

SERVICE MANUAL

N240BU / N241BU

notebook



Notebook Computer

N240BU / N241BU

Service Manual

Notice

The company reserves the right to revise this publication or to change its contents without notice. Information contained herein is for reference only and does not constitute a commitment on the part of the manufacturer or any subsequent vendor. They assume no responsibility or liability for any errors or inaccuracies that may appear in this publication nor are they in anyway responsible for any loss or damage resulting from the use (or misuse) of this publication.

This publication and any accompanying software may not, in whole or in part, be reproduced, translated, transmitted or reduced to any machine readable form without prior consent from the vendor, manufacturer or creators of this publication, except for copies kept by the user for backup purposes.

Brand and product names mentioned in this publication may or may not be copyrights and/or registered trademarks of their respective companies. They are mentioned for identification purposes only and are not intended as an endorsement of that product or its manufacturer.

Version 1.1
April 2017

Trademarks

Pentium and Celeron are trademarks of Intel Corporation.

Windows[®] is a registered trademark of Microsoft Corporation.

Other brand and product names are trademarks and /or registered trademarks of their respective companies.

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 *N240BU* / *N241BU* 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

Preface

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.

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.

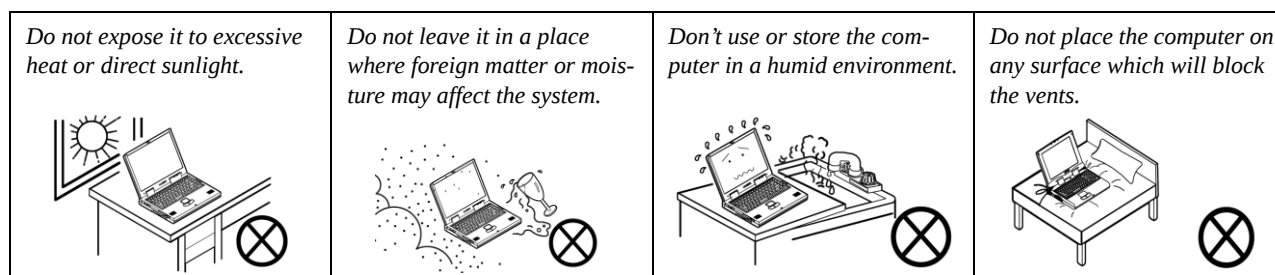
Instructions for Care and Operation

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.

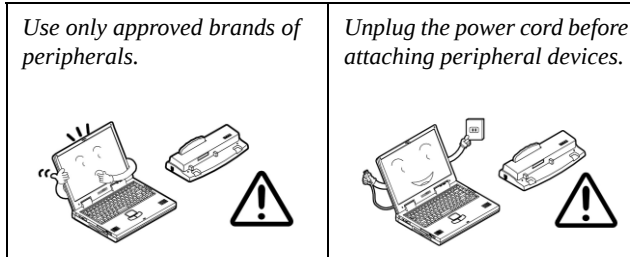


3. **Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.



Preface

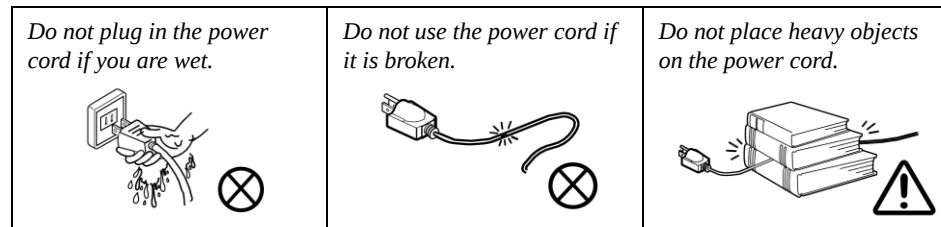
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



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 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.

Preface

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 rear 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).

Contents

Introduction1-1

Overview	1-1
Specifications	1-2
External Locator - Top 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 Hard Disk Drive	2-6
Removing the System Memory (RAM)	2-8
Removing the Keyboard	2-10
Removing the Wireless LAN Module	2-11
Wireless LAN, and Combo Module Cables	2-12
Removing the 3G Module	2-13
Removing and Installing the M.2 SSD Module	2-14
Removing the CCD	2-16

Part ListsA-1

Part List Illustration Location	A-2
Top	A-3

Bottom	A-4
LCD	A-5
HDD	A-6

Schematic Diagrams.....B-1

System Block Diagram	B-2
Processor 1/11	B-3
Processor 2/11	B-4
Processor 3/11	B-5
Processor 4/11	B-6
Processor 5/11	B-7
Processor 6/11	B-8
Processor 7/11	B-9
Processor 8/11	B-10
Processor 9/11	B-11
Processor 10/11	B-12
Processor 11/11	B-13
DDR3 SO-DIMM_0	B-14
DDR3 SO-DIMM_1	B-15
HDMI	B-16
Panel	B-17
Conn, CCD, Fan, T/P, TV	B-18
RTD2316N	B-19
SATA, LED, KB, G-Sensor	B-20
USB, TPM	B-21
USB	B-22
WLAN/BT, 3G/mSATA	B-23
M Key PCIE * 4 SSD	B-24
Audio Codec	B-25
KBC ITE IT8587	B-26
ASM1142	B-27

Preface

3V, 5V, 3VS, 5VS, CTL Signal	B-28
VDD3, VDD5	B-29
VDDQ_VTT, 1.5VS, 1.8VS	B-30
1.0V Series	B-31
VCore, VCCGT, VCCSA, VCCIO	B-32
RT3601BC	B-33
Charger, DC-In	B-34
USB Board	B-35
CRT	B-36
RTL8411B	B-37
Power SW Board	B-38
Click Board	B-39
LED Board	B-40
HDD Board	B-41
Power Sequence	B-42
Updating the FLASH ROM BIOS.....	C-1
Download the BIOS	C-1
Unzip the downloaded files to a bootable CD/DVD/ or	
USB Flash drive	C-1
Set the computer to boot from the external drive	C-1
Use the flash tools to update the BIOS	C-2
Restart the computer (booting from the HDD)	C-2

Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the **N240BU / N241BU** 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 **N240BU / N241BU** 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

i7-7500U (2.70GHz)

4MB Smart Cache, **14nm**, DDR4-2133MHz, TDP 15W

Intel® Core™ i5 Processor

i5-7200U (2.50GHz)

3MB Smart Cache, **14nm**, DDR4-2133MHz, TDP 15W

Intel® Core™ i3 Processor

i3-7100U (2.40GHz)

3MB Smart Cache, **14nm**, DDR4-2133MHz, TDP 15W

BIOS

64Mb SPI Flash ROM

AMI BIOS

Memory

Two 260 Pin SO-DIMM Sockets Supporting **DDR4 2133 MHz** Memory

Memory Expandable up to 32GB

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

LCD Options

14" (35.56cm), 16:9, HD (1366x768) (Thickness: 3.6mm)/
FHD (1920x1080) (Thickness: 3.0mm)

Video Adapter

Intel GPU (CPU integrated)

Intel HD Graphics 620

Dynamic Frequency

Intel Dynamic Video Memory Technology

Microsoft DirectX®12 Compatible

Storage

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

(**Factory Option**) One M.2 **SATA/PCIe Gen3 x4** Solid State Drive (SSD)

Pointing Device

Built-in Touchpad

Keyboard

"WinKey" keyboard (with embedded numeric keypad)

Audio

High Definition Audio Compliant Interface

2 * Built-In Speakers

Built-In Microphone

(**Factory Option**) Built-In Array Microphone

Security

Security (Kensington® Type) Lock Slot

BIOS Password

Intel PTT for Systems Without TPM Hardware

(**Factory Option**) TPM 2.0

M.2 Slots

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

Slot 2 for **SATA/PCIe Gen3 x4 SSD**

(**Factory Option**) Slot 3 for **3G/4G** Module

Interface

One USB 2.0 Port
One USB 3.0 (USB 3.1 Gen 1) Port
One USB 3.0 (USB 3.1 Gen 1) Type C Port Or
(Factory Option) One USB 3.1 Gen 2 Type C Port
One HDMI-Out Port
One External Monitor Port
One Microphone-In Jack
One Headphone-Out Jack
One RJ-45 LAN Jack
One DC-in Jack

Communication

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

WLAN/ Bluetooth M.2 Modules:

(Factory Option) Intel® Wireless-AC 8265 Wireless LAN
(802.11ac) + Bluetooth 4.1
(Factory Option) Intel® Wireless-AC 3168 Wireless LAN
(802.11ac) + Bluetooth 4.0

Card Reader

Embedded Multi-In-1 Card Reader
MMC (MultiMedia Card) / RS MMC
SD (Secure Digital) / Mini SD / SDHC/ SDXC

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
(Factory Option) Removable 3 Cell Smart Lithium-Ion Battery Pack, 24WH

Environmental Spec**Temperature**

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

Relative Humidity

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

Dimensions & Weight

340mm (w) * 243.5mm (d) * 22.2mm (h)
(Height Excluding Battery Area)
1.8kg (Barebone with 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
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.

RIGHT SIDE VIEW



Figure 3
Right Side View

1. USB 2.0 Port
2. Multi-in-1 Card Reader
3. External Monitor Port
4. RJ-45 LAN Jack

Introduction

External Locator - Left Side & Rear View

Figure 4
Left Side View

1. Security Lock Slot
2. DC-In Jack
3. HDMI-Out Port
4. Vent
5. USB 3.0/3.1 Port
6. USB 3.0/3.1 Type C Port
7. Microphone-In Jack
8. Headphone-Out Jack

LEFT SIDE VIEW



Figure 5
Rear View

1. Battery

REAR VIEW



External Locator - Bottom View

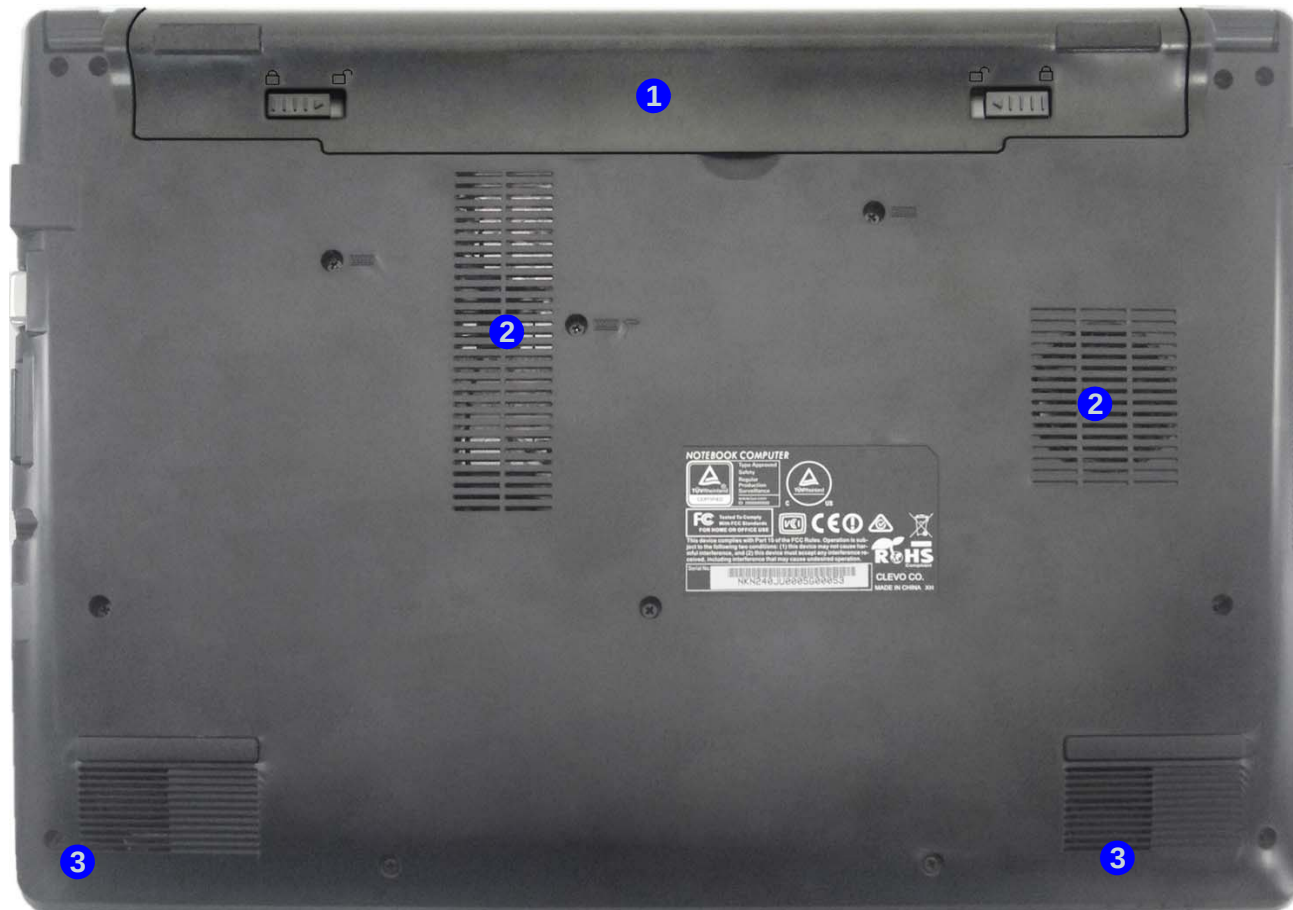


Figure 6
Bottom View

1. Battery
2. Vent
3. Speakers



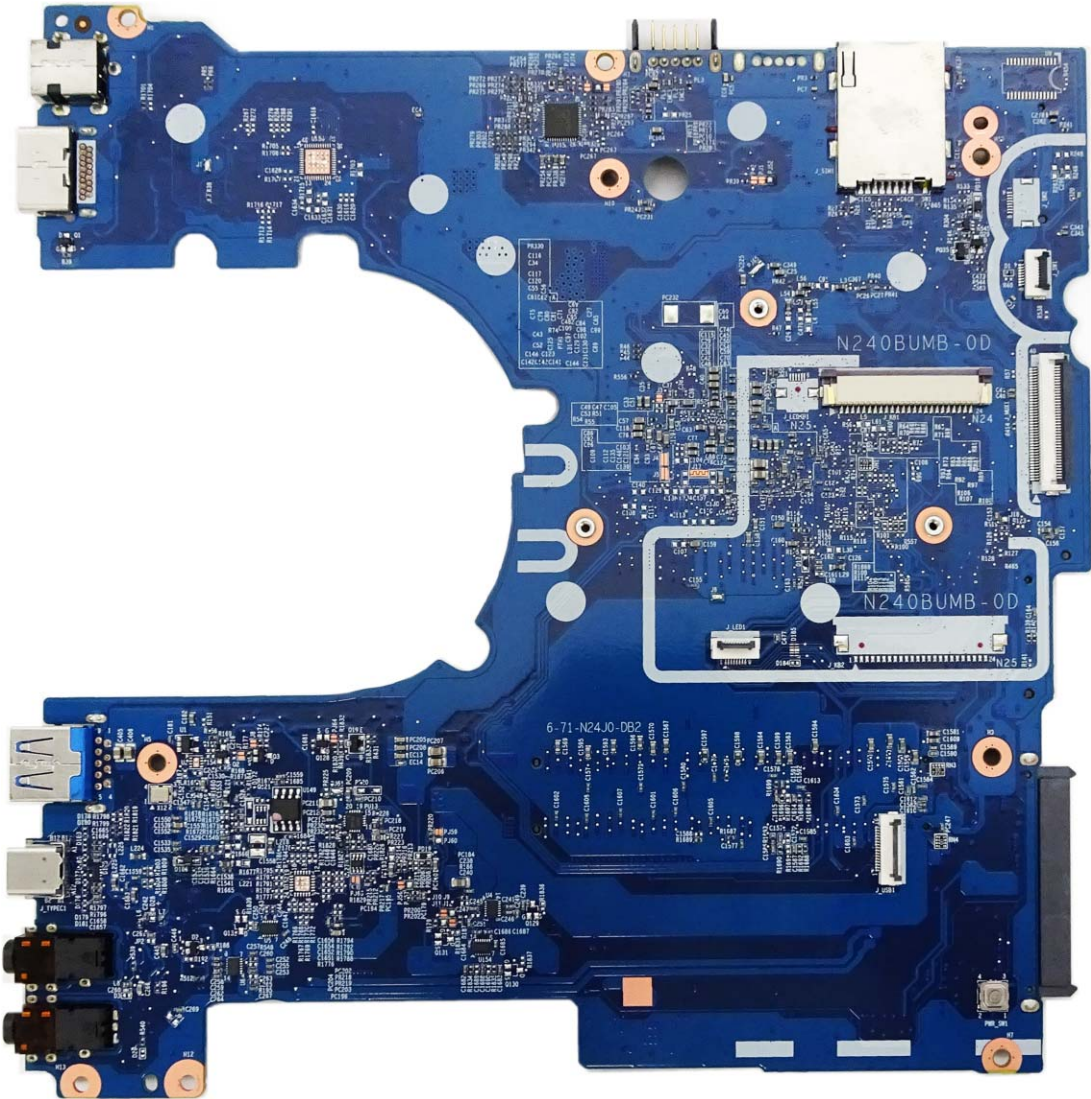
Overheating

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

Mainboard Overview - Top (Key Parts)



Mainboard Overview - Bottom (Key Parts)

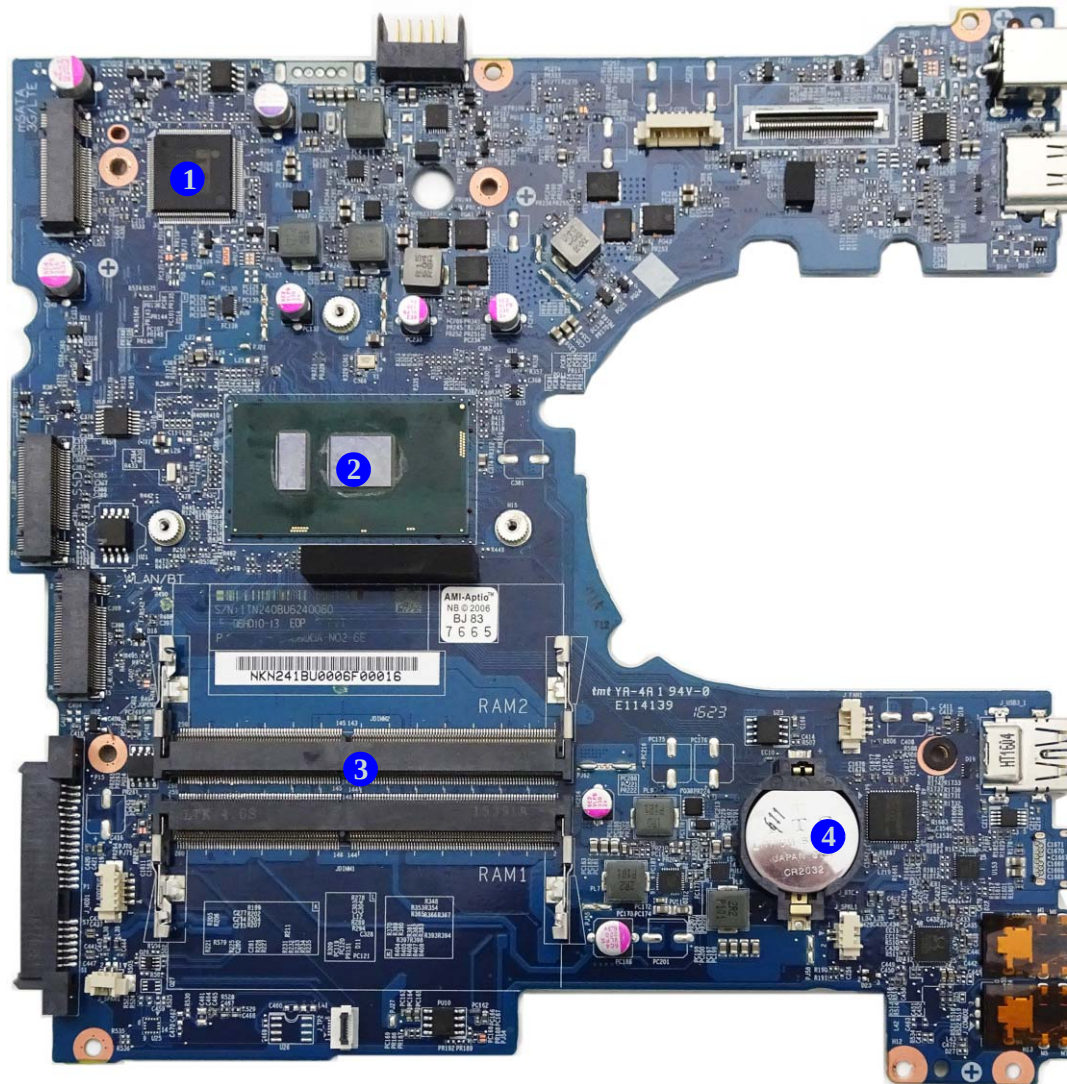


Figure 8
**Mainboard Bottom
Key Parts**

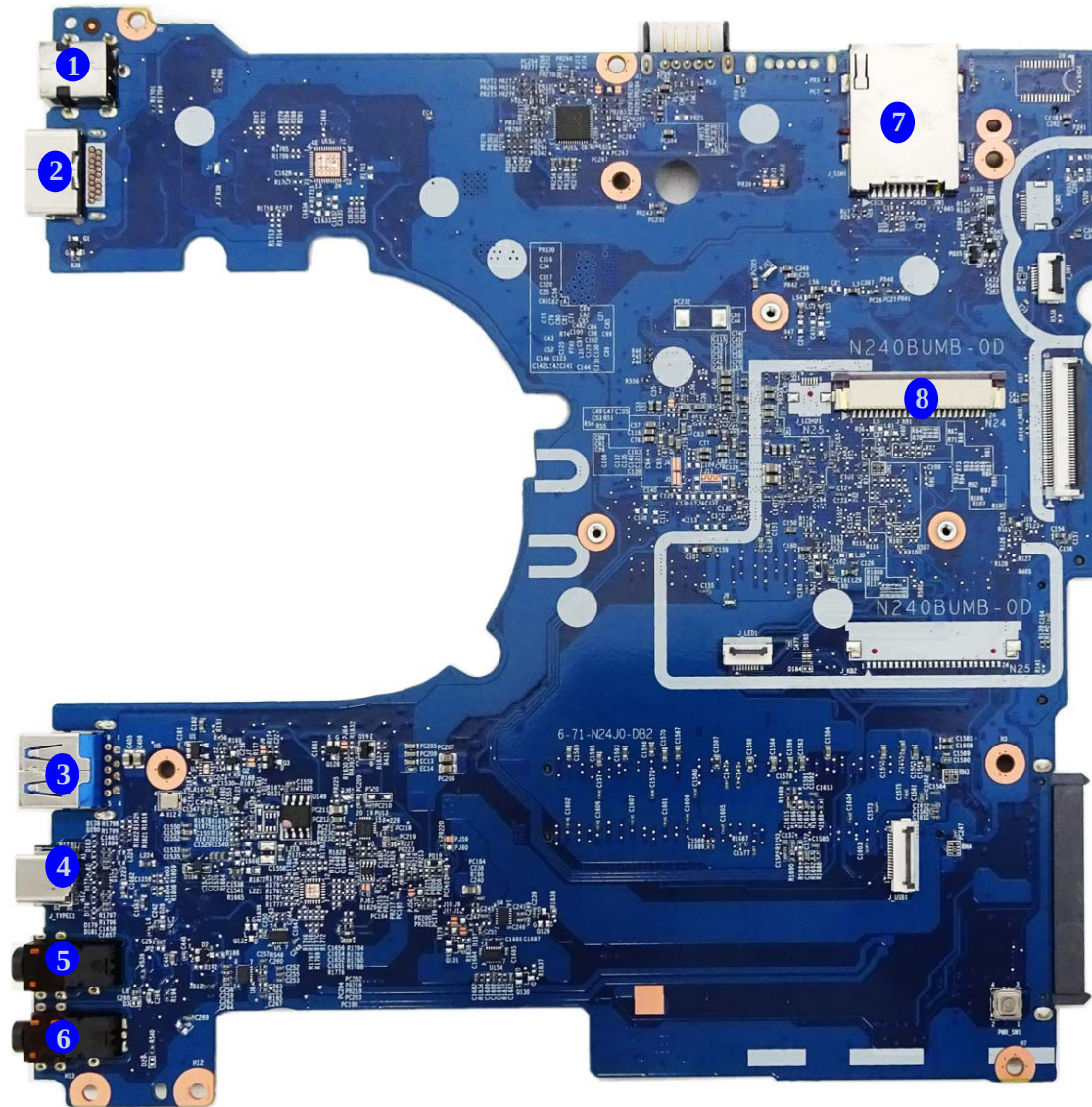
1. KBC-ITE IT8587
2. CPU
3. Memory Slots
DDR4 SO-DIMM
4. CMOS Battery

Introduction

Figure 9
Mainboard Top Connectors

1. DC-In Jack
2. HDMI-Out Port
3. USB Port 3.0/3.1 Port
4. USB Port 3.0/3.1 Type C Port
5. Microphone-In Jack
6. Headphone-Out Jack
7. SIM Card Reader
8. Keyboard Cable Connector

Mainboard Overview - Top (Connectors)



Mainboard Overview - Bottom (Connectors)

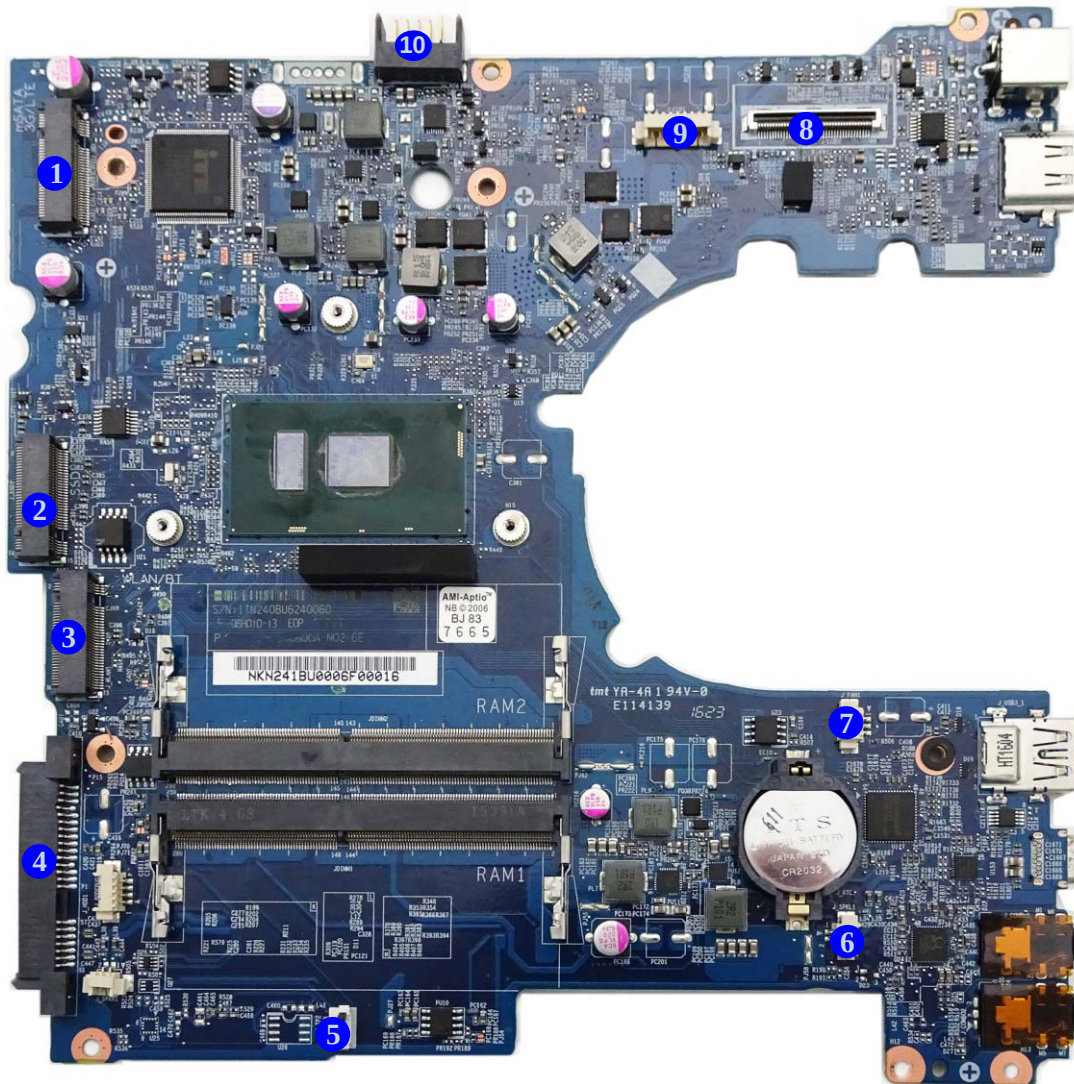


Figure 10
**Mainboard Bottom
Connectors**

1. 3G/4G Card Connector
2. M.2 Card Connector
3. WLAN Connector
4. HDD Connector
5. Touchpad Connector
6. Speaker Connector
7. Fan Connector
8. LCD Cable Connector
9. CCD Connector
10. Battery Connector

Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the *N240BU* / *N241BU* series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

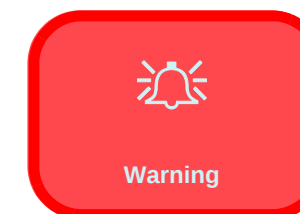
We suggest you completely review any procedure before you take the computer apart.

