SERVICE MANUAL

W210CUQ/ W211CU/ W215CU

notebook

Notebook Computer

W210CUQ, W211CU, W215CU

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 ***W210CUQ, W211CU, W215CU*** series notebook PC.

The following information is included:

Chapter 1, Introduction, provides general information about the location of system elements and their specifications.
Chapter 2, Disassembly, provides step-by-step instructions for disassembling parts and subsystems and how to upgrade elements of the system.

Appendix A, Part Lists
Appendix B, Schematic Diagrams
Appendix C, Updating the FLASH ROM BIOS

IMPORTANT SAFETY INSTRUCTIONS

Follow basic safety precautions, including those listed below, to reduce the risk of fire, electric shock and injury to persons when using any electrical equipment:

1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. This product is intended to be supplied by a Listed Power Unit with an AC Input of 100 - 240V, 50 - 60Hz, DC Output of 19V, 1.58A (**30W**) minimum AC/DC Adapter.

Instructions for Care and Operation

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

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

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

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

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

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

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

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

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

Power Safety

The computer has specific power requirements:

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

Power Safety Warning

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

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

Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not 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 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.

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.

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. Attach the AC/DC adapter 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.
5. Use one hand to raise the lid/LCD to a comfortable viewing angle (do not exceed 120 degrees); use the other hand (as illustrated in <Hyperlink B n I>Figure 1) to support the base of the computer (**Note**: **Never** lift the computer by the lid/LCD).
6. Press the power button to turn the computer “on”.

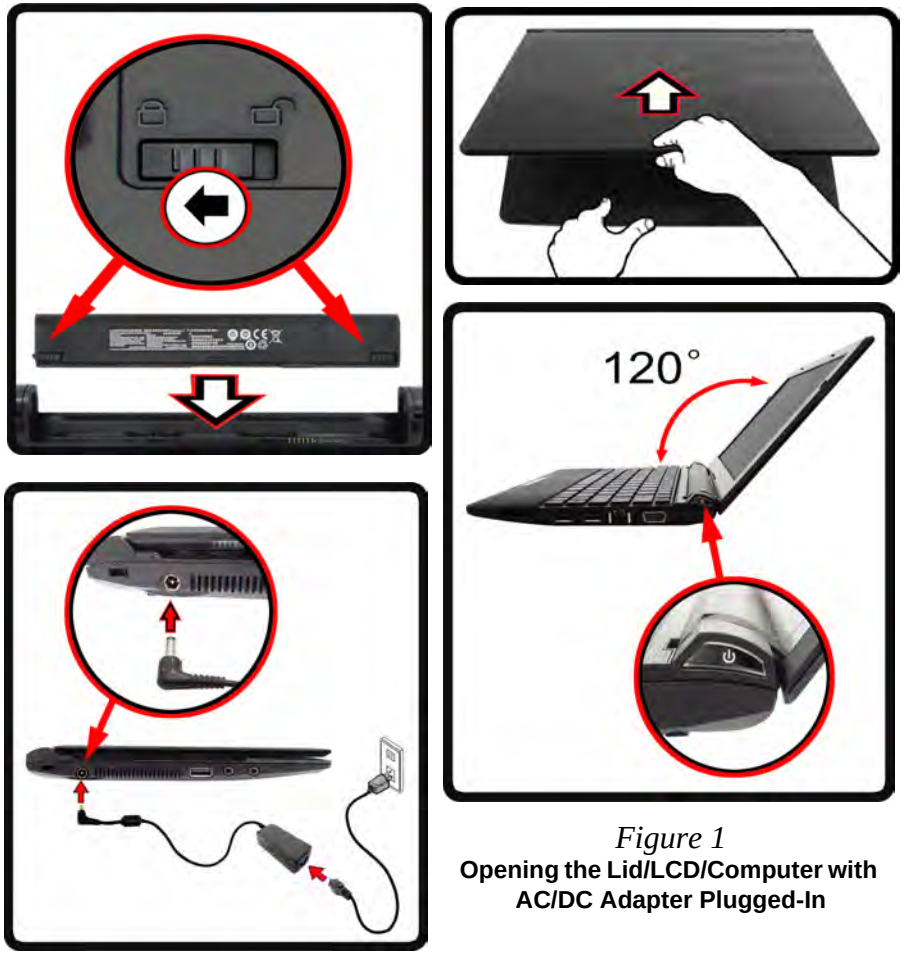


Figure 1
Opening the Lid/LCD/Computer with AC/DC Adapter Plugged-In

Contents

Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the ***W210CUQ, W211CU, W215CU*** 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 system *Window 7* has its 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 ***W210CUQ, W211CU, W215CU*** 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

Intel® Atom™ Processor N2600

1.60GHz, 32nm, 1MB L2 Cache, DDR3-800MHz, TDP: 3.5W

Intel® Atom™ Processor N2800

1.86GHz, 32nm, 1MB L2 Cache, DDR3-1066MHz, TDP: 6.5W

Display

W210CUQ, W215CU:

10.1" (25.65cm) WSVGA TFT LCD (Thickness: 5.2mm)

W211CU:

10.1" (25.65cm) WSVGA TFT LCD (Thickness: 3.6mm)

Core Logic

Intel® NM10 Express Chipset

Memory

One 204 Pin SO-DIMM Socket Supporting **DDR3 1066/ 1333MHz** Memory (The real memory operating frequency depends on the FSB of the processor)

Memory Expandable up to **2GB** or **4GB*** Depending on the Processor

Atom™ N2600 Processors Only Support Up to 2GB of Memory

BIOS

One 16Mb SPI Flash ROM

Phoenix™ BIOS

Video Adapter (for N2800 Processor)

Intel® GMA 3650 Video Integrated with the N2800 Processor

Total Available Graphics Memory of up to **1790MB**

MS DirectX® 9 compatible

Video Adapter (for N2600 Processor)

Intel® GMA 3600 Video Integrated with the N2600 Processor

Total Available Graphics Memory of up to **766MB**

MS DirectX® 9 compatible

Storage

One Changeable 2.5" 9.5mm (h) SATA Hard Disk Drive

(**Factory Option**) External USB DVD Super Multi Drive Module

Audio

High Definition Audio Compliant Interface

2 * Built-In Speakers

Built-In Microphone

Security

Kensington Lock Slot

BIOS Password

TPM v1.2

Interface

Three USB 2.0 Ports

One Headphone-Out Jack

One Microphone-In Jack

One External Monitor Port

One HDMI-Out Port

One RJ-45 LAN Jack

One DC-in Jack

Keyboard

"WinKey" keyboard (with embedded numeric keypad)

Pointing Device

Built-in Touchpad

Card Reader

Embedded Multi-In-1 Card Reader

- MMC (MultiMedia Card) / RS MMC
- SD (Secure Digital) / Mini SD
- MS (Memory Stick) / MS Pro / MS Duo

Communication

10Mb/100Mb Ethernet LAN

300K Pixel USB PC Camera Module

(**Factory Option**) 1.3M Pixel USB PC Camera Module

(**Factory Option**) 3.75G/HSPA Mini-Card Module

WLAN/ Bluetooth Half Mini-Card Modules:

(**Factory Option**) Intel® Centrino® Wireless-N 100 Wireless LAN (**802.11b/g/n**)

(**Factory Option**) Intel® Centrino® Wireless-N 1000 Wireless LAN (**802.11b/g/n**)

(**Factory Option**) Intel® Centrino® Wireless-N 130 Wireless LAN (**802.11b/g/n**) + Bluetooth **3.0**

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

(**Factory Option**) Third-Party Wireless LAN (**802.11b/g/n**) + Bluetooth **3.0**

Power

Full Range AC/DC Adapter

AC Input: 100 - 240V, 50 - 60Hz

DC Output: 19V, 1.58A (**30W**)

Removable 3 Cell Smart Lithium-Ion Battery Pack, 24.42WH

(**Factory Option**) Removable 6 Cell Smart Lithium-Ion Battery Pack, 48.84WH

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

W210CUQ:

266mm (w) x 185mm (d) x 19.7 - 27.1mm (h)

0.95kg (with 24.42WH Battery)

W211CU:

266mm (w) x 185mm (d) x 18.5 - 25.4mm (h)

0.93kg (with 24.42WH Battery)

W215CU

266mm (w) x 185mm (d) x 19.7 - 27.1mm (h)

0.96kg (with 24.42WH Battery)

External Locator - Top View with LCD Panel Open

Figure 1
Top View

1. Built-In PC Camera
2. LCD
3. Power Button (**Model C only)**
4. Keyboard
5. Built-In Microphone
6. Touchpad & Buttons
7. LED Indicators

W210CUQ, W211CU

W215CU

External Locator - Front & Right Side Views

Figure 2
Front View

1. LED Indicators

FRONT VIEW

RIGHT SIDE VIEW

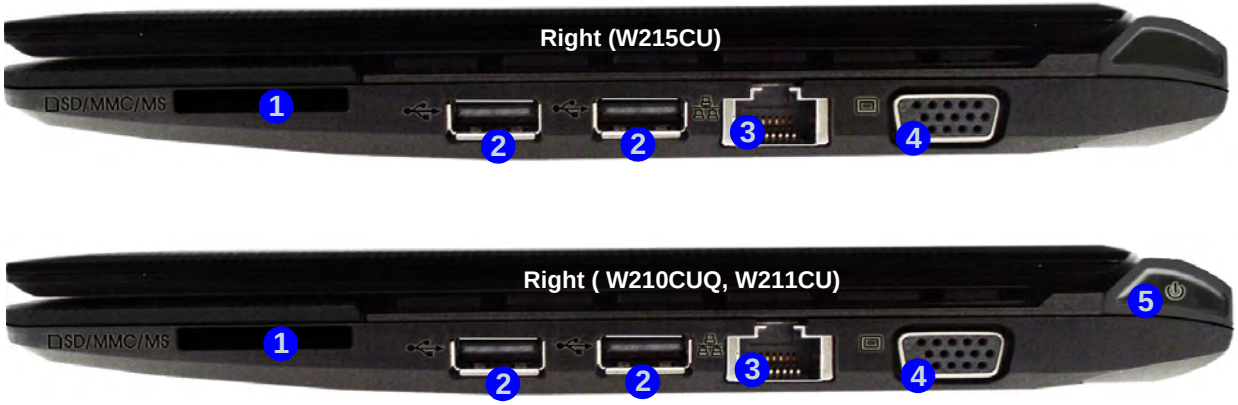


Figure 3
Right Side View

1. Multi-in-1 Card Reader
2. 2 * USB 2.0 Ports
3. RJ-45 LAN Port
4. External Monitor Port
5. Power Button **(Models A & B only)**

External Locator - Left Side & Rear View

Figure 4
Left Side View

1. Security Lock Slot
2. DC-In Jack
3. Vent
4. HDMI-Out Port
5. USB 2.0 Port
6. Microphone-In Jack
7. Headphone-Out Jack

LEFT SIDE VIEW

Figure 5
Rear View

1. Battery

REAR VIEW

External Locator - Bottom View

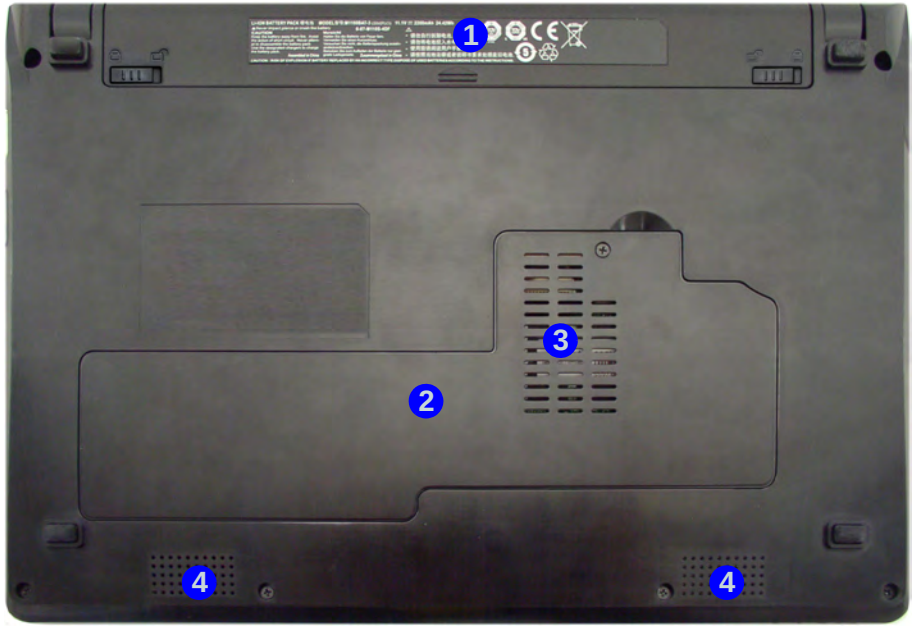


Figure 6
Bottom View

1. Battery
2. Component Bay Cover
3. Vent
4. 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. VT1802P
2. ITE IT8518E
3. JMC261C
4. Multi-in-1 Card Reader Socket

Mainboard Overview - Bottom (Key Parts)

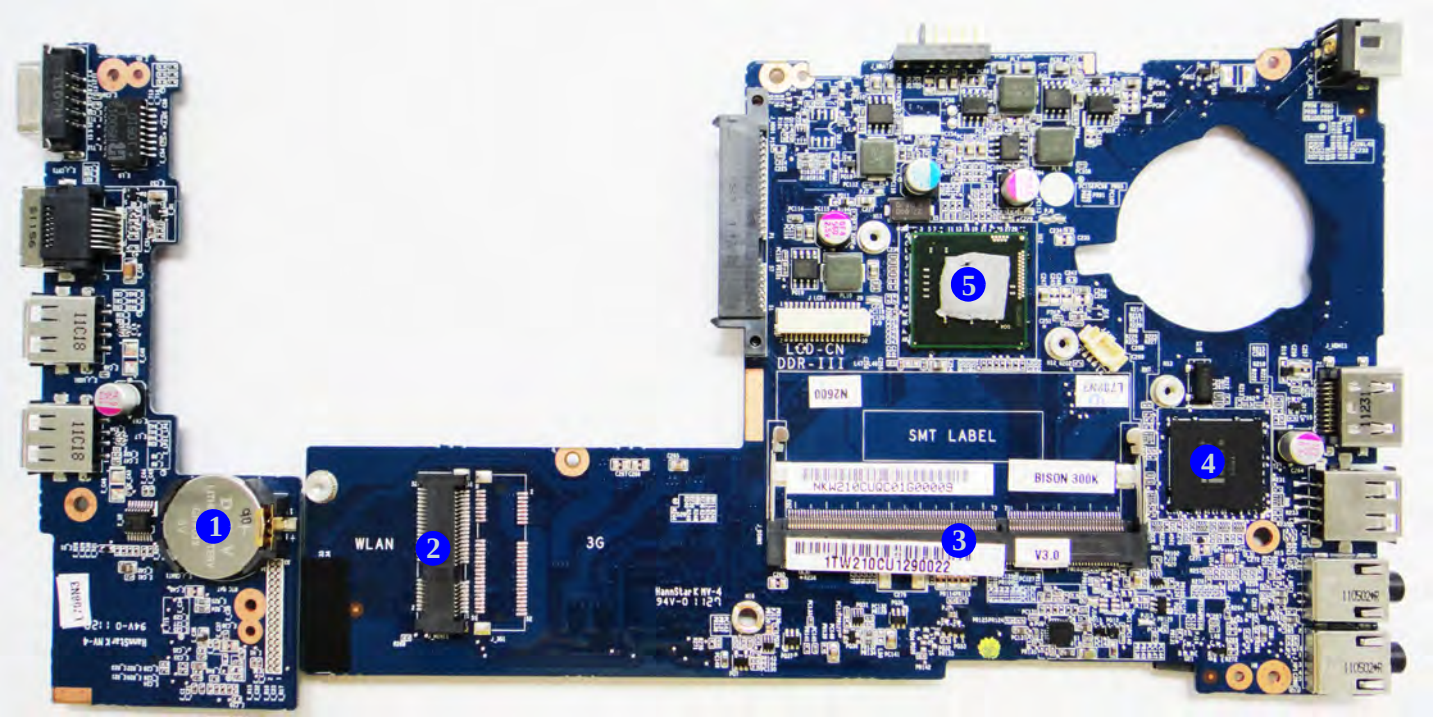


Figure 8
Mainboard Bottom Key Parts

1. CMOS Battery
2. Mini-Card Connector (WLAN Module)
3. Memory Slot DDR3 SO-DIMM
4. South Bridge
5. Embedded CPU

Mainboard Overview - Top (Connectors)

Figure 9
Mainboard Top Connectors

1. Keyboard Cable Connector
2. TouchPad Cable Connector
3. Speaker Cable Connector
4. Microphone Cable Connector
5. Switch Board Cable Connector
6. CCD Cable Connector

Mainboard Overview - Bottom (Connectors)

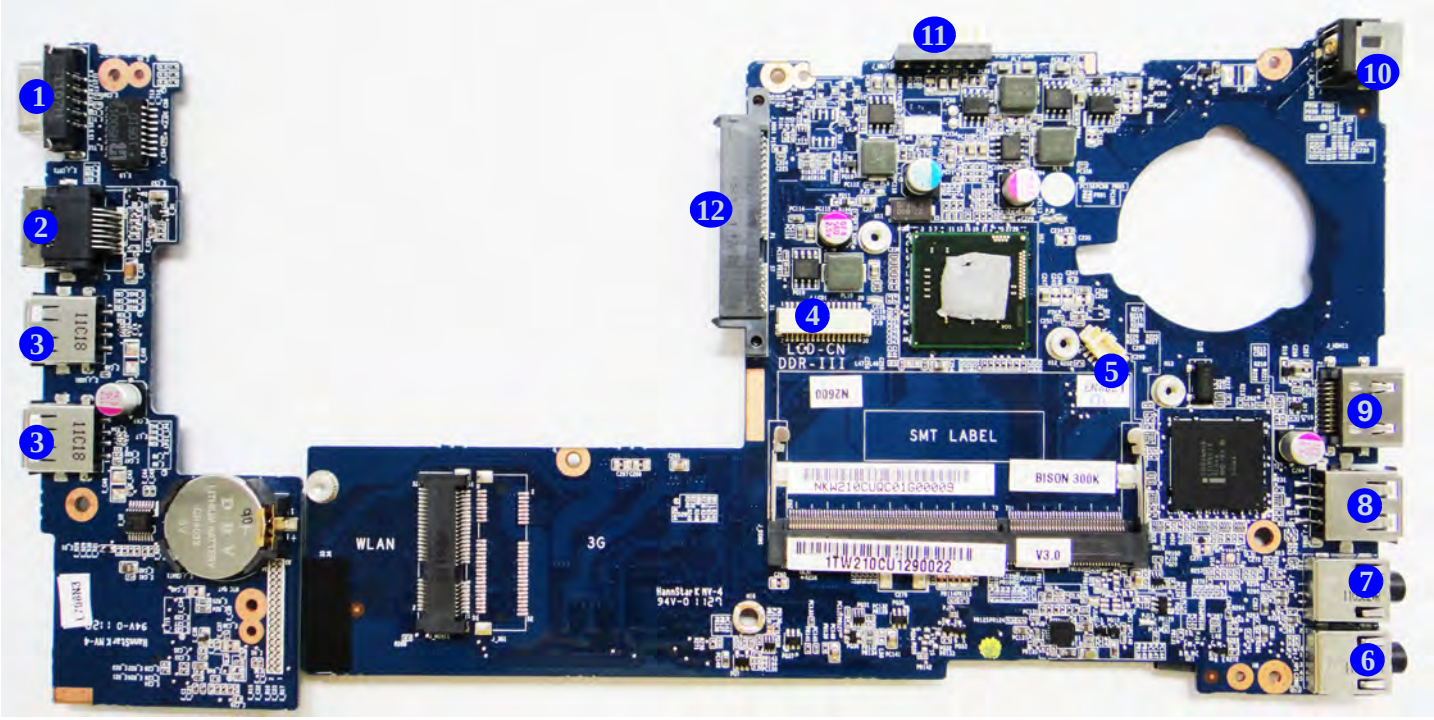


Figure 10
Mainboard Bottom Connectors

1. External Monitor Port
2. RJ-45 Lan Port
3. USB Ports
4. LCD Cable Connector
5. CPU Fan Cable Connector
6. Headphone-Out Jack
7. Microphone-In Jack
8. USB Port
9. HDMI-Out Port
10. DC-In Jack
11. Batery Connector
12. HDD Connector

Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the ***W210CUQ, W211CU, W215CU*** series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

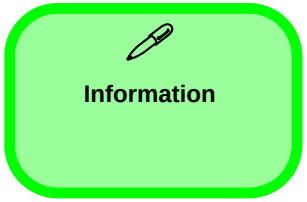
We suggest you completely review any procedure before you take the computer apart.

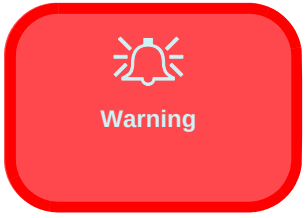
Procedures such as upgrading/replacing the RAM, optical device and hard disk are included in the User's Manual but are repeated here for your convenience.

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). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Cleaning

Do not apply cleaner directly to the computer, use a soft clean cloth.
Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.

