

SERVICE MANUAL

C5100Q/C5100Q-C/C5105/C5105-C

notebook



Notebook Computer

C5100Q/C5100Q-C/C5105/C5105-C

Service Manual

Notice

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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 *C5100Q/C5100Q-C/C5105/C5105-C* series notebook PC.

The following information is included:

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

Appendix A, Part Lists

Appendix B, Schematic Diagrams

Appendix C, Updating the FLASH ROM BIOS

Preface

IMPORTANT SAFETY INSTRUCTIONS

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

1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. This product is intended to be supplied by a Listed Power Unit (Full Range AC/DC Adapter - AC Input 100 - 240V, 50 - 60Hz/ DC Output 19V, 3.42A or 18.5V, 3.5A **65W** minimum).

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

FCC Statement

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

This device may not cause harmful interference.

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

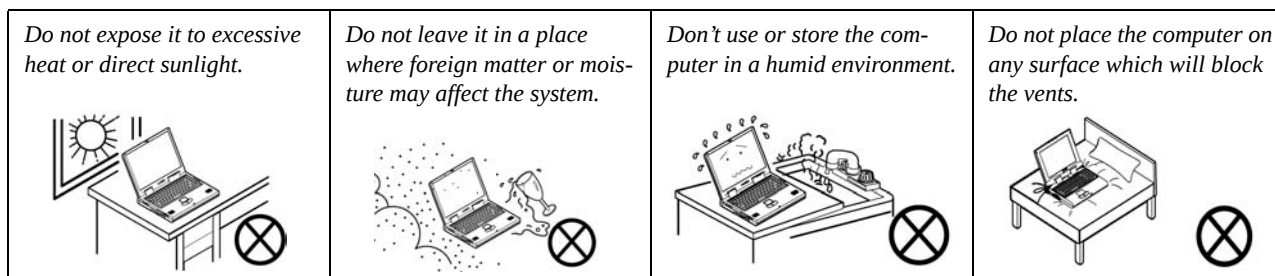
Instructions for Care and Operation

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

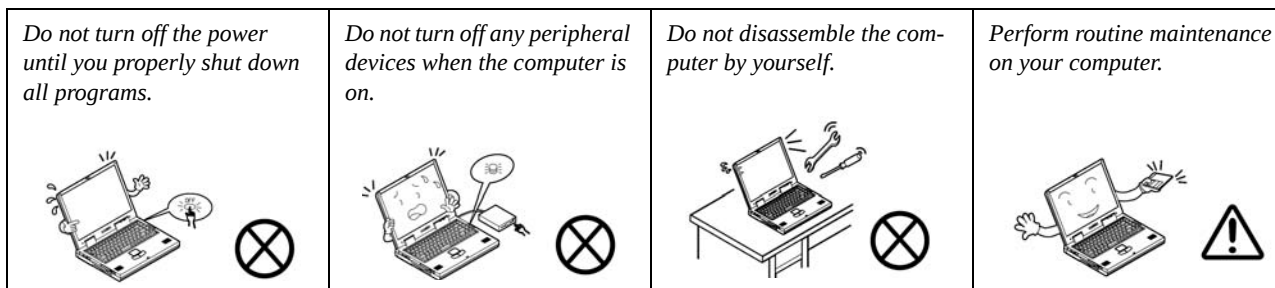
1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.



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

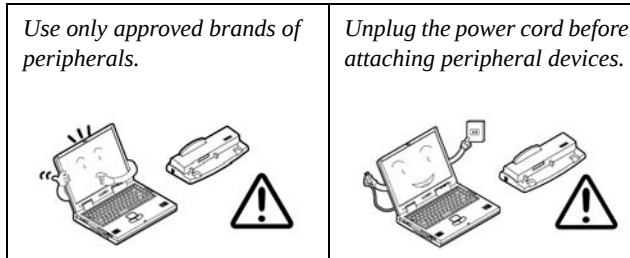


3. **Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.



Preface

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



Power Safety

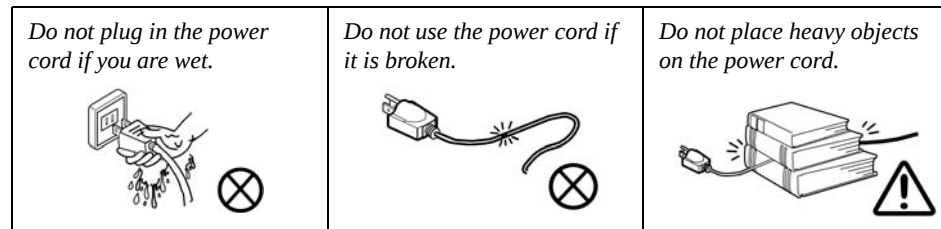
The computer has specific power requirements:

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



Power Safety Warning

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



Battery Precautions

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

Battery Guidelines

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

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



Battery Disposal

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

Caution

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

Battery Level

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

Preface

Related Documents

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

User's Manual on CD/DVD

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

System Startup

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Insert the battery and make sure it is locked in position.
4. Securely attach any peripherals you want to use with the computer (e.g. keyboard and mouse) to their ports.
5. Attach the AC/DC adapter to the DC-In jack 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.
6. Use one hand to raise the lid/LCD to a comfortable viewing angle (do not exceed 135 degrees); use the other hand (as illustrated in <Hyperlink B n l>Figure) to support the base of the computer (Note: Never lift the computer by the lid/LCD).
7. Press the power button to turn the computer "on".

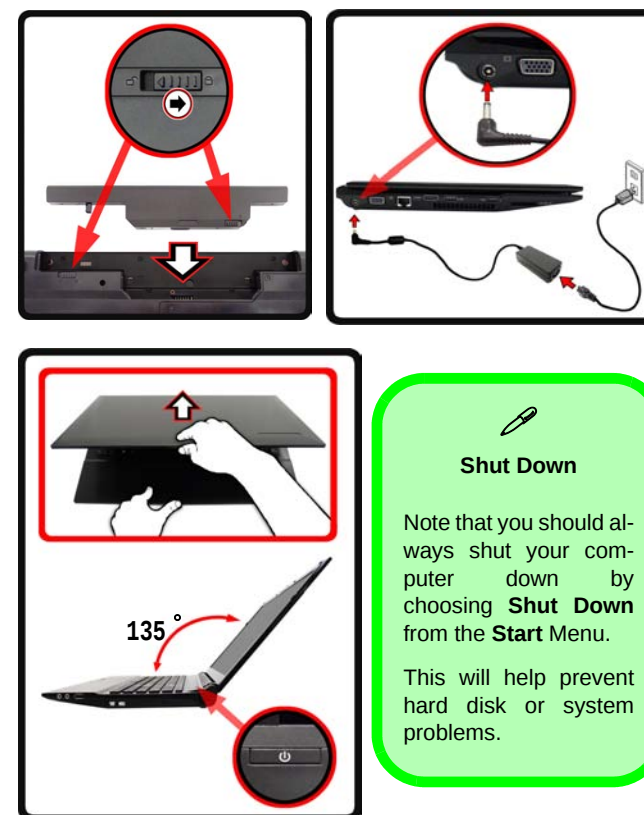


Figure 1 - Opening the Lid/LCD/Computer with AC/DC Adapter Plugged-In

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Set the computer to boot from the external drive	C-1
Use the flash tools to update the BIOS	C-2
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Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the *C5100Q/C5100Q-C/C5105/C5105-C* series notebook computer. Information about operating the computer (e.g. getting started, and the *Setup* utility) is in the *User's Manual*. Information about drivers (e.g. VGA & audio) is also found in *User's Manual*. That manual is shipped with the computer.

Operating systems (e.g. *Windows Vista/ Window 7*, etc.) have their own manuals as do application software (e.g. word processing and database programs). If you have questions about those programs, you should consult those manuals.

The *C5100Q/C5100Q-C/C5105/C5105-C* series notebook is designed to be upgradeable. See [Disassembly on page 2 - 1](#) for a detailed description of the upgrade procedures for each specific component. Please note the warning and safety information indicated by the “” symbol.

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

Introduction

Specifications



Latest Specification Information

The specifications listed in this here are correct at the time of going to 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 details.



CPU

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

Processor Options

Intel® Core™2 Duo Processor T6670 (2.2GHz)

2MB L2 Cache & 800MHz FSB

Intel® Pentium® Processor T4500 (2.30GHz)

1MB L2 Cache & 800MHz FSB

Intel® Celeron® Processor T3300 (2.0GHz), 900 (2.2GHz)

1MB L2 Cache & 800MHz FSB

LCD

15.6" (39.62) HD TFT LCD

Memory

Two 204 Pin SO-DIMM Sockets Supporting **DDR3 1066/1333MHz** Memory (Real operation frequency of memory depends on FSB of processor)

Memory Expandable up to 8GB

Core Logic

Intel® GL40 + ICH9M

Video Adapter

Intel® GL40 Integrated Video

Shared Memory Architecture of up to **1GB**

MS DirectX® 10 compatible

BIOS

One 16Mb SPI Flash ROM

Phoenix™ BIOS

Storage

(Factory Option) One Changeable 12.7mm(h) Super Multi Optical Device Drive

One Changeable 2.5" 9.5 mm (h) SATA HDD

Audio

High Definition Audio Compliant Interface

2 * Built-In Speakers

Built-In Microphone

Keyboard

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

Pointing Device

Built-in Touchpad

Security

Security (Kensington® Type) Lock Slot

BIOS Password

Interface

Three USB 2.0 Ports

One HDMI Out Port

One Headphone-Out Jack

One Microphone-In Jack

One RJ-45 LAN Jack

One DC-in Jack

One External Monitor Port

Communication

10Mb/100Mb Ethernet LAN

(Factory Option) 300K/1.3M Pixel USB PC Camera Module

(Factory Option) Bluetooth 2.1 + EDR Module

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

(Factory Option) 802.11b/g/n Wireless LAN Mini-Card Module

(Factory Option) 802.11b/g/n Wireless LAN + Bluetooth v3.0

Card Reader

Embedded Multi-in-1 Card Reader

MMC (MultiMedia Card) / RS MMC

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

Compatible

MS (Memory Stick) / MS Pro / MS Duo

Power

6 Cell Smart Lithium-Ion Battery Pack, 48.84WH

(Factory Option) 6 Cell Smart Lithium-Ion Battery Pack,
62.16WH + 4 Cell Battery 32.5WH

Full Range AC/DC Adapter

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

DC Output: 19V, 3.42A or 18.5V, 3.5A **(65W)**

Energy Star 5.0 Compliant

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

374mm (w) * 250mm (d) * 14.3 - 34.1mm (h)

2.3 kg (with 48.84WH Battery and ODD)

Introduction

Figure 1
Front View with LCD Panel Open

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

External Locator - Front View with LCD Panel Open



External Locator - Front and Rear View



Figure 2
Front View

1. LED Power Indicators



Figure 3
Rear View

1. Security Lock Slot
2. Battery

Introduction

Figure 4
Left Side View

1. DC-In Jack
2. External Monitor Port
3. RJ-45 LAN Jack
4. HDMI Port
5. 2 * USB 2.0 Ports
6. Vent
7. Multi-in-1 Card Reader

External Locator - Left & Right Side View



Figure 5
Right Side View

1. Microphone-In Jack
2. Headphone-Out Jack
3. USB 2.0 Port
4. Optical Device Drive Bay
5. Emergency Eject Hole



External Locator - Bottom View

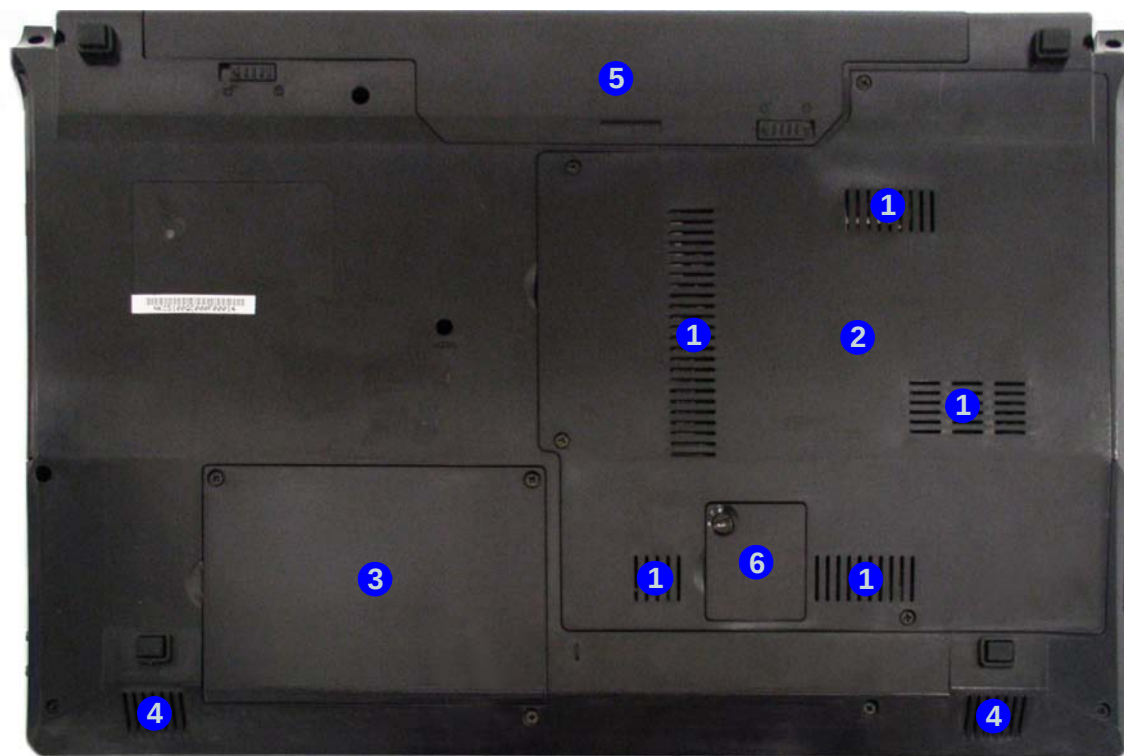


Figure 6
Bottom View

1. Vent
2. Component Bay Cover
3. Hard Disk Bay Cover
4. Speakers
5. Battery
6. USIM Card Cover



Overheating

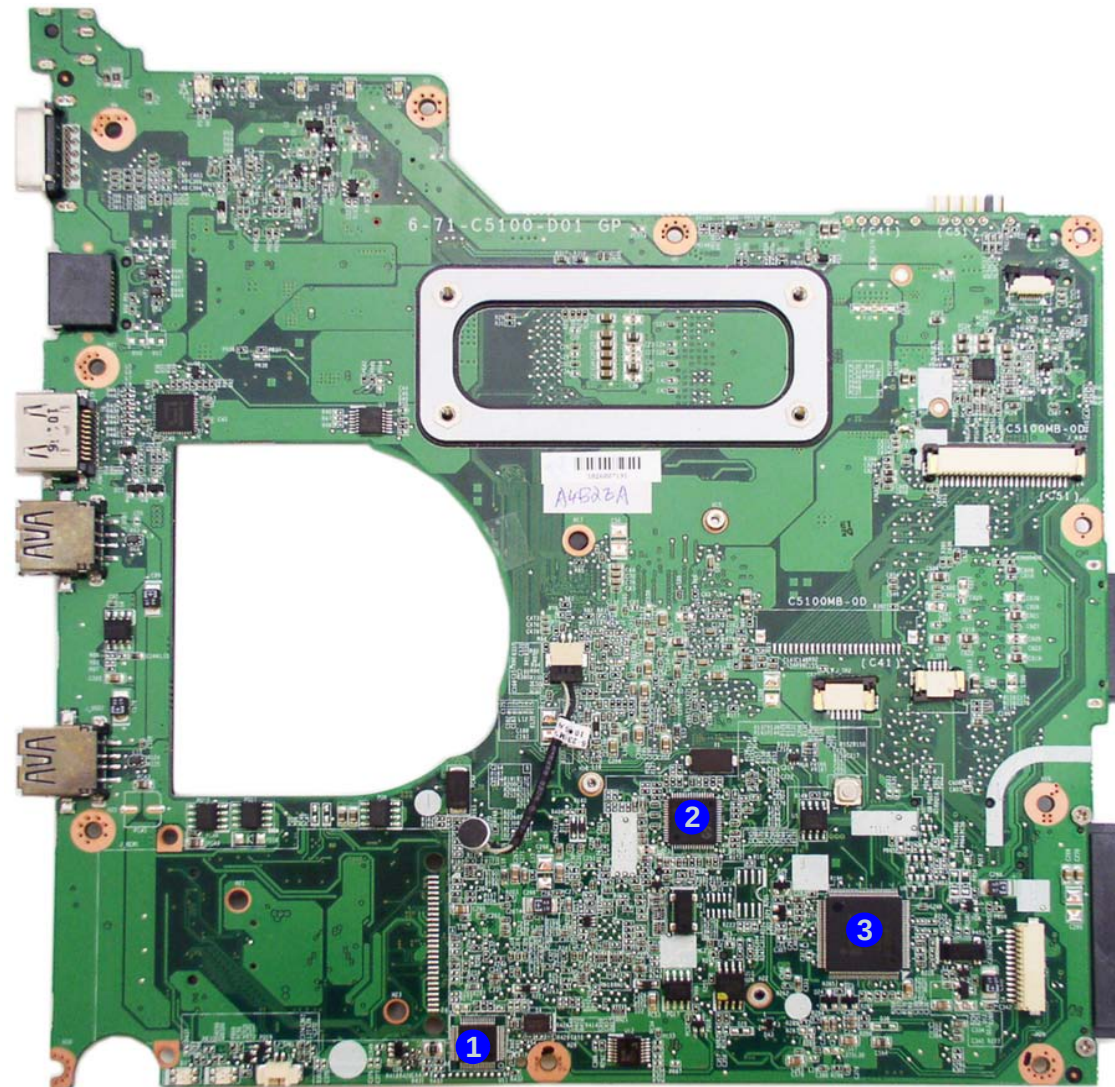
To prevent your computer from overheating make sure nothing blocks the vent/fan intakes while the computer is in use.