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-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 HDD:

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

To remove the System Memory:

1. Remove the battery [page 2 - 5](#)
2. Remove the system memory [page 2 - 8](#)

To remove the Keyboard:

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

To remove the Wireless LAN Module:

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

To remove the 3G Module:

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

To remove and install the M.2 SSD Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the SSD module [page 2 - 14](#)
3. Install the SSD module [page 2 - 15](#)

To remove the CCD Module:

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

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 1b*).
4. While holding the latch **2** in place, pull the battery **3** up in the direction of the arrow **4** and lift it out (*Figure 1c*).
5. Orientate the new battery **3** as illustrated and align the pins **5** & **6** with the edges of the battery compartment (*Figure 1d*).
6. Turn the battery **3** in the direction of the arrow **7** to insert it into the compartment (*Figure 1e*).
7. Slide the latch **8** in the direction of the arrow into the lock position (*Figure 1f*).

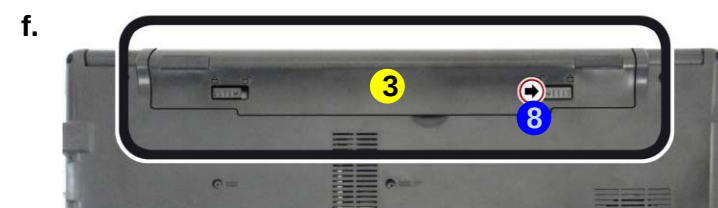
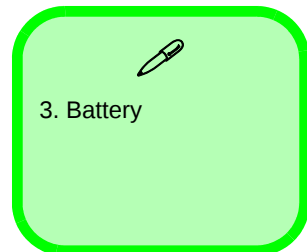


Figure 1
Battery Removal

- a. Slide the latch and hold it in place.
- b. Turn the battery in the direction of the arrow.
- c. Lift the battery out.
- d. Insert a new battery by aligning the pins.
- e. Turn the battery in the direction of the arrow.
- f. Lock the latch in place.



Disassembly

Figure 2
**HDD Assembly
Removal**

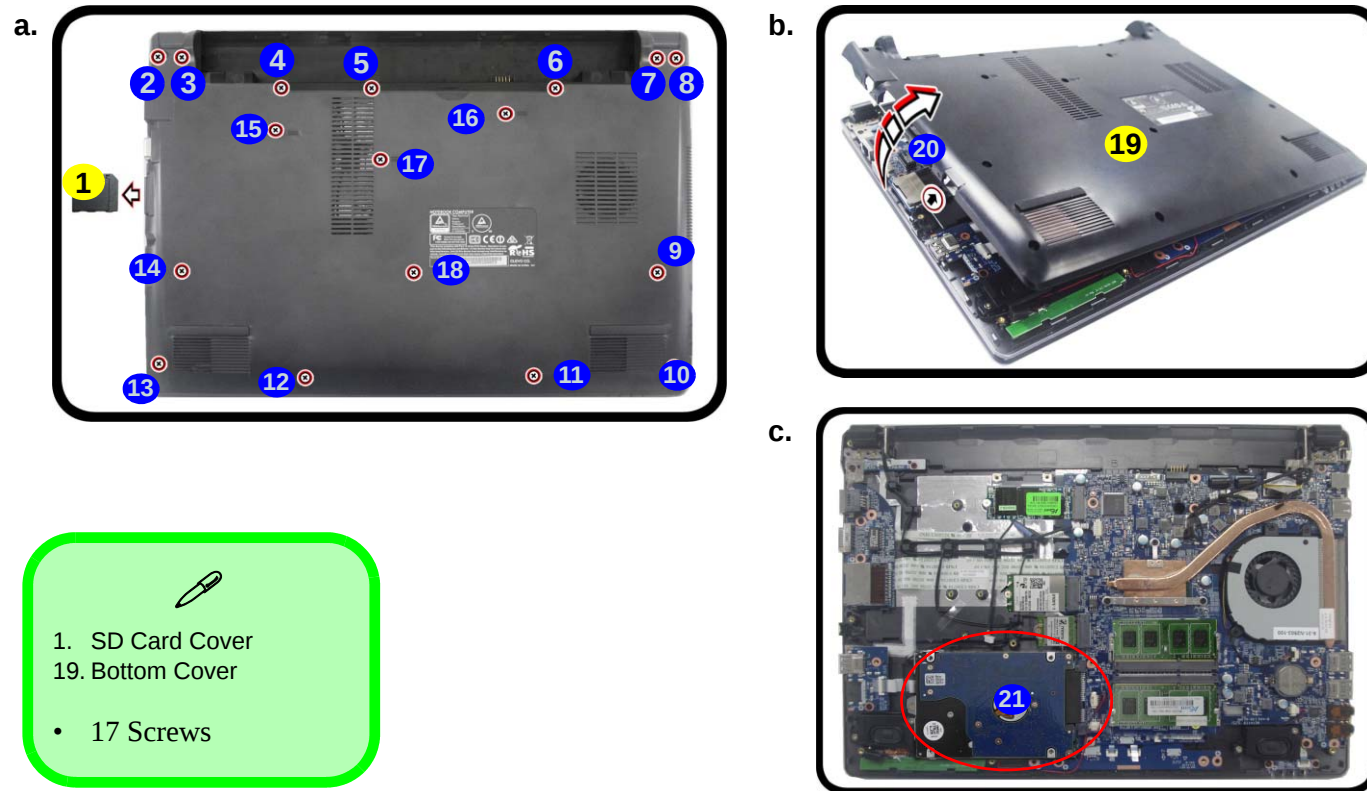
- Remove the screws.
- Remove the bottom cover.
- Locate the HDD assembly.

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 SD card cover **1** and screws **2** - **18** ([Figure 2a](#)).
- Lift the bottom cover **19** up from point **20** ([Figure 2b](#)).
- The hard disk drive will be visible at point **21** ([Figure 2c](#)).



1. SD Card Cover
19. Bottom Cover
- 17 Screws

HDD System Warning

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

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

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

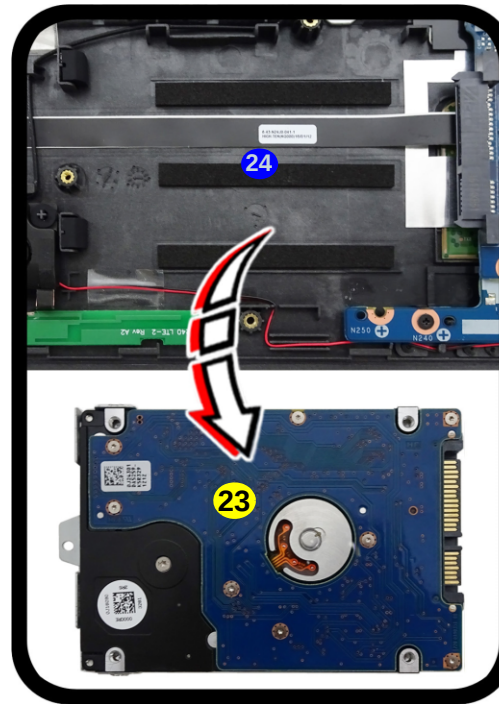
If you have access to the internet, download the latest application and hardware driver updates for the operating system you plan to install. Copy these to a removable medium.

5. Remove screw **22** and slightly lift to pull the hard disk assembly in the direction of arrow (**Figure 3d**).
6. Lift the hard disk assembly **23** out of the bay **24** (**Figure 3e**).
7. Remove the screws **25** - **26** and the adhesive cover **27** from the hard disk **28** (**Figure 3f**).
8. Reverse the process to install a new hard disk (do not forget to replace all the screws and bottom cover).

d.



e.



f.



Figure 3
**HDD Assembly
Removal (cont'd.)**

- d. Remove screw and slightly lift to pull the HDD assembly in the direction of the arrow.
- e. Lift the HDD assembly out of the bay.
- f. Remove the screws and HDD bracket.



23. HDD Assembly
27. HDD Bracket
28. HDD

- 3 Screws

Disassembly

Figure 4
RAM Module Removal

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

Removing the System Memory (RAM)

The computer has two memory sockets for 260 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDR4 Up to 2133MHz. The main memory can be expanded up to 32GB. The total memory size is automatically detected by the POST routine once you turn on your computer.

Memory Upgrade Process

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



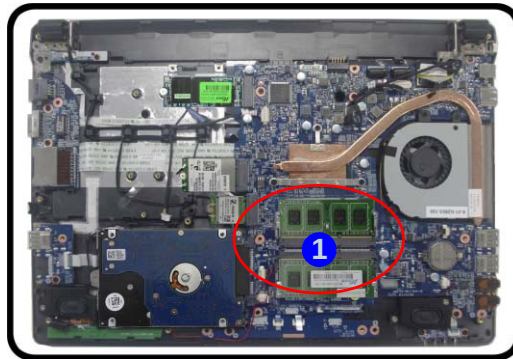
Contact Warning

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.

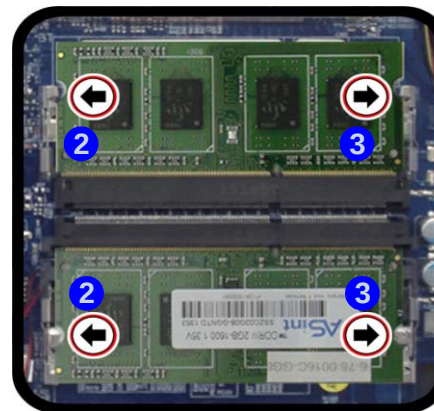


4. RAM Module

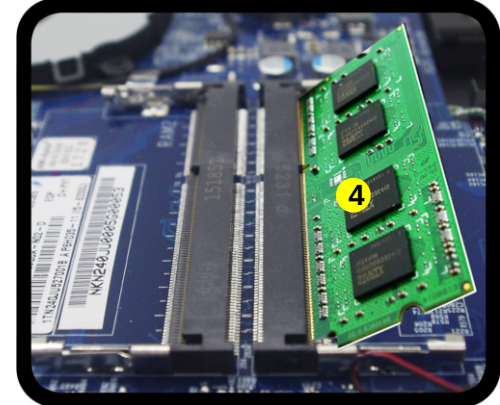
a.



b.



c.



Single Memory Module Installation

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

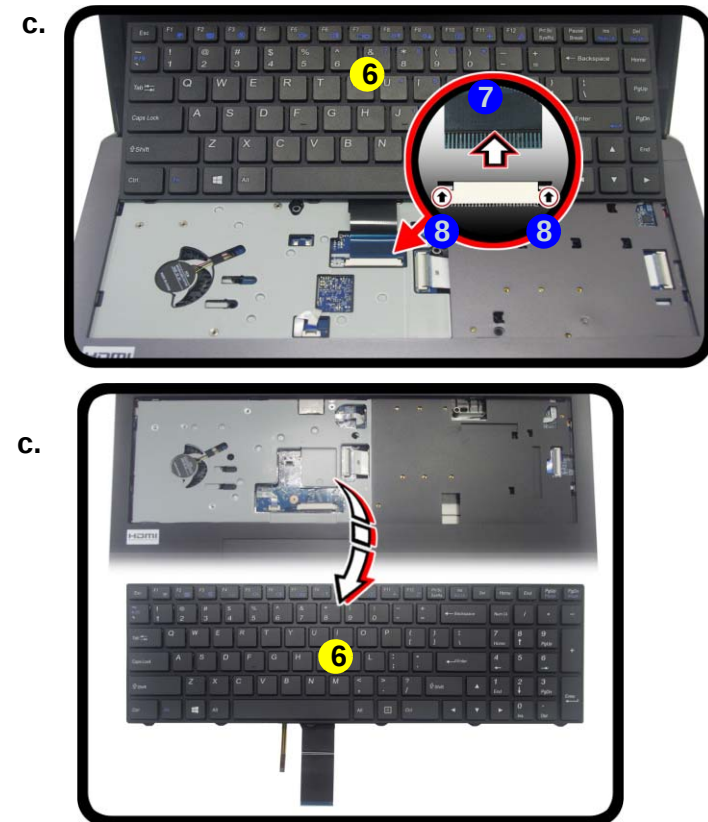
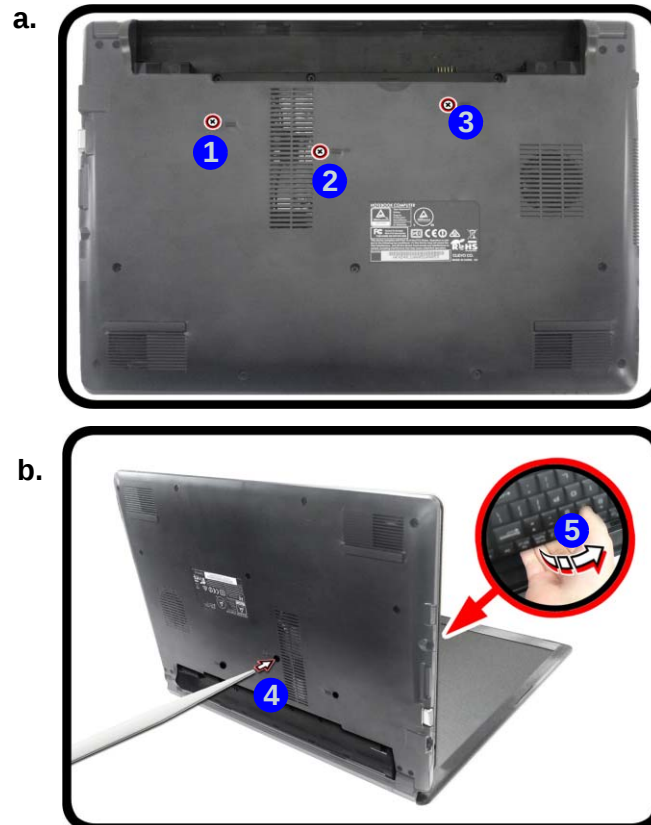
5. Pull the latches to release the second module if necessary.
6. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
7. The module will only fit one way as defined by its pin alignment. Make sure the module is seated as far into the slot as it will go. DO NOT FORCE IT; it should fit without much pressure.
8. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
9. Replace the bottom case and the screws (see [page 2 - 5](#)).
10. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

Disassembly

Figure 5
Keyboard Removal

Removing the Keyboard

1. Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)).
 2. Remove screws **1** - **3** from the bottom case ([Figure 5a](#)).
 3. Open it up with the LCD on a flat surface before pressing at point **4** to release the keyboard module while releasing the keyboard in the direction of the arrow **5** as shown ([Figure 5b](#)).
 4. Carefully lift the keyboard **6** up, being careful not to bend the keyboard ribbon cable **7**. Disconnect the keyboard ribbon cable from the locking collar socket **8** ([Figure 5c](#)).
 5. Carefully lift up the keyboard **6** off the computer ([Figure 5d](#)).
 6. Reverse the process to install the keyboard (be careful not to bend the keyboard ribbon cable).
- a.
 - b. Release the keyboard by pressing at point **4**.
 - c. Disconnect the keyboard ribbon cable from the locking collar socket.
 - d. Remove the keyboard.



2. Keyboard

Removing the Wireless LAN Module

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

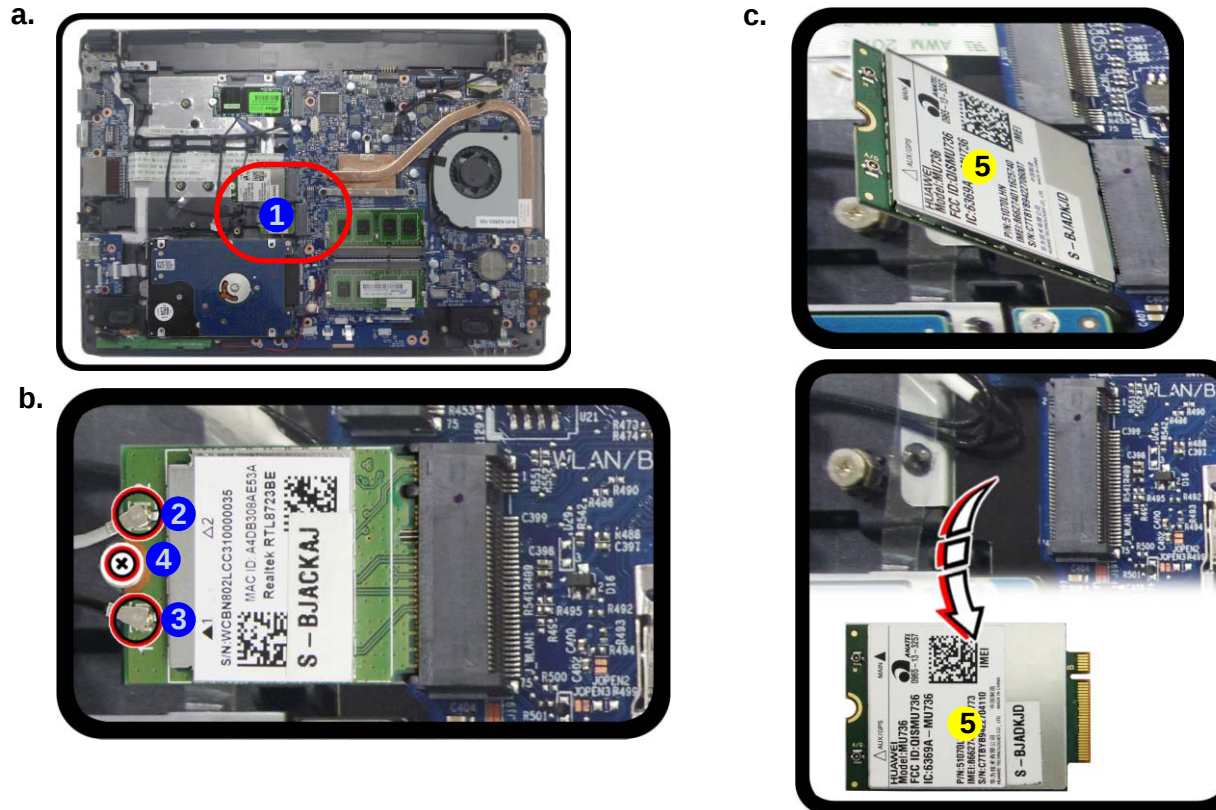


Figure 6
**Wireless LAN
Module Removal**

- 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 6b](#)).



5.Wireless LAN Module

- 1 Screw

Disassembly

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	Black	White

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

Removing the 3G Module

3G Module Removal Procedure

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)).
2. Locate the module, it is visible at point **1** ([Figure 7a](#)).
3. Carefully disconnect the cables **2** & **3**, and then remove the screw **4** from the module ([Figure 7b](#)).
4. The module **3** will pop-up ([Figure 7c](#)).
5. Lift the module **5** up and off the computer ([Figure 7d](#)).

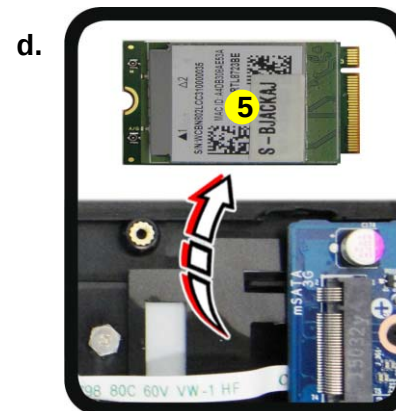
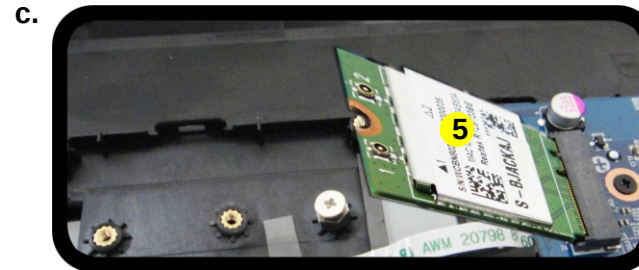
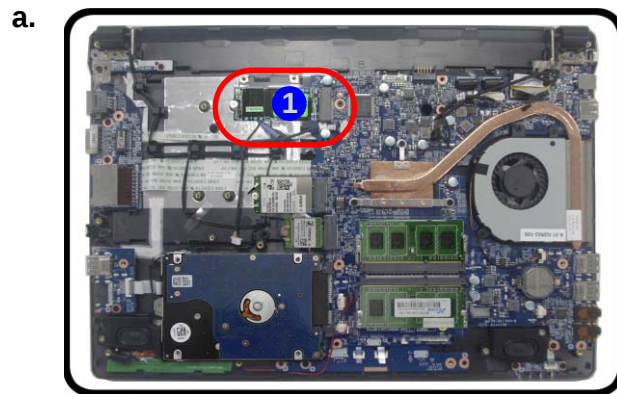


Figure 7
3G Module Removal

- Locate the module.
- Disconnect the cables and remove the screw.
- The module will pop-up.
- Lift the module up off the socket.



5. 3G Module

- 1 Screw

Disassembly

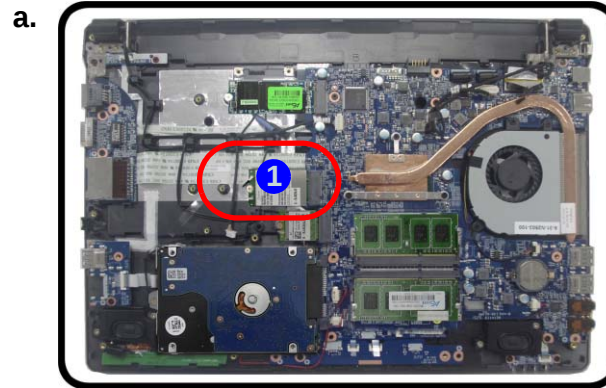
Figure 8
M.2 SSD Module Removal

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

Removing and Installing the M.2 SSD Module

m.2 SSD Removal Procedure

- Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)) and bottom cover ([page 2 - 6](#)).
- The M.2 SSD module will be visible at point **1** on the mainboard ([Figure 8a](#)).
- Remove the screw **2** ([Figure 8b](#)).
- The M.2 SSD module **3** ([Figure 8c](#)) will pop-up, and you can remove it from the computer.



