SERVICE MANUAL

M770SU / M775SU

notebook

Notebook Computer

M770SU/M775SU

Service Manual

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About this Manual

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

It is organized to allow you to look up basic information for servicing and/or upgrading components of the ***M770SU/ M775SU*** 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, 4.74A (**90W**) minimum AC/DC Adapter).

CAUTION

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

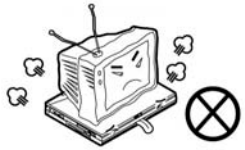
TO REDUCE THE RISK OF FIRE, USE ONLY NO. 26 AWG OR LARGER, TELECOMMUNICATION LINE CORD

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.

Do not expose the computer to any shock or vibration.	*Do not place it on an unstable surface.*	*Do not place anything heavy on the computer.*
		

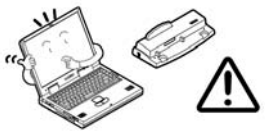
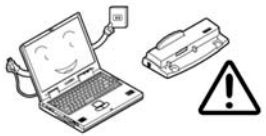
2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.

Do not expose it to excessive heat or direct sunlight.	*Do not leave it in a place where foreign matter or moisture may affect the system.*	*Don't use or store the computer in a humid environment.*	*Do not place the computer on any surface which will block the vents.*

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.

Do not turn off the power until you properly shut down all programs.	*Do not turn off any peripheral devices when the computer is on.*	*Do not disassemble the computer by yourself.*	*Perform routine maintenance on your computer.*

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**.

Use only approved brands of peripherals.	*Unplug the power cord before attaching peripheral devices.*
	

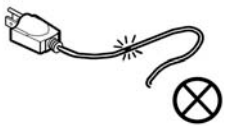
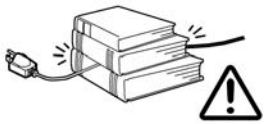
Power Safety

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.

Do not plug in the power cord if you are wet.	*Do not use the power cord if it is broken.*	*Do not place heavy objects on the power cord.*
		

Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not remove any batteries from the computer while it is powered on.
- 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 ***M770SU/M775SU*** 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 ***M770SU/M775SU*** 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, Socket P **T8100/ T8300**	45nm (45 Nanometer) Process Technology 3MB On-die L2 Cache & 800MHz FSB 2.1/ 2.4 GHz
	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package, Socket P **T9300/ T9500**	45nm (45 Nanometer) Process Technology 6MB On-die L2 Cache & 800MHz FSB 2.5/ 2.6 GHz
	Intel® Core™2 Duo Processor **(478-pin) Micro-FC-PGA Package, Socket P** T7100/ T7250	65nm (65 Nanometer) Process Technology 2MB On-die L2 Cache & 800MHz FSB 1.80/ 2.0 GHz
	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package, Socket P **T7300/ T7500/ T7700/ T7800**	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 **530/ 540/ 550/ 560**	65nm (65 Nanometer) Process Technology 1MB On-die L2 Cache & 533MHz FSB 1.73/ 1.86/ 2.0/ 2.13 GHz
Core Logic	SiS M671DX + SiS968 Chipset	
LCD	17." WXGA (1440 * 900) / WSXGA+ (1680 * 1050) / WUXGA (1920 * 1200) TFT LCD	
Video Adapter	**nVIDIA GeForce 9300M GS (NB9M-GS) Discrete Graphics On-Board** TurboCache™ Supporting Total Graphics Memory up to **512MB** (depending on system memory) Supports DirectX 10.0 **256MB** of **GDDR2** Video Memory On-Board	
Memory	64-bit Wide **DDRII (DDR2)** Data Channel Two 200 Pin SO-DIMM Sockets Supporting **DDRII (DDR2**) **667MHz** Memory Expandable up to **4GB** (1024MB/ 2048MB **DDRII** Modules)	
Security	Security (Kensington® Type) Lock Slot Fingerprint ID Reader Module (**Factory Option**)	BIOS Password
BIOS	One 8Mb SPI Flash ROM	Phoenix™ BIOS

Feature	Specification
Storage	One Changeable 12.7mm(h) **PATA** Optical Device (CD/DVD) Type Drive (see “Optional” on page 1 - 4) Easy Changeable 2.5" 9.5 mm (h) **SATA** (Serial) HDD
Audio	High Definition Audio (HDA) Compliant with Microsoft UAA (Universal Audio Architecture) Direct Sound 3D™ Compatible 2 * Built-In Speakers Built-In Microphone
Keyboard & Pointing Device	Winkey Keyboard Built-In TouchPad with Scrolling Function
Interface	Three USB 2.0 Ports One Headphone-Out Jack One Microphone-In Jack One S/PDIF-Out Jack One RJ-11 Modem Jack One RJ-45 LAN Jack One DC-In Jack One External Monitor Port
Card Reader	Embedded 7-in-1 Card Reader (MS/ MS Pro/ SD/ Mini SD/ MMC/ RS MMC/ MS Duo) **Note:** MS Duo/ Mini SD/ RS MMC Cards require a PC adapter
ExpressCard Slot	One ExpressCard/34(54) Slot
Communication **UMTS Modes** Note that UMTS modes CAN NOT be used in North America.	10M/100Mb Base-T Ethernet LAN 56K MDC Modem V.90 & V.92 Compliant 802.11b/g Wireless LAN Mini-Card Module with USB interface (**Option**) 1.3M (UVC or non UVC) or 2.0M Pixel USB PC Camera Module (**Factory Option**) Bluetooth 2.0 + EDR (Enhanced Data Rate) Module (**Factory Option**) **OR** **3.5G Module:** UMTS/HSPDA-based 3.5G Module with Mini-Card Interface (**Factory Option**) Quad-band GSM/GPRS (850 MHz, 900 MHz, 1800 MHz, 1900 MHz) UMTS WCDMA FDD (2100 MHz)
Power Management	Supports ACPI 3.0 Supports Wake on LAN Supports Wake on USB Supports Resume from Modem Ring
Power	Full Range AC/DC Adapter AC input 100 - 240V, 50 - 60Hz, DC Output 19V, 4.74A (**90** Watts)
Battery	6 Cell Smart Lithium-Ion Battery Pack, 4000mAH **OR** 4400mAH 9 Cell Smart Lithium-Ion Battery Pack, 7200mAH (**Option**)

Feature	Specification	
Environmental Spec	Temperature Operating: 5°C - 35°C Non-Operating: -20°C - 60°C	Relative Humidity Operating: 20% - 80% Non-Operating: 10% - 90%
Dimensions & Weight	397.2mm (w) * 282.5mm (d) * 39.5mm (h) 2.9 kg With 6 Cell Battery & ODD	
Optional	Optical Drive Module Options: DVD-ROM/CD-RW Combo Drive Module DVD Dual (Super Multi) Drive Module 802.11b/g Wireless LAN Mini-Card Module with USB interface 9 Cell Smart Lithium-Ion Battery Pack 1.3M or 2.0M Pixel USB PC Camera Module (**Factory Option**) Fingerprint ID Reader Module (**Factory Option**)	Bluetooth 2.0 + EDR (Enhanced Data Rate) Module (**Factory Option**) UMTS/HSPDA-based 3.5G Module with Mini-Card Interface (**Factory Option**) Quad-band GSM/GPRS (850 MHz, 900 MHz, 1800 MHz, 1900 MHz) UMTS WCDMA FDD (2100 MHz) **UMTS Modes** Note that UMTS modes CAN NOT be used in North America.

External Locator - Top View with LCD Panel Open

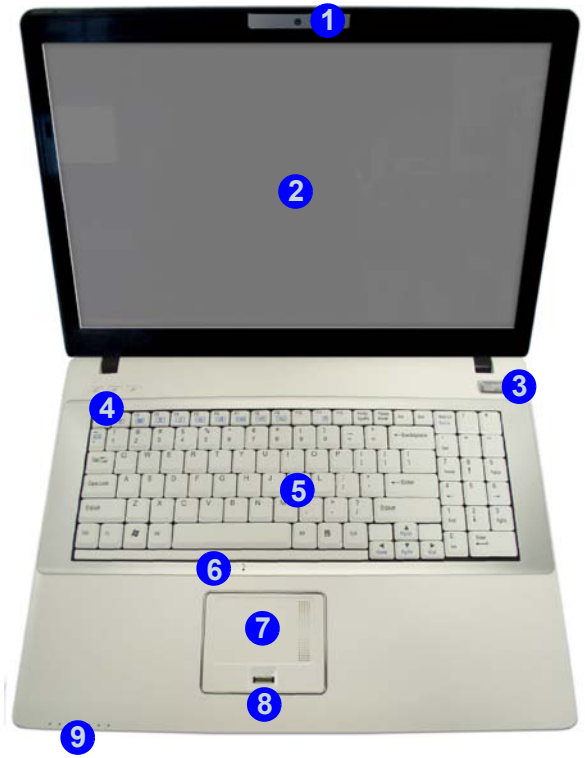


Figure 1
Top View

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

***Note**: This model may have either a fingerprint module or card reader module, depending on the purchase configuration.

External Locator - Front & Right side Views

Figure 2
Front Views

1. LED Indicators

Figure 3
Right Side Views

1. S/PDIF-Out Jack
2. Microphone-In Jack
3. Headphone-Out Jack
4. USB 2.0 Port
5. Optical Device Drive Bay
6. RJ-11 Phone Jack
7. Security Lock Slot

External Locator - Left Side & Rear View

Figure 4
Left Side View

1. DC-In Jack
2. External Monitor Port
3. RJ-45 LAN Jack
4. Vent/Fan Intake/ Outlet
5. 2 * USB 2.0 Ports
6. ExpressCard Slot
7. 7-in-1 Card Reader

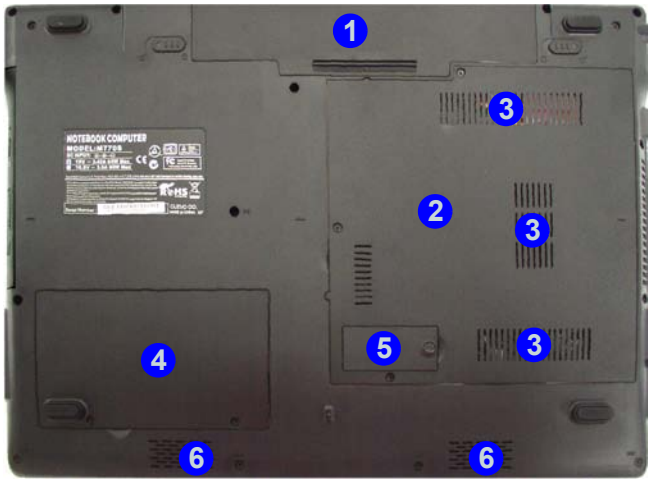
Figure 5
Rear View

1. Battery

External Locator - Bottom View

Figure 6
Bottom View

1. Battery
2. RAM & CPU Bay Cover
3. Vent/Fan Intake/ Outlet
4. Hard Disk Bay Cover
5. 3.5G USIM Card Location
6. 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)

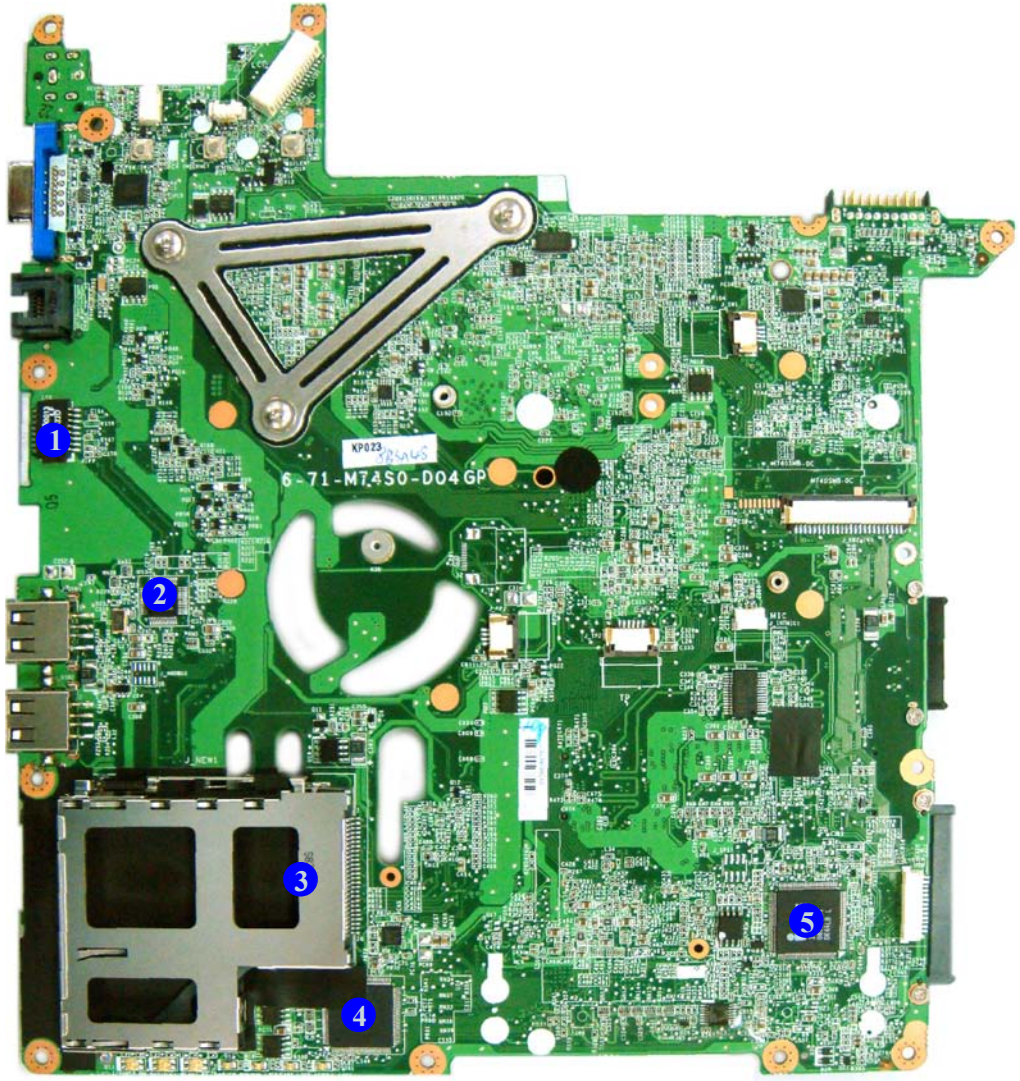


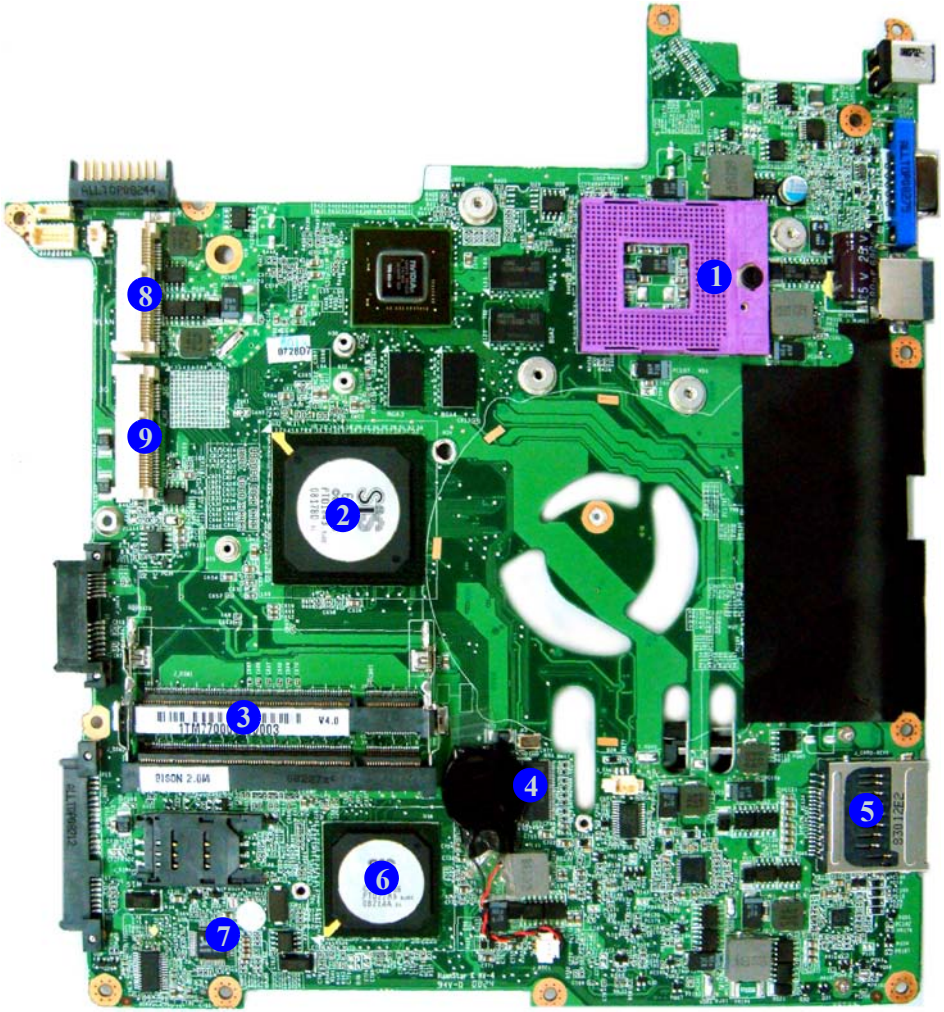
Figure 7
Mainboard Top Key Parts

1. Transformer
2. VT6103L
3. ExpressCard Connector
4. ENE MR510
5. KBC ITE IT8512E

Mainboard Overview - Bottom (Key Parts)

Figure 8
Mainboard Bottom Key Parts

1. CPU Socket (no CPU installed)
2. North Bridge SiSM671 DX
3. Memory Slots DDR2 SO-DIMM
4. ICS
5. Card Reader Socket
6. South Bridge SiS968
7. Audio Codec
8. Mini-Card Connector (WLAN Module)
9. Mini-Card Connector (3G Module)



Mainboard Overview - Top (Connectors)

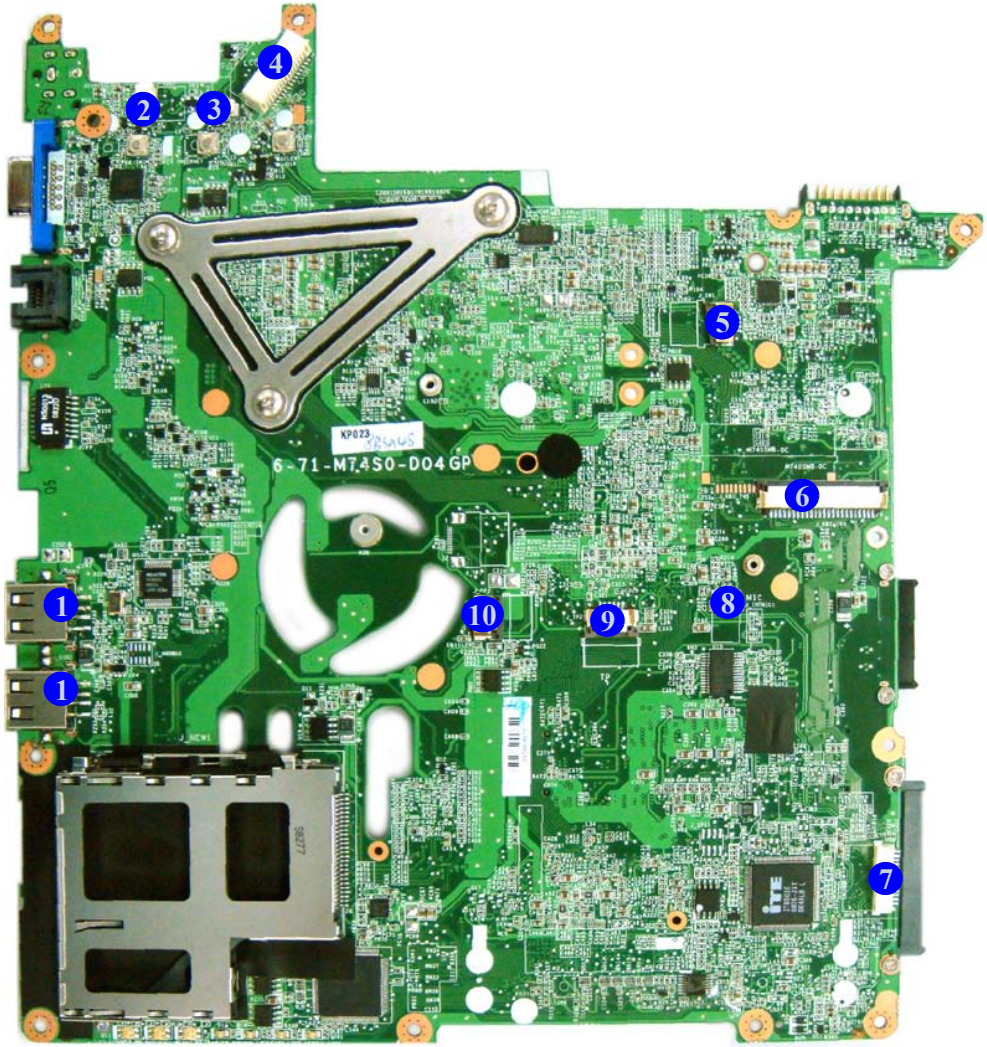


Figure 9
Mainboard Top Connectors

1. USB Port
2. Inverter Connector
3. Speaker Connector
4. LCD Cable Connector
5. Power Board Connector
6. Keyboard Cable Connector
7. Audio Board Connector
8. Microphone Cable Connector
9. TouchPad Cable Connector
10. Fingerprint Connector

Mainboard Overview - Bottom (Connectors)

Figure 10
Mainboard Bottom Connectors

1. BT Cable Connector
2. Multi Board Connector
3. CD-ROM Connector
4. HDD Connector
5. CMOS Bat. Connector
6. CPU Fan Cable Connector
7. DC-In Jack

Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the ***M770SU/M775SU*** series notebook's parts and sub-systems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

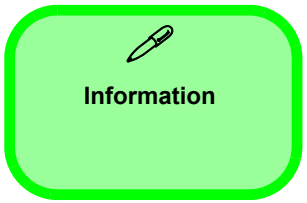
We suggest you completely review any procedure before you take the computer apart.

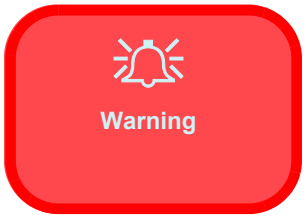
Procedures such as upgrading/replacing the RAM, optical device and hard disk are included in the User's Manual but are repeated here for your convenience.

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.





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-born 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.

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.

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.

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 Optical Device:

1. Remove the battery *page 2 - 5*
2. Remove the Optical device *page 2 - 8*

To remove the System Memory:

1. Remove the battery *page 2 - 5*
2. Remove the system memory *page 2 - 9*

To remove the Inverter Board:

1. Remove the battery *page 2 - 5*
2. Remove the inverter board *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 Keyboard:

1. Remove the battery *page 2 - 5*
2. Remove the keyboard *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 - 8*
5. Remove the processor *page 2 - 12*
6. Remove the keyboard *page 2 - 16*
7. Remove the modem *page 2 - 17*

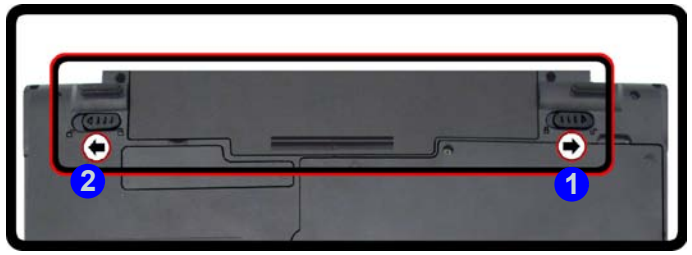
To remove the Bluetooth Module:

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 - 8*
5. Remove the processor *page 2 - 12*
6. Remove the keyboard *page 2 - 16*
7. Remove the modem *page 2 - 17*
8. Remove the Bluetooth *page 2 - 18*

Removing the Battery

1. Turn the computer **off**, and turn it over.
2. Slide the latch 1 in the direction of the arrow.
3. Slide the latch 2 in the direction of the arrow, and hold it in place.
4. Slide the battery 3 in the direction of the arrow 4.

a.



b.

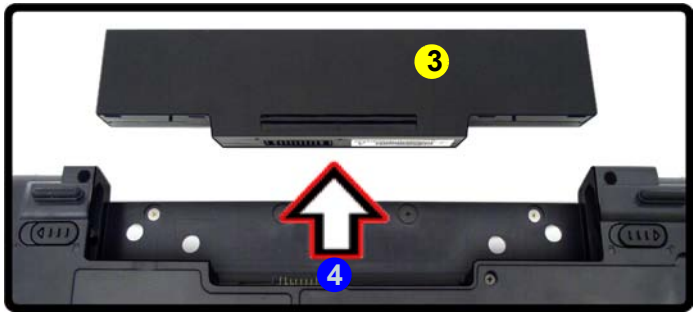


Figure 1
Battery Removal

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

3. Battery

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.

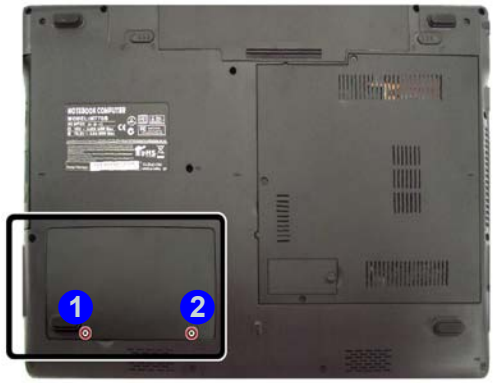
Figure 2
HDD Assembly Removal

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

Hard Disk Upgrade Process

1. Turn **off** the computer, and remove the battery (*page 2 - 5*).
2. Locate the hard disk bay cover and remove screws 1 & 2.

a.



- 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.

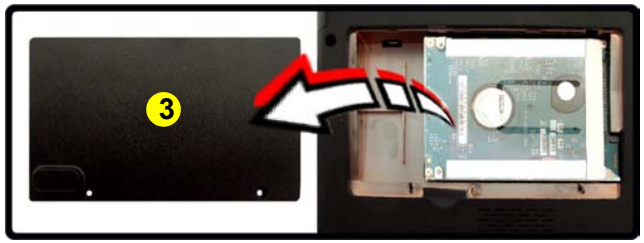
If you have access to the internet, download the latest application and hardware driver updates for the operating system you plan to install. Copy these to a removable medium.

3. Remove the hard disk bay cover 3.
4. Grip the tab and slide the hard disk in the direction of arrow 4.
5. Lift the hard disk out of the bay 5.
6. Remove the adhesive cover 6 from the hard disk 7.
7. Reverse the process to install a new hard disk (do not forget to replace all the screws and covers).

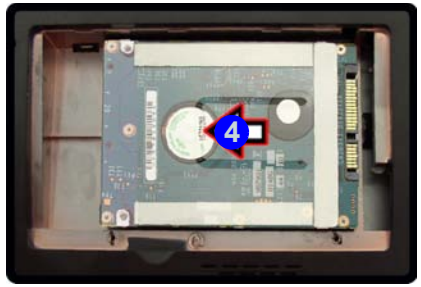
Figure 3
HDD Assembly Removal (cont'd.)

b. Remove the HDD bay cover.
c. Grip the tab and slide the HDD in the direction of the arrow.
d. Lift the HDD assembly out of the bay.
e. Remove the adhesive cover.

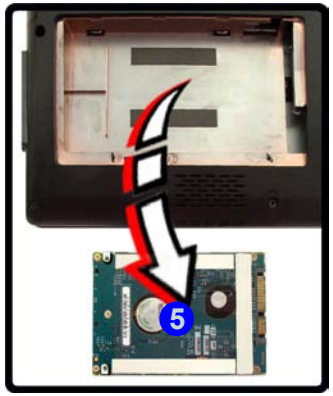
b.



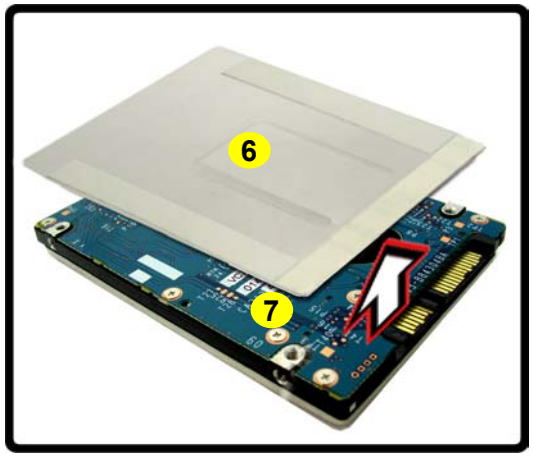
c.



d.



e.



3. HDD Bay Cover
6. Adhesive Cover
7. HDD

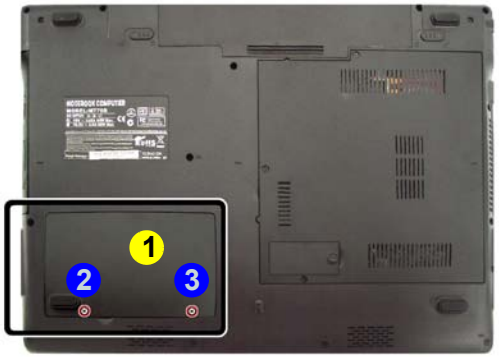
Figure 4
Optical Device Removal

a. Remove the screws.
b. Remove the cover.
c. Remove the screw.
d. Push the optical device out off the computer at point 5.

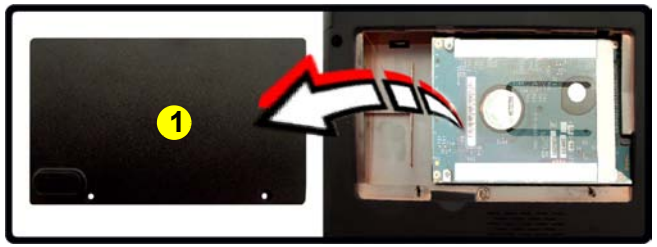
Removing the Optical (CD/DVD) Device

1. Turn **off** the computer, and remove the battery (*page 2 - 5*).
2. Locate the hard disk bay cover 1 and remove screws 2 - 3.
3. Remove the hard disk bay cover 1.
4. Remove the screw at point 4, and use a screwdriver to carefully push out the optical device 6 at point 5.
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.

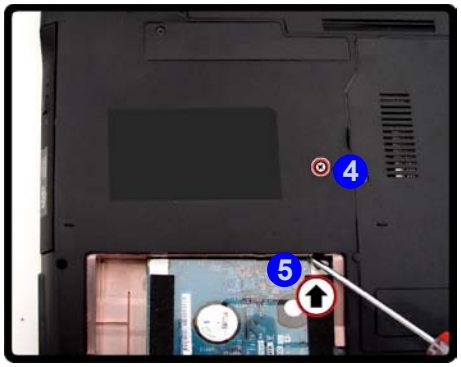
a.



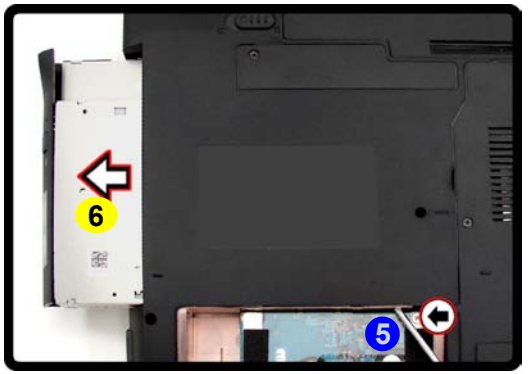
b.



c.



d.



1. HDD Bay Cover
6. Optical Device

- 3 Screws

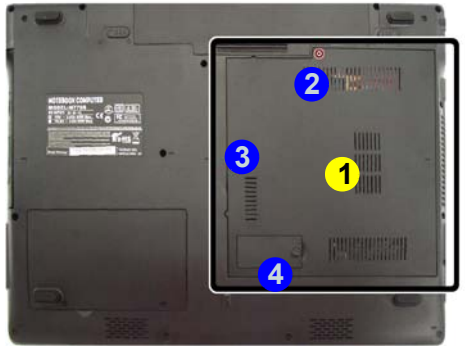
Removing the System Memory (RAM)

The computer has two memory sockets for 200 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting **DDR2** 667MHz. The main memory can be expanded up to 4GB. The SO-DIMM modules supported are 1024MB, and 2048MB and **DDRII** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

Memory Upgrade Process

1. Turn **off** the computer, remove the battery (***page 2 - 5***).
2. Locate the RAM & CPU bay cover 1, and remove screws 2 - 4.
3. Carefully (**a fan and cable are attached to the under side of the cover**) lift up the bay cover.
4. Carefully disconnect the fan cable 5, and remove the cover 1.

a.



b.

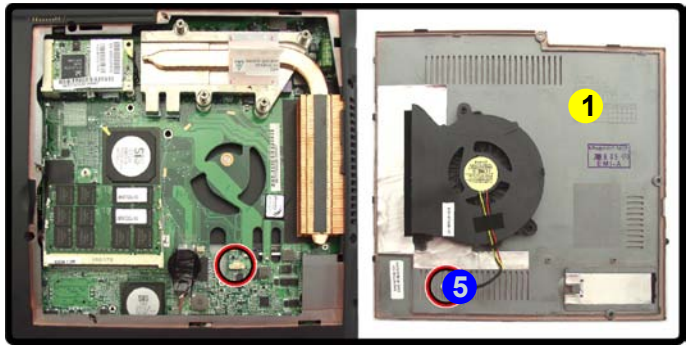


Figure 5
RAM Module Removal

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. Ram & CPU Bay Cover

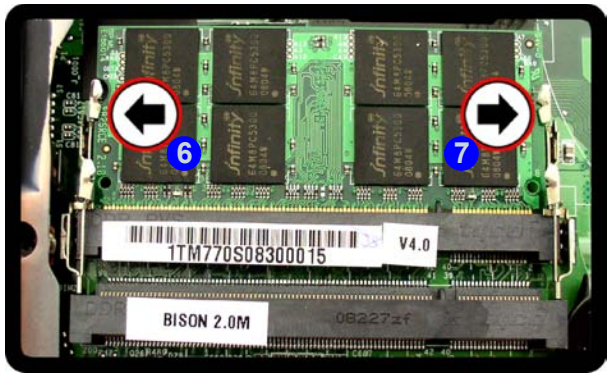
- 3 Screws

Figure 6
RAM Module Removal (cont'd.)

c. Pull the release latch(es).
d. Remove the module(s).
e. Properly re-insert the bay cover pins.

