

SERVICE MANUAL

W350SSQ

notebook



Notebook Computer

W350SSQ

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 **W350SSQ** 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:
 - Full Range AC/DC Adapter - AC Input 100 - 240V, 50 - 60Hz, DC Output 19.5V, 6.15A (**120W**) minimum.

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

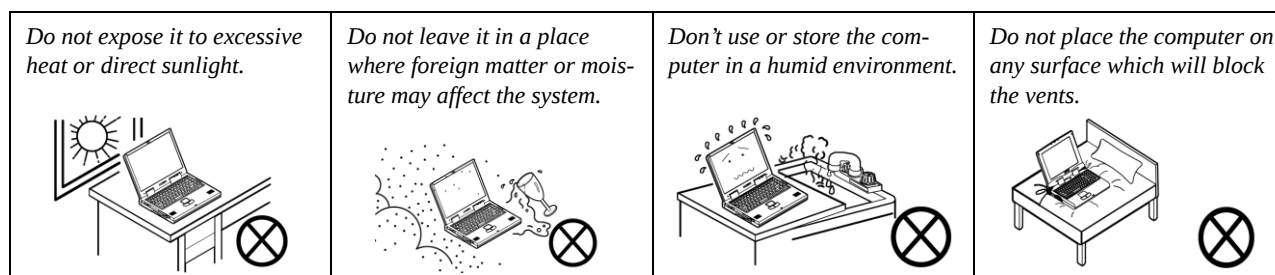
Instructions for Care and Operation

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

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



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

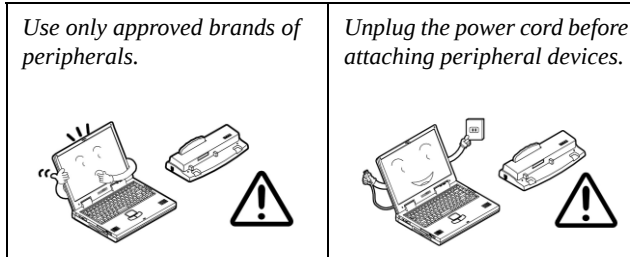


3. **Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.



Preface

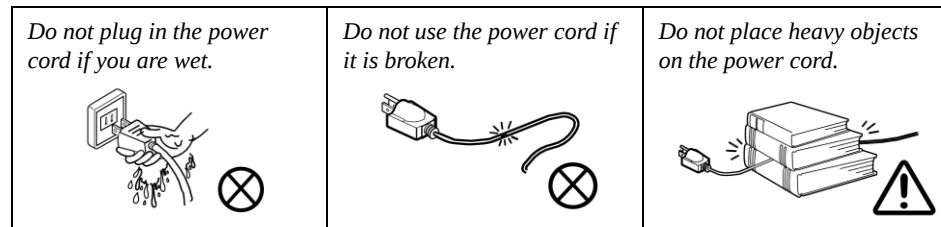
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



Power Safety

The computer has specific power requirements:

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



Power Safety Warning

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

Battery Precautions

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

Battery 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.

Preface

Related Documents

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

User's Manual on CD

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

Contents

Introduction1-1

Overview	1-1
System Specifications	1-2
External Locator - Front View with LCD Panel Open	1-4
External Locator - Front & Right side Views	1-5
External Locator - Left Side & Rear View	1-6
External Locator - Bottom View	1-7
Mainboard Overview - Top (Key Parts)	1-8
Mainboard Overview - Bottom (Key Parts)	1-9
Mainboard Overview - Top (Connectors)	1-10
Mainboard Overview - Bottom (Connectors)	1-11

Disassembly2-1

Overview	2-1
Maintenance Tools	2-2
Connections	2-2
Maintenance Precautions	2-3
Disassembly Steps	2-4
Removing the Battery	2-5
Removing the Optical (CD/DVD) Device	2-6
Removing the Hard Disk Drive	2-7
Removing and Installing the Processor	2-11
Removing the Keyboard	2-14
Removing the System Memory (RAM)	2-15
Removing the Hinge Cover	2-17

Part ListsA-1

Part List Illustration Location	A-2
Top with Fingerprint	A-3
Top without Fingerprint	A-4
Bottom	A-5

LCD	A-6
HDD	A-7
2nd HDD	A-8
Combo	A-9
DVD	A-10

Schematic Diagrams.....B-1

System Block Diagram	B-2
Haswell 1/7	B-3
Haswell 2/7	B-4
Haswell 3/7	B-5
Haswell 4/7	B-6
Haswell 5/7	B-7
Haswell 6/7	B-8
Haswell 7/7	B-9
DDR SO-DIMM A_0	B-10
DDR SO-DIMM B_0	B-11
DDR SO-DIMM A_1	B-12
PS8625	B-13
Panel, Inverter, CRT	B-14
VGA PCI-E Interface	B-15
VGA Frame Buffer Interface	B-16
VGA Frame Buffer A	B-17
VGA Frame Buffer A	B-18
VGA Frame Buffer B	B-19
VGA Frame Buffer B	B-20
VGA I/O	B-21
VGA NVVDD Decoupling	B-22
Lynx 1/9	B-23
Lynx 2/9	B-24
Lynx 3/9	B-25

Preface

Lynx 4/9	B-26
Lynx 5/9	B-27
Lynx 6/9	B-28
Lynx 7/9	B-29
Lynx 8/9	B-30
Lynx 9/9	B-31
Mini PCIE, Fan, Audio Con	B-32
USB Charge, CCD, TPM, Multi-Con	B-33
ESATA/USB3.0 Connector	B-34
Card Reader / LAN RTL8411B	B-35
SATA HDD, VLED CON, LID SW	B-36
HDMI, RJ45	B-37
Audio Codec VT1802S	B-38
Audio AMP & Con	B-39
KBC ITE IT8587	B-40
5V, 5VS, 3.3V, 3VS, 3.3VM	B-41
VDD3, VDD5	B-42
1.5V or 1.35V / 0.75VS, 1.5VS	B-43
1.05VS, 1.05V_M, 1.05V_LAN_M	B-44
Power V-Core	B-45
VGA NVVDD, PEX_VDD	B-46
FBVDDQ	B-47
AC-In, Charger	B-48
W370SS/W350SSQ Audio Board	B-49
W370SS/W35XSSQ Power LED Board	B-50
W370SS/W35XSSQ Click Board	B-51
W370SS Power Switch Board	B-52
W350SSQ Power Switch Board	B-53
W370SS LID / VGA LED Board	B-54
W35XSSQ LID / VGA LED Board	B-55
W350SSQ VGA / WLAN SW Board	B-56
W355SSQ Power Switch Board	B-57

W355SSQ VGA / WLAN SW Board	B-58
-----------------------------------	------

POWER SEQUENCE	B-59
----------------------	------

Updating the FLASH ROM BIOS..... C-1

Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the **W350SSQ** 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 8*, 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 **W350SSQ** 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.

Introduction

System Specifications

Processor Options

Intel® Core™ i7 Processor

i7-4910MQ (2.90GHz), i7-4900MQ (2.80GHz)

8MB L3 Cache, **22nm**, DDR3L-1600MHz, TDP 47W

i7-4810MQ (2.80GHz), i7-4800MQ (2.70GHz), i7-4700MQ (2.40GHz)

6MB L3 Cache, **22nm**, DDR3L-1600MHz, TDP 47W

i7-4610M (3.00GHz), i7-4600M (2.90GHz)

4MB L3 Cache, **22nm**, DDR3L-1600MHz, TDP 37W

Intel® Core™ i5 Processor

i5-4340M (2.90GHz), i5-4330M (2.80GHz), i5-4310M (2.70GHz), i5-4300M (2.60GHz), i5-4200M (2.50GHz)

3MB L3 Cache, **22nm**, DDR3L-1600MHz, TDP 37W

Intel® Core™ i3 Processor

i3-4100M (2.50GHz), i3-4000M (2.40GHz)

3MB L3 Cache, **22nm**, DDR3L-1600MHz, TDP 37W

Core Logic

Intel® HM87 Chipset

BIOS

One 48Mb SPI Flash ROM

AMI BIOS

LCD

15.6" (39.62cm) FHD

Video Adapter

Intel® Integrated GPU and NVIDIA® Discrete GPU

Supports Microsoft Hybrid Graphics

Intel Integrated GPU

Intel® HD Graphics 4600

Dynamic Frequency (Intel Dynamic Video Memory Technology for up to **1.7GB**)

Microsoft DirectX®11 Compatible

NVIDIA Discrete GPU

NVIDIA® GeForce GTX 860M

2GB GDDR5 Video RAM

Microsoft DirectX®11.1 Compatible

Security

BIOS Password

Security (Kensington® Type) Lock Slot

(Factory Option) Fingerprint Reader

Audio

High Definition Audio Compliant Interface

Sound Blaster™ Cinema

2 * Built-In Speakers

Built-In Microphone

Memory

Three 204 Pin SO-DIMM Sockets Supporting

DDR3L 1600MHz Memory

Memory Expandable up to **24GB**

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

Note: Three SO-DIMMs are only supported by Quad-Core CPUs; Dual-Core CPUs support two SO-DIMMs maximum

Storage

(Factory Option) One 12.7mm(h) Optical Device Type Drive (Super Multi Drive/Blu-Ray Combo Drive/Blu-Ray Writer Drive)

(Factory Option) Two Changeable 2.5" (6cm) 9.5/7.0mm (h) **SATA** (Serial) Hard Disk Drives/ Solid State Drives (SSD) supporting RAID level 0/1

(Factory Option) One mSATA Solid State Drive (SSD)

Keyboard

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

Pointing Device

Built-in Touchpad (scrolling key functionality integrated)

Interface

One USB 2.0 Port

Two USB 3.0 Ports

One eSATA Port (USB 3.0 Port Combined)

One HDMI-Out Port

One Headphone-Out Jack

One Microphone-In Jack

One S/PDIF Out Jack

One RJ-45 LAN Jack

One External Monitor Port

One DC-in Jack

Communication

Built-In Gigabit Ethernet LAN

1.0M HD PC Camera Module

Or

(Factory Option) 2.0M FHD PC Camera Module

(Factory Option) 3G Mini-Card Module

WLAN/ Bluetooth Half Mini-Card Modules:

(Factory Option) Intel® Wireless-AC 7260 Wireless LAN (802.11a/c) + Bluetooth 4.0

(Factory Option) Intel® Wireless-N 7260 Wireless LAN (802.11b/g/n)+ Bluetooth 4.0

(Factory Option) Third-Party Wireless LAN (802.11b/g/n)

(Factory Option) Third-Party Wireless LAN (802.11b/g/n) + Bluetooth 4.0

(Factory Option) Third-Party Wireless LAN (802.11a/b/g/n) + Bluetooth 4.0

Card Reader

Embedded Multi-in-1 Push-Push Card Reader

MMC (MultiMedia Card) / RS MMC

SD (Secure Digital) / Mini SD / SDHC/ SDXC

MS (Memory Stick) / MS Pro / MS Duo

Mini Card Slots

Slot 1 for **WLAN** Module or **WLAN and Bluetooth** Combo Module

(Factory Option) Slot 2 for **3G** Module or mSATA SSD

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: 19.5V, 6.15A (**120W**)

8 Cell Smart Lithium-Ion Battery Pack, 76.96WH

Dimensions & Weight

374mm (w) * 250mm (d) * 16.3 - 42.7mm (h)

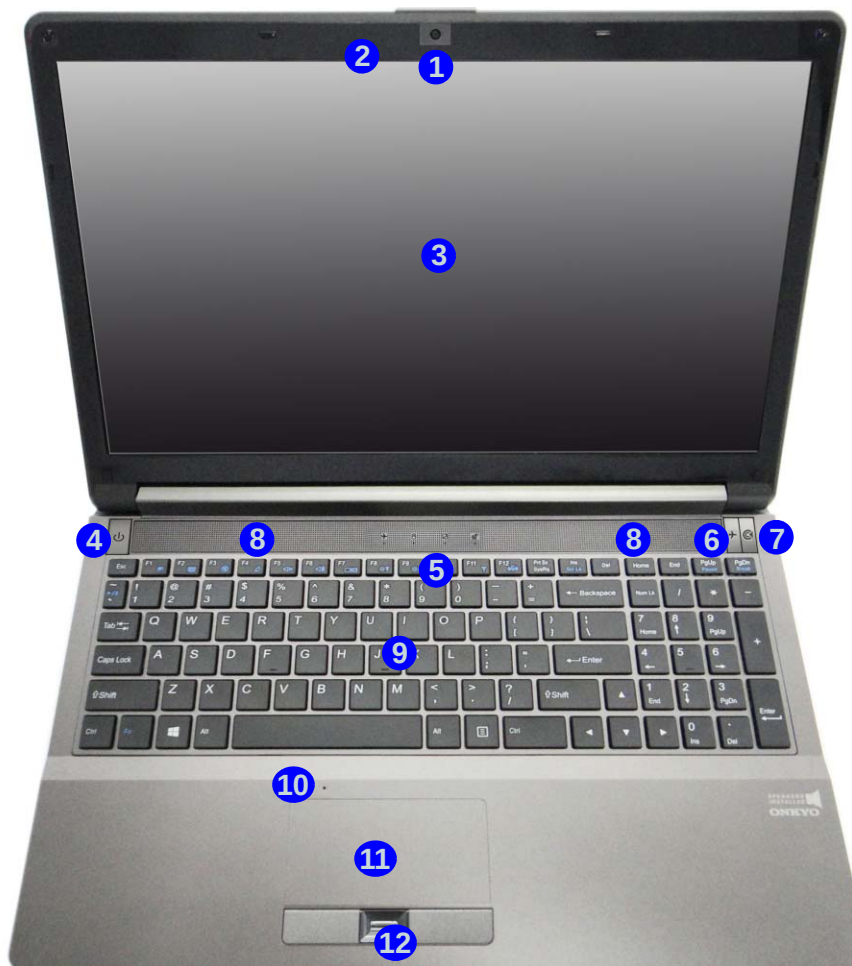
2.7kg with ODD & 76.96WH Battery

Introduction

Figure 1
Top View

1. Built-In PC Camera
(Optional)
2. *PC Camera LED
**When the PC camera is in use, the LED will be illuminated in red.*
3. LCD
4. Power Button
5. LED Indicators
6. Airplane Mode Button
7. Control Center Button
8. Speakers
9. Keyboard
10. Built-In Microphone
11. Touchpad & Buttons
12. Fingerprint Reader Sensor (Factory Option)

External Locator - Front View with LCD Panel Open



External Locator - Front & Right side Views

Figure 2
Front Views

1. LED Indicators



Figure 3
Right Side Views

1. Multi-in-1 Card Reader
2. USB 3.0 Ports
3. Combined eSATA/USB 3.0 Port
4. HDMI-Out Port
5. RJ-45 LAN Jack



Introduction

External Locator - Left Side & Rear View

Figure 4
Left Side View

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



Figure 5
Rear View

1. External Monitor Port
2. DC-In Jack
3. Vent



External Locator - Bottom View

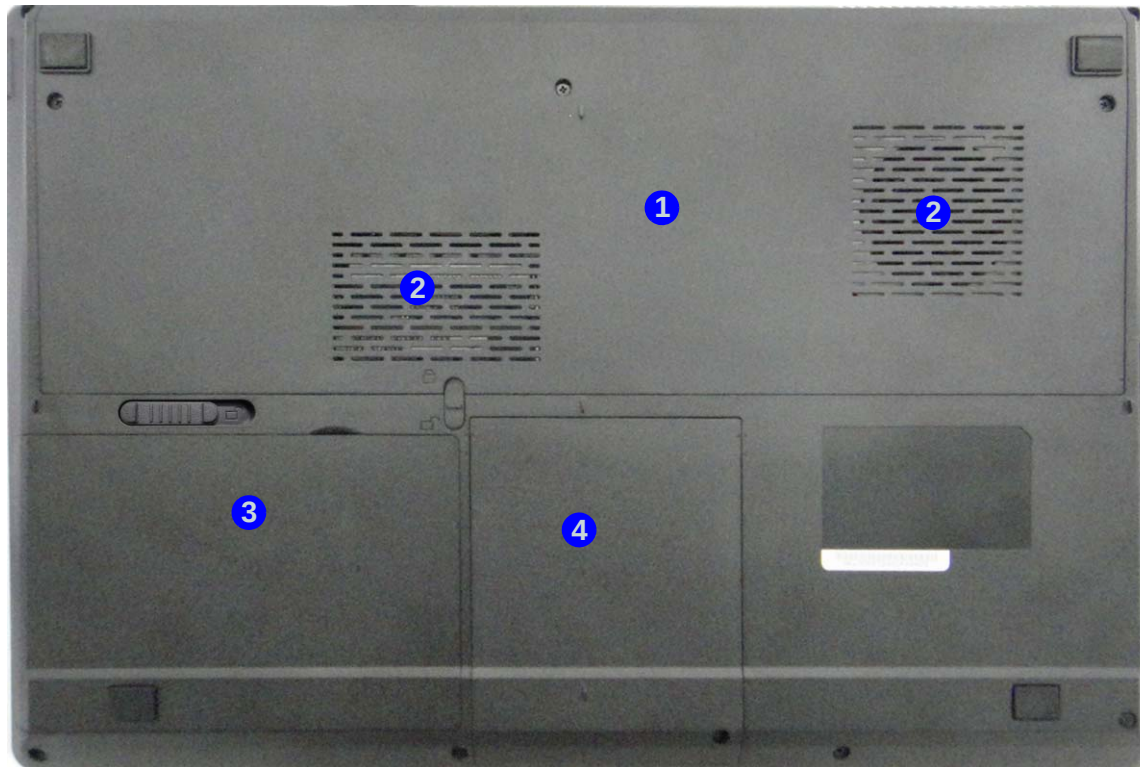


Figure 6
Bottom View

1. Component Bay Cover
2. Vent
3. Battery
4. HDD Bay



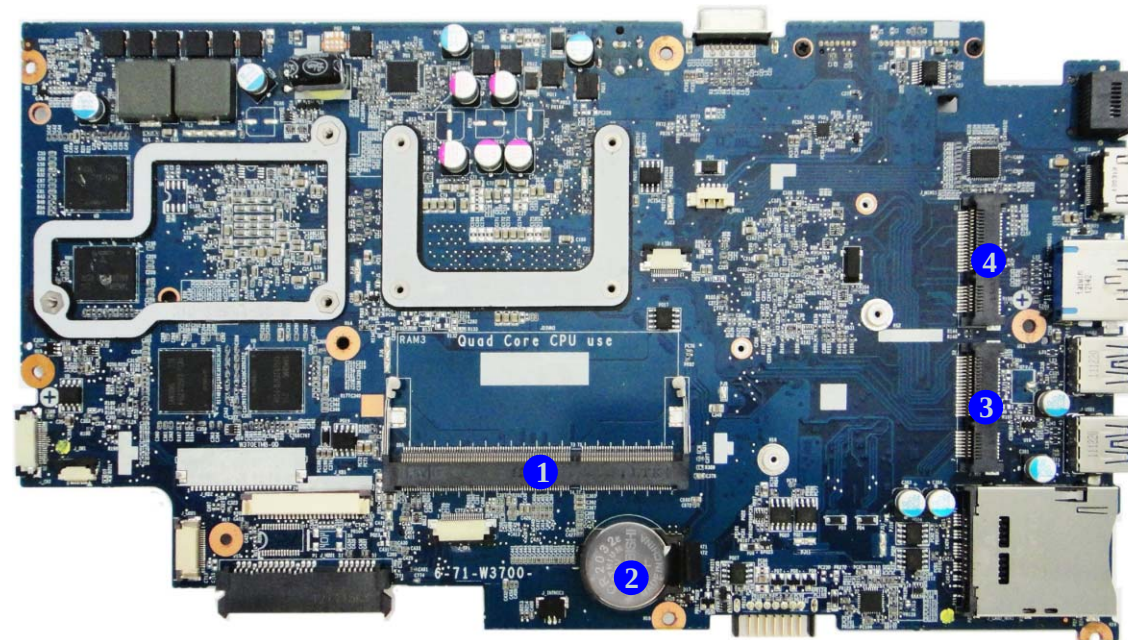
Overheating

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

Introduction

Figure 7
**Mainboard Top
Key Parts**

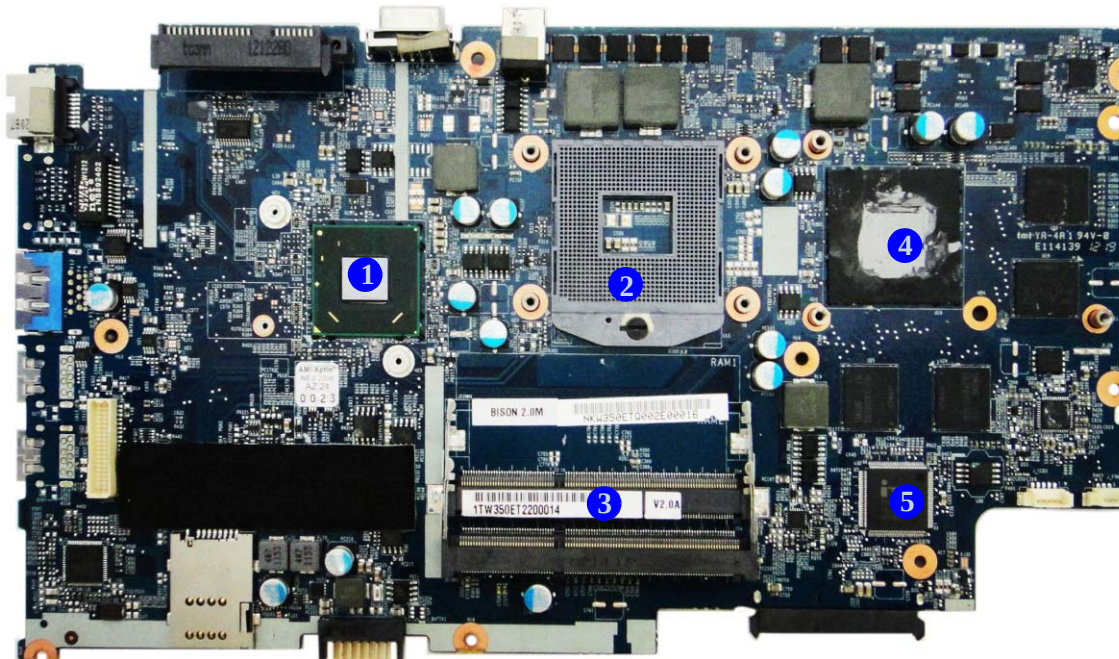
1. Memory Slots DDR3L So-DIMM
2. CMOS Battery
3. Mini-Card Connector (3G Module)
4. Mini-Card Connector (WLAN Module)



Mainboard Overview - Bottom (Key Parts)

Figure 8
**Mainboard Bottom
Key Parts**

1. PantherPoint Controller
2. CPU Socket
3. Memory Slots
DDR3L So-DIMM
4. NV Graphic
5. KBC

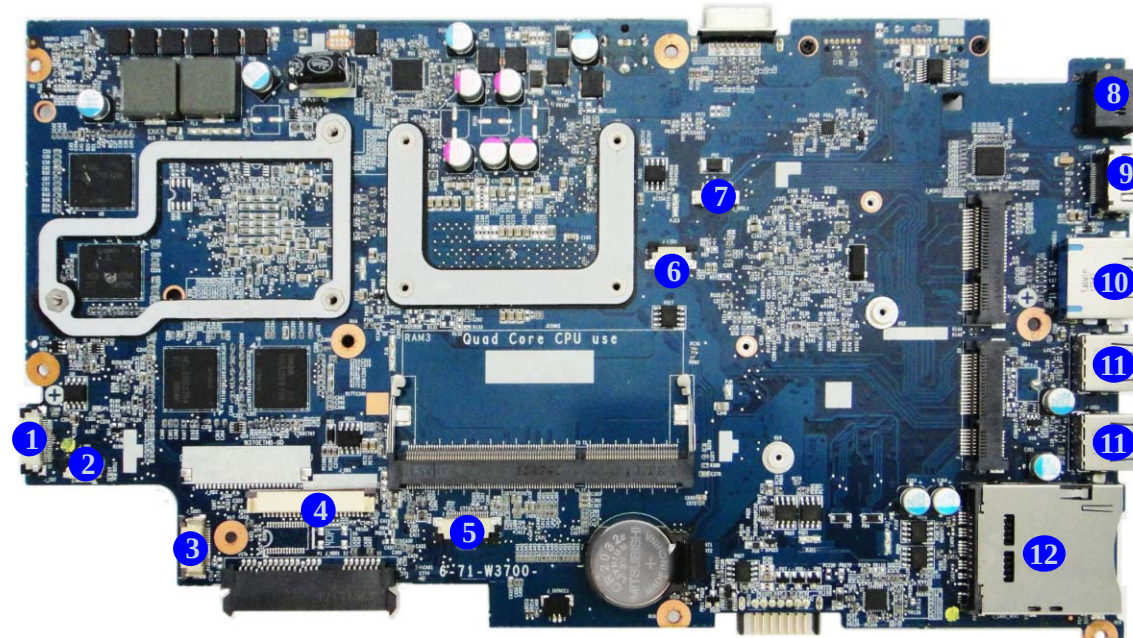


Introduction

Figure 9
**Mainboard Top
Connectors**

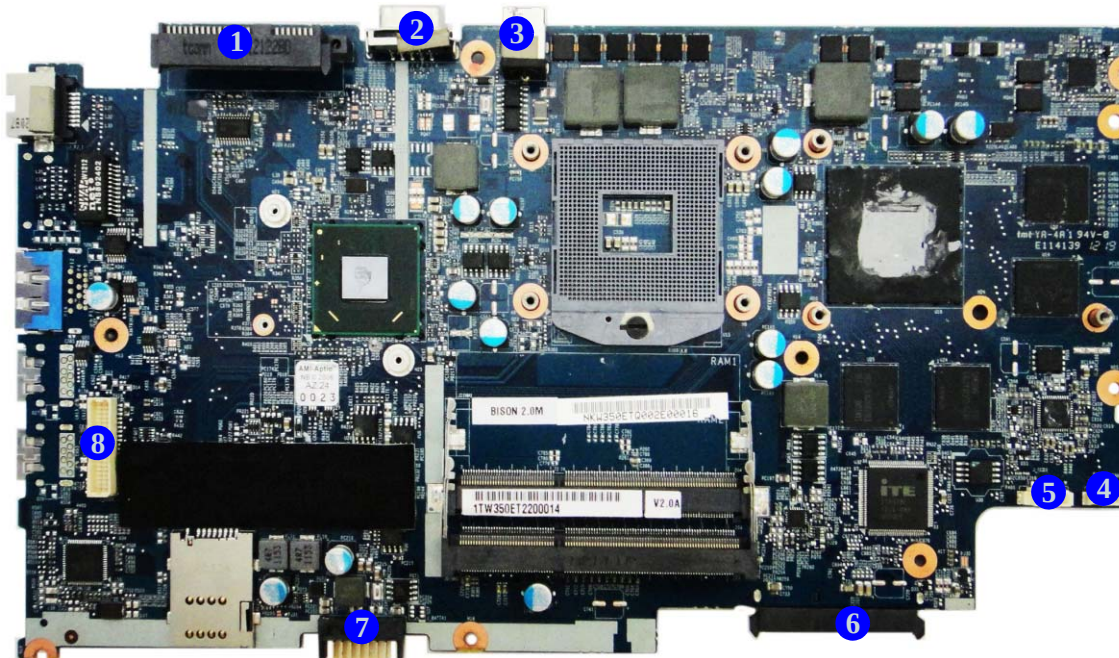
Mainboard Overview - Top (Connectors)

1. Audio Cable Connector
2. Power Switch Cable Connector
3. ODD Cable Connector
4. Keyboard Cable Connector
5. Click Board Cable Connector
6. VGA SW Cable Connector
7. Speaker Cable Connector
8. RJ-45 LAN Jack
9. HDMI-Out Port
10. eSATA Connector
11. USB 3.0 Ports
12. Multi-in-1 Card Reader



Mainboard Overview - Bottom (Connectors)

Figure 10
**Mainboard Bottom
Connectors**



1. HDD2 Connector
2. External Monitor Port
3. DC-In Jack
4. Fan Cable Connector
5. CCD Cable Connector
6. HDD1 Connector
7. Battery Connector
8. LCD Cable Connector

Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the **W350SSQ** 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.


Information
Warning

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-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.

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 Optical Device:

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

To remove the HDD:

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

To remove and install the Processor:

1. Remove the battery [page 2 - 5](#)
2. Remove the Processor [page 2 - 11](#)
3. Install the Processor [page 2 - 13](#)

To remove the Keyboard:

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

To remove the System Memory:

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

To remove the Hinge Cover:

1. Remove the battery [page 2 - 5](#)
2. Remove the hinge cover [page 2 - 17](#)

Removing the Battery

If you are confident in undertaking upgrade procedures yourself, for safety reasons it is best to remove 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 battery will pop-up.
4. Lift the battery **3** up (*Figure b*) and out of the battery bay.

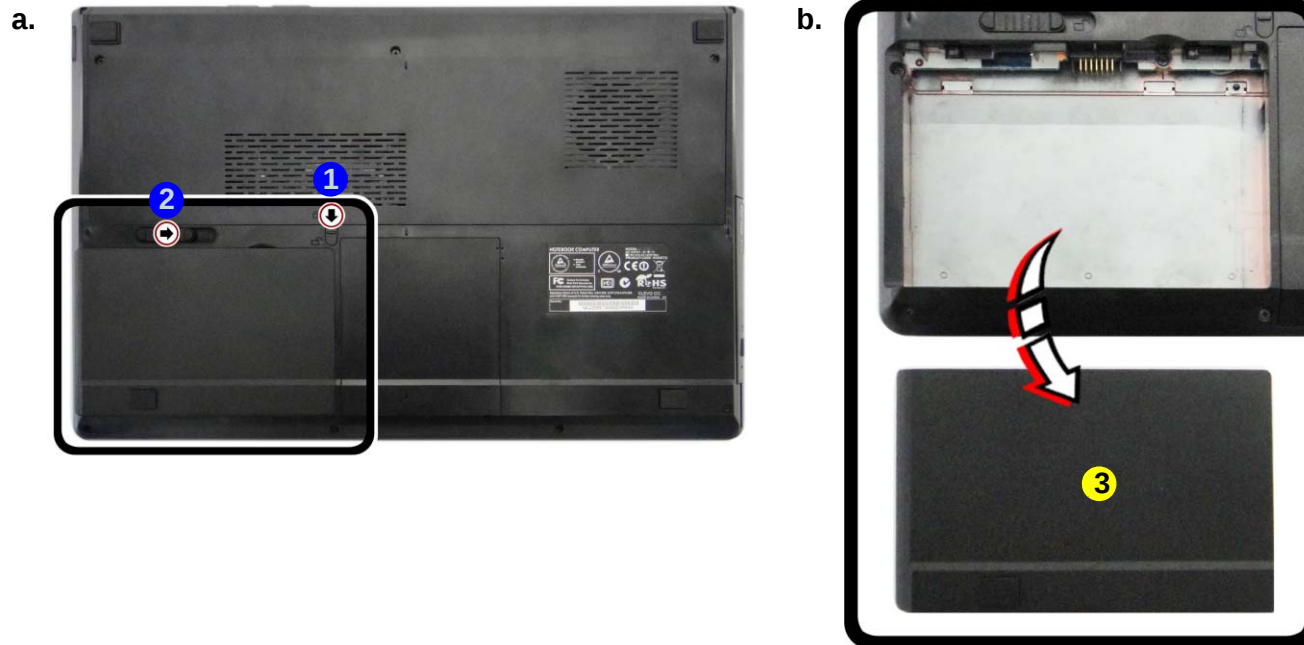


Figure 1
Battery Removal

- a. Slide the latch **1** in the direction of the arrow. and slide the latch **2** in the direction of the arrow and battery will pop-up.
- b. Lift the battery out of the bay as indicated.



3. Battery

Disassembly

Figure 2
**Optical Device
Removal**

- a. Remove the screw and push the optical device out of the computer.

Removing the Optical (CD/DVD) Device

1. Turn off the computer, and turn it over and remove the battery ([page 2 - 5](#)) and remove the component bay cover ([page 2 - 10](#)).
2. Remove the screw ①, and use a screwdriver to carefully push out the optical device ③ at point ②.
3. Reverse the process to install the new device.

a.



3. Optical Device

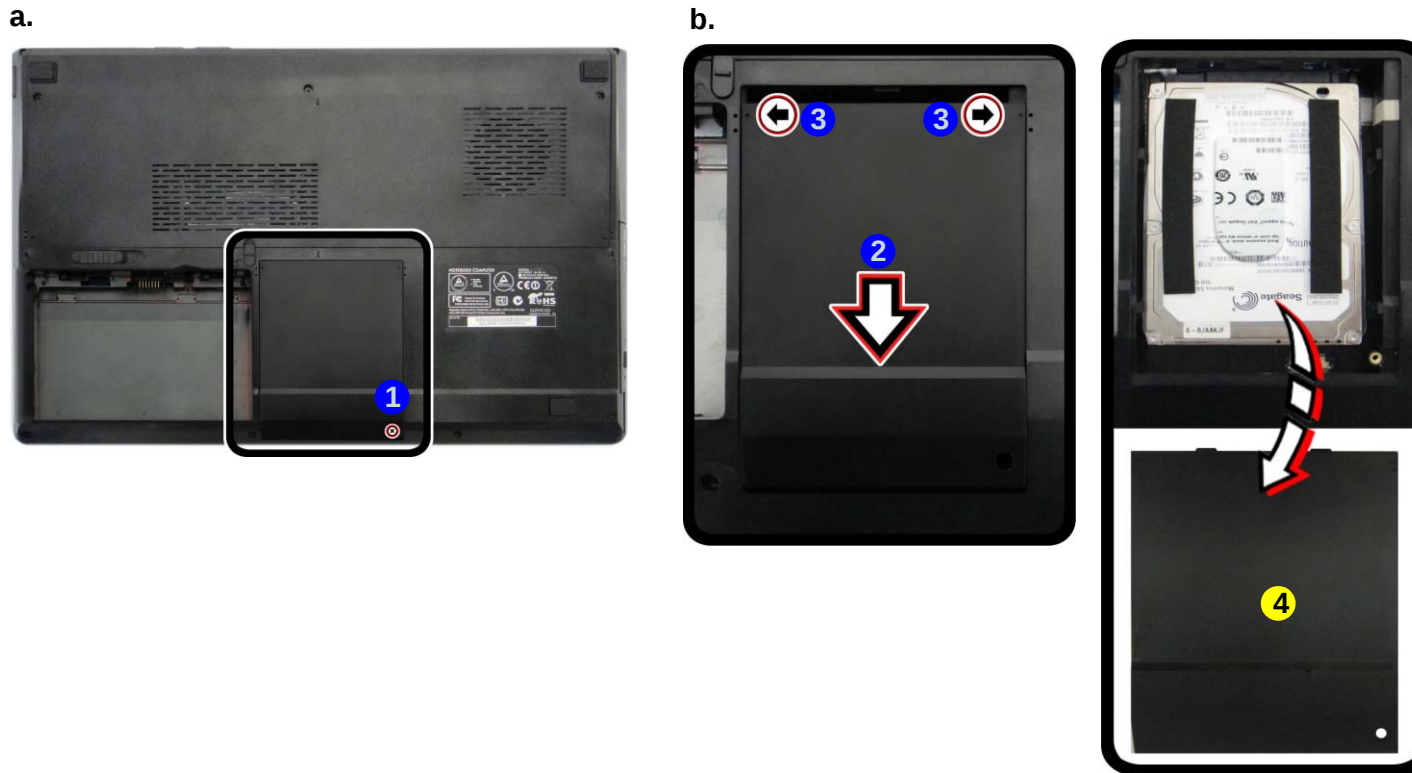
- 1 Screw

Removing the Hard Disk Drive

The hard disk drive is mounted in a removable case and can be taken out to accommodate other 2.5" SATA hard disk drives with a height of 9.5mm or 7mm (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

1. Turn off the computer, and turn it over and remove the battery ([page 2 - 5](#)).
2. Locate the Hard disk bay cover and remove screw ①.
3. Slide the cover in the direction of the arrow ② (as illustrated) until the case markers ③ line up.
4. Remove the bay cover ④.



