

SERVICE MANUAL

W950JU / W955JU

notebook



Notebook Computer

W950JU / W955JU

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 *W950JU* / *W955JU* 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

Appendix C, Updating the FLASH ROM BIOS

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 with an AC Input of 100 - 240V, 50 - 60Hz, DC Output of 19V, 2.1A (**40 Watts**) minimum AC/DC Adapter.

CAUTION

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

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference.

This device must accept any interference received, including interference that may cause undesired operation.

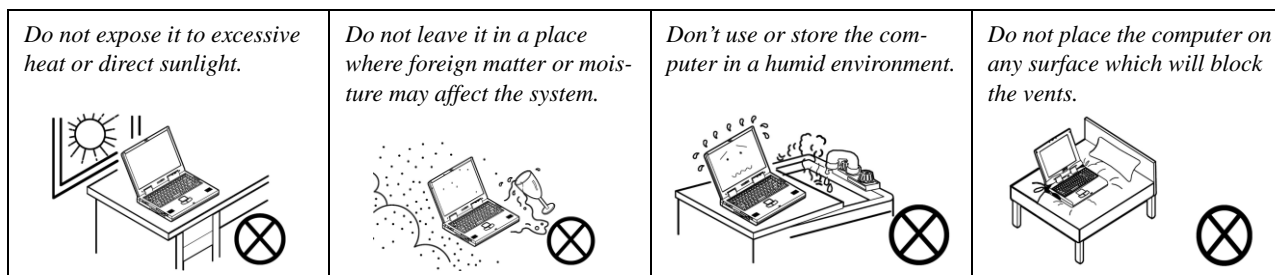
Instructions for Care and Operation

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

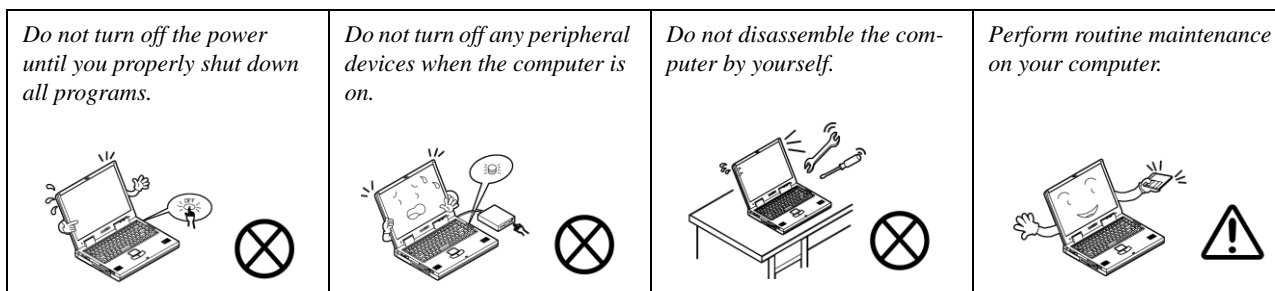
1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.



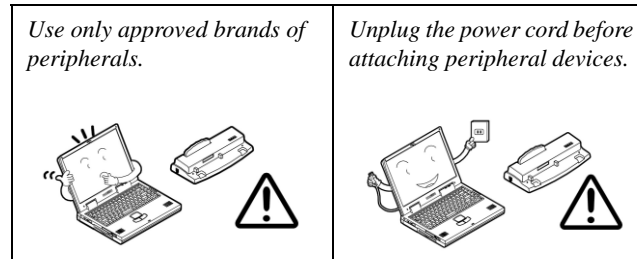
2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.



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.



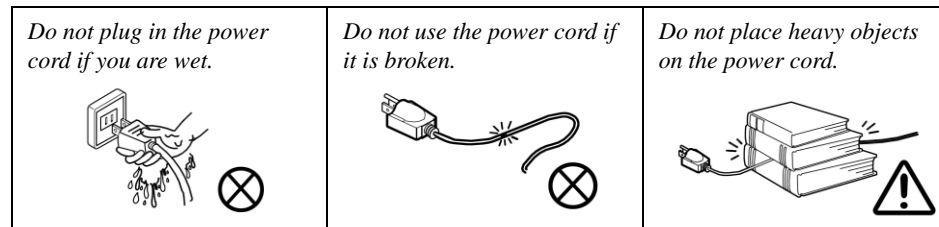
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



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 and power cord). 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 Guidelines

The following can also apply to any backup batteries you may have.

- If you do not use the battery for an extended period, then remove the battery from the computer for storage.
- Before removing the battery for storage charge it to 60% - 70%.
- Check stored batteries at least every 3 months and charge them to 60% - 70%.




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.

Battery Level

Click the battery icon  in the taskbar to see the current battery level and charge status. A battery that drops below a level of 10% will not allow the computer to boot up. Make sure that any battery that drops below 10% is recharged within one week.

Related Documents

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

User's Manual on CD/DVD

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.

System Startup

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Insert the battery and make sure it is locked in position.
4. Securely attach any peripherals you want to use with the computer (e.g. keyboard and mouse) to their ports.
5. Attach the AC/DC adapter to the DC-In jack at the left of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter.
6. Use one hand to raise the lid/LCD to a comfortable viewing angle (do not exceed 130 degrees); use the other hand (as illustrated in Figure 1) to support the base of the computer (**Note: Never** lift the computer by the lid/LCD).
7. Press the power button to turn the computer "on".

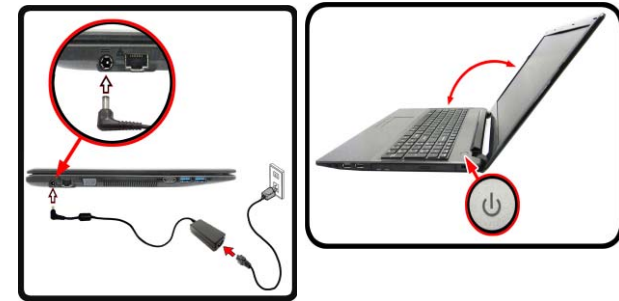



Figure 1
**Opening the Lid/LCD/
Computer with AC/DC
Adapter Plugged-In**




Shut Down

Note that you should always shut your computer down by choosing the **Shut down** command in **Windows** (see below). This will help prevent hard disk or system problems.

Click **Settings** in the **Charms Bar** (use the **Windows Logo Key**  + **C** key combination to access the Charms Bar) and choose **Shut down** from the **Power** menu.

Or

Choose **Shut down or sign out** > **Shut down** from the context menu (use the **Windows Logo Key**  + **X** key combination to access the context menu).

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Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the **W950JU / W955JU** 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 the *User's Manual*. The manual is shipped with the computer.

Operating systems (e.g. *Window 8.1*, etc.) have their own manuals as do application softwares (e.g. word processing and database programs). If you have questions about those programs, you should consult those manuals.

The **W950JU / W955JU** 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 take note of the warning and safety information indicated by the “⚠” symbol.

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

Introduction

Specifications



Latest Specification Information

The specifications listed here are correct at the time of sending them to the press. Certain items (particularly processor types/speeds) may be changed, delayed or updated due to the manufacturer's release schedule. Check with your service center for more details.



CPU

The CPU is not a user serviceable part. Accessing the CPU in any way may violate your warranty.

Processor Options

Intel® Core™ i7 Processor

i7-6500U (2.50GHz)

4MB Smart Cache, 14nm, DDR3L-1600MHz, TDP 15W

Intel® Core™ i5 Processor

i5-6200U (2.30GHz)

3MB Smart Cache, 14nm, DDR3L-1600MHz, TDP 15W

Intel® Core™ i3 Processor

i3-6100U (2.30GHz)

3MB Smart Cache, 14nm, DDR3L-1600MHz, TDP 15W

Intel® Pentium® Processor

4405U (2.10GHz)

2MB Smart Cache, 14nm, DDR3L-1600MHz, TDP 15W

Intel® Celeron® Processor

3955U (2.00GHz), 3855U (1.60GHz)

2MB Smart Cache, 14nm, DDR3L-1600MHz, TDP 15W

BIOS

64Mb SPI Flash ROM

AMI BIOS

Memory

Two 204 Pin SO-DIMM Sockets Supporting **DDR3L 1600MHz** Memory

Memory Expandable up to 16GB

(The real memory operating frequency depends on the FSB of the processor.)

LCD Options

15.6" (39.62cm), 16:9, HD (1366x768)/FHD (1920x1080)
(Thickness: 3.8mm)

Video Adapter

Intel UMA Graphics

Dynamic Frequency

Intel Dynamic Video Memory Technology for up to **1.7GB**

Microsoft DirectX®12 Compatible

Storage

One Changeable 2.5" 7mm (h) SATA HDD/SSD

(Factory Option) One 9.5mm(h) Optical Device Type Drive (Super Multi Drive/Blu-Ray Writer Drive)

Or

(Factory Option) Dummy ODD or 7mm 2nd HDD/SSD caddy

(Factory Option for Core i7-6500U/i5-6200U/i3-6100U/Celeron 3955U) One M.2 **SATA/PCIe Gen2 x2** Solid State Drive (SSD)

Audio

High Definition Audio Compliant Interface

2 * Built-In Speakers

Built-In Microphone

Security

Security (Kensington® Type) Lock Slot

BIOS Password

Intel PTT

Pointing Device

Built-in Touchpad

Keyboard

Full-size "WinKey" keyboard (with numeric keypad)

M.2 Slots (Core i7-6500U/i5-6200U/i3-6100U/Celeron 3955U)

Slot 1 for **WLAN and Bluetooth** Combo Module
 Slot 2 for **SATA/PCIe Gen2 x2 SSD**
 (Factory Option) Slot 3 for **3G/4G** Module

M.2 Slots (Pentium 4405U/Celeron 3855U)

Slot 1 for **WLAN and Bluetooth** Combo Module
 (Factory Option) Slot 2 for **3G/4G** Module

Card Reader

Embedded Multi-In-1 Card Reader
 MMC (MultiMedia Card) / RS MMC
 SD (Secure Digital) / Mini SD / SDHC/ SDXC
 MS (Memory Stick) / MS Pro / MS Duo

Interface

One HDMI-Out Port
 One External Monitor Port
 One Headphone-Out Jack
 One Microphone-In Jack
 One RJ-45 LAN Jack
 One DC-in Jack
 Two USB 3.0 Ports
 Two USB 2.0 Ports

Communication

Built-In Gigabit Ethernet LAN
 1.0M HD PC Camera Module
 (with 1D-Mic or 2D-Mic - **Factory Option**)
 (Factory Option) **3G** or **4G** M.2 Module

WLAN/ Bluetooth M.2 Modules:

(Factory Option) Intel® Wireless-AC 8260 Wireless LAN
(802.11ac) + Bluetooth **4.1**
 (Factory Option) Intel® Wireless-AC 7265 Wireless LAN
(802.11ac) + Bluetooth **4.0**
 (Factory Option) Intel® Wireless-AC 3165 Wireless LAN
(802.11ac) + Bluetooth **4.0**
 (Factory Option) Intel® Wireless-N 7265 Wireless LAN
(802.11b/g/n) + Bluetooth **4.0**
 (Factory Option) Third-Party Wireless LAN **(802.11b/g/n)** +
 Bluetooth **4.0**

Environmental Spec

Temperature

Operating: 5°C - 35°C
 Non-Operating: -20°C - 60°C

Relative Humidity

Operating: 20% - 80%
 Non-Operating: 10% - 90%

Power

Full Range AC/DC Adapter
 AC Input: 100 - 240V, 50 - 60Hz
 DC Output: 19V, 2.1A (**40W**)
 Removable 4 Cell Smart Lithium-Ion Battery Pack, 32WH
 (Factory Option) Removable 4 Cell Smart Lithium-Ion Battery Pack, 44WH

Dimensions & Weight

374mm (w) * 258.5mm (d) * 12 - 24.7mm (h)
2.1kg (Barebone with ODD and 32WH Battery)

Introduction

Figure 1
Top View

1. PC Camera
2. *PC Camera LED
**When the PC camera is in use, the LED will be illuminated in red.*
3. Built-In Microphone (W950JU only)
4. LCD
5. Power Button
6. Keyboard
7. Touchpad & Buttons

External Locator - Top View with LCD Panel Open



External Locator - Front & Right Side Views

FRONT VIEW



Figure 2
Front View

1. LED Indicator
2. Multi-in-1 Card Reader

RIGHT SIDE VIEW



Figure 3
Right Side View

1. Microphone-In Jack
2. Headphone-Out Jack
3. USB 2.0 Ports
4. Optical Device Drive Bay
5. Emergency Eject Hole
6. Security Lock Slot

Introduction

External Locator - Left Side & Rear View

Figure 4
Left Side View

- 1. DC-In Jack
- 2. RJ-45 LAN Jack
- 3. External Monitor Port
- 4. Vent
- 5. HDMI-Out Port
- 6. USB 3.0 Ports



Figure 5
Rear View

- 1. Battery



External Locator - Bottom View

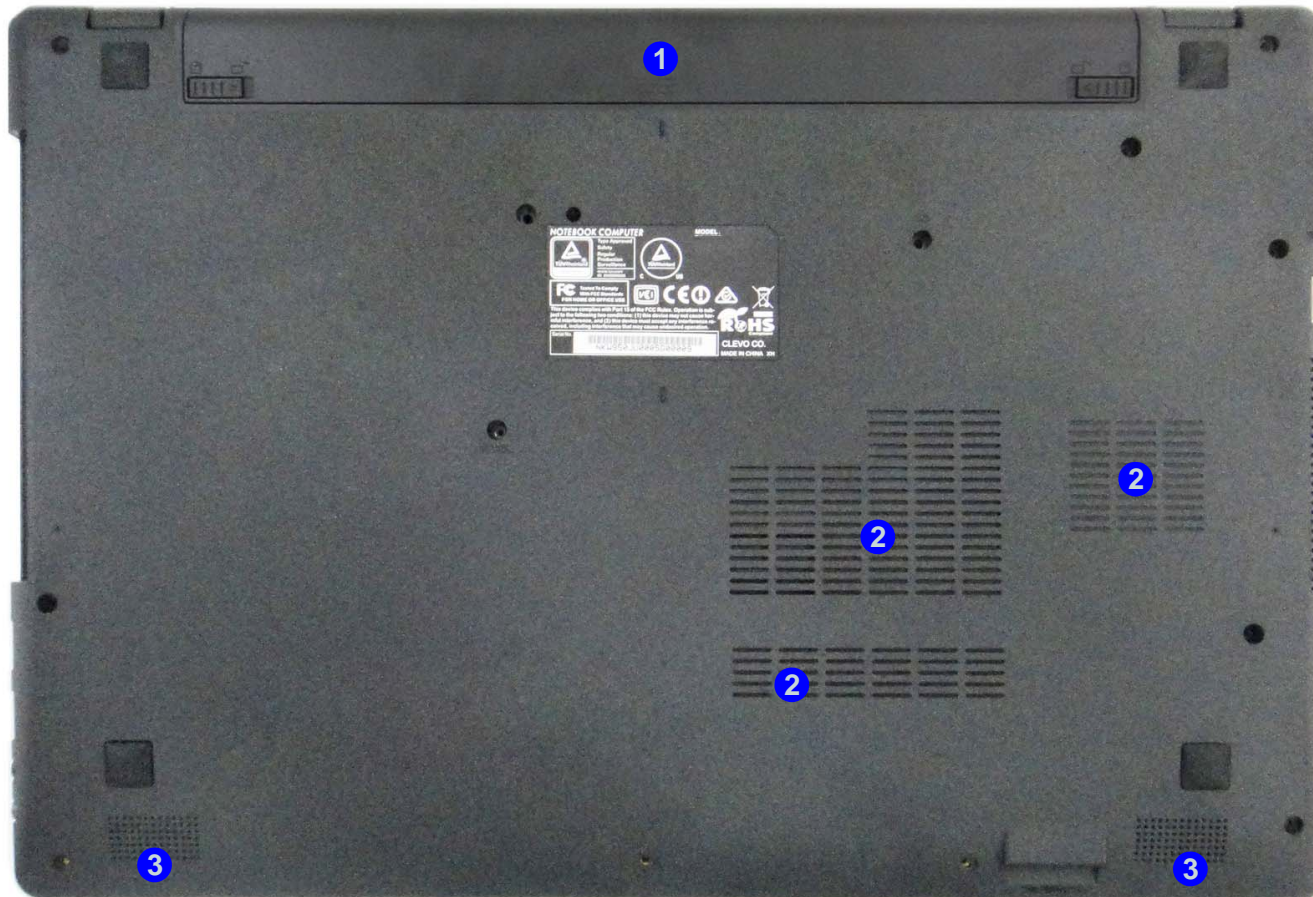


Figure 6
Bottom View

1. Battery
2. Vent
3. Speakers



Overheating

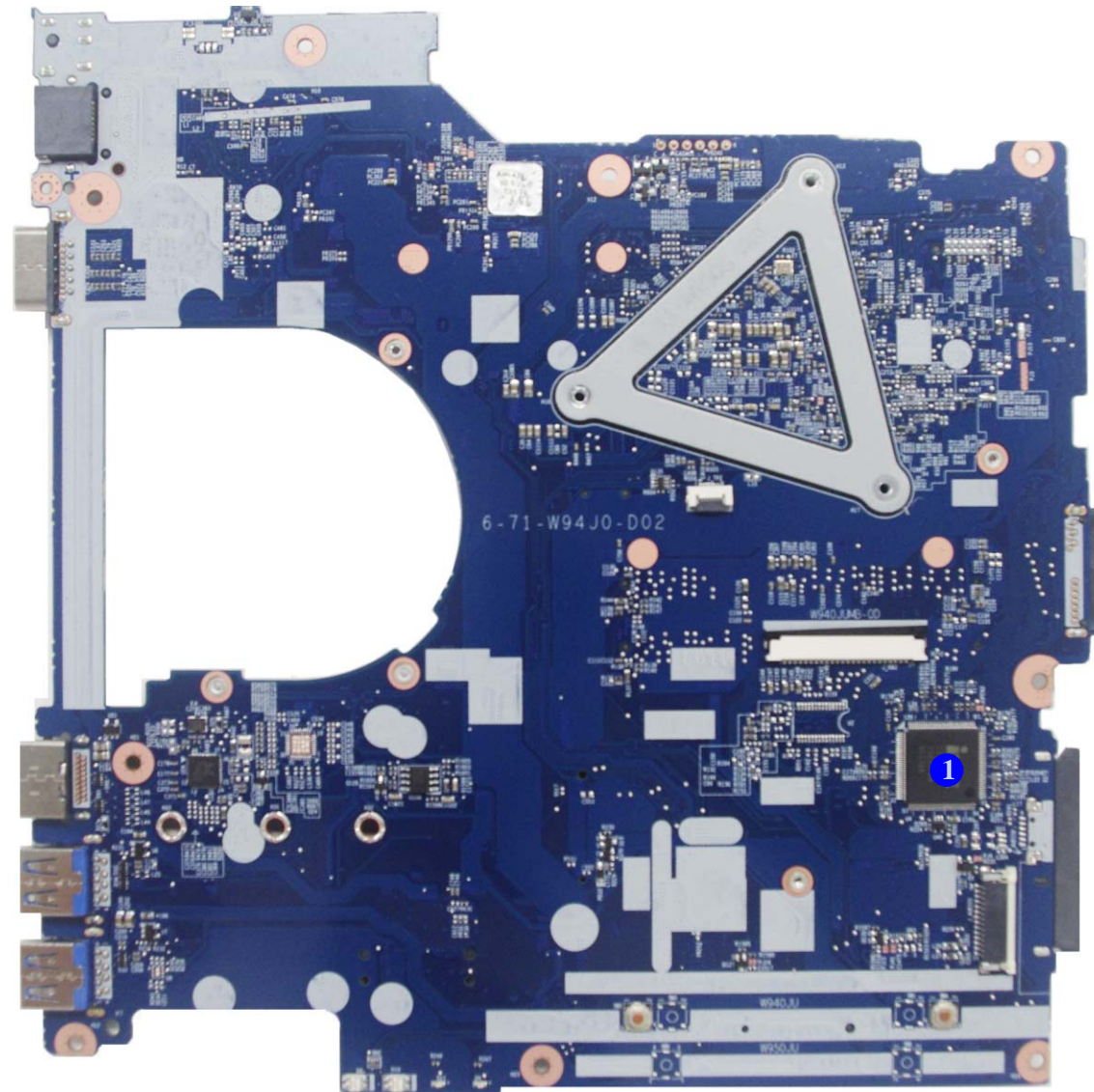
To prevent your computer from overheating, make sure nothing blocks any vent while the computer is in use.

Introduction

Figure 7
Mainboard Top
Key Parts

1. KBC-ITE IT8587

Mainboard Overview - Top (Key Parts)



Mainboard Overview - Bottom (Key Parts)

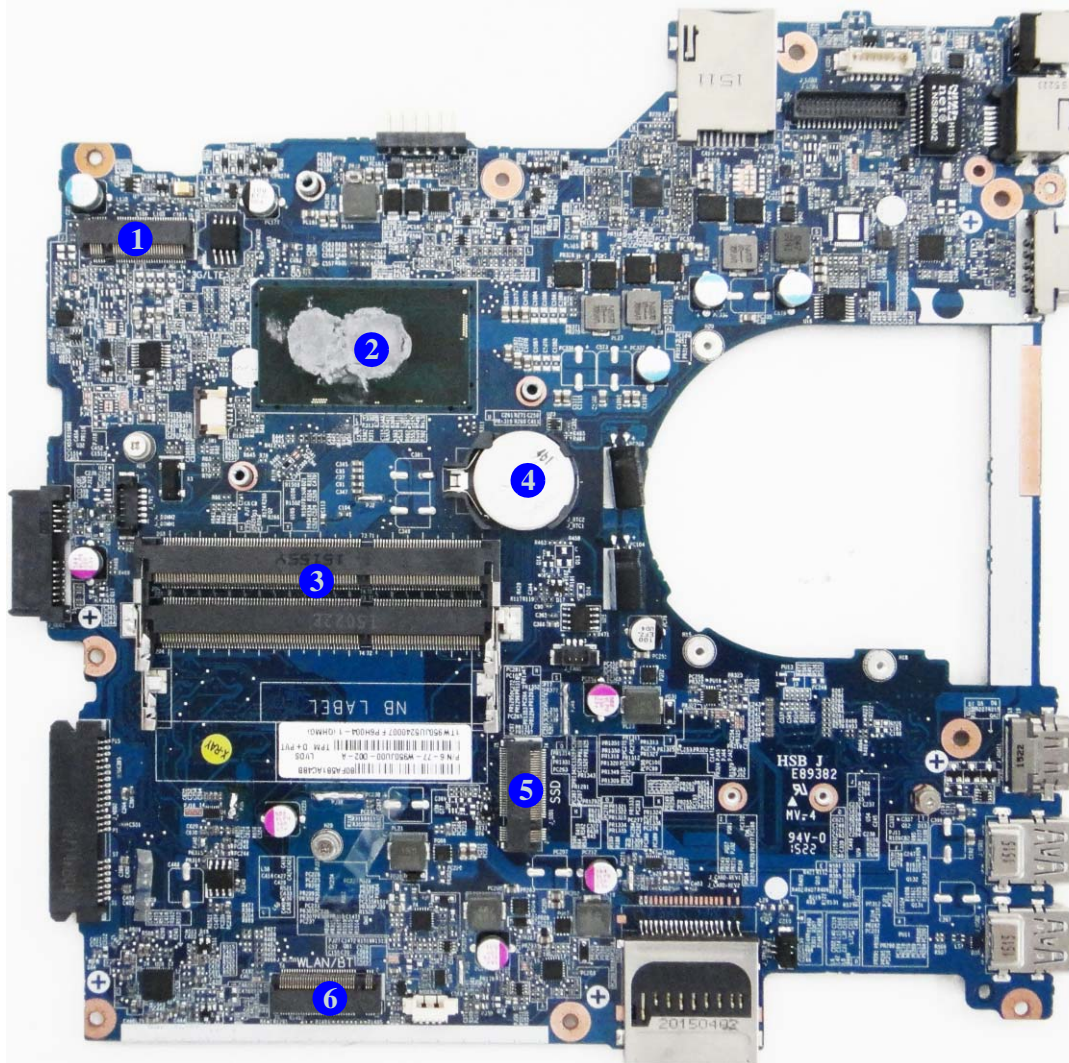


Figure 8
Mainboard Bottom
Key Parts

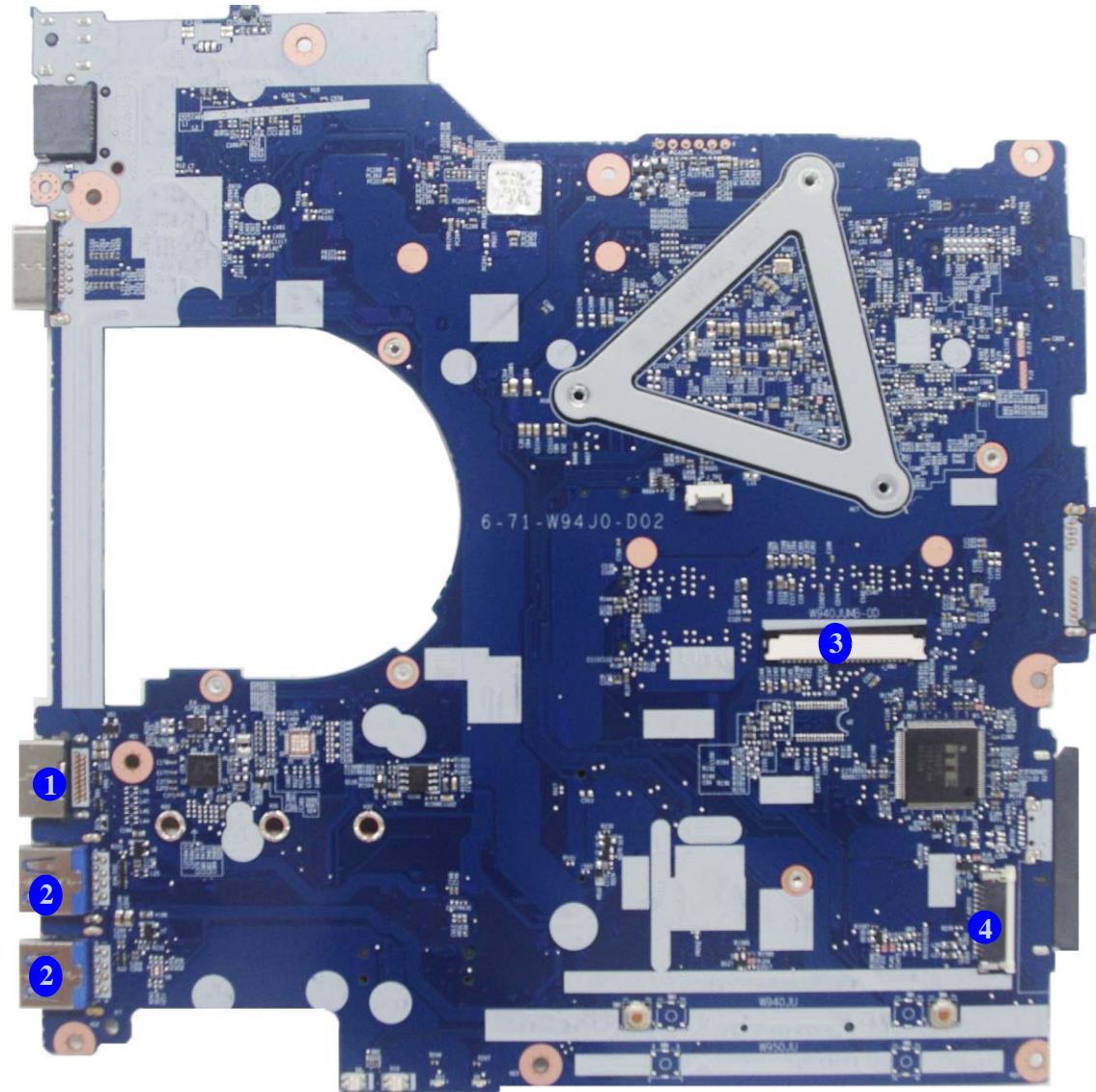
1. M.2 Card Connector (3G)
2. CPU
3. Memory Slots (DDR3L SO-DIMM)
4. CMOS Battery
5. M.2 Card Connector (SSD)
6. M.2 Card Connector (WLAN)

Introduction

Figure 9
**Mainboard Top
Connectors**

1. HDMI-Out Port
2. USB Port 3.0
3. Keyboard Cable Connector
4. Audio Board Cable Connector

Mainboard Overview - Top (Connectors)



Mainboard Overview - Bottom (Connectors)

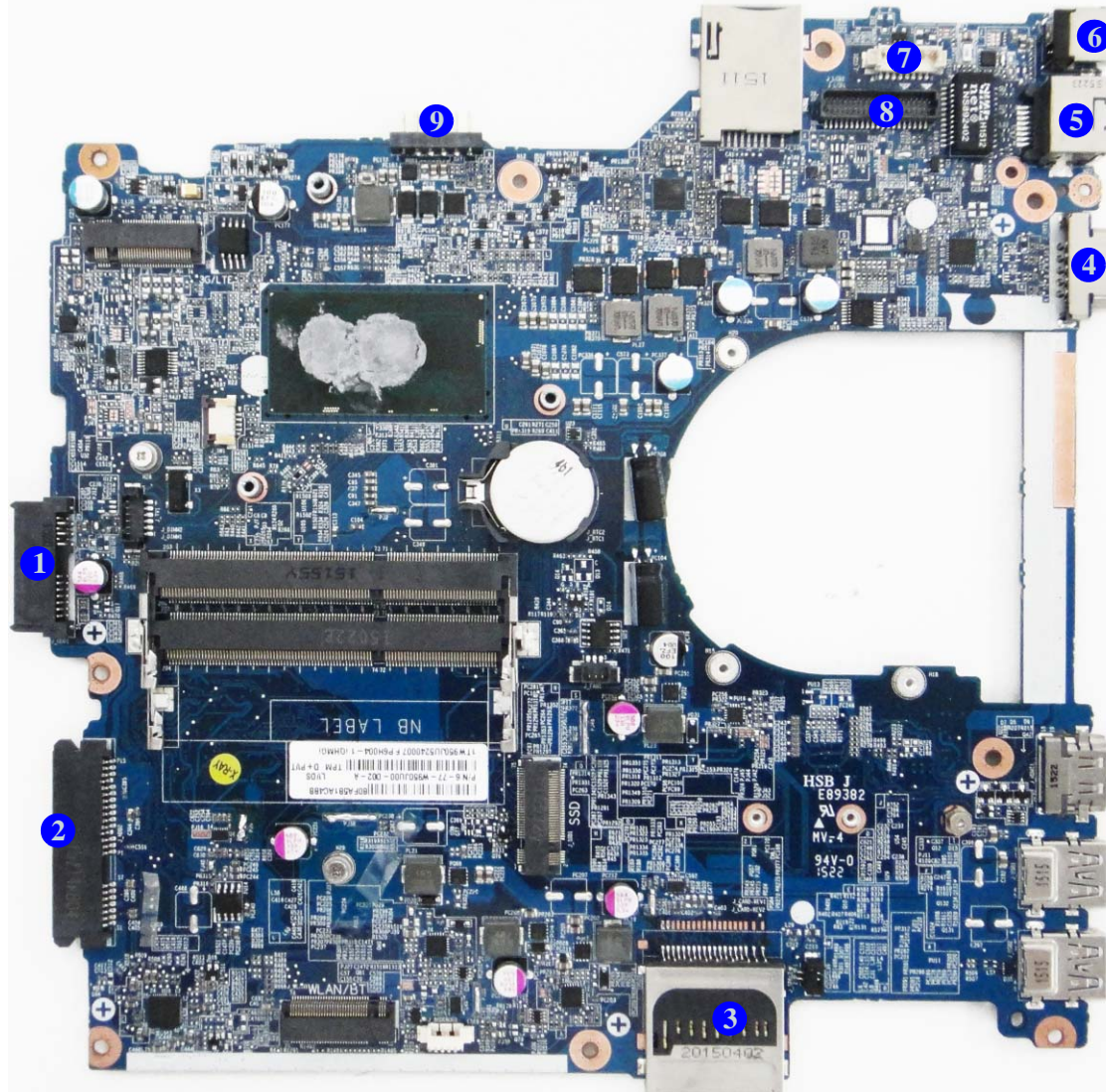


Figure 10
**Mainboard Bottom
Connectors**

1. ODD Connector
2. HDD Connector
3. Multi-in-1 Card Reader
4. External Monitor Port
5. RJ-45 LAN Jack
6. DC-In Jack
7. CCD Connector
8. LCD Cable Connector
9. Battery Connector


Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the *W950JU / W955JU* series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

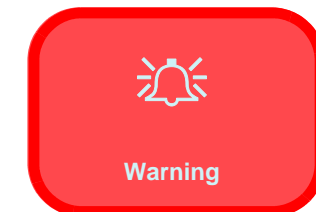
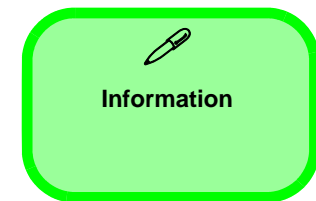
We suggest you completely review any procedure before you take the computer apart.