5. Gently pull the two release latches (6 & 7) on the sides of the memory socket in the direction indicated by the arrows (***Figure 6c***).

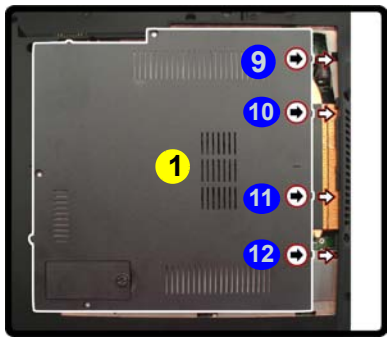
c.



d.

6. The RAM module(s) 8 will pop-up (***Figure 6d***), and you can then remove it.
7. Pull the latches to release the second module if necessary.
8. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
9. 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.
10. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
11. Replace the bay cover and screws (**make sure you reconnect the fan cable before screwing down the bay cover**).
    Note that there are four 9 - 12 cover pins which need to be aligned with slots in the case, to insure a proper cover fit, before screwing down the bay cover 1.

e.



12. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

8. RAM Module(s)

Removing the Inverter Board

1. Turn **off** the computer, and remove the battery (*page 2 - 5*).
2. Remove any rubber covers, screws 1 - 4 (*Figure 7a*), then run your finger around the middle of the frame to carefully unsnap the LCD front panel module 5 from the back.
3. Discharge the remaining system power (see *"Inverter Power Warning"* below).
4. Remove screw 6 (*Figure 7b*) from the inverter, and carefully lift the inverter board up slightly.
5. Disconnect cables 7 & 8 (*Figure 7c*) from the inverter, then remove the inverter 9 (*Figure 7d*) from the top case assembly.

Figure 7
Inverter Board Removal

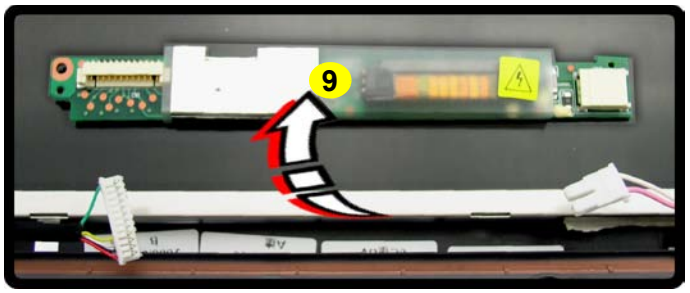
a. Remove the 6 screws and unsnap the LCD front panel module from the back.
b. Remove the screw and discharge the remaining power from the inverter board and lift the board up slightly.
c. Disconnect the cables from the inverter.
d. Remove the inverter.

a.

b.

c.

d.



Inverter Power Warning

In order to prevent a short circuit when removing the inverter it is necessary to discharge any remaining system power. To do so, press the computer's power button for a few seconds before disconnecting the inverter cable.

5. LCD Front Panel
9. Inverter Board

- 5 Screws

Removing and Installing the Processor

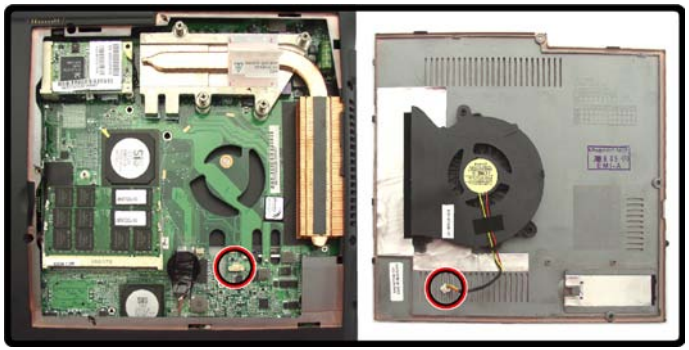
Processor Removal Procedure

1. Turn **off** the computer, remove the battery (*page 2 - 5*) and the component bay cover (*page 2 - 9*).
2. Loosen the CPU heat sink screws in the order 4, 3, 2 & 1 (the reverse order as indicated on the label).
3. Carefully lift up the heat sink 5 (*Figure 8c*) off the computer.

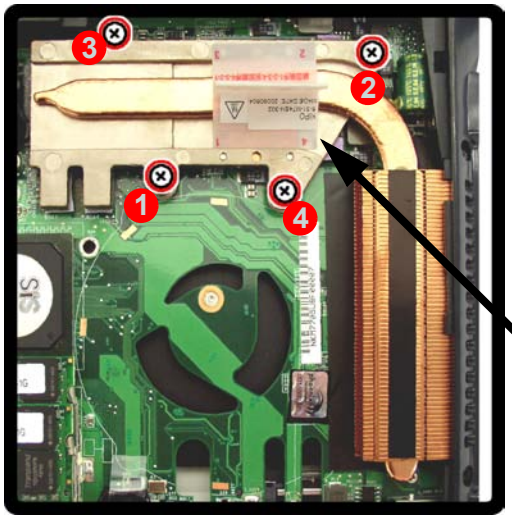
Figure 8
Processor Removal

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

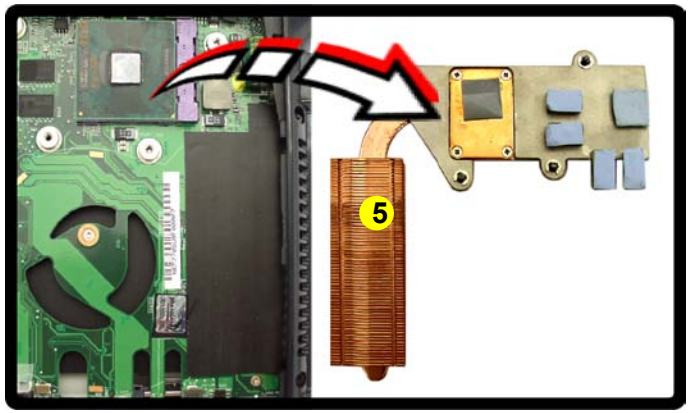
a.



b.



c.



5. Heat Sink

- 4 Screws

Note:

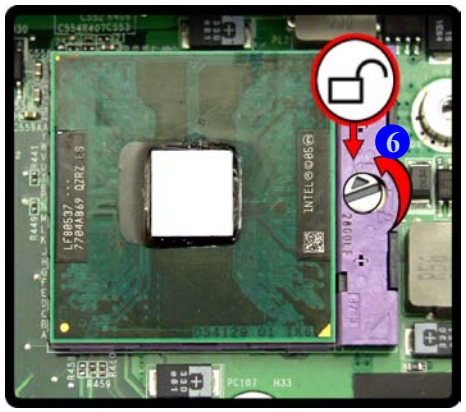
Loosen the screws in the reverse order 4, 3, 2, 1 as indicated on the label.

4. Turn the release latch 6 towards the unlock symbol, to release the CPU (*Figure 9a*).
5. Carefully (it may be hot) lift the CPU 7 up out of the socket (*Figure 9b*).
6. See *page 2 - 14* for information on inserting a new CPU.
7. When re-inserting the CPU, pay careful attention to the pin alignment, it will fit only one way (DO NOT FORCE IT!).

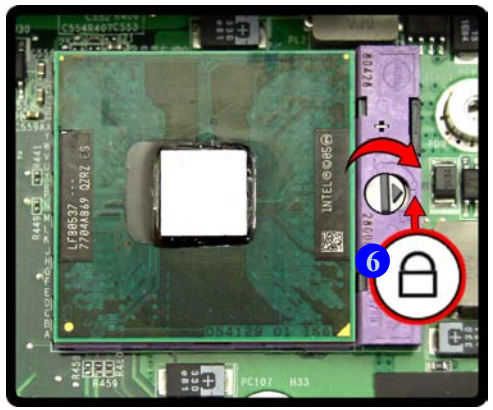
Figure 9
Processor Removal (cont'd)

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

d.

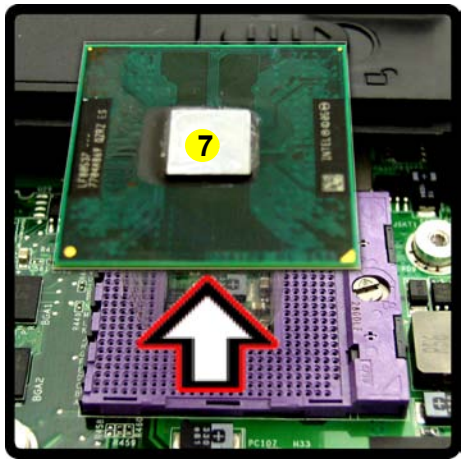


Unlock



Lock

e.



Caution

The heat sink, and CPU area in general, contains parts which are subject to high temperatures. Allow the area time to cool before removing these parts.

7. CPU

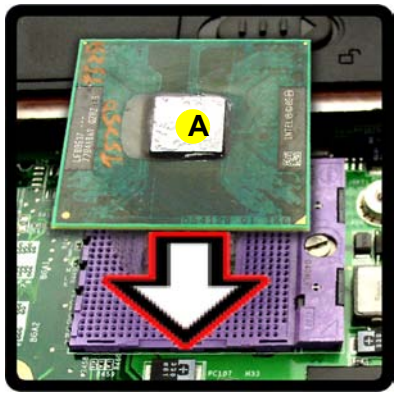
Figure 10
Processor Installation

a. Insert the CPU.
b. Turn the release latch towards the lock symbol.
c. Remove the stickers from the heat sink and insert the heat sink.
d. Tighten the screws.

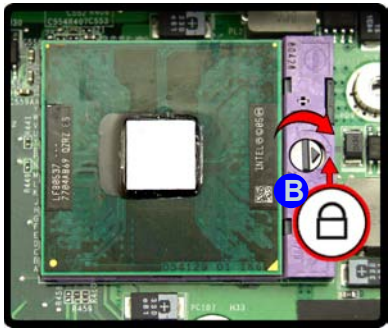
Processor Installation Procedure

1. Insert the CPU (A), pay careful attention to the pin alignment, it will fit only one way (DO NOT FORCE IT!), and turn the release latch (B) towards the lock symbol (*Figure 10b*).
2. **Remove the stickers** (C) (*Figure 10c*) from the heat sink.
3. Insert the heat sink (D) as indicated in *Figure 10c*.
4. Tighten the CPU heat sink screws in the order (1), (2), (3), & (4) (the order as indicated on the label and *Figure 10d*).
5. Replace the component bay cover and tighten the screws (*page 2 - 12*).

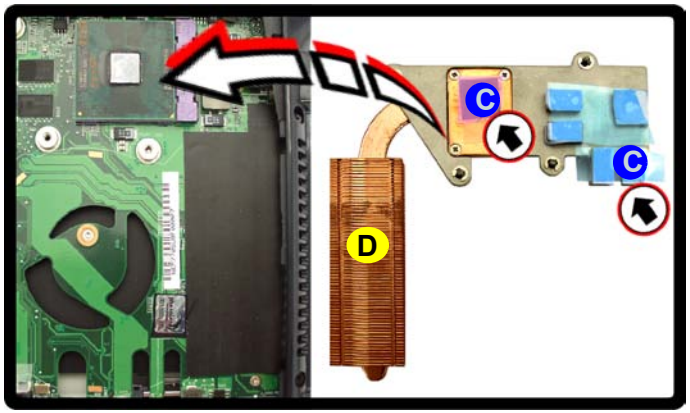
a.



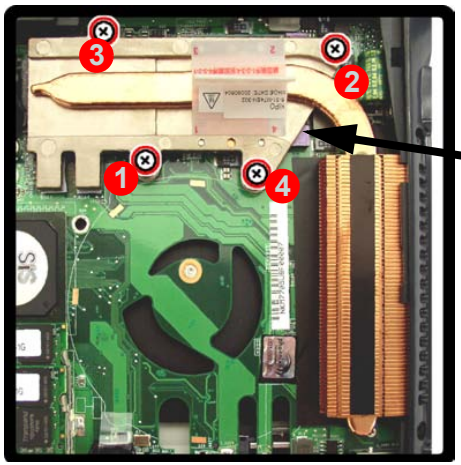
b.



c.



d.



Note:

Tighten the screws in the order 1, 2, 3, 4 as indicated on the label.

A. CPU
D. Heat Sink

- 4 Screws

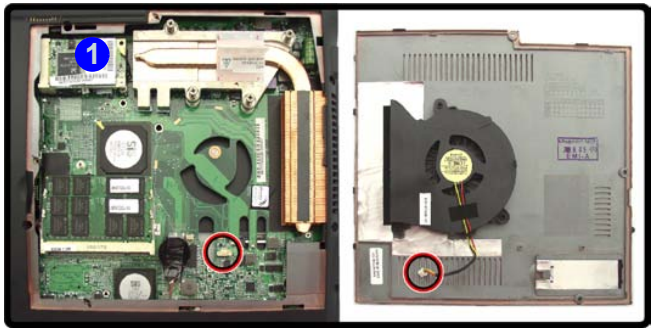
Removing the Wireless LAN Module

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 cables 2, then remove 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.

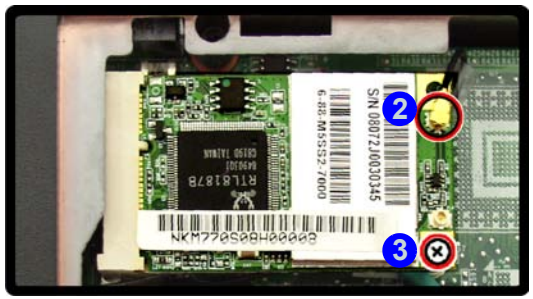
Figure 11
Wireless LAN Module Removal

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

a.



b.



c.

d.

4. WLAN Module.

- 1 Screw

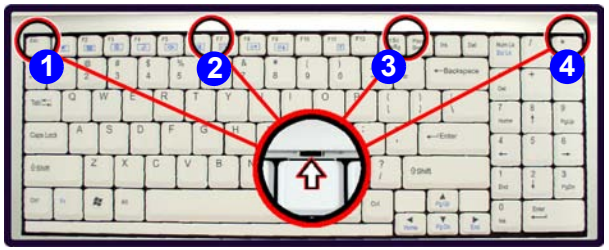
Removing the Keyboard

Figure 12
Keyboard Removal

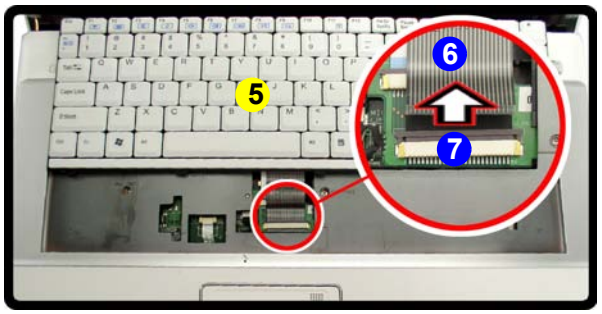
a. Press the four latches to release the keyboard.
b. Lift the keyboard up and disconnect the cable from the locking collar.
c. Remove the keyboard.

1. Turn **off** the computer, and remove the battery (*page 2 - 5*).
2. Press the **four** 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 5 up, being careful not to bend the keyboard ribbon cable (*Figure 12b*).
4. Disconnect the keyboard ribbon cable 6 from the locking collar socket 7.

a.



b.



c.

Re-Inserting the Keyboard

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

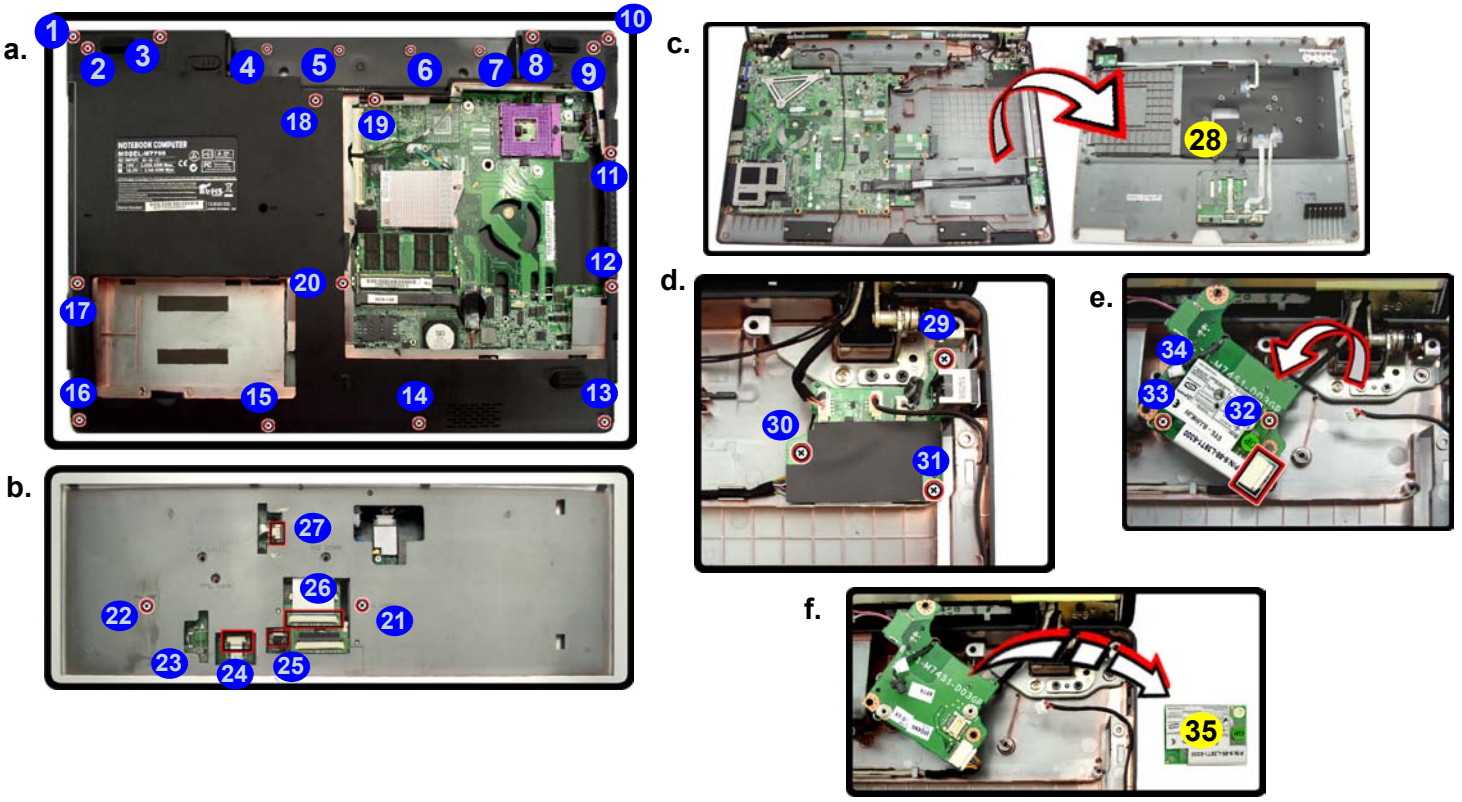
5. Keyboard

Removing the Modem

1. Turn **off** the computer, remove the battery (*page 2 - 5*), HDD (*page 2 - 6*), component bay cover (*page 2 - 9*), optical device (*page 2 - 8*), CPU (*page 2 - 12*), and keyboard (*page 2 - 16*).
2. Remove screws 1 - 20 from the bottom case (*Figure 13a*).
3. Turn the computer over, remove screws 21 - 22 and disconnect cables 22 - 27 (*Figure 13b*).
4. Carefully lift the top case 28 up and off the computer (*Figure 13c*).
5. Remove screws 29 - 33 (*Figure 13d*) from the computer and modem module.
6. Lift the modem up and separate the modem from the connector 34 (*Figure 13e*) .
7. Lift the modem 35 off the computer.

Figure 13
Modem Removal

a. Remove the screws and diconnect the cable.
b. Turn the computer over, remove the screws and disconnect the cable.
c. Lift the cover off the computer.
d. Remove the screws.
e. Remove the screws and disconnect the connector.
f. Lift the modem out.



28. Top Case
35. Modem

- 27 Screws

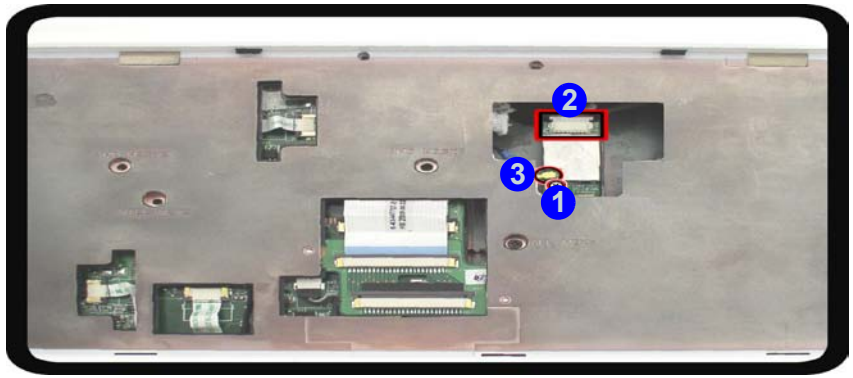
Removing the Bluetooth Module

Figure 14
Bluetooth Module Removal

a. Remove the screw and disconnect the cable and the connector.
b. Lift the Bluetooth module up off the socket.

1. Turn **off** the computer, remove the battery (*page 2 - 5*), HDD (*page 2 - 6*), component bay cover (*page 2 - 9*), optical device (*page 2 - 8*), CPU (*page 2 - 12*), and keyboard (*page 2 - 16*).
2. Locate the Bluetooth module, and remove the screw 1.
3. Carefully separate the Bluetooth module from the connector 2 and disconnect the cable 3.
4. Lift the Bluetooth module 4 (*Figure 14c*) up and off the computer.

a.



b.

4. Bluetooth Module

- 1 Screw

Appendix A: Part Lists

This appendix breaks down the ***M770SU/M775SU*** 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.

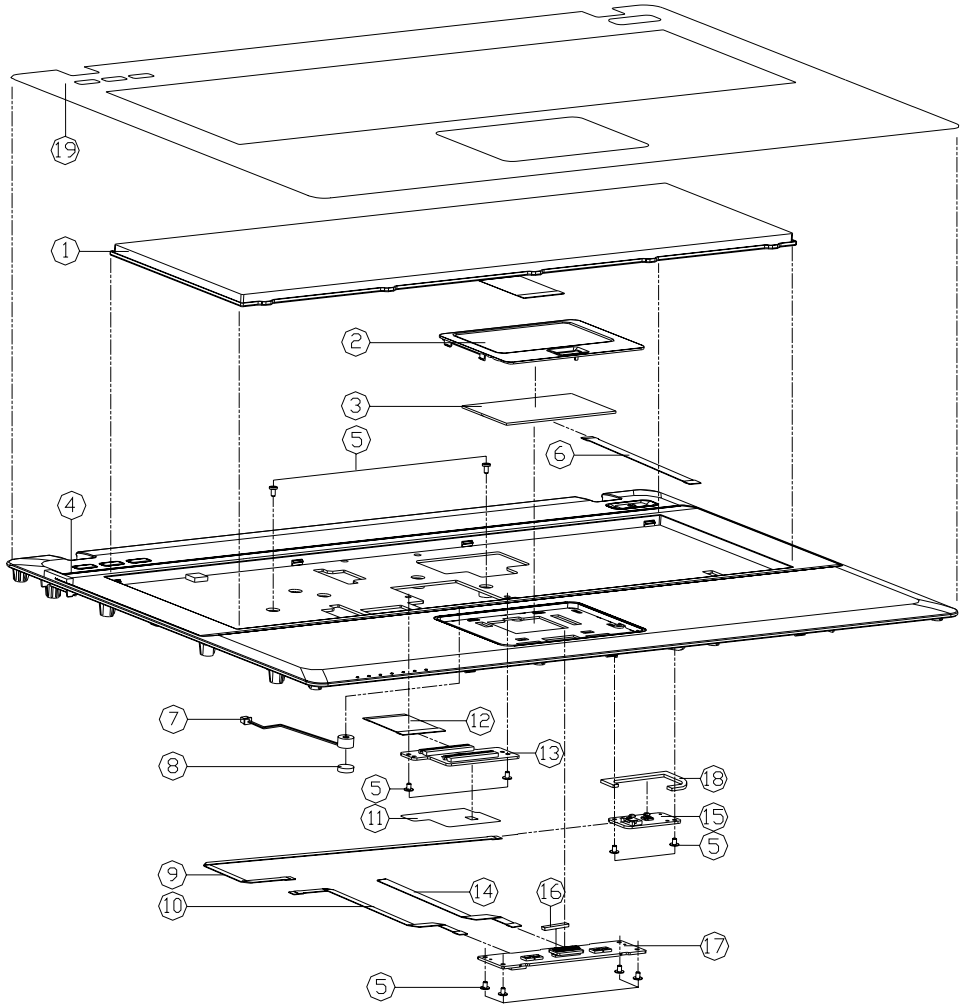
Part List Illustration Location

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

Table A- 1
Part List Illustration Location

Parts	M770SU	M775SU
Top with Fingerprint	*page A - 3*	*page A - 4*
Top without Fingerprint	*page A - 5*	*page A - 6*
Bottom	*page A - 7*	
LCD	*page A - 8*	
HDD	*page A - 9*	
COMBO	*page A - 10*	
DVD-Dual Drive	*page A - 11*	

Top with Fingerprint (M770SU)

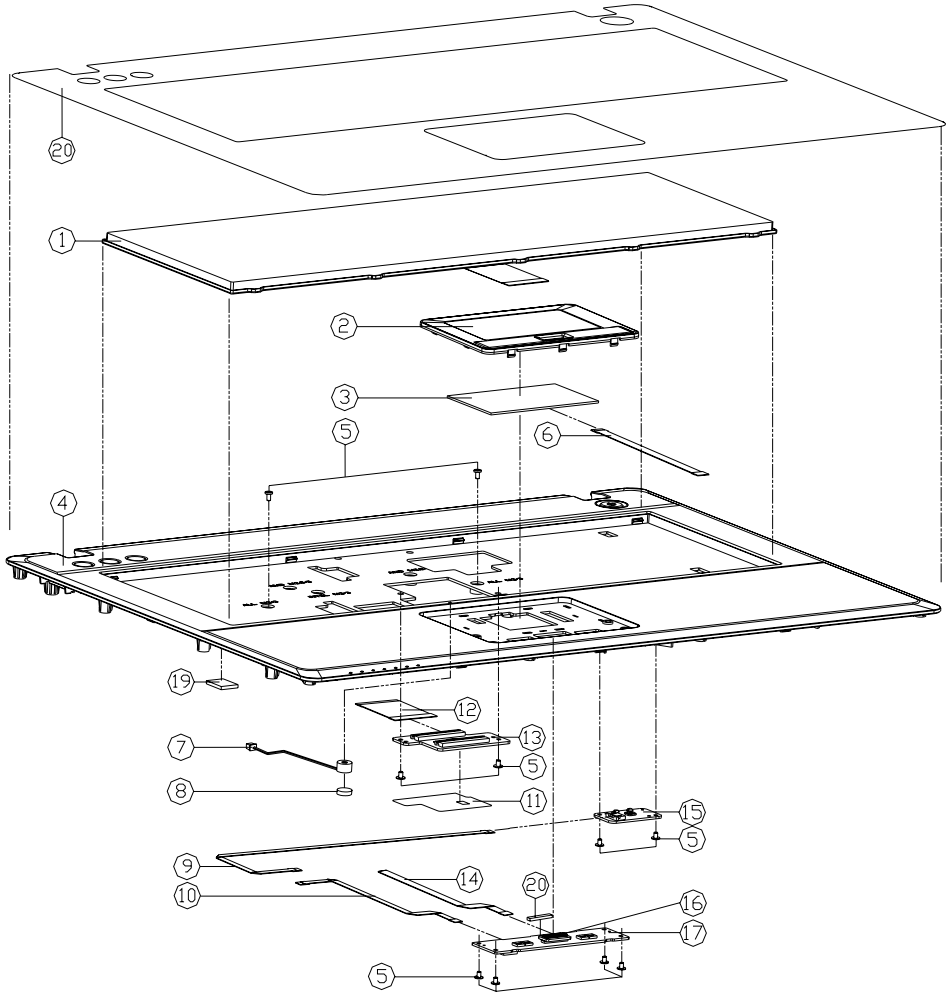


ITEM	PART NAME	PART NO	REMARK
1	K/B US 9P-037SUS-430J, M770SU WITH VISTA KEY	6-80-M7700-010-1	FOR M770SU
1	K/B GERMAN 9P-037GUS-430J, 99KC WITH VISTA KEY	6-80-D90C0-070-1	FOR M771SU
2	T/P COVER (W/FINGER) PC+ABS M770SU	6-42-M7702-032	
3	TOUCH PAD SYNAPTICS TM-00398-001 M740S	6-49-M74S2-010	
4	TOP CASE MODULE M770SU	6-39-M7702-013	FOR M770SU
4	TOP CASE MODULE M771SU	6-39-M7712-013	FOR M771SU
5	SCREW M2*3L NI NI ICT GTY-PATCH	6-35-B1120-3RE	
6	FFC CABLE FOR CLICK BOARD TO TOUCH PAD 5MM 5P/P FOR NOTAS	6-43-M76S0-041	
7	MIC CABLE 2P-30V 22K W/CABLE	6-23-EM62E-010	
8	TOP CASE MIC CR SPONGE M770SU	6-47-M7702-030	
9	FFC CABLE FOR M/B TO SWITCH BOARD 4P M770S	6-43-M7700-042	
10	FFC CABLE FOR M/B TO FINGERPRINT 4P M770SU	6-43-M770F-011	
11	K/B BOARD MYLAR FR83 M770SU	6-40-M7707-010	
12	FFC CABLE FOR M/B TO K/B 24P M770SU	6-43-M7707-010	
13	KEYBOARD CONVERTER BOARD V10B M770SU	6-77-M7707-D01B	
14	FFC CABLE FOR M/B TO CLICK BOARD 6P M770SU	6-43-M7700-031	
15	POWER SWITCH BOARD V10A M770SU	6-77-M770S-D01A	
16	FINGERPRINT BOARD RUBBER (0.3+3.1T+2) SILICONE M770SU	6-47-M770S-050	
17	CLICK BOARD W/SCMFINGERPRINTER BOARD W/SD MODULE M76SU	6-77-M76SA-N03C	
18	POWER LED SPRING CHOKE M770SU	6-47-M7702-041	
19	TOP CASE PROTECT MYLAY A PET M770SU	6-40-M7702-030	

Figure A - 1
Top with Fingerprint (M770SU)

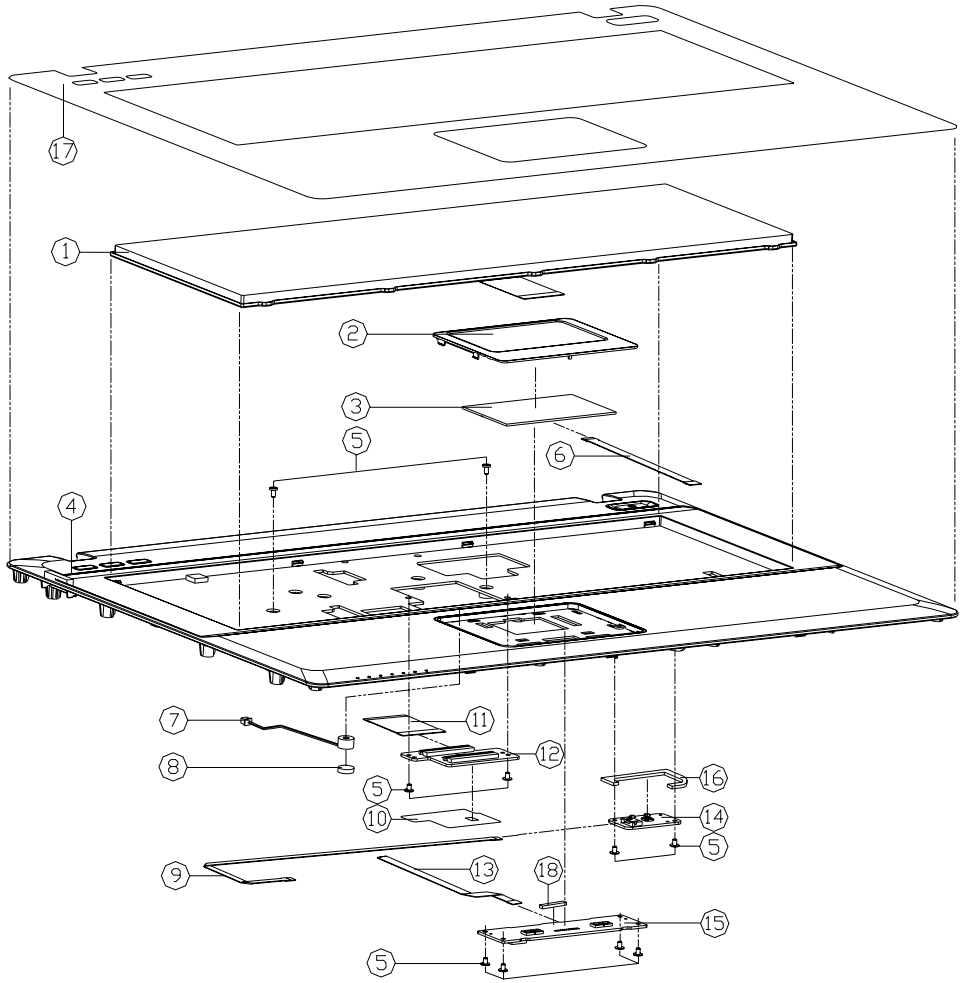
Top with Fingerprint (M775SU)

Figure A - 2
Top with Fingerprint (M775SU)