Disassembly Steps

The following table lists the disassembly steps, and on which page to find the related information. **PLEASE PERFORM THE DISASSEMBLY STEPS IN THE ORDER INDICATED.**

To remove the Battery:

1. Remove the battery *page 2 - 5*

To remove the System Memory:

1. Remove the battery *page 2 - 5*
2. Remove the system memory *page 2 - 6*

To remove the Wireless LAN Module:

1. Remove the battery *page 2 - 5*
2. Remove the wireless LAN *page 2 - 8*

To remove the Keyboard:

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

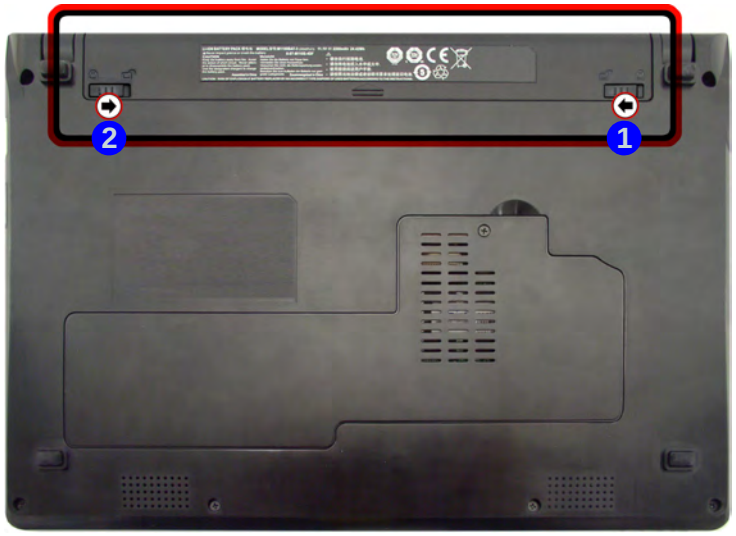
To remove the HDD:

1. Remove the battery *page 2 - 5*
2. Remove the keyboard *page 2 - 9*
3. Remove the HDD *page 2 - 10*

Removing the Battery

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

a.



b.

Figure 1
Battery Removal

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

3. Battery

Removing the System Memory (RAM)

Figure 2
RAM Module Removal

a. Remove the screw.
b. Lift the bay cover up.

The computer has one memory socket for 200 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDR3 1066/1333MHz Memory (real operation frequency of memory depends on FSB of processor). The main memory can be expanded up to 2GB. The SO-DIMM modules supported are 1024MB, and 2048MB and **DDRIII** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

Note: Atom™ N2600 Processors Only Support Up to 2GB of Memory

Contact Warning

Be careful not to touch the metal pins on the module's connecting edge. Even the cleanest hands have oils which can attract particles, and degrade the module's performance.

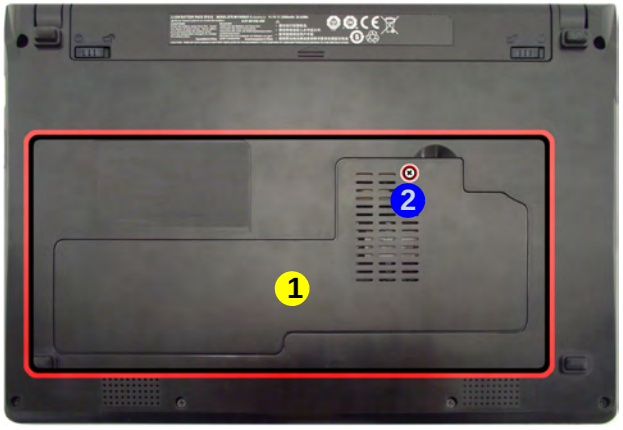
1. Component Bay Cover

- 1 Screw

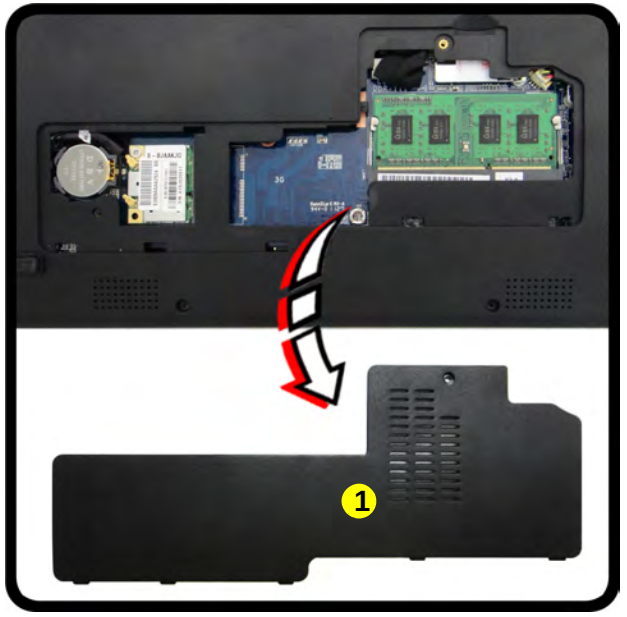
Memory Upgrade Process

1. Turn **off** the computer, remove the battery (*page 2 - 5*).
2. Locate the component bay cover 1, and remove screw 2 (*Figure 2a*).
3. Carefully lift the component bay cover 1 up (*Figure 2b*).

a.



b.

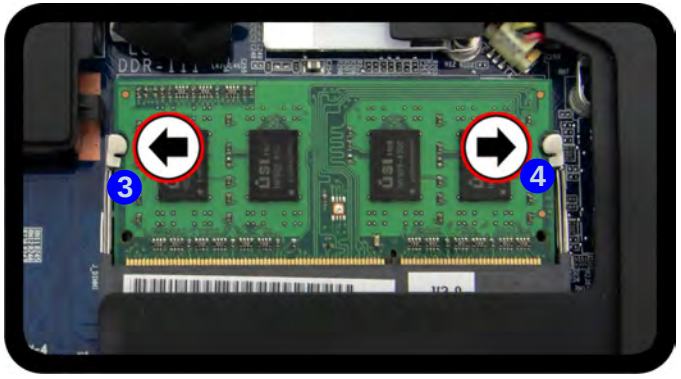


4. Gently pull the two release latches (3 & 4) on the sides of the memory socket in the direction indicated by the arrows (***Figure 3c***).

Figure 3
RAM Module Removal (cont'd.)

c. Pull the release latches.
d. Remove the module.

c.



d.

5. The RAM module (5) will pop-up (***Figure 3d***), and you can then remove it.
6. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
7. The module's pin alignment will allow it to only fit one way. Make sure the module is seated as far into the slot as it will go. DO NOT FORCE the module; it should fit without much pressure.
8. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
9. Replace the bay cover and screw.
10. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

5. RAM Module

Removing the Wireless LAN Module

1. Turn **off** the computer, remove the battery (***page 2 - 5***) and the component bay cover (***page 2 - 6***).
2. Carefully disconnect cables 1 & 2, then remove screw 3 from the module socket (***Figure 4a***).
3. The Wireless LAN module 4 (***Figure 4b***) will pop-up.
4. Lift the Wireless LAN module 4 (***Figure 4c***) up and off the computer.

Figure 4
Wireless LAN Module Removal

a. Remove the cover and disconnect the cables and remove the screw.
b. The WLAN module will pop up.
c. Lift the WLAN module out.

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

4. WLAN Module.

- 1 Screw

a.

b.

c.

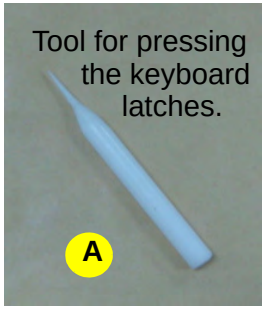
Removing the Keyboard

1. Turn **off** the computer and remove the battery (*page 2 - 5*).
2. Use **only** the small tool A provided (see picture below) to carefully press the **four** keyboard latches 1 - 4 at the top of the keyboard to elevate the keyboard from its normal position (*Figure 5a*).
3. Carefully lift the keyboard 5 up, being careful not to bend the keyboard ribbon cable 6 (*Figure 5b*).
4. Disconnect the keyboard ribbon cable 6 from the locking collar socket 7 (*Figure 5b*)
5. Carefully lift up the keyboard 5 (*Figure 5c*) off the computer.

Figure 5
Keyboard Removal

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

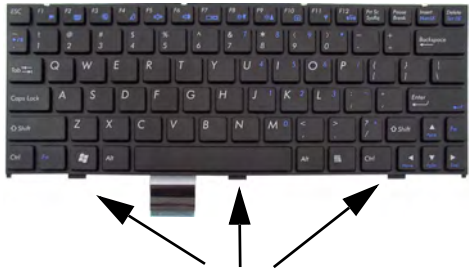
a.



b.

c.

d.



Re-Inserting the Keyboard

When re-inserting the keyboard, align first the **three** keyboard tabs (*Figure 5d*) that are located at the bottom, to the slots in the case.

5. Keyboard

Removing the Hard Disk Drive

The hard disk drive can be taken out to accommodate other 2.5" serial (SATA) hard disk drives with a height of 9.5mm (h). Follow your operating system's installation instructions, and install all necessary drivers and utilities (as outlined in **Chapter 4 of the User's Manual**) when setting up a new hard disk.

Hard Disk Upgrade Process

1. Turn **off** the computer, remove the battery (***page 2 - 5***) and remove the keyboard (***page 2 - 9***).
2. Locate the hard disk at point 1 and remove screw 2 (***Figure 6a***).

Figure 6
HDD Assembly Removal

a. Locate the hard disk and remove the screw.

a.

- 1 Screw

HDD System Warning

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

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

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

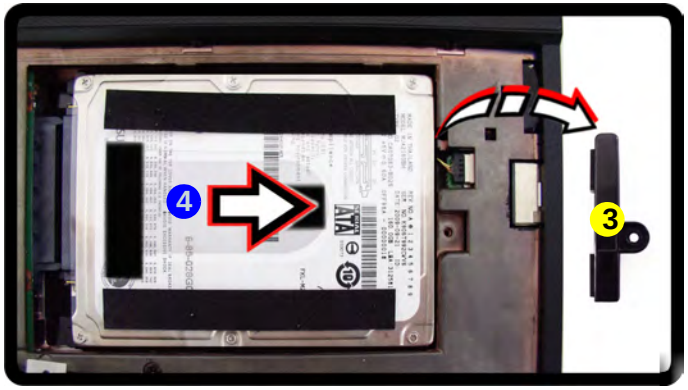
If you have access to the internet, download the latest application and hardware driver updates for the operating system you plan to install. Copy these to a removable medium.

3. Remove the HDD support module 3 (*Figure 7b*).
4. Grip the mylar cover and slide the hard disk in the direction of arrow 4 (*Figure 7b*).
5. Lift the hard disk 5 out of the bay 6 (*Figure 7c*).
6. Remove the screws 7 & 8 and mylar cover 9 from the hard disk 5 (*Figure 7d*).
7. Reverse the process to install a new hard disk (do not forget to replace all the screws and cover).

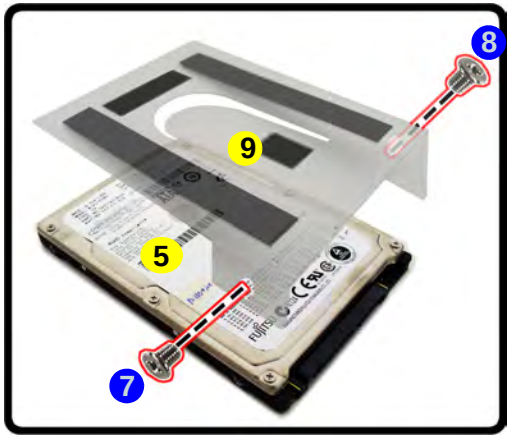
Figure 7
HDD Assembly Removal (cont'd.)

b. Remove the HDD support module. Grip the mylar cover and slide the HDD in the direction of the arrow.
c. Lift the HDD assembly out of the bay.
d. Remove the screws and adhesive cover.

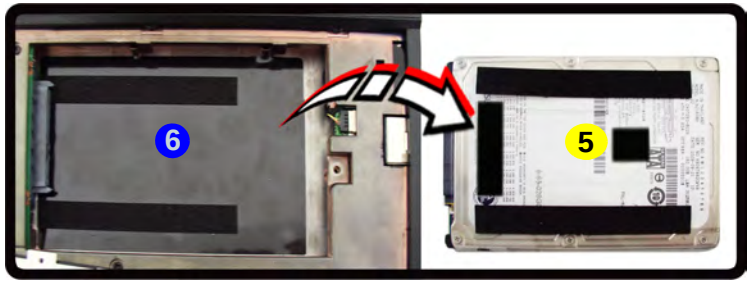
b.



d.



c.



3. HDD Support Module
5. HDD
9. Adhesive Mylar Cover

- 2 Screws

Appendix A:Part Lists

This appendix breaks down the ***W210CUQ, W211CU, W215CU*** 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.

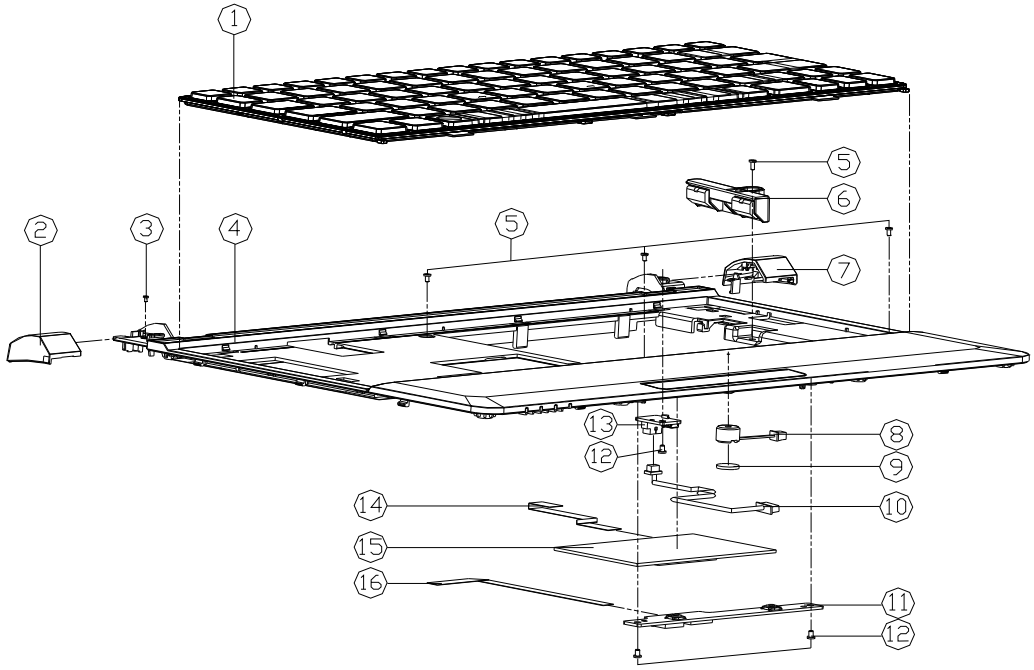
Parts List Illustration Location

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

Table A - 1
Parts List Illustration Location

Parts	W210CUQ, W211CU, W215CU
Top (W210CUQ)	*page A - 3*
Top (W211CU)	*page A - 4*
Top (W215CU)	*page A - 5*
Bottom	*page A - 6*
LCD (W210CUQ, W215CU)	*page A - 7*
LCD (W211CU)	*page A - 8*

Top (W210CUQ)

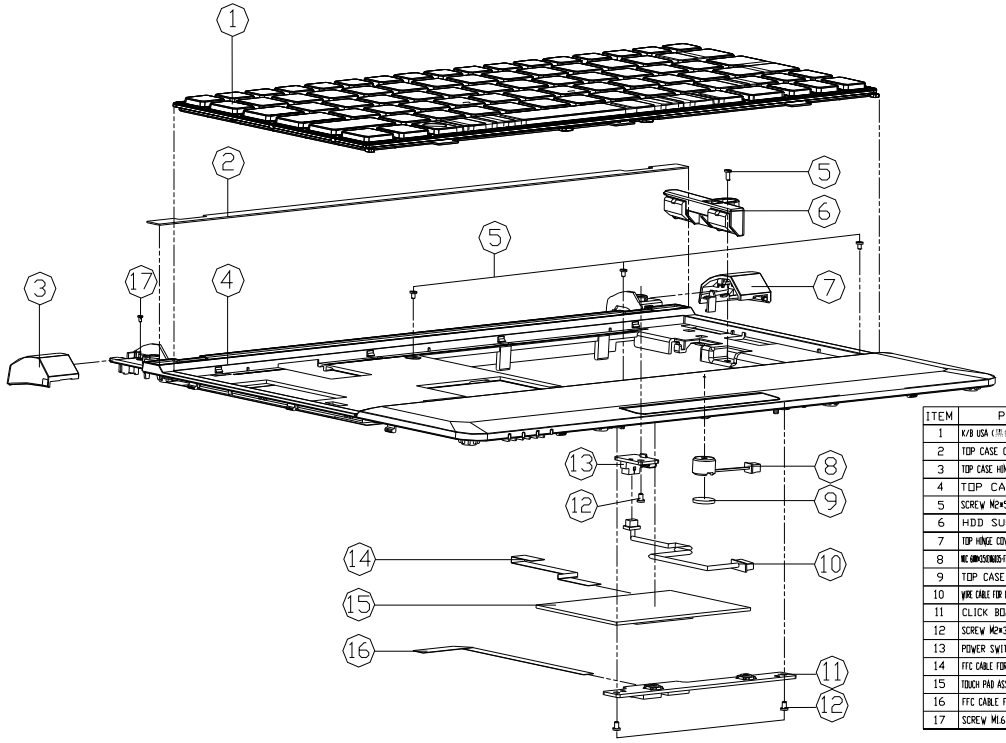


ITEM	PART NAME	PART NO	REMARK
1	K/B USA (黑色% FRAME (US) MODULE M1100/M1100M	6-79-M110000K-010	
2	TOP CASE HINGE COVER L PC+ABS (CHANGE) M1100	6-42-M1102-062	
3	SCREW M1.6×4L (T=0.7 OD3.0) KI NI ICT NY	6-35-B1116-4R0	
4	TOP CASE MODULE W210CUQ	6-39-W2102-010	FOR W210CUQ
4	TOP CASE MODULE M1100Q-C (ADD THE R1B)	6-39-M11Q2-014-C	FOR W210CUQ-C
5	SCREW M2×5L KICT=0.8 D=4.0) BK/Z ICT NY	6-35-B6120-5R0	
6	HDD SUPPORT MODULE M1100	6-42-M110J-101	
7	TOP HINGE COVER R MODULE (CHANGE+ABLATION) M1100	6-42-M1102-105	
8	MIC [illegible]	6-23-EM54G-012-2	
9	TOP CASE MIC SPONGE CR4305 M1100	6-47-M1102-010	
10	WIRE CABLE FOR I/O BOARD TO SWITCH BOARD 3P (每力) M100M	6-43-M1100-011	
11	CLICK BOARD V2.0 W210CUQ/W211CU	6-77-W2102-D02	
12	SCREW M2×3L KI NI ICT NY OD=Φ4.5,DT=0.4)	6-35-B1120-3RE	
13	POWER SWITCH BOARD V2.0 W210CUQ/W211CU	6-77-W210S-D02	
14	FFC CABLE FOR TOUCH PAD TO CLICK BOARD 12P W84T	6-43-W84T2-012	
15	TOUCH PAD ASSY SENTELIC MEPPRUDA98840 W210CUQ	6-49-W2103-A00-1	
16	FFC CABLE FOR CLICK BOARD TO M/B 4PIN (HB)	6-43-M1100-021-1	

Figure A - 1
Top (W210CUQ)

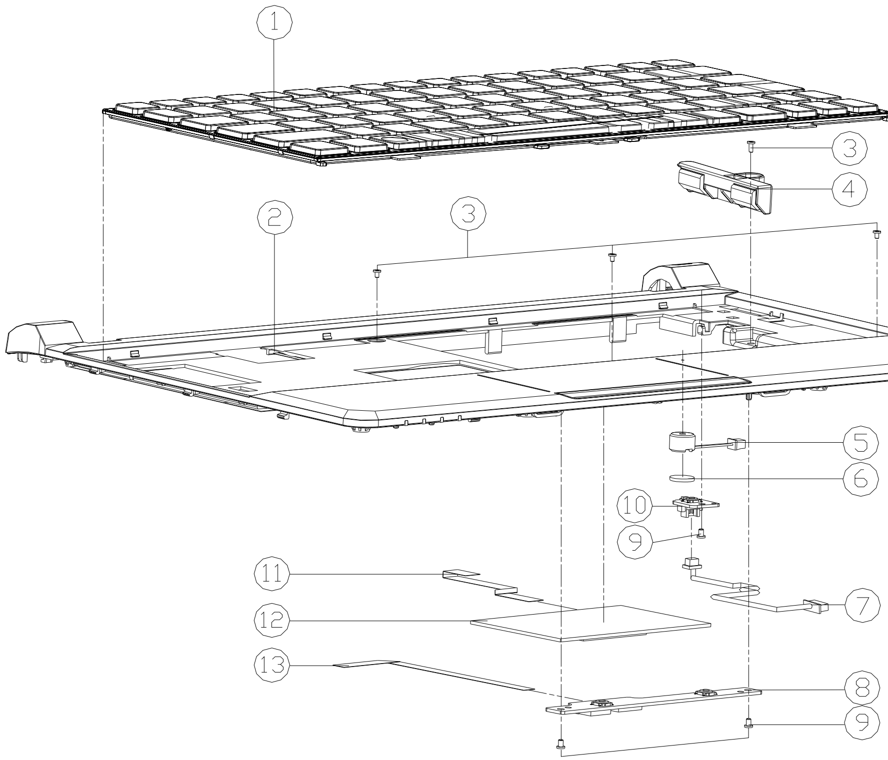
Top (W211CU)

Figure A - 1
Top (W211CU)



