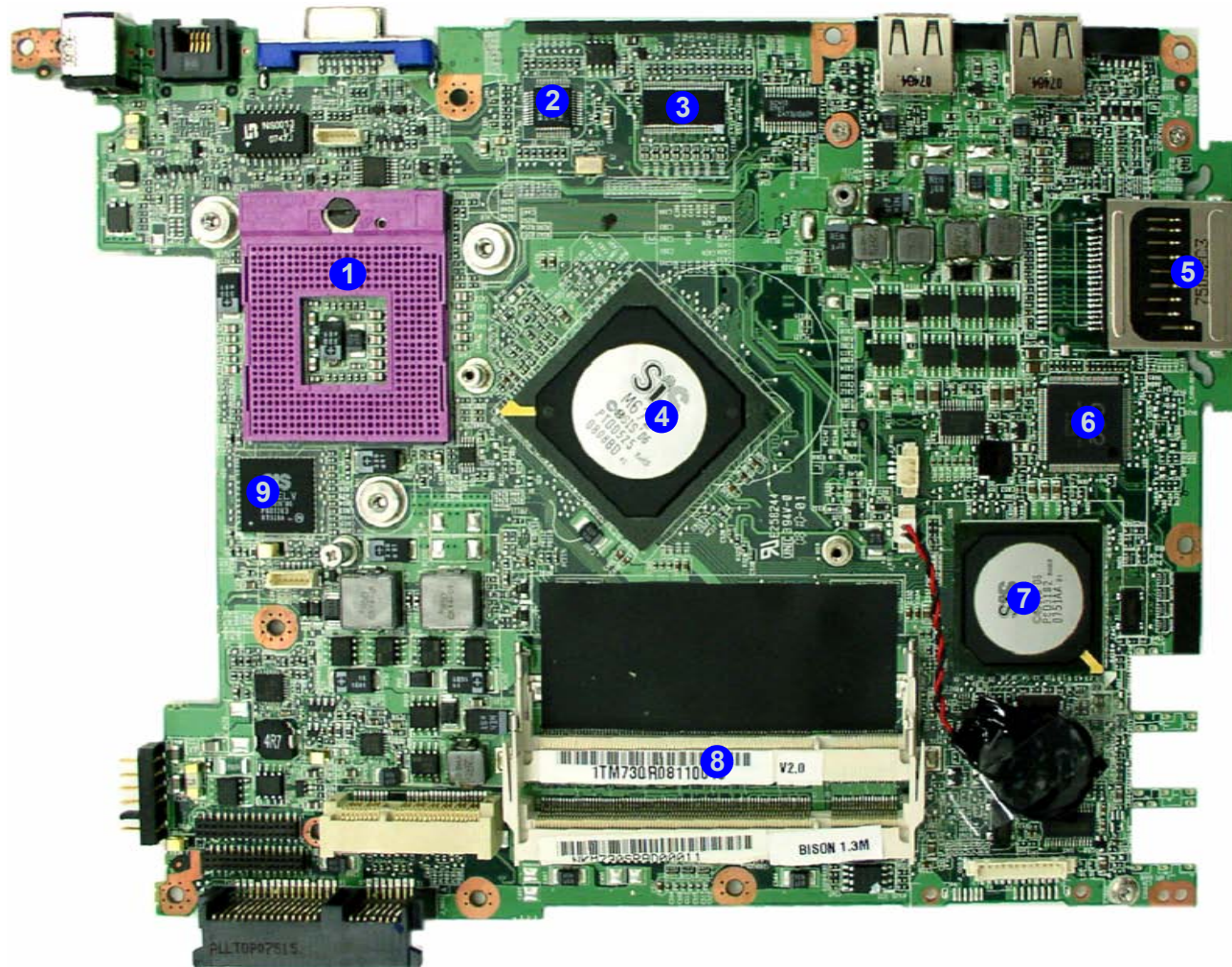
## Mainboard Overview - Top (Key Parts)

*Figure 7*  
Mainboard Top  
Key Parts

1. Clock Buffer  
ICS9P935
2. ITE 8512E
3. ExpressCard  
Assembly



## Mainboard Overview - Bottom (Key Parts)



*Figure 8*  
**Mainboard Bottom  
Key Parts**

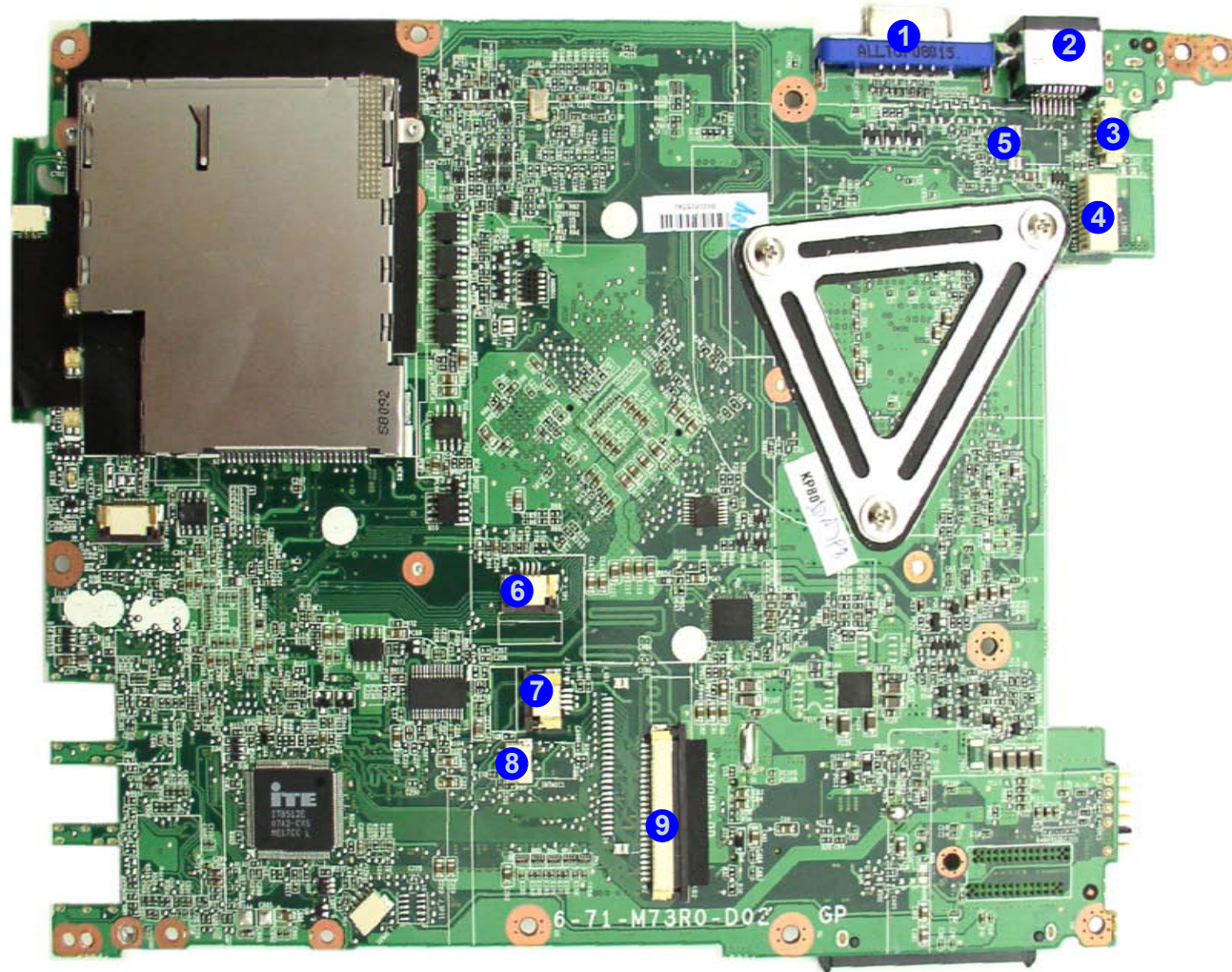
1. CPU Socket (no CPU installed)
2. LAN PHY  
RTL8201CL
3. CLOCK  
GENERATOR  
ICS9LPR600
4. Northbridge-  
SiSM672
5. 7-in-1 Card  
Reader Controller
6. Card Reader  
Controller ENE  
MR510
7. Southbridge-  
SiS968
8. Memory Slots  
DDR2 So-DIMM
9. SiS307ELV

## Introduction

*Figure 9*  
**Mainboard Top  
Connectors**

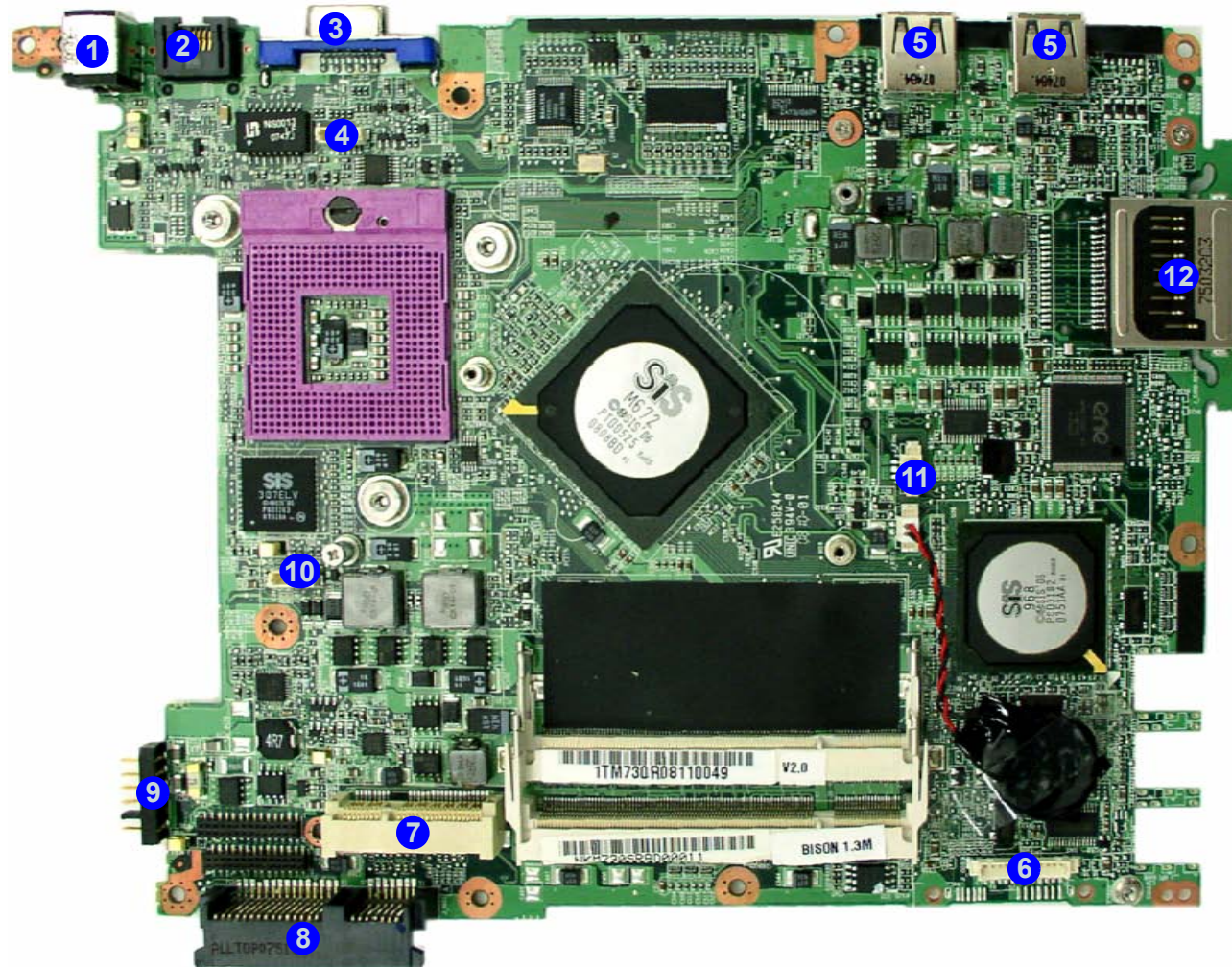
1. External Monitor Port
2. RJ-45 LAN Jack
3. CCD Cable Connector
4. LCD Cable Connector
5. Speaker Cable Connector
6. Touch Pad Cable Connector
7. Fingerprint Cable Connector
8. Internal Microphone Cable Connector
9. Keyboard Cable Connector

## Mainboard Overview - Top (Connectors)





## Mainboard Overview - Bottom (Connectors)



*Figure 10*  
**Mainboard Bottom  
Connectors**

1. DC-In Jack
2. RJ-45 LAN Jack
3. External Monitor Port
4. Inverter Cable Connector
5. USB Port
6. Optical Device Drive Connector
7. Mini PCIe Socket
8. SATA HDD Connector
9. Battery Connector
10. Bluetooth/3.5G Cable Connector
11. Fan Cable Connector
12. Card Reader




# Chapter 2: Disassembly



## Overview

This chapter provides step-by-step instructions for disassembling the **M73XSR** series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

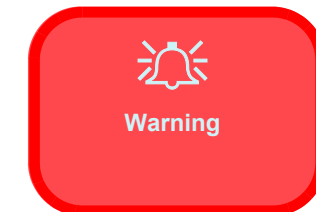
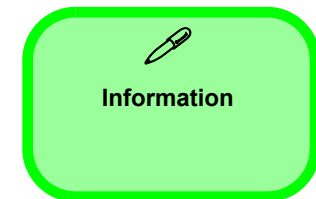
We suggest you completely review any procedure before you take the computer apart.

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

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**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 - 8](#)

#### To remove the Processor:

1. Remove the battery [page 2 - 5](#)
2. Remove the processor [page 2 - 10](#)

#### To remove the Wireless LAN Module:

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

#### To remove the Bluetooth:

1. Remove the battery [page 2 - 5](#)
2. Remove the bluetooth [page 2 - 13](#)

#### To remove the Optical Device:

1. Remove the battery [page 2 - 5](#)
2. Remove the Optical device [page 2 - 14](#)

#### To remove the Keyboard:

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

#### To remove the Modem :

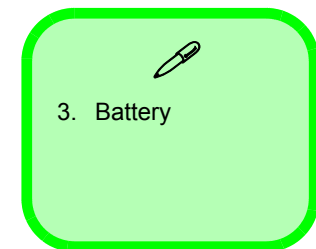
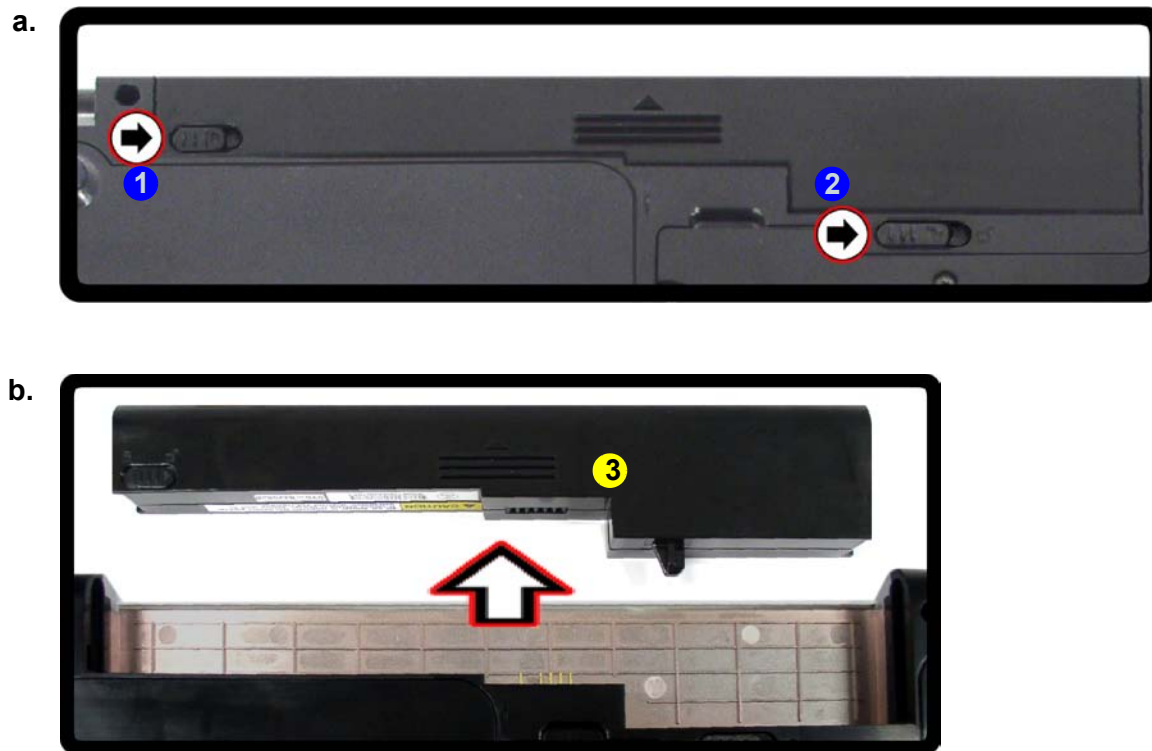
1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the CPU heat sink [page 2 - 10](#)
4. Remove the Wireless LAN [page 2 - 12](#)
5. Remove the bluetooth [page 2 - 13](#)
6. Remove the Optical device [page 2 - 14](#)
7. Remove the keyboard [page 2 - 15](#)
8. Remove the modem [page 2 - 16](#)

## Removing the Battery

1. Turn the computer **off**, and turn it over.
2. Slide the latches (1 & 2) the direction of the arrow, and hold latch 2 in place.
3. Slide the battery in the direction of the arrow 3.

Figure 1  
Battery Removal

- a. Slide the 2 latches and hold latch 2 in place.
- b. Slide the battery in the direction of the arrow.



## Disassembly

*Figure 2*  
**HDD Assembly  
Removal**

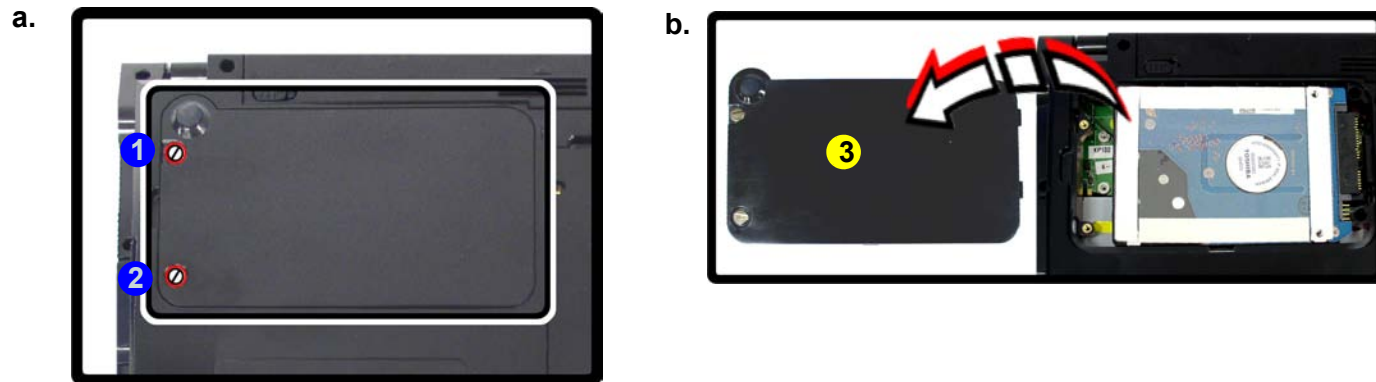
- Locate the HDD bay cover and remove the screws.
- Remove the bay cover.

## Removing the Hard Disk Drive

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:

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



3. HDD Bay Cover

- 2 Screws



#### HDD System Warning

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

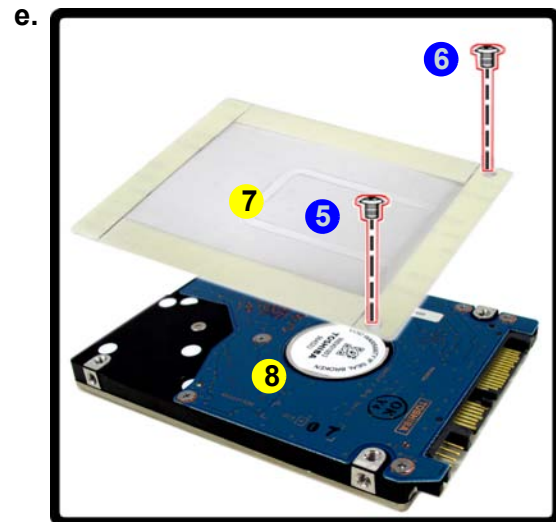
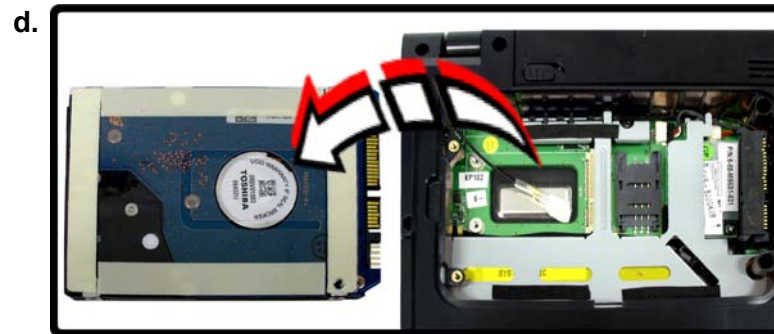
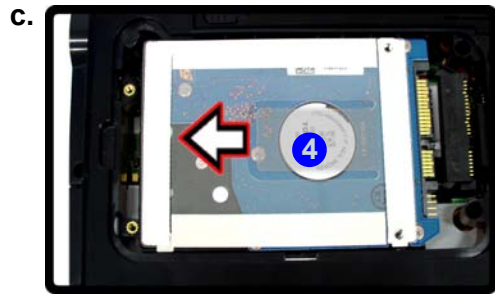
You have backed up any data you want to keep from your old HDD.

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.



- Carefully grip the mylar cover tab **4** and slide the hard disk in the direction of arrow.
- Lift the hard disk up (**Figure d**) in the direction of arrow.
- Remove the screws **5** - **6** and separate the mylar cover **7** from the hard disk **8**.
- Reverse the process to install any new hard disk.



*Figure 3*  
**HDD Assembly  
Removal Sequence**

- Slide the HDD in the direction of the arrow.
- Lift the HDD out of the bay.
- Remove the screws and separate the mylar cover from the HDD.



7. Mylar Cover  
8. HDD

- 2 Screws

*Figure 4*  
**RAM Module  
Removal**

- Remove the screws.
- Disconnect the fan cable.
- 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.



### 6. CPU/RAM Bay Cover

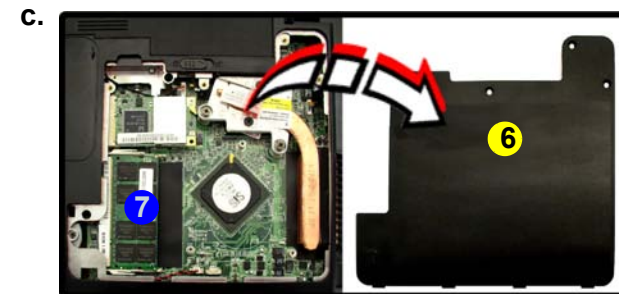
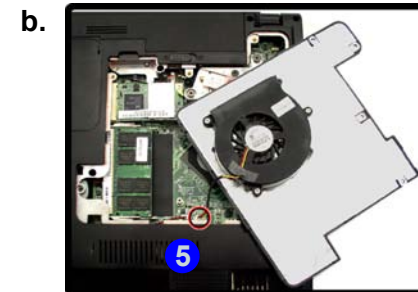
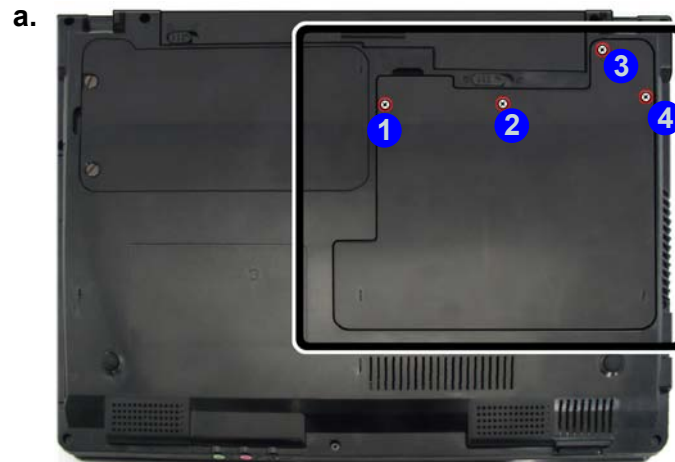
- 4 Screws

## Removing the System Memory (RAM)

The computer has two memory sockets for 200 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting **DDRII** 667MHz. The main memory can be expanded up to 2GB. The SO-DIMM modules supported are 1024MB and 2048MB **DDRII** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

### Memory Upgrade Process

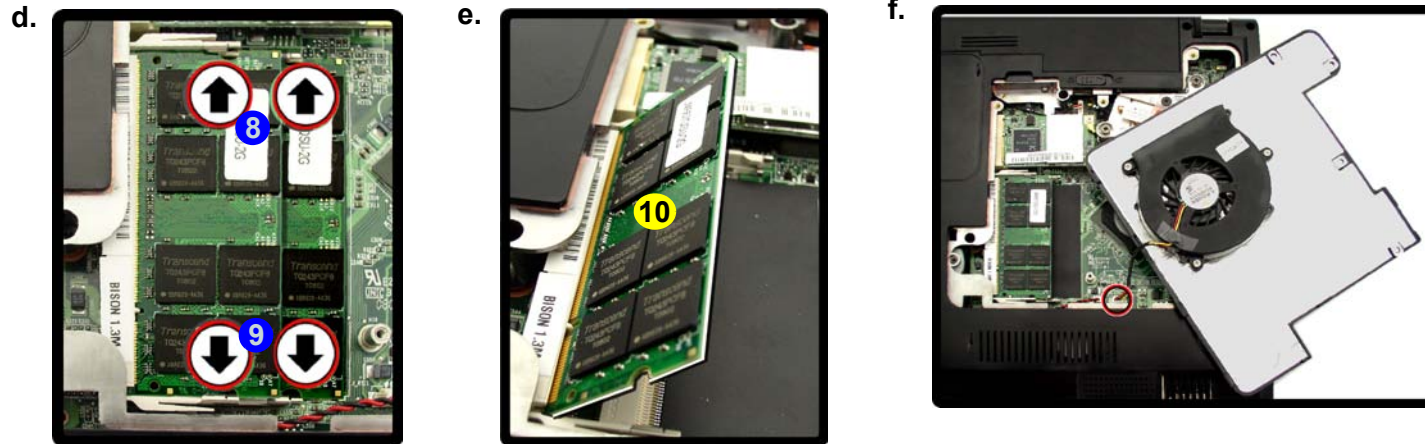
- Turn **off** the computer, remove the battery ([page 2 - 5](#)).
- Locate the CPU/RAM bay cover, and remove screws **1** - **4**.
- Carefully (a fan and cable are attached to the under side of the cover) lift up the bay cover.
- Carefully disconnect the fan cable **5**.
- Remove the bay cover **6**.
- The RAM will be visible at point **7** on the mainboard.