ITEM	PART NAME	PART NO	REMARK
1	K/B US MP-03536S-430L M770SU白色 WITH VISTA KEY無鉛	6-80-M7700-010-1	
2	T/P COVER MODULE W/FP M775SU 無鉛	6-42-M7752-100	
3	TOUCH PAD SYNAPTICS TM-00398-001 M740S 無鉛	6-49-M74S2-010	
4	TOP CASE MODULE (B/T OPTION 選項) 無鉛	6-39-M7752-013	
5	十字平頭SCREW M2*3L K1 NI ICT GIY-PATCH 無鉛	6-35-B1120-3RE	
6	FFC CABLE FOR CLICK BOARD TO TOUCH PAD 5MM 20PIN FOR M76S 無鉛	6-43-M76S0-041	
7	MIC OMNI-25 2Y-10Y 22K W/CABLE 47KΩ±5% FOL+D M62PE 無鉛	6-23-EM62E-010	
8	TOP CASE MIC CR SPONGE M770SU 無鉛	6-47-M7702-030	
9	FFC CABLE FOR M/B TO SWITCH BOARD 4P M770S 無鉛	6-43-M7700-042	
10	FFC CABLE FOR M/B TO FINGERPRINT 4P M770SU 無鉛	6-43-M770F-011	
11	K/B BOARD MYLAR FR83 M770SU無鉛	6-40-M7707-010	
12	FFC CABLE FOR M/B TO K/B 24P M770SU 無鉛	6-43-M7707-010	
13	KEYBOARD CONVERTER BOARD V10B M770SU無鉛	6-77-M7707-D01B	
14	FFC CABLE FOR M/B TO CLICK BOARD 6P M770SU無鉛	6-43-M7700-031	
15	POWER SWITCH BOARD V3.0 M740S 無鉛	6-77-M74SS-D03	
16	FINGERPRINTER BOARD V3.0 分正反面 M66GSU無鉛	6-77-M66UF-D03	
17	CLICK BOARD V3.0C (W/FP)M760S 無鉛	6-77-M76S2-D03C	
18	FINGERPRINT BOARD RUBBER (9*13T*2) SILICONE M770SU無鉛	6-47-M770S-050	
19	TOP CASE RUBBER SILICON M770SU 無鉛	6-47-M7702-011	
20	TOP CASE PROTECT MYLAY PET M775SU 無鉛	6-40-M7752-010	

Top without Fingerprint (M770SU)

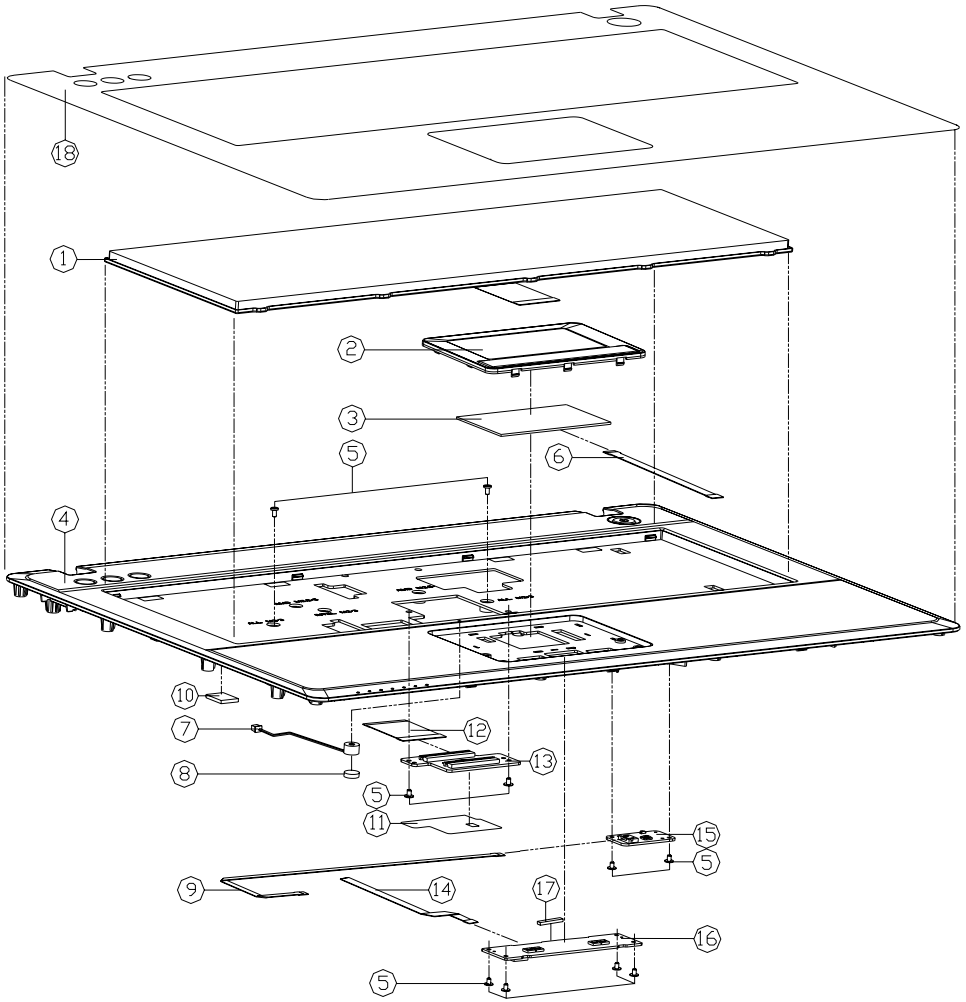


ITEM	PART NAME	PART NO	REMARK
1	K/B US NP-837SA5-43B1 M770SU 白色 WITH VISTA KEY (無鉛)	6-80-M7700-010-1	FOR M770SU
1	K/B GERMAN NP-837SA8-43BL M770SU 黑色 WITH VISTA KEY (無鉛)	6-80-D90C0-070-1	FOR M771SU
2	TOUCH PAD COVER W/O FP PC+ABS M770SU (無鉛)	6-42-M7702-042	
2	TOUCH PAD COVER W/O FP PC+ABS M771SU (無鉛)	6-42-M7712-042	
3	TOUCH PAD SYNAPTICS TM-00398-001 M740S (無鉛)	6-49-M74S2-010	
4	TOP CASE MODULE M770SU (組裝) (無鉛)	6-39-M7702-013	FOR M770SU
4	TOP CASE MODULE M771SU (組裝) (無鉛)	6-39-M7712-013	FOR M771SU
5	*(非耐落) SCREW M2*3L NI NI ICT GIY-PATCH (無鉛)	6-35-B1120-3RE	
6	FFC CABLE FOR CLICK BOARD TO TOUCH PAD 5MM 6P*PIN FOR M760S (無鉛)	6-43-M76S0-041	
7	MIC 6MM*3.5 2V~10V 2.2K W/CABLE 470MM*5-FIL-10 M620NE (無鉛)	6-23-EM62E-010	
8	TOP CASE MIC CR SPONGE M770SU (無鉛)	6-47-M7702-030	
9	FFC CABLE FOR M/B TO SWITCH BOARD 4P M770S (無鉛)	6-43-M7700-042	
10	K/B BOARD MYLAR FR83 M770SU (無鉛)	6-40-M7707-010	
11	FFC CABLE FOR M/B TO K/B 24P M770SU (無鉛)	6-43-M7707-010	
12	KEYBOARD CONVERTER BOARD V10B M770SU (無鉛)	6-77-M7707-D01B	
13	FFC CABLE FOR M/B TO CLICK BOARD 6P M770SU (無鉛)	6-43-M7700-031	
14	POWER SWITCH BOARD V10A M770SU (無鉛)	6-77-M770S-D01A	
15	CLICK BOARD V3.0C (W/O FP) M760S (無鉛)	6-77-M76S2-D03C-1	
16	POWER LED SPONGE (40.0*5.0*0.6MM*2CS) FOR POWER BOARD LED (無鉛)	6-47-M7702-041	
17	TOP CASE PROTECT MYLAY A PET M770SU (無鉛)	6-40-M7702-030	
18	FINGERPRINT BOARD RUBBER (17*13.1*4.2) SILICONE M770SU (無鉛)	6-47-M770S-050	

Figure A - 3
Top without Fingerprint (M770SU)

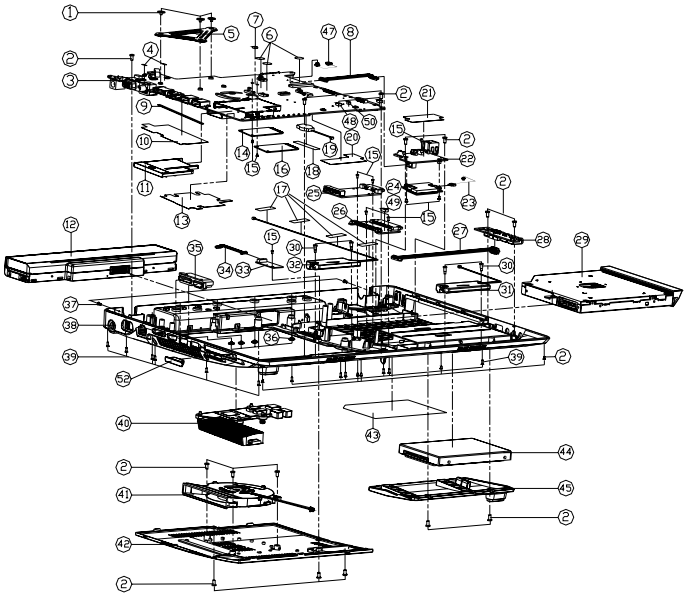
Top without Fingerprint (M775SU)

Figure A - 4
Top without Fingerprint (M775SU)



ITEM	PART NAME	PART NO	REMARK
1	K/B ASSY W/ 105KEY US M770SU 白色 WITH VISTA KEY	6-80-M7700-010-1	
2	T/P COVER MODULE W/O FP M775SU	6-42-M7752-200	
3	TOUCH PAD SYNAPTICS TM-00398-001 M740S	6-49-M74S2-010	
4	TOP CASE MODULE (B/T OPTION 選配)	6-39-M7752-013	
5	SCREW M2*3L NI NI ICT GTY-PATCH	6-35-B1120-3RE	
6	FFC CABLE FOR CLICK BOARD TO TOUCH PAD 5MM 12PIN FOR WNBS	6-43-M76S0-041	
7	MIC ASSY 2Y-HV 22K W/CABLE (EM62S-FIL-A) M62HE	6-23-EM62E-010	
8	TOP CASE MIC CR SPONGE M770SU	6-47-M7702-030	
9	FFC CABLE FOR M/B TO SWITCH BOARD 4P M770S	6-43-M7700-042	
10	TOP CASE RUBBER SILICON M770SU	6-47-M7702-011	
11	K/B BOARD MYLAR FR83 M770SU	6-40-M7707-010	
12	FFC CABLE FOR M/B TO K/B 24P M770SU	6-43-M7707-010	
13	KEYBOARD CONVERTER BOARD V10B M770SU	6-77-M7707-D01B	
14	FFC CABLE FOR M/B TO CLICK BOARD 6P M770SU	6-43-M7700-031	
15	POWER SWITCH BOARD V3.0 M740S	6-77-M74SS-D03	
16	CLICK BOARD V3.0C (W/O FP) M760S	6-77-M76S2-D03C-1	
17	FINGERPRINT BOARD RUBBER (PASTE) SILICONE M770SU	6-47-M770S-050	
18	TOP CASE PROTECT MYLAY PET M775SU	6-40-M7752-010	

Bottom (M770SU/M775SU)

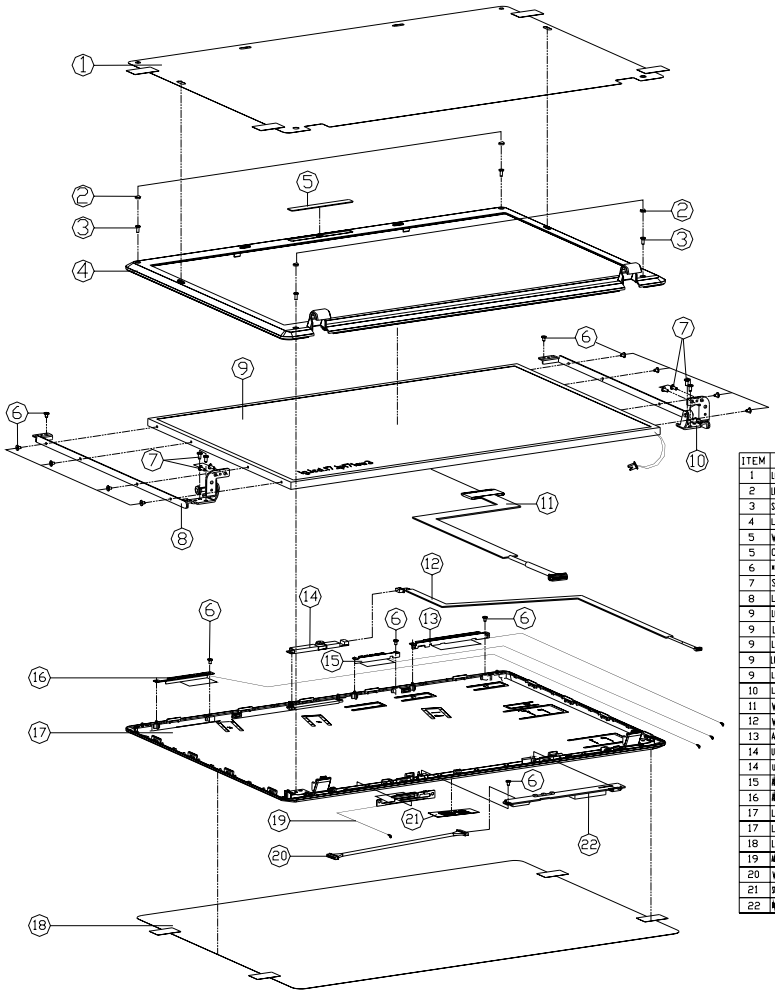


ITEM	PART NAME	PART NO	REMARK
1	[illegible]	6-35-41025-2R5	
2	SCREW M2.5*5L K1 BK/Z ICT NY-[illegible]	6-35-86125-5RA	
3	MAIN BOARD V43X/3G M770SU [illegible]	6-77-M700-004	
4	MAIN BOARD V43X/0.3G M770SU [illegible]	6-77-M700-004-1	
5	MYLAR 5423*457 (FR03+3M467) M760S [illegible]	6-40-M765S-030	
6	CPU SUPPORTER MODULE AL M740S [illegible]	6-33-M745S-100	
7	MYLAR DIO FR03 M760S [illegible]	6-40-M765D-010	
8	[illegible]	6-47-M770S-070	
9	[illegible]	6-43-M770D-020	
10	[illegible]	6-47-M745S-020	
11	HEAT SINK MYLAR FR03 M740S [illegible]	6-40-M745N-012	
12	DUMMY NEW CARD PC+ABS TN220R [illegible]	6-42-T12R3-011	
13	BKP S LI [illegible]	6-87-M745S-4CA	<OPTION>
14	BKP S LI [illegible]	6-87-M660S-4S3	<OPTION>
15	BKP S LI [illegible]	6-87-M660S-4P4	<OPTION>
16	[illegible]	6-87-M66NS-4C3	<OPTION>
17	BKP S LI [illegible]	6-87-M74JS-4U4	<OPTION>
18	BKP S LI [illegible]	6-87-M745S-4M4	<OPTION>
19	BKP S LI [illegible]	6-87-M74JS-4C4	<OPTION>
20	NEW CARD MYLAR FR03 M740T [illegible]	6-40-M74T3-010	
21	[illegible]	6-88-M5552-7000	<OPTION>
22	[illegible]	6-35-B1120-3RE	
23	[illegible]	6-88-M725W-720	<OPTION>
24	TAPE MYLAR (C)MYLAR M550J [illegible]	6-40-M55J2-030	
25	TAPE MYLAR (A)MYLAR M550J [illegible]	6-40-M55J2-010	
26	[illegible]	6-23-22015-P2C	
27	ODD LOCK MYLAR FR03 M740S [illegible]	6-40-M74SZ-010	
28	MDC MYLAR FR03 M740S [illegible]	6-40-M74SU-010	
29	MULTI I/O BOARD V30 M740S [illegible]	6-77-M745I-003	
30	[illegible]	6-43-M74SU-010	
31	[illegible]	6-88-L39TI-5300	<OPTION>
32	[illegible]	6-88-M765I-8110	<OPTION>
33	SATA ODD CONVERTER BOARD V10A M770U [illegible]	6-77-M770N-D1A	
34	HDD CONVERTER BOARD V10A M770U [illegible]	6-77-M770J-D0A	
35	[illegible]	6-43-M7700-010	
36	PHONE JACK & USB BOARD V10A M740S [illegible]	6-77-M745A-D03A	
37	[illegible]	6-79-M770SU00-000	<OPTION>
38	CCD(B) 2M ASS'Y(OPTION) M760S [illegible]	6-79-M770SUBX-000	<OPTION>
39	[illegible]	6-35-Z0Z20-000	
40	[illegible]	6-23-5M770-011	
41	[illegible]	6-23-5M770-021	
42	[illegible]	6-88-M5545-620	<OPTION>
43	[illegible]	6-88-M5545-390	<OPTION>
44	[illegible]	6-43-M76SB-011	
45	DUMMY HDMI RUBBER SILICONE M770SU [illegible]	6-47-M7703-021	
46	SCREW M2*3L K1 BK/Z ICT NYLOK(T=1.6)[illegible]	6-35-86120-2RC	
47	SCREW M2*3L KST+B3 D=5.0 BK/Z ICT NY [illegible]	6-35-86120-5R0	
48	BOTTOM CASE MODULE M770SU [illegible]	6-39-M7703-012	
49	SCREW M2.5*6L K1 BK/Z NY ICT [illegible]	6-35-86125-8R0	
50	[illegible]	6-31-M745N-302	
51	FAN MODULE M740S [illegible]	6-31-M74SS-101	
		6-42-M770S-102	
		6-45-M7703-010	
		6-45-M7753-010	
		6-79-M770SU6J-000	
		6-42-M770J-101	
		6-43-M745G-010	FOR 3G <OPTION>
		6-47-M770S-030	
		6-47-M770S-040	
		6-47-M770S-080	
		6-47-M76SB-011	

Figure A - 5
Bottom (M770SU/M775SU)

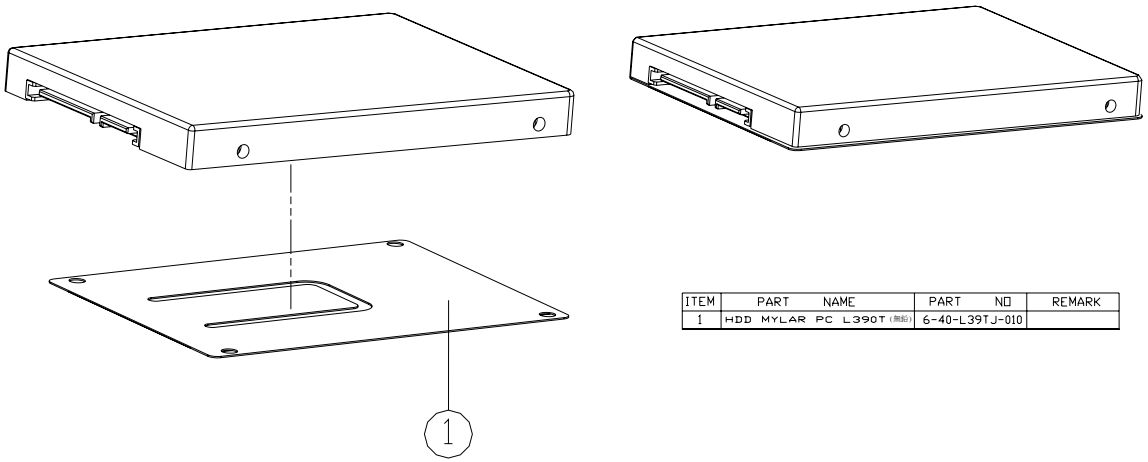
LCD (M770SU/M775SU)

Figure A - 6
LCD (M770SU/M775SU)



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECT MYLAY C PET M770SU	6-40-M7701-030	
2	LCD FRONT COVER RUBBER SILICON D=6MM T=3MM NYON	6-47-M76S1-010	
3	SCREW M2*5L KICT=0.8 D=4.0 BK/Z ICT NY	6-35-B6120-5R0	
4	LCD FRONT COVER MODULE M770SU	6-39-M7701-012	
5	W/O CCD COSMETIC 0.5T PMMA M770SU	6-42-M7701-010	W/O CCD
5	CCD COSMETIC 0.5T PMMA M770SU	6-42-M7701-020	W/ CCD
6	SCREW M2*3L KI NI ICT GIY-PATCH	6-35-B1120-3RE	
7	SCREW M2.5*5L KI BK/Z ICT NY-	6-35-B6125-5RA	
8	LCD HINGE L (SECC+K7) M770SU	6-33-M7701-021	
9	LCD 17.0" WXGA CHIMEI N170C2-L02 (GLARE TYPE) 6.5MM	6-50-NC265-D00	FOR M77XS
9	LCD 17" WXGA AU B170PW06 V.3 (6.7MM)	6-50-N7267-G01	FOR M77XS
9	LCD 17" WXGA AU B170PW06 V.2 (GLARE TYPE)	6-50-N7267-G00	FOR M77XS/SU
9	LCD 17" WSXGA+ LG LP171WU3-TLA1 GLARE TYPE	6-50-NA265-L08	FOR M77XSU
9	LCD 17" WUXGA AU B170UW01 V.0 (GLARE TYPE)	6-50-NB266-G00	FOR M77XSU
10	LCD HINGE R (SECC+K7) M770SU	6-33-M7701-011	
11	WIRE CABLE FOR M/B TO LCD 30P M770SU	6-43-M7701-012	
12	WIRE CABLE FOR M/B TO CCD 5P M770SU	6-43-M7701-012	<OPTION>
13	ANTENNA WCDMA PIFA 3G 5dBM M770SU	6-23-7M770-052	<OPTION>
14	UVC CAMERA BOSIN FIX BM28457-020 2M M7401	6-88-M740C-4912	<OPTION>
14	UVC CAMERA BOSIN FIX BM28457-020 1.3M M7401	6-88-M740C-4922	<OPTION>
15	ANTENNA BLUETOOTH 2.4G/3.5G PIFA 1I 3dBm M770SU	6-23-7M770-042	<OPTION>
16	ANTENNA WLAN 2.4G/3.5G PIFA WIFI 4dBm M770SU	6-23-7M770-012	
17	LCD BACK COVER MODULE M770SU	6-39-M7701-022	
17	LCD BACK COVER MODULE M775SU	6-39-M7751-020	
18	LCD BACK COVER PROTECT MYLAY 0.025 M770SU	6-40-M7701-040	
19	ANTENNA WLAN 2.4G/3.5G PIFA WIFI 1dBm M770SU	6-23-7M770-021	<OPTION>
20	WIRE CABLE FOR INVERTER BOARD(12P) TO M/B	6-43-M770R-010	
21	SPACER	6-45-M741S-020	
22	[illegible]	6-76-M670R-011	

HDD (M770SU/M775SU)

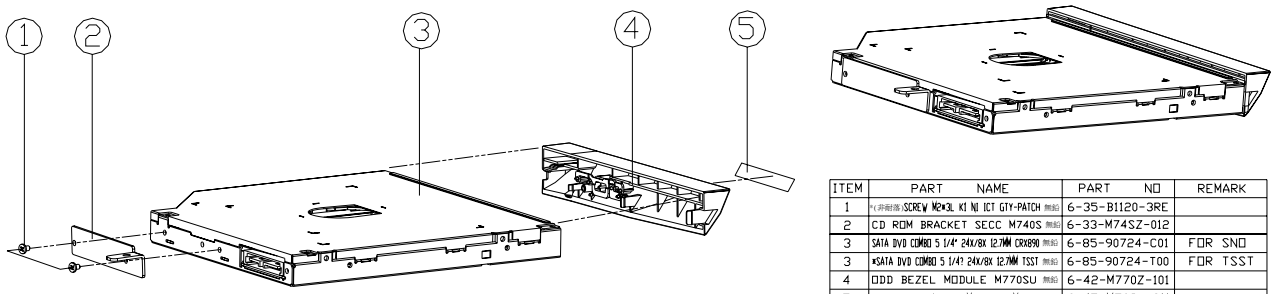


ITEM	PART NAME	PART NO	REMARK
1	HDD MYLAR PC L390T	6-40-L39TJ-010	

Figure A - 7
HDD (M770SU/M775SU)

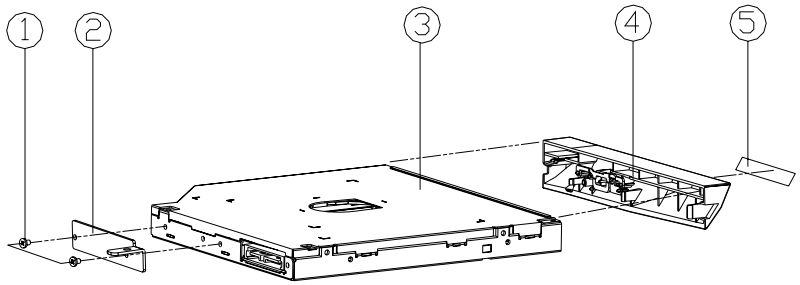
COMBO (M770SU/M775SU)

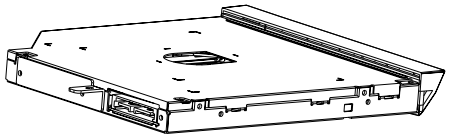
Figure A - 8
COMBO (M770SU/M775SU)



ITEM	PART NAME	PART NO	REMARK
1	*(非耐候):SCREW M2*3L K1 N1 ICT GTY-PATCH 無鉛	6-35-B1120-3RE	
2	CD ROM BRACKET SECC M740S 無鉛	6-33-M74SZ-012	
3	SATA DVD COMBO 5 1/4" 24X/8X 12.7MM CRX890 無鉛	6-85-90724-C01	FOR SNO
3	*SATA DVD COMBO 5 1/4? 24X/8X 12.7MM TSST 無鉛	6-85-90724-T00	FOR TSST
4	ODD BEZEL MODULE M770SU 無鉛	6-42-M770Z-101	
5	ODD BEZEL LABEL(COMBO) FOR M760S 無鉛	6-45-M76SX-011	

DVD-Dual Drive (M770SU/M775SU)





ITEM	PART NAME	PART NO	REMARK
1	*(非耐用):SCREW M2*3L KI NI ICT GTY-PATCH	6-35-B1120-3RE	
2	CD ROM BRACKET SECC M740S	6-33-M74SZ-012	
3	SATA DVD SUPER MULTI 5 1/4" 24X/8X 12.7MM	6-85-A0724-C01	FOR SNO
3	SATA DVD SUPER MULTI 5 1/4 24X/8X 12.7MM T	6-85-A0724-T01	FOR TSST
4	ODD BEZEL MODULE M770SU	6-42-M770Z-101	
5	ODD BEZEL LABEL(SUPER MULTI) M760S	6-45-M76SZ-011	

Figure A - 9
DVD-Dual Drive (M770SU/M775SU)

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the ***M770SU/M775SU*** notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

Diagram - Page	Diagram - Page	Diagram - Page
System Block Diagram - Page B - 2	*Inverter, Bluetooth, Fan - Page B - 20*	*VDD3, VDD5) - Page B - 38*
Penryn (Socket-P) 1/2 - Page B - 3	*968 PCI, IDE, MuTIOL, SPI 1/4 - Page B - 21*	*1.05VS, 1.2V, 1.5V - Page B - 39*
Penryn (Socket-P) 2/2 - Page B - 4	*968 PCIE, LAN, GPIO 2/4 - Page B - 22*	*1.8V, 0.9VS - Page B - 40*
SiSM672 Host, PCIE 1/5 - Page B - 5	*968 USB SATA 3/4 - Page B - 23*	*Click BD, Finger BD for M76 - Page B - 41*
SiSM672 DRAM 2/5 - Page B - 6	*968 PWR, GND 4/4 - Page B - 24*	*Multi Function Board - Page B - 42*
SiSM672 MuTIOL VGA 3/5 - Page B - 7	*Clock Generator & Clock Buffer - Page B - 25*	*Audio Board - Page B - 43*
SiSM672 PWR 4/5 - Page B - 8	*PHY Realtek 8201CL - Page B - 26*	*Finger Sensor Board - Page B - 44*
SiSM672 GND 5/5 - Page B - 9	*KBC ITE8512E - Page B - 27*	*Power Switch Board for M74 - Page B - 45*
DDRII SO-DIMM - 1 - Page B - 10	*ENE MR510, Card Reader - Page B - 28*	*External ODD Board for M76 - Page B - 46*
DDRII SO-DIMM - 2 - Page B - 11	*Audio Codec ALC662 - Page B - 29*	*FingerPrint Board for M74 - Page B - 47*
External VGA NB9M-GS-1 - Page B - 12	*Audio AMP - Page B - 30*	*Power Switch Board for M76 - Page B - 48*
External VGA NB9M-GS-2 - Page B - 13	*SATA HDD, PWR, LID - Page B - 31*	*PATA ODD C/B for M77 - Page B - 49*
External VGA NB9M-GS-3 - Page B - 14	*Multi I/O, ODD, 3G, Click BD for M74 - Page B - 32*	*SATA ODD C/B for M77 - Page B - 50*
External VGA NB9M-GS-4 - Page B - 15	*New Card, Mini PCIE, USB - Page B - 33*	*Keyboard C/B for M77 - Page B - 51*
External VGA NB9M-GS-5 - Page B - 16	*LED, PC Beep, TP, FP - Page B - 34*	*HDD C/B for M77 - Page B - 52*
External VGA NB9M-GS-6 - Page B - 17	*System/Ext-VGA Power - Page B - 35*	*Power Switch Board for M77 - Page B - 53*
External VGA NB9M-GS-7 - Page B - 18	*AC-IN, Charger - Page B - 36*	
Panel, CRT - Page B - 19	*VCORE - Page B - 37*	

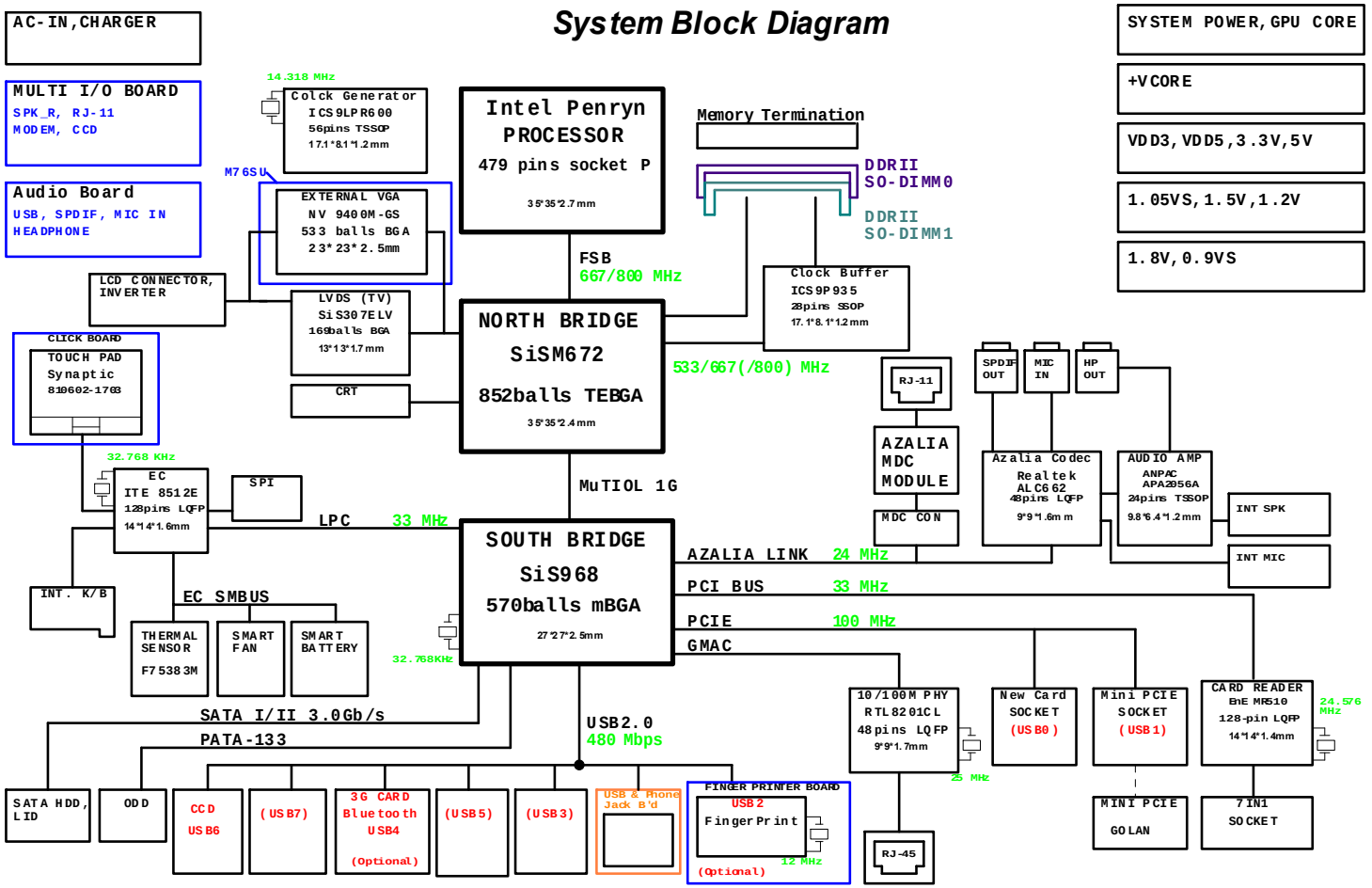
Table B - 1
Schematic Diagrams

Version Note

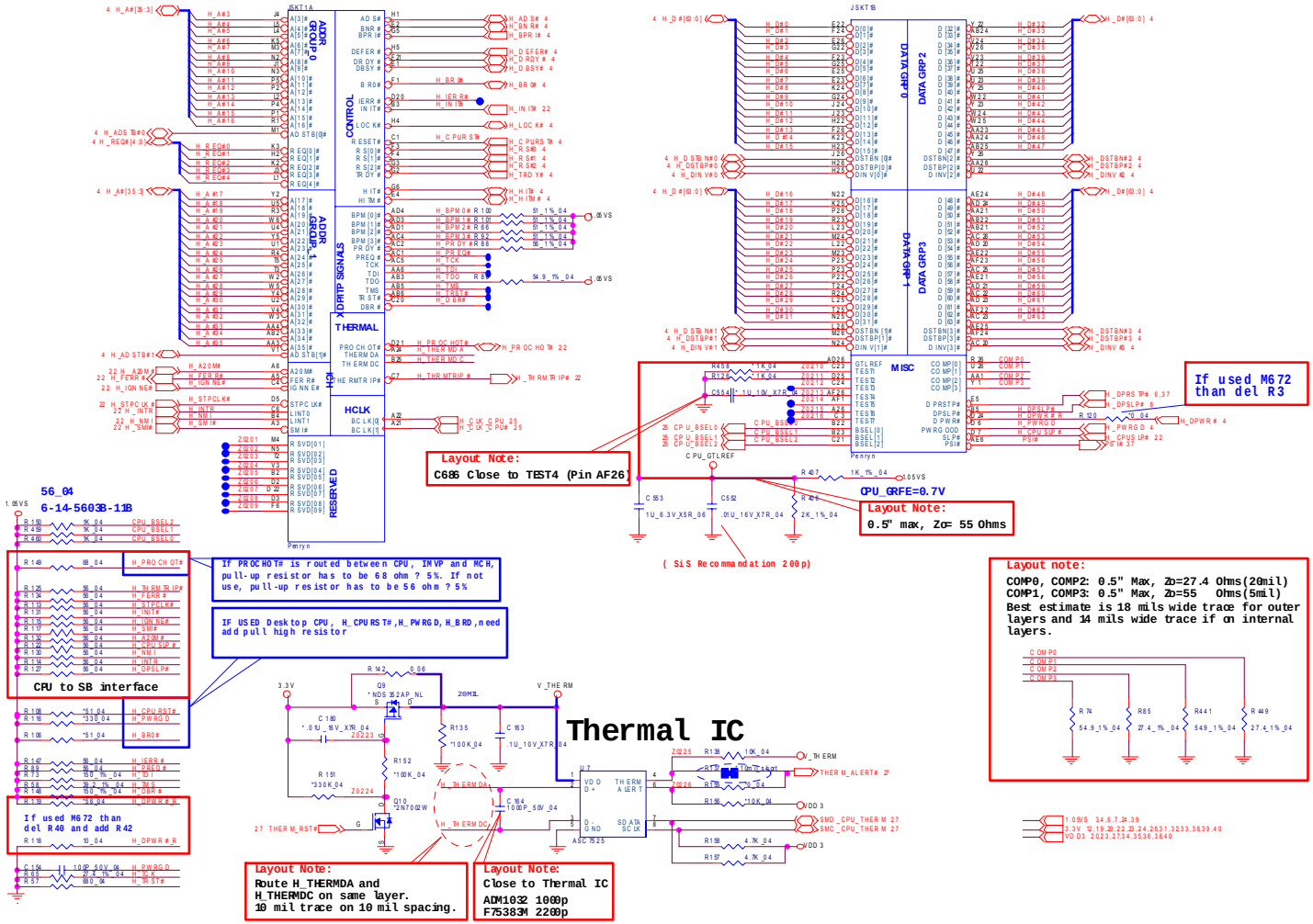
The schematic diagrams in this chapter are based upon version 6-7P-M74S9-003A. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

