SERVICE MANUAL

notebook

L140MU / L141MU

Notebook Computer

L140MU / L141MU

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 ***L140MU / L141MU*** 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 with an AC Input of 100 - 240V, 50 - 60Hz, DC Output of 19V, 3.42A (**65** Watts) minimum AC/DC Adapter.

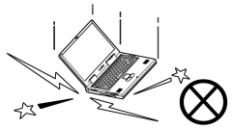
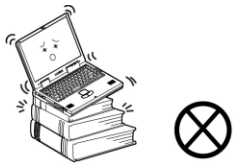
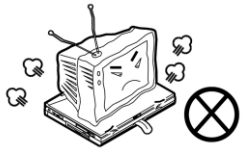
FCC Statement

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.

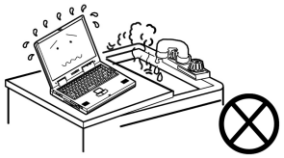
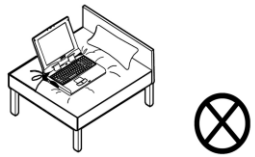
Instructions for Care and Operation

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

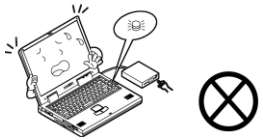
1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.

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

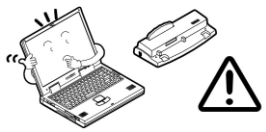
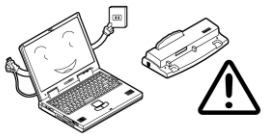
2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.

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

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

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

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

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

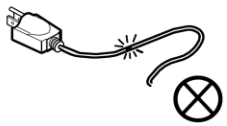
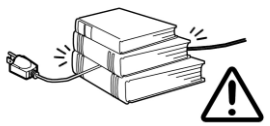
Power Safety

The computer has specific power requirements:

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

Power Safety Warning

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

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

Battery Precautions

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

Battery Guidelines

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

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

Battery Disposal

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Caution

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used battery according to the manufacturer's instructions.

Battery Level

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

Related Documents

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

User's Manual on CD/DVD

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

System Startup

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Securely attach any peripherals you want to use with the computer (e.g. keyboard and mouse) to their ports.
4. **When first setting up the computer use the following procedure** (as to safeguard the computer during shipping, the battery will be locked to not power the system until first connected to the AC/DC adapter and initially set up as below):
   - Attach the AC/DC adapter cord to the DC-In jack on the left of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter. The battery will now be unlocked.
5. Use one hand to raise the lid/LCD to a comfortable viewing angle (do not exceed 180 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).
6. Press the power button on the left side of the computer to turn it on (note that the lid/LCD must be open for the power button to function).

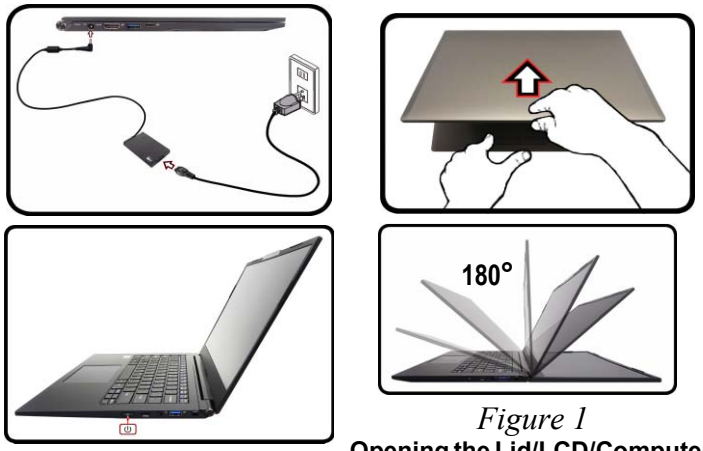


Figure 1
Opening the Lid/LCD/Computer with AC/DC Adapter Plugged-In

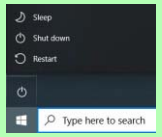
Powering the Computer On

After every disassembly, make sure that the bottom case's screws are all inserted and tightened before turning the computer on.

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.

1. Click the Start Menu icon .
2. Click the **Power** item .
3. Choose **Shut down** from the menu.



Contents

Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the ***L140MU / L141MU*** series notebook computer. Information about operating the computer (e.g. getting started, and the *Setup* utility) is in the *User's Manual*. Information about dri-vers (e.g. VGA & audio) is also found in the *User's Manual*. The manual is shipped with the computer.

Operating systems (e.g. *Window 10,* 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 ***L140MU / L141MU*** 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.

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
i7-1165G7 (2.70GHz)
12MB Smart Cache, **14nm**, DDR4-3200MHz, TDP 28W
Intel® Core™ i5 Processor
i5-1135G7 (2.30GHz)
8MB Smart Cache, **14nm**, DDR4-3200MHz, TDP 28W
Intel® Core™ i3 Processor
i3-1115G4 (2.70GHz)
6MB Smart Cache, **14nm**, DDR4-3200MHz, TDP 28W

BIOS

128Mb SPI Flash ROM
Insyde BIOS

Memory

Dual Channel DDR4
On Board DDR4 8GB
One 260 Pin SO-DIMM Socket Supporting **DDR4 3200MHz** Memory
Memory Expandable up to 32GB
Compatible with 8GB, 16GB or 32GB Modules

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

LCD Options

14" (35.56cm), 16:9, FHD (1920x1080)

Storage

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

(**Factory Option**) One M.2 **SATA** Solid State Drive (SSD)

Video Adapter

Intel UHD Graphics 630
HDR Support
Rec. 2020
Microsoft DirectX® 12 Compatible

Pointing Device

Built-in Touchpad (with Microsoft PTP Multi Gesture & Scrolling Functionality)

Keyboard

White-LED Keyboard
Or
(**Factory Option**) Keyboard

Audio

High Definition Audio Compliant Interface
2 * Built-In Speakers
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 Combo **WLAN and Bluetooth** Module
Slot 2 for **PCIe Gen4 x4 SSD**
(**Factory Option**) Slot 3 for **SATA** or **PCIe Gen3 x4 SSD** or **4G**-Module

Card Reader

MicroSD Card Reader

Interface

One Thunderbolt 4 Port with Power Delivery (DC-In)
One USB 3.2 Gen 1 Type-A Port
One USB 3.2 Gen 2 Type-A Port
One HDMI-Out Port
One 2-In-1 Audio Jack (Headphone / Microphone)
One DC-in Jack

Communication

1.0M HD Camera Module
Or
(**Factory Option**) Windows Hello Camera Module
(**Factory Option**) M.2 3042 **4G** Module

WLAN/ Bluetooth M.2 Modules:

(**Factory Option**) Intel® Dual Band Wi-Fi 6 AX200 Wireless LAN (**802.11ax**) + Bluetooth

(**Factory Option**) Intel® Dual Band Wi-Fi 6 AX201 Wireless LAN (**802.11ax**) + Bluetooth

Power

Full Range AC/DC Adapter
AC Input: 100 - 240V, 50 - 60Hz
DC Output: 19V, 3.42A (**65W**)

Embedded Lithium-Ion Polymer Battery Pack, 36WH

(**Factory Option**) Embedded Lithium-Ion Polymer Battery Pack, 73WH

Environmental Spec

Temperature
Operating: 5°C - 35°C
Non-Operating: -20°C - 60°C
Relative Humidity
Operating: 20% - 80%
Non-Operating: 10% - 90%

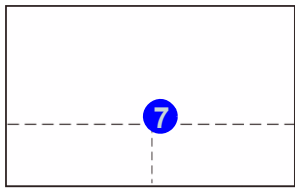
Dimensions & Weight

322mm (w) * 216.8mm (d) * 16.5mm (h)
(Height Excluding Battery Area)
990g

External Locator - Top View with LCD Panel Open

Figure 1
Top View

1. PC Camera
   Or
   (**Factory Option**)
   Windows Hello Camera
2. *Camera LED
   **When the camera is in use, the LED will be illuminated.*
3. Built-In Array Microphone
4. Display
5. Vent
6. Keyboard
7. Touchpad & Buttons



Note that the Touchpad and Buttons has a valid operational area indicated within the dotted lines.

External Locator - Front & Right Side Views

FRONT VIEW

Figure 2
Front View

1. (**Factory Option**) USIM Card Reader (for 4G USIM Cards)

RIGHT SIDE VIEW

Figure 3
Right Side View

1. Speaker
2. Power Button
3. MicroSD Card Reader
4. 2-In-1 Audio Jack (Headphone and Microphone)
5. USB 3.2 Gen 1 Type-A Port
6. Security Lock Slot

External Locator - Left Side & Rear View

Figure 4
Left Side View

1. LED Indicator
2. DC-In Jack
3. HDMI-Out Port
4. USB 3.1 Gen 2 Type-A Port
5. DisplayPort 1.2 over USB 3.1 Gen 2 Type-C Port with Power Delivery (DC-In)
6. Speaker

Figure 5
Rear View

External Locator - Bottom View

Figure 6
Bottom View

1. Speakers

Overheating

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

Mainboard Overview - Top (Key Parts)

Figure 7
Mainboard Top Key Parts

1. KBC-ITE IT5570

Mainboard Overview - Bottom (Key Parts)

Figure 8
Mainboard Bottom Key Parts

1. CPU
2. Memory Slots DDR4 SO-DIMM

Mainboard Overview - Top (Connectors)

Figure 9
Mainboard Top Connectors

1. DC-In Jack
2. HDMI-Out Port
3. USB 3.1 Gen 2 Type-A Port
4. DisplayPort 1.2 over USB 3.1 Gen 2 Type-C Port with Power Delivery (DC-In)
5. Power Button
6. MicroSD Card Reader
7. 2-In-1 Audio Jack (Headphone and Microphone)
8. USB 3.0 (USB 3.1 Gen 1) Type-A Port

Mainboard Overview - Bottom (Connectors)

Figure 10
Mainboard Bottom Connectors

1. Speaker Connector
2. WLAN Connector
3. Fan Connector
4. Touchpad Cable Connector
5. Keyboard Cable Connector
6. LED Keyboard Connector
7. Battery Connector
8. BIOS Battery Connector
9. M.2 Card Connector (SATA / PCIE)
10. M.2 Card Connector (PCIE only)
11. LCD Cable Connector

Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the ***L140MU / L141MU*** series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

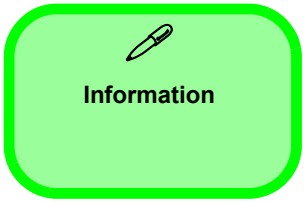
We suggest you completely review any procedure before you take the computer apart.

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.

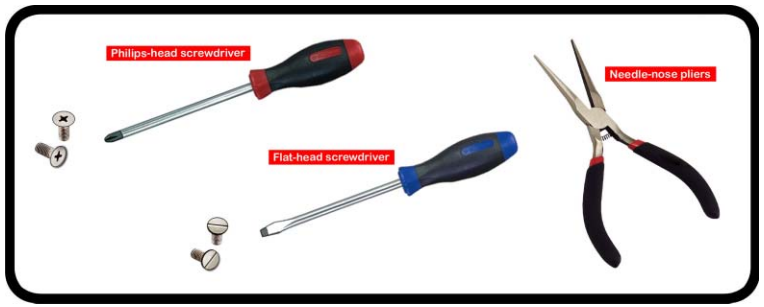


NOTE: All disassembly procedures assume that the system is turned **OFF**, and disconnected from any power supply (the battery is removed too).

Maintenance Tools

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

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



Connections

Connections within the computer are one of four types:

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

Maintenance Precautions

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

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

Power Safety Warning

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

Cleaning

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

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

(For Computer Models Supplied with Light Blue Cleaning Cloth) Some computer models in this series come supplied with a light blue cleaning cloth. To clean the computer case with this cloth follow the instructions below.

- Power off the computer and peripherals.
- Disconnect the AC/DC adapter from the computer.
- Use a little water to dampen the cloth slightly.
- Clean the computer case with the cloth.
- Dry the computer with a dry cloth, or allow it time to dry before turning on.
- Reconnect the AC/DC adapter and turn the computer 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 System Memory:

1. Remove the battery *page 2 - 5*
2. Remove the system memory *page 2 - 7*

To remove the Wireless LAN Module:

1. Remove the battery *page 2 - 5*
2. Remove the WLAN *page 2 - 9*

To remove the 4G Module:

1. Remove the battery *page 2 - 5*
2. Remove the 4G *page 2 - 11*

To remove the M.2 SSD Module:

1. Remove the battery *page 2 - 5*
2. Remove the SSD-1 module *page 2 - 12*
3. Remove the SSD-2 module *page 2 - 13*

To remove the CCD Module:

1. Remove the battery *page 2 - 5*
2. Remove the CCD module *page 2 - 14*

To remove the LCD Module:

1. Remove the battery *page 2 - 5*
2. Remove the CCD module *page 2 - 14*
3. Remove the LCD module *page 2 - 16*

Removing the Battery

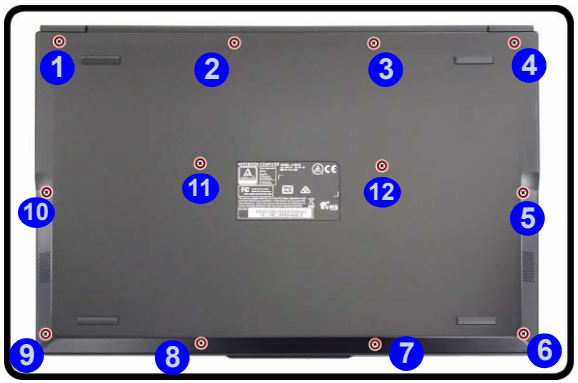
Battery-1 Removal Procedure

1. Turn **off** the computer, turn it over.
2. Remove screws 1 - 12 from the bottom case (*Figure 1a*).
3. Remove the bottom case 13 up. The battery will be visible at point 14 on the computer (*Figure 1b*).
4. Carefully disconnect the cable 15, then remove the adhesive mylar 16 - 19 as shown (*Figure 1c*).
5. Lift the battery 20 off the computer (*Figure 1d*).
6. Reverse the process to install a new battery (do not forget to replace all the screws and bottom cover).

Figure 1
Battery-1 Removal

a. Remove the screws.
b. Remove the bottom case and locate the battery.
c. Disconnect the cable and remove the adhesive. mylar
d. Lift the battery off the computer.

a.



b.

c.

d.

Powering the Computer On

After every disassembly, make sure that the bottom case's screws are all inserted and tightened before turning the computer on.

13. Bottom Cover
20. Battery

- 12 Screws

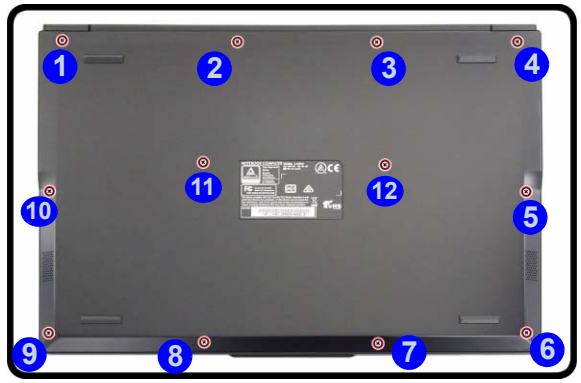
Figure 2
Battery-2 Removal

a. Remove the screws.
b. Remove the bottom case and locate the battery.
c. Disconnect the cable and remove the screws.
d. Lift the battery off the computer.

Battery-2 Removal Procedure

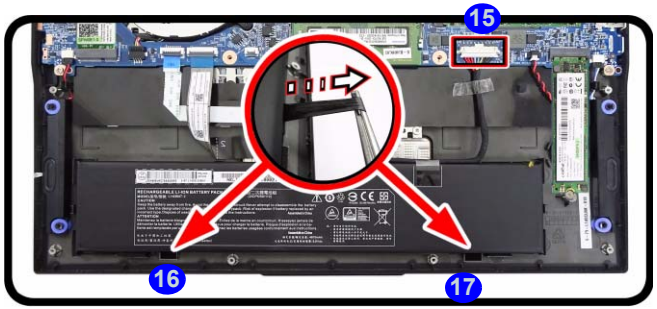
1. Turn **off** the computer, turn it over.
2. Remove screws 1 - 12 from the bottom case (*Figure 1a*).
3. Remove the bottom case 13 up. The battery will be visible at point 14 on the computer (*Figure 1b*).
4. Carefully disconnect the cable 15, then remove the adhesive mylar 16 - 17 (*Figure 1c*).
5. Lift the battery 18 off the computer (*Figure 1d*).
6. Reverse the process to install a new battery (do not forget to replace all the screws and bottom cover).

a.



b.

c.



d.

Powering the Computer On

After every disassembly, make sure that the bottom case's screws are all inserted and tightened before turning the computer on.

13. Bottom Cover
18. Battery

- 12 Screws

Removing the System Memory (RAM)

The computer has one memory sockets for 260 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDR4 3200MHz. 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

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

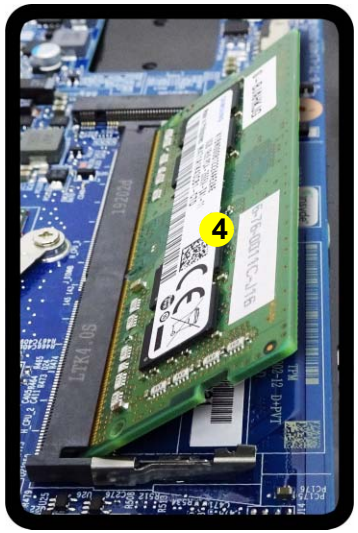
Figure 3
RAM Module Removal

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

a.

b.

c.



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

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.

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 4a*).
3. Carefully disconnect the cables 2 & 3, and then remove the screw 4 (*Figure 4b*)
4. The Wireless LAN module 5 (*Figure 4c*) will pop-up, and you can remove it from the computer.
5. Reverse the process to install a new module (do not forget to replace all the screws and bottom cover).

a.

b.

c.

Figure 4
Wireless LAN Module Removal

a. Locate the WLAN.
b. Disconnect the cable and remove the screw.
c. 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 4b*).

5.Wireless LAN Module

- 1 Screw

Wireless LAN, and Combo Module Cables

Note that the cables for connecting to the antennae on WLAN, WLAN & Bluetooth Combo, 3G and LTE 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	WL 1	Black	Transparent
	WL 2	Black	White
LTE Broadband	LTE 1	Black	Black
	LTE 2	Black	Blue

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

Removing the 4G Module

1. Turn **off** the computer, turn it over to remove the battery (*page 2 - 5*).
2. The module will be visible at point 1 on the mainboard (*Figure 5a*).
3. Carefully disconnect the cables 2 & 3, and then remove the screw 4 (*Figure 5b*)
4. The module 5 (*Figure 4c*) will pop-up, and you can remove it from the computer.
5. Reverse the process to install a new module (do not forget to replace all the screws and bottom cover).

a.

b.

c.

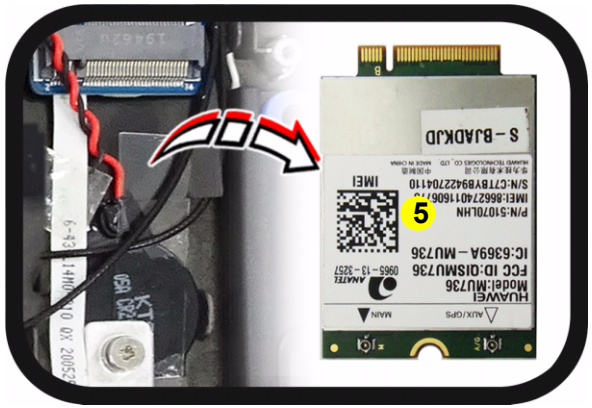


Figure 5
4G Module Removal

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

5.4G Module

- 1 Screw

Figure 6
M.2 SSD1 Module Removal

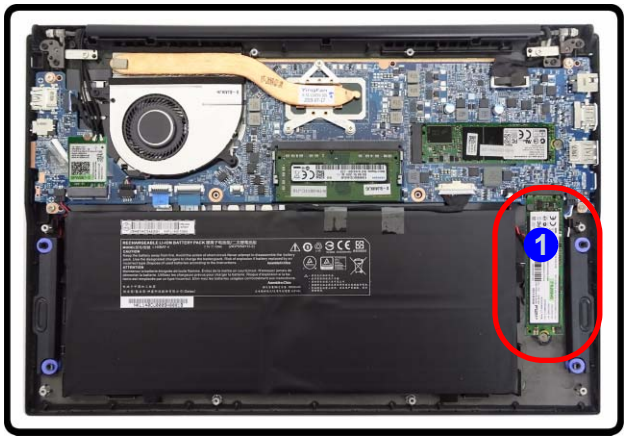
a. Locate the M.2 SSD.
b. Remove the screw.
c. The M.2 SSD module will pop up.

Removing the M.2 SSD Module

M.2 SSD1 Removal Procedure

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

a.



b.

c.

3.M.2 SATA/PCIE Module

- 1 Screw

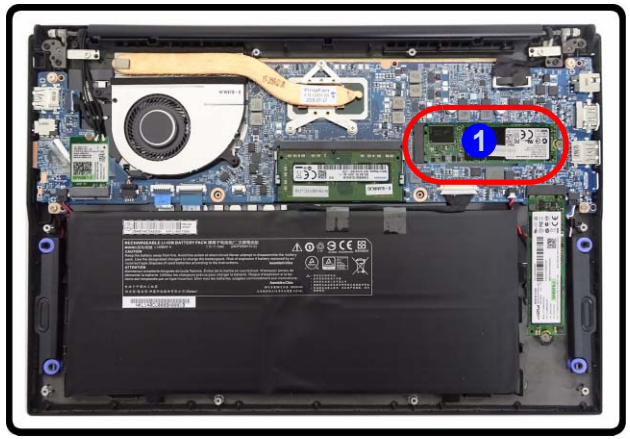
M.2 SSD2 Removal Procedure

1. Turn **off** the computer, turn it over to remove the battery (*page 2 - 5*).
2. The M.2 SSD module will be visible at point 1 on the mainboard (*Figure 7a*).
3. Remove the screw 2 (*Figure 7b*)
4. The M.2 SSD module 3 (*Figure 7c*) will pop-up, and you can remove it from the computer.

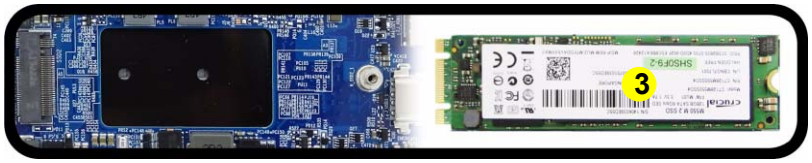
Figure 7
M.2 SSD2 Module Removal

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

a.



c.



b.

3.M2 PCIE Module only

- 1 Screw

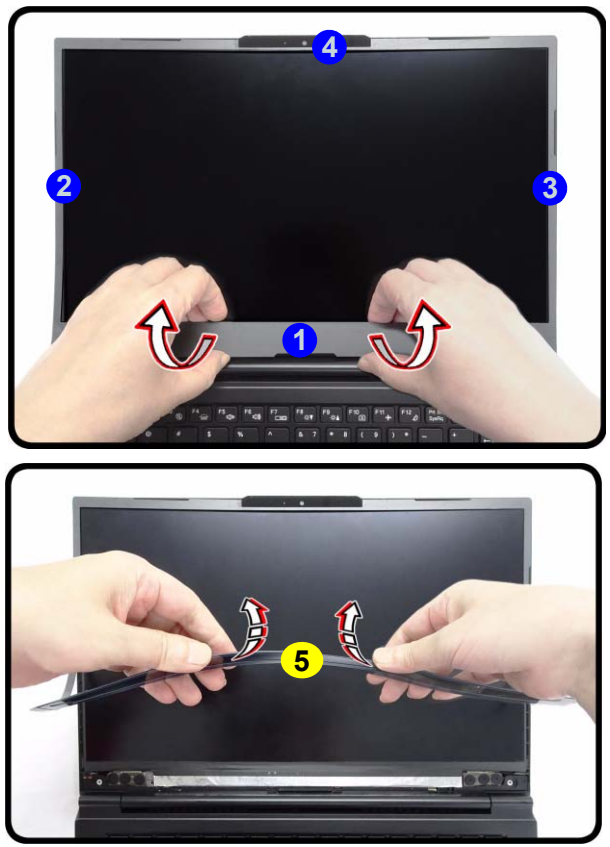
Figure 8
CCD Removal

a. Run your fingers around the inner frame of the LCD panel at the points indicated by the arrows.
b. Lay the computer down on a flat surface. Lift the LCD front panel upwards.

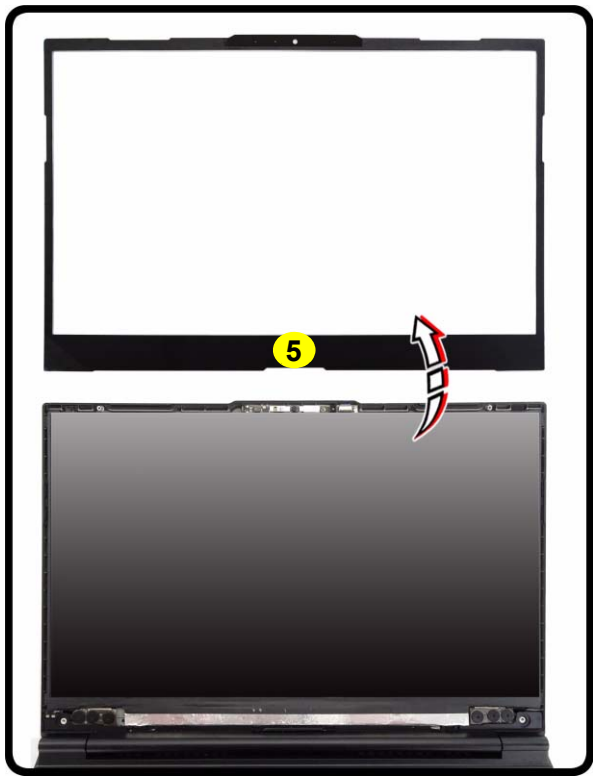
Removing the CCD

1. Turn **off** the computer, turn it over to remove the battery (*page 2 - 5*).
2. Lift up the inner frame and run your fingers around the inner frame of the LCD panel at the points as indicated by the arrows 1 - 4 (*Figure 8a*).
3. Lay the computer down on a flat surface with the top case up forming a 180 degree angle. Carefully lift and remove the LCD front cover 5 upwards (*Figure 8b*).

a.



b.



5. LCD Front Cover

4. Disconnect the cable 6 (*Figure 9c*).
5. Remove the CCD module 7 (*Figure 9d*).
6. Reverse the process to install a new CCD module.

c.

d.

Figure 9
CCD Removal (cont'd.)

c. Disconnect the cable.
d. Remove the CCD module.

7. CCD Module

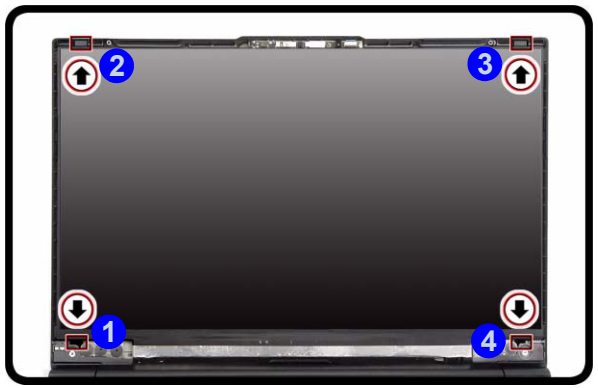
Figure 10
LCD Removal

a. Remove the mylar at the points indicated.
b. Lift the LCD front panel.
c. Disconnect the cable.
d. Remove the LCD panel.