- a. Remove the screw.
- b. Remove the cover

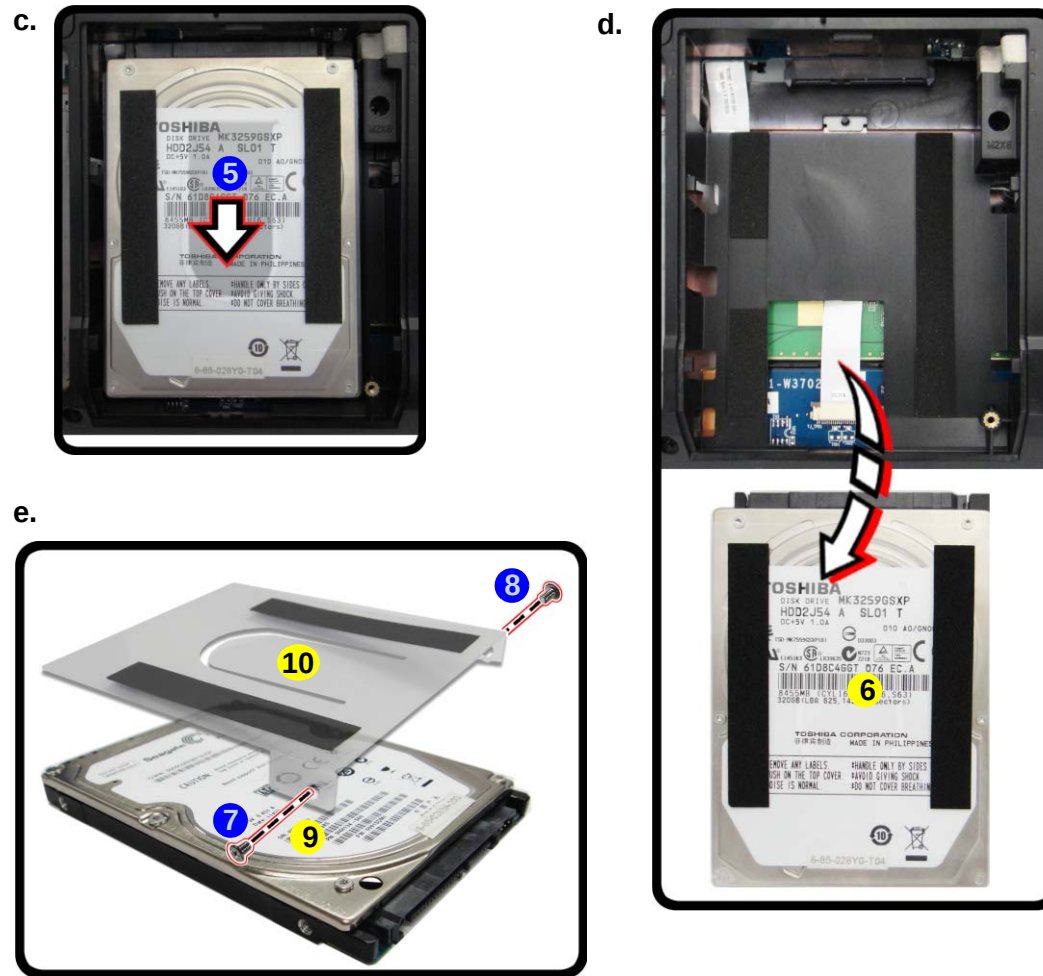
- 
4. Hard Disk Bay Cover
- 1 Screw

Disassembly

Figure 4 HDD Assembly Removal (cont'd.)

- c. Slide the hard disk assembly out.
- d. Lift the hard disk assembly out of the computer.
- e. Remove the screws to release the hard disk from the mylar.

5. Grip the tab and slide the hard disk in the direction of arrow 5 (Figure 4e).
6. Lift the hard disk assembly 6 out of the computer.
7. Remove screws 7 - 8.
8. Separate the hard disk 9 and hard disk mylar 10.
9. Reverse the process to install a new hard disk(s).



- 9. Hard Disk
- 10. Hard Disk Mylar

- 2 Screws

Hard Disk Size Note (Foam Rubber Insert)

Note that the hard disks pictured on the following pages are all 9.5mm(H) hard disk drives. In some cases 7mm(H) hard disk drives will be installed.

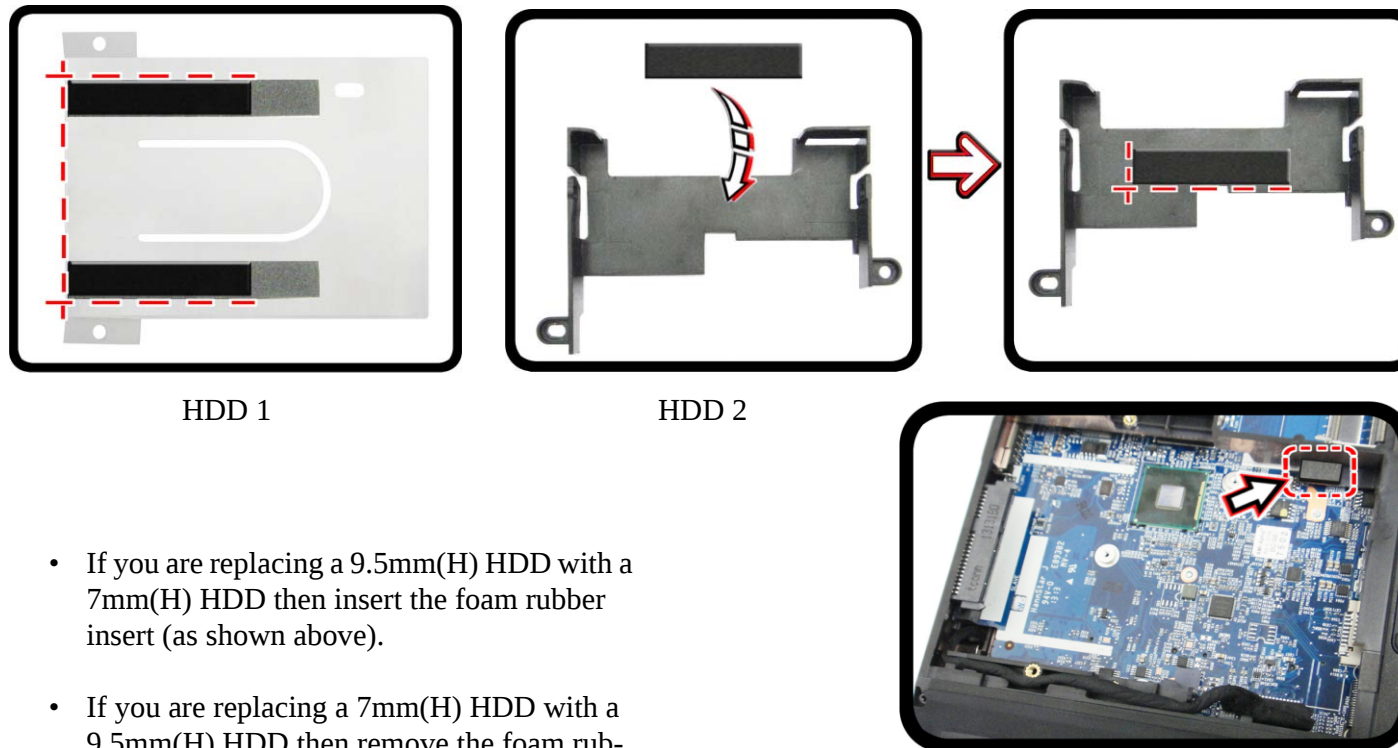


Figure 5
**Foam Rubber
Insert for 7mm(H)
HDDs**

- If you are replacing a 9.5mm(H) HDD with a 7mm(H) HDD then insert the foam rubber insert (as shown above).
- If you are replacing a 7mm(H) HDD with a 9.5mm(H) HDD then remove the foam rubber insert.

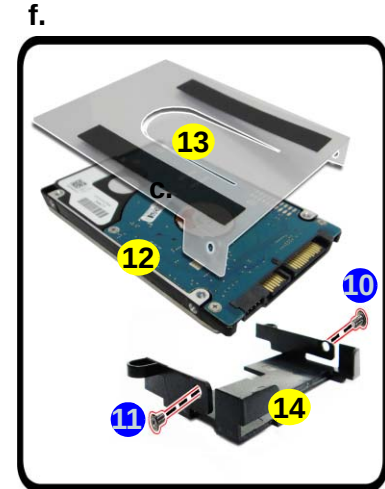
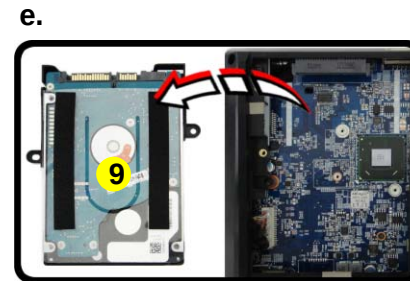
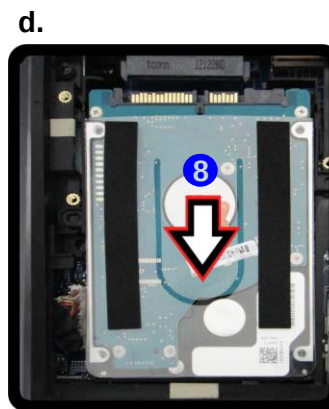
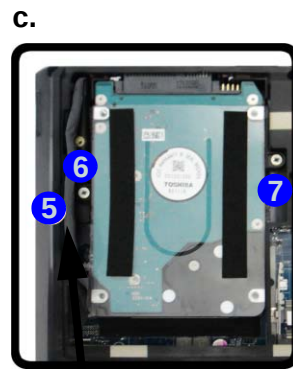
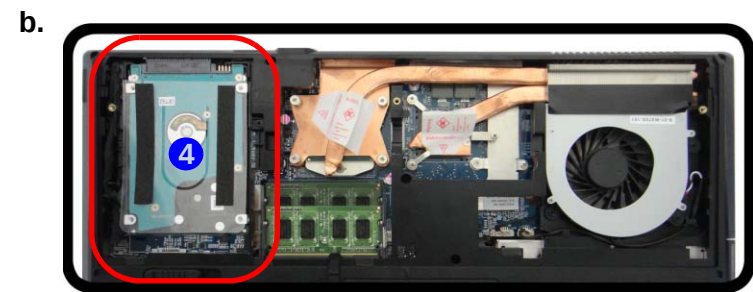
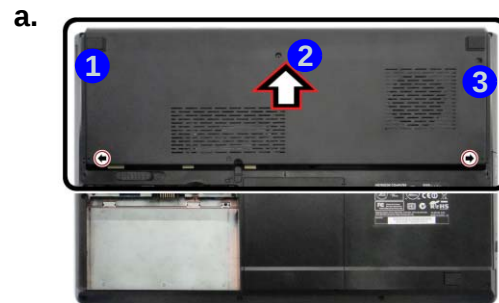
Disassembly

Figure 6
**Secondary HDD
Assembly Removal**

- Remove the screws and cover.
- Locate the hard disk.
- Remove the screws.
- Slide the hard disk assembly out.
- Lift the hard disk assembly out of the computer.
- Remove the screws and separate the HDD(s) from case.

Removing the Hard Disk(s) in the Secondary HDD Bay

- Turn **off** the computer, and turn it over and remove the battery.
- Locate the component bay cover and remove screws **1** - **3** and the cover.
- The hard disk will be visible at point **4** on the mainboard.
- Remove screws **6** - **7** (Note that you need to set aside the cable **5** to see the screw **6**).
- Grip the tab and slide the hard disk in the direction of arrow **8** (*Figure 6e*).
- Lift the hard disk assembly **9** out of the compartment.
- Remove the screws **10** - **11** to release the hard disk(s) **12** and hard disk mylar **13** from the case **14**.
- Reverse the process to install any new hard disk(s).



12. Hard Disk
13. Hard Disk Mylar
14. Hard Disk Case

- 7 Screws

Note:

Re-insert the cable **5** after reinstalling the hard disk assembly and tightening the screws.

Removing and Installing the Processor

Processor Removal Procedure

1. Turn off the computer, and turn it over, remove the battery ([page 2 - 5](#)), and component bay cover ([page 2 - 10](#)).
2. The CPU heat sink will be visible at point **A** on the mainboard.
3. Remove screws **7**, **6**, **5**, **4**, **3**, **2**, **1**, the reverse order indicated on the label ([Figure 7b](#)).
4. Grip the heat sink tab **8** and carefully lift the heat sink **9** up straight (**do not angle it as you lift it**) about a centimeter in order to clear the fan unit, and then angle it around 45° to remove it from the computer.

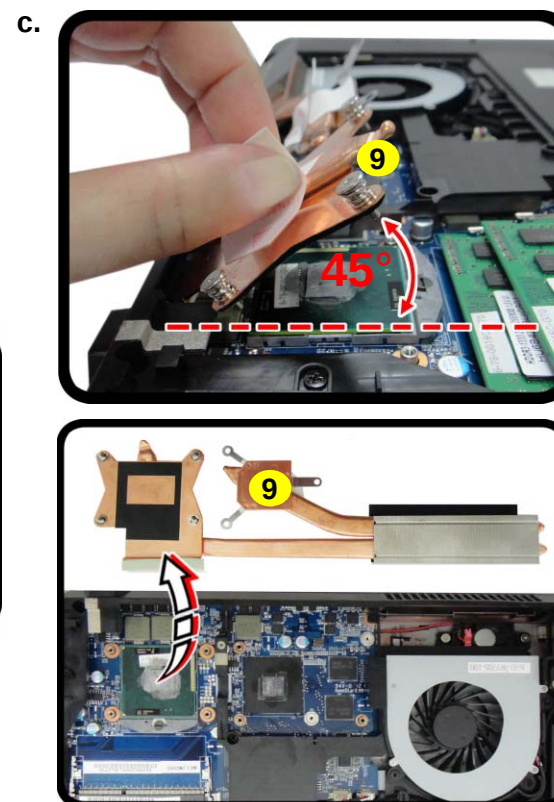
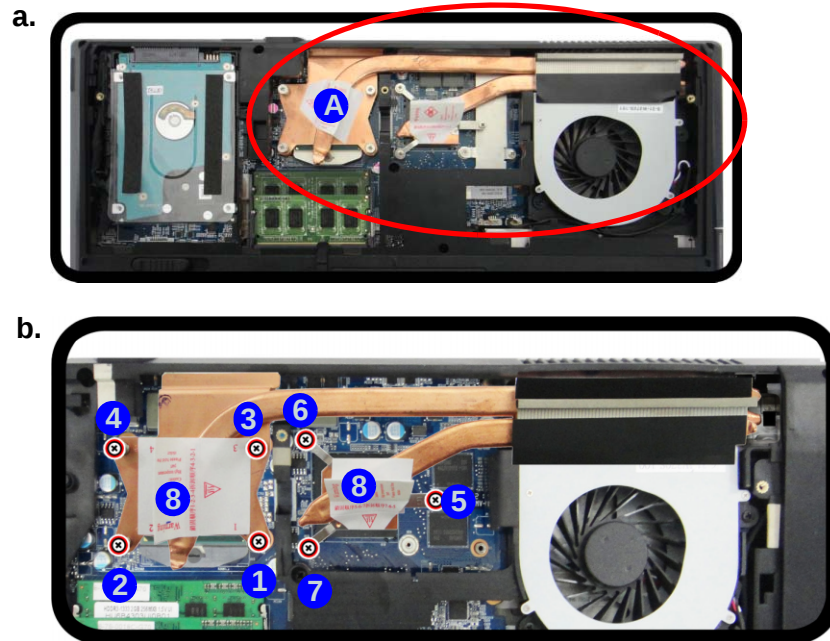


Figure 7
Processor Removal

- a. Locate the heat sink.
- b. Remove the screws.
- c. Grip the heat sink tab and carefully lift the heat sink up and off the computer.



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.



9. CPU Heat Sink

- 7 Screws

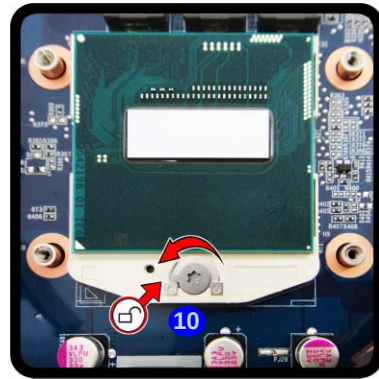
Disassembly

Figure 8
Processor Removal
(cont'd)

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

5. Turn the release latch **10** towards the unlock symbol  to release the CPU (*Figure 8d*).
6. Carefully (it may be hot) lift the CPU **11** up and out of the socket (*Figure 8e*).
7. Reverse the process to install a new CPU.
8. When re-inserting the CPU, pay careful attention to the pin alignment, it will fit only one way (DO NOT FORCE IT!).

d.

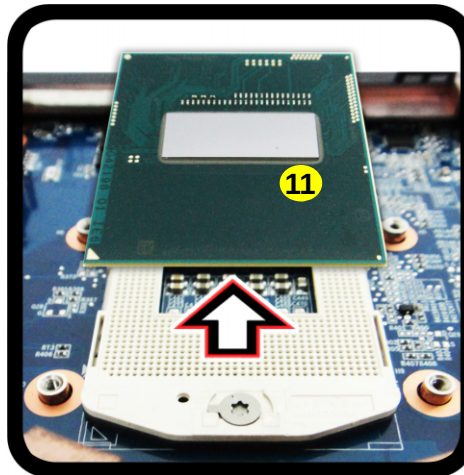


Unlock



Lock

e.



Caution

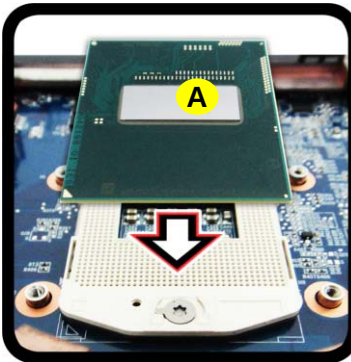
The heat sink, and CPU area in general, contains parts which are subject to high temperatures. Allow the area time to cool before removing these parts.

11. CPU

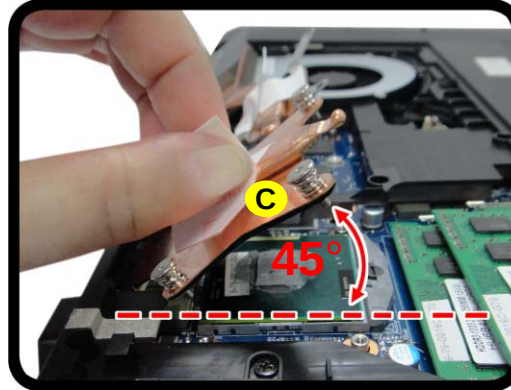
Processor Installation Procedure

1. Insert the CPU **A** (**Figure 9a**), 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 9b**).
2. Insert the heat sink **C** at an angle of around 30° as indicated in **Figure 9c**.
3. Tighten the CPU heat sink screws in the order **1**, **2**, **3**, **4**, **5**, **6** & **7** (the order as indicated on the label and **Figure 9d**).
4. Replace the component bay cover.

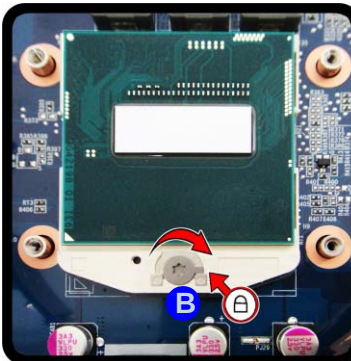
a.



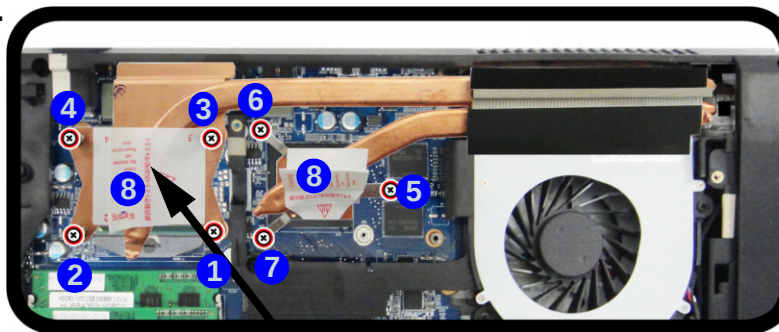
c.



b.



d.



Note:
Tighten the screws in the order as indicated on the label.

Figure 9
Processor Installation

- a. Insert the CPU.
- b. Turn the release latch towards the lock symbol.
- c. Insert the heat sink.
- d. Tighten the screws.



A. CPU
C. Heat Sink

- 7 Screws

Disassembly

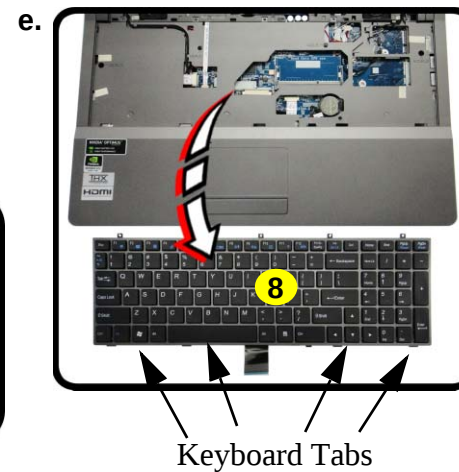
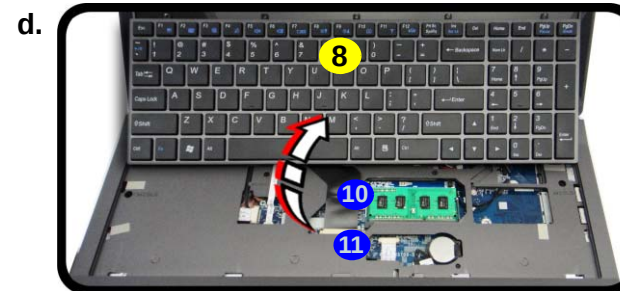
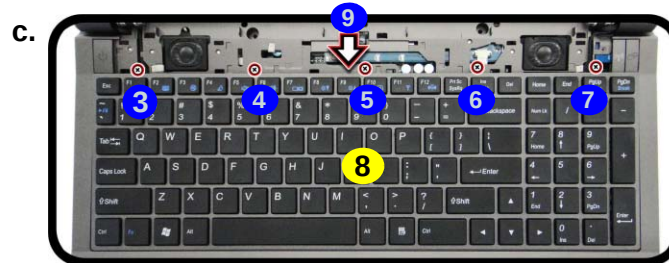
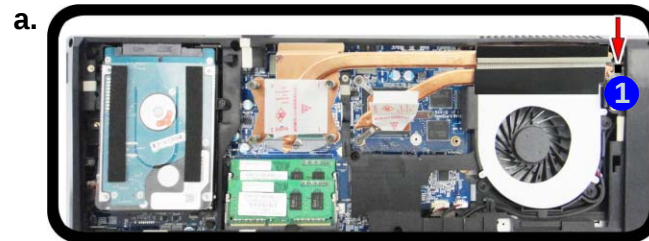
Figure 10

Keyboard Removal

- Use a screwdriver to carefully push out the speakers cover at point 1.
- Turn the computer over, unsnap the LED cover module upward from the center of the computer.
- Remove screws from the keyboard. Carefully lift the keyboard up.
- Disconnect the keyboard ribbon cable from the locking collar socket by using a flat-head screwdriver to pry the locking collar pins away from the base.
- Remove the keyboard.

Removing the Keyboard

- Turn off the computer, and turn it over and remove the battery (page 2 - 5), and component bay cover (page 2 - 10).
- Use a screwdriver to carefully push out the speakers cover 2 at point 1.
- Turn the computer over, unsnap the speaker cover 2 upward from the center of the computer (Figure 10b).
- Remove screws 3 - 7 from the keyboard (Figure 10c).
- Carefully lift the keyboard 8 up from point 9, being careful not to bend the keyboard ribbon cable 10.
- Disconnect the keyboard ribbon cable 10 from the locking collar socket 11 by using a flat-head screwdriver to pry the locking collar pins away from the base (Figure 10d).
- Carefully lift up the keyboard 8 (Figure 10e) off the computer.



Re-Inserting the Keyboard

When re-inserting the keyboard firstly align the **four** keyboard tabs at the bottom (Figure 10e) at the bottom of the keyboard with the slots in the case.

- 
- 2. Speaker Cover
 - 8. Keyboard
 - 5 Screws

Removing the System Memory (RAM)

The computer has **three** memory sockets for 204 pin Small Outline Dual In-line (SO-DIMM) **DDR3L** type memory modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

Note that **three SO-DIMMs are only supported by Quad-Core CPUs; Dual-Core CPUs support two SO-DIMMs maximum.**

Two primary memory sockets are located under component bay cover (the bottom case cover), and one secondary memory sockets are located under the keyboard. If you are installing only two RAM modules then they should be installed in the primary memory sockets under the component bay cover.

Primary System Memory Upgrade Process

1. Turn **off** the computer, turn it over and remove the battery ([page 2 - 5](#)) and remove the component bay cover ([page 2 - 10](#)).
2. The RAM modules will be visible at point **1** on the mainboard.
3. Gently pull the two release latches (**2** & **3**) on the sides of the memory socket in the direction indicated by the arrows ([Figure 11b](#)). The RAM module **4** will pop-up ([Figure 11c](#)), and you can then remove it.
4. Pull the latches to release the second module if necessary.

Figure 11
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.

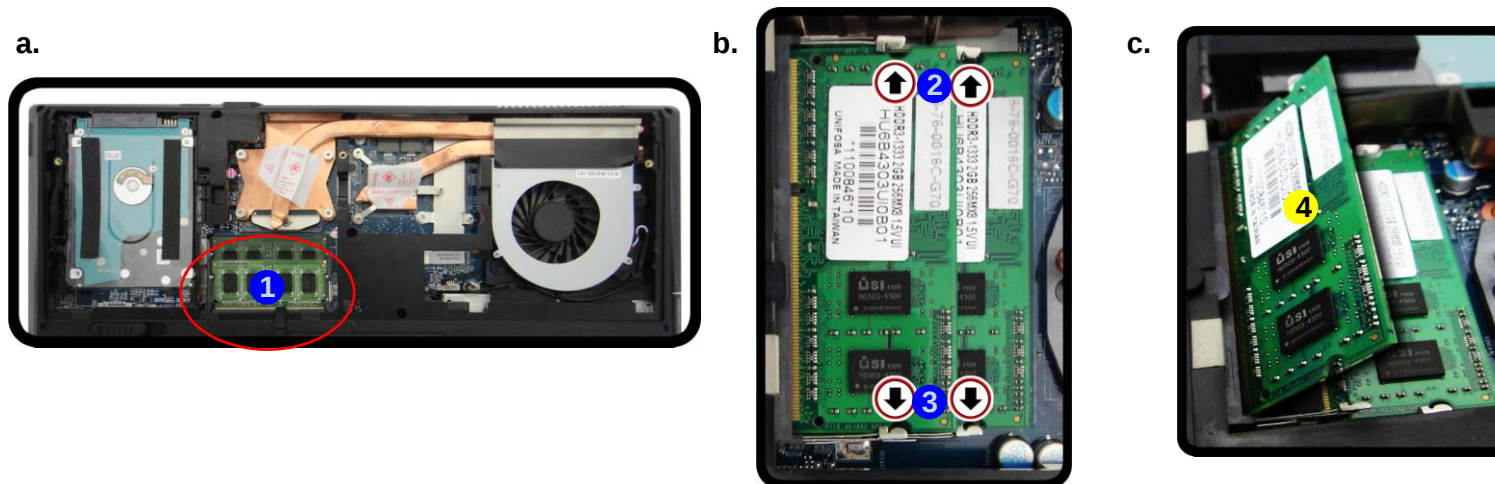


Contact Warning

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



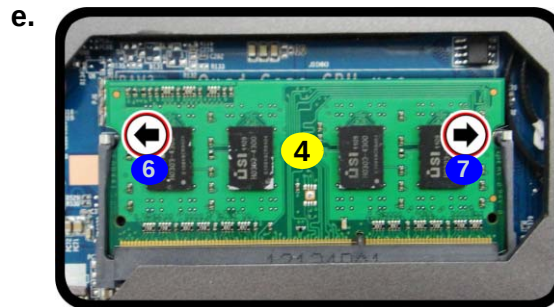
Disassembly

Figure 12
**RAM Module
(under keyboard)
Removal**

- d. The secondary RAM modules will be visible at point **5**.
- e. Pull the two release latches (**6** & **7**) on the sides of the memory socket(s) in the direction indicated below.
- f. Remove the module.

Memory (under Keyboard) Upgrade Process

- 5. Turn **off** the computer, turn it over and remove the battery ([page 2 - 5](#)), component bay cover ([page 2 - 10](#)) and keyboard ([page 2 - 14](#)).
- 6. The memory sockets will be visible at point **5** ([Figure 12d](#)).
- 7. Gently pull the two release latches (**6** & **7**) on the sides of the memory socket(s) in the direction indicated below.
- 8. The RAM module **4** will pop-up, and you can remove it.



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.



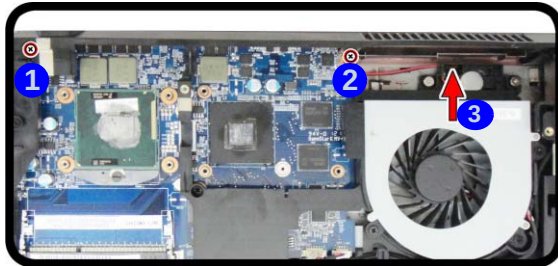
4 RAM Module

- 9. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
- 10. 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.
- 11. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
- 12. Replace the bay cover and screws.
- 13. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

Removing the Hinge Cover

1. Turn off the computer, turn it over and remove the battery ([page 2 - 5](#)), and component bay cover ([page 2 - 10](#)).
2. Remove screws ① - ② and use a screwdriver to carefully push out the hinge cover ④ at point ③.
3. Turn the computer over, carefully lift the hinge cover ④ out of the computer ([Figure 13b](#)).

a.



b.



Figure 13
Hinge Cover Removal

- a. Remove the screws and use a screwdriver to push out the hinge cover.
- b. Turn the computer over, remove the hinge cover.



4. Hinge Cover

- 2 Screws

Appendix A: Part Lists

This appendix breaks down the *W350SSQ* 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 Lists

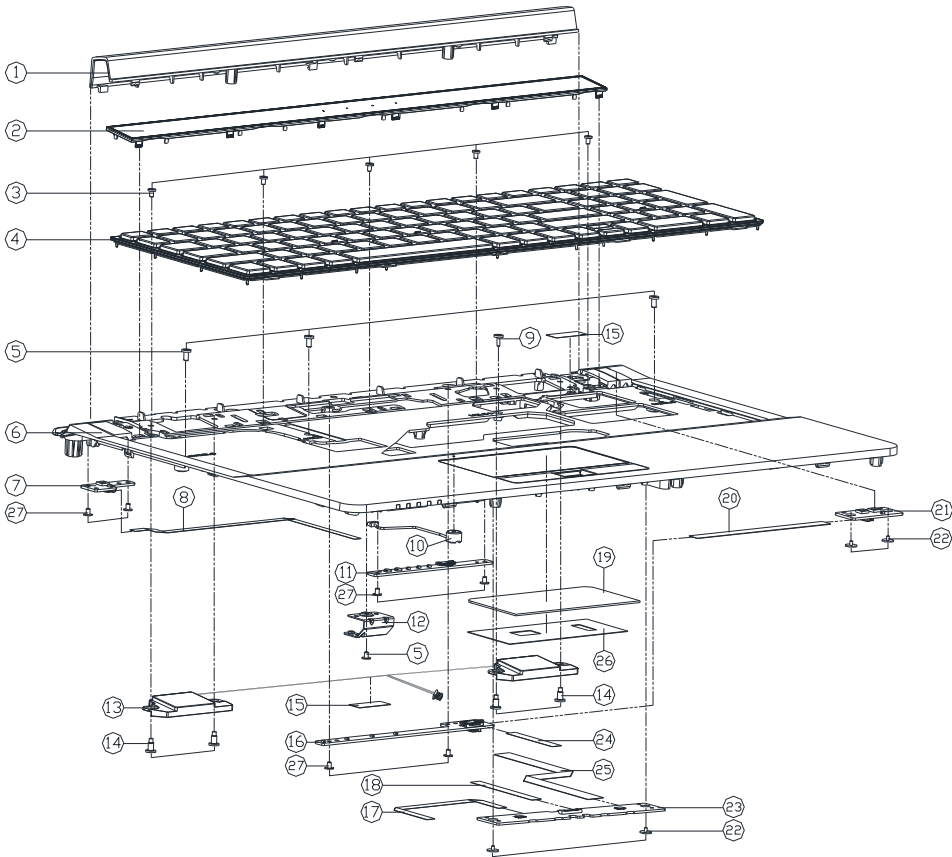
Part List Illustration Location

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

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

Parts	
Top with Fingerprint	<i>page A - 3</i>
Top without Fingerprint	<i>page A - 4</i>
Bottom	<i>page A - 5</i>
LCD	<i>page A - 6</i>
HDD	<i>page A - 7</i>
2nd HDD	<i>page A - 8</i>
Combo	<i>page A - 9</i>
DVD	<i>page A - 10</i>

Top with Fingerprint



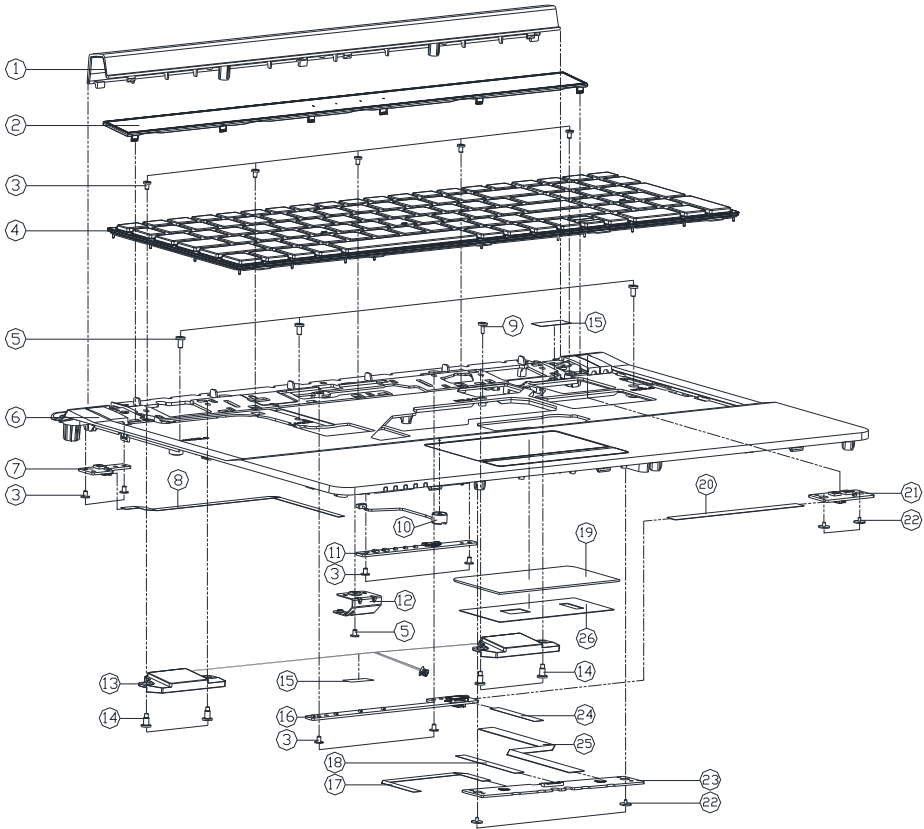
ITEM	PART NAME	PART NO	REMARK
1	HINGE COVER PC+ABS W350EQCHANGE	6-42-W35E2-032	
2	KB COVER MODULE W350STQ	6-42-W35S7-100	
3	SCREW M2x4L KI NI ICT NY (DD=14.5,DT=0.4)	6-35-B1120-4RE	
4	WNB K/B US/BLACK/FRAMOUS MODULE W350TQ/W37ST	6-79-W370STQ-010-W	
5	SCREW M2.5x5L KI BK/Z ICT NY	6-35-B6125-5RA	
6	PRE-PROCESS/TP CASE (W/FINGER) ASSY W350STQ	6-78-W350STQ2-020	
6	PRE-PROCESS/TP CASE (W/FINGER FOR EGGITEC FP) ASSY W350SSQ	6-78-W350SSQ2-020	
7	POWER SWITCH BOARD V1.0 W350STQ	6-77-W35SS-D01	
8	FFC CABLE FOR Wb TO POWER BOARD 8PIN (C/LUS) W350ET	6-43-W35E0-031	
9	SCREW M2x5L K1K1=0.8 D=4.0 BK/Z ICT NY	6-35-B6120-5R0	
10	MC 6000S0025-F0-0 INVOY 22K V(CABLE)PC+ABS L=60MM W=37MM (C/LUS)	6-23-EM55G-011-2	
10	D-MIC 8.0MMx7.55MM W/CABLE(C/LUS) L=160MM W370ST	6-23-EW37S-010	
11	POWER LED BOARD V1.0 W350STQ	6-77-W35S4-D01	
12	TOP CASE BOSS BKT SECC W350ETQ	6-33-W35E2-010	
13	SPK CABLE FRONT RLL SH20 TS2 20W 4P E09080A P180W	6-23-5P15E-0S1	
13	SPK CABLE FRONT RLL SH20 TS2 20W 4P E09080A P180W	6-23-5P15S-011	
14	SCREW M2x6.2L NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
15	TAPE MYLAR TRANSPARENT (20x10x0.05) P180W	6-40-P1803-020	
16	LID VGA LED BOARD V1.0 W350STQ	6-77-W35SS-D01	
17	FFC CABLE FOR FRONT LED TO CLICK BOARD (C/LUS) W350ET	6-43-W35E2-021	
18	FFC CABLE FOR TP TO CLICK BOARD 8PIN P180W (C/LUS)	6-43-X5102-011-2	
19	TOUCH PAD SYMPHONY TM-80146-003 MULTI-GESTURE C4800	6-49-C4802-010	
20	FFC CABLE FOR KEY KEY TO HALL SENSOR 8PIN (C/LUS) W350ET	6-43-W35E2-011	
21	VGA SW BOARD V1.0 W350STQ	6-77-W35S7-D01	
21	VGA SW BOARD V1.0 W350SSQ	6-77-W35S7-D01-A	
22	SCREW M2x2L KI BK/Z ICT NY (06.1=0.5)	6-35-B6120-2RC	
23	CLICK BOARD V2.0 (W/FP) W350STQ	6-77-W35S2-D02	
23	CLICK BOARD V3.0 (W/FP) W350STQ	6-77-W35S2-D03	
24	FFC CABLE FOR Wb TO HALL SENSOR BOARD 8PIN (C/LUS) W350ET	6-43-W35E0-040	
25	FFC CABLE FOR CLICK BOARD TO Wb 20PIN (C/LUS) W350ET	6-43-W35E0-021	
26	MYLAR FOR TOUCHPAD (TRANSPARENT) MYLAR-1254PMS W400U	6-40-W3402-020	
27	SCREW M2x3L KI NI ICT NY (DD=04.5,DT=0.4)	6-35-B1120-3RE	