System Block Diagram

Sheet 1 of 48
System Block Diagram



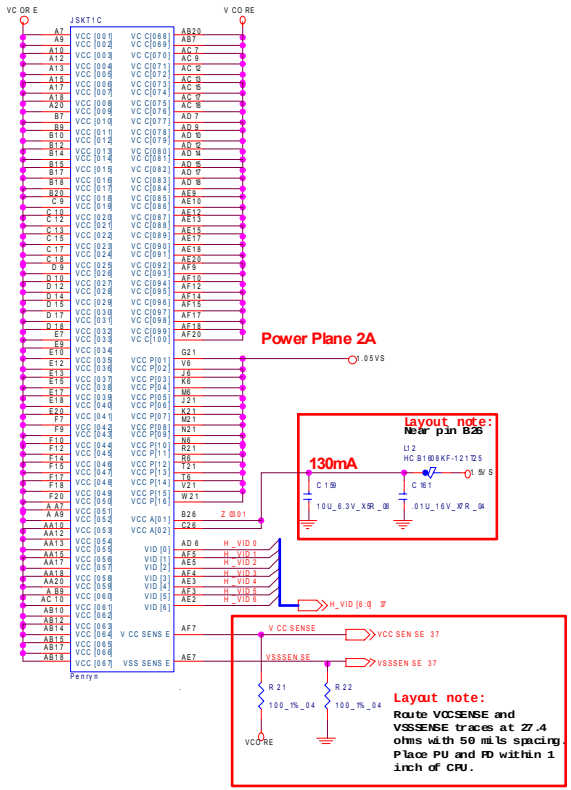
Penryn (Socket-P) 1/2

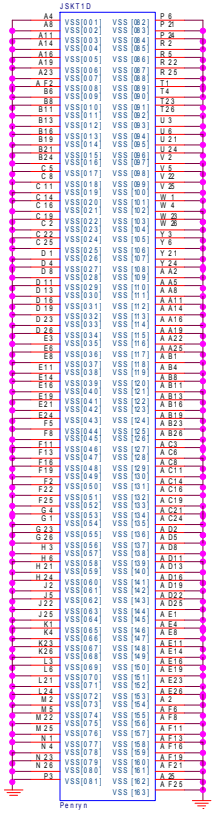


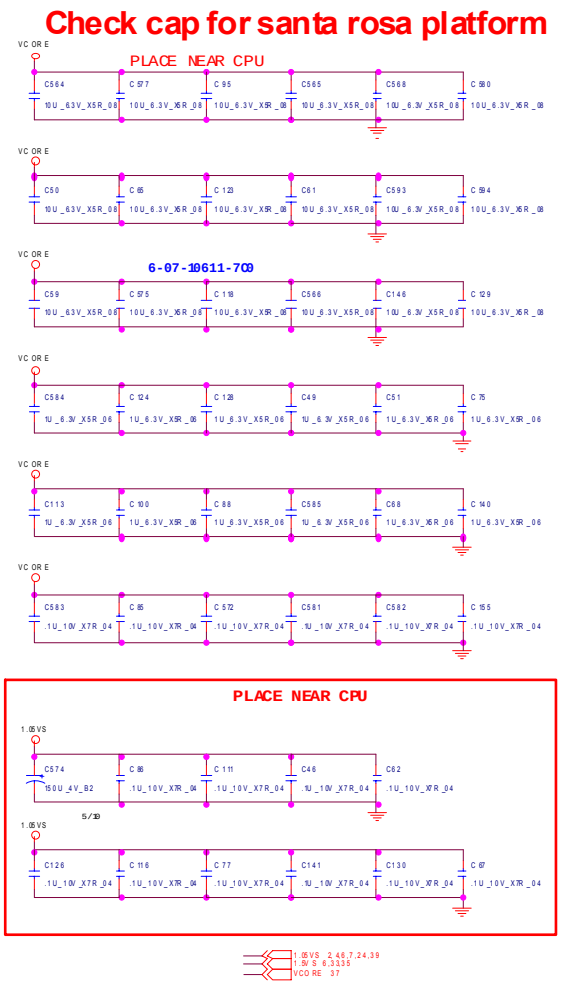
Sheet 2 of 48
Penryn (Socket-P)
1/2

Penryn (Socket-P) 2/2

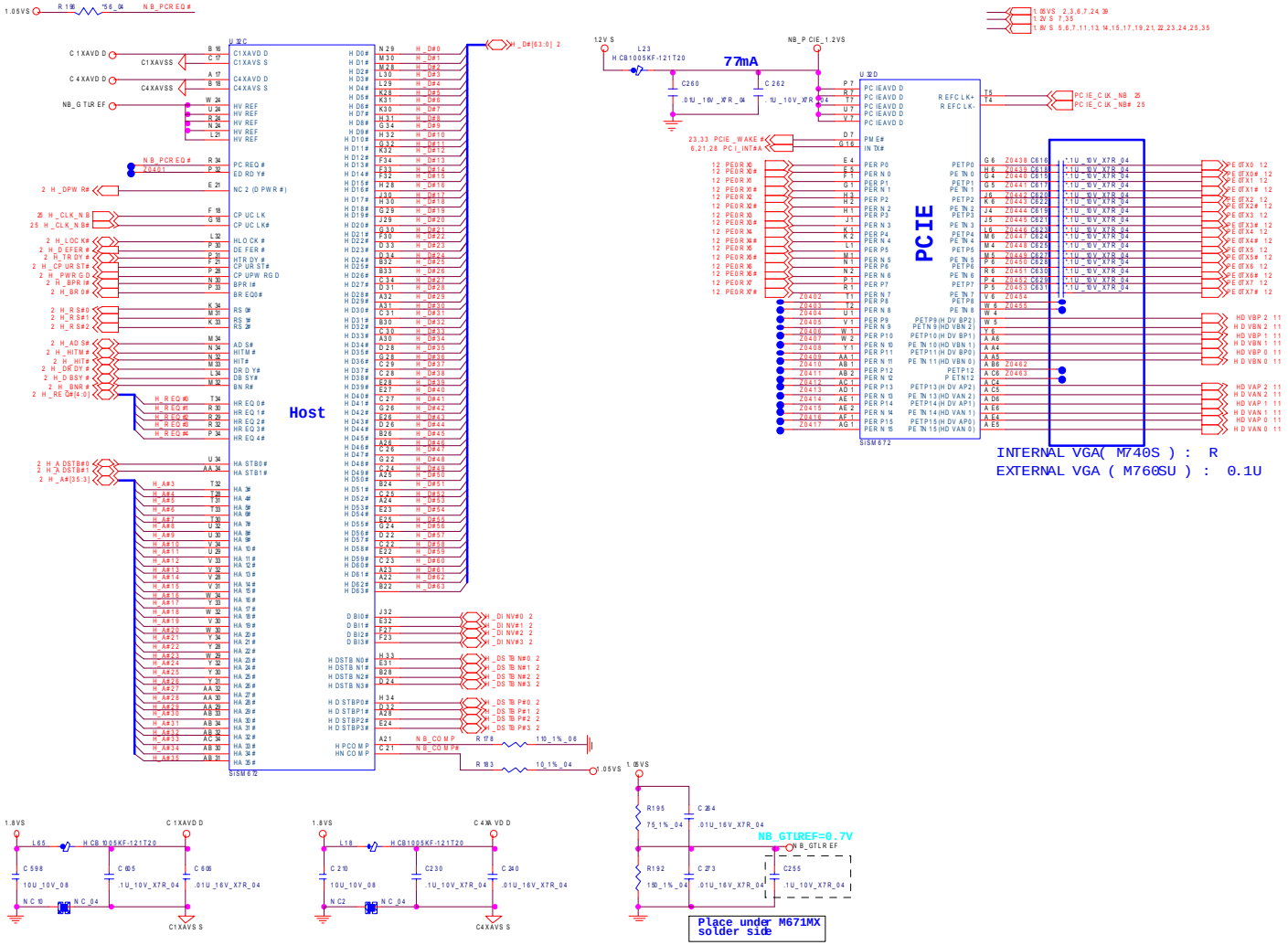
Sheet 3 of 48
Penryn (Socket-P)
2/2







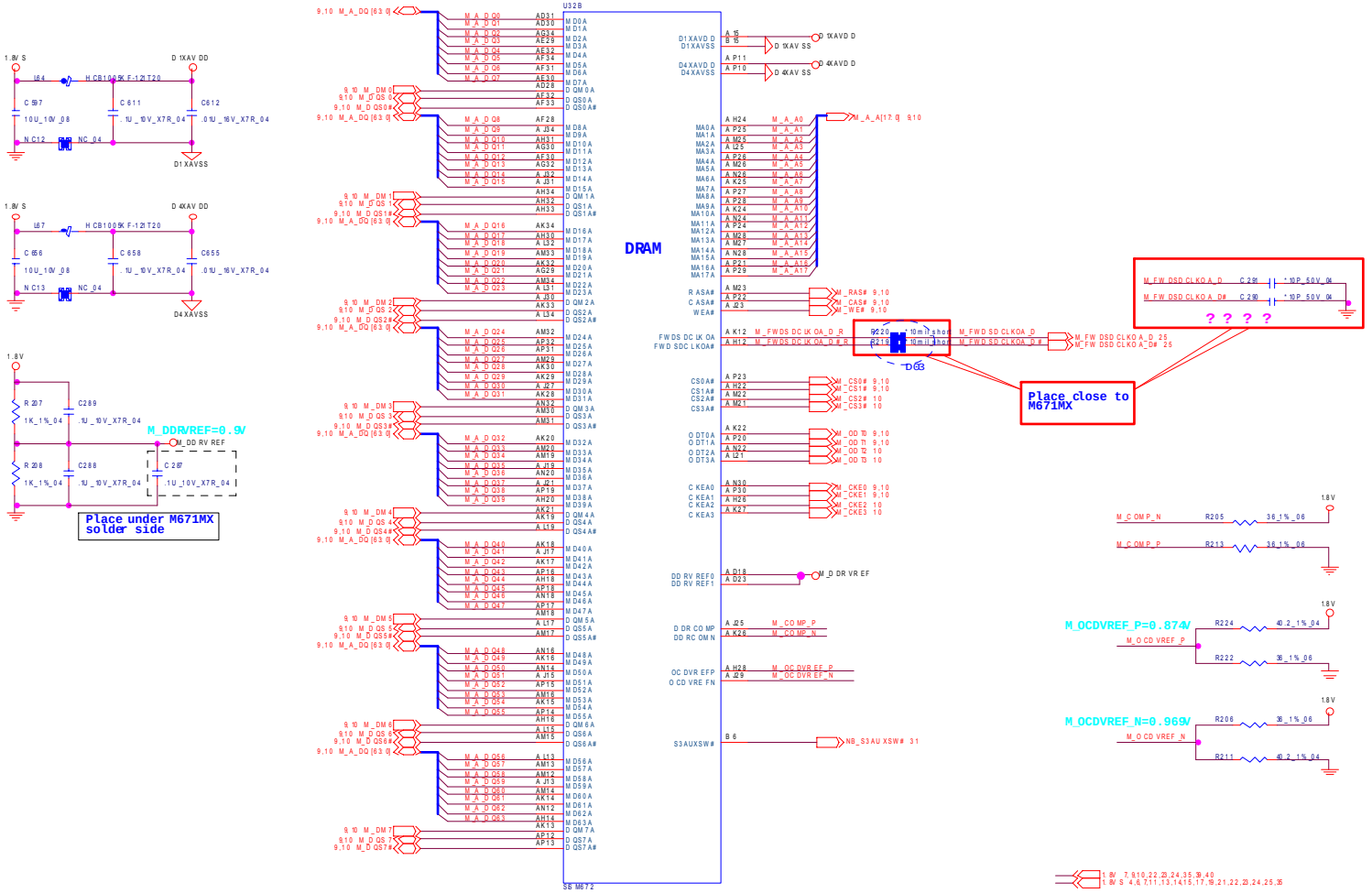
SiSM672 Host, PCIE 1/5



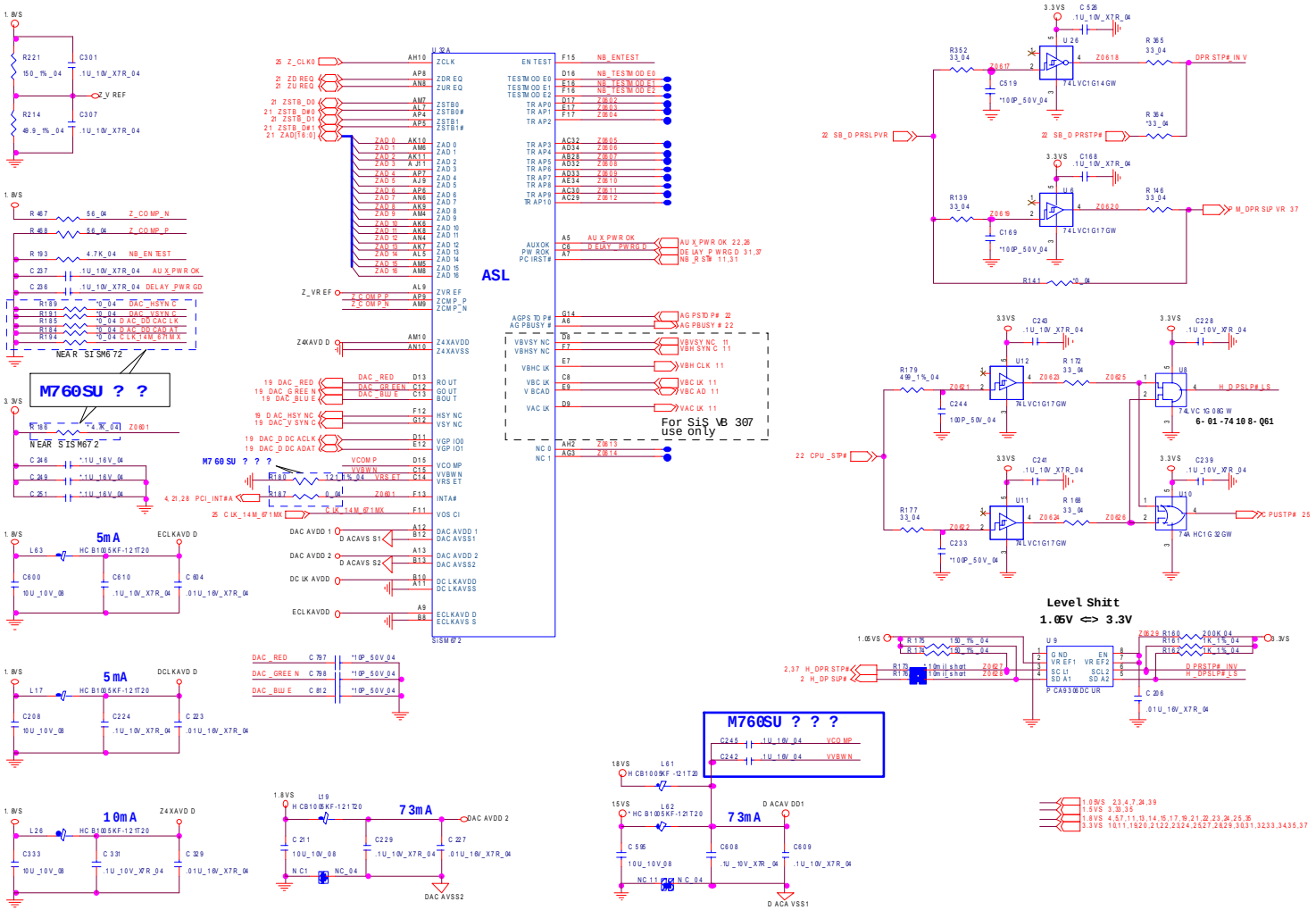
Sheet 4 of 48
SiSM672 Host,
PCIE 1/5

SiSM672 DRAM 2/5

Sheet 5 of 48
SiSM672 DRAM 2/5



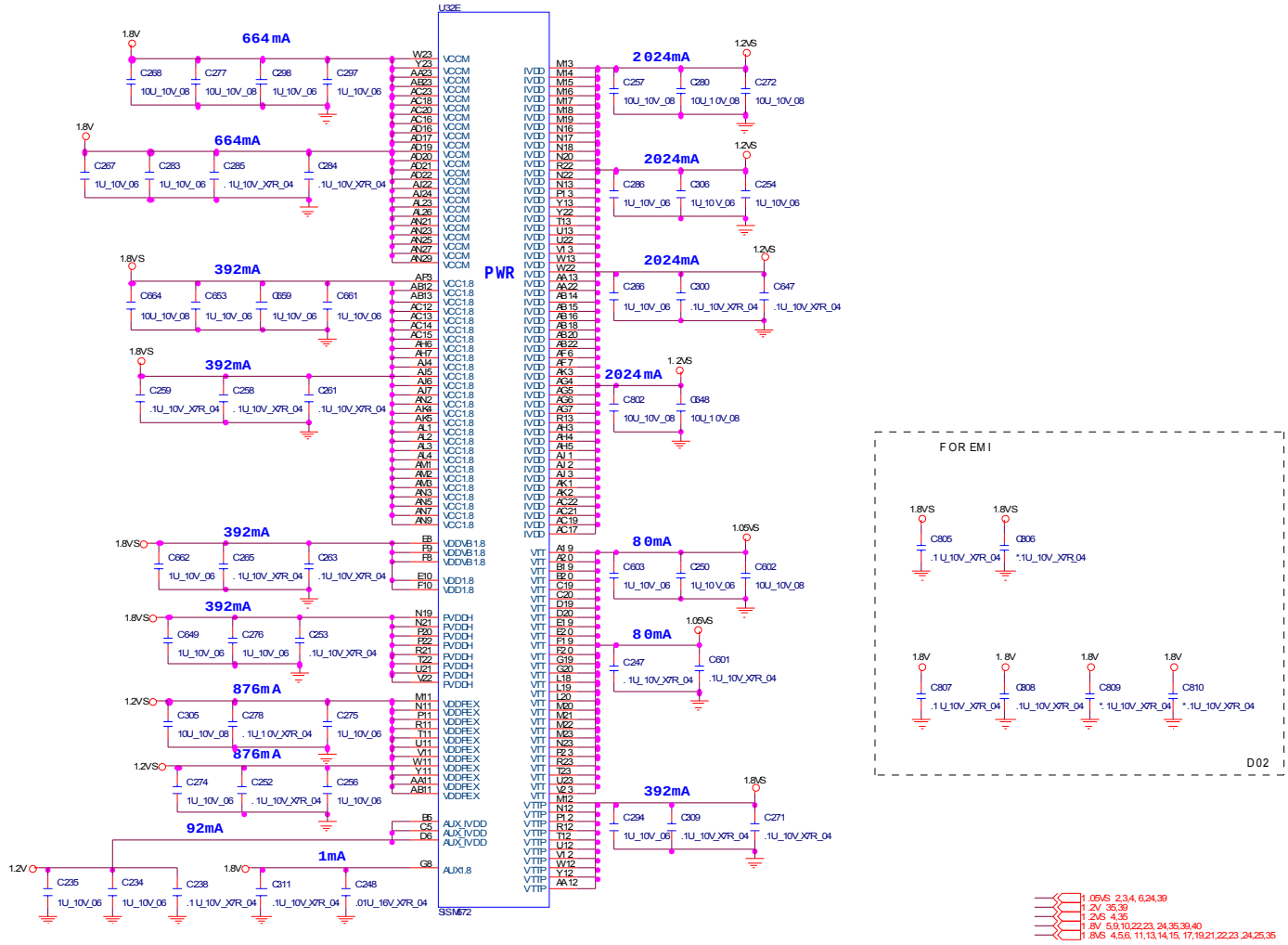
SiSM672 MuTIOL VGA 3/5



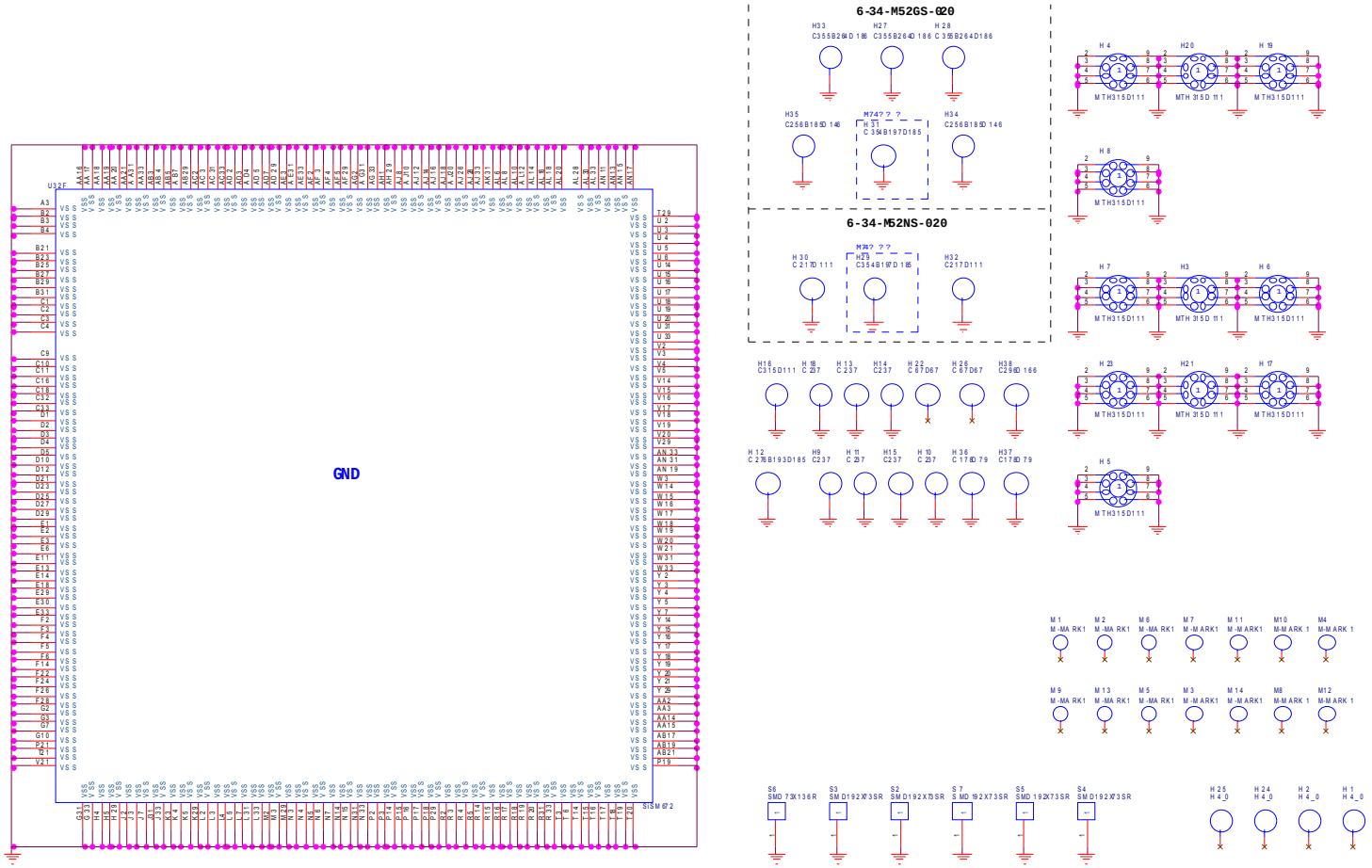
Sheet 6 of 48
SiSM672 MuTIOL
VGA 3/5

SiSM672 PWR 4/5

Sheet 7 of 48
SiSM672 PWR 4/5



SiSM672 GND 5/5

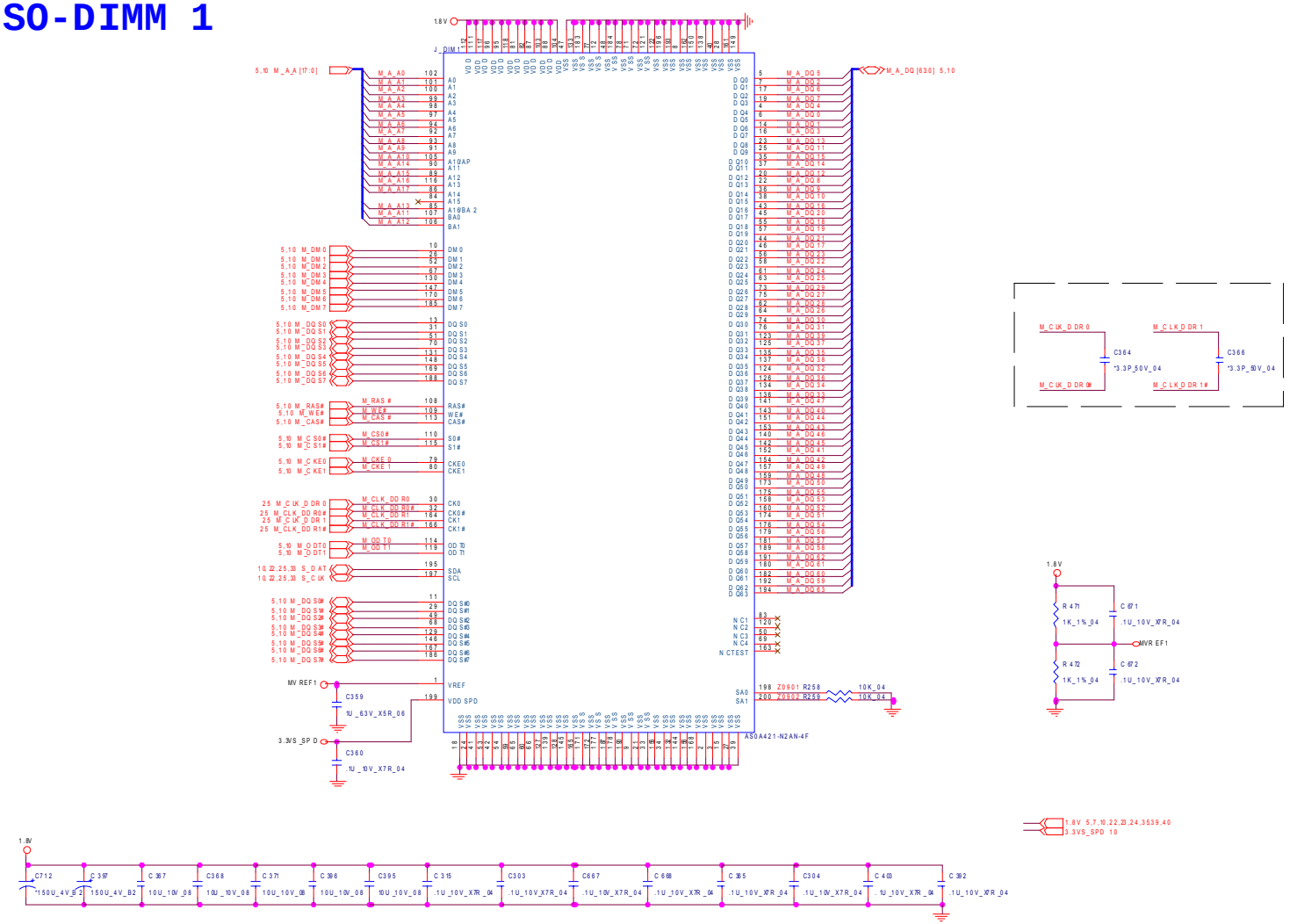


Sheet 8 of 48
SiSM672 GND 5/5

DDRII SO-DIMM - 1

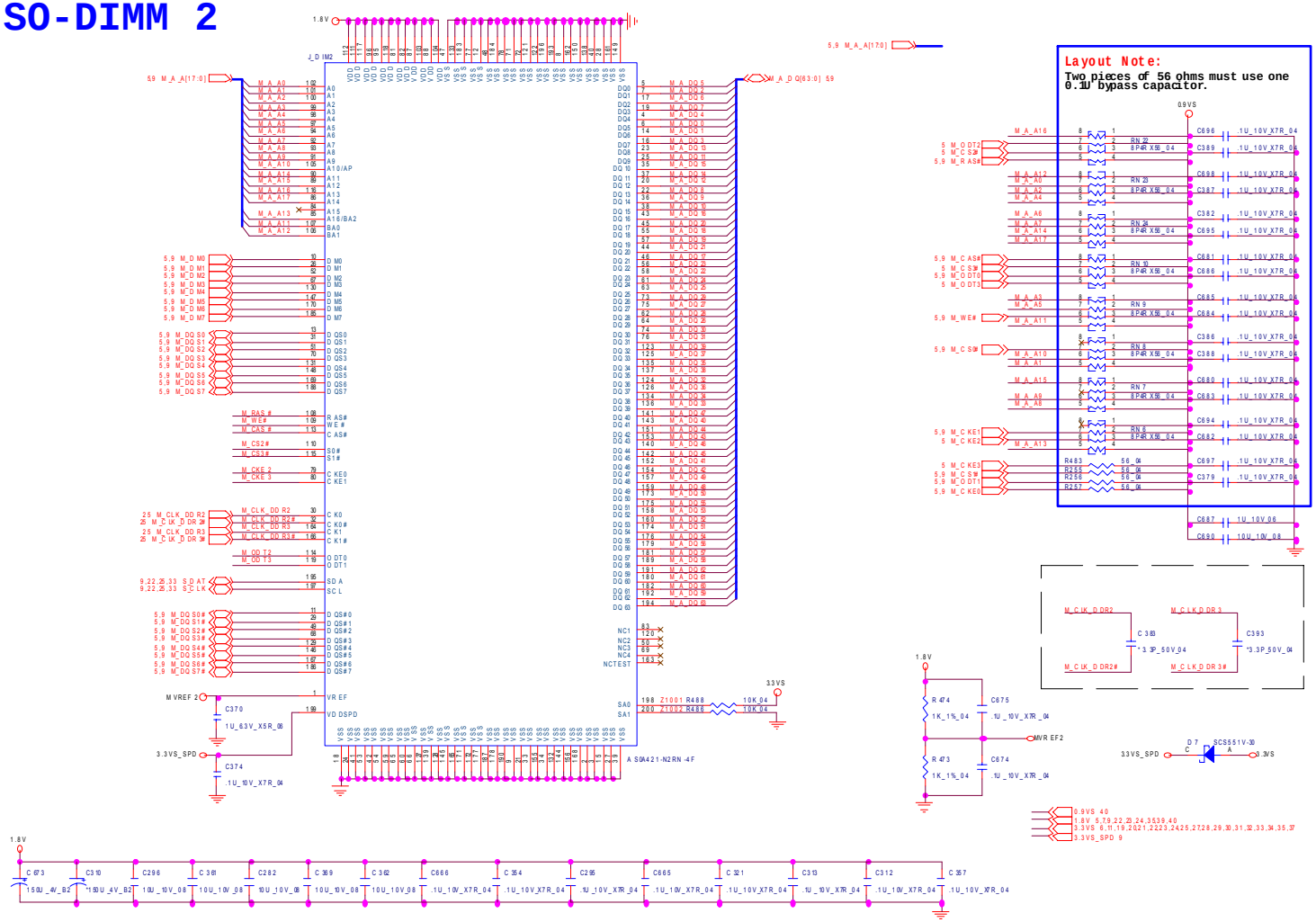
SO-DIMM 1

Sheet 9 of 48
DDRII SO-DIMM - 1



DDRII SO-DIMM - 2

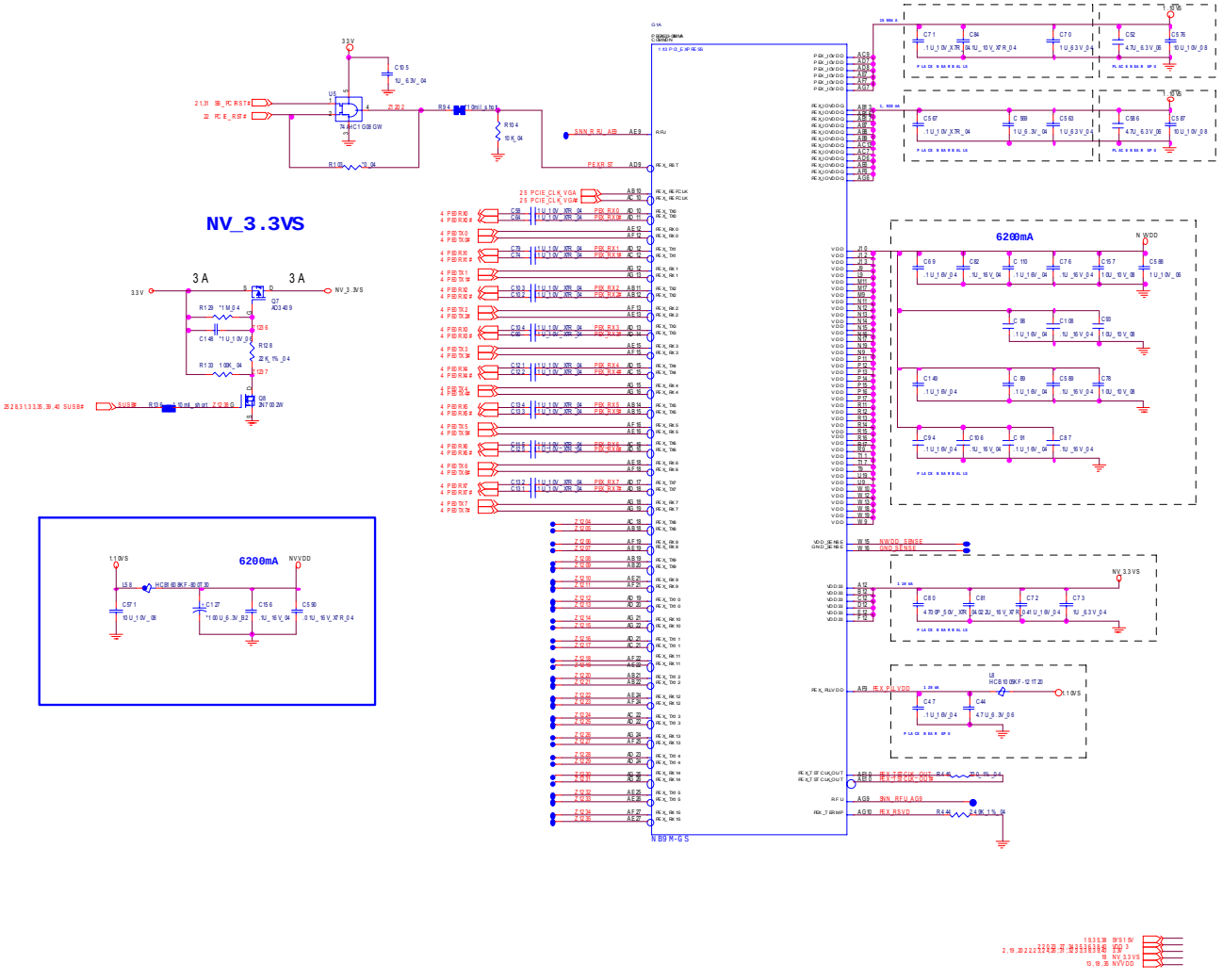
SO-DIMM 2



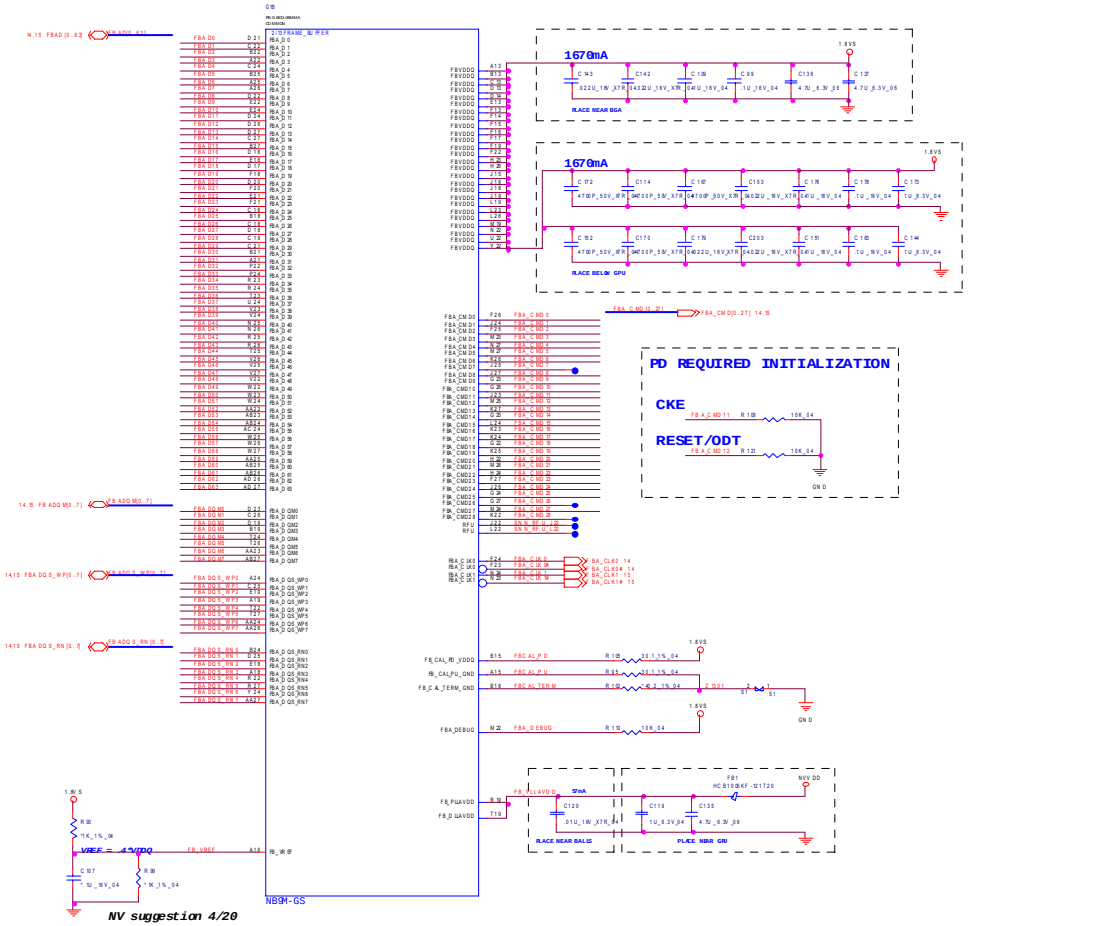