3.M2 SATA-1 Module

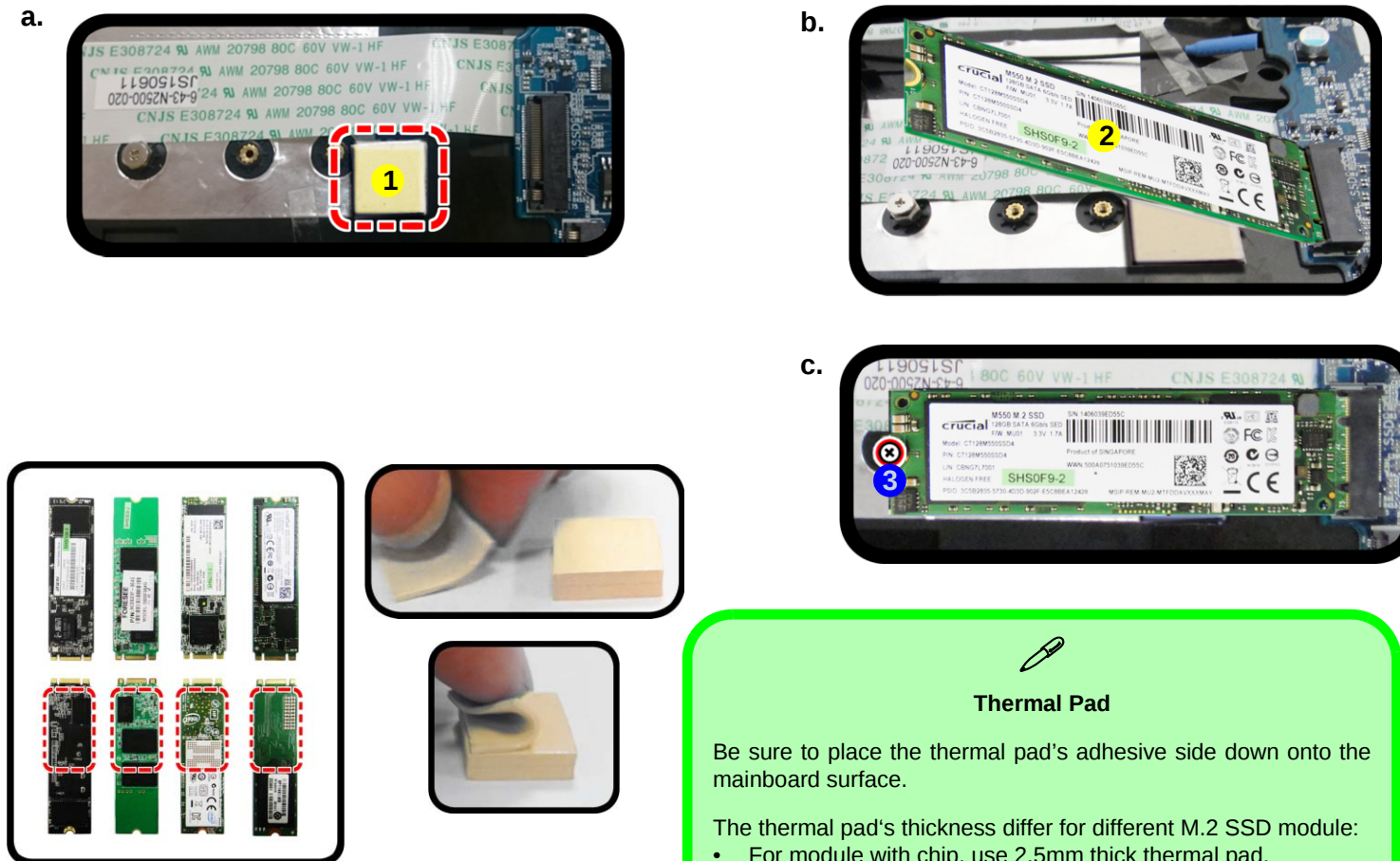
- 1 Screw

Figure 9
M.2 SSD Module
Installation

- Place the thermal pad.
- Insert the module.
- Tighten the screw.

M.2 SSD Installation Procedure

- Place the thermal pad **1** on the bottom case as shown (**Figure 9a**).
- Insert the module **2** in the computer (**Figure 9b**).
- Tighten the screw **3** to secure it in place (**Figure 9c**).



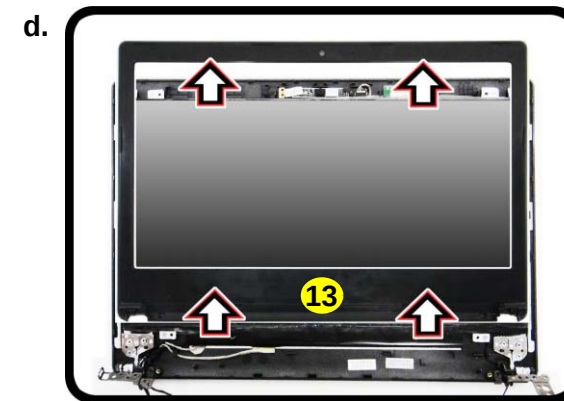
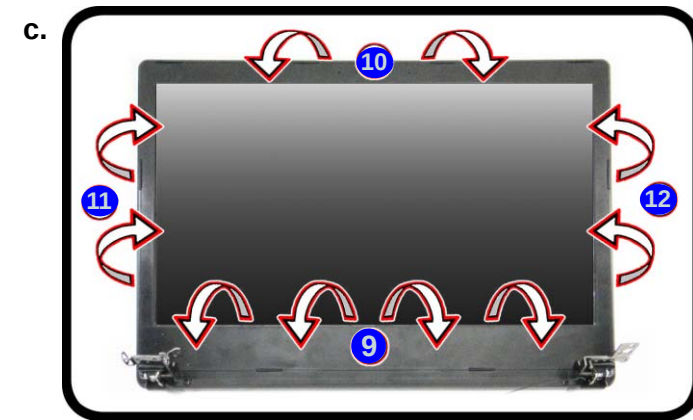
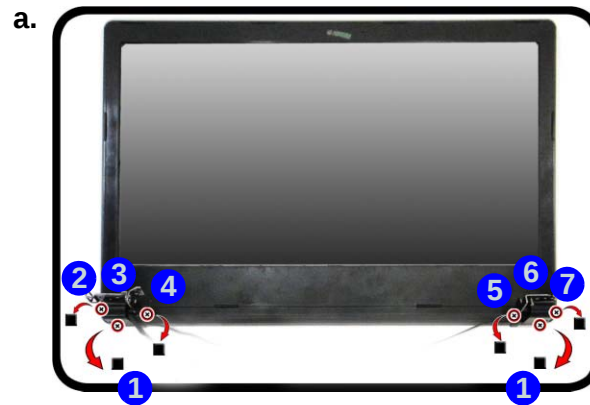
Disassembly

Figure 10
CCD Removal

- a. Remove the rubber cover and screws.
- b. Remove the hinge cover.
- c. Run your fingers around the inner frame of the LCD panel at the points as indicated by the arrows.
- d. 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.

Removing the CCD

1. Turn **off** the computer, turn it over to remove the battery ([page 2 - 5](#)) and then separate the LCD Panel from the bottom case.
2. Remove the rubber covers **1** and screws **2 - 7** ([Figure 10a](#)).
3. Remove the hinge cover **8** of the panel hinge ([Figure 10b](#)).
4. Run your fingers around the inner frame of the LCD panel at the points as indicated by the arrows **9 - 12**.
5. Lay the computer down on a flat surface with the top case up forming a 90 degree angle. Push the LCD front cover **13** upwards before carefully lifting it up ([Figure 10d](#)).



8. Hinge Cover
13. LCD Front Cover

• 6 Screws

6. Remove the LCD front cover **13** (*Figure 11e*).
7. Disconnect the cable **14** (*Figure 11f*).
8. Remove the CCD module **15** (*Figure 11g*).
9. Reverse the process to install a new CCD module.

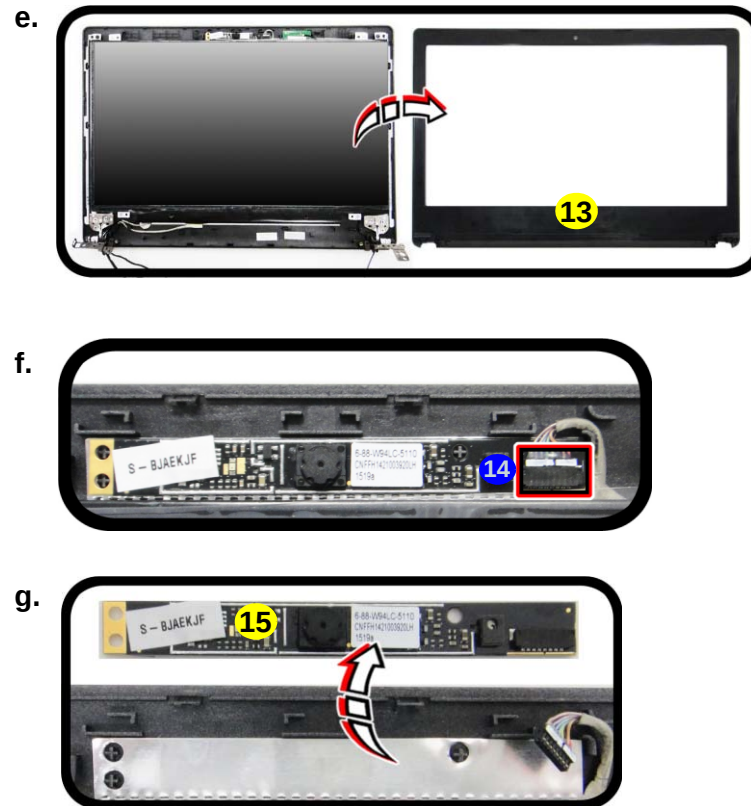


Figure 11
CCD Removal
(cont'd.)

- e. Remove the LCD front cover.
- f. Disconnect the cable.
- g. Remove the CCD module.



15. CCD Module

Appendix A:Part Lists

This appendix breaks down the *N240BU / N241BU* 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

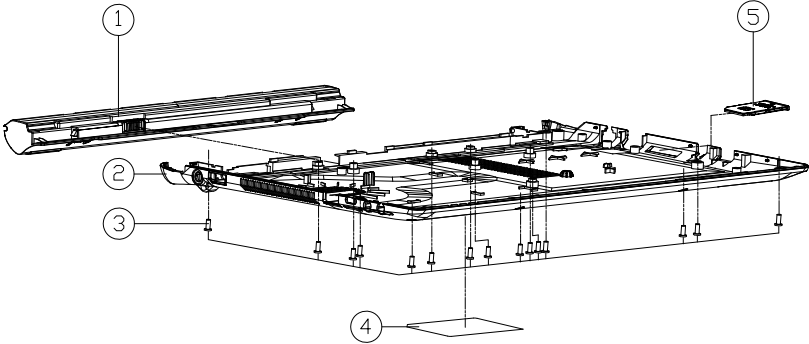
The following table indicates where to find the appropriate part list illustration.

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

Part	
Top	<i>page A - 3</i>
Bottom	<i>page A - 4</i>
LCD	<i>page A - 5</i>
HDD	<i>page A - 6</i>

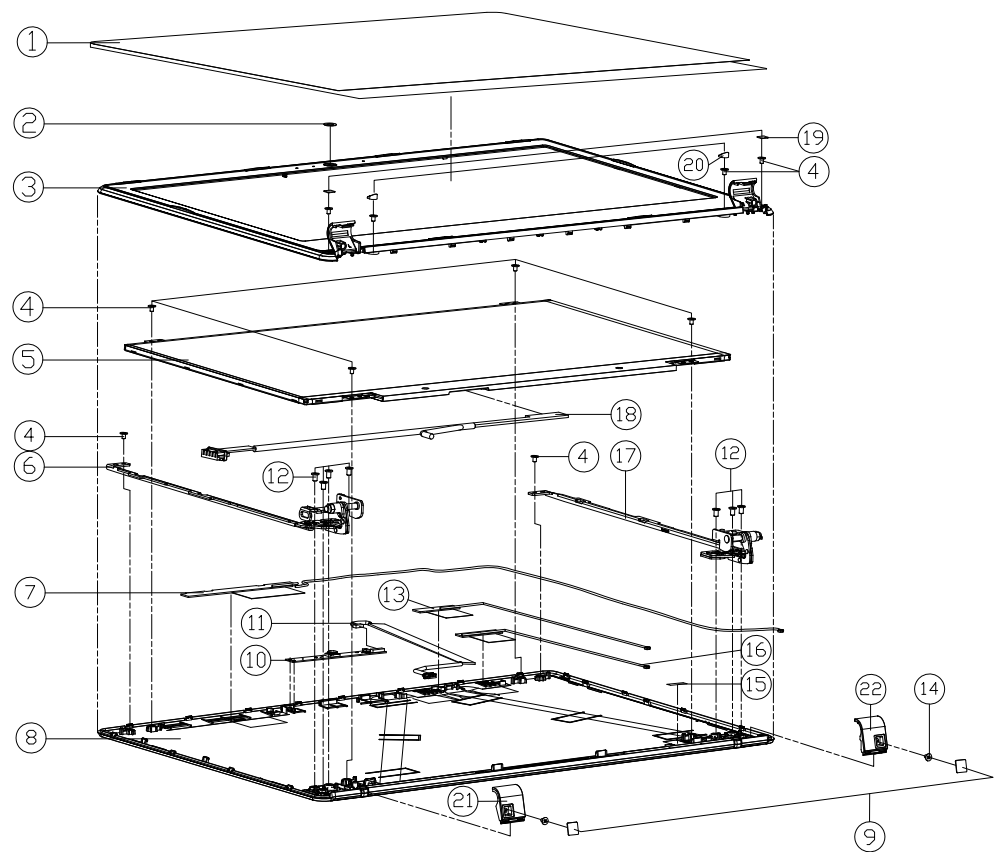
Bottom

Figure A - 2
Bottom



ITEM	PART NAME	PART NO	REMARK
1	IMP S LI 140V/220V/240V KSP SMP/STH CTI GAUGE ICD (TEXTURED) SHOCKPROOF NEMBU	6-87-N24JS-42F3-1	
1	IMP S LI 140V/220V/240V KSP KETAC/SHIMU CTI GAUGE ICD (TEXTURED) SHOCKPROOF NEMBU	6-87-N24JS-4UF3	
1	IMP S LI 150V/250V/400V KSP SMP/STH CTI GAUGE ICD (TEXTURED) SHOCKPROOF NEMBU	6-87-N24JS-42L3	
1	IMP S LI 140V/220V/240V KSP KETAC/AG CTI GAUGE ICD (TEXTURED) SHOCKPROOF NEMBU	6-87-N24JS-4EB3	
1	IMP S LI 150V/250V/400V KSP SMP/STH CTI GAUGE ICD (TEXTURED) SHOCKPROOF NEMBU	6-87-N24JS-42F3	
1	IMP S LI 150V/250V/400V KSP KETAC/SHIMU CTI GAUGE ICD (TEXTURED) SHOCKPROOF NEMBU	6-87-N24JS-4UF3-1	
2	BOTTOM CASE MODULE N240BU	6-39-N24J3-B11	
3	SCREW M2.5*6L K BZ ICT NY	6-35-82125-6RA	
4	PRODUCT LABEL FOR N240BU (FOLLOW NEW CE SAFETY)	6-45-N240BU03-011	
4	PRODUCT LABEL FOR N241BU (FOLLOW NEW CE SAFETY)	6-45-N241BU03-011	
4	PRODUCT LABEL FOR N240PU	6-45-N240PU03-010	
4	PRODUCT LABEL FOR N241PU	6-45-N241PU03-010	
5	DUMMY SD PUSH TYPE PC+ABS (C7230P-7000) W970SDW	6-42-W9708-010	

LCD

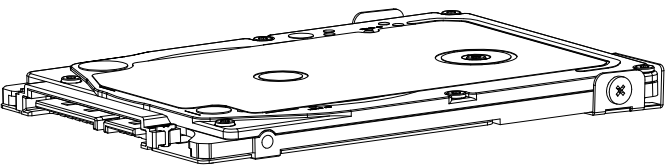
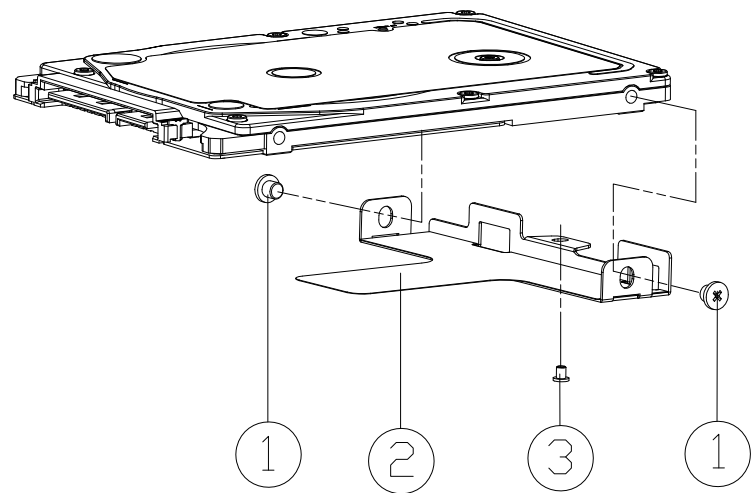


ITEM	PART NAME	PART NO	REMARK
1	LCD PROTECT MYLAR BOPP N240JU	6-40-N24J1-040	
2	CCD LENS PC P750ZM	6-42-P7501-011	
3	FRONT COVER MODULE N240JU	6-39-N24J1-012	
4	SCREW M2*3L KI BZ ICT NY (C04=44.5,DT=0.4)	6-35-B6120-3RD	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JB136-Z01	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JB136-G12	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JA130-D00	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JB230-L01	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JB230-V00	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JB230-L05	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JB130-V00	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JB230-L07	
5	LCD 14" HD IPS GLARE TYPE AU BROADVIEW 3000	6-50-JB136-B10	
5	LCD HINGE L (SGCC+SK7) SH N240JU	6-33-N24J1-0L2	
7	FRONT COVER MODULE N240JU	6-23-7N250-010	
8	BACK COVER MODULE N240JU	6-39-N24J1-022	
8	BACK COVER MODULE N240JU	6-39-N2401-020-C	
8	BACK COVER MODULE N241JU	6-39-N2411-020	
9	LCD HINGE MYLAR (SH) (75075040) N240JU	6-40-N24J1-010	
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-W94LC-4910	
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-W94LC-5120	OPTION
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-W94LC-4900	OPTION
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-W94LC-5110	OPTION
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-W94LC-4911	OPTION
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-W94LC-4901	OPTION
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-N650C-4910	OPTION
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-N650C-4900	OPTION
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-W51PC-5100	OPTION
10	LCD COVER TO FRONT COVER IN 10 MIN 1000 1000 1000 1000 1000 1000	6-88-W51PC-5110	OPTION
11	WIRE CABLE FOR CCD IN MIC 3000M 3.3V BP (C04) N240JU	6-43-N250T-011-2	
12	SCREW M2.5*4L KI NI ICT NY	6-35-21125-4R0	
13	ANTENNA SPEAK WAVE VET W2 P24 AR 240506 L-5000 N240JU	6-23-7N240-010	FOR N240JU/PU
13	ANTENNA SPEAK WAVE VET W2 P24 AR 240506 L-5000 N240JU	6-23-7N24J-020	FOR N240JU/BU
14	SCREW M2*4L KI NI ICT NY (C04=44.5,DT=0.4)	6-35-B1120-4RE	
15	TOP CASE MYLAR FRB3 25*740.05 P1804M	6-40-P1802-030	
16	ANTENNA SPEAK WAVE VET W2 P24 AR 240506 L-5000 N240JU	6-23-7P870-010	FOR N240JU/PU
16	ANTENNA SPEAK WAVE VET W2 P24 AR 240506 L-5000 N240JU	6-23-7N24J-010	FOR N240JU/BU
17	LCD HINGE R (SGCC+SK7) SH N240JU	6-33-N24J1-0R2	
18	WIRE CABLE FOR CCD IN MIC 3000M 3.3V BP (C04) N240JU	6-43-N2401-011-1L	
19	FRONT COVER MODULE N240JU	6-40-N1501-010	
20	LCD BOTTOM RUBBER (SILICON RUBBER 800504087) N240JU	6-47-N24J1-010	
21	BACK HINGE COVER L (TEFLON TN-3713B0) N240JU	6-42-N24J1-0L1	
22	BACK HINGE COVER R (TEFLON TN-3713B0) N240JU	6-42-N24J1-0R1	

Figure A - 3
LCD

HDD

Figure A - 4
HDD



ITEM	PART NAME	PART NO	REMARK
1	SCREW M3*2.5L KI NI ICT NY	6-35-B1130-2R5	
2	HDD BKT 7MM SECC T=0.5 N250LU	6-33-N250J-011	
3	SCREW M2*3L KI BZ ICT NY (DD=Ø4.5,DT=0.4)	6-35-B6120-3RD	

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the *N240BU* / *N241BU* 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	HDMI - Page B - 16	VDDQ_VTT, 1.5VS, 1.8VS - Page B - 30
Processor 1/11 - Page B - 3	Panel - Page B - 17	1.0V Series - Page B - 31
Processor 2/11 - Page B - 4	Conn, CCD, Fan, T/P, TV - Page B - 18	VCore, VCCGT, VCCSA, VCCIO - Page B - 32
Processor 3/11 - Page B - 5	RTD2316N - Page B - 19	RT3601BC - Page B - 33
Processor 4/11 - Page B - 6	SATA, LED, KB, G-Sensor - Page B - 20	Charger, DC-In - Page B - 34
Processor 5/11 - Page B - 7	USB, TPM - Page B - 21	USB Board - Page B - 35
Processor 6/11 - Page B - 8	USB - Page B - 22	CRT - Page B - 36
Processor 7/11 - Page B - 9	WLAN/BT, 3G/mSATA - Page B - 23	RTL8411B - Page B - 37
Processor 8/11 - Page B - 10	M Key PCIE * 4 SSD - Page B - 24	Power SW Board - Page B - 38
Processor 9/11 - Page B - 11	Audio Codec - Page B - 25	Click Board - Page B - 39
Processor 10/11 - Page B - 12	KBC ITE IT8587 - Page B - 26	LED Board - Page B - 40
Processor 11/11 - Page B - 13	ASM1142 - Page B - 27	HDD Board - Page B - 41
DDR3 SO-DIMM_0 - Page B - 14	3V, 5V, 3VS, 5VS, CTL Signal - Page B - 28	Power Sequence - Page B - 42
DDR3 SO-DIMM_1 - Page B - 15	VDD3, VDD5 - Page B - 29	

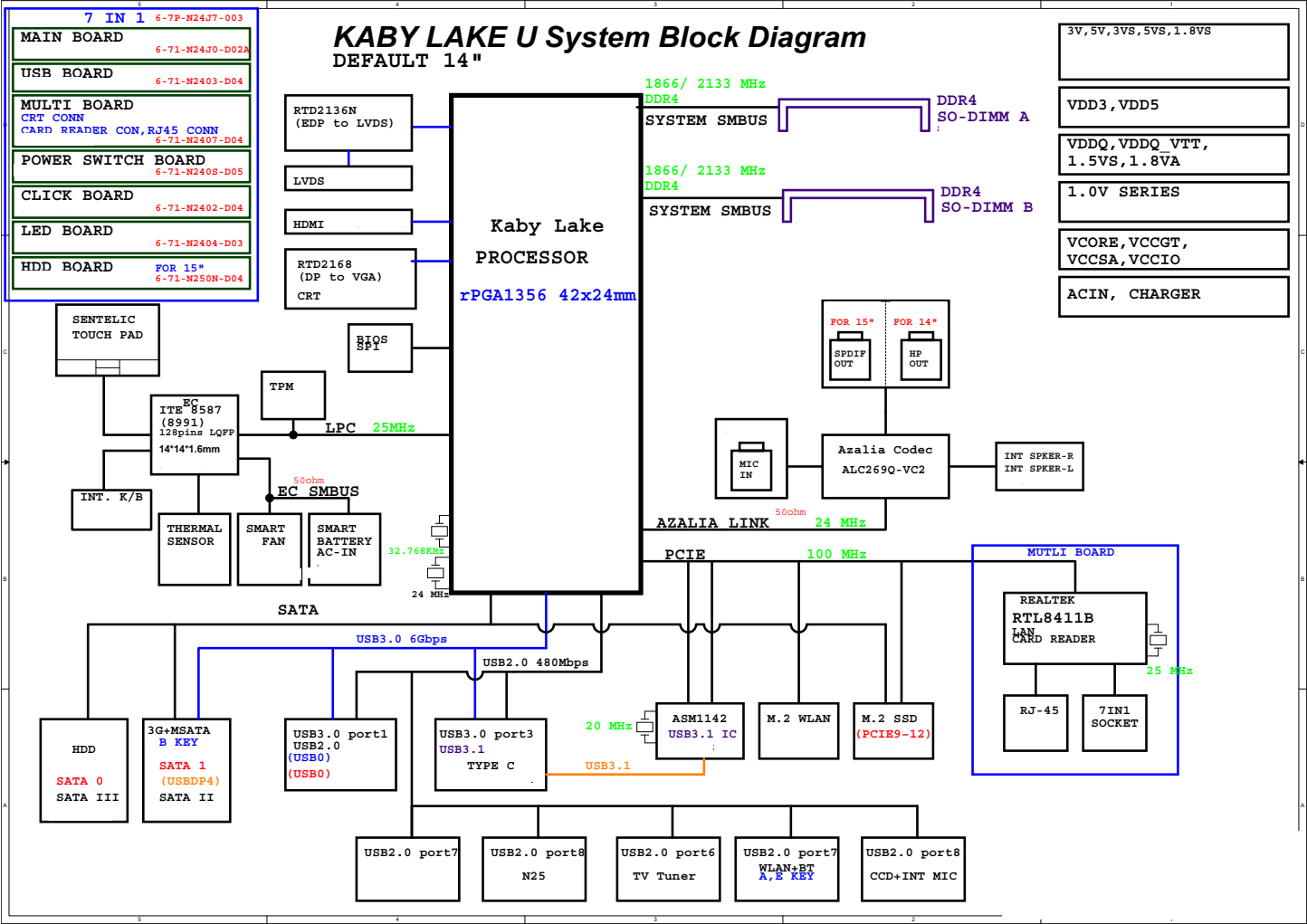
Table B - 1
**SCHEMATIC
DIAGRAMS**



Version Note

The schematic diagrams in this chapter are based upon version 6-7P-N24J7-005. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