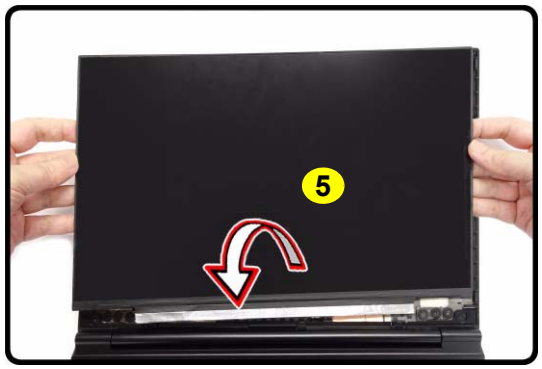
Removing the LCD

1. Turn **off** the computer, turn it over to remove the battery (*page 2 - 5*) and CCD (*page 2 - 14*).
2. Remove the adhesive mylar at the points 1 - 4 as indicated (*Figure 10a*).
3. Carefully lift the LCD panel 5 as shown (*Figure 10b*).
4. Disconnect the cable 6 (*Figure 10c*).
5. Remove the LCD panel 5 (*Figure 10d*).
6. Reverse the process to install a new LCD panel.

a.

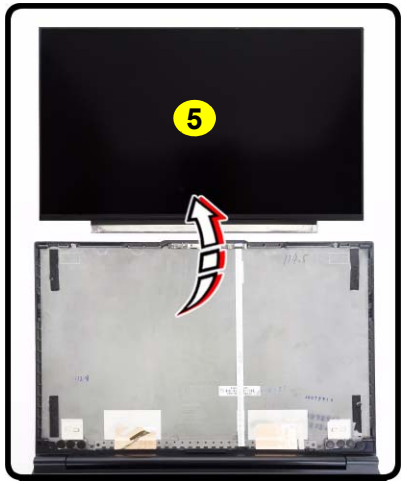


b.



c.

d.



5. LCD Panel

Appendix A: Part Lists

This appendix breaks down the ***L140MU / L141MU*** 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.

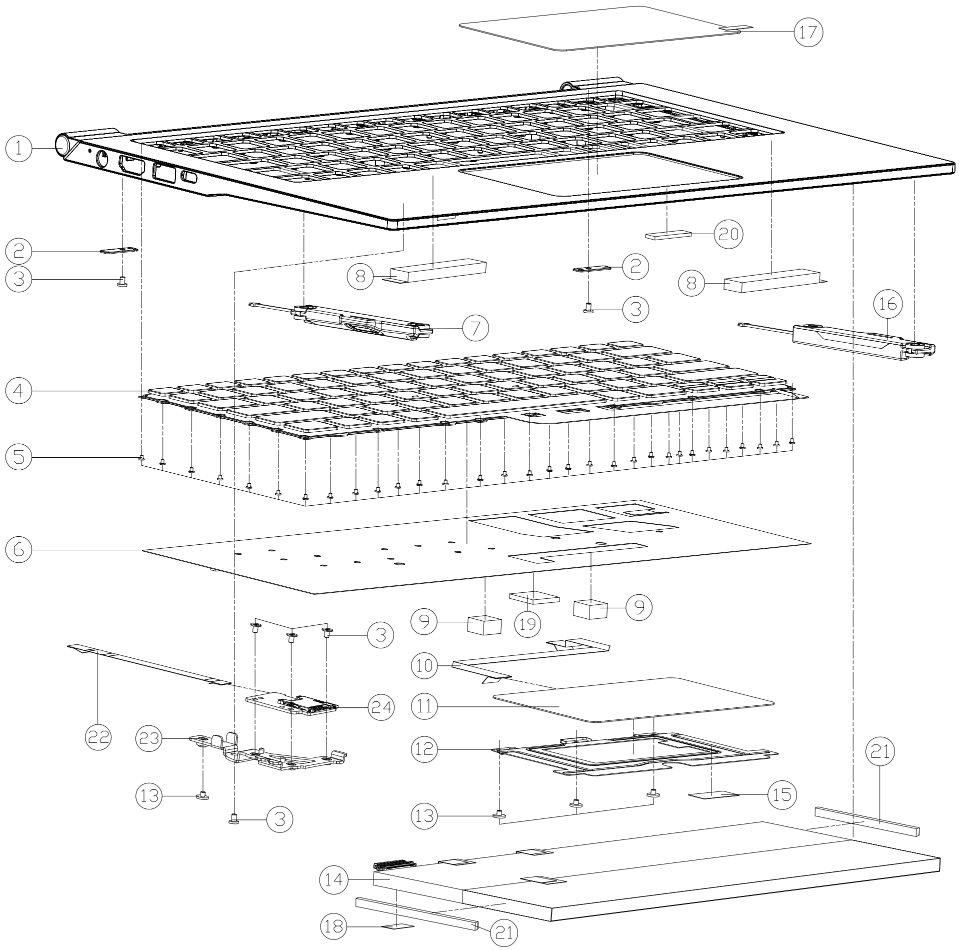
Part List Illustration Location

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

Table A - 1
Part List Illustration Location

Part	
Top	*page A - 3*
Bottom	*page A - 4*
LCD	*page A - 5*
MB	*page A - 6*

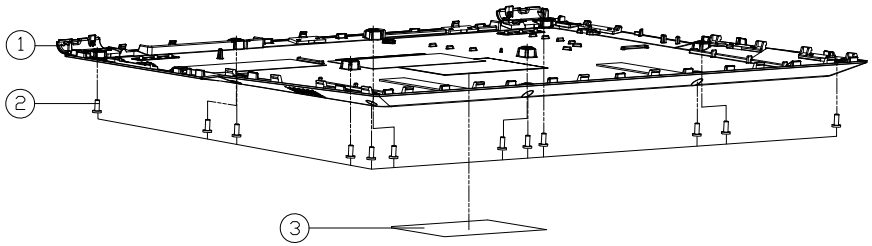
Top



ITEM	PART NAME	PART NO	REMARK
1	TOP CASE US MODULE L140CU	6-39-L1402-032	
1	TOP CASE JP MODULE L140CU	6-39-L1402-042	
1	TOP CASE UK MODULE L140CU	6-39-L1402-022	
1	TOP CASE PA MODULE L140CU	6-39-L1402-012	
1	TOP CASE US MODULE (FOR LTE) L140MU	6-39-L14M2-070	
1	TOP CASE JP MODULE (FOR LTE) L140MU	6-39-L14M2-080	
1	TOP CASE UK MODULE (FOR LTE) L140MU	6-39-L14M2-060	
1	TOP CASE PA MODULE (FOR LTE) L140MU	6-39-L14M2-050	
1	TOP CASE US MODULE L141CU	6-39-L1412-031	
1	TOP CASE JP MODULE L141CU	6-39-L1412-041	
1	TOP CASE UK MODULE L141CU	6-39-L1412-021	
1	TOP CASE PA MODULE L141CU	6-39-L1412-011	
1	TOP CASE US MODULE (FOR LTE) L141MU	6-39-L14M2-170	
1	TOP CASE JP MODULE(FOR LTE) L141MU	6-39-L14M2-180	
1	TOP CASE UK MODULE (FOR LTE) L141MU	6-39-L14M2-160	
1	TOP CASE PA MODULE (FOR LTE) L141MU	6-39-L14M2-150	
2	SET CABLE BKT L140CU	6-33-L1402-010	
3	.SCREW M2*3L KI NI ICT NY (DD=ø4.0,DT=0.8)	6-35-B1120-3RD	
4	KB USA CVM19C53US-430 L140CU BLACK ISOLATION WITH WIN10 KEY(KAPOK)	6-80-L1400-012-K	
4	KB JAPANESE CVM19C50J0-430 L140CU BLACK ISOLATION WITH WIN10 KEY	6-80-L1400-212-1	
4	KB UK CVM19C56GB-430 L140CU BLACK ISOLATION WITH WIN10 KEY(KAPOK)	6-80-L1400-192-K	
4	KB BRAZILIAN CVM19C58PA-430 L140CU BLACK ISOLATION WITH WIN10 KEY	6-80-L1400-332-1	
4	BL KB USA CVM19C33USJ430 L140CU BLACK ISOLATION WITH WIN10 KEY	6-80-L1400-01C-1	
4	BL KB JAPANESE CVM19C30J0J430 L140CU BLACK ISOLATION WITH WIN10 KEY	6-80-L1400-21C-1	
4	BL KB UK CVM19C36GBJ430 L140CU BLACK ISOLATION WITH WIN10 KEY(KAPOK)	6-80-L1400-19C-K	
4	BL KB BRAZILIAN CVM19C38PAJ430 L140CU BLACK ISOLATION WITH WIN10 KEY	6-80-L1400-33C-1	
4	BL KB USA CVM19C33USJ430 L140CU BLACK ISOLATION WITH WIN10 KEY	6-80-L1400-01C-1	
5	SCREW M1.2*1.5L KI BK/Z ICT NY(ø2.4,T=0.4)	6-35-B6112-1R5	
6	TOP CASE KB SHIELDING MYLAR-1 L140CU	6-40-L1403-052	
7	SPK+CABLE L 75*15 1.5W 4? 25MM 2010CP04-P4.0C L140CU	6-23-5L140-021	
8	TOP BAT LALATAPE (TMQB-200) L140CU	6-47-L1402-010-1	
9	36W-BATTERY RUBBER (10*10*6.5T) L140CU	6-47-L1403-030	FOR BAT 36WH 贴附
10	FFC TP TO MB L=160MM 5V 8PIN L140CU	6-43-L1402-010-1	
11	CLICK PAD ELAN (IIC PTP + PS2 TP) SA464C-1204 (104*64MM)L140CU (NEW FW)	6-49-L1403-011	
12	CLICK PAD HOLDER L140CU	6-33-L1402-032	
13	SCREW M2*2L KI NI ICT NY (DD=ø5 ,T=0.8)	6-35-B1120-2RA	
14	BATP S LI 7.7V/4.8AH/36WH PSE 2S1P GETAC/VEKEN (POLYMER) 541396200001 (4675MAH) LABEL CHANGE	6-87-L140S-32B01	
14	BATP S LI 7.7V/9.6AH/73WH PSE 2S2P GETAC/VEKEN (POLYMER) 541390650001 (9350MAH) LABEL CHANGE	6-87-L140S-72B01	
15	TOP CASE GASKET 1 (20*10*0.15) P650SE	6-47-00190-209	
16	SPK+CABLE R 75*15 1.5W 4? 25MM 2010CP04-P4.0C L140CU	6-23-5L140-011	
17	CLICK PAD MYLAR L140CU	6-40-L1402-012	
18	TOP CASE MYLAR FR83 25*7*0.05 P180HM	6-40-P1802-030	FOR BAT 36WH 贴附
19	73W-BATTERY RUBBER (17*17*1.8T) L140CU	6-47-L1403-040	FOR BAT 73WH 贴附
20	TOP CLICK BAT SPONGE-B CR4382 (25*5*1.6T)	6-47-0019A-25T	
21	MYLAR BATTERY (5X55X0.35T) L140MU	6-40-L14M2-020	
22	FFC SIM TO MB L=80MM 3.3V 8P (QX) L140MU	6-43-L14M0-010	FOR LTE KB
23	BRACKET FOR SIM CARD L140MU	6-33-L14M2-011	FOR LTE KB
24	SIM CARD BOARD V2.0 L140MU	6-77-L14MG-D02	FOR LTE KB

Figure A - 1
Top

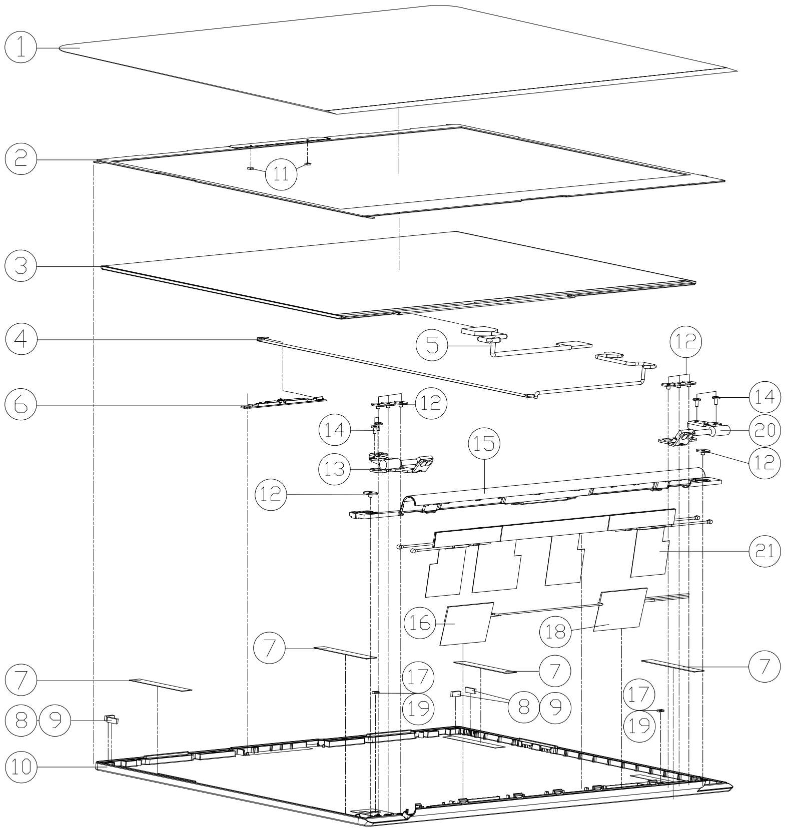
Bottom



ITEM	PART NAME	PART NO	REMARK
1	BOTTOM CASE MODULE (NEW) L140CU	6-39-L1403-014	
1	BOTTOM CASE MODULE (NEW) L141CU	6-39-L1413-013	
2	SCREW M2*5L KIT=0.8 D=3.5) BK/Z ICT NY	6-35-B6120-5RC	
3	PRODUCT LABEL FOR L140MU	6-45-L140MU03-010	
3	PRODUCT LABEL FOR L141MU	6-45-L141MU03-010	

Figure A - 2
Bottom

LCD

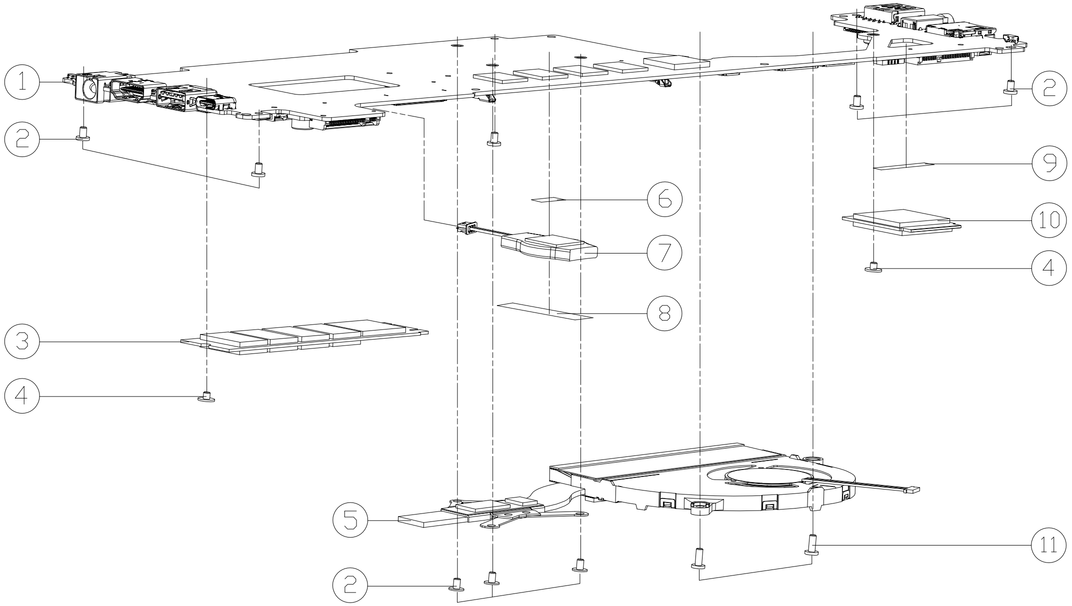


ITEM	PART NAME	PART NO	REMARK
1	LCD PROTECT BOPP L140CU	6-40-L1408-011	
2	FRONT COVER MYLAR SHEET W-IR (AG080) L140CU	6-40-L1401-022	擇一選配
2	FRONT COVER MYLAR SHEET WO IR (AG080) L140CU	6-40-L1401-042	擇一選配
2	FRONT COVER MYLAR SHEET GRAY W-IR (AG032) L141CU	6-40-L1411-051	擇一選配
2	FRONT COVER MYLAR SHEET GRAY WO IR (AG032) L141CU	6-40-L1411-041	擇一選配
3	LCD N14.0" FHD/WVA/N7/NON GT/LOW POWER/EDP AU B140HAN06.2 LED 2.1MM	6-50-JBB21-G020	
3	LCD N14.0" FHD/WVA/N7/NON GT/EDP INNOLUX N140HCE-EN2 (REV:C1/C2/B1X(<=210G) LED 2.4MM	6-50-JBB24-V024	
4	WIRE+FFC CABLE FOR CCD 400MM 12P TO 12P 3.3V (JS) L140MU	6-43-L14MT-010-1	ONLY FOR IR CCD
4	WIRE+FFC CABLE FOR CCD 400MM 12P TO 8P 3.3V (JS) L140MU	6-43-L14MT-020-1	ONLY FOR CCD
5	WIRE CABLE FOR EDP 150MM (L) 19V 30PIN (CNJS/LW CON:JSWHCASZ-4070) L140CU	6-43-L1401-010-1N	
6	UVC CAMERA CHICONY FIX(RGB) CNFIH3821003920LH 1M HD OV9734 N150ZU FW5404 W/WHITE-LED W/2D-MICONARROW BORDER WITH FFC)	6-88-N15ZC-5100	
6	UVC CAMERA CHICONY FIX(RGBIR4.0) CXFIH3921003924LH 1M HD OV9738 N150ZU FW0002 W/WHITE-LED W/2D-MICONARROW BORDER WITH FFC)	6-88-N15ZC-5112	
7	MYLAR 9*40*T0.3MM L140CU	6-40-L1401-061	ONLY FOR 6-50-JBB21-G020
8	LCD STOP RUBBER 7*2.8*T1.4 BLACK L140CU	6-47-L1401-040	ONLY FOR 6-50-JBB24-V024
9	LCD STOP RUBBER 7*2.8*T2.1 GRAY L140CU	6-47-L1401-060	ONLY FOR 6-50-JBB21-G020
10	BACK COVER MODULE L140MU	6-39-L1401-025	
10	BACK COVER MODULE L141CU	6-39-L1411-024	
11	CCD MIC SPONGE (4*4*1.6) NL50GU	6-47-0019A-04E	
12	SCREW M2*2L KI BK/Z ICT NY(Ø8,T=0.6)	6-35-B6120-2RE	
13	HINGE L L140CU	6-33-L1401-0L2	
14	SCREW M2*5L KI(T=0.8 D=3.5) BK/Z ICT NY	6-35-B6120-5RC	
15	(PRE-PROCESS) HINGE COVER MODULE L140MU	6-78-L140MU01-010	
15	(PRE-PROCESS) HINGE COVER MODULE L141MU	6-78-L141MU01-010	
16	ANTENNA IPEX4 WLAN JEM WL2 PCB OR 40X9MM 2.4G/5G L= 300MM L140CU	6-23-7L140-020	ONLT FOR WLAN KB
17	TOP IO CON GASKET (5*5*1.5T) L140CU	6-47-00190-05W	ONLY FOR 6-50-JBB21-G020
18	ANTENNA IPEX4 WLAN JEM WL1 PCB OR 40X9MM 2.4G/5G L= 150MM L140CU	6-23-7L140-010	ONLT FOR WLAN KB
19	GASKET 5*3*1.2 FOR PANEL L140MU	6-47-00190-05Y	ONLT FOR 6-50-JBB24-V024
20	HINGE R L140CU	6-33-L1401-0R2	
21	ANTENNA IPEX4 LTE+WLAN COMBO JEM LTE-1=500MM LTE-2=250MM WL-1=150MM WL-2=400MM PCB ORL	6-23-7L14M-011	ONLT FOR LTE KB

Figure A - 3
LCD

MB

Figure A - 4
MB



ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD(CPU/I7-1165G7/2.8G) V2.0A (DDR4 8G)(EDP)(W/TPM)(W/O LTE) L140MU	6-77-L140MU00-D02A-1G	
1	MAIN BOARD(CPU/I5-1135G7/2.4G) V2.0A (DDR4 8G)(EDP)(W/TPM)(W/O LTE) L140MU	6-77-L140MU00-D02A-1H	
1	MAIN BOARD(CPU/I3-1115G4/3.0G) V2.0A (DDR4 8G)(EDP)(W/LTE)(W/O TPM) L140MU	6-77-L140MU00-D02A-4J	
1	MAIN BOARD(CPU/I3-1115G4/3.0G) V2.0A (DDR4 8G)(EDP)(W/TPM)(W/O LTE) L140MU	6-77-L140MU00-D02A-1N	
1	MAIN BOARD(CPU/I7-1165G7/2.8G) V2.0A (DDR4 8G)(EDP)(W/O TPM, LTE) L140MU	6-77-L140MU00-D02A-2K	
1	MAIN BOARD(CPU/I5-1135G7/2.4G) V2.0A (DDR4 8G)(EDP)(W/O TPM, LTE) L140MU	6-77-L140MU00-D02A-2L	
1	MAIN BOARD(CPU/I7-1165G7/2.8G) V2.0A (DDR4 8G)(EDP)(W/TPM, LTE) L140MU	6-77-L140MU00-D02A-3K	
1	MAIN BOARD(CPU/I3-1115G4/3.0G) V2.0A (DDR4 8G)(EDP)(W/TPM, LTE) L140MU	6-77-L140MU00-D02A-3N	
1	MAIN BOARD(CPU/I7-1165G7/2.8G) V2.0A (DDR4 8G)(EDP)(W/LTE)(W/O TPM) L140MU	6-77-L140MU00-D02A-4K	
1	MAIN BOARD(CPU/I5-1135G7/2.4G) V2.0A (DDR4 8G)(EDP)(W/LTE)(W/O TPM) L140MU	6-77-L140MU00-D02A-4L	
2	SCREW M2*3L KI NI ICT NY (DD=ø4.0,DT=0.8)	6-35-B1120-3RD	
3	SSD M2 2280 1TB SAMSUNG MZVLB1T0HBLR-00000 (PM981A) PCIE G3*4 3D TLC 96 LAYERS	6-85-D511T-S04	OPTION
3	SSD M2 2280 256GB KINGSTON RBU-SNS8154P3/256GJ (RBU-SNS8154P3) PCIE G3*2 3D TLC 64 LAYERS	6-85-D51R6-K00	OPTION
3	SSD M2 2280 16GB/256GB INTEL HBRPEKNX0101A (TETON GLACIER) PCIE G3*4 3DXPOINT QLC 64 LAYERS	6-85-D51R6-Z04	OPTION
3	SSD M2 2280 512GB SAMSUNG MZVLB512HBJQ-XXXXX (PM981A) PCIE G3*4 3D TLC 96 LAYERS	6-85-D515B-S0A	OPTION
3	SSD M2 2280 512GB SAMSUNG MZVLQ512HALU-XXXXX (PM991) PCIE G3*4 DRAMLESS 3D TLC 96 LAYERS	6-85-D515B-S0B	OPTION
3	SSD M2 2280 512GB KINGSTON RBU-SNS8180S3/512GJ (RBU-SNS8180S3) SATA3 3D TLC 64 LAYERS	6-85-D515B-K00	OPTION
3	SSD M2 2280 512GB PHISON ESMP512GKB4C2-E16S (E16) PCIE G4*4 3D TLC 96 LAYERS	6-85-D515B-H04	OPTION
3	SSD M2 2280 1TB PHISON ESMP001TKB4C2-E16S (E16) PCIE G4*4 3D TLC 96 LAYERS	6-85-D511T-H01	OPTION
3	SSD M2 2280 1TB SAMSUNG MZVLQ1T0HALB-XXXXX (PM991) PCIE G3*4 DRAMLESS 3D TLC 96 LAYERS	6-85-D511T-S05	OPTION
3	SSD M2 2280 512GB TEAMGROUP TE512GS510SM80 (S510) SATA3 3D TLC 96 LAYERS	6-85-D515B-T00	OPTION
3	SSD M2 2280 512GB WD SDBPNTY-512G (SN730) PCIE G3*4 3D TLC 96 LAYERS	6-85-D515B-W02	OPTION
3	SSD M2 2280 256GB MICRON MTFDDAV256TBN (1100) SATA3 (MICRON 3D TLC 64 LAYERS)	6-85-D51R6-101	OPTION
3	SSD M2 2280 256GB WD SDBPNTY-256G (SN730) PCIE G3*4 3D TLC 96 LAYERS	6-85-D51R6-W02	OPTION
4	SCREW M2*2L KI NI ICT NY (DD=ø5 ,T=0.8)	6-35-B1120-2RA	
5	HEATSINK MODULE L140MU	6-31-L14MN-101	
6	TOP CASE MYLAR FR83 25*7*0.05 P180HM	6-40-P1802-030	
7	BAT. 20MM 3V 220MAH W/CABLE 55MM BCR2032H5.5VM1UB (SHIHND)	6-23-22015-TE0	
8	TAPE MYLAR (A),MYLAR M550J	6-40-M55J2-010	
9	TAPE MYLAR (C),MYLAR M550J	6-40-M55J2-030	
10	WLAN+BT COMBO DUAL BAND INTEL HARRISON PEAK 2 REV OTP AX201NGW.GANV 99MT00 NON-VPRO 2X2 AX+BT BT5.1 CNVI M2 2230	6-88-NV40F-4210	OPTION
10	WLAN+BT COMBO DUAL BAND INTEL CYCLONE PEAK 2 AX200NGW.GANV NON-VPRO 2X2 AX+BT BT5.0 M2 2230	6-88-N15CF-4210	OPTION
11	SCREW M2*5L KI(T=0.8 D=3.5) BK/Z ICT NY	6-35-B6120-5RC	

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the ***L140MU / L141MU*** notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