Introduction

Figure 7
Mainboard Top
Key Parts

1. JMB261
2. Clock Generator
3. ITE 8502E

Mainboard Overview - Top (Key Parts)



Mainboard Overview - Bottom (Key Parts)

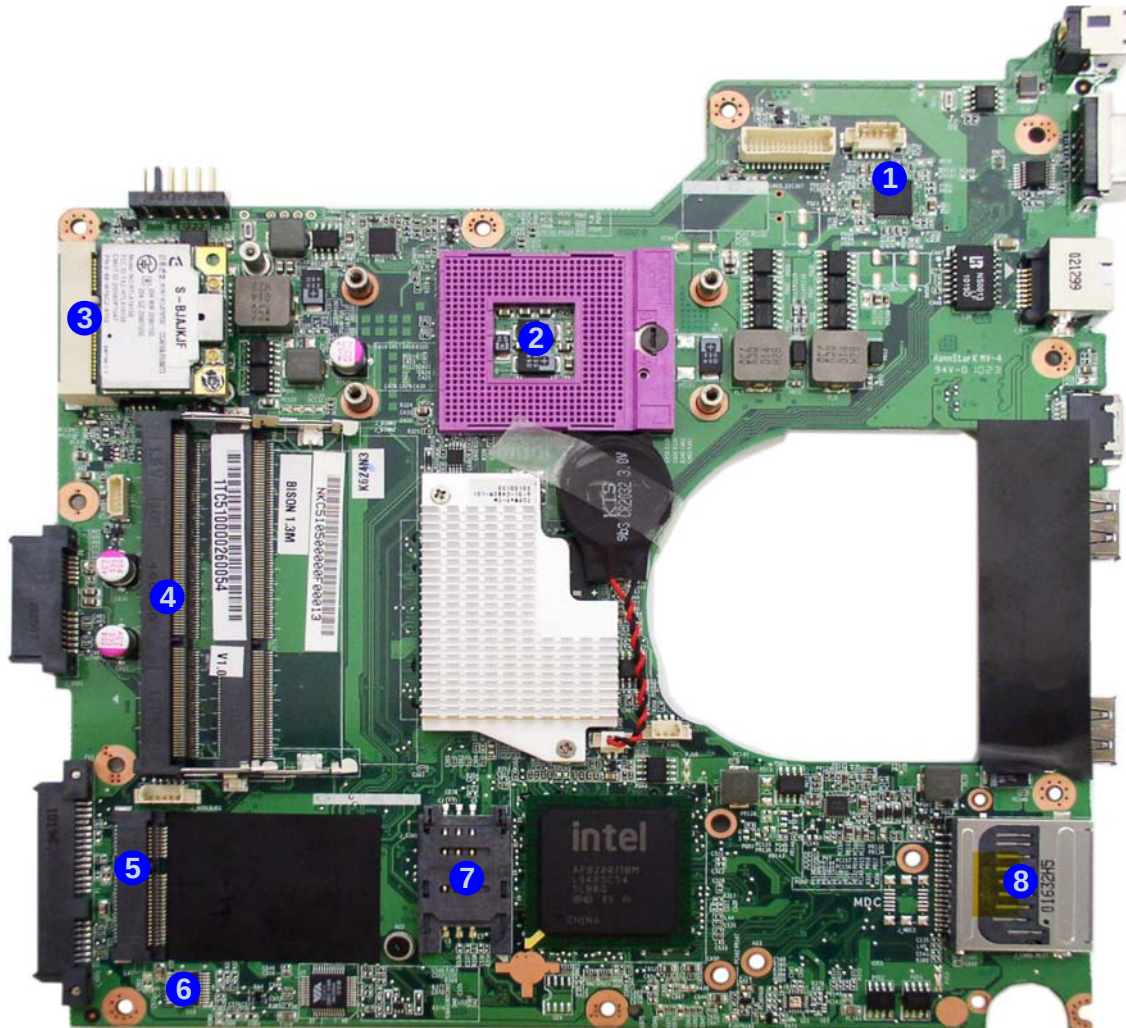


Figure 8
**Mainboard Bottom
Key Parts**

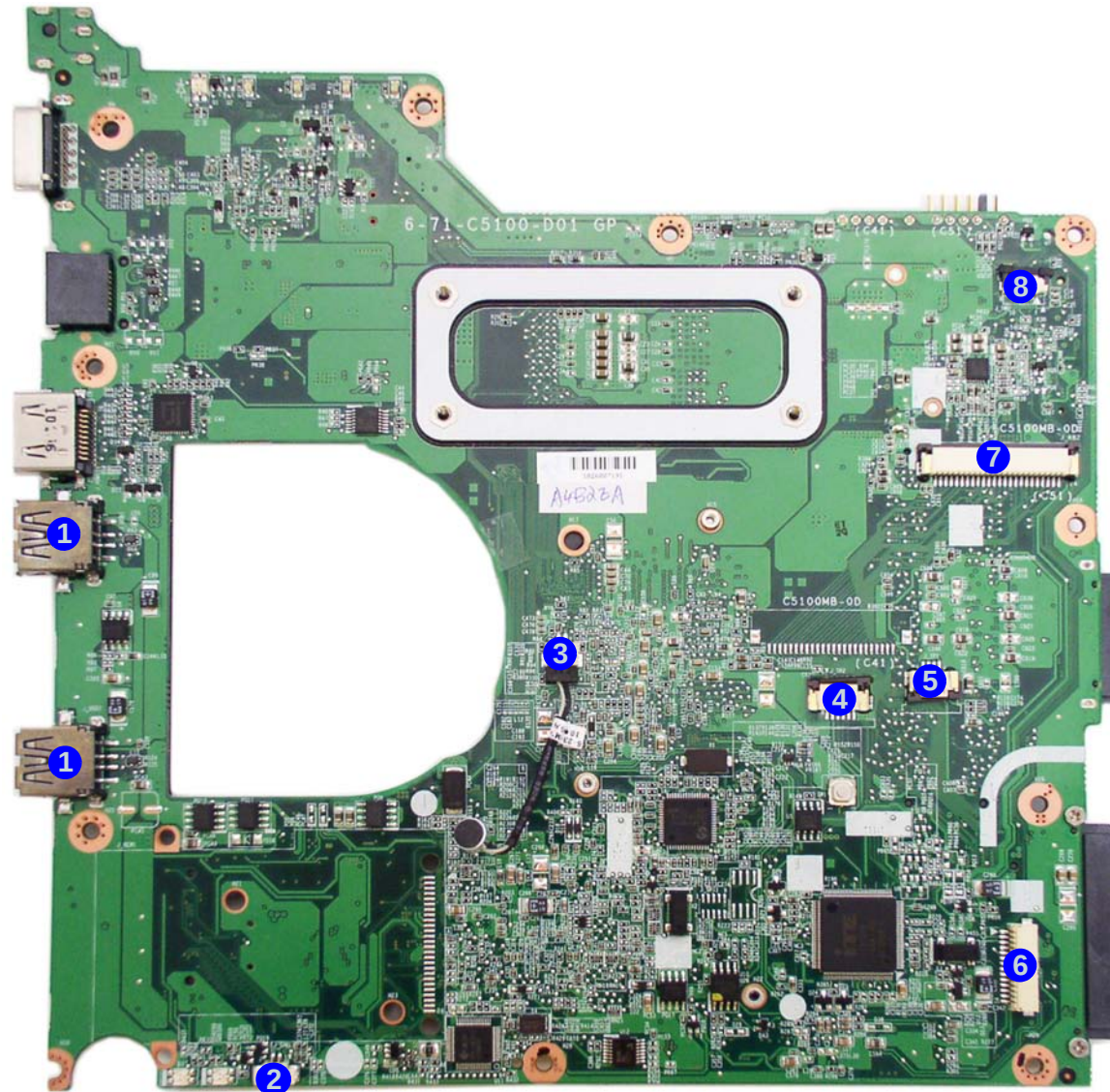
1. Power IC
2. CPU Socket (no CPU installed)
3. Mini-Card Connector (Wireless Lan Module)
4. Memory Slots (DDR3 SO-DIMM)
5. Half Mini-Card Connector (3G Module)
6. Audio AMP
7. USIM Card
8. Card Reader Socket

Introduction

Figure 9
**Mainboard Top
Connectors**

1. USB Ports
2. Speaker Cable Connector
3. Microphone Cable Connector
4. Click Board LED Connector
5. Touch Pad Cable Connector
6. Audio Cable Connector
7. Keyboard Cable Connector
8. Switch Cable Connector

Mainboard Overview - Top (Connectors)



Mainboard Overview - Bottom (Connectors)

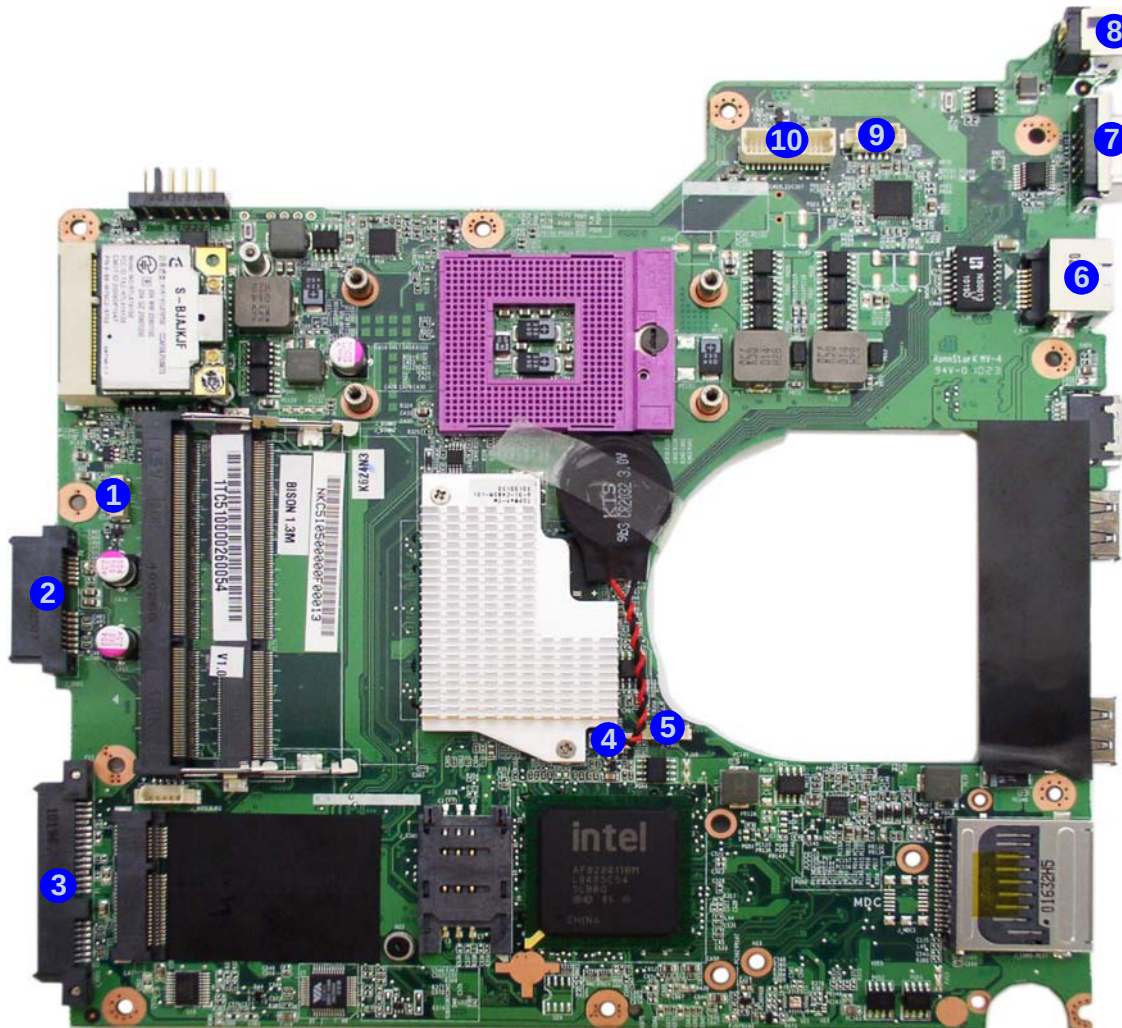


Figure 10
**Mainboard Bottom
Connectors**

1. Bluetooth Cable Connector
2. ODD Connector
3. HDD Connector
4. CMOS Battery Connector
5. Fan Cable Connector
6. RJ-45 LAN Jack
7. External Monitor Port
8. DC-In Jack
9. CCD Cable Connector
10. LCD Cable Connector

Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the **C5100Q/C5100Q-C/C5105/C5105-C** 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, CD device and hard disk are included in the User's Manual but are repeated here for your convenience.

To make the disassembly process easier each section may have a box in the page margin. Information contained under the figure # will give a synopsis of the sequence of procedures involved in the disassembly procedure. A box with a  lists the relevant parts you will have after the disassembly process is complete. **Note:** The parts listed will be for the disassembly procedure listed ONLY, and not any previous disassembly step(s) required. Refer to the part list for the previous disassembly procedure. The amount of screws you should be left with will be listed here also.

A box with a  will also provide any possible helpful information. A box with a  contains warnings.

An example of these types of boxes are shown in the sidebar.


Information
Warning

Disassembly

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

Maintenance Tools

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

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

Connections

Connections within the computer are one of four types:

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

Maintenance Precautions

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

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

Cleaning

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

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



Power Safety Warning

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

Disassembly Steps

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

To remove the Battery:

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

To remove the HDD:

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

To remove the Optical Device:

1. Remove the battery [page 2 - 5](#)
2. Remove the Optical device [page 2 - 8](#)

To remove the System Memory:

1. Remove the battery [page 2 - 5](#)
2. Remove the system memory [page 2 - 9](#)

To remove and install a Processor:

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

To remove the 3G Module:

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

To remove the Wireless LAN Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the WLAN module [page 2 - 15](#)

To remove the Bluetooth Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the Bluetooth Module [page 2 - 16](#)

To remove the Keyboard:

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

Removing the Battery

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

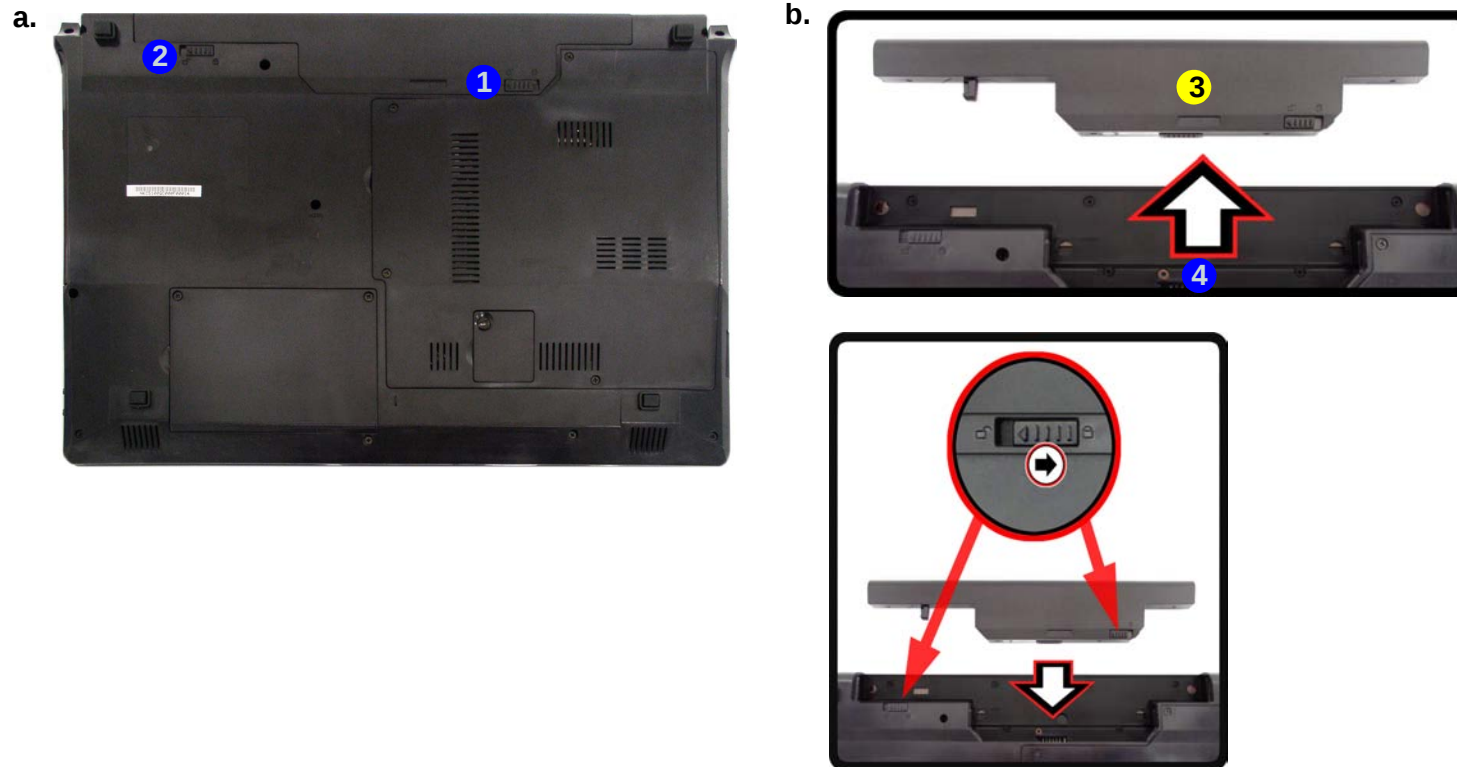
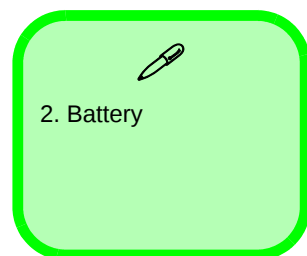


Figure 1
Battery Removal

- a. Slide latch at point 1 towards the unlock symbol and hold it in place.
- b. Slide the battery in the direction of the arrow.