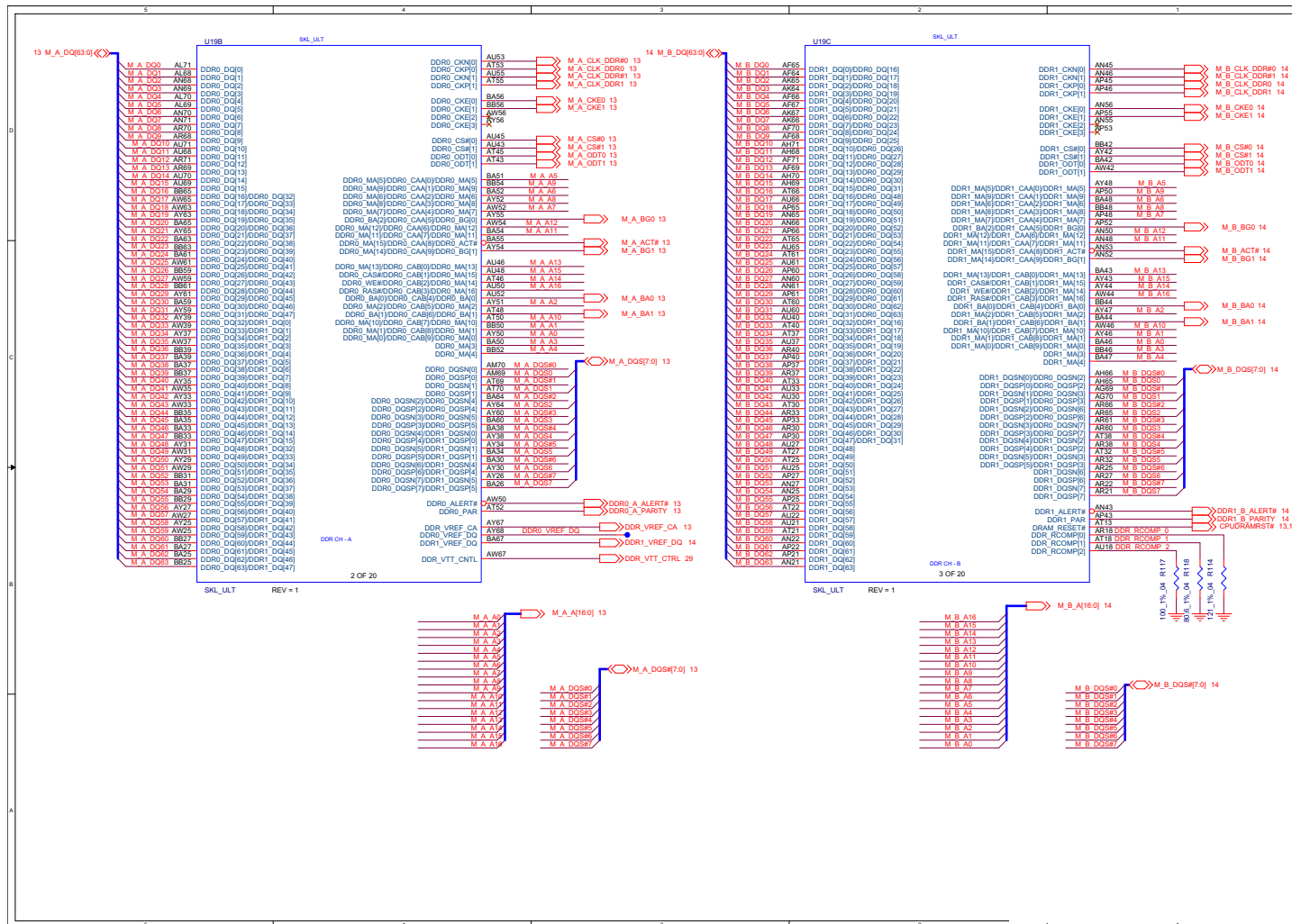
System Block Diagram



Sheet 1 of 41
System Block
Diagram

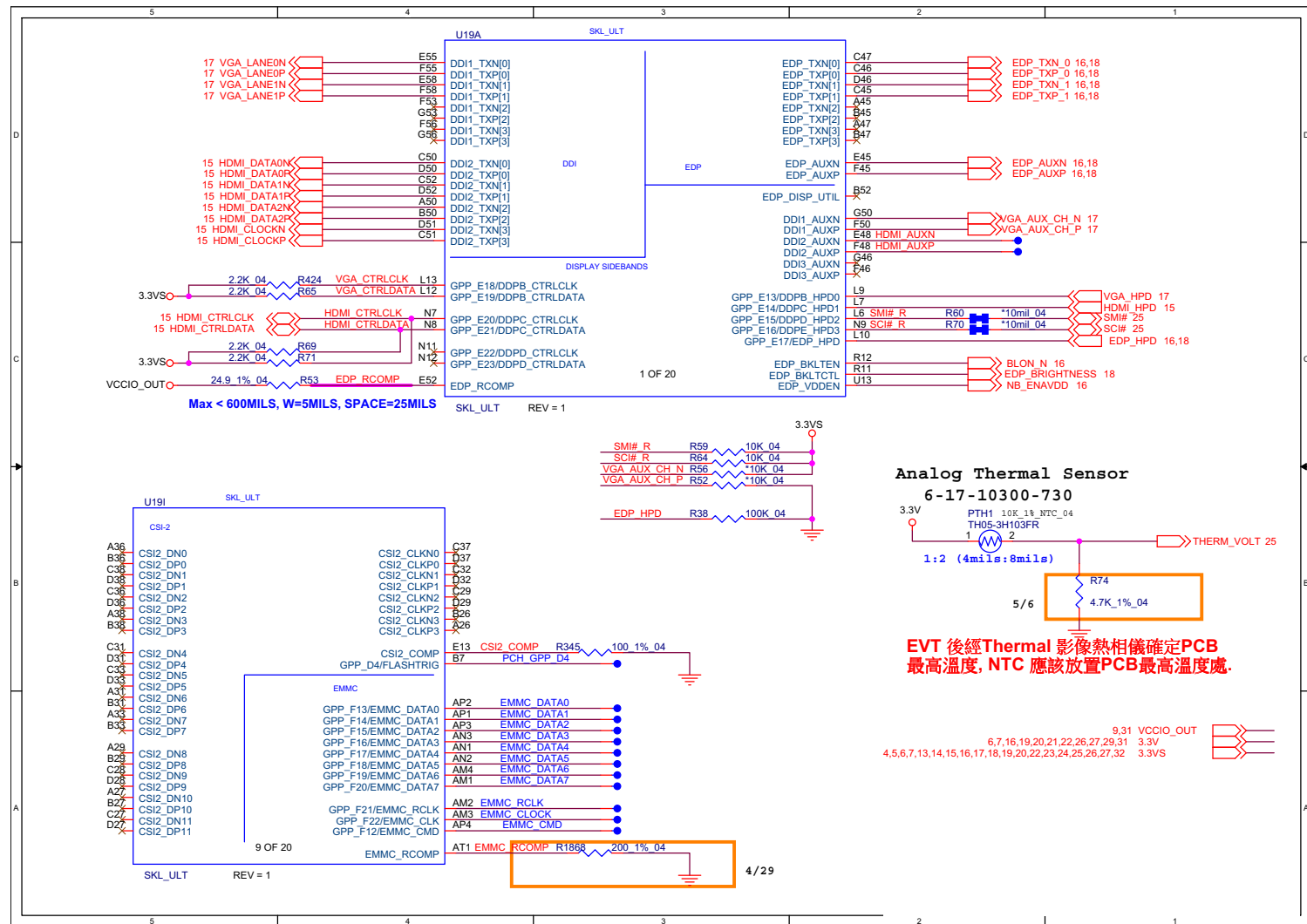
Processor 1/11

Sheet 2 of 41
Processor 1/11



Schematic Diagrams

Processor 2/11

Sheet 3 of 41
Processor 2/11

USB_OC#12 R342 *10K 04

USB_OC#34 R343 *10K 04

USB_OC#56 R344 *10K 04

USB_OC#78 R341 *10K 04

PCH_GPP_E0 R367 *10K 04

3.3V

G_INT1 R469 10K 04

SATA_LED+ R385 10K 04

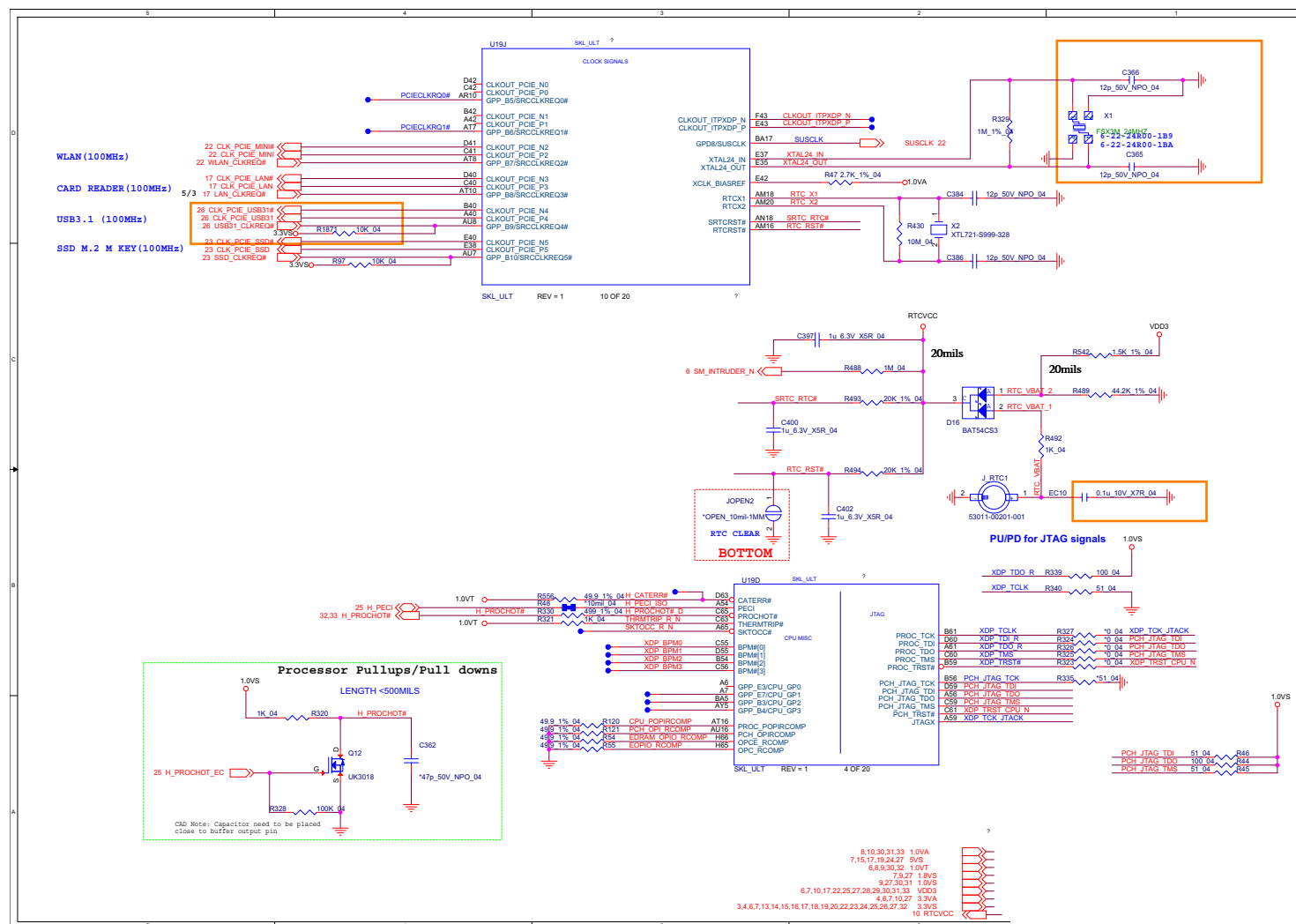
SATA_ODD_PRES1# R365 200K 04

3.3V

Processor 4/11

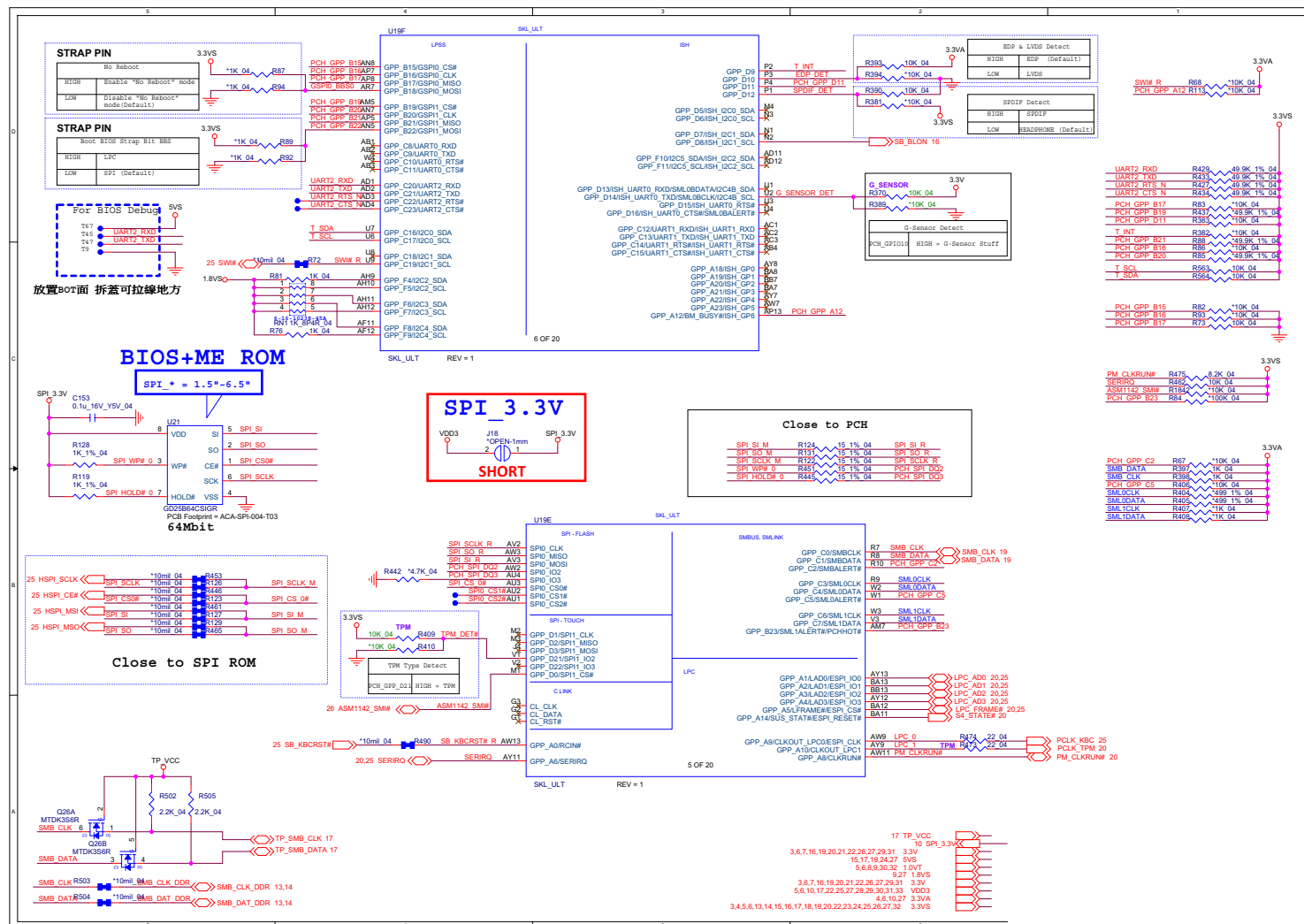
B. Schematic Diagrams

Sheet 5 of 41
Processor 4/11



Processor 6/11

Sheet 7 of 41
Processor 6/11

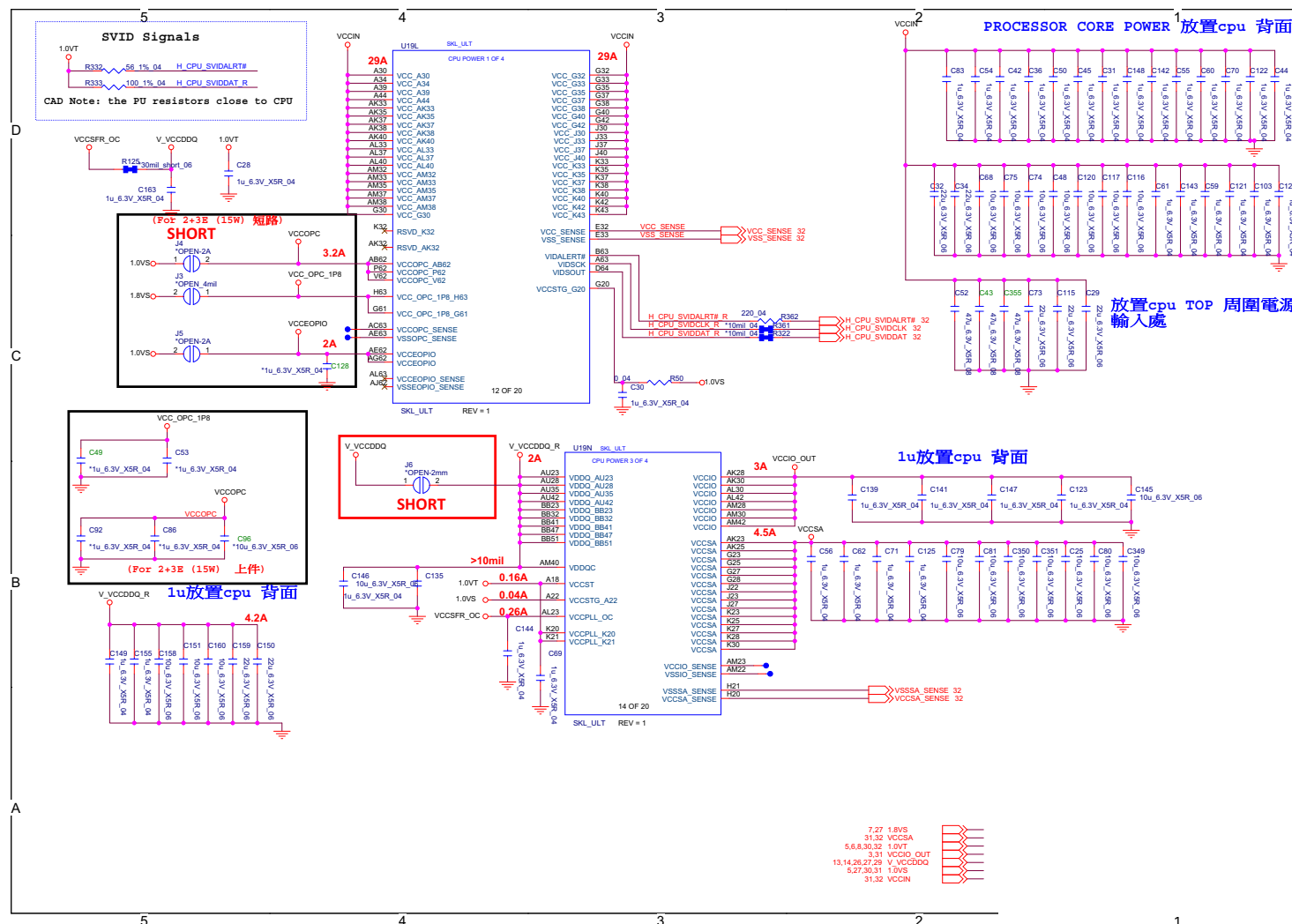


Sheet 8 of 41
Processor 7/11



Processor 8/11

Sheet 9 of 41
Processor 8/11



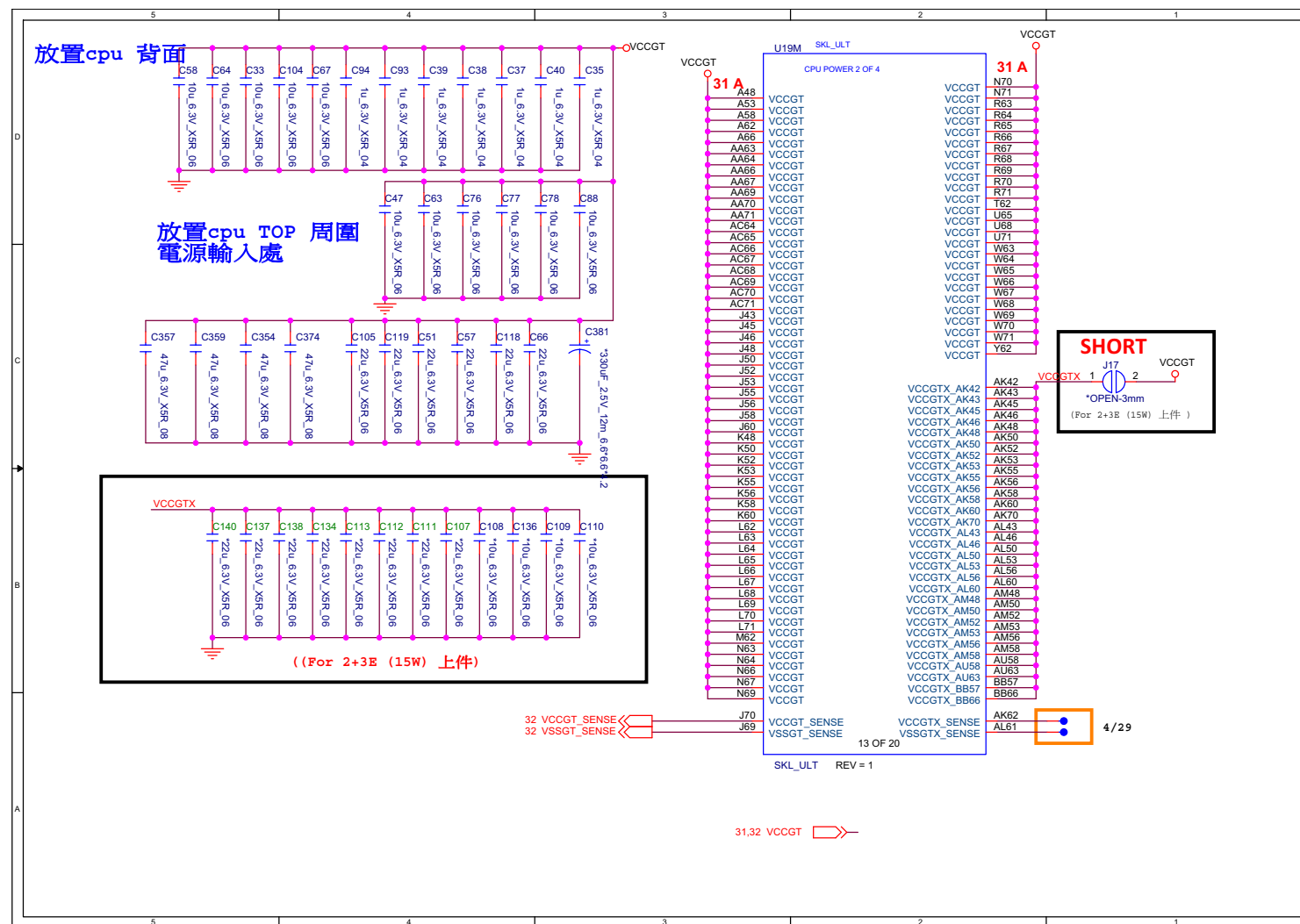
Processor 9/11 B - 11



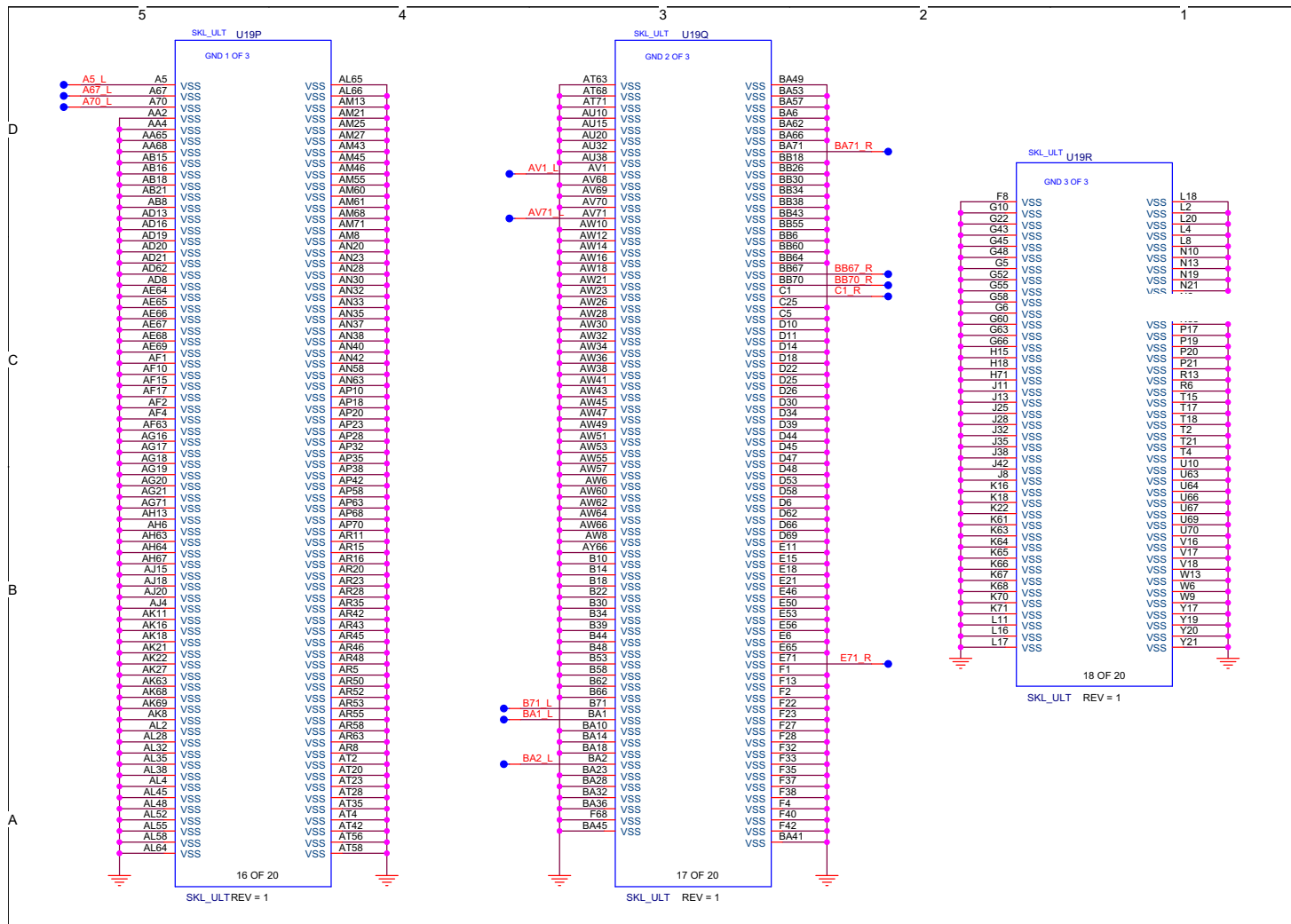
Processor 10/11

B.Schematic Diagrams

Sheet 11 of 41
Processor 10/11



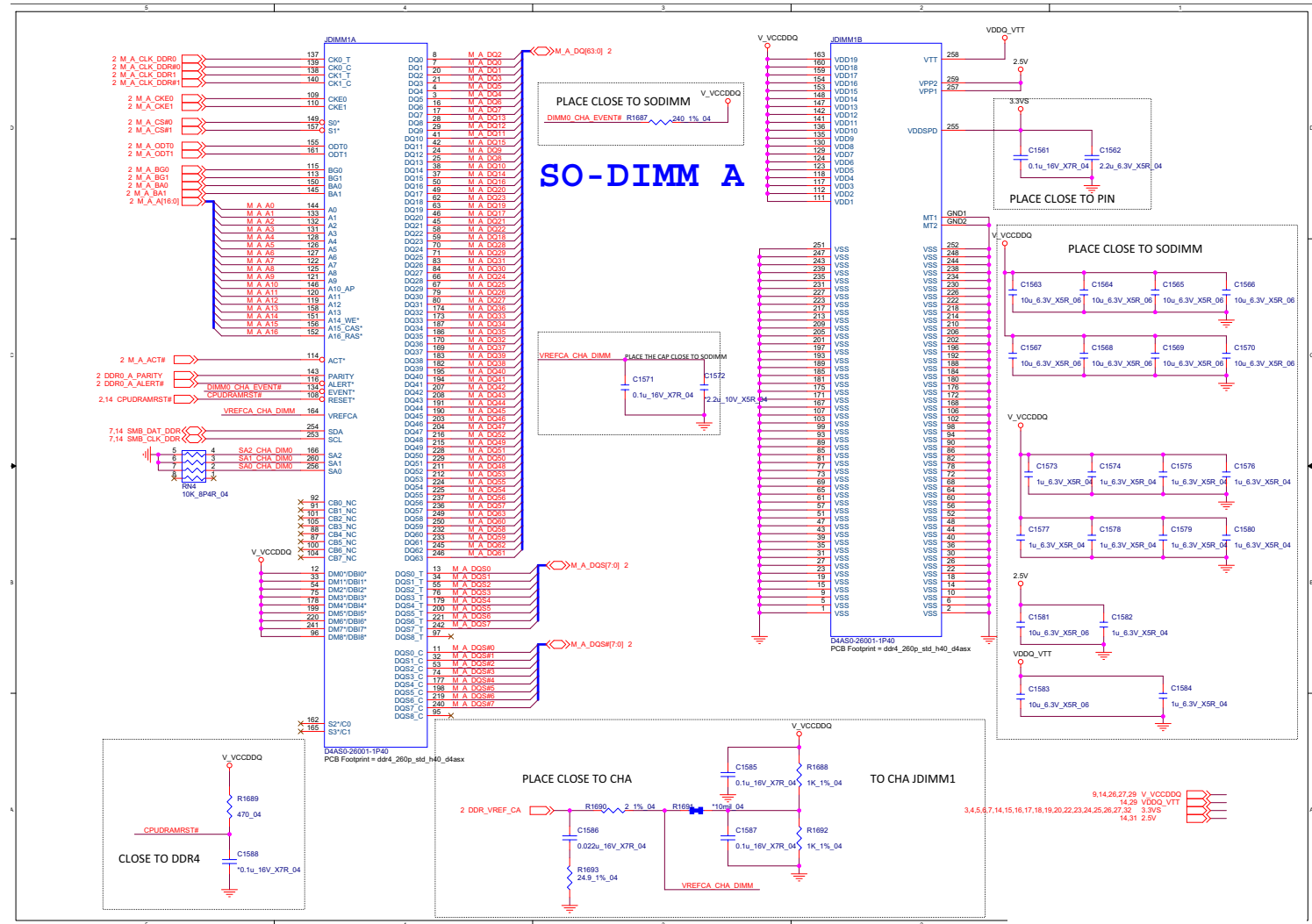
Processor 11/11



Sheet 12 of 41
Processor 11/11

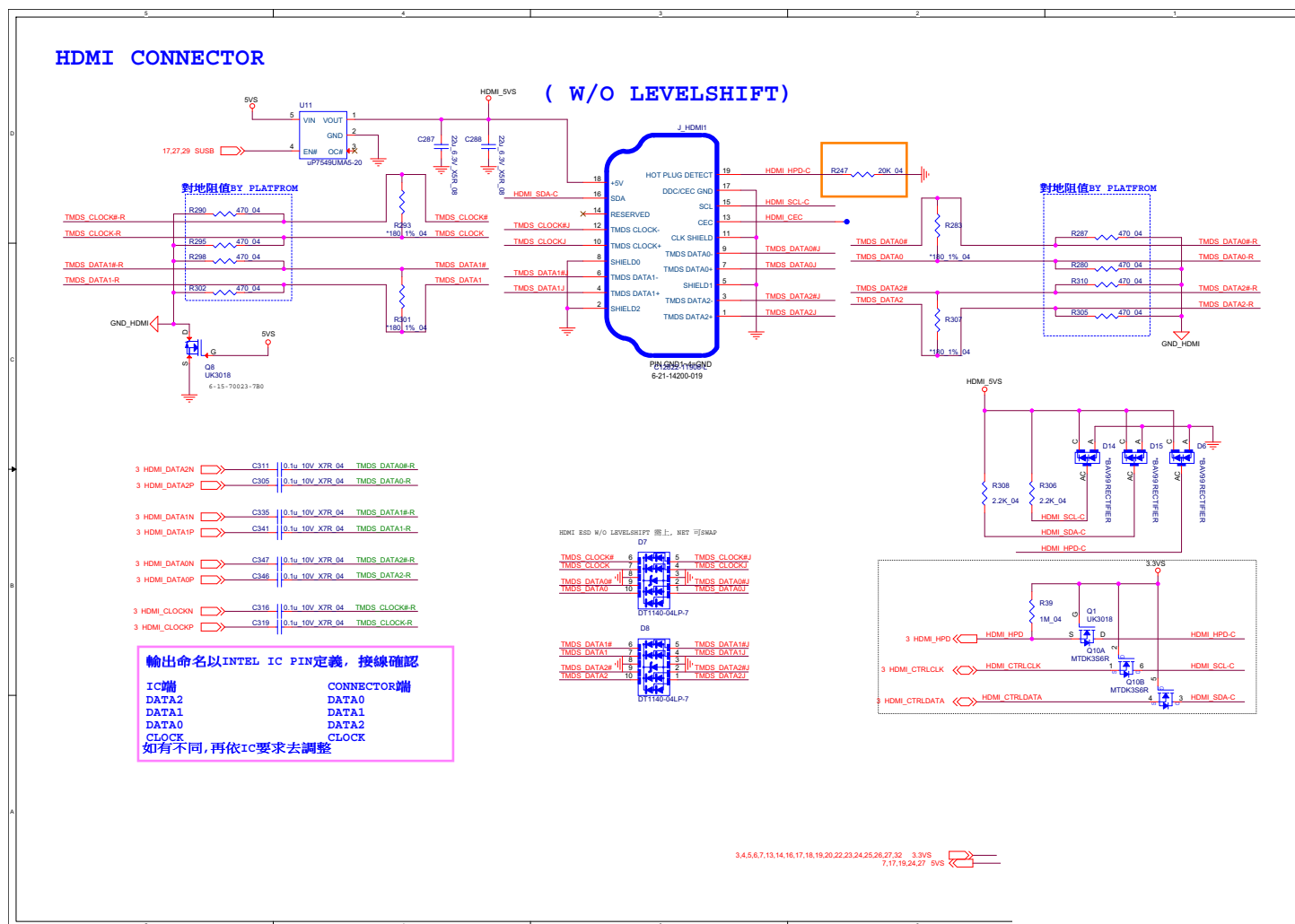
Schematic Diagrams

DDR3 SO-DIMM_0

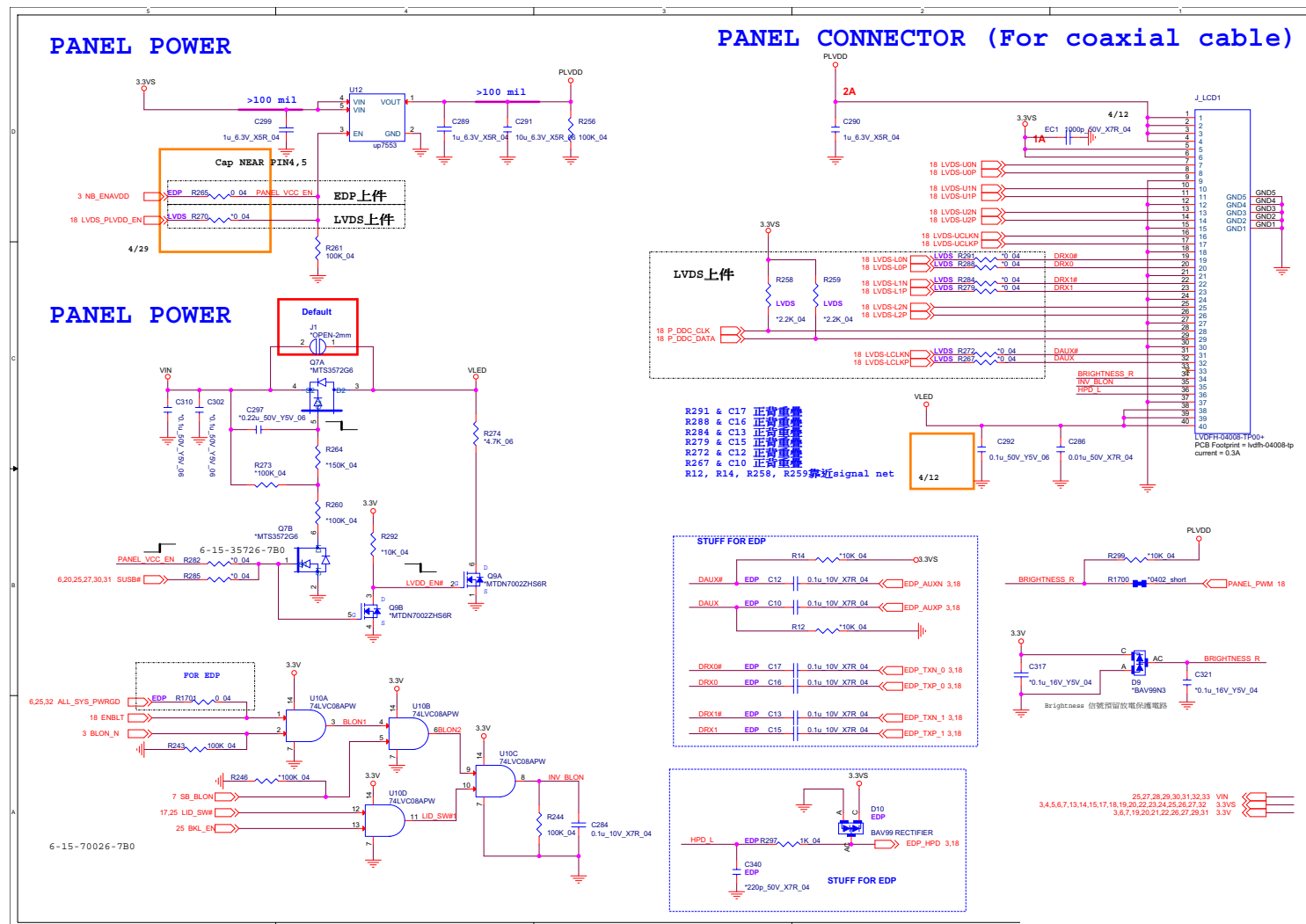


HDMI

Sheet 15 of 41
HDMI



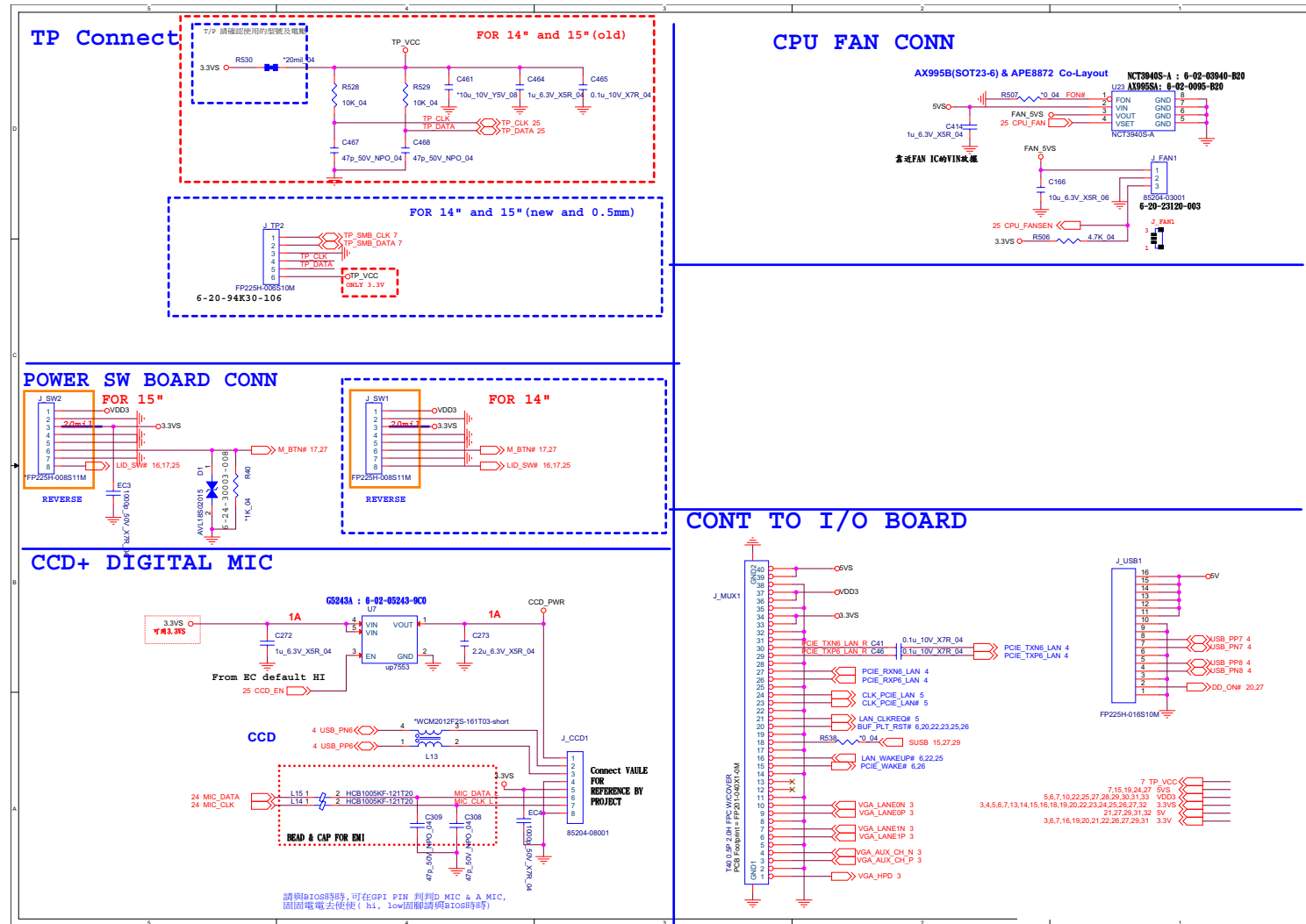
Panel B - 17



Schematic Diagrams

Conn, CCD, Fan, T/P, TV

Sheet 17 of 41
Conn, CCD, Fan, T/
P, TV



Power

3.3VS
40mils
80mils

LVDS上件

AVCC33
C1817
C1818
C1819
C1820
C1821
C1822
C1823
C1824
C1825
C1826

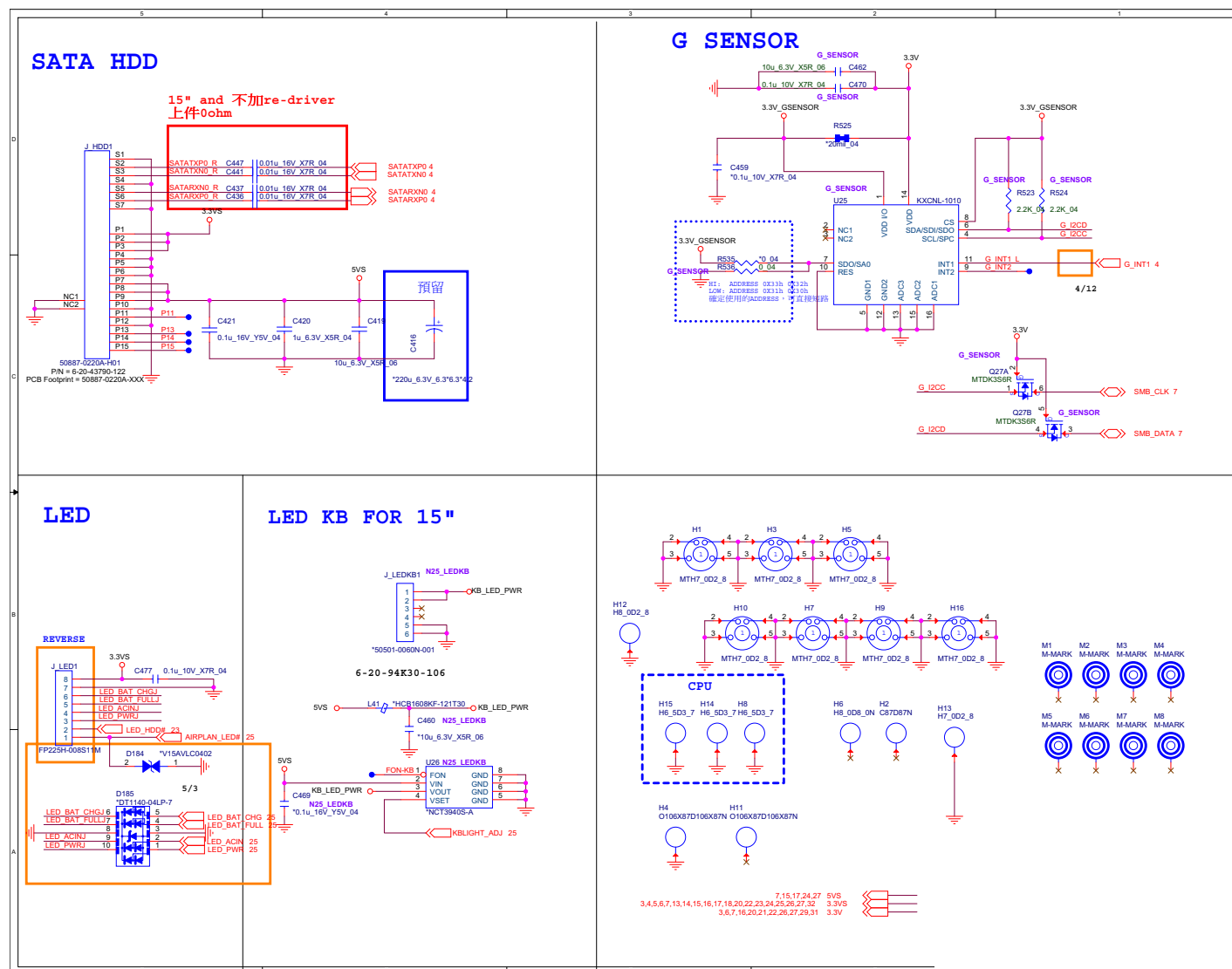
EDP上件

EDP
R1730
R1731
R1732
R1733
R1734
R1735
R1736
R1737
R1738
R1739
R1740
R1741
R1742
R1743
R1744
R1745
R1746
R1747
R1748
R1749
R1750
R1751
R1752
R1753
R1754
R1755
R1756
R1757
R1758
R1759
R1760
R1761
R1762
R1763
R1764
R1765
R1766
R1767
R1768
R1769
R1770
R1771
R1772
R1773
R1774
R1775
R1776
R1777
R1778
R1779
R1780
R1781
R1782
R1783
R1784
R1785
R1786
R1787
R1788
R1789
R1790
R1791
R1792
R1793
R1794
R1795
R1796
R1797
R1798
R1799
R1800
R1801
R1802
R1803
R1804
R1805
R1806
R1807
R1808
R1809
R1810
R1811
R1812
R1813
R1814
R1815
R1816
R1817
R1818
R1819
R1820
R1821
R1822
R1823
R1824
R1825
R1826
R1827
R1828
R1829
R1830
R1831
R1832
R1833
R1834
R1835
R1836
R1837
R1838
R1839
R1840
R1841
R1842
R1843
R1844
R1845
R1846
R1847
R1848
R1849
R1850
R1851
R1852
R1853
R1854
R1855
R1856
R1857
R1858
R1859
R1860
R1861