Procedures such as upgrading/replacing the RAM, 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.



Disassembly

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

Maintenance Tools

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

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

Connections

Connections within the computer are one of four types:

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

Maintenance Precautions

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

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

Cleaning

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

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



Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines and power cord). 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 Optical Device:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the optical device [page 2 - 8](#)

To remove the Caddy/2nd HDD:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the optical device [page 2 - 8](#)
4. Remove the caddy [page 2 - 10](#)

To remove the System Memory:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the system memory [page 2 - 11](#)

To remove the M.2 SSD:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the SSD [page 2 - 13](#)

To remove the Keyboard:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the keyboard [page 2 - 14](#)

To remove the 3G Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the 3G [page 2 - 16](#)

To remove the Wireless LAN Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the WLAN [page 2 - 17](#)

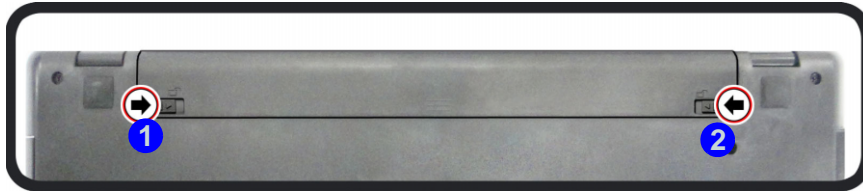
To remove the CCD Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the CCD module [page 2 - 19](#)

Removing the Battery

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

a.



b.

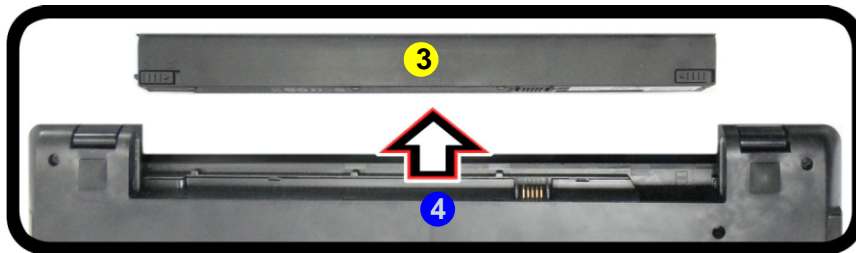
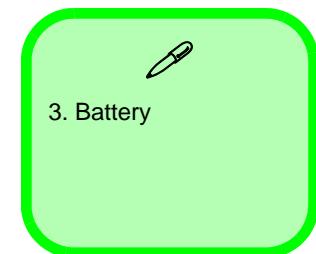


Figure 1
Battery Removal

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



Disassembly

Figure 2 HDD Assembly Removal

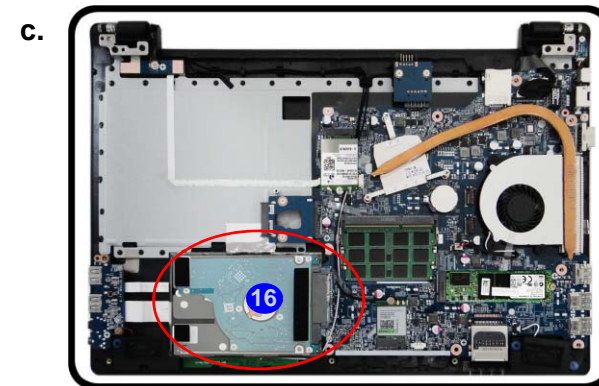
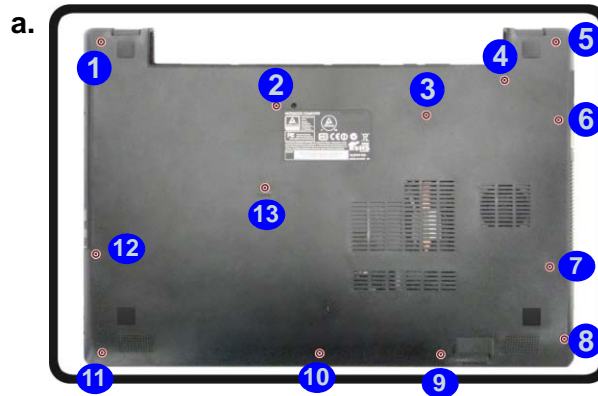
- Remove the screws.
- Remove the bottom cover.
- Locate the HDD assembly.

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 7.0mm (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, turn it over to remove the battery ([page 2 - 5](#)).
- Remove the screws **1 - 13** ([Figure 2a](#)).
- Lift the bottom cover **14** up from point **15** ([Figure 2b](#)).
- The hard disk drive will be visible at point **16** ([Figure 2c](#)).



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.



14. Bottom Cover

- 13 Screws

5. Slightly lift and pull the hard disk assembly in the direction of arrow 17 (Figure 3d).
6. Lift the hard disk assembly 18 out of the bay 19 (Figure 3e).
7. Remove the screws 20 - 21 and the adhesive cover 22 from the hard disk 23 (Figure 3f).
8. Reverse the process to install a new hard disk (do not forget to replace all the screws and bottom cover).

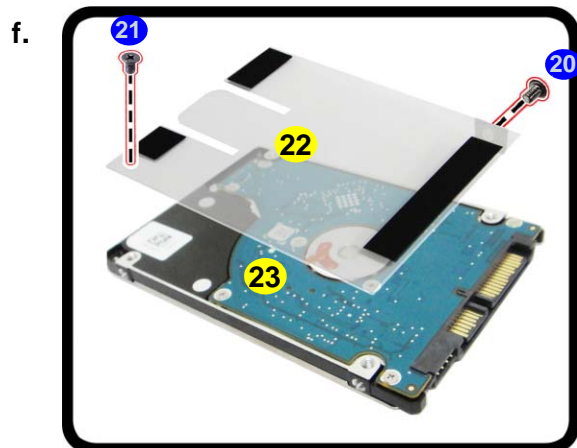
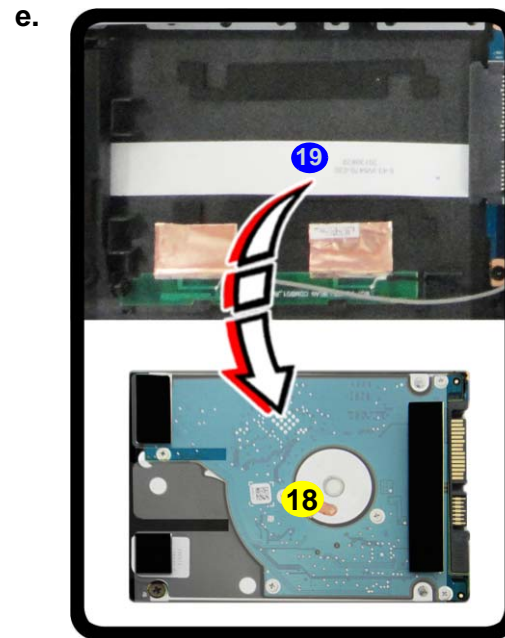
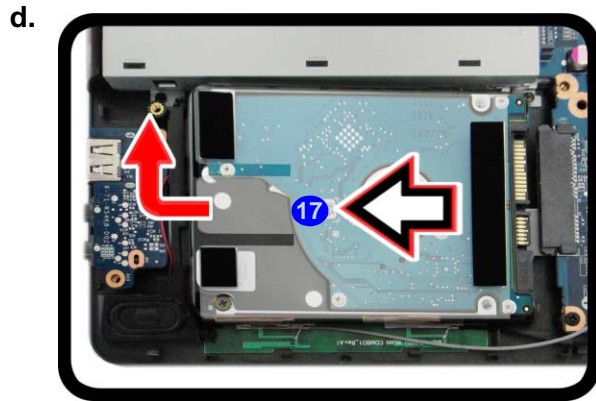


Figure 3
HDD Assembly
Removal (cont'd.)

- d. Slightly lift and pull the HDD assembly in the direction of the arrow.
- e. Lift the HDD assembly out of the bay.
- f. Remove the screws and adhesive cover.

18. HDD Assembly
22. Adhesive Cover
23. HDD

- 2 Screws

Disassembly

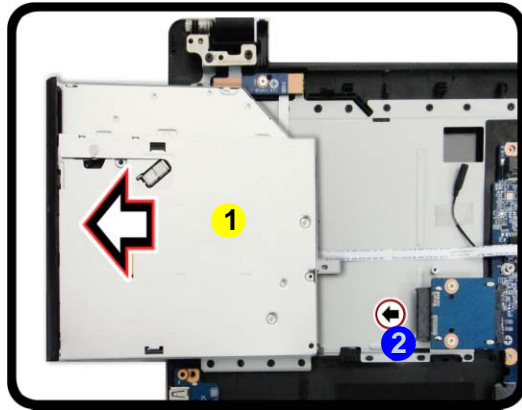
Figure 4
**Optical Device
Removal**

- Pull out the optical device.
- Pry the bezel off the optical device.
- Separate the bezel and optical device.

Removing the Optical (CD/DVD) Device

- Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)) and bottom cover ([page 2 - 6](#)).
- Carefully pull out the optical device **1** out of the bay at point **2** ([Figure 4a](#)).
- Carefully pry the bezel **4** off the optical device at point **3** ([Figure 4b](#)).
- Separate the bezel **4** and the optical device ([Figure 4c](#)).

a.



b.



c.



- Optical Device
- Bezel

Figure 5
Optical Device Assembly

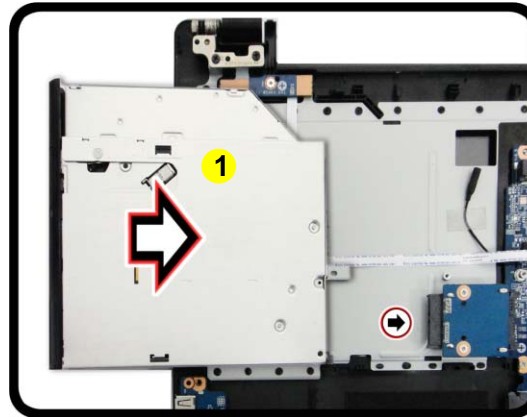
- d. Install the front bezel.
- e. Insert the optical device.

- 5. Reverse the process to attach the front bezel **4** with the new optical device at point **5** (*Figure 5e*).
- 6. Insert the new optical device **1** and carefully slide it into the computer (the device only fits one way. DO NOT FORCE IT; The screw holes should line up). Take care to avoid folding the connector underneath.
- 7. Replace the bottom cover and tighten the screws.
- 8. Restart the computer to allow it to automatically detect the new device.

d.



e.



- 1. Optical Device
- 4. Bezel

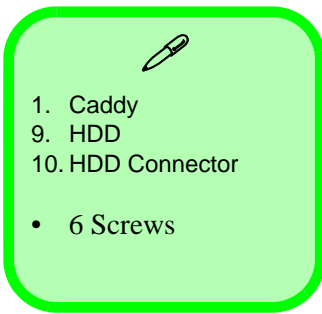
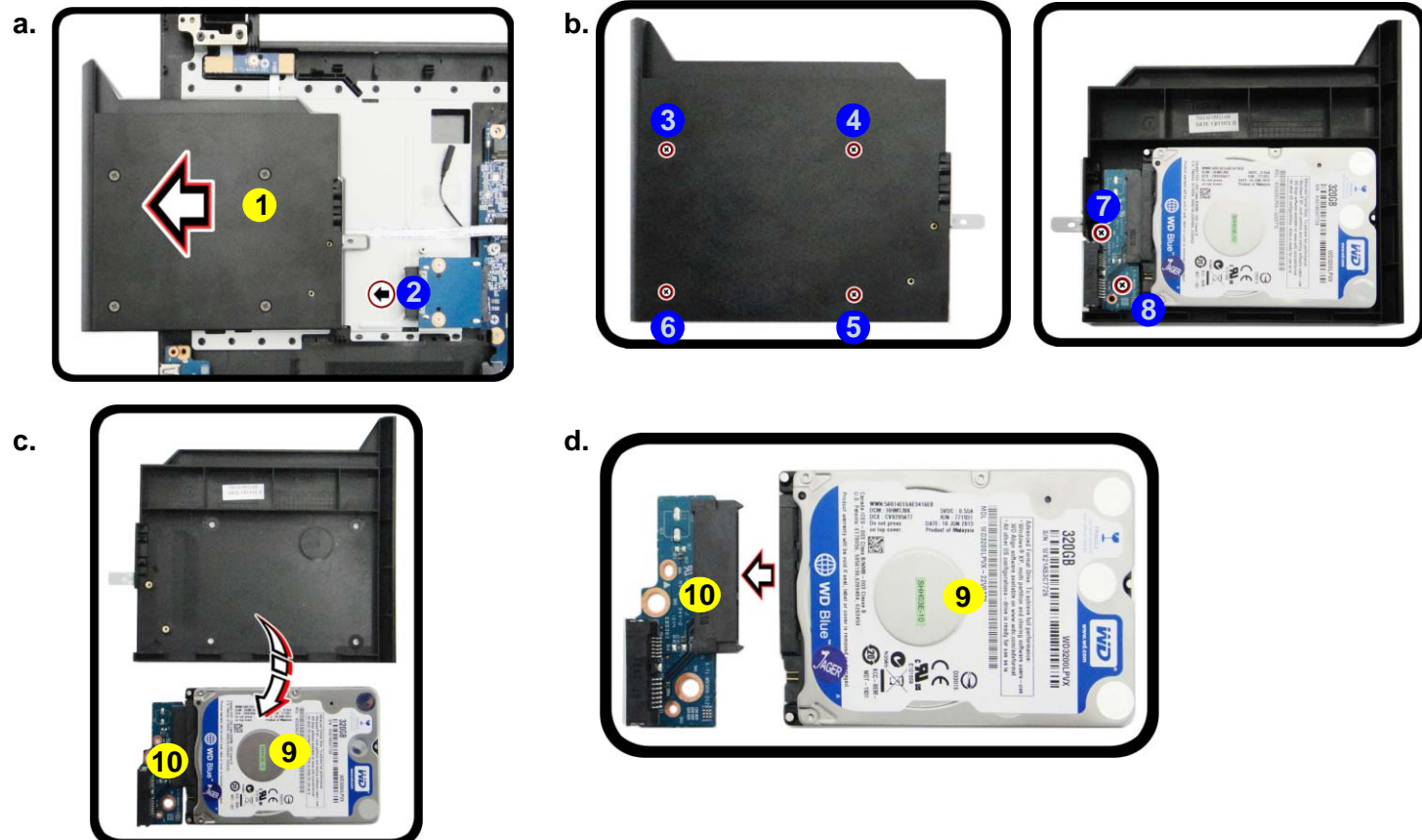
Disassembly

Figure 6
**Caddy/2nd HDD
 Removal**

- Remove the caddy from the ODD bay.
- Remove the screws.
- Lift the HDD assembly out.
- Separate the connector and HDD.

Removing the Caddy/Second Hard disk

- Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)) and bottom cover ([page 2 - 6](#)).
- Carefully pull out the caddy **1** out of the bay at point **2** ([Figure 6a](#)).
- Remove screws **3 - 8** ([Figure 6b](#)) to release the hard disk assembly.
- Lift the hard disk **9** and connector **10** out ([Figure 6c](#)).
- Separate the hard disk **9** and connector **10** ([Figure 6d](#)).
- Reverse the process to install a new HDD (do not forget to replace the screws and bottom cover).
- Restart the computer to allow it to automatically detect the new device.



Removing the System Memory (RAM)

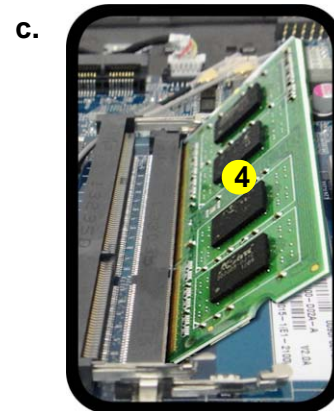
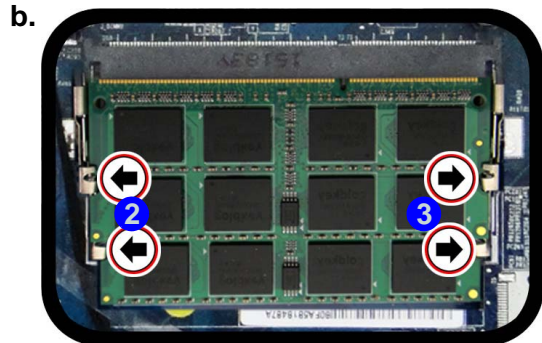
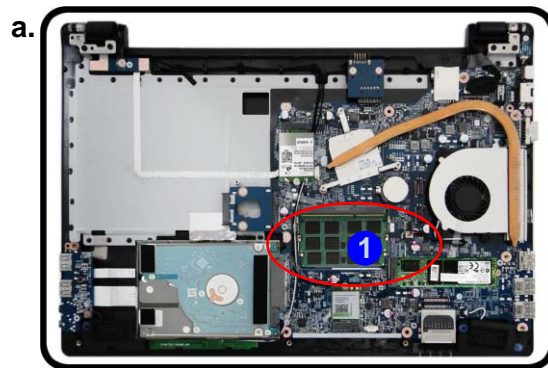
The computer has two memory sockets for 204 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDR3L Up to 1066/1333 MHz. The main memory can be expanded up to 8GB. The SO-DIMM modules supported are 1024MB and 2048MB **DDR3L** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.


Memory Upgrade Process

1. Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)) and bottom cover ([page 2 - 6](#)).
2. The RAM modules will be visible at point **1** on the mainboard ([Figure 7b](#)).
3. Gently pull the two release latches (**2** & **3**) on the sides of the memory socket in the direction indicated by the arrows ([Figure 7b](#)). The RAM module **4** will pop-up ([Figure 7c](#)), and you can then remove it.

Figure 7
RAM Module Removal


- a. The RAM modules will be visible at point **1** on the mainboard.
- b. Pull the release latches.
- c. Remove the module.






Single Memory Module Installation

If your computer has a single memory module, then insert the module into the **Channel 0 (JDIMM1 / RAM1)** socket. In this case this is the **horizontal memory socket**.



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.



4. RAM Module

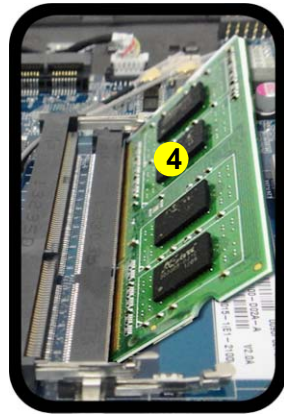
Disassembly

Figure 8 RAM Module Assembly

d. Insert the RAM modules properly.

4. Pull the latches to release the second module if necessary.
5. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
6. 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.
7. Replace the bottom case and the screws (see [page 2 - 6](#)).
8. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

d.



4. RAM Module

Removing the M.2 SSD Module

1. Turn off the computer, turn it over, remove the battery ([page 2 - 5](#)).
2. The M.2 SSD module will be visible at point ① on the mainboard ([Figure 9a](#)).
3. Remove the screw ② ([Figure 9b](#))
4. The M.2 SSD module ③ ([Figure 9c](#)) will pop-up, and you can remove it from the computer.

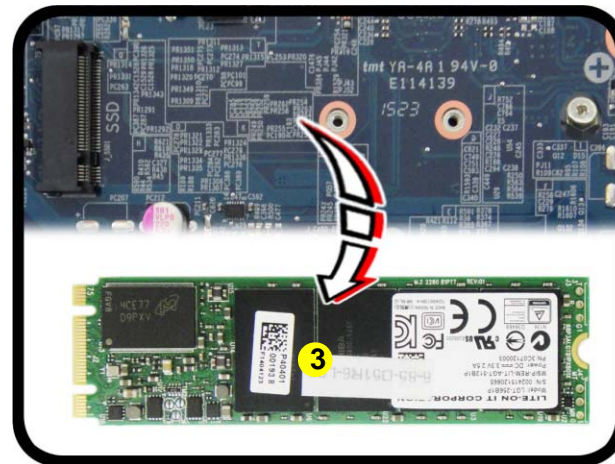
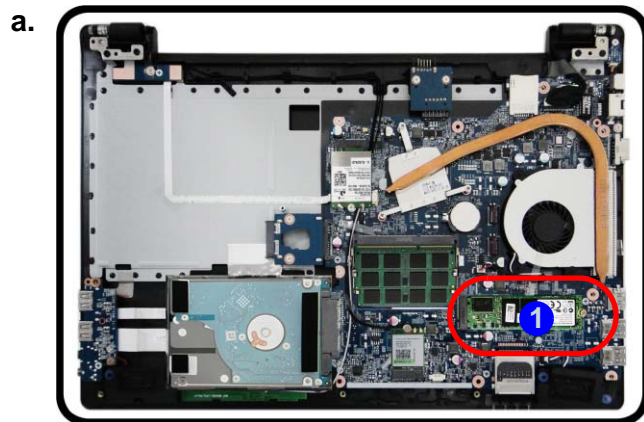



Figure 9
M.2 SSD Module Removal

- a. Locate the M.2 SSD.
- b. Remove the screw.
- c. The M.2 SSD module will pop up.


3.M2 SSD Module

- 1 Screw

Disassembly

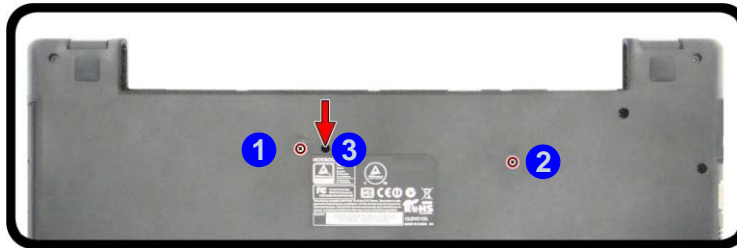
Figure 10
Keyboard Removal

- Remove screw and release the keyboard by pressing at point ③.
- Disconnect the keyboard ribbon cable from the locking collar socket.
- Remove the keyboard.

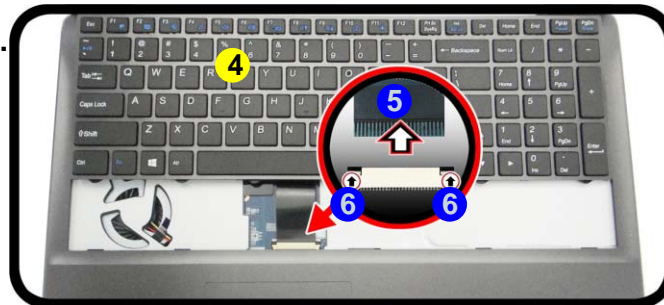
Removing the Keyboard

- Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)).
- Remove screws ① - ② from the bottom case and press at point ③ to release the keyboard ([Figure 10a](#)).
- Turn the computer over, remove the keyboard ④ ([Figure 10c](#)).
- Carefully lift the keyboard up, being careful not to bend the keyboard ribbon cable ⑤. Disconnect the keyboard ribbon cable from the locking collar socket ⑥ ([Figure 10d](#)).
- Carefully lift up the keyboard ④ off the computer ([Figure 10e](#)).

a.




b.



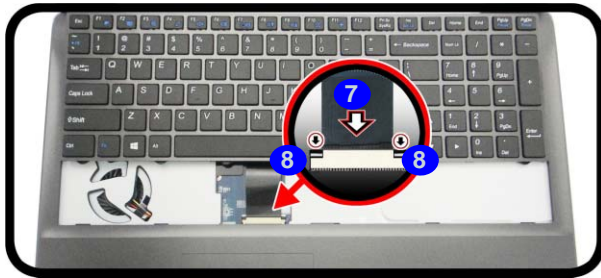
c.



- 
4. Keyboard
- 2 Screws

- Connect the keyboard ribbon cable to the locking collar socket **8**, and be careful not to bend the keyboard ribbon cable **7** (*Figure 11d*).
- Insert the keyboard **4** at point **9** and then slide the keyboard in at point **10** and **11** (*Figure 11e*).
- Tighten the screws **12** - **13** to secure the keyboard (*Figure 11f*).

d.



e.



f.



Figure 11
Keyboard Assembly

- Connect the keyboard ribbon cable to the locking collar socket.
- Insert the keyboard at point **9** and slide it in.
- Tighten the screws.



4. Keyboard

- 2 Screws

Disassembly

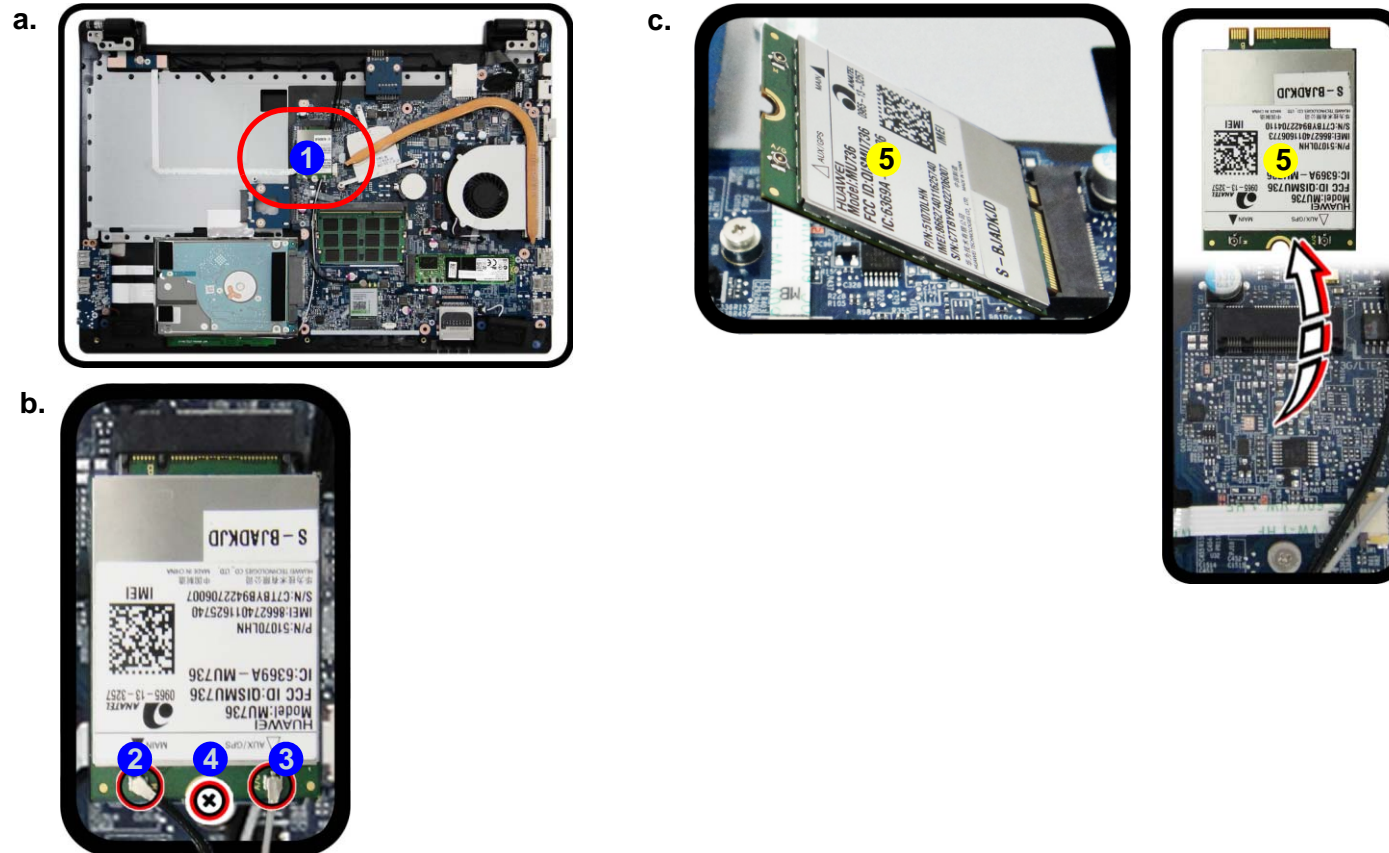
Figure 12
3G Module Removal

- Locate the 3G.
- Disconnect the cable and remove the screw.
- The 3G module will pop up and lift it out of the computer.