Sheet 10 of 48
DDRII SO-DIMM - 2

External VGA NB9M-GS-1

Sheet 11 of 48
External VGA
NB9M-GS-1



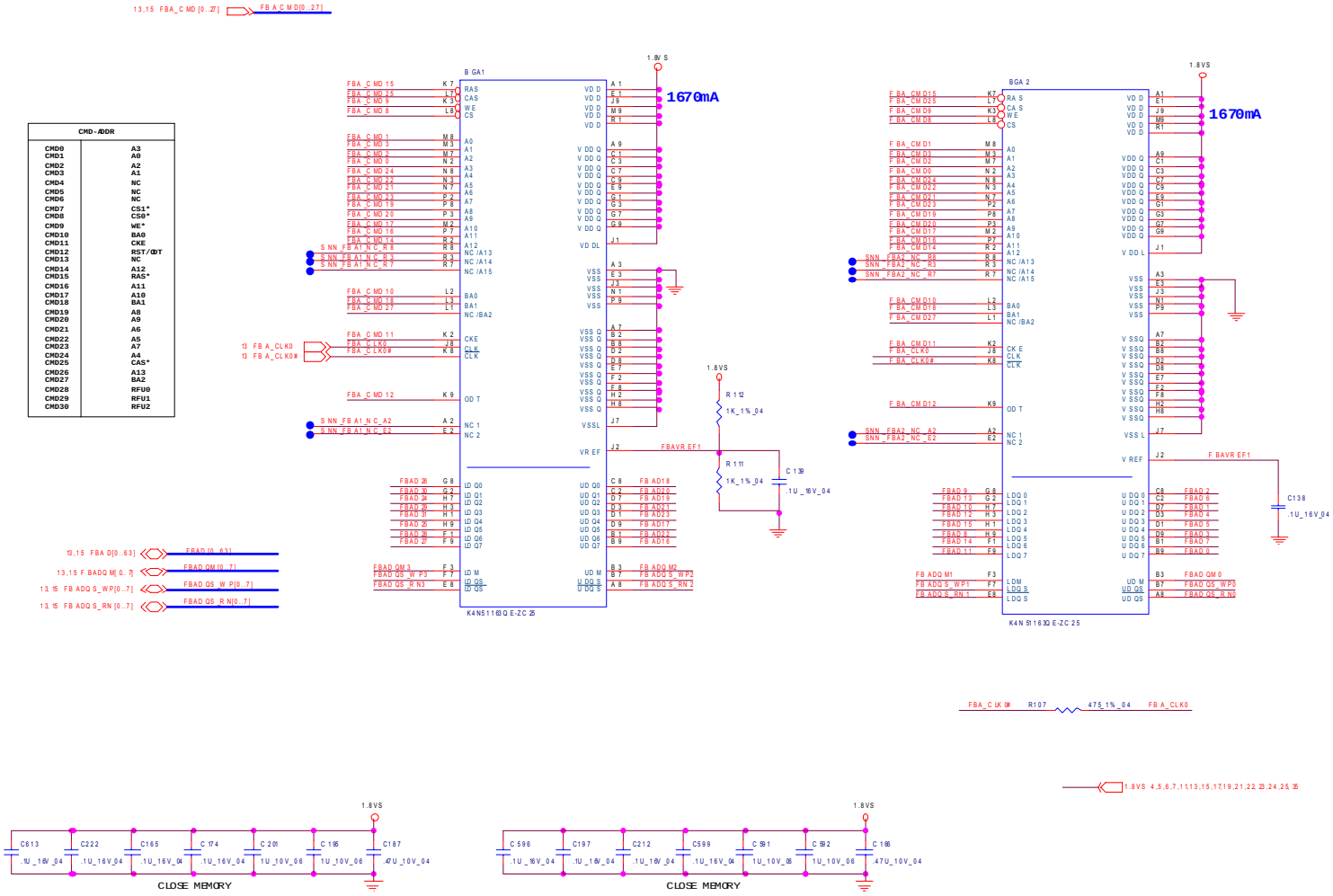
External VGA NB9M-GS-2



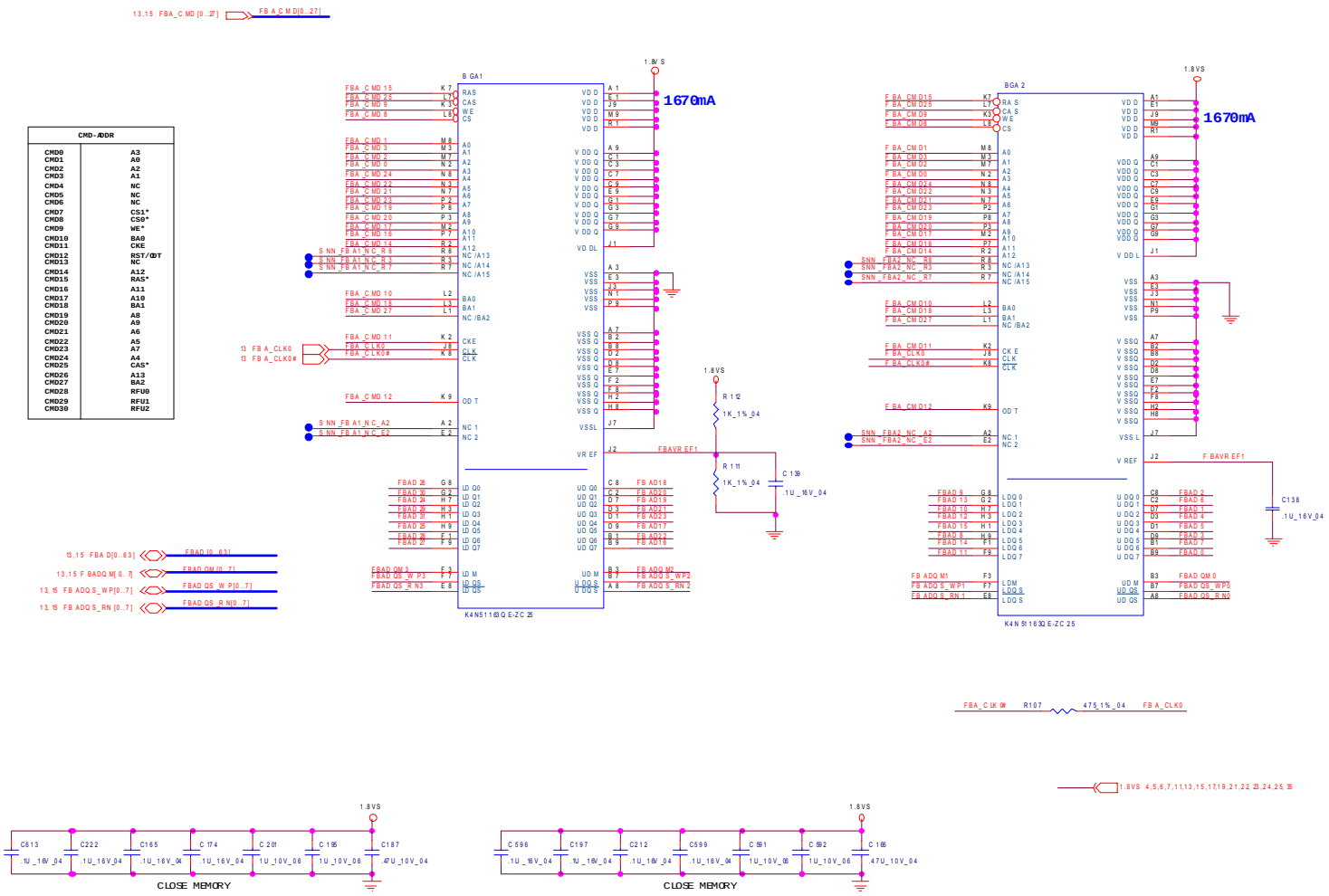
Sheet 12 of 48
External VGA
NB9M-GS-2

External VGA NB9M-GS-3

Sheet 13 of 48
External VGA
NB9M-GS-3



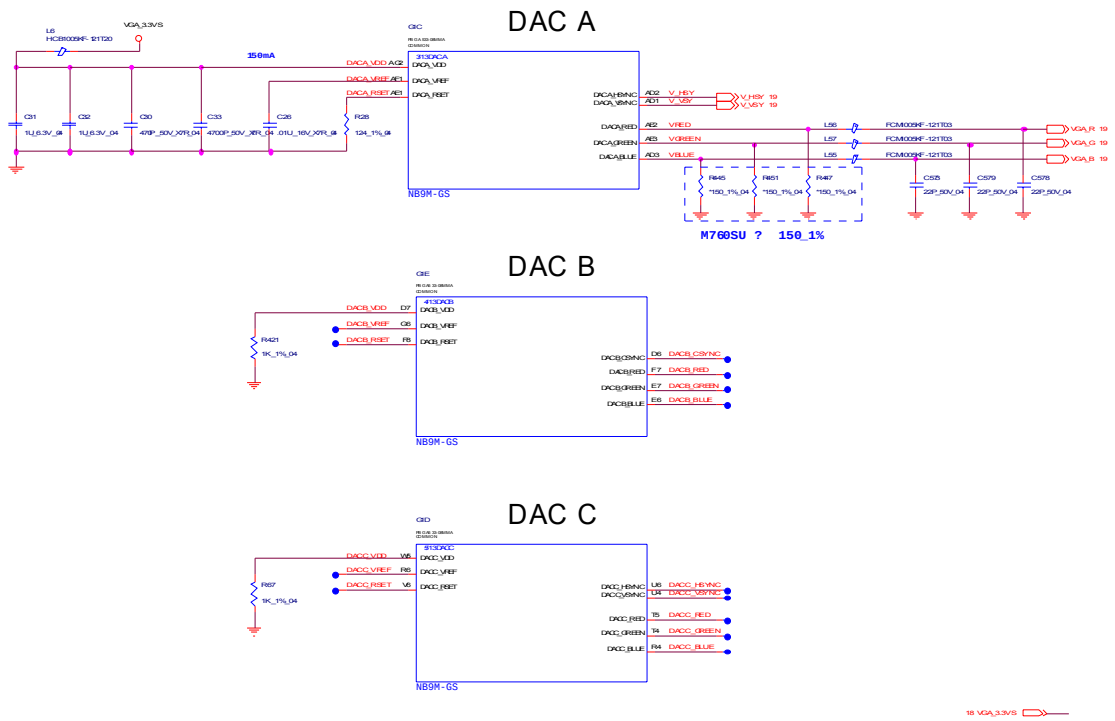
External VGA NB9M-GS-4



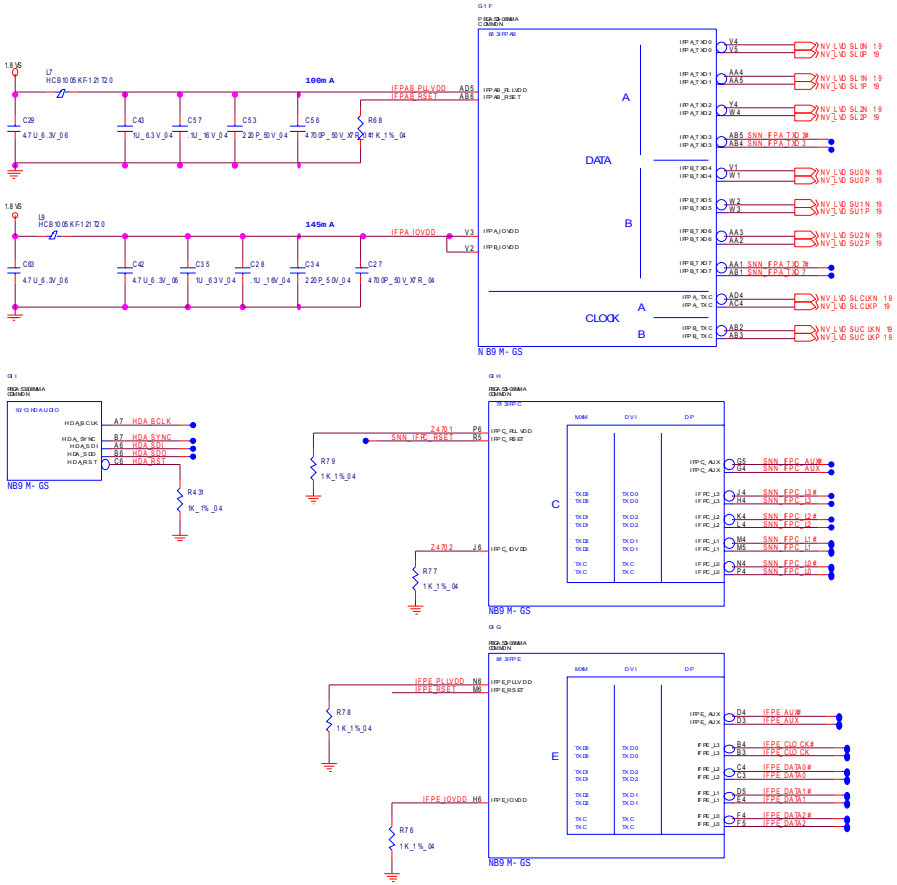
Sheet 14 of 48
External VGA
NB9M-GS-4

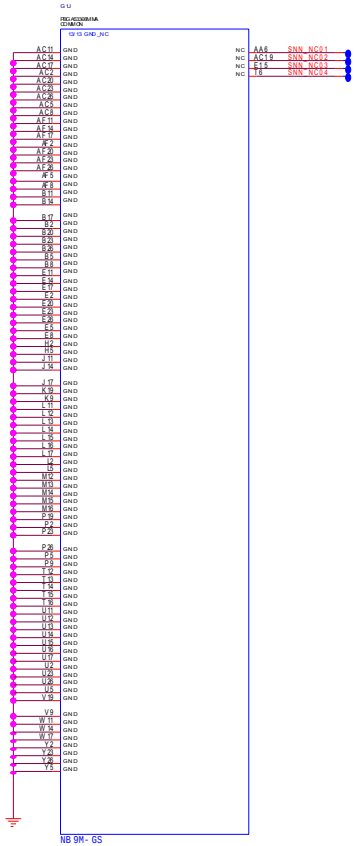
External VGA NB9M-GS-5

Sheet 15 of 48
External VGA
NB9M-GS-5



External VGA NB9M-GS-6

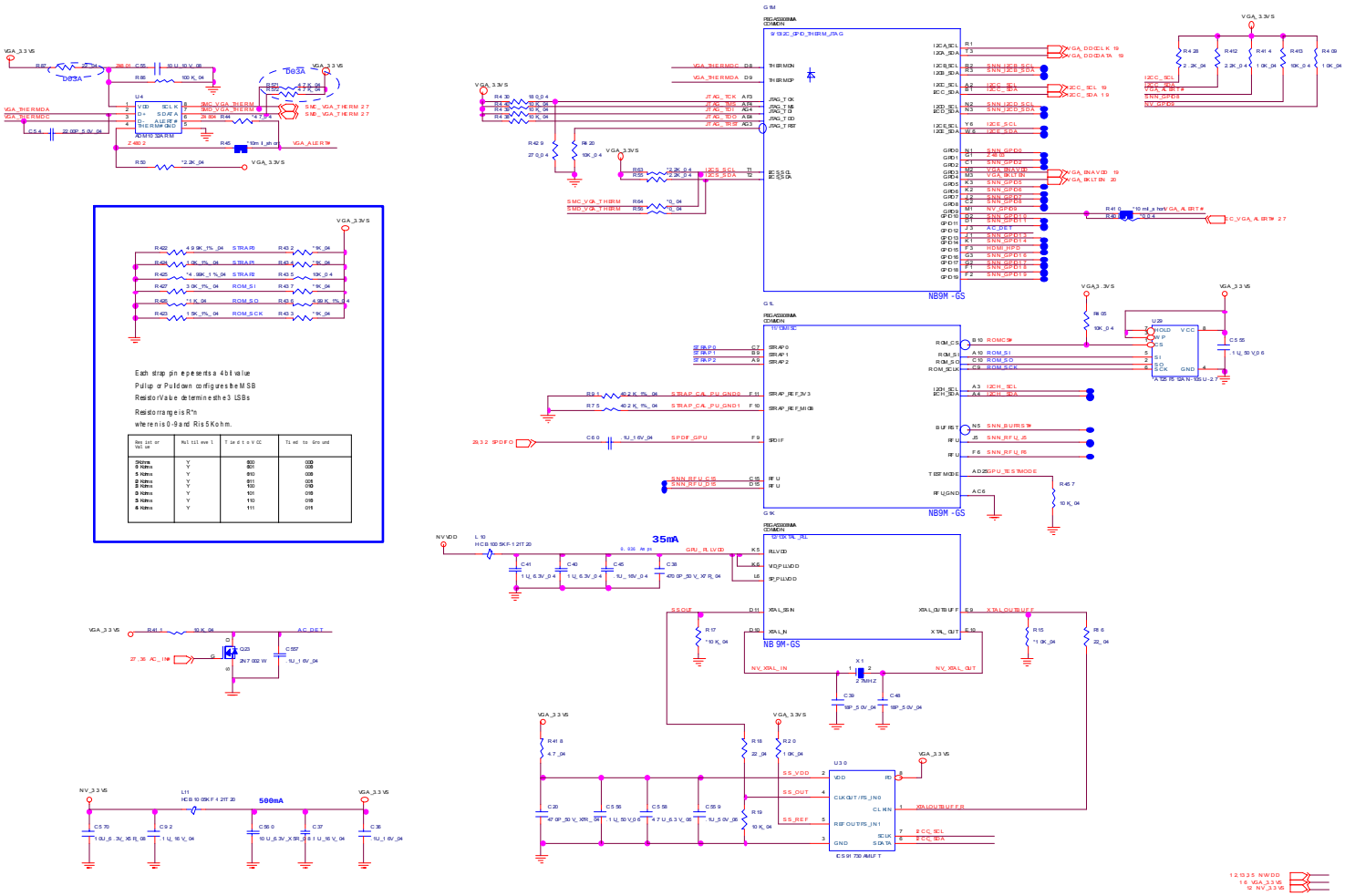




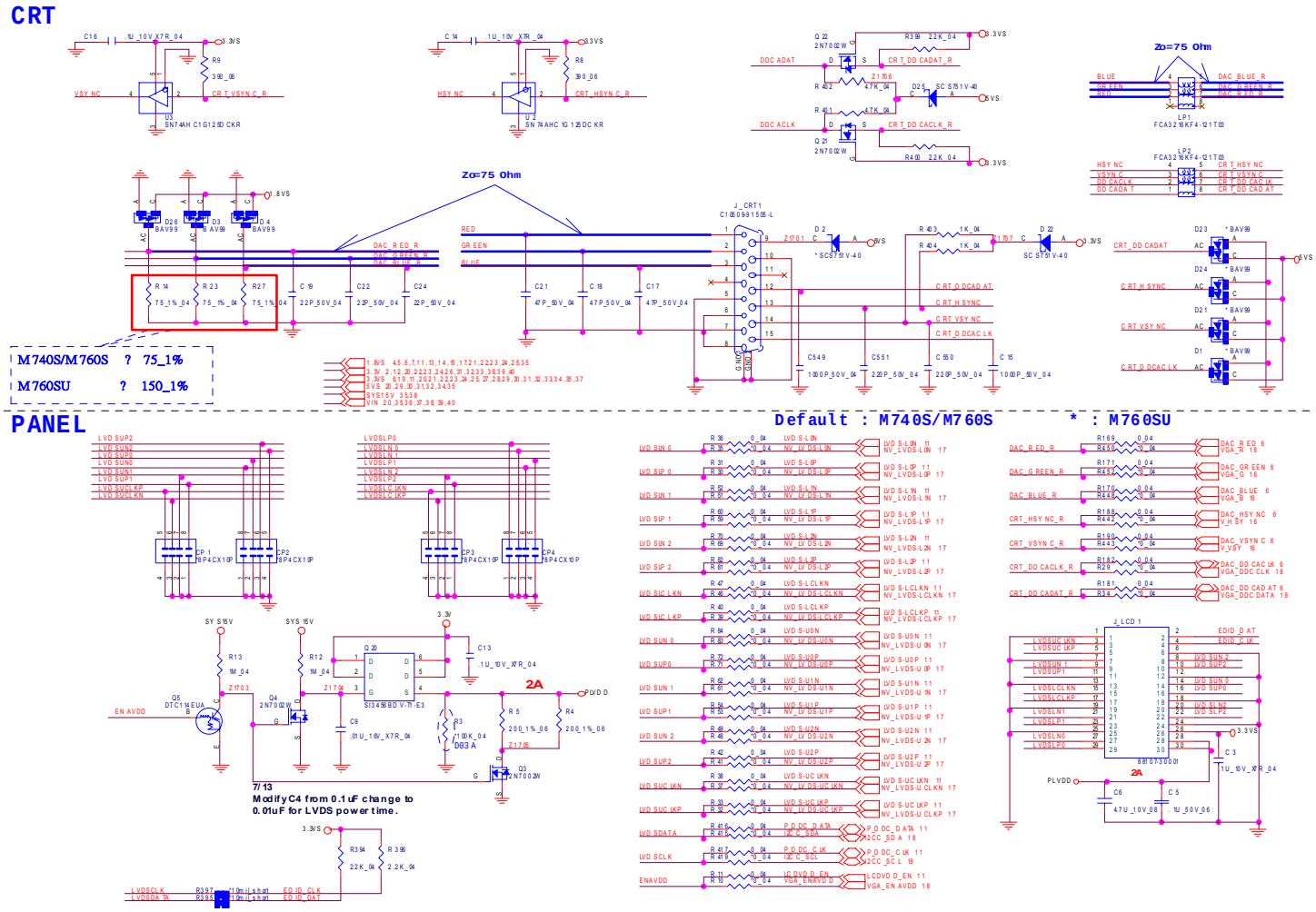
Sheet 16 of 48
External VGA
NB9M-GS-6

External VGA NB9M-GS-7

Sheet 17 of 48
External VGA
NB9M-GS-7



Panel, CRT

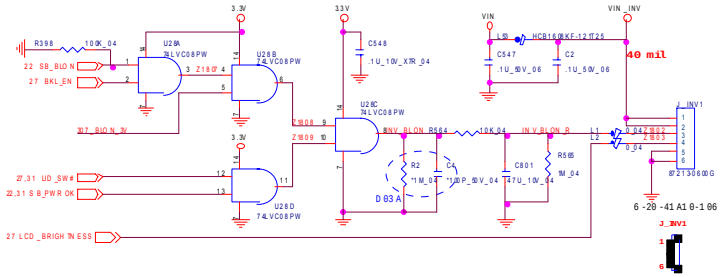


Sheet 18 of 48
Panel, CRT

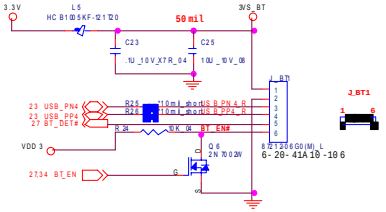
Inverter, Bluetooth, Fan

Sheet 19 of 48
Inverter, Bluetooth, Fan

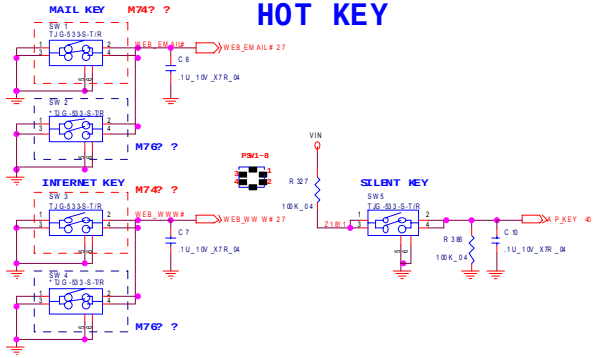
INVERTER CONNECTOR