R1862
R1863
R1864
R1865
R1866
R1867
R1868
R1869
R1870
R1871
R1872
R1873
R1874
R1875
R1876
R1877
R1878
R1879
R1880
R1881
R1882
R1883
R1884
R1885
R1886
R1887
R1888
R1889
R1890
R1891
R1892
R1893
R1894
R1895
R1896
R1897
R1898
R1899
R1900
R1901
R1902
R1903
R1904
R1905
R1906
R1907
R1908
R1909
R1910
R1911
R1912
R1913
R1914
R1915
R1916
R1917
R1918
R1919
R1920
R1921
R1922
R1923
R1924
R1925
R1926
R1927
R1928
R1929
R1930
R1931
R1932
R1933
R1934
R1935
R1936
R1937
R1938
R1939
R1940
R1941
R1942
R1943
R1944
R1945
R1946
R1947
R1948
R1949
R1950
R1951
R1952
R1953
R1954
R1955
R1956
R1957
R1958
R1959
R1960
R1961
R1962
R1963
R1964
R1965
R1966
R1967
R1968
R1969
R1970
R1971
R1972
R1973
R1974
R1975
R1976
R1977
R1978
R1979
R1980
R1981
R1982
R1983
R1984
R1985
R1986
R1987
R1988
R1989
R1990
R1991
R1992
R1993
R1994
R1995
R1996
R1997
R1998
R1999
R2000
R2001
R2002
R2003
R2004
R2005
R2006
R2007
R2008
R2009
R2010
R2011
R2012
R2013
R2014
R2015
R2016
R2017
R2018
R2019
R2020
R2021
R2022
R2023
R2024
R2025
R2026
R2027
R2028
R2029
R2030
R2031
R2032
R2033
R2034
R2035
R2036
R2037
R2038
R2039
R2040
R2041
R2042
R2043
R2044
R2045
R2046
R2047
R2048
R2049
R2050
R2051
R2052
R2053
R2054
R2055
R2056
R2057
R2058
R2059
R2060
R2061
R2062
R2063
R2064
R2065
R2066
R2067
R2068
R2069
R2070
R2071
R2072
R2073
R2074
R2075
R2076
R2077
R2078
R2079
R2080
R2081
R2082
R2083
R2084
R2085
R2086
R2087
R2088
R2089
R2090
R2091
R2092
R2093
R2094
R2095
R2096
R2097
R2098
R2099
R2100
R2101
R2102
R2103
R2104
R2105
R2106
R2107
R2108
R2109
R2110
R2111
R2112
R2113
R2114
R2115
R2116
R2117
R2118
R2119
R2120
R2121
R2122
R2123
R2124
R2125
R2126
R2127
R2128
R2129
R2130
R2131
R2132
R2133
R2134
R2135
R2136
R2137
R2138
R2139
R2140
R2141
R2142
R2143
R2144
R2145
R2146
R2147
R2148
R2149
R2150
R2151
R2152
R2153
R2154
R2155
R2156
R2157
R2158
R2159
R2160
R2161
R2162
R2163
R2164
R2165
R2166
R2167
R2168
R2169
R2170
R2171
R2172
R2173
R2174
R2175
R2176
R2177
R2178
R2179
R2180
R2181
R2182
R2183
R2184
R2185
R2186
R2187
R2188
R2189
R2190
R2191
R2192
R2193
R2194
R2195
R2196
R2197
R2198
R2199
R2200
R2201
R2202
R2203
R2204
R2205
R2206
R2207
R2208
R2209
R2210
R2211
R2212
R2213
R2214
R2215
R2216
R2217
R2218
R2219
R2220
R2221
R2222
R2223
R2224
R2225
R2226
R2227
R2228
R2229
R2230
R2231
R2232
R2233
R2234
R2235
R2236
R2237
R2238
R2239
R2240
R2241
R2242
R2243
R2244
R