Note: Make sure you reconnect the antenna cable to the “1 + 2” socket (*Figure 13b*).

Removing the 3G Module

- Turn **off** the computer, turn it over to remove the battery (*page 2 - 5*) and bottom cover (*page 2 - 6*).
- The 3G module will be visible at point **1** on the mainboard (*Figure 12a*).
- Carefully disconnect the cables **2** & **3**, and then remove the screw **4** (*Figure 12b*).
- The 3G module **5** (*Figure 12c*) will pop-up, and you can remove it from the computer.



5. Wireless LAN Module

- 1 Screw

Removing the Wireless LAN Module

1. Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)) and bottom cover ([page 2 - 6](#)).
2. The Wireless LAN module will be visible at point **1** on the mainboard ([Figure 13a](#)).
3. Carefully disconnect the cables **2** & **3**, and then remove the screw **4** ([Figure 13b](#)).
4. The Wireless LAN module **5** ([Figure 13c](#)) will pop-up, and you can remove it from the computer.

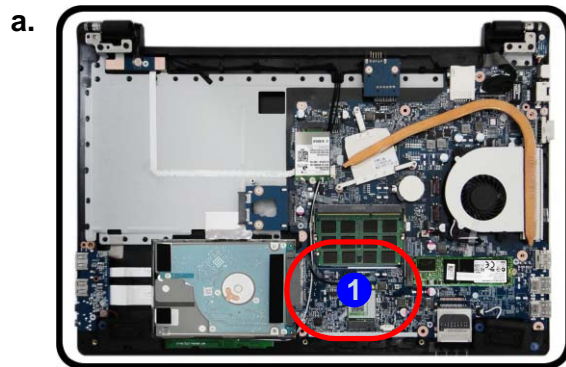



Figure 13
**Wireless LAN
Module Removal**

- Locate the WLAN.
- Disconnect the cable and remove the screw.
- The WLAN module will pop up and lift it out of the computer.

Note: Make sure you reconnect the antenna cable to the “1 + 2” socket ([Figure 13b](#)).



5. Wireless LAN Module

- 1 Screw

Wireless LAN and Combo Module Cables

Note that the cables for connecting to the antennae on WLAN and WLAN & Bluetooth Combo modules are not labelled. The cables/covers (each cable will have either a black or transparent cable cover) are color coded for identification as outlined in the table below.

Module Type	Antenna Type	Cable Color	Cable Cover Type
WLAN/WLAN & Bluetooth Combo	WM 1	Black	Transparent
	WM 2	Gray	
	WM 3	White	

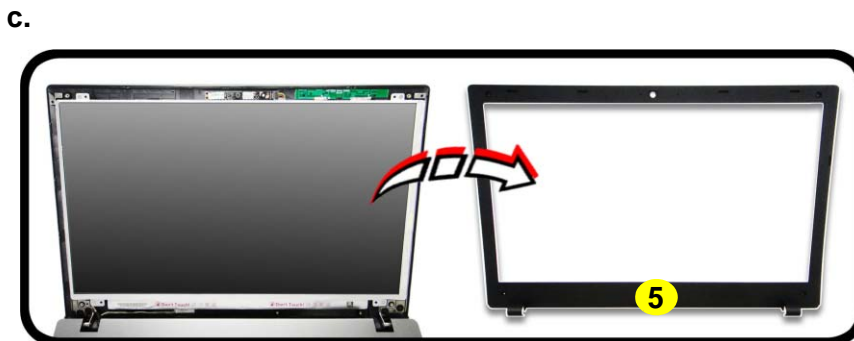
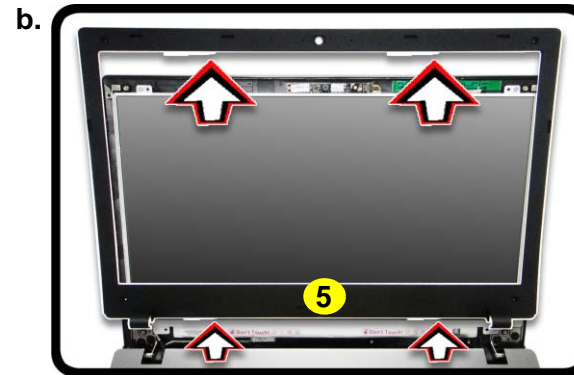
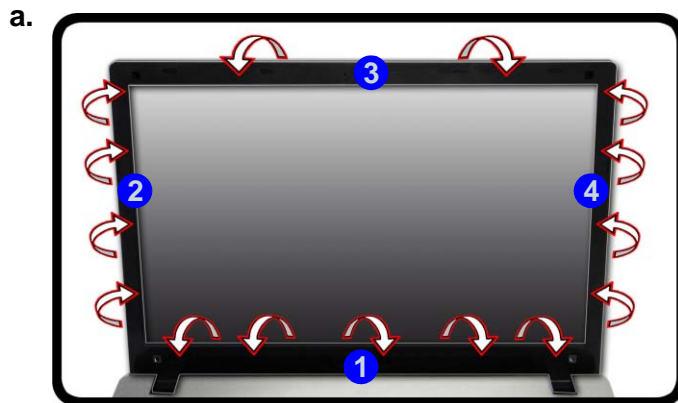
Cable 1 is usually connected to antenna 1 (Main) on the module, and cable 2 to antenna 2 (Aux).

Removing the CCD

1. Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)).
2. Run your fingers around the inner frame of the LCD panel at the points as indicated by the arrows **1** - **4** ([Figure 14a](#)).
3. Lay the computer down on a flat surface with the top case up forming a 90 degree angle. Push the LCD front cover **5** upwards before carefully lifting it up.
4. Remove the LCD front cover **5** ([Figure 14c](#)).

Figure 14
CCD Removal

- a. Run your fingers around the inner frame of the LCD panel at the points indicated by the arrows.
- b. Lay the computer down on a flat surface with the top case up forming a 90 degree angle. Push the LCD front panel upwards before carefully lifting it up.
- c. Remove the LCD front cover.



Disassembly

Figure 15
CCD Removal
(cont'd)

- d. Disconnect the cable.
- e. Remove the CCD module.

- 5. Disconnect the cable **6**.
- 6. Remove the CCD module **7** (*Figure 15f*).
- 7. Reverse the process to install a new CCD module.



7. CCD Module

Appendix A:Part Lists

This appendix breaks down the *W950JU / W955JU* 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.

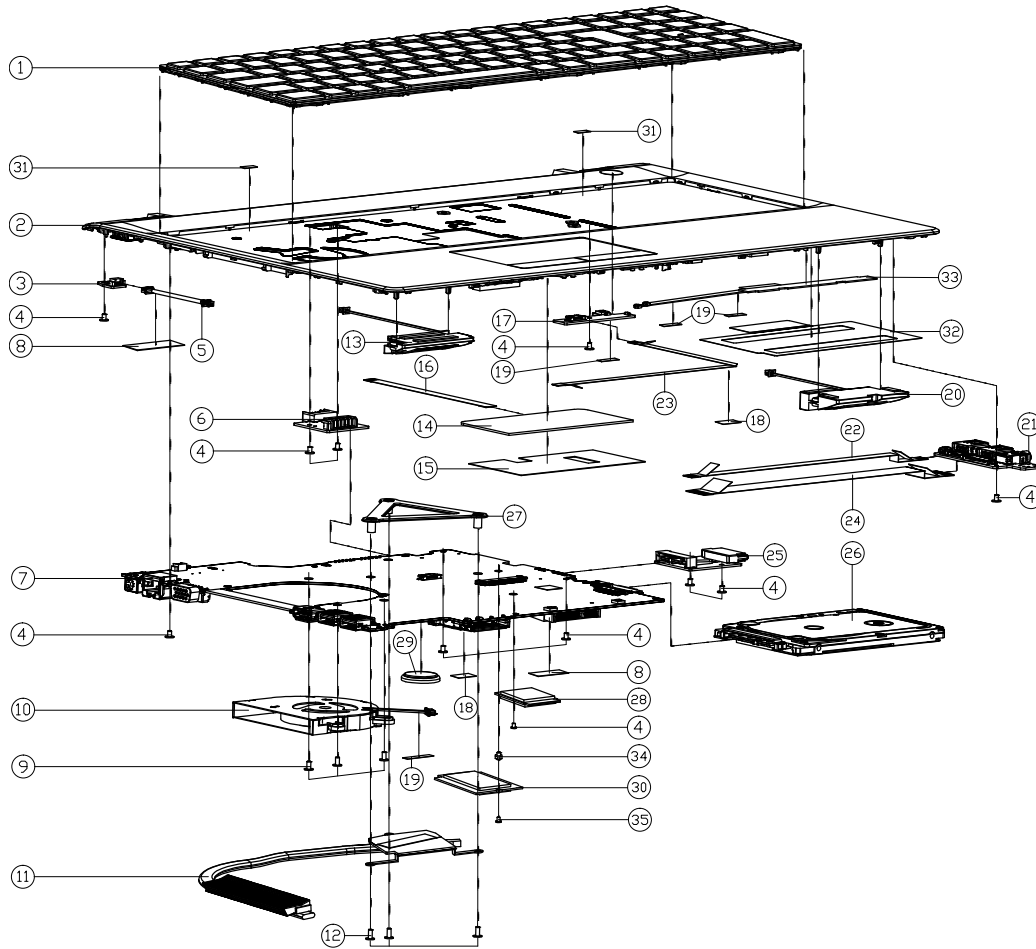
Part List Illustration Location

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

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

Part	W950JU	W955JU
Top	<i>page A - 3</i>	<i>page A - 4</i>
Bottom	<i>page A - 5</i>	<i>page A - 6</i>
LCD	<i>page A - 7</i>	<i>page A - 8</i>
DVD Dual Drive	<i>page A - 9</i>	<i>page A - 10</i>
Dummy ODD	<i>page A - 11</i>	
HDD	<i>page A - 12</i>	<i>page A - 12</i>
2nd HDD	<i>page A - 14</i>	

Top - W950JU

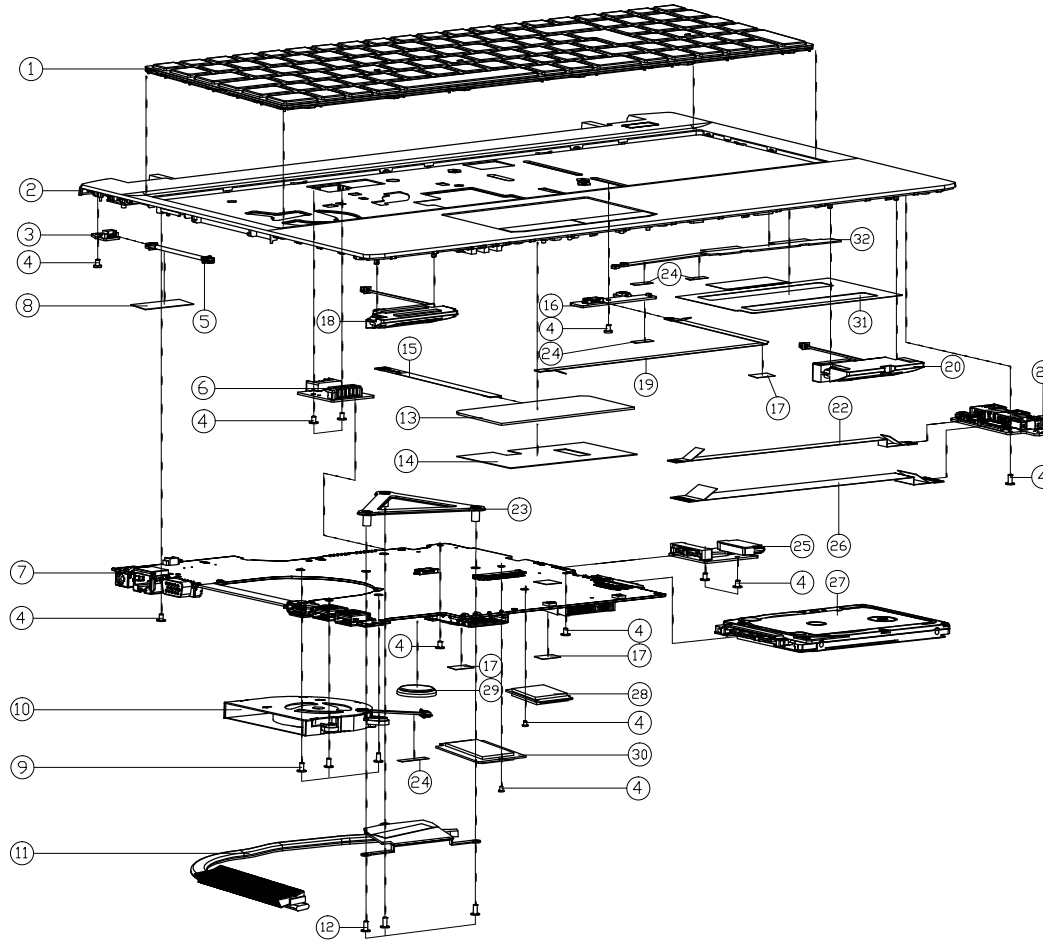


ITEM	PART NAME	PART NO	REMARK
1	WING K/B US/BLACK/ FRAME/US/ MODULE W950JU	6-79-W950AUK-010-W	W950AU
2	TOP CASE MODULE W950JU2	6-39-W95S2-014	
3	HALL SENSOR BOARD V1.0 W950KU	6-77-W95K1-D01	
4	SCREW M2X3L KI NI ICT NY (00-445,01-04)	6-35-B1120-3RE	
5	WIRE CABLE FOR LID 3P 40MM (H/L) W550EU	6-43-W5503-011	
6	BATTERY BOARD V2.0 W950KU	6-77-W95KQ-D02	
7	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-77-W950J00-D02B-1F	
7	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-77-W950J00-D02B-2D	
7	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-77-W950J00-D02B-2F	
7	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-77-W950J00-D02B-2G	
7	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-77-W950J00-D02B-2H	
8	TAPE MYLAR (C)MYLAR M550J	6-40-M55J2-030	
9	SCREW M2X4L KI BZ ICT NY	6-35-B6120-4RA	
10	FAN MODULE W251HUQ	6-31-W25HS-100	
11	CPU HEATSINK MODULE W540SU2	6-31-W552N-103	
12	SCREW M2.5X5L KI NI ICT NY	6-35-B1125-5RA	
13	SPK/CABLE L 2V 41 23MM (P25124900) W950KU	6-23-5W95K-0L1	
14	TOUCH PAD SYNAPTICS 8844E2 TM-82175-001 N240LU	6-49-N2403-010	
15	TP TAPE MYLAR PET W540EU	6-40-W5401-010	
16	FFC CABLE TP TO NO ROMM 47V PITCH=45.50MM AND W940LU	6-43-W94J0-010-1	
17	POWER SWITCH BOARD V2.0 W945LUQ	6-77-W94LS-D02-A	
18	TAPE MYLAR TRANSPARENT (20401805) P180MM	6-40-P1803-020	
19	TAPE MYLAR TRANSPARENT (20401805) W251HUQ	6-40-W25P3-010	
20	SPK/CABLE R 2V 41 68MM (P25124900) W950KU	6-23-5W95K-0R1	
21	AUDIO BOARD (W/D SP/DIF) V1.0 W950JU	6-77-W95J9-D01	
21	AUDIO BOARD (W/D SP/DIF) V3.0 W950JU	6-77-W95J8-D03	
22	FFC CABLE NO TO AUDIO BOARD (0405) 16MM 5V 6P W950J2	6-43-W9550-020-2	
23	FFC CABLE FOR POWER BU TO W950J9 4PIN GOLD W950J2	6-43-W9550-010	
24	FFC CABLE NO TO AUDIO BOARD (0405) FROM SV 16PIN W950J2	6-43-W9550-030-2	
25	ODD BOARD V3.0 W950KU	6-77-W95KN-D03	
26	W/O HDD ASS'Y W950KU	6-79-W950KUJ-010	
26	W/ HDD ASS'Y W950KU	6-79-W950KUJ-020	
27	CPU SUPPORTER FOR HURON RIVER SECC W550MM	6-33-W150S-011	
28	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-88-W95LF-4240	OPTION
28	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-88-N240F-4200	OPTION
28	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-88-W95LF-4220	OPTION
28	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-88-S210F-9400	OPTION
28	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-88-N170F-5100	OPTION
28	NO BATTERY/CONSOLE FOR FOR EPYVAI P/TELE/CH/US/2008-YVAU	6-88-N25JF-4200	OPTION
29	BATTERY 3V 220MA BBBCR2032B (KTS)	6-23-6A2B2-030	
30	SSD M2 2280 256GB LITE-ON (L61-2560P) PCIe GEN4 MLC	6-85-D51R6-L00	OPTION
30	M2 (2280mm) PCIe Gen 4 x 2 SSD 256GB MLC LGF-2560P LITE-ON	6-85-D40C8-L02	OPTION
30	SSD M2 2280 256GB CRUCIAL CT570M3034 1920GB SATA3 MLC	6-85-D51R0-100	OPTION
30	WCDMA/HSPA+ M2/M4 4GPP NET CARD 100 MEGABIT WITHOUT GPS SWIM	6-88-S210W-8810	OPTION
30	LTE 4G PP SWIM WITH ANTENNA/REAR FOR JAPAN NET 100 MEGABIT 4GPP	6-88-W3306-8830	OPTION
30	LTE 4G PP SWIM WITH ANTENNA/REAR FOR EUROPE NET 100 MEGABIT 4GPP	6-88-W3306-8841	OPTION
31	MYLAR(L12*2*0.75T) FOR W940SU2	6-40-00150-12D	
32	TOP ANTENNA AL FOIL (94.3*30.9) W950AU	6-47-W9502-010	ONLY FOR LTE-2
33	ANTENNA FOR 4G LTE-2 FOR US/BLACK/US/2008-YVAU	6-23-W950-030	ONLY FOR LTE-2
34	SCREW M2X3 4X5 30S STEEL KIT NY FOR NET (00-445,01-04)	6-35-ZA120-2RS	ONLY FOR CPU 4200/4200/4200/4200/4200/4200
35	SCREW M2X3L KI NI ICT NY (00-445,01-04)	6-35-B1120-3RE	
35	SCREW M2X2L KI NI ICT NY (00-445,01-04)	6-35-B1120-2R0	ONLY FOR CPU 4200/4200/4200/4200/4200/4200

Figure A - 1
Top - W950JU

Top - W955JU

Figure A - 2
Top - W955JU



ITEM	PART NAME	PART NO	REMARK
1	VNB K/B US&K/BLACK FRAME/USD MODULE W950AU	6-79-W950AUK-010-W	
2	TDP CASE MODULE W955S2	6-39-W9552-012	
3	HALL SENSOR BOARD V1.0 W950KU	6-77-W95K1-D01	
4	SCREW M2X4L KI NI ICT NY (00-#4.5,DT-04)	6-35-B1120-3RE	
5	WIRE CABLE FOR LID 3P 40MM (4L) W550EU	6-43-W5503-011	
6	BATTERY BOARD V2.0 W950KU	6-77-W95KQ-D02	
7	NO BATTERY/CONDUCTIVE TOP FOR EPXAUX (FORWARD) PULL-OUT COVER V90A	6-77-W950.J000-D02B-1F	
7	NO BATTERY/CONDUCTIVE TOP FOR EPXAUX PULL-OUT COVER (REAR) V90A	6-77-W950.J000-D02B-2D	
7	NO BATTERY/CONDUCTIVE TOP FOR EPXAUX PULL-OUT COVER (DOWN) V90A	6-77-W950.J000-D02B-3F	
7	NO BATTERY/CONDUCTIVE TOP FOR EPXAUX PULL-OUT COVER (DOWN) V90A	6-77-W950.J000-D02B-2G	
7	NO BATTERY/CONDUCTIVE TOP FOR EPXAUX PULL-OUT COVER (DOWN) V90A	6-77-W950.J000-D02B-2H	
8	TAPE MYLAR (C)MYLAR M550J	6-40-M55J2-030	
9	SCREW M2X4L KI BZ ICT NY	6-35-B6120-4RA	
10	FAN MODULE W251HUQ	6-31-W25HS-100	
11	CPU HEATSINK MODULE W540S2	6-31-W552N-103	
12	SCREW M2.5X5L KI NI ICT NY	6-35-B1125-5RA	
13	TOUCH PAD SYNAPTICS 84M42 TM-03075-001 N240LU	6-49-N2403-010	
14	TP TAPE MYLAR PET W540EU	6-40-W5401-010	
15	FFC CABLE TO HD 80MM KEY (PITCH)S&S20MM 40D W90A	6-43-W94J0-010-1	
16	POWER SWITCH BOARD V2.0 W945LUQ	6-77-W94LS-D02-A	
17	TAPE MYLAR TRANSPARENT (2040)MUS P180MM	6-40-P1803-020	
18	SPK+CABLE L 2W 4T 23MM (PK252424900 W950KU	6-23-5W95K-0L1	
19	FFC CABLE FOR POWER HD TO HD 15MM 20W 4PIN (CABLE) W9002	6-43-W95S0-010	
20	SPK+CABLE R 2W 4T 50MM (PK252424900 W950KU	6-23-5W95K-OR1	
21	AUDIO BOARD (W/SPDIF) V3.0 W950JU	6-77-W95J8-D03	
21	AUDIO BOARD (W/O SPDIF) V1.0 W950JU	6-77-W95J9-D01	
22	FFC CABLE HD TO AUDIO BOARD (CABLE) 16MM 5V 6P W950J2	6-43-W95S0-020-2	
23	CPU SUPPORTER FOR HARGON RIVER SECC W150MM	6-33-W150S-011	
24	TAPE MYLAR TRANSPARENT (C)MUSMUS W250PQ	6-40-W25P3-010	
25	ODD BOARD V3.0 W950KU	6-77-W95KN-D03	
26	FFC CABLE HD TO AUDIO BOARD (CABLE) 12MM 5V 4PIN W9002	6-43-W95S0-030-2	
27	W/O HDD ASS'Y W950KU	6-79-W950KUJ-010	
27	W/ HDD ASS'Y W950KU	6-79-W950KUJ-020	
28	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-88-W95LF-4240	OPTION
28	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-88-W95LF-4220	OPTION
28	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-88-S210F-9400	OPTION
28	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-88-N170F-5100	OPTION
28	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-88-N25JF-4200	OPTION
29	BATTERY 3V 220MA BB8CR2032B (KTS)	6-23-6A2B2-030	
30	SSD M2 2280 256GB LITE-ON (L67-2568P) (PCE) 1240 (MLD)	6-85-D51R6-L00	OPTION
30	M2 2280MM PCIe Gen II x 2 SSD 256GB MLC (L67-2568P) LITE-ON	6-85-D40CB-L02	OPTION
30	SSD M2 2280 256GB CRUCIAL (CT250M20SS34) (OVERSD) SATA6 Gb/s	6-85-D51R0-100	OPTION
30	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-88-S210W-8910	OPTION
30	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-88-W3306-8830	OPTION
30	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-88-W3306-8841	OPTION
31	TOP ANTENNA AL F01L (94.3x30.9) W950AU	6-47-W9502-010	ONLY FOR LTE-2
32	WARRANTY LABEL (FOR ASSEMBLY) 157MM X 22MM (FOR FRONT COVER) V90A	6-23-7W950-030	

Bottom (W950JU)

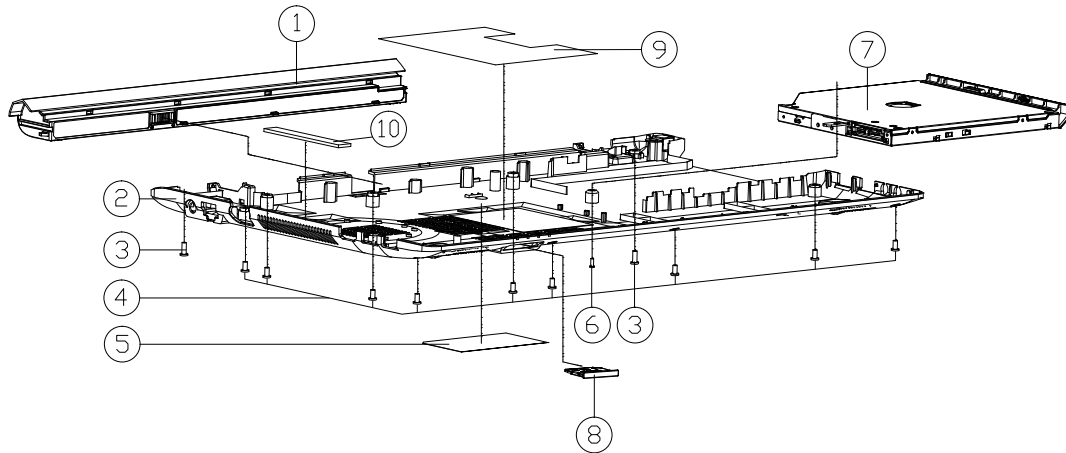


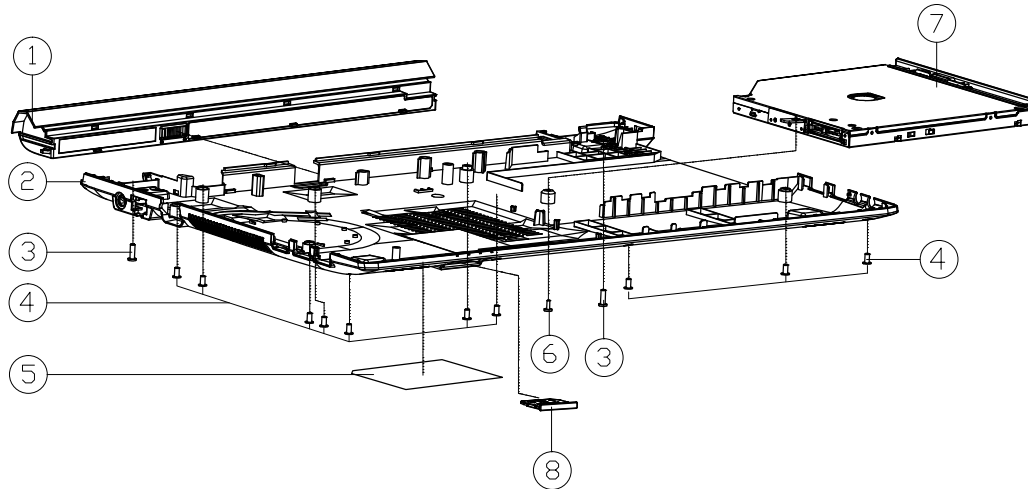
Figure A - 3
Bottom (W950JU)

ITEM	PART NAME	PART NO	REMARK
1	MFP SLU H9VZ00M KCP 0M/31 000230F 22M W950U 'PEDIA'	6-87-W95KS-42F2	
1	MFP SLU 0EYV20M4H9 FE KCP 0M/31 000230F 22M W950U 'PEDIA'	6-87-W97KS-42L	
1	MFP SLU H9VZ00M KCP 0M/31 000230F 22M W950U 'PEDIA'	6-87-W95KS-42F3	
1	MFP SLU 0EYV20M4H9 FE KCP 0M/31 000230F 22M W950U 'PEDIA'	6-87-W97KS-42L1	
2	BOTTOM CASE MODULE W950SU2	6-39-W95S3-012	
2	BOTTOM CASE MODULE W950SU2-C	6-39-W95S3-012-C	
3	SCREW M2.5*6L KI BK/Z NY ICT	6-35-B6125-8R0	
4	SCREW M2.5*6L K BZ ICT NY	6-35-82125-6RA	
5	PRODUCT LABEL FOR W950JU	6-45-W950JU03-010	
5	PRODUCT LABEL FOR W950AU	6-45-W950AU03-010	
5	PRODUCT LABEL FOR W950AU3	6-45-W950AU03-010	
5	PRODUCT LABEL FOR W950AU3	6-45-W950AU03-010	
5	PRODUCT LABEL FOR W950AU3	6-45-W950AU03-010	
5	PRODUCT LABEL FOR W950AU3	6-45-W950AU03-010	
6	SCREW M2.5*6L KI CT=0.8 D=4.0 BK/Z ICT NY	6-35-B6120-5R0	
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W950AU00-010	(OPTION)
7	SATA BLU-RAY COMBO ASS'Y (OPTION)	6-79-W950AU00-001	(OPTION)
7	W/O ODD ASS'Y W950KU	6-79-W950KU02-000	(OPTION)
7	PRE-PROCESSOR/DUMMY ODD ASS'Y W950KU	6-79-W950KU02-010	(OPTION)
8	DUMMY NON PUSH TYPE PC/MS (CT28P-7010) W950W	6-42-W9708-030	
9	BOTTOM CASE AL FOIL (AL30467-PET) W950AU	6-40-W95A3-010	
10	SPONGE FOR TOP CASE (57H6R2) (M55) (S0NY 64000)	6-47-0019A-570	Only For W950AU-C W950JU-C