Figure A - 1
Top with
Fingerprint

Part Lists

Top without Fingerprint

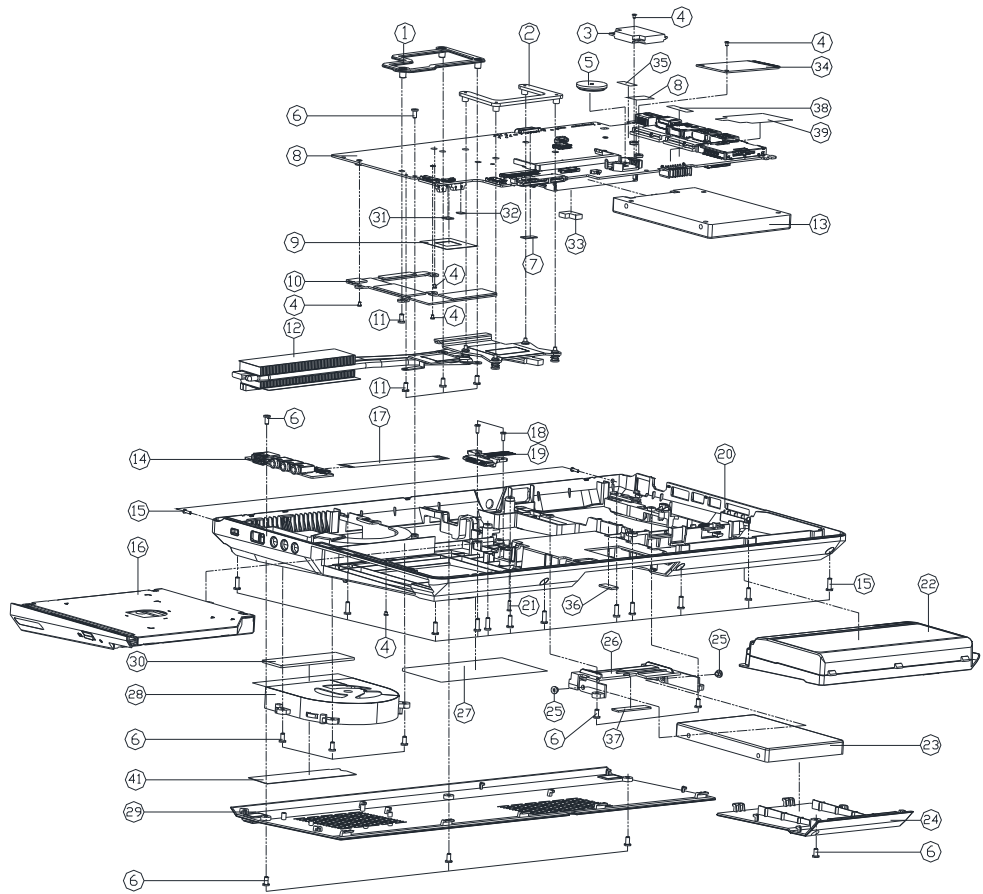
Figure A - 2
Top without
Fingerprint



ITEM	PART NAME	PART NO	REMARK
1	HINGE COVER PC+ABS W/350ETORCHANGE	6-42-W35E2-032	
2	KB COVER MODULE W350STQ	6-42-W35S7-100	
3	SCREW M2x3.5 L1 NI ICT NY (DD=045,01-04)	6-35-B1120-3RE	
4	W/0 K/B US/UK/ADA FRAME/OD MODULE W350STQ/V370ST	6-79-W370STQ-010-W	
5	SCREW M2.5x5.5 L1 BK/Z ICT NY	6-35-B6125-5RA	
6	PRE-PROCESS/TP CASE (W/O FINGER) ASSY W350STQ	6-78-W350STQ2-010	
6	PRE-PROCESS/TP CASE (W/O FINGER) ASSY W350SSQ	6-78-W350SSQ2-010	
7	POWER SWITCH BOARD V1.0 W350STQ	6-77-W35SS-D01	
8	FTC CABLE FOR W/O TO POWER BOARD (PIN CLOU) W350ET	6-43-W35E0-031	
9	SCREW M2x5.5 L1 (T=0.8 D=4.0) BK/Z ICT NY	6-35-B6120-5RO	
10	W/0 (S)S5005-FL-0 W/0 22W W/0 22W W/0 22W W/0 22W	6-23-EM55G-011-2	
10	W/0 22W W/0 22W W/0 22W W/0 22W W/0 22W	6-23-EW37S-010	
11	POWER LED BOARD V1.0 W350STQ	6-77-W35S4-D01	
12	TOP CASE BOSS BKT SECC W350ETQ	6-33-W35E2-010	
13	SPK CABLE FROM PNL S400 152 22W 4P COPPER W/0 22W	6-23-SP15E-0S1	
13	SPK CABLE FROM PNL S400 152 22W 4P COPPER W/0 22W	6-23-SP15S-011	
14	SCREW M2x6.2 L1 NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
15	TAPE MYLAR TRANSPARENT (20x10x0.05) P1800W	6-40-P1803-020	
16	LID VGA LED BOARD V1.0 W350STQ	6-77-W35S5-D01	
17	FTC CABLE FOR FRONT LED TO CLICK (PIN CLOU) W350ET	6-43-W35E2-021	
18	FTC CABLE FOR TP TO CLICK BOARD (PIN CLOU) W350ET	6-43-X5102-011-2	
19	TOUCH PAD SYMPLECTIC TM-H146-003 MULTI-GEASURE C4800	6-49-C4802-010	
20	FTC CABLE FOR HOT KEY TO HALL SENSOR (PIN CLOU) W350ET	6-43-W35E2-011	
21	VGA SW BOARD V1.0 W350STQ	6-77-W35S7-D01	
21	VGA SW BOARD V1.0 W350SSQ	6-77-W35S7-D01-A	
22	SCREW M2x2 L1 BK/Z ICT NY (06.1-05)	6-35-B6120-2RC	
23	CLICK BOARD V2.0 (W/O FP) W350STQ	6-77-W35S2-D02-1	
23	CLICK BOARD V3.0 (W/O FP) W350STQ	6-77-W35S2-D03-1	
24	FTC CABLE FOR W/O TO HALL SENSOR BOARD (PIN CLOU) W350ET	6-43-W35E0-040	
25	FTC CABLE FOR CLICK BOARD TO W/O 20PIN (CLOU) W350ET	6-43-W35E0-021	
26	MYLAR FOR TOUCHPAD TRANSPARENT MYLAR (TESAPAS) W/0 22W	6-40-W3402-020	

A - 4 Top without Fingerprint

Bottom



ITEM	PART NAME	PART NO	REMARK
1	VGA SUPPORTER SECC W/SSERO	6-33-W35S-012	
2	CPU SUPPORT BRACKET SEC 14.5 PPHM	6-33-XS10S-011	
3	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-88-W545F-9400	(OPTION)
3	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-88-W545F-7000	(OPTION)
3	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-88-P3702-7000	(OPTION)
3	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-88-P3702-9400	(OPTION)
3	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-88-P375F-9600	(OPTION)
3	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-88-W230F-4210	(OPTION)
3	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-88-W230F-4200	(OPTION)
4	SCREW W/HD K1 NI ICT NY (00W4SL014)	6-35-B1120-38E	
5	BATTERY 3V ZIGMA CR2032 (MITSUBISHI)	6-23-6201S-607	
6	SCREW M2.5xSL K1 BK/Z ICT NY	6-35-B612S-5RA	
7	CABLE (150cm) 4pin D for USB BOARD M50A	6-47-00190-12J	
8	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-77-W355SS00-B0A-1	
8	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-77-W355SS00-B0A-1	
8	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-77-W355SS00-B0A-1	
8	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-77-W355SS00-B0A-1	
9	VGA CAP MAIN CONNECTOR FOR M2.5xSL K1	6-40-W3570-010	
10	VRAM THERMAL MODULE W/SSSSD	6-31-W35SN-103	
11	SCREW M2.5xSL K1 NI ICT NY	6-35-B112S-5RA	
12	CPU THERMAL MODULE W/SSSSD	6-31-W35SN-100	
13	W/HD & W/HD ASSY W/SSSSD	6-79-W355SK0-J-030	
13	W/HD ASSY W/SSSSD	6-79-W355SK0-J-030	
13	W/HD ASSY W/SSSSD	6-79-W355SK0-J-030	
14	AUDIO BOARD V20 W/SSSSD	6-77-W355B-105	
15	SCREW M2.5xSL K1 BK/Z NY ICT	6-35-B612S-6R0	
16	W/D DVD ASSY W/SSSSD (OPTION)	6-79-W355D102-000	(OPTION)
16	SATA DVD SUPER MULTI ASSY (OPTION)	6-79-W355SS00-010	(OPTION)
16	SATA DVD SUPER MULTI ASSY (OPTION)	6-79-W355D100-030	(OPTION)
16	SATA BLU-RAY COMBO ASSY (OPTION)	6-79-W355SS0W-000	(OPTION)
17	ITE CHIP FOR AUDIO BOARD TO M2.5xSL K1	6-43-W35C0-011	
18	SCREW W/HD K1 NI ICT NY (00W4SL014)	6-35-B612S-5R0	
19	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-23-FW35E-011	
20	BOTTOM CASE MODULE W/SSSSD (OPTION)	6-39-W35E3-012	
21	SCREW M2.5xSL K1 BK/Z ICT NY	6-35-B612S-6R0	
22	W/HD & W/HD ASSY W/SSSSD	6-87-W375S-427	
23	W/HD & W/HD ASSY W/SSSSD	6-79-W355SK0-J-030	
23	W/HD & W/HD ASSY W/SSSSD	6-79-W355SK0-J-040	
24	HDD COVER MODULE W/SSSSD	6-42-W35E3-100	
25	SCREW W/HD K1 NI ICT NY (00W4SL014)	6-35-B612S-400	
26	SECOND HDD MODULE W/SSSSD	6-42-W35E3-100	
27	PRODUCT LABEL FOR W/SSSSD	6-45-W355SS03-010	
27	PRODUCT LABEL FOR W/SSSSD	6-45-W355SS03-010	
28	FAN MODULE (CADD) W/SSSSD	6-31-W370S-101	
29	GPU COVER MODULE (CADD) RUBBER W/SSSSD	6-42-W35E8-102	
30	SPRINGER SPRING SPRING SPRING SPRING SPRING	6-47-0019A-660	
31	MB VGA SIDE RUBBER W/SSSSD	6-47-W35SS-010	
32	MB VGA SIDE MYLAR W/SSSSD	6-40-W35SS-020	
33	MB CPU SIDE RUBBER W/SSSSD	6-47-W35SS-030	
34	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-88-W545F-9400	
34	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-85-D40C8-A00	
34	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-85-D4032-A00	
34	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-85-D40R6-L00	
35	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-40-P1803-020	
36	SPRINGER SPRING SPRING SPRING SPRING SPRING	6-47-0019A-135	
37	HDD W/HD SPRING SPRING SPRING SPRING SPRING	6-47-0019A-405	
38	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-40-W55J2-030	
39	TV TUNER MODULE (CADD) W/SSSSD	6-40-XS10S-031	
40	MAIN BOARD V20A (Q/36,TPM) W/SSSSD	6-40-XS10S-020	
41	FAN MYLAR W/SSSSD	6-40-W35S3-010	

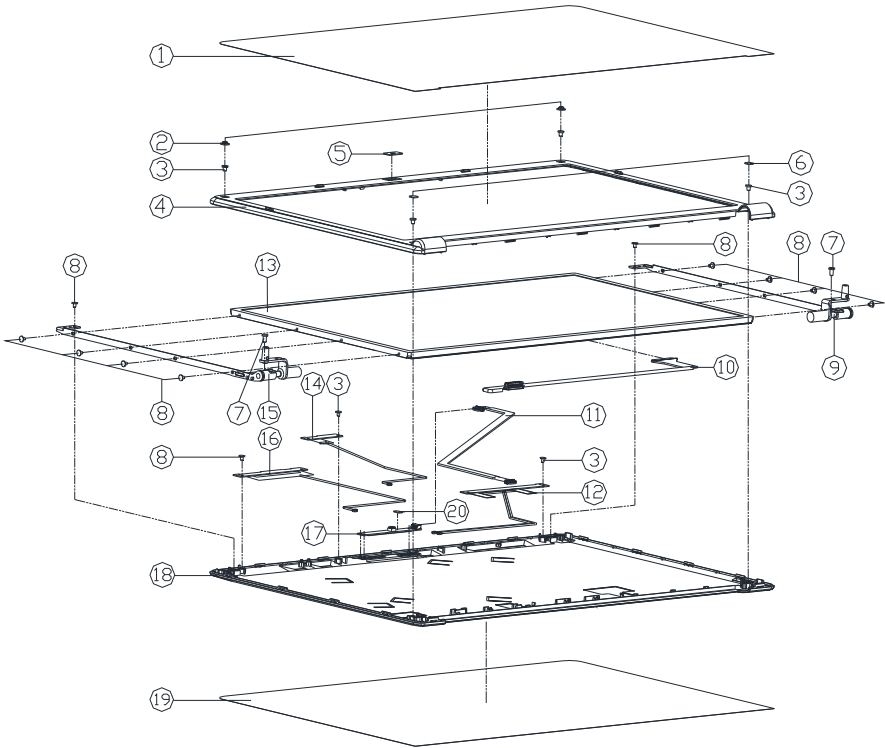
Figure A - 3
Bottom

A.Part Lists

Part Lists

LCD

Figure A - 4
LCD



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION RUBBER (W355STQ) 6-40-B51M8-010	6-40-B51M8-010	
2	LCD FRONT COVER SCREW RUBBER (W355STQ) 6-47-C4501-031	6-47-C4501-031	
3	SCREW M2.5x5L (W355STQ) 6-35-B6120-5R0	6-35-B6120-5R0	
4	LCD FRONT COVER MODULE AND PROTECTION RUBBER (W355STQ) 6-39-B51M1-015	6-39-B51M1-015	
5	CCD LENS PMMA M810L 6-42-M8101-012	6-42-M8101-012	
6	FRONT COVER PC FOR SCREW (W355STQ) 6-40-C4501-071	6-40-C4501-071	
7	SCREW M2.5x5L (W355STQ) 6-35-B6125-5R0	6-35-B6125-5R0	
8	W355STQ (W355STQ) 6-35-B1120-3RE	6-35-B1120-3RE	
9	HINGE R (SECC+SK7) W355STQ 6-33-W3551-0R2	6-33-W3551-0R2	FOR W355STQ
10	HINGE L (SECC+SK7) W355STQ 6-33-W3551-0L1	6-33-W3551-0L1	FOR W355STQ
11	WIRE CABLE FOR LCD TO W355STQ (W355STQ) 6-43-W3551-011-1C	6-43-W3551-011-1C	
12	WIRE CABLE SPIN TO SPIN FOR CCD (W355STQ) 6-43-W3551-010	6-43-W3551-010	
13	LCD 15.6" FHD (W355STQ) 6-50-LB255-V00	6-50-LB255-V00	
14	LCD 15.6" FHD (W355STQ) 6-50-LB257-L02	6-50-LB257-L02	
15	LCD 15.6" FHD (W355STQ) 6-50-LB257-L02	6-50-LB257-L02	
16	LCD 15.6" FHD (W355STQ) 6-50-LB257-L06	6-50-LB257-L06	
17	LCD 15.6" FHD (W355STQ) 6-50-LB255-D00	6-50-LB255-D00	
18	LCD 15.6" FHD (W355STQ) 6-50-LB255-D00	6-50-LB255-D00	
19	LCD 15.6" FHD (W355STQ) 6-50-LB255-D00	6-50-LB255-D00	
20	LCD 15.6" FHD (W355STQ) 6-50-LB255-D00	6-50-LB255-D00	

HDD

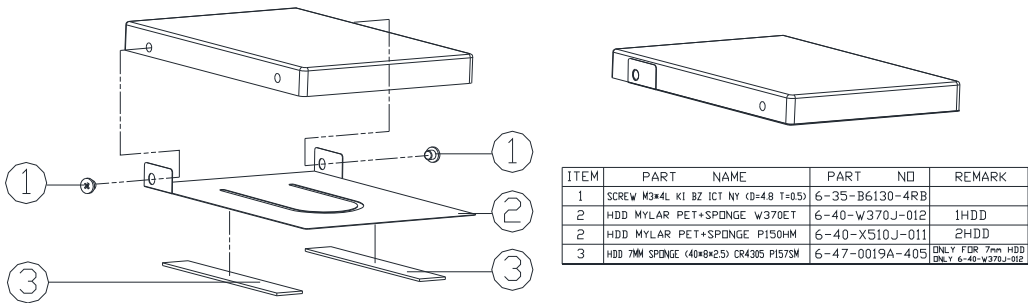
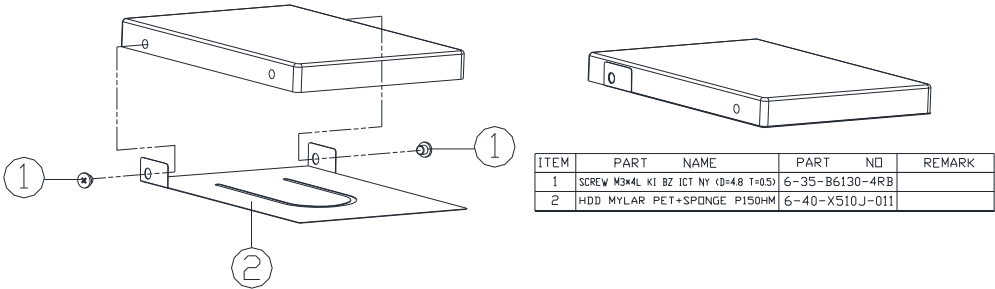


Figure A - 5
HDD

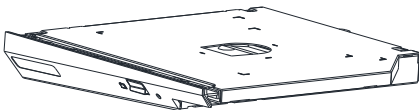
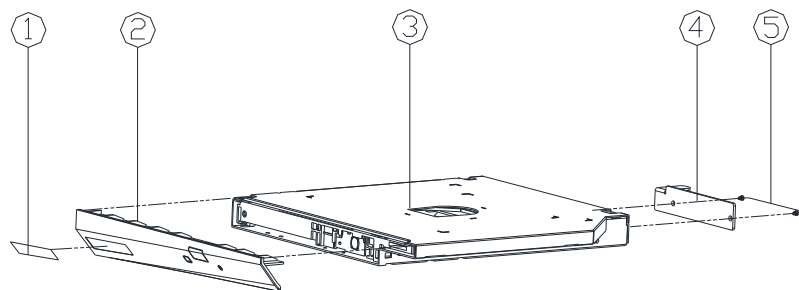
Part Lists

2nd HDD

Figure A - 6
2nd HDD



Combo



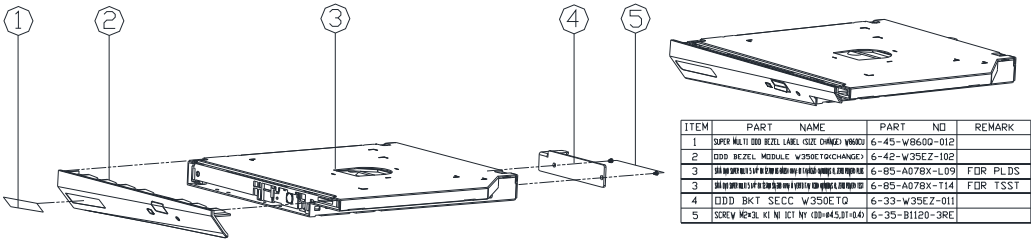
ITEM	PART NAME	PART NO	REMARK
1	BLU-RAY ODD BEZEL LABEL (SIZE CHANGED) W860C0	6-45-W860W-012	
2	ODD BEZEL MODULE W350E10CHCHANGE	6-42-W35EZ-102	
3	BLU-RAY ODD BEZEL (SIZE CHANGED) W860C0	6-85-B076X-1P1	FOR PANASONIC
3	BLU-RAY ODD BEZEL (SIZE CHANGED) W860C0	6-85-B076X-P25	FOR PANASONIC
4	ODD BKT SECC W350E10	6-33-W35EZ-011	
5	SCREW M2*3L KI NI ICT NY (OD=04.5,DT=0.4)	6-35-B1120-3RE	

Figure A - 7
Combo

Part Lists

DVD

Figure A - 8
DVD



Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the W350SSQ 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	VGA NVVDD Decoupling - Page B - 22	VDD3, VDD5 - Page B - 42
Haswell 1/7 - Page B - 3	Lynx 1/9 - Page B - 23	1.5V or 1.35V / 0.75VS, 1.5VS - Page B - 43
Haswell 2/7 - Page B - 4	Lynx 2/9 - Page B - 24	1.05VS, 1.05V_M, 1.05V_LAN_M - Page B - 44
Haswell 3/7 - Page B - 5	Lynx 3/9 - Page B - 25	Power V-Core - Page B - 45
Haswell 4/7 - Page B - 6	Lynx 4/9 - Page B - 26	VGA NVVDD, PEX_VDD - Page B - 46
Haswell 5/7 - Page B - 7	Lynx 5/9 - Page B - 27	FBVDDQ - Page B - 47
Haswell 6/7 - Page B - 8	Lynx 6/9 - Page B - 28	AC-In, Charger - Page B - 48
Haswell 7/7 - Page B - 9	Lynx 7/9 - Page B - 29	W370SS/W350SSQ Audio Board - Page B - 49
DDR SO-DIMM A_0 - Page B - 10	Lynx 8/9 - Page B - 30	W370SS/W35XSSQ Power LED Board - Page B -
DDR SO-DIMM B_0 - Page B - 11	Lynx 9/9 - Page B - 31	W370SS/W35XSSQ Click Board - Page B - 51
DDR SO-DIMM A_1 - Page B - 12	Mini PCIE, Fan, Audio Con - Page B - 32	W370SS Power Switch Board - Page B - 52
PS8625 - Page B - 13	USB Charge, CCD, TPM, Multi-Con - Page B - 33	W350SSQ Power Switch Board - Page B - 53
Panel, Inverter, CRT - Page B - 14	ESATA/USB3.0 Connector - Page B - 34	W370SS LID / VGA LED Board - Page B - 54
VGA PCI-E Interface - Page B - 15	Card Reader / LAN RTL8411B - Page B - 35	W35XSSQ LID / VGA LED Board - Page B - 55
VGA Frame Buffer Interface - Page B - 16	SATA HDD, VLED CON, LID SW - Page B - 36	W350SSQ VGA / WLAN SW Board - Page B - 56
VGA Frame Buffer A - Page B - 17	HDMI, RJ45 - Page B - 37	W355SSQ Power Switch Board - Page B - 57
VGA Frame Buffer A - Page B - 18	Audio Codec VT1802S - Page B - 38	W355SSQ VGA / WLAN SW Board - Page B - 58
VGA Frame Buffer B - Page B - 19	Audio AMP & Con - Page B - 39	POWER SEQUENCE - Page B - 59
VGA Frame Buffer B - Page B - 20	KBC ITE IT8587 - Page B - 40	
VGA I/O - Page B - 21	5V, 5VS, 3.3V, 3VS, 3.3VM - Page B - 41	

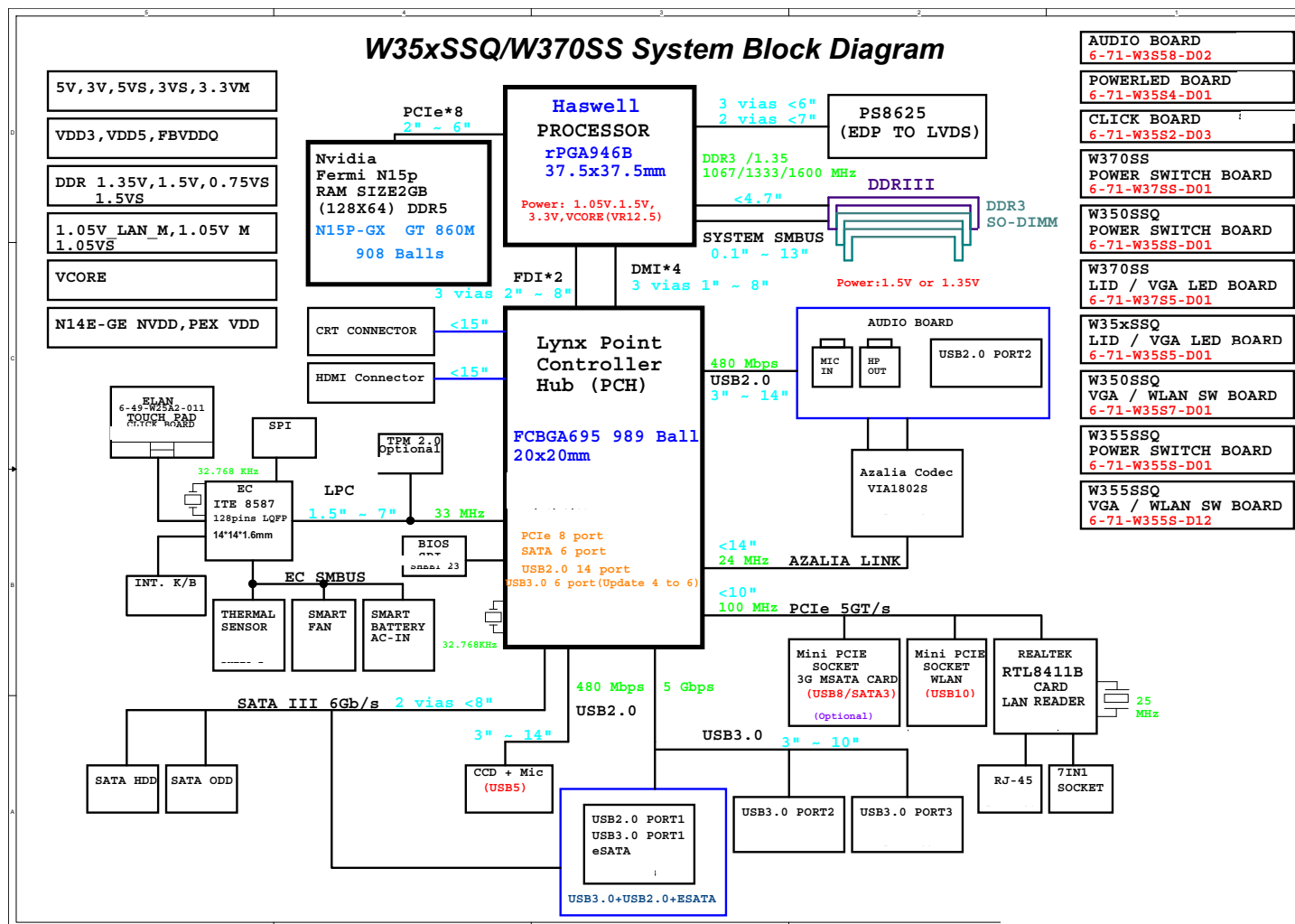
Table B - 1
Schematic
Diagrams



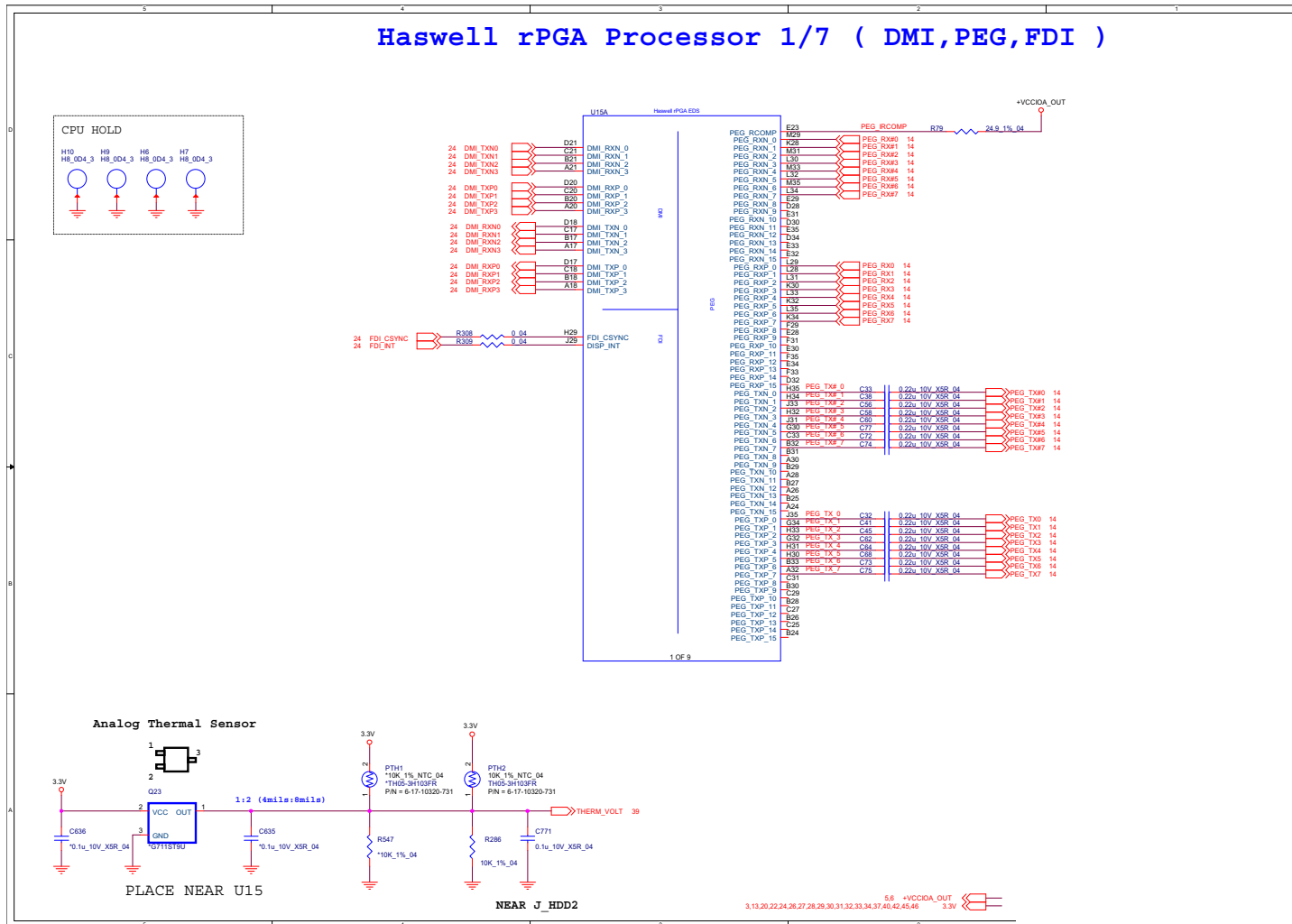
Version Note

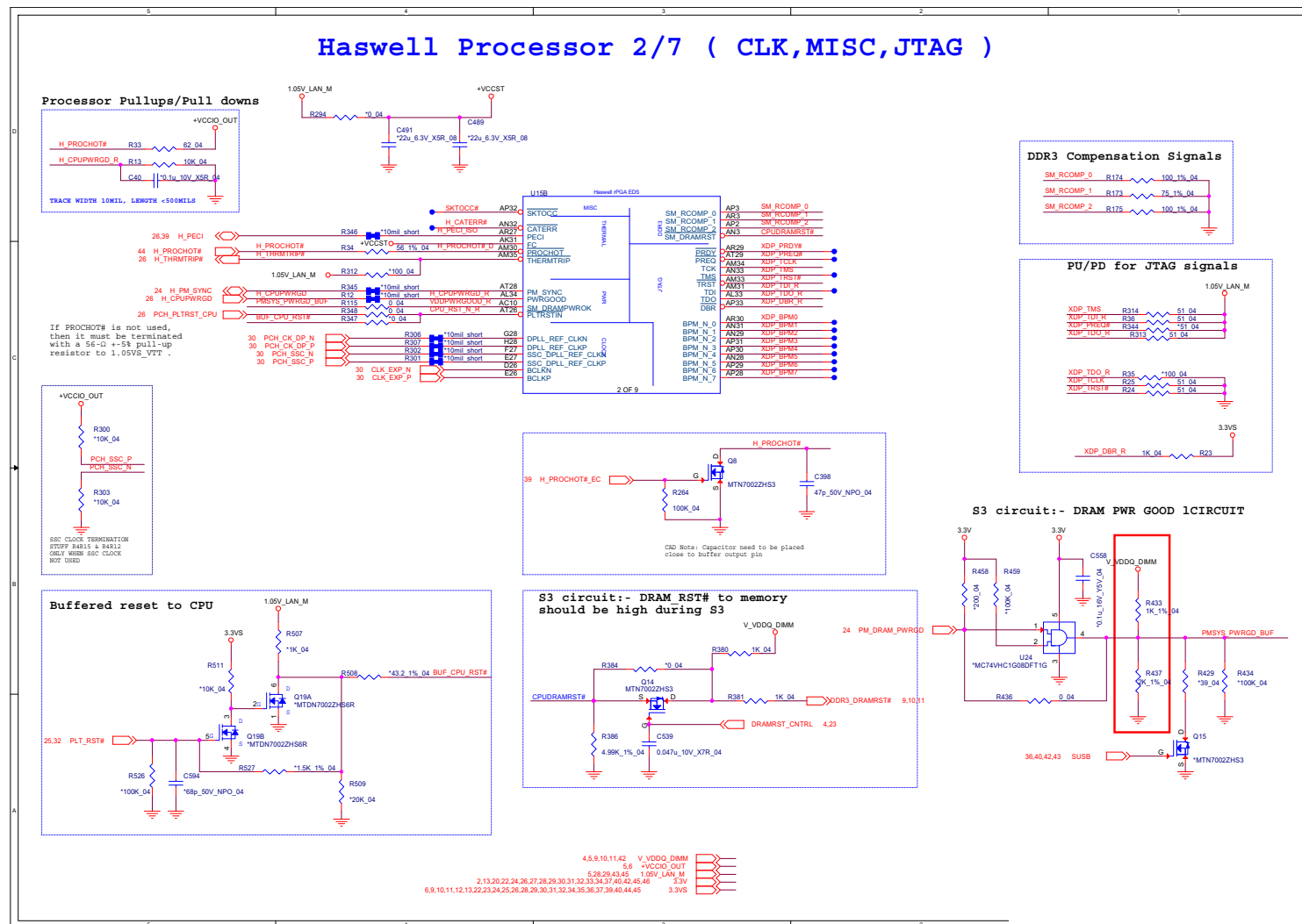
The schematic diagrams in this chapter are based upon version 6-7P-W355B-001. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