Disassembly

Figure 2
**HDD Assembly
Removal**

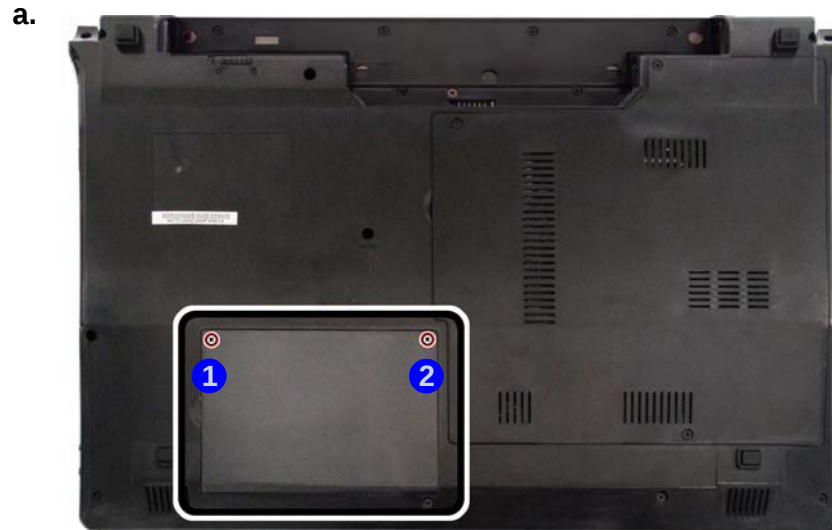
- a. Locate the HDD bay cover and remove the screws.

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, and remove the battery ([page 2 - 5](#)).
2. Locate the hard disk bay cover and remove screw **1** & **2**.



- 2 Screws



HDD System Warning

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

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

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

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

3. Remove the hard disk bay cover **3**.
4. Grip the tab and slide the hard disk in the direction of arrow **4**.
5. Lift the hard disk out of the bay **5**.
6. Remove screws **6** - **9** and the mylar cover **10** from the hard disk **11**.
7. Reverse the process to install a new hard disk (do not forget to replace all the screws and covers).

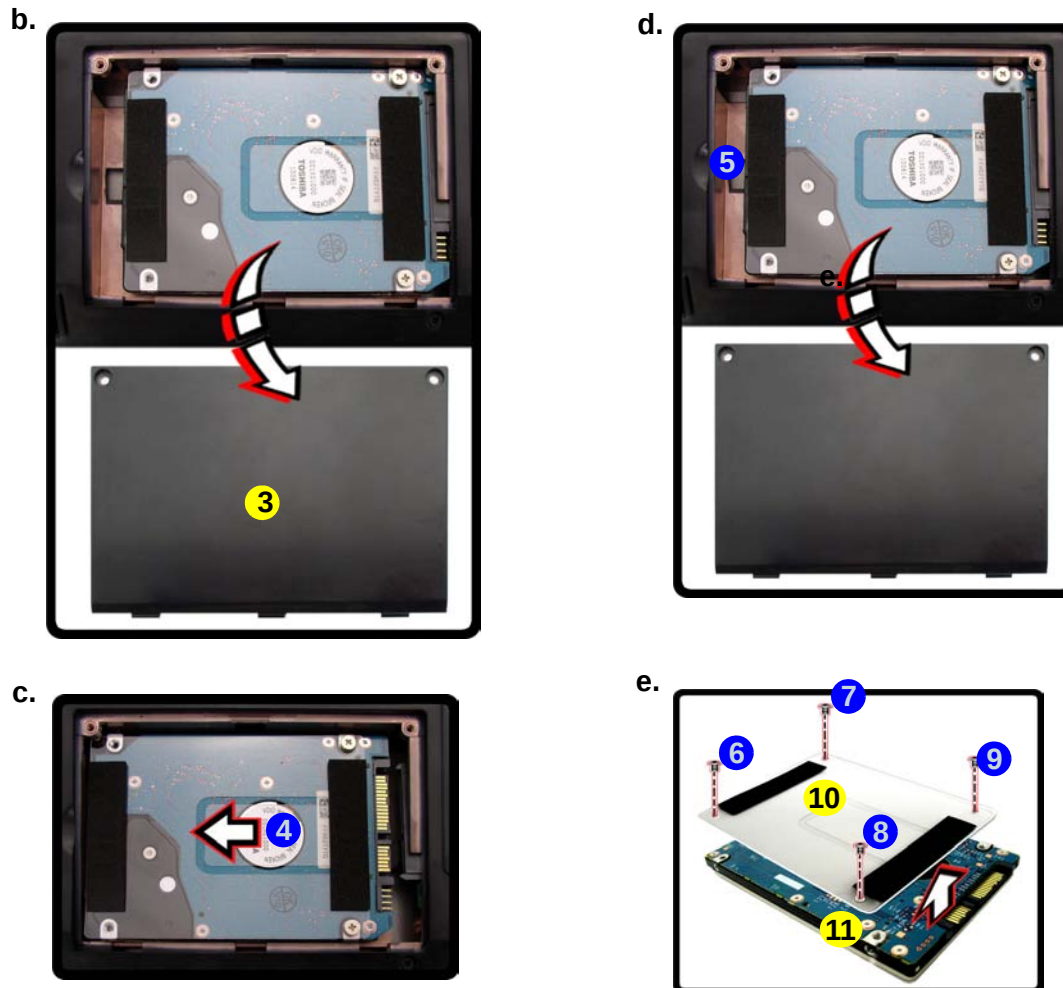


Figure 3
**HDD Assembly
Removal (cont'd.)**

- b. Remove the HDD bay cover.
- c. Grip the tab and slide the HDD in the direction of the arrow.
- d. Lift the HDD assembly out of the bay.
- e. Remove the screws and mylar cover.



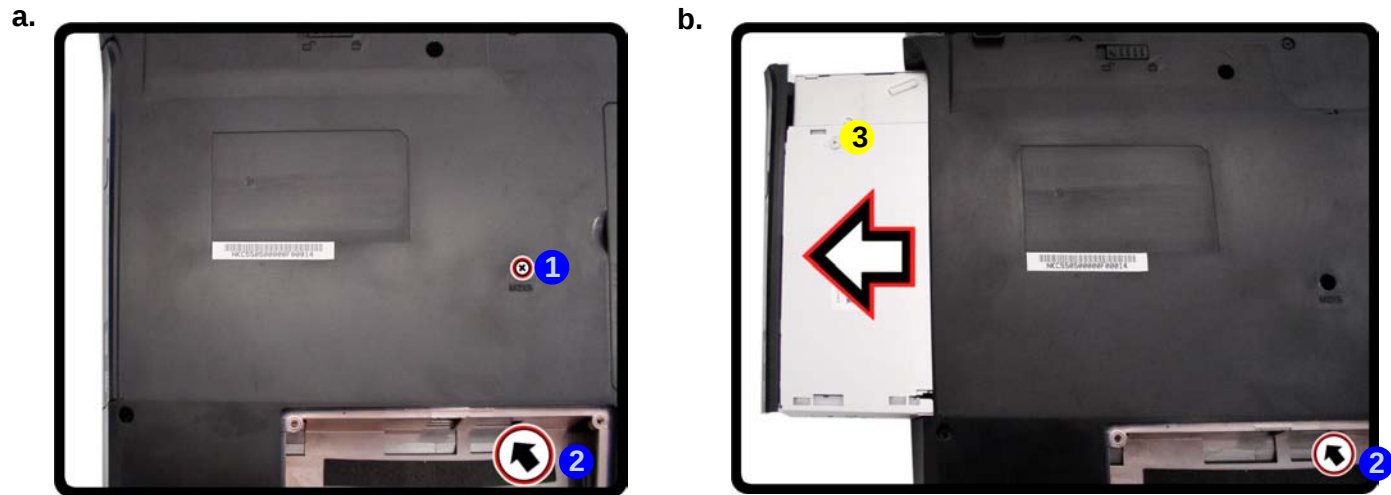
Disassembly

Figure 4
**Optical Device
Removal**

- a. Remove the screw at point ①.
- b. Use a screwdriver to carefully push out the optical device at point ②.

Removing the Optical (CD/DVD) Device

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)) and hard disk ([page 2 - 6](#)).
2. Remove the screw at point ①.
3. Use a screwdriver to carefully push out the optical device ③ at point ②.
4. Insert the new device and carefully slide it into the computer (the device only fits one way. **DO NOT FORCE IT**; The screw holes should line up).
5. Restart the computer to allow it to automatically detect the new device.



3. Optical Device

- 1 Screw

Removing the System Memory (RAM)

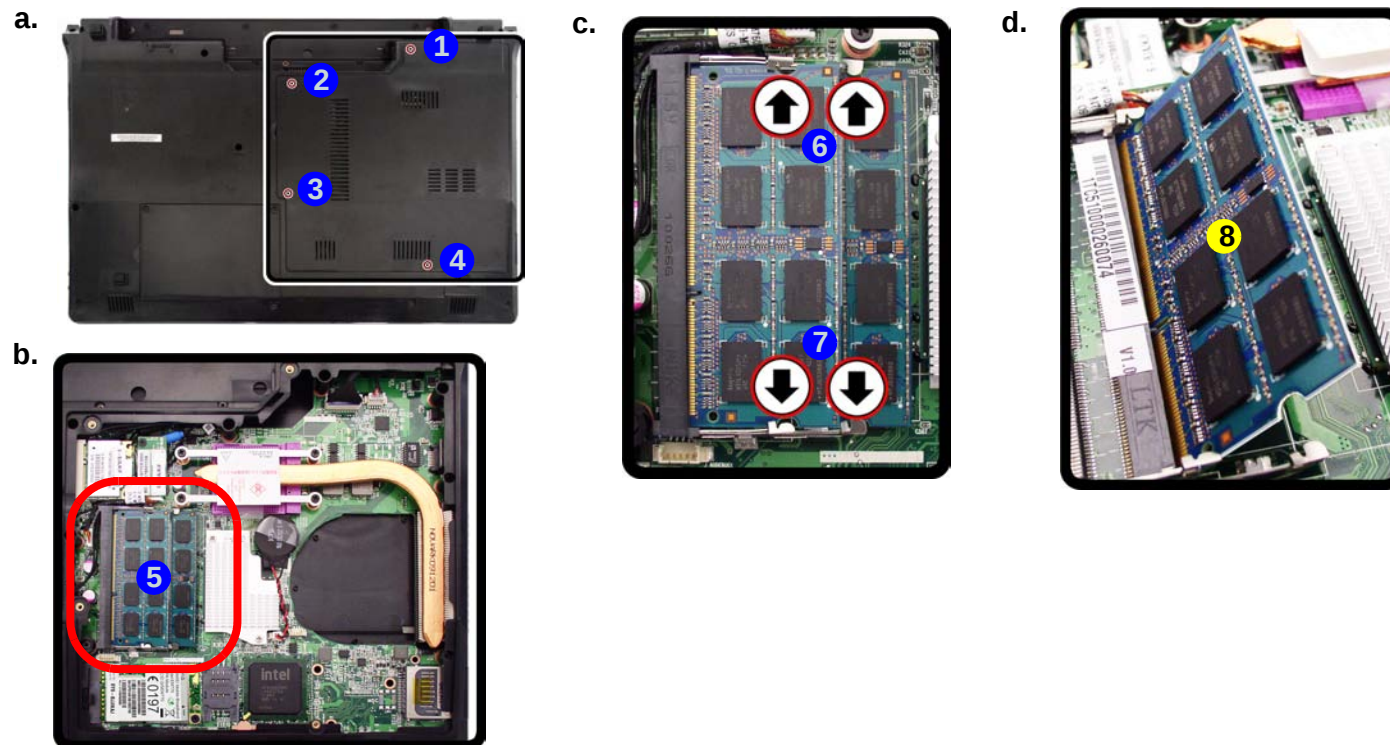
The computer has two memory sockets for 200 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDRIII (DDR3) Up to 1066/1333 MHz. The main memory can be expanded up to 8GB. The SO-DIMM modules supported are 1024MB and 2048MB **DDRIII** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

Memory Upgrade Process

1. Turn **off** the computer, turn it over and remove the battery ([page 2 - 5](#)).
2. Remove screws **1** - **4** from the component bay cover ([Figure 5a](#)).
3. The RAM modules will be visible at point **5** on the mainboard ([Figure 5b](#)).
4. Gently pull the two release latches (**6** & **7**) on the sides of the memory socket in the direction indicated by the arrows ([Figure 5c](#)). The RAM module **8** will pop-up ([Figure 5d](#)), and you can then remove it.

Figure 5
RAM Module Removal

- a. Remove the screws from the component bay cover.
- b. The RAM modules will be visible at point **5** on the mainboard.
- c. Pull the release latches.
- d. Remove the module.



Contact Warning

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



8. RAM Module

- 4 Screws

Disassembly

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 component bay cover and the screws (see [page 2 - 8](#)).
10. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

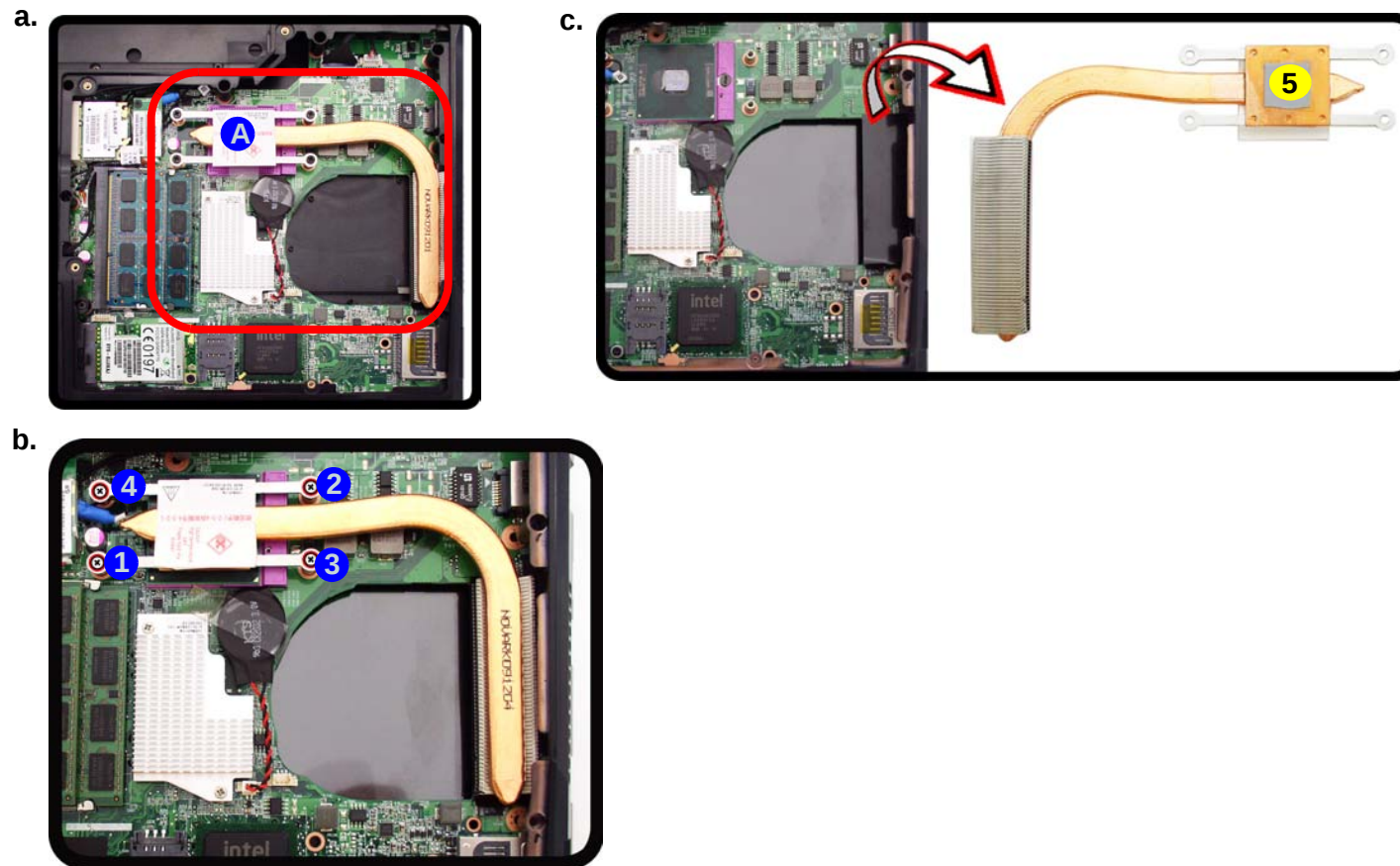
Removing and Installing a Processor

Processor Removal Procedure

1. Turn **off** the computer, turn it over, and remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 8](#)).
2. Locate the heat sink.
3. Loosen the CPU heat sink screws in the order ④, ③, ② & ① (the reverse order as indicated on the label [Figure 6b](#)).
4. Carefully lift up the heat sink ⑤ ([Figure 6c](#)) off the computer.