A. Part Lists

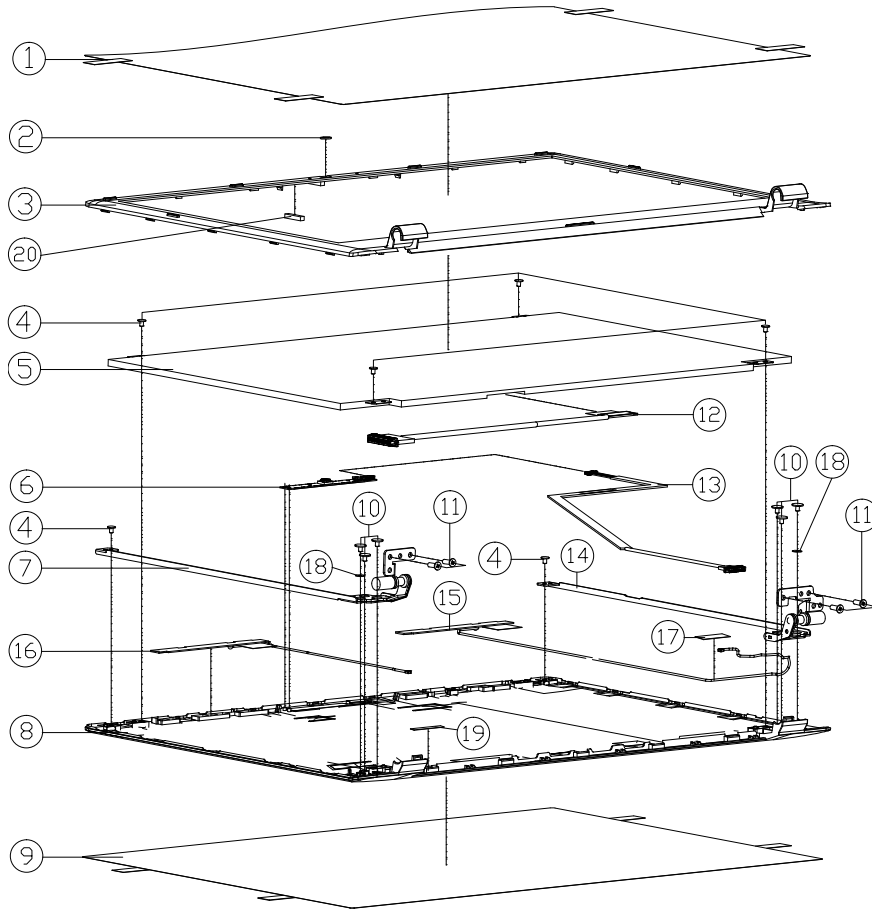
Bottom (W955JU)

Figure A - 4
Bottom (W955JU)



ITEM	PART NAME	PART NO	REMARK
1	NO.111 PART FOR CP OPTIC DRIVE KIT W955JUBL. NO. FROD CASE	6-87-W955S-42F2	
1	NO.111 PART FOR CP OPTIC DRIVE KIT W955JUBL. NO. FROD CASE	6-87-W955S-42F3	
2	BOTTOM CASE MODULE W955TU	6-39-W9553-T11	
2	BOTTOM CASE MODULE W955KL	6-39-W9553-K11	
2	BOTTOM CASE MODULE W955KL-C	6-39-W9553-K11-C	
3	SCREW M2.5*8L KI BK/Z NY ICT	6-35-B6125-BR0	
4	SCREW M2.5*5L KI BK/Z ICT NY	6-35-B6125-SRA	
5	PRODUCT LABEL FOR W955KL	6-45-W955KU03-010	
5	PRODUCT LABEL FOR W955KU	6-45-W955KU03-010	
5	PRODUCT LABEL FOR W955TU	6-45-W955TU03-010	
5	PRODUCT LABEL FOR W955SU2	6-45-W955SU23-010	
5	PRODUCT LABEL FOR W955AU	6-45-W955AU03-010	
5	PRODUCT LABEL FOR W955LU	6-45-W955LU03-010	
5	PRODUCT LABEL FOR W955JU	6-45-W955JU03-010	
6	SCREW M2*SL KIT+08 D+40 BK/Z ICT NY	6-35-B6120-SR0	
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W955AU00-010	(OPTION)
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W955SU00-000	(OPTION)
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W955KL00-010	(OPTION)
7	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W955LU00-002	(OPTION)
7	SATA BLU-RAY COMBO ASS'Y (OPTION)	6-79-W955SU0V-010	(OPTION)
7	SATA BLU-RAY COMBO ASS'Y (OPTION)	6-79-W955AU0V-001	(OPTION)
7	W/D ODD ASS'Y W955SU2	6-79-W955SU2Z-000	(OPTION)
7	W/D ODD ASS'Y W955AU	6-79-W955AU0Z-000	(OPTION)
8	DUMMY 3RD PIN HIGH TYPE PC-NBS (CZ23P-7100) W9700W	6-42-W9708-030	

LCD (W950JU)

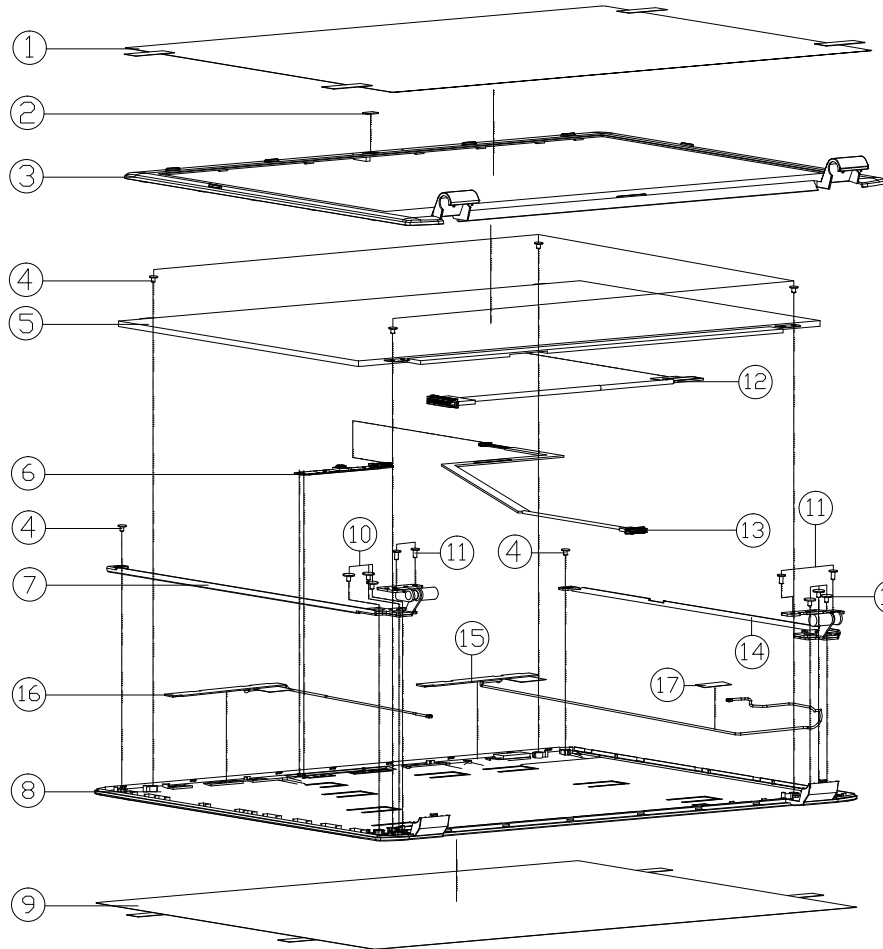


ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MYLAR (PET+3069IS) ES120Q	6-40-E51Q1-030-1	
2	CCD LENS PMMA W650SR	6-42-W6501-010	
3	(PRE-PROCESS) FRONT COVER MODULE FOR DUAL-MIC W950JU	6-78-W950JU01-002	
4	SCREW M2*3L K1 NI ICT NY (DD=04.5,DT=0.4)	6-35-B1120-3RE	
5	LCD 15.6" FHD INNO-LUX N156HGE-LG1 3.4MM (LLED)	6-50-LB234-V00	
5	LCD 15.6" FHD/IPS/EDP LG LP156WF4-SPL1 (N4XLED) 3.2MM	6-50-LB232-L01	
5	LCD 15.6" HD EDP GLARE TYPE INNO-LUX N156GRC-E42 (LED) 3.6 MM	6-50-L8136-V00	
5	LCD 15.6" HD EDP LG LP156WHB-TP01 (LLED) 3.8 MM	6-50-L8138-L09	
6	0VC CAMERA BEZEL (TU 080167K-30 IN HD HMDI HBS W94LU FV00 VLED V1P-MC	6-88-W94LC-4900	OPTION
6	0VC CAMERA BEZEL (TU 080167K-30 IN HD HMDI HBS W94LU FV00 VLED V2P-MC	6-88-W94LC-4910	OPTION
6	0VC CAMERA CHIMNEY (TU 080167K-30 IN HD HMDI HBS W94LU FV00 VLED V1P-MC	6-88-W94LC-5110	OPTION
6	0VC CAMERA CHIMNEY (TU 080167K-30 IN HD HMDI HBS W94LU FV00 VLED V2P-MC	6-88-W94LC-5120	OPTION
7	LCD HINGE L SECOND SOURCE W950SU2	6-33-W95S1-0L1-1	
8	LCD BACK COVER MODULE W950SU2	6-39-W95S1-025	
8	LCD BACK COVER MODULE W950SU2-C	6-39-W95S1-025-C	
9	LCD BACK COVER PROTECTION MYLAR (PET+3069IS) (CHANGE W650SR	6-40-W6508-012	
10	SCREW M2*2L K1 BK/Z ICT NY(08,T=0.6)	6-35-B6120-2RE	
11	SCREW M2.5*6L K BZ ICT NY	6-35-B2125-6RA	
12	WIRE CABLE FOR LVDS 20MM 20V 4P (HL/IL CON.NC.NC.NC-H) W950U (C-DUT)	6-43-W95K1-011-K	
12	WIRE CABLE FOR EDP 20MM 20V 30P (HL/LA CON.NC.NC.NC-3D) W950U	6-43-W9551-011-P	
13	WIRE CABLE FOR CCD D-MIC 420MM 3.3V 8P (HL) W950KL	6-43-W95KT-011	
14	LCD HINGE R SECOND SOURCE W950SU2	6-33-W95S1-0R1-1	
15	ANTENNA WLAN CONDU VGT V414L2 PCB 246/504Z V41-700M V42-700M W950U	6-23-7W95L-011	OPTION
16	ANTENNA PEAK 364TE VGT LTE-1 PCB 026/006/056/056/056/026/264RZ L-550M	6-23-7W950-020	OPTION
17	TOP CASE MYLAR FR83 25*7*0.05 P180HM	6-40-P1802-030	
18	WASHER 06*03*0.3t (MYLAR)	6-37-02000-601	
19	TAPE MYLAR (B),MYLAR M550J	6-40-M55J2-020	
20	CCD SPONGE(11*3*3) SM55+SDNY 64000 W547CZ	6-47-0019A-116	

Figure A - 5
LCD (W950JU)

LCD (W955JU)

Figure A - 6
LCD (W955JU)



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MYLAR (PET+3MG915) E51200	6-40-E5101-030-1	
2	CCD LENS PMMA W955SU2	6-42-W9551-010	
3	LCD FRONT COVER MODULE W955SU2	6-39-W9551-011	
4	SCREW M2*3L KI NI ICT NY (DD=04.5,DT=0.4)	6-35-B1120-3RE	
5	LCD 15.6" FHD INNOVLUX N156HGE-LG1 3.4MM (LED)	6-50-LB234-V00	
5	LCD 15.6" HD EDP LG LP156WHB-TP01 (LED) 3.8 MM	6-50-L8138-L09	
5	LCD 15.6" HD EDP GLARE TYPE INNOVLUX N156GCE-E42 (LED) 3.6 MM	6-50-L8136-V00	
5	LCD 15.6" FHD/IPS/EDP LG LP156WF4-SPL1 (MAXLED) 3.2MM	6-50-LB232-L01	
6	OVIC CAMERA LENS F1.8 2MPX 300 IN HD 0.001 0.001 0.001 0.001 0.001 0.001	6-88-W94LC-4900	OPTION
6	OVIC CAMERA LENS F1.8 2MPX 300 IN HD 0.001 0.001 0.001 0.001 0.001 0.001	6-88-W94LC-5110	OPTION
7	LCD HINGE L W955SU2	6-33-W9551-0L1	
8	LCD BACK COVER MODULE W955SU2	6-39-W9551-021	
8	LCD BACK MODULE W955SU2-C	6-39-W9551-021-C	
9	LCD BACK COVER PROTECTION MYLAR (PET+3MG915) W650SR	6-40-W6508-012	
10	SCREW M2*2L KI BK/Z ICT NY(08,T=0.6)	6-35-B6120-2RE	
11	SCREW M2.5*5L KI BK/Z ICT NY	6-35-B6125-5RA	
12	WIRE CABLE FOR LVDS 20MM 20V 30P (H/L/A COM/AVDD/0-30) W955SU	6-43-W9551-011-K	
12	WIRE CABLE FOR EXP 20MM 20V 30P (H/L/A COM/AVDD/0-30) W955SU	6-43-W9551-011-P	
13	WIRE CABLE FOR CCD I-MIC 420MM 3.3V 8P (H/L) W955SU	6-43-W9551-011	
14	LCD HINGE R W955SU2	6-33-W9551-0R1	
15	OVIC CAMERA LENS F1.8 2MPX 300 IN HD 0.001 0.001 0.001 0.001 0.001 0.001	6-23-7W95L-011	OPTION
16	OVIC CAMERA LENS F1.8 2MPX 300 IN HD 0.001 0.001 0.001 0.001 0.001 0.001	6-23-7W950-020	需要出SOLITE 標記 及圖紙SOLITE 完成
17	TDP CASE NYLAR FR83 25*7*0.05 P180HM	6-40-P1802-030	

DVD DUAL (W950JU)

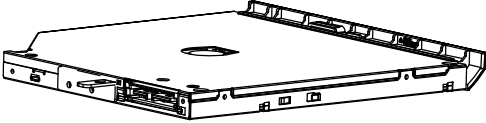
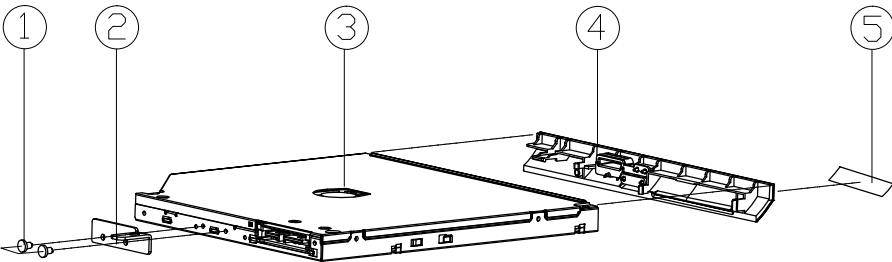
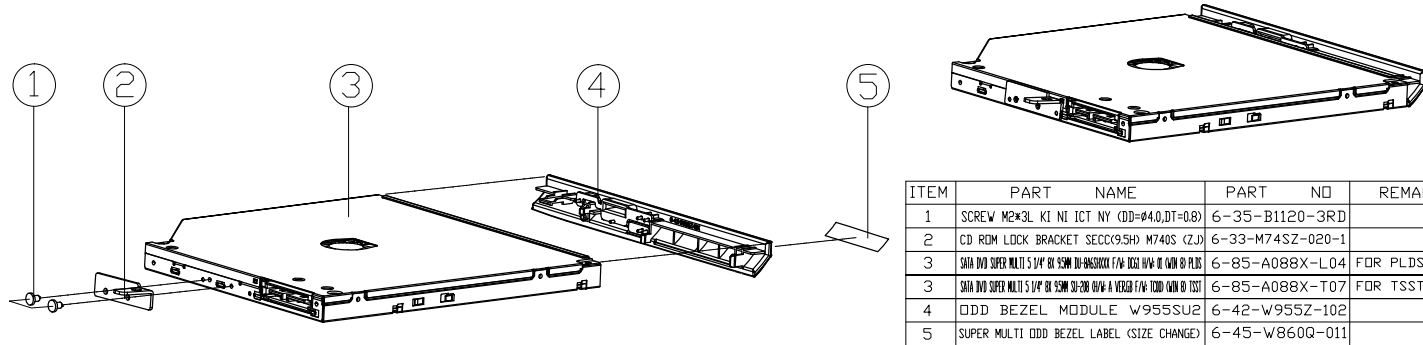


Figure A - 7
DVD DUAL
(W950JU)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L KI NI ICT NY (DD=04.5,DT=0.4)	6-35-B1120-3RE	
2	CD ROM LOCK BRACKET SECC(9.5H) M740S (ZJ)	6-33-M74SZ-020-1	
3	SATA DVD SUPER MULTI 5.14" 8X 950W 16-966500X F/W 0264 16W/ 01 4VW/ 01 PLUS	6-85-A088X-L04	FOR PLDS
3	SATA DVD SUPER MULTI 5.14" 8X 950W 16-966500X F/W 0264 16W/ 01 4VW/ 01 PANASONIC	6-85-A088X-P06	FOR PANASONIC
3	SATA DVD SUPER MULTI 5.14" 8X 950W 16-966500X F/W 0264 16W/ 01 4VW/ 01 TSST	6-85-A088X-T07	FOR TSST
4	ODD BEZEL MODULE W950SU2	6-42-W95SZ-101	
5	SUPER MULTI ODD BEZEL LABEL (SIZE CHANGE)	6-45-W860Q-011	

DVD DUAL (W955JU)

Figure A - 8
DVD DUAL
(W955JU)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2x3L KI NI ICT NY (DD=44.0,DT=0.8)	6-35-B1120-3RD	
2	CD ROM LOCK BRACKET SECC(9.5H) M74DS (ZJ)	6-33-M74SZ-020-1	
3	SATA DVD SUPER MULTI 5 1/4" 8X 52MM TH-08650000 F/W BEZEL H/W IF C/WN 80 PLDS	6-85-A088X-L04	FOR PLDS
3	SATA DVD SUPER MULTI 5 1/4" 8X 52MM TH-08650000 F/W BEZEL F/W TDDI C/WN 80 TSST	6-85-A088X-T07	FOR TSST
4	DDD BEZEL MODULE W955SU2	6-42-W955Z-102	
5	SUPER MULTI DDD BEZEL LABEL (SIZE CHANGE)	6-45-W860Q-011	

Dummy ODD (W950JU)

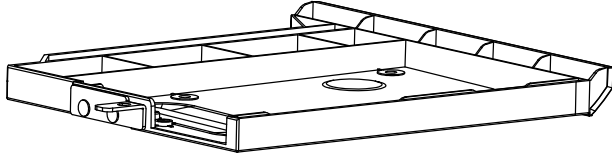
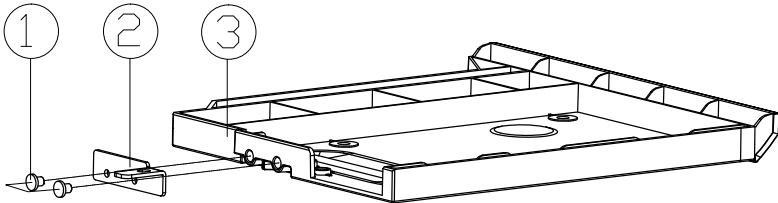
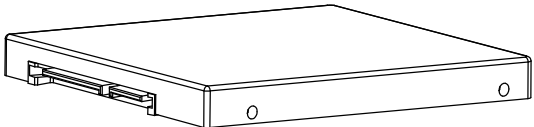
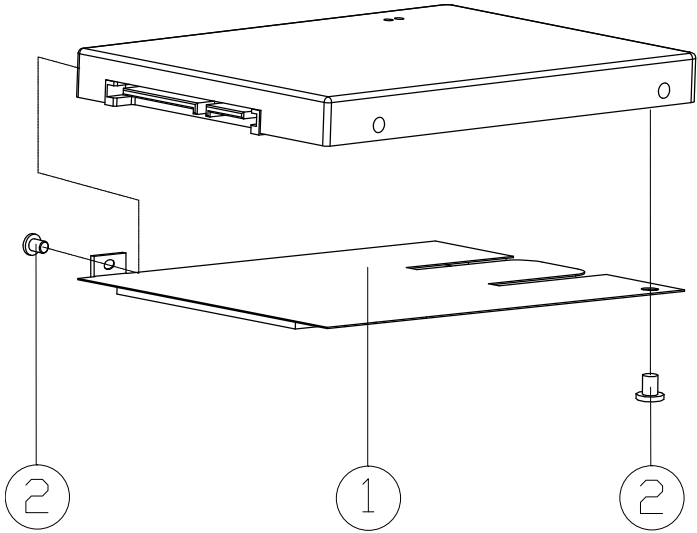


Figure A - 9
Dummy ODD
(W950JU)

ITEM	PART NAME	PART NO	REMARK
1	.SCREW M2*3L KI NI ICT NY (DD-#4.5,DT-0.4)	6-35-B1120-3RE	
2	CD ROM LOCK BRACKET SECC(9.5H) M740S (ZJ)	6-33-M74SZ-020-1	
3	DUMMY ODD PC+ABS GINAR D231(+), W950SU2	6-42-W95SZ-041	

HDD (W950JU)

Figure A - 10
HDD (W950JU)



ITEM	PART NAME	PART NO	REMARK
1	HDD MYLAR (PET0.25T+CR2030) W940TU	6-40-W940J-010	
2	SCREW M3*2.5L KI NI ICT NY	6-35-B1130-2R5	

HDD (W955JU)

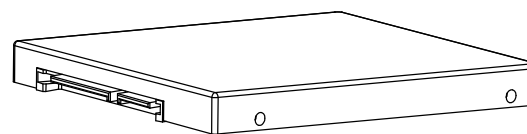
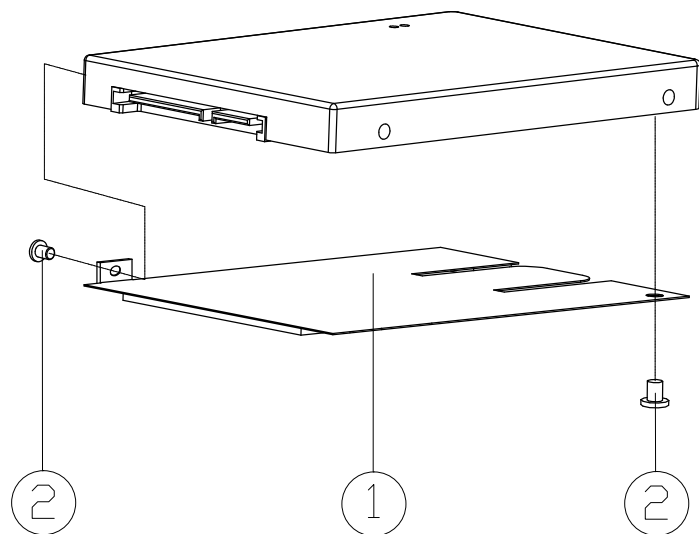
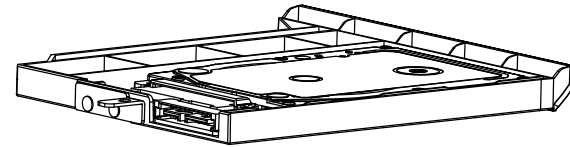
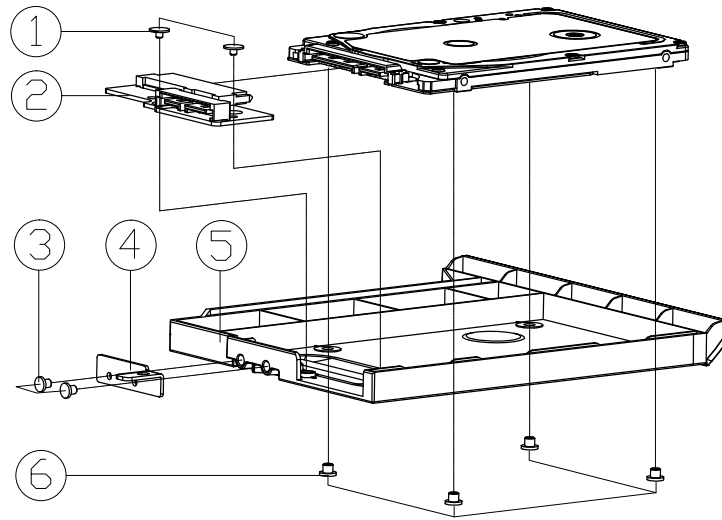


Figure A - 11
HDD (W955JU)

ITEM	PART NAME	PART NO	REMARK
1	HDD MYLAR (PET0.25T+CR2030) W940TU	6-40-W940J-010	
2	SCREW M3*2.5L KI NI ICT NY	6-35-B1130-2R5	

2nd HDD (W950JU)

Figure A - 12
2nd HDD (W950JU)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2L KI BK/Z ICT NY (Ø6,T=0.5)	6-35-B6120-2RC	
2	ODD TO HDD BOARD V3.0 W950SU2 (W/ REPEATER)	6-77-W95KN-D13-A	
3	SCREW M2*3L KI NI ICT NY (DD=Ø4.5,DT=0.4)	6-35-B1120-3RE	
4	CD ROM LOCK BRACKET SECC(9.5H) M740S (ZJ)	6-33-M74SZ-020-1	
5	DUMMY ODD PC+ABS GINAR D231(+) W950SU2	6-42-W95SZ-041	
6	SCREW M3*2.5L KI NI ICT NY	6-35-B1130-2R5	

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the *W950JU / W955JU* 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>DDR3L SO-DIMM_B_0 - Page B - 15</i>	<i>VDD3, VDD5 - Page B - 28</i>
<i>Skylake ULT - Page B - 3</i>	<i>Panel, Inverter - Page B - 16</i>	<i>VDDQ, VDDQ_VTT, 1.5VS, 1.8VS - Page B - 29</i>
<i>Skylake ULT DDR - Page B - 4</i>	<i>CRT - Page B - 17</i>	<i>1.0V Series - Page B - 30</i>
<i>Skylake ULT RTC/HDA/CLK/SD - Page B - 5</i>	<i>PS8625 - Page B - 18</i>	<i>VCore, VCCGT, VCCSA, VCCIO - Page B - 31</i>
<i>Skylake ULT LPC/SPI/SMB - Page B - 6</i>	<i>Card Reader & RTL8411B - Page B - 19</i>	<i>Charger, DC-In - Page B - 32</i>
<i>Skylake ULT Power Maint - Page B - 7</i>	<i>HDMI, RJ45, Fan - Page B - 20</i>	<i>NCP81206 Regulator - Page B - 33</i>
<i>Skylake ULT GPIOs/I2C/EMMC - Page B - 8</i>	<i>M.2 (WLAN, 3G, SSD) - Page B - 21</i>	<i>Audio Board - Page B - 34</i>
<i>Skylake ULT PCIE, USB, SATA - Page B - 9</i>	<i>Audio Codec - Page B - 22</i>	<i>Power SW Board - Page B - 35</i>
<i>Skylake ULT Power 1 - Page B - 10</i>	<i>USB 3.0, G Sensor, TPM - Page B - 23</i>	<i>Option BOM List - Page B - 36</i>
<i>Skylake ULT Power 2 - Page B - 11</i>	<i>KBC ITE IT8587 - Page B - 24</i>	
<i>Power-VSS - Page B - 12</i>	<i>CCD, MIC, LID, I/O Connector - Page B - 25</i>	
<i>CFG, RSVD, VCCGT - Page B - 13</i>	<i>HDD, ODD, LED - Page B - 26</i>	
<i>DDR3L SO-DIMM_A_0 - Page B - 14</i>	<i>3V, 5V, 3VS, 5VS - Page B - 27</i>	