Sheet 1 of 57
System Block
Diagram

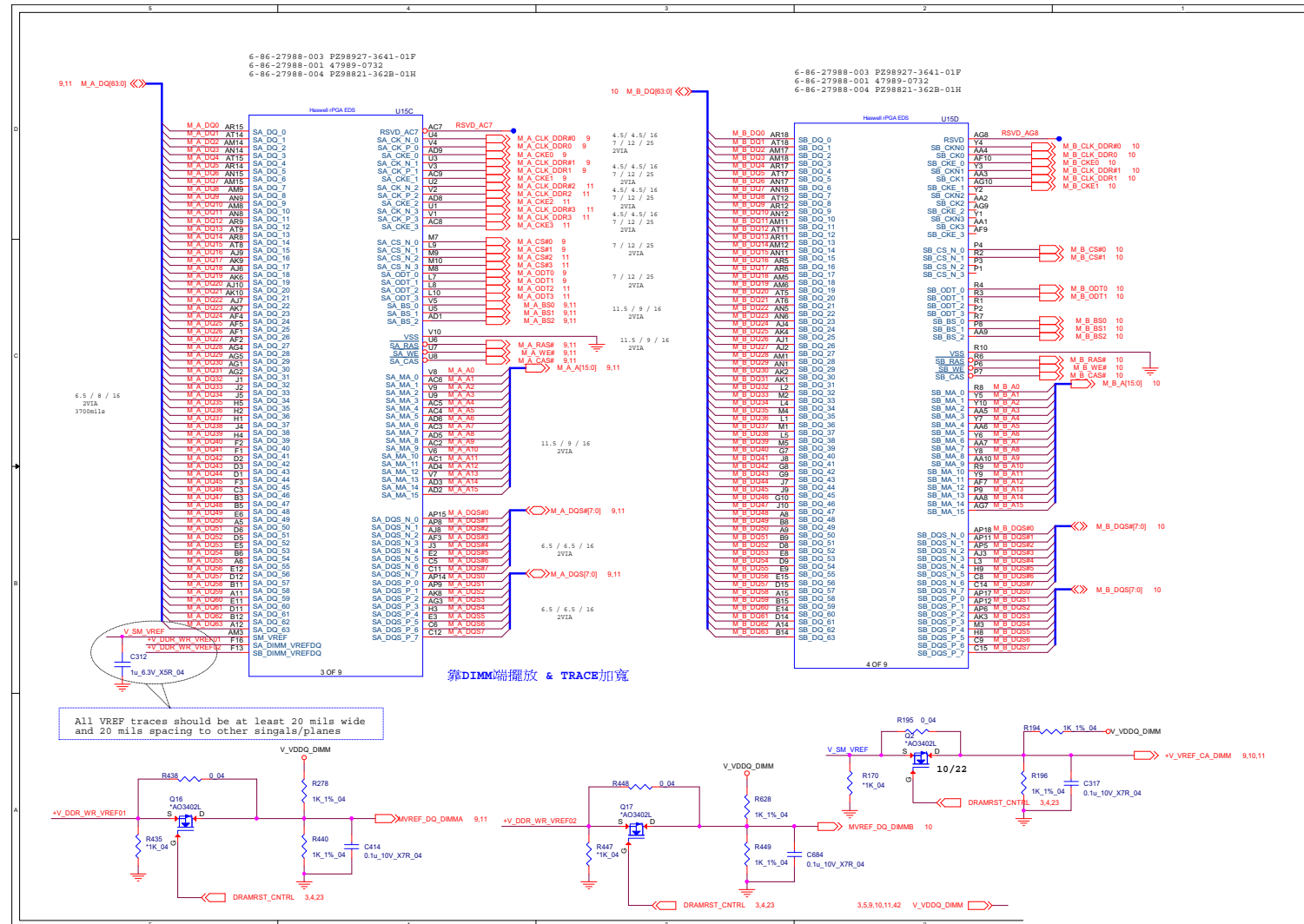


Haswell 1/7

Sheet 2 of 58
Haswell 1/7

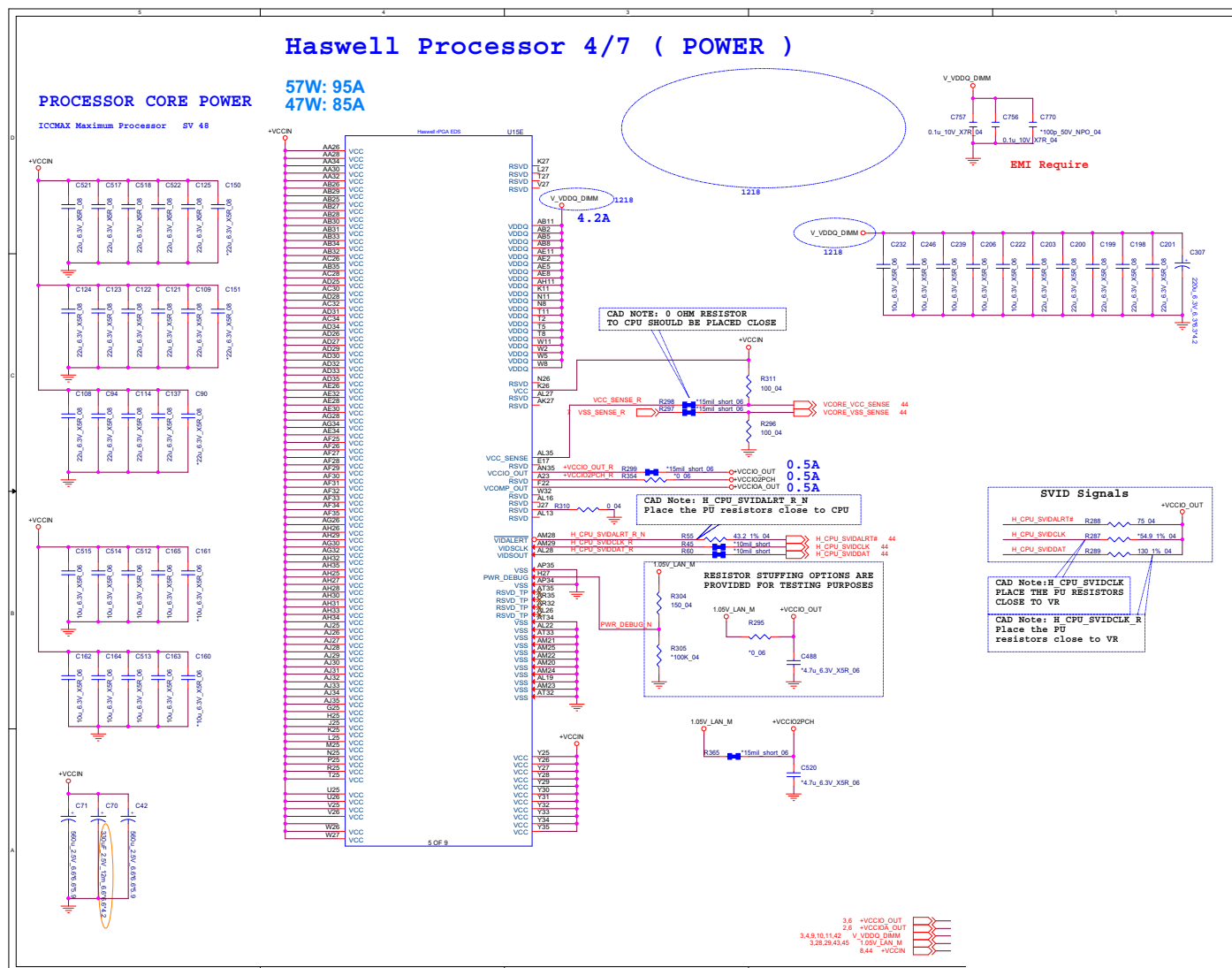


B.Schematic Diagrams



Haswell 4/7

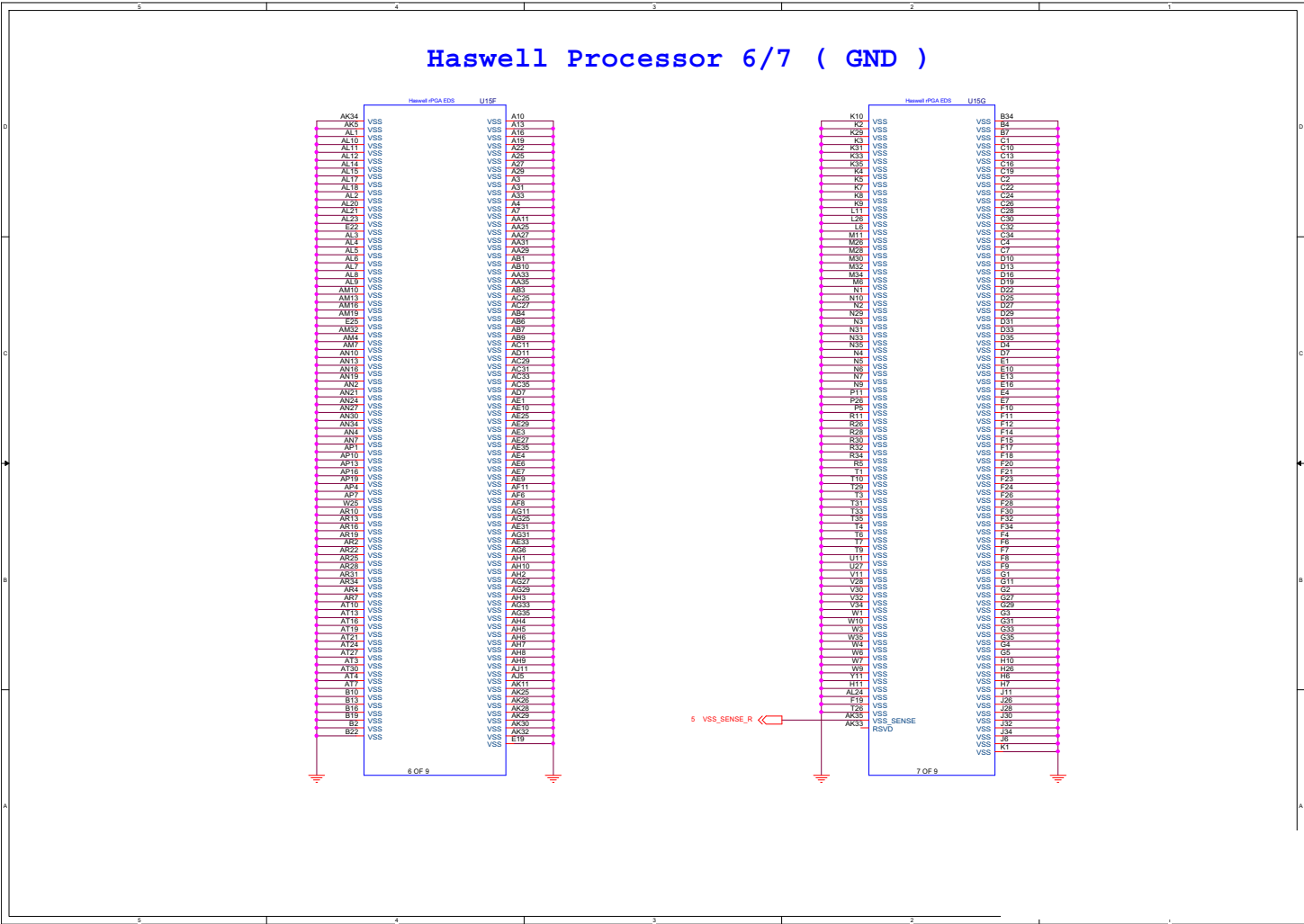
Sheet 5 of 58
Haswell 4/7



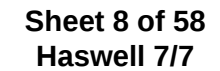
Haswell 5/7 B - 7



Haswell 6/7



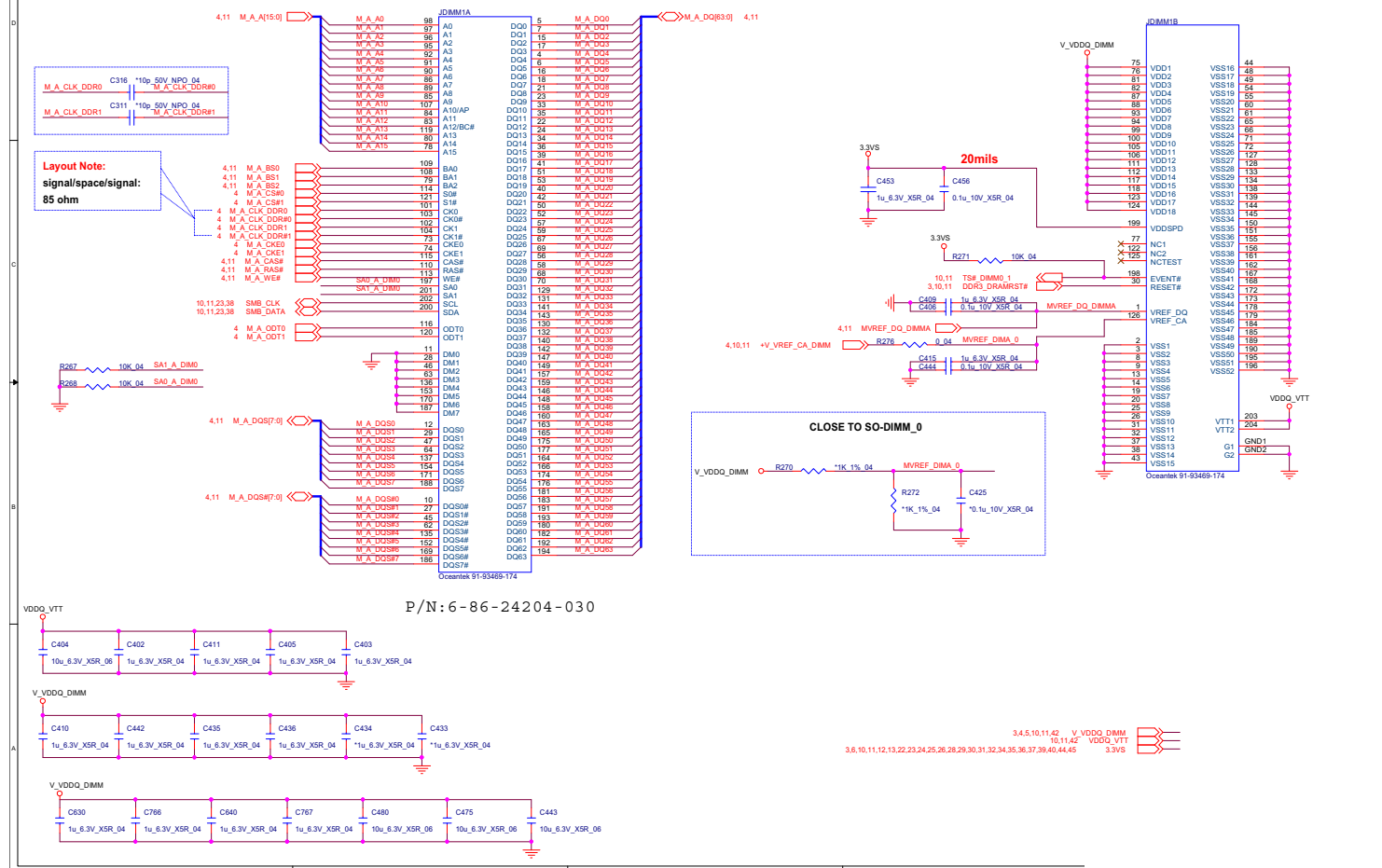
Haswell 7/7 B - 9



DDR SO-DIMM A_0

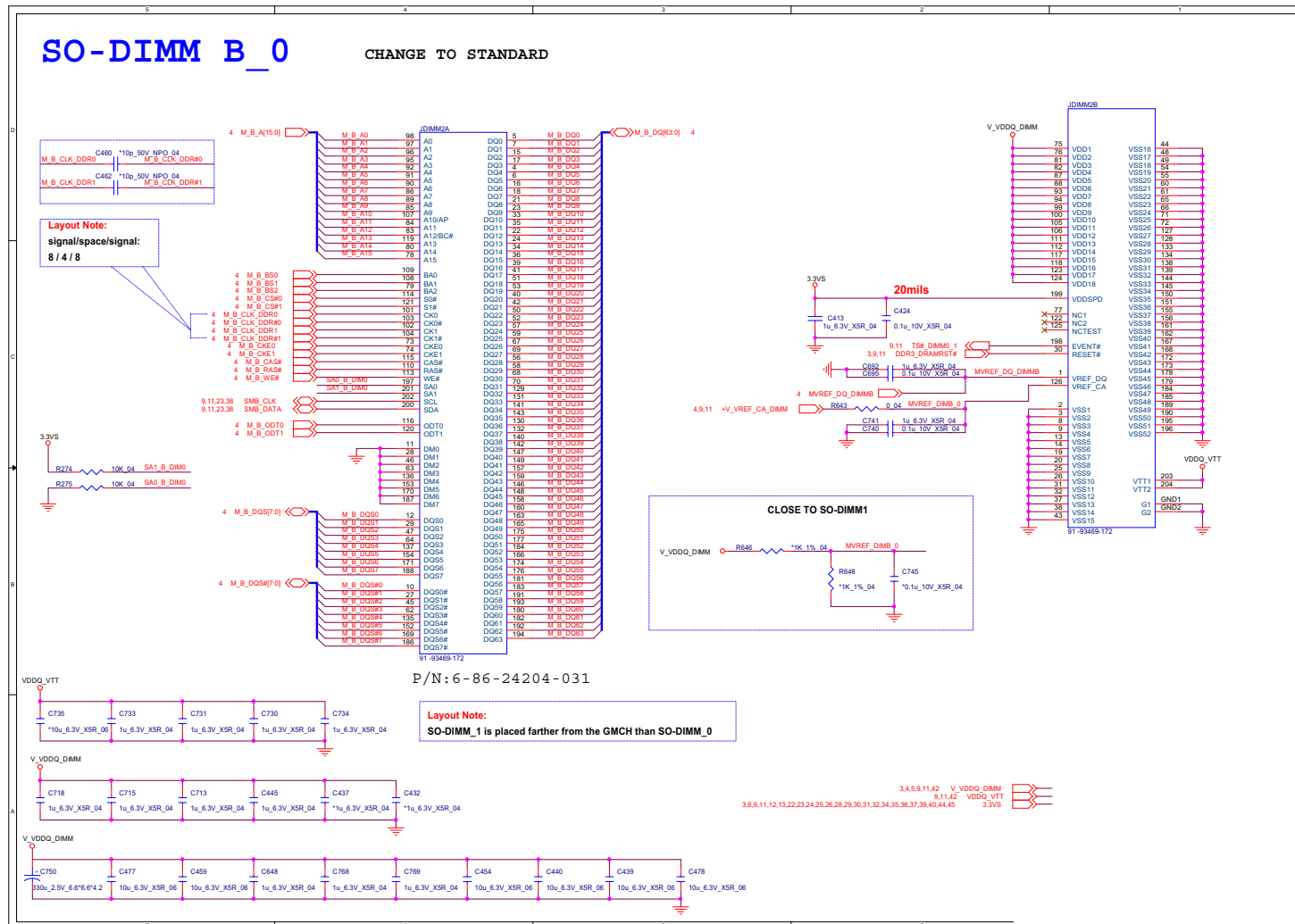
SO-DIMM A 0

CHANGE TO STANDARD



Schematic Diagrams

DDR SO-DIMM B_0



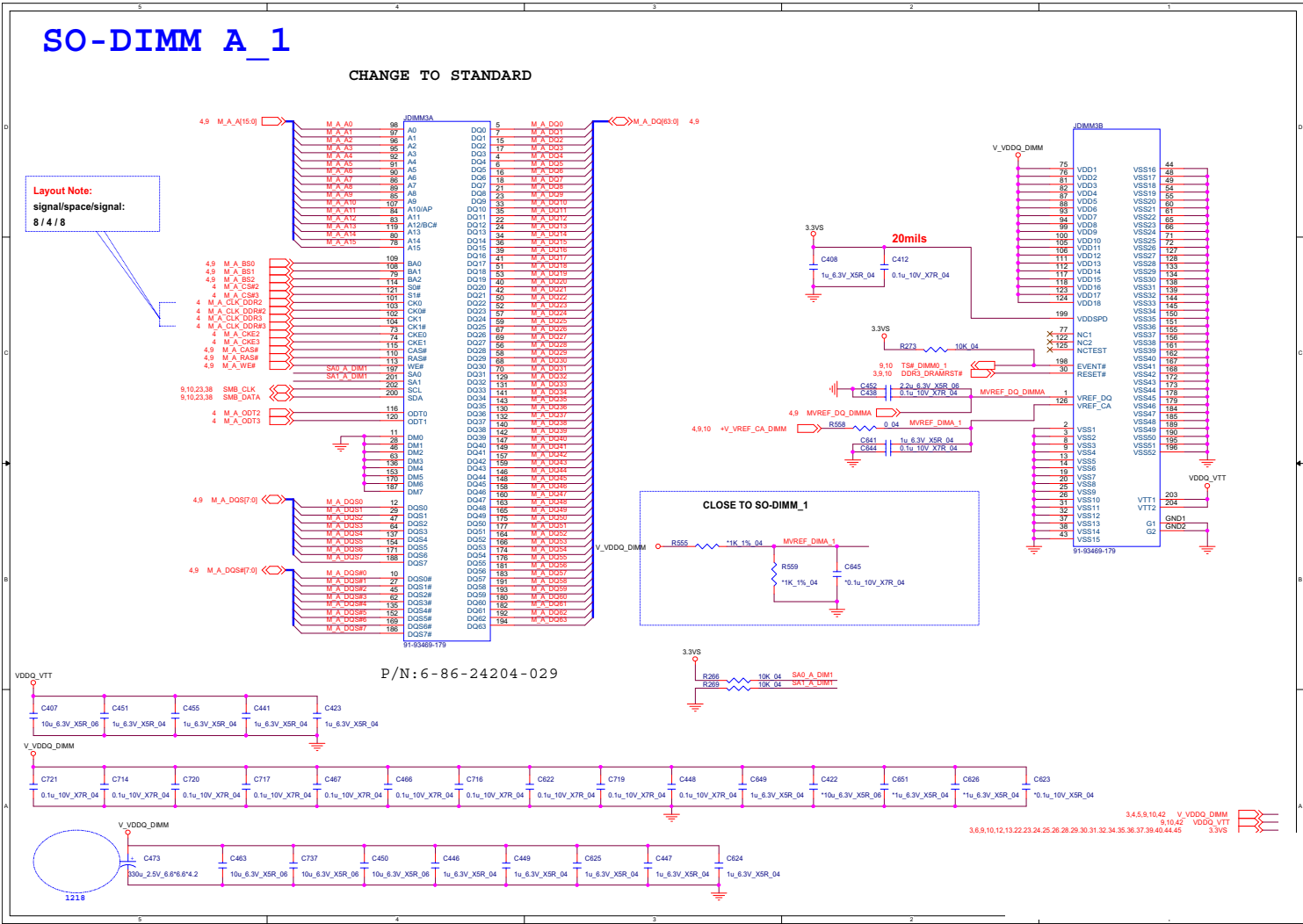
Sheet 10 of 58
DDR SO-DIMM B_0

B.Schematic Diagrams

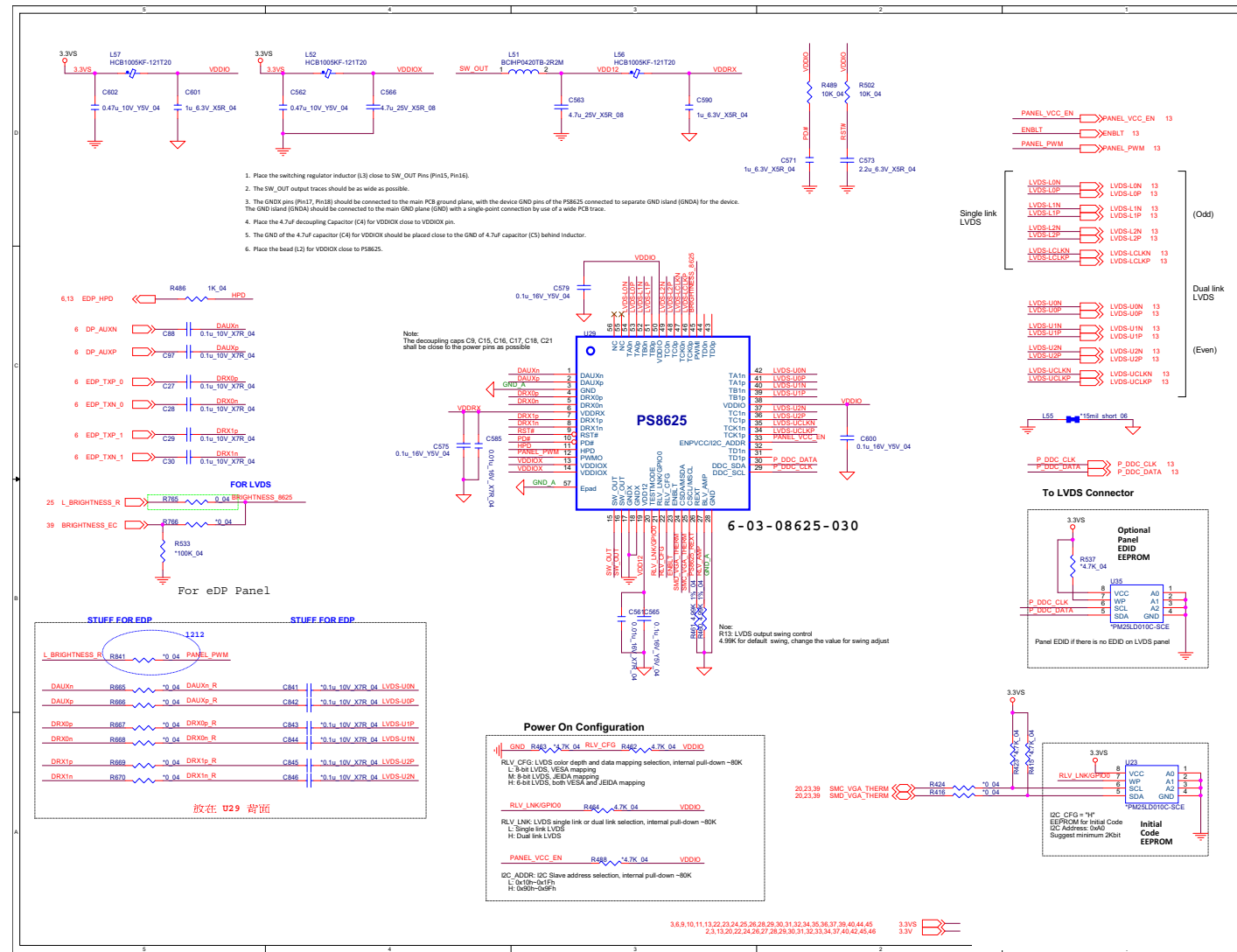
DDR SO-DIMM A 1

B. Schematic Diagrams

Sheet 11 of 58
DDR SO-DIMM A_1



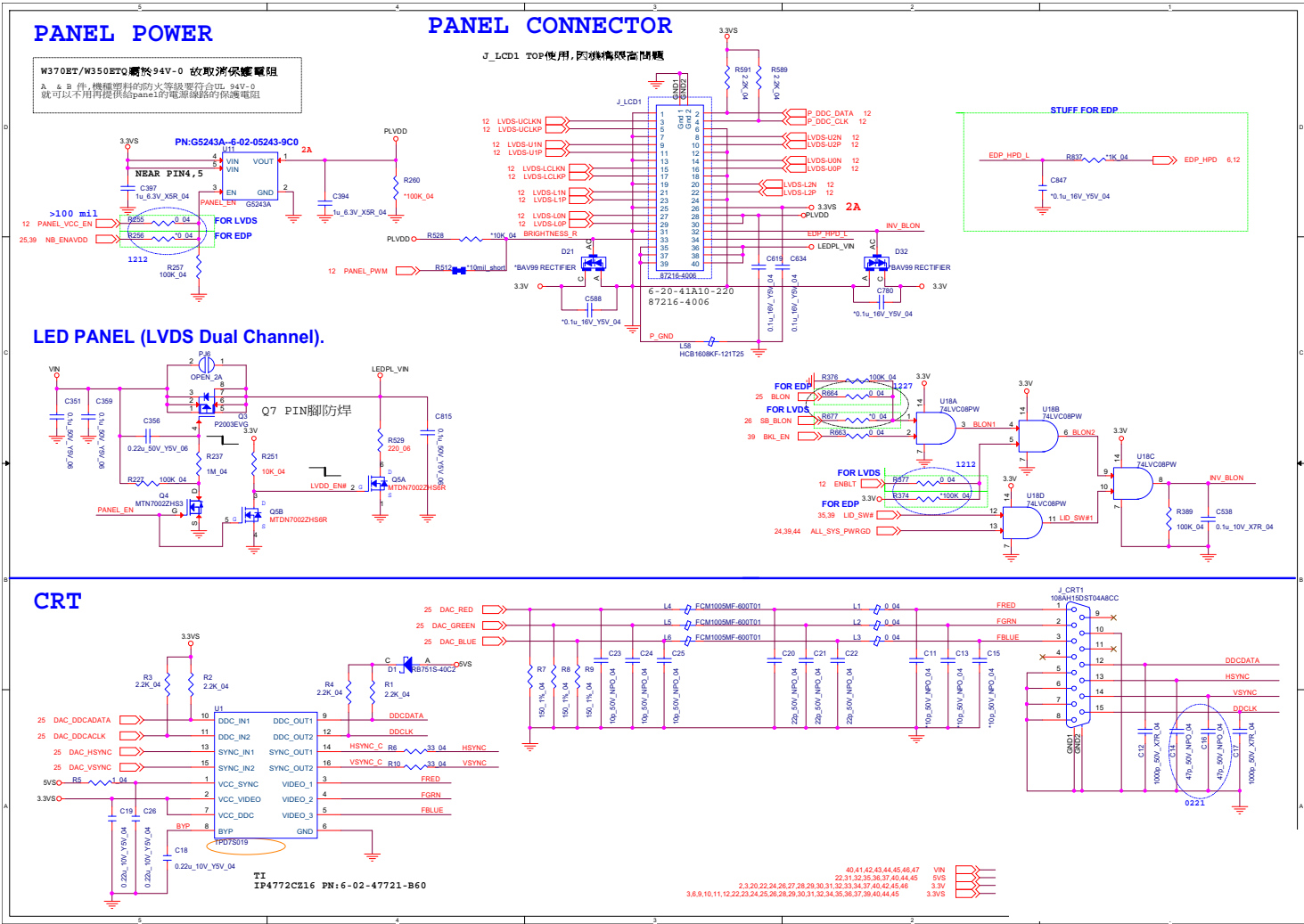
PS8625

Sheet 12 of 58
PS8625

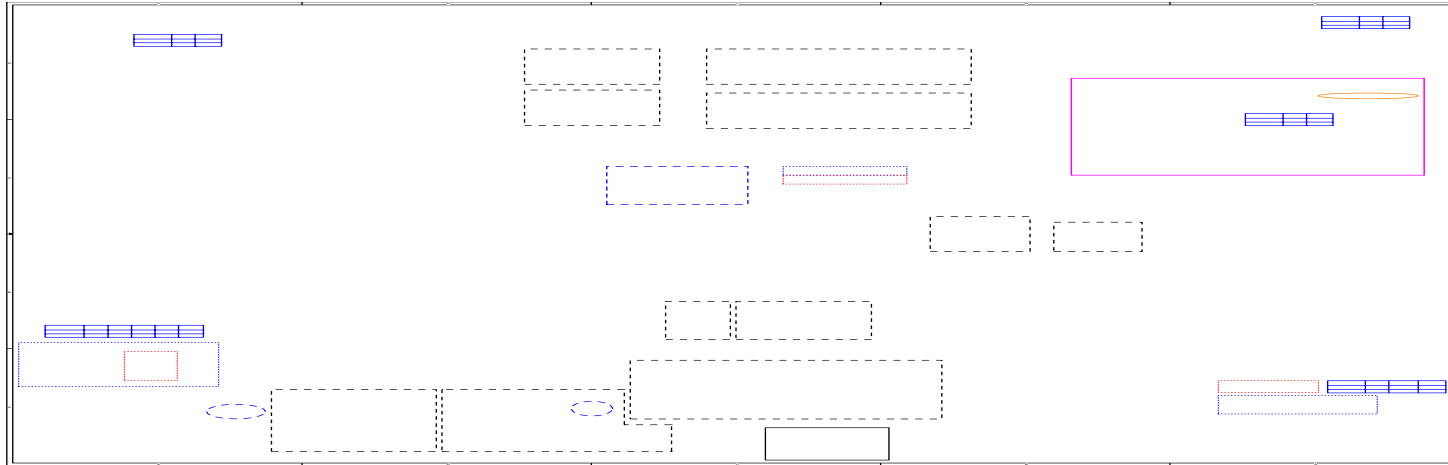
Schematic Diagrams