Figure 6
Processor Removal

- a. Locate the heat sink.
- b. Remove the screws from the CPU heatsink.
- c. Remove the CPU heat sink.



- 
5. Heat Sink
- 4 Screws

Disassembly

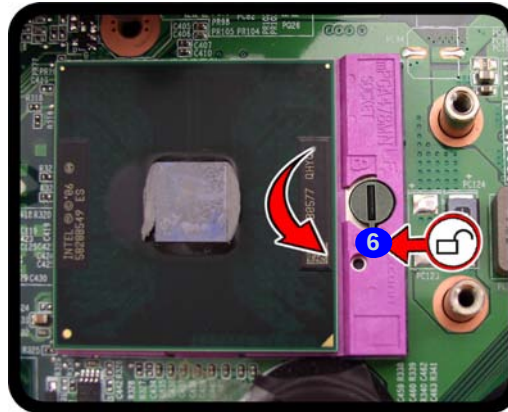
Figure 7
Processor Removal
(cont'd)

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

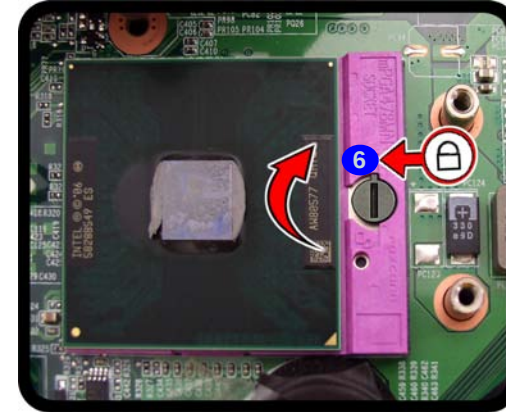
d. Turn the release latch to unlock the CPU.

e. Lift the CPU out of the socket.

d.

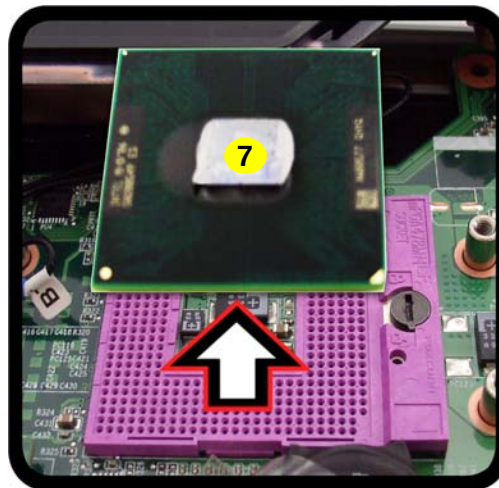


Unlock



Lock

e.



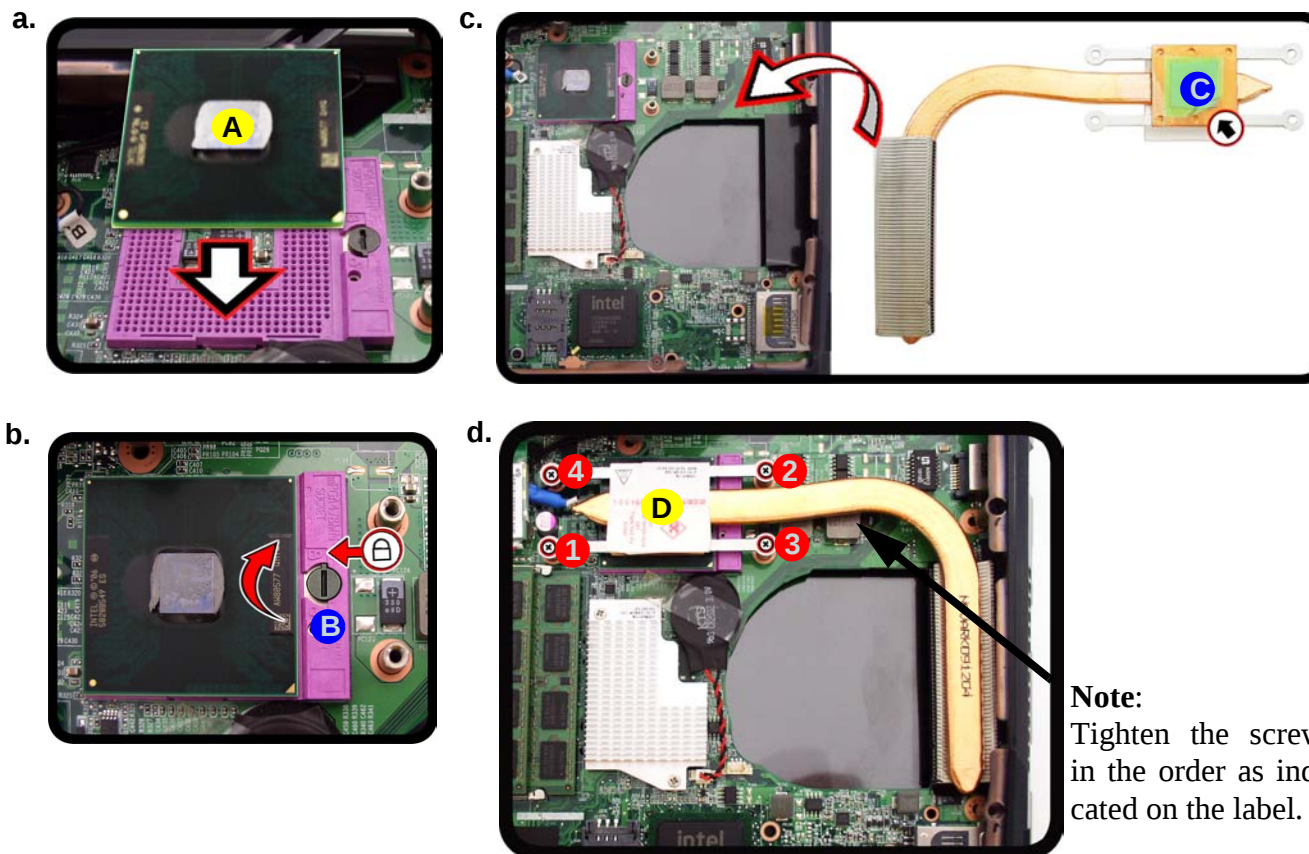
Caution

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

7. CPU

Processor Installation Procedure

1. Insert the CPU **A**, pay careful attention to the pin alignment, it will fit only one way (DO NOT FORCE IT!), and turn the release latch **B** towards the lock symbol  (**Figure 8b**).
2. **Remove the sticker C** (**Figure 8c**) from the heat sink.
3. Insert the heat sink **D** as indicated in **Figure 8d**.
4. Tighten the CPU heat sink screws in the order **1**, **2**, **3** & **4** (the order as indicated on the label and **Figure 8d**).
5. Replace the component bay cover (don't forget to replace the fan cable) and tighten the screws (**page 2 - 9**).



Note:
Tighten the screws
in the order as indi-
cated on the label.

- A. CPU
- D. Heat Sink
- 4 Screws

Figure 8
**Processor
Installation**

- a. Insert the CPU.
- b. Turn the release latch to-
wards the lock symbol.
- c. Remove the sticker from
the heat sink and insert
the heat sink.
- d. Tighten the screws.

Disassembly

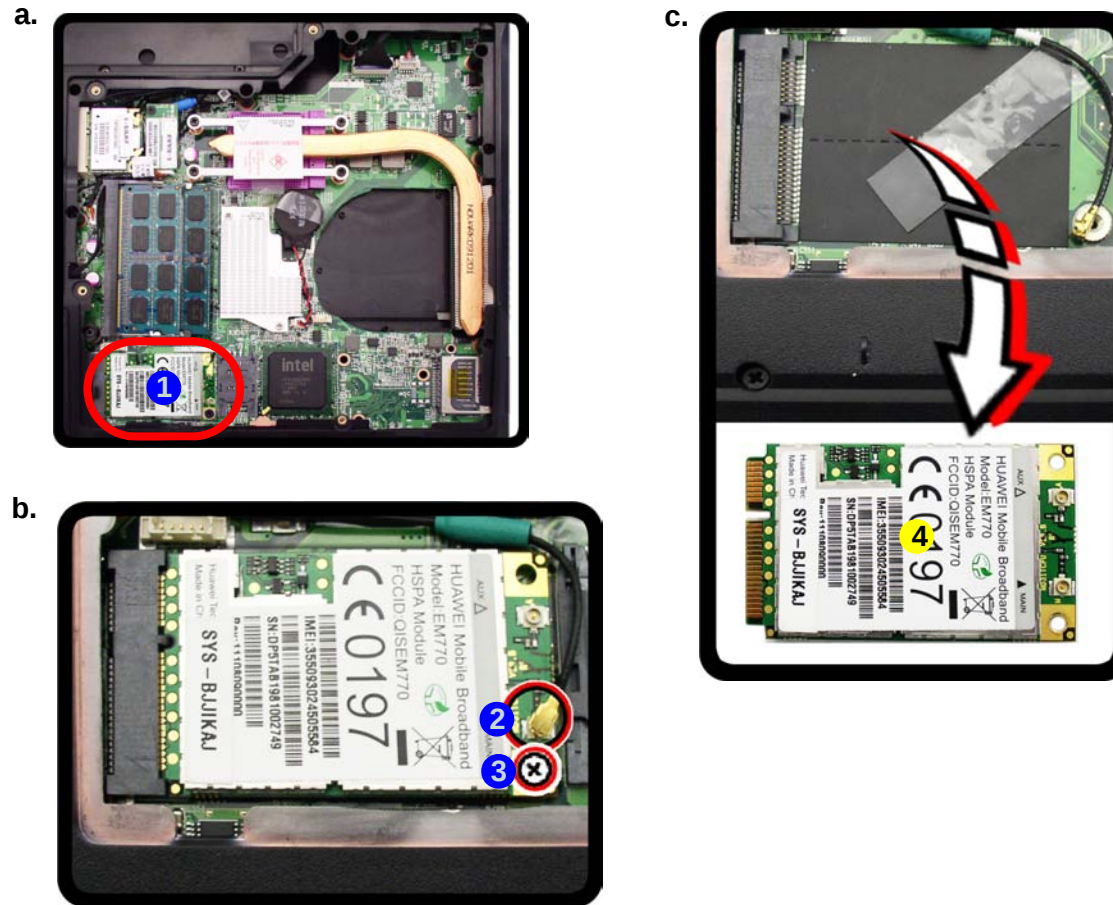
Figure 9
3G Module Removal

- Locate the 3G module.
- Disconnect the cable and remove the screw.
- Remove the 3G module.

Note: Make sure you reconnect the antenna cable to socket (Figure 9b).

Removing the 3G Module

- Turn **off** the computer, turn it over, and remove the battery (page 2 - 5) and the component bay cover (page 2 - 9).
- The 3G module will be visible at point ① on the mainboard (Figure 9a).
- Carefully disconnect the cable ②, and then remove the screw ③ (Figure 9b).
- The 3G module ④ (Figure 9c) will pop-up, and you can remove it from the computer.



4. 3G Module

- 1 Screw

Removing the Wireless LAN Module

1. Turn **off** the computer, turn it over, and remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 9](#)).
2. The Wireless LAN module will be visible at point **1** on the mainboard ([Figure 10a](#)).
3. Carefully disconnect the cables **2** & **3**, and then remove the screw **4** ([Figure 10b](#)).
4. The Wireless LAN module **5** ([Figure 10c](#)) will pop-up, and you can remove it from the computer ([Figure 10d](#)).

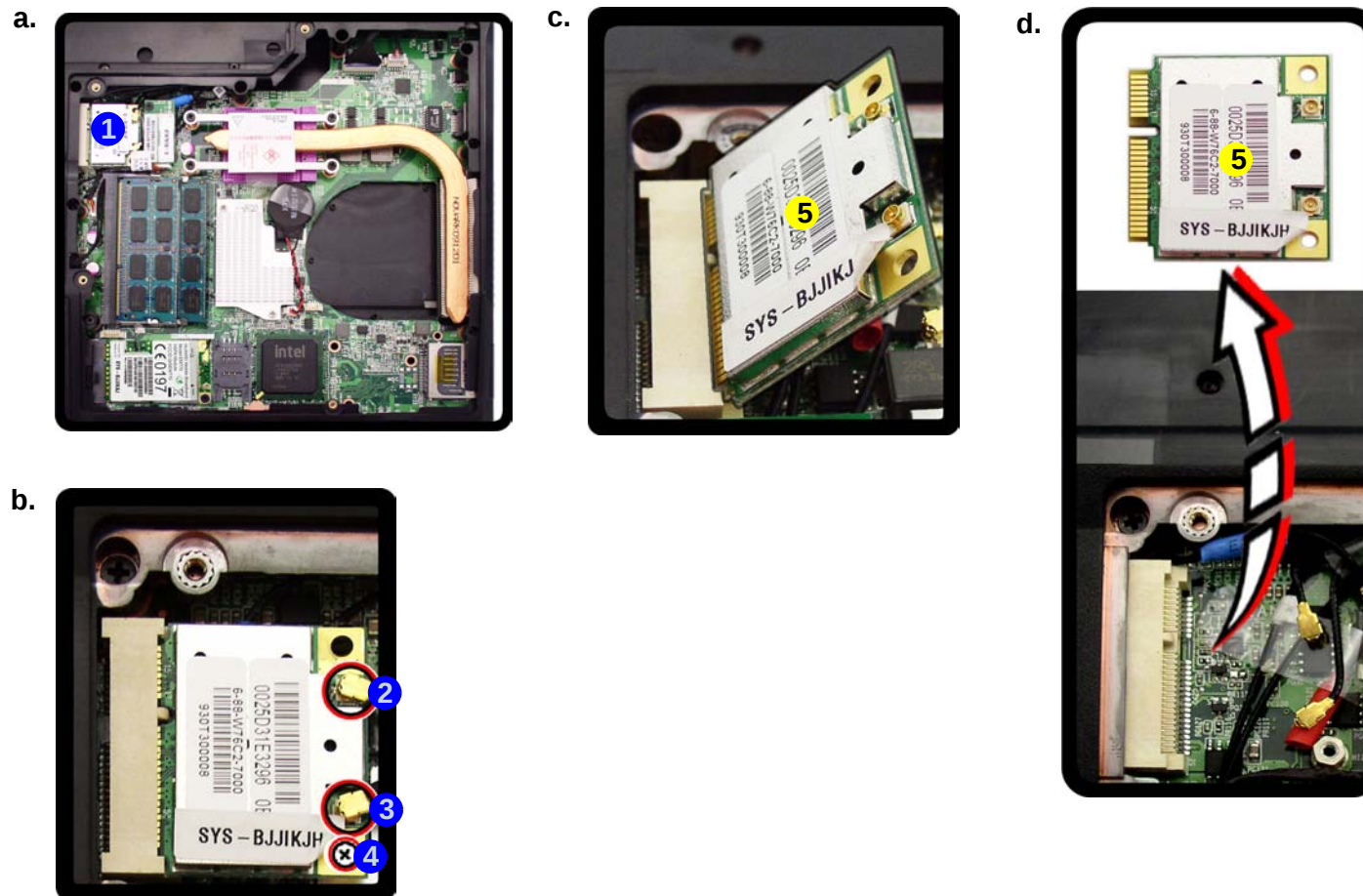


Figure 10
**Wireless LAN
Module Removal**

- a. Locate the WLAN.
- b. Disconnect the cable and remove the screw.
- c. The WLAN module will pop up.
- d. Remove the Wireless LAN module.

Note: Make sure you reconnect the antenna cable to the “1 + 2” socket ([Figure 10b](#)).



5. Wireless LAN Module

- 1 Screw

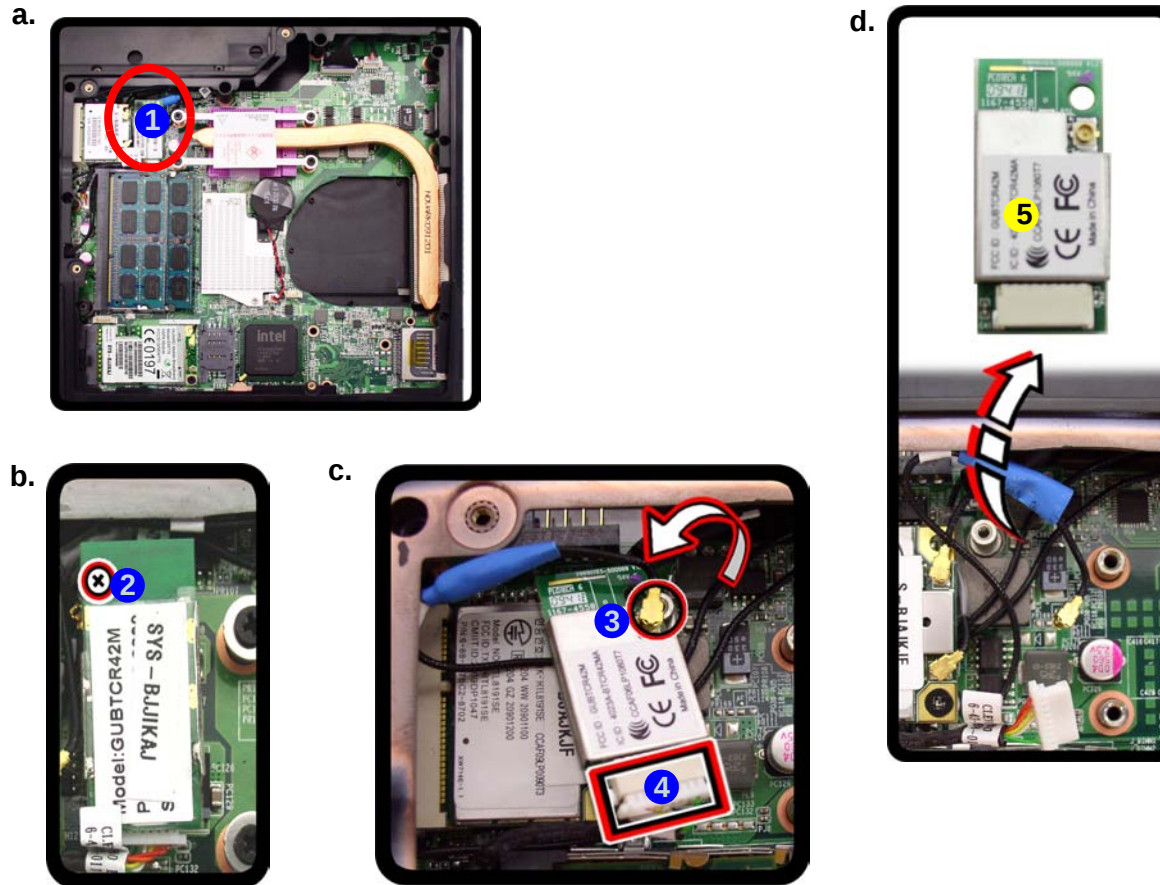
Disassembly

Figure 11
Bluetooth Module Removal

- Locate the Bluetooth module.
- Remove the screw.
- Disconnect the cable and the connector from the Bluetooth module.
- Lift the Bluetooth module out.