ITEM	PART NAME	PART NO	REMARK
1	K/B USA (黑色)& FRAME (US) MODULE M1100/M1100M	6-79-M110000K-010	
2	TOP CASE COATING MYLAR PC(WHITE) M1101	6-40-M1112-011	
3	TOP CASE HINGE COVER L PC+ABS (CHANGE) M1100	6-42-M1102-063	
4	TOP CASE MODULE W211CU	6-39-W2112-010	
5	SCREW M2*5L KI(T=0.8 D=4.0) BK/Z ICT NY	6-35-B6120-5R0	
6	HDD SUPPORT MODULE M1100	6-42-M110J-101	
7	TOP HINGE COVER R MODULE (CHANGE+ABLATION) M1100	6-42-M1102-105	
8	MIC [illegible]	6-23-EM54G-012-2	
9	TOP CASE MIC SPONGE CR4305 M1100	6-47-M1102-010	
10	WIRE CABLE FOR I/O BOARD TO SWITCH BOARD 3P (華力) M1100M	6-43-M1100-011	
11	CLICK BOARD V2.0 W210CUQ/W211CU	6-77-W2102-D02	
12	SCREW M2*3L KI NI ICT NY (DD=Φ4.5,DT=0.4)	6-35-B1120-3RE	
13	POWER SWITCH BOARD V2.0 W210CUD/W211CU	6-77-W210S-D02	
14	FFC CABLE FOR TOUCH PAD TO CLICK BOARD 12P W840T	6-43-W842-012	
15	TOUCH PAD ASS'Y SENTELIC MEPPRUD0A98WG W210CUQ	6-49-W2103-A00-1	
16	FFC CABLE FOR CLICK BOARD TO M/B 4PIN (HB)	6-43-M1100-021-1	
17	SCREW M1.6*4L (T=0.7 DD3.0) KI NI ICT NY	6-35-B1116-4R0	

Top (W215CU)



ITEM	PART NAME	PART NO	REMARK
1	K/B USA (黑色)& FRAME (US) MODULE M1100/M1100M	6-79-M110000K-010	
2	TOP CASE MODULE M1115	6-39-M1152-012	
3	SCREW M2*5L KI(T=0.8 D=4.0) BK/Z ICT NY	6-35-B6120-5R0	
4	HDD SUPPORT MODULE M1100	6-42-M110J-101	
5	MIC 6MM*3.5(EM6035-FOL-U) 2V~10V 2.2K W/CABLE (灰色)L=40MM M540G(尚盟)	6-23-EM54G-012-2	
6	TOP CASE MIC SPONGE CR4305 M1100	6-47-M1102-010	
7	WIRE CABLE FOR I/O BOARD TO SWITCH BOARD 3P (華力) M1100M	6-43-M1100-011	
8	CLICK BOARD V2.0 W215CU	6-77-W2102-D02-A	
9	SCREW M2*3L KI NI ICT NY (DD=ø4.5,DT=0.4)	6-35-B1120-3RE	
10	POWER SWITCH BOARD V3.0 M1115	6-77-M115S-D03	
11	FFC CABLE FOR TOUCH PAD TO CLICK BOARD 12P W840T	6-43-W84T2-012	
12	TOUCH PAD ASS'Y SENTELIC MEPPRUDDA989M0 W210CUQ	6-49-W2103-A00-1	
13	FFC CABLE FOR CLICK BOARD TO M/B 4PIN (HB)	6-43-M1100-021-1	

Figure A - 1
Top (W215CU)

A.Part Lists

Bottom

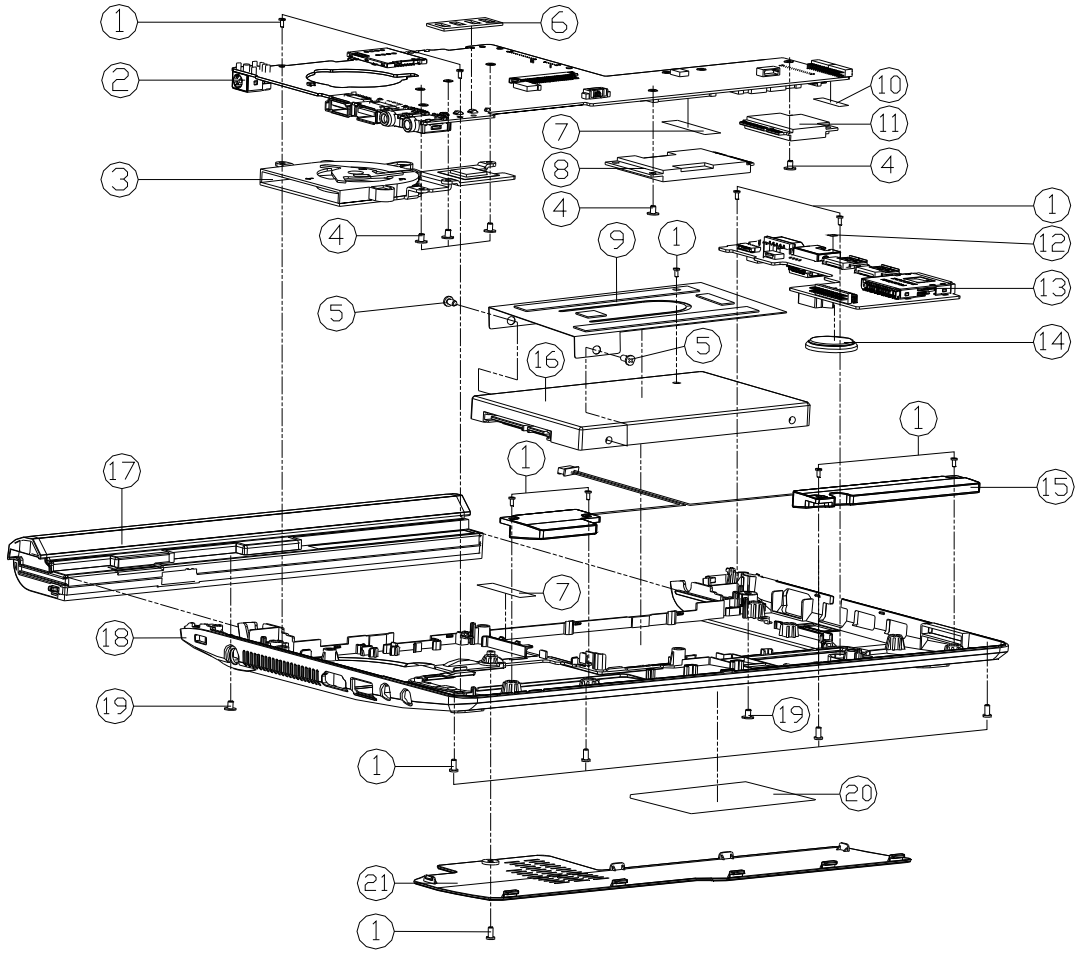
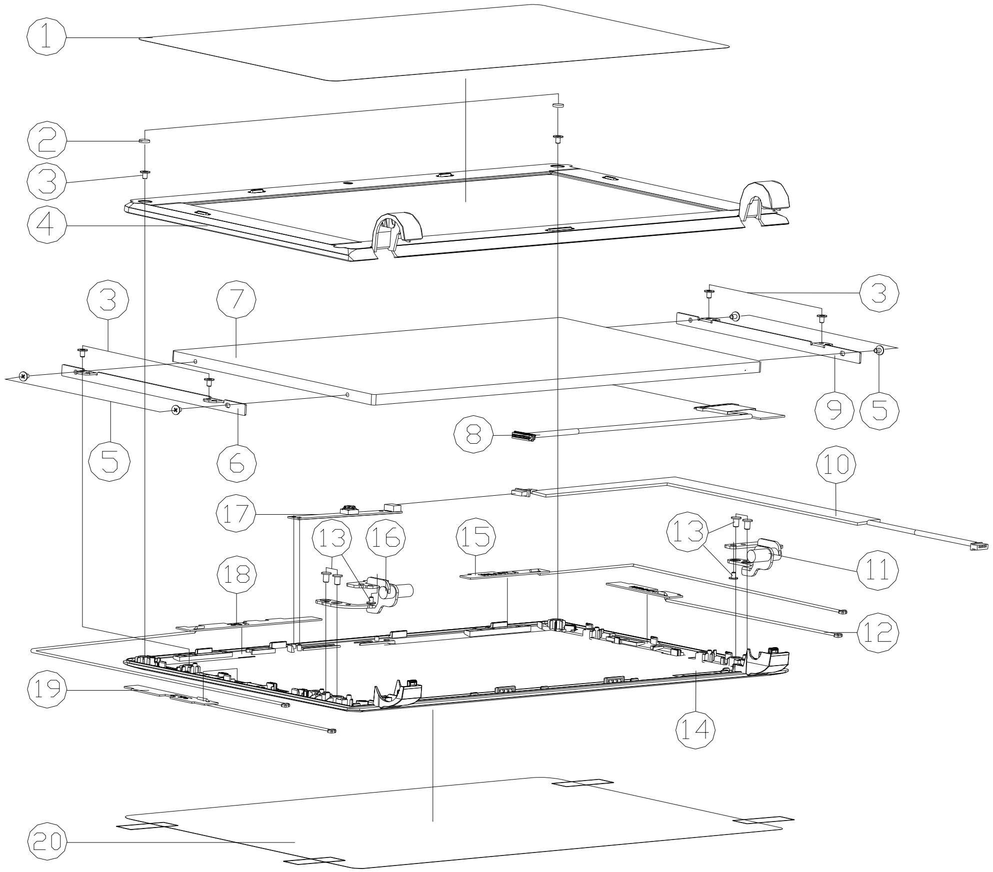


Figure A - 2
Bottom

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*5L KICT=0.8 D=4.0) BK/Z ICT NY	6-35-B6120-5R0	
2	MAIN BOARD V3.0 (W/3G ;W/O TPM) W210CUQ	6-77-W2100-D03	
2	MAIN BOARD V3.0 (W/O 3G ;W/O TPM) W210CUQ	6-77-W2100-D03-1	
2	MAIN BOARD V3.0 (W/3G ;W/TPM) W210CUQ	6-77-W2100-D03-2	
3	FAN+CPU HEATSINK MODULE M110 (T-FLEX750)	6-31-M111N-100	
4	SCREW M2*3L KI NI ICT NY (DD=ø4.5,DT=0.4)	6-35-B1120-3RE	
5	SCREW M3*4L KI BZ ICT NY (D=4.8 T=0.5)	6-35-B6130-4RB	
6	M/B LED SPONGE CR4305 M1100	6-47-M110S-030	
7	TAPE MYLAR (C),MYLAR M550J	6-40-M55J2-030	
8	WCDMA ERICSSON F3307 HSPA FULL MINI-CARD USB	6-88-W24HW-2410	(OPTION)
9	SATA HDD MYLAR PET M1100	6-40-M110J-012	
10	MYLAR (22*9.5*0.2MM) FOR M1100-C CONN	6-40-00150-224	
11	[illegible]	6-88-C555F-5300	(OPTION)
11	[illegible]	6-88-W76C2-7001	(OPTION)
11	[illegible]	6-88-C555F-7001	(OPTION)
11	[illegible]	6-88-W76C2-8702	(OPTION)
11	[illegible]	6-88-W1702-4200	(OPTION)
11	[illegible]	6-88-M77C2-4200	(OPTION)
11	[illegible]	6-88-W15HF-4200	(OPTION)
12	GASKET (5*3*0.3T) FOR RJ45 M1100	6-47-00190-05M	
13	I/O BOARD V3.0 W210CUQ	6-77-W2101-D03	
14	BATTERY 3V 220MA BCR2032 (DOUBLE)	6-23-6A2B2-040	
15	SPK+CABLE [illegible]	6-23-5M110-010-2	
16	W/ HDD ASS'Y M1115	6-79-M111500J-010	
16	W/O HDD ASS'Y M1100	6-79-M110000J-010	
17	[illegible]	6-87-M110S-4D43	(OPTION)
17	[illegible]	6-87-M110S-4DF2	(OPTION)
17	[illegible]	6-87-M110S-4RF2	(OPTION)
18	BOTTOM CASE MODULE W210CUQ	6-39-W2103-011	FOR W21XCUQ
18	BOTTOM CASE MODULE W210CUQ-C	6-39-W2103-011-C	FOR W210CUQ-C
19	SCREW M2.5*4L KICT=0.5 D=4.5) BK/Z ICT	6-35-B6125-4R0	
20	PRODUCT LABEL FOR W210CUQ	6-45-W210CUQ3-010	
20	PRODUCT LABEL FOR W211CU	6-45-W211CU03-010	
20	PRODUCT LABEL FOR W215CU	6-45-W215CU03-010	
21	RAM COVER PC+ABS (MODIFY HOOK) M1100	6-42-M1103-013	FOR W21XCUQ
21	RAM COVER PC+ABS (MODIFY HOOK) M1100-C	6-42-M1103-012-C	FOR W21XCUQ-C

LCD (W210CUQ, W215CU)

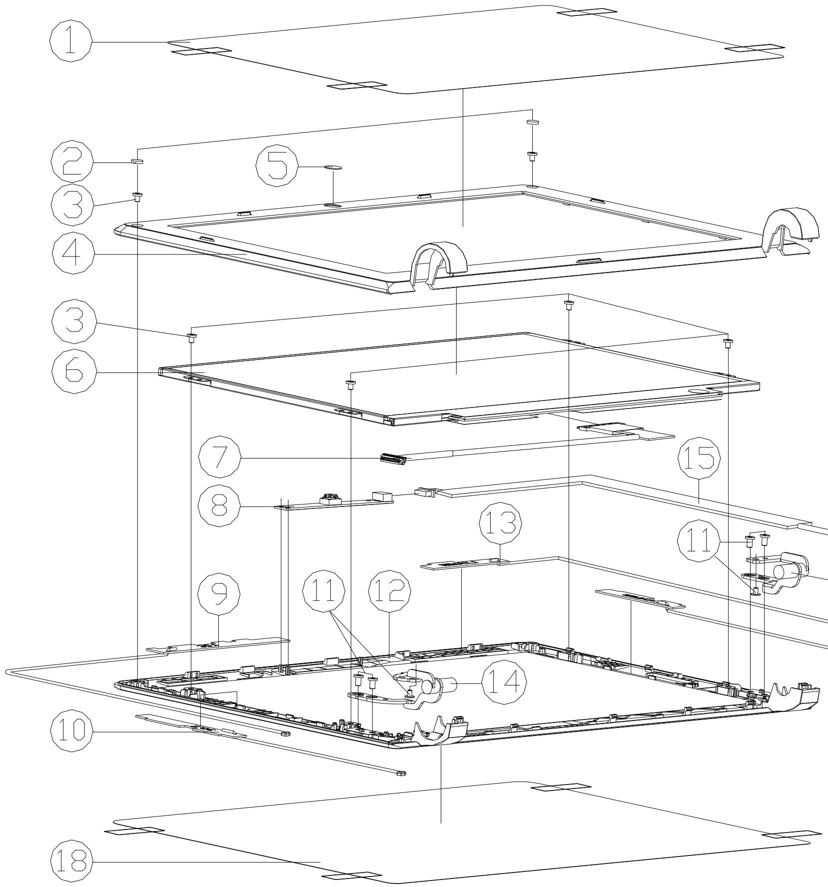


ITEM	PART NAME	PART NO	REMARK
1	LCD PROTECT MYLAR (PET+3M8915) M1100	6-40-M1101-010	
2	LCD FRONT COVER RUBBER A SILICONE M1100	6-47-M1101-021	
3	*(非耐落)SCREW M2*3L K1 NI ICT GTY-PATCH	6-35-B1120-3RE	
4	LCD FRONT COVER MODULE (CHANGE MAGNET) M1100	6-39-M11Q1-C14	
5	SCREW M2*2.5L KI BK/Z ICT NYø3.5 T=0.3	6-35-B6120-2RB	
6	LCD BRACKET-L SECC M1100Q	6-33-M11Q1-021	
7	LCD 10.1" WSVGA AU B101AW03 V1 (H/W 4A) (1024X600) (5.2MM) (LED)	6-50-ED252-G02	
7	LCD 10.1" WSVGA IVO M101NWT2 (GLARE TYPE) (1024X600) (5.2MM) (LED)	6-50-ED252-B00	
7	LCD 10.1" WSVGA HANNSTAR HSD101PFW2-A00 (GLARE TYPE) (1024X600) (5.2MM) (LED)	6-50-ED252-N00	
7	LCD 10.1" WSVGA IVO M101NWT2 R2 (1024X600) (5.2MM) (LED)	6-50-ED252-B01	
8	WIRE CABLE (ADD THE DOUBLE FACED ADHESIVE TAPE)FOR LCD TO M/B 30P FOR VIN VLED (HL/YD CONCISY0012YC)(CHANGE GND)	6-43-M11Q1-013-A	
9	LCD BRACKET-R SECC M1100Q	6-33-M11Q1-011	
10	WIRE CABLE FOR CCD TO I/O BOARD 5P (HL) M1100M	6-43-M110T-012	
11	LCD HINGE R K7 M1100M	6-33-M1101-012	
12	ANTENNA WIMAX 2.4G/3.7G/5G PCB 300MM H=0.6MM WM2 WGT M1100M	6-23-7M110-021	
13	SCREW M2.5*4L KI(T=0.5 D=4.5) BK/Z ICT	6-35-B6125-4R0	
14	LCD BACK COVER MODULE M1115	6-39-M1151-021	FOR W215CU
14	LCD IMR BACK COVER MODULE M1100Q	6-39-M11Q1-022	FOR W210CUQ
14	LCD IMR BACK COVER MODULE M1100Q-C	6-39-M11Q1-022-C	FOR W210CUQ-C
15	ANTENNA WIMAX WGT WM1 PCB H=0.6MM 2.4G/3.5GHZ/5G L=390MM W210CUQ	6-23-7W210-010	
16	LCD HINGE L K7 M1100	6-33-M1101-022	
17	UVC CAMERA BISON FIX BN28M6SG3-300 1.3M 6AA W258HUQ-C	6-88-E51QC-4902	OPTION
17	UVC CAMERA BISON FIX BN28VTYG3-010 300K HYNIX704 M1115 FW0604	6-88-M115C-4901	OPTION
18	ANTENNA HSPA PCB 3G1 420MM H=0.6MM WGT M1100	6-23-7M110-031	
19	ANTENNA HSPA PCB 3G2 335MM H=0.6MM WGT M1100	6-23-7M110-041	
20	LCD BACK COVER PROTECT MYLAR 8B35 M1101	6-40-M1111-010	

Figure A - 3
LCD (W210CUQ, W215CU)

LCD (W211CU)

Figure A - 4
LCD (W211CU)



ITEM	PART NAME	PART NO	REMARK
1	LCD PROTECT MYLAR (PET+3M8915) M1100	6-40-M1101-010	
2	LCD FRONT COVER RUBBER A SILICONE M1100	6-47-M1101-021	
3	SCREW M2*3L KI NI ICT NY (DD=ø4.5,DT=0.4)	6-35-B1120-3RE	
4	LCD FRONT COVER MODULE (CHANGE MAGNET) M1100	6-39-M1101-014	
5	W/CCD MYLAR PC8010 M1100	6-40-M110T-010	
5	W/O CCD MYLAR PC8010 M1100	6-40-M110T-020	
6	LCD 10.1" WSVGA IVO M101NWT2-R0 (GLARE TYPE) (1024X600) (3.6MM) (LED)	6-50-ED236-B00	
6	LCD 10.1" WSVGA CHIMEI N101L6-LOD(GLARE TYPE) (1024X600) (3.6MM) (LED)	6-50-ED236-D01	
7	WIRE CABLE (ADD THE DOUBLE FACED ADHESIVE TAPE)FOR LCD TO M/B 30P FOR 5V VLED (HL/YD CON:C1SY00112YCB) M1100M	6-43-M1101-014-A	
7	WIRE CABLE FOR LCD TO M/B 30P FOR VIN VLED (HL/YD CON:C1SY00112YCB) M1110	6-43-M1111-010-A	
8	UVC CAMERA BISON FIX BN28M6SG3-300 1.3M 6AA W258HUQ-C	6-88-E51QC-4902	OPTION
8	UVC CAMERA BISON FIX BN28VTYG3-010 300K HYNIX704 M1115 FW0604	6-88-M115C-4901	OPTION
9	ANTENNA HSPA PCB 3G1 420MM H=0.6MM WGT M1100	6-23-7M110-031	
10	ANTENNA HSPA PCB 3G2 335MM H=0.6MM WGT M1100	6-23-7M110-041	
11	SCREW M2.5*4L KI(T=0.5 D=4.5) BK/Z ICT	6-35-B6125-4R0	
12	LCD BACK COVER MODULE M1101	6-39-M1111-021	
12	LCD BACK COVER MODULE FOR CHI MEI LCD W211CU	6-39-M1111-D21	
13	ANTENNA WIMAX WGT WM1 PCB H=0.6MM 2.4G/3.5GHZ/5G L=390MM W210CUQ	6-23-7W210-010	
14	LCD HINGE L K7 M1100	6-33-M1101-022	
15	WIRE CABLE FOR CCD TO I/O BOARD 5P (HL) M1100M	6-43-M110T-012	
16	LCD HINGE R K7 M1100M	6-33-M1101-012	
17	ANTENNA WIMAX 2.4G/3.7G/5G PCB 300MM H=0.6MM WM2 WGT M1100M	6-23-7M110-021	
18	LCD BACK COVER PROTECT MYLAR 8B35 M1101	6-40-M1111-010	

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the ***W210CUQ, W211CU, W215CU*** notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