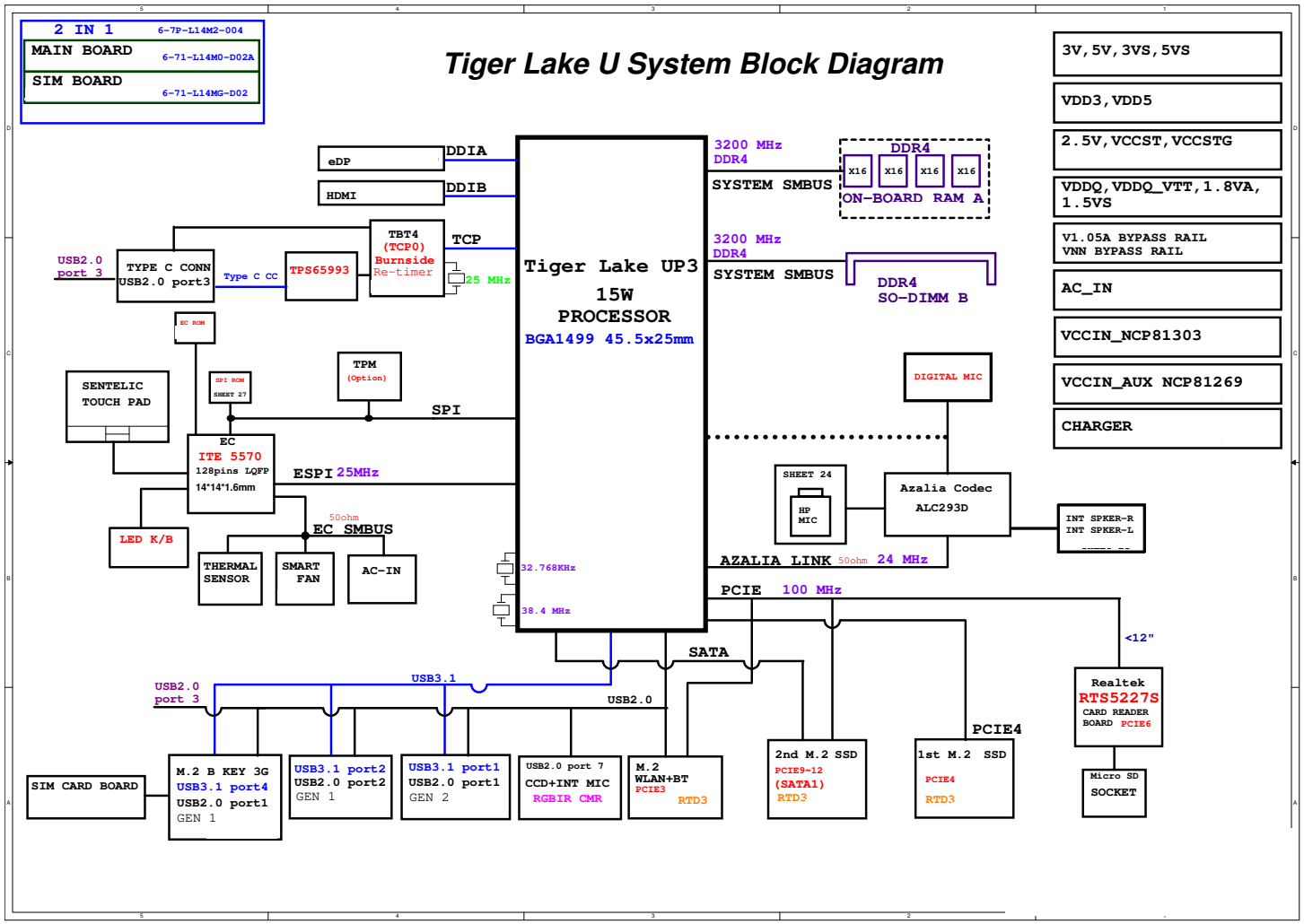
Table B - 1
SCHEMATIC DIAGRAMS

Version Note

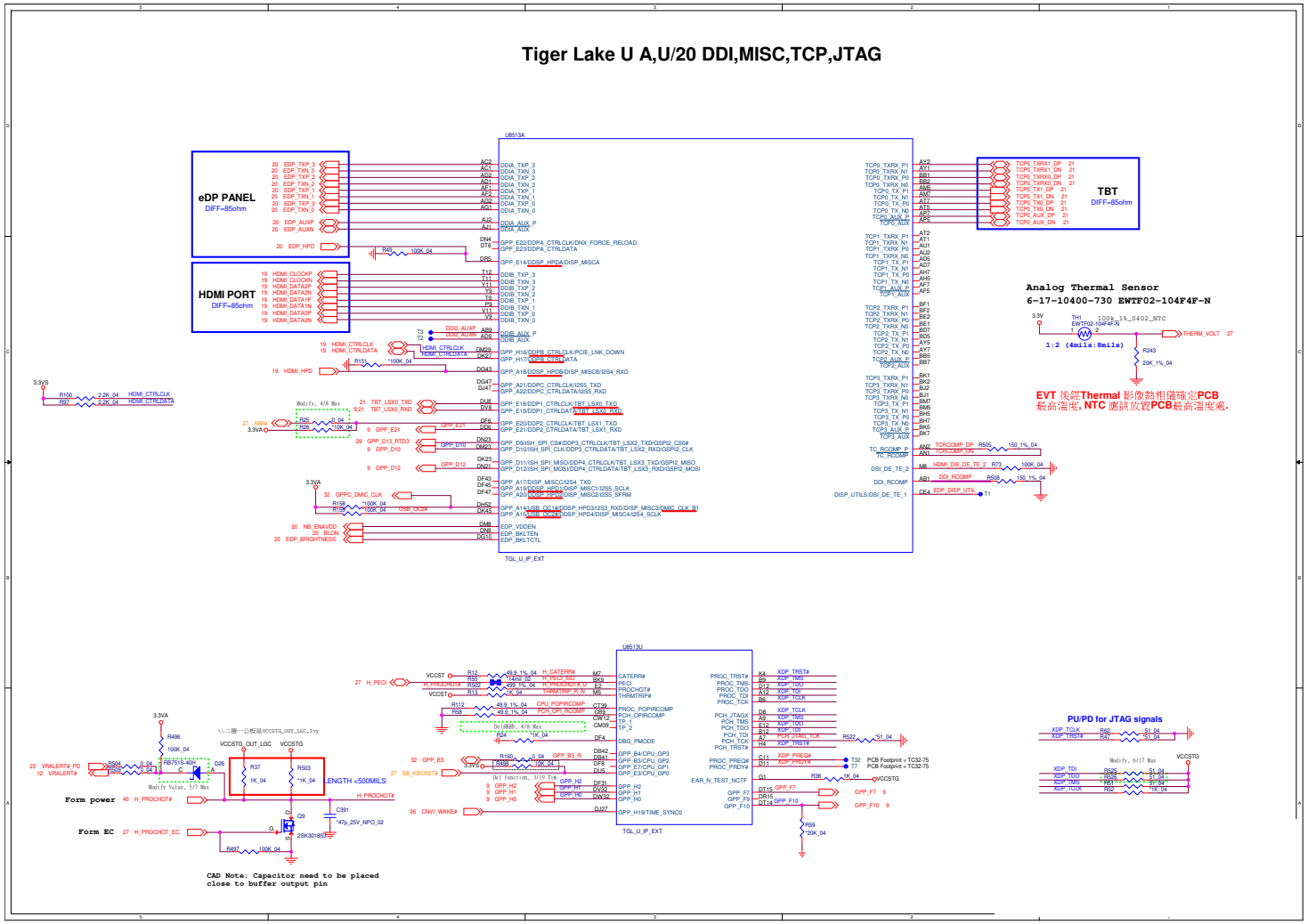
The schematic diagrams in this chapter are based upon version 6-7P-L14M2-003. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