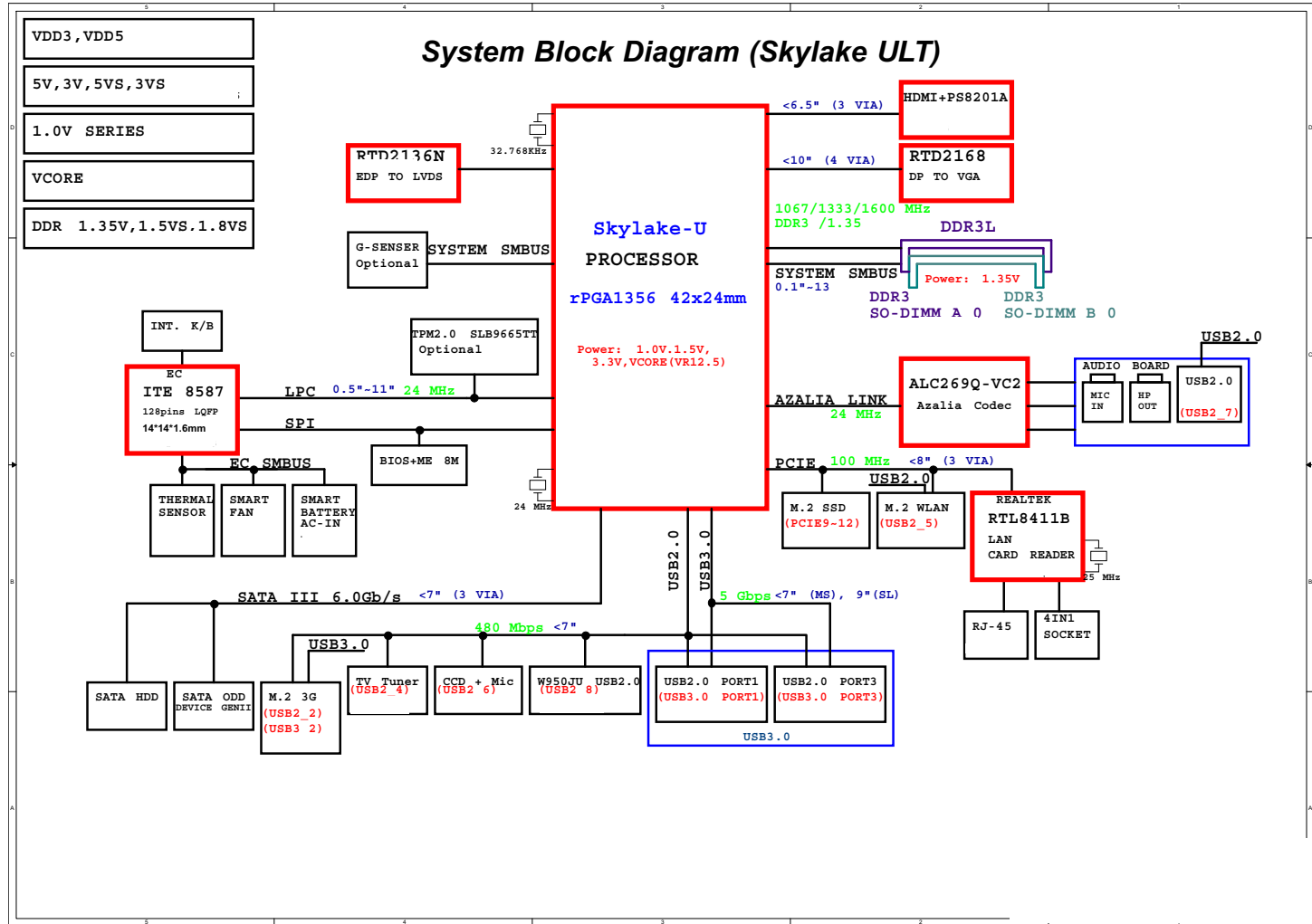
Table B - 1
**SCHEMATIC
DIAGRAMS**



Version Note

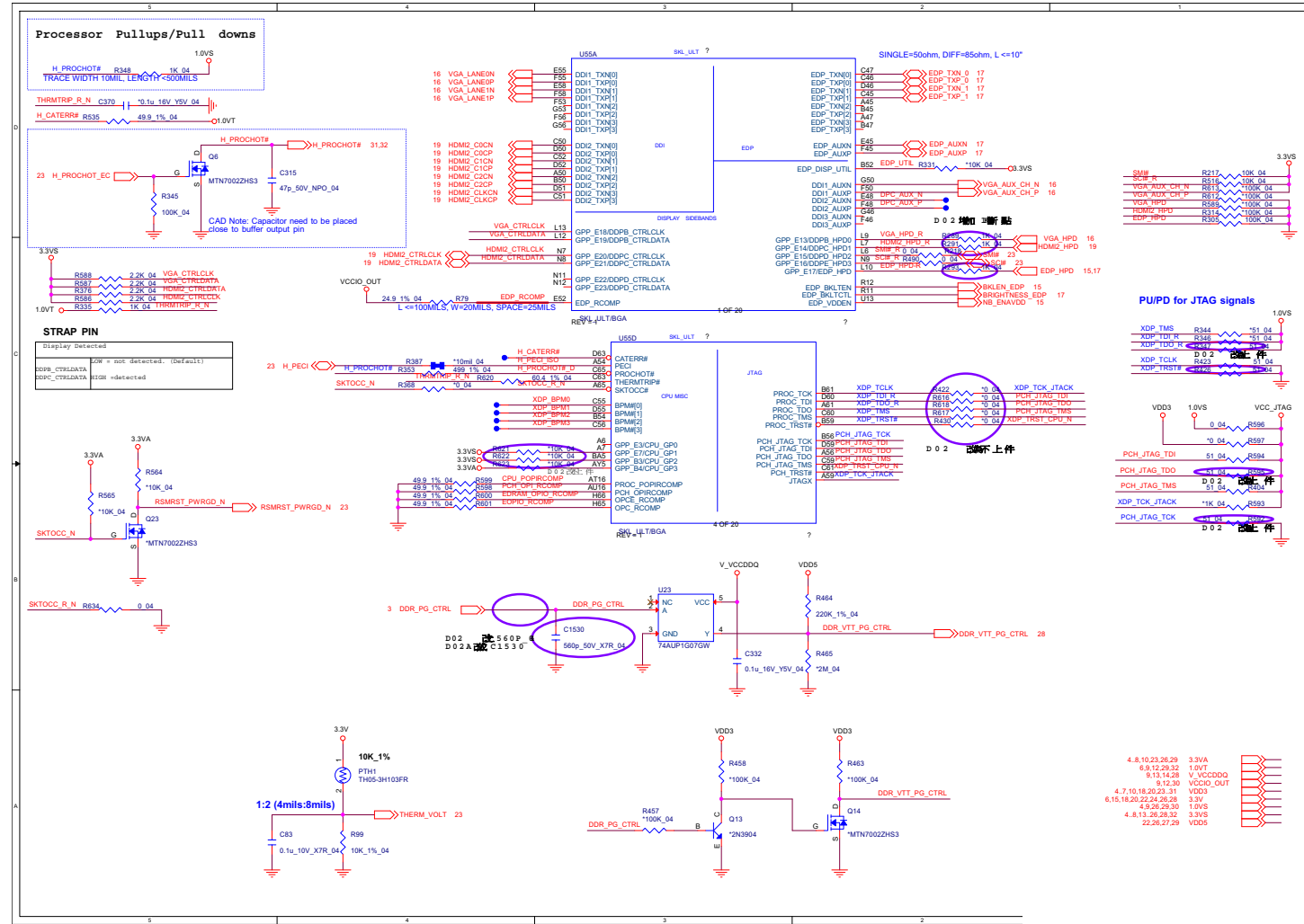
The schematic diagrams in this chapter are based upon version 6-7P-W95J4-002. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

System Block Diagram



Sheet 1 of 35
System Block
Diagram

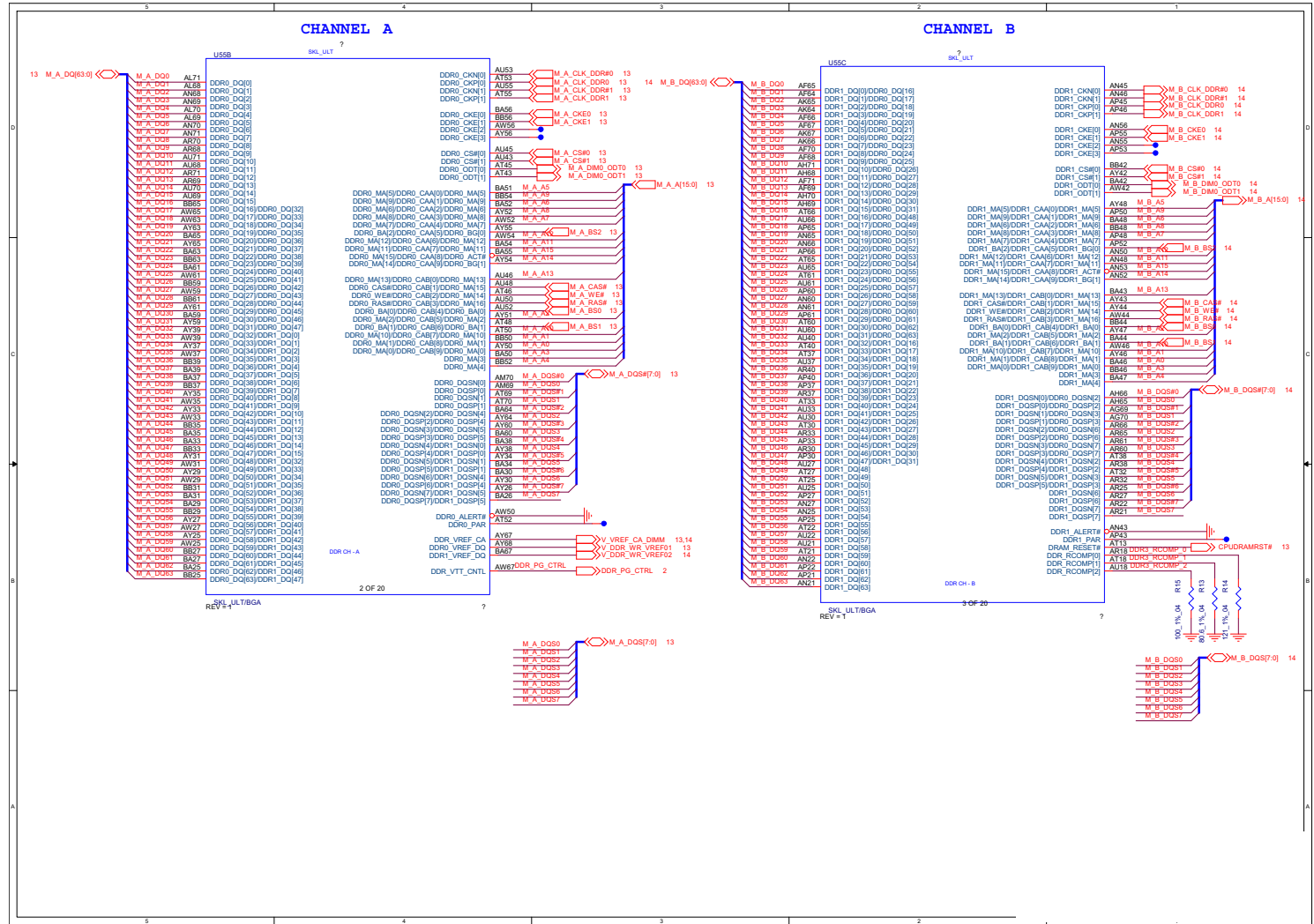
Skylake ULT



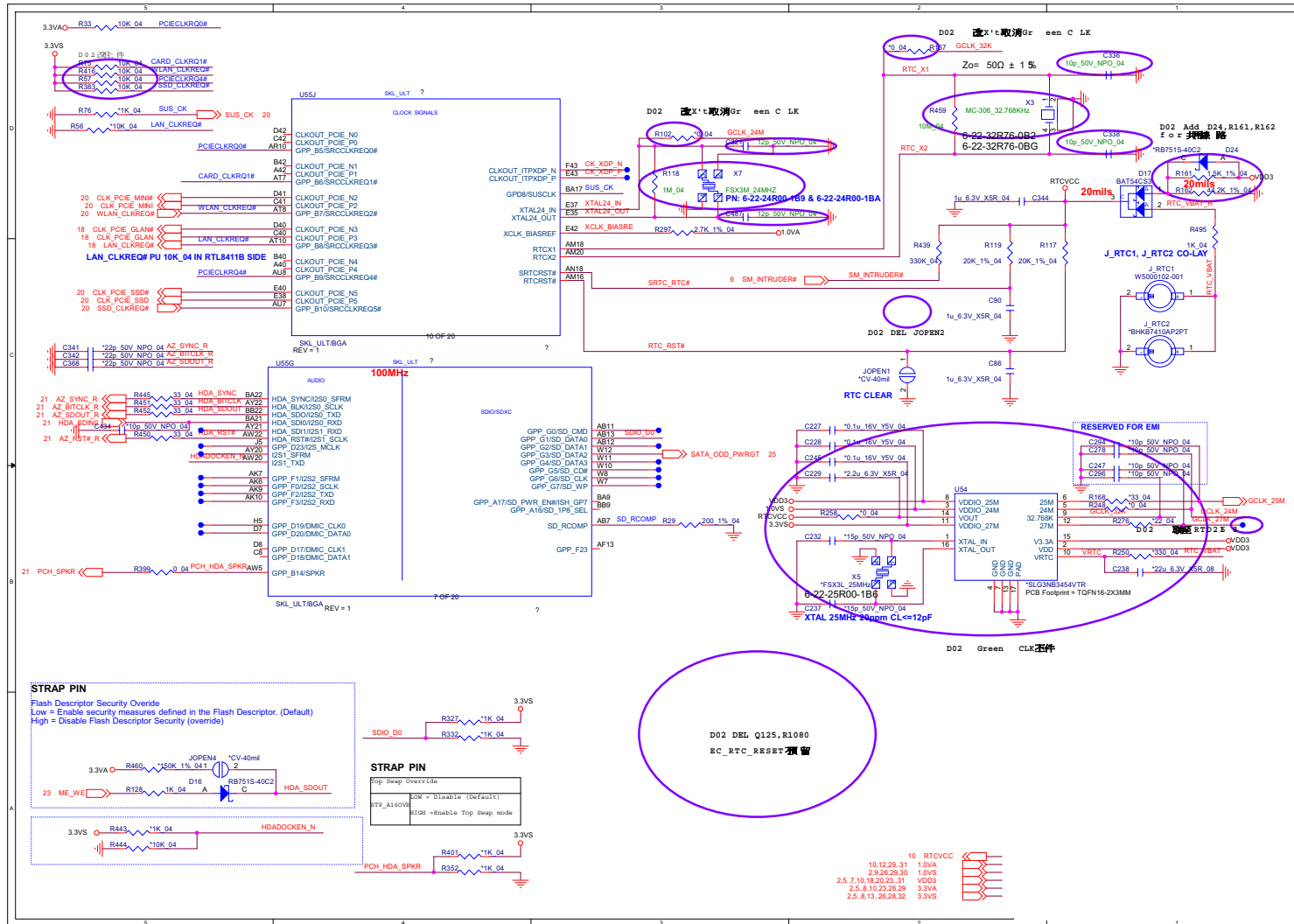
Sheet 2 of 35
Skylake ULT

Skylake ULT DDR

Sheet 3 of 35
Skylake ULT DDR



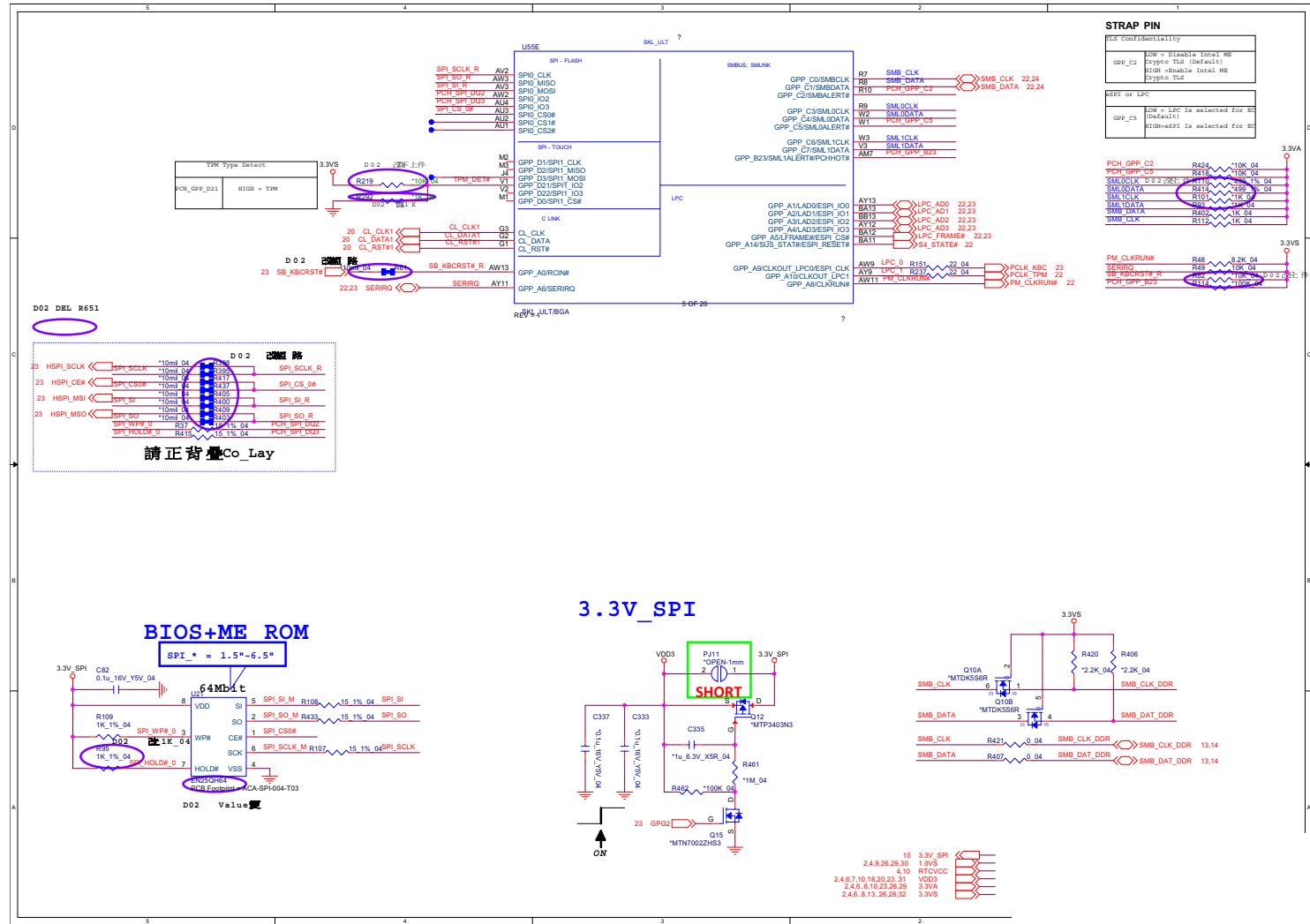
Skylake ULT RTC/HDA/CLK/SD



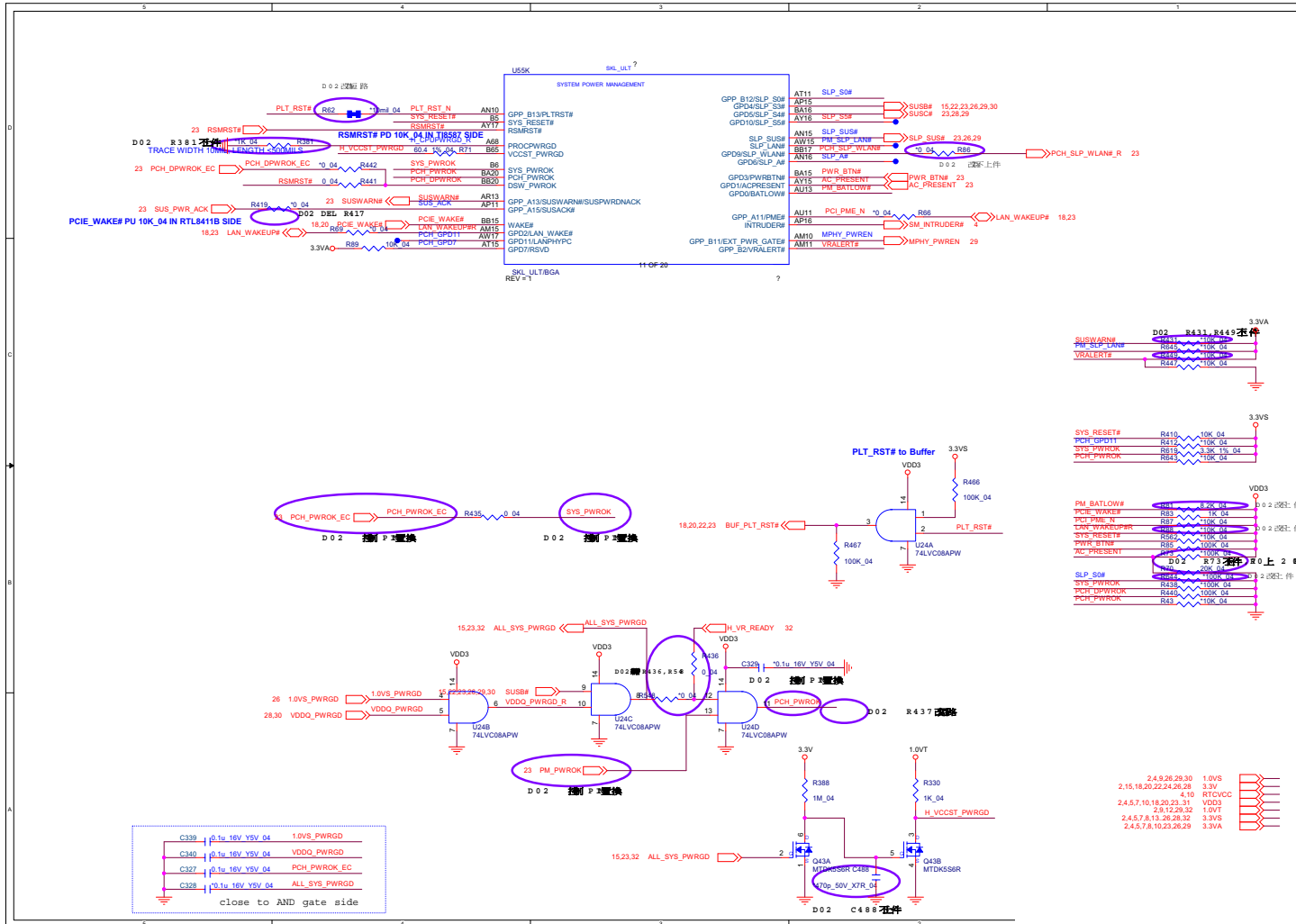
Sheet 4 of 35
Skylake ULT RTC/
HDA/CLK/SD

Skylake ULT LPC/SPI/SMB

Sheet 5 of 35
Skylake ULT LPC/
SPI/SMB



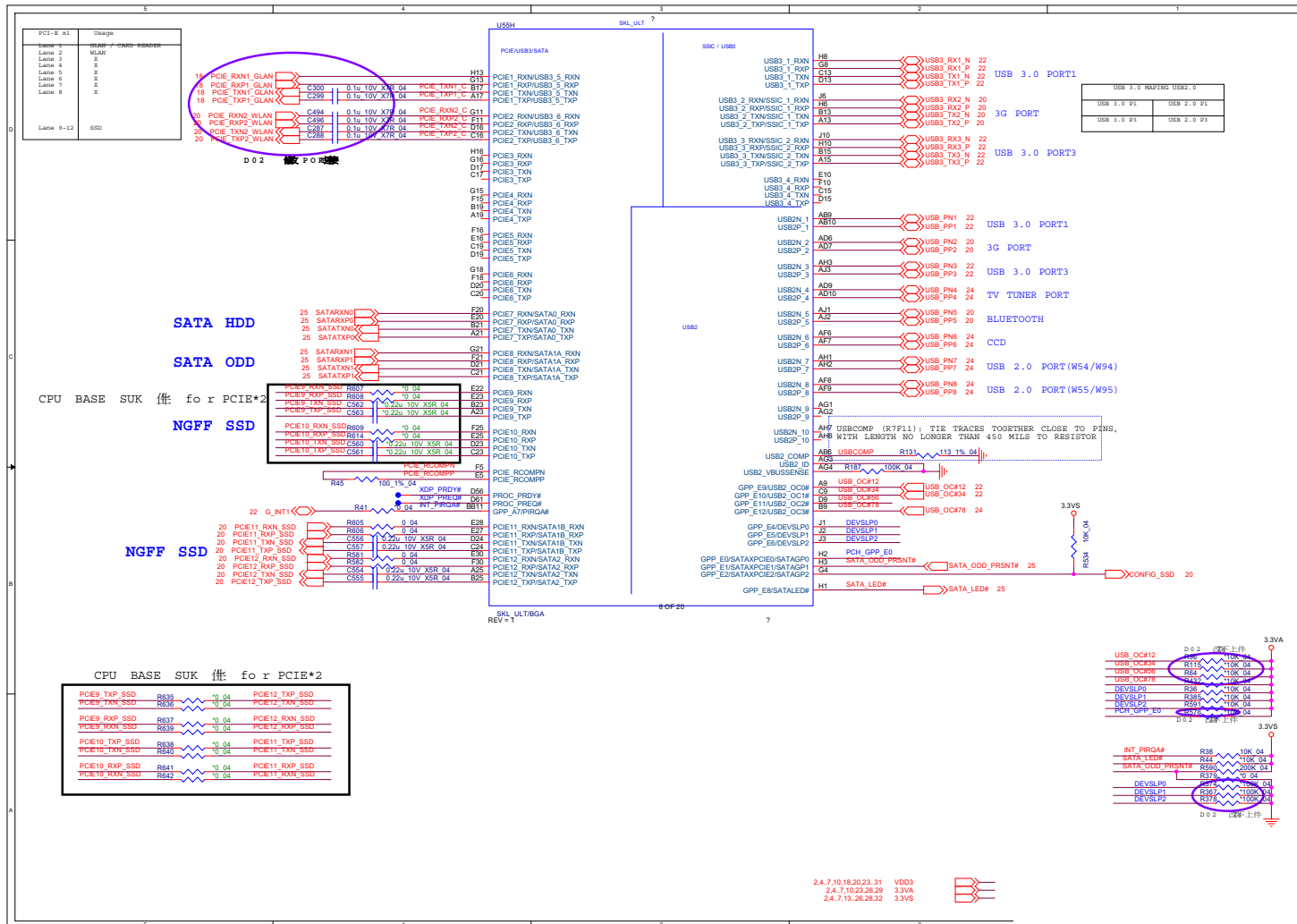
Skylake ULT Power Maint



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Skylake ULT Power
Maint

B.Schematic Diagrams

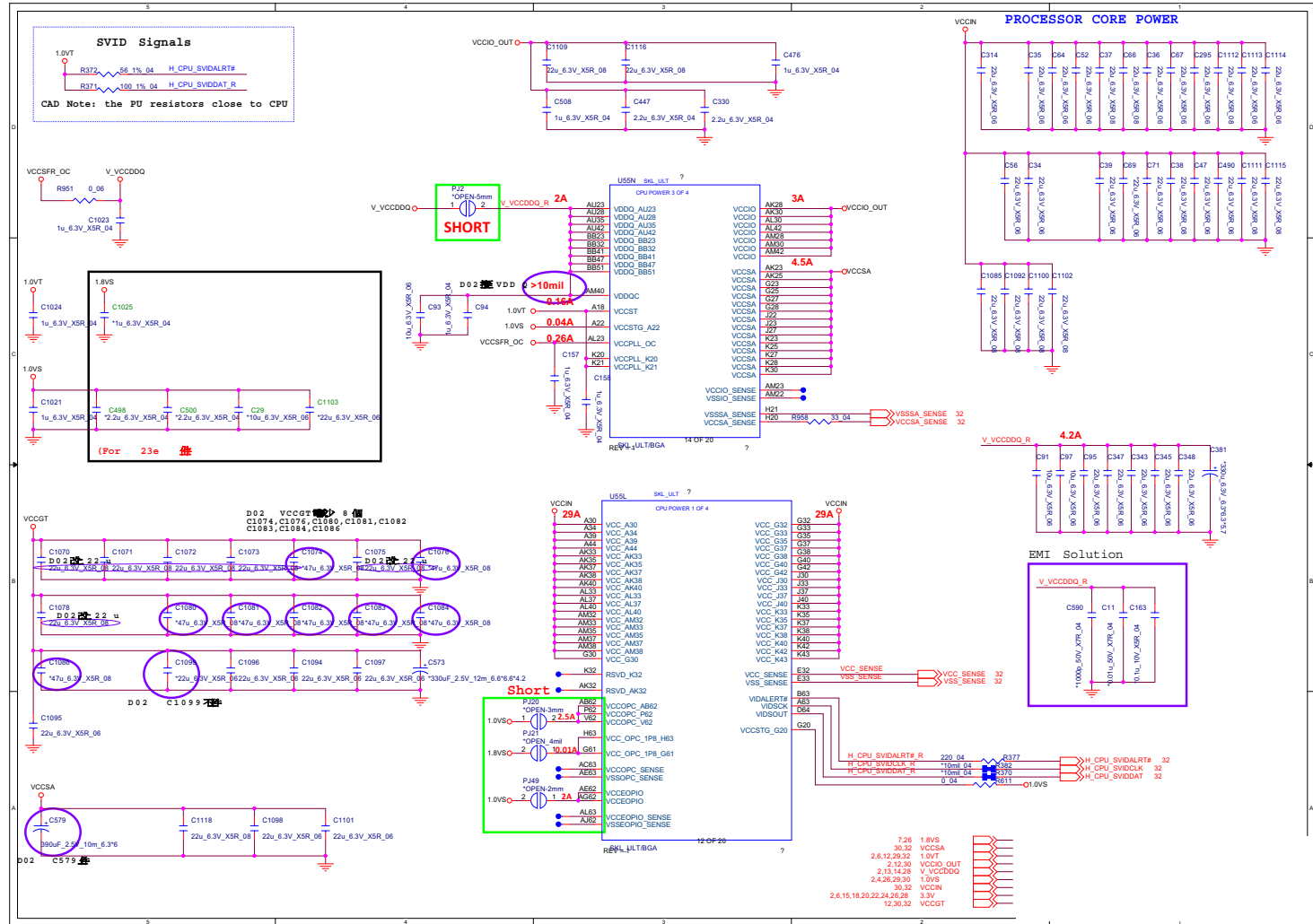
Skylake ULT PCIE, USB, SATA



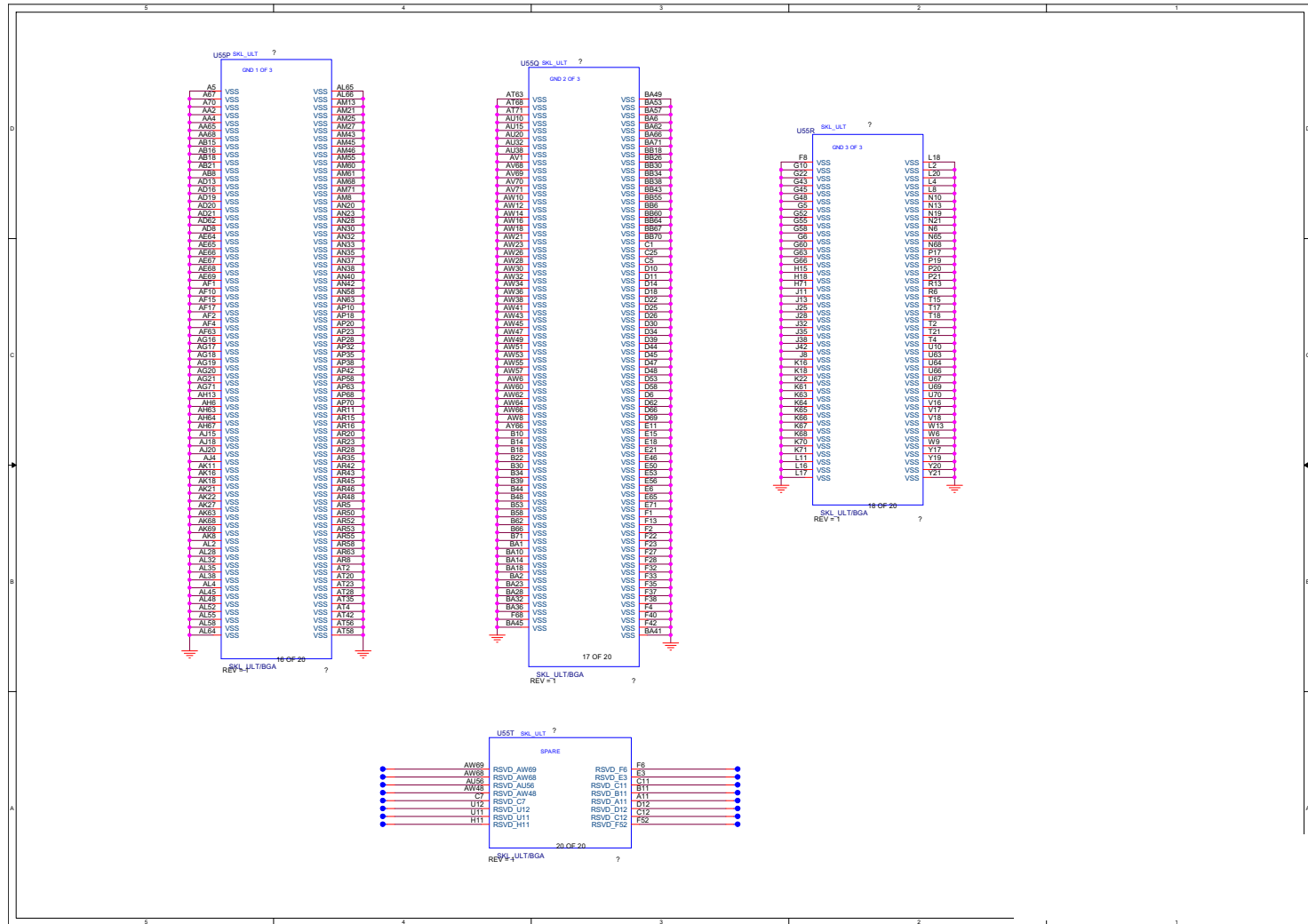
Sheet 8 of 35
Skylake ULT PCIE,
USB, SATA