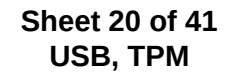
SATA, LED, KB, G-Sensor

B. Schematic Diagrams

Sheet 19 of 41
SATA, LED, KB,
G-Sensor



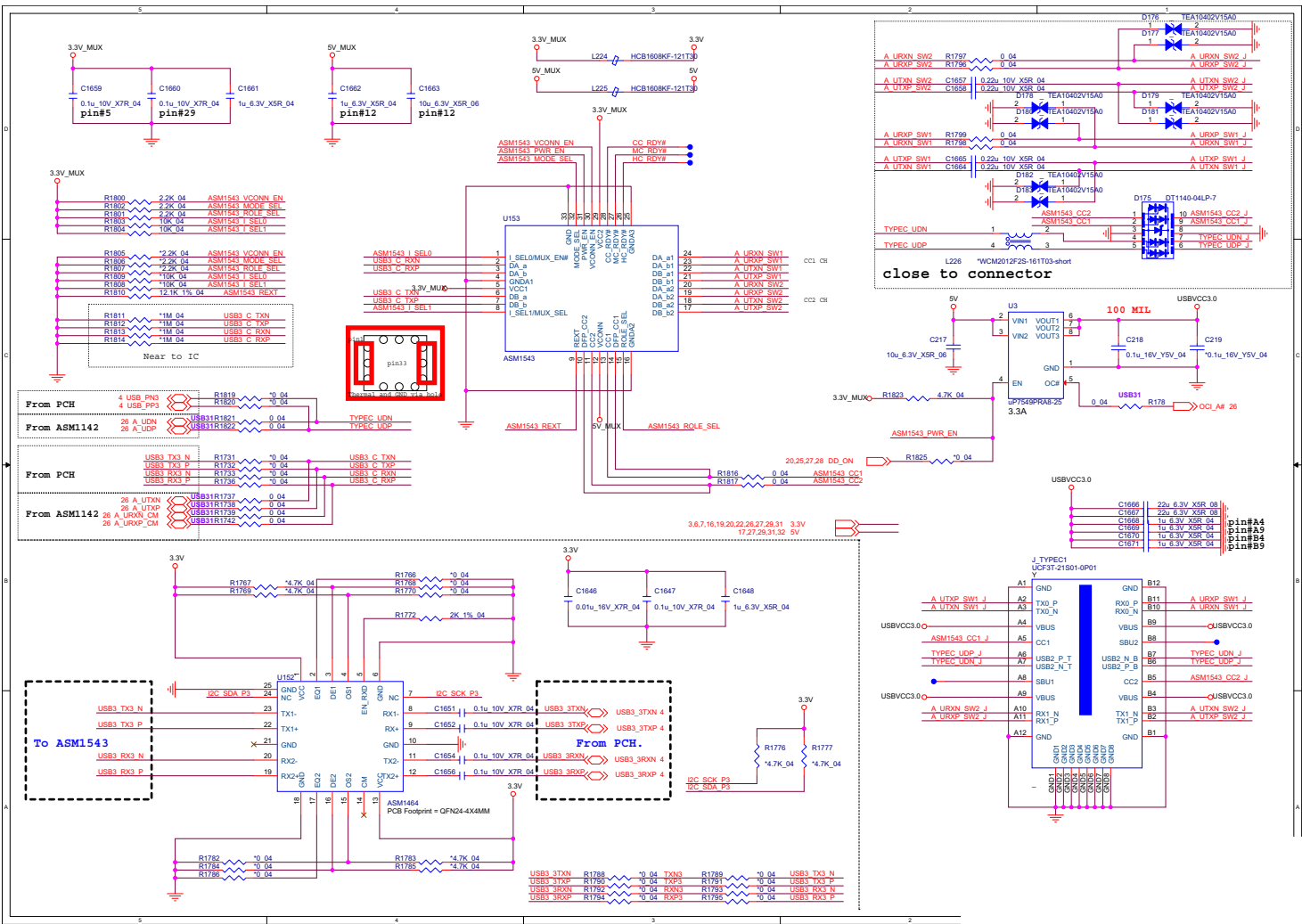
USB, TPM B - 21



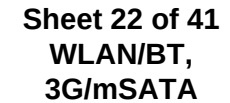
Schematic Diagrams

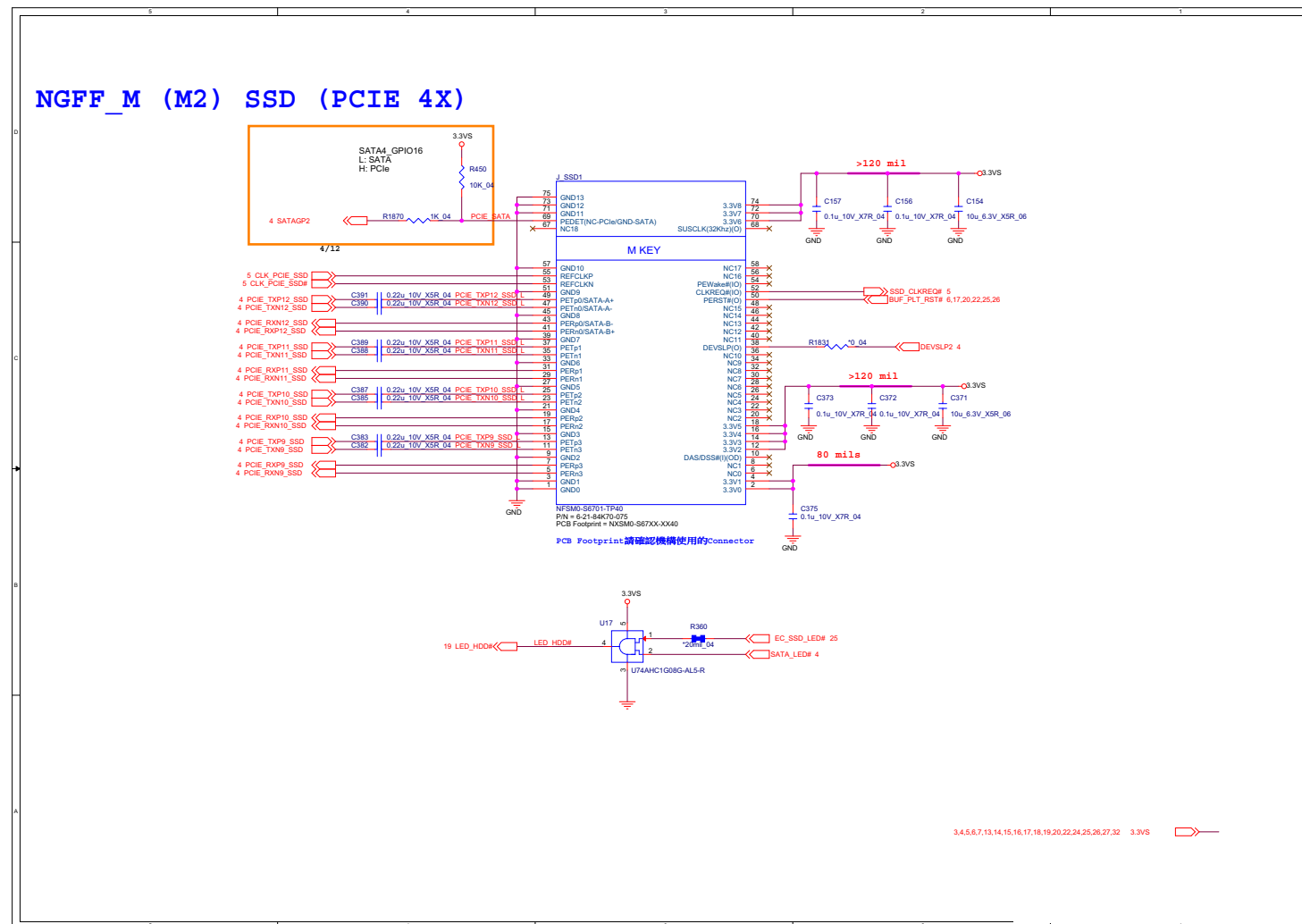
USB

Sheet 21 of 41
USB

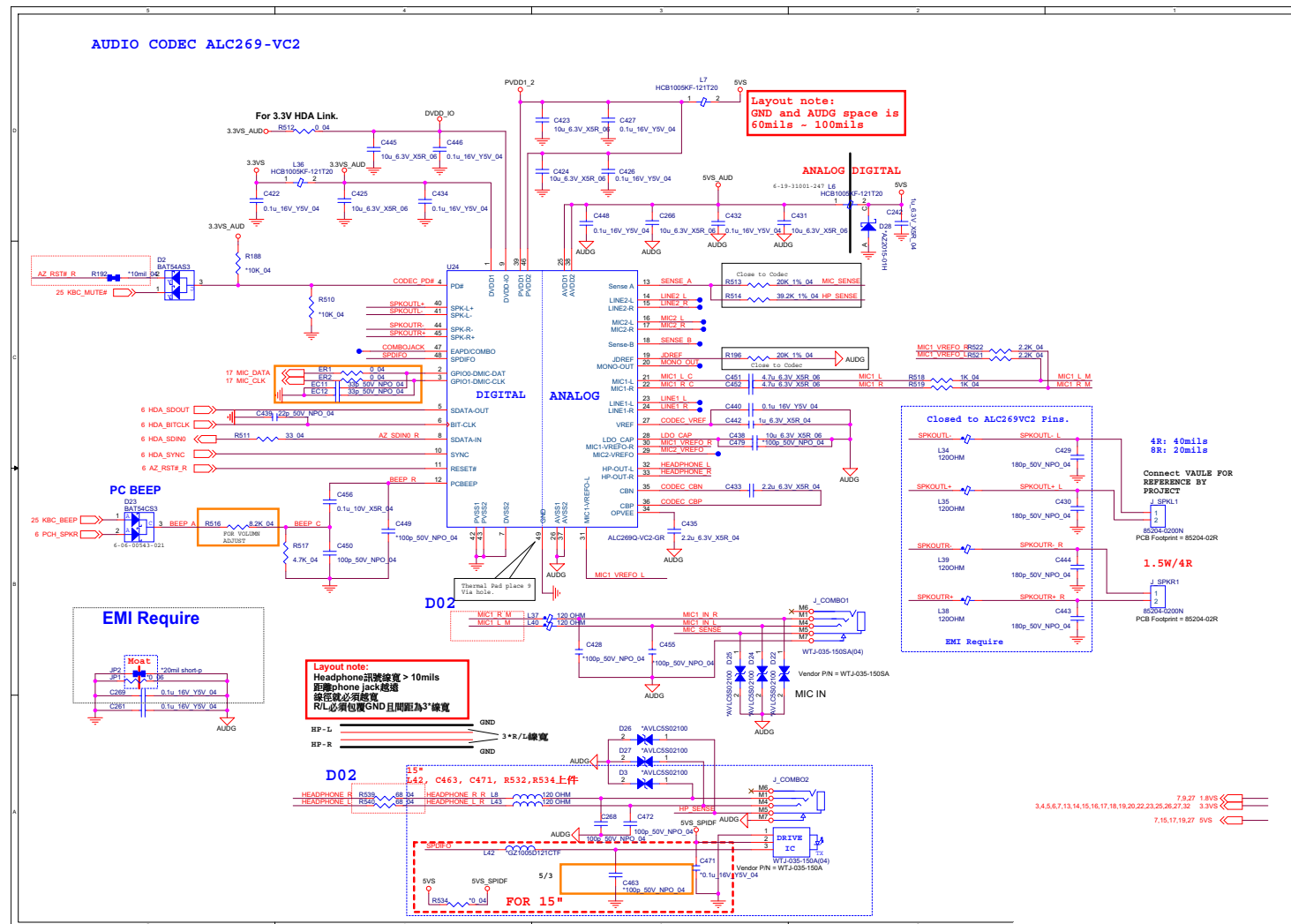


WLAN/BT, 3G/mSATA B - 23



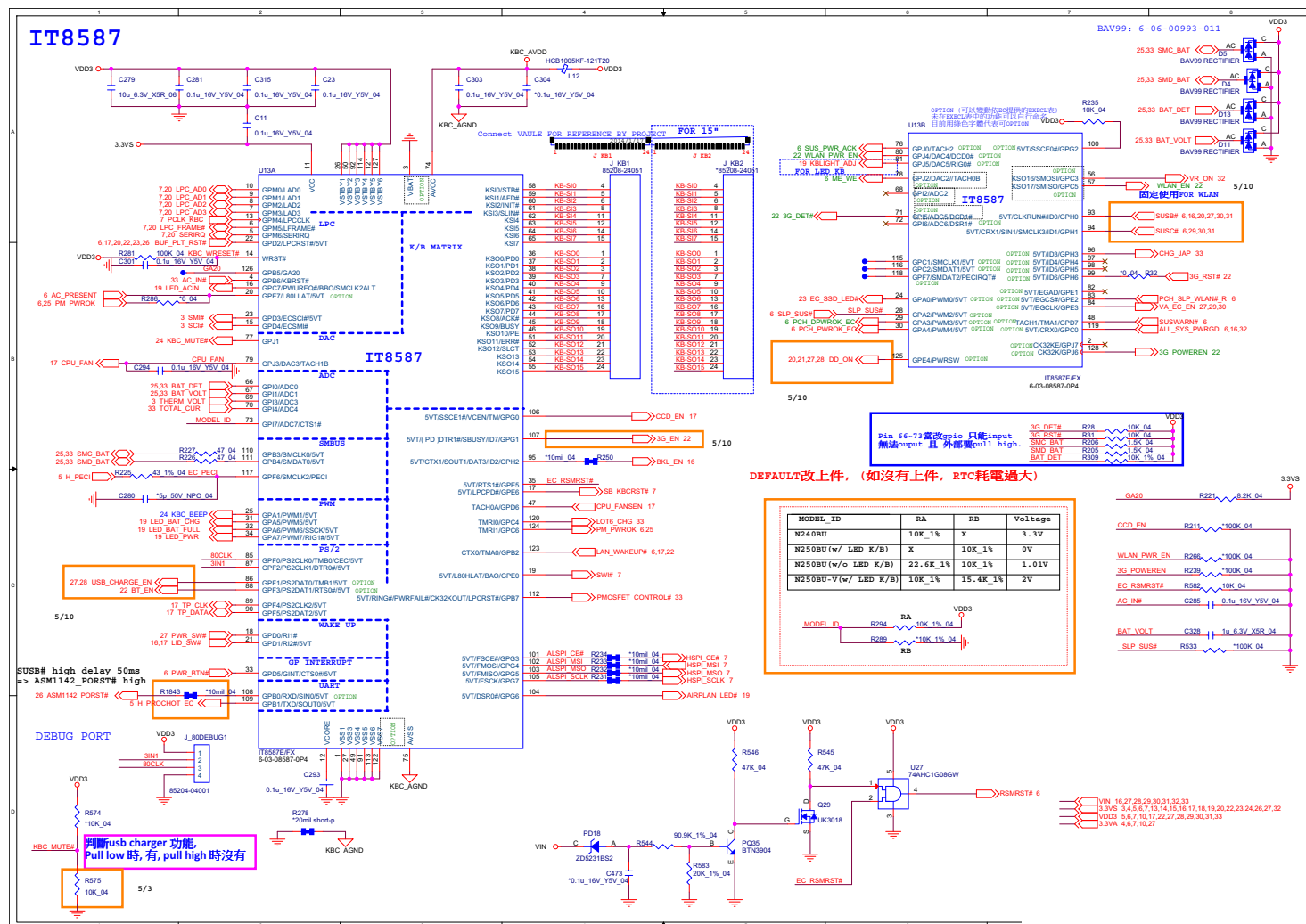


Audio Codec B - 25

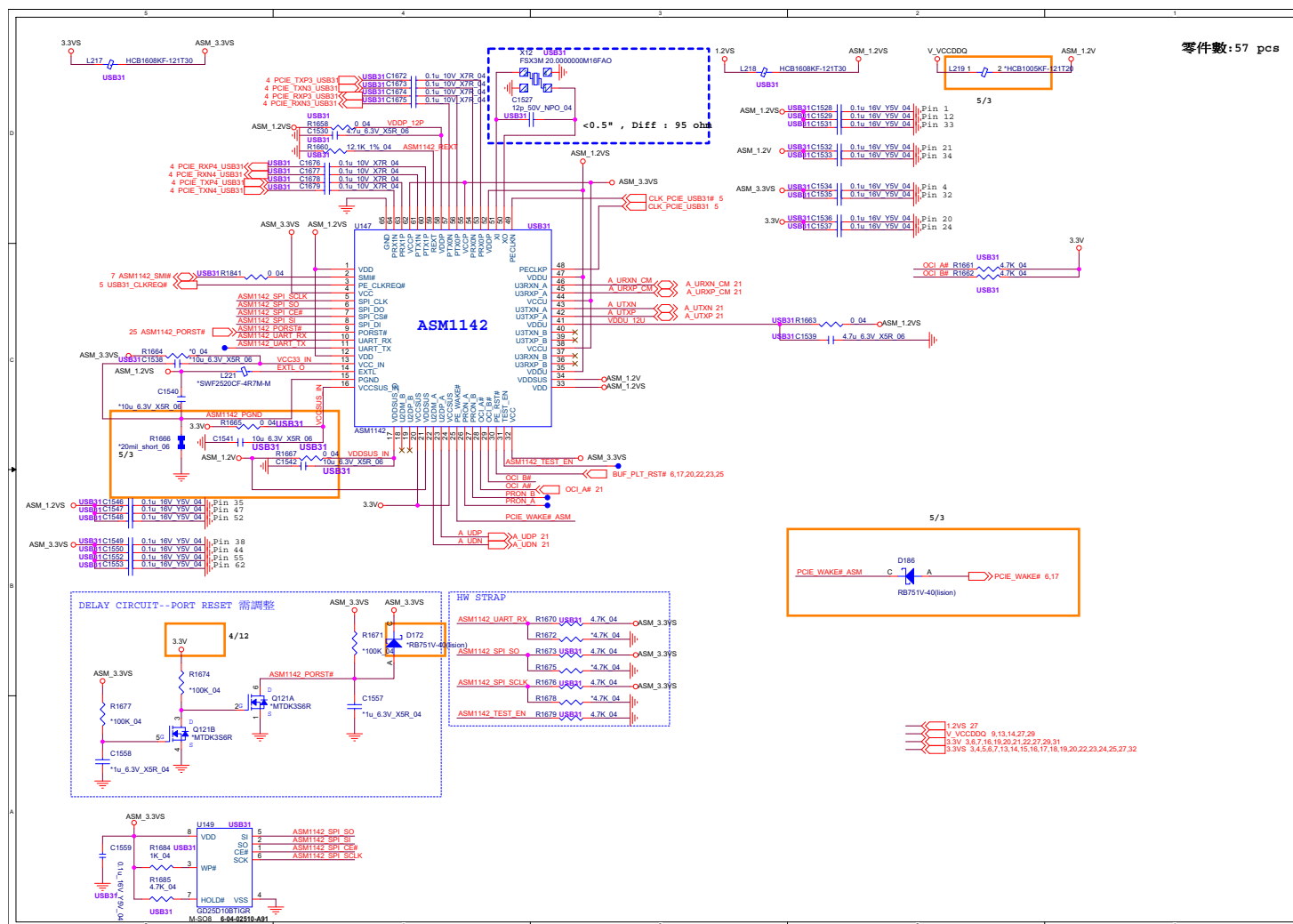


B.Schematic Diagrams

Sheet 25 of 41
KBC ITE IT8587

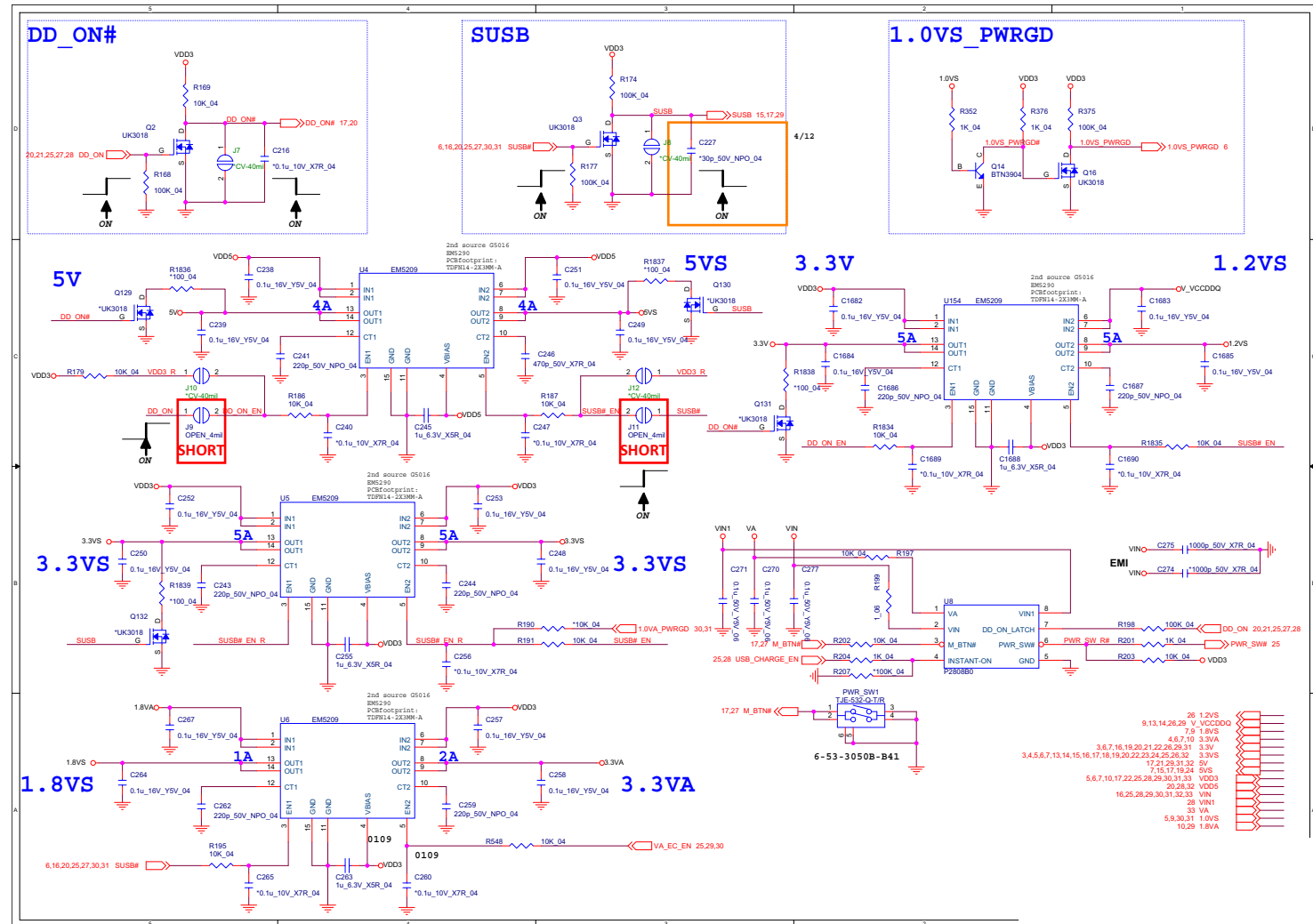


ASM1142

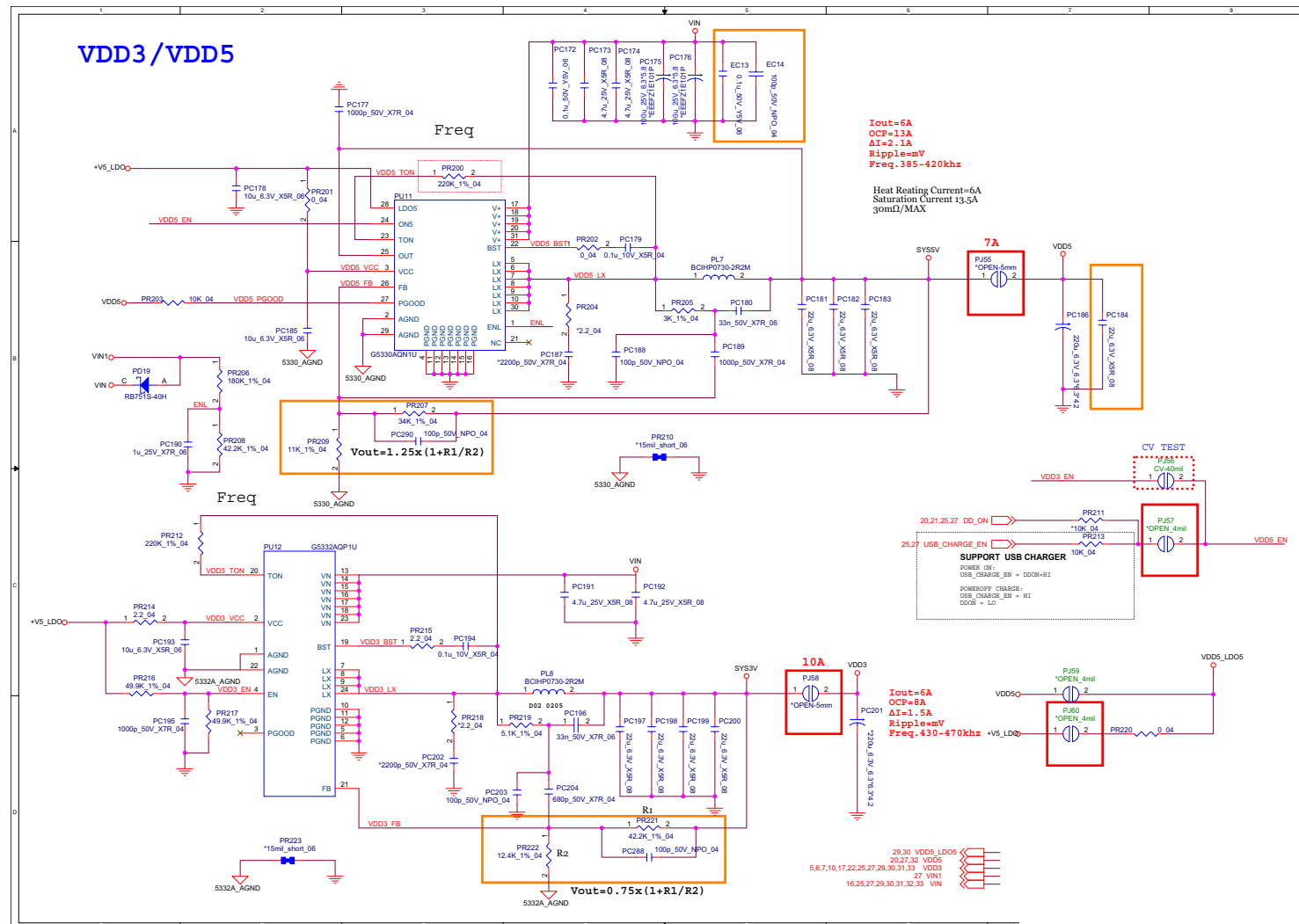


Schematic Diagrams

3V, 5V, 3VS, 5VS, CTL Signal



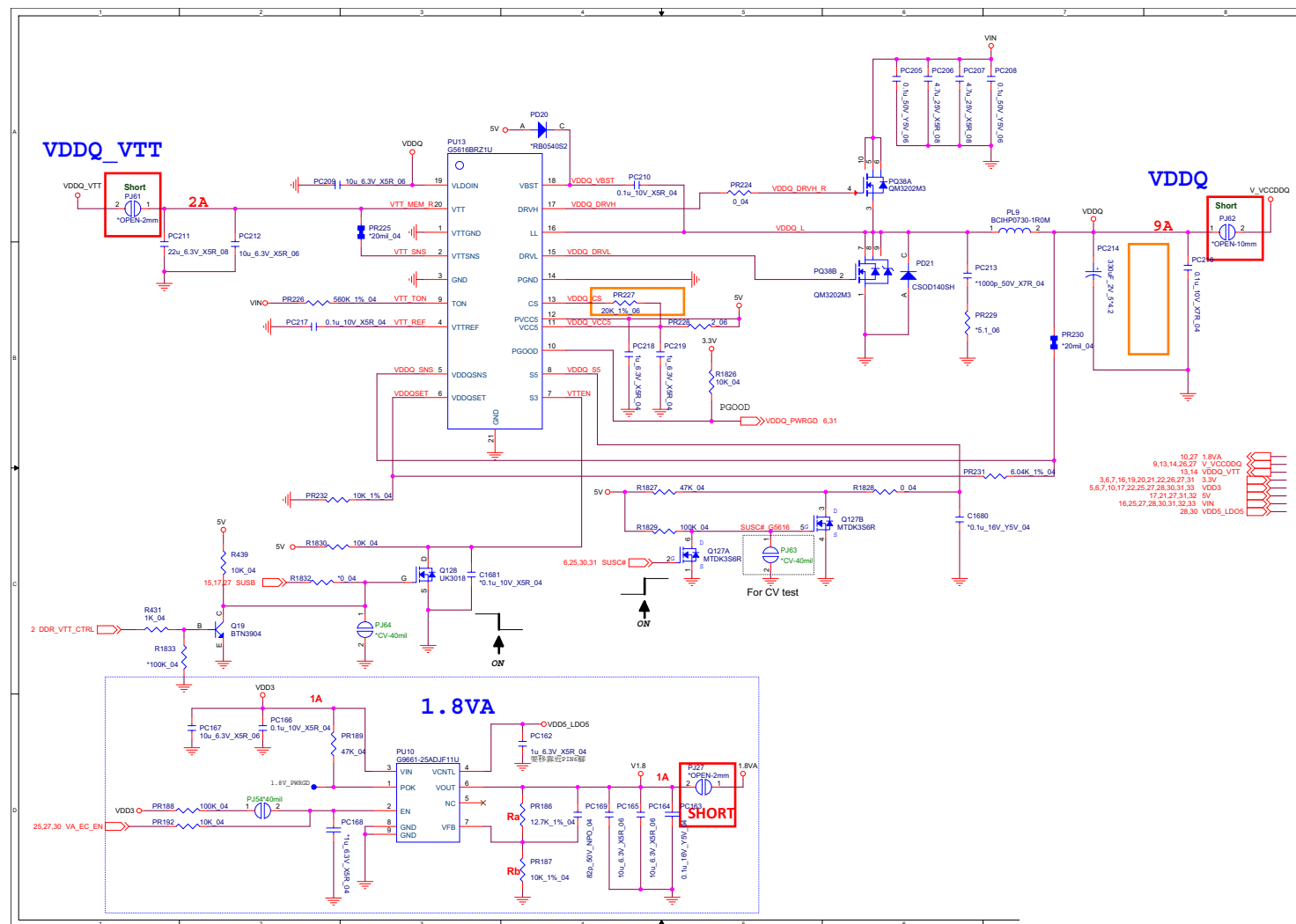