System Block Diagram

Sheet 1 of 45
System Block Diagram



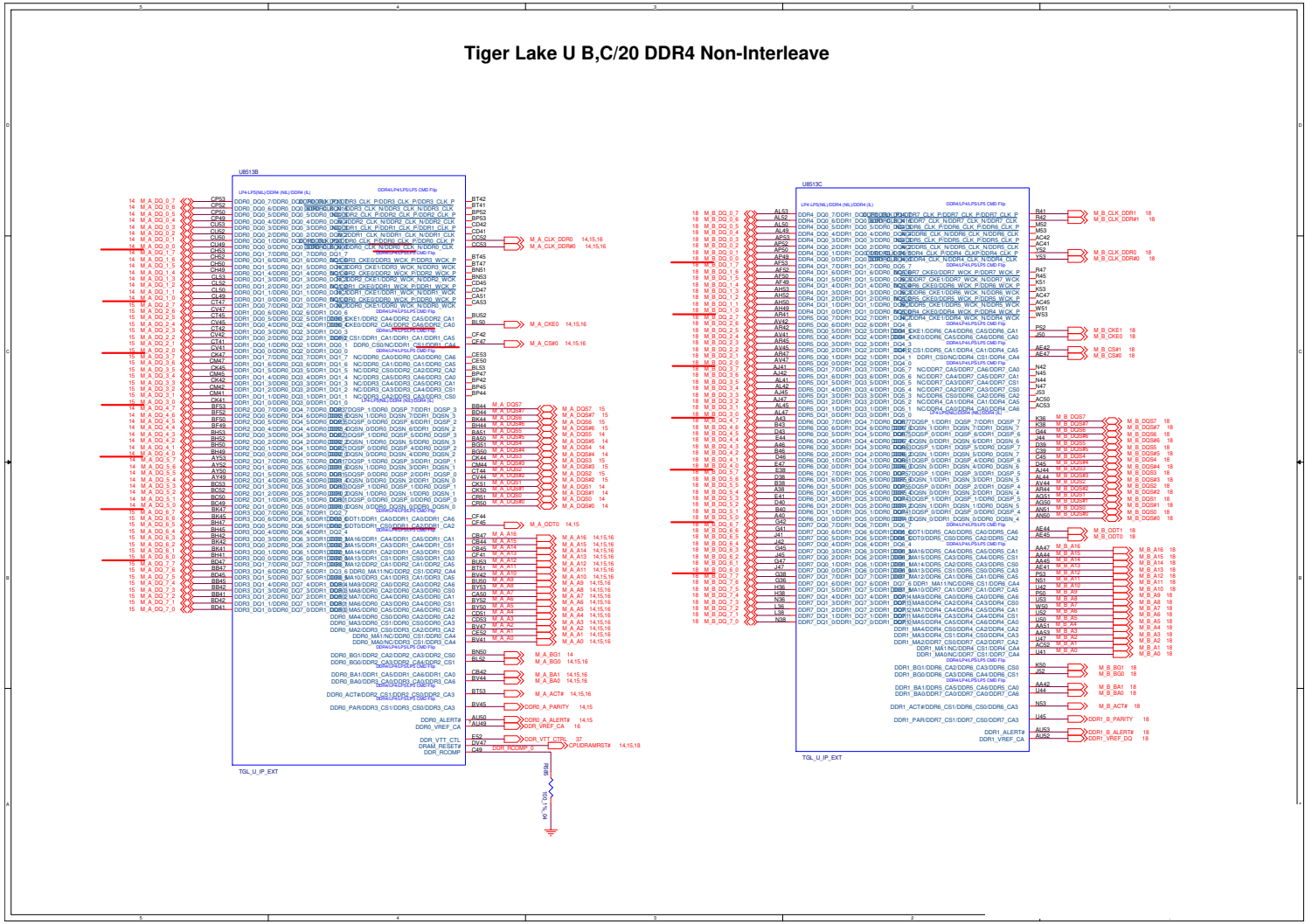
Processor 1/12



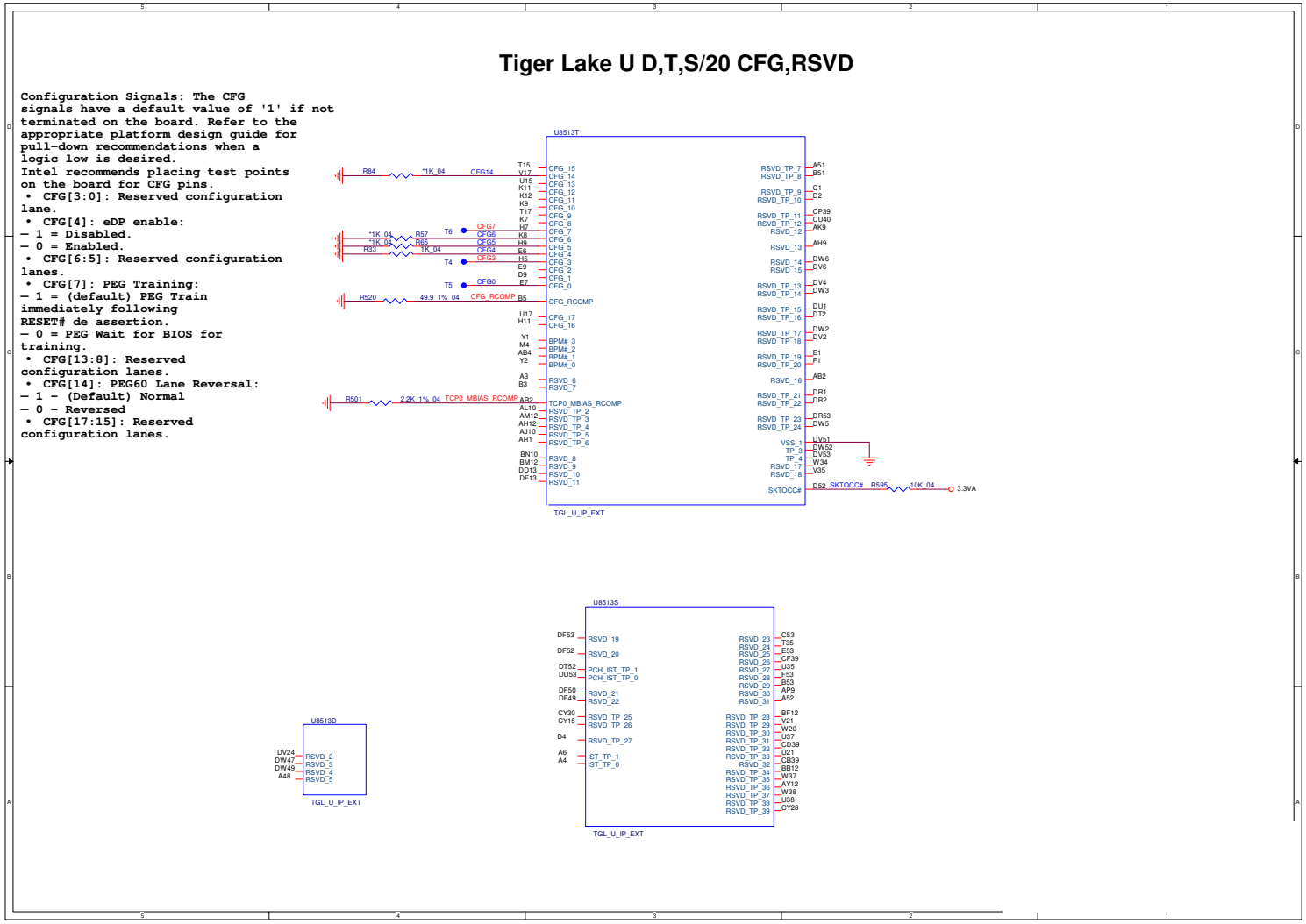
Sheet 2 of 45
Processor 1/12

Processor 2/12

Sheet 3 of 45
Processor 2/12



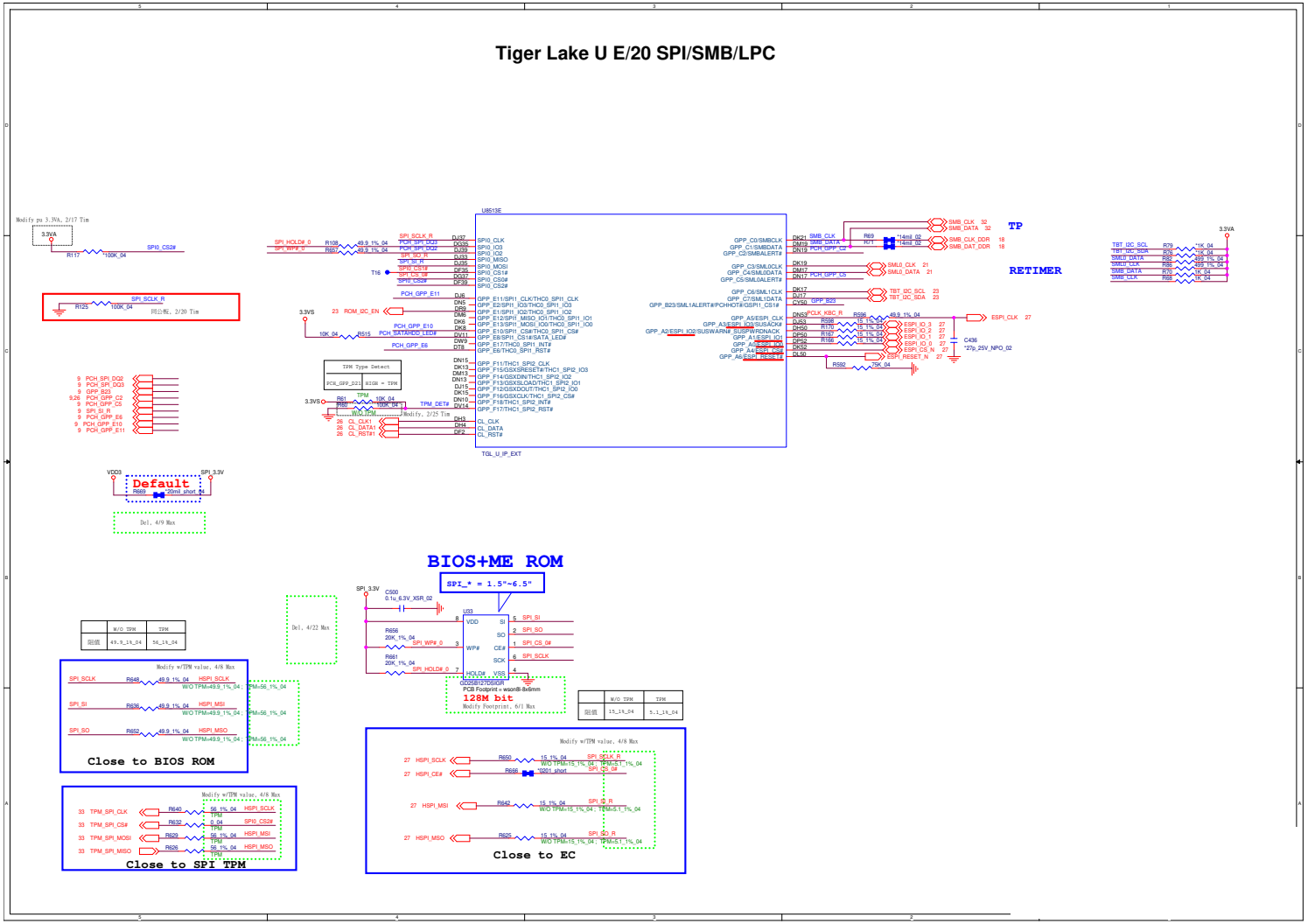
Processor 3/12



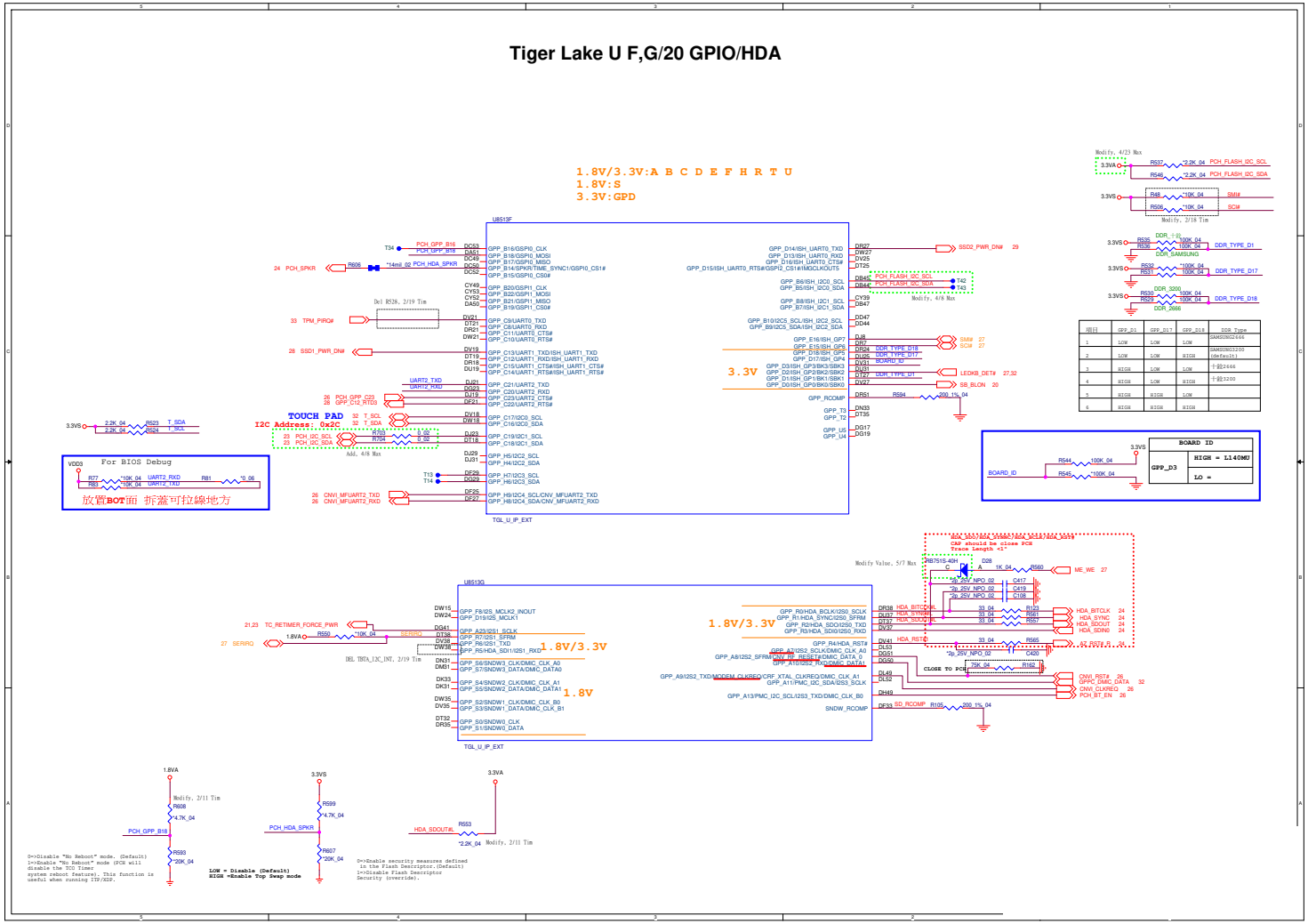
Sheet 4 of 45
Processor 3/12

Processor 4/12

Sheet 5 of 45
Processor 4/12



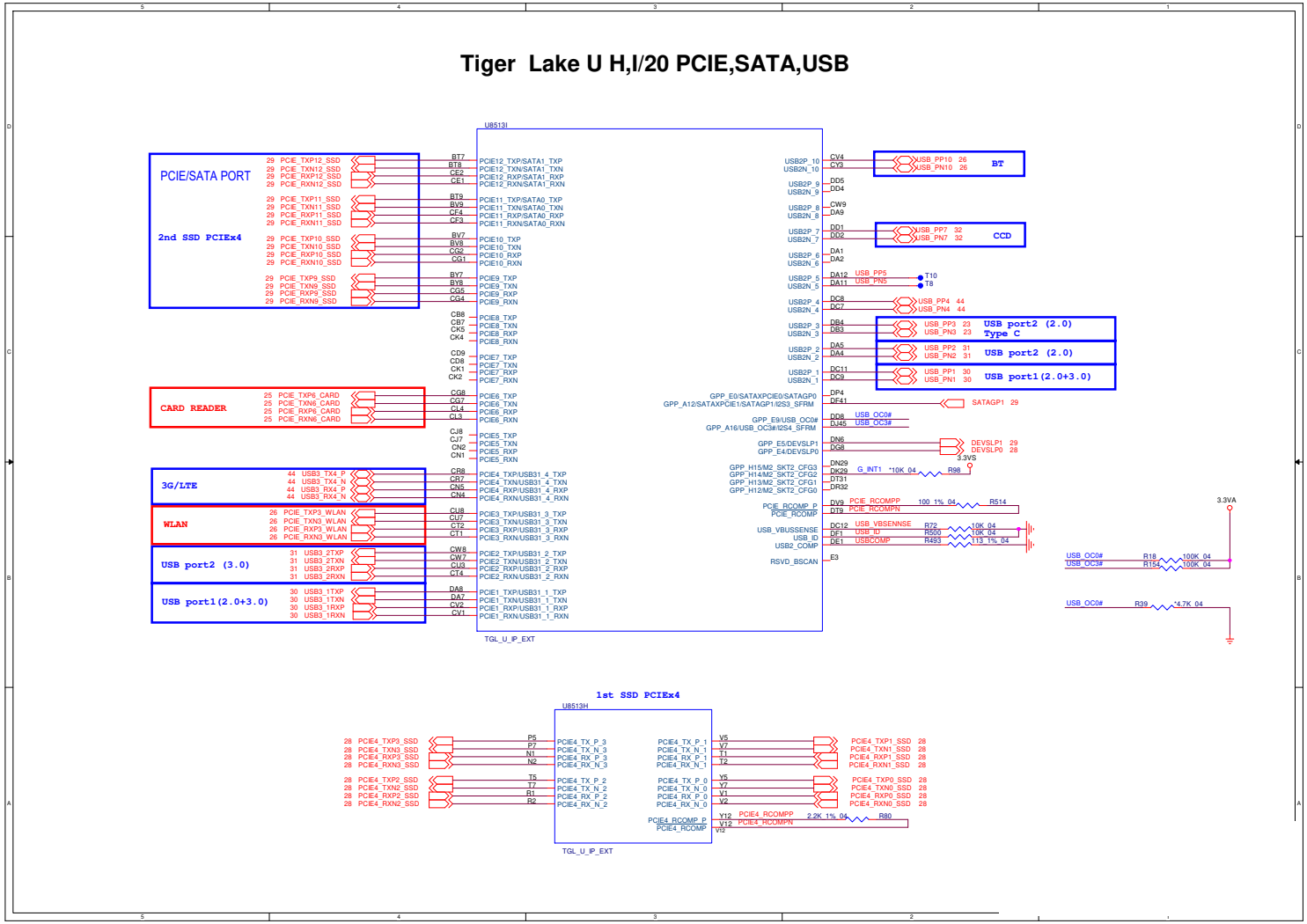
Processor 5/12



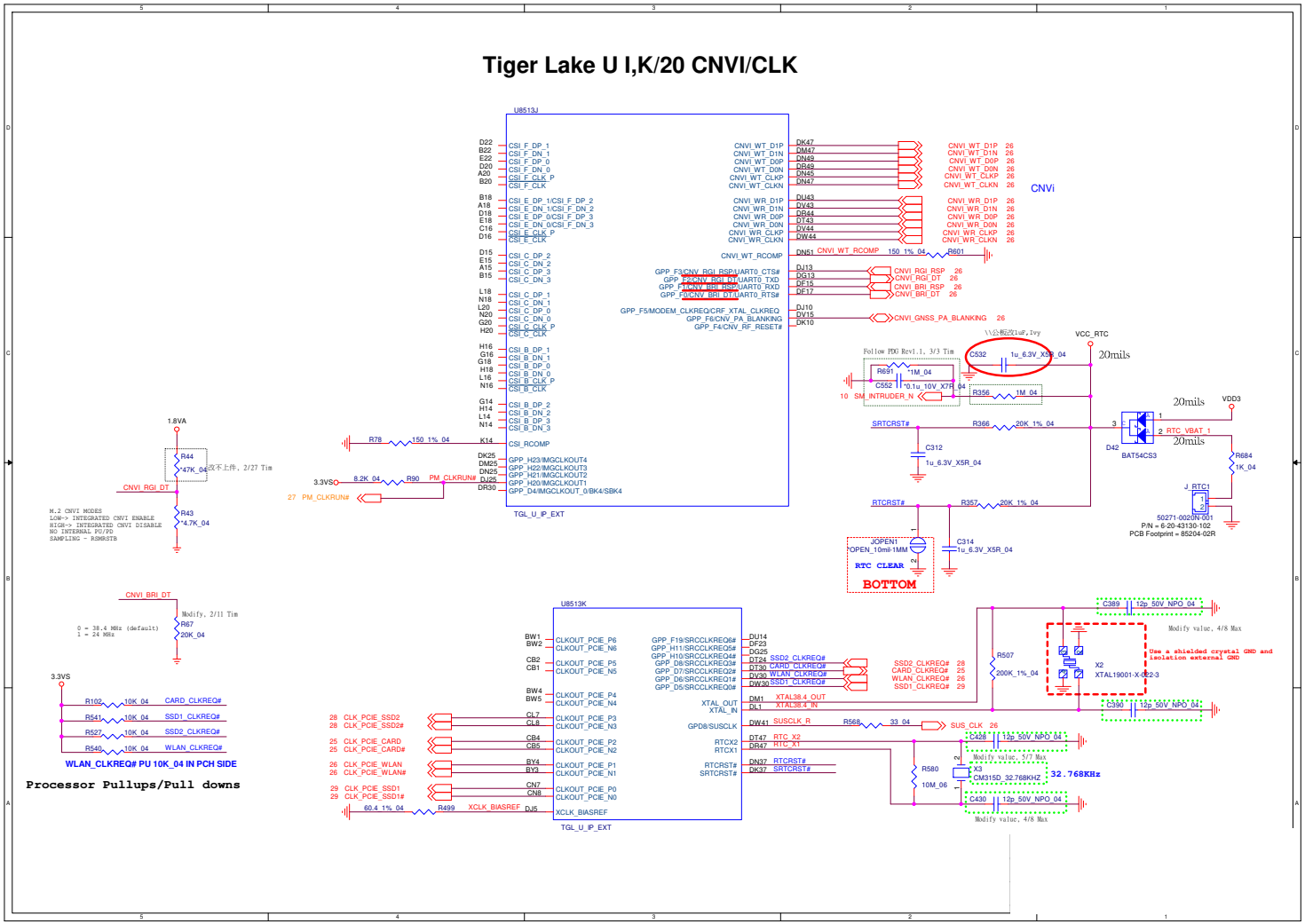
Sheet 6 of 45
Processor 5/12

Processor 6/12

Sheet 7 of 45
Processor 6/12



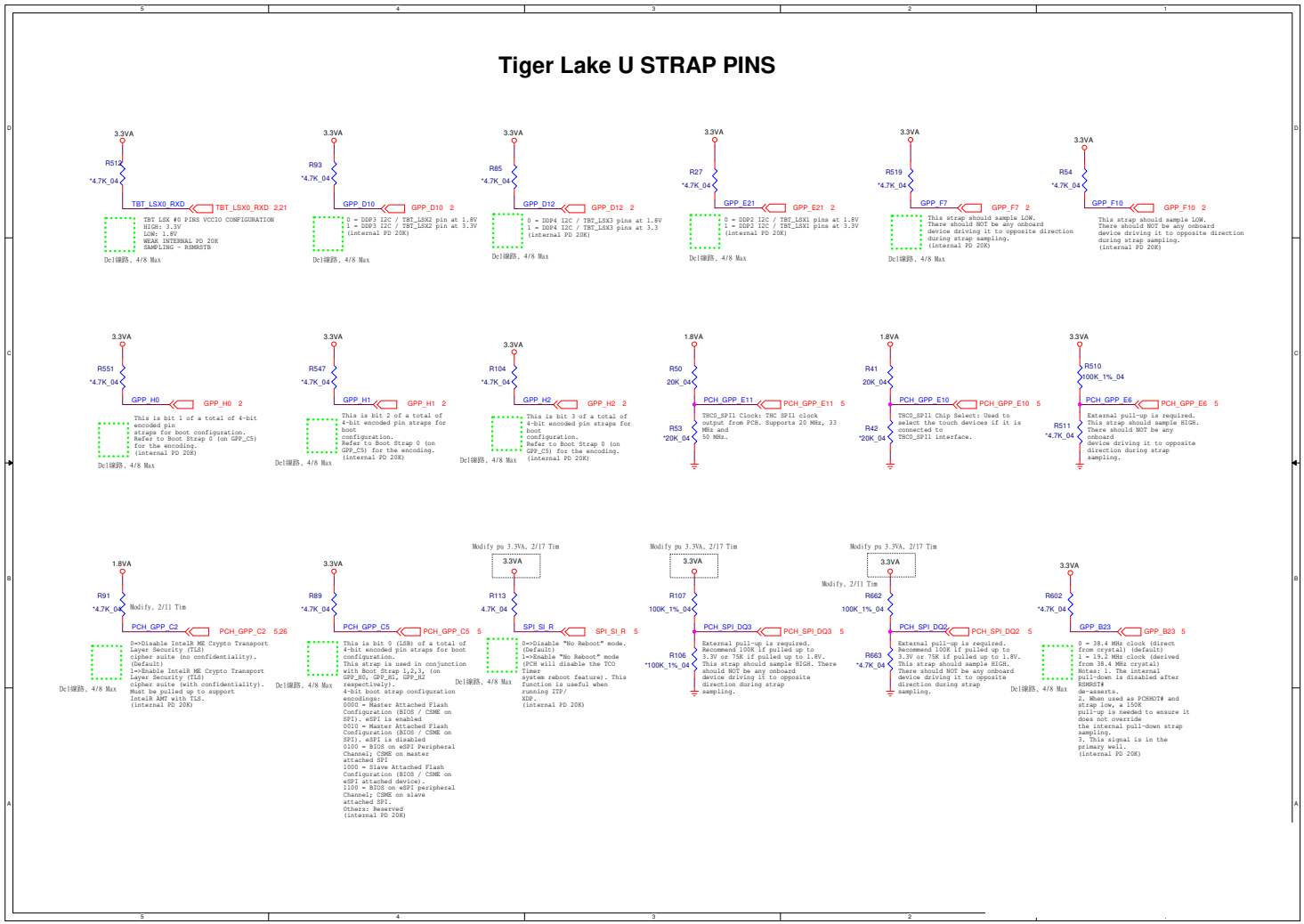
Processor 7/12



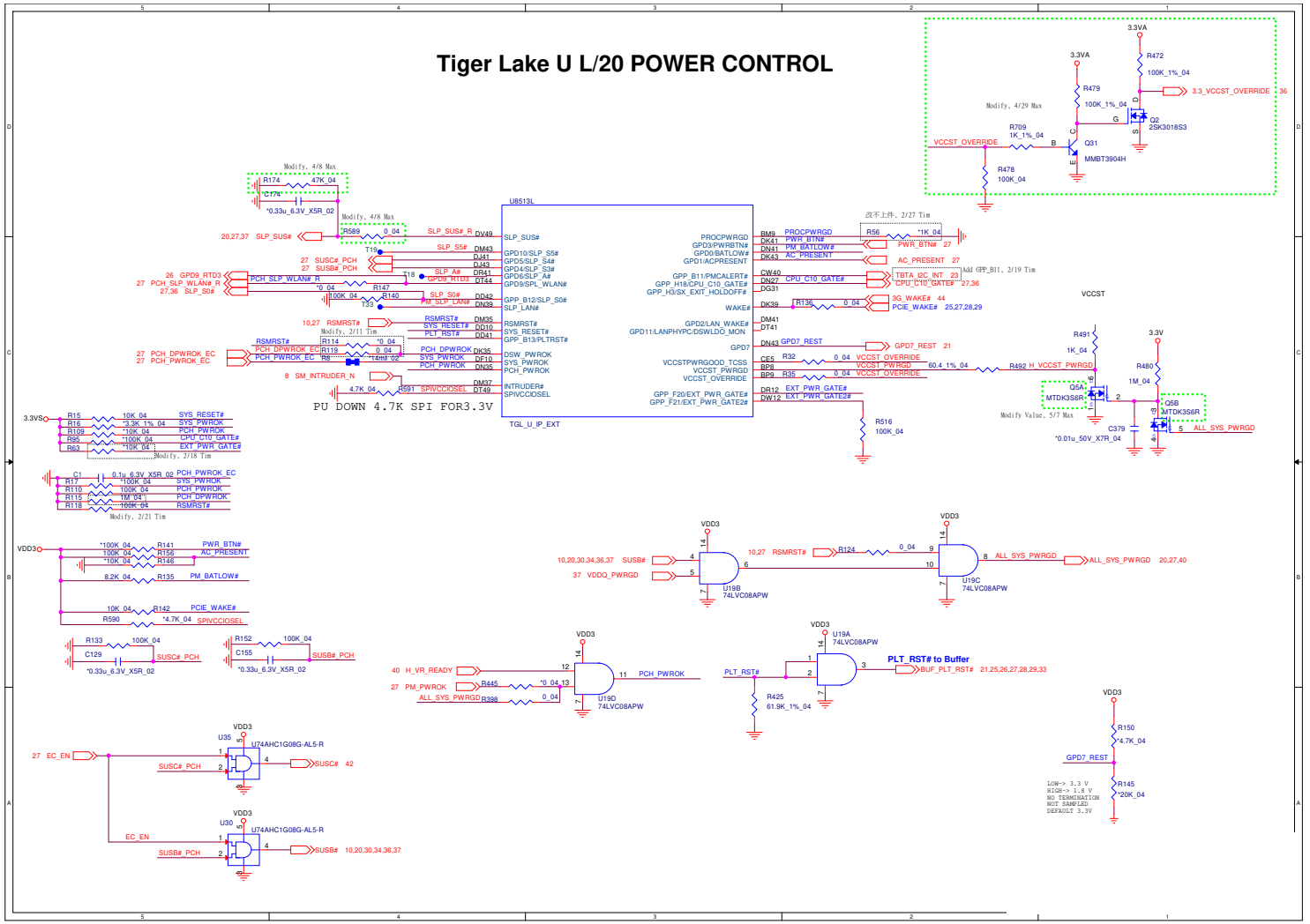
Sheet 8 of 45
Processor 7/12

Processor 8/12

Sheet 9 of 45
Processor 8/12



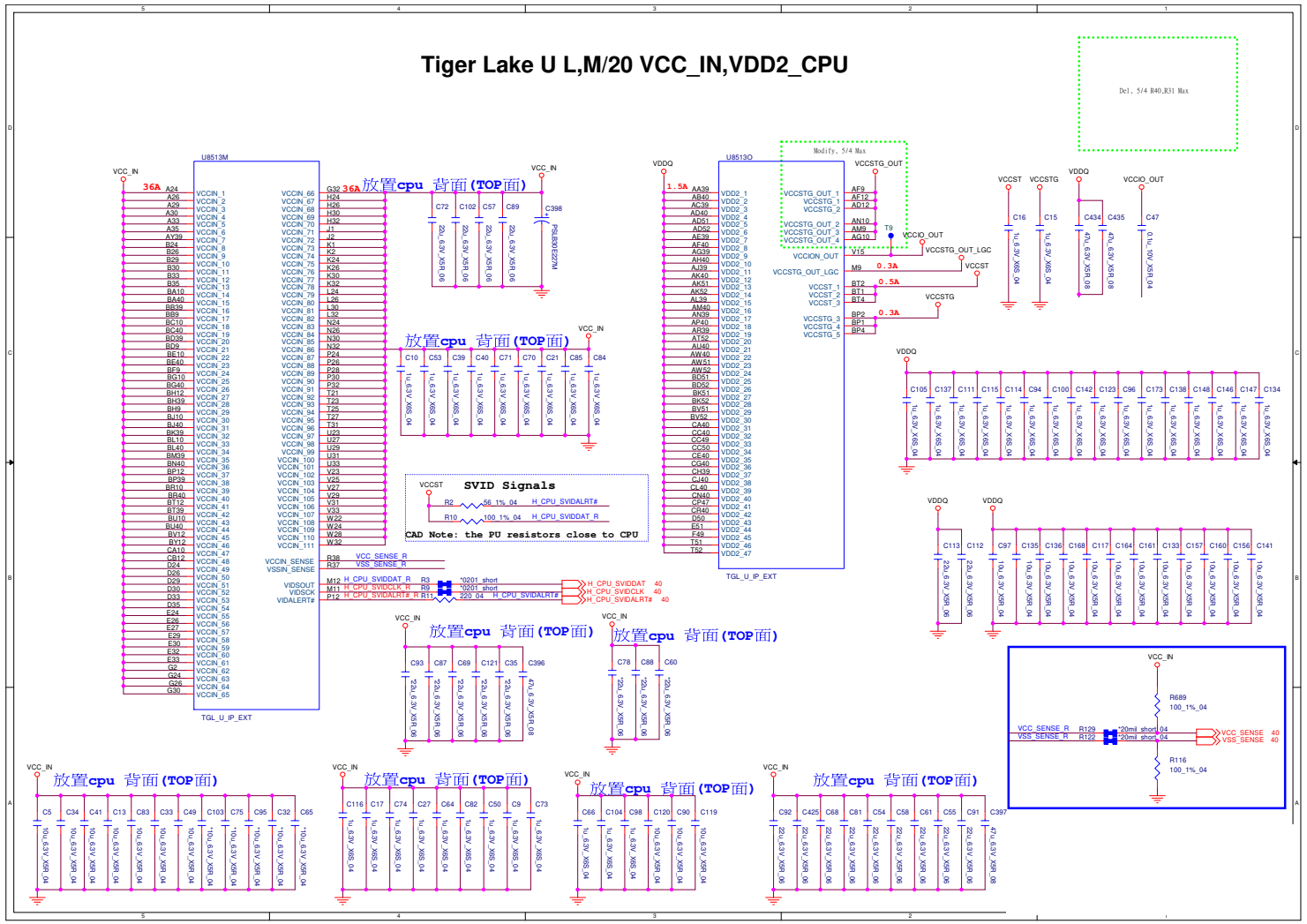
Processor 9/12



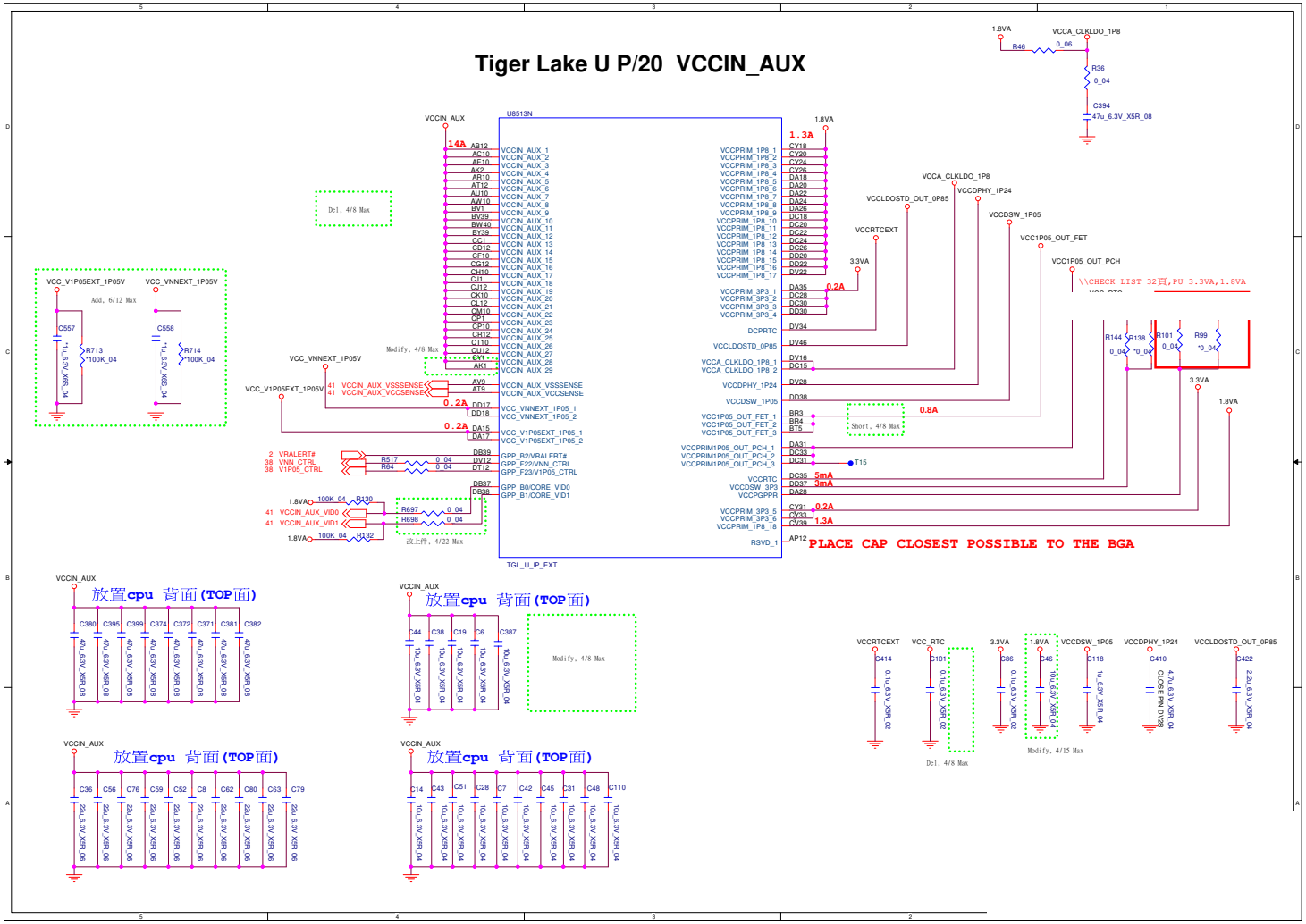
Sheet 10 of 45
Processor 9/12

Processor 10/12

Sheet 11 of 45
Processor 10/12



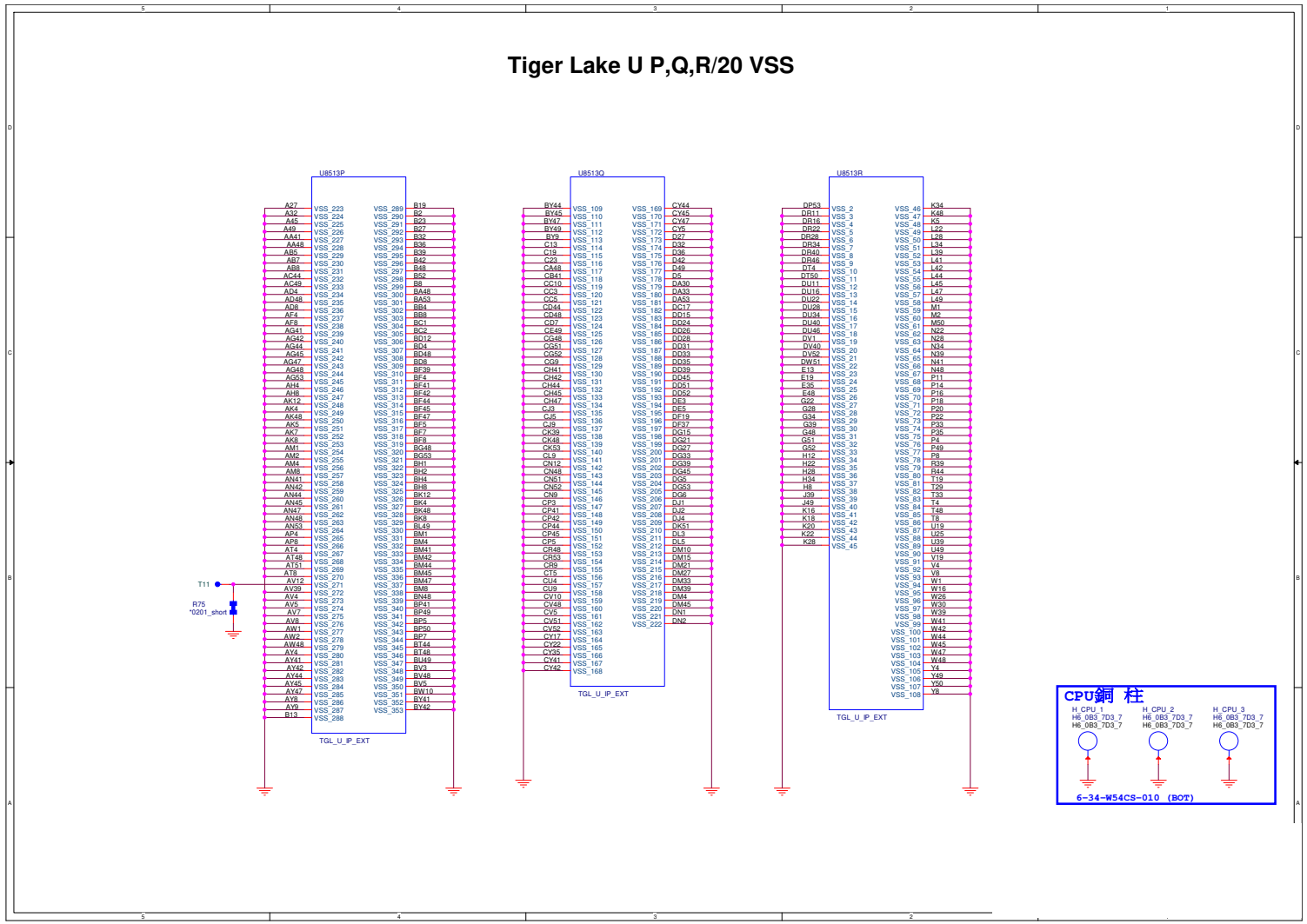