Skylake ULT Power 1

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Skylake ULT
Power 1



Power-VSS

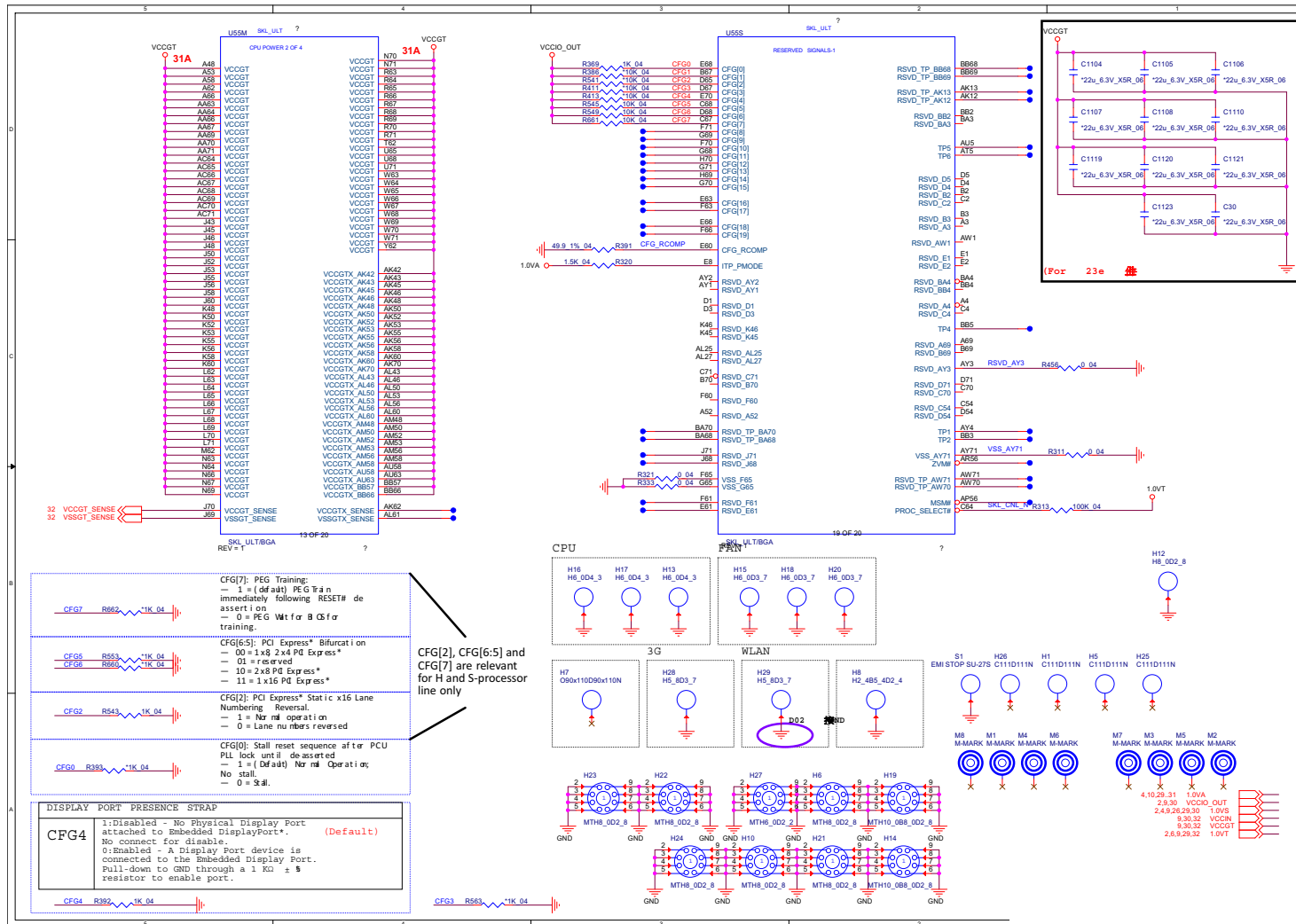


Sheet 11 of 35
Power-VSS

B.Schematic Diagrams

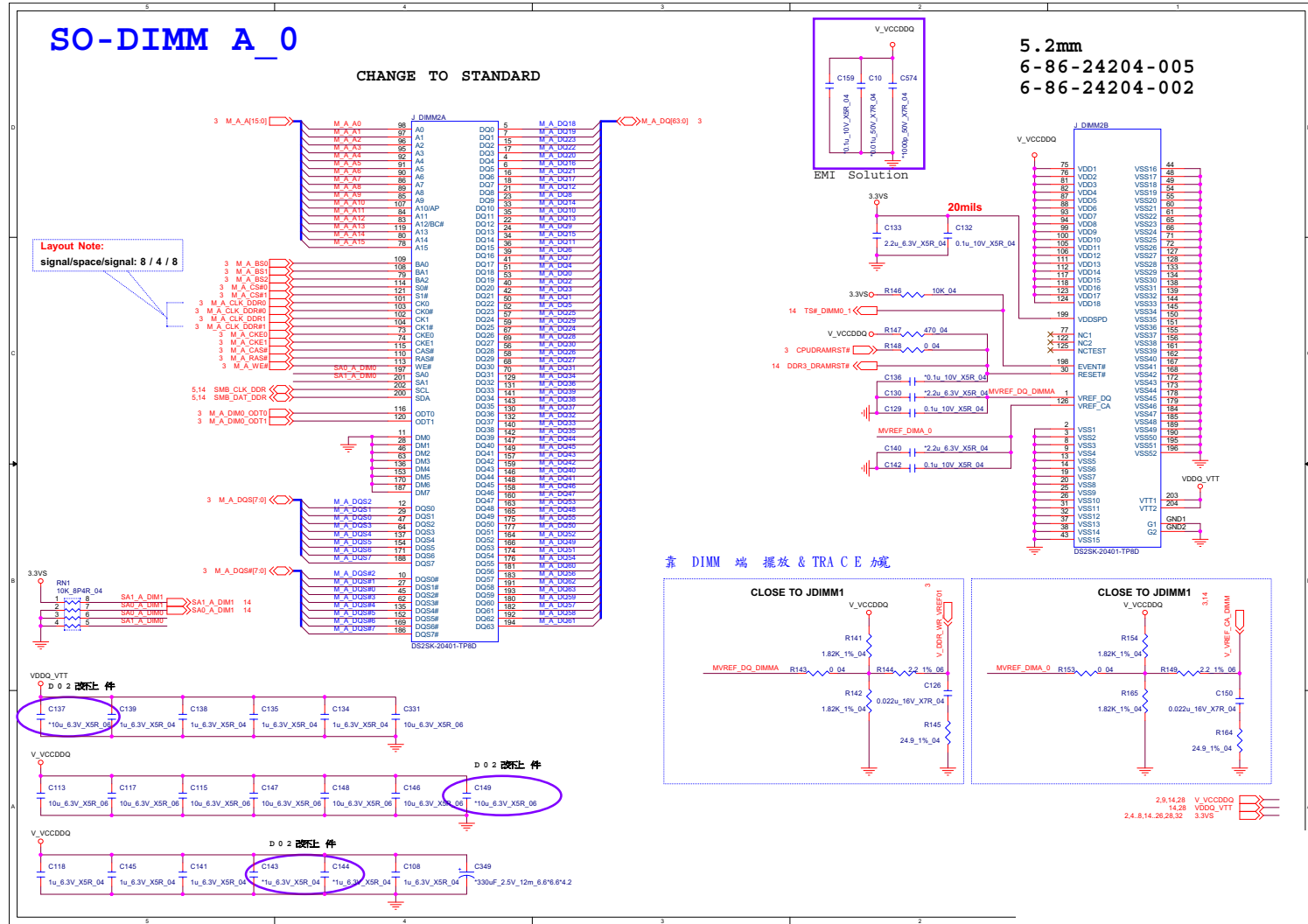
CFG, RSVD, VCCGT

Sheet 12 of 35
CFG, RSVD,
VCCGT



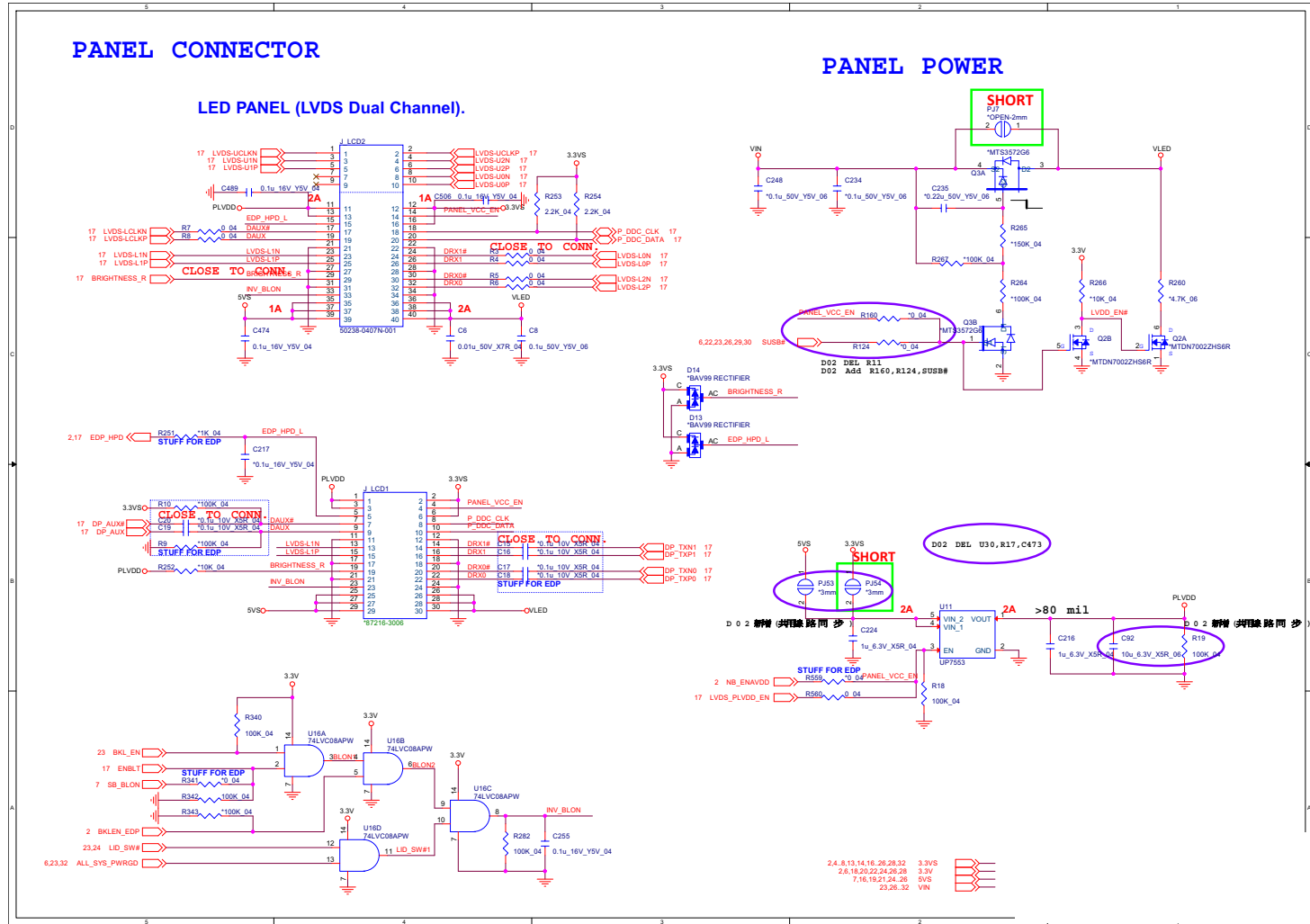
DDR3L SO-DIMM_A_0

Sheet 13 of 35
DDR3L SO-DIMM_A_0

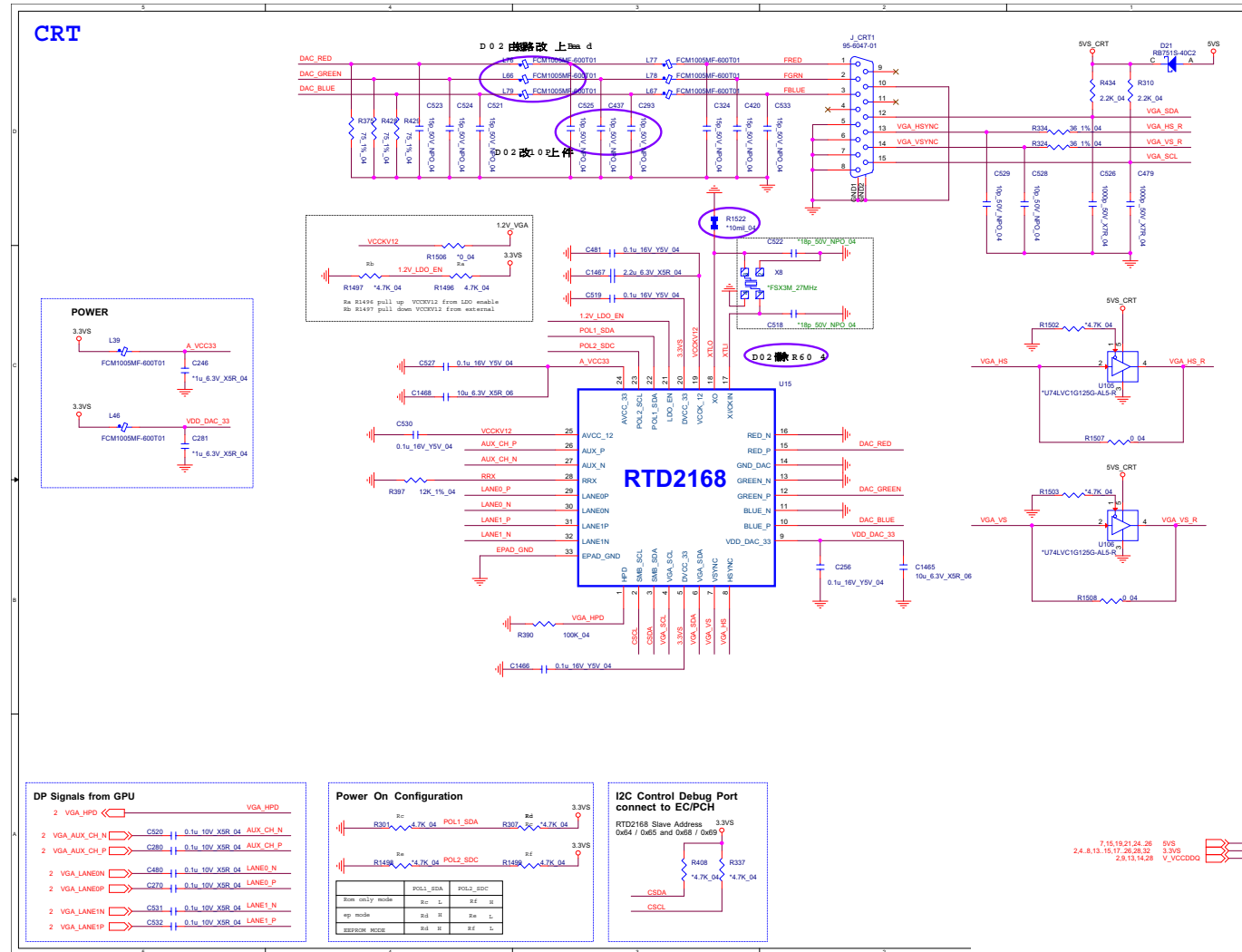


Panel, Inverter

Sheet 15 of 35
Panel, Inverter

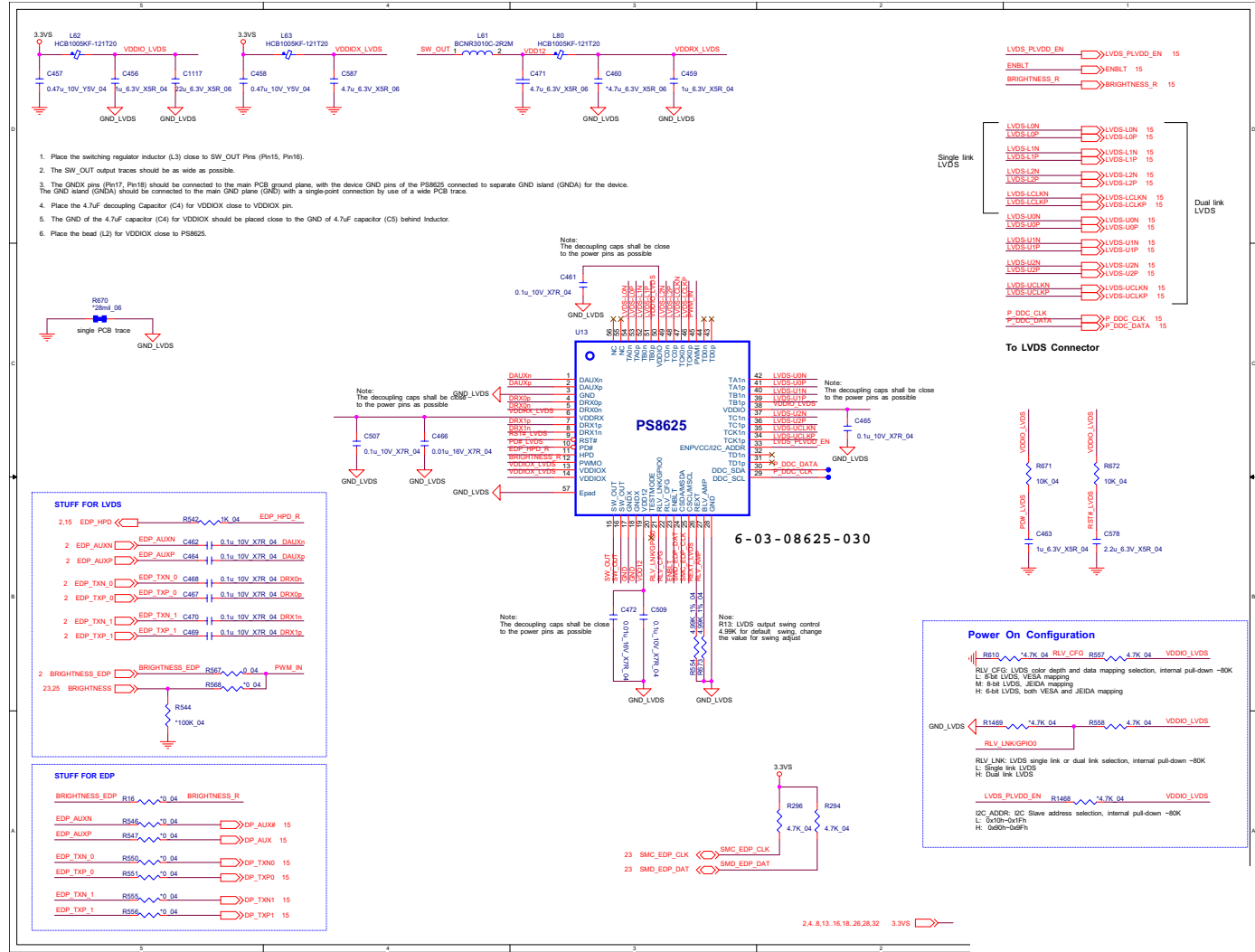


CRT

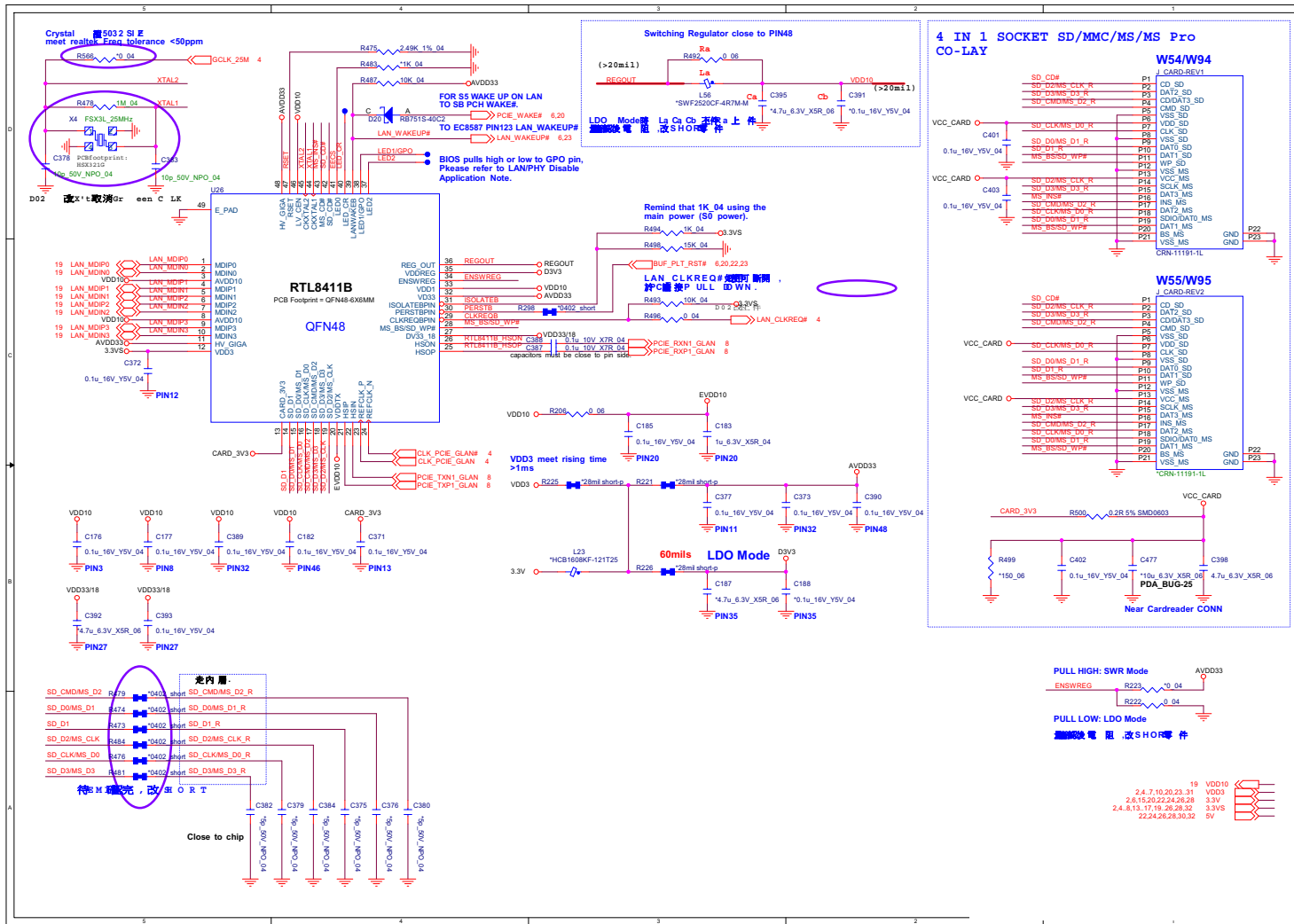


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CRT

PS8625



Card Reader & RTL8411B

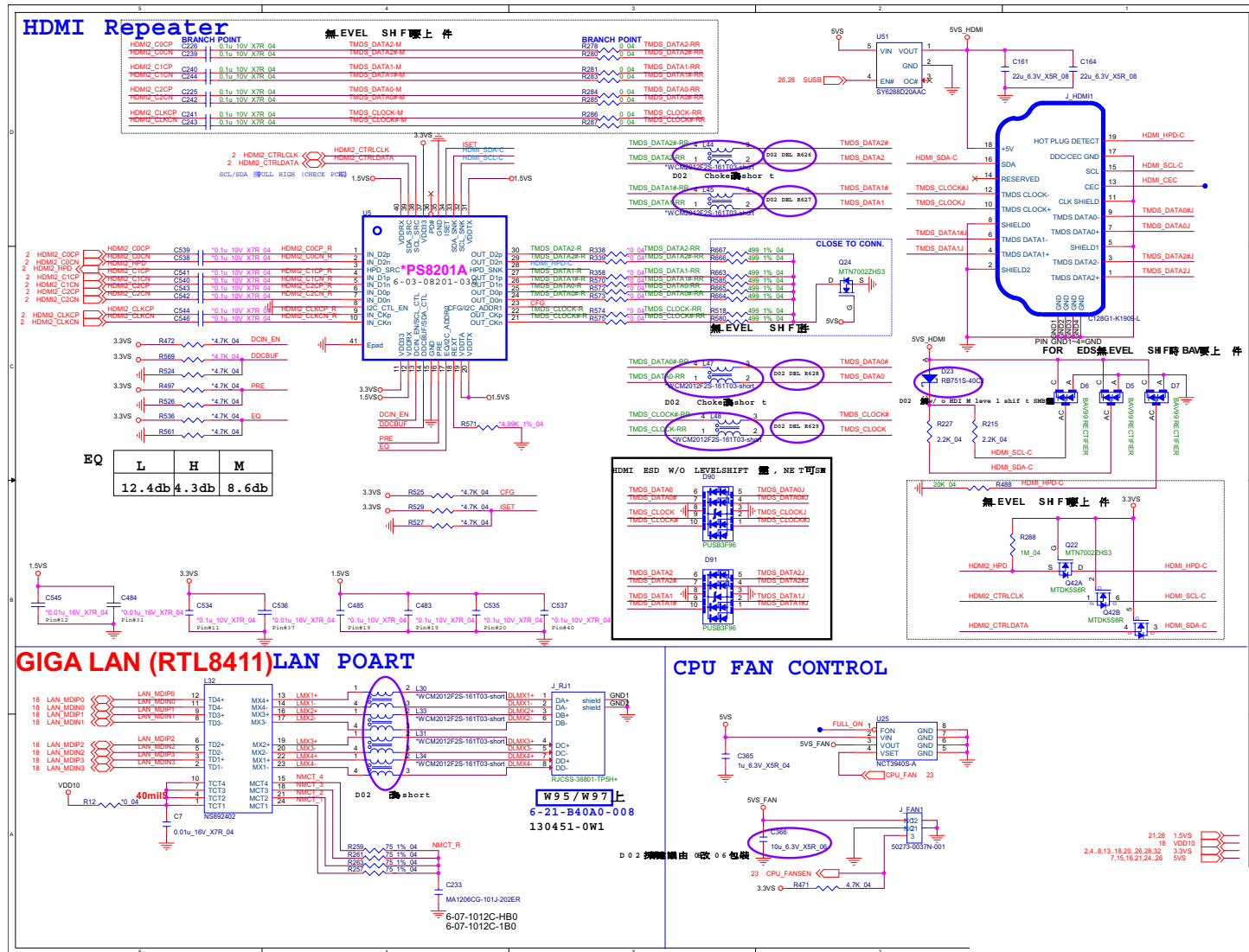


Sheet 18 of 35
Card Reader &
RTL8411B

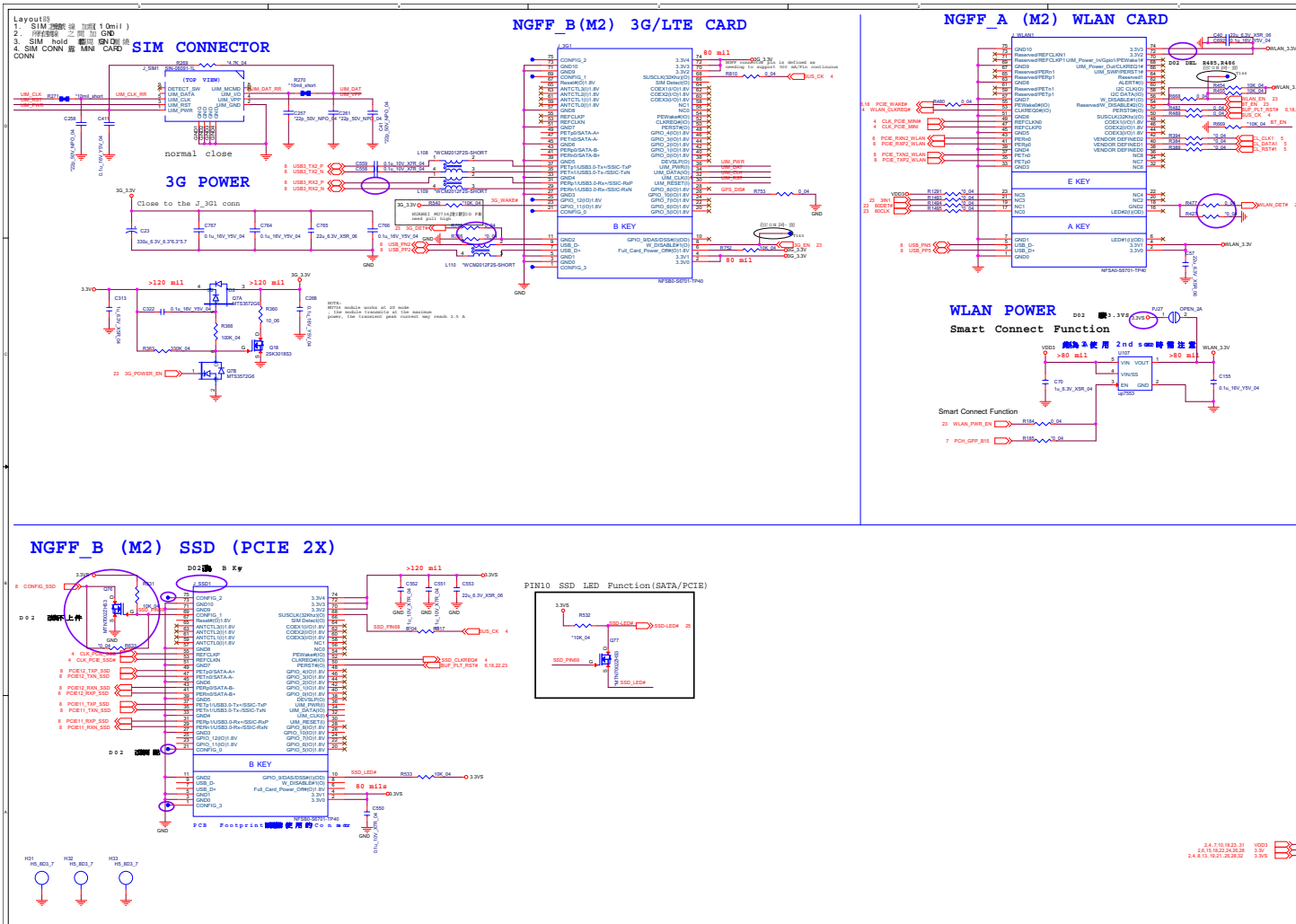
B.Schematic Diagrams

HDMI, RJ45, Fan

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HDMI, RJ45, Fan



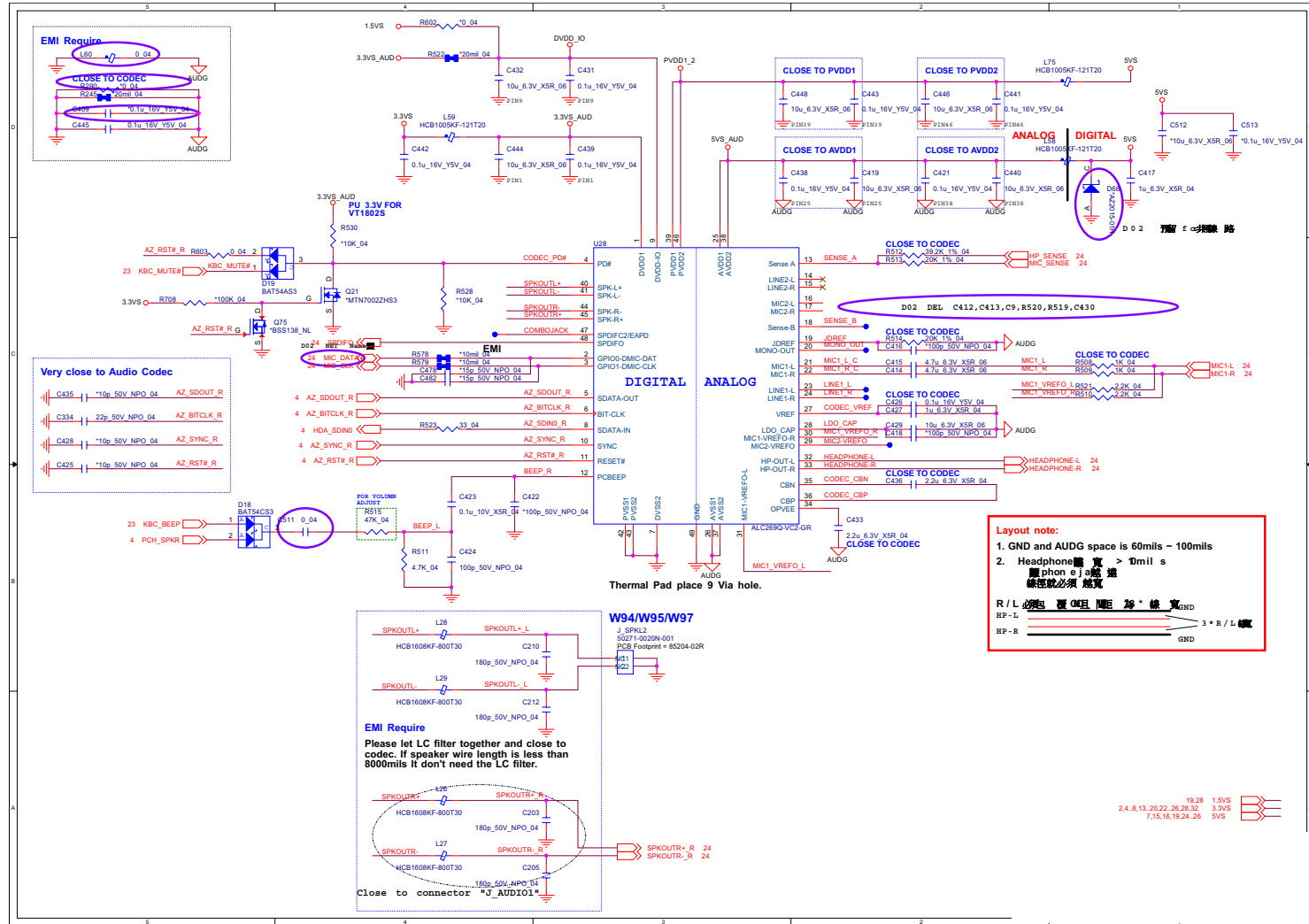
M.2 (WLAN, 3G, SSD)