Panel, Inverter, CRT

Sheet 13 of 58
Panel, Inverter,
CRT

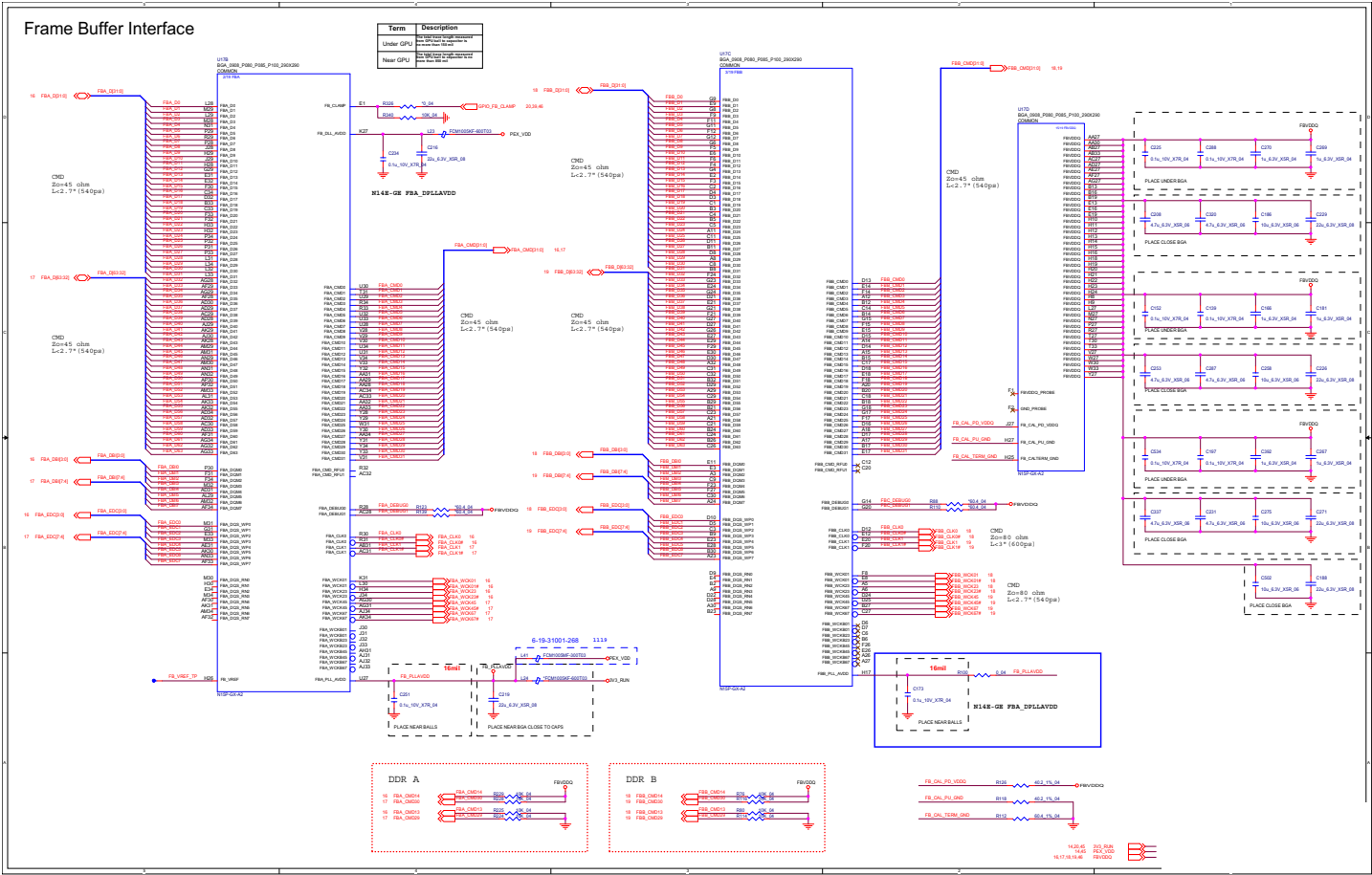


VGA PCI-E Interface

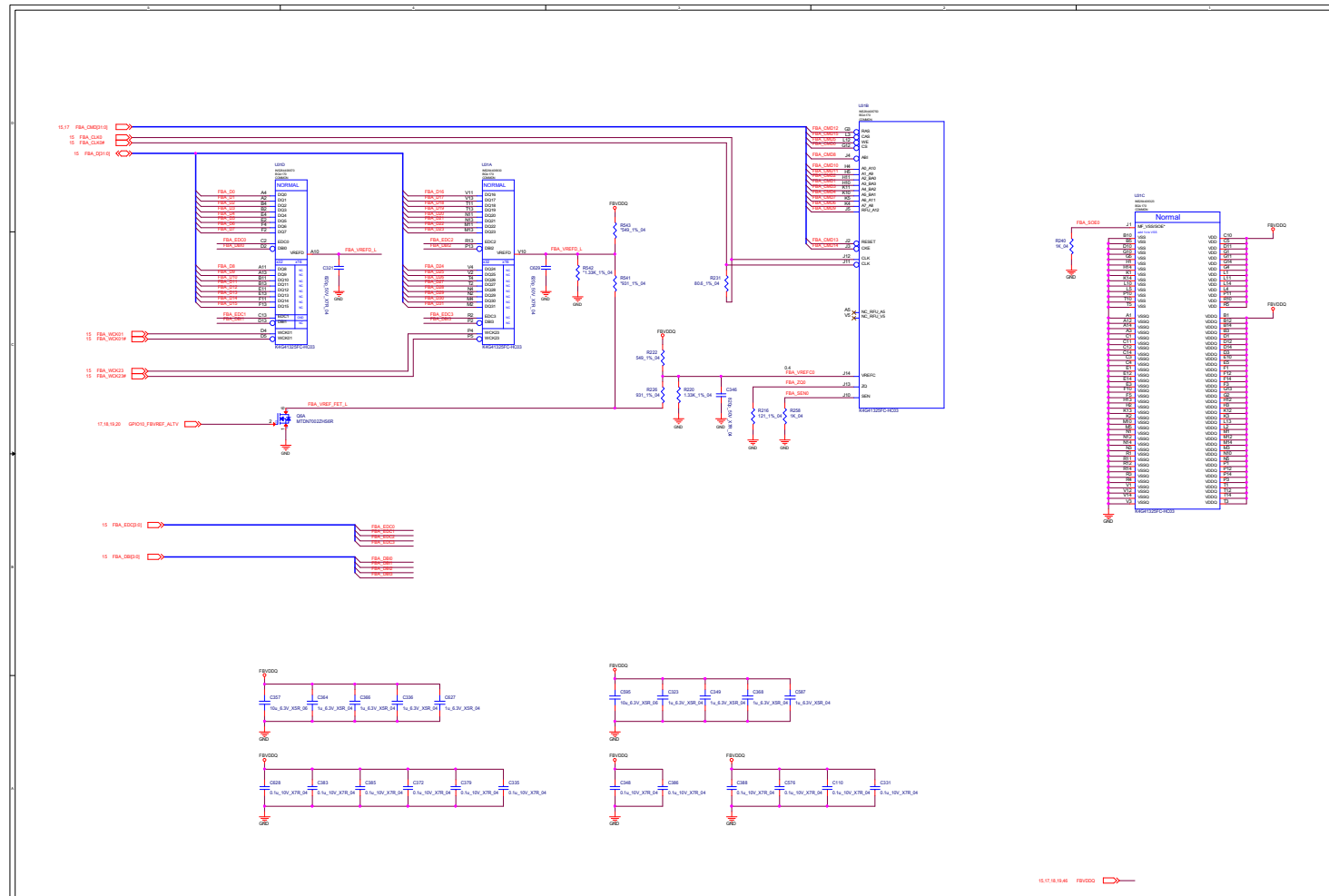


Sheet 14 of 58
VGA PCI-E
Interface

VGA Frame Buffer Interface



VGA Frame Buffer A

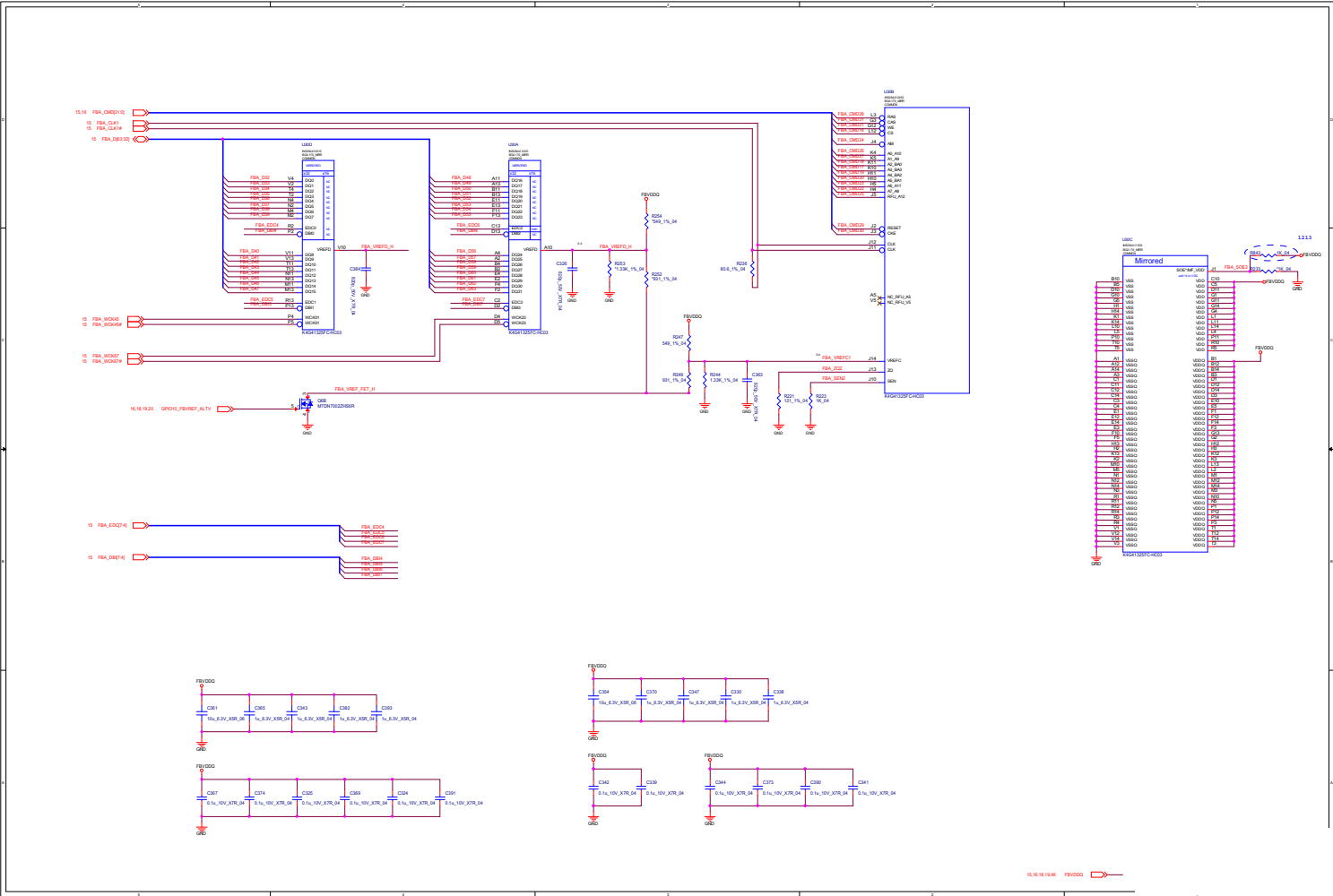


Sheet 16 of 58
VGA Frame Buffer
A

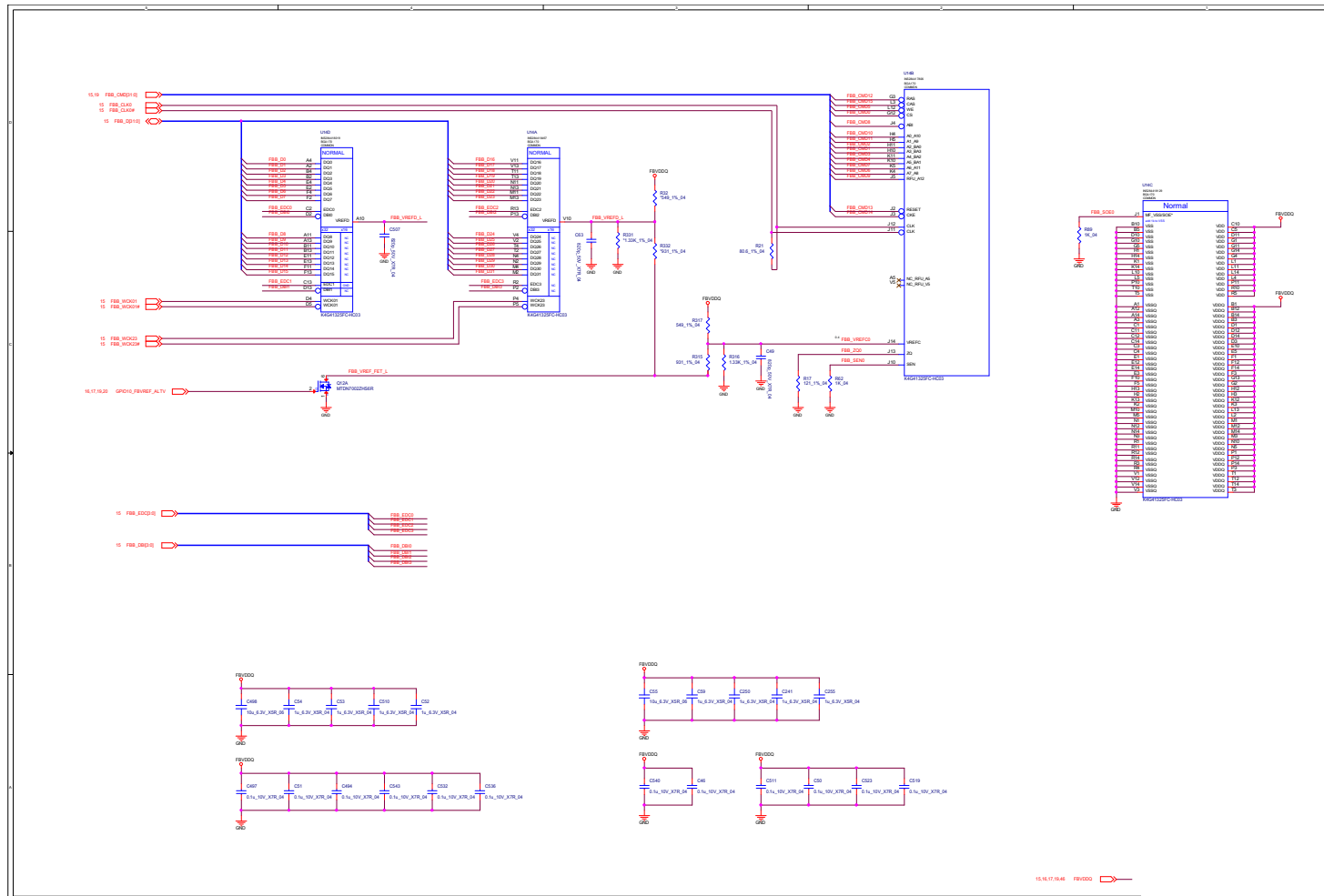
Schematic Diagrams

VGA Frame Buffer A

Sheet 17 of 58
VGA Frame Buffer
A



VGA Frame Buffer B

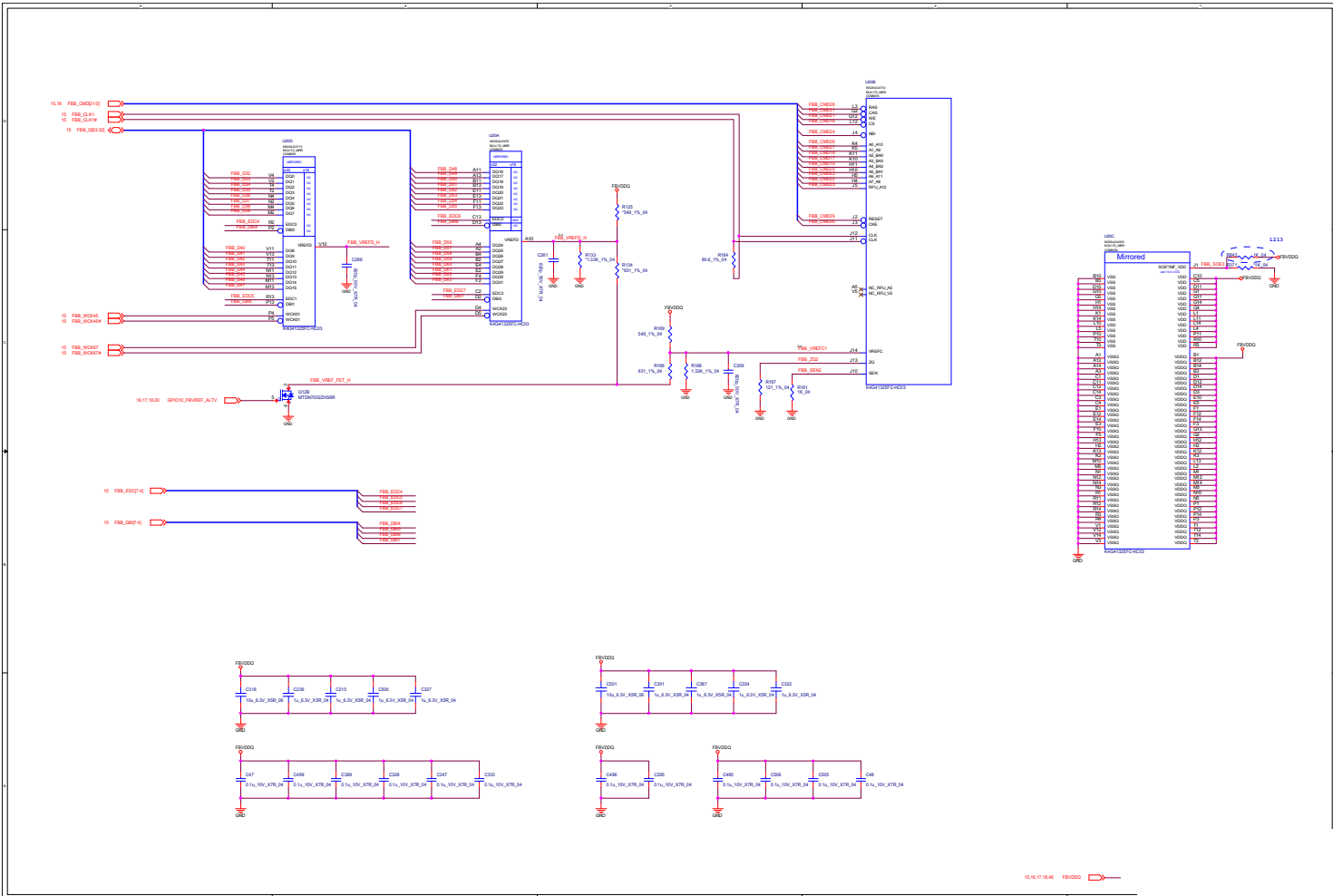


Sheet 18 of 58
VGA Frame Buffer
B

VGA Frame Buffer B

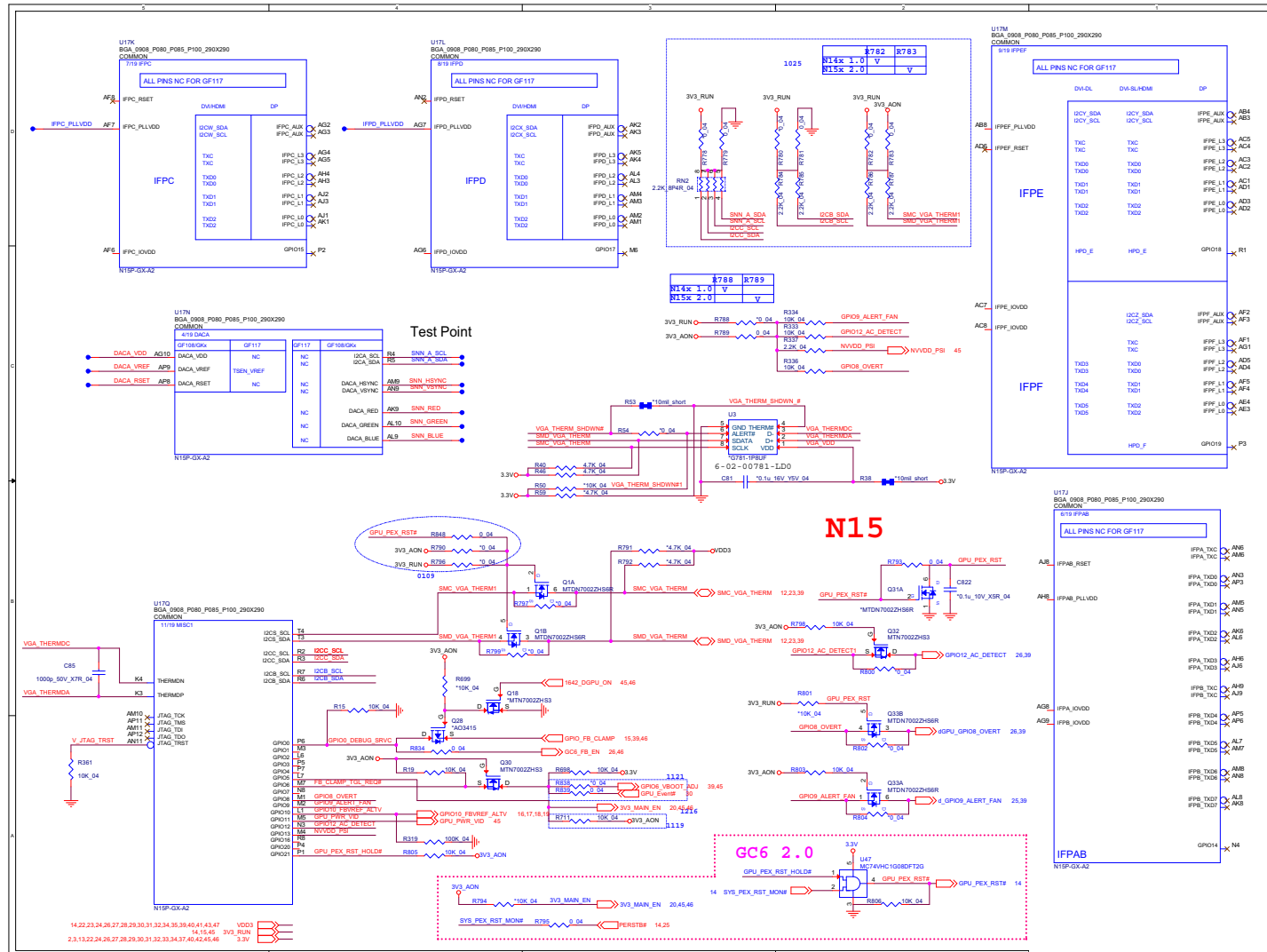
B.Schematic Diagrams

Sheet 19 of 58
VGA Frame Buffer
B



Schematic Diagrams

VGA I/O

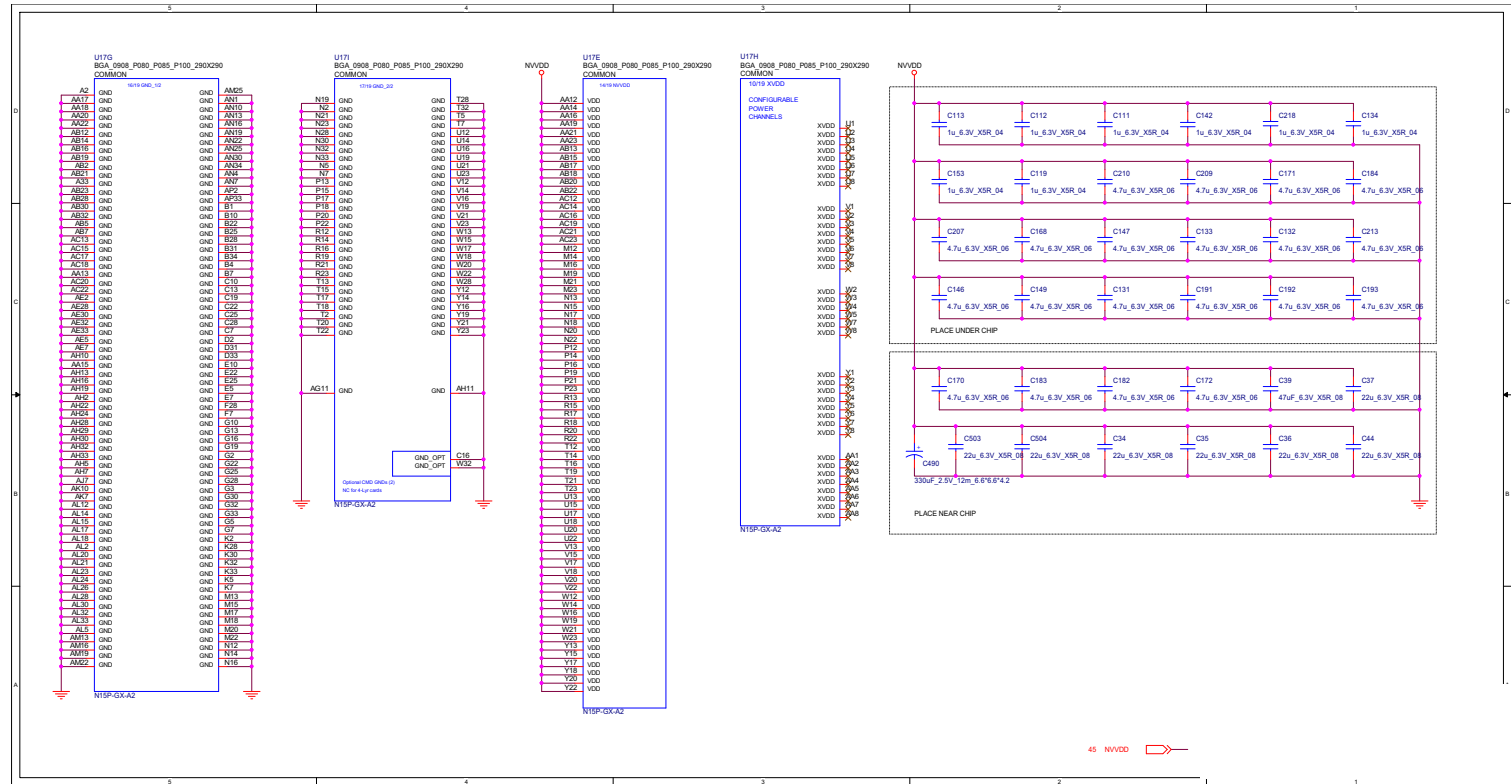


Sheet 20 of 58
VGA I/O

B.Schematic Diagrams

VGA NVVDD Decoupling

Sheet 21 of 58
VGA NVVDD
Decoupling

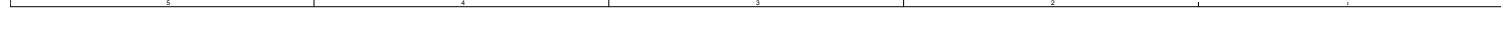


Sheet 22 of 58