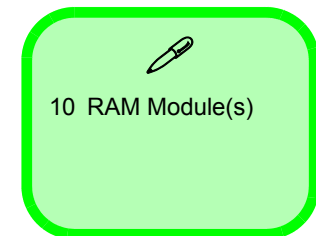
*Figure 5*  
**Memory Removal Sequence**

- d. Push the release latch(es).
- e. Remove the module(s).

- 7. Gently push the two release latches (8 & 9) on the sides of the memory socket in the direction indicated by the arrows (Figure d).
- 8. The RAM module(s) 10 will pop-up (Figure e), and you can then remove it.



- 9. Push the latches to release the second module if necessary.
- 10. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
- 11. The module will only fit one way as defined by its pin alignment. Make sure the module is seated as far into the slot as it will go. DO NOT FORCE IT; it should fit without much pressure.
- 12. Press the module down towards the mainboard until the slot levers click into place to secure the module.
- 13. Replace the bay cover and the screws (make sure you reconnect the fan cable before screwing down the bay cover - Figure f).
- 14. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.



## Disassembly

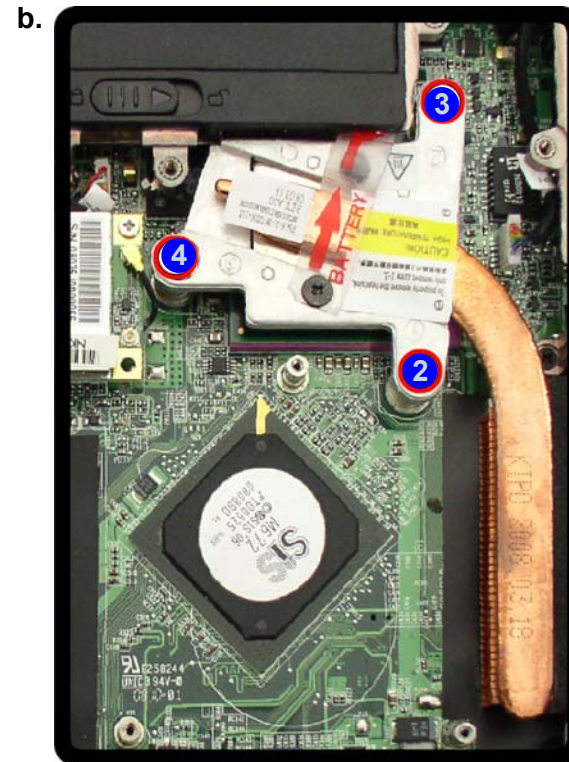
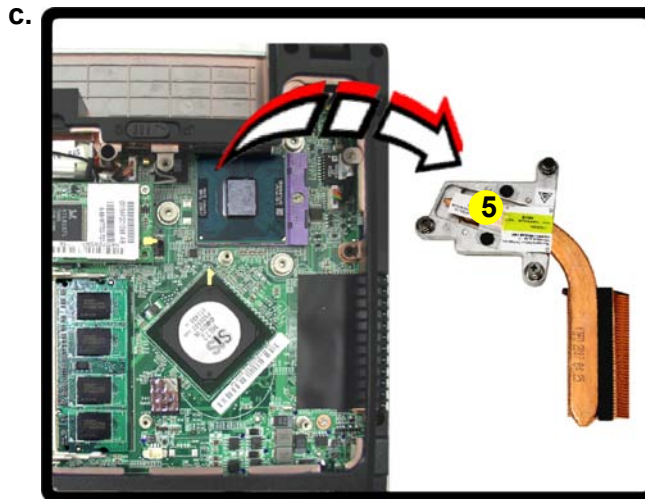
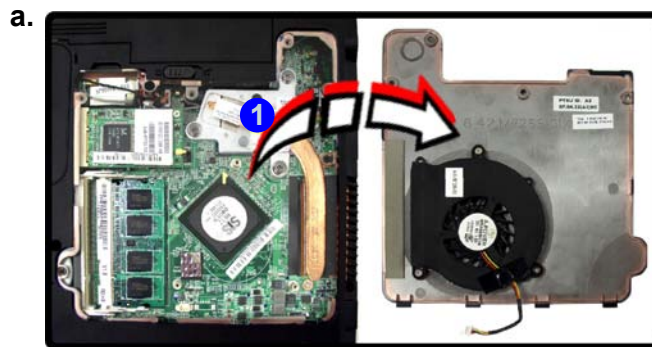
Figure 6

### Processor Removal


- Remove the cover and locate the heat sink.
- Remove the 3 screws in the order indicated.
- Remove the heat sink.

## Removing the Processor

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

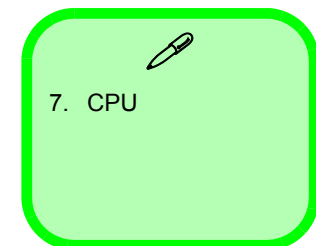
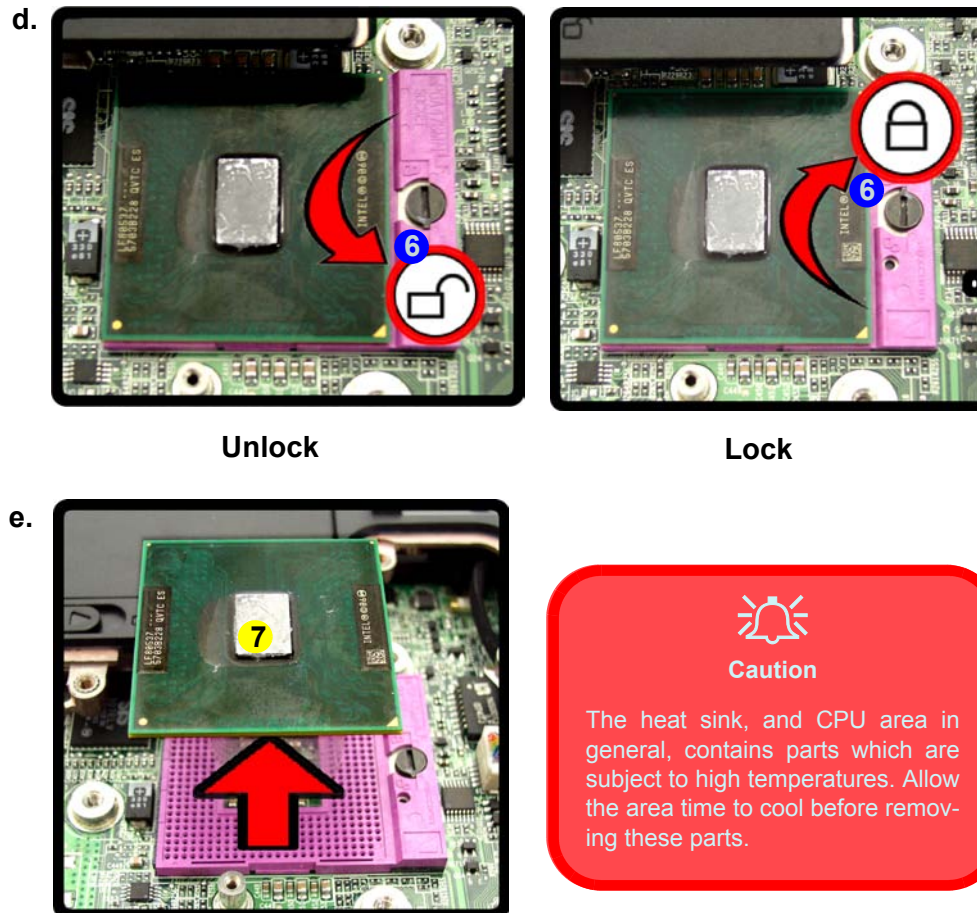


5. Heat Sink
- 3 Screws

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

*Figure 7*  
**Processor Removal Sequence**

- d. Turn the release latch to unlock the CPU.
- e. Lift the CPU out of the socket.



## Disassembly

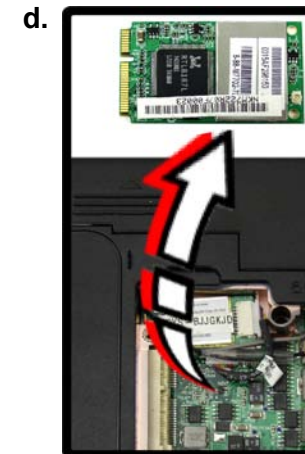
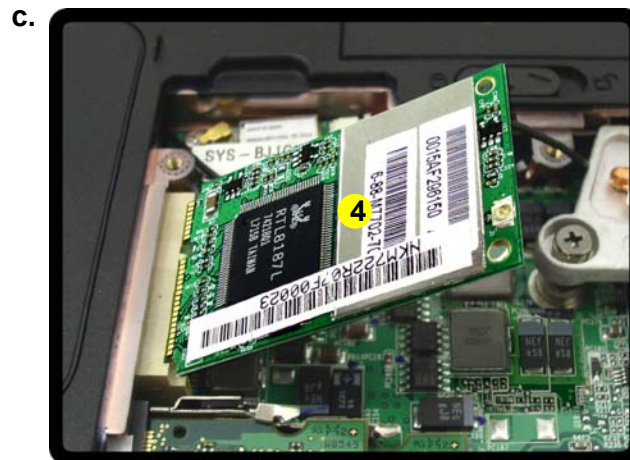
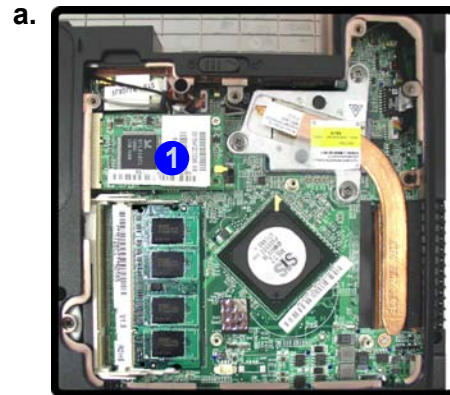
Figure 8  
Wireless LAN  
Module Removal

- Remove the cover and locate the heat sink.
- Disconnect the cable and remove the screw.
- The WLAN module will pop up.
- Remove the WLAN module.

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

## Removing the Wireless LAN Module

- Turn **off** the computer, remove the battery (*page 2 - 5*) and the CPU/RAM bay cover (*page 2 - 8*).
- The Wireless LAN module will be visible at point **1** on the mainboard.
- Carefully disconnect cable **2**, then remove the screw **3** from the module socket.
- The Wireless LAN module **4** will pop-up.
- Lift the Wireless LAN module (*Figure d*) up and off the computer.

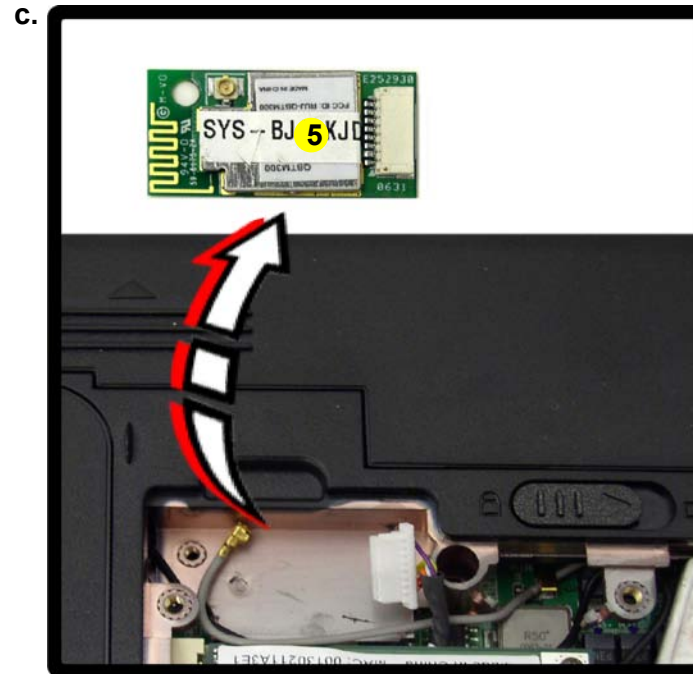
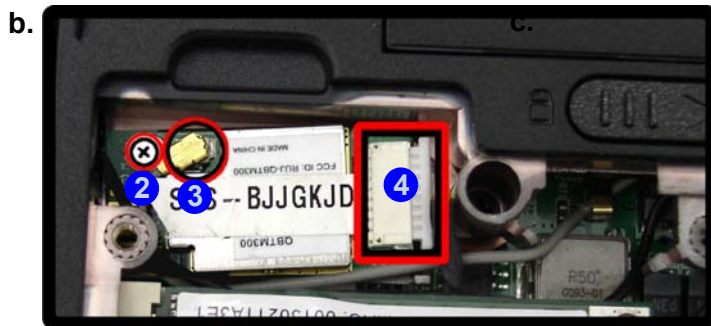
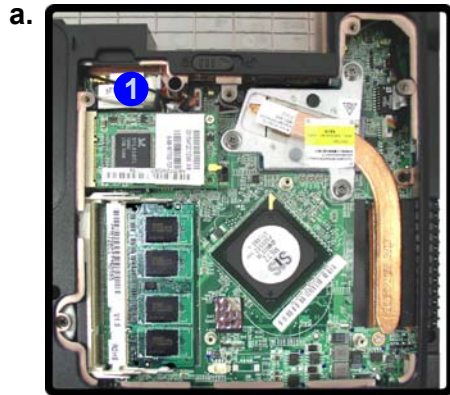


4. WLAN Module

- 1 Screw


## Removing the Bluetooth Module

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)), and the CPU/RAM bay cover ([page 2 - 8](#)).
2. The Bluetooth module will be visible at point **1** on the mainboard.
3. Remove screw **2** and carefully disconnect the cable **3** and separate the module from the connector **4**.
4. Lift the Bluetooth module **5** up and off the computer.



*Figure 9*  
**Bluetooth Removal**

- a. Remove the cover and locate the Bluetooth module.
- b. Remove the screw and disconnect the cable and separate the connector.
- c. Lift the Bluetooth module out.



5. Bluetooth Module

- 1 Screw

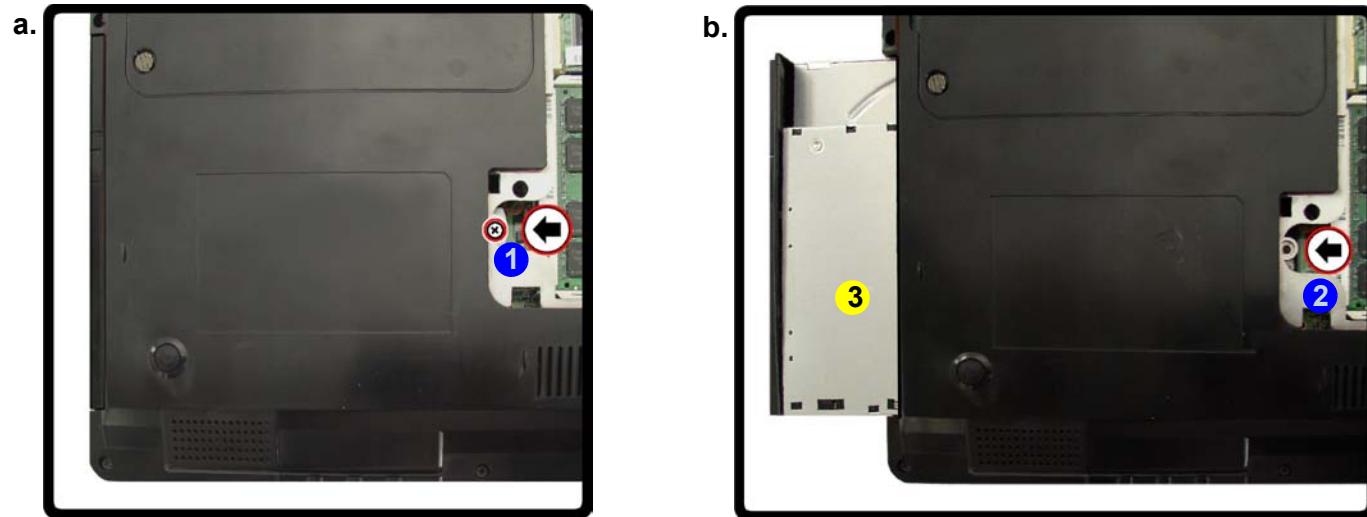
## Disassembly

*Figure 10*  
**Optical Device  
Removal**

- Remove the cover and locate the screw.
- Remove the screw and push the optical device out off the computer at point 2 and remove the optical device.

## Removing the Optical (CD/DVD) Device

- Turn off the computer, remove the battery ([page 2 - 5](#)), and the CPU/RAM bay cover ([page 2 - 8](#)).
- Remove the screw at point ①, and use a screwdriver to carefully push out the optical device at point ②.
- 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).
- Restart the computer to allow it to automatically detect the new device.



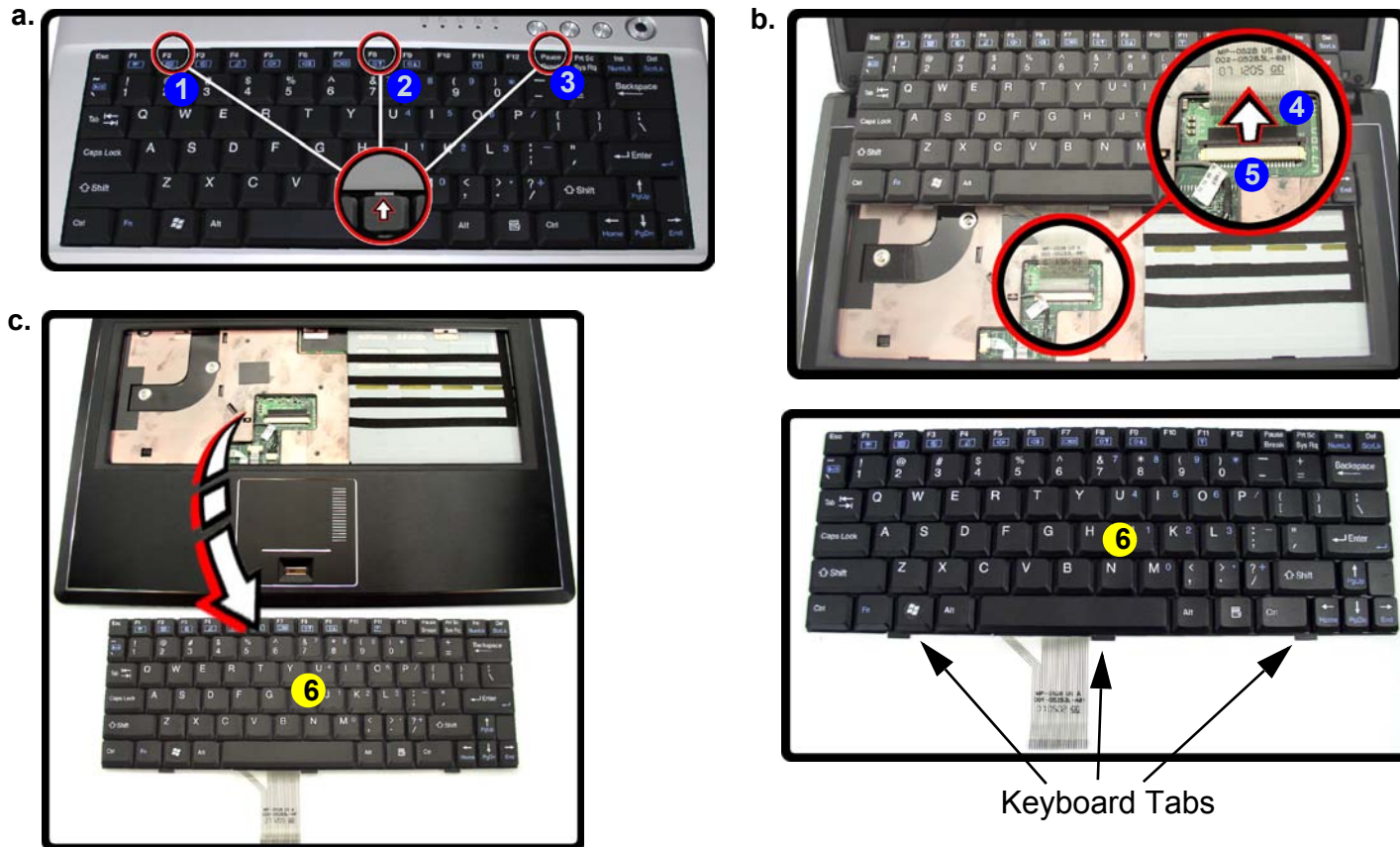
### 3. Optical Device

- 1 Screw




## 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 up, being careful not to bend the keyboard ribbon cable ([Figure b](#)).
4. Disconnect the keyboard ribbon cable **4** from the locking collar socket **5**.
5. Carefully lift up the keyboard **6** ([Figure c](#)) off the computer.




*Figure 11*  
**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 **three** keyboard tabs at the bottom of the keyboard with the slots in the case.



6. Keyboard Module.

## Disassembly

Figure 12  
Modem Removal

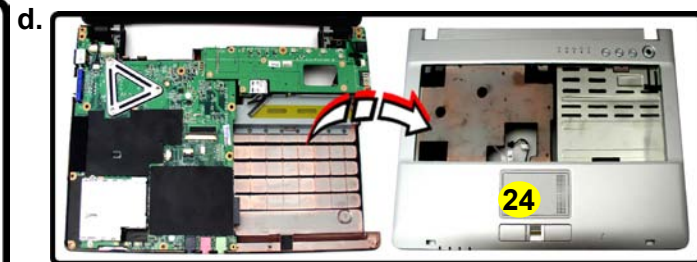
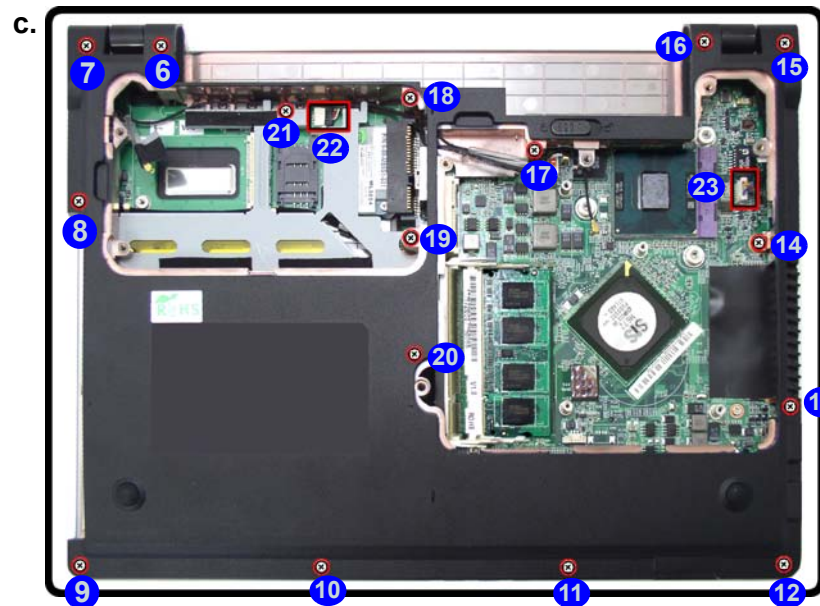
- Disconnect the connectors from under the keyboard.
- Remove the screws.
- Remove the screws and disconnect the connectors from the mainboard.
- Remove the top case.

## Removing the Modem Module

- Turn off the computer, remove the battery ([page 2 - 5](#)) and the CPU/RAM bay cover ([page 2 - 8](#)) and the CPU heat sink ([page 2 - 10](#)) and the Wireless LAN ([page 2 - 12](#)) and the optical device ([page 2 - 14](#)) and the keyboard ([page 2 - 15](#)).
- Disconnect the connectors ① - ③ from under the keyboard and turn it over.
- Remove screws ④ - ⑤ from the rear of the computer.



- Remove the screws ⑥ - ⑳ from the bottom case and disconnect the connectors ㉒ - ㉓ on the mainboard.
- Carefully lift up the top case ㉔ off the computer.