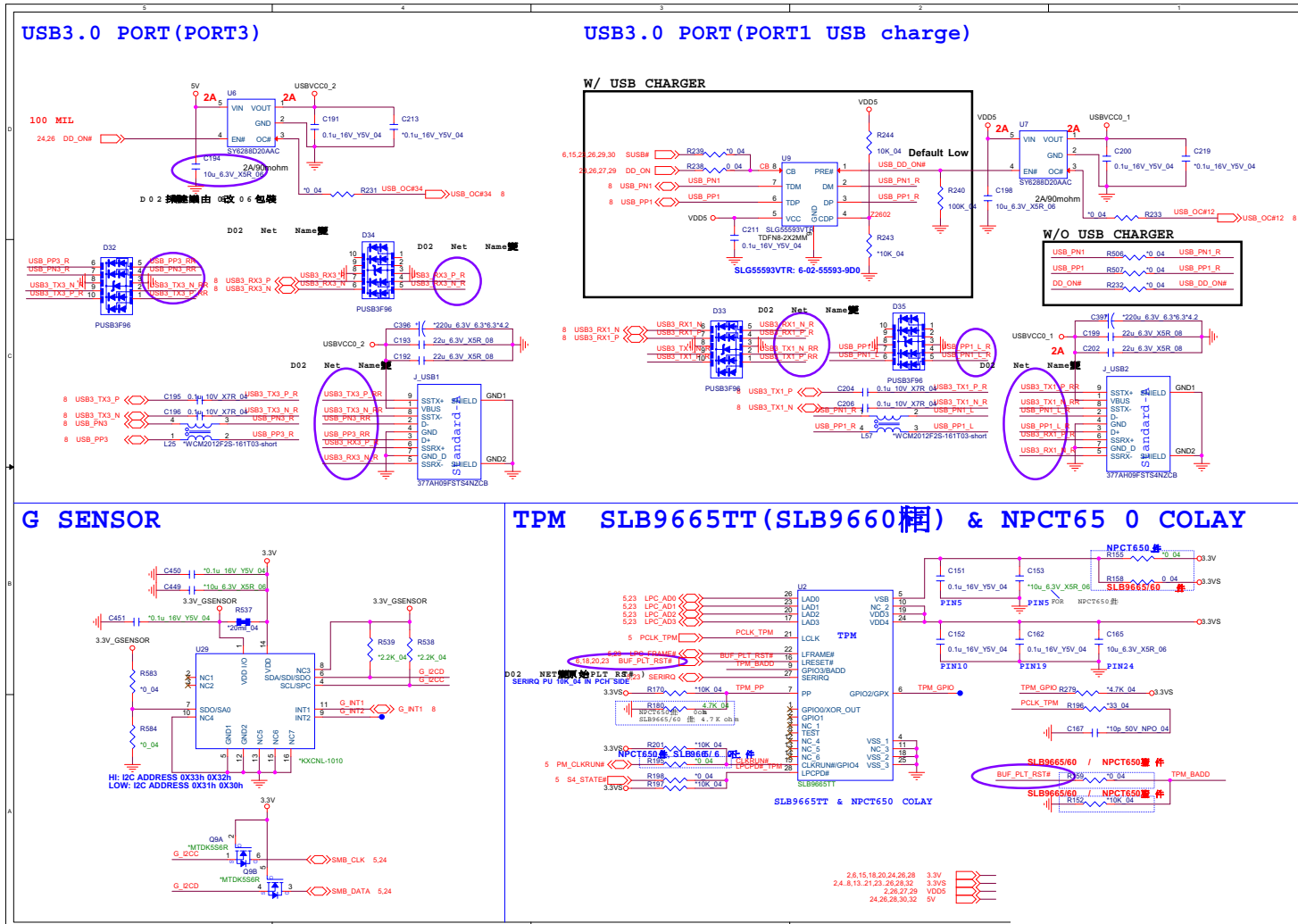
Sheet 20 of 35
M.2 (WLAN, 3G, SSD)

Audio Codec

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Audio Codec



USB 3.0, G Sensor, TPM

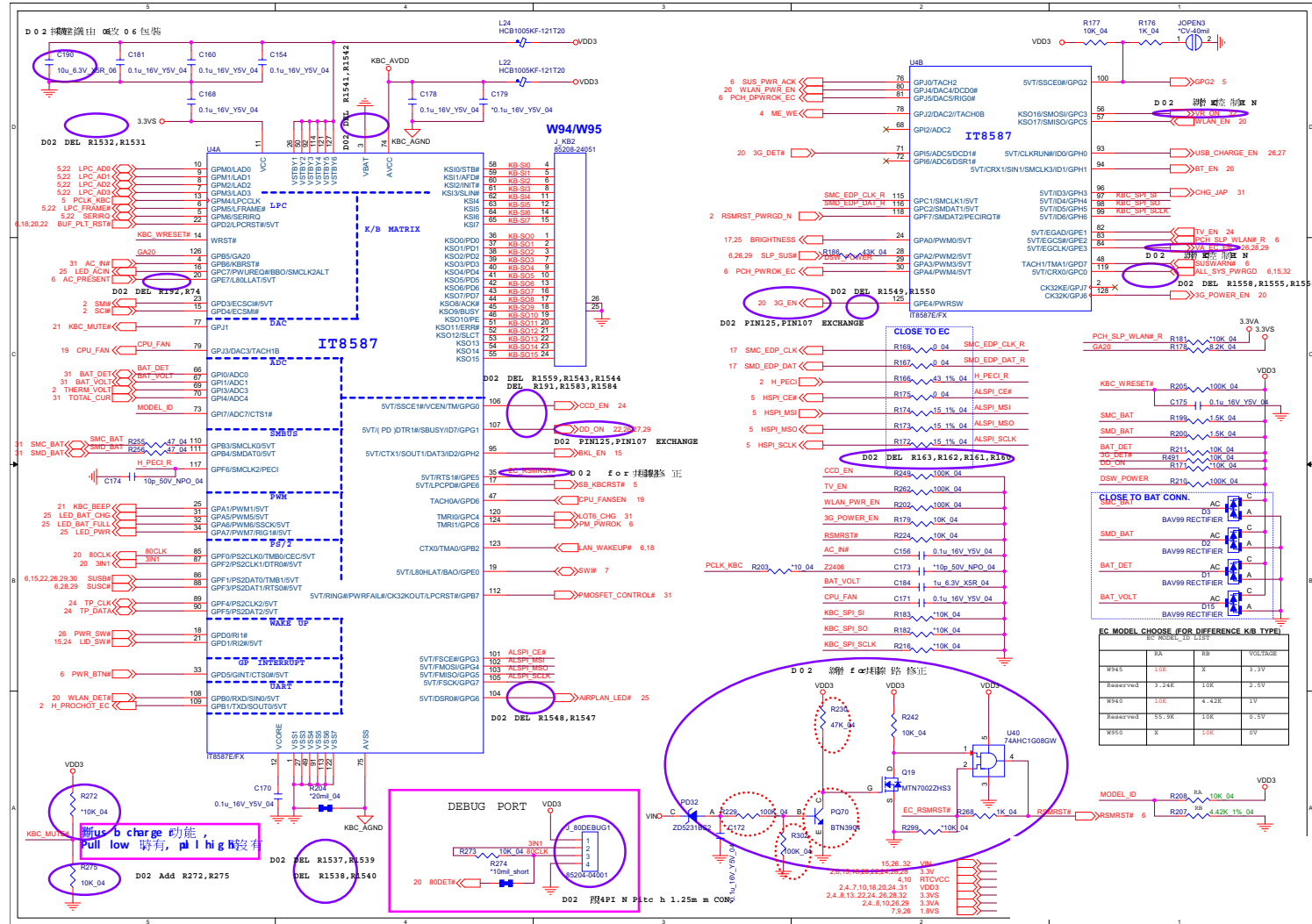


Sheet 22 of 35
USB 3.0, G Sensor,
TPM

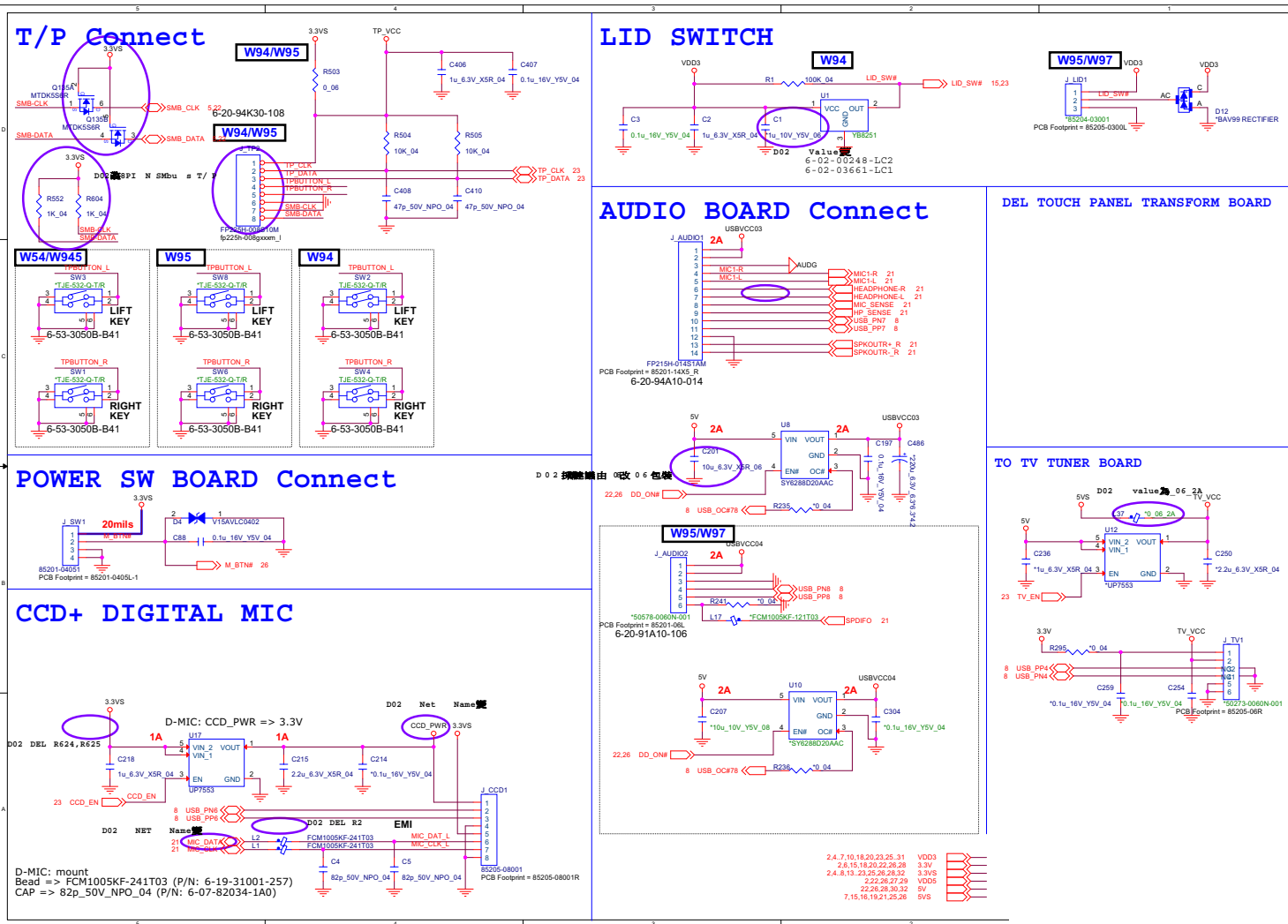
B.Schematic Diagrams

KBC ITE IT8587

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KBC ITE IT8587



CCD, MIC, LID, I/O Connector

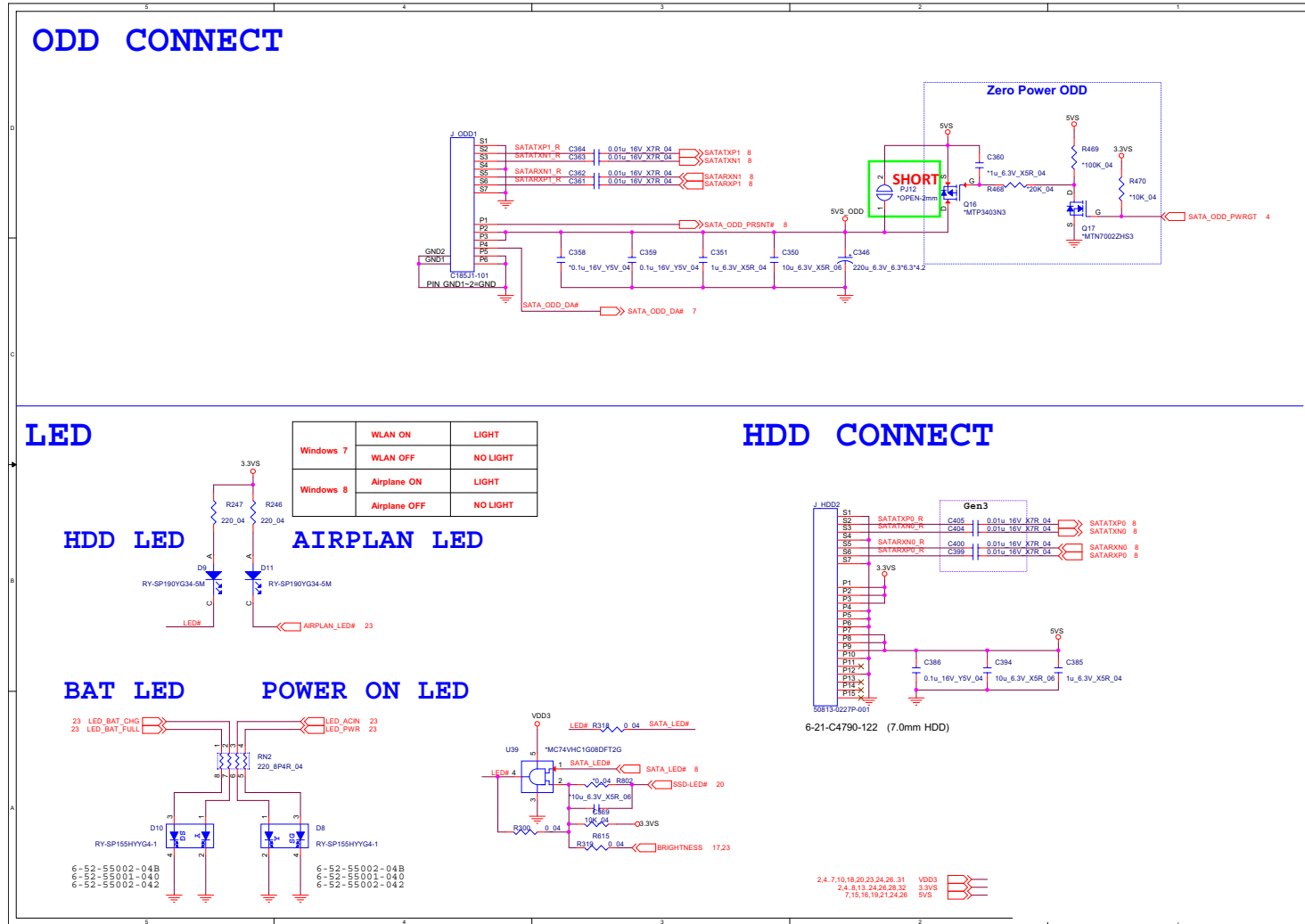


B.Schematic Diagrams

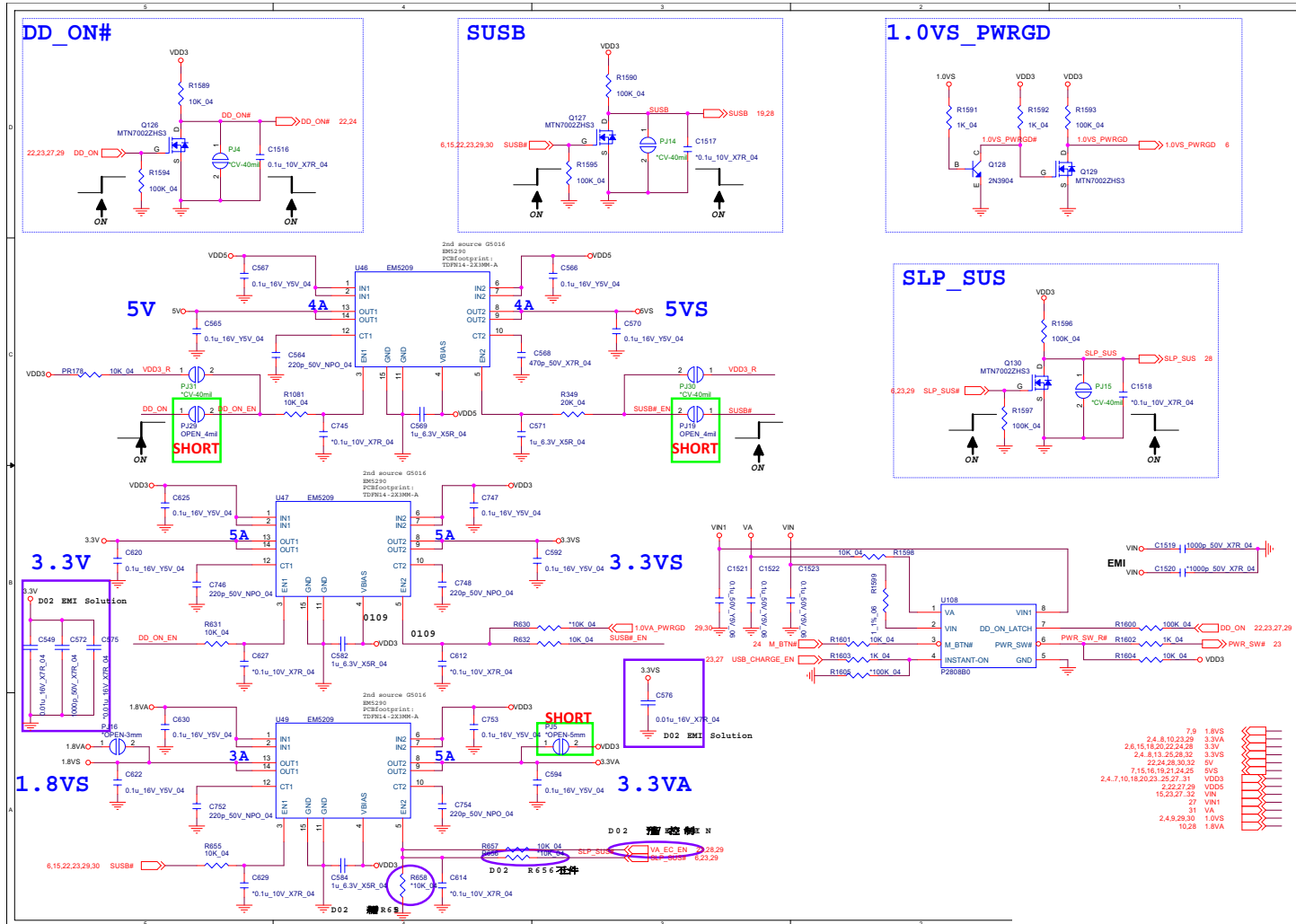
Sheet 24 of 35
CCD, MIC, LID, I/O
Connector