Removing the Bluetooth Module

- Turn **off** the computer, turn it over, and remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 8](#)).
- The Bluetooth module will be visible at point **1** on the mainboard ([Figure 11a](#)).
- Remove the screw **2** ([Figure 11b](#)) and turn the module over ([Figure 11c](#)).
- Carefully disconnect the cable **3** and separate the connector **4** ([Figure 11c](#)) from the Bluetooth Module.
- Lift the Bluetooth Module **5** ([Figure 11d](#)) up and off the computer.



5. Bluetooth Module

- 1 Screw

Removing the Keyboard

1. Turn **off** the computer, and remove the battery ([page 2 - 5](#)).
2. Remove screws **1** - **2** from the bottom of the computer. Press at point **3** to unsnap the LED cover module (you may need to use a small screwdriver to do this [Figure 12a](#)).
3. Turn the computer over, unsnap up the LED cover module **4** from point **5** to the right ([Figure 12b](#)).
4. Remove screws **6** - **10** from the keyboard ([Figure 12c](#)).
5. Carefully lift the keyboard up, being careful not to bend the keyboard ribbon cable **11**. Disconnect the keyboard ribbon cable **11** from the locking collar socket **12** ([Figure 12d](#)).
6. Carefully lift up the keyboard **13** ([Figure 12e](#)) off the computer.



Figure 12
Keyboard Removal

- a. Remove screws from the bottom of the computer.
- b. Turn the computer over, unsnap up the LED cover module from point **5** to the right.
- c. Remove screws from the keyboard.
- d. Carefully lift the keyboard up and disconnect the keyboard ribbon cable from the locking collar socket.
- e. Remove the keyboard.



Re-Inserting the Keyboard

When re-inserting the keyboard firstly align the **four** keyboard tabs at the bottom ([Figure 12c](#)) at the bottom of the keyboard with the slots in the case.



4. LED Cover Module
13. Keyboard

- 7 Screws

Appendix A:Part Lists

This appendix breaks down the *C5100Q/C5100Q-C/C5105/C5105-C* series notebook’s construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

Note: This section indicates the *manufacturer’s* part numbers. Your organization may use a different system, so be sure to cross-check any relevant documentation.

Note: Some assemblies may have parts in common (especially screws). However, the part lists DO NOT indicate the total number of duplicated parts used.

Note: Be sure to check any update notices. The parts shown in these illustrations are appropriate for the system at the time of publication. Over the product life, some parts may be improved or re-configured, resulting in *new* part numbers.

Part Lists

Part List Illustration Location

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

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

Part	C5100Q/C5100Q-C/C5105/ C5105-C
Top (C5105Q)	<i>page A - 3</i>
Top (C5100Q)	<i>page A - 4</i>
Bottom	<i>page A - 5</i>
DVD Dual Drive	<i>page A - 6</i>
LCD	<i>page A - 7</i>

Top (C5105Q)

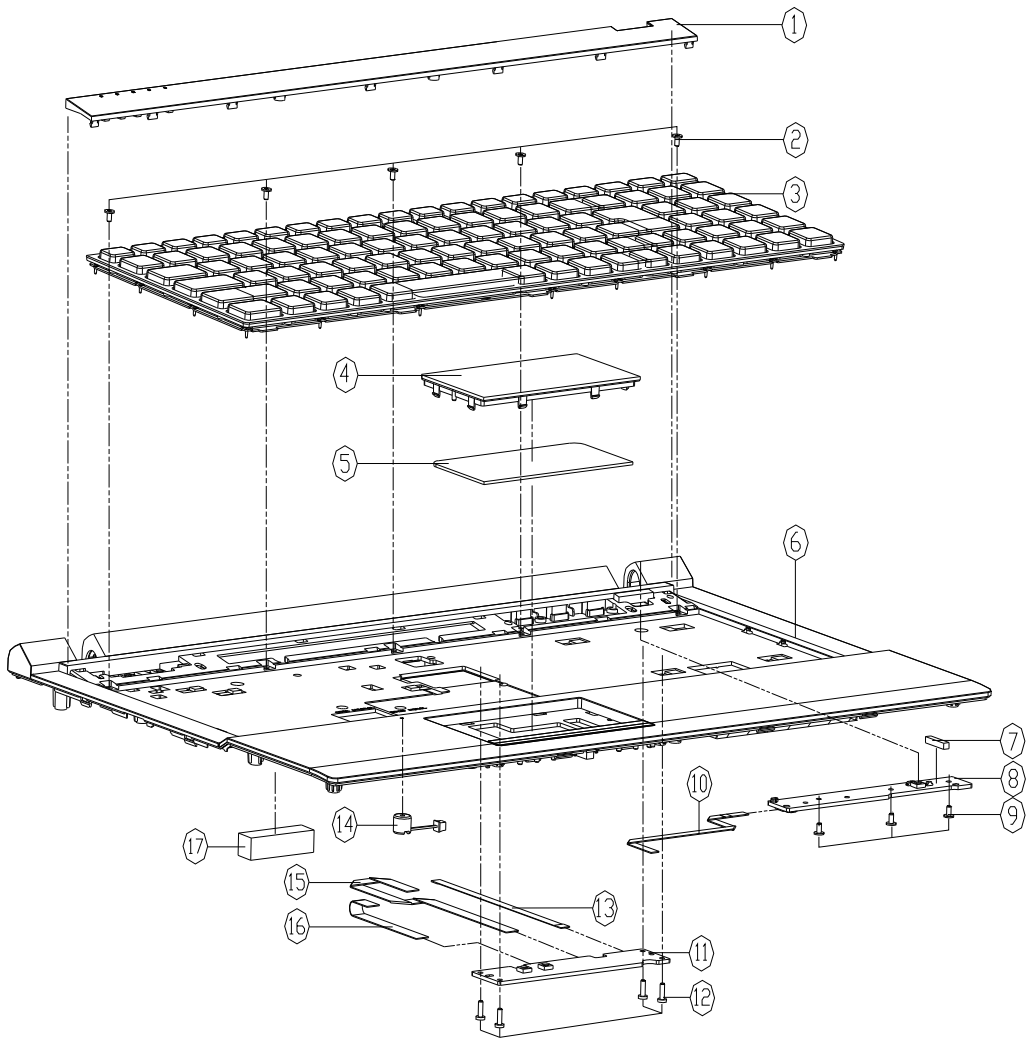
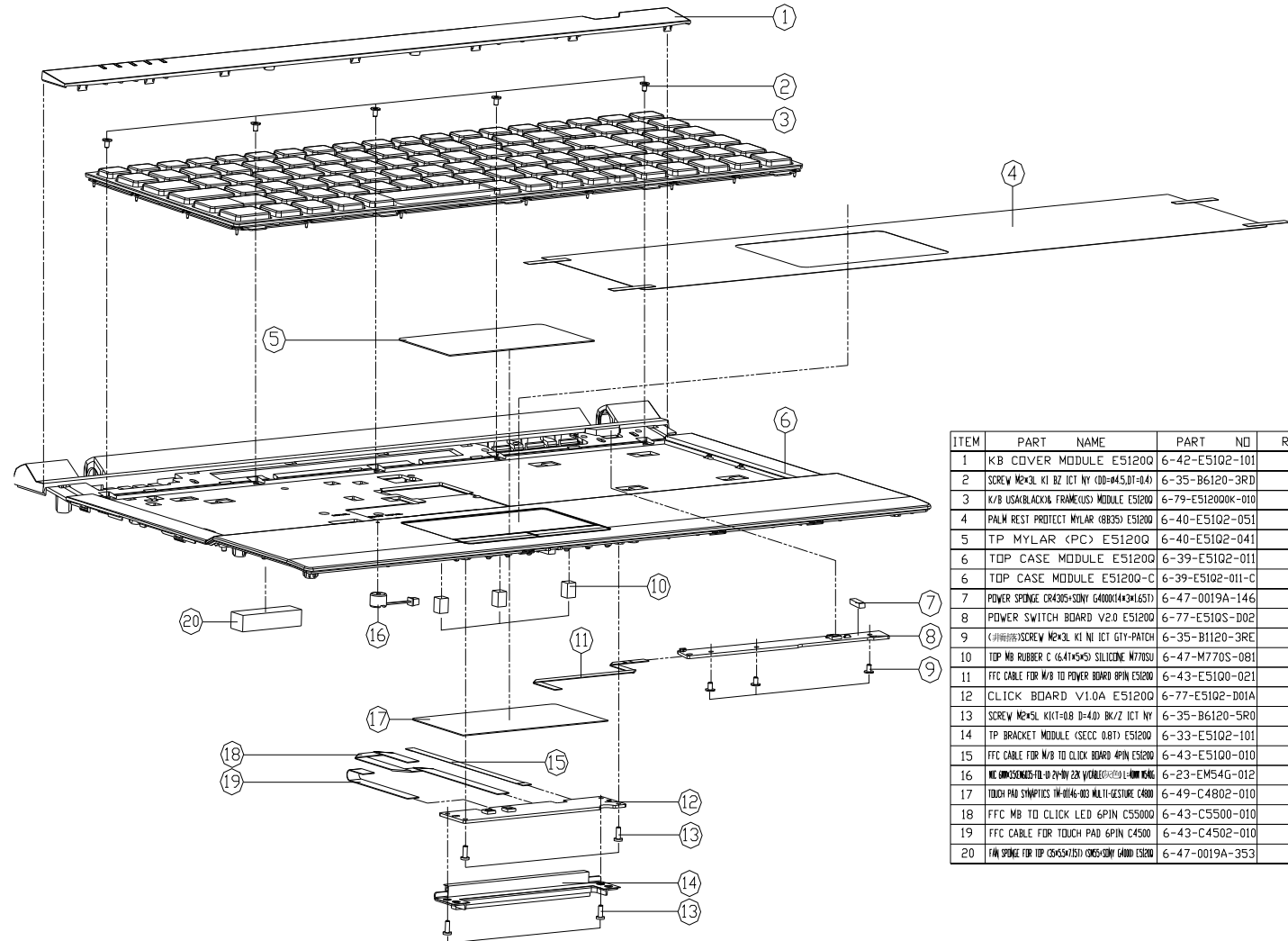


Figure A - 1
Top (C5105Q)

ITEM	PART NAME	PART NO	REMARK
1	KB COVER MODULE E5125	6-42-E5158-101	
2	SCREW M2x3L KI BZ ICT NY (00-445,0T-04)	6-35-B6120-3RD	
3	K/B US/BLACK/6 FRAME(US) MODULE E5120Q	6-79-E5120Q0K-010	
4	CLICK BUTTON PLATE (PC+ABS) E5125	6-42-E5152-061	
5	TOUCH PAD SYMPHICS TM-0146-003 MULTI-GESTURE C4800	6-49-C4802-010	
6	TOP CASE MODULE E5125	6-39-E5152-011	
6	TOP CASE MODULE E5125-C	6-39-E5152-011-C	
7	POWER SPONGE CR4305+SONY C4000(14x34x65T)	6-47-0019A-146	
8	POWER SWITCH BOARD V2.0 E5120Q	6-77-E510S-D02	
9	SCREW M2x3L KI NI ICT GTY-PATCH	6-35-B1120-3RE	
10	FFC CABLE FOR W/B TO POWER BOARD 6PIN E5120Q	6-43-E51Q0-021	
11	CLICK BOARD V1.0A E5120Q	6-77-E51Q2-D01A	
12	SCREW M2x3L KKT-08 D-4.0 BK/2 ICT NY	6-35-B6120-5R0	
13	FFC CABLE FOR W/B TO CLICK BOARD 4PIN E5120Q	6-43-E51Q0-010	
14	WIRE CONNECTOR FOR 22K VIBRATION MOTOR	6-23-EM54G-012	
15	FFC MB TO CLICK LED 6PIN C5500Q	6-43-C5500-010	
16	FFC CABLE FOR TOUCH PAD 6PIN C4500	6-43-C4502-010	
17	FAN SPONGE FOR TOP C5105Q(125T) C505+SONY C4000 E5120Q	6-47-0019A-353	

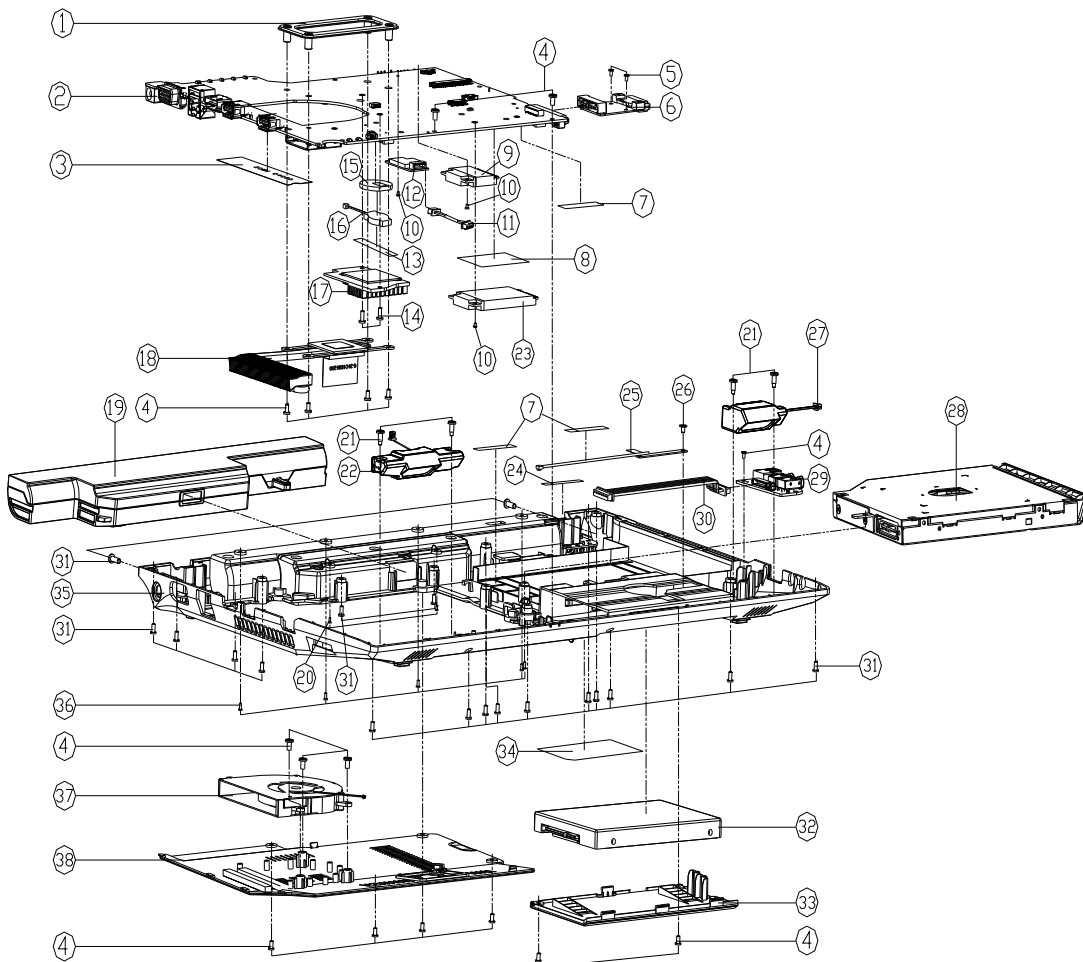
Part Lists

Top (C5100Q)

Figure A - 2
Top (C5100Q)