Processor 11/12



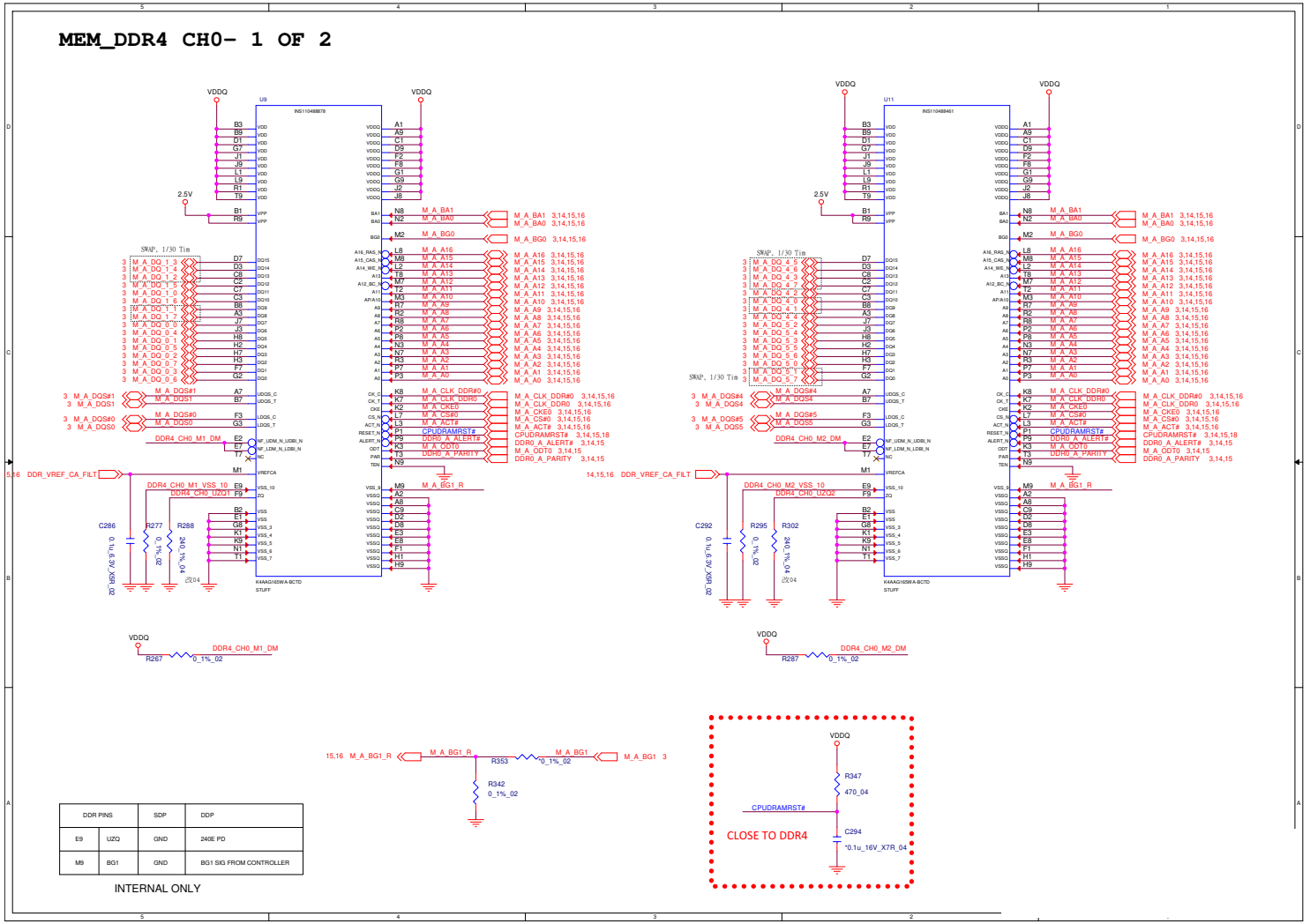
Sheet 12 of 45
Processor 11/12

Processor 12/12

Sheet 13 of 45
Processor 12/12



DDR4 CH0-1

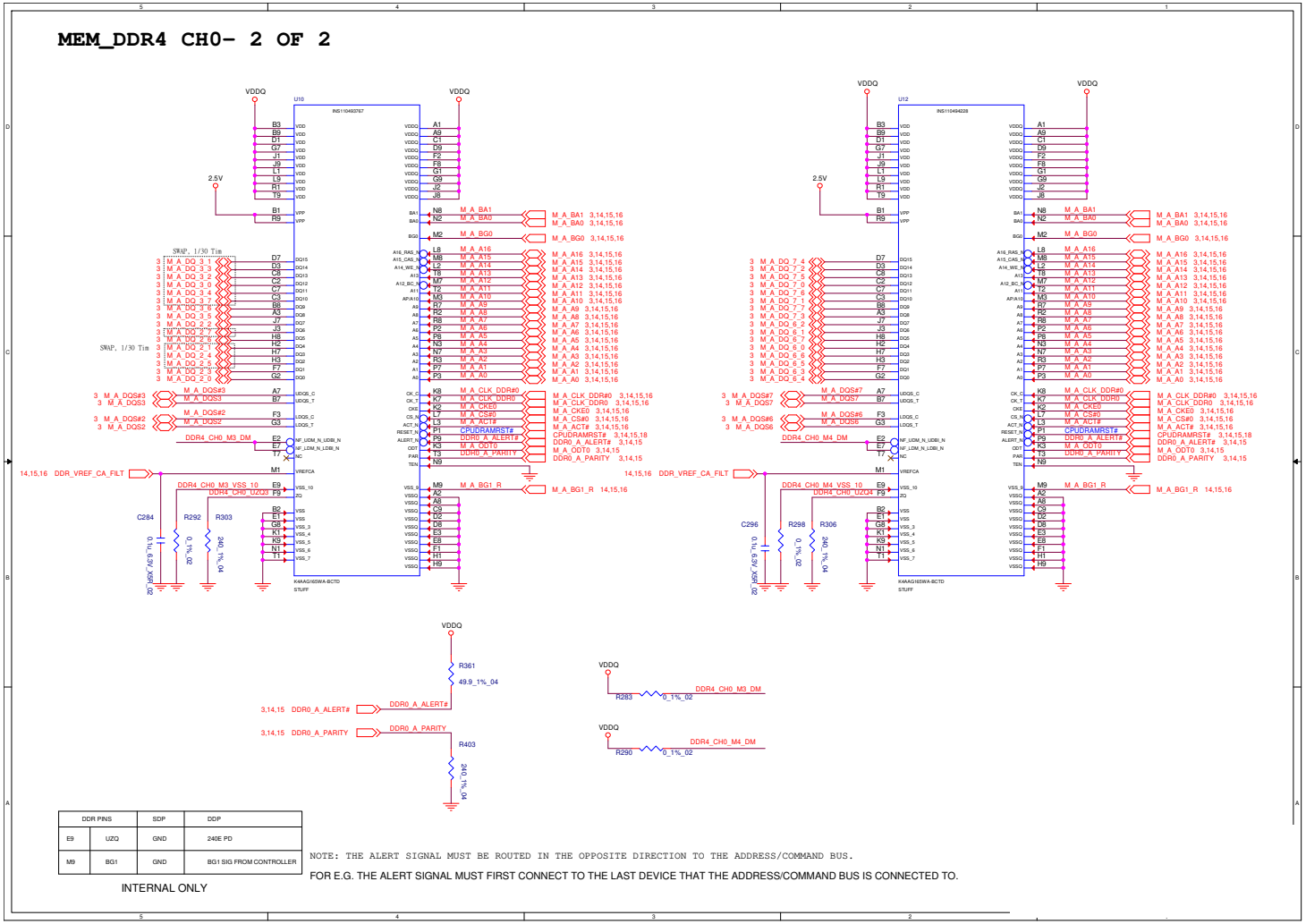


DDR PINS		SDP	DDP
E9	UZQ	GND	240E PD
M9	BG1	GND	BG1 SIG FROM CONTROLLER

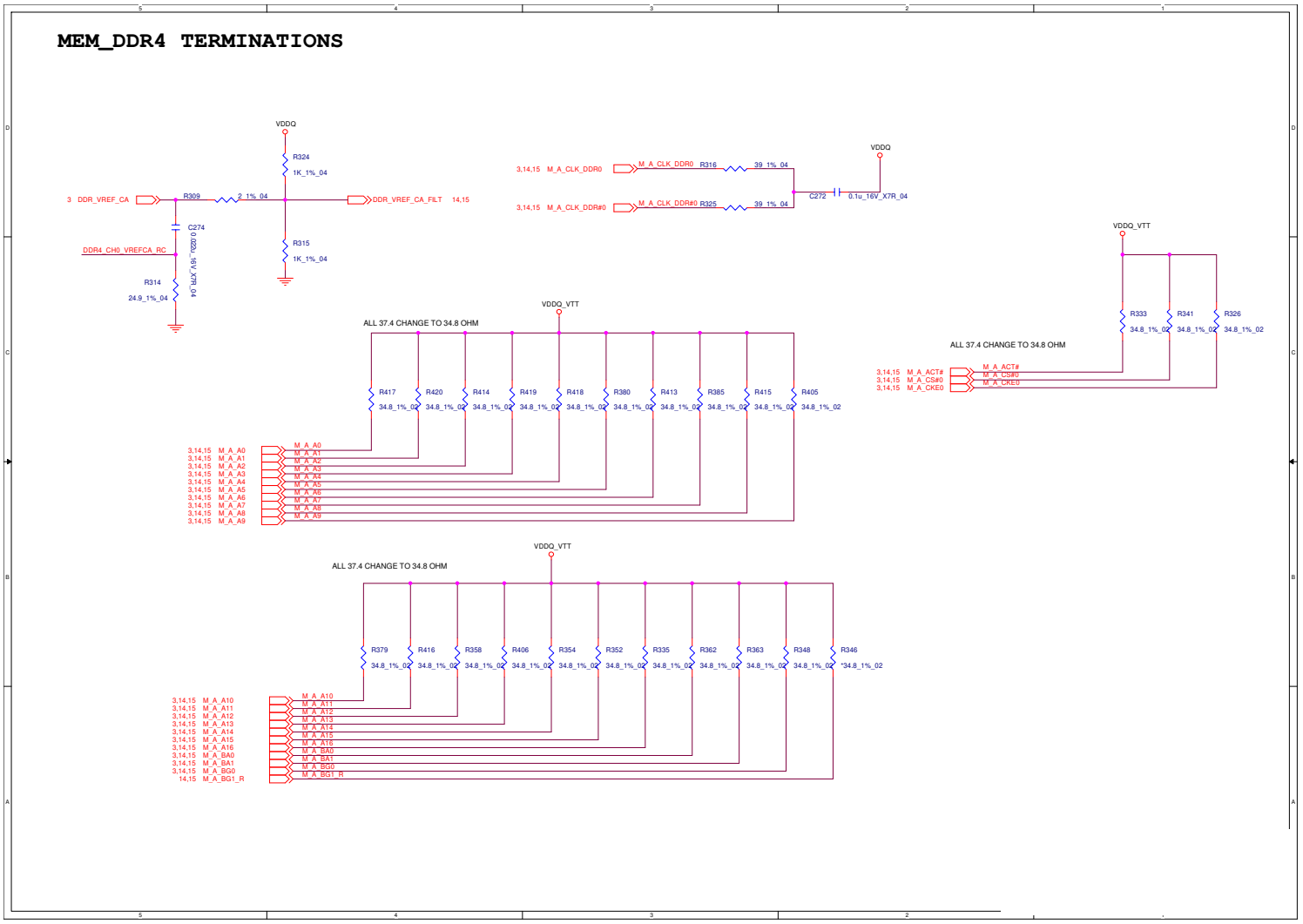
Sheet 14 of 45
DDR4 CH0-1

DDR4 CH0-2

Sheet 15 of 45
DDR4 CH0-2



DDR4 Terminations



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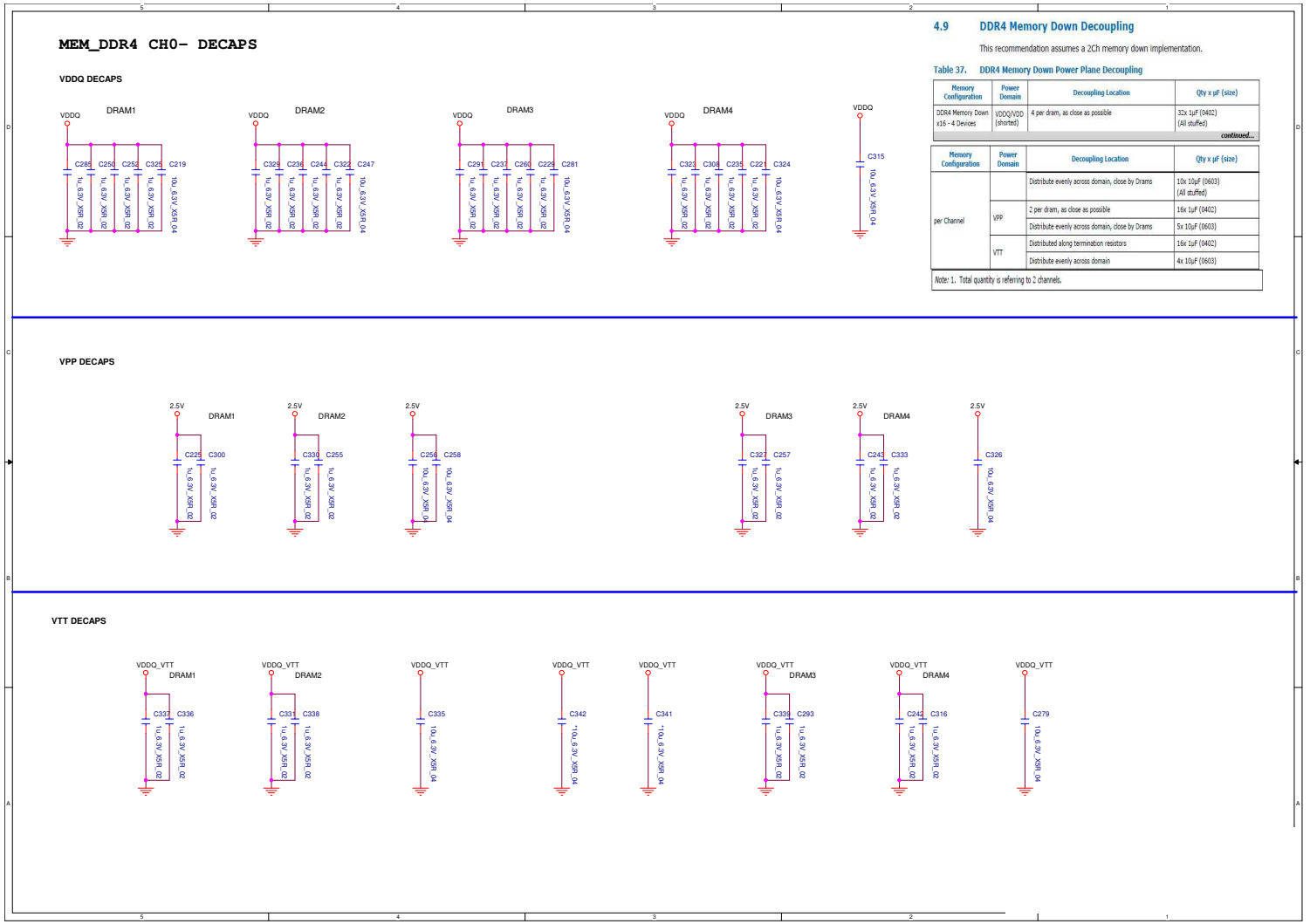
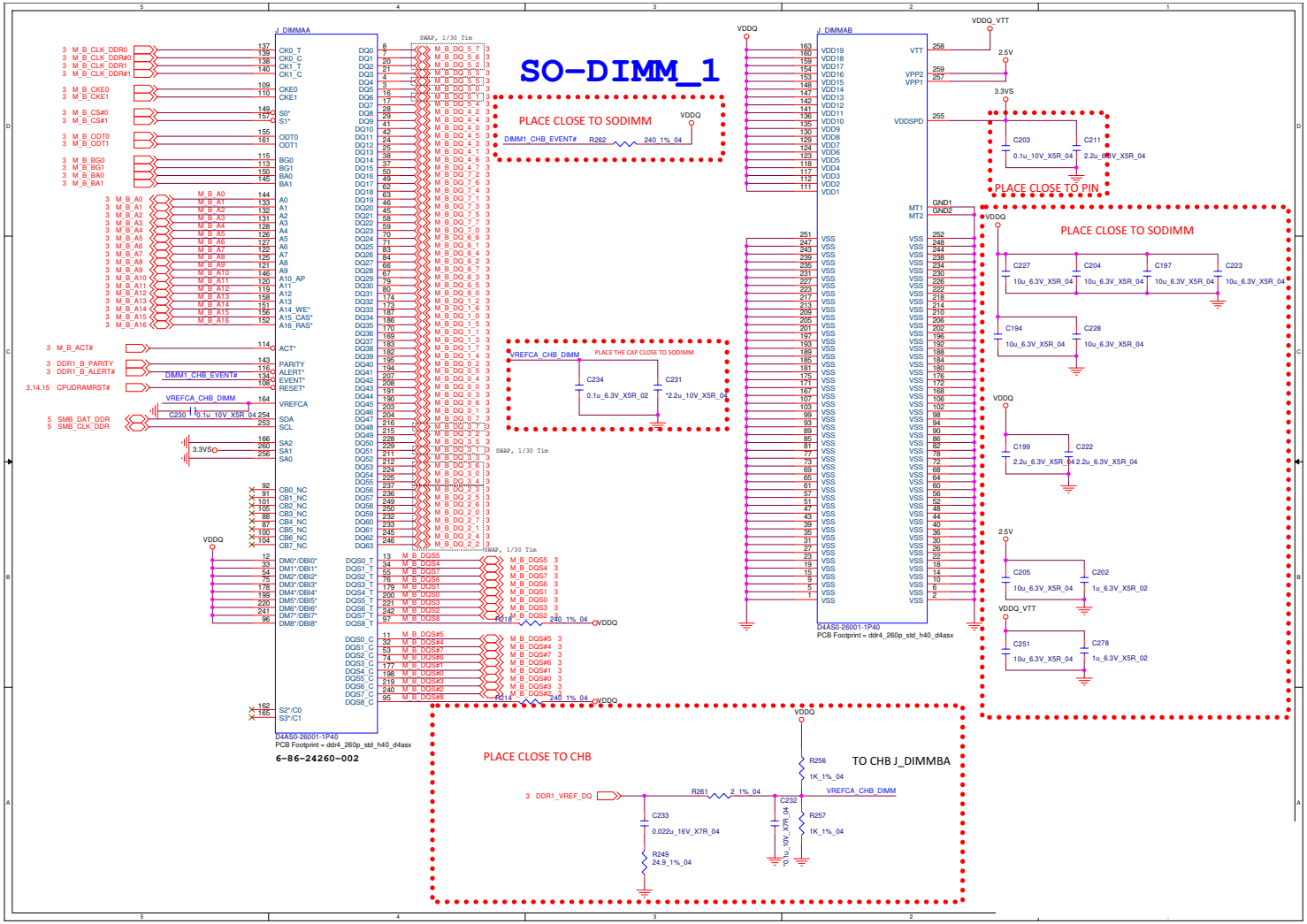
DDR4 Terminations

DDR4 Decaps

Sheet 17 of 45
DDR4 Decaps



DDR4 SO-DIMM_1



Sheet 18 of 45
DDR4 SO-DIMM_1

HDMI

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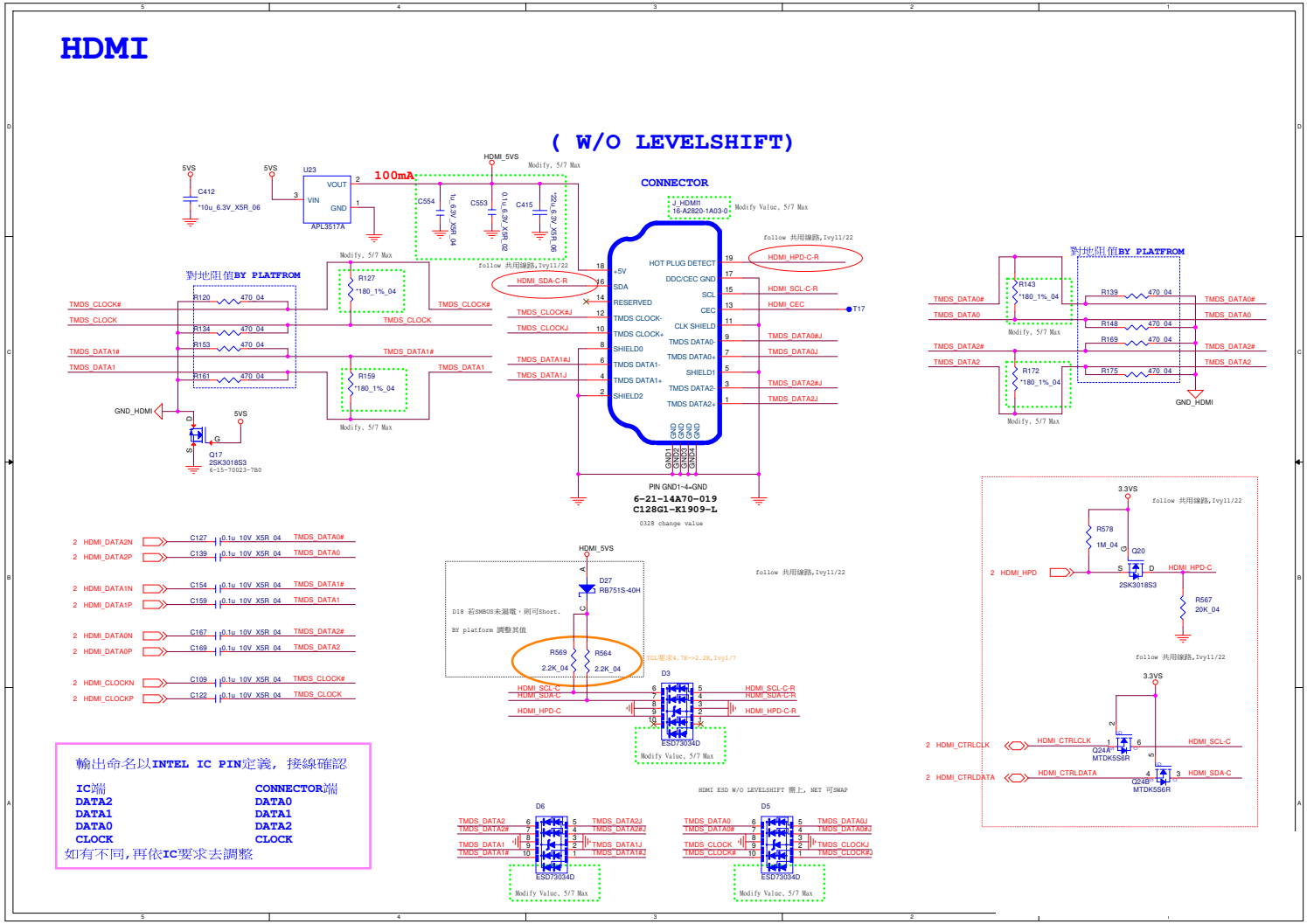
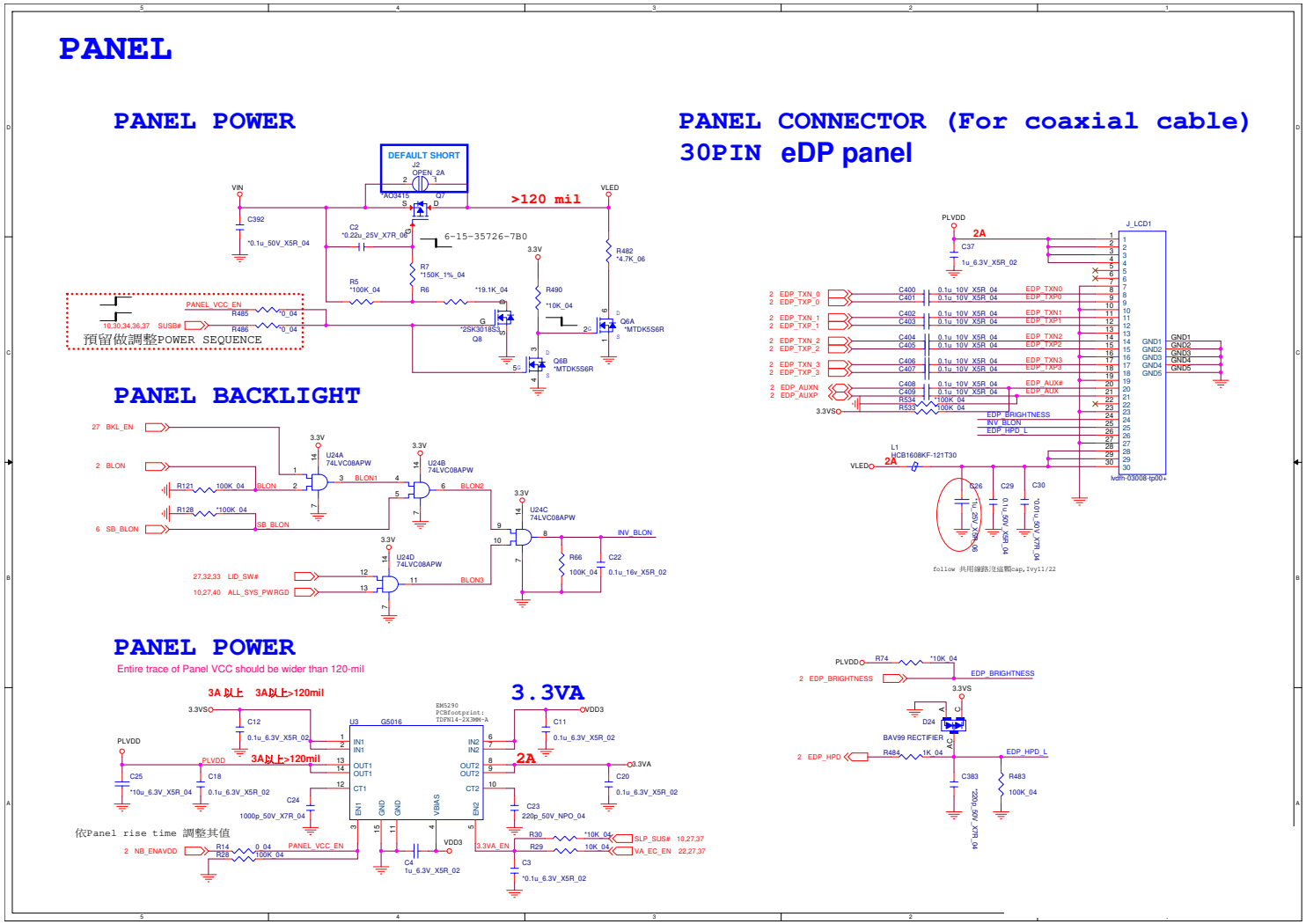
HDMI



Panel / 3.3VA



Sheet 20 of 45
Panel / 3.3VA

Retimer

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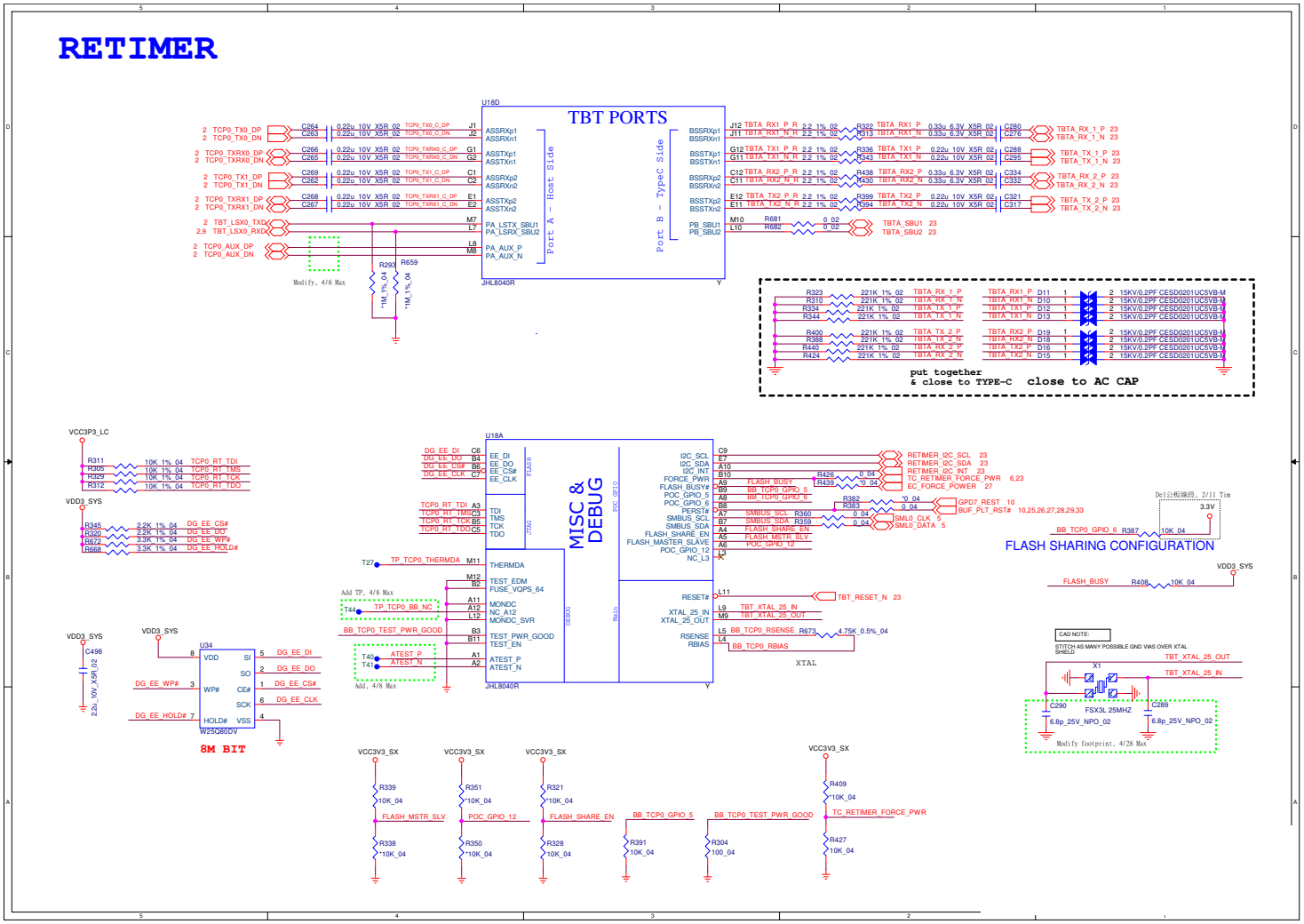
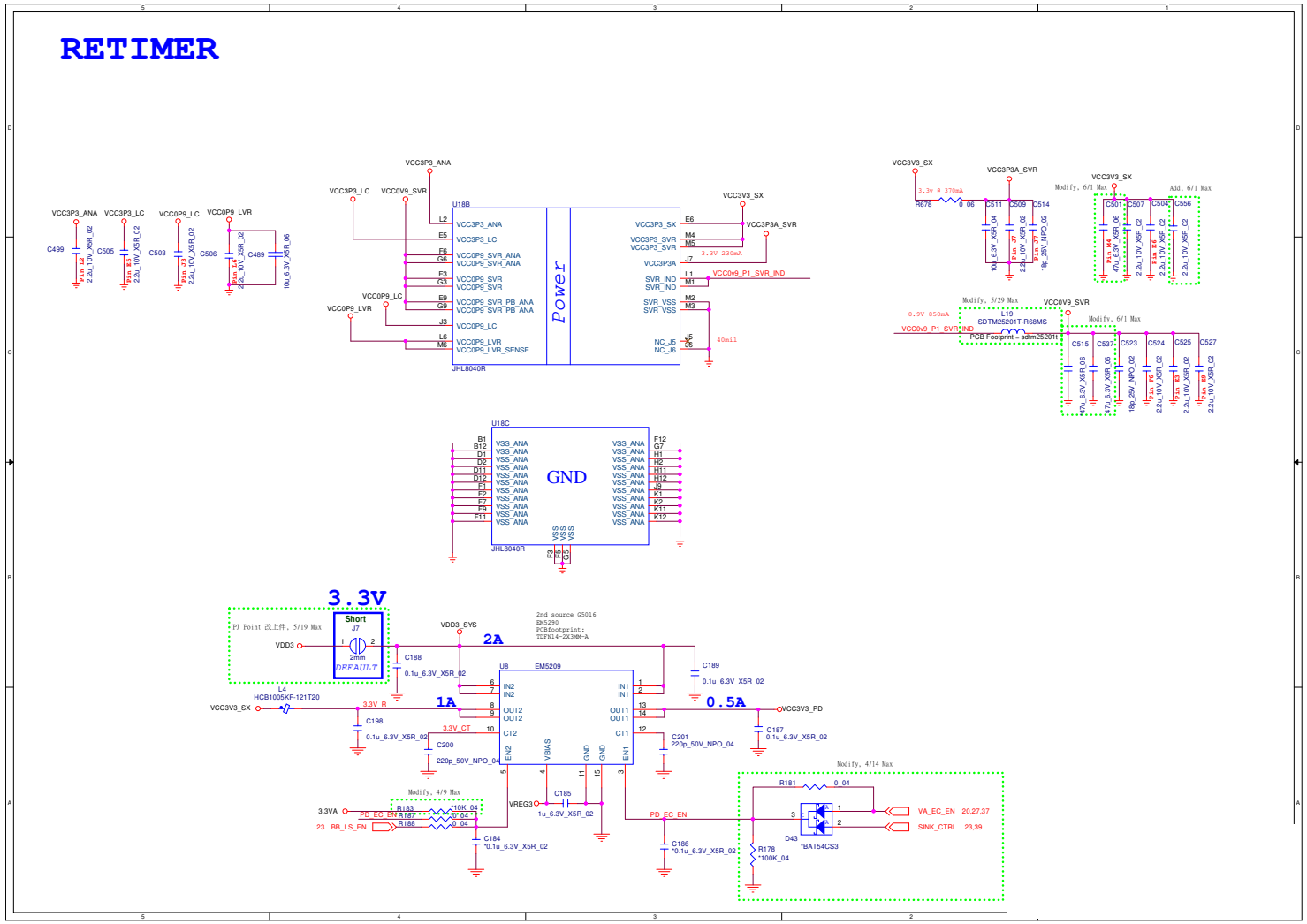
Retimer