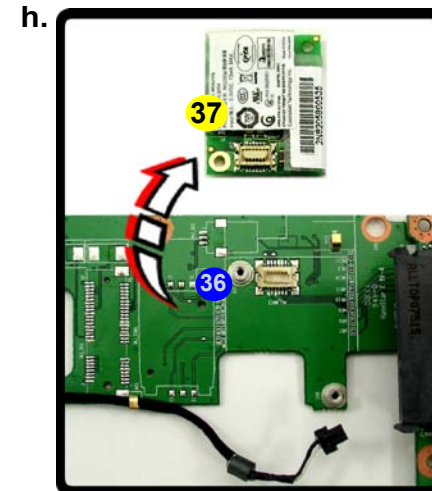
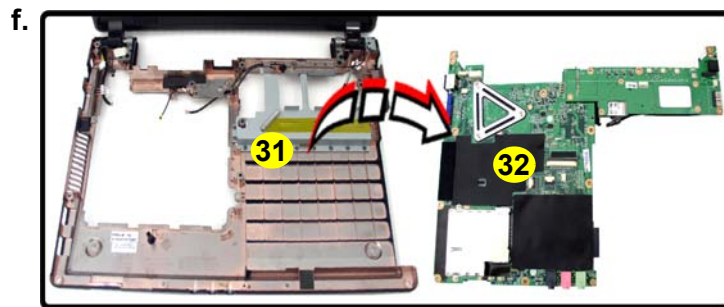
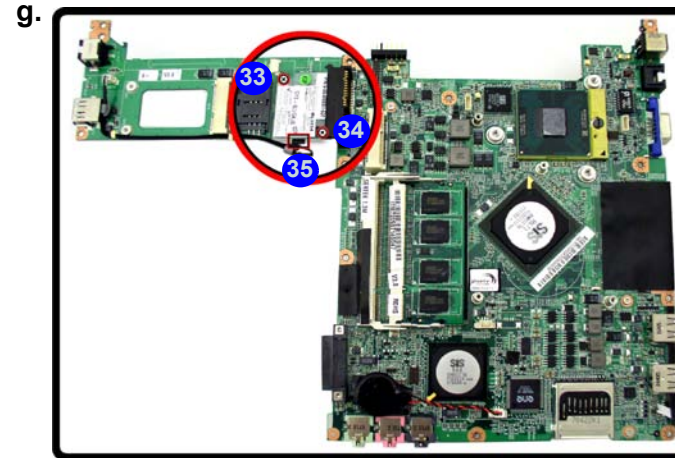
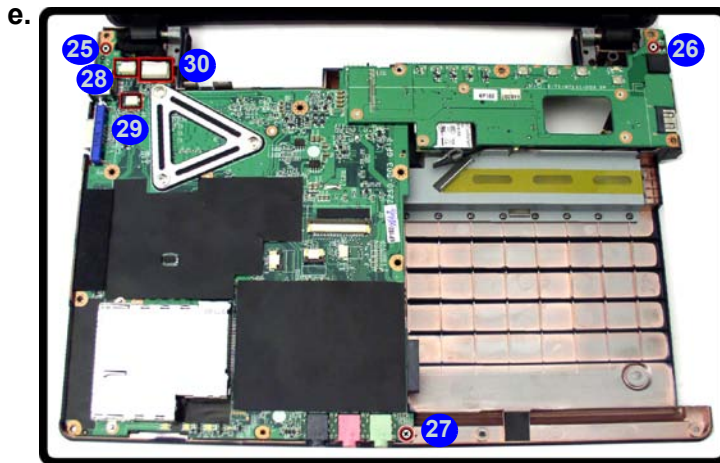
24. Top Case


- 18 Screws

6. Remove screws 25 - 27 and disconnect the connectors 28 - 30 from the mainboard.
7. Separate the bottom case 31 from the mainboard 32 and turn it over.
8. Remove the screws 33 - 34 and disconnect the connector 35 from the modem.
9. Lift the modem 37 up off the socket 36.

Figure 13  
Modem Removal Sequence

- e. Remove the screws and disconnect the connectors.
- f. Separate the bottom case from the mainboard.
- g. Remove the screws and disconnect the connector.
- h. Lift the modem up off the socket.





31. Bottom Case  
32. Main Board  
37. Modem

- 5 Screws



# Appendix A:Part Lists

This appendix breaks down the *M73XSR* series notebook's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

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

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

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

## Part List Illustration Location

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

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

Part	Pages#
Top with Fingerprint	<i>page A - 3</i>
Top without Fingerprint	<i>page A - 4</i>
Bottom	<i>page A - 5</i>
LCD	<i>page A - 6</i>
HDD	<i>page A - 7</i>
Combo	<i>page A - 8</i>
DVD-DUAL-RW	<i>page A - 9</i>

# Top with Fingerprint

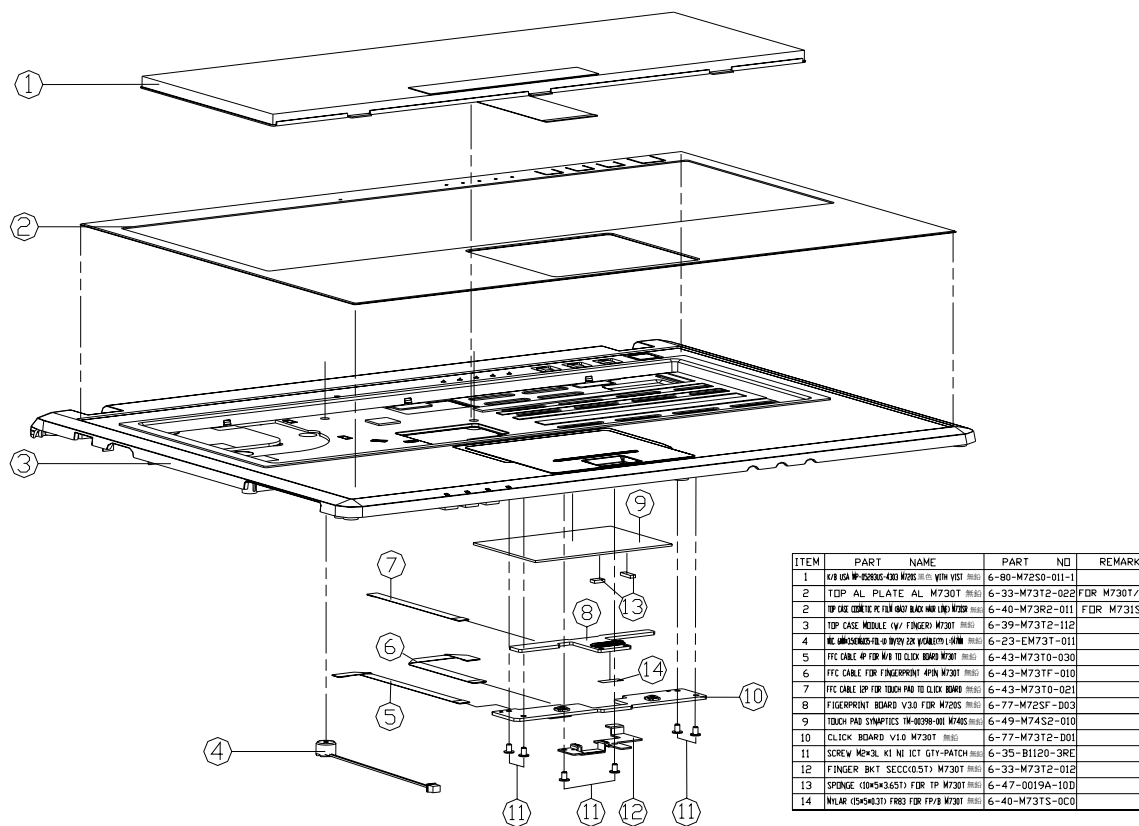
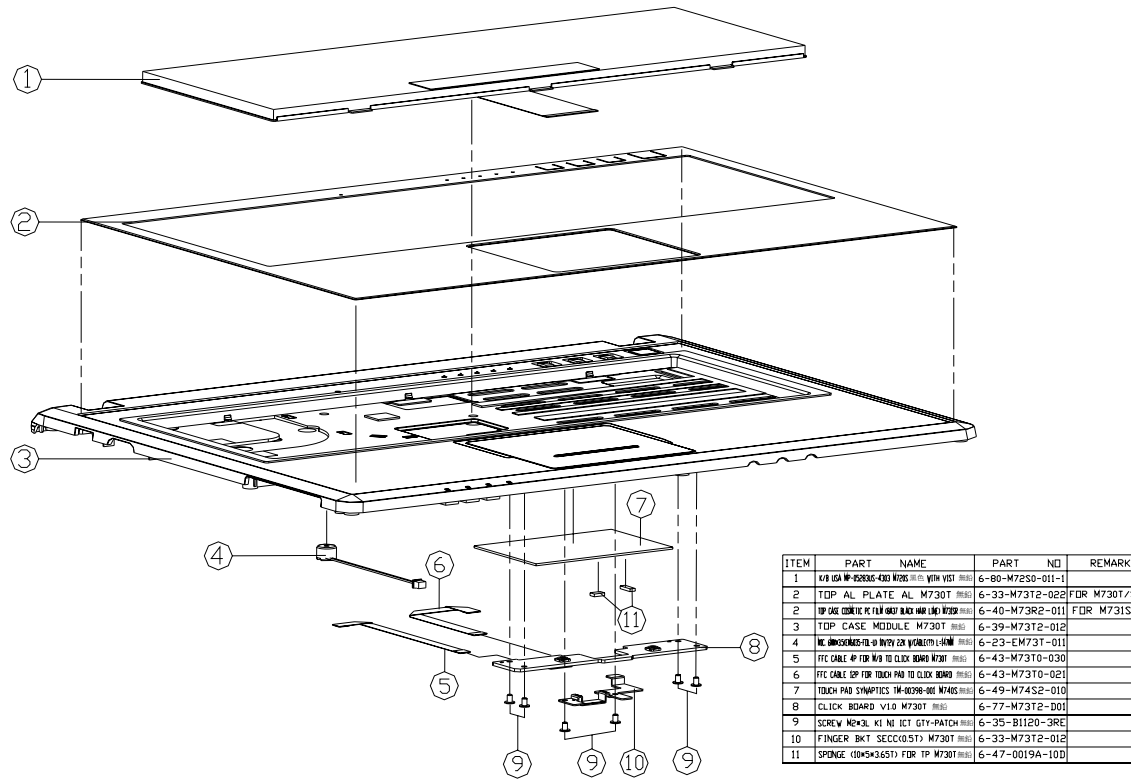


Figure A - 1  
Top with  
Fingerprint

A.Part Lists

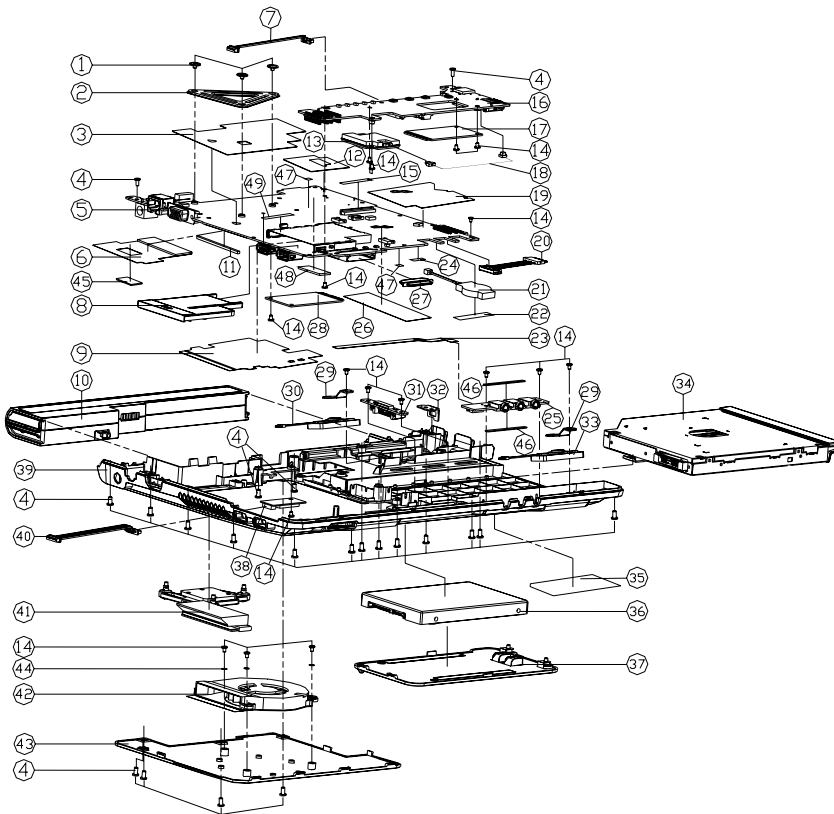
# Top without Fingerprint

Figure A - 2  
Top without Fingerprint





# Bottom



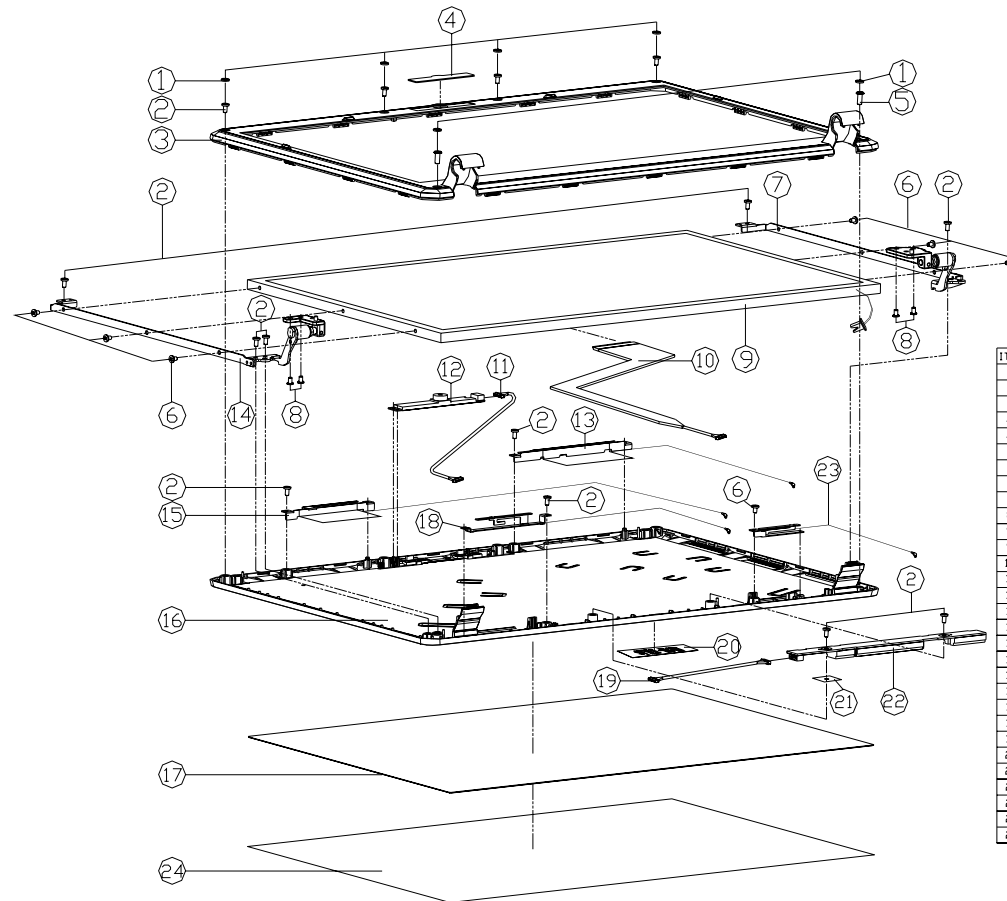
ITEM	PART NAME	PART NO	REMARK
1	4x M2.5x5.0	6-35-41025-2RS	
2	W/HD ASSY	6-33-M72SS-011	
3	W/HD FOR HD FRONT/REAR/PCB	6-40-M73TS-010	
4	SCREW M2.5x4.0 BZ ICT	6-35-82125-GR0	
5	MAIN BOARD V2.0 M730SR	6-77-M73R0-D02	
6	NORTH BRIDGE W/LAR F383 M730SR	6-40-M73RS-011	
7	W/RE CABLE FOR SATA TO HDD M730SR	6-43-M73RS-010	
8	DUMMY NEW CARD PC-AE3 TH280SR	6-42-T2R3-011	
9	KEY COIL + LED W/BRACKET + TERMINATOR M730SR	6-40-M73TS-080	
10	W/HD L11 FOR M730SR	6-87-M72SS-4DF2	
10	W/HD L11 FOR M730SR	6-87-M72SS-4D4E2	
10	W/HD L11 FOR M730SR	6-87-M72SS-5DF2	
11	W/LAR-1 FOR HD GEN2/ASO PC M72SS	6-40-M72SS-051	
12	LIGHT SOCKET BRKT FOR HD FRONT/REAR M730SR	6-40-M73TS-040	
13	HEAT SINK W/GRUBSCREW FOR CPU M730SR	6-88-L39T1-5300	
14	SCREW M2.5x4.0 KT NI ICT NY	6-35-81120-3RA	
15	M2.505 W/P COILIN W/LAR	6-40-M525S-060	
16	MULTI I/O BOARD V2.0 (W/3COM) M730SR	6-77-M73R1-D02	
16	MULTI I/O BOARD V2.0 (W/3COM) M730SR	6-77-M73R1-D02-1	
17	W/HD W/HD SATA BRACKET FOR HD GEN2/ASO	6-88-M72SS-720	(OPTION)
18	W/RE CABLE FOR SATA TO HDD 2P W/2SS	6-43-M72SU-010	(OPTION)
19	MAIN BOARD AL. FOIL M730T	6-40-M73TS-080	
20	CABLE FOR W/HD TO SATA GEN2/ASO M730SR	6-43-M73TZ-011	
21	W/HD W/HD W/HD W/HD W/HD W/HD W/HD	6-23-22015-PRC	
22	W/RE W/HD W/HD W/HD W/HD W/HD W/HD	6-40-M73TS-040	
23	W/RE W/HD W/HD W/HD W/HD W/HD W/HD	6-43-M73T0-011	
24	W/HD W/HD W/HD W/HD W/HD W/HD	6-40-M73TS-090	
25	AUDIO BOARD V2.0 M730T	6-77-M73T8-D02	
26	M2.505 W/LAR FOR DDP	6-40-M525S-010	
27	W/HD BOARD SUBMODULE M730SR	6-47-M73T8-010	
28	W/HD BRIDGE BY GEN2/ASO W/HD W/HD W/HD	6-88-M55S2-7000	(OPTION)
28	W/HD BRIDGE W/HD SHIELD PEAK CHE	6-88-M72T2-4E10	(OPTION)
29	SPEAKER BRACKET SECC M730T	6-33-M73T3-021	
30	SPEAKER BRACKET BY W/HD W/HD W/HD W/HD	6-23-SM731-02E	
31	DDO BRIDGE BOARD V1.0 M730SR	6-77-M73R0-D01	
32	LOCK BRACKET SECC M730T	6-33-M73T3-010	
33	SPEAKER BRACKET BY W/HD W/HD W/HD W/HD	6-23-SM731-011	
34	SATA W/HD W/HD W/HD W/HD W/HD W/HD	6-79-M73T000-010	
34	SATA W/HD W/HD W/HD W/HD W/HD W/HD	6-79-M73T000-010	
35	PRODUCT LABEL FOR M730SR	6-45-M73R3-011	
35	PRODUCT LABEL FOR M731SR	6-45-M731R-011	
36	W/O HDD ASS'Y M730T	6-79-M73T00J-010	
37	HDD COVER MODULE M730T	6-42-M73TJ-102	
38	BLUETECH W/HD W/HD W/HD W/HD W/HD	6-88-M5545-G20	(OPTION)
38	BLUETECH W/HD W/HD W/HD W/HD W/HD	6-88-M5545-390	(OPTION)
39	BOTTOM CASE MIDDLE M730T	6-29-M73T3-02E	
40	W/RE CABLE FOR ALUHEAT TO W/HD W/HD	6-43-M72SS-010	
41	HEAT SINK MIDDLE M7280	6-31-M72SS-103	
42	FAN MIDDLE M7280S	6-31-M72SS-103	
43	CPU COVER MODULE M730T	6-42-M73TS-102	
44	FAN-L3E (42x41x11) FOR FAN M730T	6-47-M73TS-020	
45	HEAT CONDUCTIVE PASTE FOR NORTH BRIDGE W/HD	6-47-0012N-304	
46	FAN FOR HD GEN2/ASO FAN M730T	6-47-M73TS-010	
47	PROTECT HD W/LAR F383 M730SR	6-40-M72SS-040	
48	SPRING 025x40x30 ORNG FOR HD W/HD	6-47-0019A-23S	
49	W/HD W/HD W/HD W/HD W/HD W/HD	6-47-M76TS-010	

Figure A - 3  
Bottom

A. Part Lists

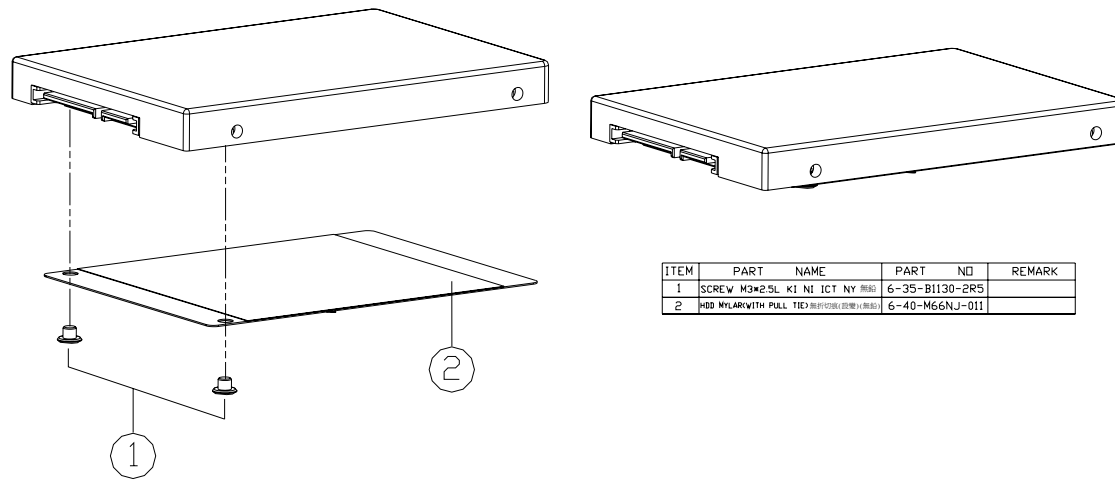
# LCD

Figure A - 4  
LCD



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER SOREY HOLE RUBBER W/25	6-47-M7251-021	
2	SOREY MESH 1 BZ ICT GFT-PATCH 41-48 B-40	6-35-C6120-4RB	
3	LCD FRONT COVER MODULE M730T	6-39-M7311-012	
4	CCD COSMETIC PLATE PMAA M730T	6-42-M731T-010	W/CCD
4	CCD MYLAR FR700 M730T	6-40-M731T-010	W/D CCD
5	SCREW M2.5*6L KT BK/2 ICT NY	6-35-B6125-5RA	
6	SOREY MESH 1 BZ ICT GFT-PATCH 41-48 B-40	6-35-C6120-4RB	
7	LCD HINGE R SECC+SKT+ZN M730T	6-33-M731T-021	
7	LCD HINGE R TOP SHARP PANEL SECC+O7+N M730T	6-33-M73R1-010	FOR SHARP
8	SCREW M2.5*6L R BZ ICT	6-35-82125-6R0	
9	LCD EXP VISA AL RESEYH V3 GLARE 170D 55W	6-50-G8255-G00	
9	LCD EXP VISA LG OPTICVH V3 GLARE 170D 55 W	6-50-G8255-L00	
10	WIRE CABLE FOR LCD 17 AL RESEYH V3 GLARE 170D 55W	6-43-M731T-011	
11	WIRE CABLE M730 TO CCD M730T	6-43-M731T-011	
12	UVX CAMERA RESIN TTY 0468637 008 12M M741T	6-88-M740C-4921	
13	WIRE S 0468637 008 12M M741T	6-23-M731T-050	OPTION
14	LCD HINGE L SECC+SKT+ZN M730T	6-33-M731T-020	
14	LCD HINGE L TOP SHARP PANEL SECC+O7+N M730T	6-33-M73R1-020	FOR SHARP
15	WIRE S 0468637 008 12M M741T	6-23-M731T-031	OPTION
16	LCD BACK COVER MODULE M730T	6-39-M7311-022	
17	BACK COVER COSMETIC PLATE AL M730T	6-33-M7311-011	FOR M730SR
17	BACK COVER COSMETIC PLATE AL M730T	6-40-M73R1-011	FOR M731SR
18	WIRE S 0468637 008 12M M741T	6-23-M731T-021	
19	CABLE FOR INVERTER M730T	6-43-M731R-011	
20	STRKE NOTE 1111 LCD	6-45-M7451-012	
21	MYLAR FOR INVERTER 044844041 M660N	6-40-M66NS-060	
22	INVERTER MODULE 18A METAC BA-LAB-CVEM	6-76-M660R-011	
22	INVERTER MODULE 18A METAC BA-LAB-CVEM	6-76-M66R-010	
23	WIRE S 0468637 008 12M M741T	6-23-M731T-011	
24	BACK COVER PROTECT MYLAR 0885 M730T	6-40-M731T-020	