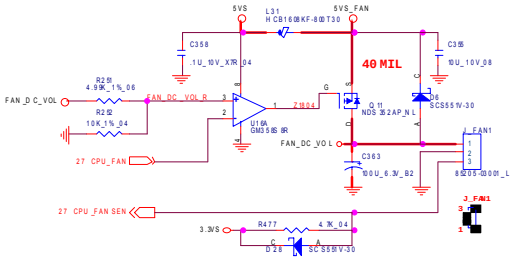
Bluetooth



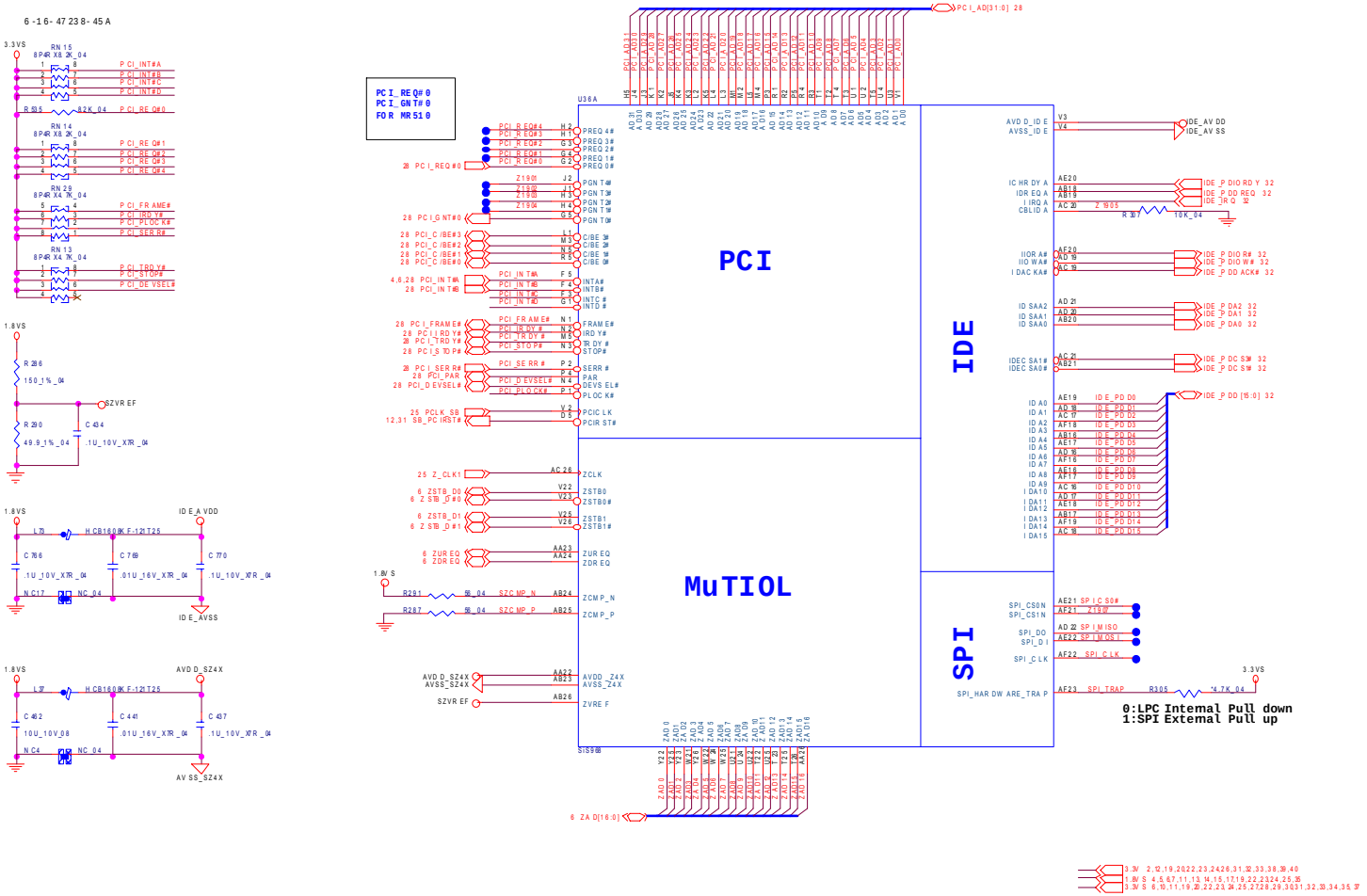
HOT KEY



FAN CONTROL



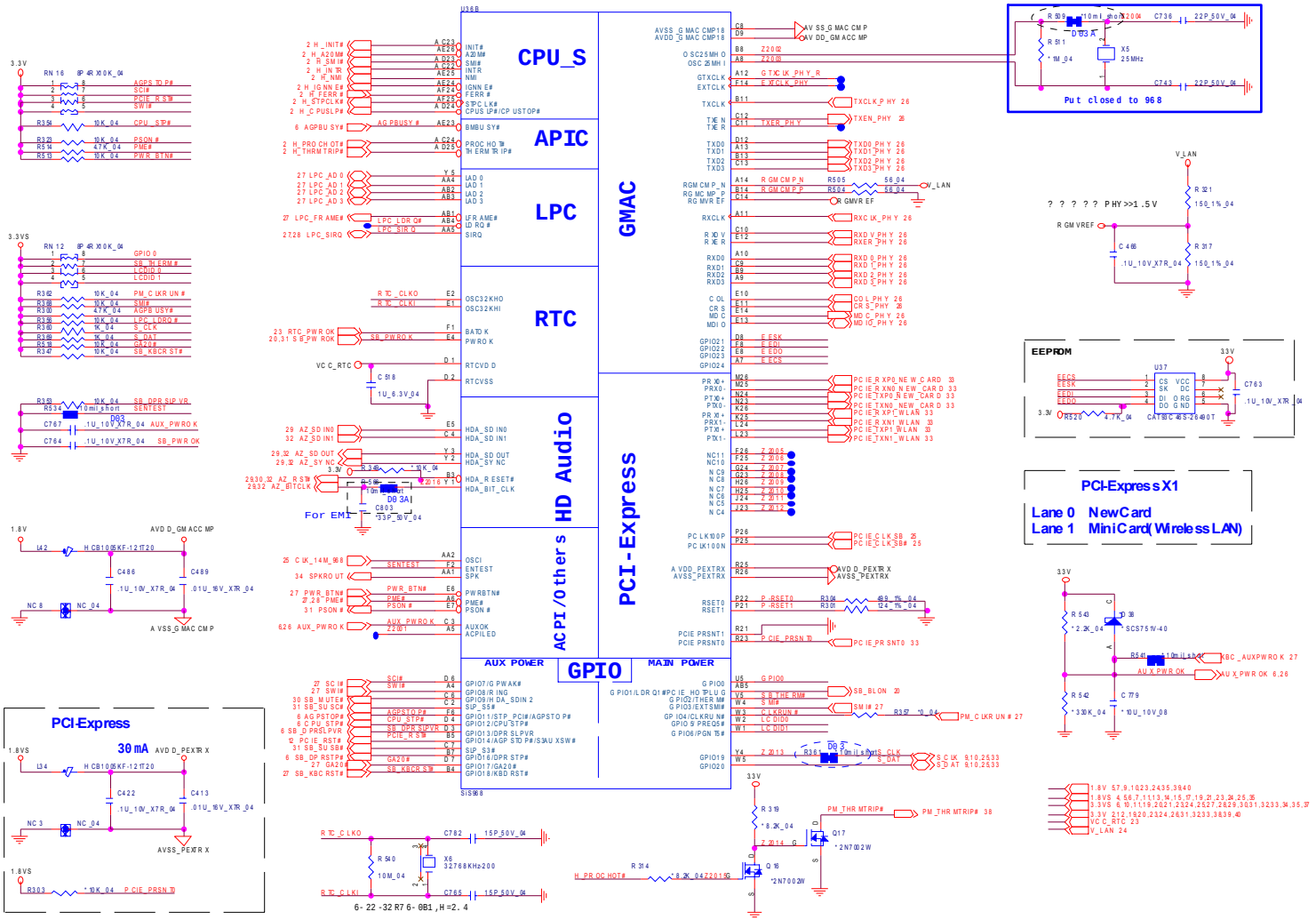
968 PCI, IDE, MuTIOL, SPI 1/4



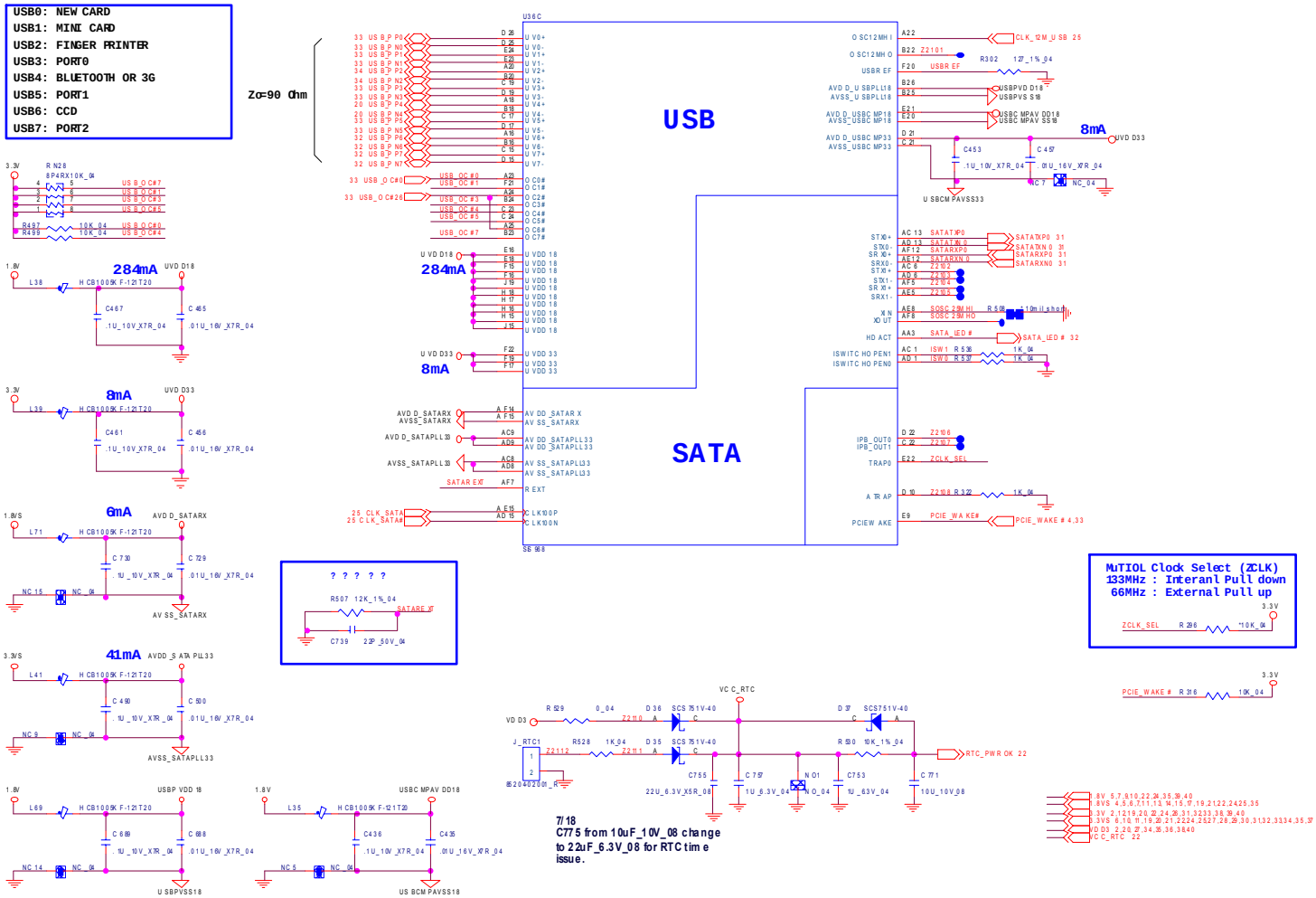
Sheet 20 of 48
968 PCI, IDE,
MuTIOL, SPI 1/4

968 PCIE, LAN, GPIO 2/4

Sheet 21 of 48
968 PCIE, LAN, GPIO 2/4



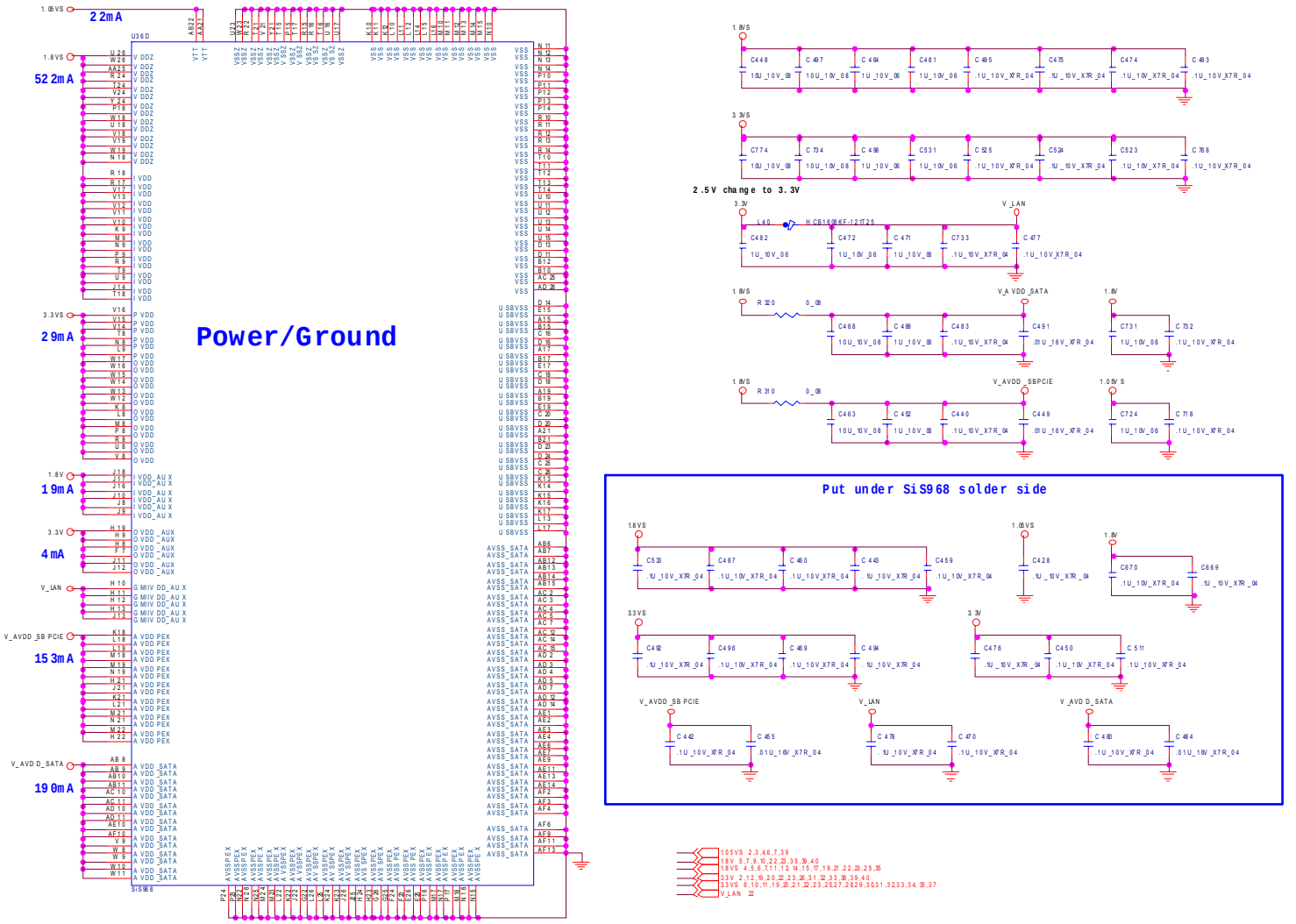
968 USB SATA 3/4



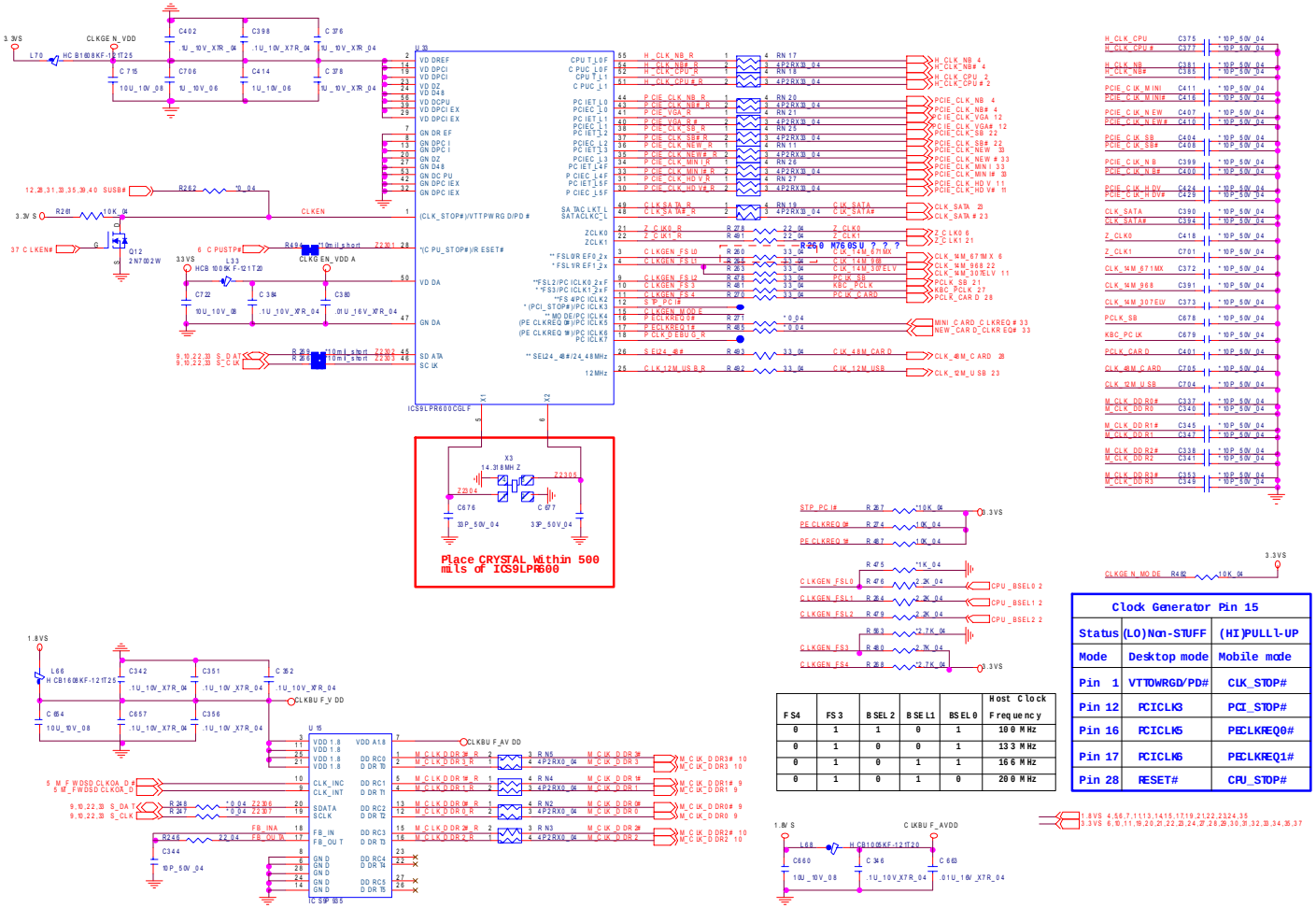
Sheet 22 of 48
968 USB SATA 3/4

968 PWR, GND 4/4

Sheet 23 of 48
968 PWR, GND 4/4



Clock Generator & Clock Buffer



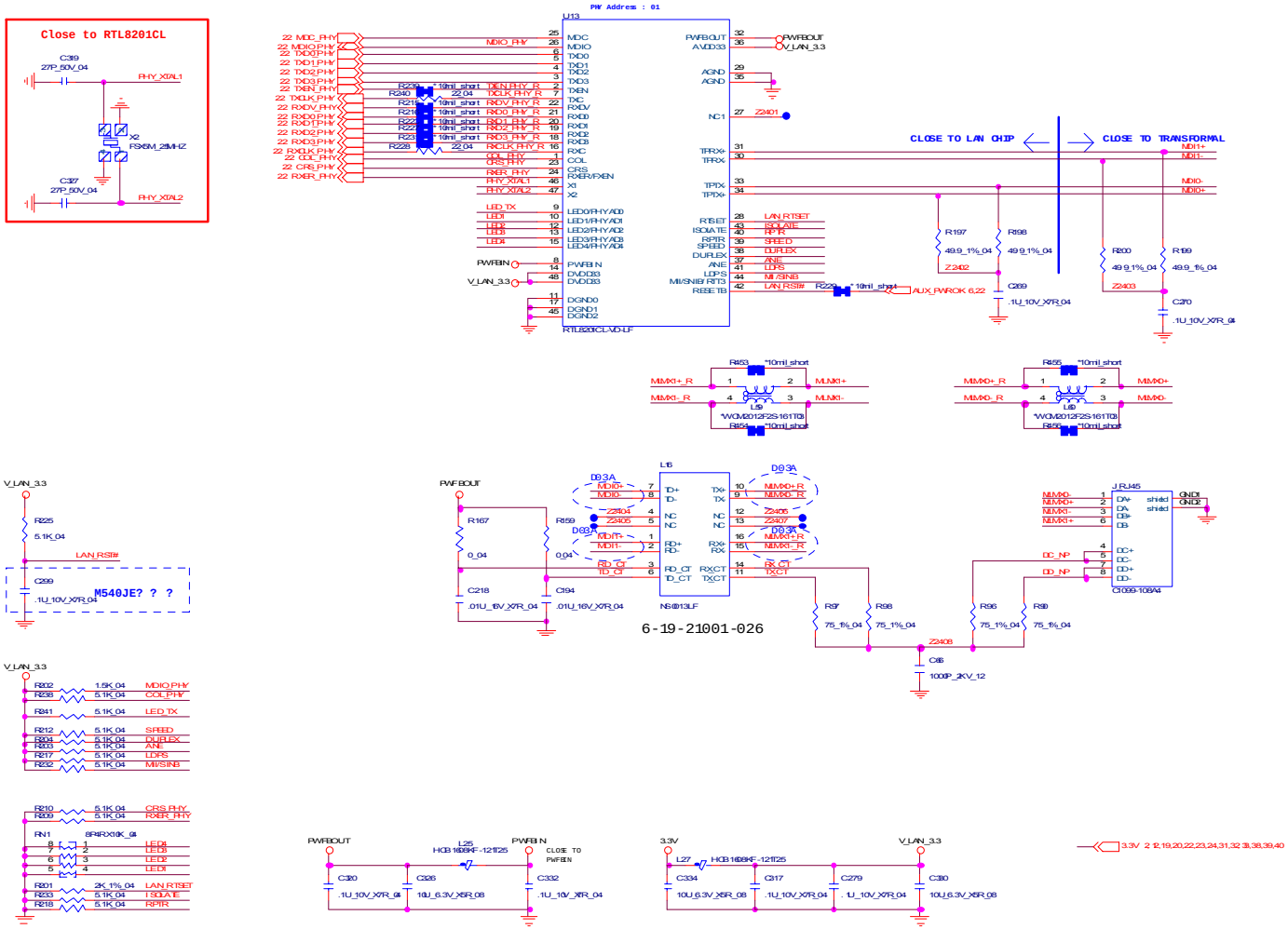
Clock Generator Pin 15		
Status	(LO)Non-STUFF	(HI)PULLL-UP
Mode	Desktop mode	Mobile mode
Pin 1	VTTOWRGD/PD#	CLK_STOP#
Pin 12	PCICLK3	PCI_STOP#
Pin 16	PCICLK5	PECLKREQ0#
Pin 17	PCICLK6	PECLKREQ1#
Pin 28	RESET#	CPU_STOP#

FS4	FS3	BSEL2	BSEL1	BSEL0	Host Clock Frequency
0	1	1	0	1	100 MHz
0	1	0	0	1	133 MHz
0	1	0	1	1	166 MHz
0	1	0	1	0	200 MHz

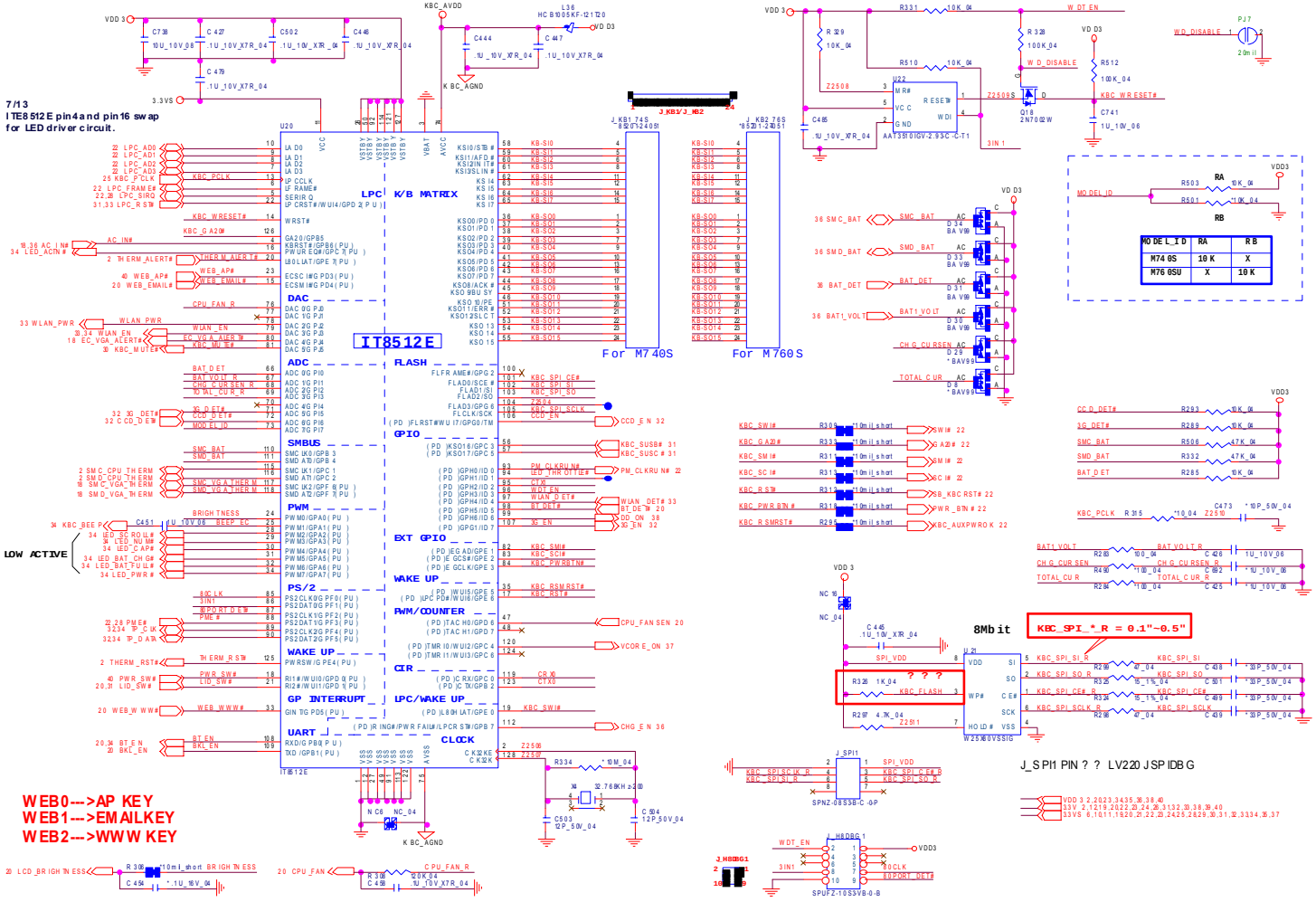
Sheet 24 of 48
Clock Generator & Clock Buffer