Retimer



Sheet 22 of 45
Retimer

PD65993, Type-C

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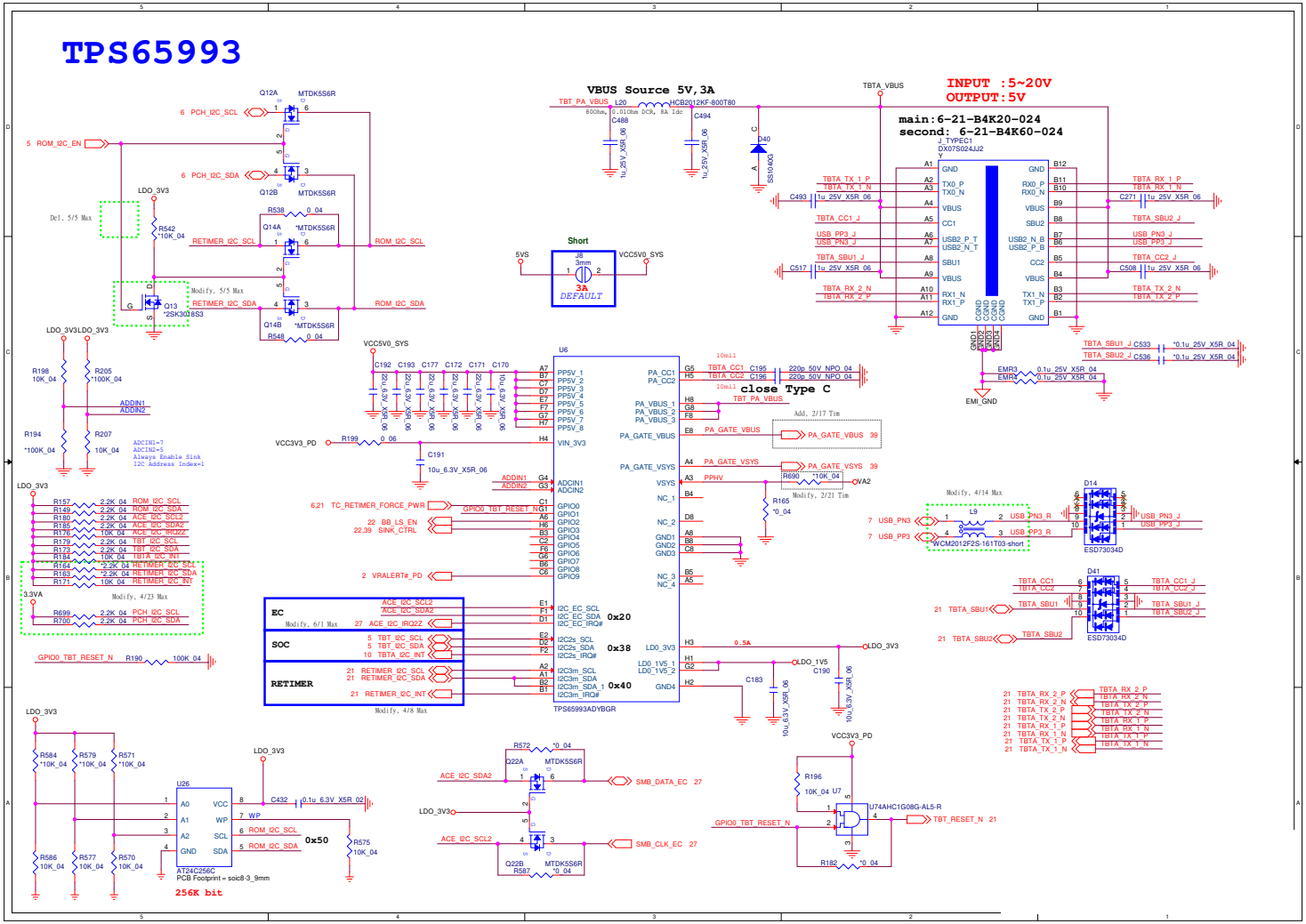
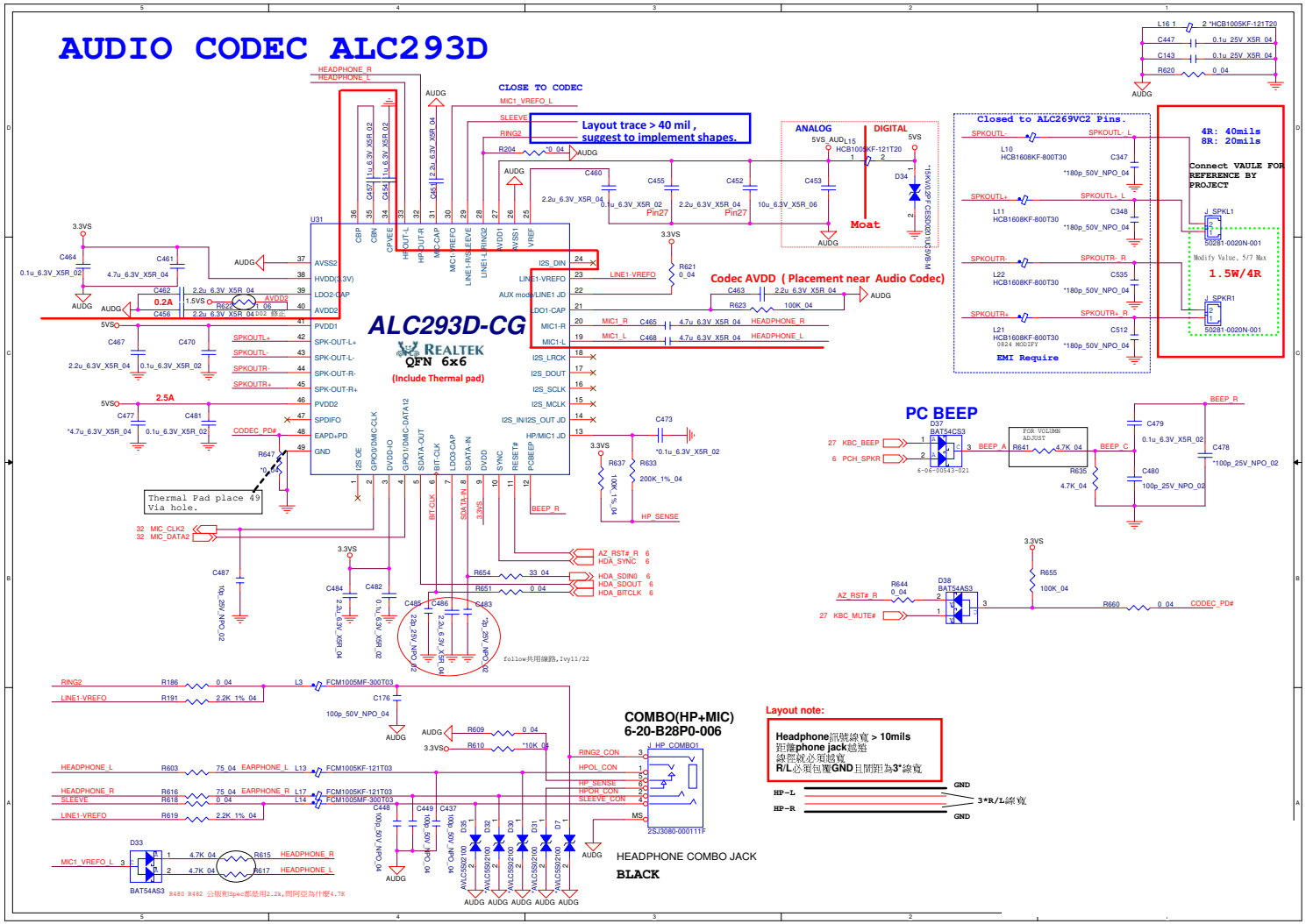
PD65993, Type-C



Audio Codec



Sheet 24 of 45
Audio Codec

RTS5227S

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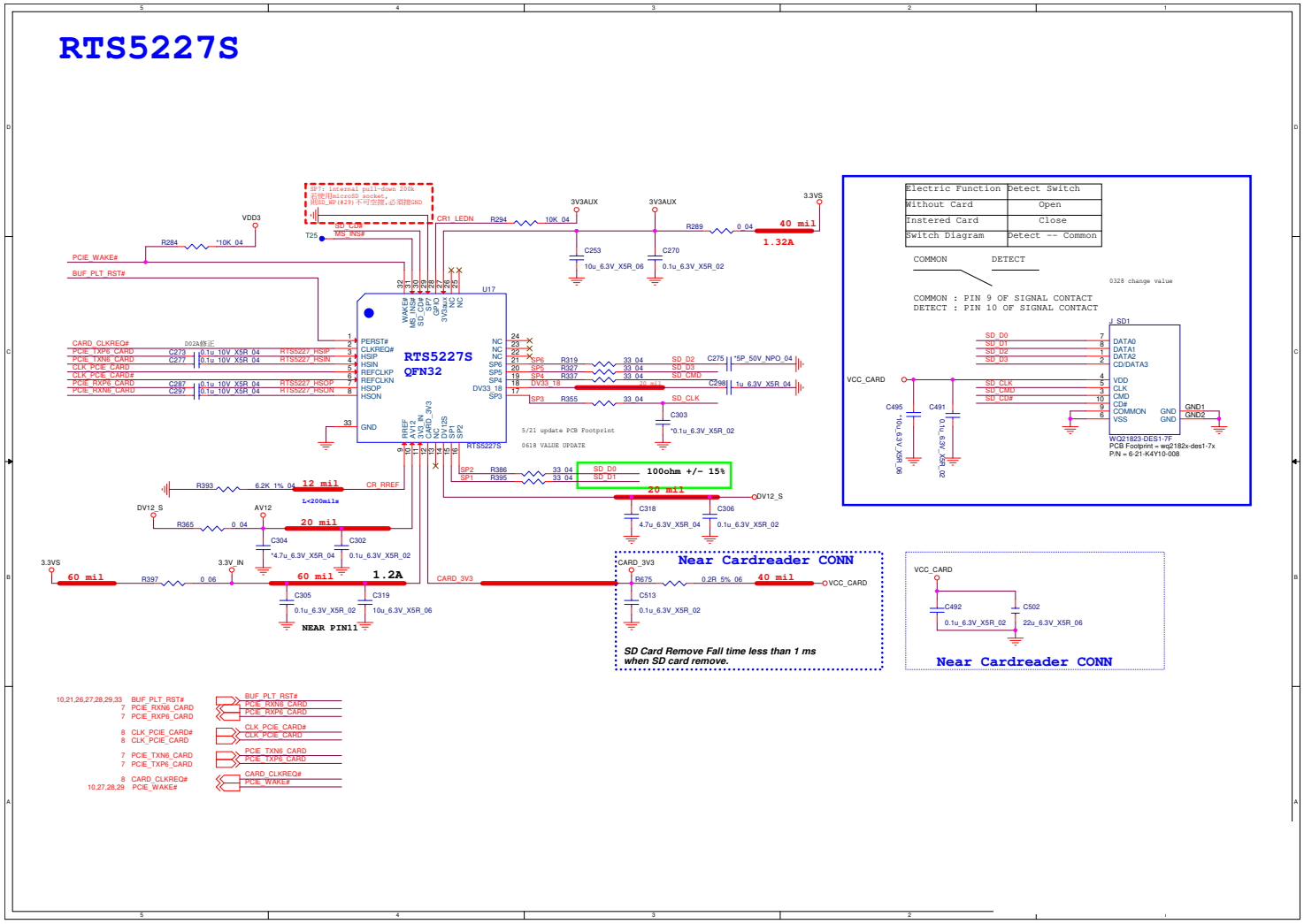
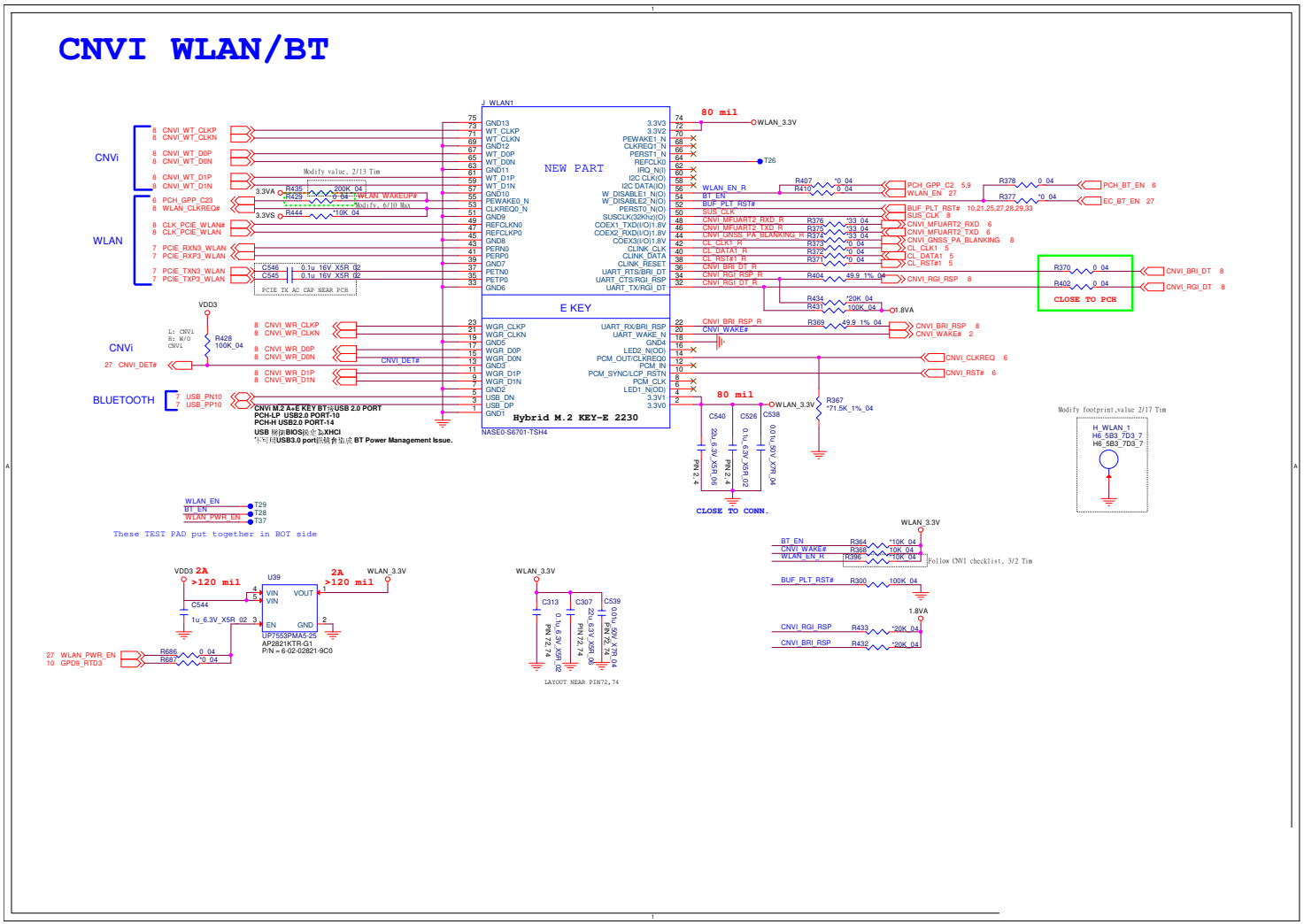
RTS5227S