VDD3, VDD5



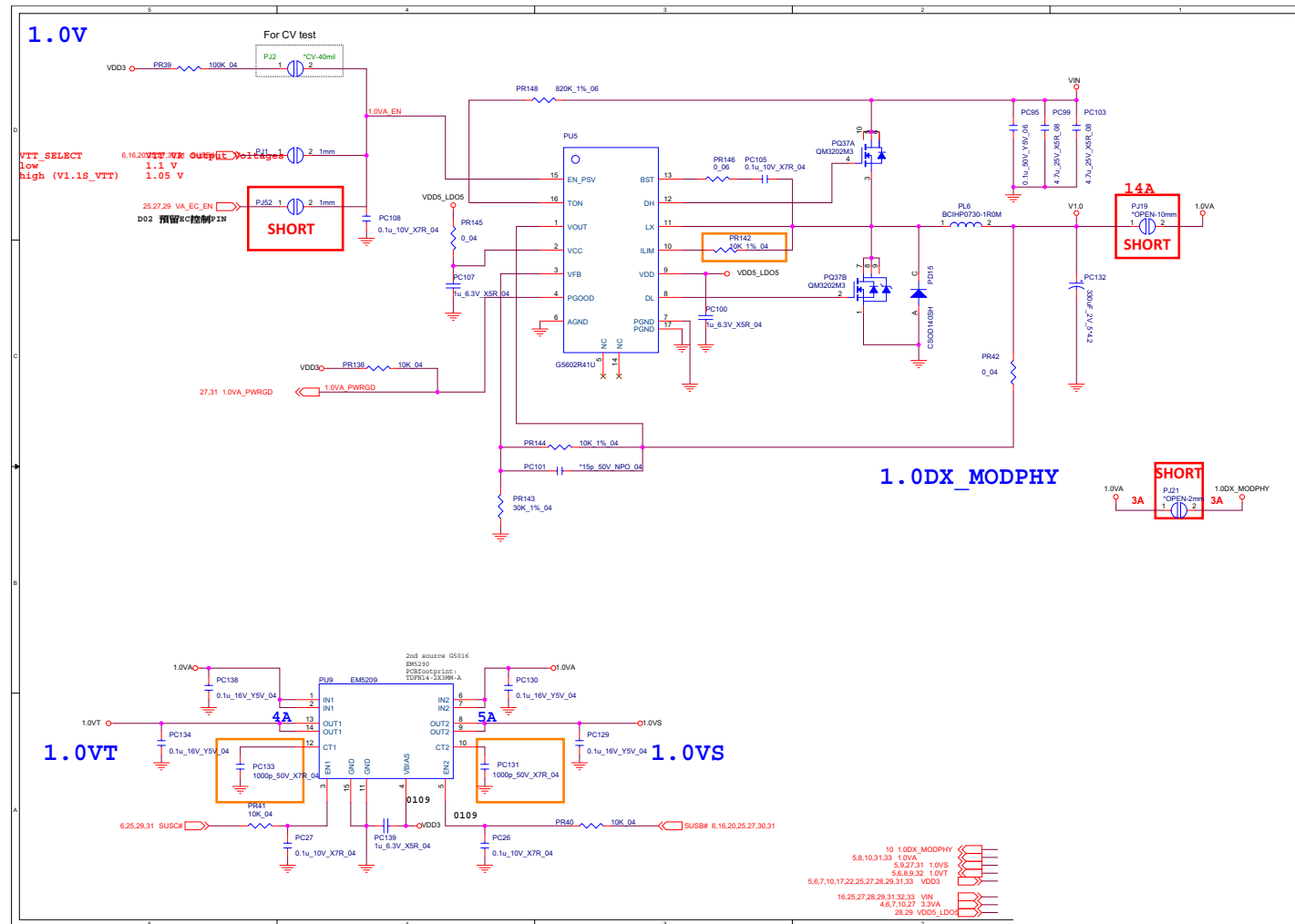
Sheet 28 of 41
VDD3, VDD5

B.Schematic Diagrams

Sheet 29 of 41
VDDQ_VTT, 1.5VS,
1.8VS



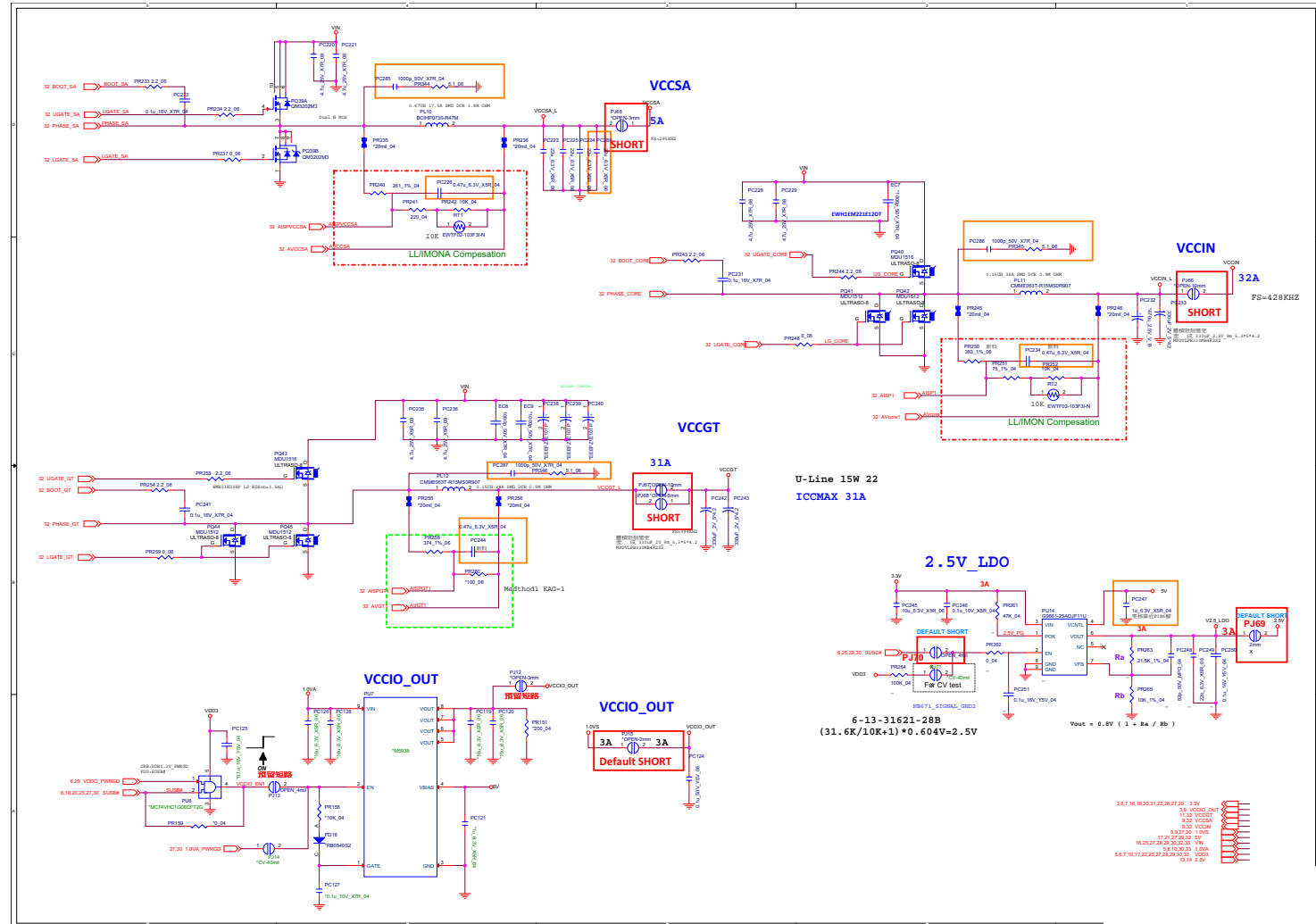
1.0V Series

Sheet 30 of 41
1.0V Series

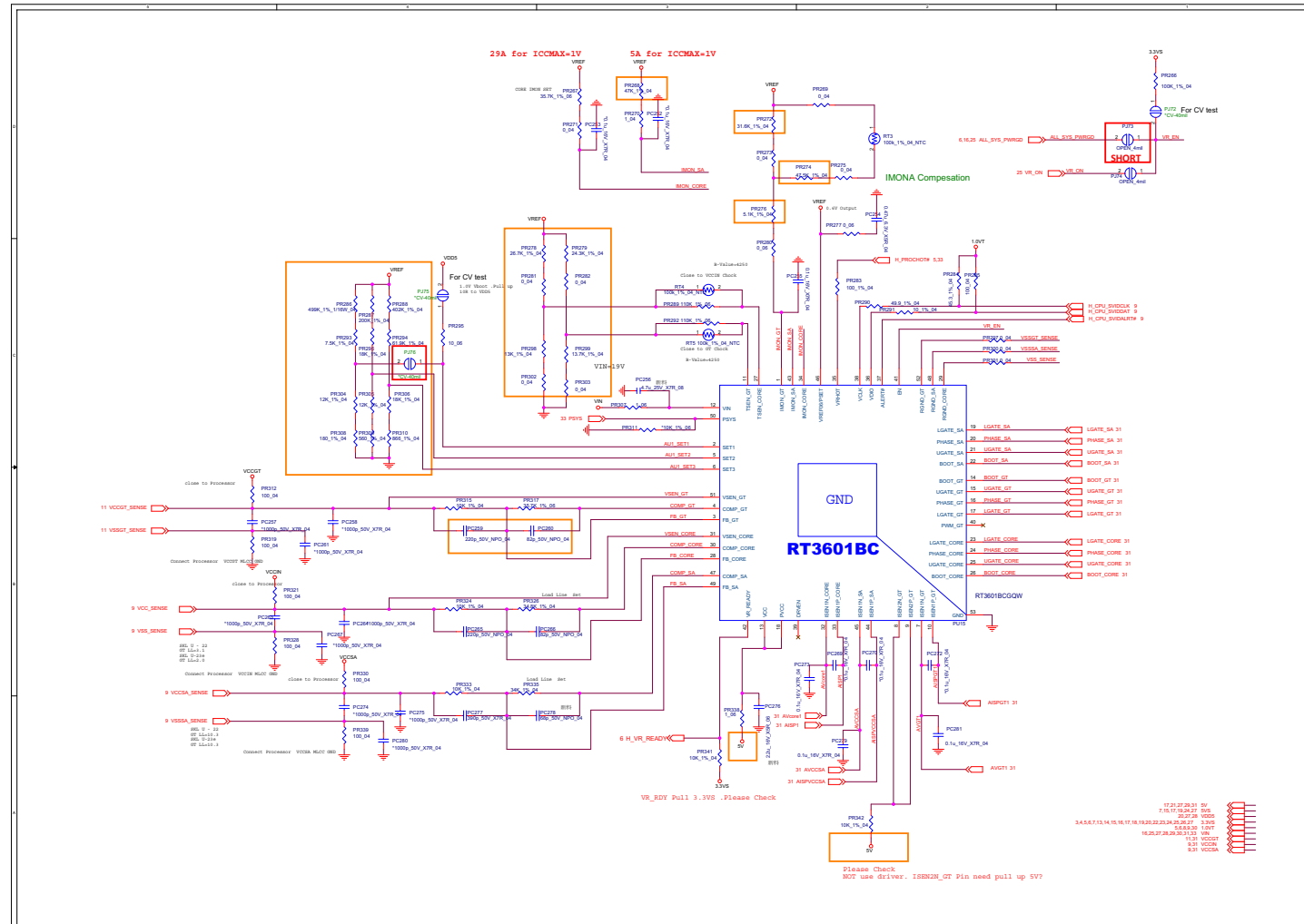
Schematic Diagrams

VCore, VCCGT, VCCSA, VCCIO

Sheet 31 of 41
VCore, VCCGT,
VCCSA, VCCIO

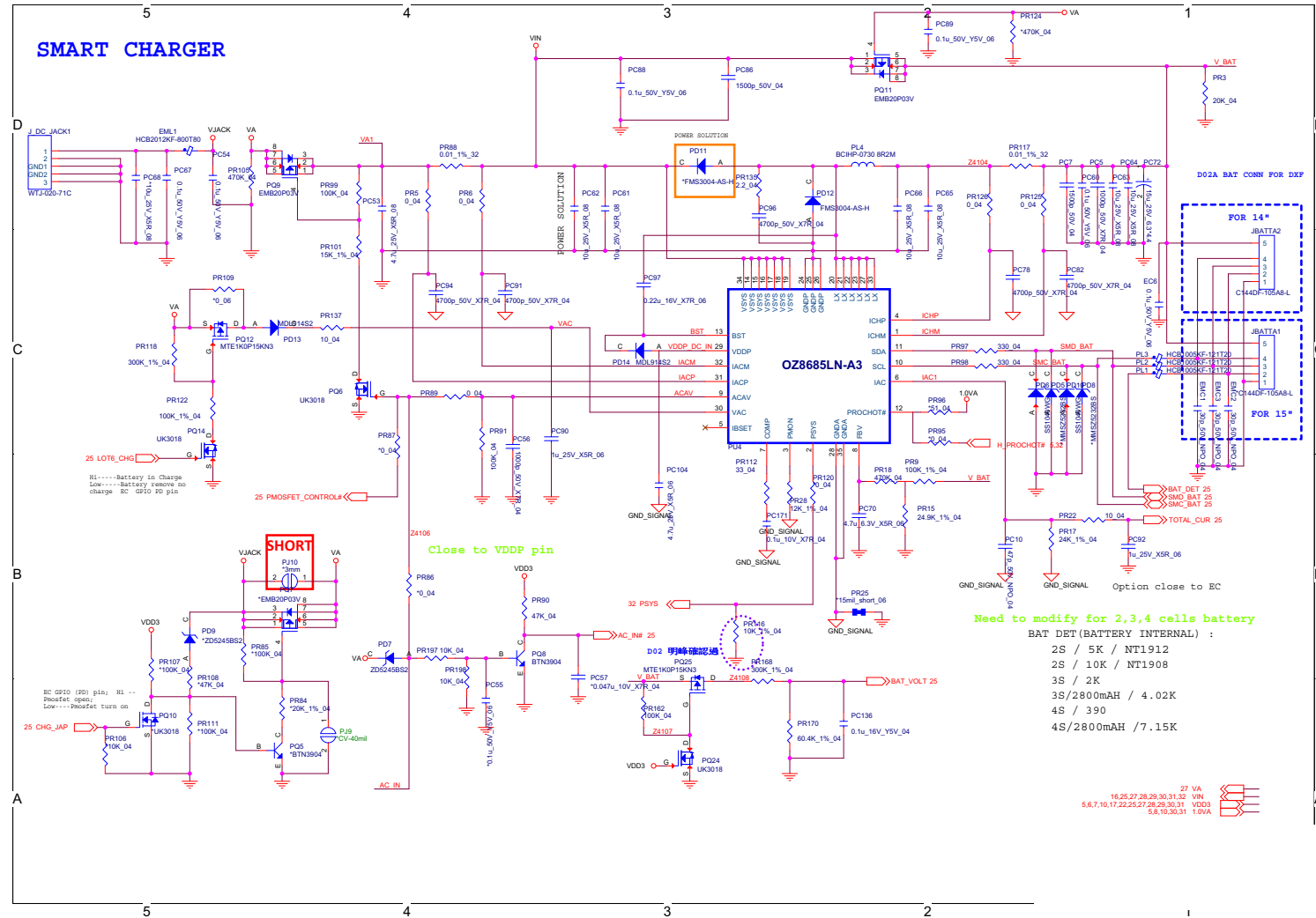


B.Schematic Diagrams

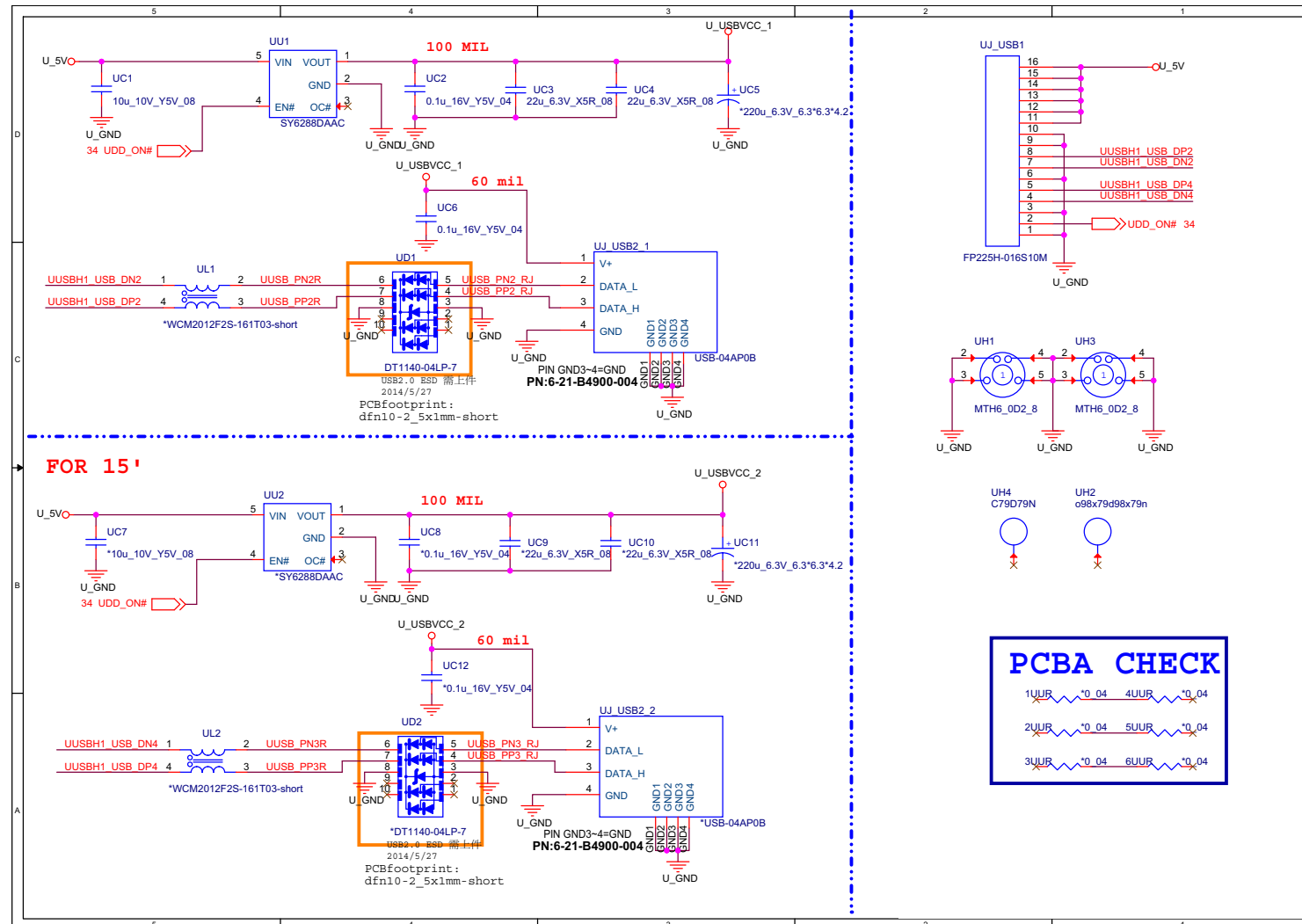


Charger, DC-In

Sheet 33 of 41
Charger, DC-In



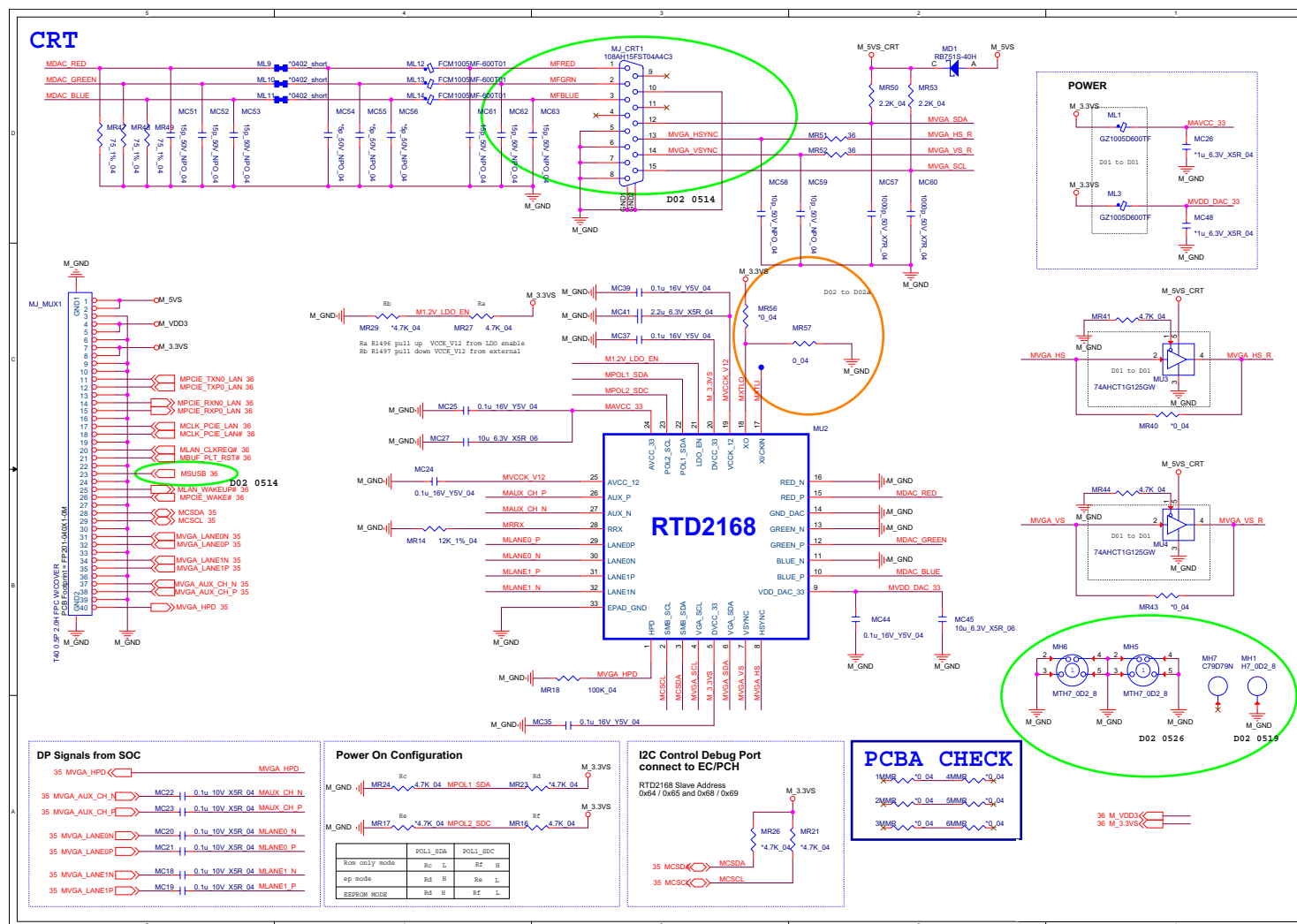
USB Board



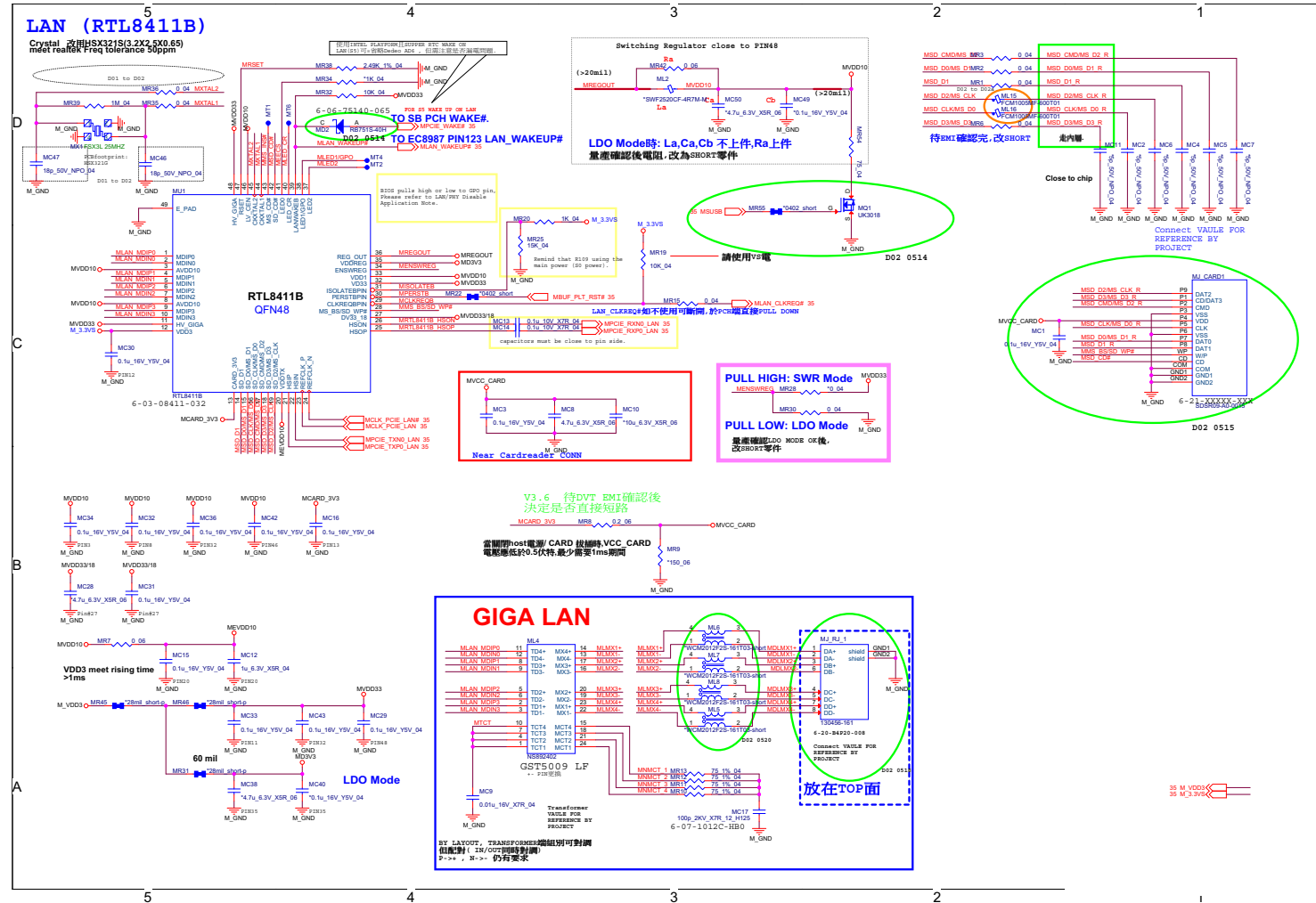
Sheet 34 of 41
USB Board

CRT

Sheet 35 of 41
CRT



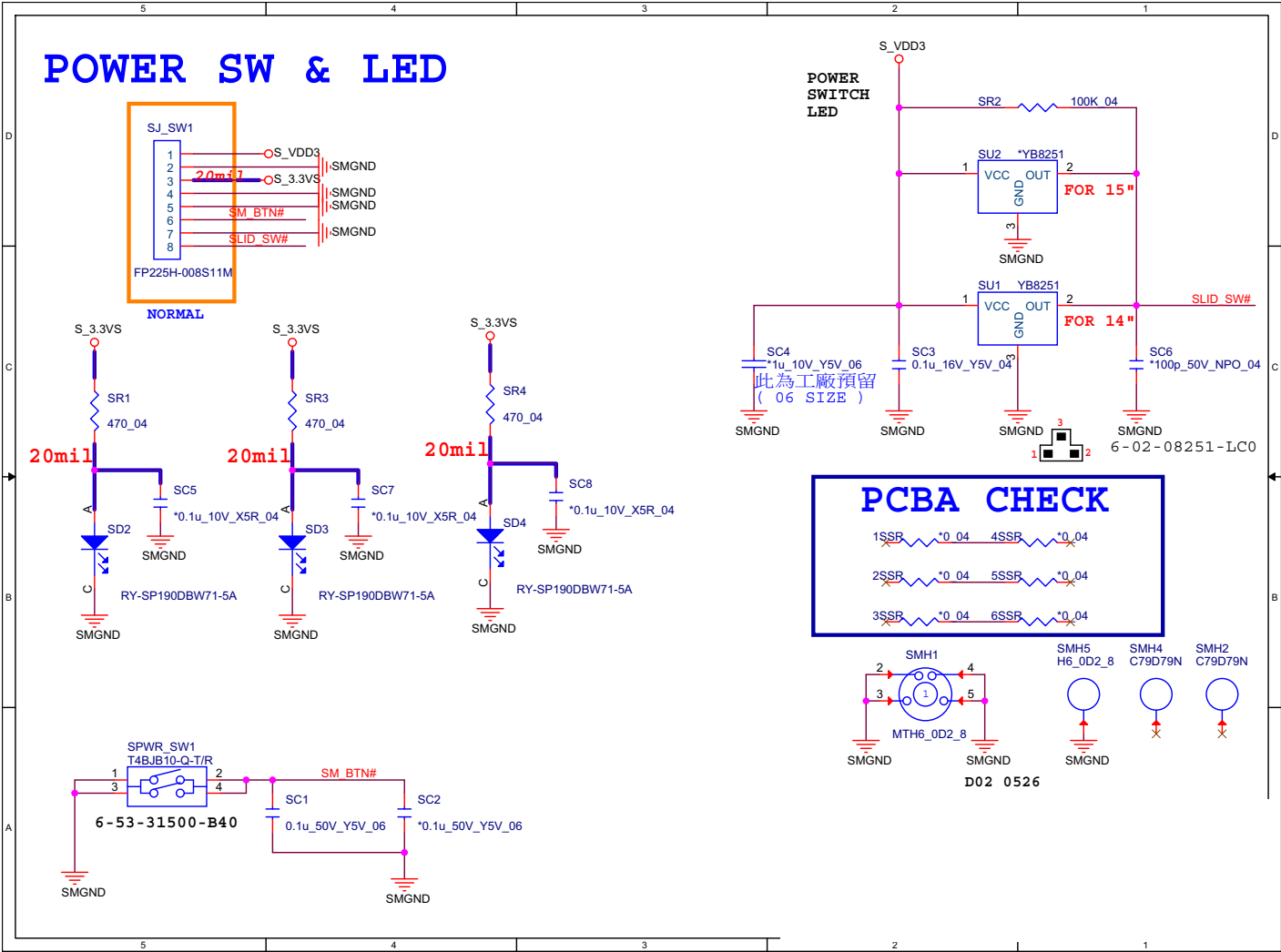