Lynx 1/9



Lynx 2/9

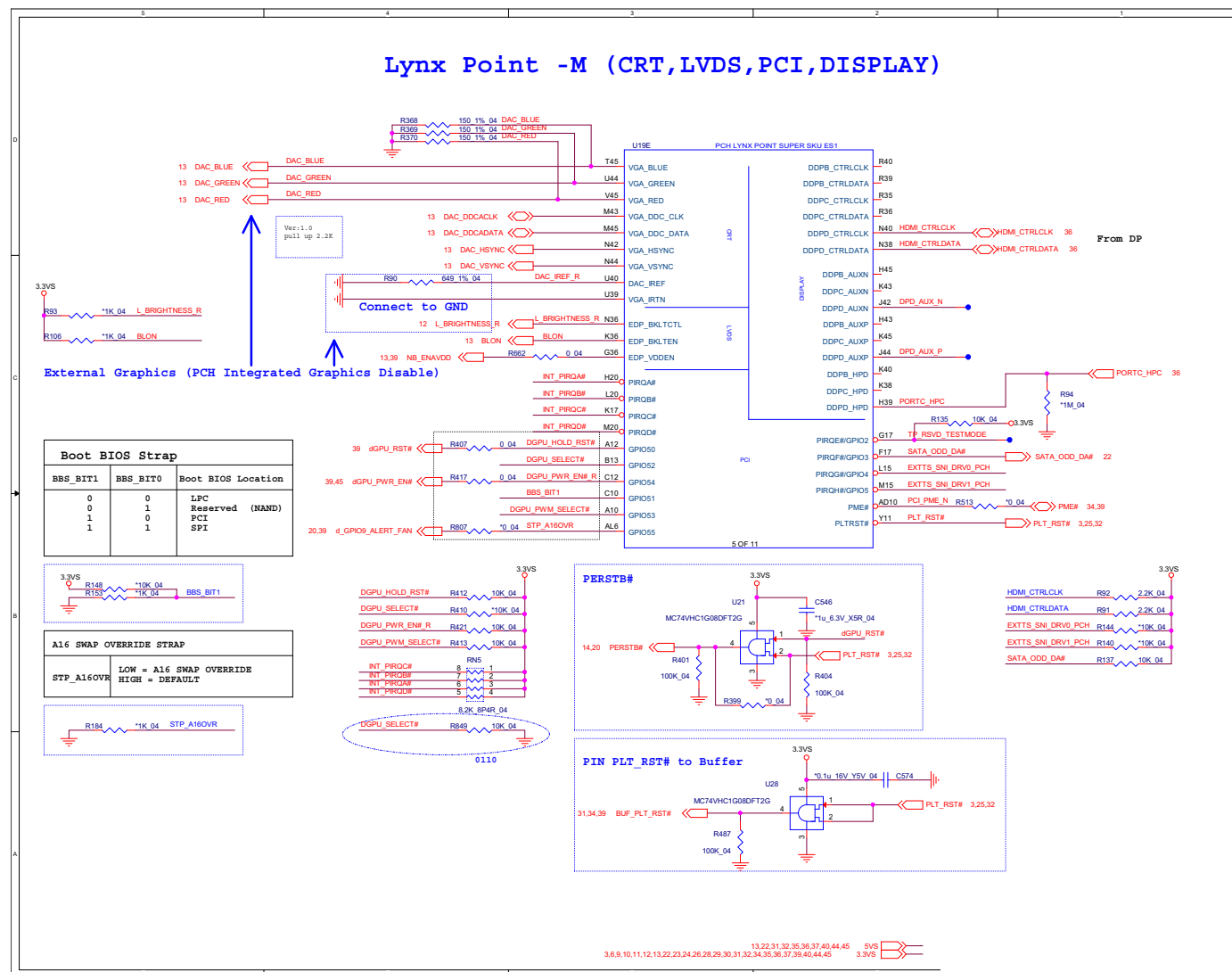
B. Schematic Diagrams



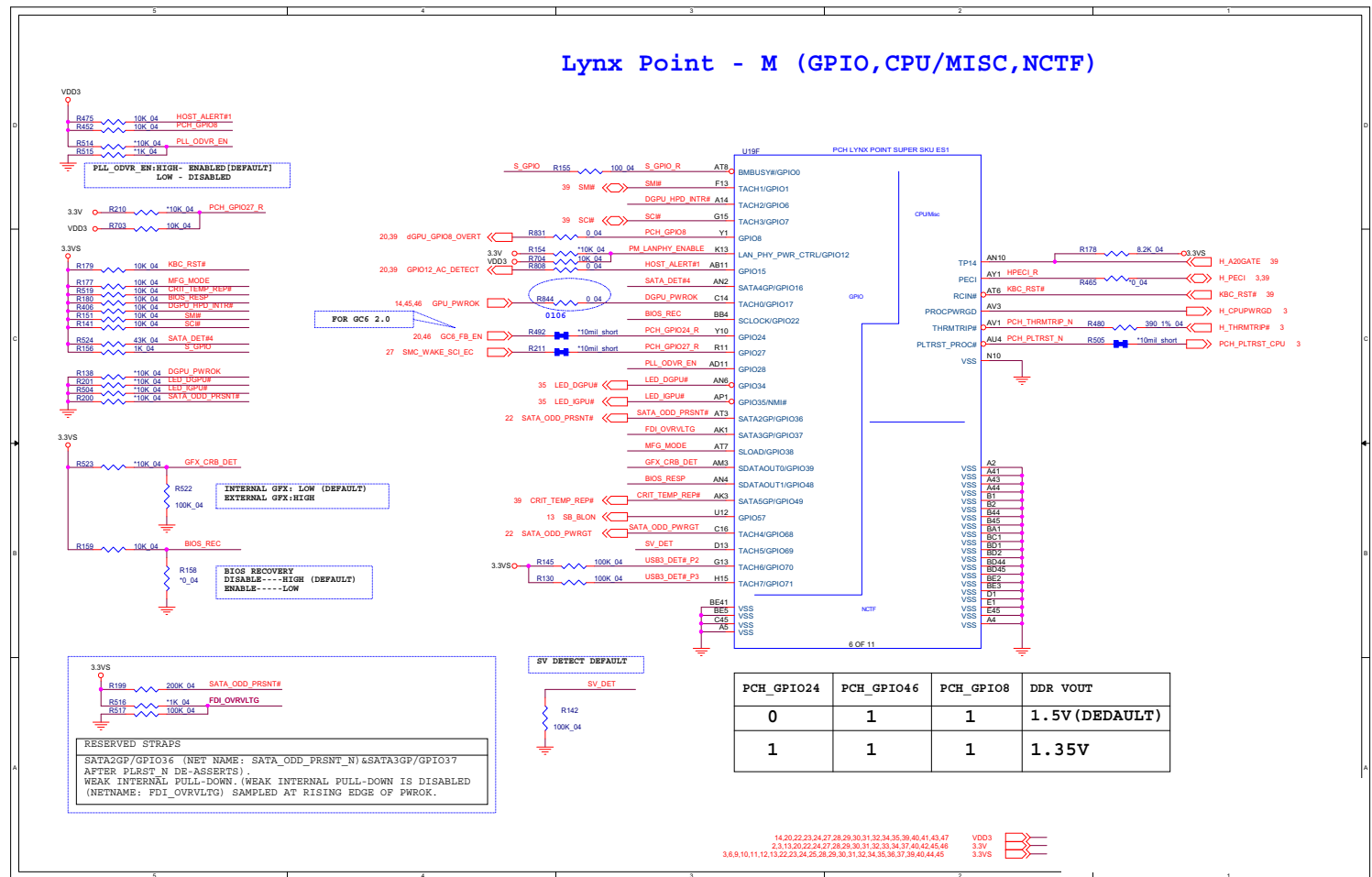
B.Schematic Diagrams

Lynx 4/9

Sheet 25 of 58
Lynx 4/9



Lynx 5/9

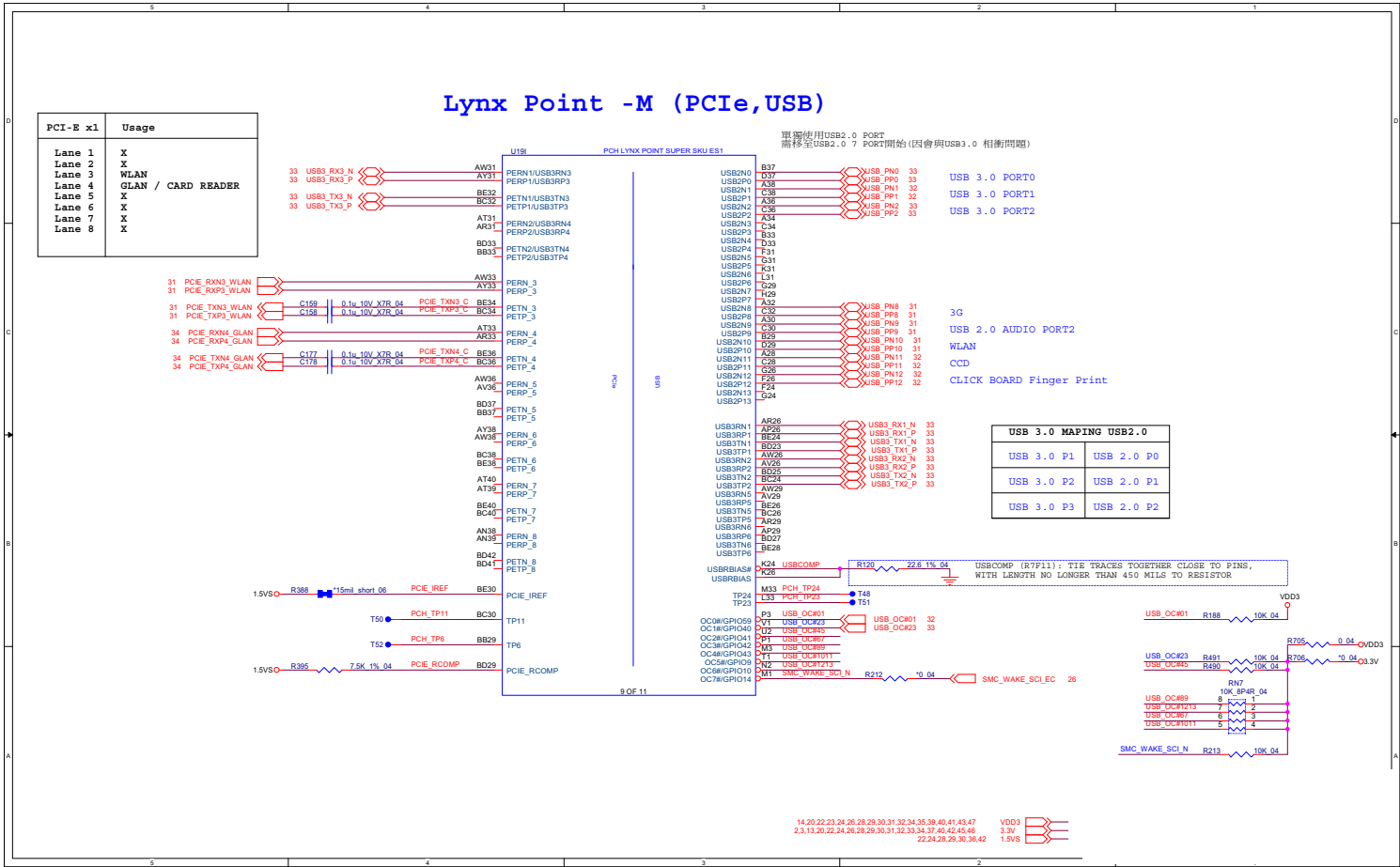


Sheet 26 of 58
Lynx 5/9

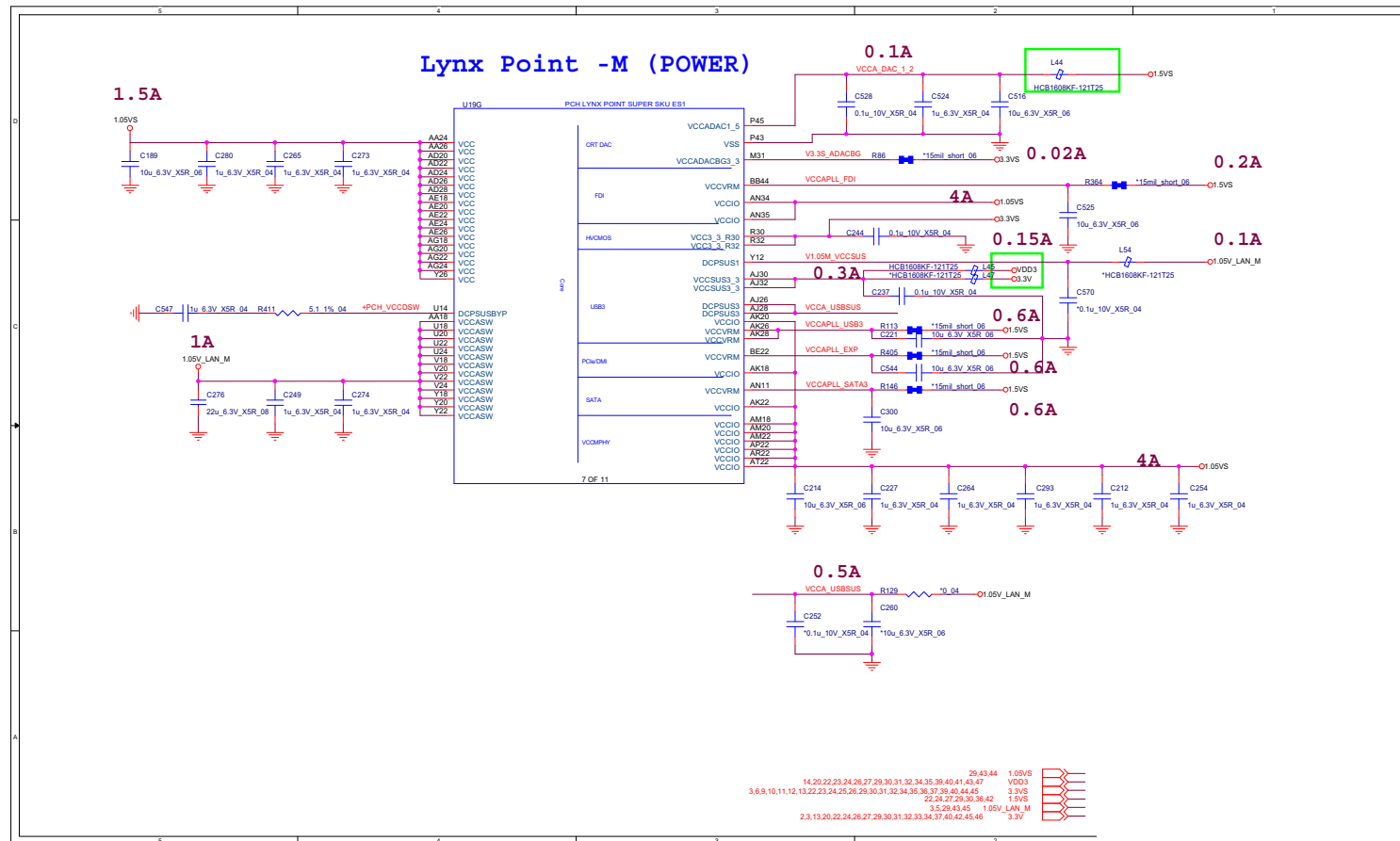
Lynx 6/9

B.Schematic Diagrams

Sheet 27 of 58
Lynx 6/9



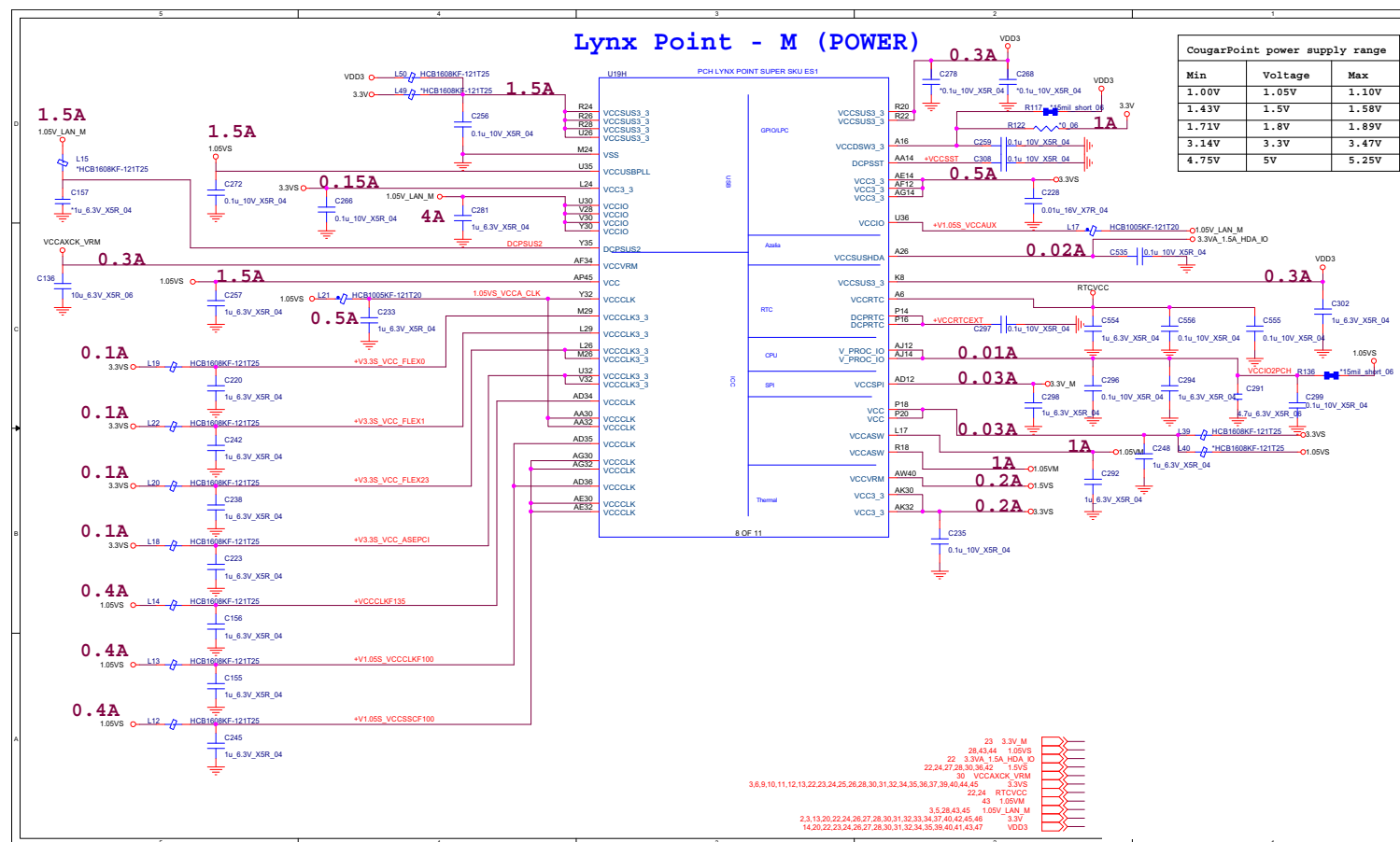
Lynx 7/9



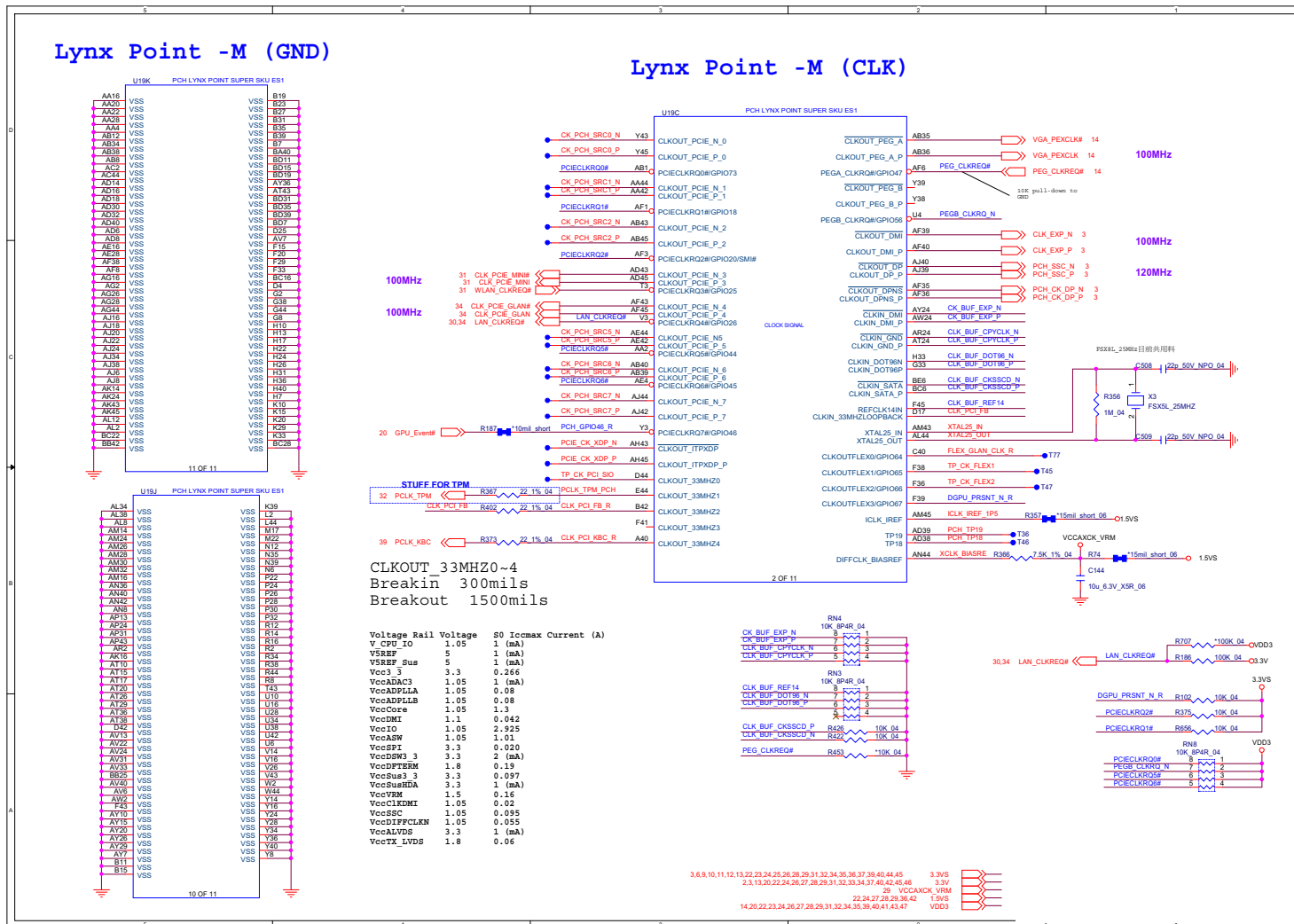
Sheet 28 of 58
Lynx 7/9

Lynx 8/9

Sheet 29 of 58
Lynx 8/9



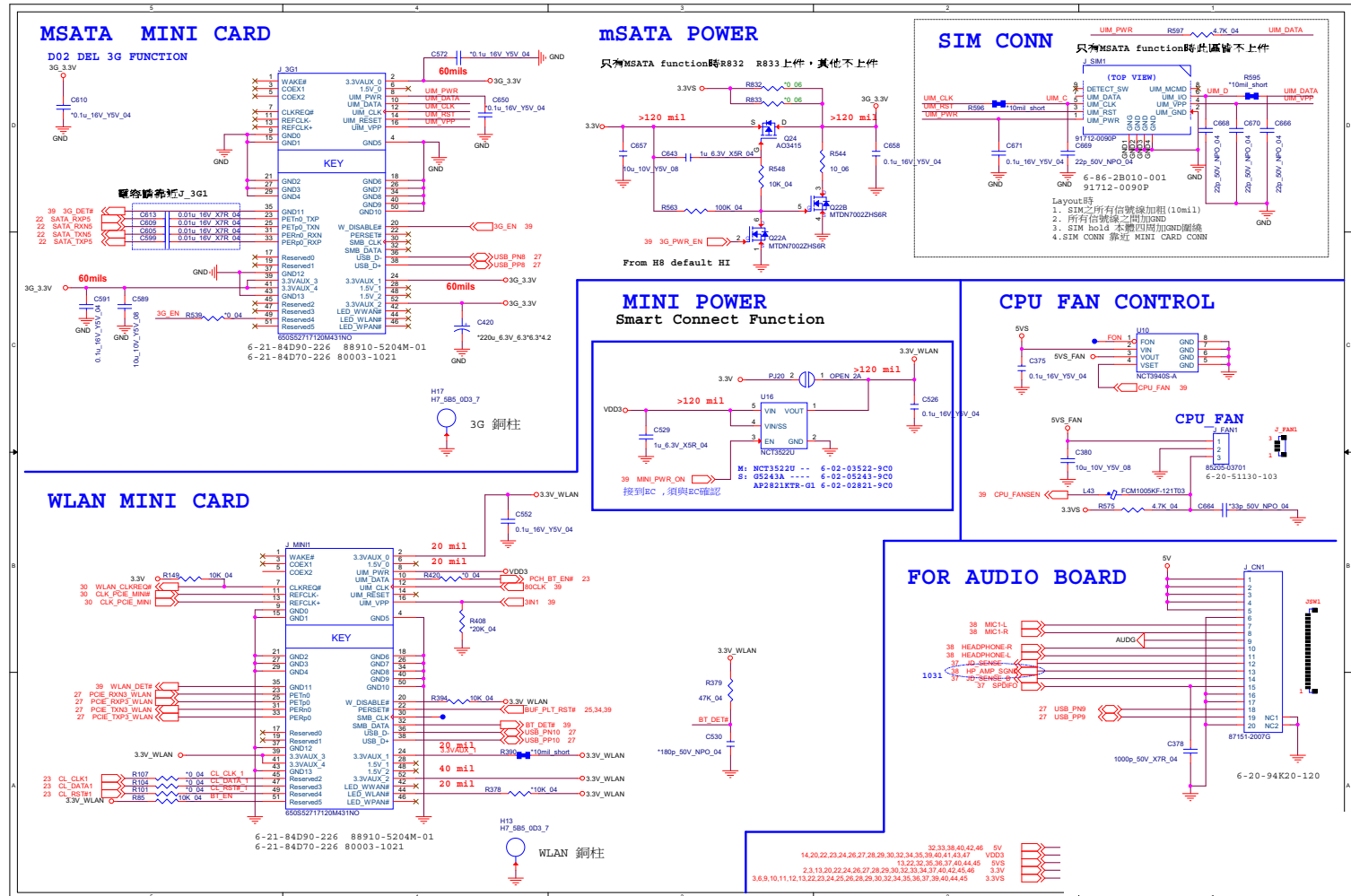
Lynx 9/9

Sheet 30 of 58
Lynx 9/9

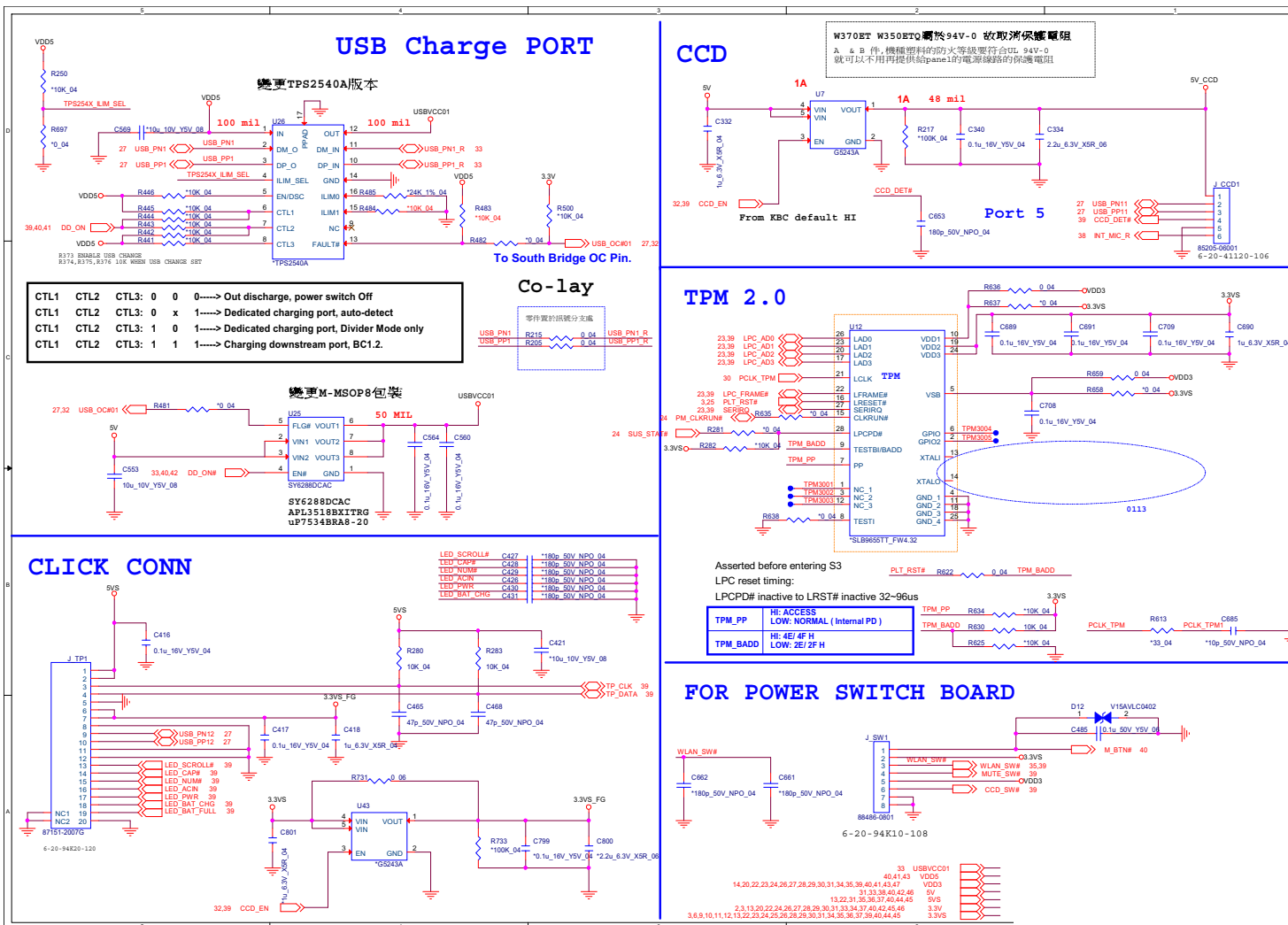
Schematic Diagrams

Mini PCIE, Fan, Audio Con

Sheet 31 of 58
Mini PCIE, FAN,
Audio Con



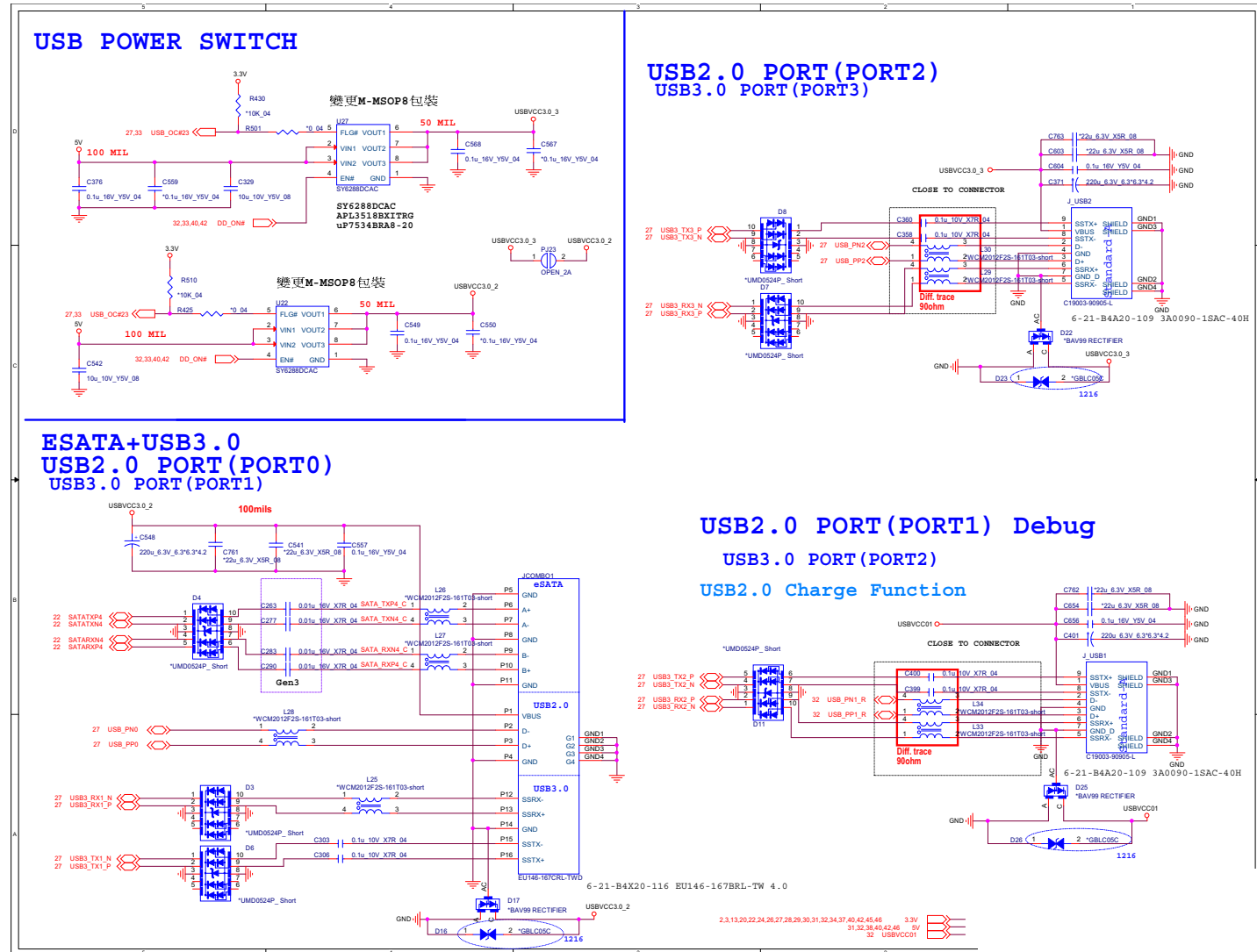
USB Charge, CCD, TPM, Multi-Con



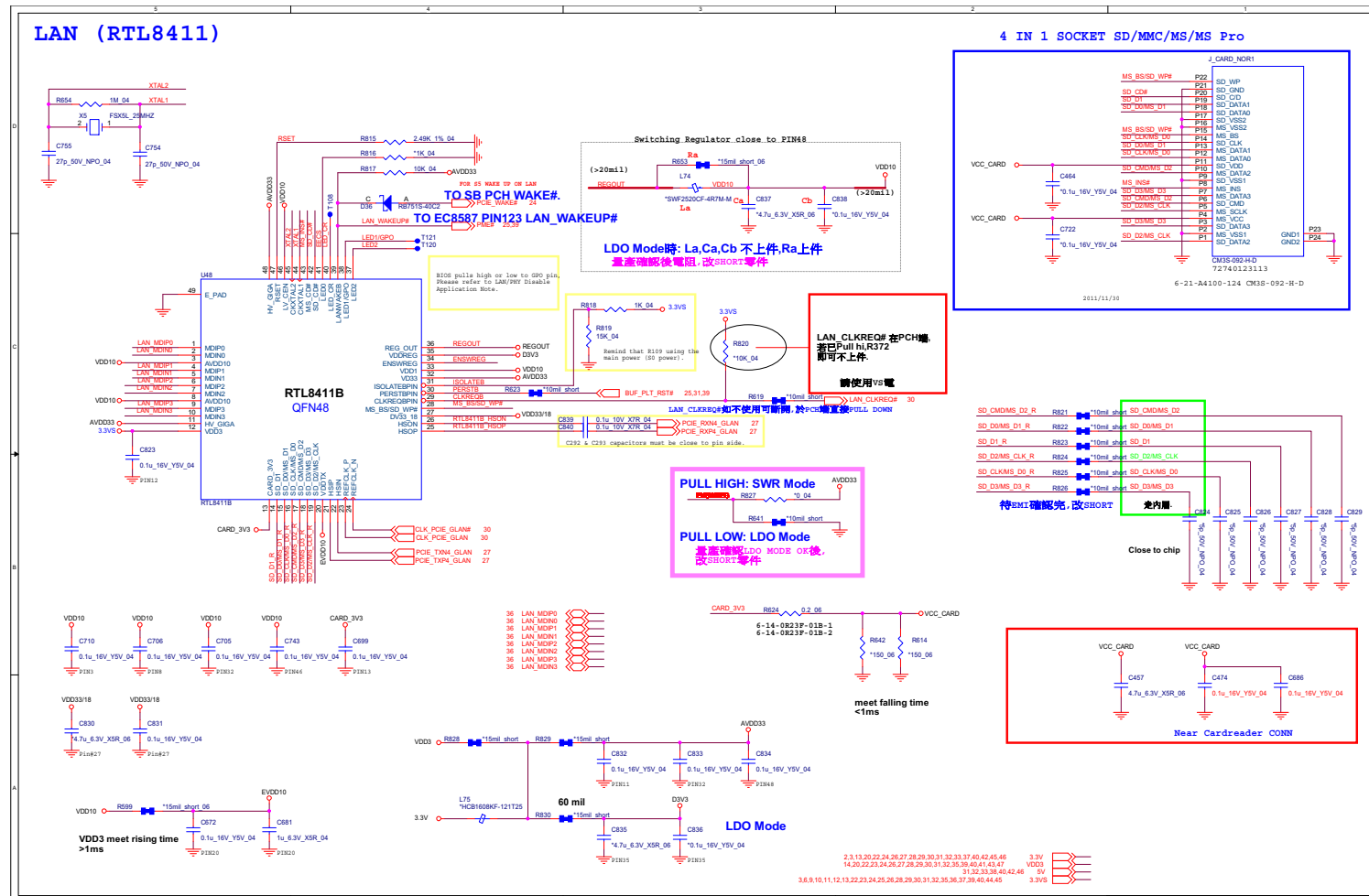
Sheet 32 of 58
 USB Charge, CCD,
 TPM, Multi-Con