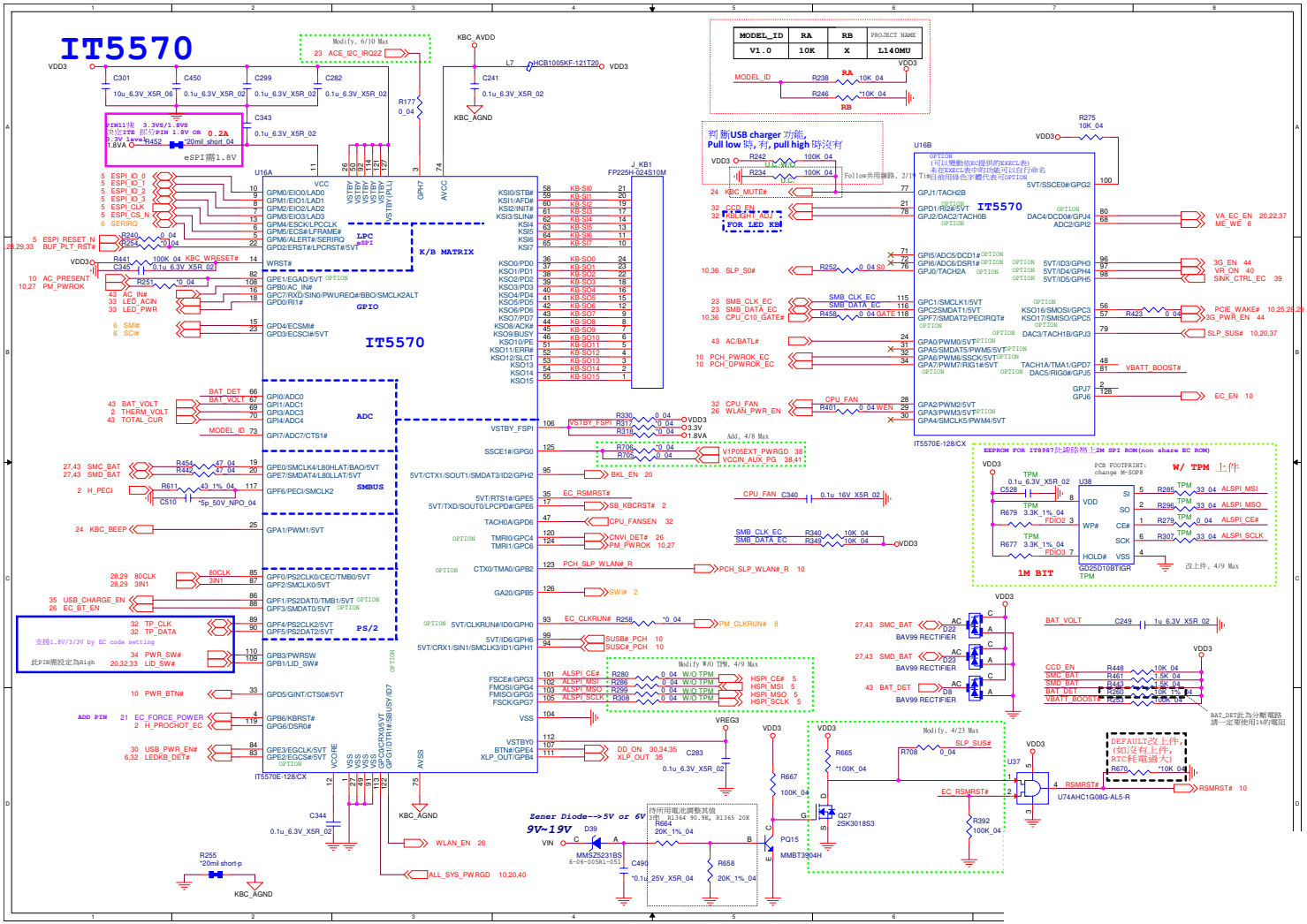
WLAN/BT



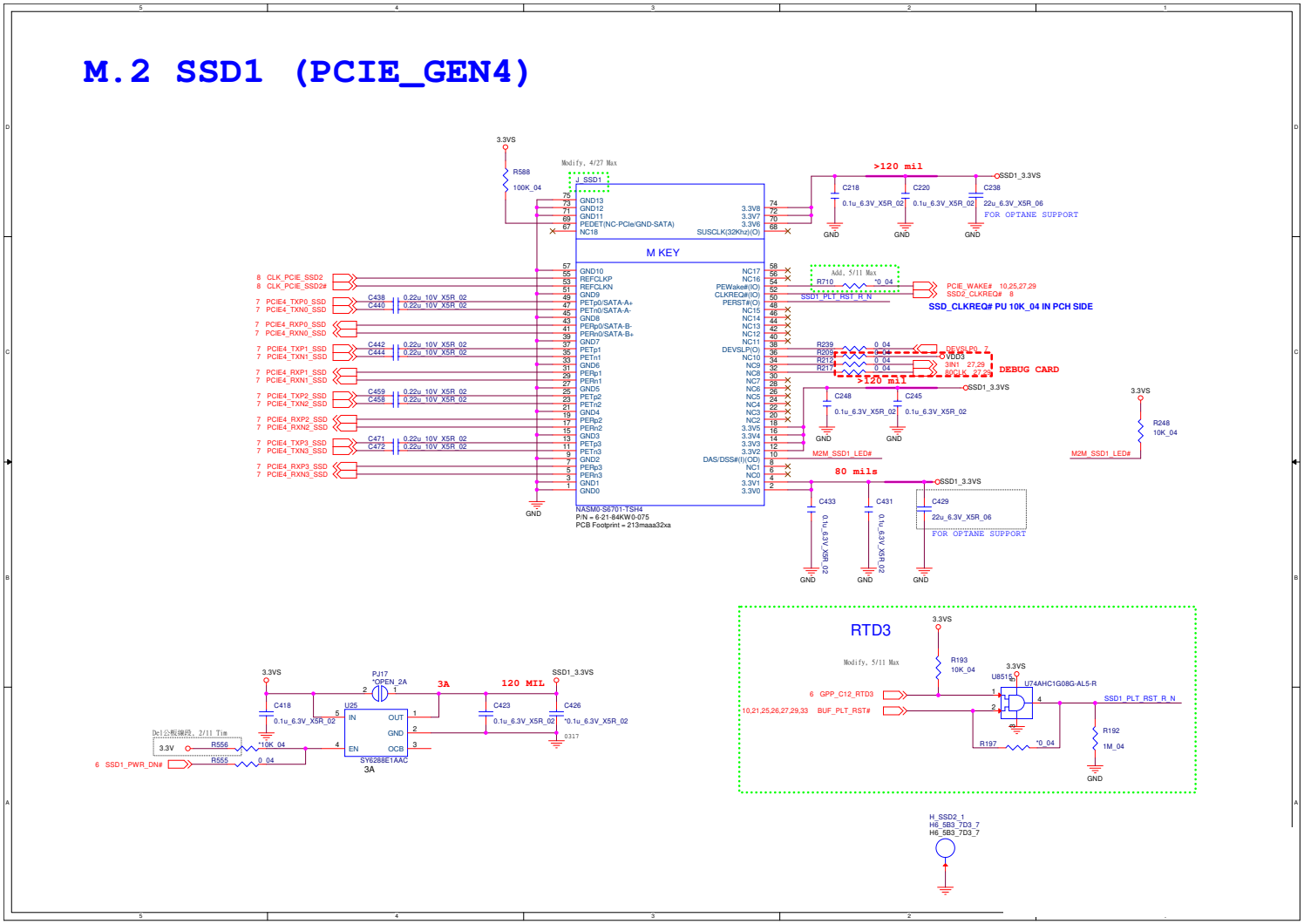
Sheet 26 of 45
WLAN/BT

KBC ITE IT5570

Sheet 27 of 45
KBC ITE IT5570



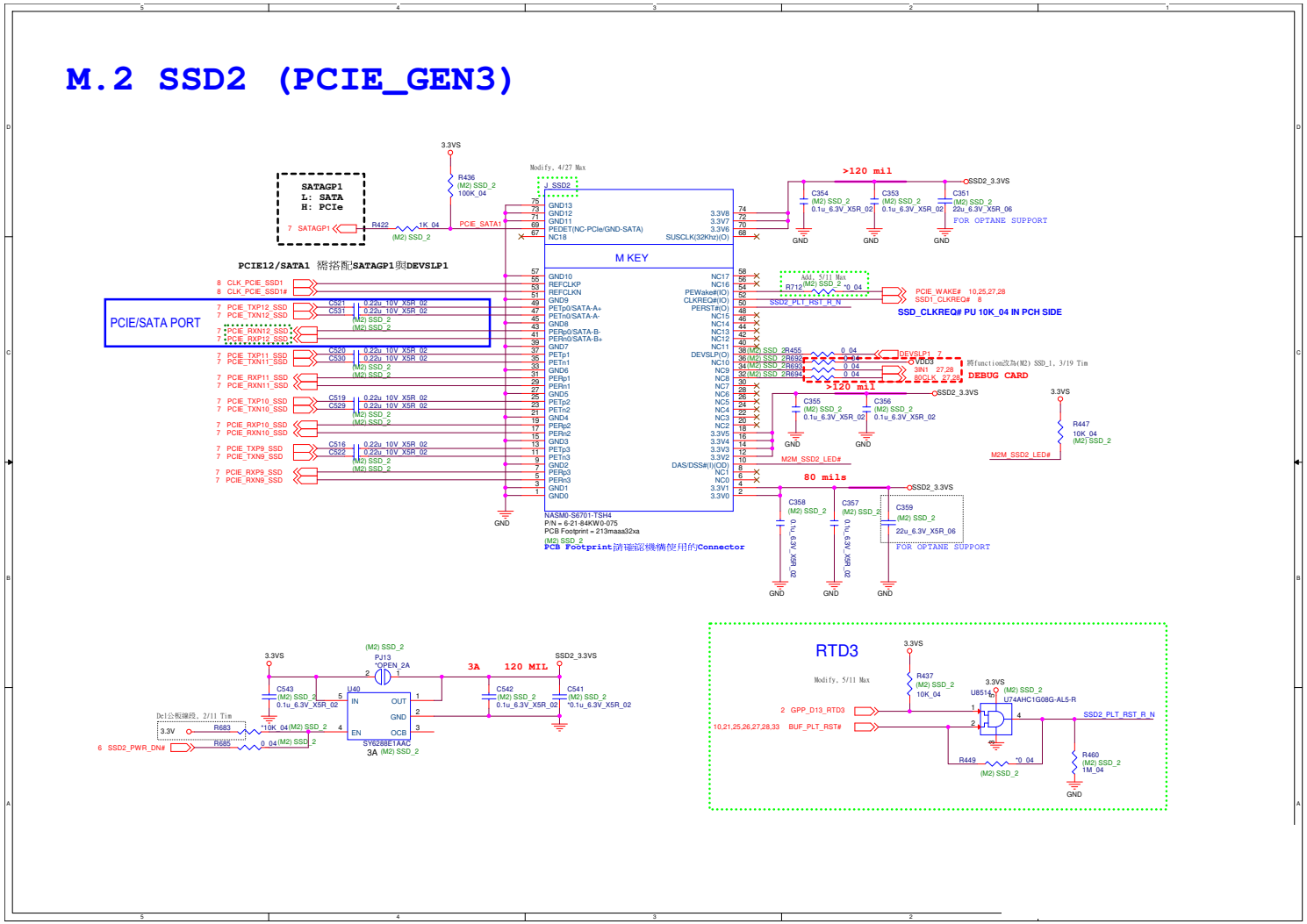
M Key PCIE SSD-1



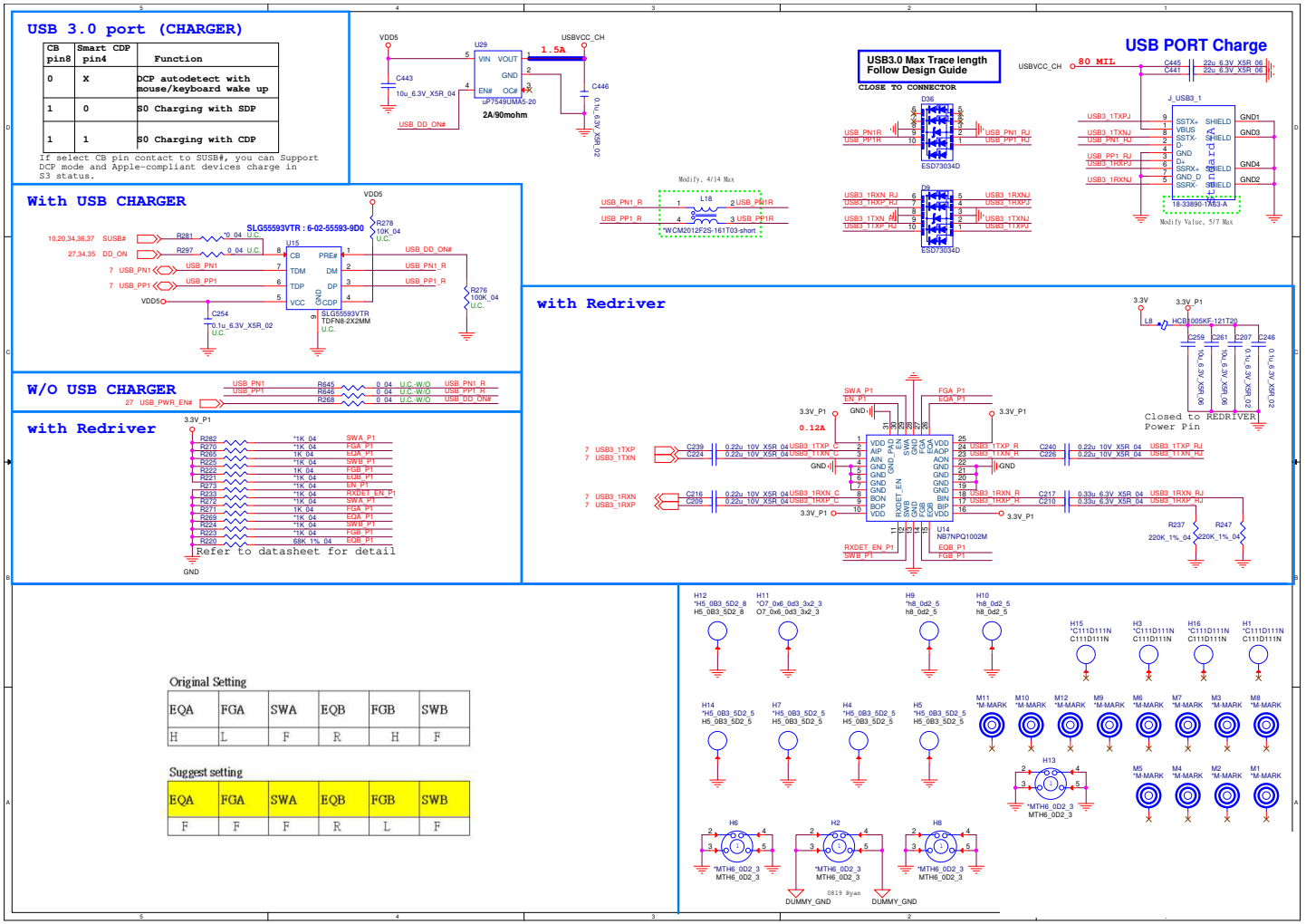
Sheet 28 of 45
M Key PCIE SSD-1

M Key PCIE SSD-2

Sheet 29 of 45
M Key PCIE SSD-2



USB Charger



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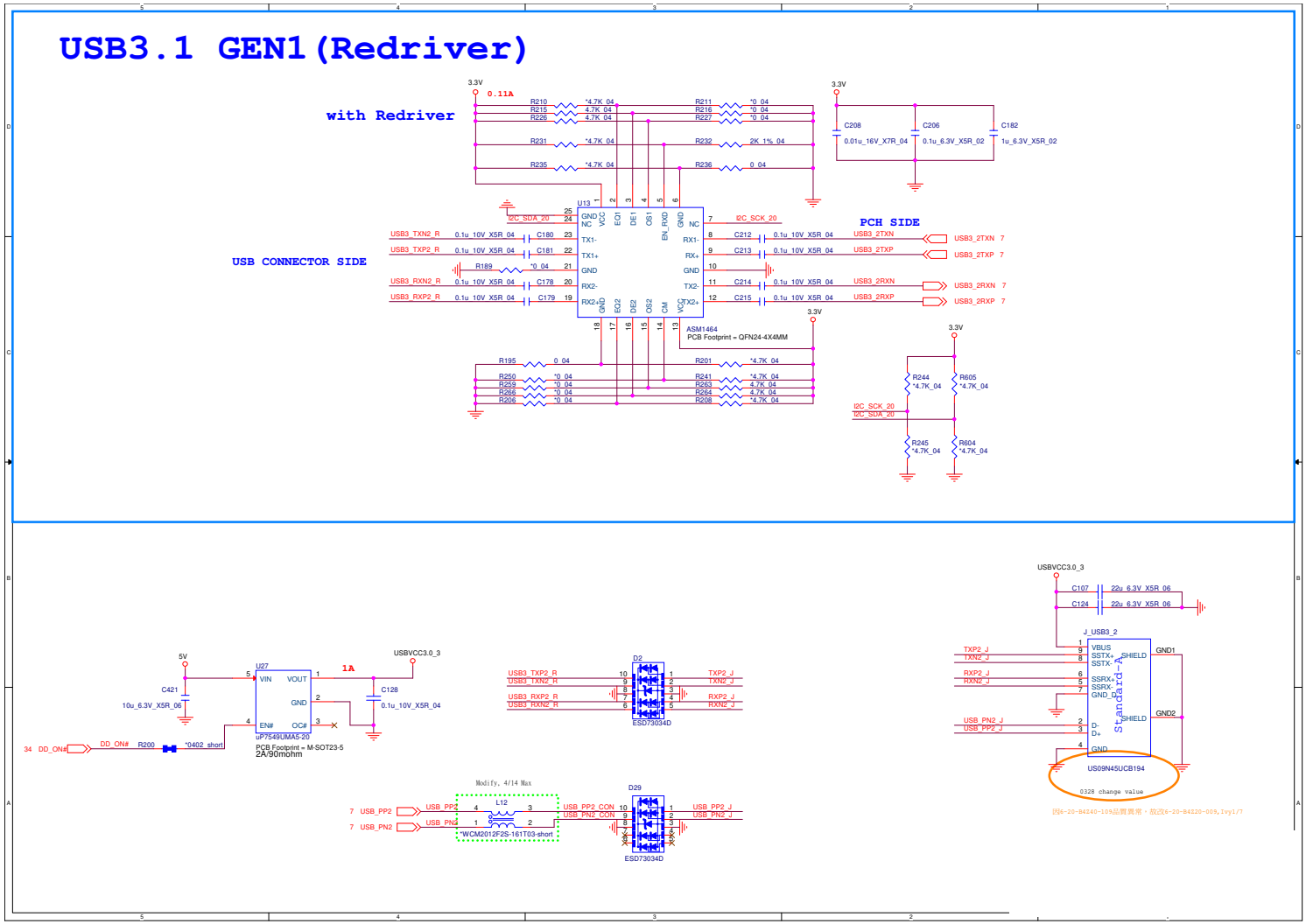
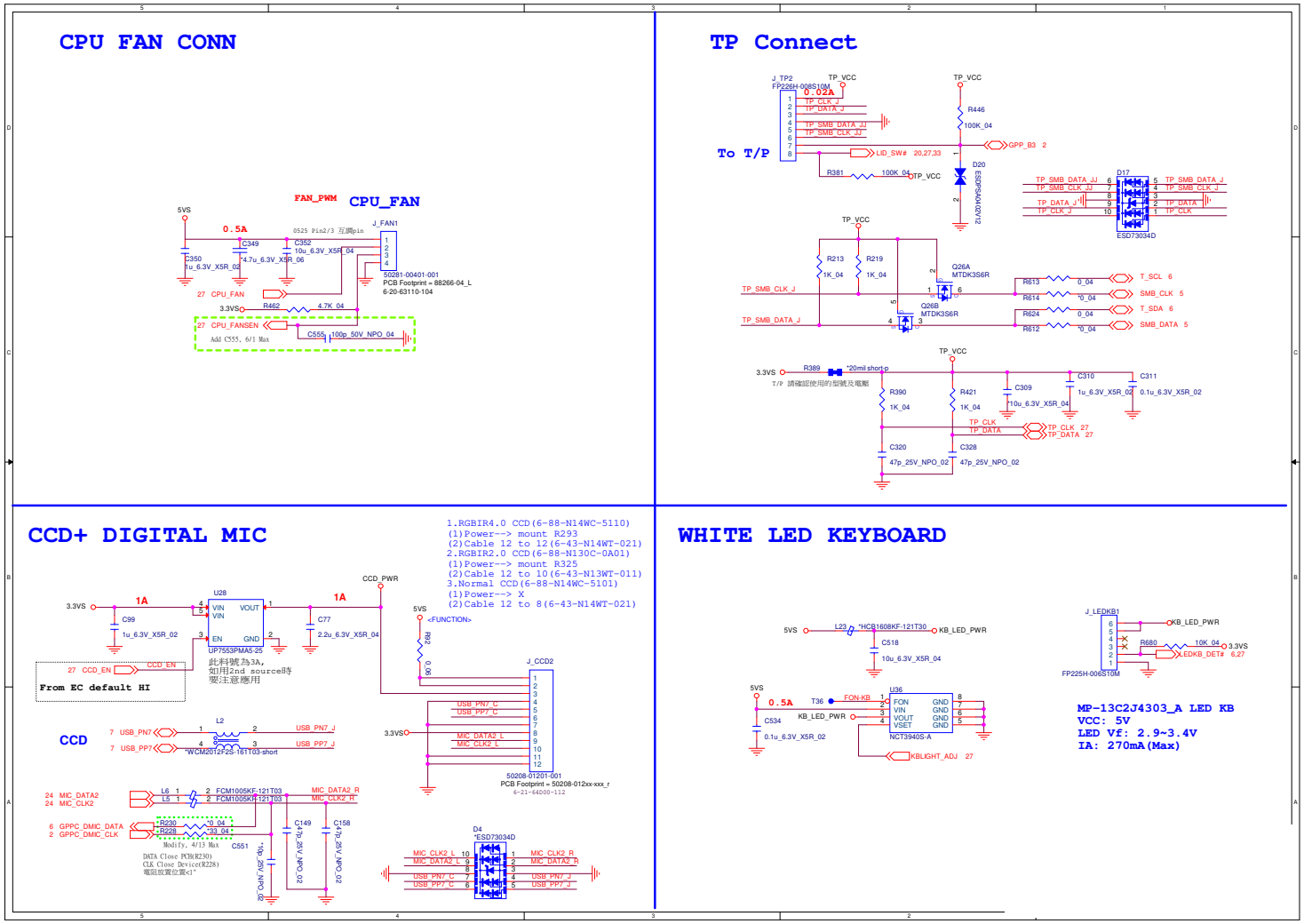
USB Charger

USB Gen1

Sheet 31 of 45
USB Gen1



Conn Fan, CCD, TP, LED KB



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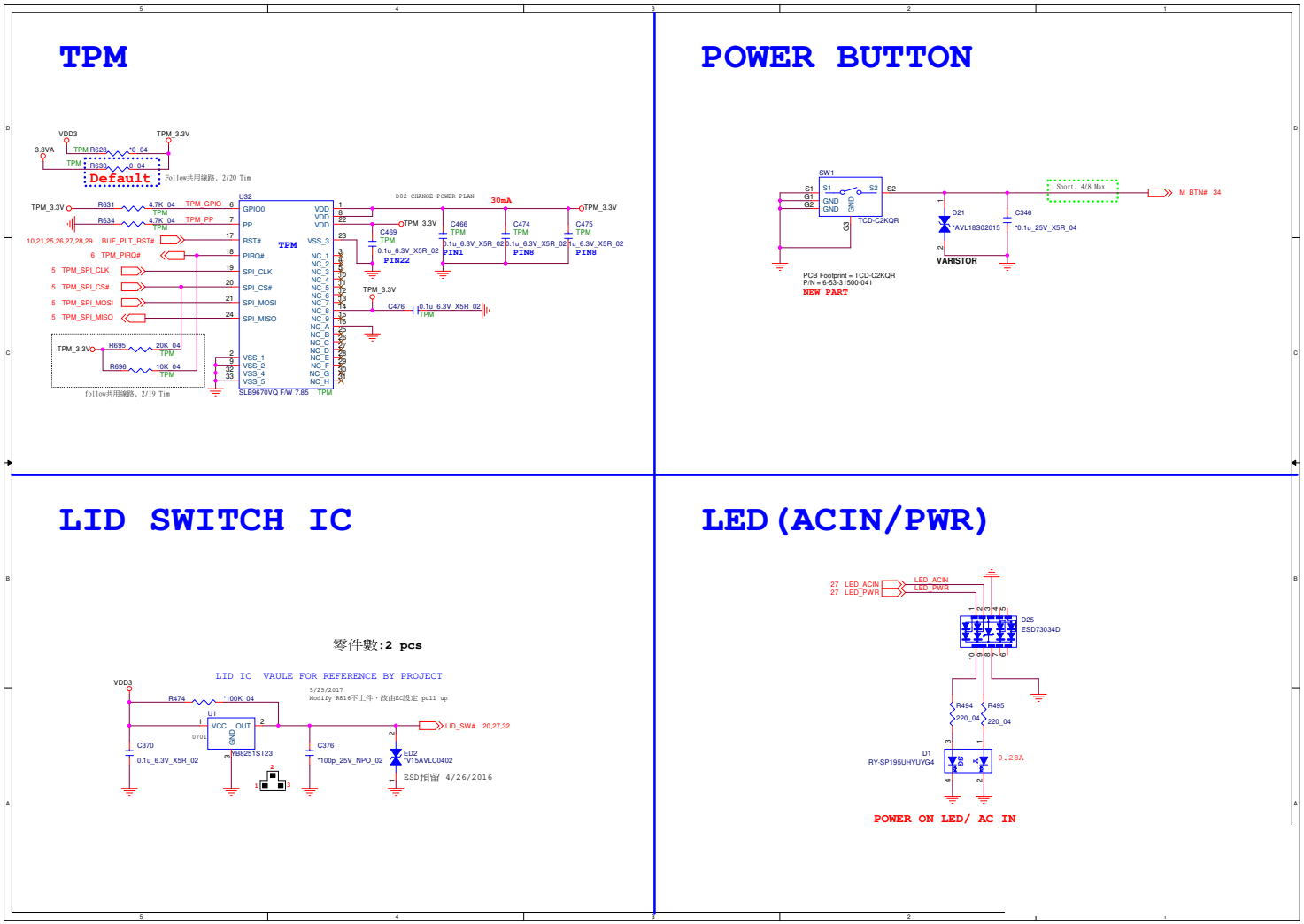
Conn Fan, CCD, TP, LED KB

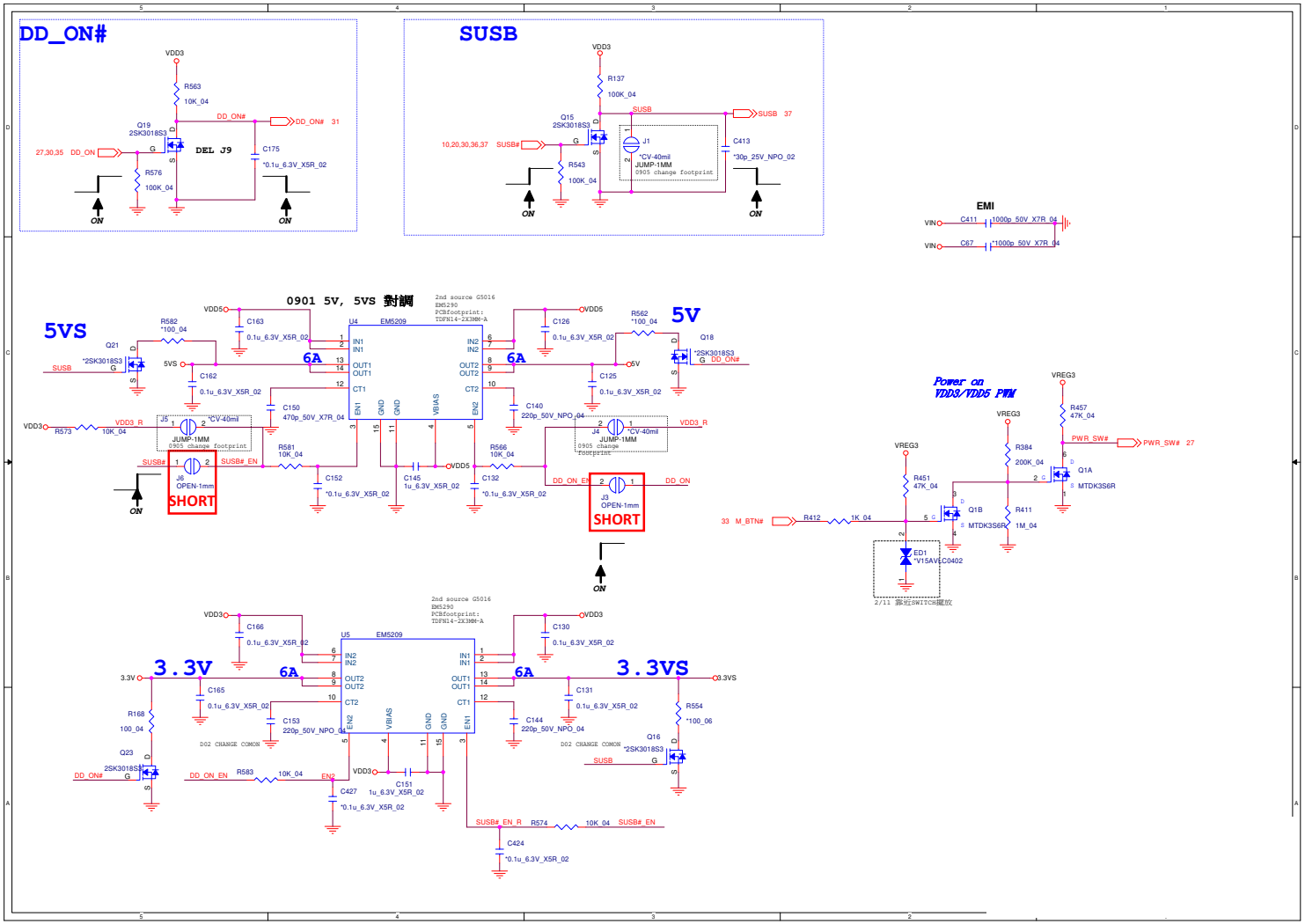
B.Schematic Diagrams

TPM, PW Button, LID SW, LED

Sheet 33 of 45
TPM, PW Button,
LID SW, LED



3.3V, 5V, 3VS, 5VS, CTL



Sheet 34 of 45
3.3V, 5V, 3VS, 5VS, CTL

VDD3, VDD5

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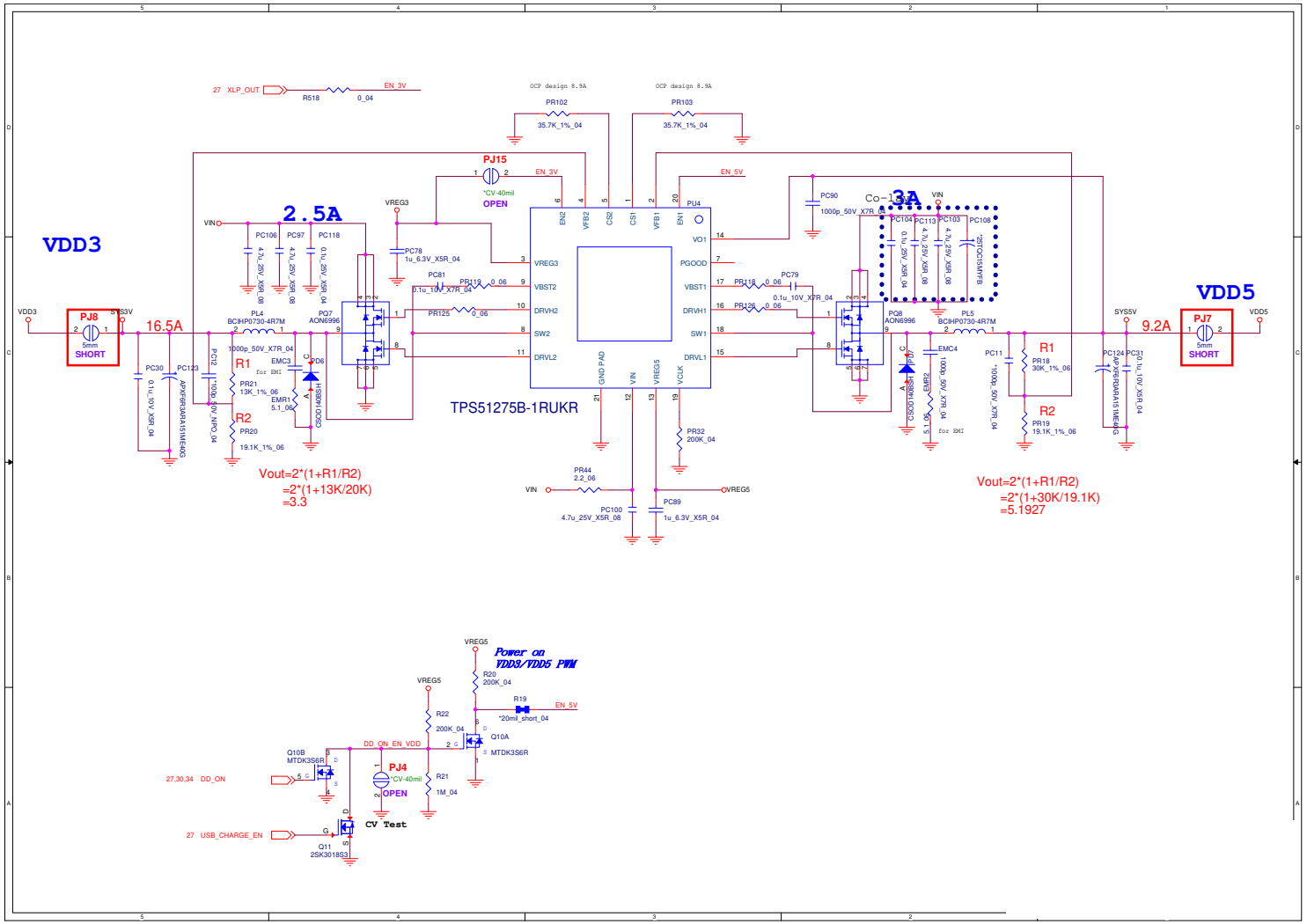
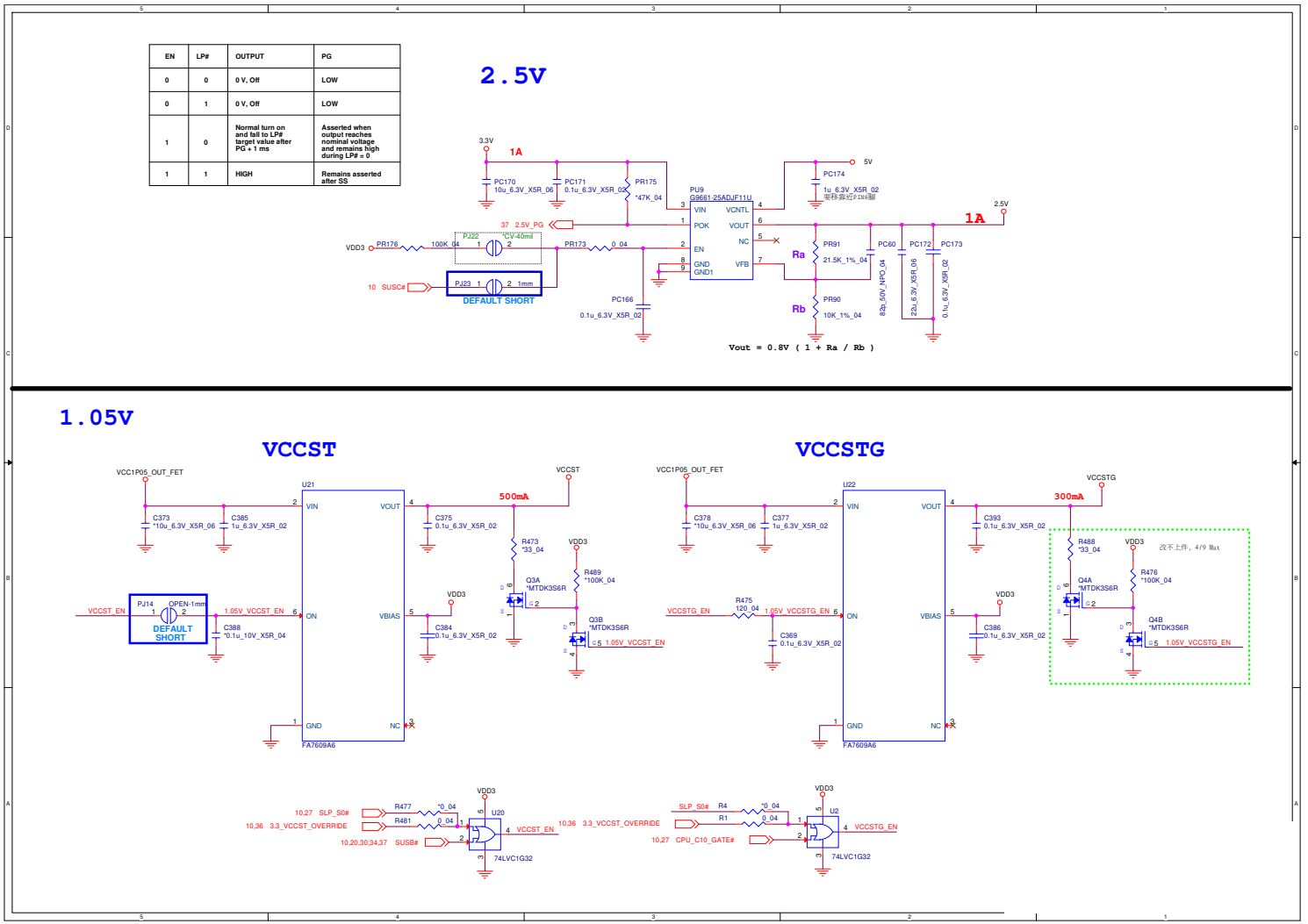
VDD3, VDD5