HDD

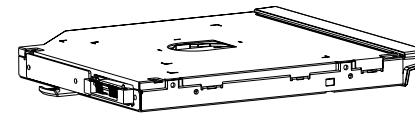
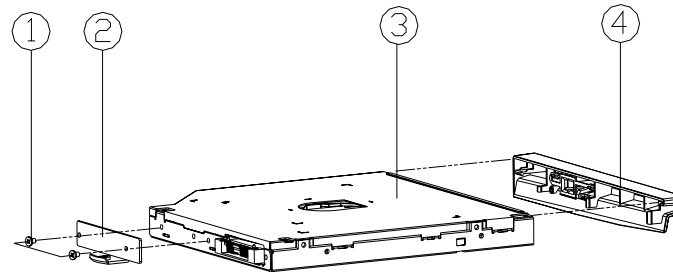


ITEM	PART NAME	PART NO	REMARK
1	SCREW M3*2.5L K1 NI ICT NY #88	6-35-B1130-2R5	
2	HDD MYLARWITH PULL TIE# (P250) (P250) (P250)	6-40-M66NJ-011	

Figure A - 5  
HDD

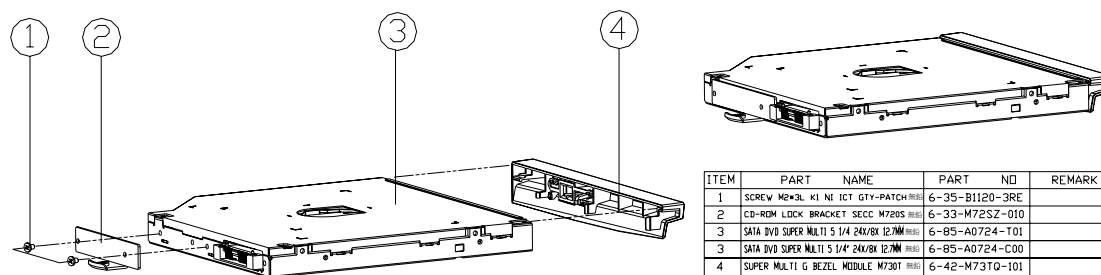
# Combo

Figure A - 6  
Combo



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2L KI NI ICT GTY-PATCH	6-35-B1120-3RE	
2	CD-ROM LOCK BRACKET SECC M720S	6-33-M72SZ-010	
3	SATA DVD COMBO 5 1/4" 24X/8X 12.7MM DR990	6-85-90724-C00	
3	SATA DVD COMBO 5 1/4" 24X/8X 12.7MM TSST T	6-85-90724-T00	
4	COMBO G BEZEL MODULE M730T	6-42-M73TX-101	

# DVD-DUAL-RW



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L KI NI ICT GTY-PATCH	6-35-B1120-3RE	
2	CD-RDM LOCK BRACKET SECC M720S	6-33-M72SZ-010	
3	SATA DVD SUPER MULTI 5 1/4' 24X/8X 12.7MM	6-85-A0724-T01	
3	SATA DVD SUPER MULTI 5 1/4' 24X/8X 12.7MM	6-85-A0724-C00	
4	SUPER MULTI G BEZEL MODULE M730T	6-42-M73TQ-101	

Figure A - 7  
DVD-DUAL-RW



# Appendix B:Schematic Diagrams

This appendix has circuit diagrams of the *M73XSR* 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>968 PCIE LAN GPIO 2/4 - Page B - 15</i>	<i>SYSTEM POWER - Page B - 28</i>
<i>Merom (Socket-P) 1/2 - Page B - 3</i>	<i>968 USB SATA 3/4 - Page B - 16</i>	<i>VCORE - Page B - 29</i>
<i>Merom (Socket-P) 2/2 - Page B - 4</i>	<i>968 PWR GND 4/4 - Page B - 17</i>	<i>VDD3, VDD5 - Page B - 30</i>
<i>SiSM672 HOST PCIE 1/5 - Page B - 5</i>	<i>CLK GEN &amp; CLK BUFFER - Page B - 18</i>	<i>1.05VS, 1.2V, 1.5V - Page B - 31</i>
<i>SiSM672 DRAM 2/5 - Page B - 6</i>	<i>SATA, 3G POWER, PCI DEBUG - Page B - 19</i>	<i>1.8V, 0.9VS - Page B - 32</i>
<i>SiSM672 MuTIOL VGA 3/5 - Page B - 7</i>	<i>MULTI I/O, ODD, CCD, BT - Page B - 20</i>	<i>AC IN, CHARGER - Page B - 33</i>
<i>SiSM672 PWR 4/5 - Page B - 8</i>	<i>NEW CARD, MINI PCIE, USB - Page B - 21</i>	<i>CLICK BOARD - Page B - 34</i>
<i>SISM672 GND 5/5 - Page B - 9</i>	<i>LED, FAN, PC BEEP, TP, FP - Page B - 22</i>	<i>MULTI I/O BOARD 1/2 - Page B - 35</i>
<i>DDRII SO-DIMM 1 - Page B - 10</i>	<i>ENE MR510, 7 IN 1 - Page B - 23</i>	<i>MULTI I/O BOARD 2/2 - Page B - 36</i>
<i>DDRII SO-DIMM 2 - Page B - 11</i>	<i>PHY REALTEK 8201CL - Page B - 24</i>	<i>FINGERPRINT BOARD - Page B - 37</i>
<i>SiS307ELV - Page B - 12</i>	<i>AUDIO CODEC ALC883 - Page B - 25</i>	<i>AUDIO BOARD - Page B - 38</i>
<i>PANEL, INVERTER, CRT - Page B - 13</i>	<i>AUDIO AMP - Page B - 26</i>	<i>ODD BRIDGE BOARD - Page B - 39</i>
<i>968 PCI IDE MuTIOL SPI 1/4 - Page B - 14</i>	<i>KBC-ITE IT8512E - Page B - 27</i>	

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

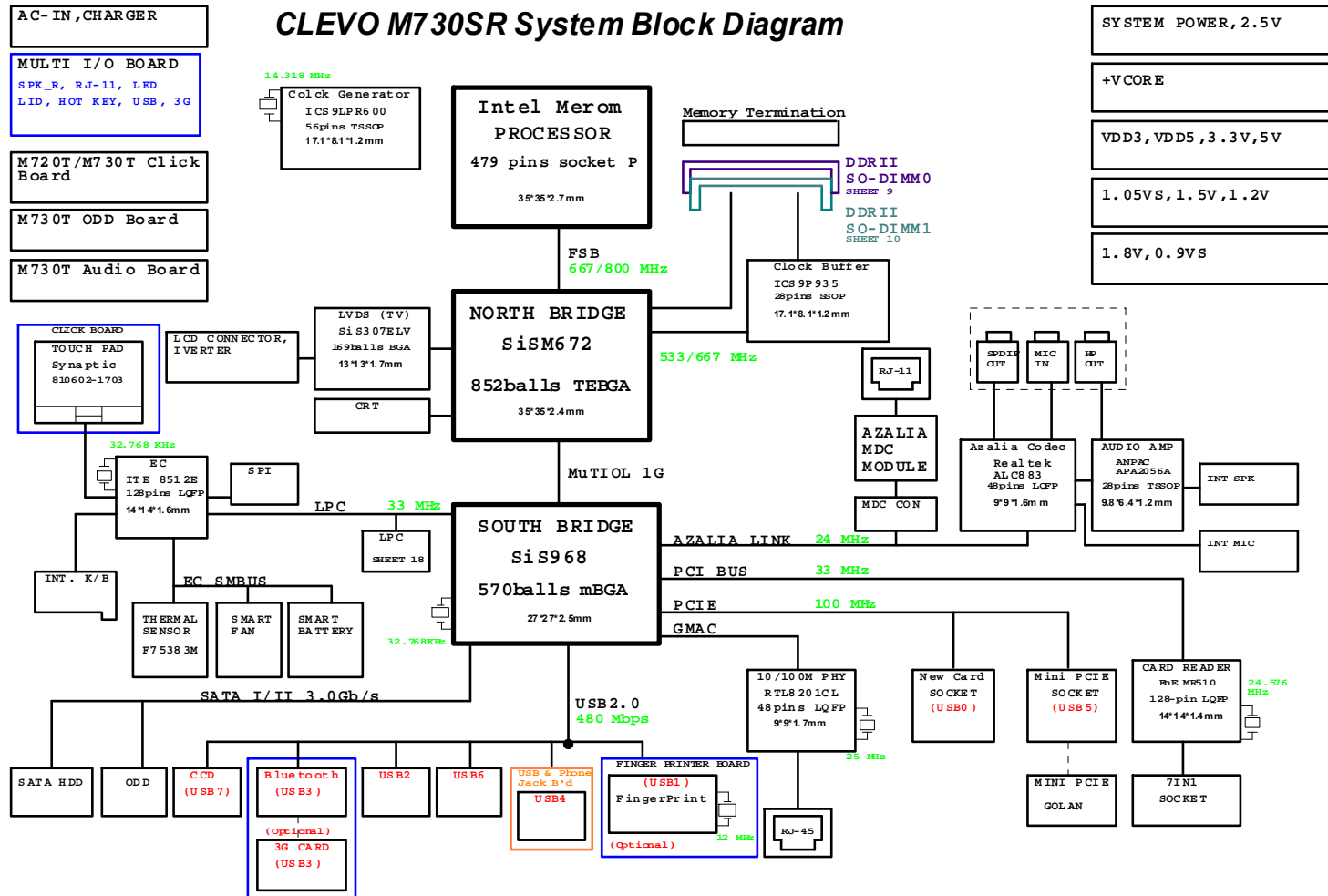


### Version Note

The schematic diagrams in this chapter are based upon version 6-7P-M73R6-003. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

# SYSTEM BLOCK DIAGRAM

Sheet 1 of 38  
SYSTEM BLOCK  
DIAGRAM

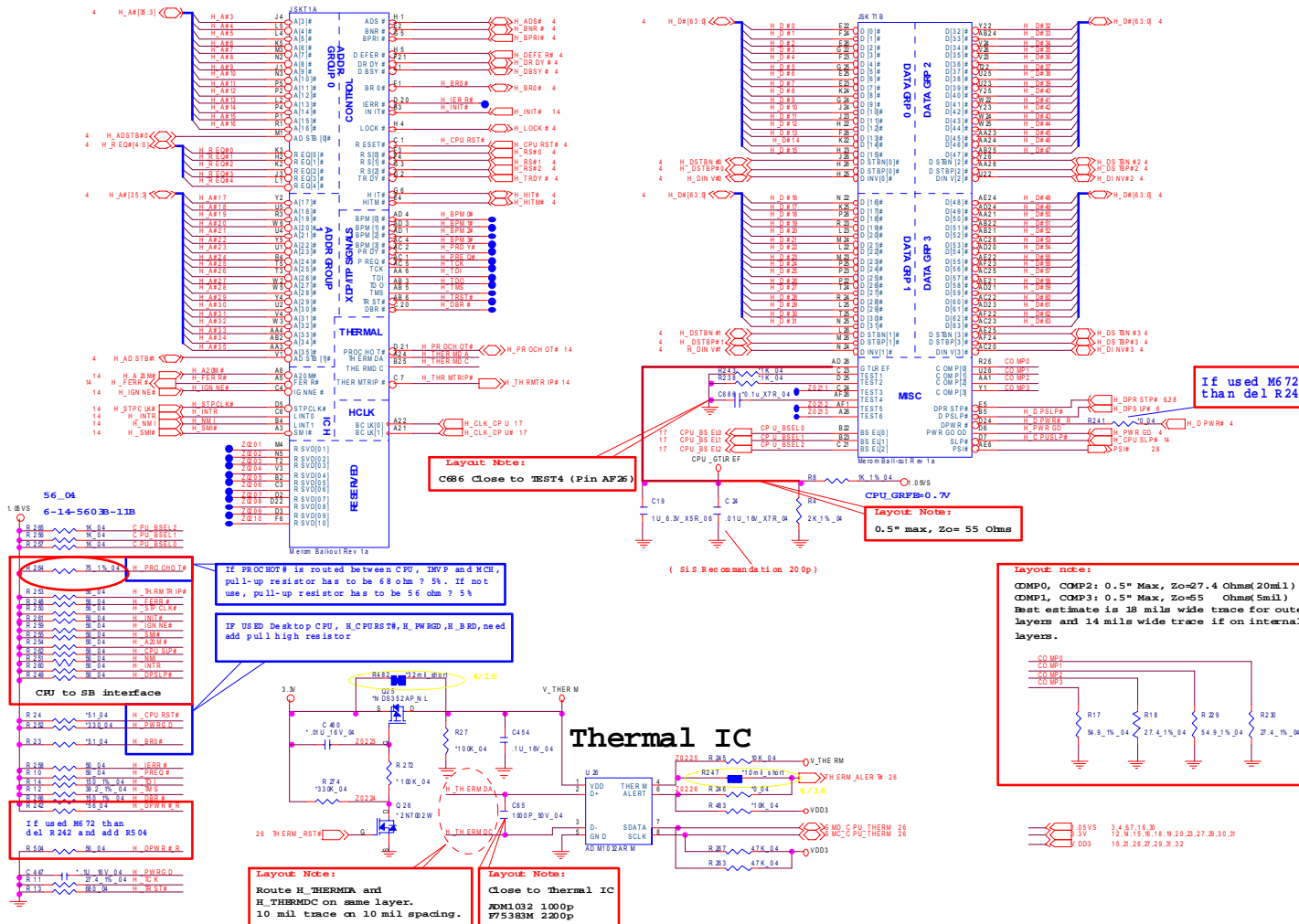




# Meron (Socket-P) 1/2

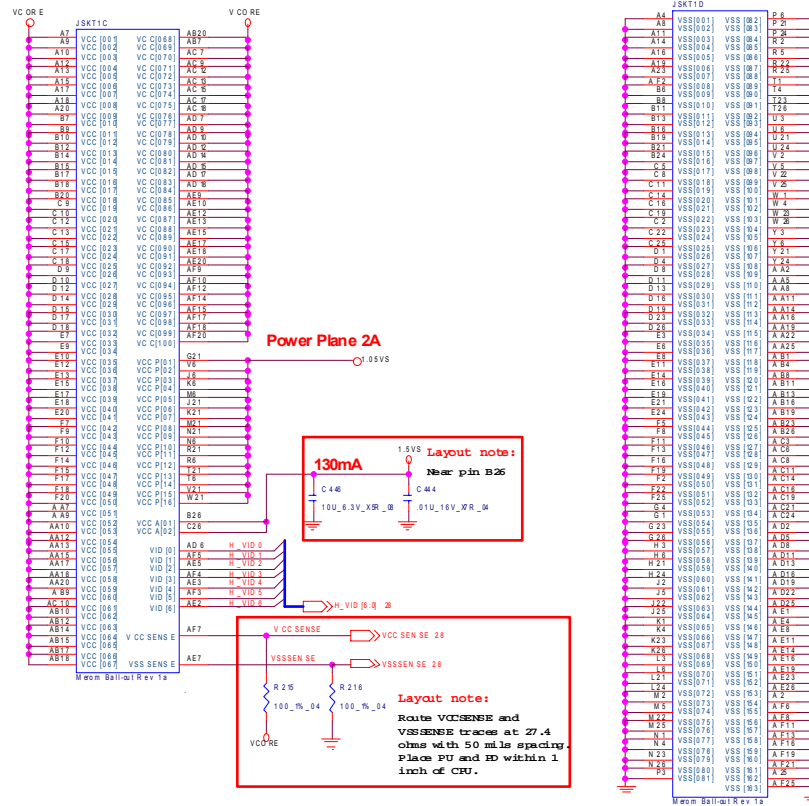
Sheet 2 of 38  
Meron (Socket-P)  
1/2

B.Schematic Diagrams

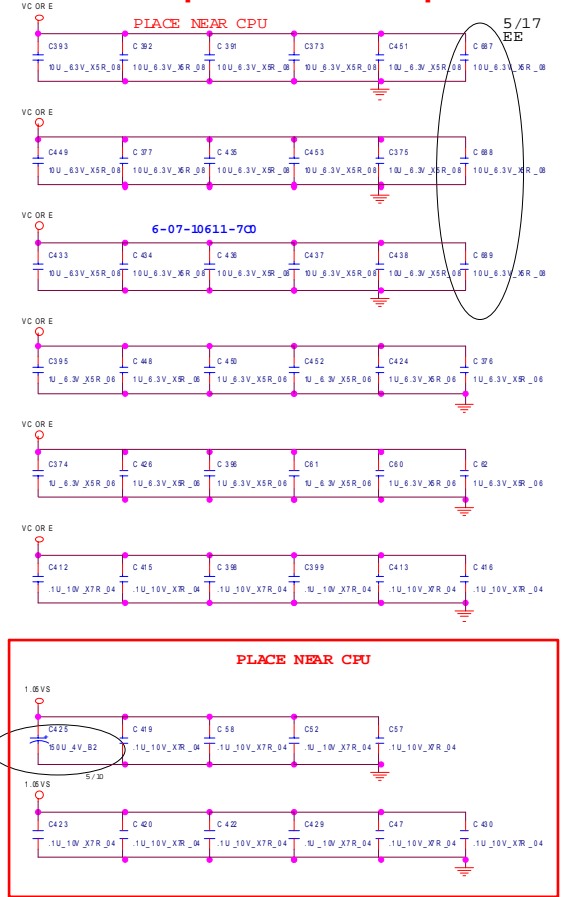


# Meron (Socket-P) 2/2

Sheet 3 of 38  
Meron (Socket-P)  
2/2

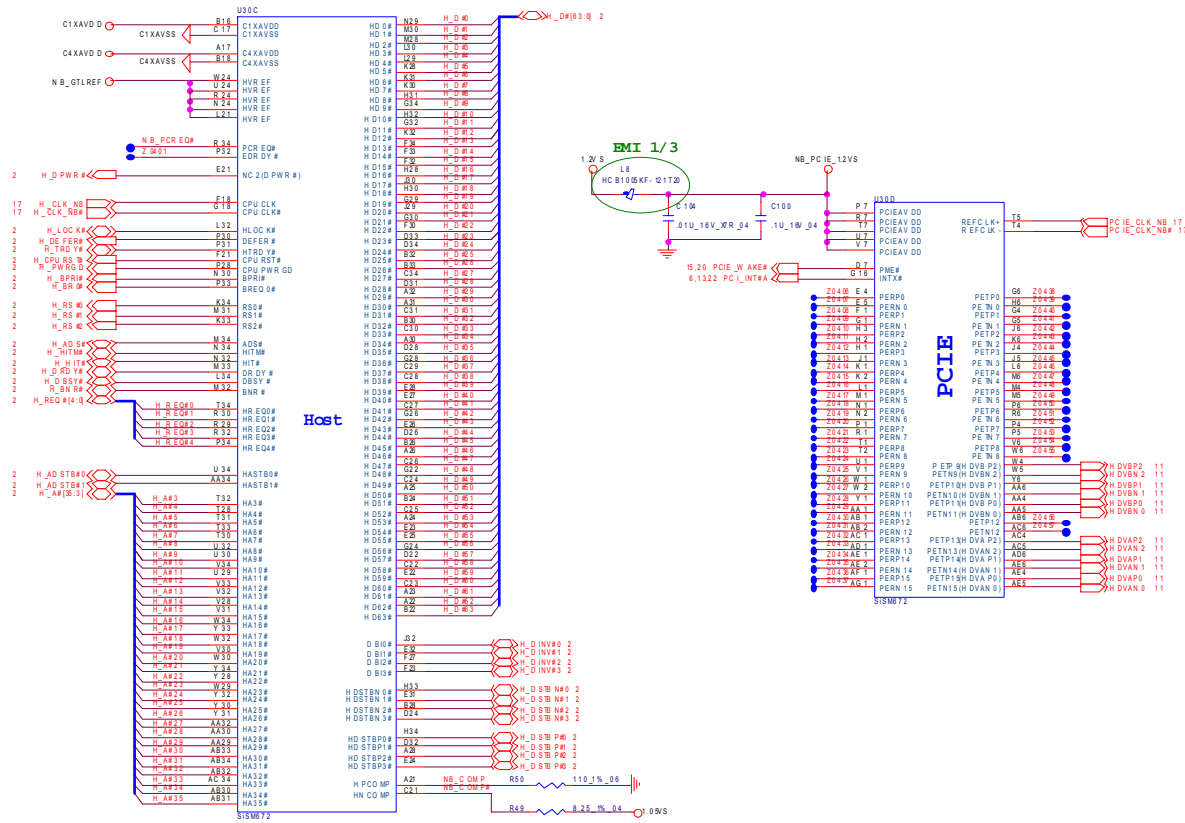
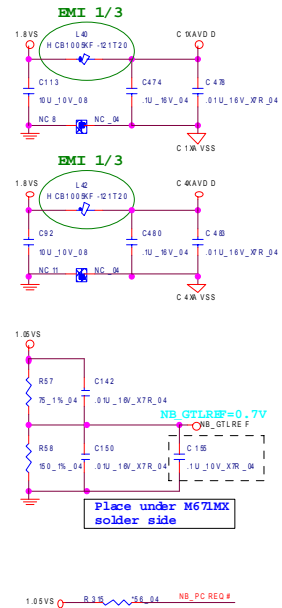


Check cap for santa rosa platform



1.0VGS 2.4 & 716.30  
1.0VGS 6.2027  
VCCORE 28

# SiSM672 HOST PCIE 1/5

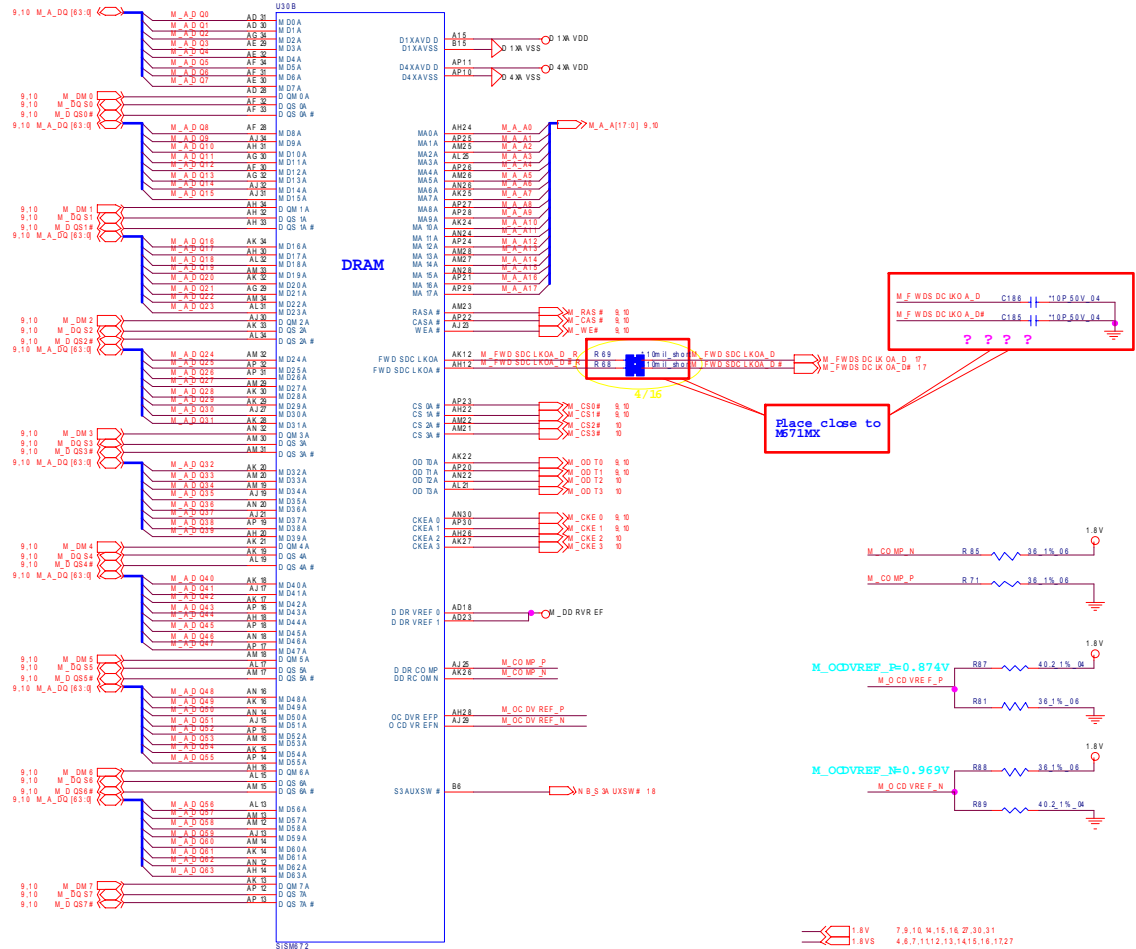
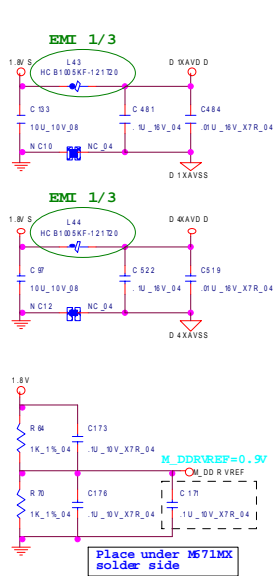