Table B - 1
SCHEMATIC DIAGRAMS

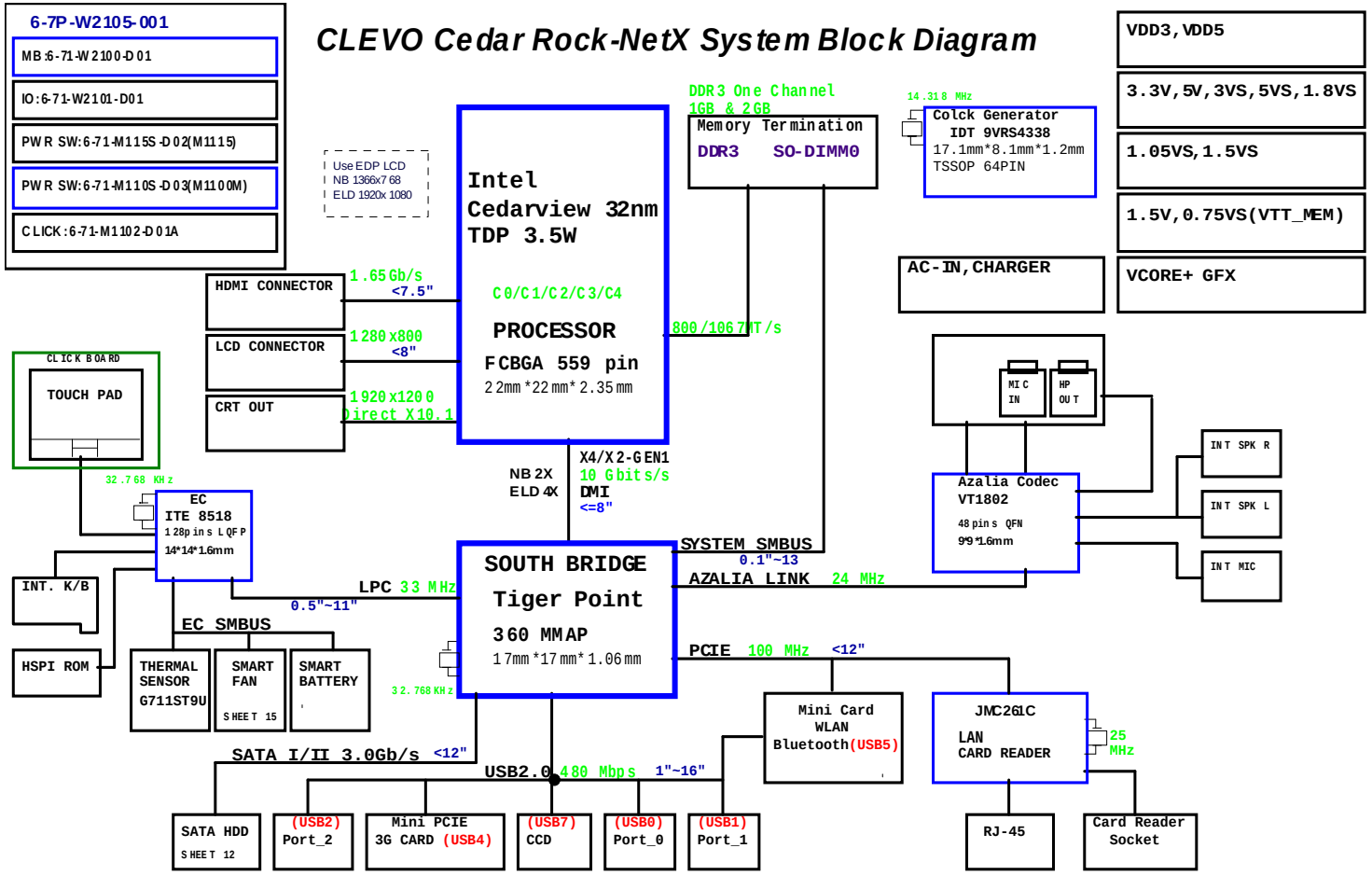
Diagram - Page	Diagram - Page	Diagram - Page
System Block Diagram - Page B - 2	*Tigerpoint Part E-F - Page B - 12*	*PWR SW, 1.8VS, 3VS, 5VS, 1.5VS - Page B - 22*
Cedarview CPU Part D - Page B - 3	*Panel, HDD, LED - Page B - 13*	*PWR VCORE - Page B - 23*
Cedarview CPU Part A-C-F - Page B - 4	*BTB, 3G, WLAN, BT - Page B - 14*	*PWR VDD3, 3.3V, VDD5V, SYS15V - Page B - 24*
Cedarview CPU Part B - Page B - 5	*Audio Codec VT1812P - Page B - 15*	*CRT - Page B - 25*
Cedarview CPU Part E - Page B - 6	*KBC-ITE IT8502E-J, TP, LID - Page B - 16*	*Card Reader (w/ LAN) JMB261C - Page B - 26*
DDRIII SO-DIMM_0 - Page B - 7	*TPM & HDMI - Page B - 17*	*BTB, USB, CCD, PWR SW - Page B - 27*
IDT CLOCK - Page B - 8	*USB PORT & USB CHARGER - Page B - 18*	*Click Board - Page B - 28*
Tigerpoint Part A-B - Page B - 9	*PWR AC IN, CHARGE - Page B - 19*	*Power Button Board - Page B - 29*
Tigerpoint Part C - Page B - 10	*PWR 1.5V, 0.75V - Page B - 20*	*Power Button for M1115 - Page B - 30*
Tigerpoint Part D - Page B - 11	*PWR 1.05VS - Page B - 21*	

Version Note

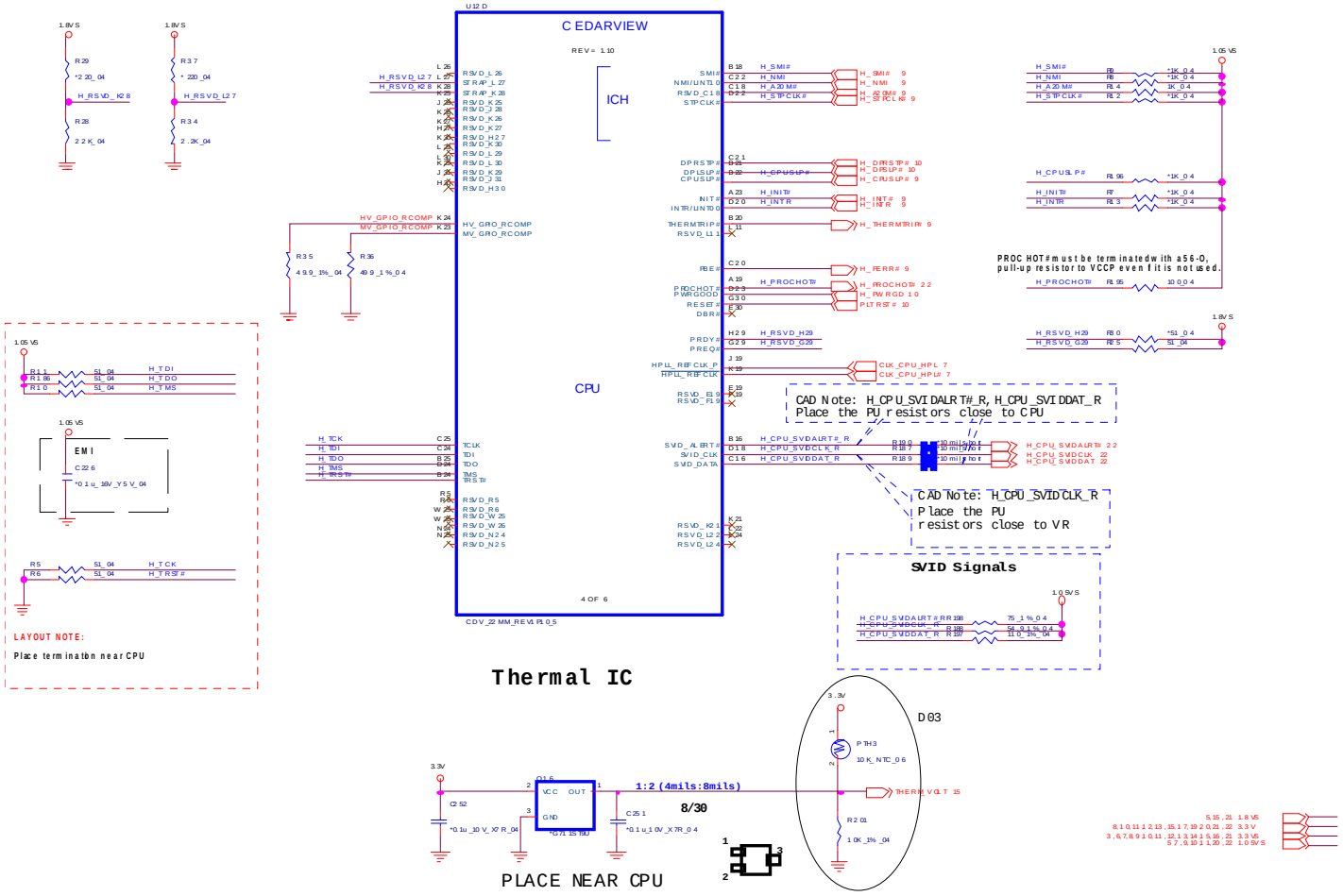
The schematic diagrams in this chapter are based upon version 6-7P-W2105-001. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