ITEM	PART NAME	PART NO	REMARK
1	KB COVER MODULE E5120Q	6-42-E51Q2-101	
2	SCREW MEXL KI BZ ICT NY (D0=94.5,D1=04)	6-35-B6120-3RD	
3	K/B USA/BLACK/ FRAME(US) MODULE E5120Q	6-79-E51200K-010	
4	PALM REST PROTECT MYLAR (8835) E5120Q	6-40-E51Q2-051	
5	TP MYLAR (PC) E5120Q	6-40-E51Q2-041	
6	TOP CASE MODULE E5120Q	6-39-E51Q2-011	
6	TOP CASE MODULE E5120Q-C	6-39-E51Q2-011-C	
7	POWER SPRING CR4305/SONY (4000(14*31.65))	6-47-0019A-146	
8	POWER SWITCH BOARD V2.0 E5120Q	6-77-E51QS-D02	
9	SCREW MEXL KI NI ICT GY-PATCH	6-35-B1120-3RE	
10	TOP MB RUBBER C (6.41*5*5) SILICONE M70SU	6-47-M770S-081	
11	FFC CABLE FOR W/B TO POWER BOARD 6PIN E5120Q	6-43-E51Q0-021	
12	CLICK BOARD V1.0A E5120Q	6-77-E51Q2-D01A	
13	SCREW MEXL K1T-08 D=4.0 BK/2 ICT NY	6-35-B6120-5RD	
14	TP BRACKET MODULE (SECC 0.8T) E5120Q	6-33-E51Q2-101	
15	FFC CABLE FOR W/B TO CLICK BOARD 4PIN E5120Q	6-43-E51Q0-010	
16	NO.005SONOS-FL-0 24-24V 22K VOLUME/0.019 L-4MM 9046	6-23-EM54G-012	
17	TOUCH PAD SYMPHONY TM-H146-003 MULTI-GEASURE C400	6-49-C4802-010	
18	FFC MB TO CLICK LED 6PIN C5500Q	6-43-C5500-010	
19	FFC CABLE FOR TOUCH PAD 6PIN C4500	6-43-C4502-010	
20	F/W SPRING FOR TOP C5450(755) C065/S01Y (4000 C5120Q)	6-47-0019A-353	

Bottom



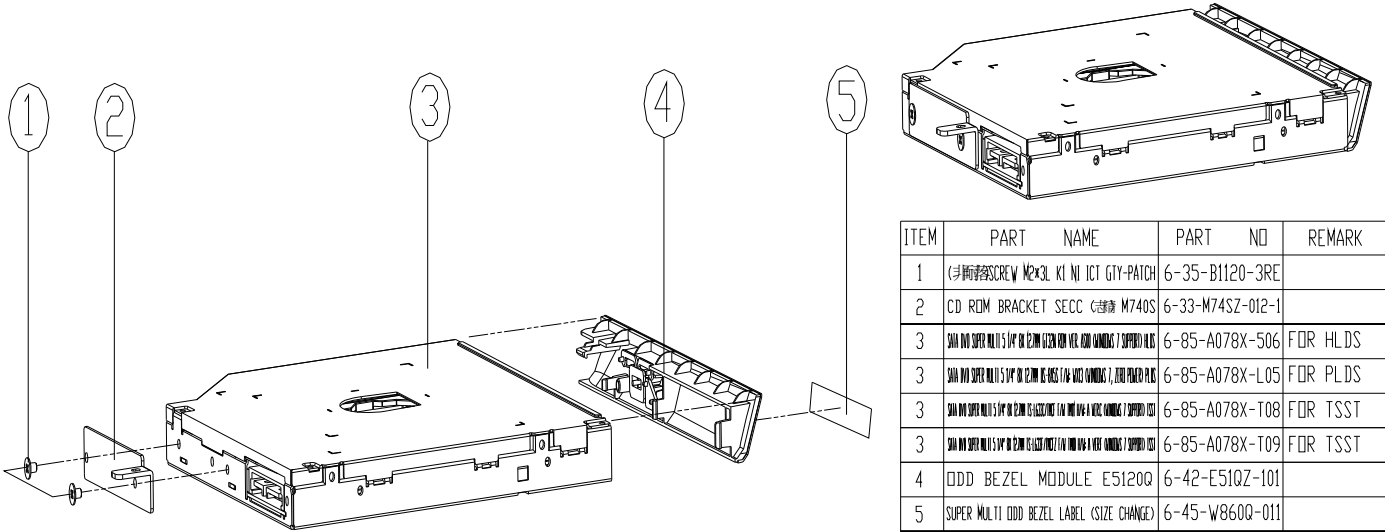
ITEM	PART	NAME	PART NO	REMARK
1	CPU SUPPORT MODULE C4500		6-33-C410S-102	
2	MAIN BOARD V20 (W/3G) C51000		6-77-C5100-002	
2	MAIN BOARD V20 (W/3G) C51000		6-77-C5100-002-1	
3	MYLAR FOR M/B FIN C4500		6-40-C450S-010	
4	SCREW M2*5xSL K1 BK/2 ICT NY		6-35-B612S-5RA	
5	SOCKET NYLON RZ ICT GT-PATCH W/ C5100		6-35-C1210-3RD	
6	DOD BRIDGE BOARD W/ E51200		6-77-C510S-001	
7	TAPE MYLAR (C)MYLAR M550J		6-40-M55J2-030	
8	MYLAR ADHESIVE KIT (R83 + 3N-64) W751		6-40-W751-020	
9	MYLAR ADHESIVE KIT (R83 + 3N-64) W751		6-88-W7622-7001	(OPTION)
9	MYLAR NYLON NYLON BRITELINE HALF MINI-C800		6-88-W7622-8702	(OPTION)
9	MYLAR NYLON NYLON BRITELINE HALF MINI-C800		6-88-C480C-4702	(OPTION)
9	MYLAR NYLON NYLON BRITELINE HALF MINI-C800		6-88-W77C2-4200	(OPTION)
10	SCREW NYLON K1 RZ ICT NY (00-45312-0-4)		6-35-B6120-3RD	
11	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-43-W76SB-011	
12	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-88-W77CS-5300	
13	TAPE MYLAR (C)MYLAR M550J		6-40-M55J2-010	
14	SCREW M2*SL K1 NY ICT NY		6-35-B1120-5RD	
15	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-47-0019A-211	
16	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-23-22015-1C0	
17	NORTH BRIDGE HEATSHINK MODULE C4800		6-31-C480A-101	
18	CPU BRIDGE BOARD NYLON NYLON BRITELINE HALF MINI-C800		6-31-C410A-200	
19	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-87-C480S-4402	(OPTION)
19	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-88-C480S-4G41	(OPTION)
19	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-87-E412S-407	(OPTION)
19	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-87-E412S-4Y4	(OPTION)
20	SCREW M2*4L K1 BK/2 ICT NY		6-35-B6120-4RB	
21	SCREW NYLON NYLON NYLON BRITELINE HALF MINI-C800		6-35-C1210-6R2	
22	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-23-E5510-011	
23	NYLON NYLON NYLON NYLON BRITELINE HALF MINI-C800		6-88-M810W-8801	(OPTION)
24	TAPE MYLAR (B)MYLAR M550J		6-40-M55J2-020	
25	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-35-C7555-010	
26	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-35-B1120-3RE	
27	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-23-E5510-021	
28	SATA DVD SUPER MULTI ASSY (OPTION)		6-79-E510000-000	
29	AUDIO BOARD V20A C4500		6-77-C4508-002A	
30	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-43-E5100-031	
31	SCREW M2*5xSL K1 BK/2 NY ICT		6-35-B612S-6R0	
32	W/HDD ASSY E51200Q		6-79-E510000-020	
33	W/O HDD ASSY E51200		6-79-E510000-010	
33	HDD COVER (PC+ABS) E51200		6-42-E510J-011	
34	PRODUCT LABEL FOR C51000		6-45-C5100003-010	
34	PRODUCT LABEL FOR C5105		6-45-C510003-010	
35	BOTTOM CASE MODULE E51200		6-39-E5103-011	
35	BOTTOM CASE MODULE E51200-C		6-39-E5103-011-C	
36	SCREW NYLON K1K1-08 0-40 BK/2 ICT NY		6-35-B6120-5RD	
37	NYLON CABLE NYLON NYLON BRITELINE HALF MINI-C800		6-23-C450-012	
38	CPU COVER MODULE W/3G E51200		6-42-E5103-101	
38	CPU COVER MODULE W/3G E51200		6-42-E5103-201	

Figure A - 3
Bottom

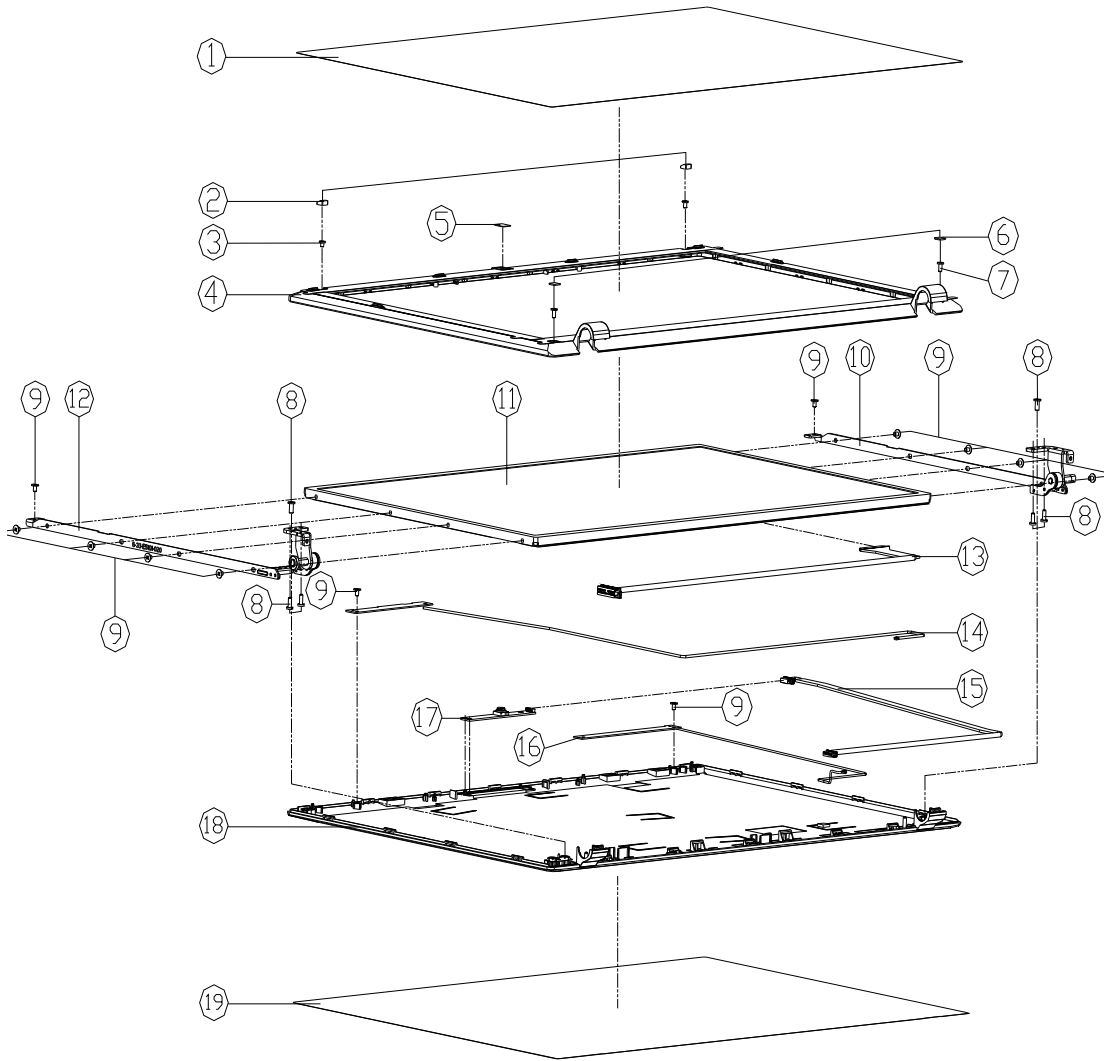
Part Lists

DVD Dual Drive

Figure A - 4
DVD Dual Drive



LCD



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION FILM (PET-300X50) ES200	6-40-E5101-030	
2	LCD FRONT COVER SCREW RUBBER SILICON ES1200	6-47-E5108-010	
3	SCREW M2X4.0 KI BZ ICT NY (OD=44.5, BT=0.4)	6-35-B6120-3RD	
4	LCD FRONT COVER MODULE ES1200	6-39-E5101-011	
5	CCD LENS PMMA ES1200	6-42-E5101-030	
6	W/D CCD LENS PMMA ES1200	6-42-E5101-040	
7	FRONT COVER MYLAR PC FOR SCREW ES1200	6-40-E5108-010	
8	SCREW M2X4.0 KI BZ ICT NY (OD=44.5, BT=0.4)	6-35-B6120-6RB	
9	SCREW M2.5X4.0 KI BZ ICT NY (OD=44.5, BT=0.4)	6-35-B6125-5RD	
10	SCREW M2.5X4.0 KI BZ ICT NY (OD=44.5, BT=0.4)	6-35-B1120-3RE	
11	LCD HINGE R SK7 ES1200 (SINHER)	6-33-E5101-010	
11	LCD HINGE L SK7 ES1200 (SINHER)	6-33-E5101-010	
11	LCD HINGE R SK7 ES1200 (SINHER)	6-50-L8155-C00	FOR C51XX
11	LCD HINGE L SK7 ES1200 (SINHER)	6-50-L8155-M02	FOR C55XX
11	LCD HINGE R SK7 ES1200 (SINHER)	6-50-L8155-V03	
11	LCD HINGE L SK7 ES1200 (SINHER)	6-50-L8155-V02	
11	LCD HINGE R SK7 ES1200 (SINHER)	6-50-L8155-B00	
11	LCD HINGE L SK7 ES1200 (SINHER)	6-33-E5101-020	
13	WIRE CABLE FOR LVDS 22MM (OD=0.5) ES1200	6-43-E5101-011-B	
14	WIRE CABLE FOR LVDS 22MM (OD=0.5) ES1200	6-23-7E510-040	
15	WIRE CABLE FOR CCD 5P 22MM (OD=0.5) ES1200	6-43-E5101-011	
16	WIRE CABLE FOR LVDS 22MM (OD=0.5) ES1200	6-23-7E510-011	FOR C51XX/C55XX
16	WIRE CABLE FOR LVDS 22MM (OD=0.5) ES1200	6-23-7C510-021	FOR C51XX
17	UVI CAMERA BISON FIX (DIP=0.3) FOR LVDS 22MM (OD=0.5) ES1200	6-88-M810C-4911	OPTION
17	UVI CAMERA BISON FIX (DIP=0.3) FOR LVDS 22MM (OD=0.5) ES1200	6-88-M74TC-5102	OPTION
17	UVI CAMERA BISON FIX (DIP=0.3) FOR LVDS 22MM (OD=0.5) ES1200	6-88-M110C-5100	OPTION
17	UVI CAMERA BISON FIX (DIP=0.3) FOR LVDS 22MM (OD=0.5) ES1200	6-88-M810C-9001	OPTION
17	UVI CAMERA BISON FIX (DIP=0.3) FOR LVDS 22MM (OD=0.5) ES1200	6-88-M110C-9001	OPTION
18	LCD BACK IMR COVER MODULE ES1200	6-39-E5101-021	
18	LCD BACK IMR COVER MODULE ES1200-C	6-39-E5101-021-C	
18	BACK COVER MODULE ES125	6-39-E5151-021	
18	BACK COVER MODULE ES125-C	6-39-E5151-021-C	
18	LCD IMR BACK COVER MODULE ES1200	6-39-E5181-021	
18	LCD IMR BACK COVER MODULE ES1200-C	6-39-E5181-021-C	
19	LCD BACK COVER PROTECTION FILM (PET-300X50) ES200	6-40-E5101-040	FOR C55000/C51000
19	LCD BACK COVER PROTECTION FILM (PET-300X50) ES200	6-40-E5101-040	FOR C51200/C51200
19	LCD BACK COVER PROTECTION FILM (PET-300X50) ES200	6-40-E5101-040	FOR C51200/C51200

Figure A - 5
LCD

Part Lists

Appendix B:Schematic Diagrams

This appendix has circuit diagrams of the *C5100Q/C5100Q-C/C5105/C5105-C* notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

Diagram - Page	Diagram - Page	Diagram - Page
<i>System Block Diagram - Page B - 2</i>	<i>Panel, CRT - Page B - 15</i>	<i>LED, CCD, Audio Conn - Page B - 28</i>
<i>Clock Generator - Page B - 3</i>	<i>Inverter, Bluetooth, Fan - Page B - 16</i>	<i>System Power, PWR SW - Page B - 29</i>
<i>Penryn (Socket-P)1/2 - Page B - 4</i>	<i>ICH9M 1/4, SATA - Page B - 17</i>	<i>AC_In, Charger - Page B - 30</i>
<i>Penryn (Socket-P)2/2 - Page B - 5</i>	<i>ICH9M 2/4, PCI, USB - Page B - 18</i>	<i>VCORE - Page B - 31</i>
<i>CANTIGA 1/7, HOST - Page B - 6</i>	<i>ICH9M 3/4 - Page B - 19</i>	<i>VDD3, VDD5 - Page B - 32</i>
<i>CANTIGA 2/7, Graphics - Page B - 7</i>	<i>ICH9M 4/4 - Page B - 20</i>	<i>1.8V/1.05VS - Page B - 33</i>
<i>CANTIGA 3/7 - Page B - 8</i>	<i>HDMI - Page B - 21</i>	<i>1.5V,0.75VS - Page B - 34</i>
<i>CANTIGA 4/7 - Page B - 9</i>	<i>KBC-ITE IT8502E - Page B - 22</i>	<i>Click Board - Page B - 35</i>
<i>CANTIGA 5/7 - Page B - 10</i>	<i>Card Reader/LAN JMB261C - Page B - 23</i>	<i>Audio Board/USB - Page B - 36</i>
<i>CANTIGA 6/7 - Page B - 11</i>	<i>Audio Codec VT1812 - Page B - 24</i>	<i>Power Switch & Lid Board - Page B - 37</i>
<i>CANTIGA 7/7 - Page B - 12</i>	<i>Audio AMP - Page B - 25</i>	<i>External Odd Board - Page B - 38</i>
<i>DDRIII SO-DIMM A - Page B - 13</i>	<i>HDD, ODD, MDC, TP, Conn, 3G - Page B - 26</i>	<i>Power Sequence V1.0 - Page B - 39</i>
<i>DDRIII SO-DIMM B - Page B - 14</i>	<i>New Card, USB, Mini PCIE - Page B - 27</i>	