Sheet 4 of 38  
SiSM672 HOST  
PCIE 1/5

# Schematic Diagrams

## SiSM672 DRAM 2/5

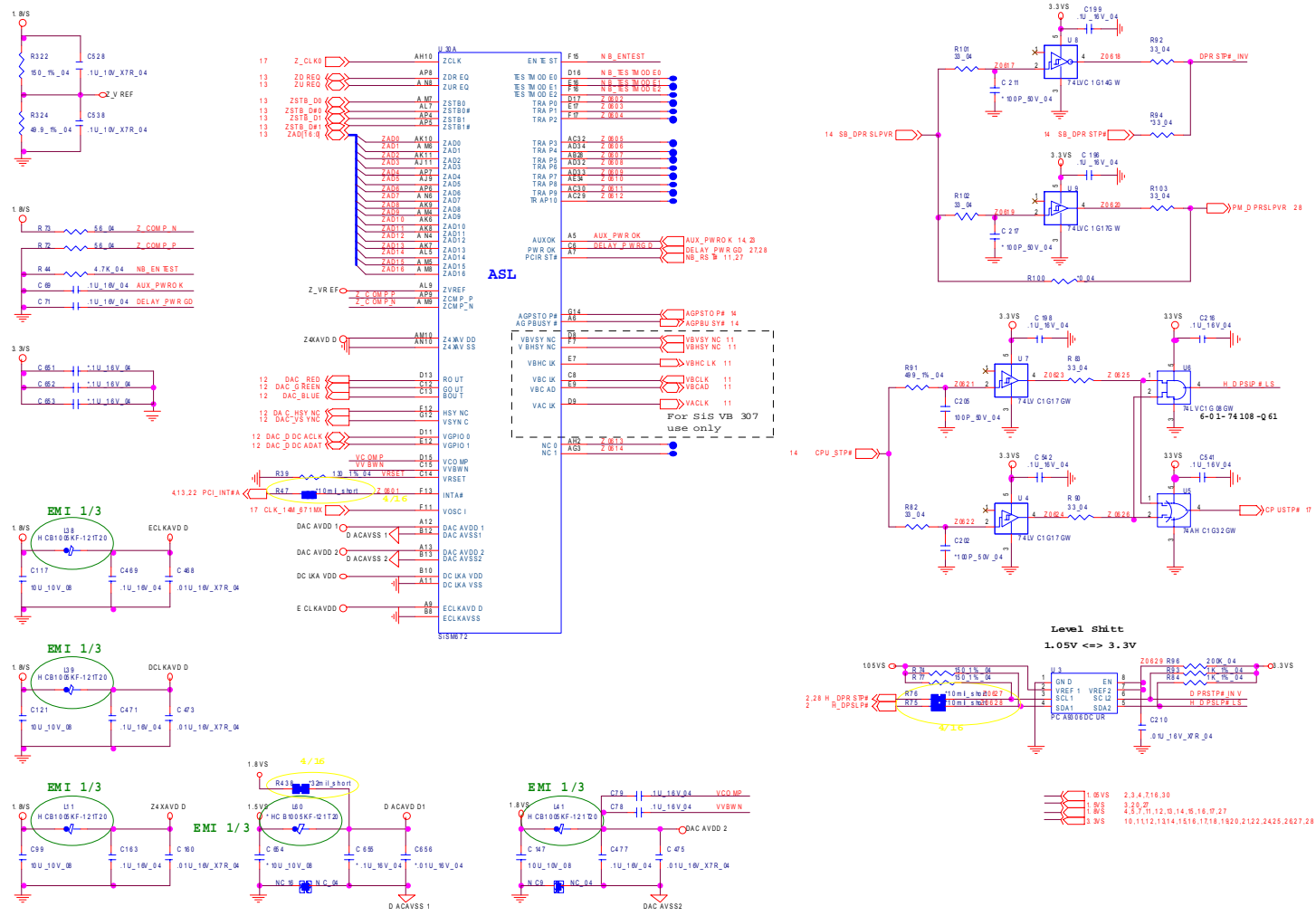
Sheet 5 of 38  
SiSM672 DRAM 2/5



# SiSM672 MuTIOL VGA 3/5

B. Schematic Diagrams

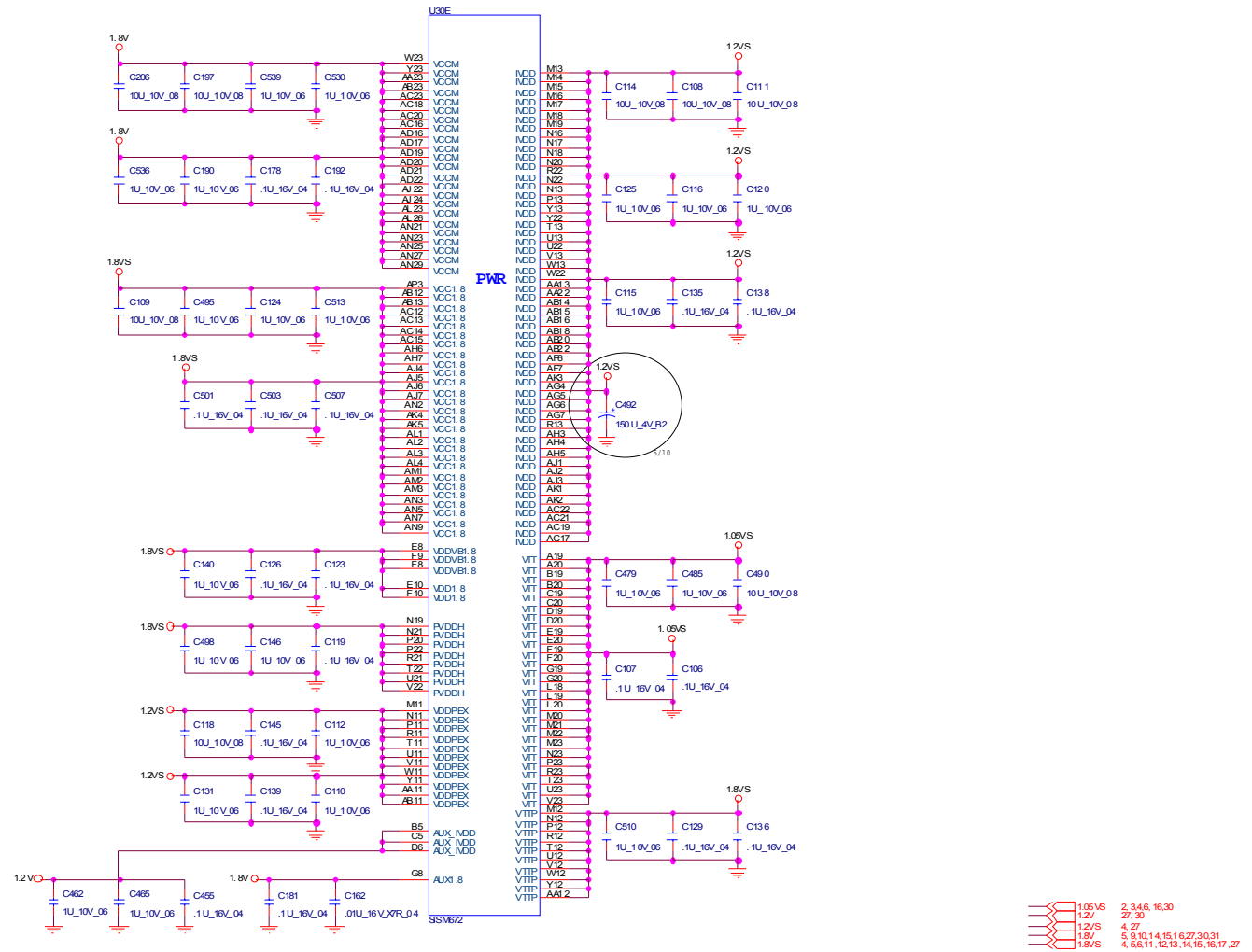
Sheet 6 of 38  
SiSM672 MuTIOL  
VGA 3/5



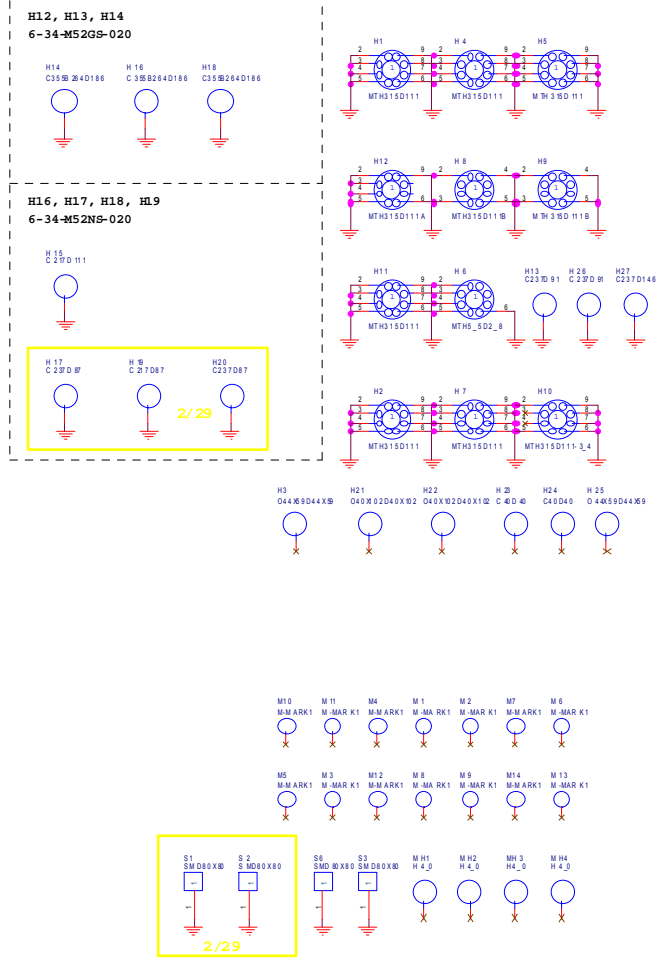
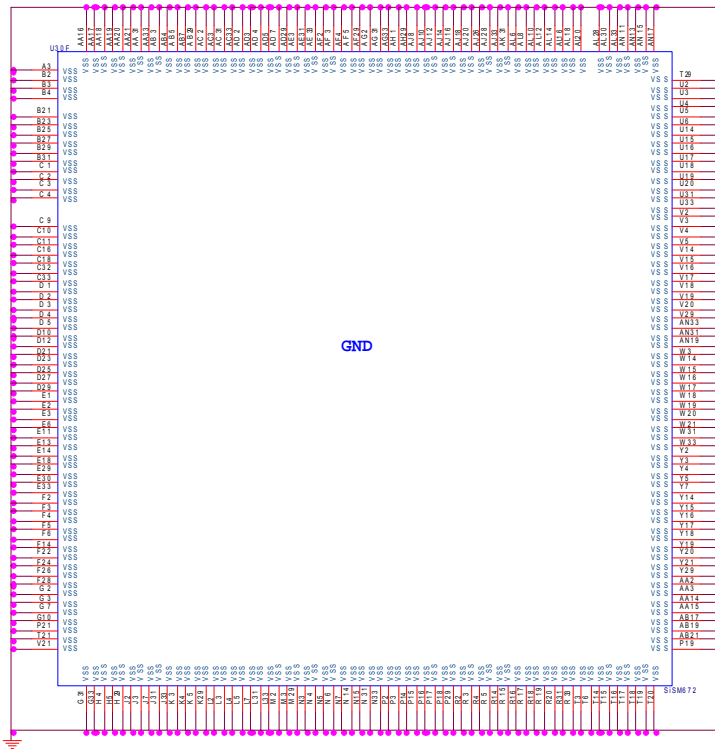
# Schematic Diagrams

## SiSM672 PWR 4/5

Sheet 7 of 38  
SiSM672 PWR 4/5



# SISM672 GND 5/5



Sheet 8 of 38  
SISM672 GND 5/5

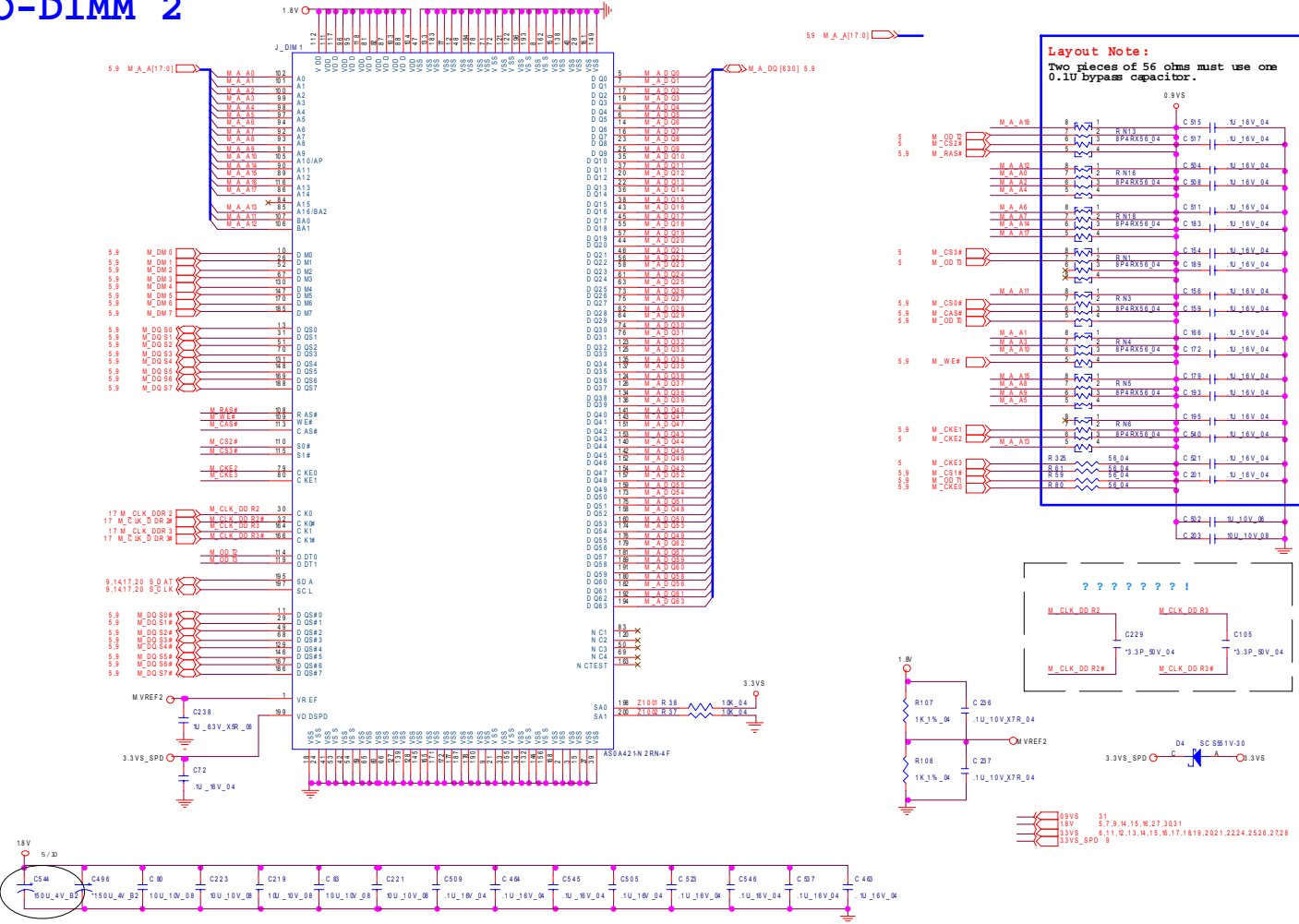
B.Schematic Diagrams





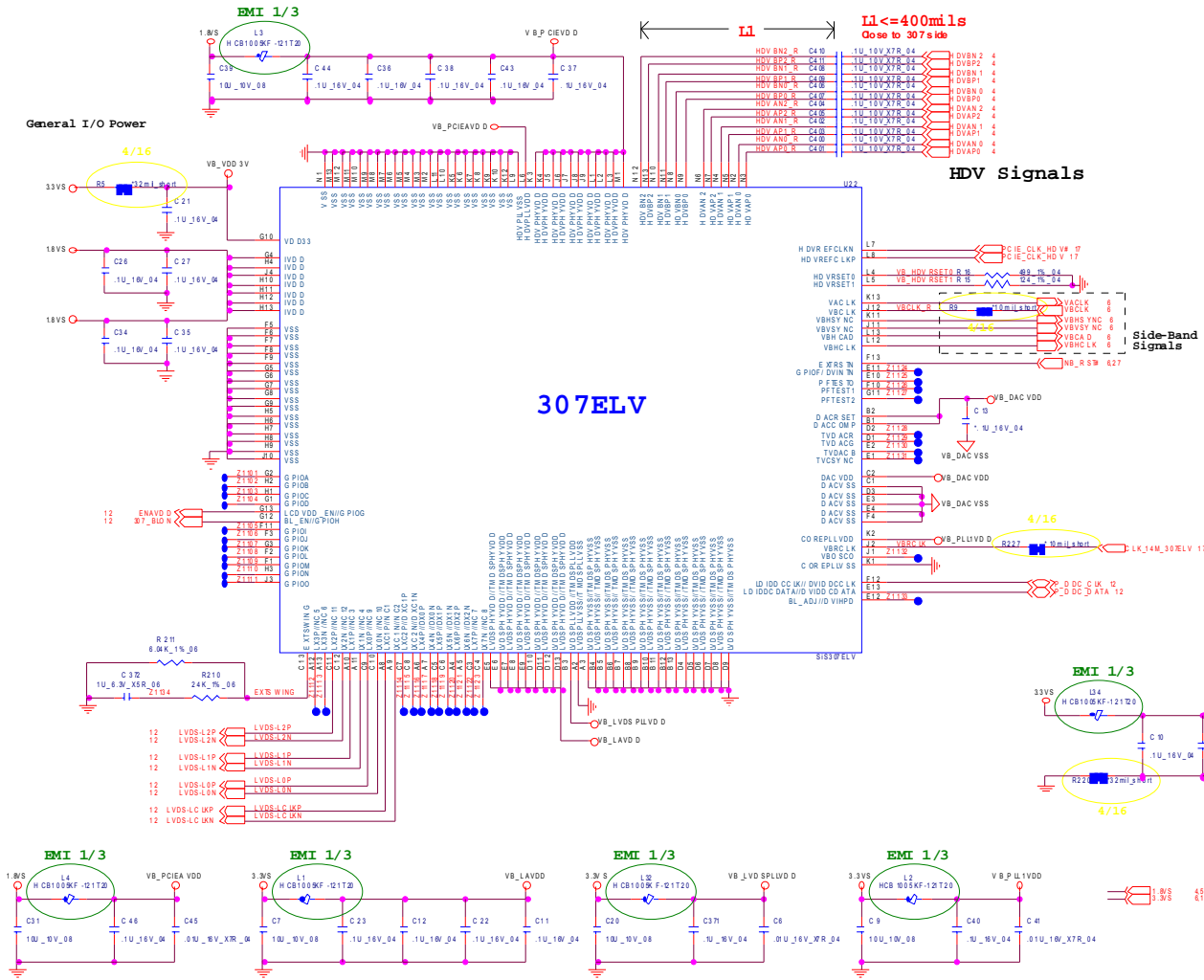
# DDR2 SO-DIMM 2

## SO-DIMM 2



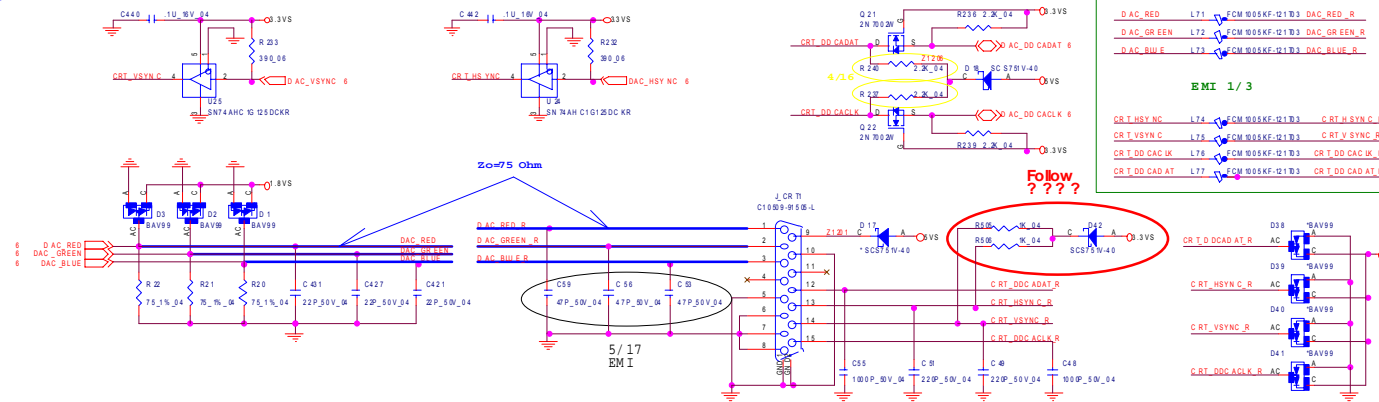
# SiS307ELV

Sheet 11 of 38  
SiS307ELV



# PANEL, INVERTER, CRT

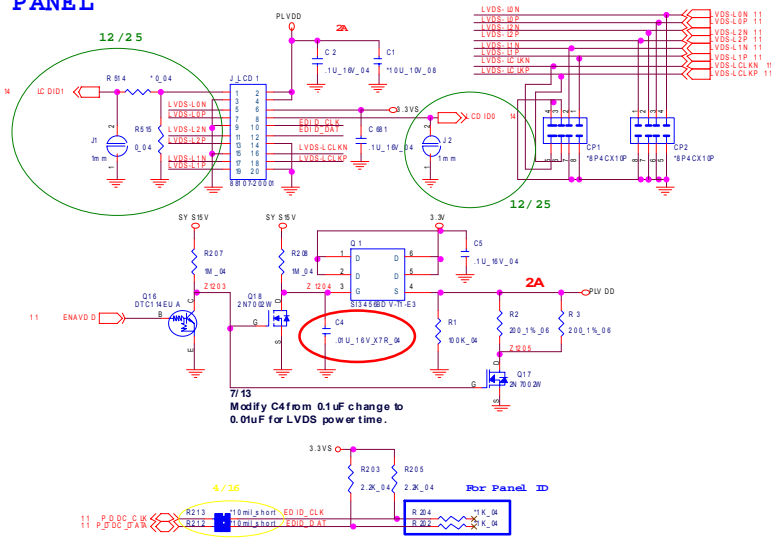
## CRT



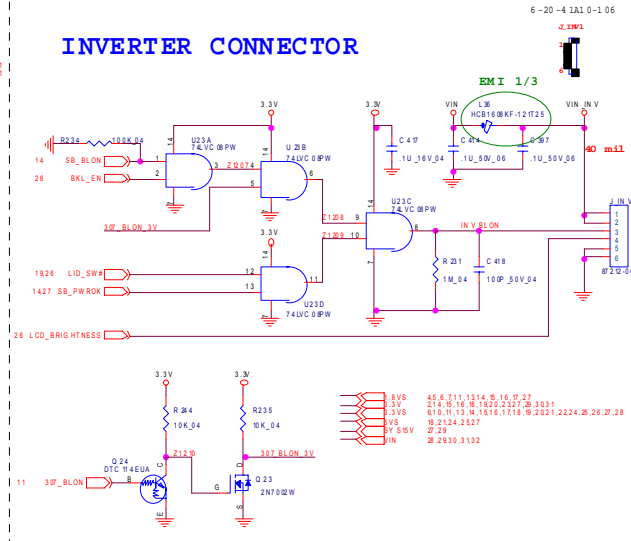
Sheet 12 of 38  
 PANEL, INVERTER,  
 CRT