System Block Diagram

Sheet 1 of 29
System Block Diagram



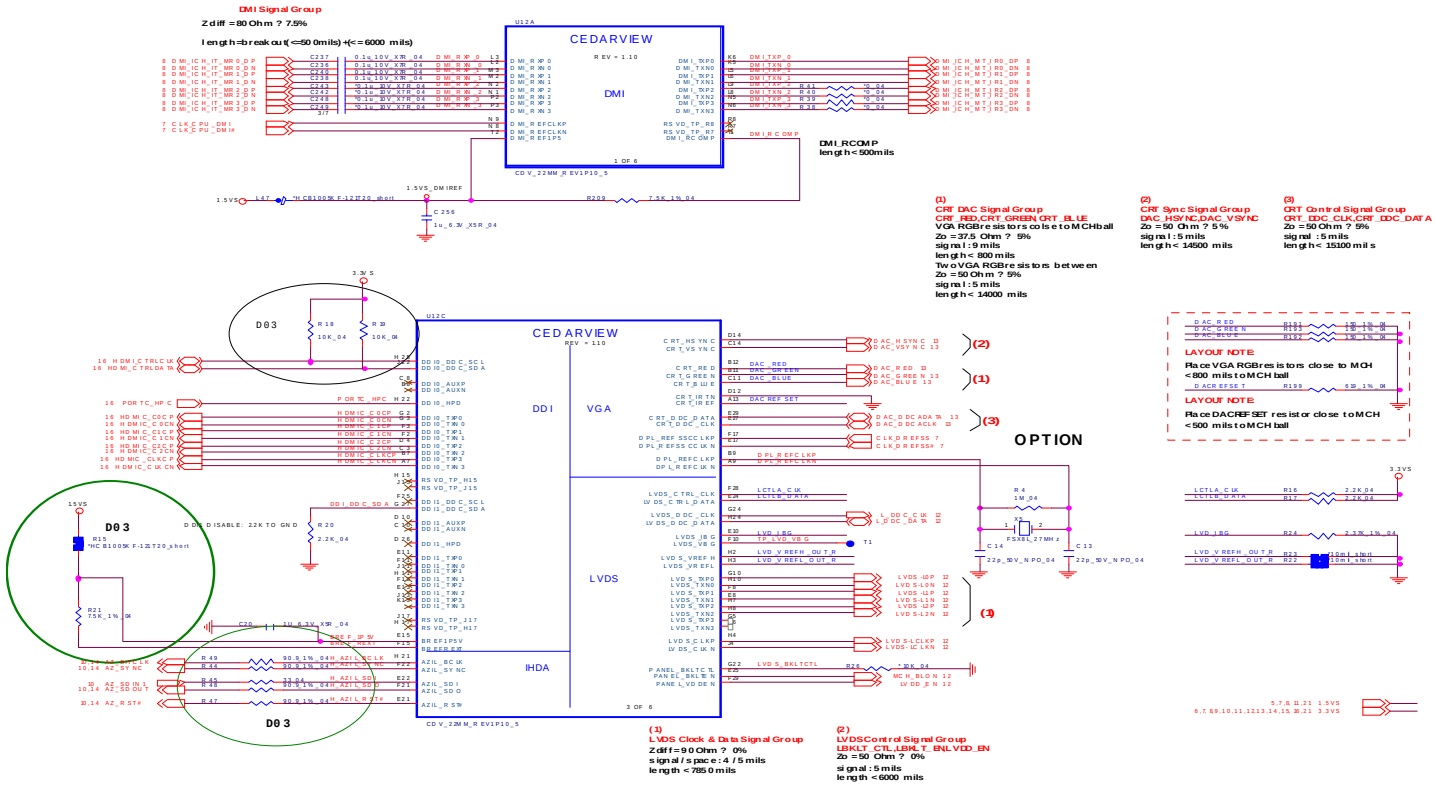
Cedarview CPU Part D



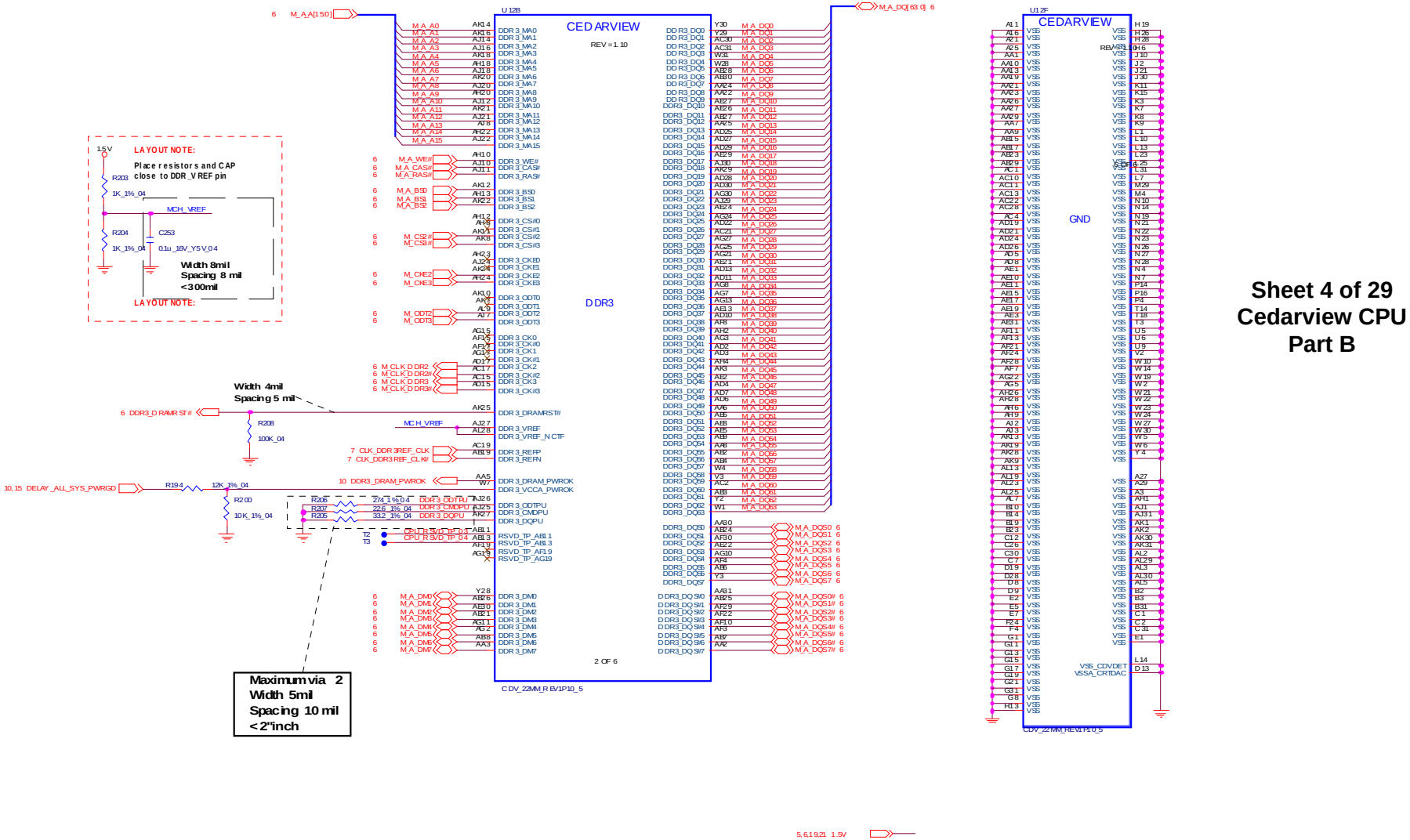
Sheet 2 of 29
Cedarview CPU
Part D

Cedarview CPU Part A-C-F

Sheet 3 of 29
Cedarview CPU
Part A-C-F



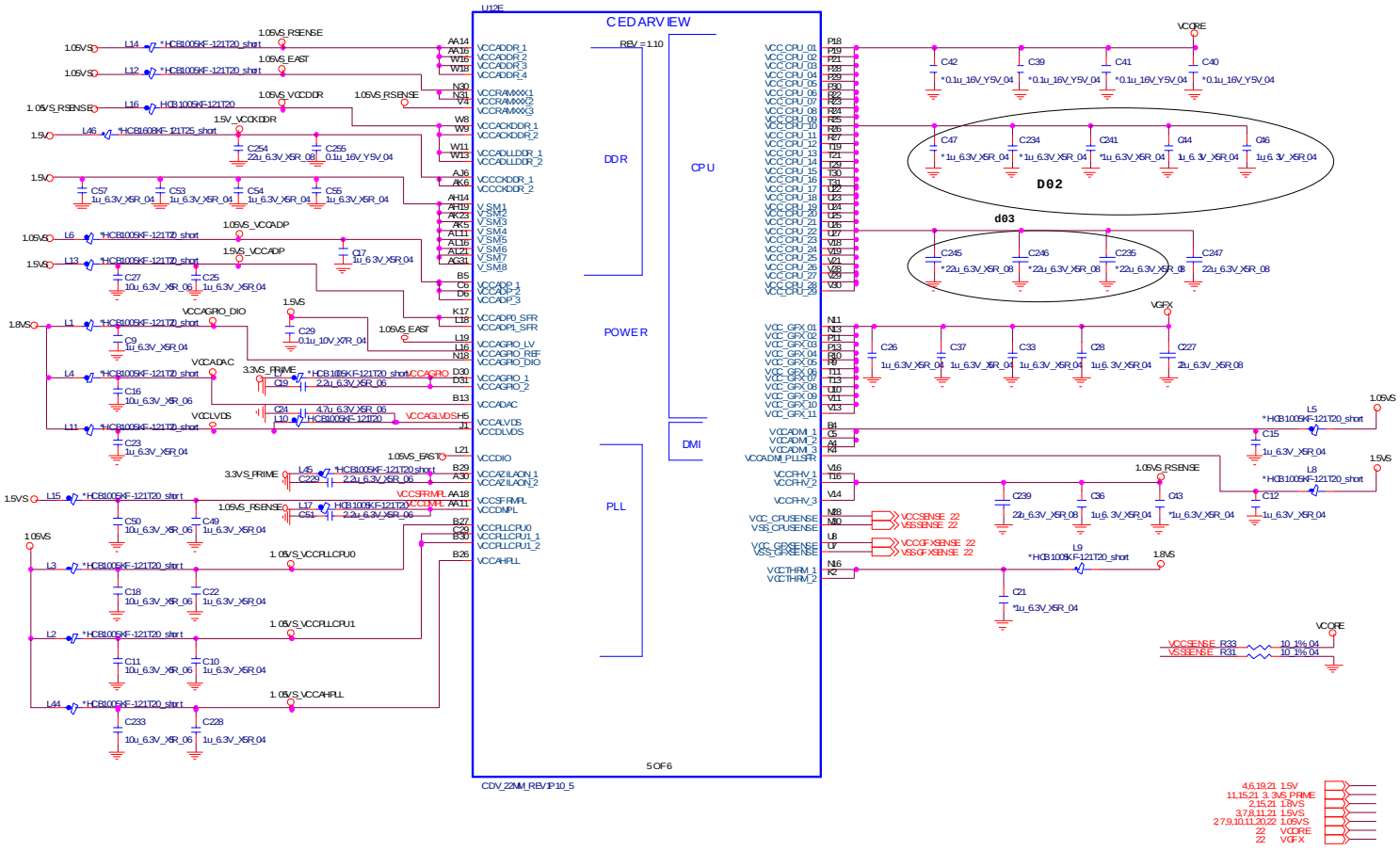
Cedarview CPU Part B



Sheet 4 of 29
Cedarview CPU Part B

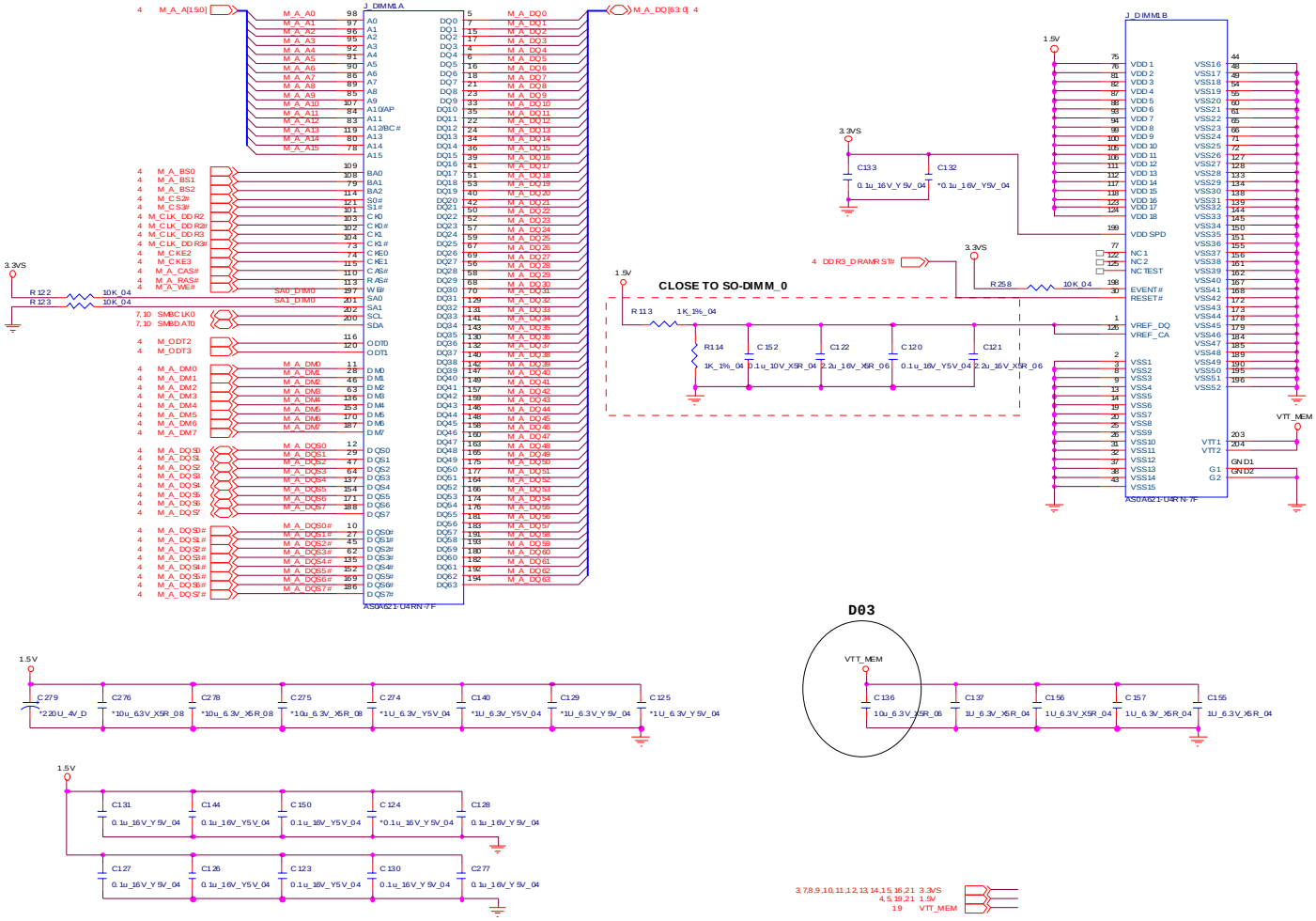
Cedarview CPU Part E

Sheet 5 of 29
Cedarview CPU
Part E



DDRIII SO-DIMM_0

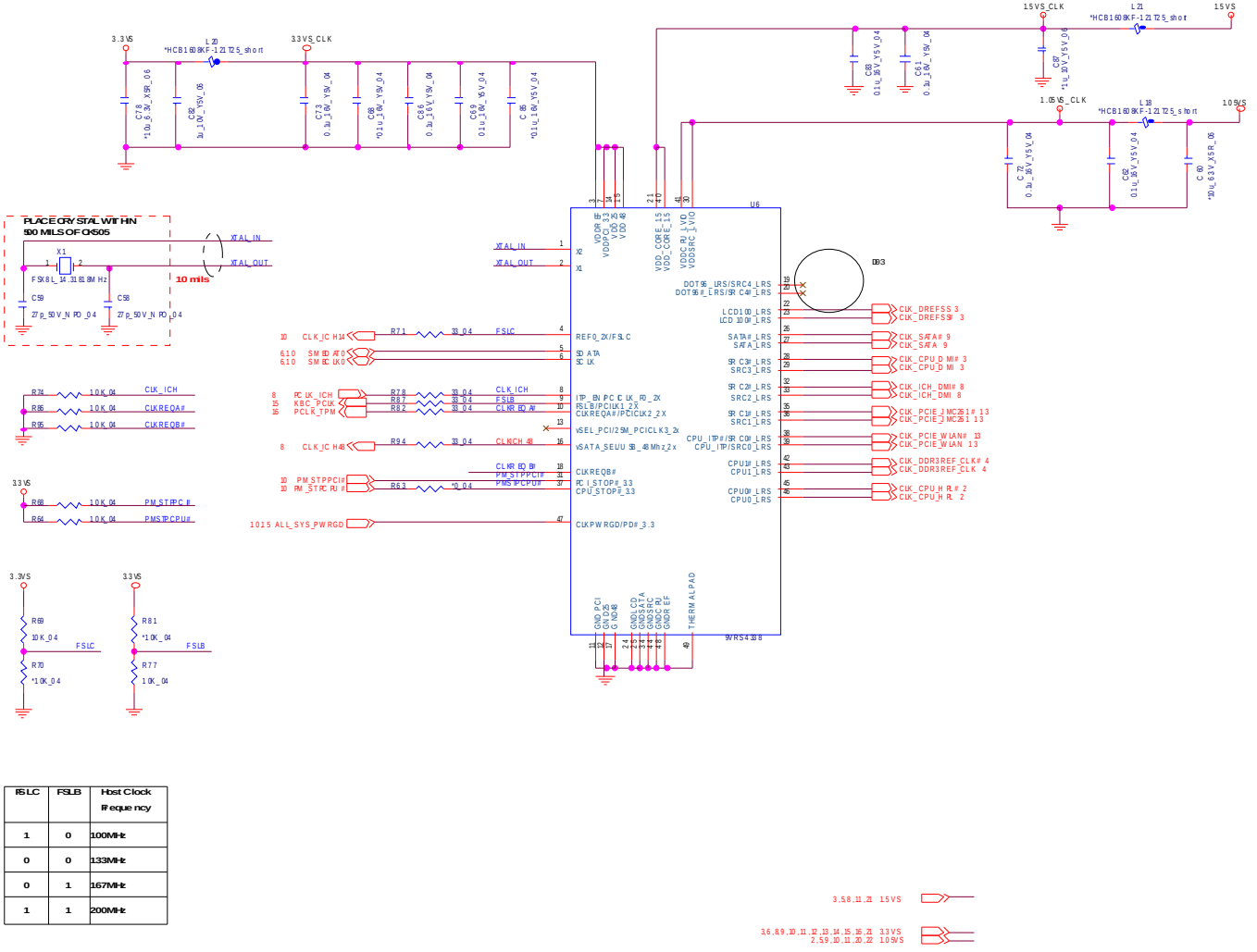
SO-DIMM 0



Sheet 6 of 29
DDRIII SO-DIMM_0

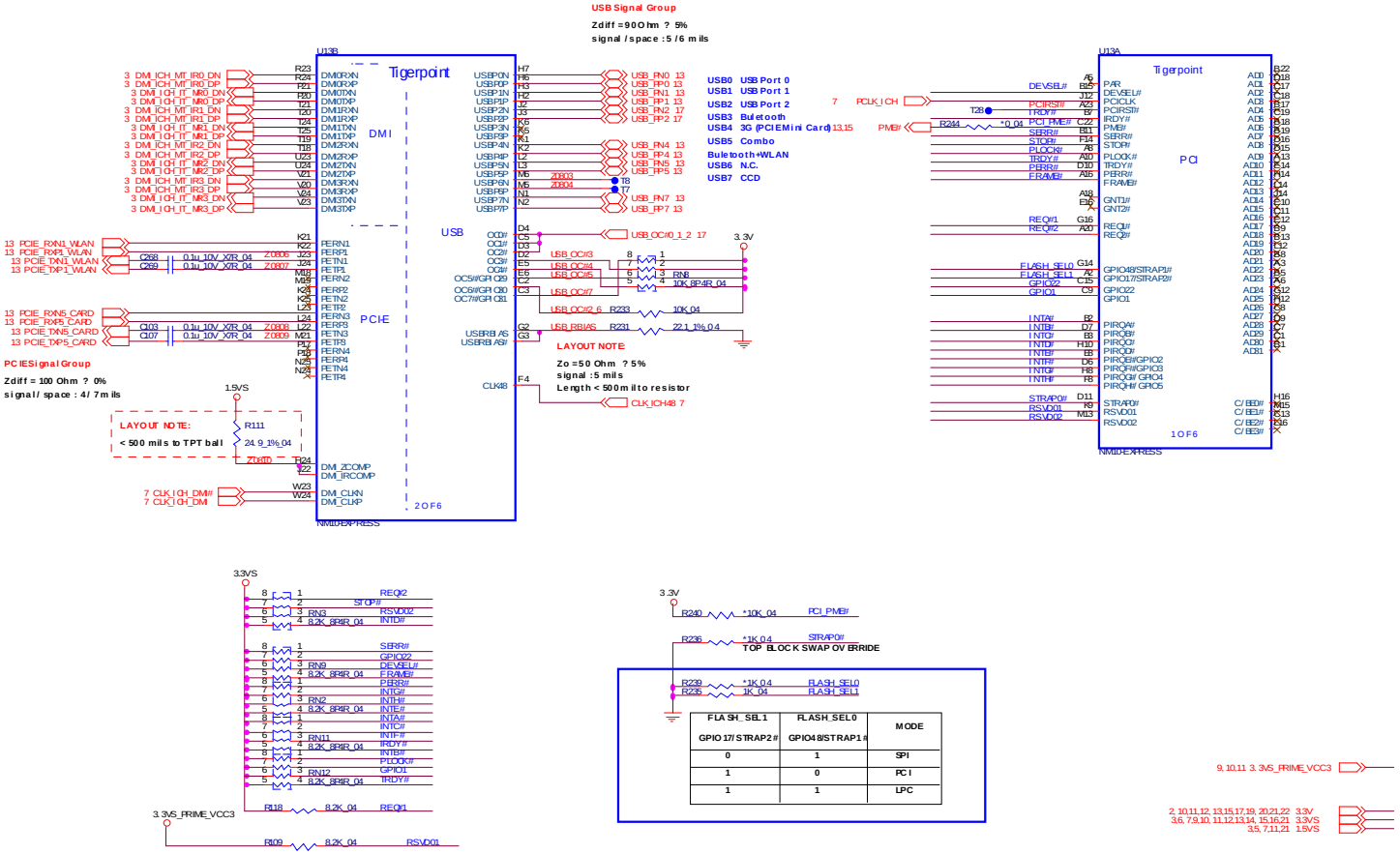
IDT CLOCK

Sheet 7 of 29
IDT Clock



FSLC	FSLB	Host Clock Frequency
1	0	100MHz
0	0	133MHz
0	1	167MHz
1	1	200MHz

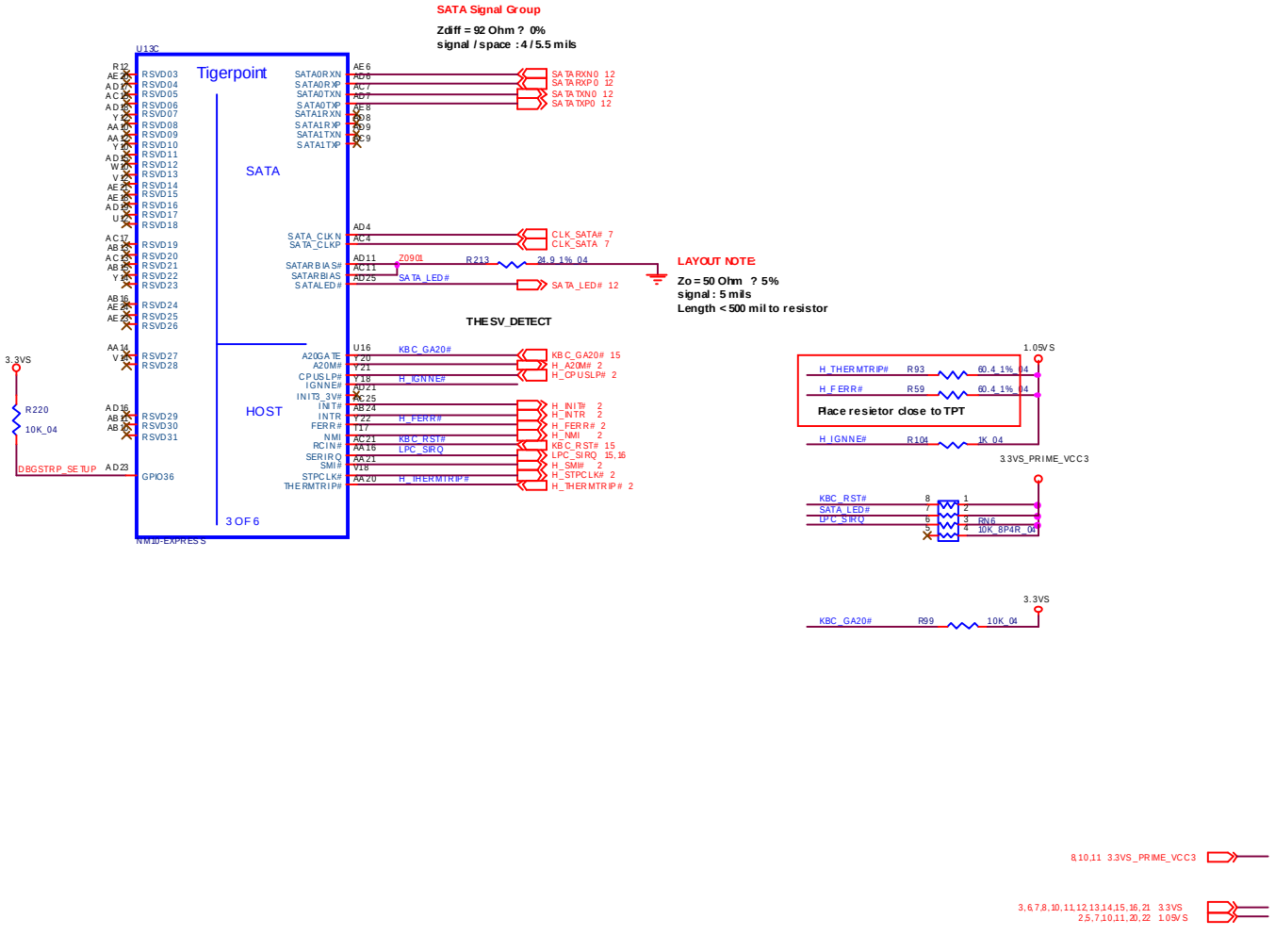
Tigerpoint Part A-B



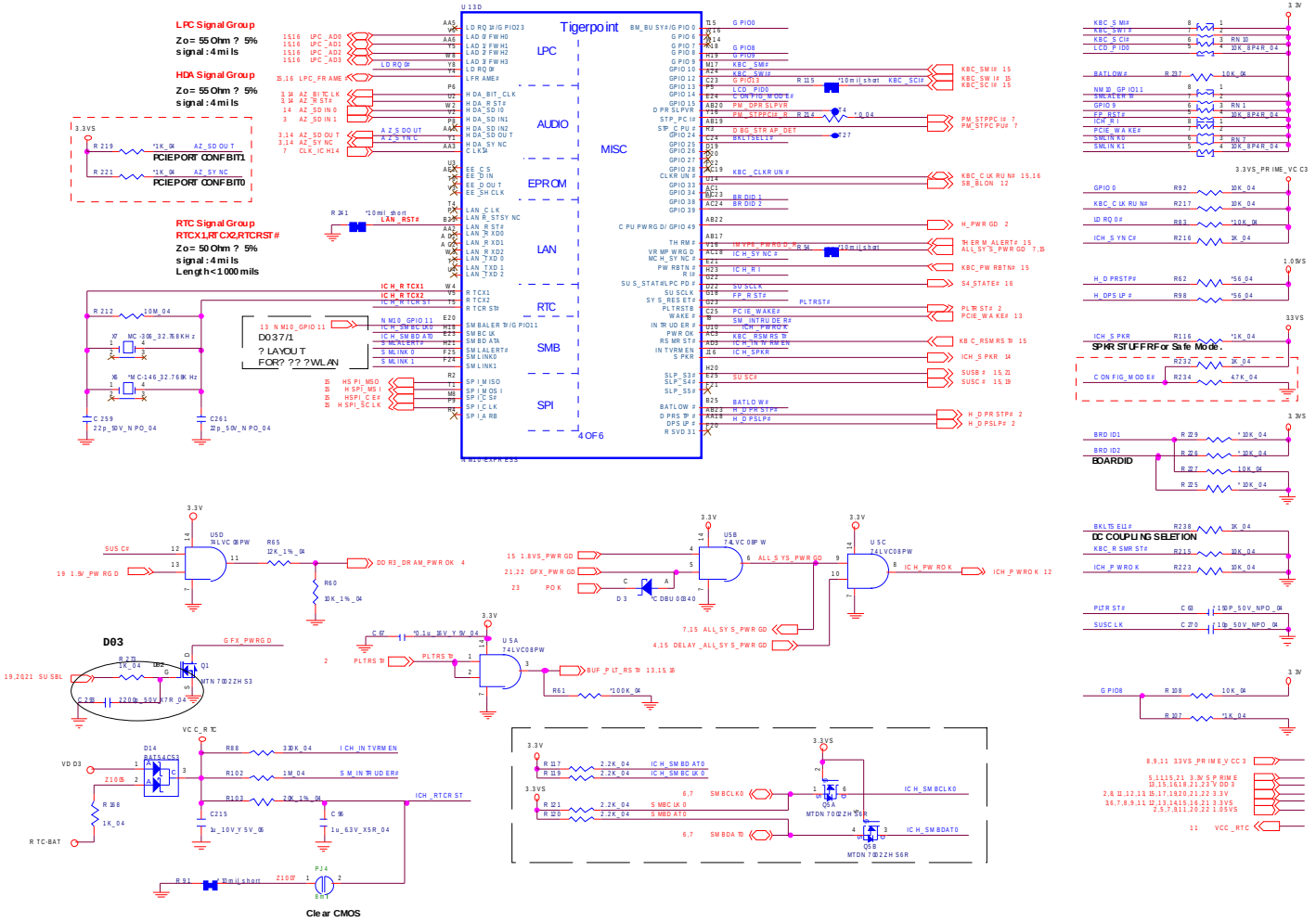
Sheet 8 of 29
Tigerpoint Part A-B

Tigerpoint Part C

Sheet 9 of 29
Tigerpoint Part C



Tigerpoint Part D



Sheet 10 of 29