PHY Realtek 8201CL

Sheet 25 of 48
PHY Realtek
8201CL



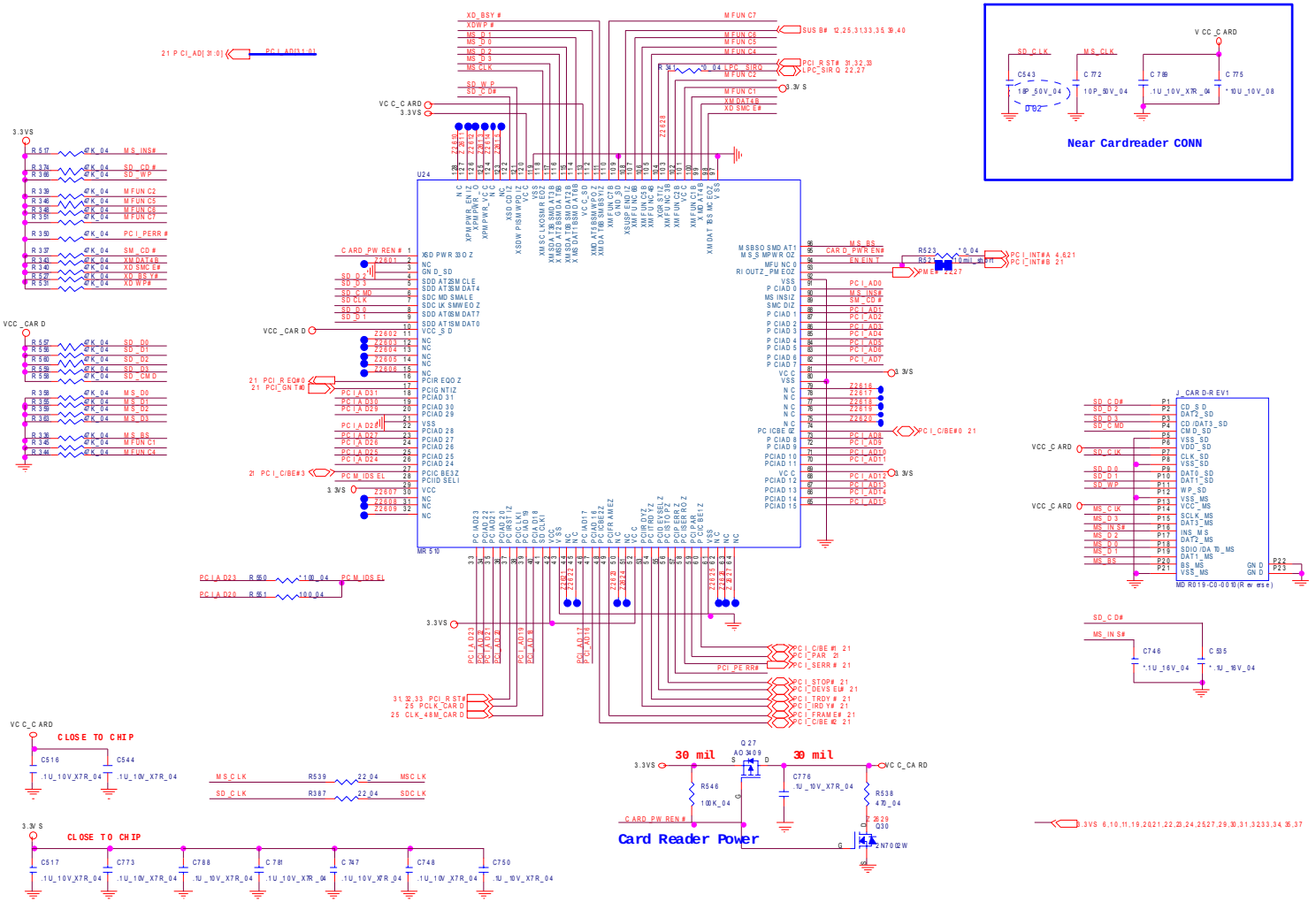
KBC ITE8512E



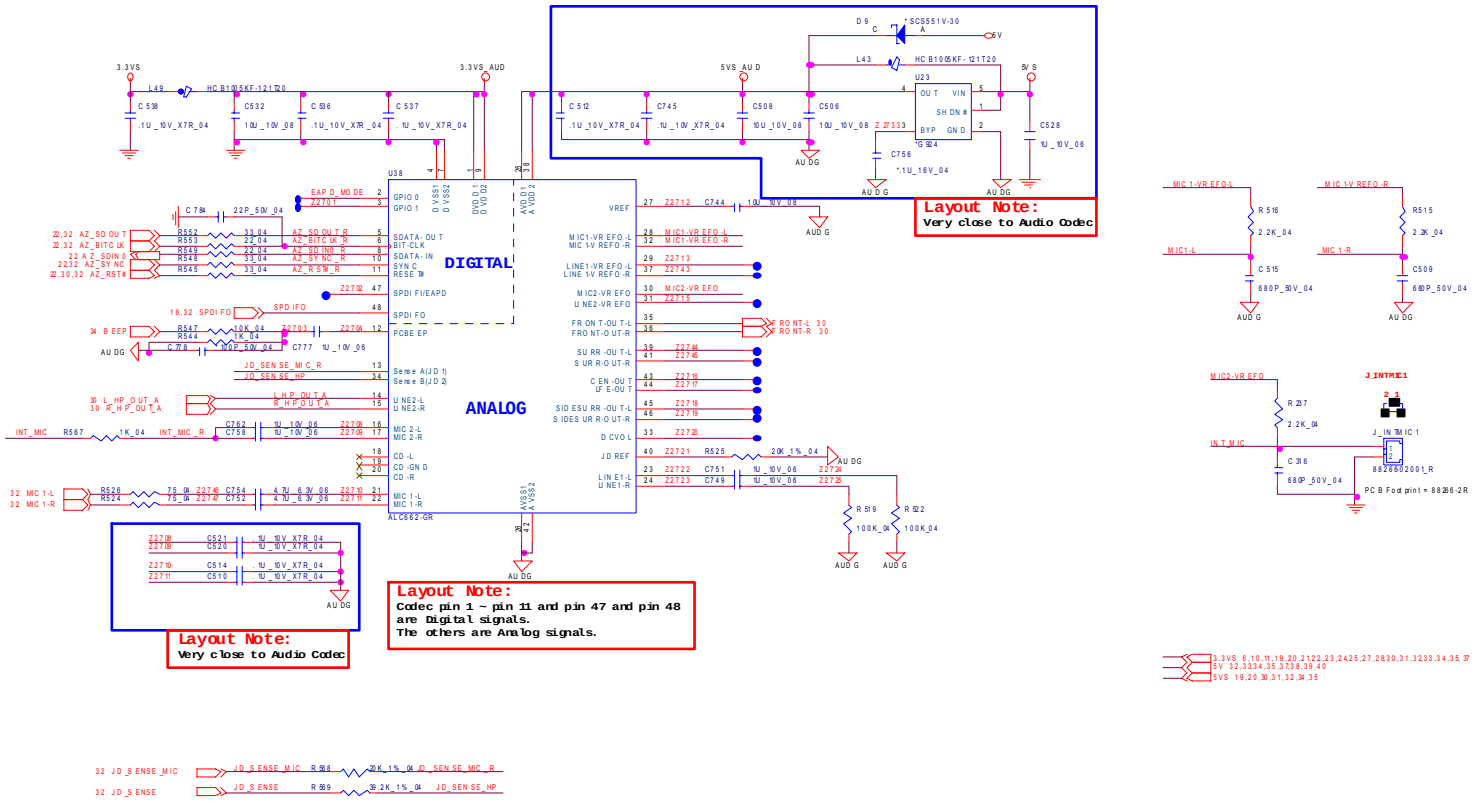
Sheet 26 of 48
KBC ITE8512E

ENE MR510, Card Reader

Sheet 27 of 48
ENE MR510,
Card Reader



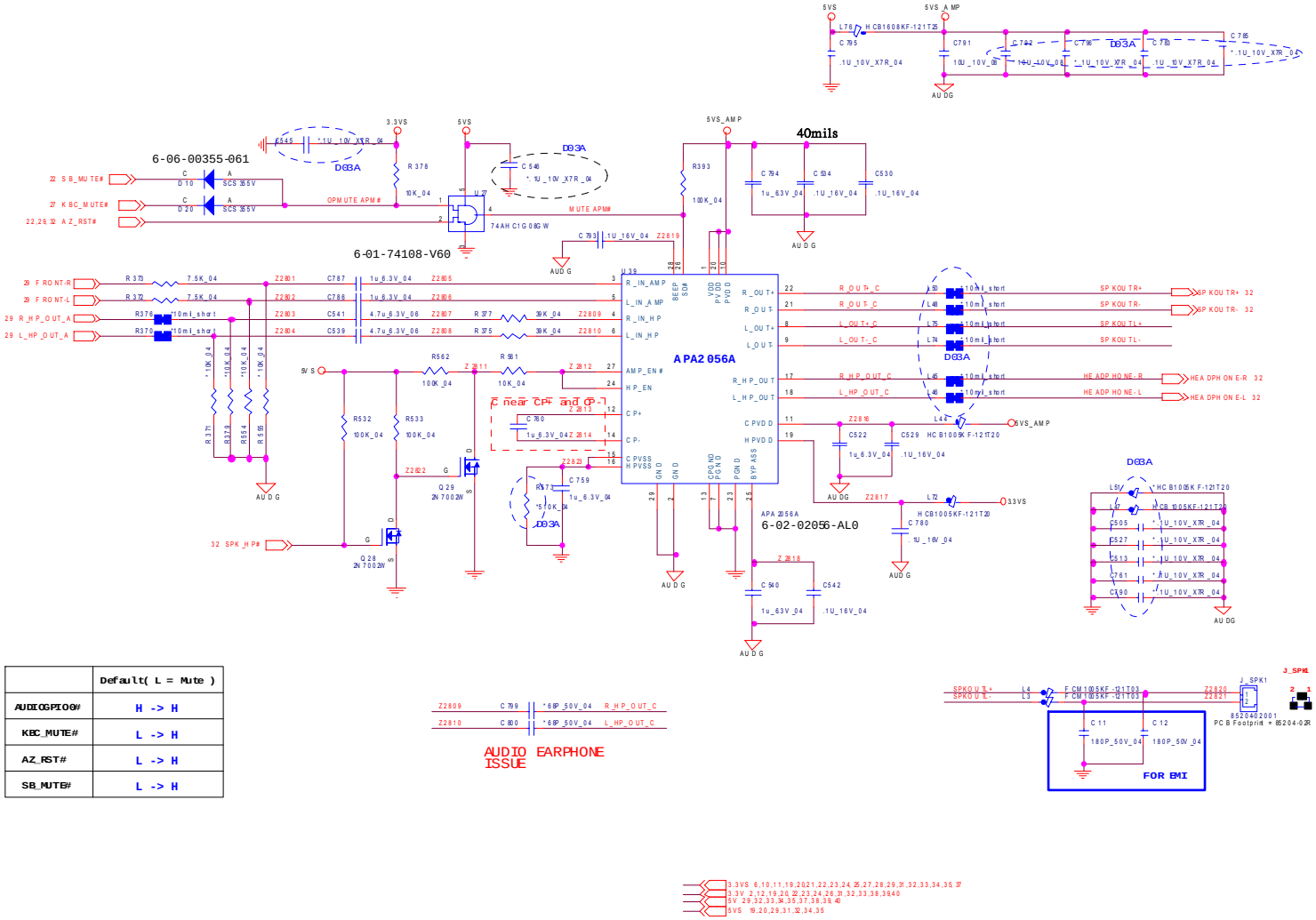
Audio Codec ALC662



Sheet 28 of 48
Audio Codec
ALC662

Audio AMP

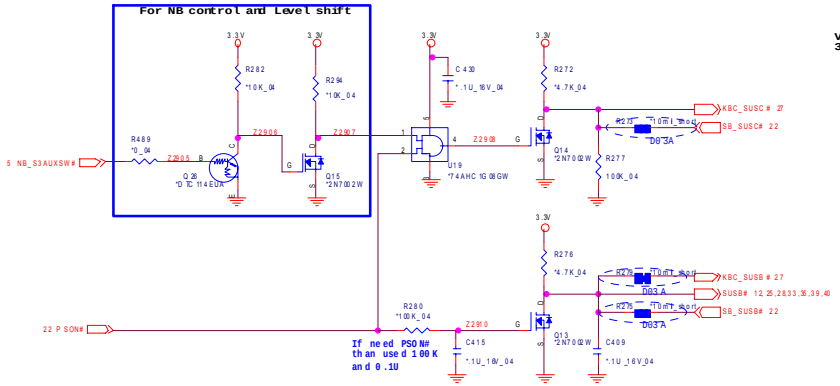
Sheet 29 of 48
Audio AMP



	Default(L = Mute)
AUDIOGPIO0#	H -> H
KBC_MUTE#	L -> H
AZ_RST#	L -> H
SB_MUTE#	L -> H

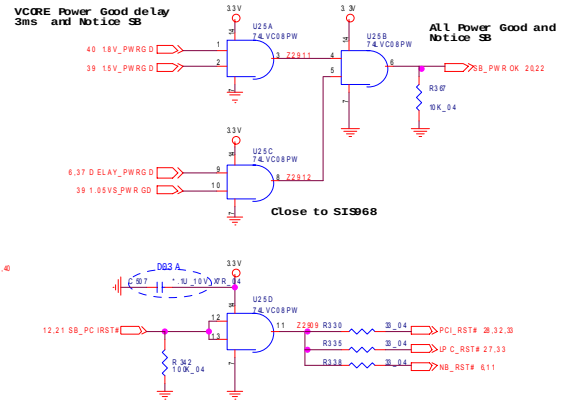
SATA HDD, PWR, LID

POWER MANAGMENT

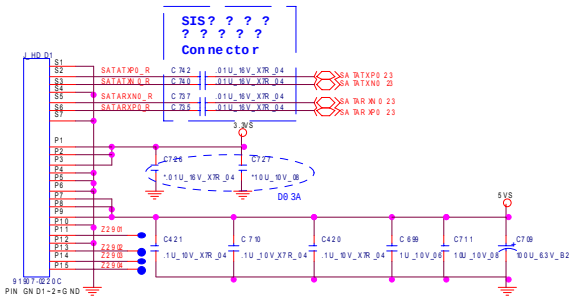


SIGNAL	S0/S1	S3	S4/S5
S3AUXSW#	1	0	1
PSON#	0	1	1

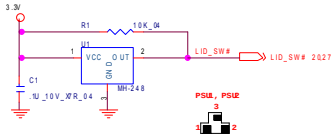
POWER GOOD & RESET



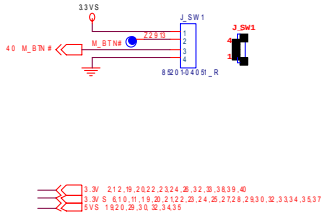
SATA HDD



LID SWITCH IC



POWER SWITCH CONNECTER

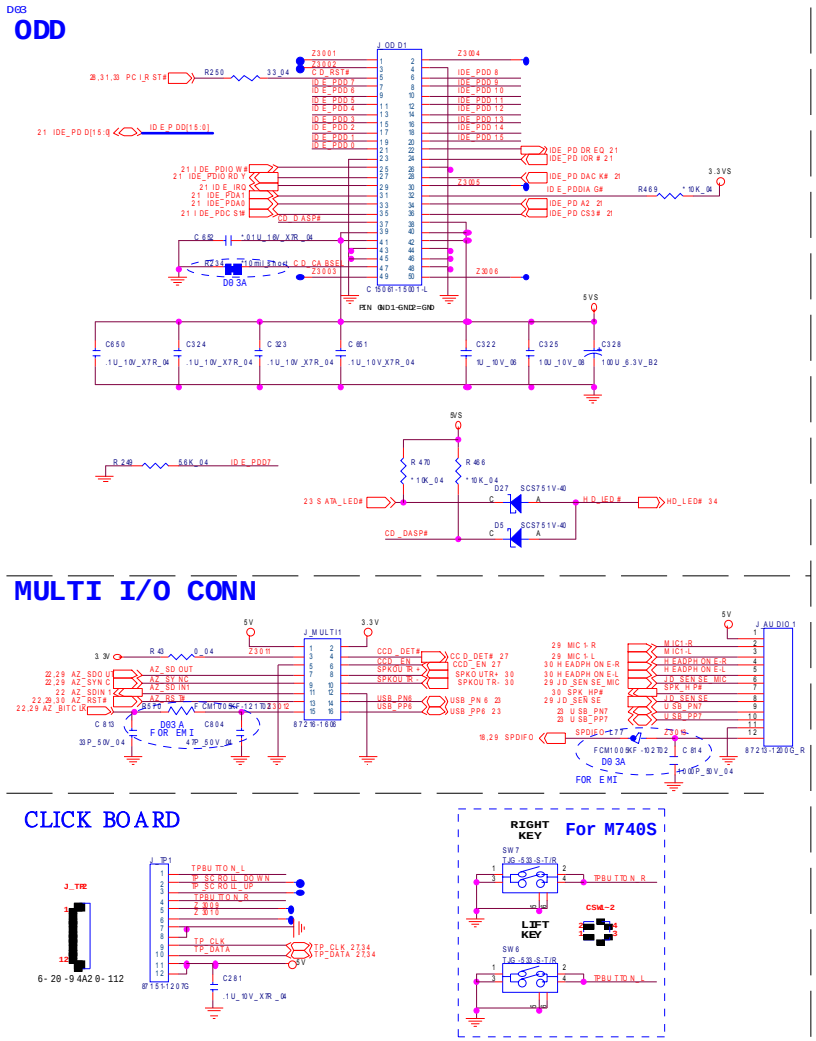


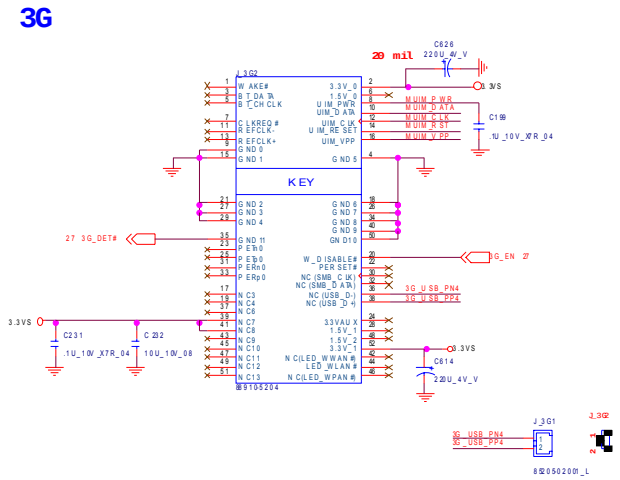
Sheet 30 of 48
SATA HDD, PWR, LID

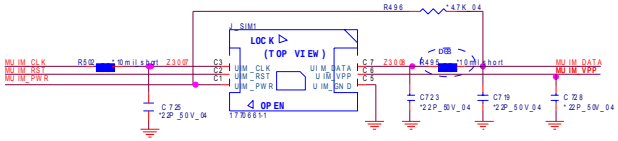
B.Schematic Diagrams

Multi I/O, ODD, 3G, Click BD for M74

Sheet 31 of 48
Multi I/O, ODD, 3G,
Click BD for M74

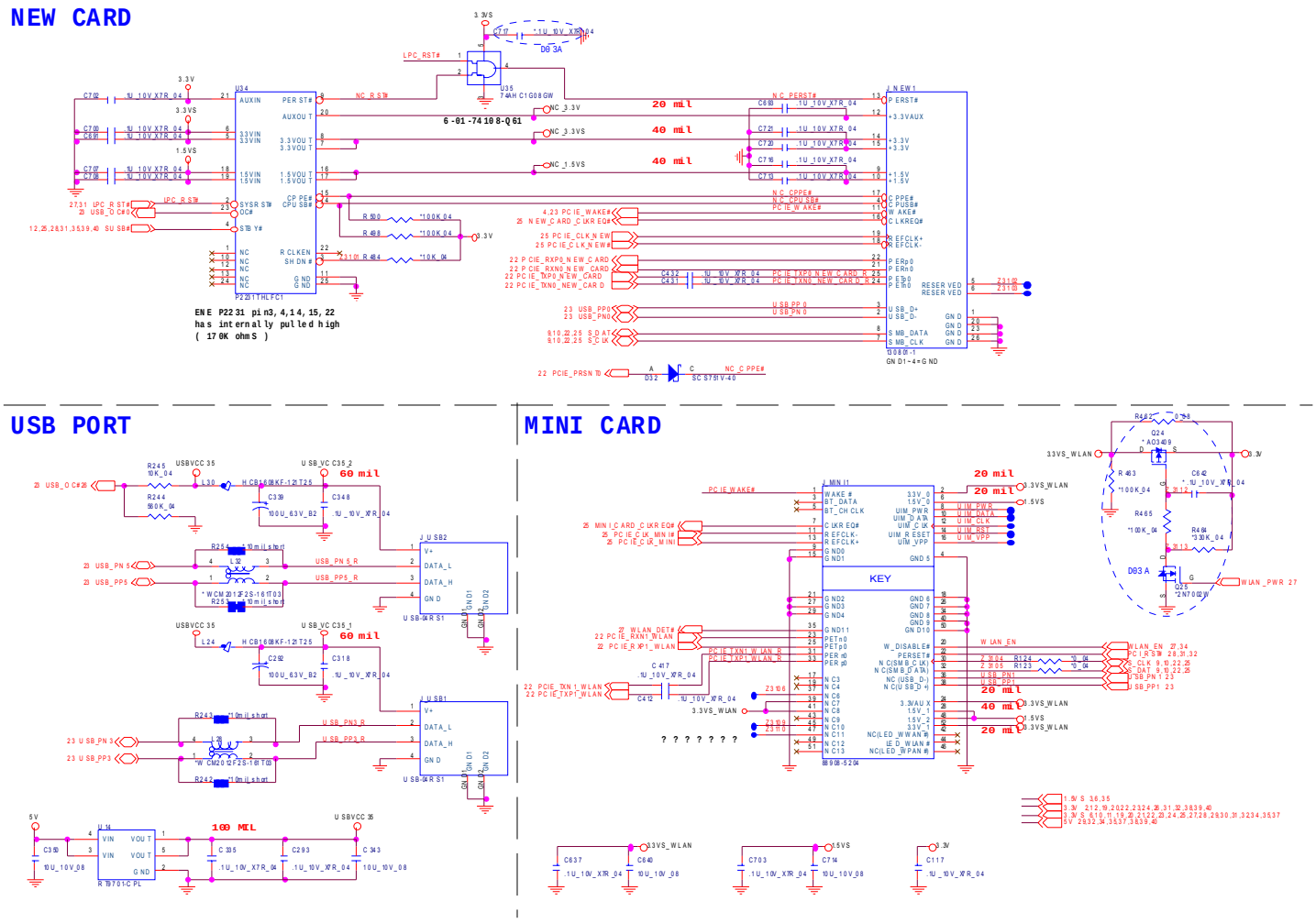






Layout?
1. SIM? ? ? ? ? ? ? ? (10mil)
2. ? ? ? ? ? ? ? ? GND
3. SIM hold ? ? ? ? ? GND? ?
4.SIM CONN ? ? MINI CARD CONN

New Card, Mini PCIE, USB

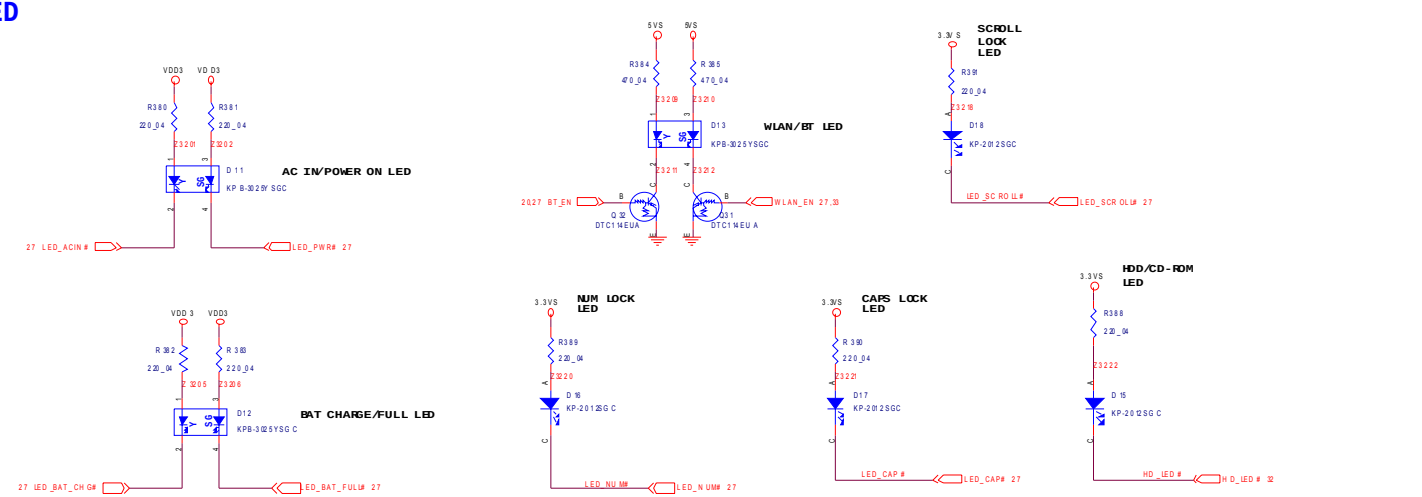


Sheet 32 of 48
New Card,
Mini PCIE, USB

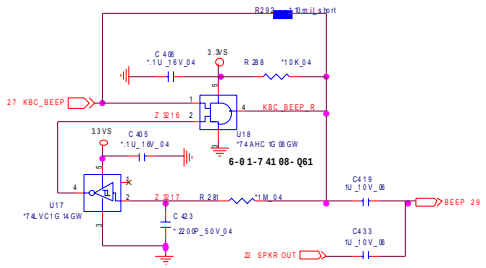
LED, PC Beep, TP, FP

Sheet 33 of 48
LED, PC Beep, TP, FP

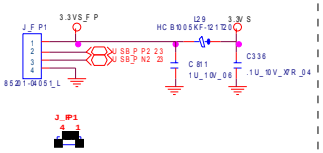
LED



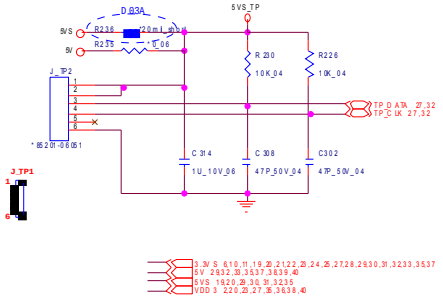
PC BEEP



FP CONN

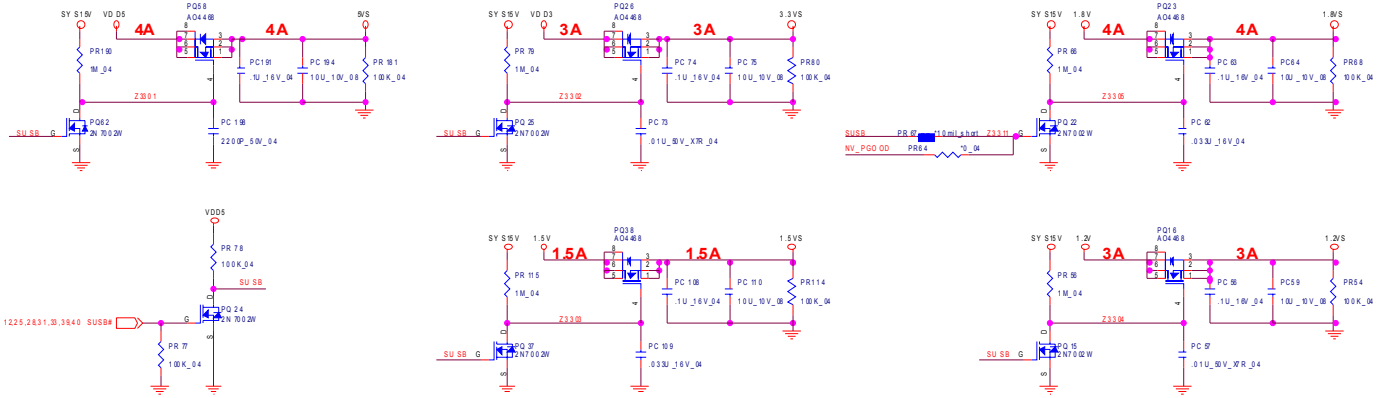


CLICK CONN For M76



System/Ext-VGA Power

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



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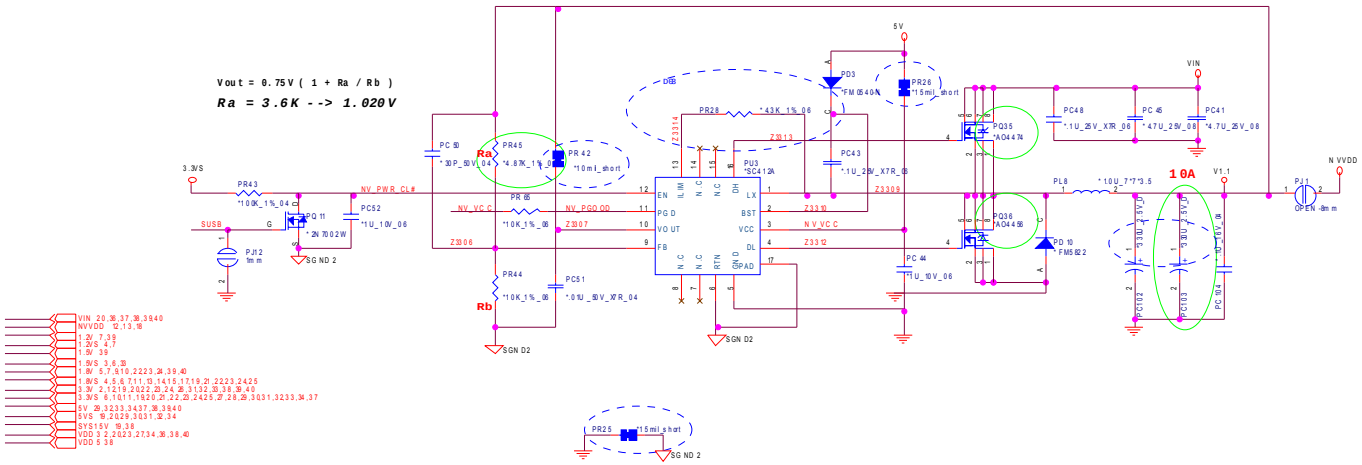
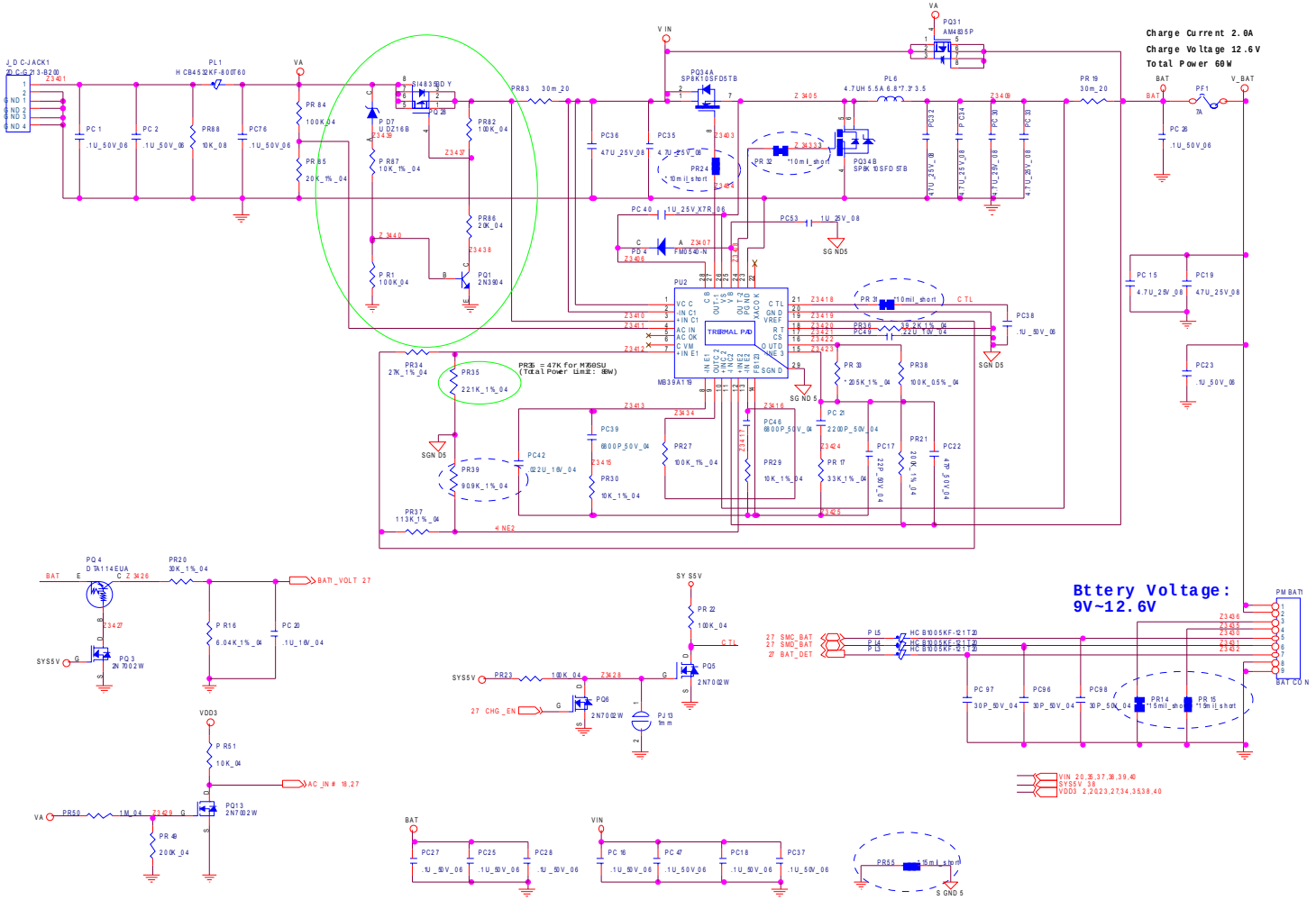
System/Ext-VGA Power

M760US

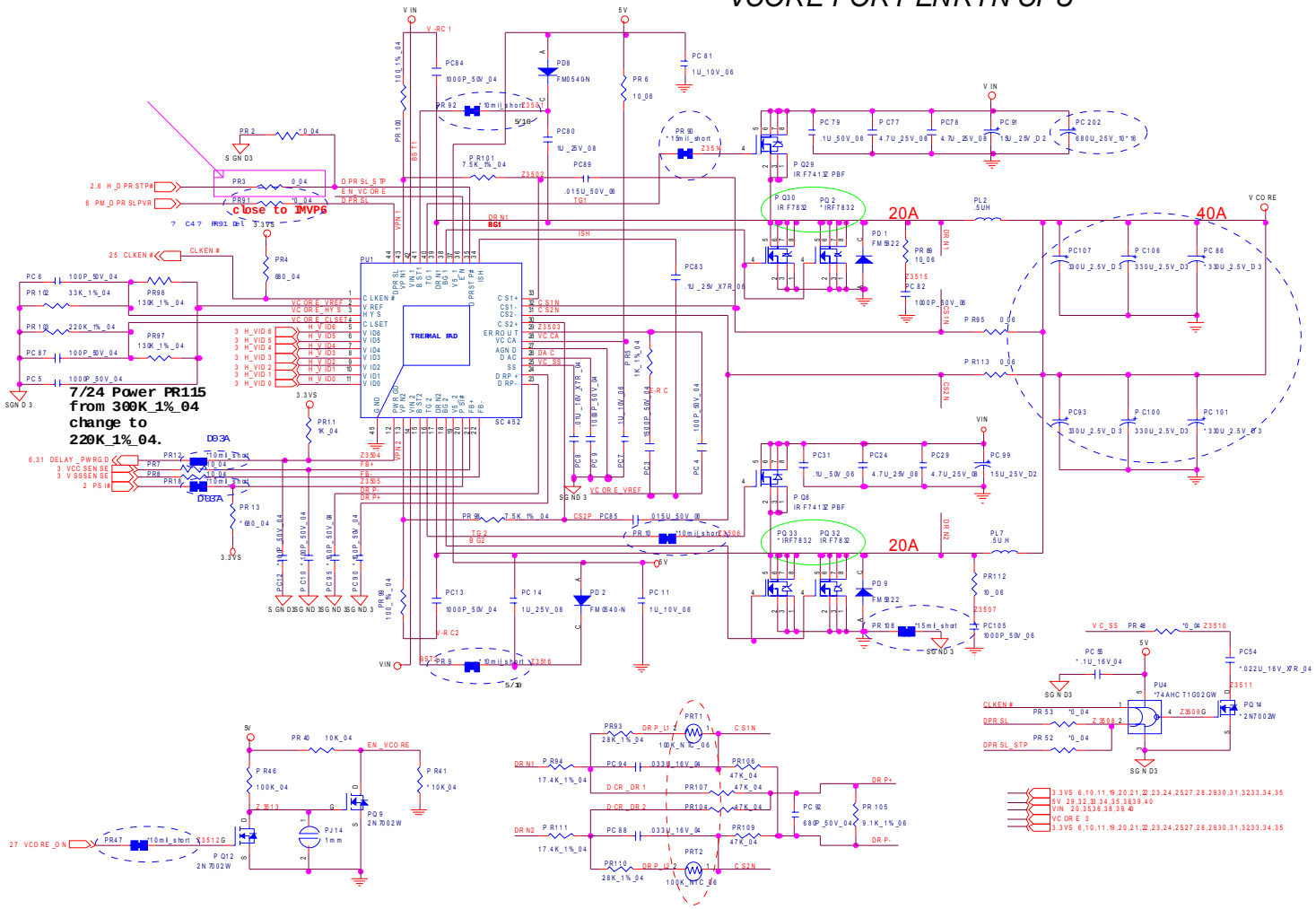


AC-IN, Charger

Sheet 35 of 48
AC-IN, Charger



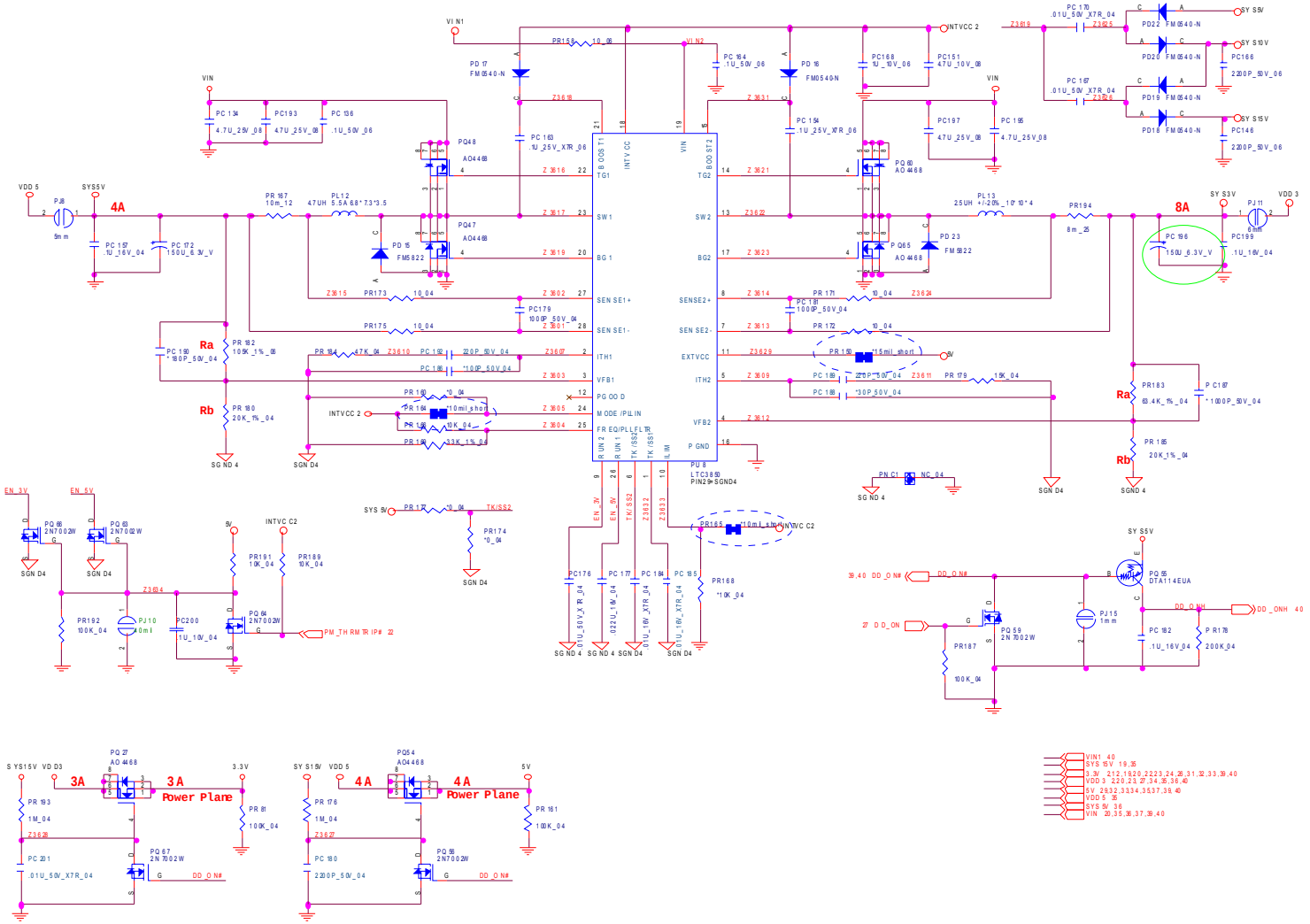
VCORE



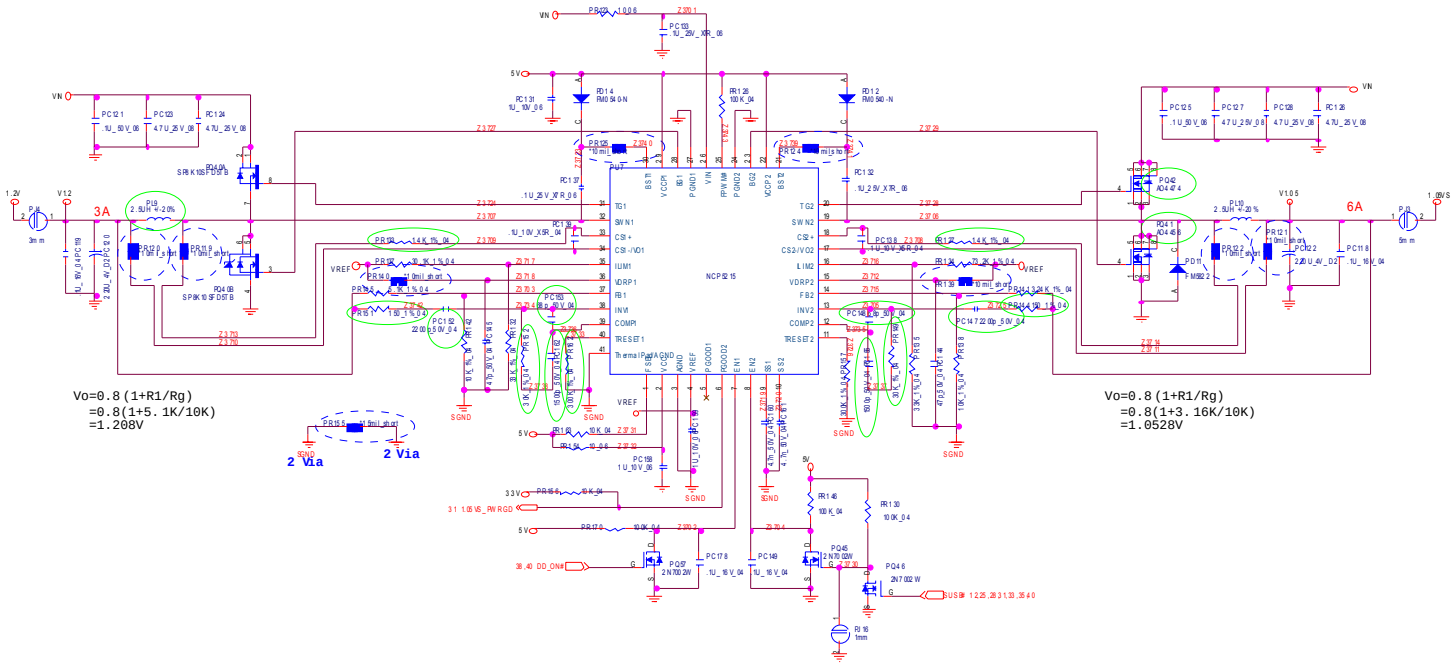
Sheet 36 of 48
VCORE

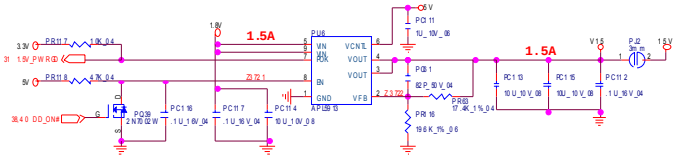
VDD3, VDD5)