B. Schematic Diagrams

## PANEL



## INVERTER CONNECTOR

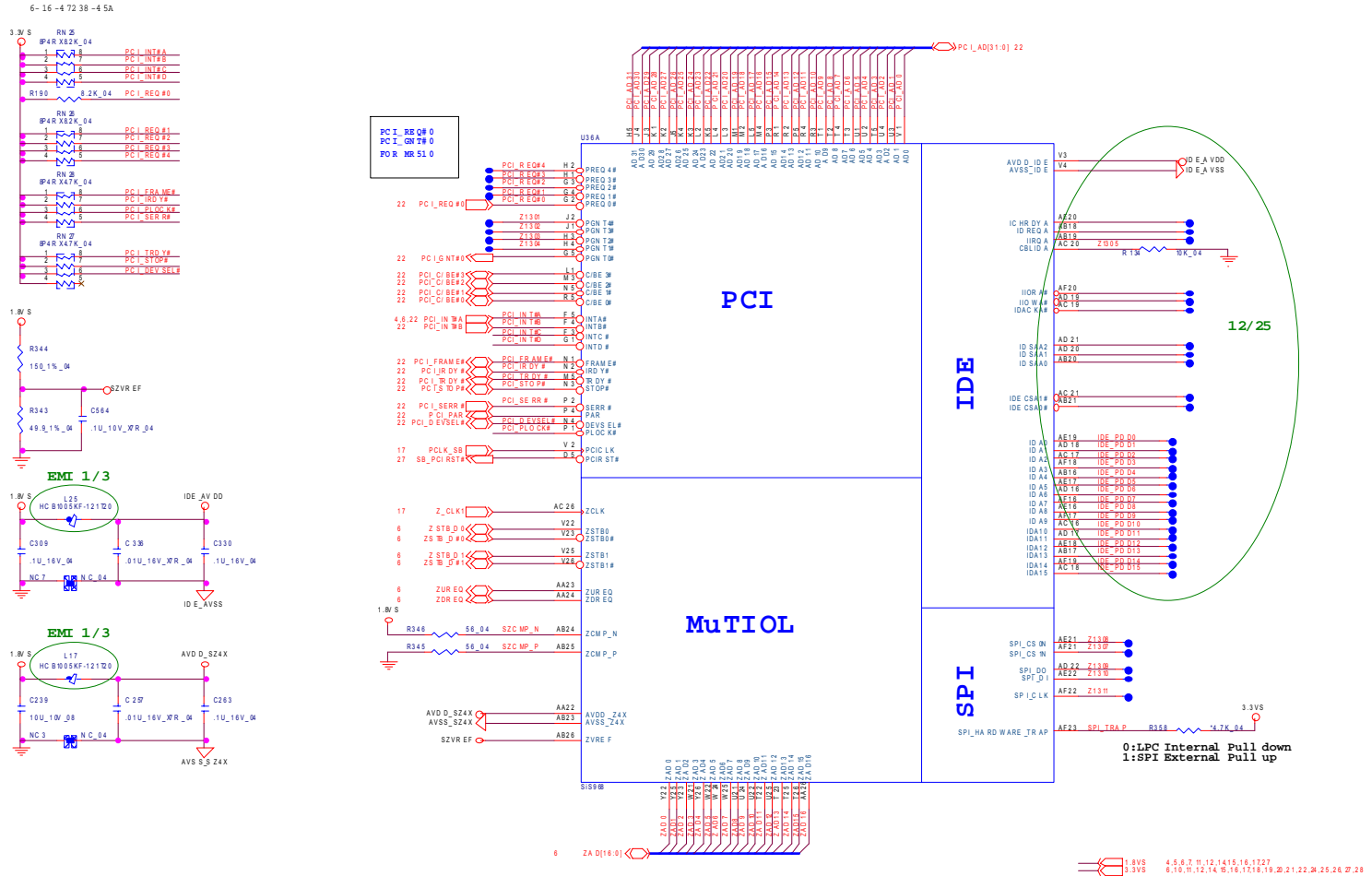


# Schematic Diagrams

## 968 PCI IDE MuTIOL SPI 1/4

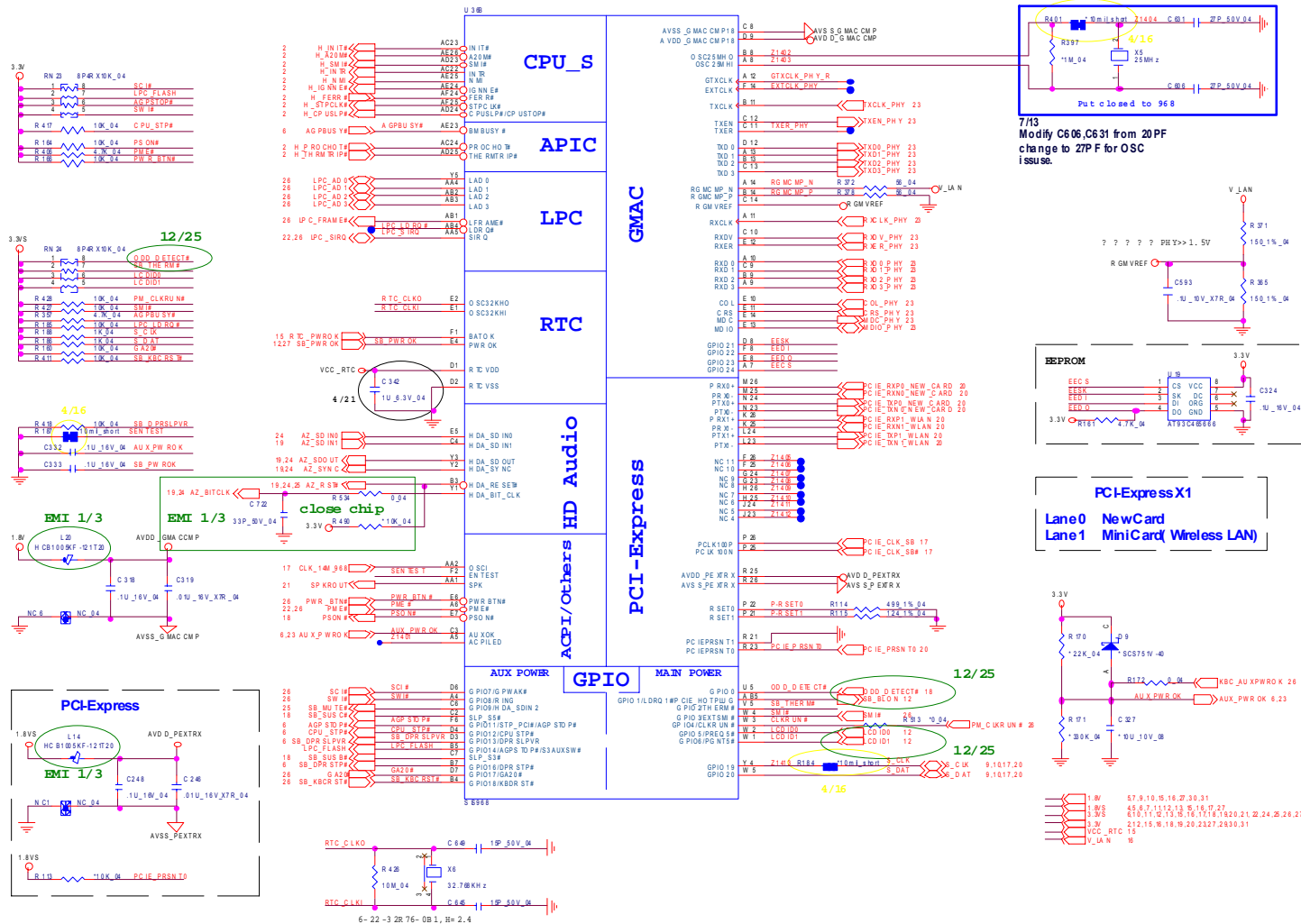
B.Schematic Diagrams

Sheet 13 of 38  
968 PCI IDE  
MuTIOL SPI 1/4



# 968 PCIE LAN GPIO 2/4

B. Schematic Diagrams



Sheet 14 of 38  
968 PCIE LAN GPIO  
2/4

Pin	Signal
1/0V	57.9, 10, 16, 27, 30, 31
1/0V	45, 67, 110, 12, 13, 16, 17, 27
1/0V	610, 11, 12, 13, 16, 17, 18, 21, 22, 24, 25, 26, 27, 28
VCC_RTC 1V	212, 15, 16, 18, 19, 20, 23, 27, 28, 31
V_LAN 1V	

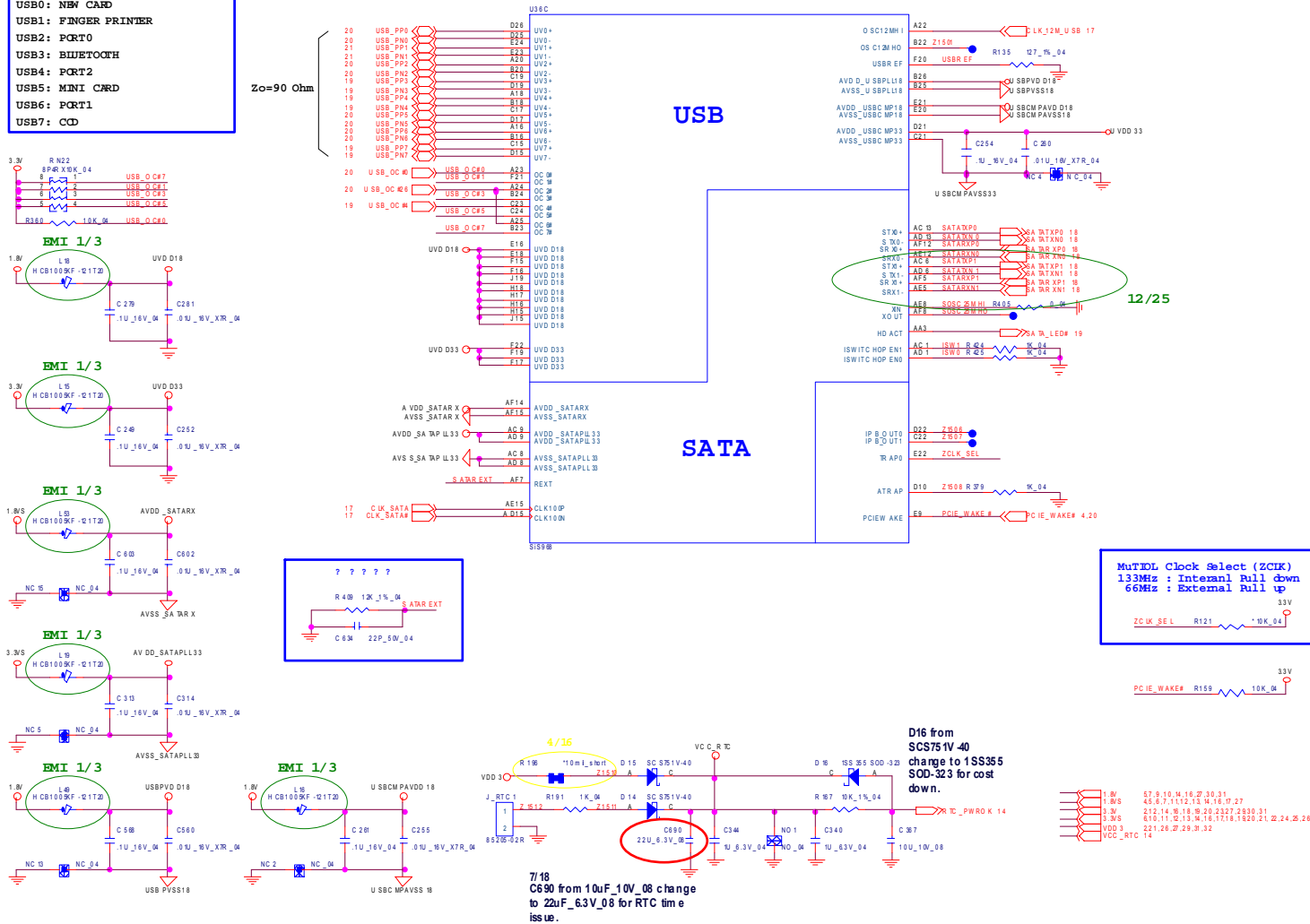
# Schematic Diagrams

## 968 USB SATA 3/4

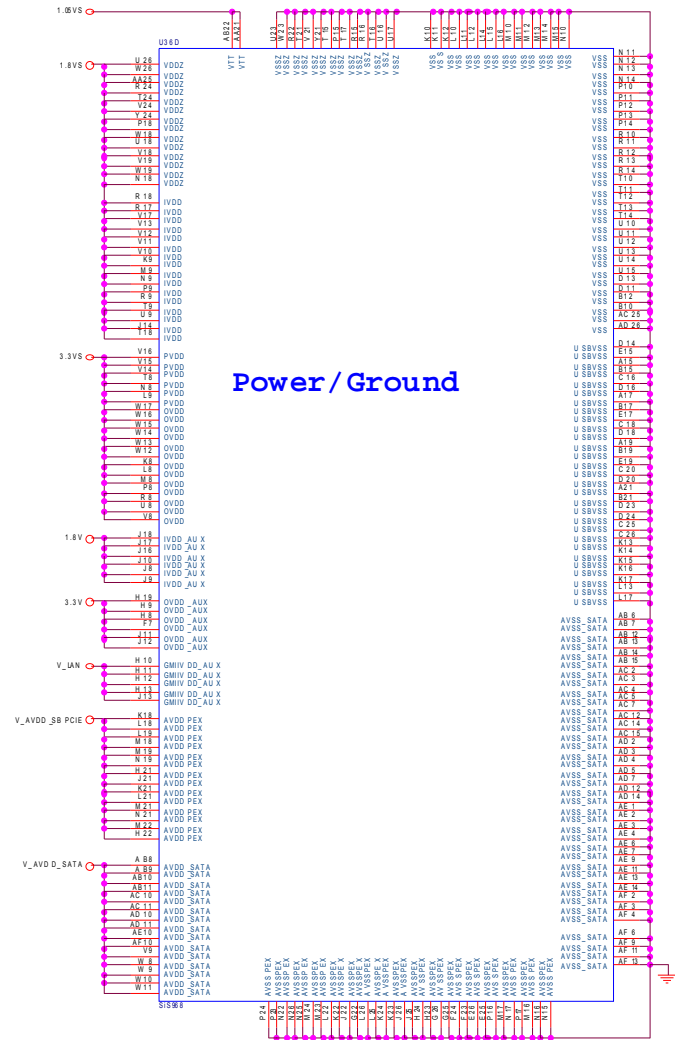
Sheet 15 of 38  
968 USB SATA 3/4

- USB0: NEW CARD
- USB1: FINGER PRINTER
- USB2: PORT0
- USB3: BLUETOOTH
- USB4: PORT2
- USB5: MINI CARD
- USB6: PORT1
- USB7: CD

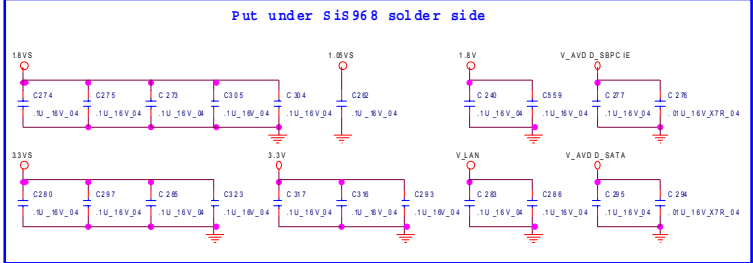
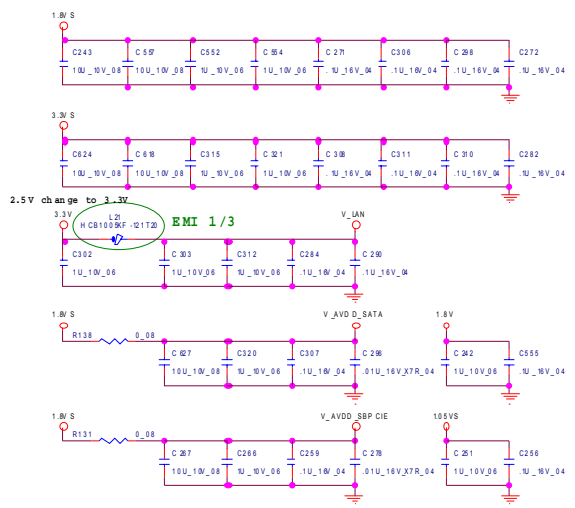
Zo=90 Ohm



# 968 PWR GND 4/4



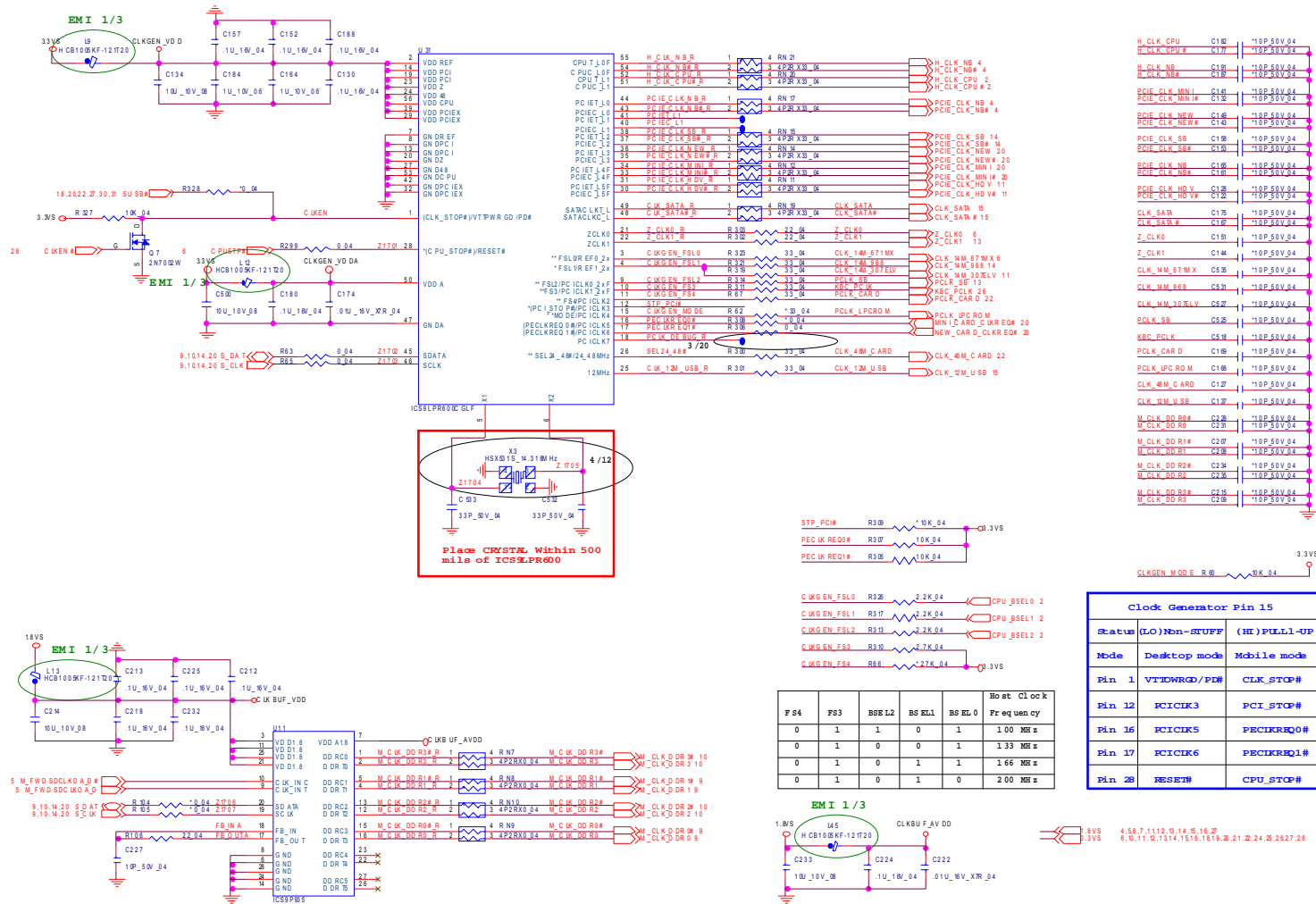
Power / Ground



Sheet 16 of 38  
968 PWR GND 4/4

# CLK GEN & CLK BUFFER

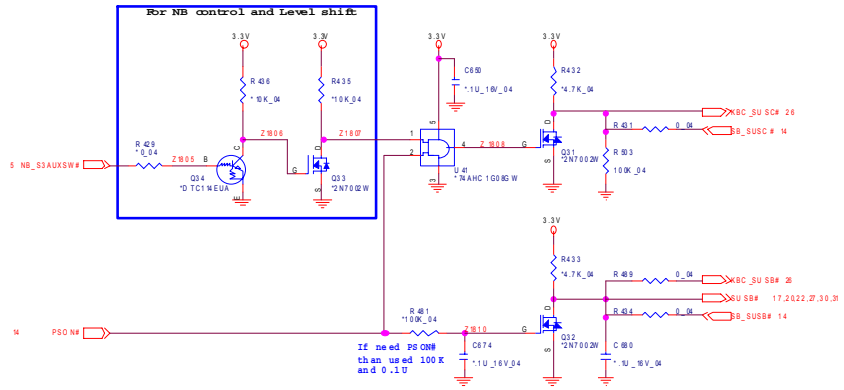
Sheet 17 of 38  
CLK GEN & CLK BUFFER





# SATA, 3G POWER, PCI DEBUG

## POWER MANAGEMENT



## 3G POWER CONNECTOR

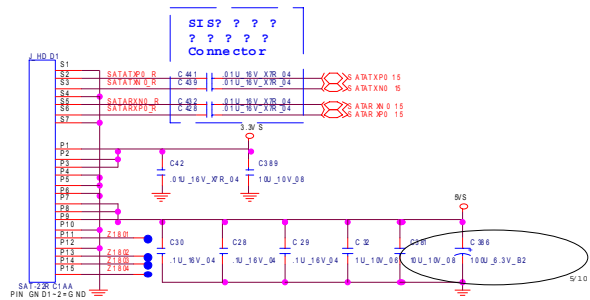
LPC BIOS CONN

Sheet 18 of 38  
SATA, 3G POWER,  
PCI DEBUG

SIGNAL	S0/S1	S3	S4/S5
S3AUXSW#	1	0	1
PSON#	0	1	1

3V: 210, N:15, M:1820, 2327, 26, 3031  
3.3V: 610, M:12, D:14, 15, 1617, 19, 2021, 2224, 26, 28, 29  
5V: W:2, 124, 2527

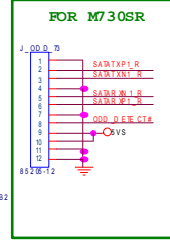
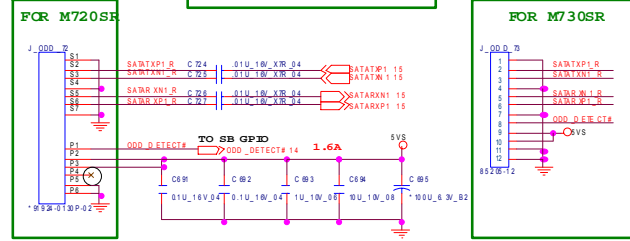
## SATA HDD



## SATA ODD

1.2/2.5

Layout Note  
SATA SIGNAL FROM SB TO JODDB  
END OF JODDB



# Schematic Diagrams

## MULTI I/O, ODD, CCD, BT

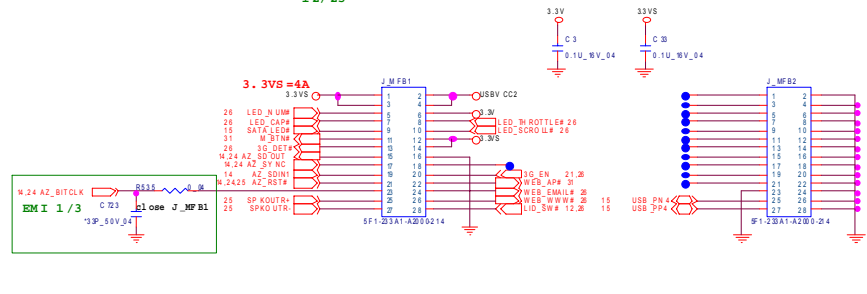
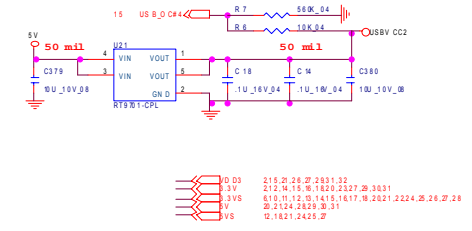
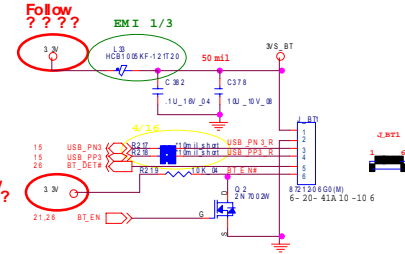
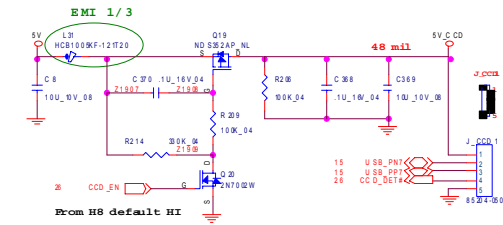
Sheet 19 of 38  
MULTI I/O, ODD,  
CCD, BT