Tigerpoint Part D

B.Schematic Diagrams

Tigerpoint Part E-F

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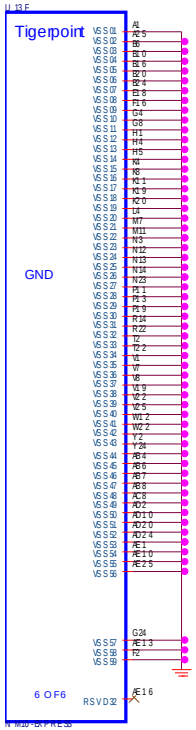
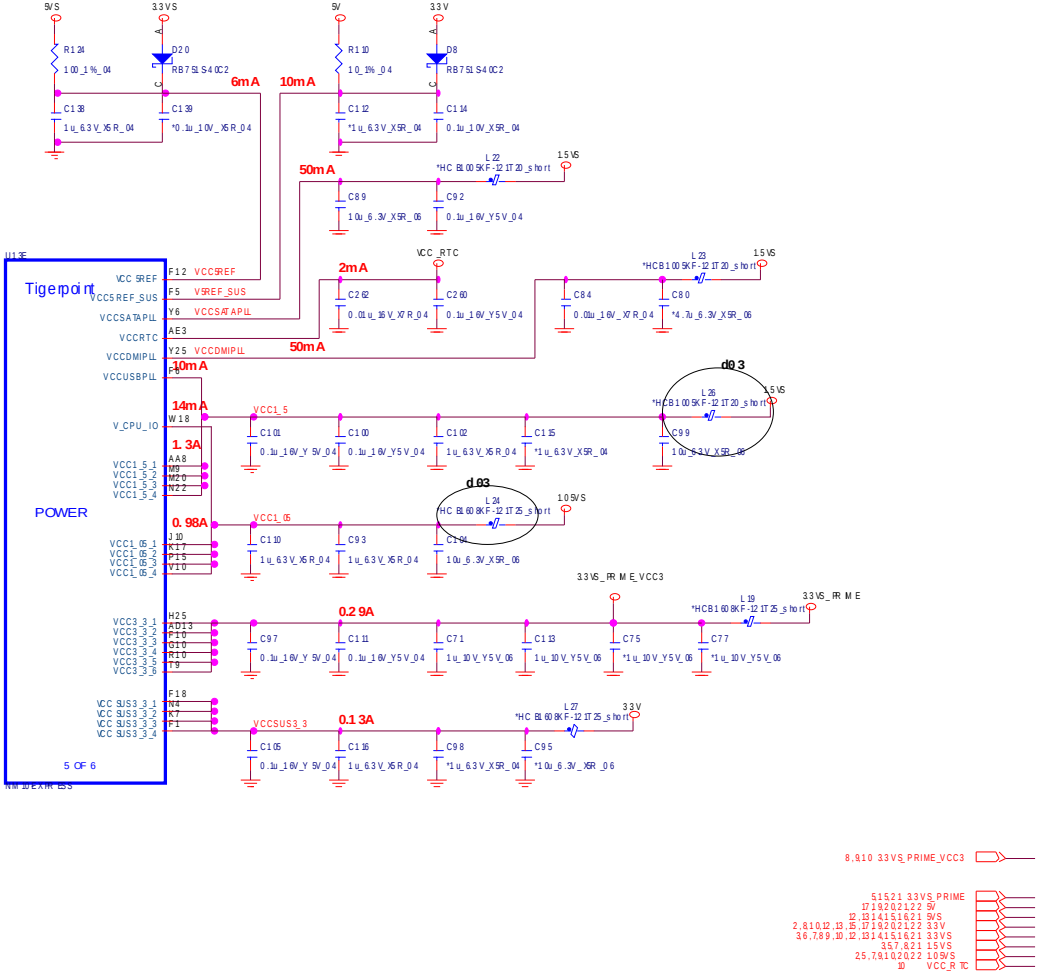
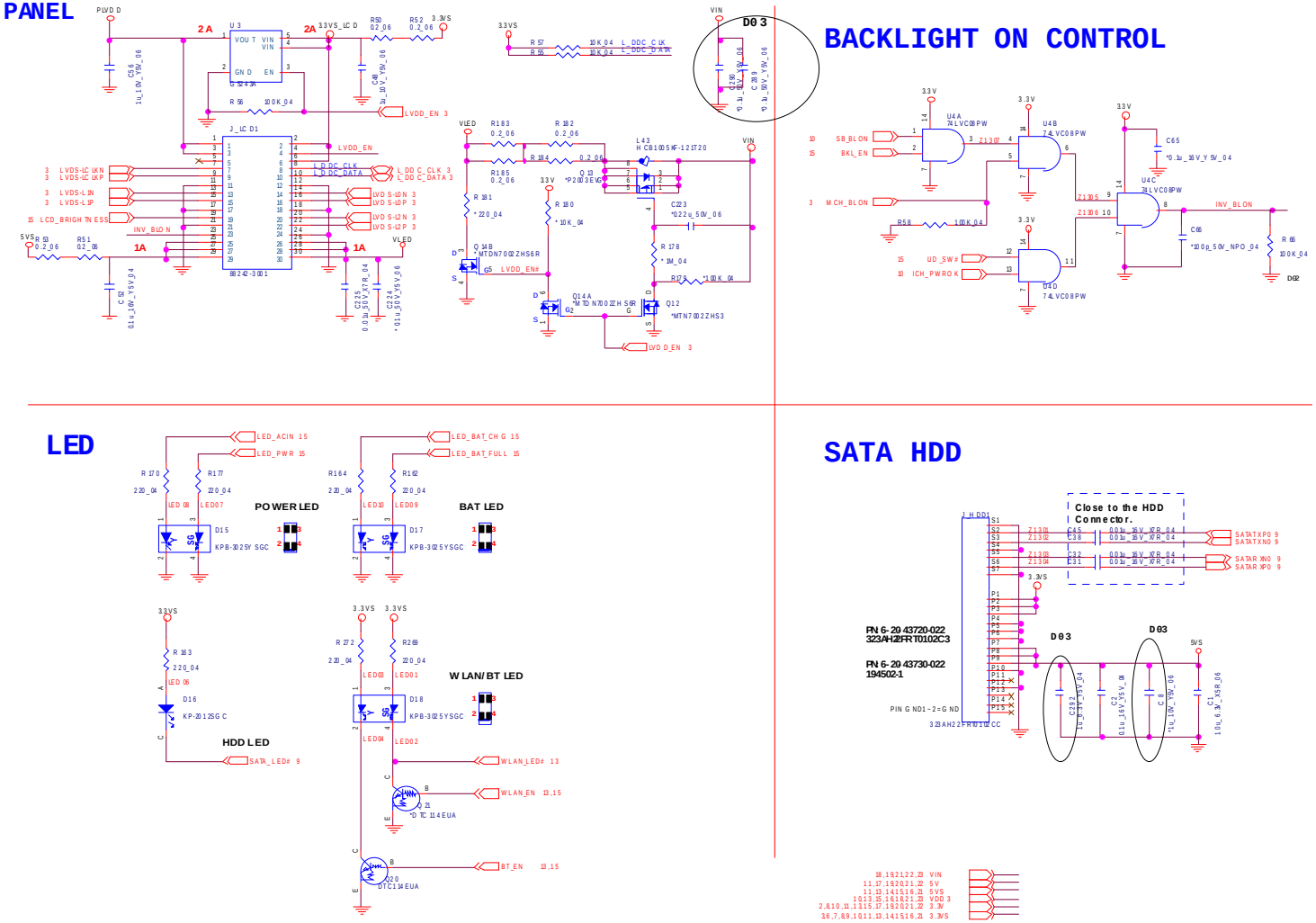
Tigerpoint Part E-F





Panel, HDD, LED

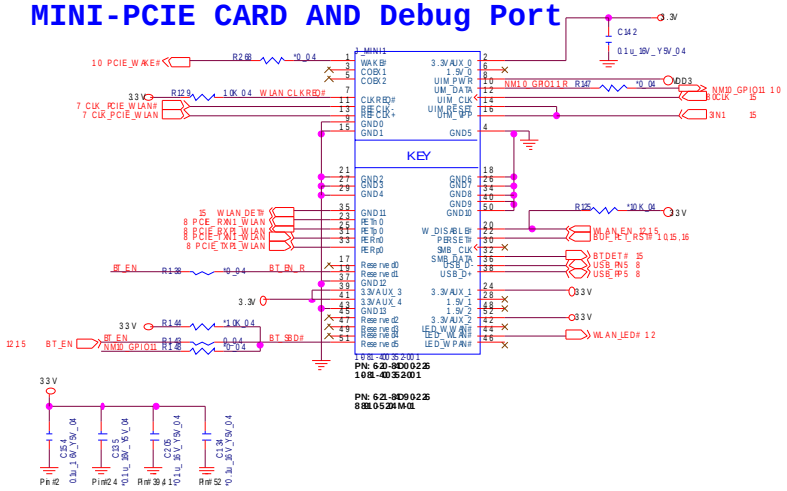


Sheet 12 of 29
Panel, HDD, LED

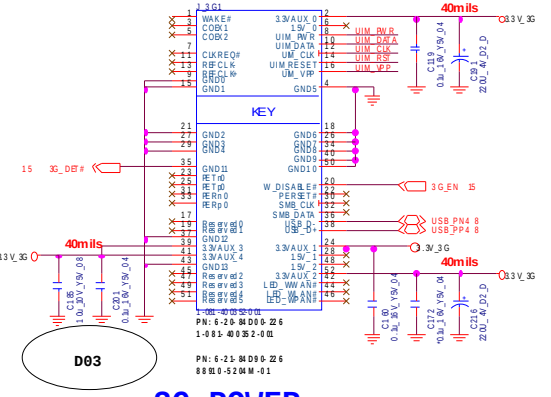
BTB, 3G, WLAN, BT

Sheet 13 of 29
BTB, 3G, WLAN, BT

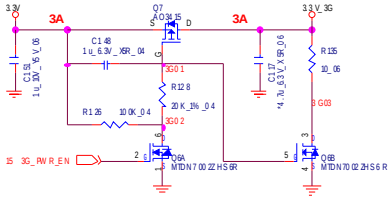
MINI-PCIE CARD AND Debug Port



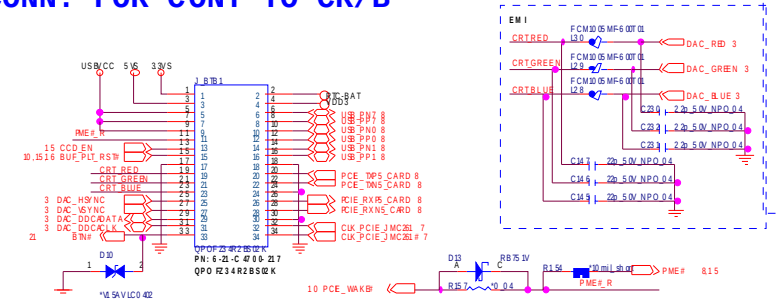
3G CARD



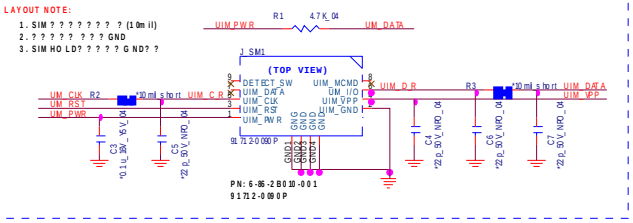
3G POWER



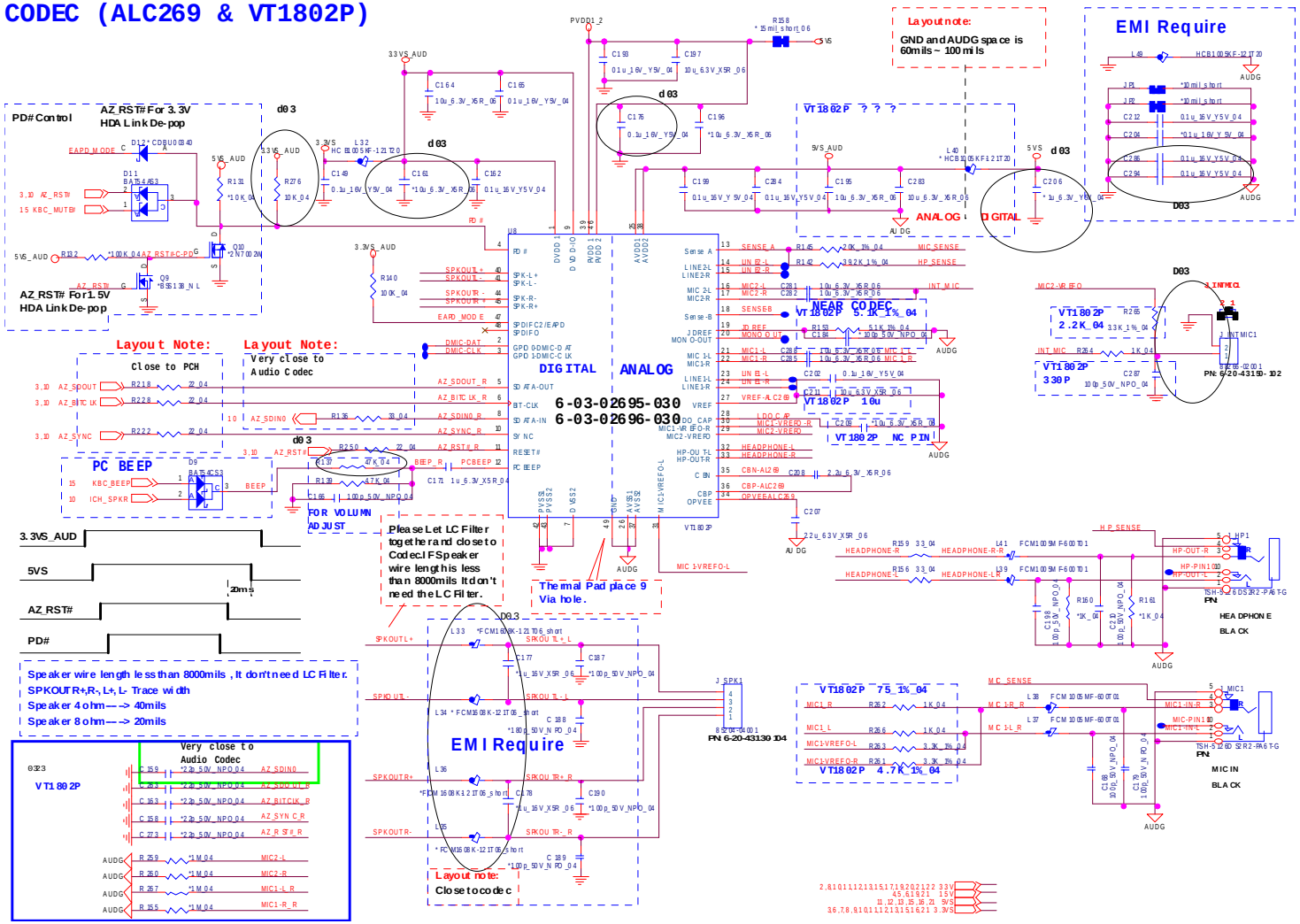
CONN. FOR CONT TO CR/B



SIM CONN



Audio Codec VT1812P



Sheet 14 of 29
Audio Codec
VT1812P

KBC-ITE IT8502E-J, TP, LID

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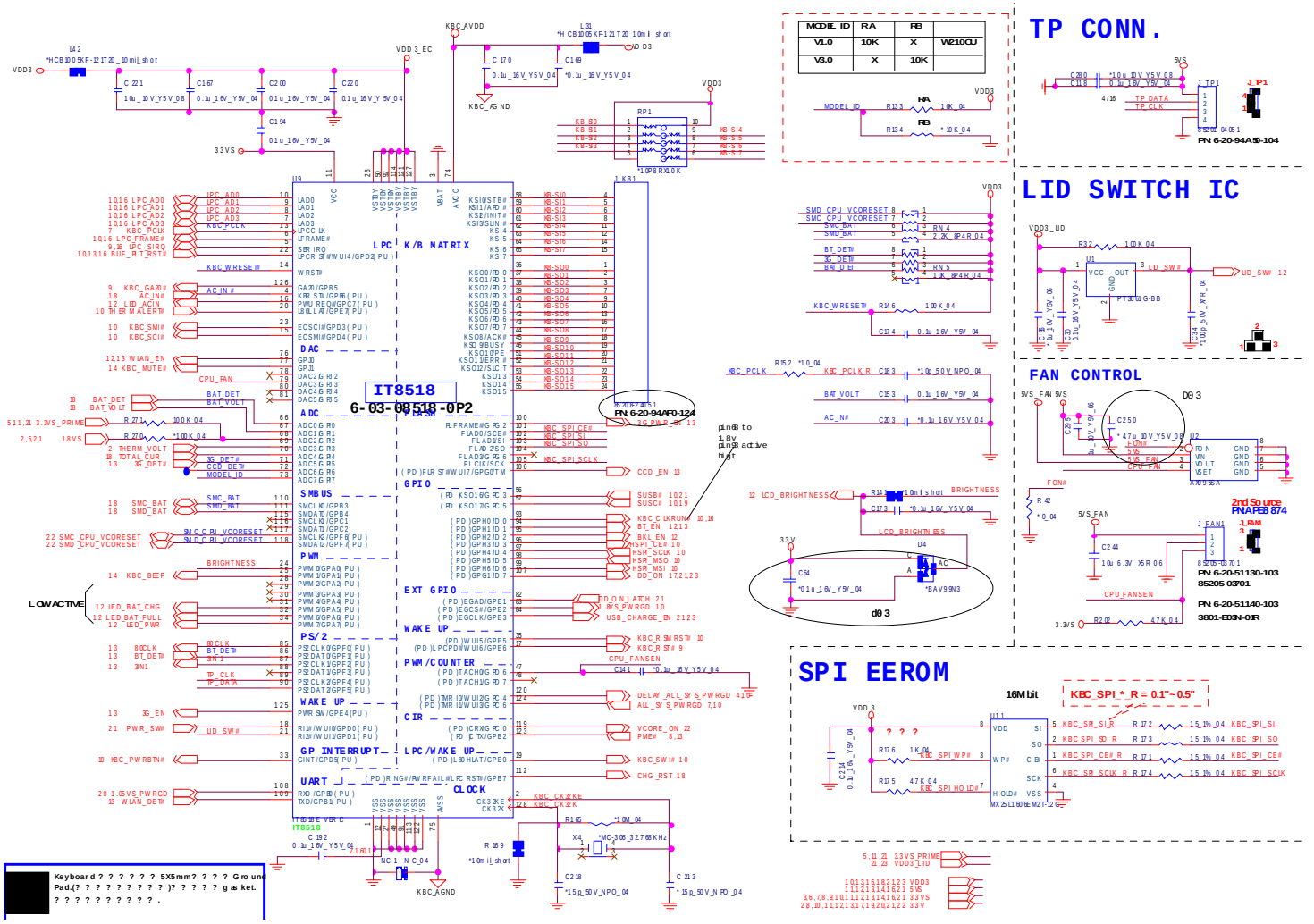
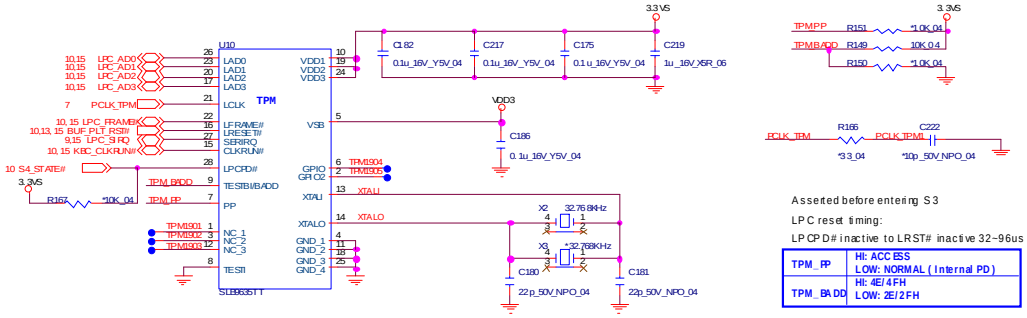
KBC-ITE IT8502E-J, TP, LID