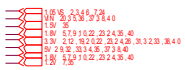
Sheet 37 of 48
VDD3, VDD5



1.05VS, 1.2V, 1.5V







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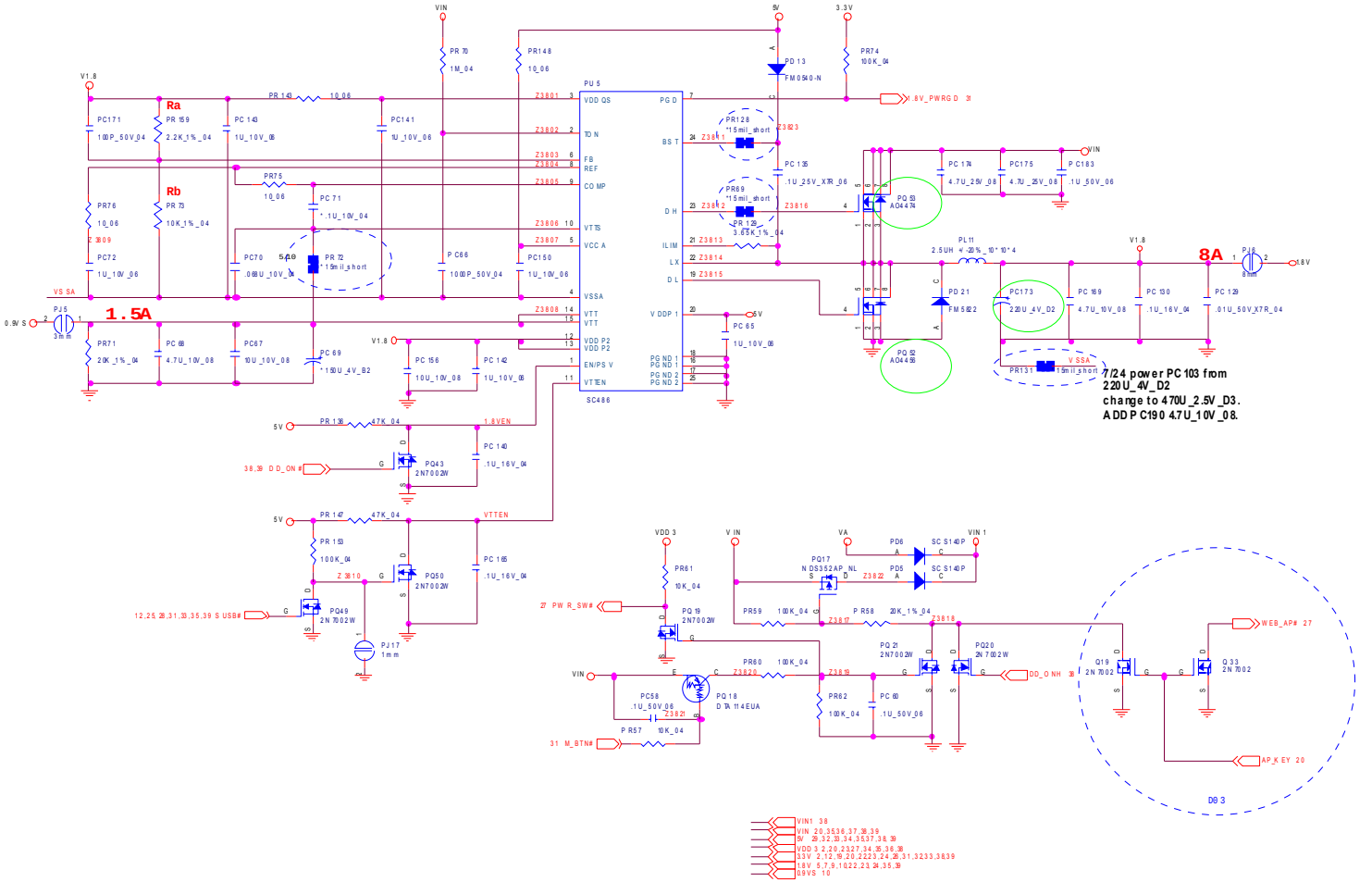
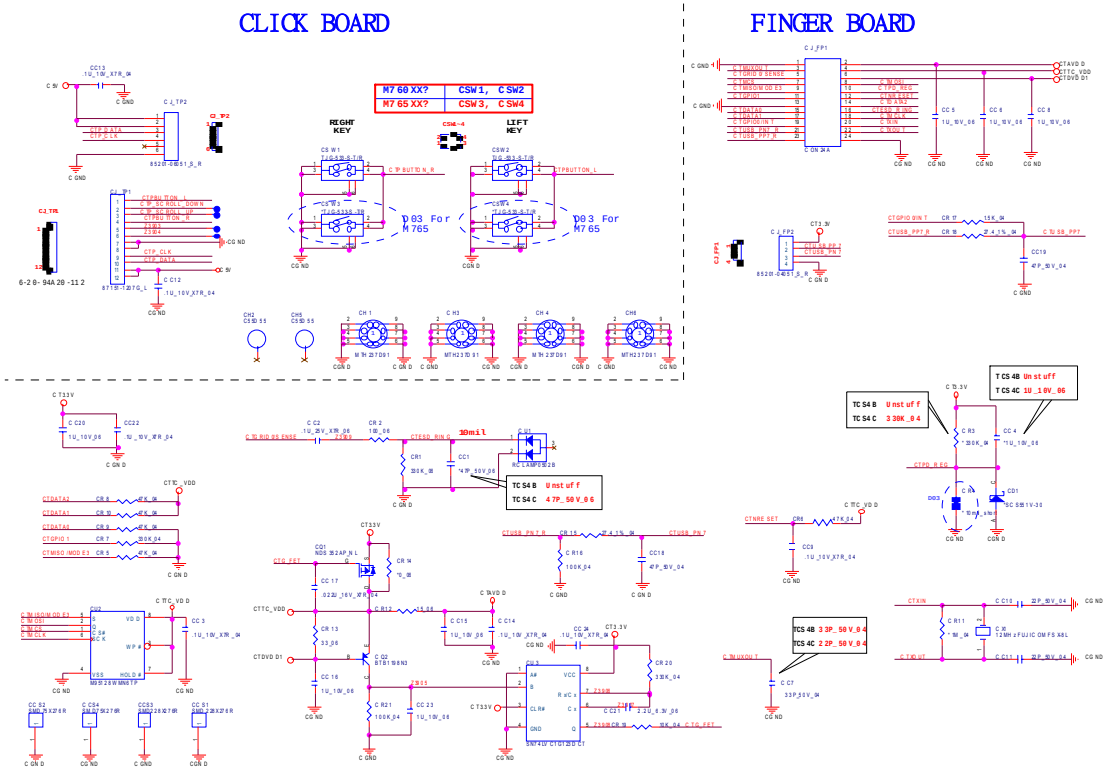
1.05VS, 1.2V, 1.5V

1.8V, 0.9VS

Sheet 39 of 48
1.8V, 0.9VS



Click BD, Finger BD for M76



Sheet 40 of 48
Click BD, Finger BD for M76

Multi Function Board

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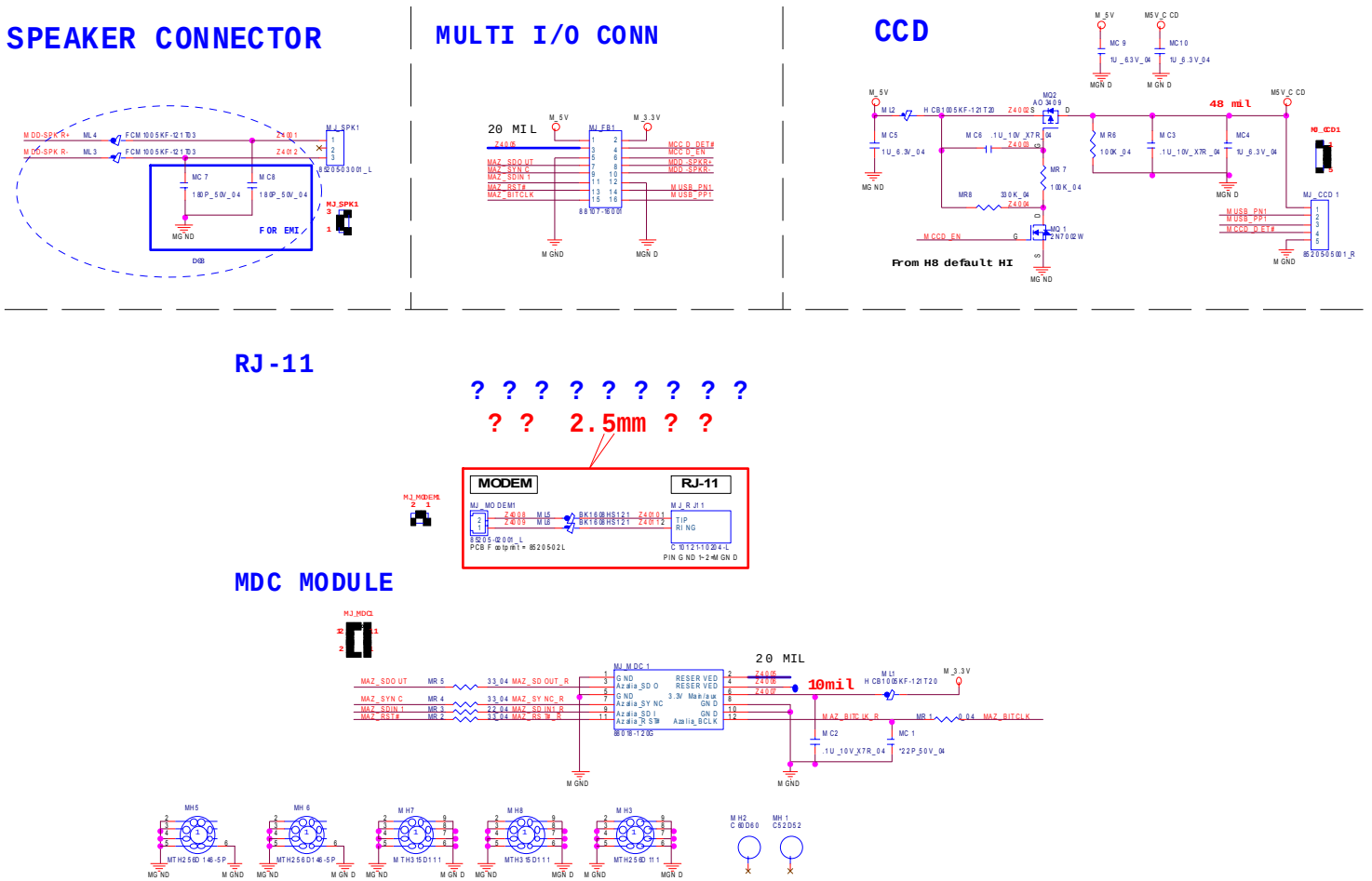
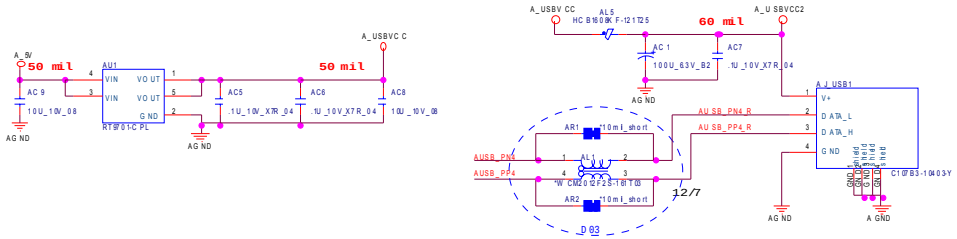
Multi Function Board

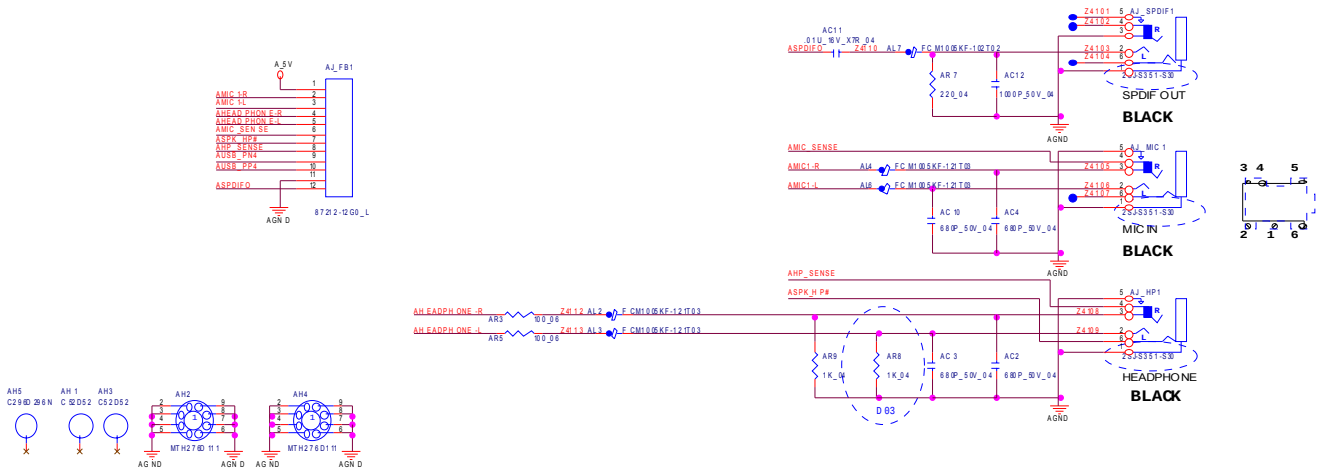


Audio Board

USB PORT



AUDIO JACK



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Audio Board

Finger Sensor Board

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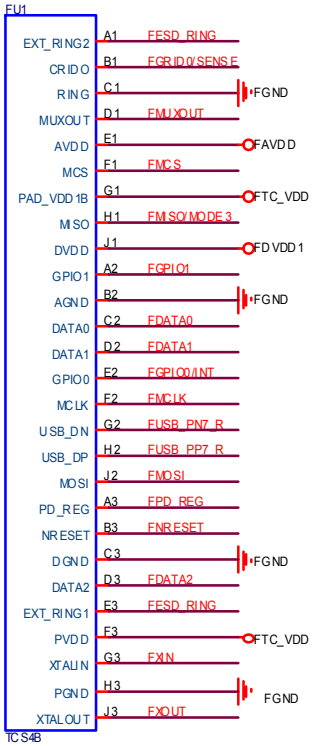
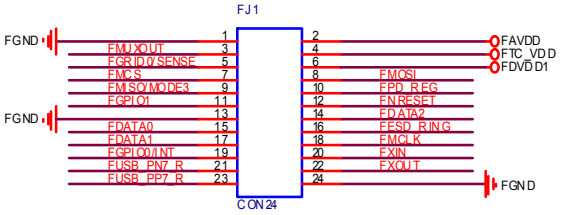
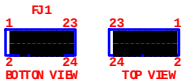
Finger Sensor Board

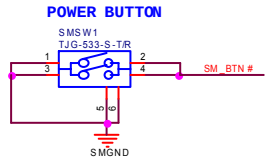


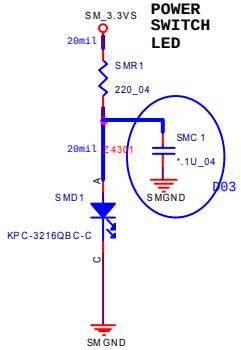


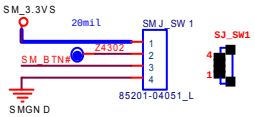


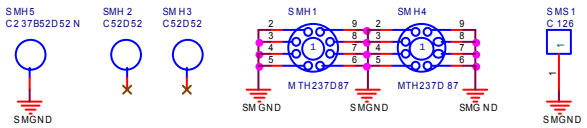
Power Switch Board for M74

POWER SW & POWER LED FOR M74









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Power Switch Board for M74

B.Schematic Diagrams

External ODD Board for M76

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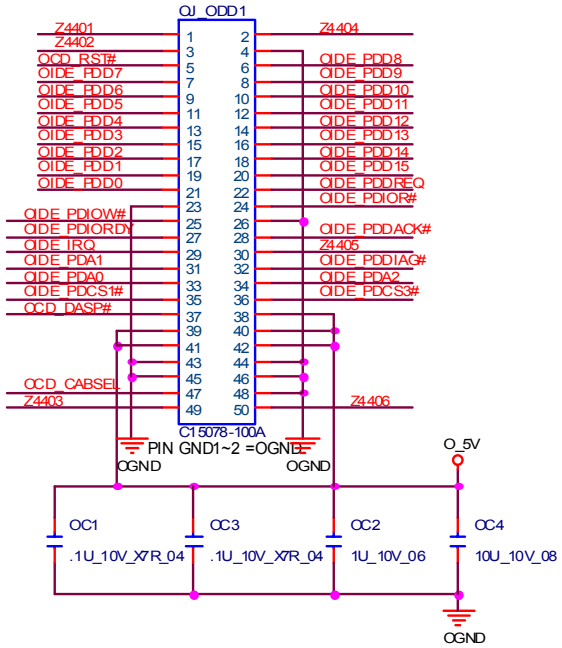
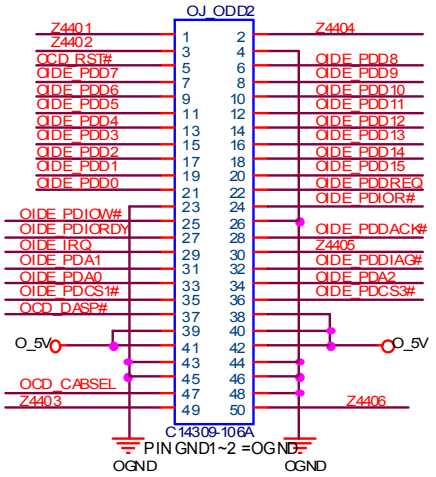
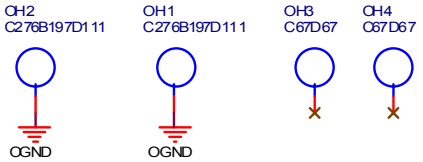
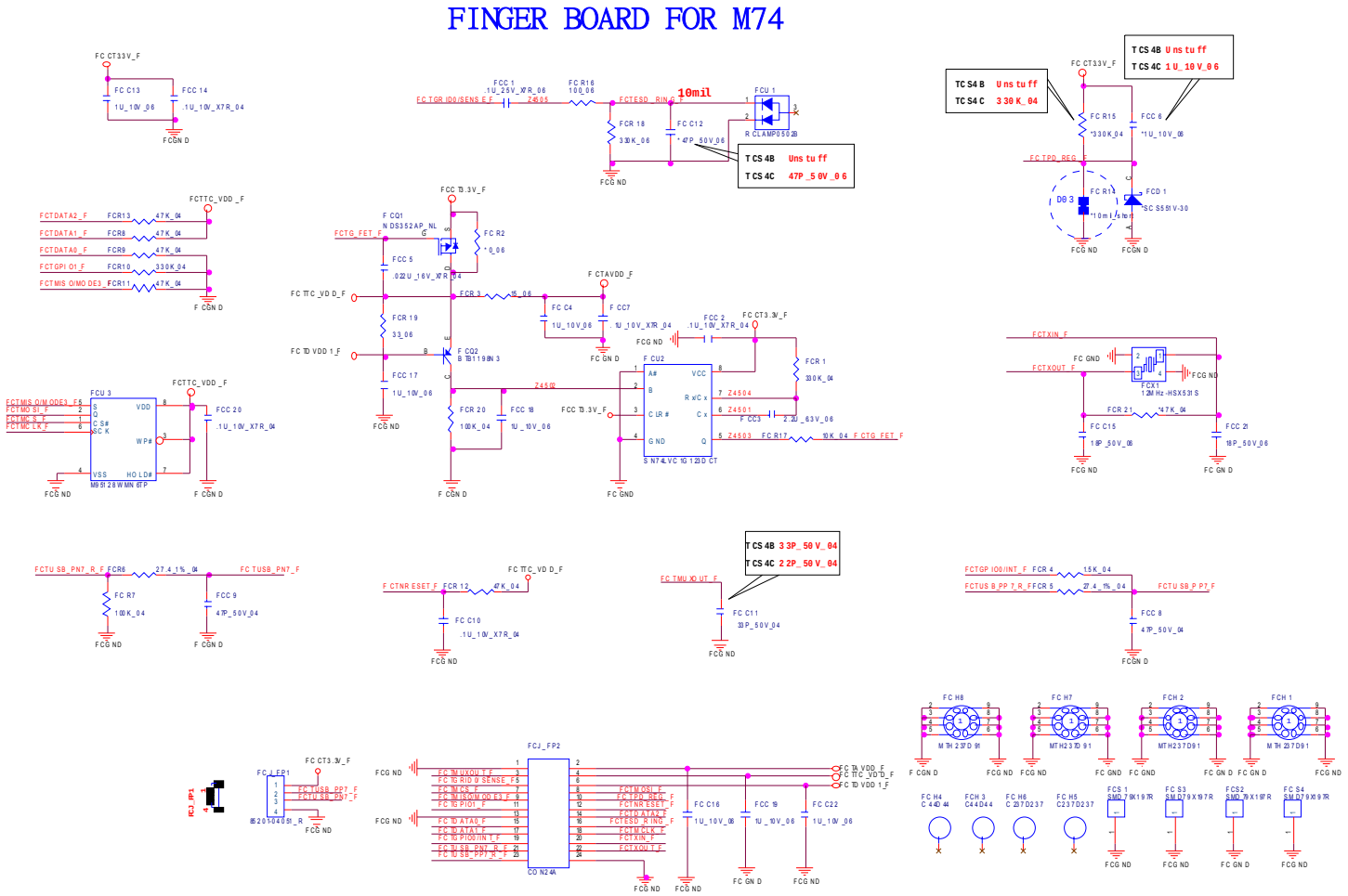
External ODD Board for M76







FingerPrint Board for M74

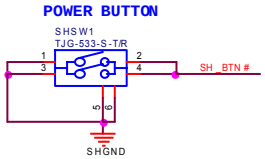


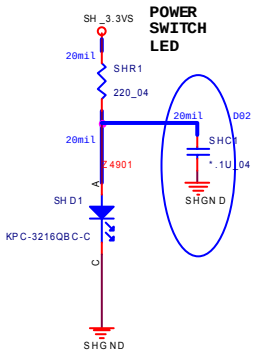
Sheet 46 of 48
FingerPrint Board
for M74

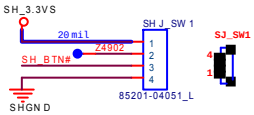
Power Switch Board for M76

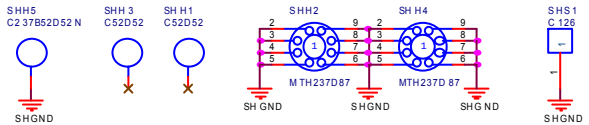
POWER SW & POWER LED FOR M76

Sheet 47 of 48
Power Switch
Board for M76

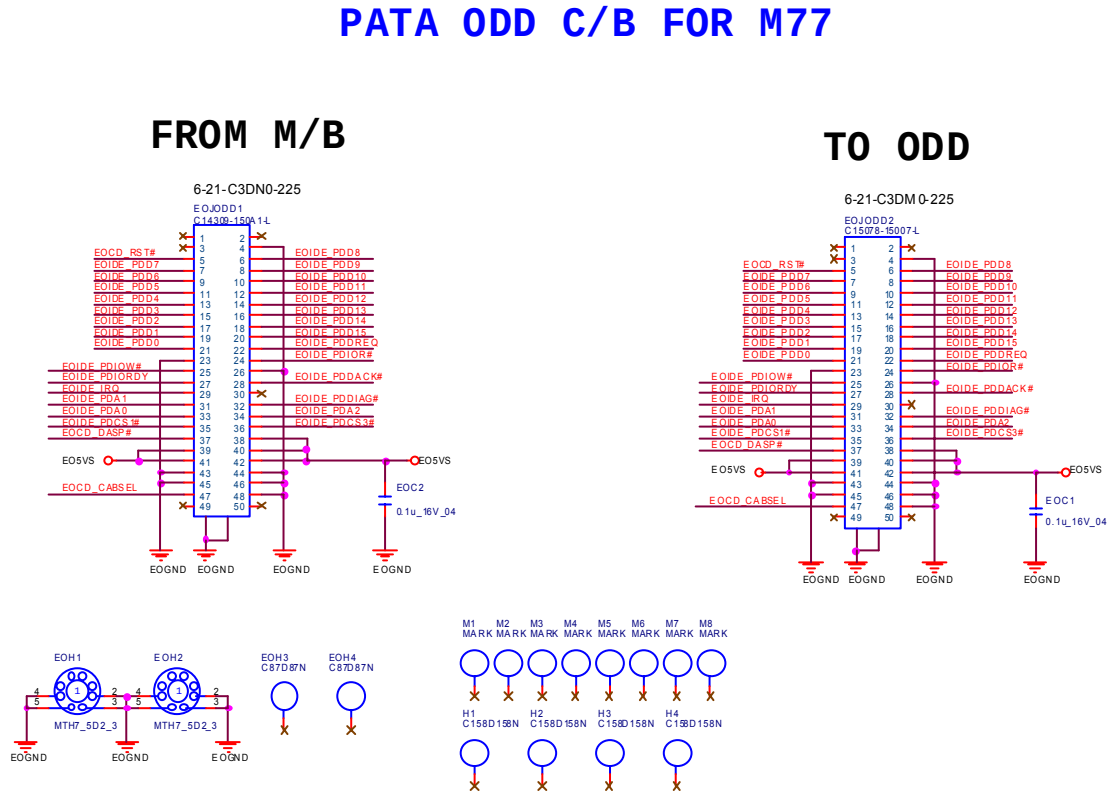








PATA ODD C/B for M77



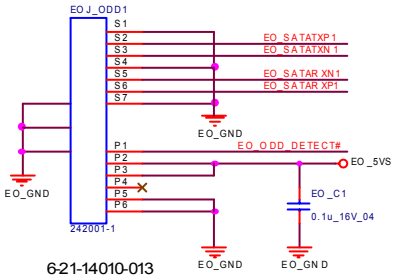
Sheet 48 of 48
PATA ODD C/B for M77

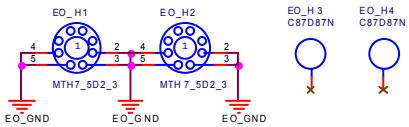
SATA ODD C/B for M77

Sheet 49 of 48
SATA ODD C/B for M77

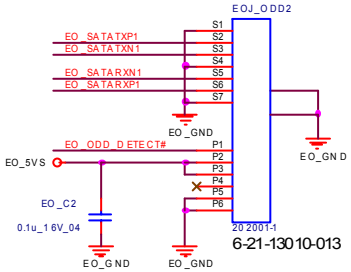
SATA ODD C/B FOR M77

FROM M/B





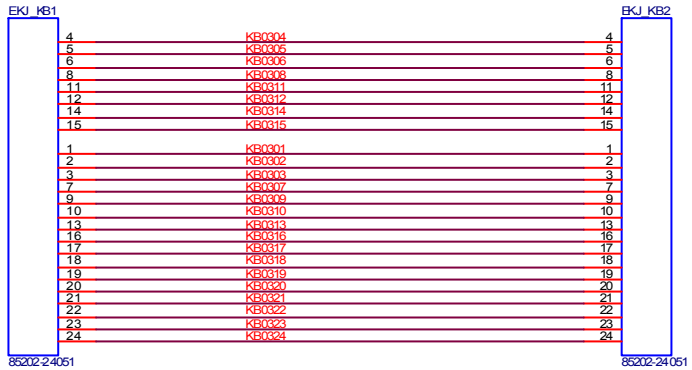
TO ODD



Keyboard C/B for M77

KEYBOARD C/B FOR M77

FROM M/B **TO KEYBOARD**



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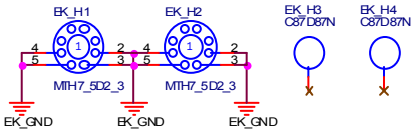

Sheet 50 of 48
Kayboard C/B for
M77

HDD C/B for M77

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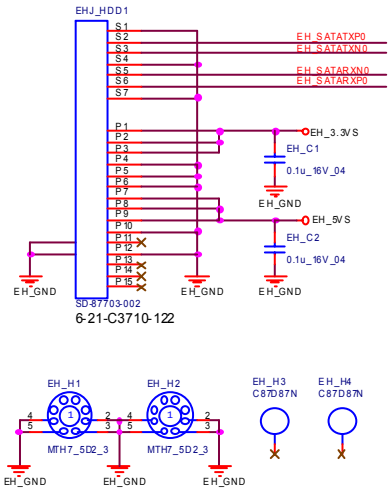
HDD C/B for M77

HDD C/B FOR M77

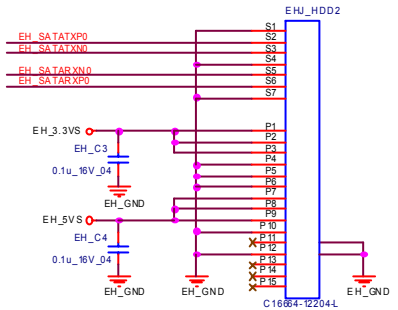
FROM M/B



6-21-C3710-122

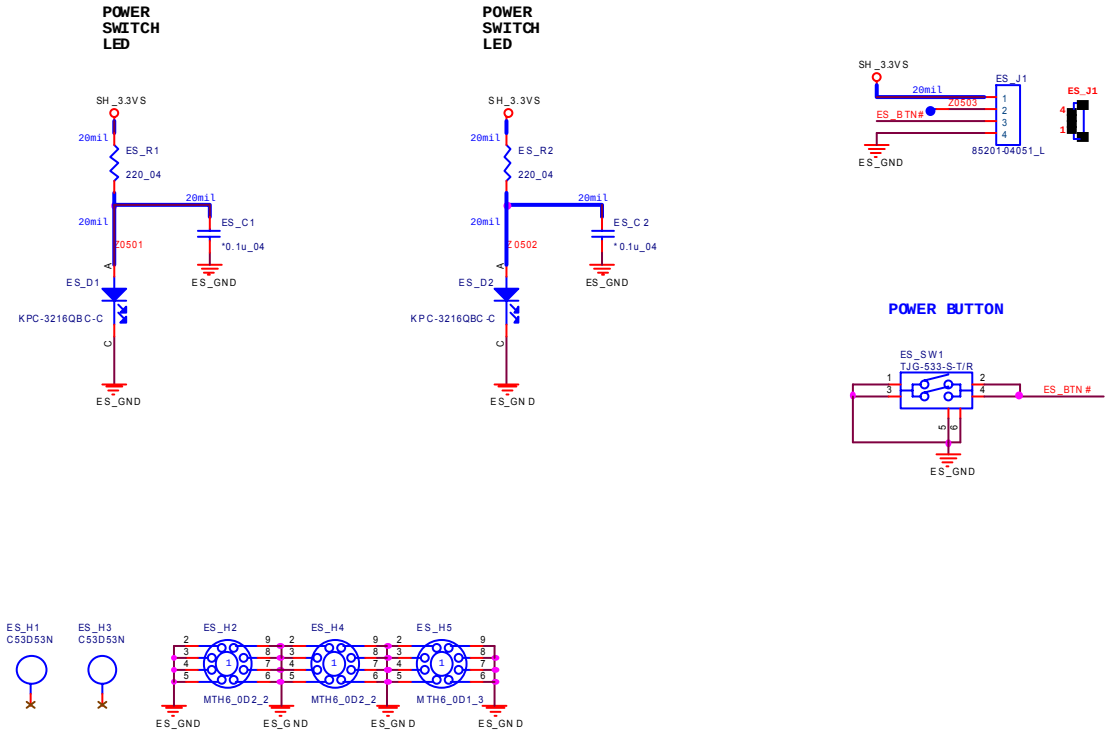
4mil/6mil/4mil

TO SATA HDD



6-21-C2700-122

Power Switch Board for M77



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Power Switch Board for M77