ODD  
12 / 25

CCD

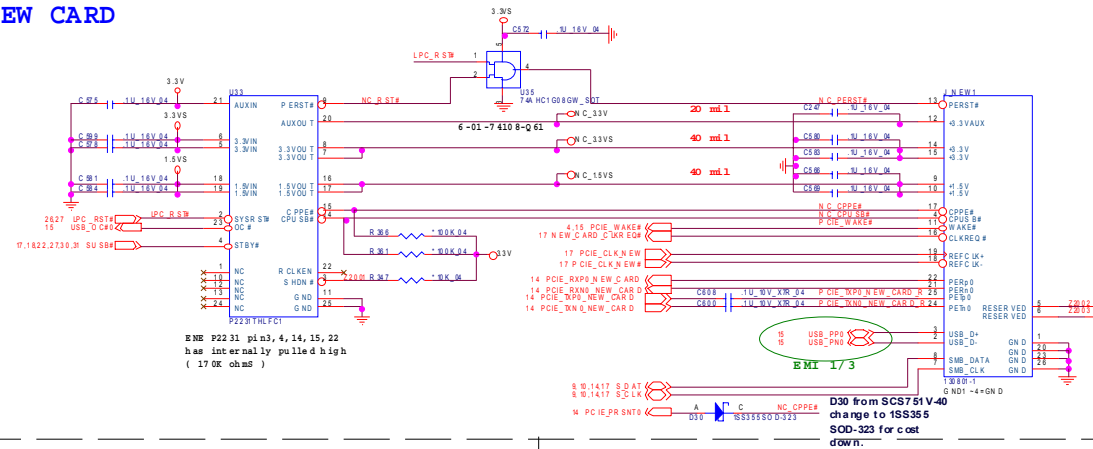
Bluetooth

MULTI I/O CONN  
12 / 25

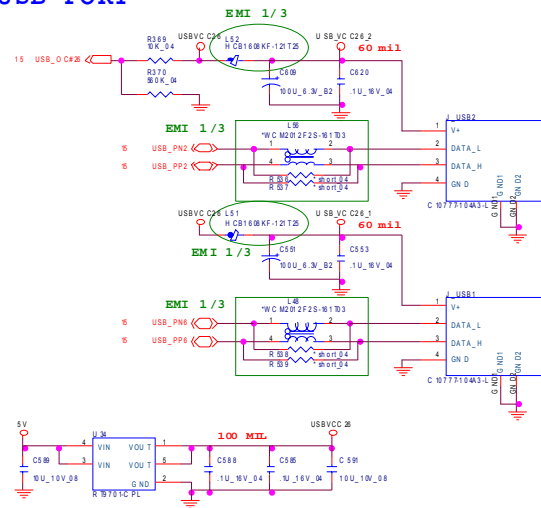


# NEW CARD, MINI PCIE, USB

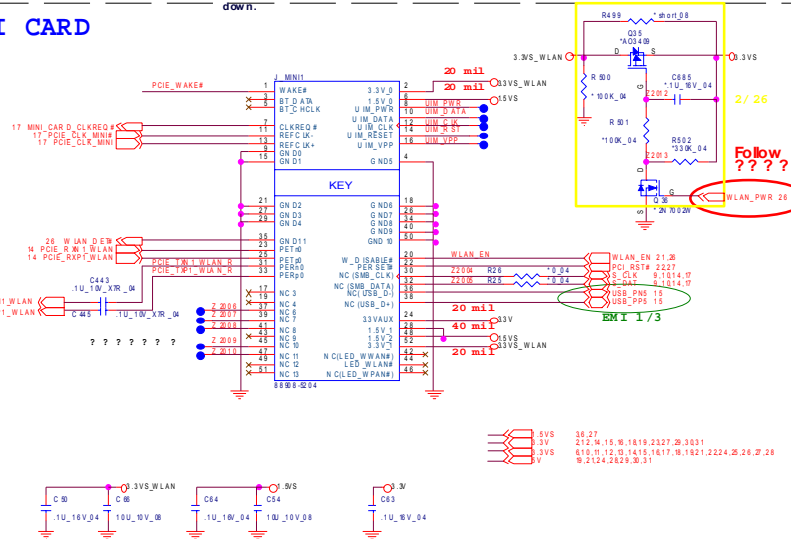
## NEW CARD



## USB PORT



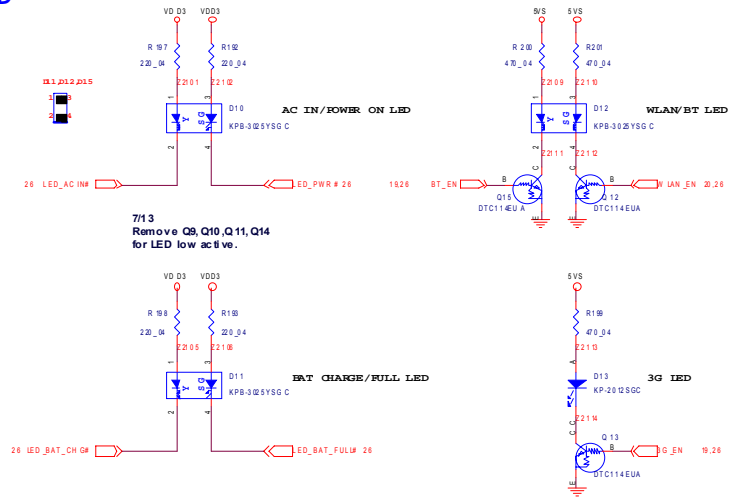
## MINI CARD



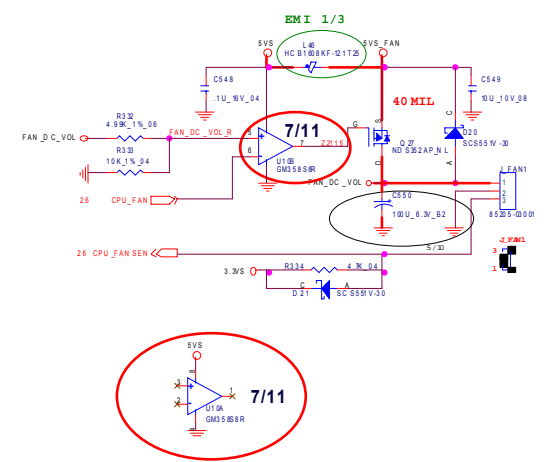
Sheet 20 of 38  
NEW CARD, MINI PCIE, USB

# LED, FAN, PC BEEP, TP, FP

## LED

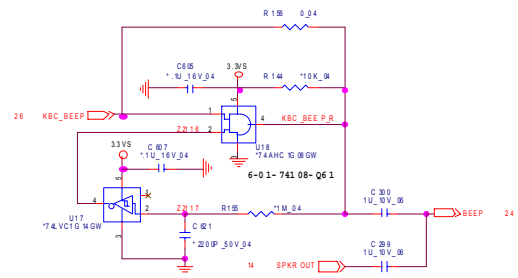


## FAN CONTROL

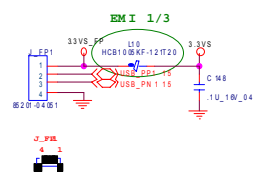


Sheet 21 of 38  
LED, FAN, PC  
BEEP, TP, FP

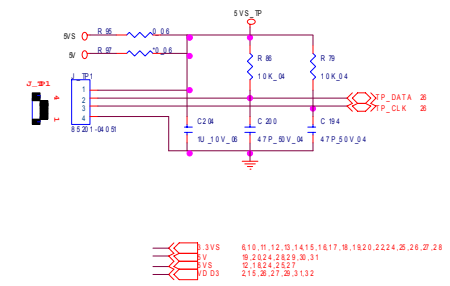
## PC BEEP



## FP CONN



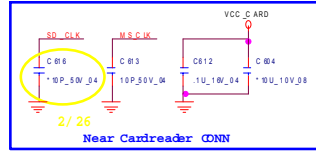
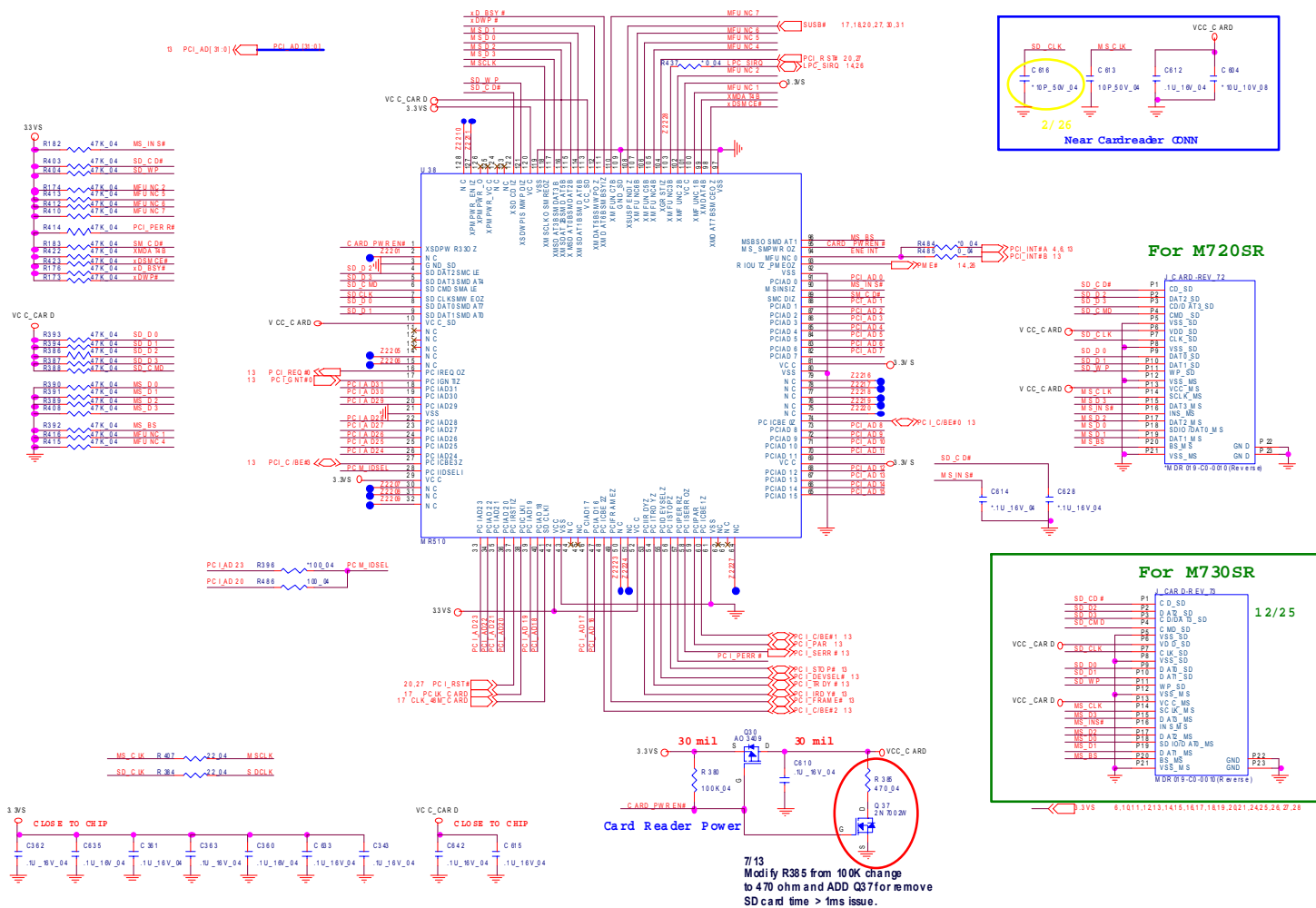
## CLICK CONN



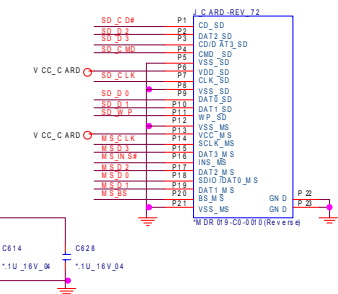
B.Schematic Diagrams

# ENE MR510, 7 IN 1

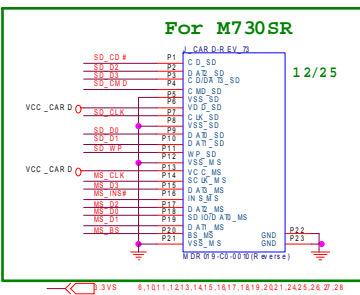
Sheet 22 of 38  
ENE MR510, 7 IN 1



For M720SR



For M730SR



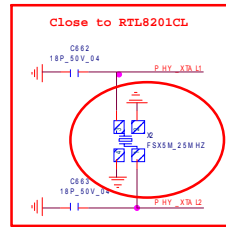
7/13  
Modify R385 from 100K change to 470 ohm and ADD Q37 for remove SD card time > 1ms issue.

# Schematic Diagrams

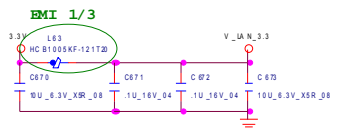
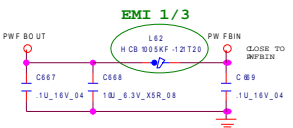
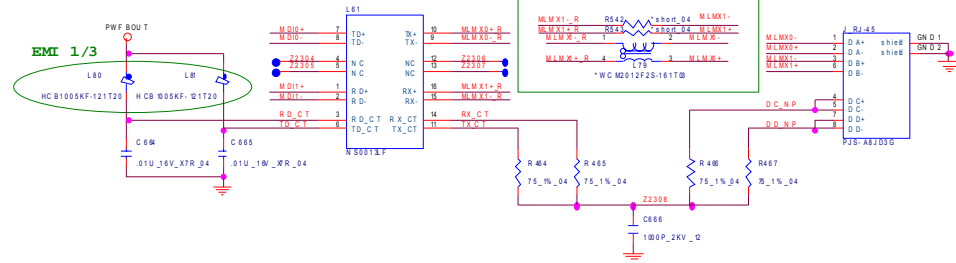
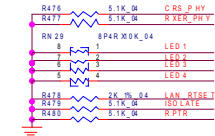
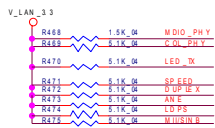
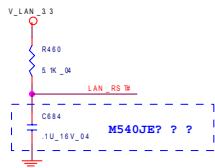
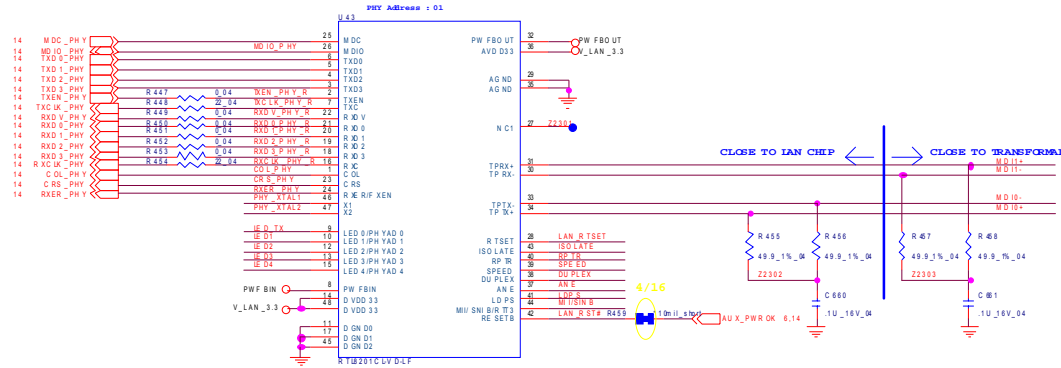
## PHY REALTEK 8201CL

B.Schematic Diagrams

Sheet 23 of 38  
PHY REALTEK  
8201CL

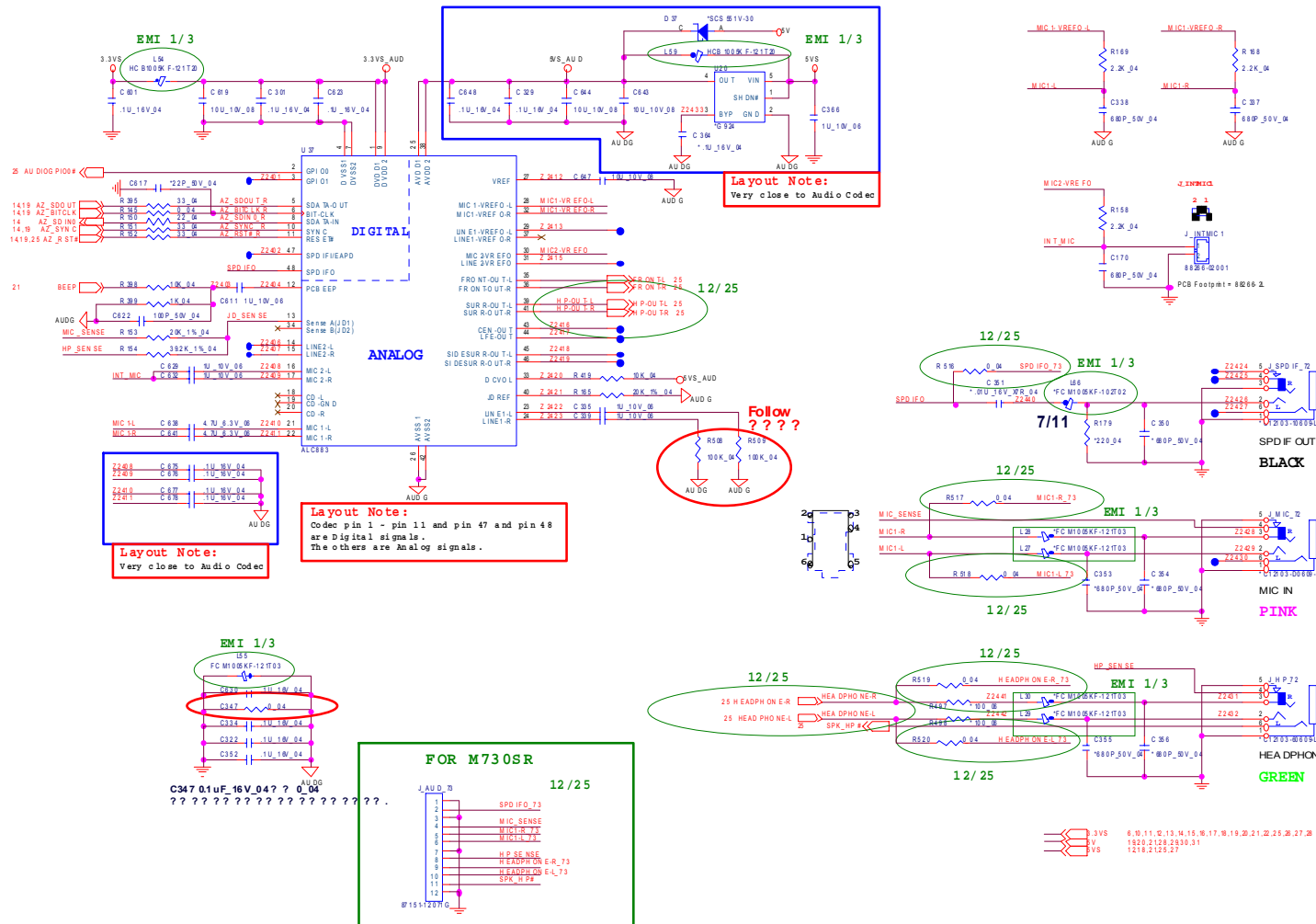


7/13  
Modify C662,C663 from 22P F  
change to 18PF for OSC  
issue.



3.3V 2,12,14,15,16,18,20,27,29,30,31

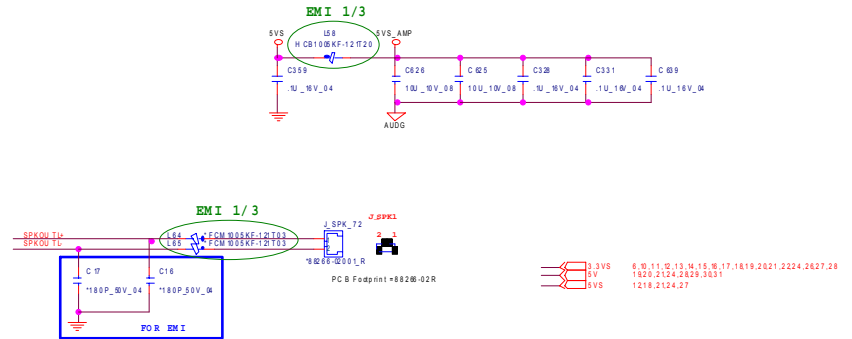
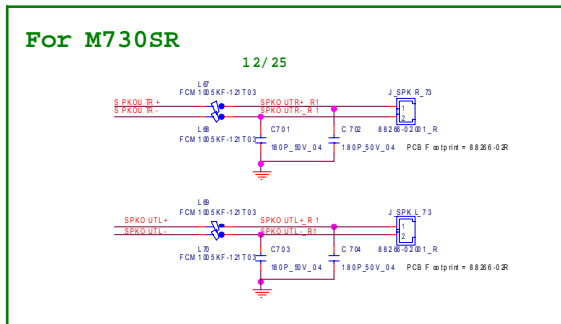
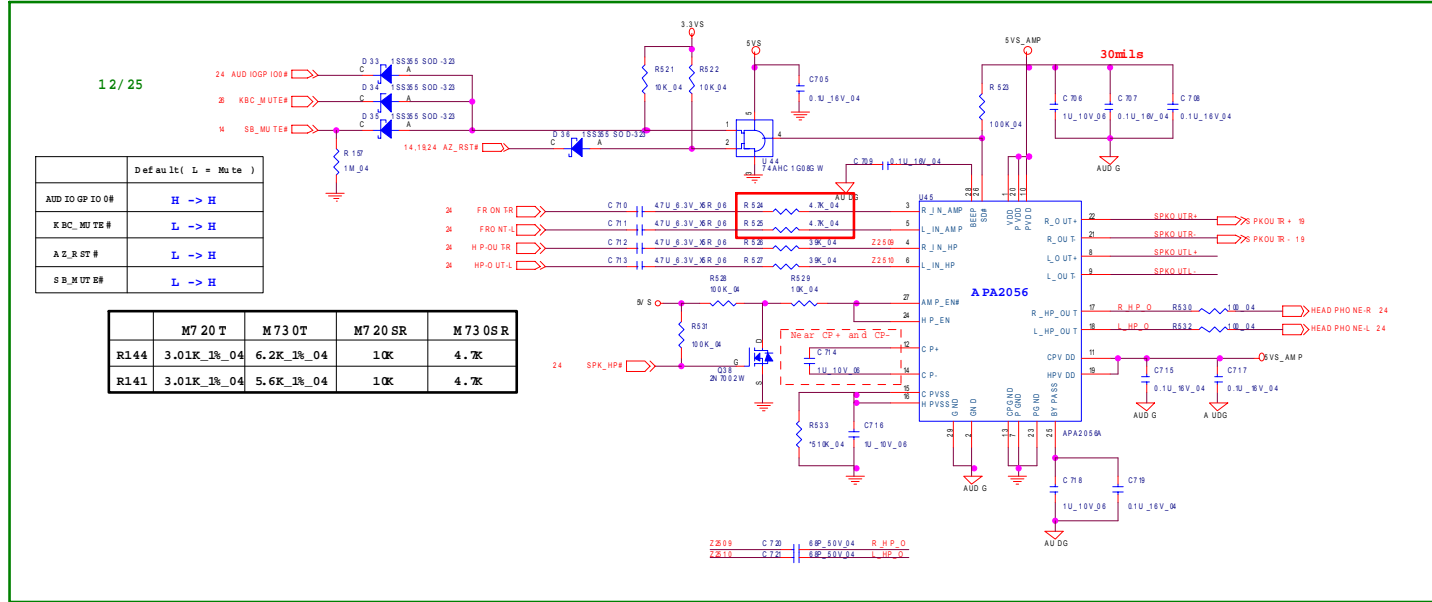
# AUDIO CODEC ALC883



Sheet 24 of 38  
AUDIO CODEC  
ALC883

# AUDIO AMP

Sheet 25 of 38  
AUDIO AMP





# KBC-ITE IT8512E

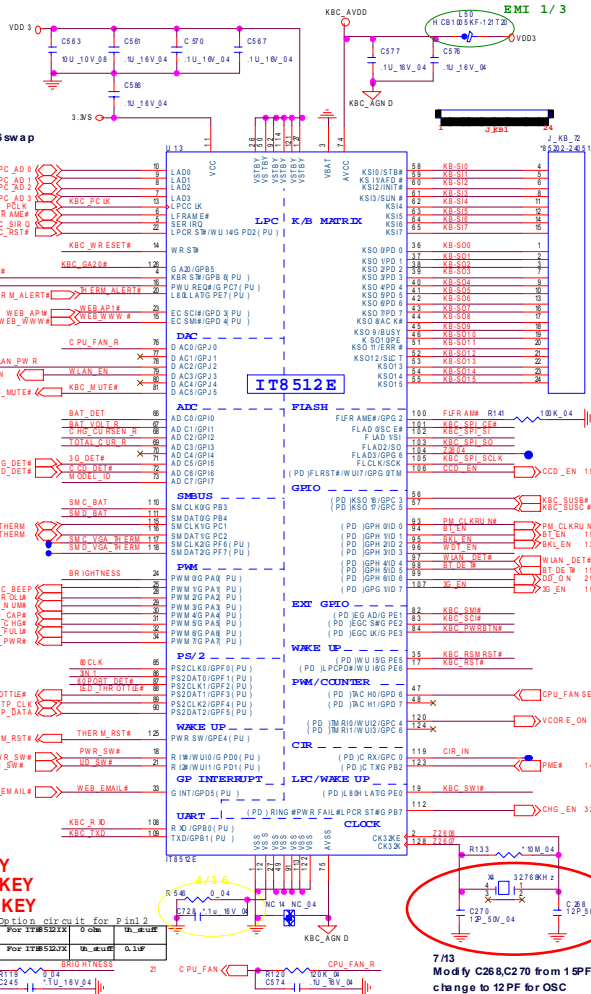
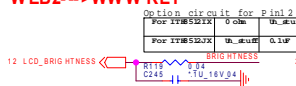
EC pin swap follow  
???

7/13  
IT8512E pin4 and pin6 swap  
for LED driver circuit

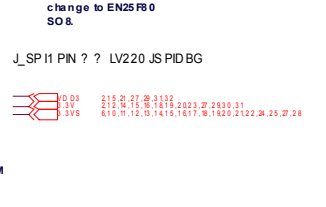
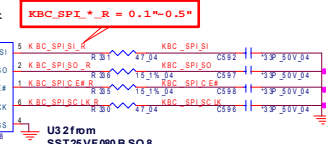
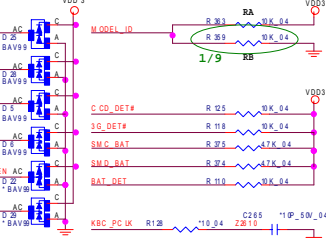
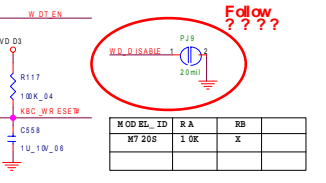
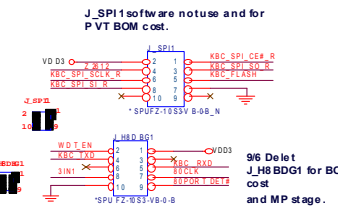
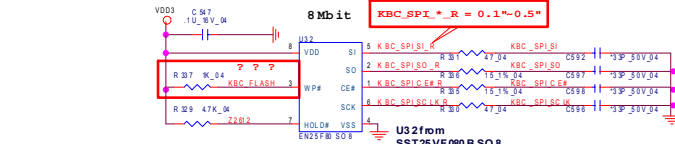
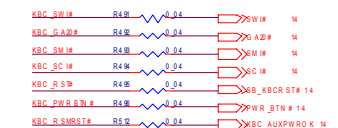
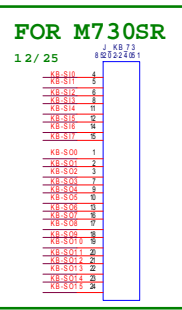
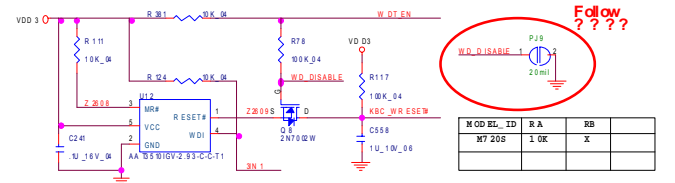
Follow  
???