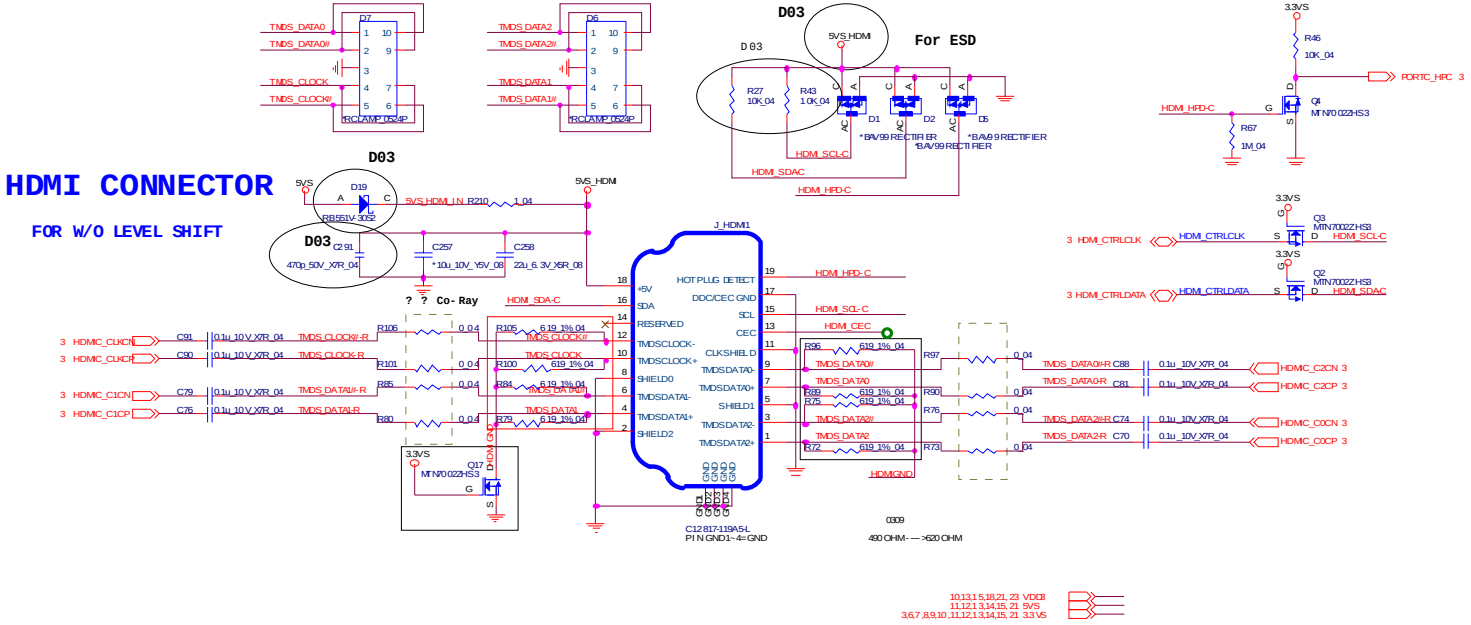
TPM & HDMI

TPM 1.2



HDMI CONNECTOR

FOR W/O LEVEL SHIFT



USB PORT & USB CHARGER

USB PORT_2

USB Charge PORT

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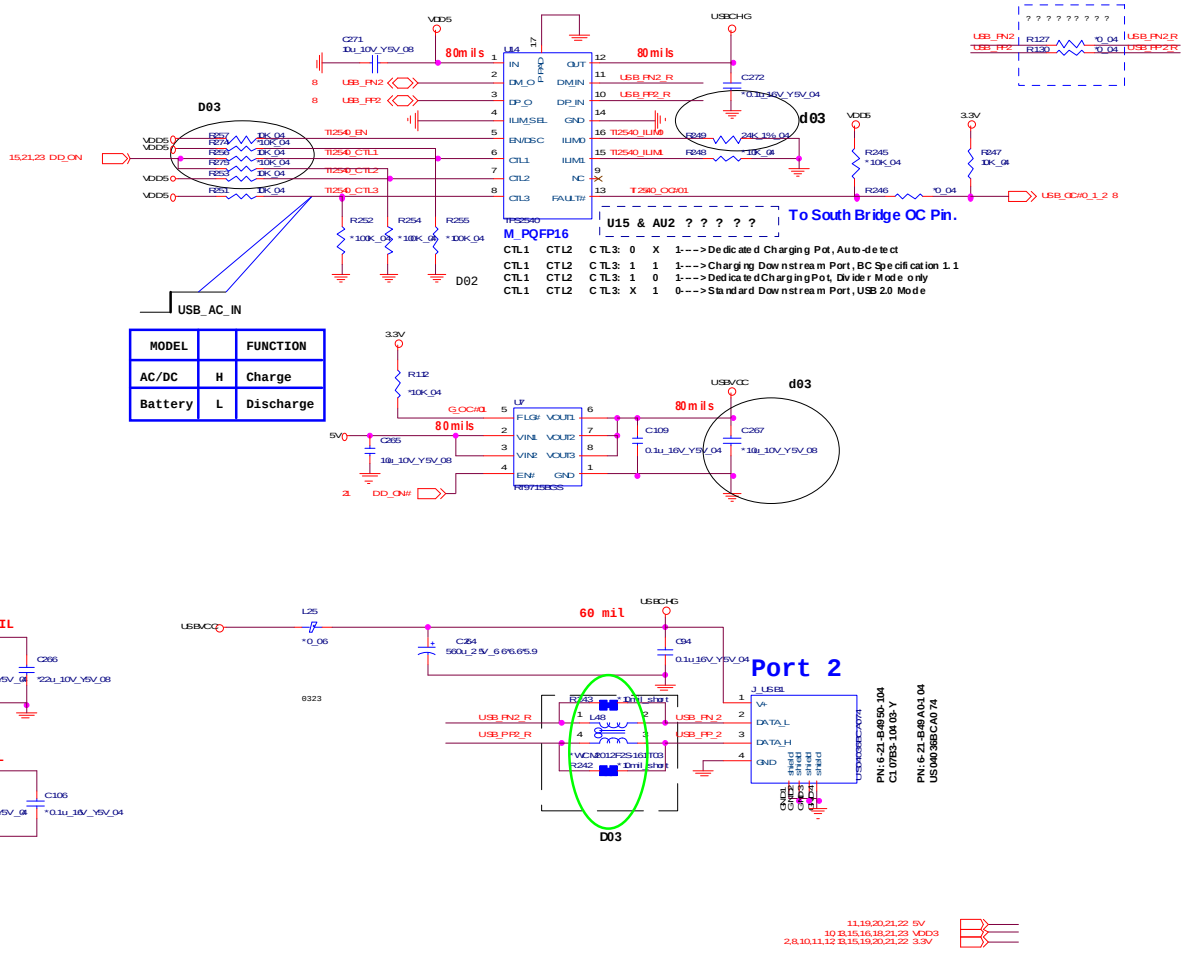
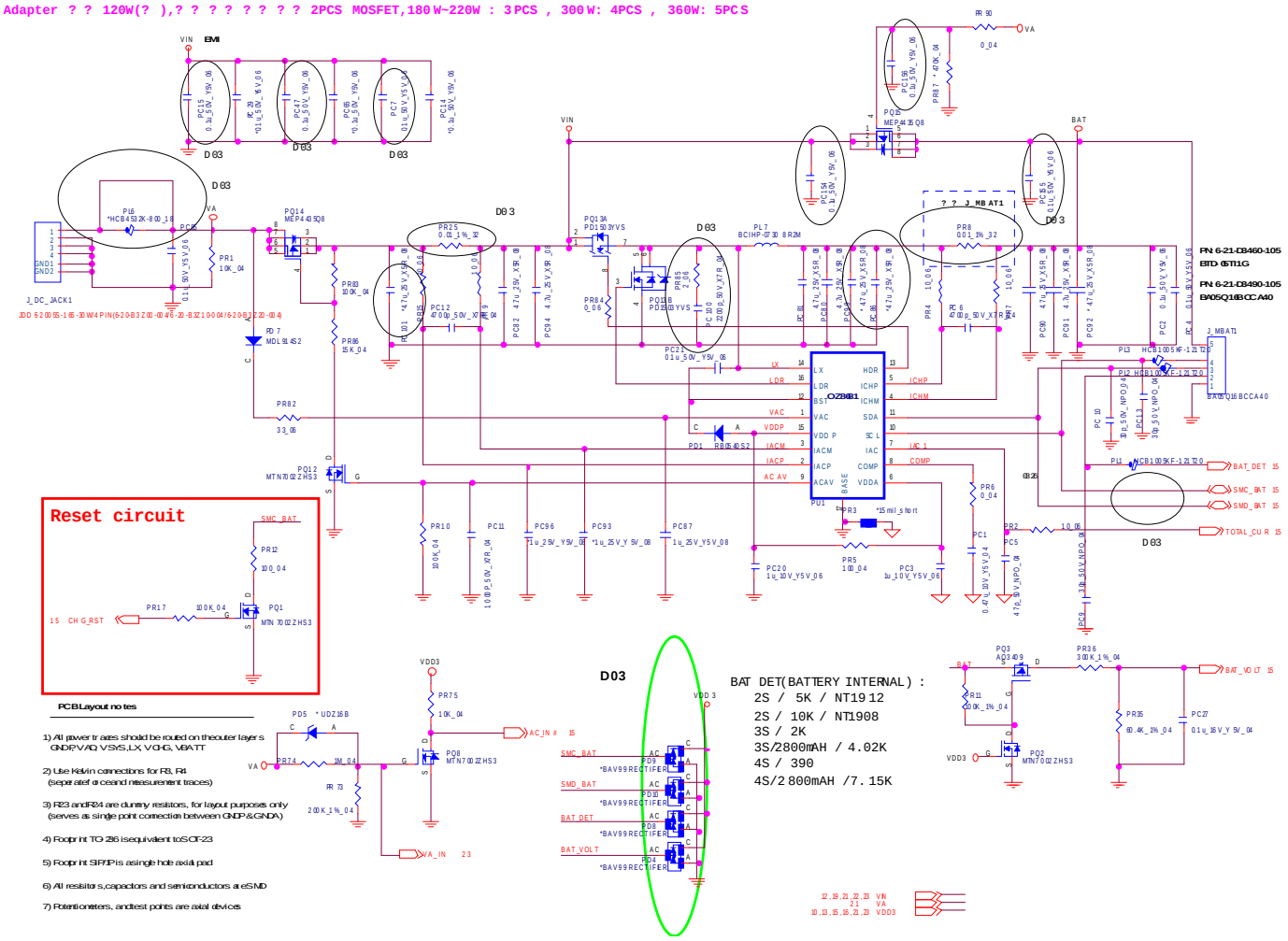
USB PORT & USB CHARGER