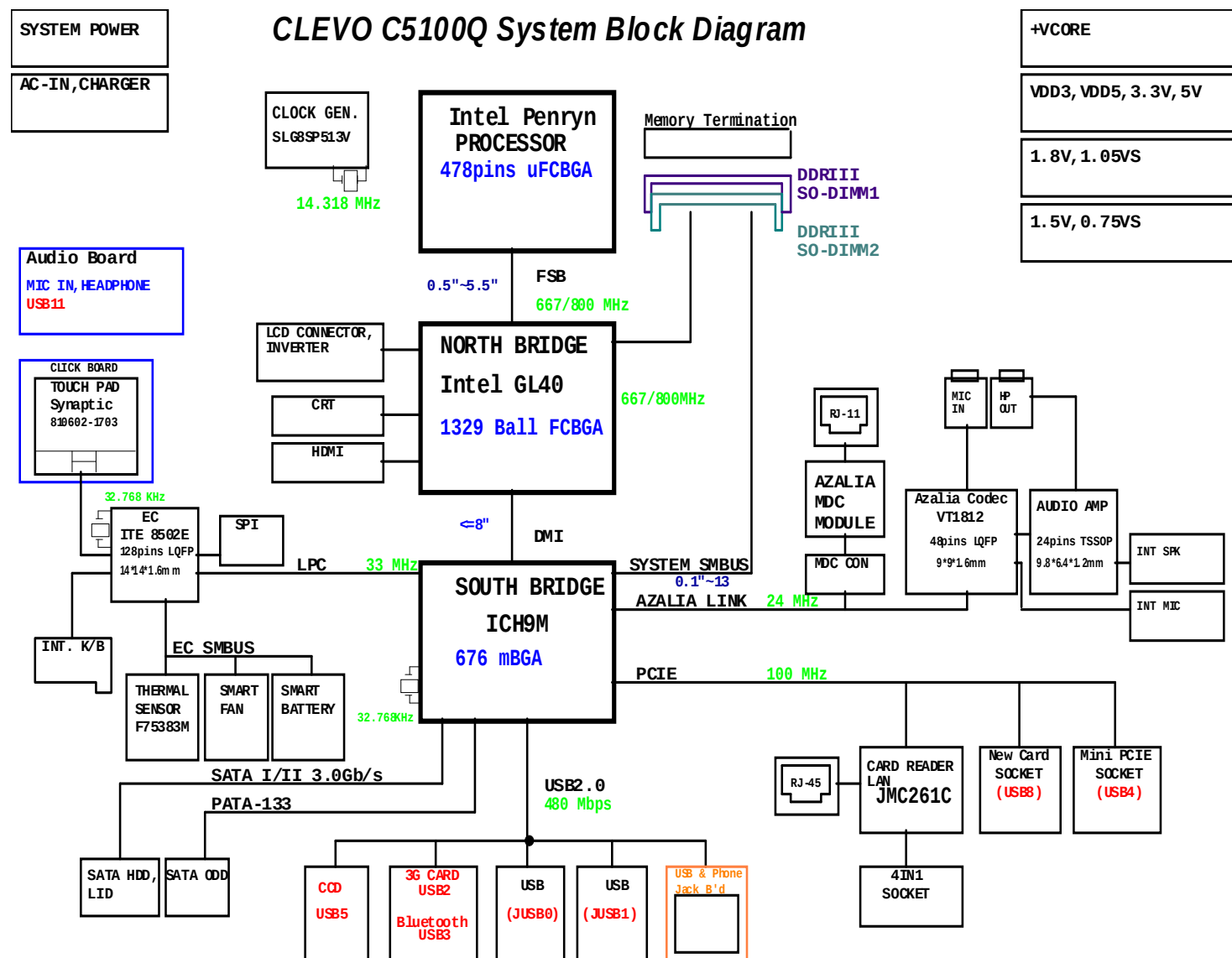
Table B - 1
**Schematic
Diagrams**



Version Note

The schematic diagrams in this chapter are based upon version 6-7P-C5105-002. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

CLEVO C5100Q System Block Diagram



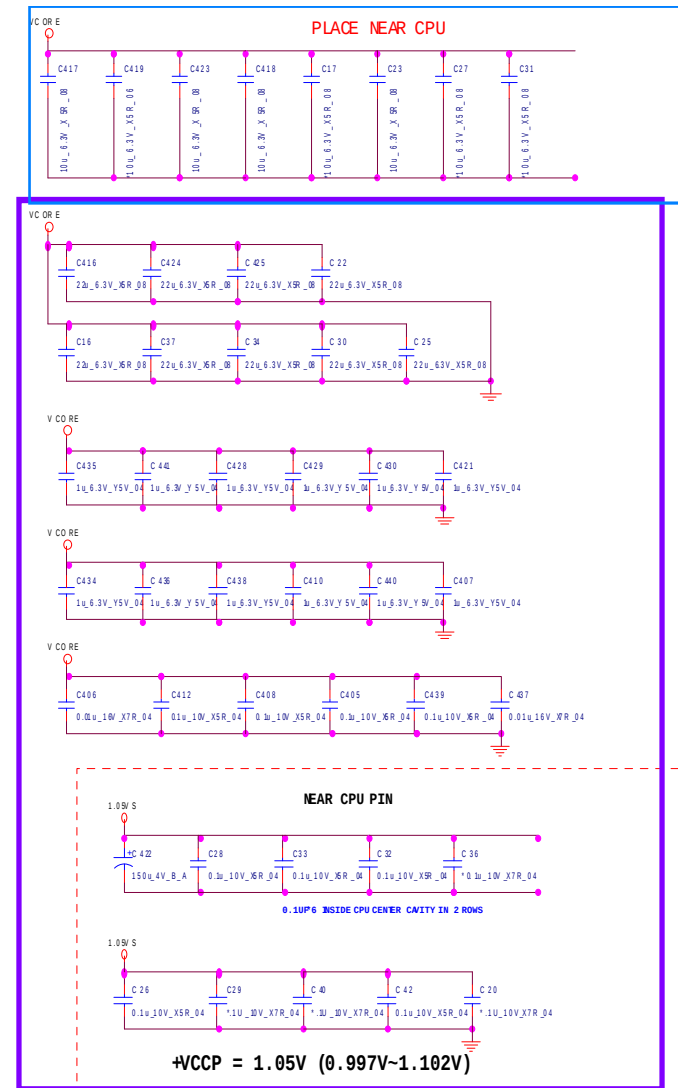
CLOCK GENERATOR



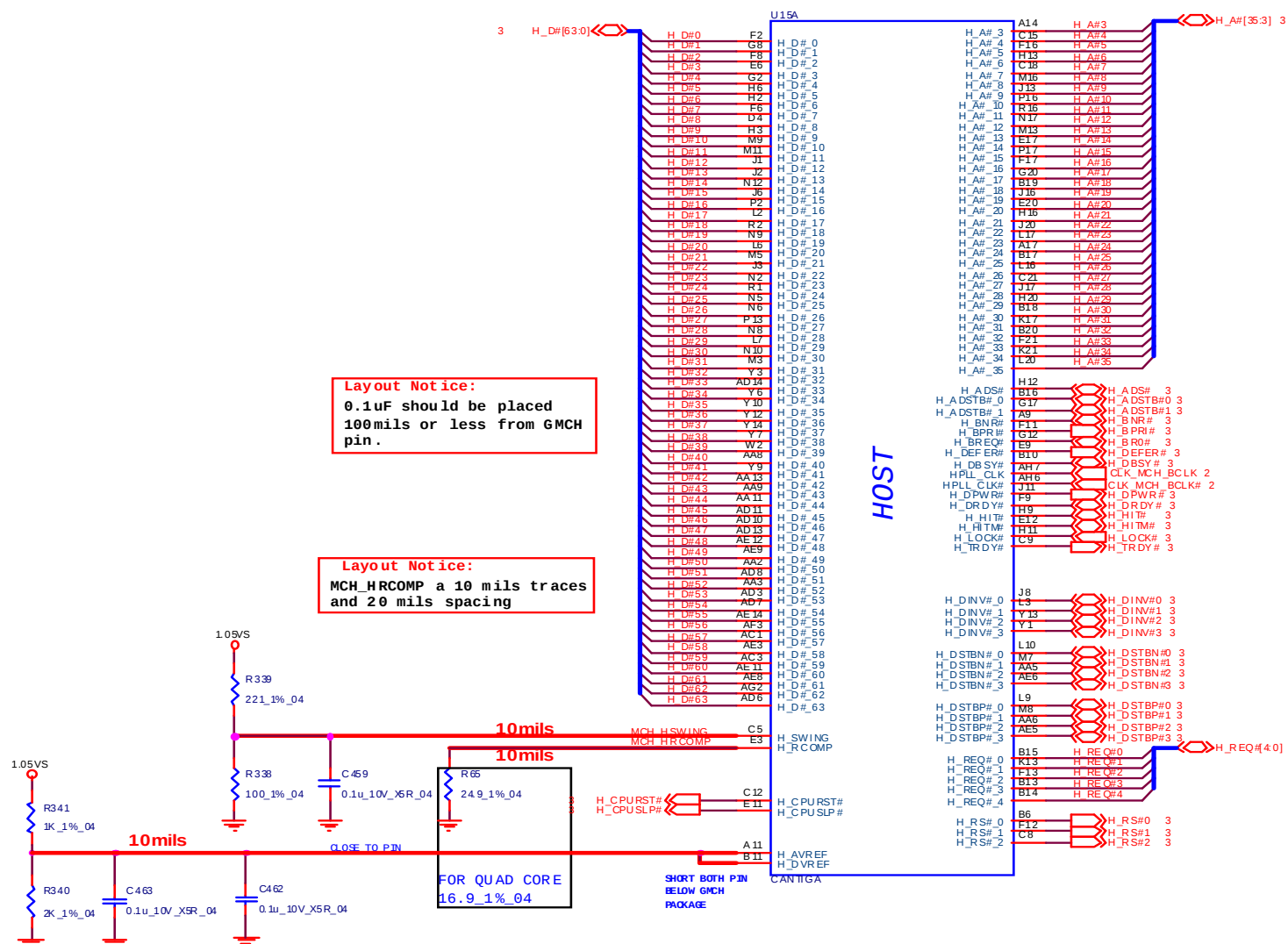
B.Schematic Diagrams

Sheet 3 of 38
Penryn (Socket-
P)1/2

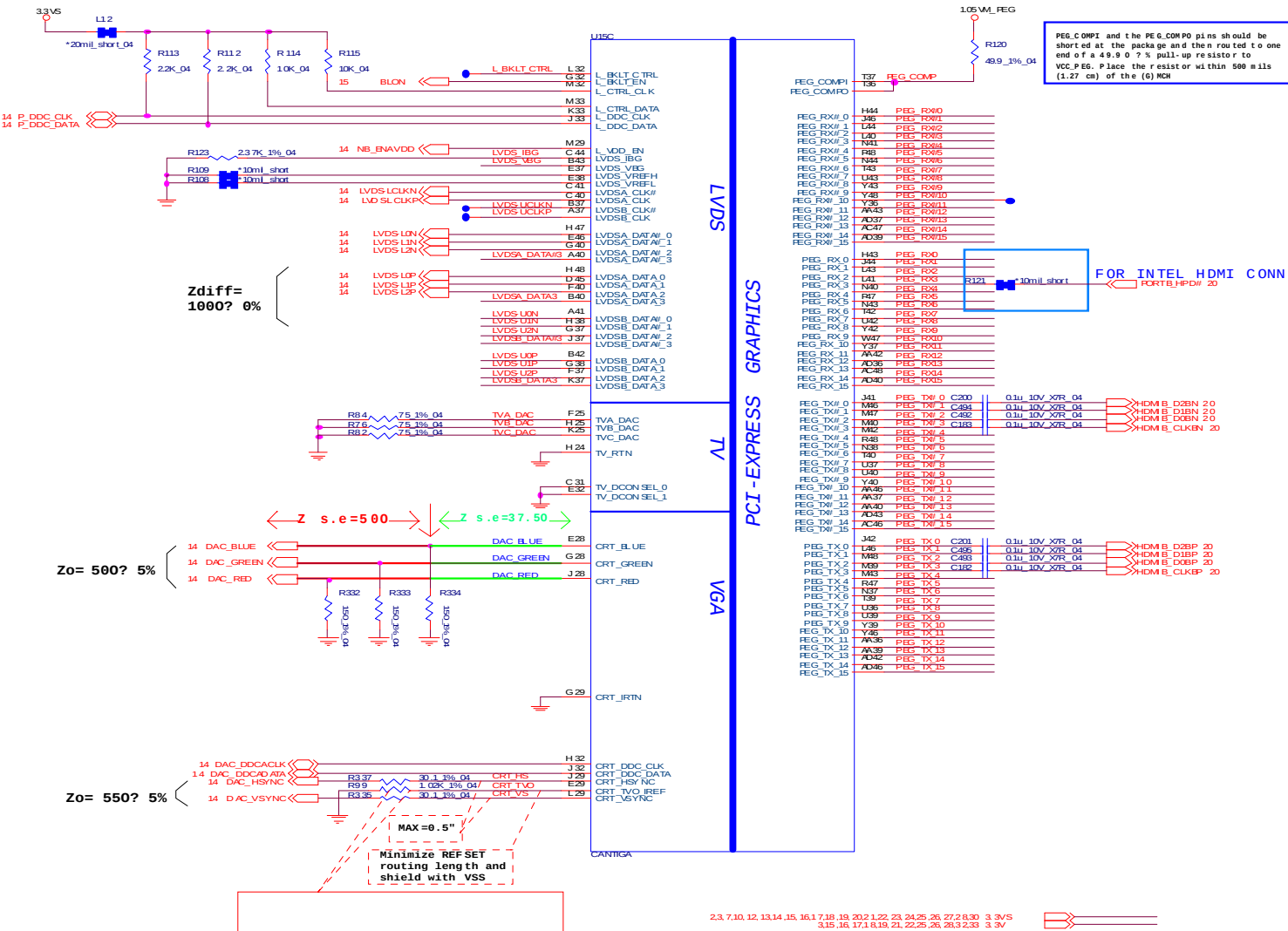


[illegible]