LOW ACTIVE

WEB0-->AP KEY  
WEB1-->EMALKKEY  
WEB2-->WWW KEY



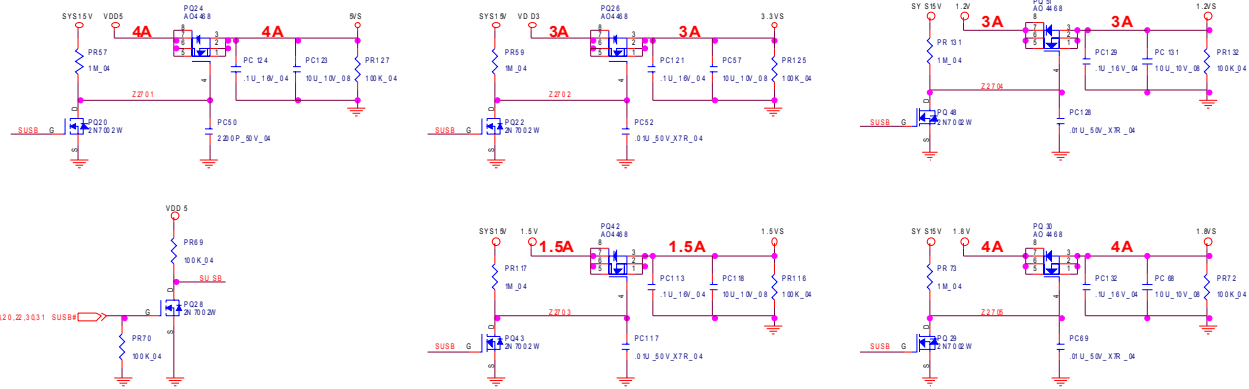
7/13  
Modify C268,C270 from 10PF  
change to 12PF for OSC  
issue.



Sheet 26 of 38  
KBC-ITE IT8512E

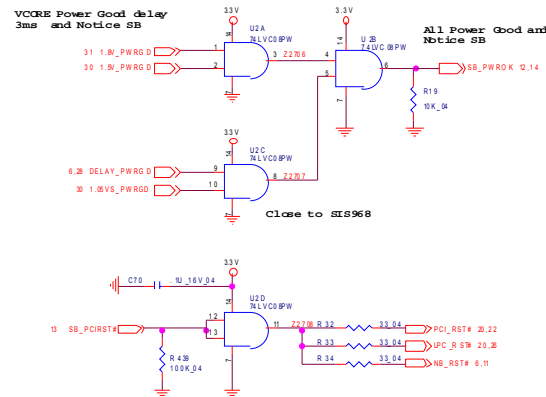
# SYSTEM POWER

1.2VS, 1.5VS, 1.8VS, 3.3VS, 5VS



Sheet 27 of 38  
SYSTEM POWER

## POWER GOOD & RESET

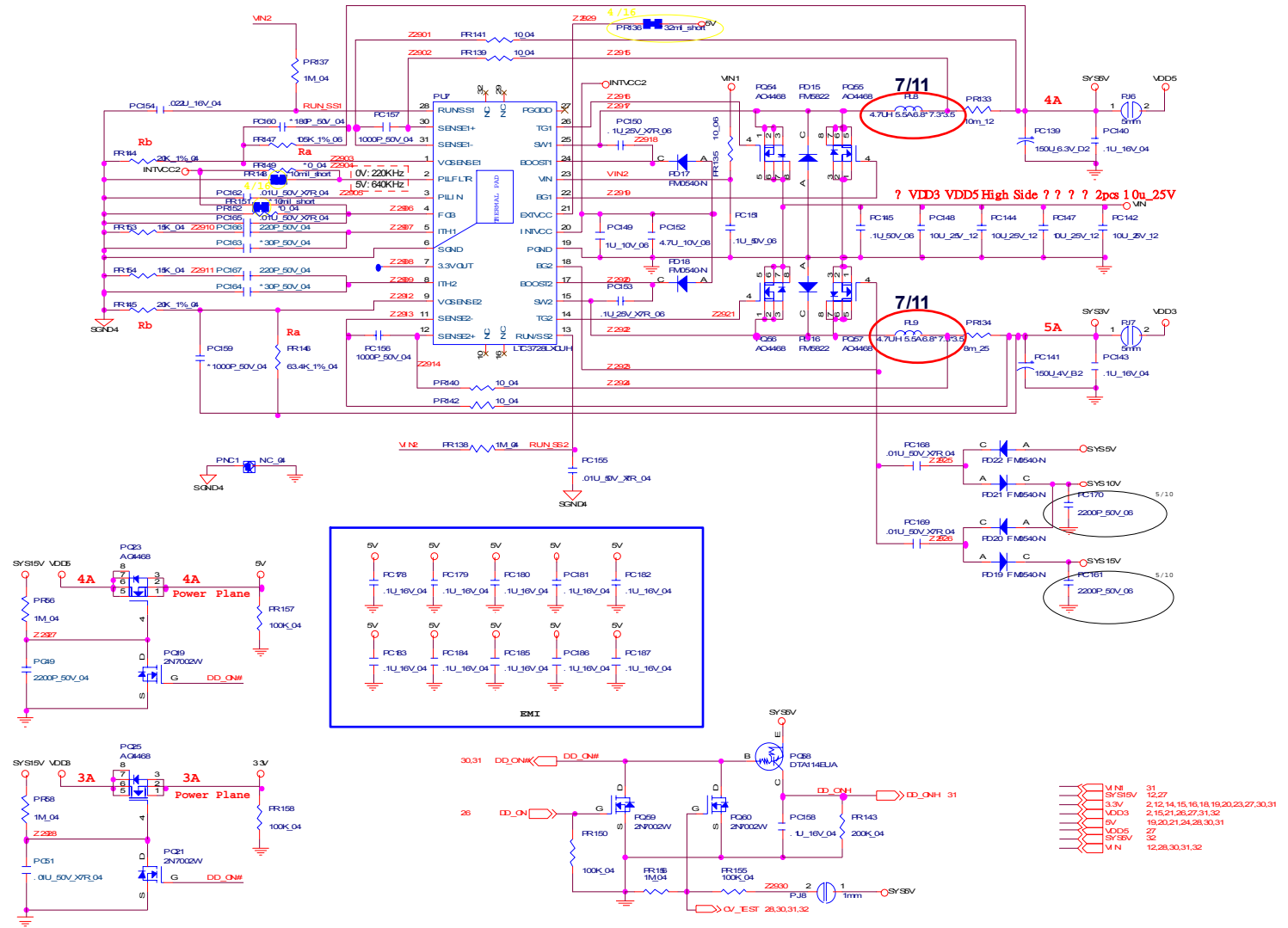


12V	230
5V	47
1.5V	30
1.8V	36, 20
3.3V	27, 8, 70, 14, 15, 16, 30, 21
1.8VS	42, 6, 7, 11, 12, 13, 14, 15, 16, 17
3.3V	212, 14, 15, 16, 18, 19, 20, 21, 29, 30, 31
5VS	61, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 28
5V	10, 20, 21, 24, 28, 30, 30, 31
5VS	10, 18, 21, 24, 25
5VS	2, 19
VDD5	215, 21, 26, 29, 31, 32
VDD5	21

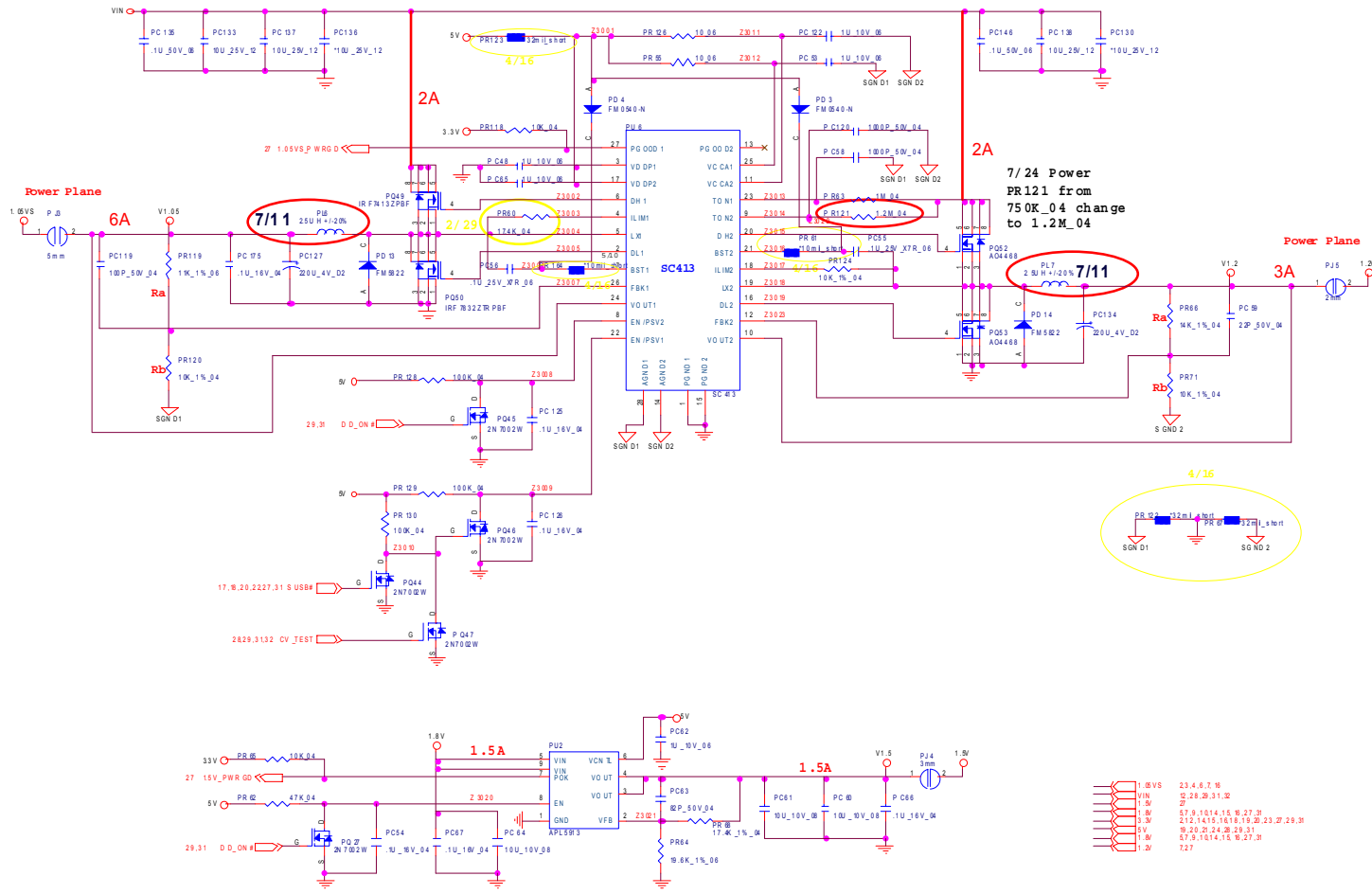


# VDD3, VDD5

Sheet 29 of 38  
VDD3, VDD5



1.05VS, 1.2V, 1.5V

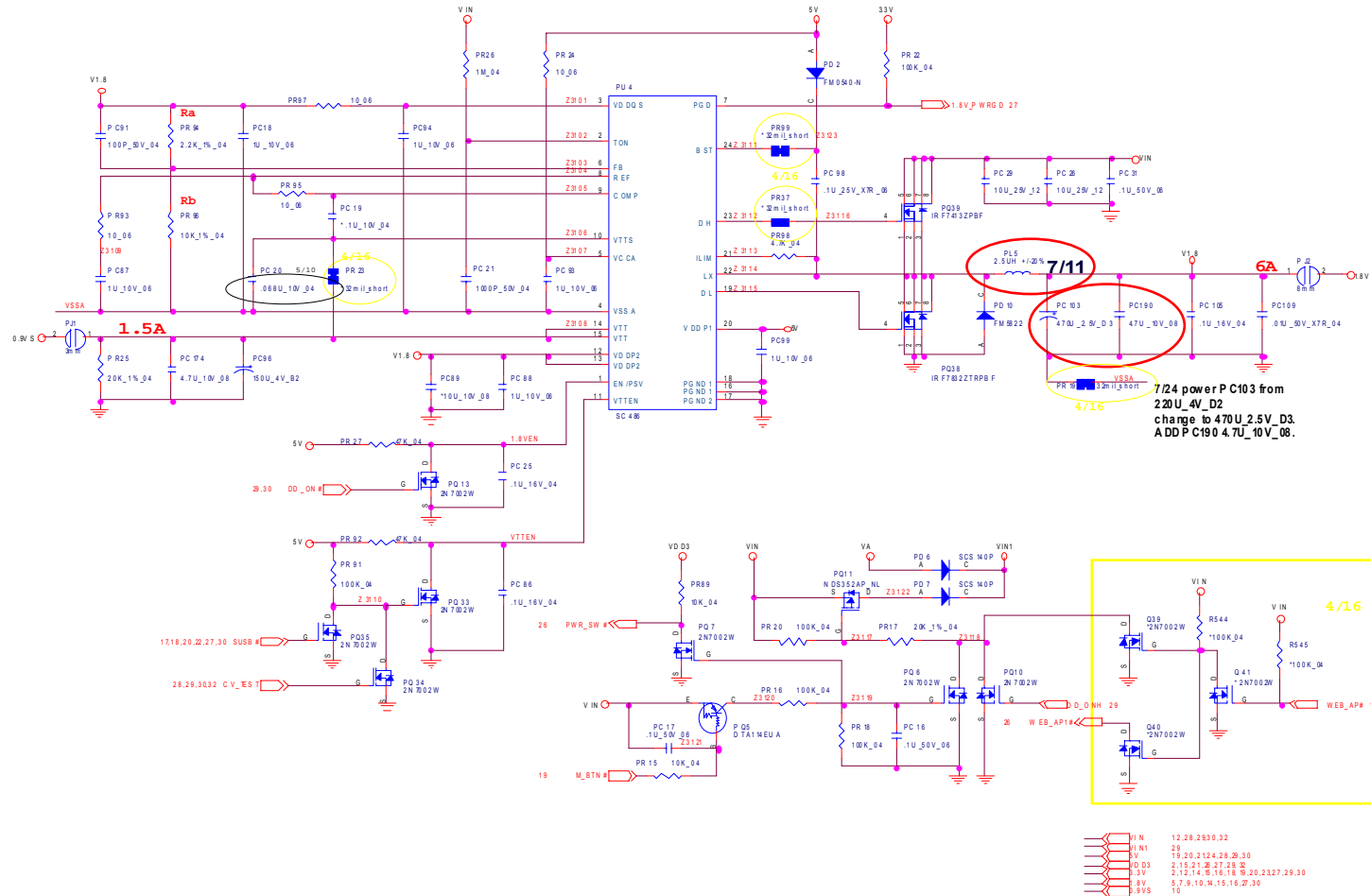


Sheet 30 of 38  
1.05VS, 1.2V, 1.5V

# Schematic Diagrams

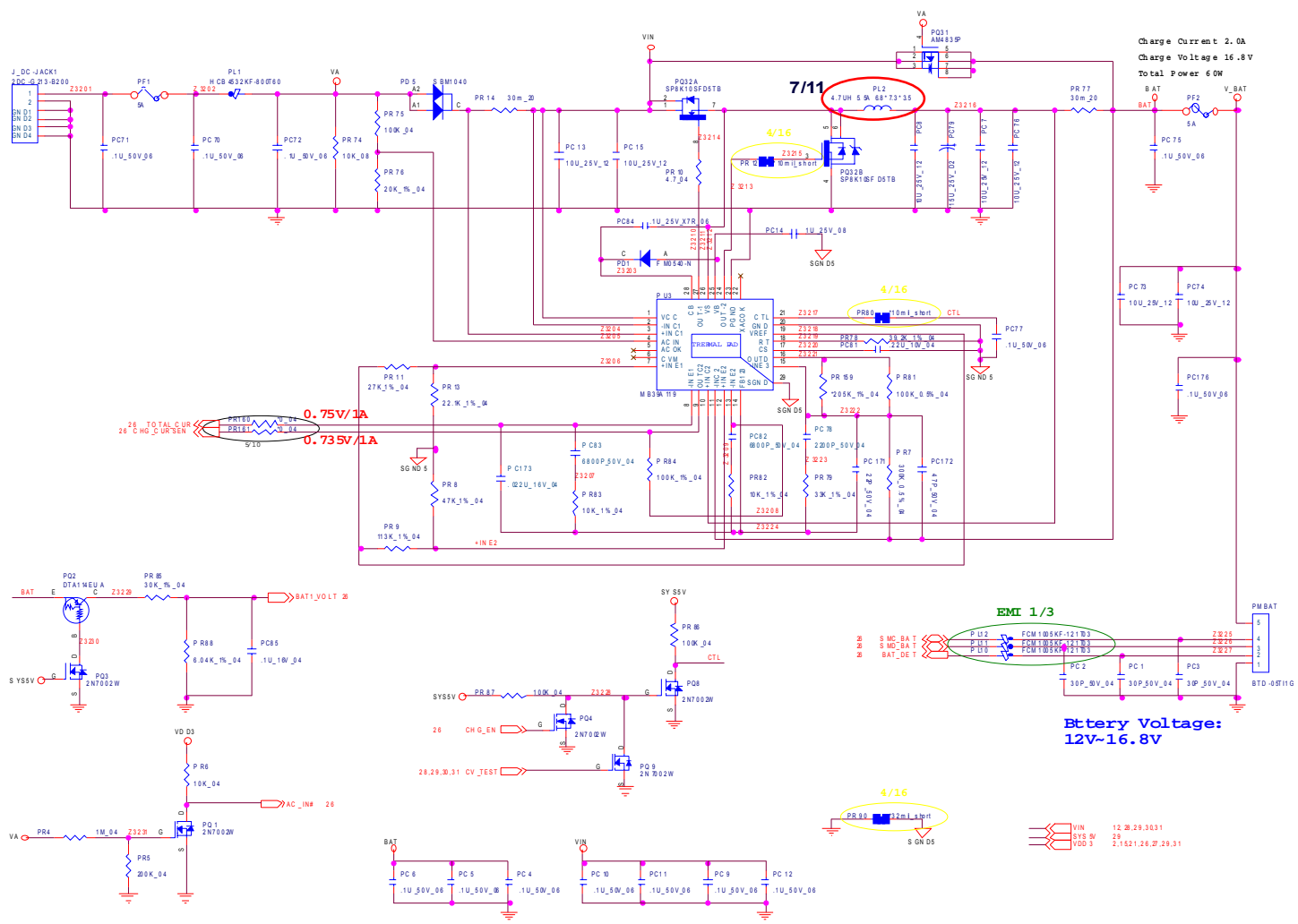
## 1.8V, 0.9VS

Sheet 31 of 38  
1.8V, 0.9VS



# AC IN, CHARGER

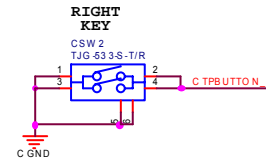
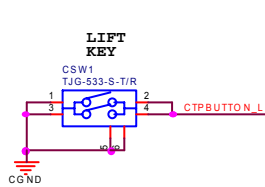
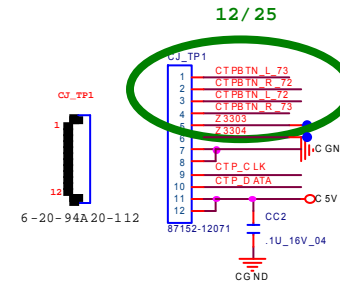
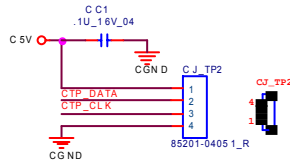
B.Schematic Diagrams



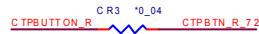
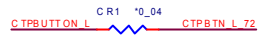
Sheet 32 of 38  
AC IN, CHARGER

# CLICK BOARD

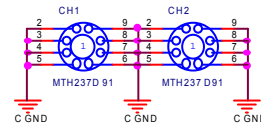
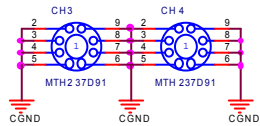
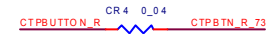
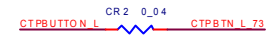
Sheet 33 of 38  
CLICK BOARD



For M720SR 12/25



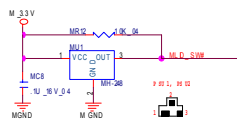
For M730SR 12/25



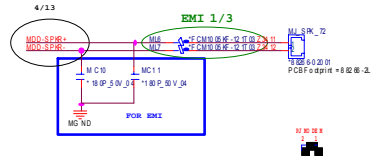


# MULTI I/O BOARD 1/2

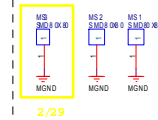
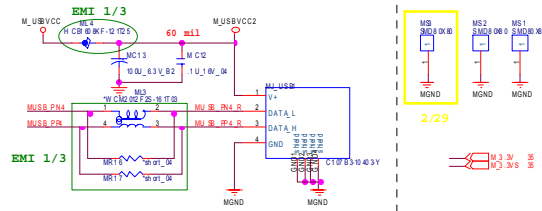
LID SWITCH IC



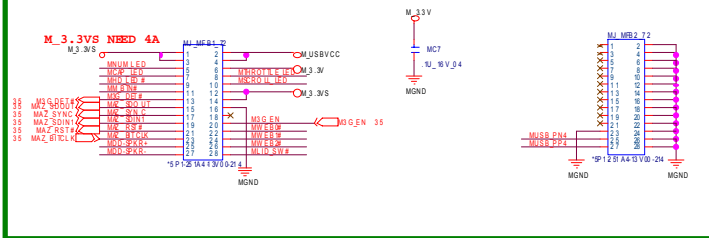
SPEAKER CONNECTOR



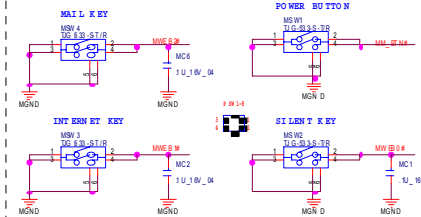
USB PORT



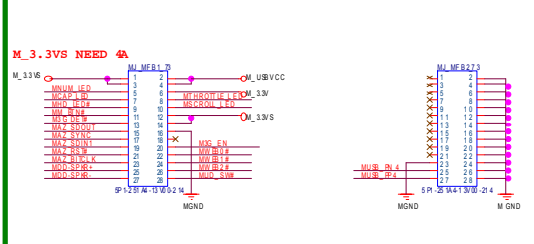
FOR M720SR 12/25



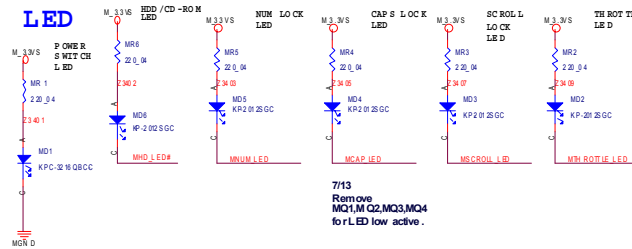
HOT KEY & POWER SW



FOR M730SR 12/25



LED



M12 BITCL K 35

Sheet 34 of 38  
MULTI I/O BOARD  
1/2

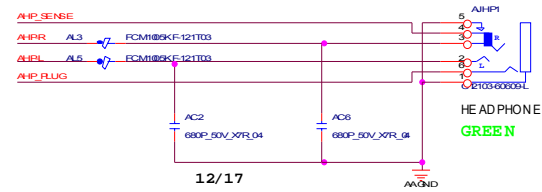
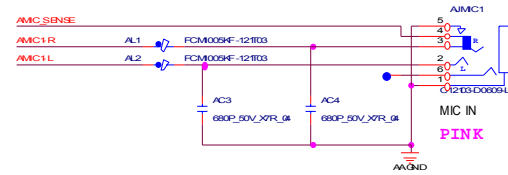
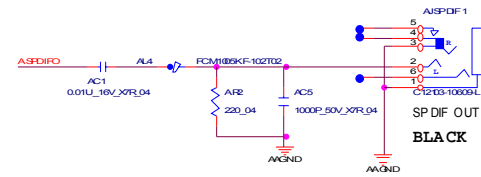
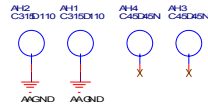
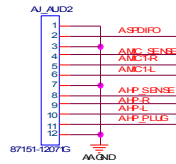




# AUDIO BOARD

## AUDIO BRIDGE BOARD

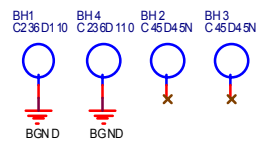
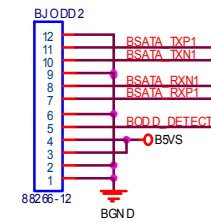
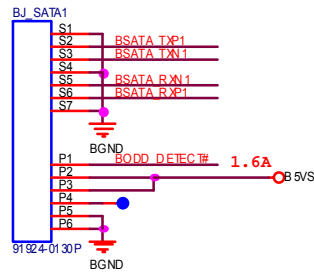
Sheet 37 of 38  
AUDIO BOARD



# ODD BRIDGE BOARD

## ODD BRIDGE BOARD

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ODD BRIDGE  
BOARD



**Schematic Diagrams**

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