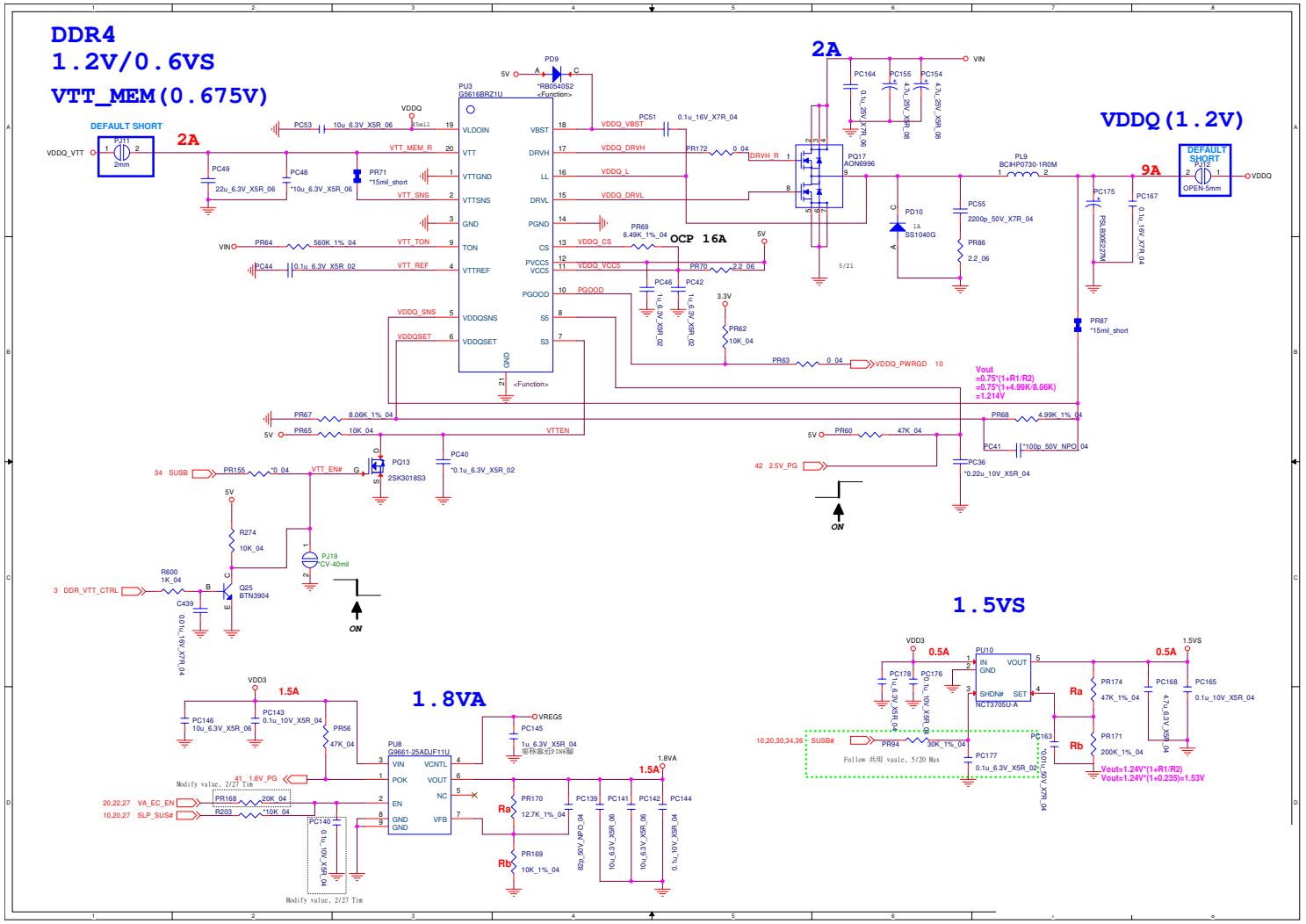
2.5V, VCCST, VCCSTG



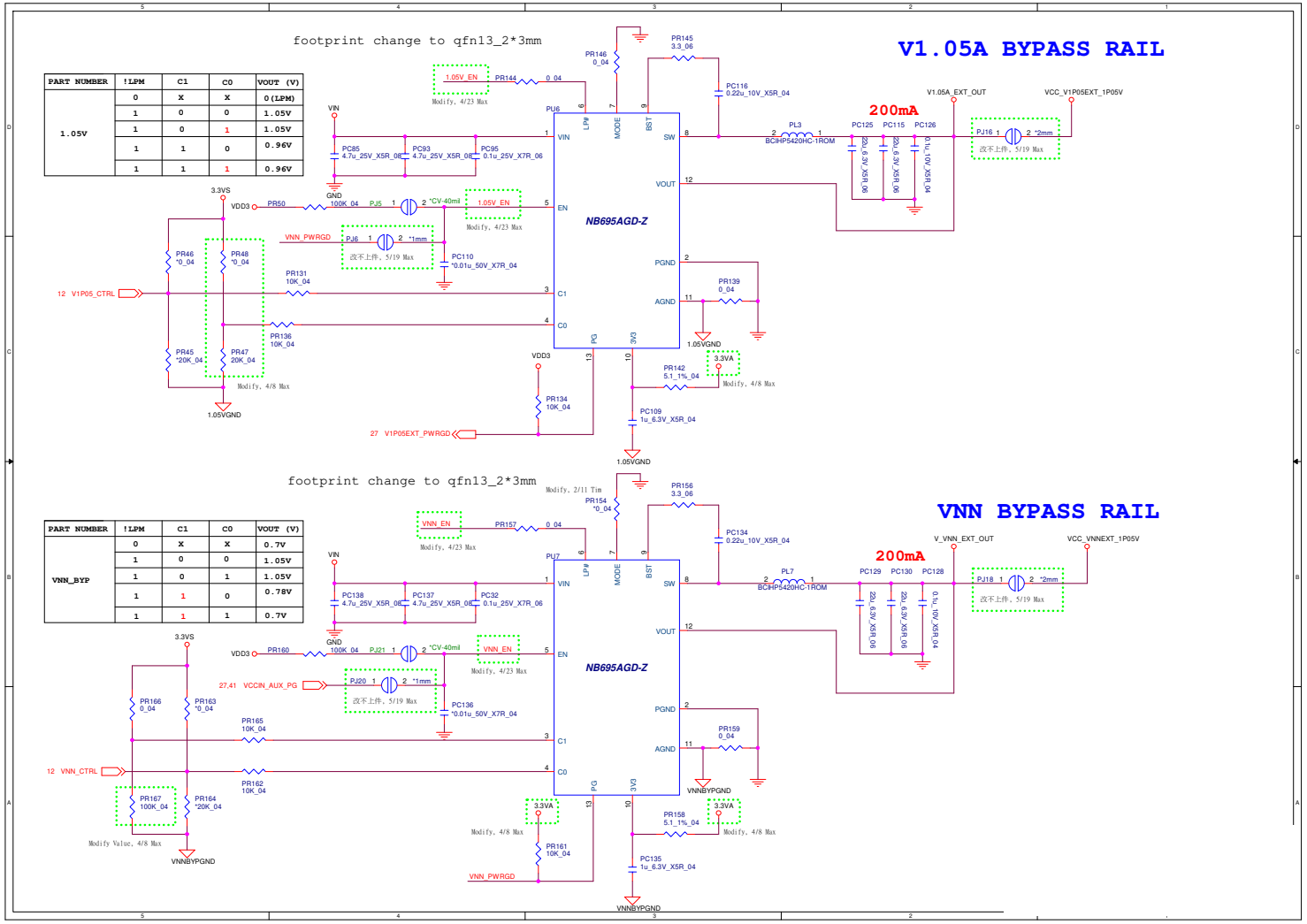
Sheet 36 of 45
2.5V, VCCST, VCCSTG

VDDQ, VDDQ_VTT, 1.5VS, 1.8VA

Sheet 37 of 45
VDDQ, VDDQ_VTT,
1.5VS, 1.8VA



V1.05A / VNN



PART NUMBER	!LPM	C1	C0	VOUT (V)
1.05V	0	X	X	0 (LPM)
	1	0	0	1.05V
	1	0	1	1.05V
	1	1	0	0.96V
	1	1	1	0.96V

PART NUMBER	!LPM	C1	C0	VOUT (V)
VNN_BYP	0	X	X	0.7V
	1	0	0	1.05V
	1	0	1	1.05V
	1	1	0	0.78V
	1	1	1	0.7V

Sheet 38 of 45
V1.05A / VNN

AC_In

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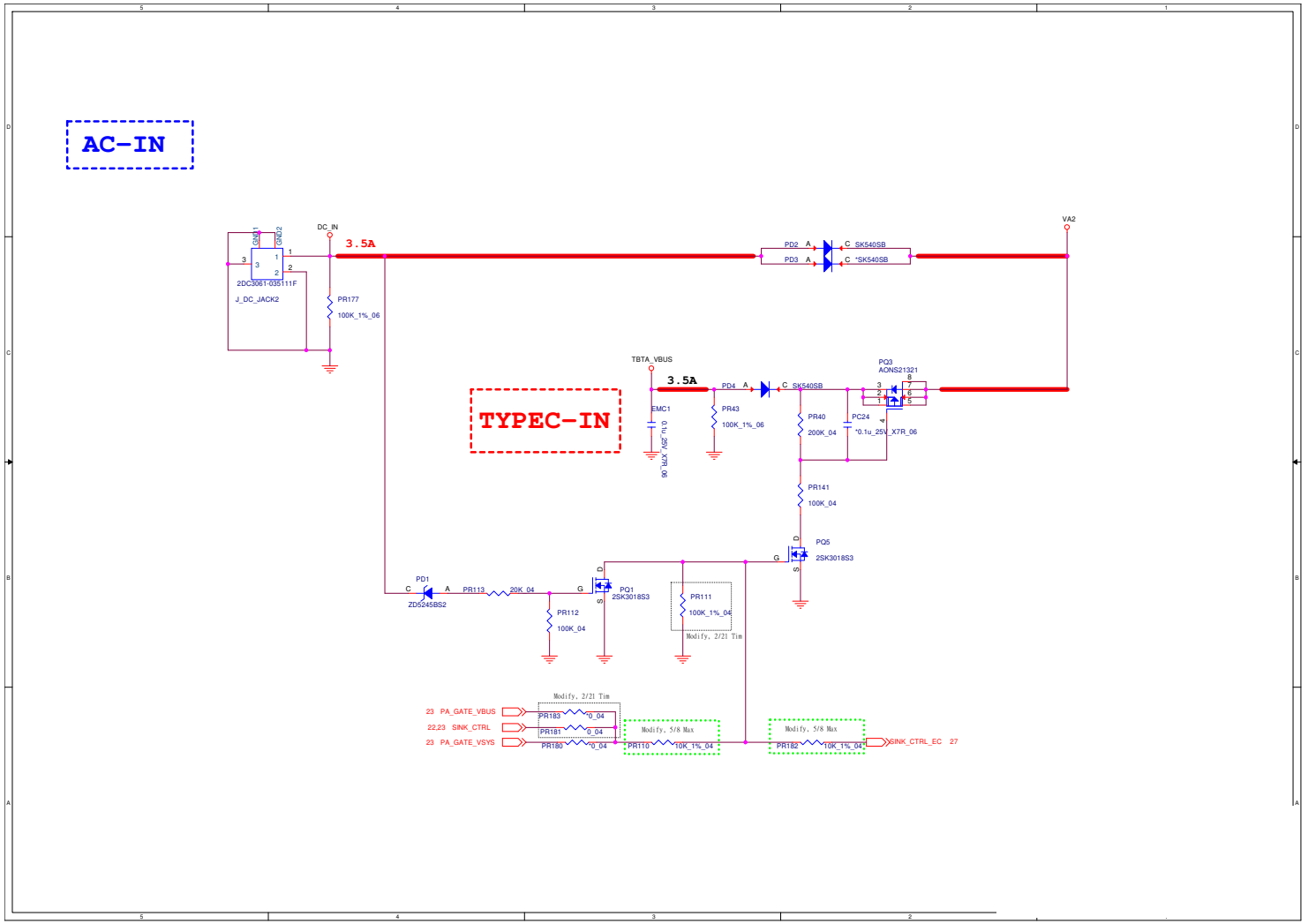
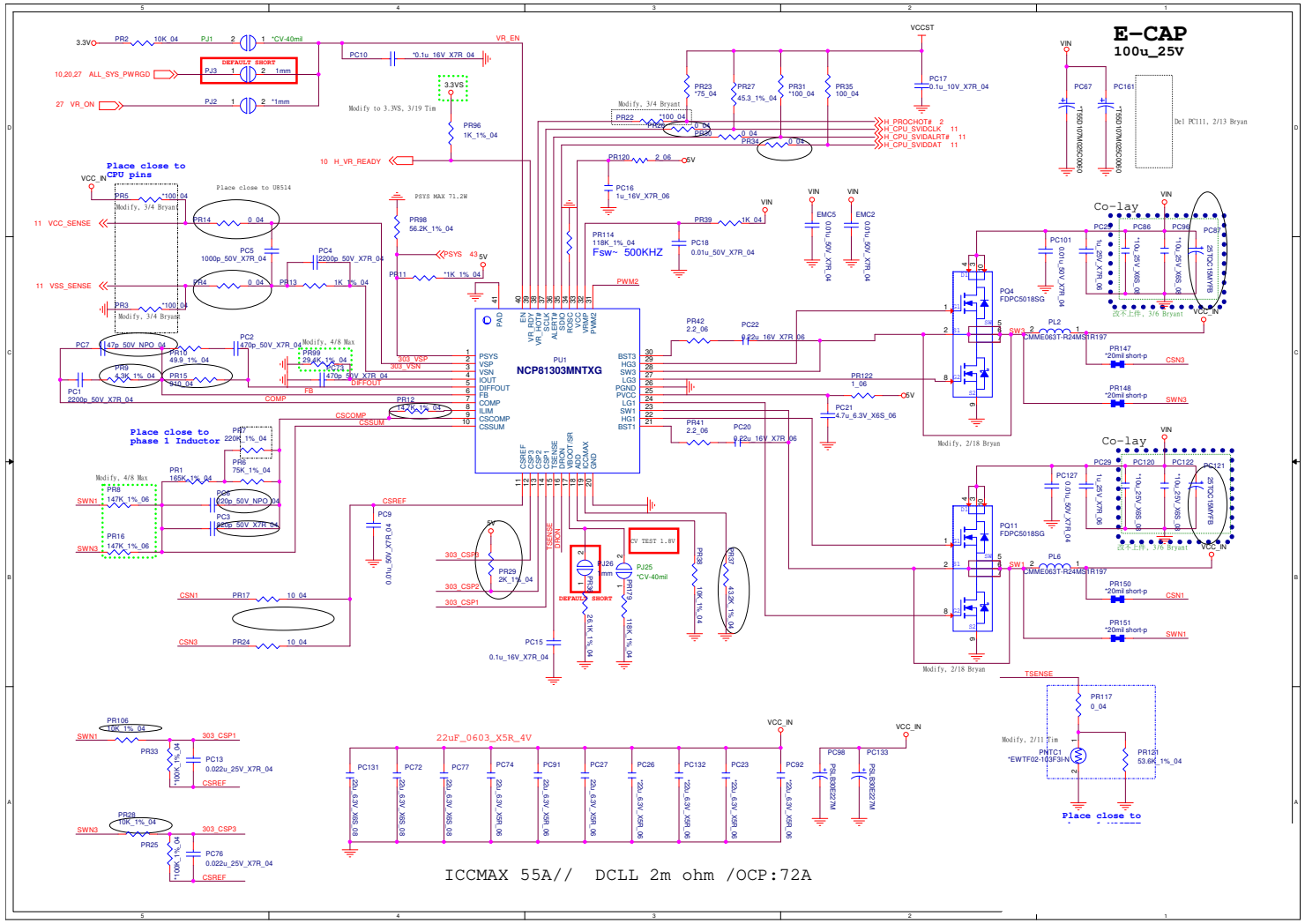
AC_In



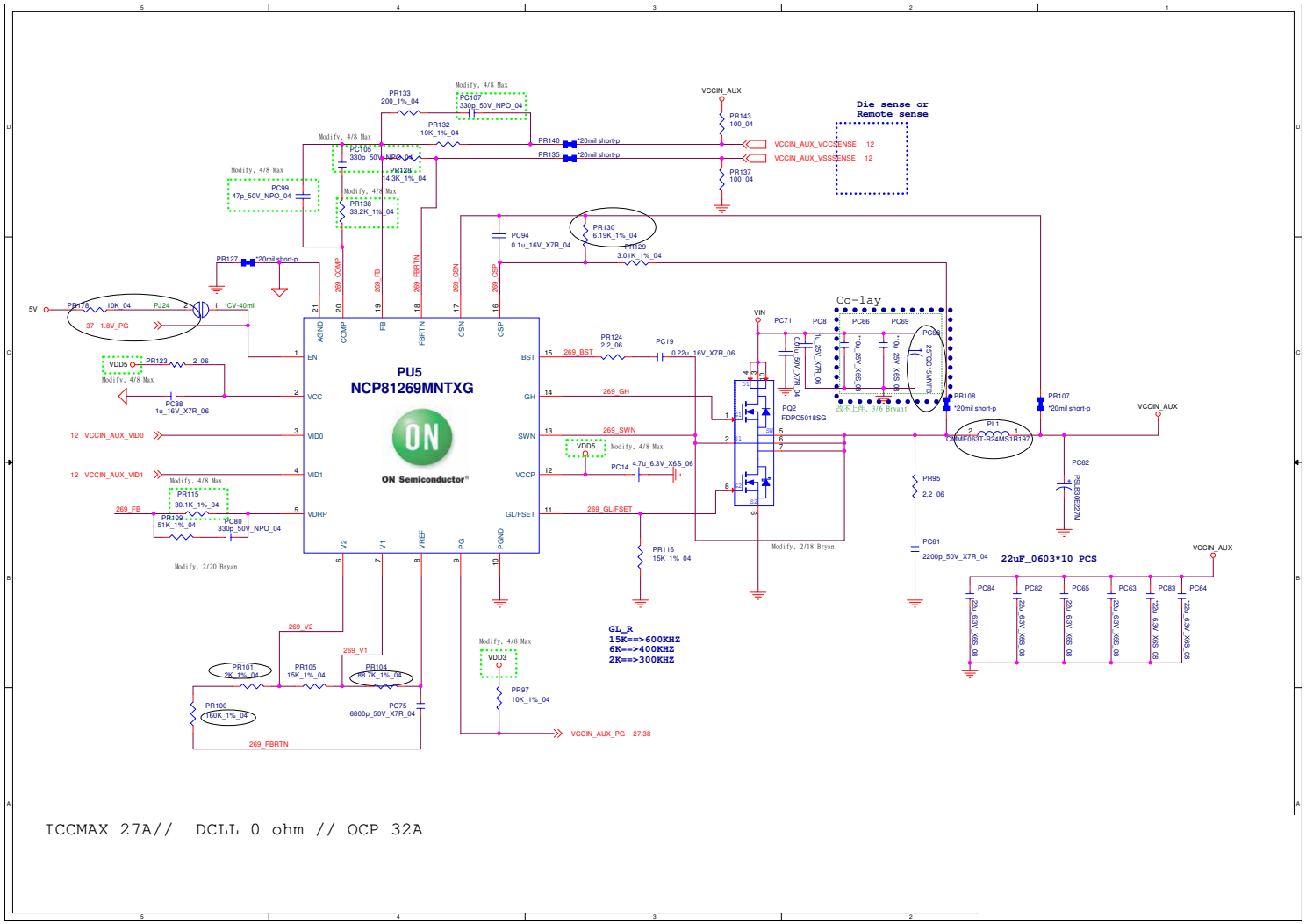
VCCIN



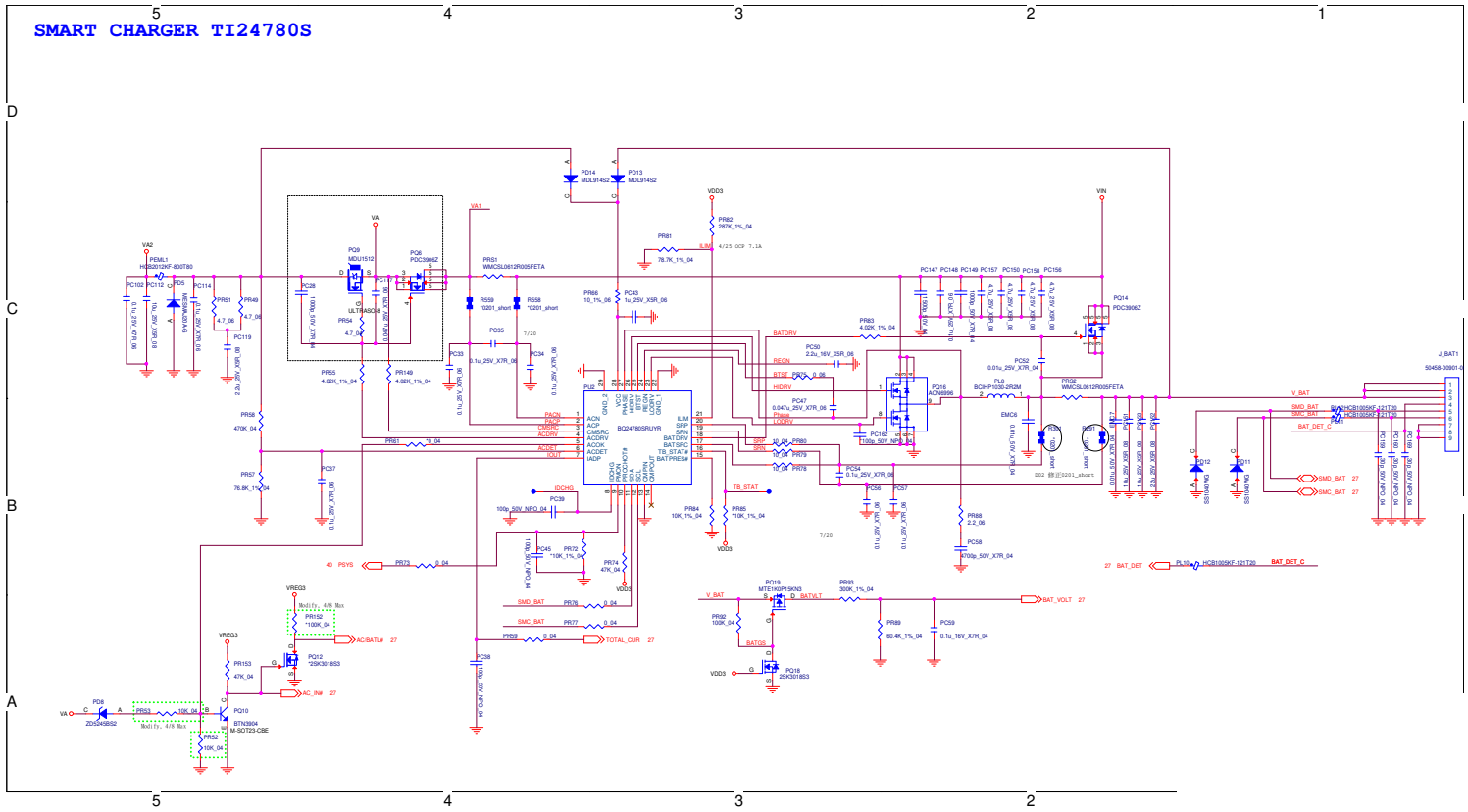
Sheet 40 of 45
VCCIN

NCP81269

Sheet 41 of 45
NCP81269



Charger



Sheet 42 of 45
Charger

M.2 B Key, 3G, USB

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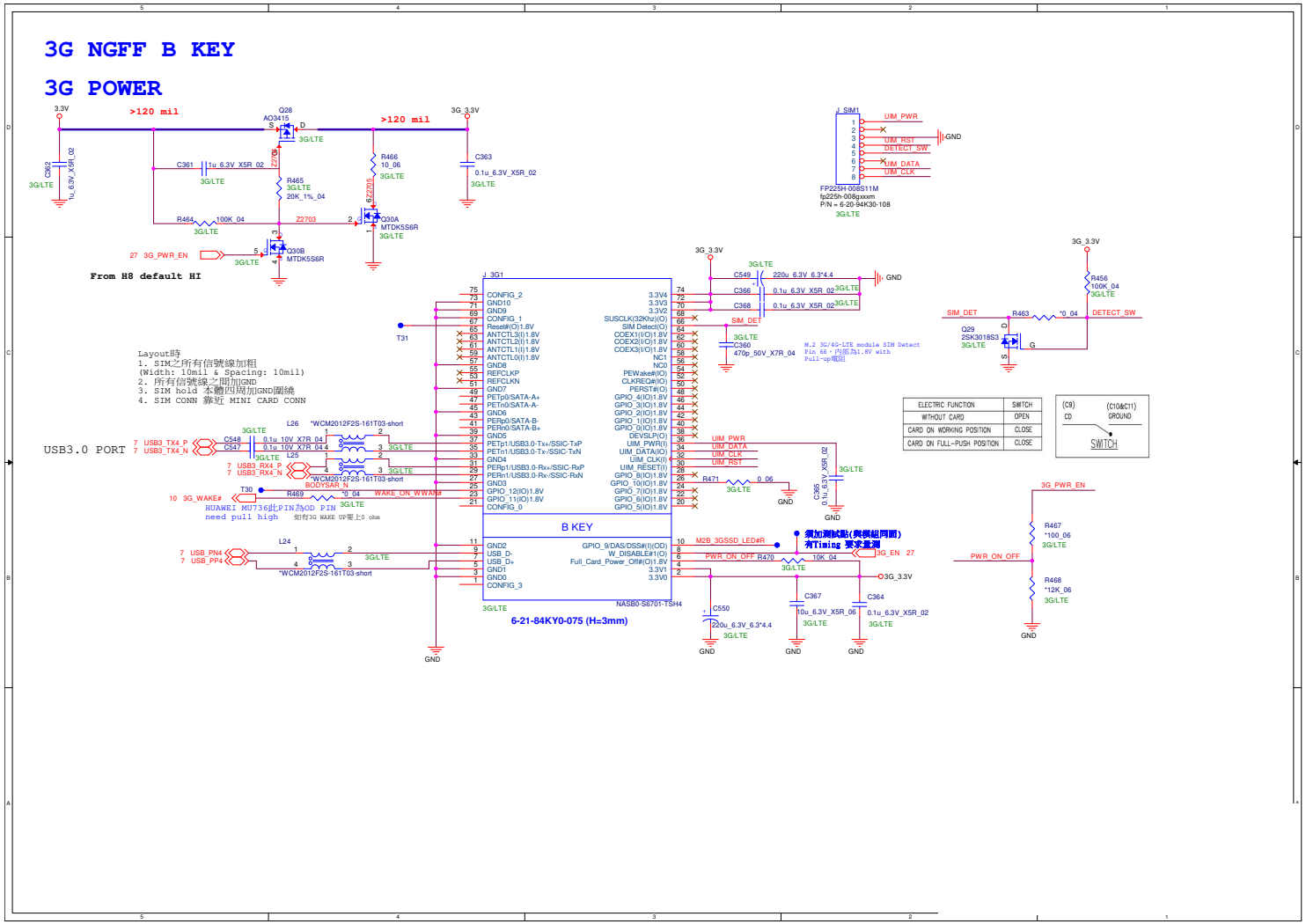
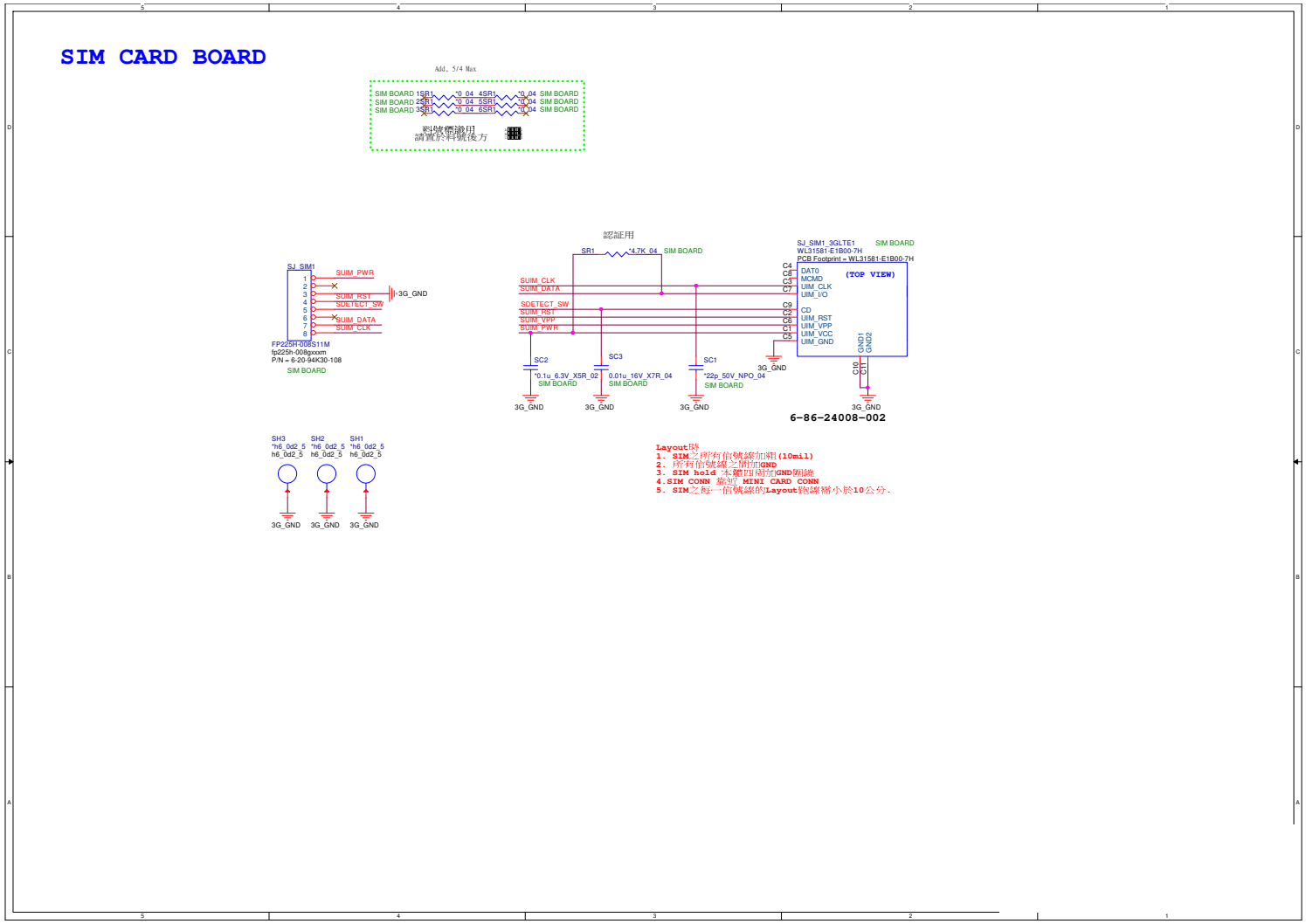
M.2 B Key, 3G, USB



SIM Board



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SIM Board

Power Sequence

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Power Sequence