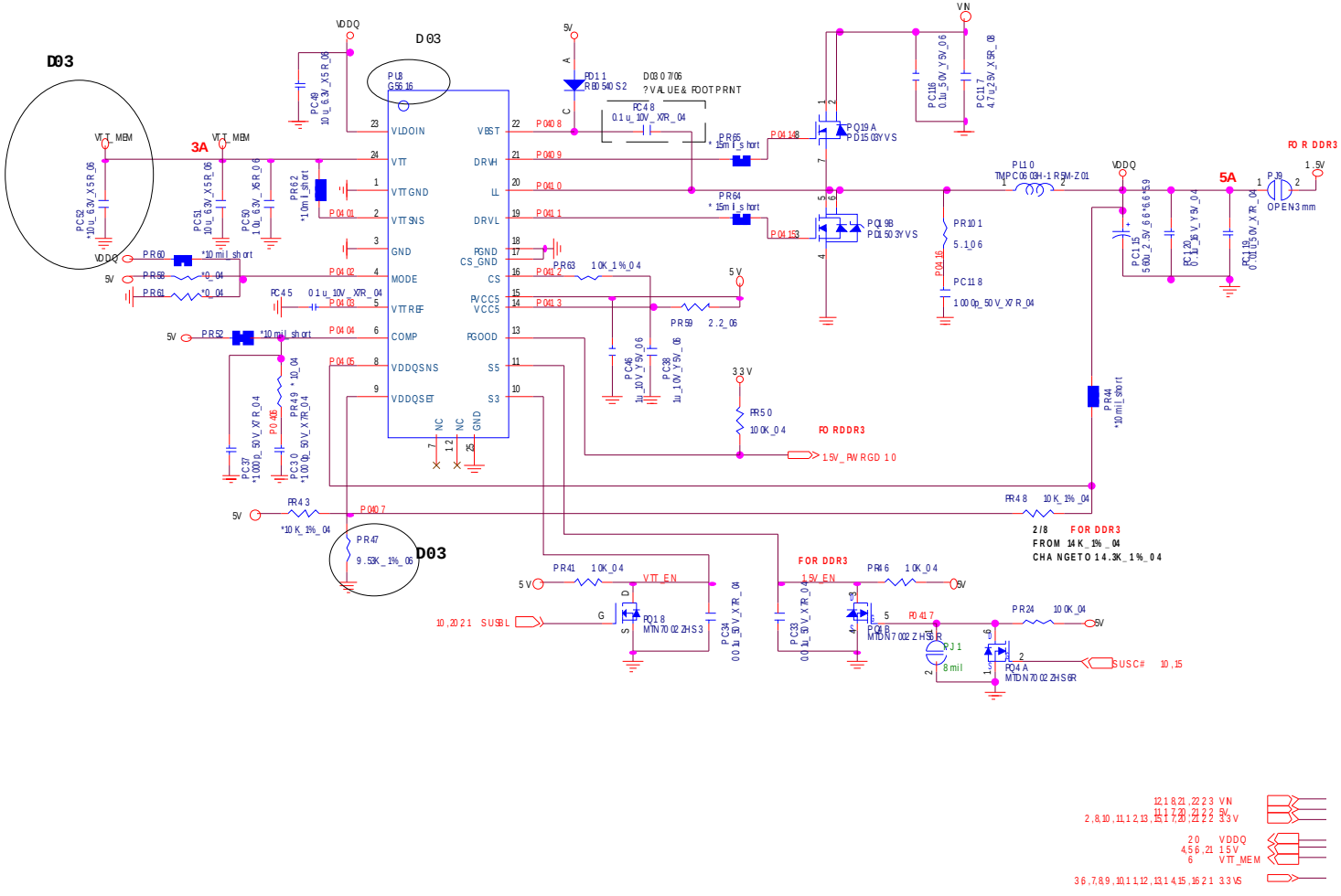
PWR AC IN, CHARGE



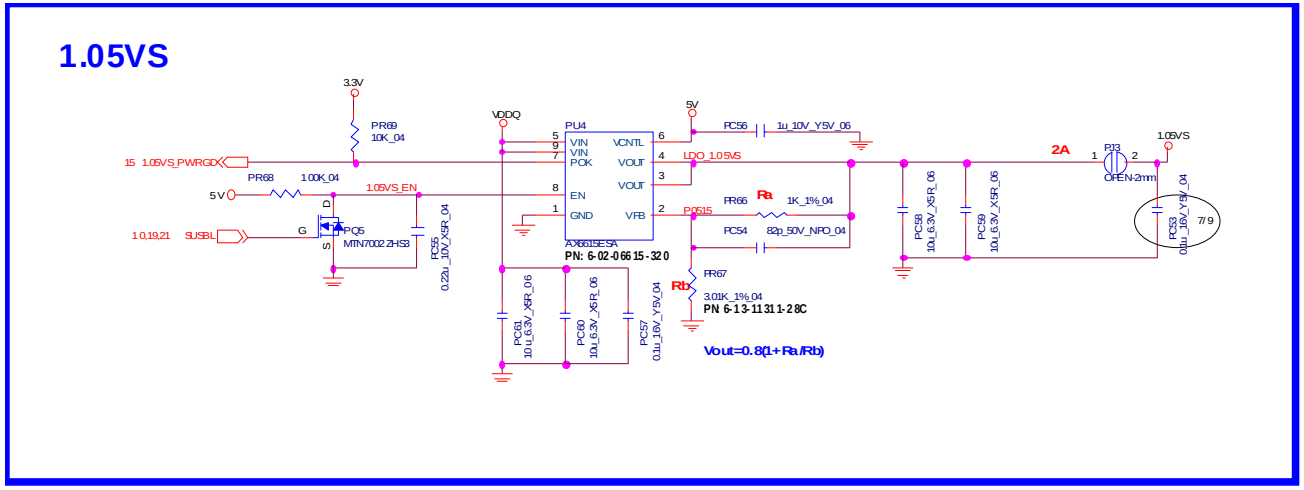
Sheet 18 of 29
PWR AC IN, CHARGE

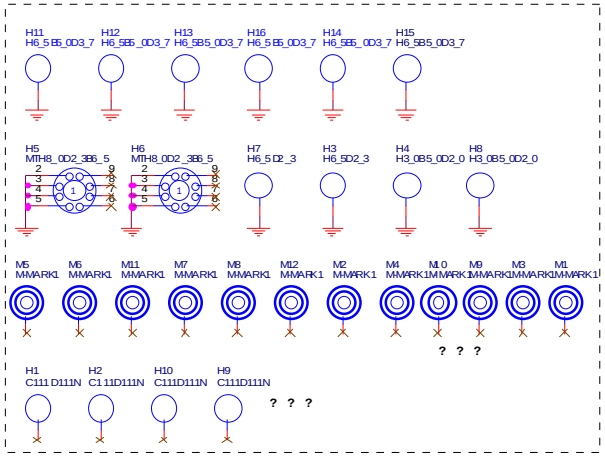
PWR 1.5V, 0.75V

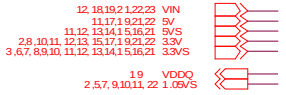
Sheet 19 of 29
PWR 1.5V, 0.75V



PWR 1.05VS



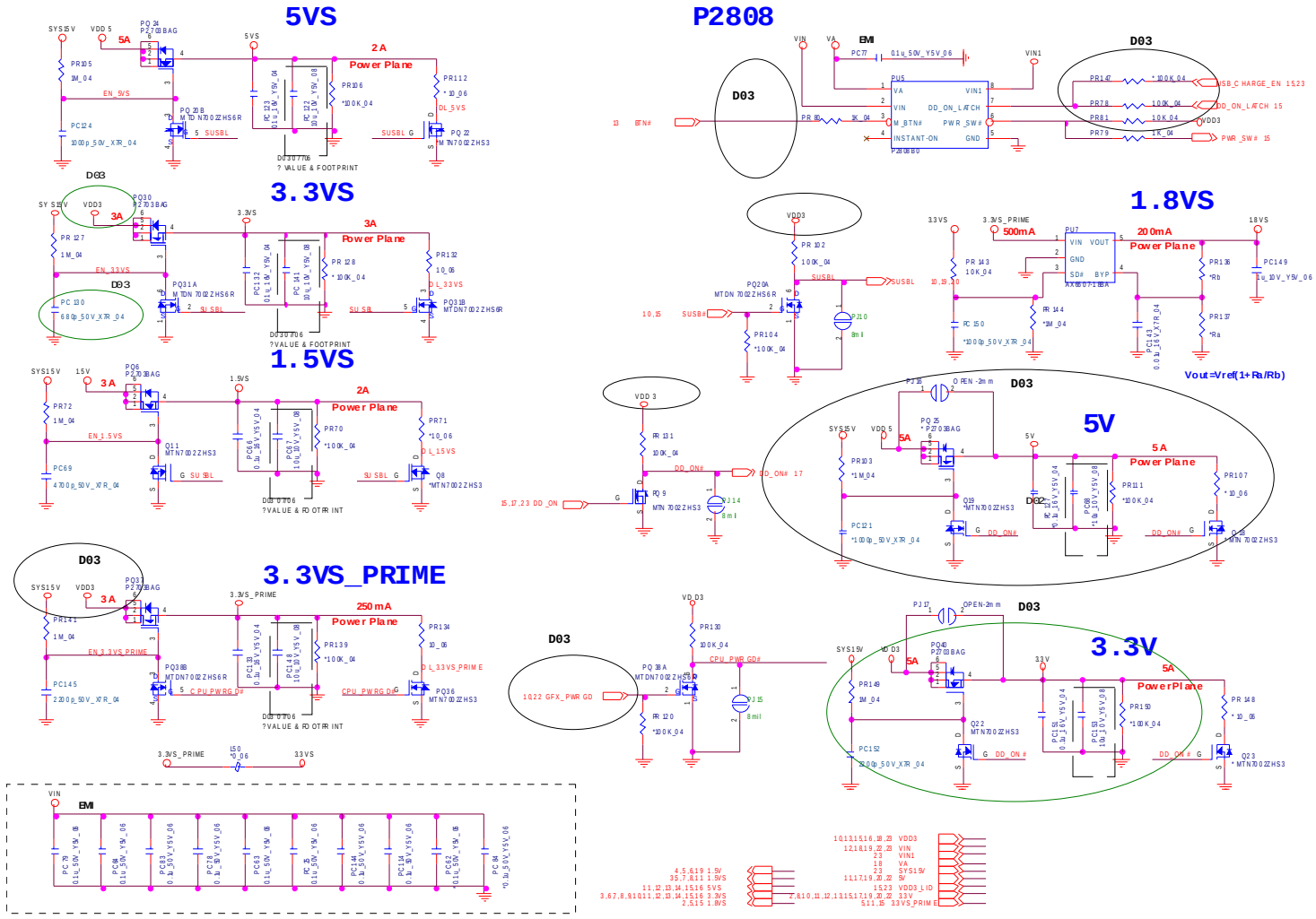




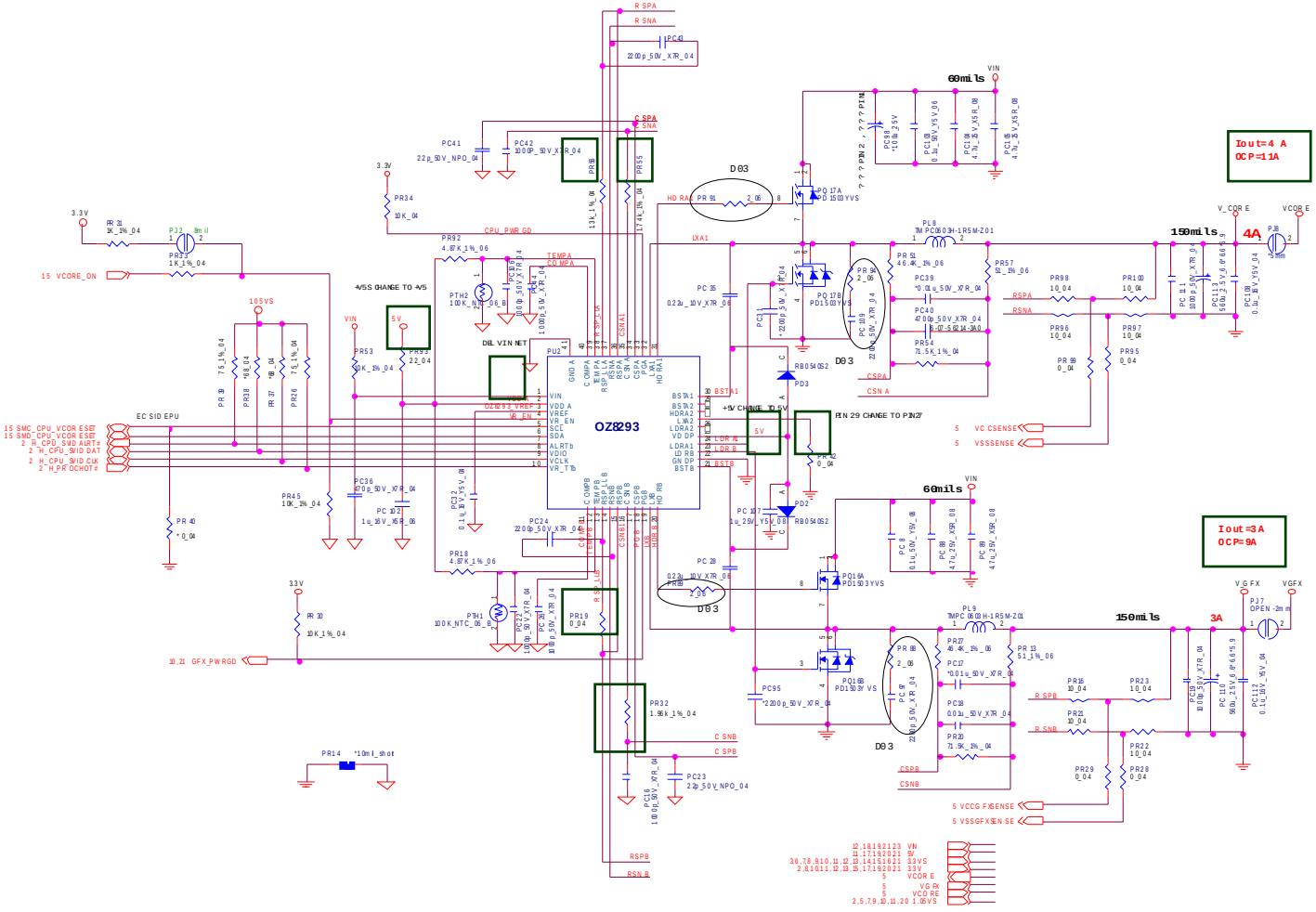
Sheet 20 of 29
PWR 1.05VS

PWR SW, 1.8VS, 3VS, 5VS, 1.5VS

Sheet 21 of 29
PWR SW, 1.8VS, 3VS, 5VS, 1.5VS



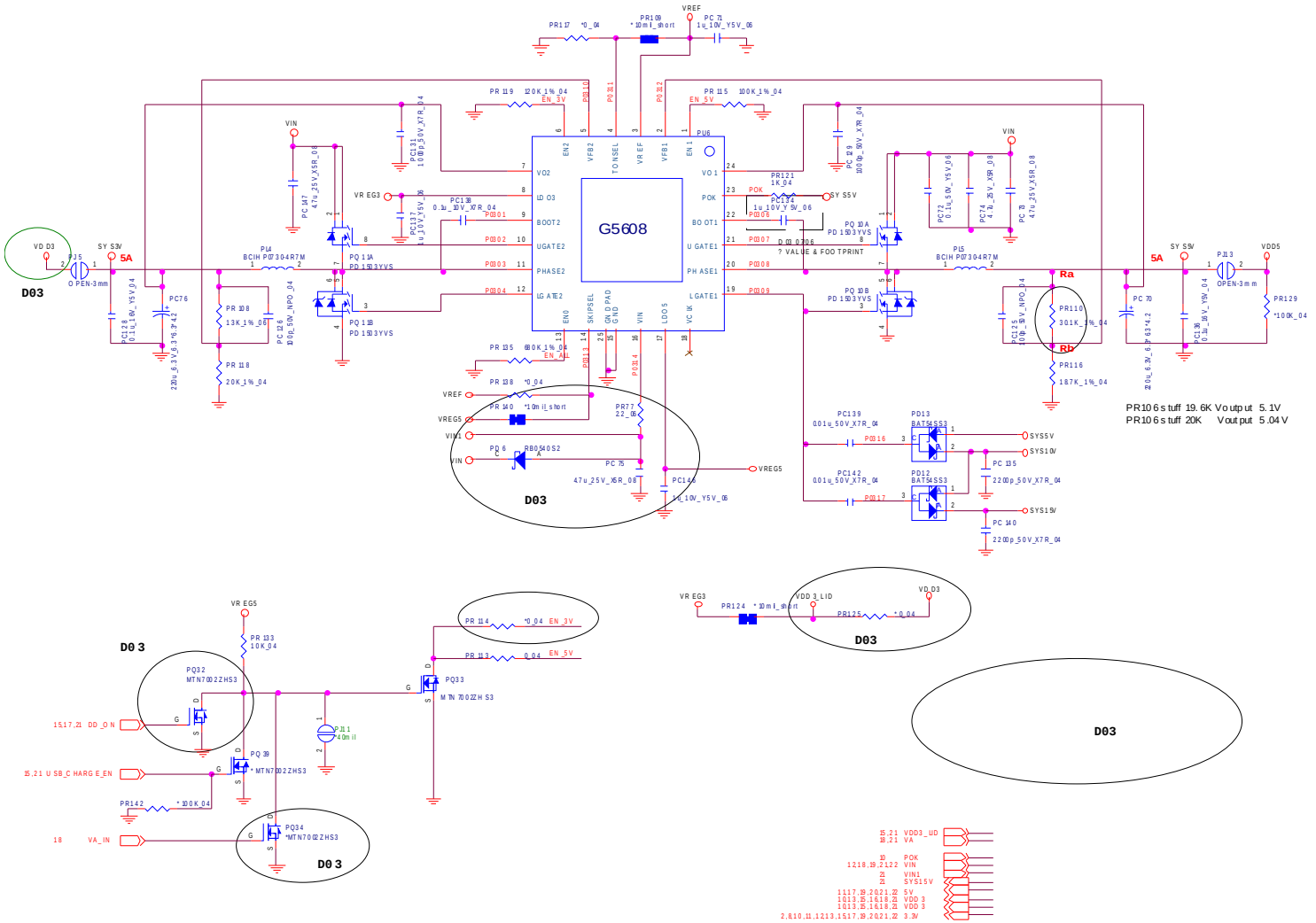
PWR VCORE



Sheet 22 of 29
PWR VCORE

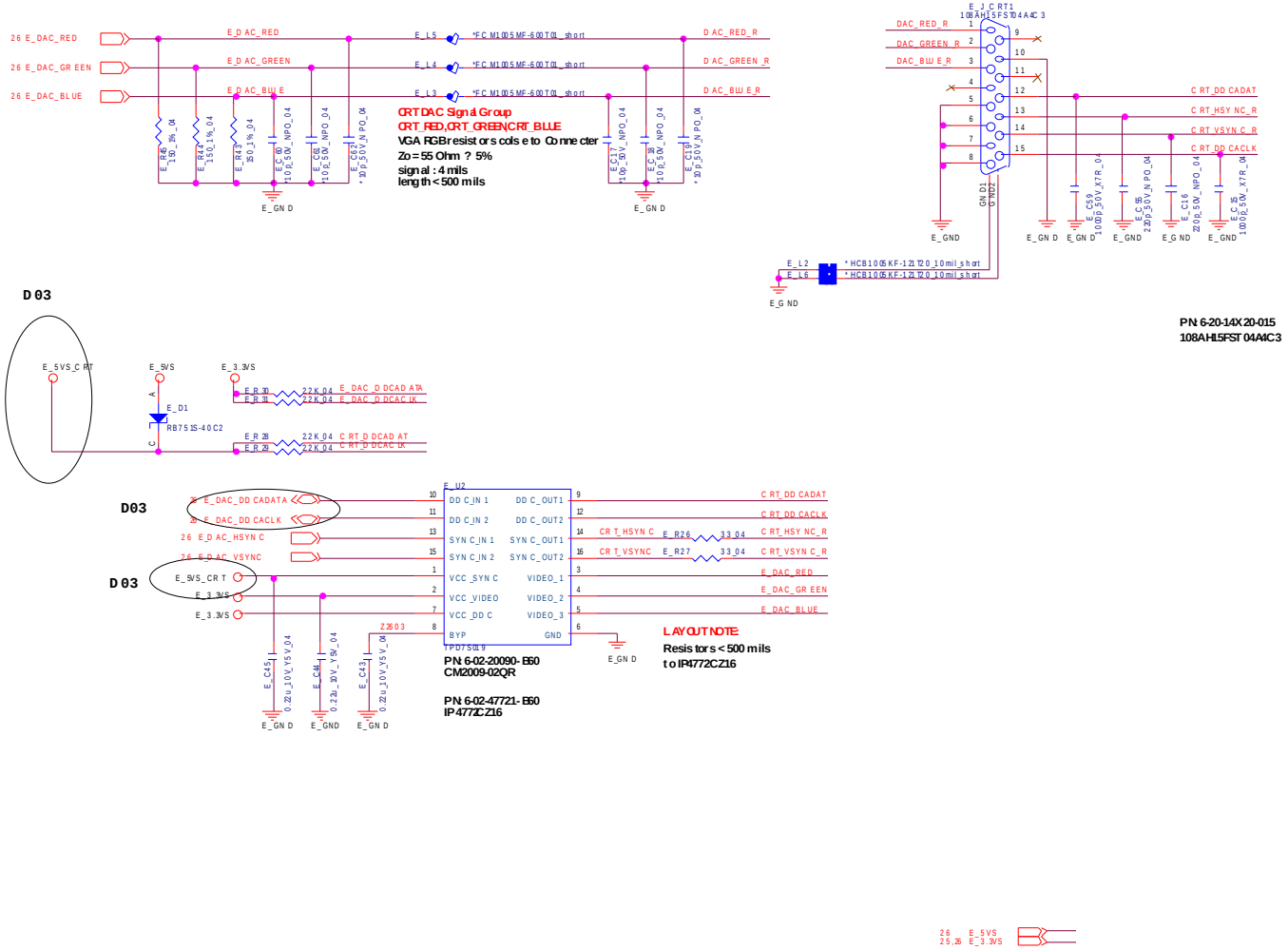
PWR VDD3, 3.3V, VDD5V, SYS15V

Sheet 23 of 29
PWR VDD3, 3.3V, VDD5V, SYS15V



CRT

CRT



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CRT

Card Reader (w/ LAN) JMB261C

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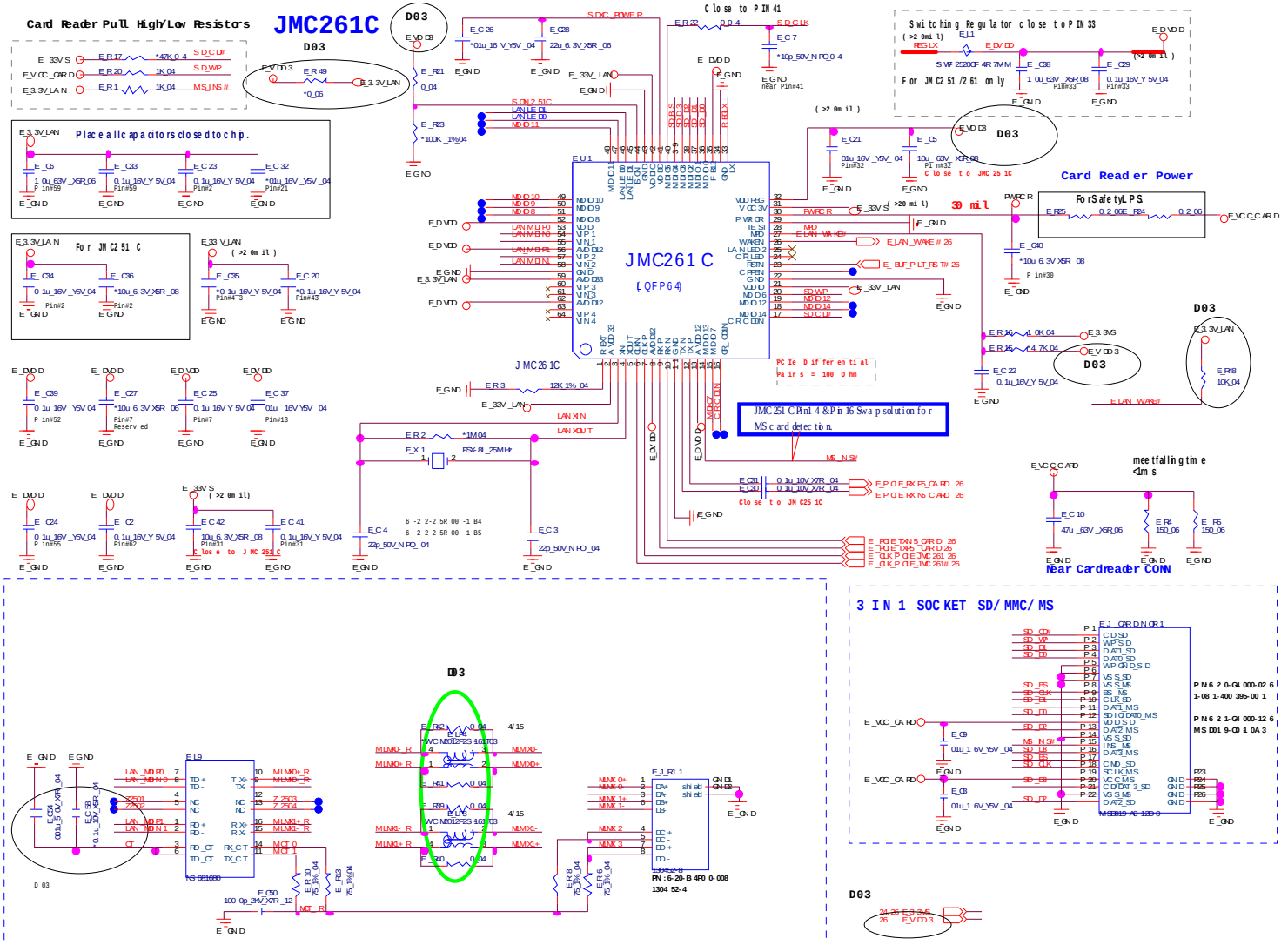
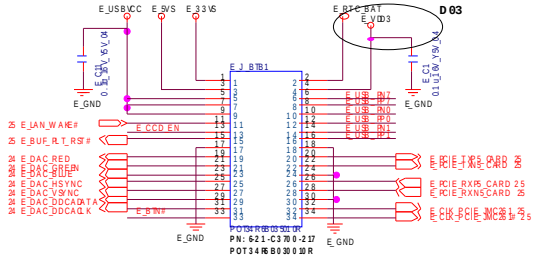
Card Reader (w/ LAN) JMB261C

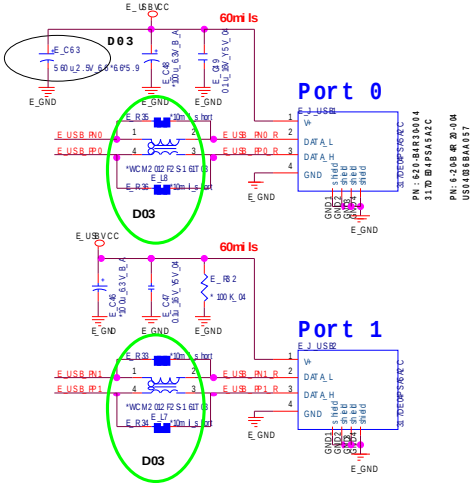


BTB, USB, CCD, PWR SW

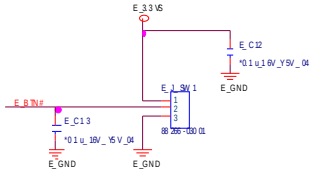
CONN. FOR CONT TO M/B



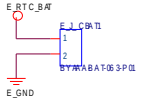
USB PORT_0&1



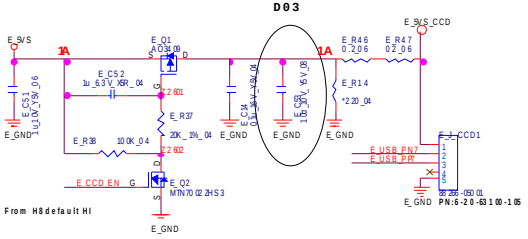
POWER SW CONN.

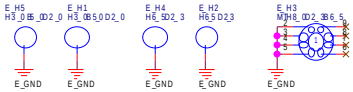


RTC BAT. CONN.



CCD CONN.





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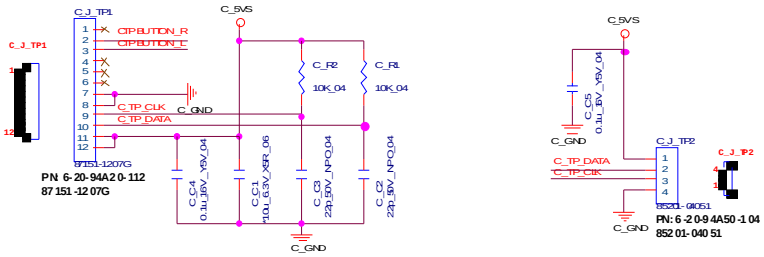
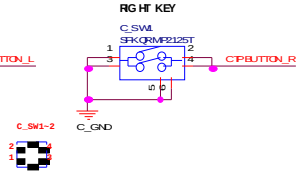
BTB, USB, CCD, PWR SW

Click Board





M1110 ? ? :6-53-3150B-245

M1115 ? ? :6-53-3150B-042

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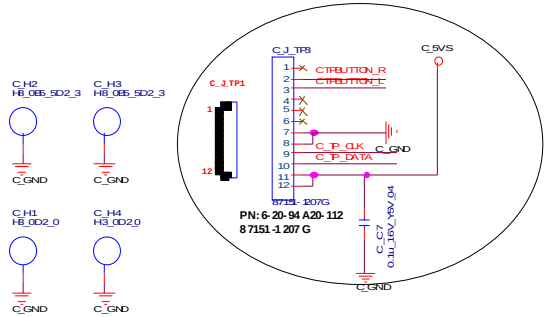
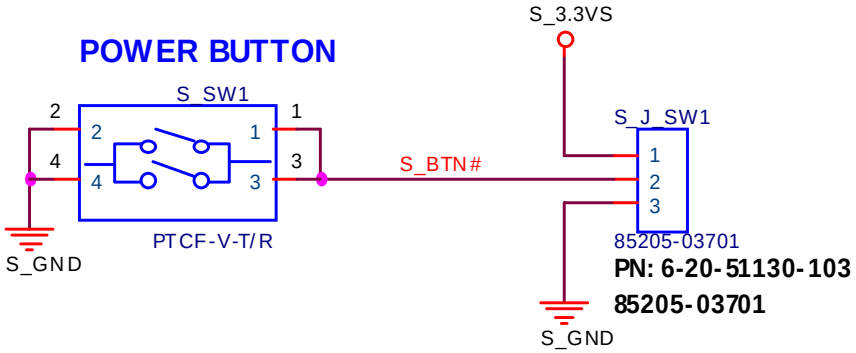
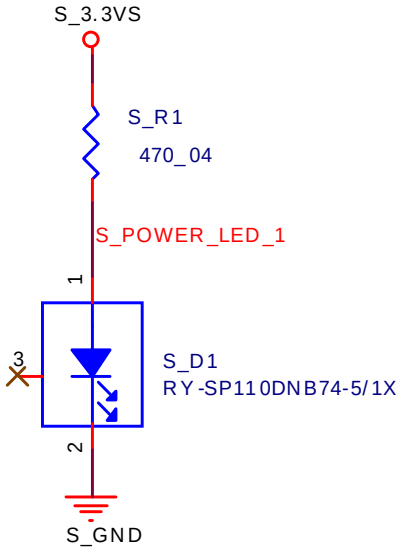
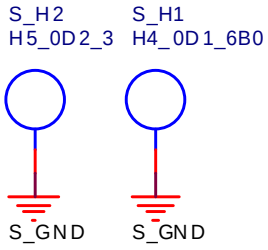
Click Board



Power Button Board







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Power Button Board

Power Button for M1115

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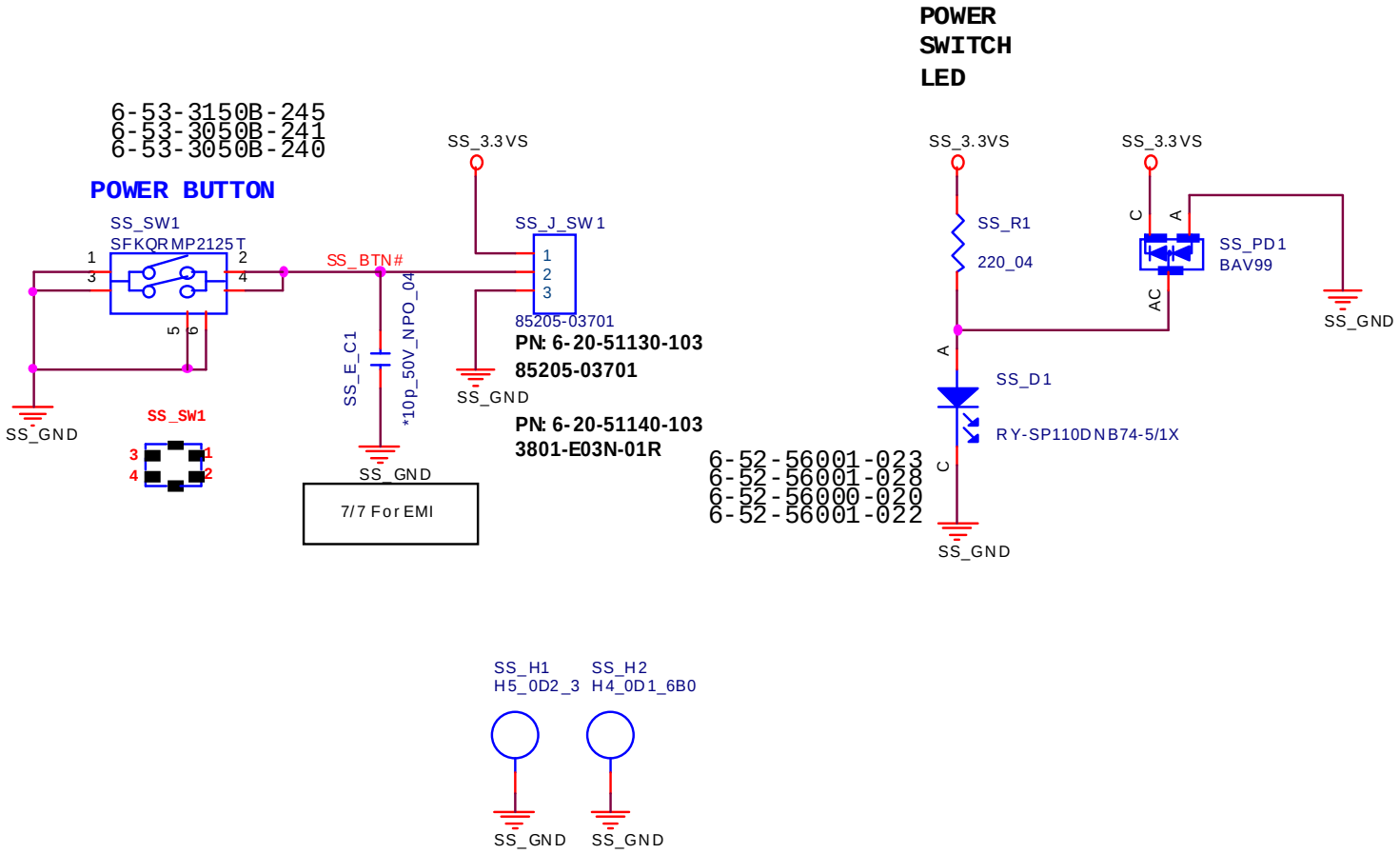
Power Button for M1115



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 **F10** to save any changes you have made and exit the BIOS to restart the computer.

BIOS Version

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

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

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

Use the flash tools to update the BIOS

1. Make sure you are not loading any memory management programs such as HIMEM by holding the **F8** key as you see the message "**Starting MS-DOS**". You will then be prompted to give "**Y**" or "**N**" responses to the programs being loaded by DOS. Choose "N" for any memory management programs.
2. You should now be at the DOS prompt e.g: DISK **C**:\> (C is the designated drive letter for the CD/DVD drive/USB flash drive).
3. **Type the following command** at the DOS prompt:

   C:\> Flash.bat

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

Restart the computer (booting from the HDD)

1. With the CD/DVD/USB flash drive removed from the CD/DVD drive/USB port the computer should restart from the HDD.
2. Press **F2** as the computer restarts to enter the BIOS.
3. Use the arrow keys to highlight the **Exit** menu.
4. Select **Load Setup Defaults** (or press **F9**) and select "**Yes**" to confirm the selection.
5. Press **F10** 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.