ESATA/USB3.0 Connector

Sheet 33 of 58
ESATA/USB3.0
Connector

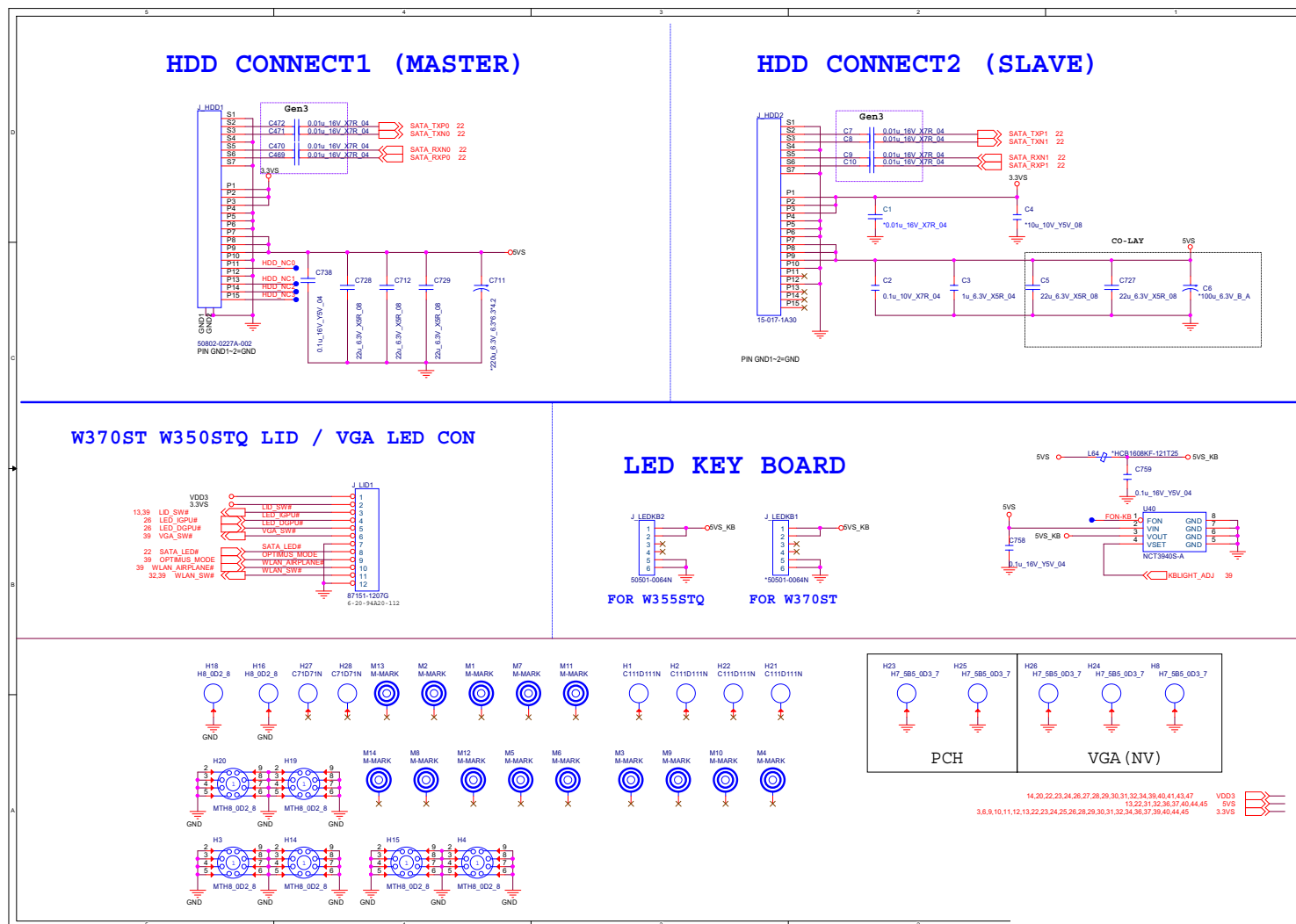


Card Reader / LAN RTL8411B

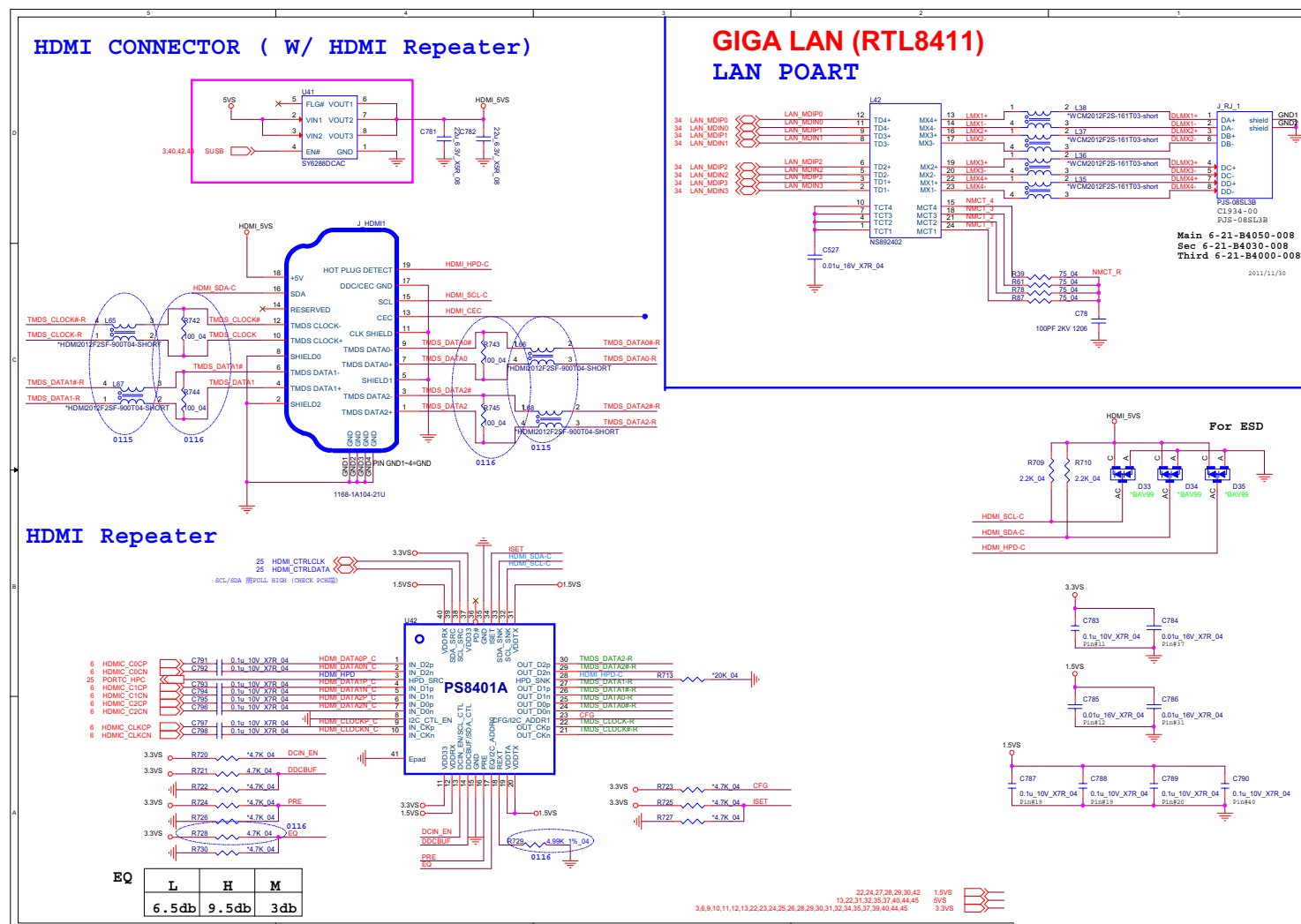


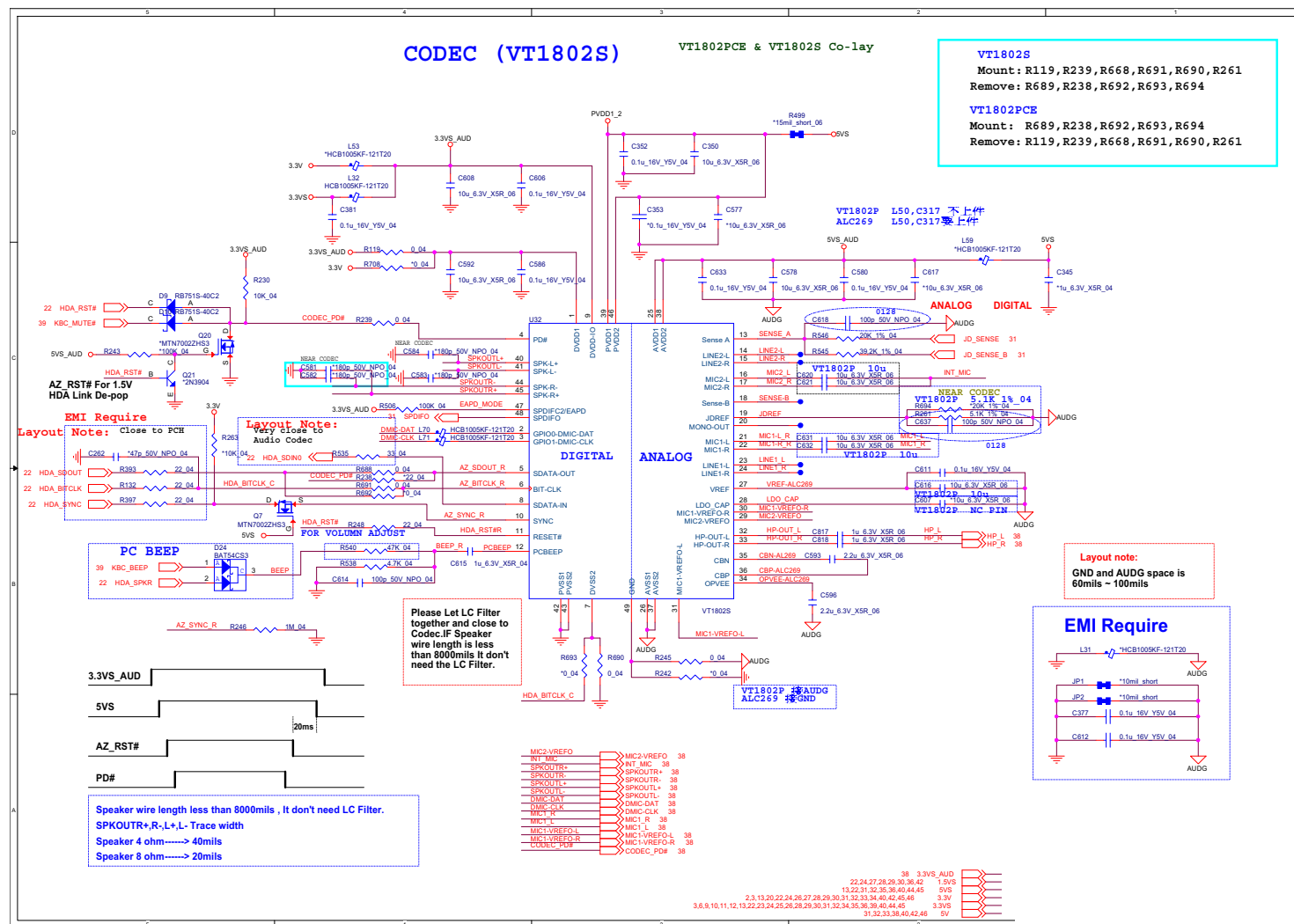
B. Schematic Diagrams

Sheet 35 of 58
SATA HDD, VLED
CON, LI DSW

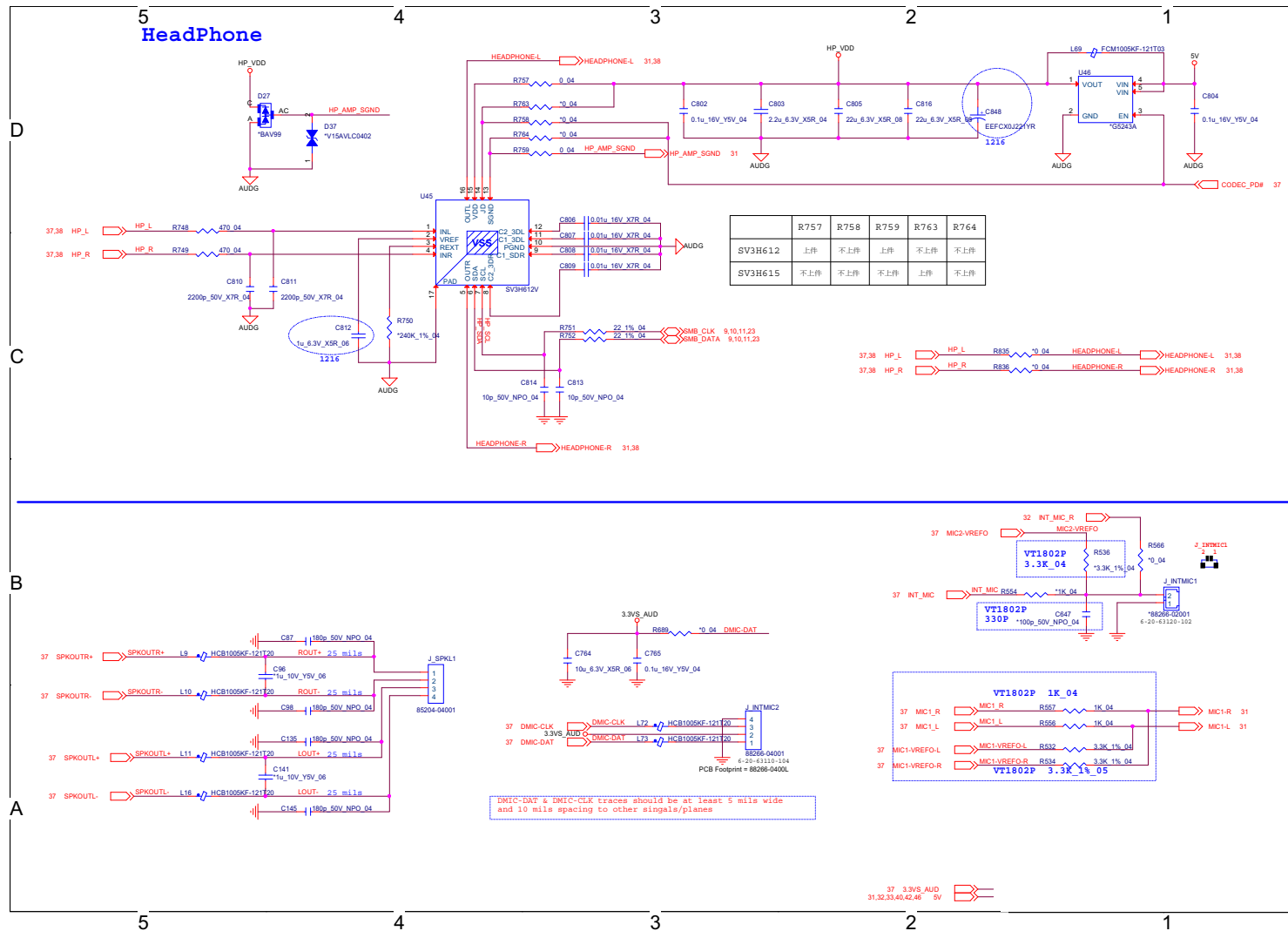


HDMI, RJ45 B - 37



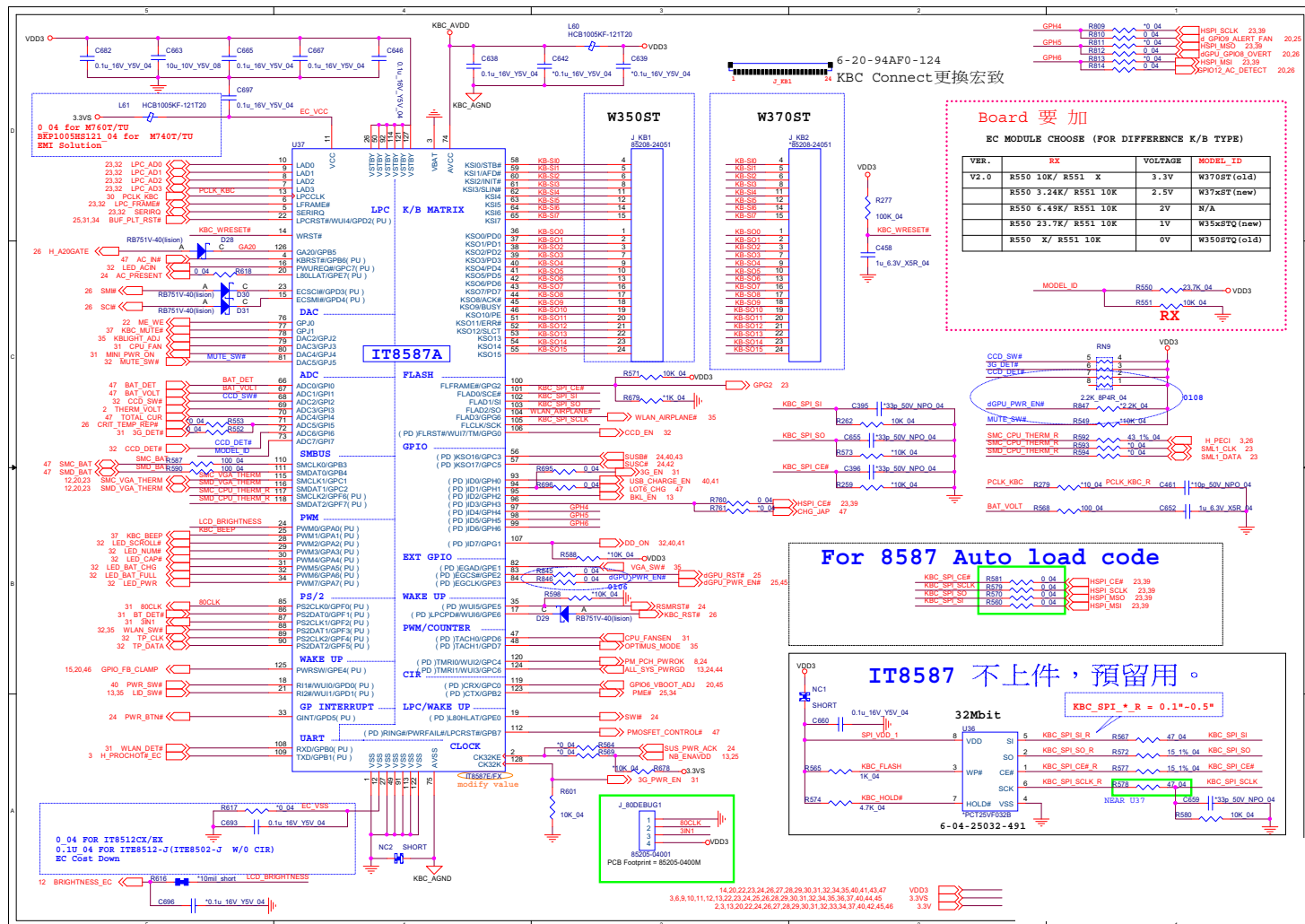


Audio AMP & Con

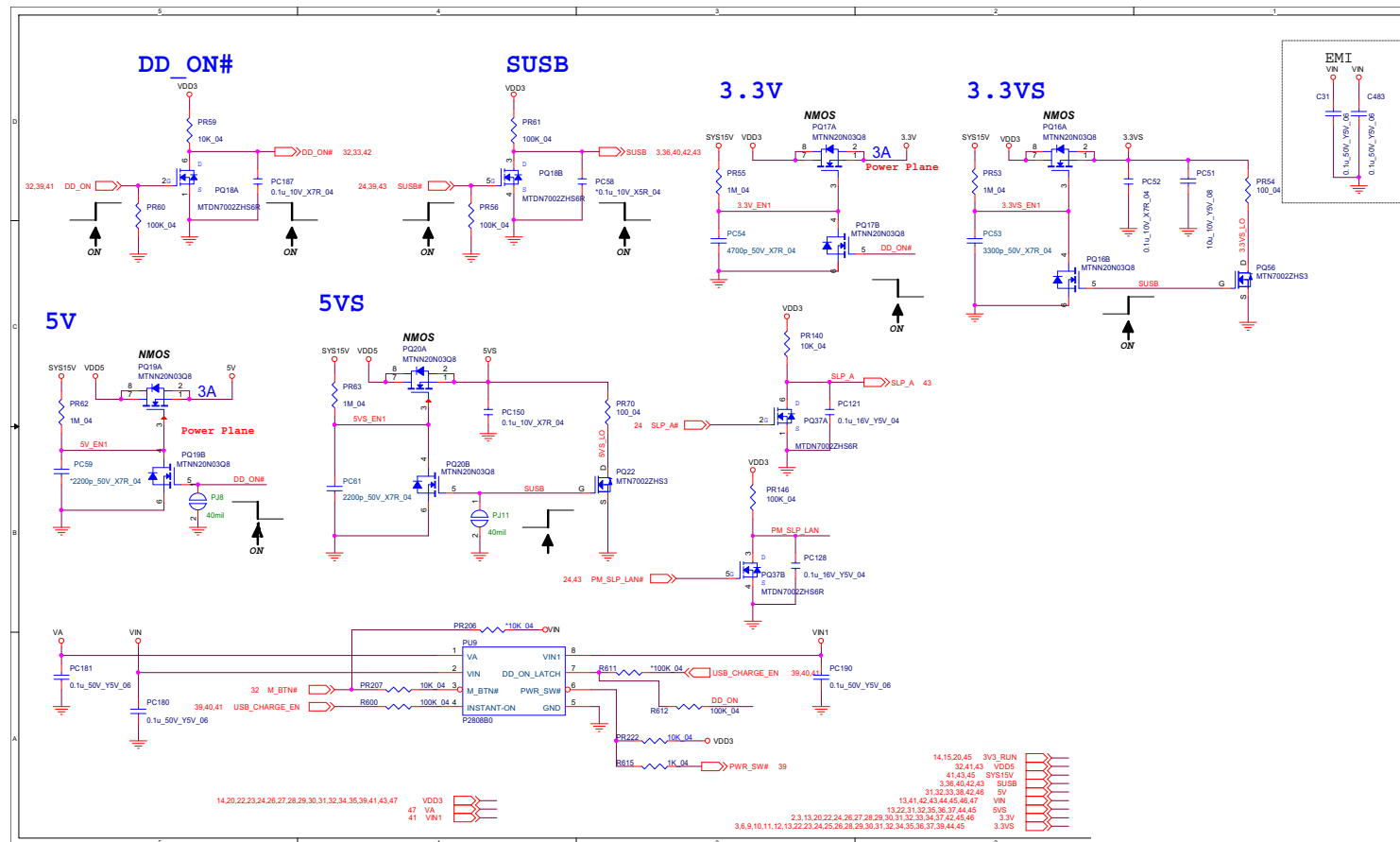
Sheet 38 of 58
Audio AMP & Con

KBC ITE IT8587

Sheet 39 of 58
KBC ITE IT8587



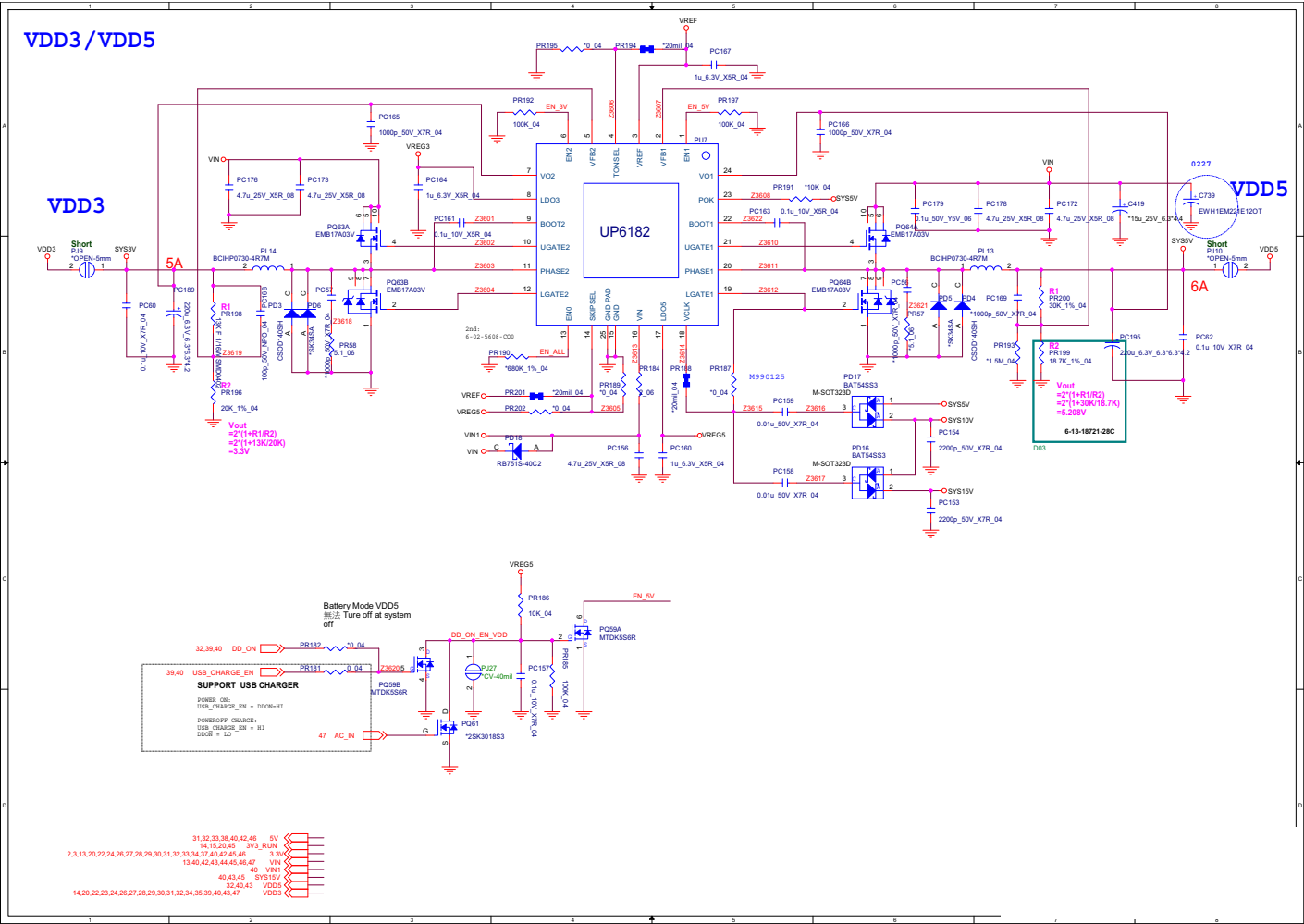
Sheet 40 of 58
5V, 5VS, 3.3V, 3VS,
3.3VM



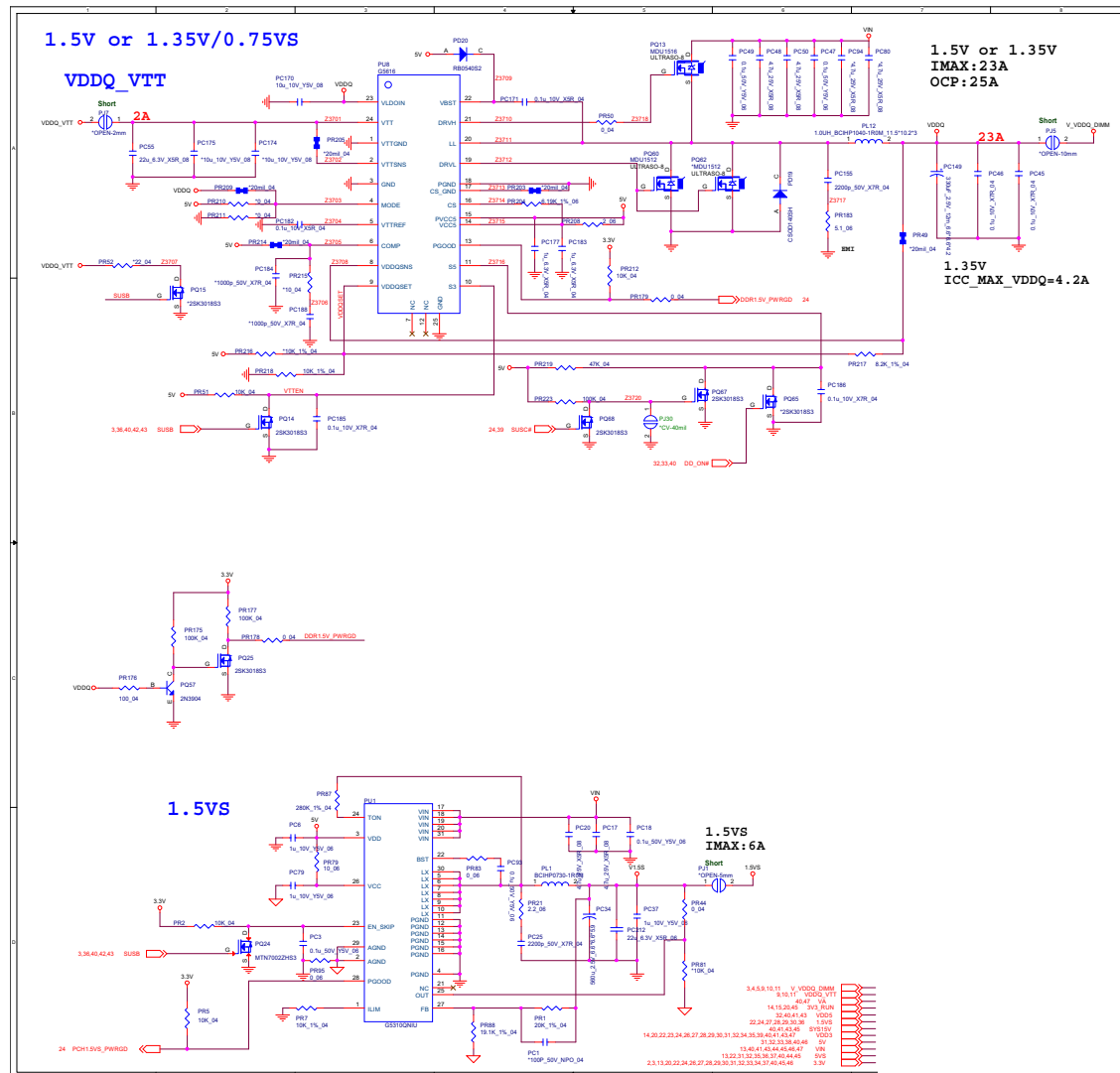
Schematic Diagrams

VDD3, VDD5

Sheet 41 of 58
VDD3, VDD5



1.5V or 1.35V / 0.75VS, 1.5VS

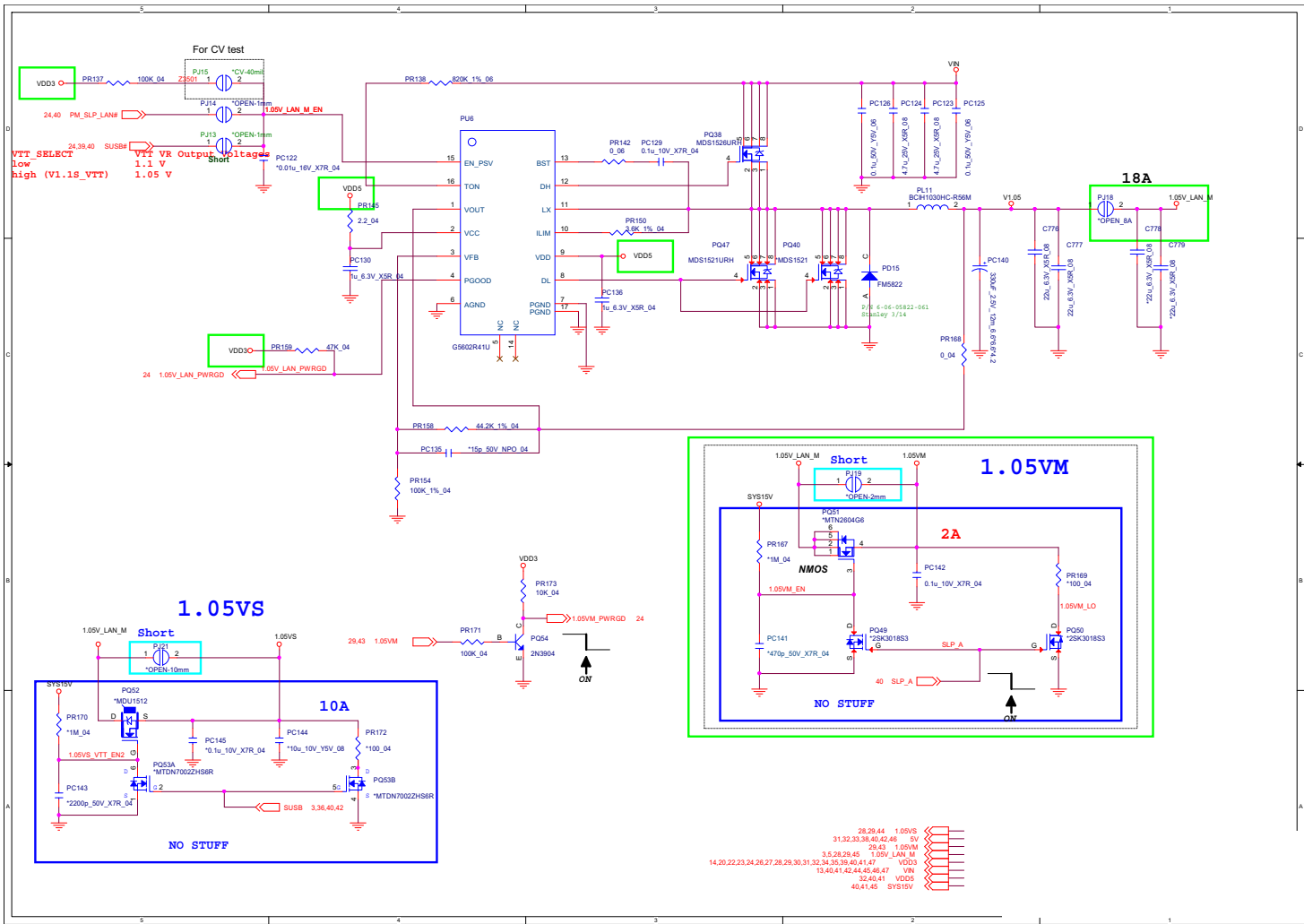


Sheet 42 of 58
 1.5V or 1.35V /
 0.75VS, 1.5VS

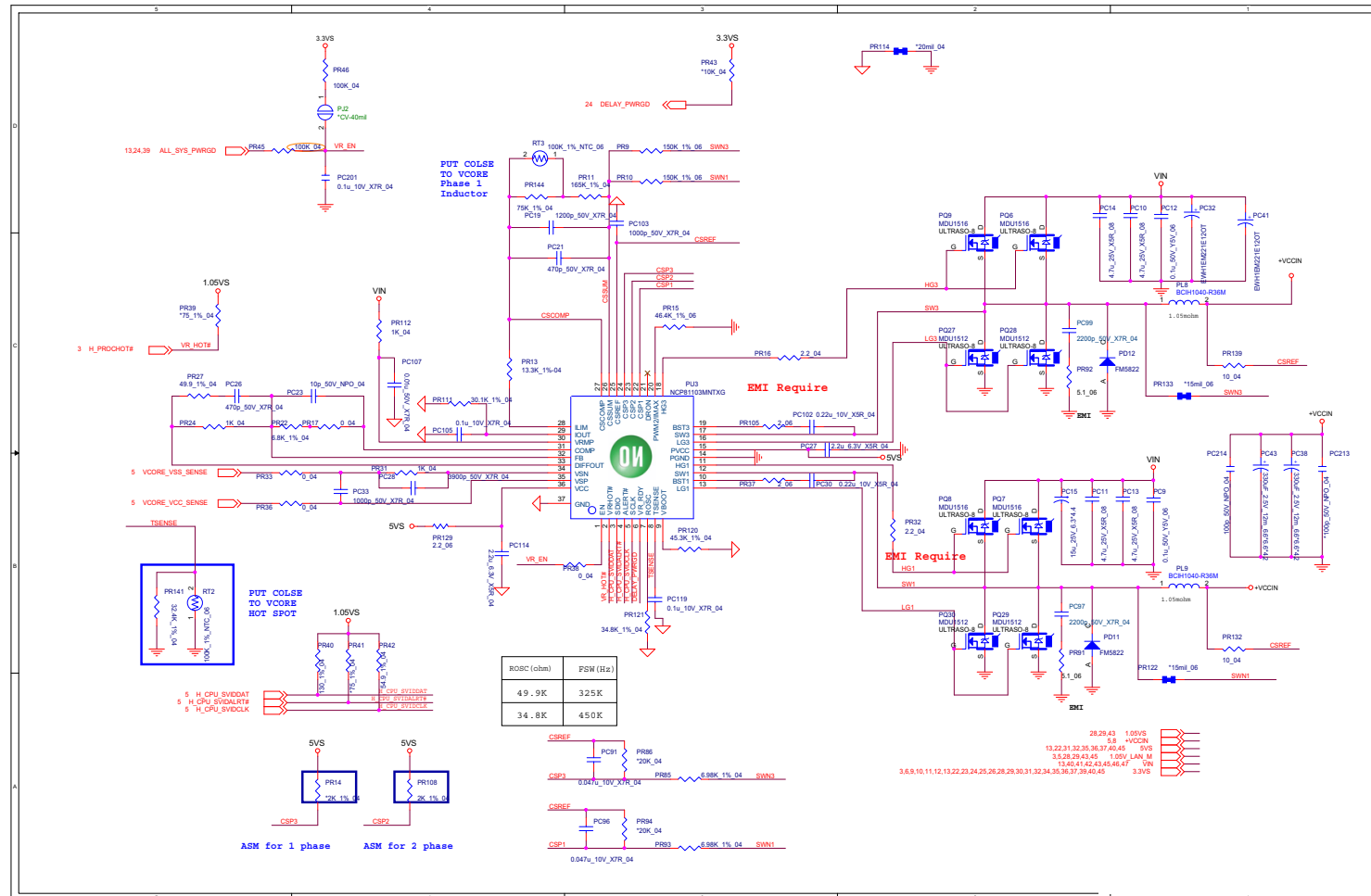
Schematic Diagrams

1.05VS, 1.05V_M, 1.05V_LAN_M

Sheet 43 of 58
1.05VS,1.05V_M,
1.05V_LAN_M



Power V-Core

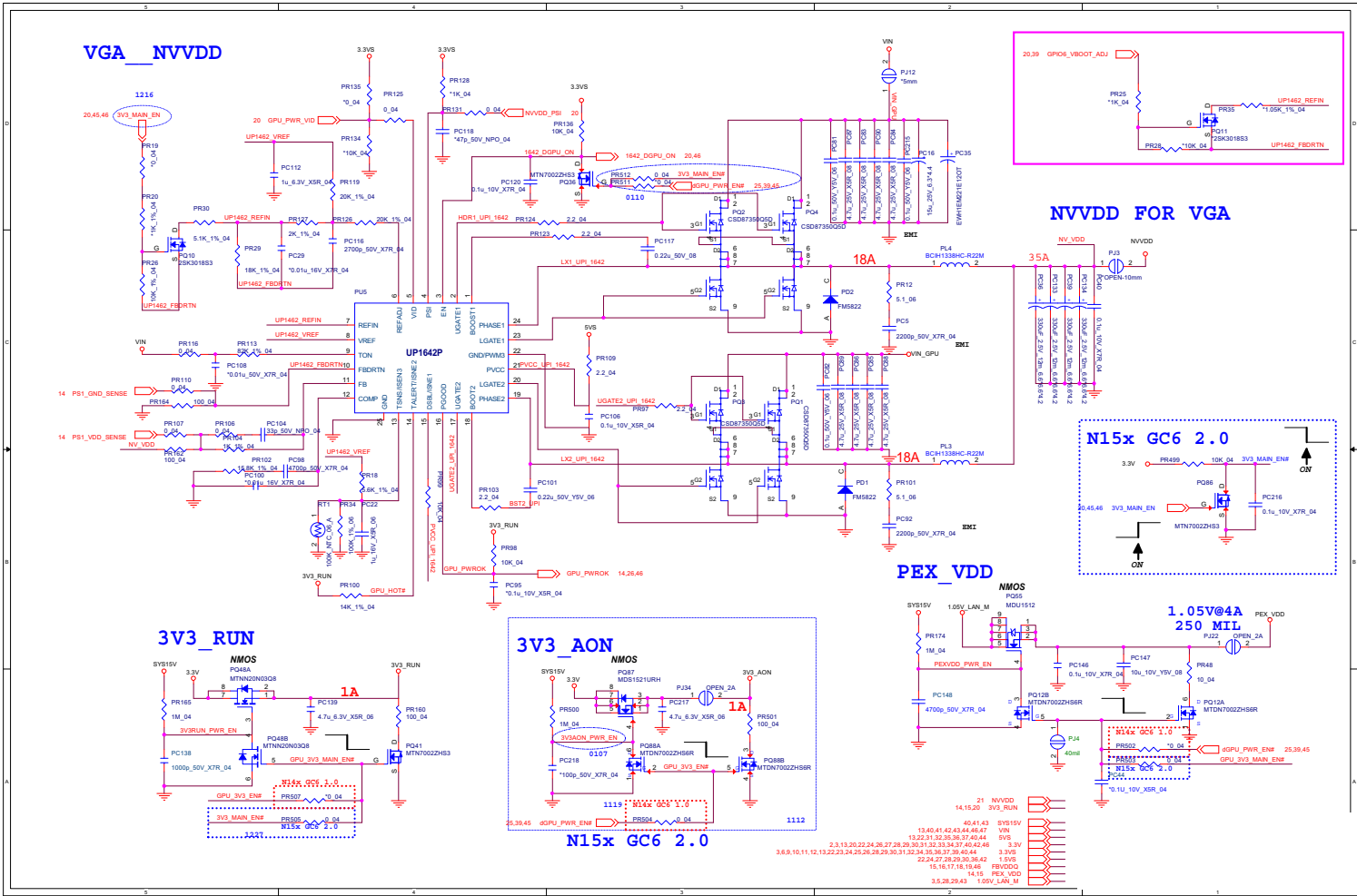
Sheet 44 of 58
Power V-Core

B.Schematic Diagrams

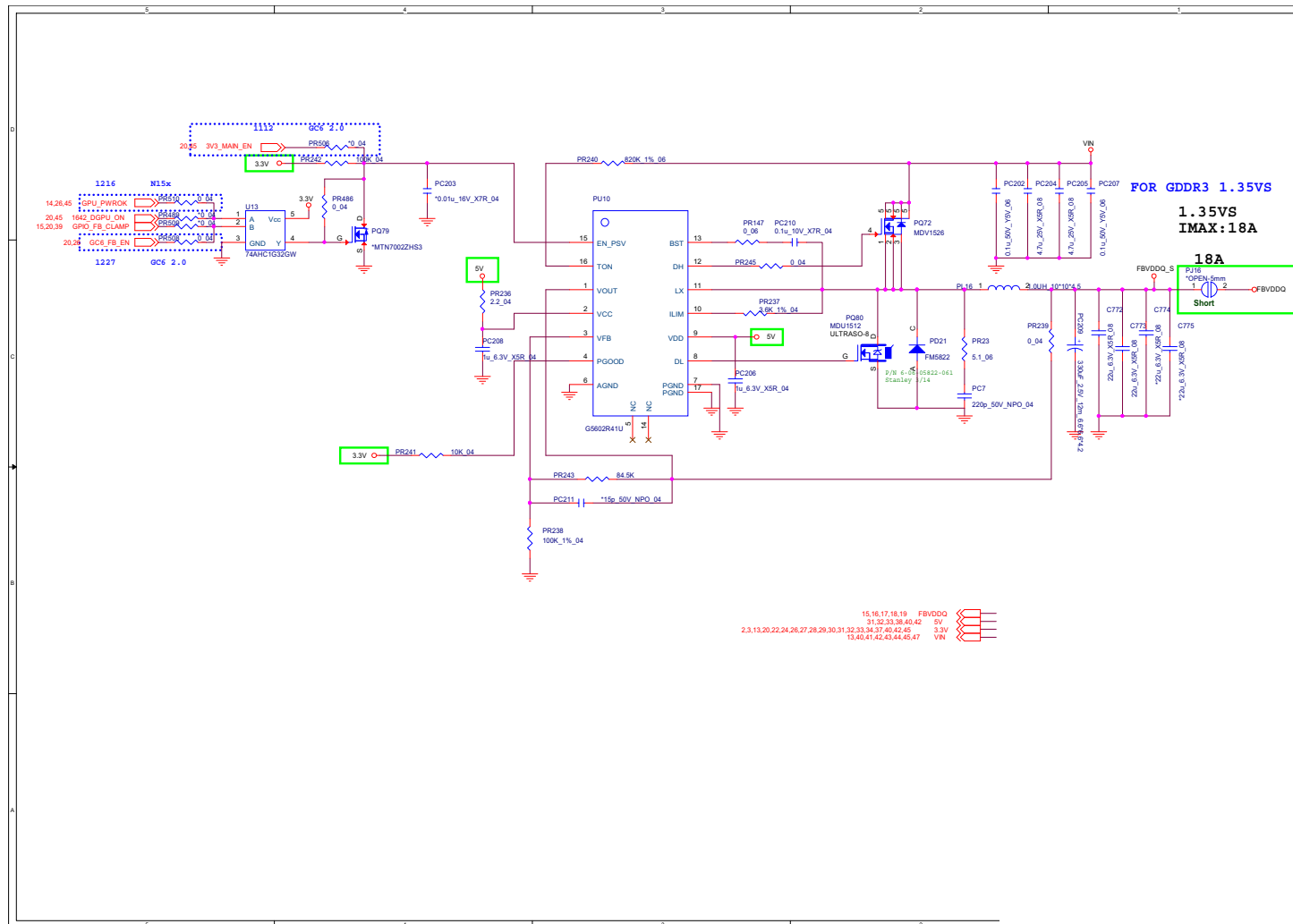
VGA NVVDD, PEX_VDD

B.Schematic Diagrams

Sheet 45 of 58
VGA NVVDD,
PEX VDD



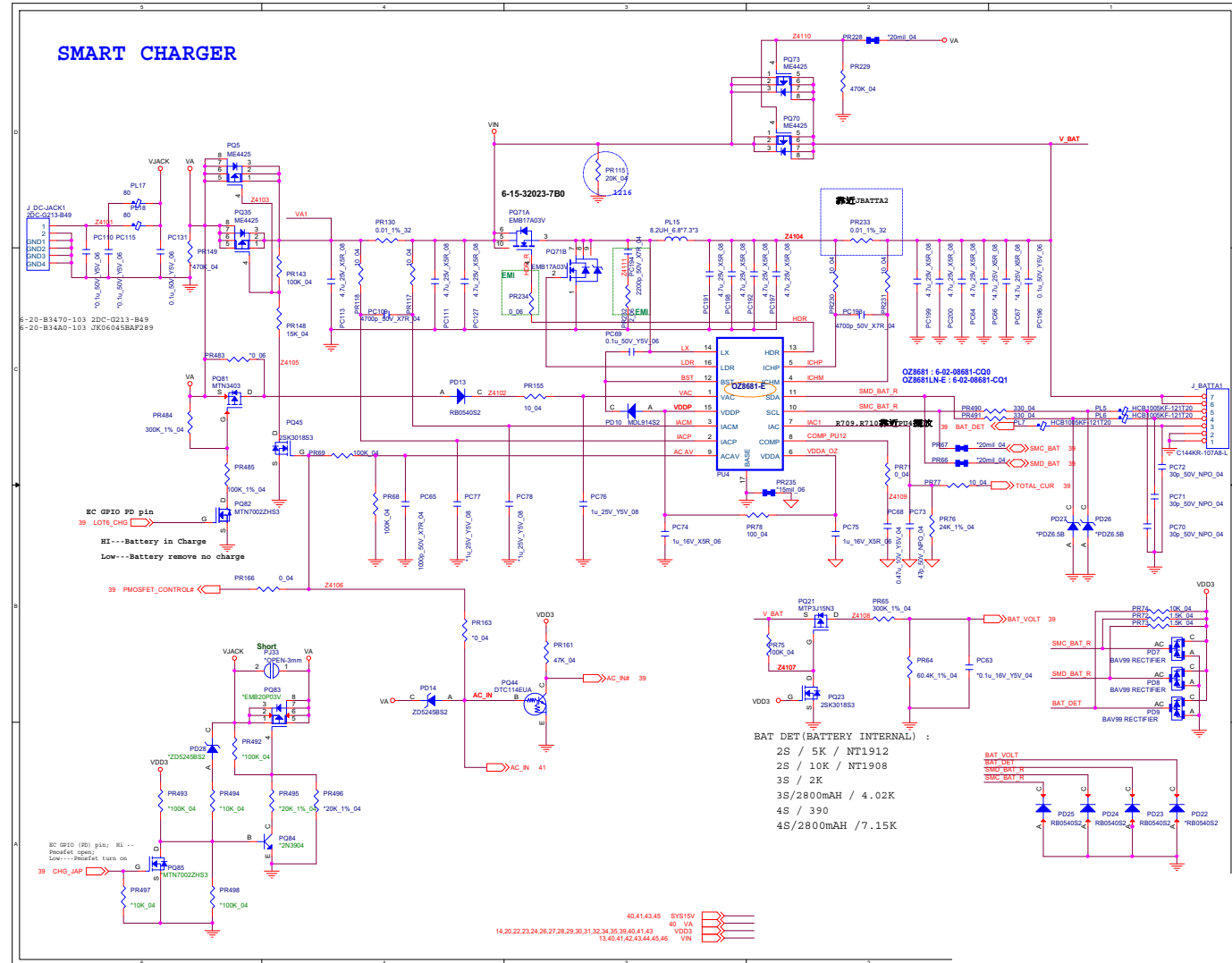
B.Schematic Diagrams



Sheet 46 of 58
FBVDDQ

AC-In, Charger

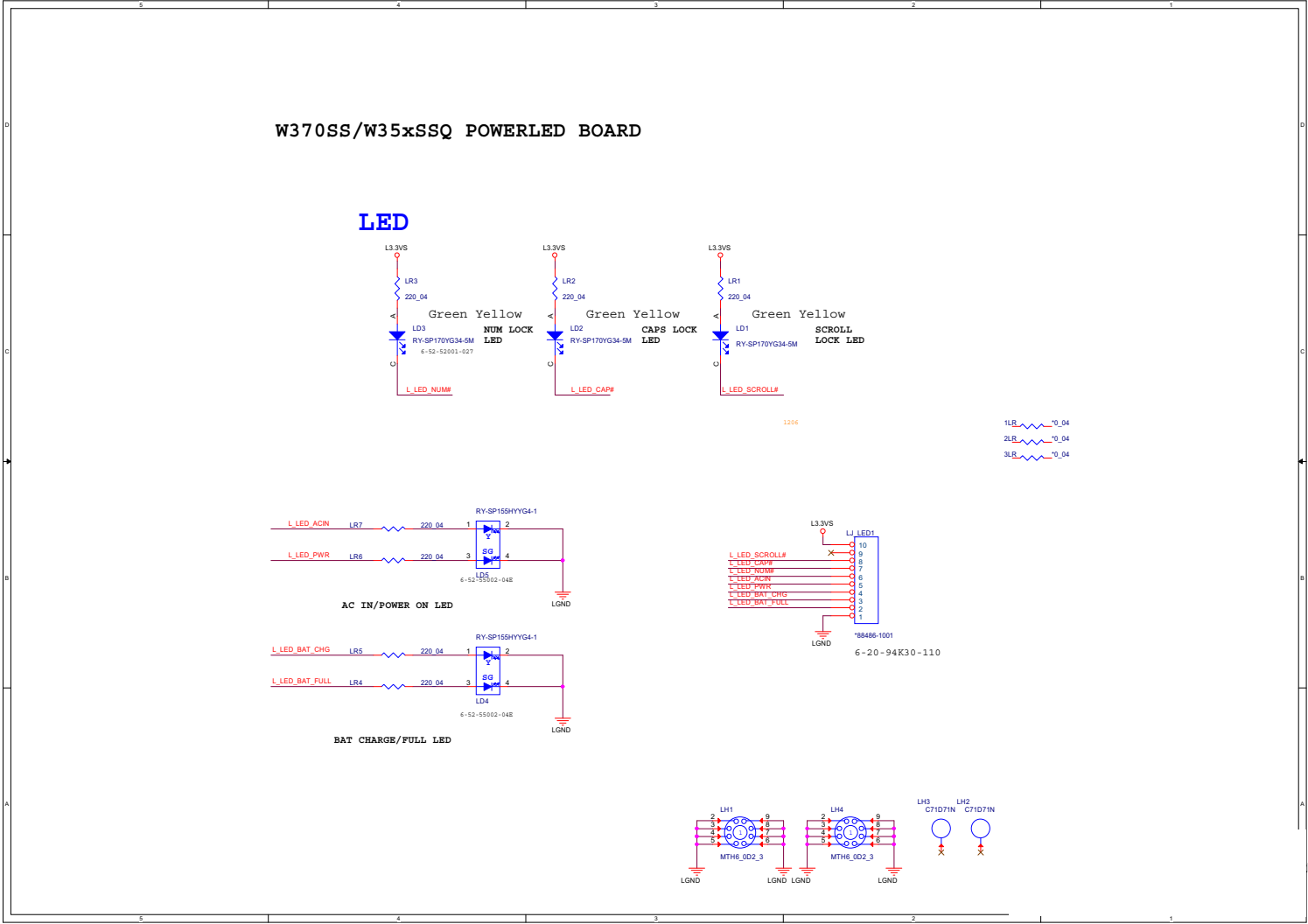
Sheet 47 of 58
AC-In, Charger



[illegible]