RTL8411B

Sheet 36 of 41
RTL8411B

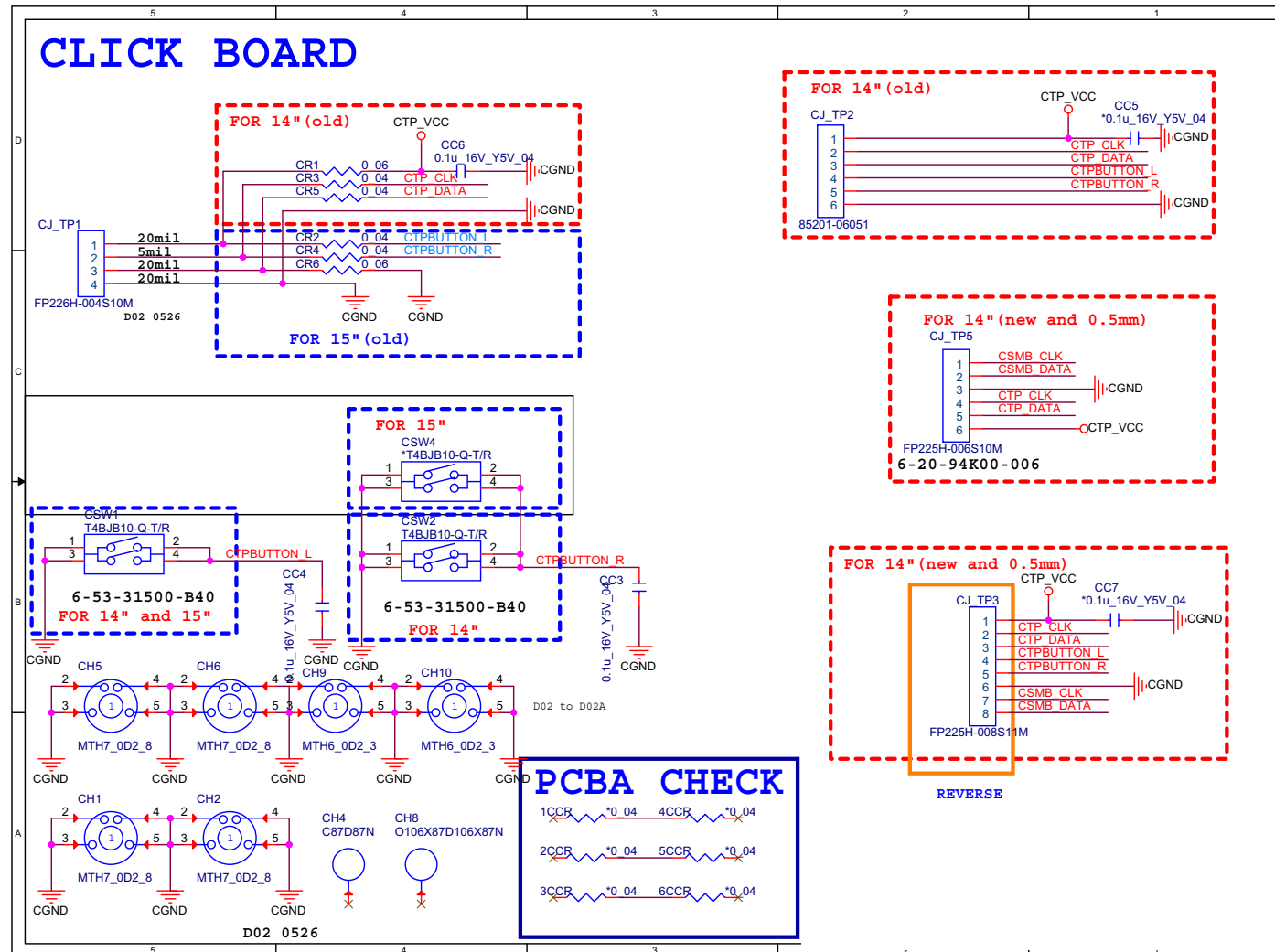
Schematic Diagrams

Power SW Board

Sheet 37 of 41
Power SW Board



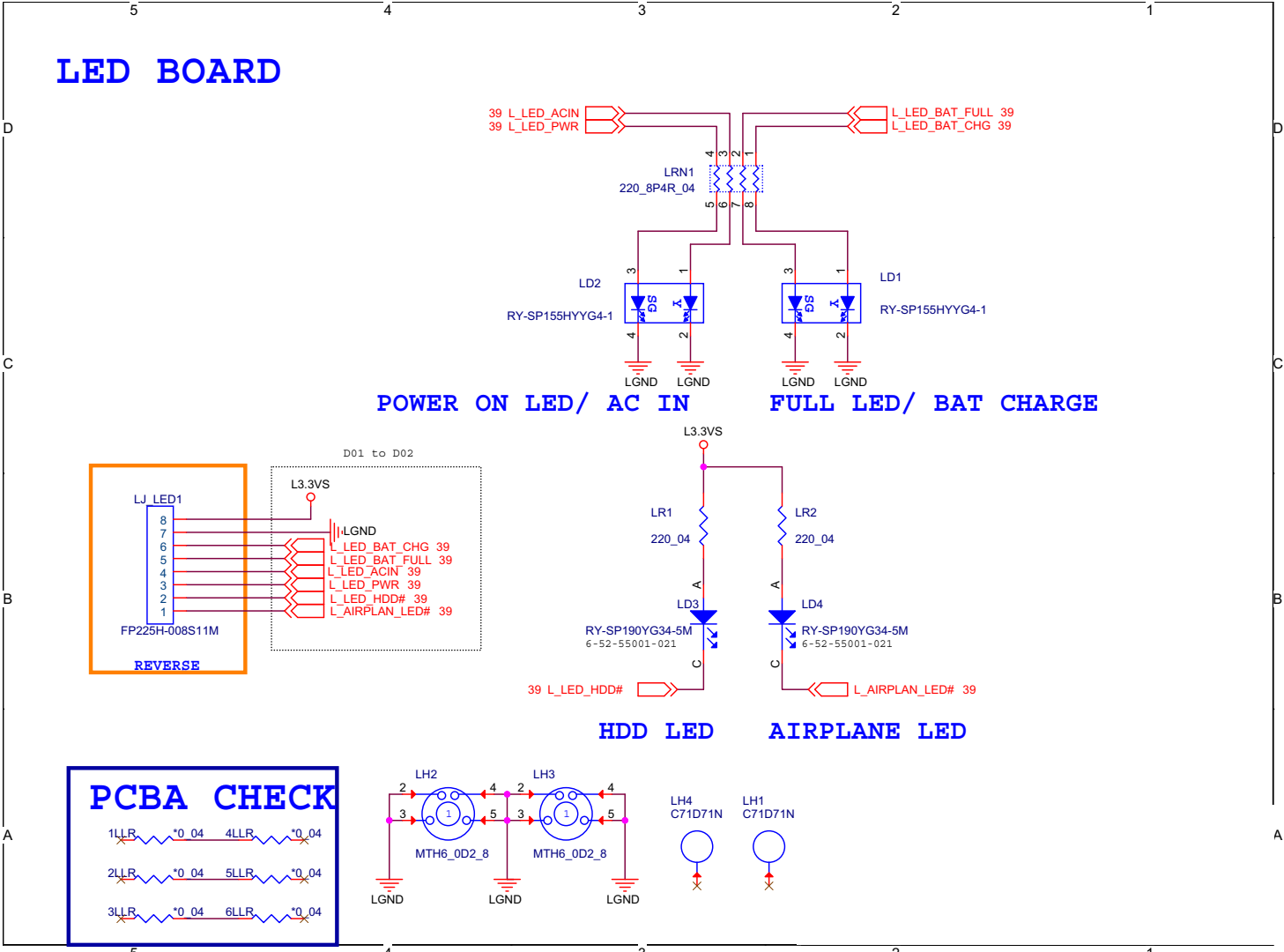
Click Board B - 39



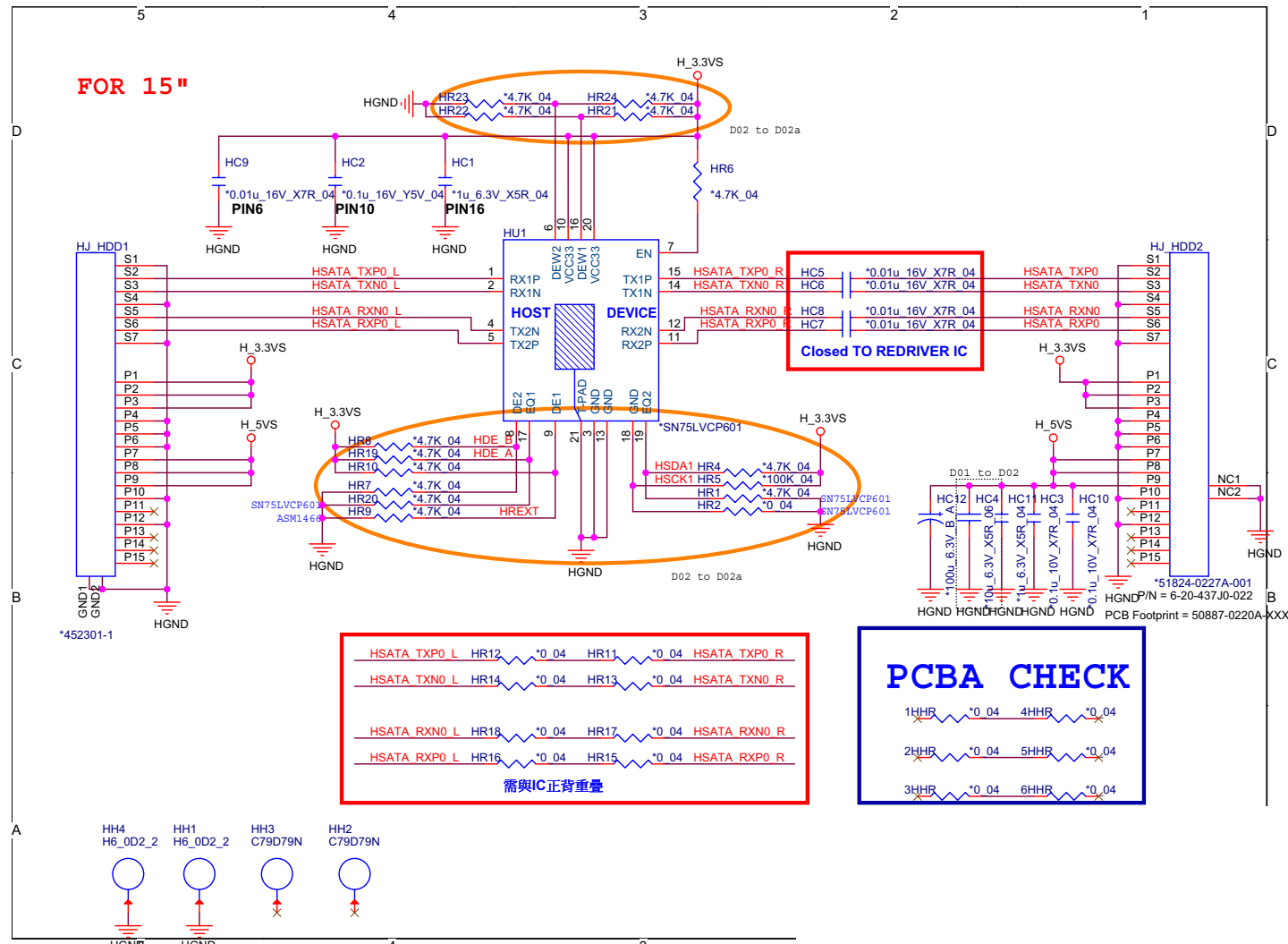
Schematic Diagrams

LED Board

Sheet 39 of 41
LED Board

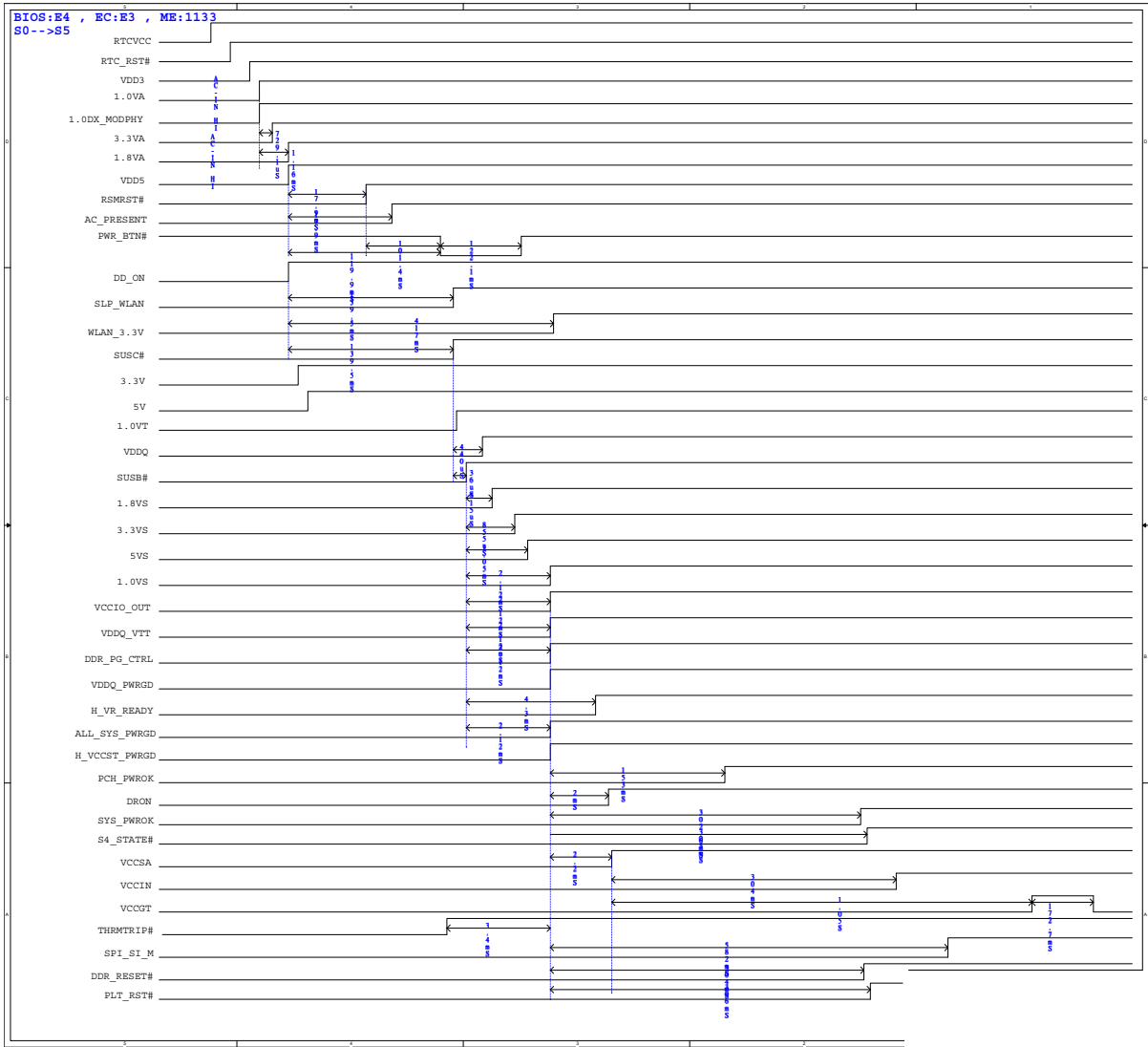


HDD Board

Sheet 40 of 41
HDD Board

Power Sequence

Sheet 41 of 41
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 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 **V1.0X.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 1.0X.05, you **MAY NOT** then go back and flash the BIOS to ver 1.0X.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.