HDD, ODD, LED

Sheet 25 of 35
HDD, ODD, LED



3V, 5V, 3VS, 5VS



Sheet 26 of 35
3V, 5V, 3VS, 5VS

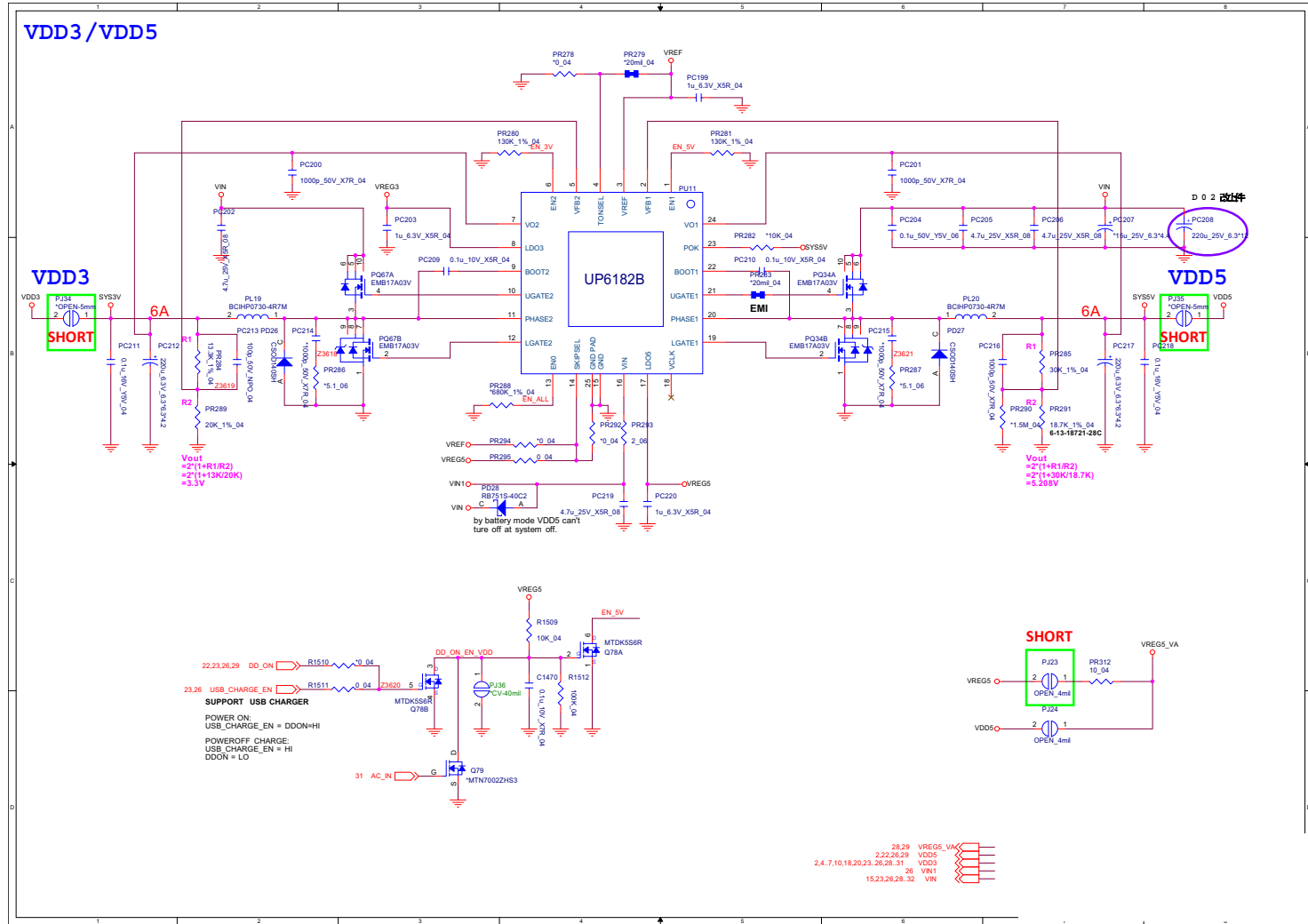
B.Schematic Diagrams

Schematic Diagrams

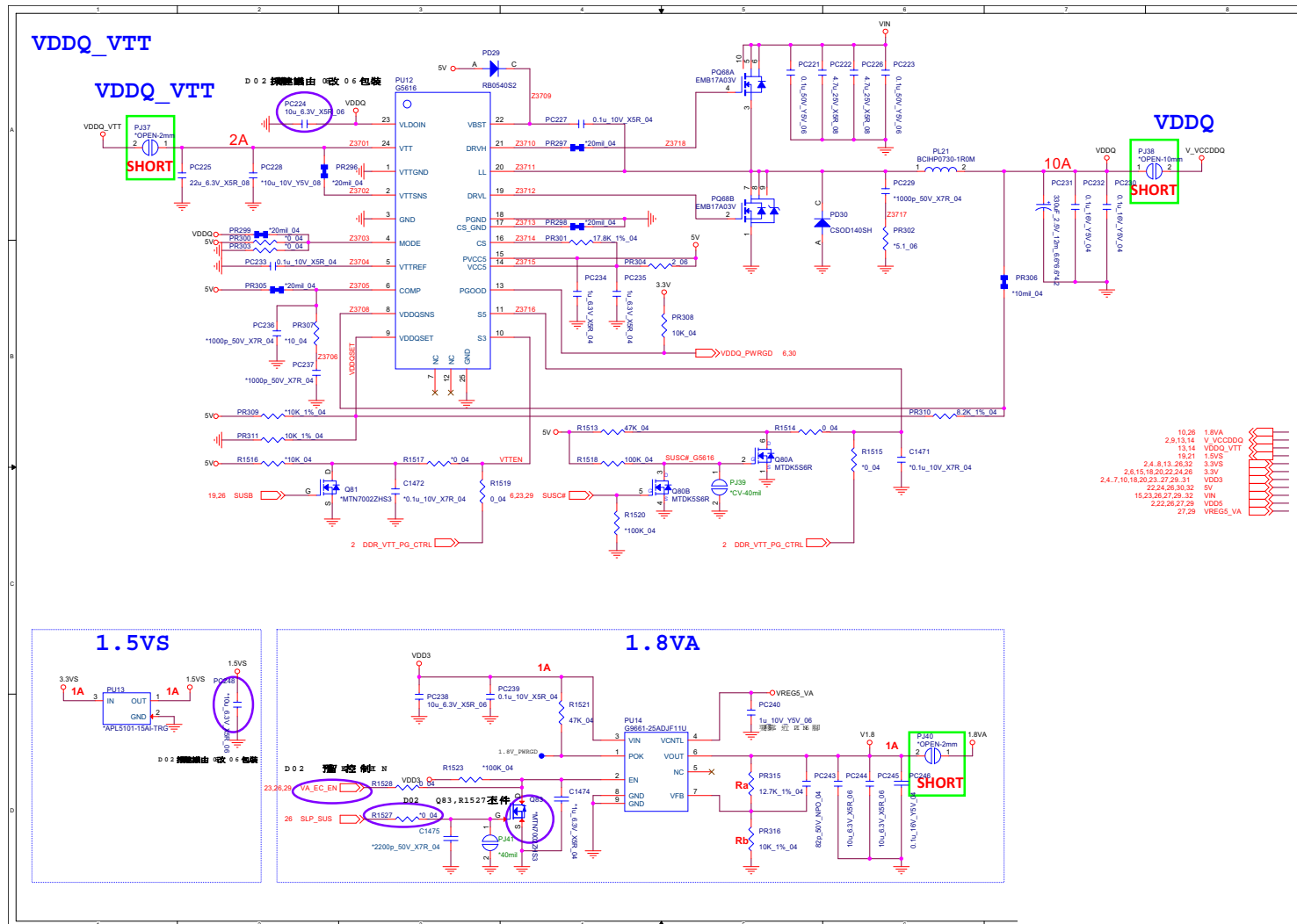
VDD3, VDD5

B.Schematic Diagrams

Sheet 27 of 35
VDD3, VDD5



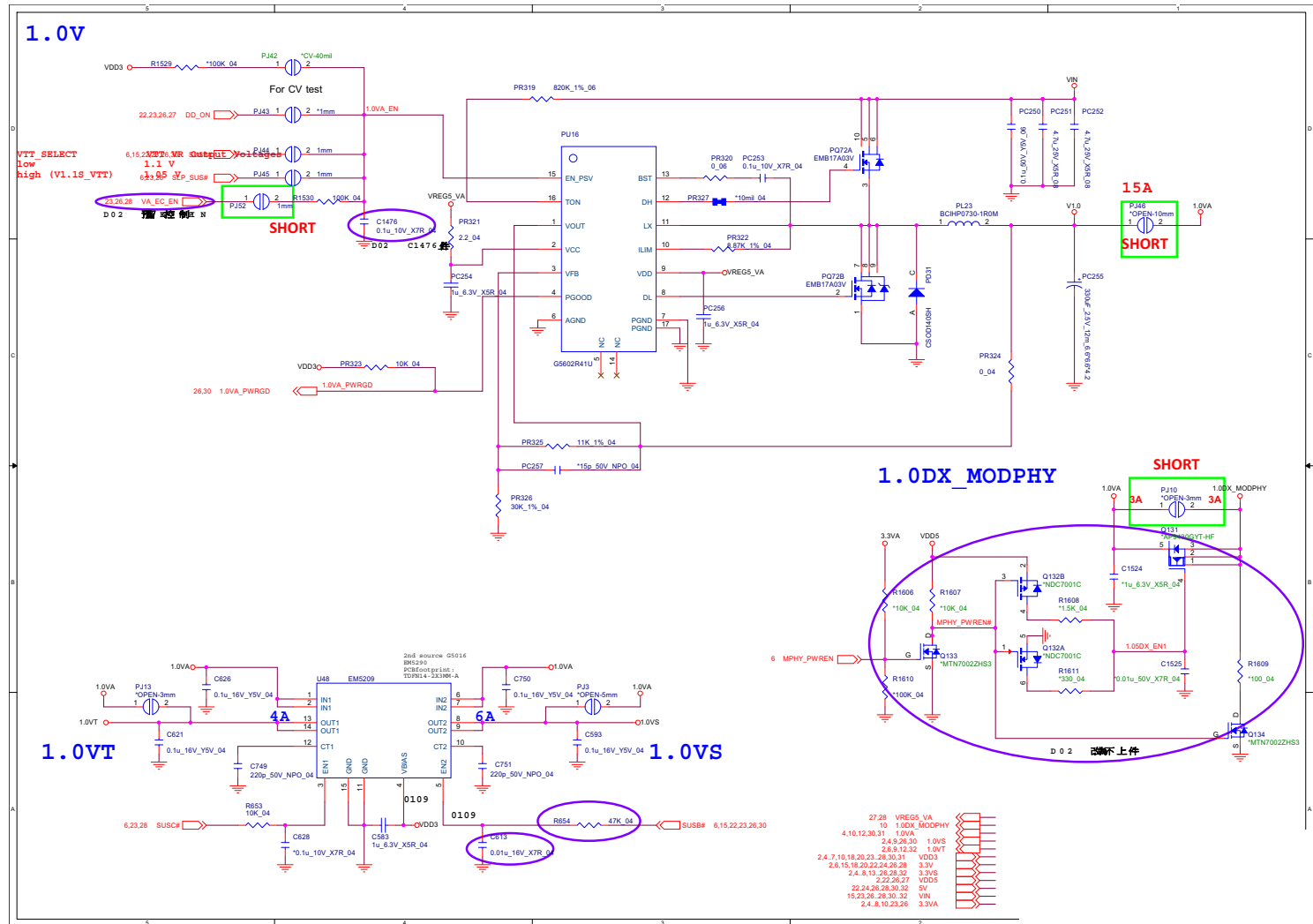
VDDQ, VDDQ_VTT, 1.5VS, 1.8VS



Sheet 28 of 35
VDDQ, VDDQ_VTT,
1.5VS, 1.8VS

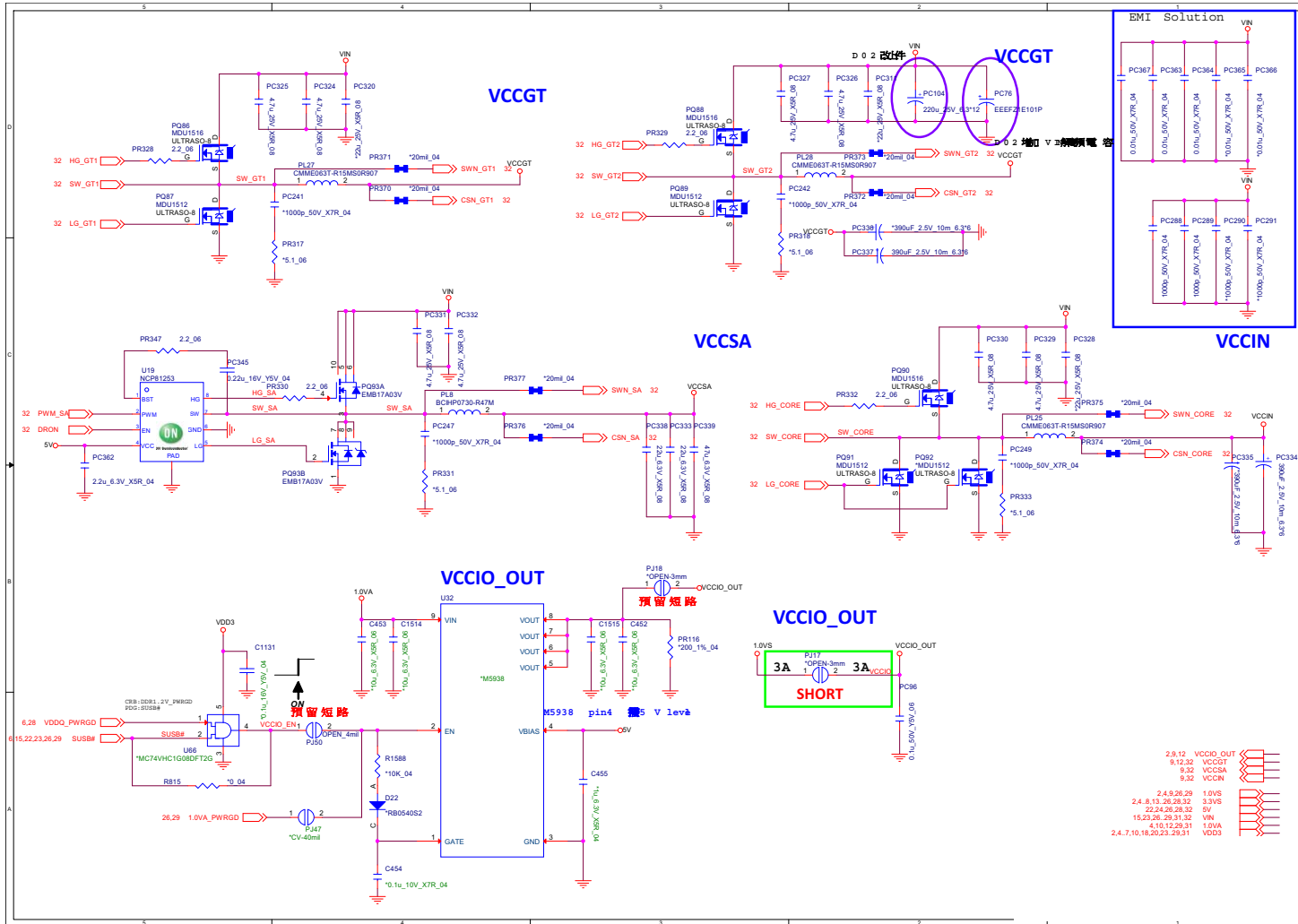
Schematic Diagrams

1.0V Series



Sheet 29 of 35
1.0V Series

VCore, VCCGT, VCCSA, VCCIO

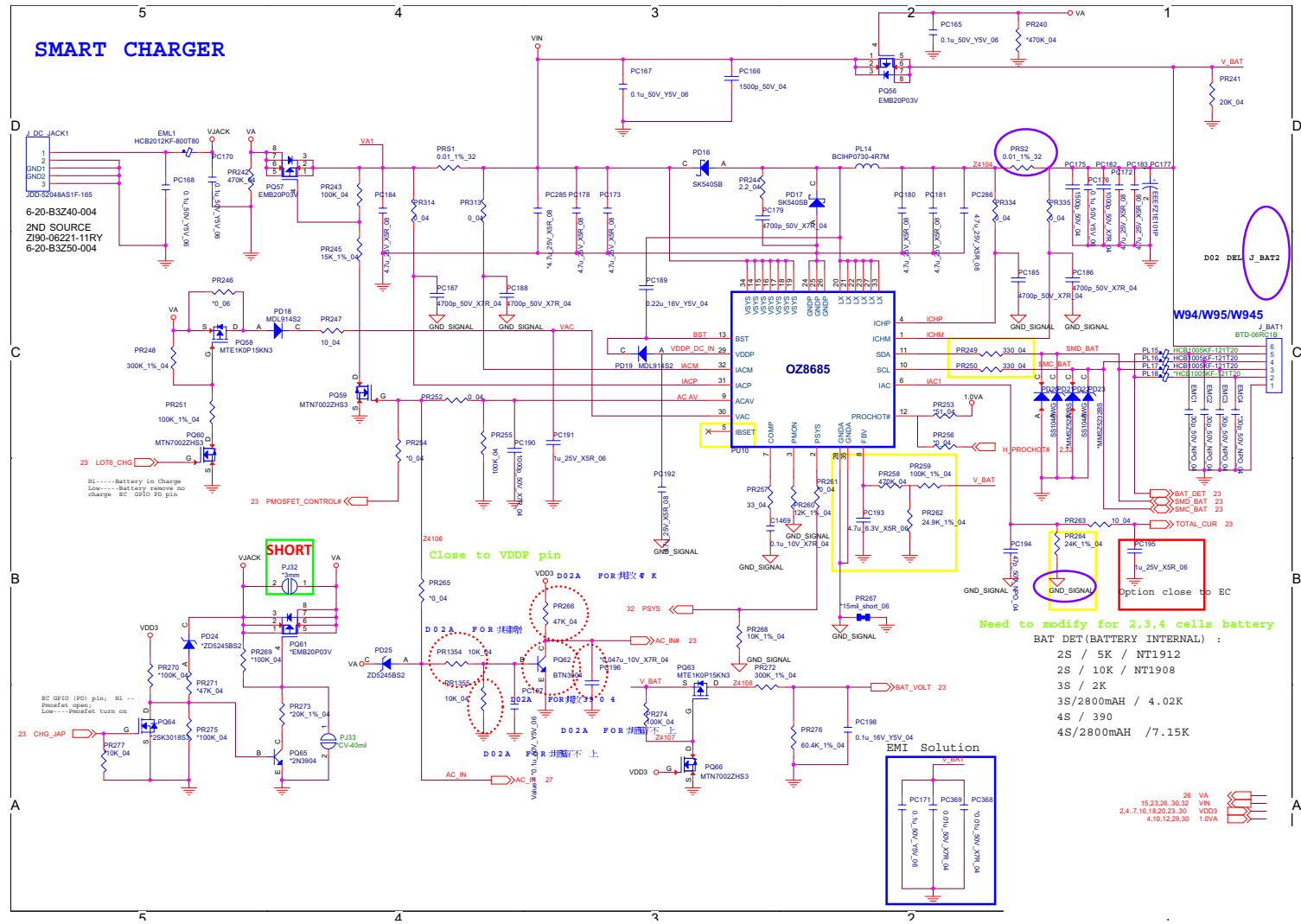


Sheet 30 of 35
VCore, VCCGT,
VCCSA, VCCIO

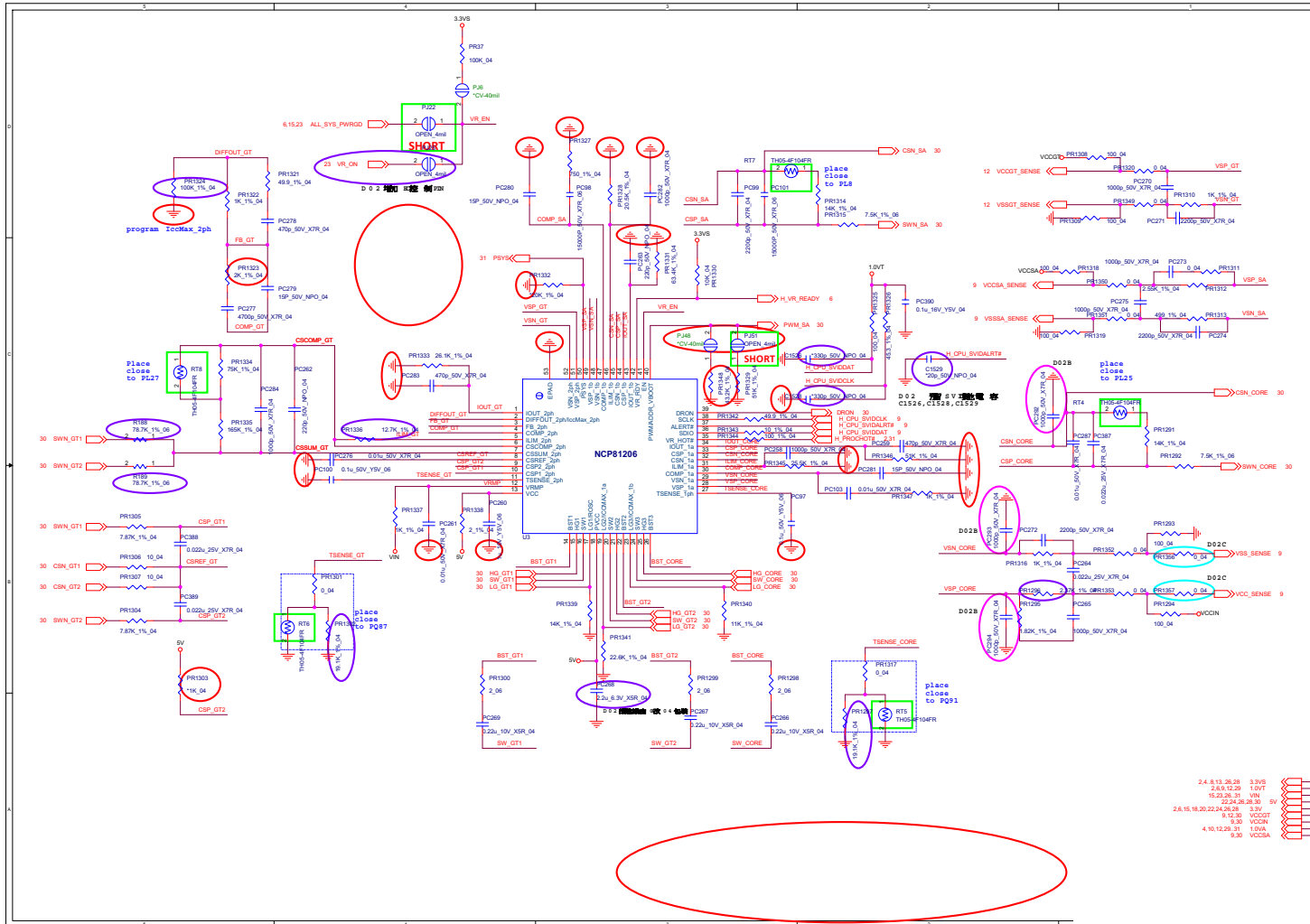
B.Schematic Diagrams

Charger, DC-In

Sheet 31 of 35
Charger, DC-In



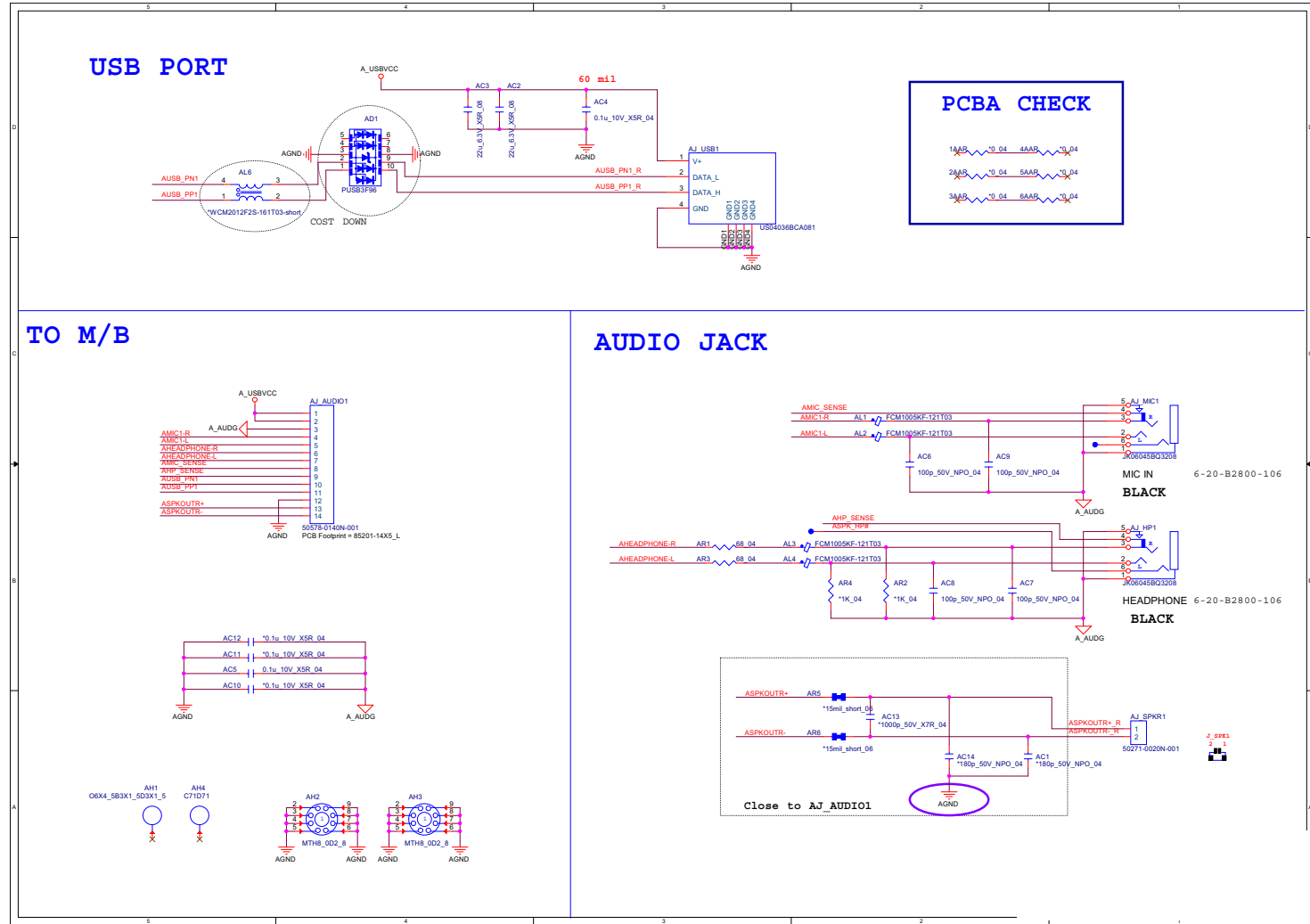
NCP81206 Regulator



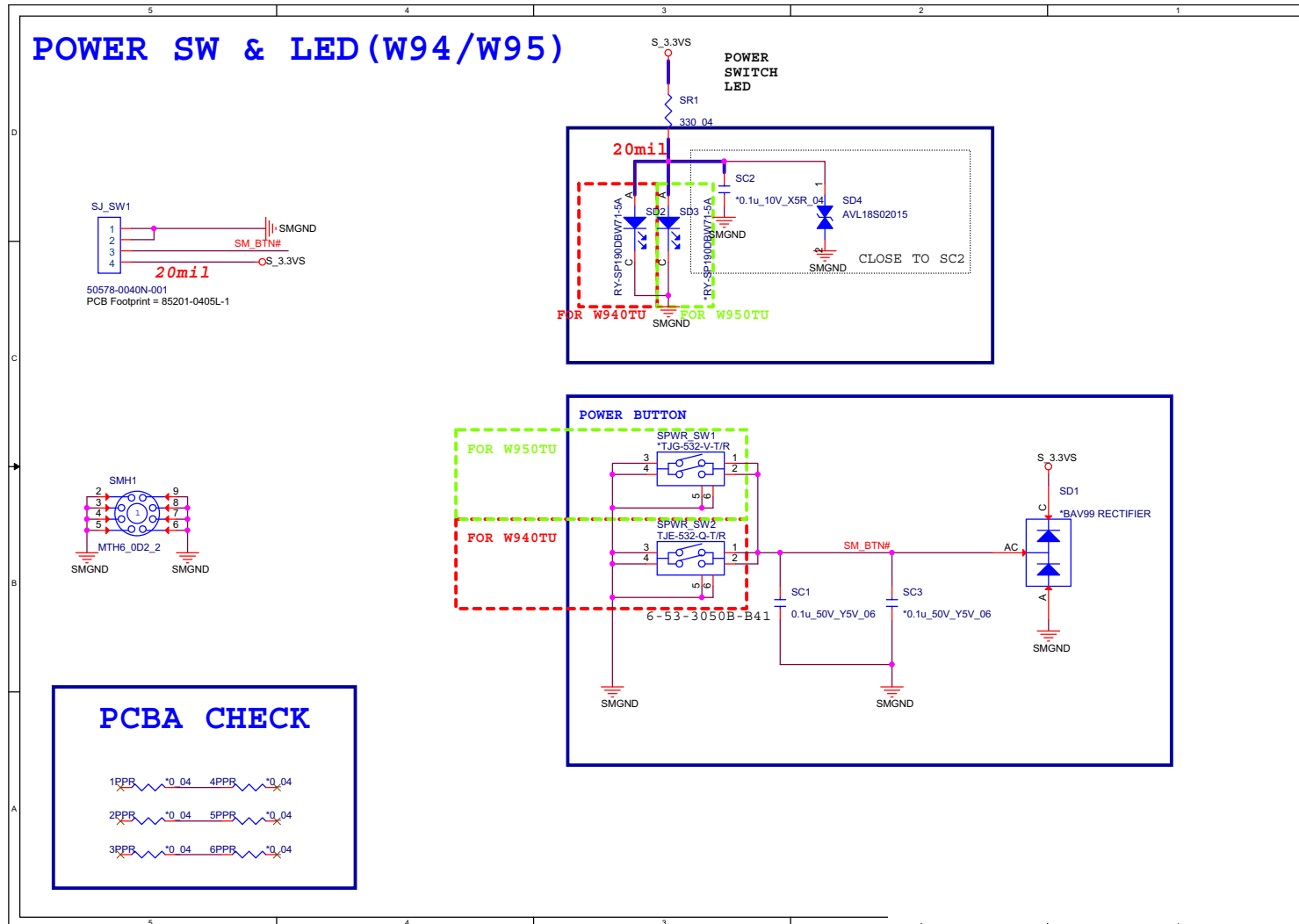
Sheet 32 of 35
NCP81206
Regulator

Audio Board

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Audio Board



Power SW Board



Sheet 34 of 35
Power SW Board

Option BOM List

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Option BOM List

Function Item	ADD	DEL
W/O TPM	R292	U2, R180, R158, C151, C152, C162, C165
Function Item	ADD	DEL
W/O USB Charger	R506, R507, R232, R272	R238, C211, U9, R244, R240, R275
Function Item	ADD	DEL
W/O 3G		J_SIM1, C411, C23, C767, C764, C765 C766, C313, C322, R363, R366, Q7, R360 Q18, C268, H28, J_3G1, R810, R753, R752 R765, C559, C558
Function Item	ADD	DEL
EDP Panel	J_LCD1, R251, R10, R9, C20, C19, C15 C16, C17, C18, R341, R559, R16, R546 R547, R550, R551, R555, R556	J_LCD2, R7, R8, R253, R254, R3, R4, R5, R6 R542, C462, C464, C468, C467, C470, C469 R567, C457, L62, C456, C1117, C458, L63 C587, L61, L80, C471, C459, R671, C463 R672, C578, R557, R558, R296, R294, C461 C465, C507, C466, C472, C509, U13, R554 R673, R560
Function Item	ADD	DEL
BASE SKU CPU (SSD PCIE only)	R635, R636, R637, R639, R638, R640 R641, R642, R607, R608, C562, C563 R609, R614, C560, C561	R605, R606, C556, C557, R581, R582, C554 C555
Function Item	ADD	DEL
W945JU	SW1, SW3, R77	SW2, SW4, R78, R207
Function Item	ADD	DEL
W950JU	J_CARD-REV2, SW6, SW8 J_LID1, J_AUDIO2, R241 R67, C207, U10, C304, SD3, SPWR_SW1	J_CARD-REV1, SW2, SW4, SD2, SPWR_SW2 U1, C3, R68, R208
CHANGE: 1) J_RJ1 (改-21-B40A0-008) 2) R207 10K_04		
Function Item	ADD	DEL
W/TV Tuner	L37, J_TV1, C254,	

Function Item	ADD	DEL
W/O HDMI PS8201A	C226, C239, C240, C244, C225 C242, C241, C243, R278, R280 R281, R283, R284, R285, R286 R287, D90, D91, D5, D6, D7 Q22, Q42, R288, R488, R518 R580, R585, R663, R664, R665 R666, R667, Q24	U5, C539, C538, C541, C540, C543 C542, C544, C546, R571, R569 C545, C484, C534, C536, C485 C483, C535, C537, R338, R339 R358, R570, R572, R573, R574 R575
Function Item	ADD	DEL
W/G-Sensor	C450, C449, C451, R539, R538 R584, U29, Q9	R577

Appendix C: Updating the FLASH ROM BIOS

To update the FLASH ROM BIOS, you must:

- Download the BIOS update from the web site.
- Unzip the files onto a bootable CD/DVD/USB Flash Drive.
- Reboot your computer from an external CD/DVD/USB Flash Drive.
- Use the flash tools to update the flash BIOS using the commands indicated below.
- Restart the computer booting from the HDD and press **F2** at startup enter the BIOS.
- Load setup defaults from the BIOS and save the default settings and exit the BIOS to restart the computer.
- After rebooting the computer you may restart the computer again and make any required changes to the default BIOS settings.

Download the BIOS

1. Go to www.clevo.com.tw and point to **E-Services** and click **E-Channel**.
2. Use your user ID and password to access the appropriate download area (BIOS), and download the latest BIOS files (the BIOS file will be contained in a batch file that may be run directly once unzipped) for your computer model (see sidebar for important information on BIOS versions).

Unzip the downloaded files to a bootable CD/DVD/ or USB Flash drive

1. Insert a bootable CD/DVD/USB flash drive into the CD/DVD drive/USB port of the computer containing the downloaded files.
2. Use a tool such as Winzip or Winrar to unzip all the BIOS files and refresh tools to your bootable CD/DVD/USB flash drive (you may need to create a bootable CD/DVD with the files using a 3rd party software).

Set the computer to boot from the external drive

1. With the bootable CD/DVD/USB flash drive containing the BIOS files in your CD/DVD drive/USB port, restart the computer and press **F2** (in most cases) to enter the BIOS.
2. Use the arrow keys to highlight the **Boot** menu.
3. Use the “+” and “-” keys to move boot devices up and down the priority order.
4. Make sure that the CD/DVD drive/USB flash drive is set first in the boot priority of the BIOS.
5. Press **F4** to save any changes you have made and exit the BIOS to restart the computer.



BIOS Version

Make sure you download the latest correct version of the BIOS appropriate for the computer model you are working on.

You should only download BIOS versions that are **V1.01.XX or higher** as appropriate for your computer model.

Note that BIOS versions are not backward compatible and therefore you may not downgrade your BIOS to an older version after upgrading to a later version (e.g if you upgrade a BIOS to ver 1.01.05, you **MAY NOT** then go back and flash the BIOS to ver 1.01.04).

BIOS Update

Use the flash tools to update the BIOS

1. Make sure you are not loading any memory management programs such as HIMEM by holding the **F8** key as you see the message “**EFI Shell**”. You will then be prompted to give “**Y**” or “**N**” responses to the programs being loaded by EFI Shell. Choose “**N**” for any memory management programs.
2. You should now see **DISK fsX:\>** (X is the designated drive number for the CD/DVD drive/USB flash drive).
3. **Type the following command:**

fsX:\> Flash.nsh

4. The utility will then proceed to flash the BIOS.
5. You should then be prompted to press any key to restart the system or turn the power off, and then on again but make sure you remove the CD/DVD/USB flash drive from the CD/DVD drive/USB port before the computer restarts.

Restart the computer (booting from the HDD)

1. With the CD/DVD/USB flash drive removed from the CD/DVD drive/USB port the computer should restart from the HDD.
2. Press **F2** as the computer restarts to enter the BIOS.
3. Use the arrow keys to highlight the **Exit** menu.
4. Select **Load Setup Defaults** (or press **F3**) and select “**Yes**” to confirm the selection.
5. Press **F4** to save any changes you have made and exit the BIOS to restart the computer.

Your computer is now running normally with the updated BIOS

You may now enter the BIOS and make any changes you require to the default settings.