W370SS/W350SSQ Audio Board B - 49

W370SS/W35XSSQ Power LED Board



B.Schematic Diagrams

Sheet 49 of 58
W370SS/W35XSSQ
Power LED Board

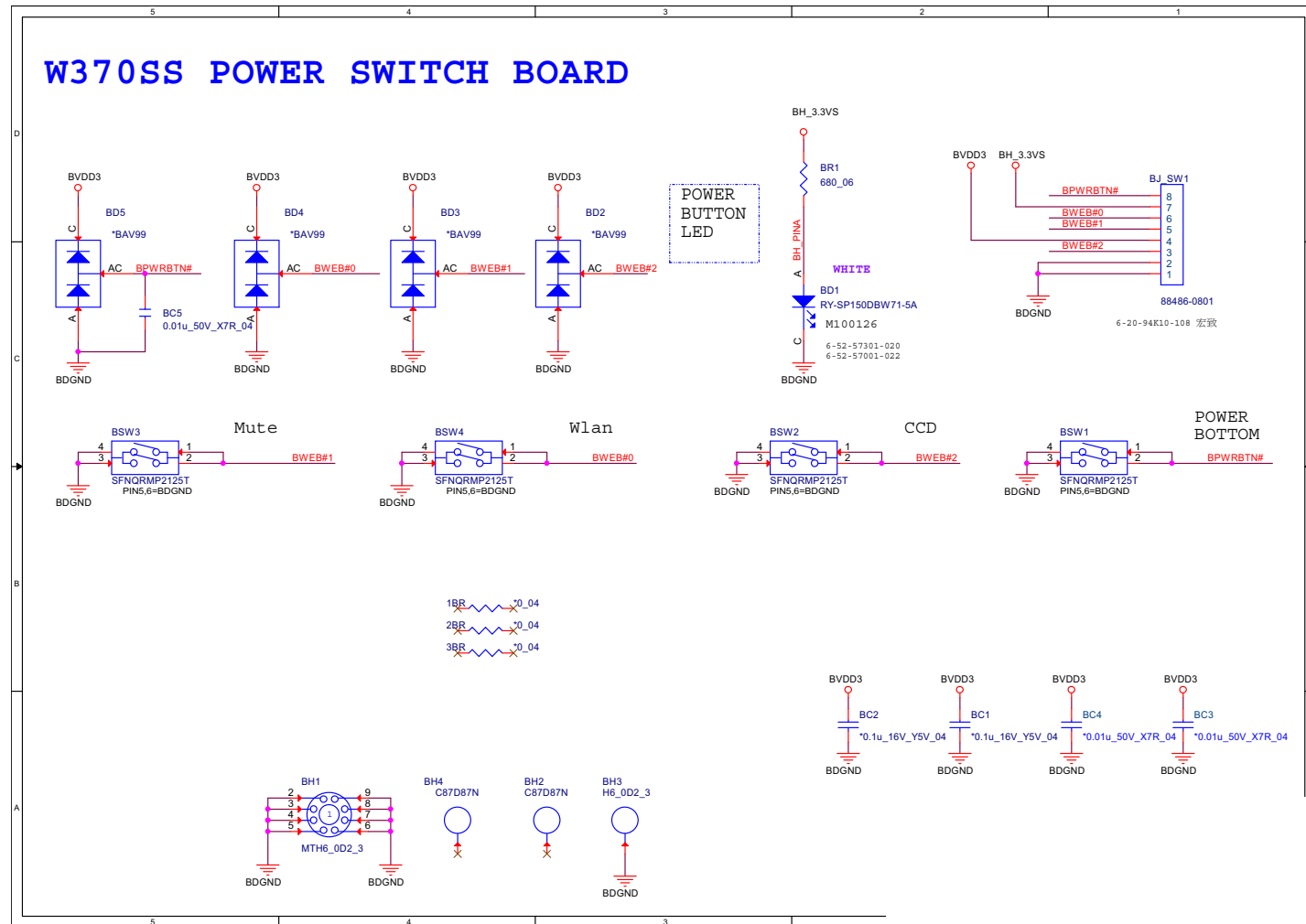
Sheet 50 of 58
W370SS/W35XSSQ
Click Board



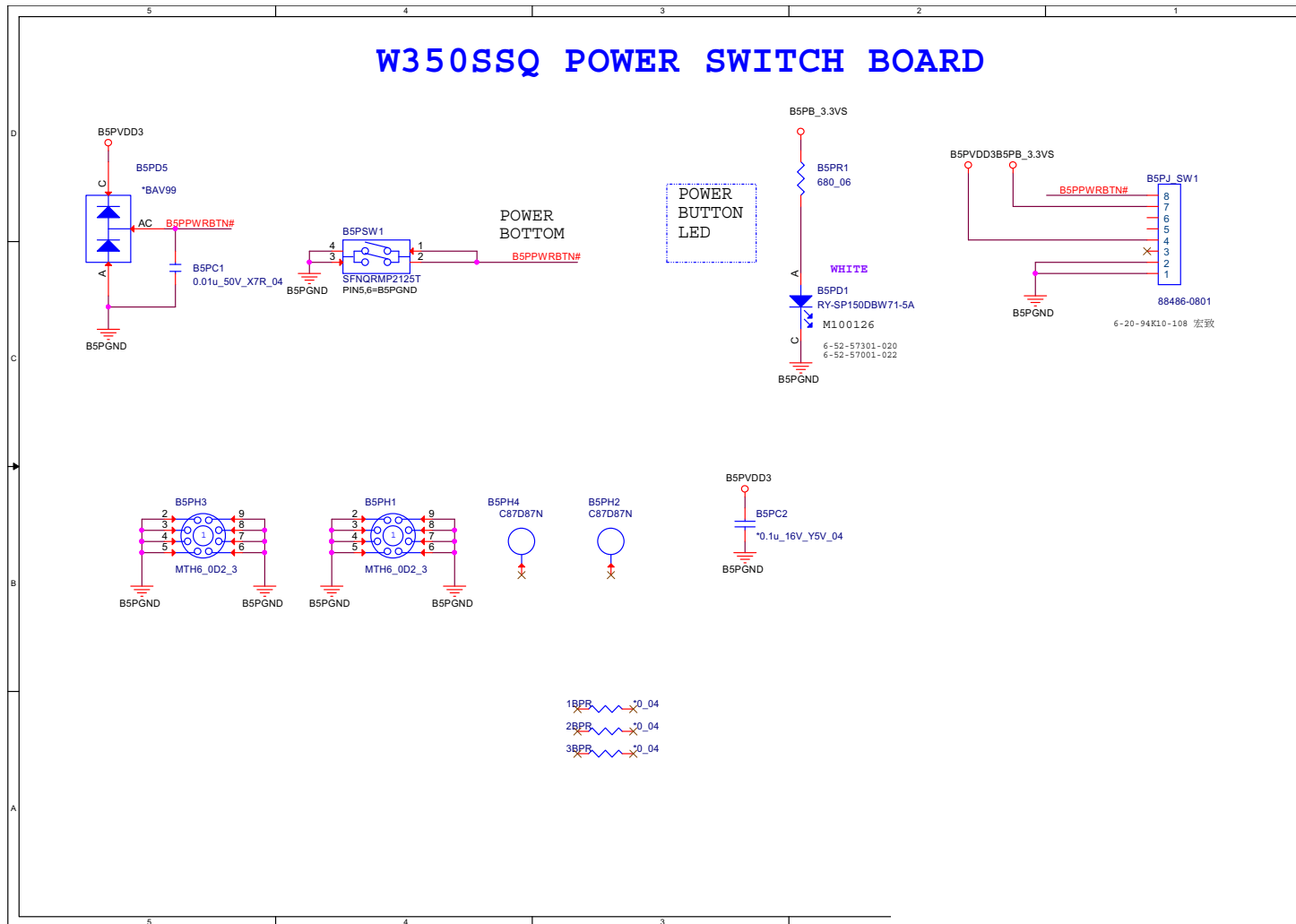
Schematic Diagrams

W370SS Power Switch Board

Sheet 51 of 58
W370SS Power
Switch Board



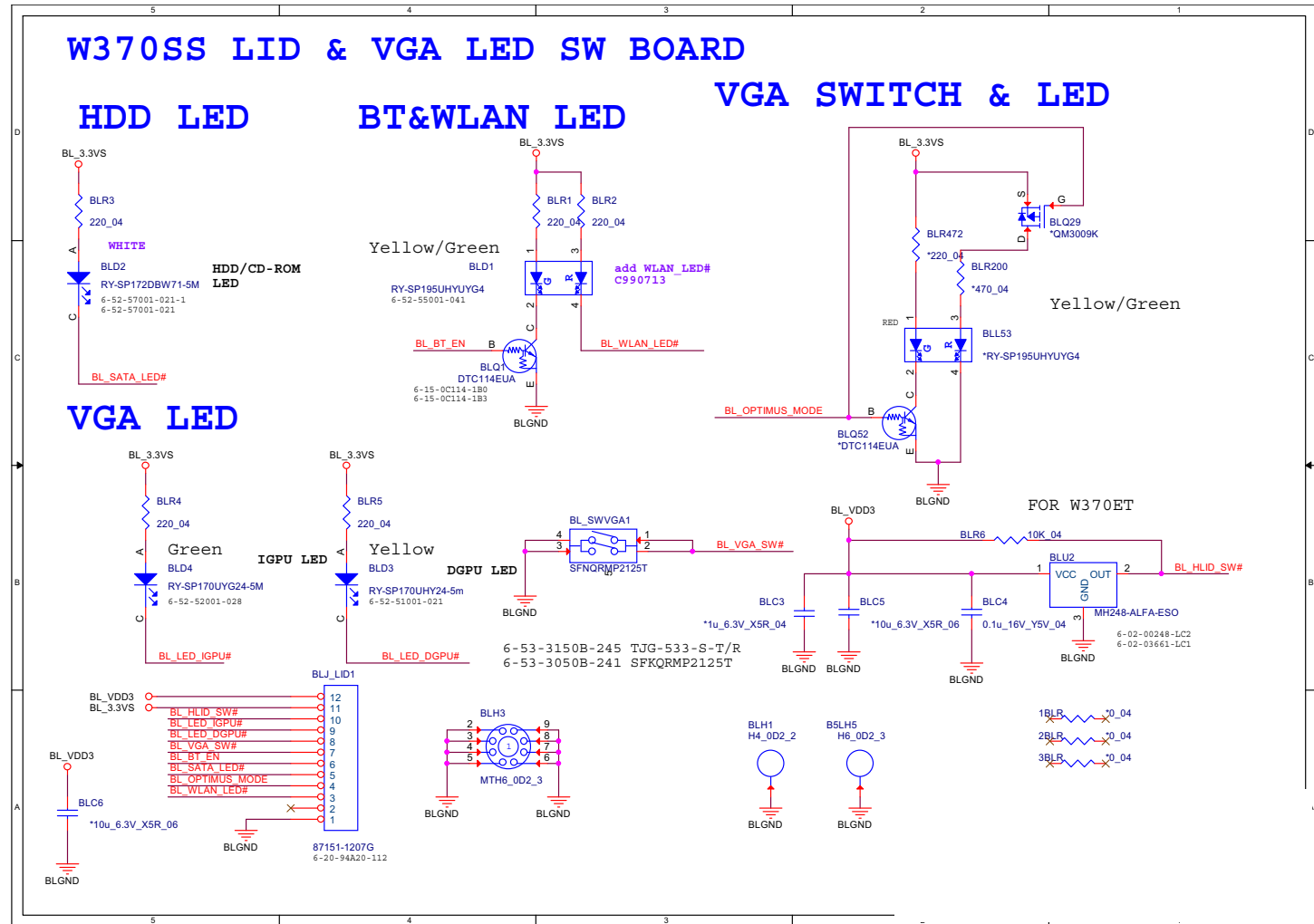
W350SSQ Power Switch Board



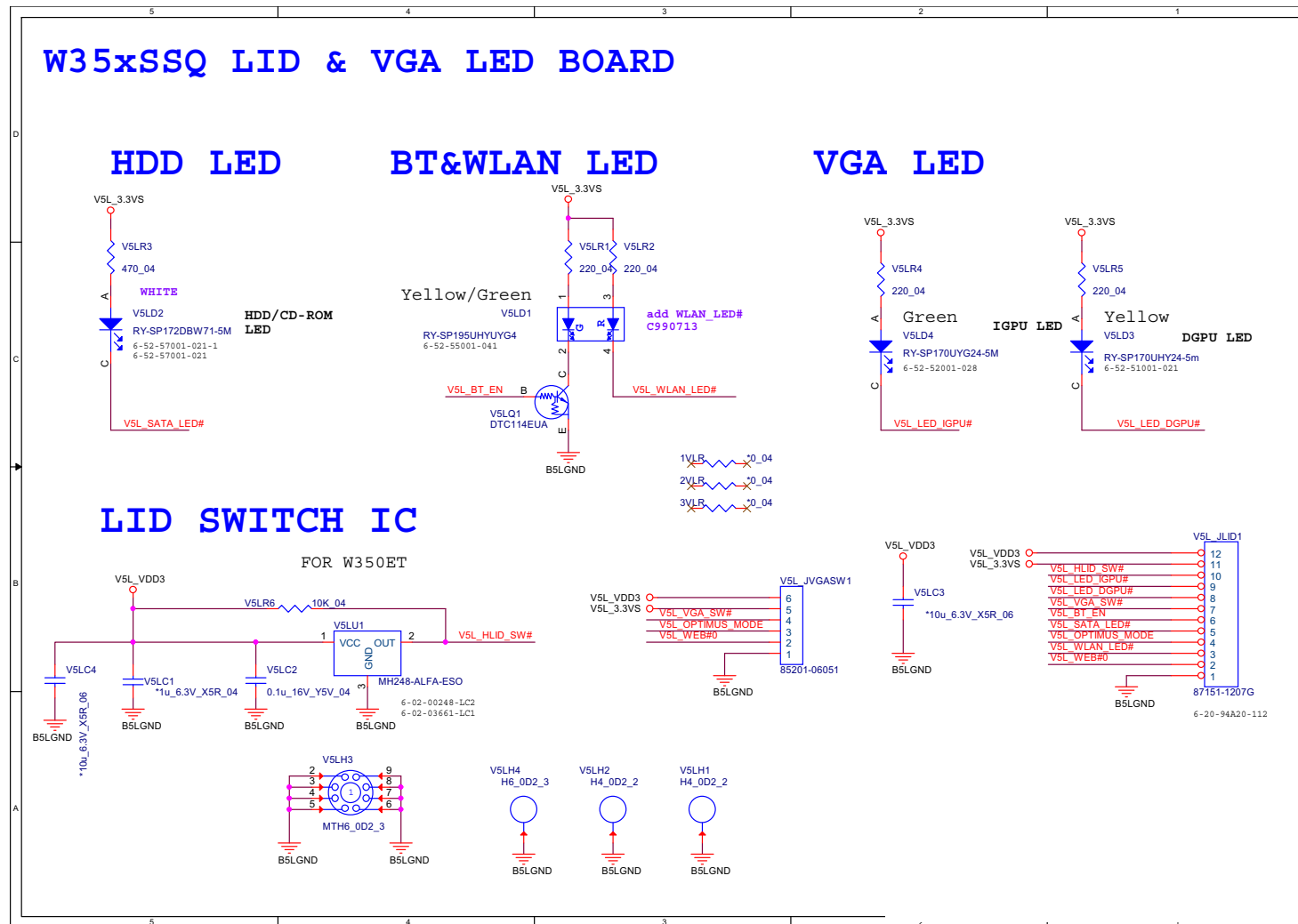
Sheet 52 of 58
W350SSQ Power
Switch Board

W370SS LID / VGA LED Board

Sheet 53 of 58
W370SS LID / VGA
LED Board



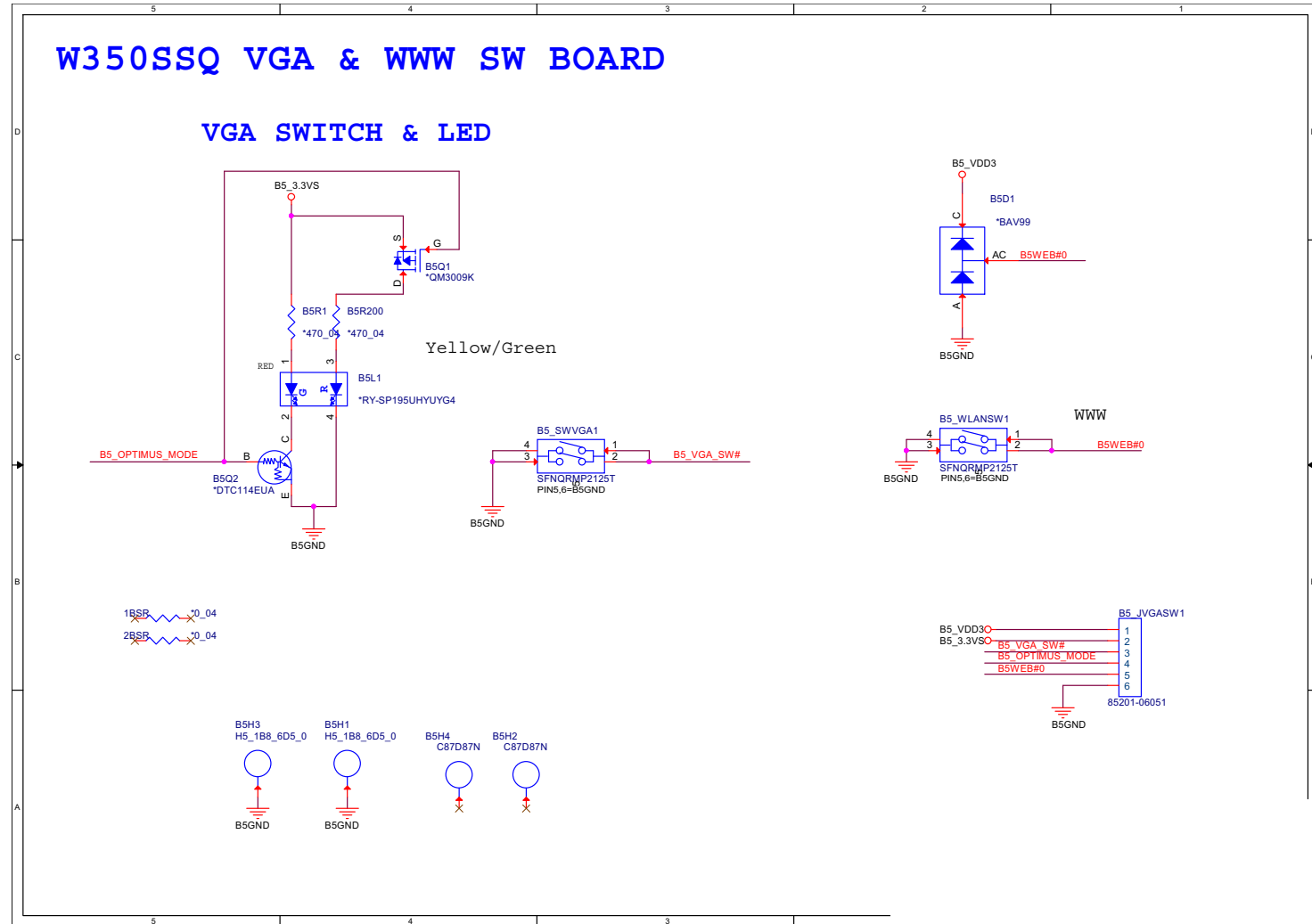
W35XSSQ LID / VGA LED Board



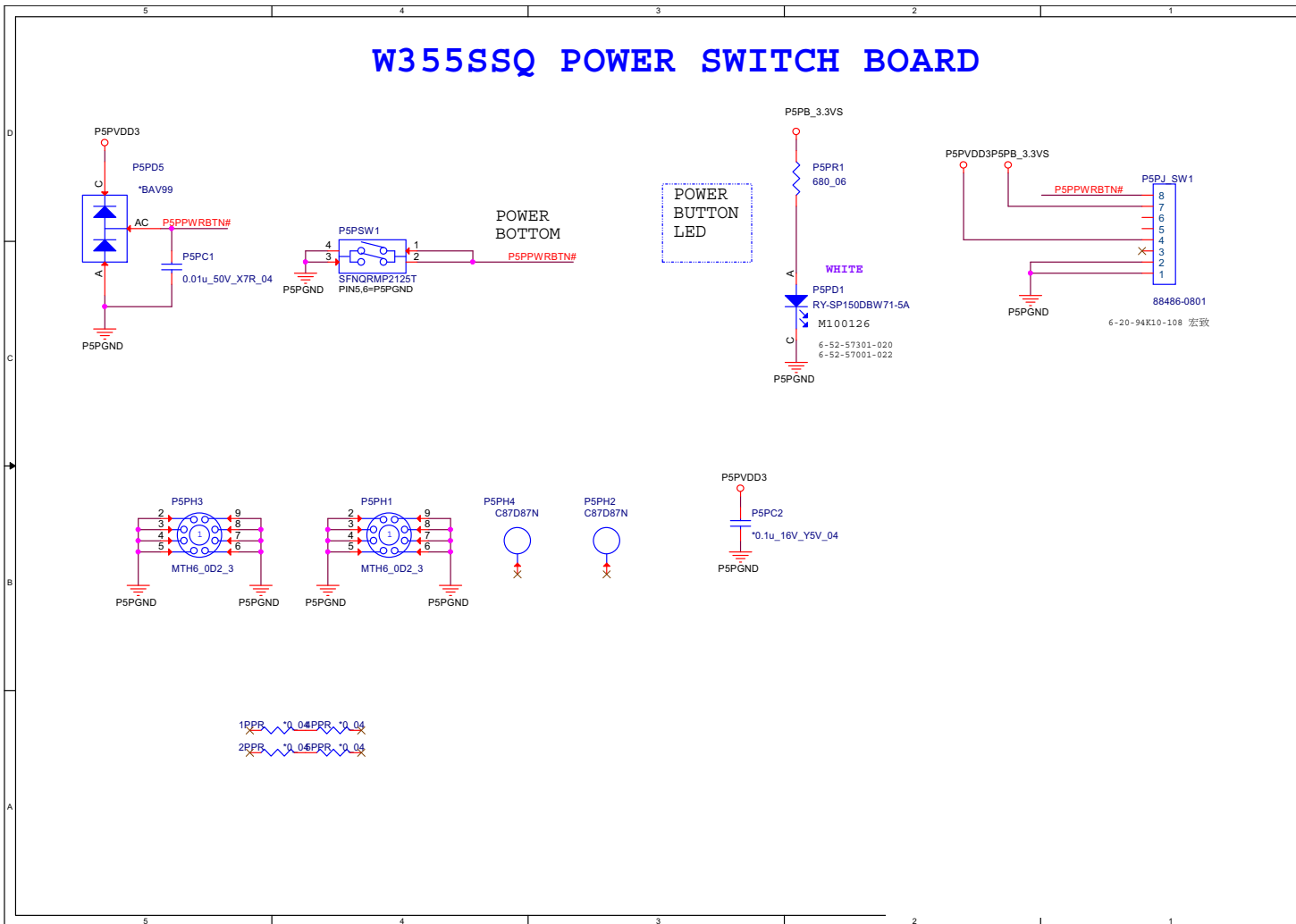
Sheet 54 of 58
W35XSSQ LID /
VGA LED Board

W350SSQ VGA / WLAN SW Board

Sheet 55 of 58
W350SSQ VGA /
WLAN SW Board



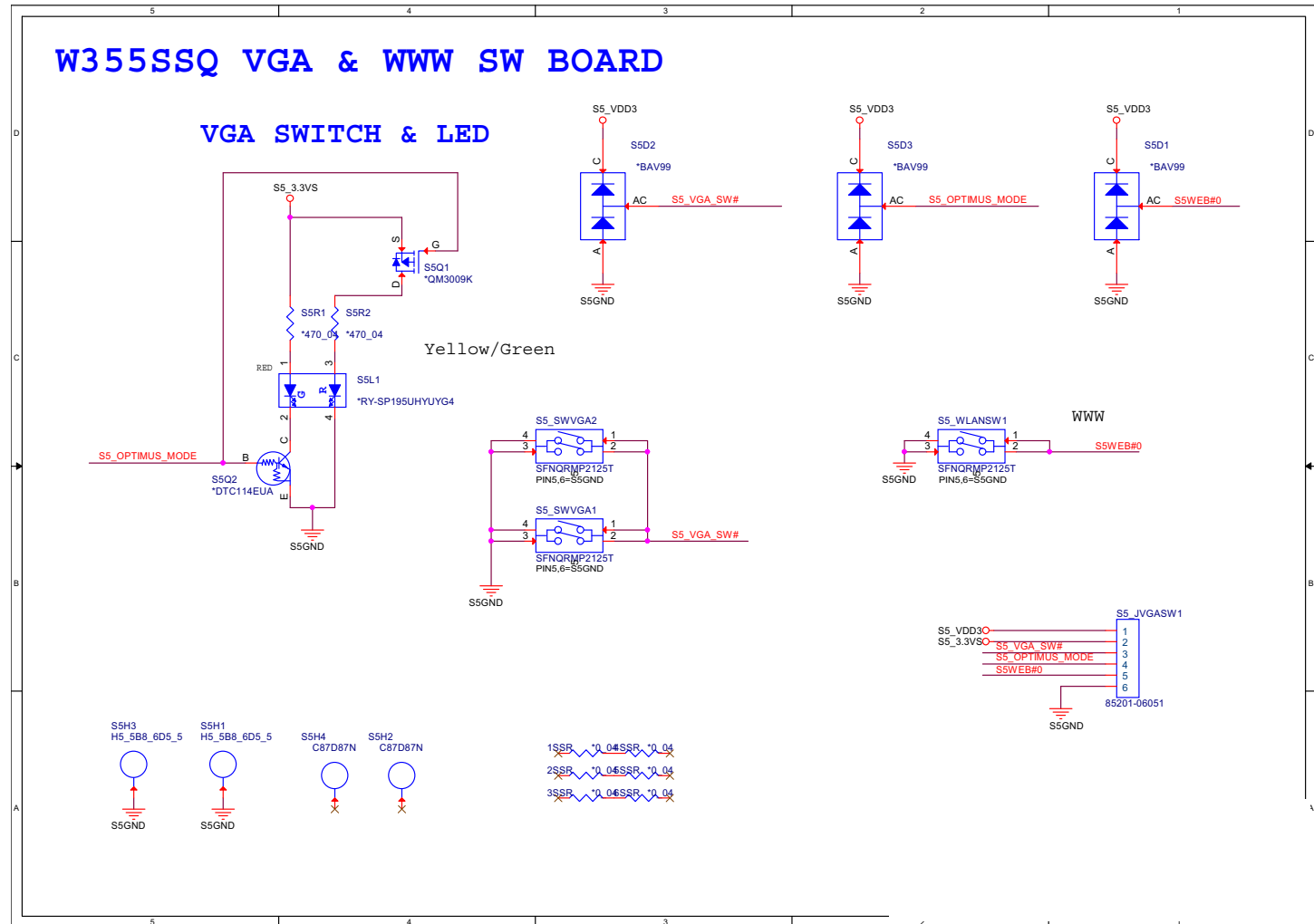
W355SSQ Power Switch Board



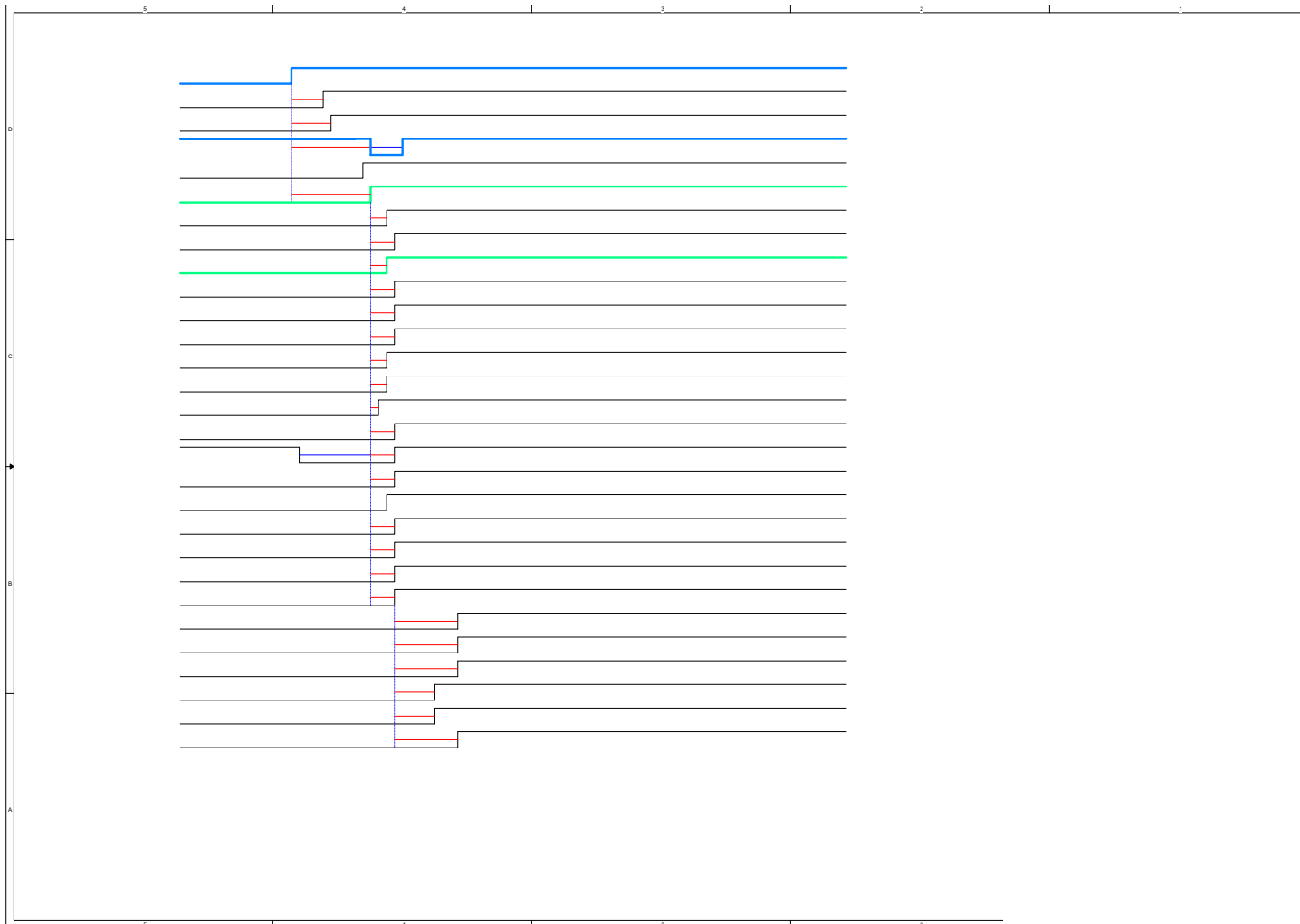
Sheet 56 of 58
W355SSQ Power
Switch Board

W355SSQ VGA / WLAN SW Board

Sheet 57 of 58
W355SSQ VGA /
WLAN SW Board



POWER SEQUENCE



Sheet 58 of 58
POWER
SEQUENCE

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 from the BIOS - Legacy Mode (UEFI disabled) and save the 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 **V1.00.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 “**Starting MS-DOS**”. You will then be prompted to give “**Y**” or “**N**” responses to the programs being loaded by DOS. Choose “**N**” for any memory management programs.
2. You should now be at the DOS prompt e.g: **DISK C:\>** (C is the designated drive letter for the CD/DVD drive/USB flash drive).
3. **Type the following command** at the DOS prompt:

C:\> Flash.bat

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.