Sheet 5 of 38
CANTIGA 1/7,
HOST



CANTIGA 2/7, Graphics

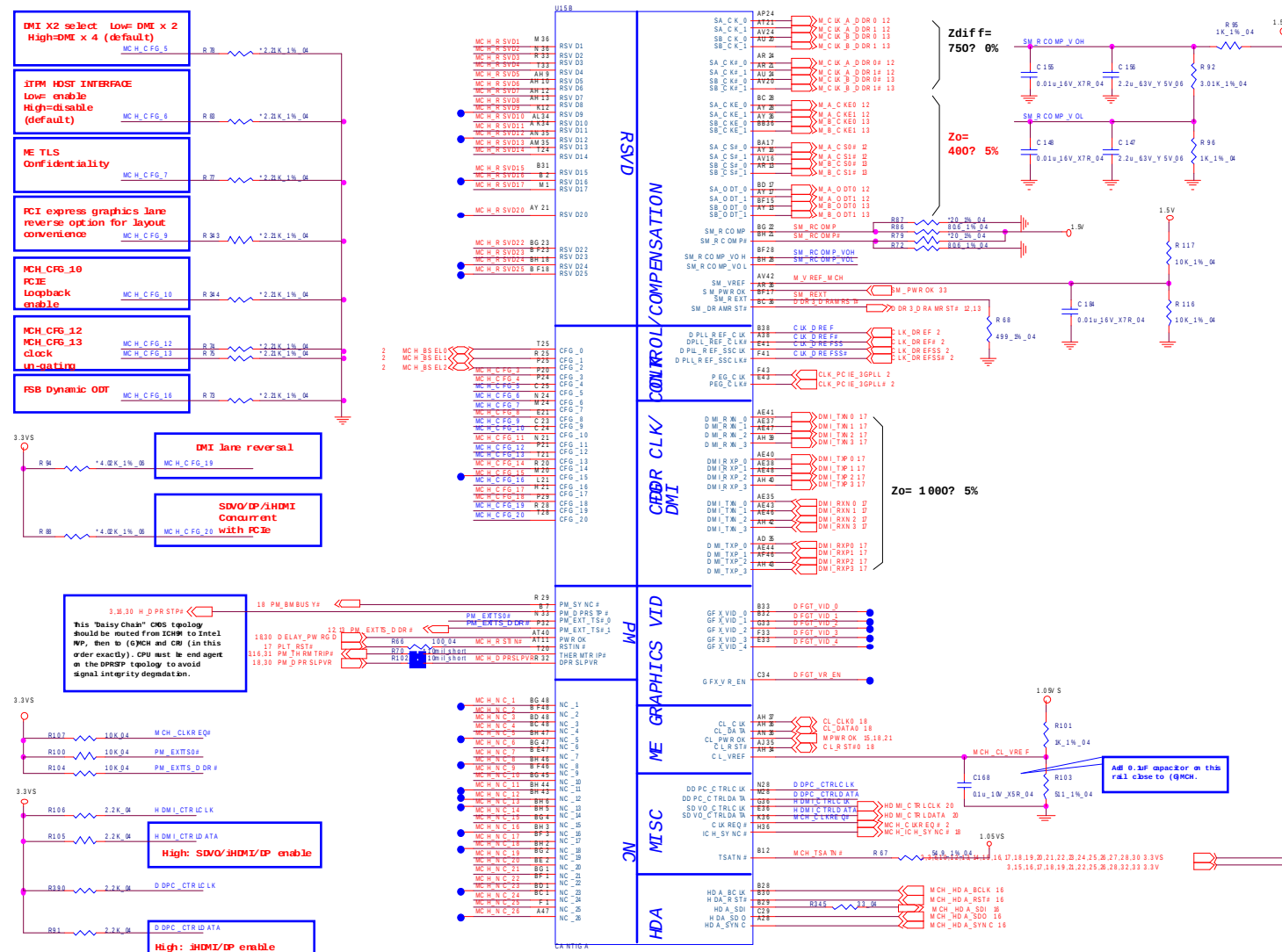


Sheet 6 of 38
CANTIGA 2/7,
Graphics

CANTIGA 3/7

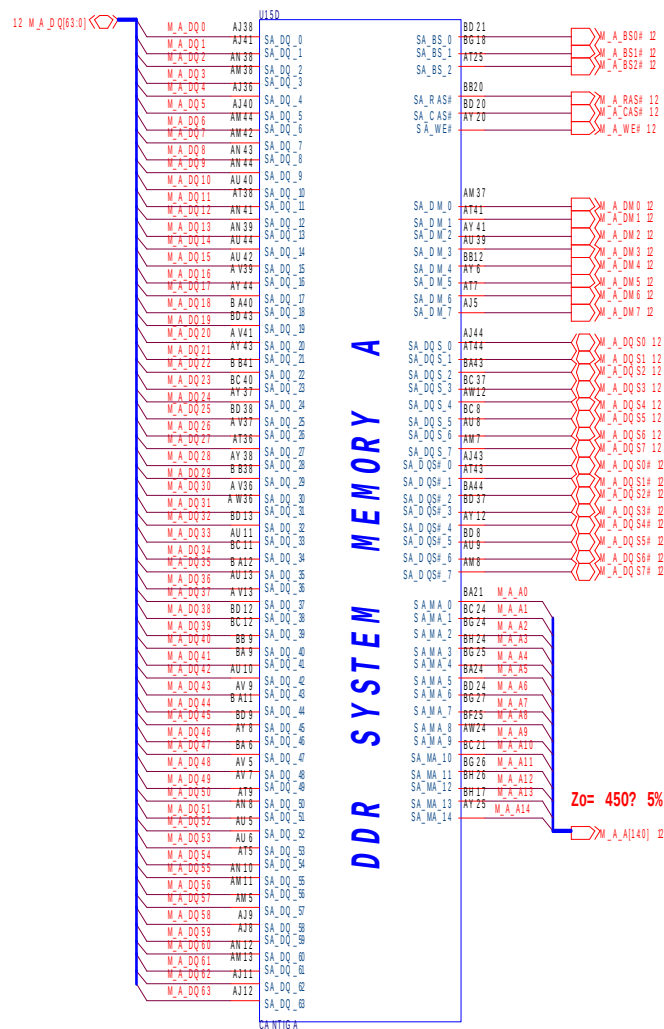
B.Schematic Diagrams

Sheet 7 of 38
CANTIGA 3/7

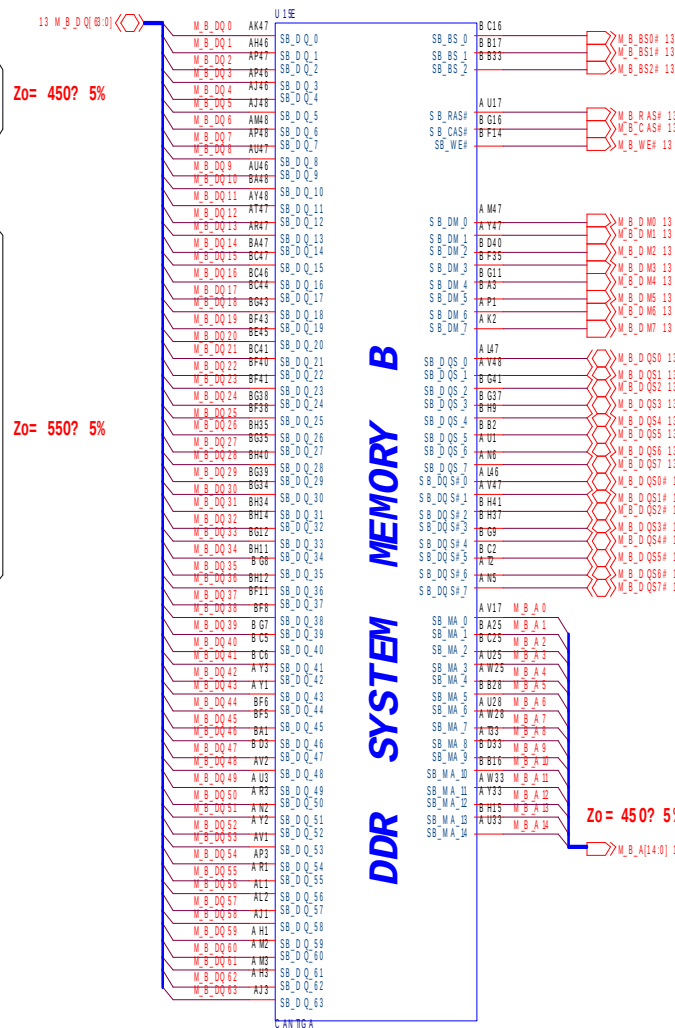


CANTIGA 4/7

Zo= 550? 5%

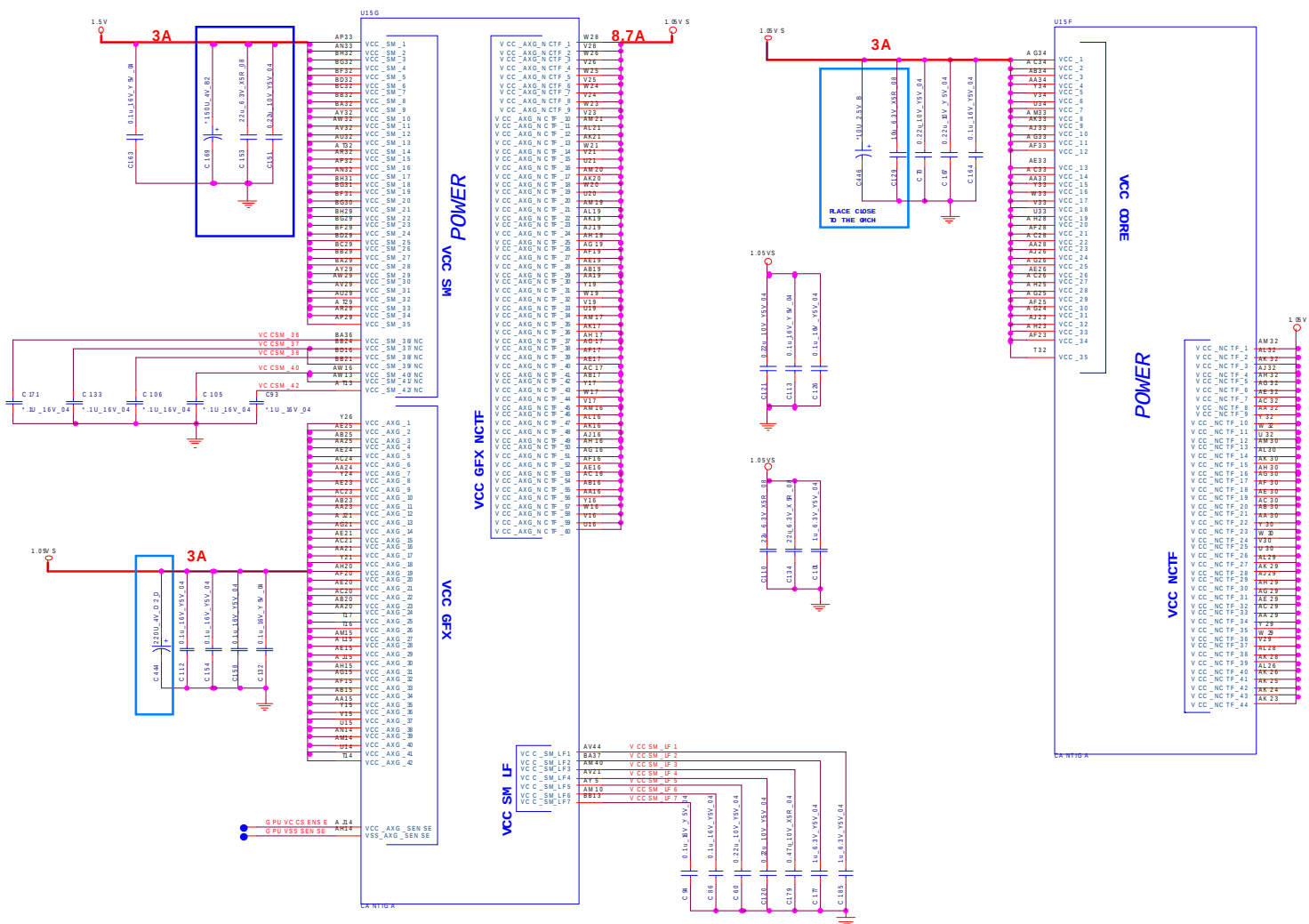


Zo= 550? 5%

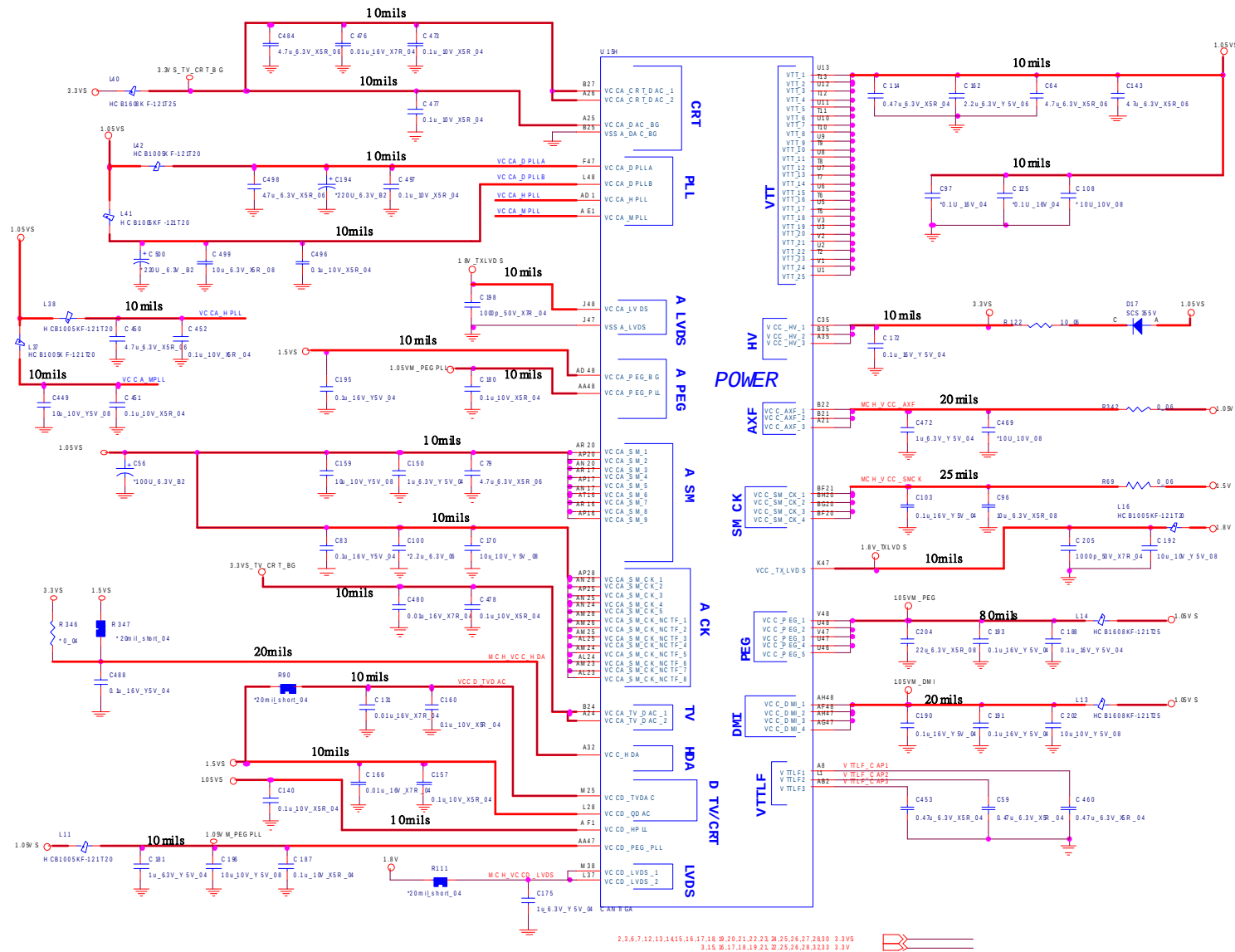
Sheet 8 of 38
CANTIGA 4/7

B.Schematic Diagrams

Sheet 9 of 38
CANTIGA 5/7

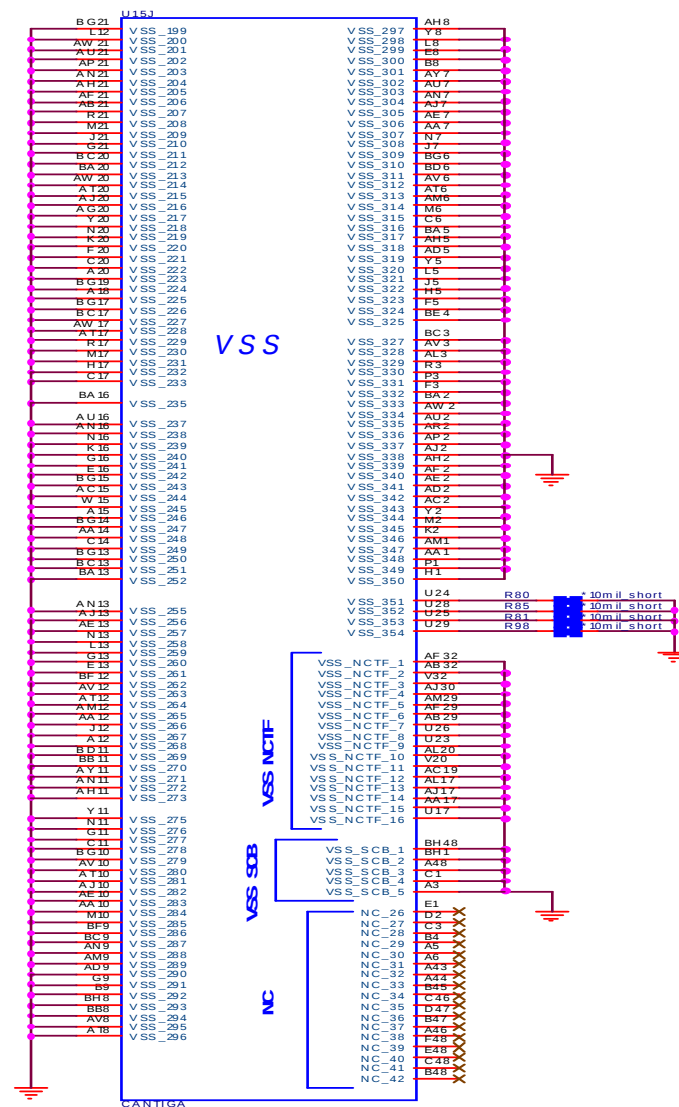
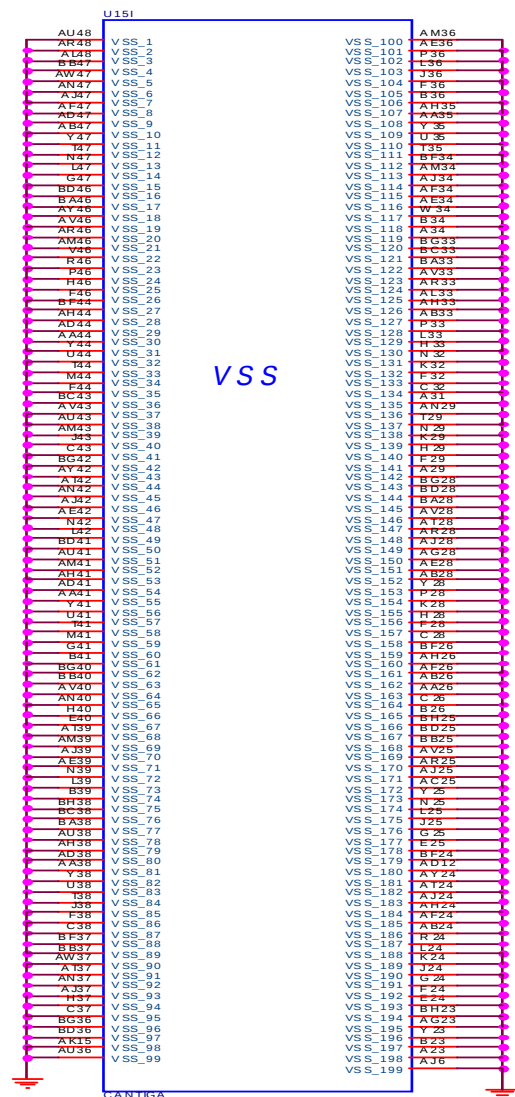


CANTIGA 6/7

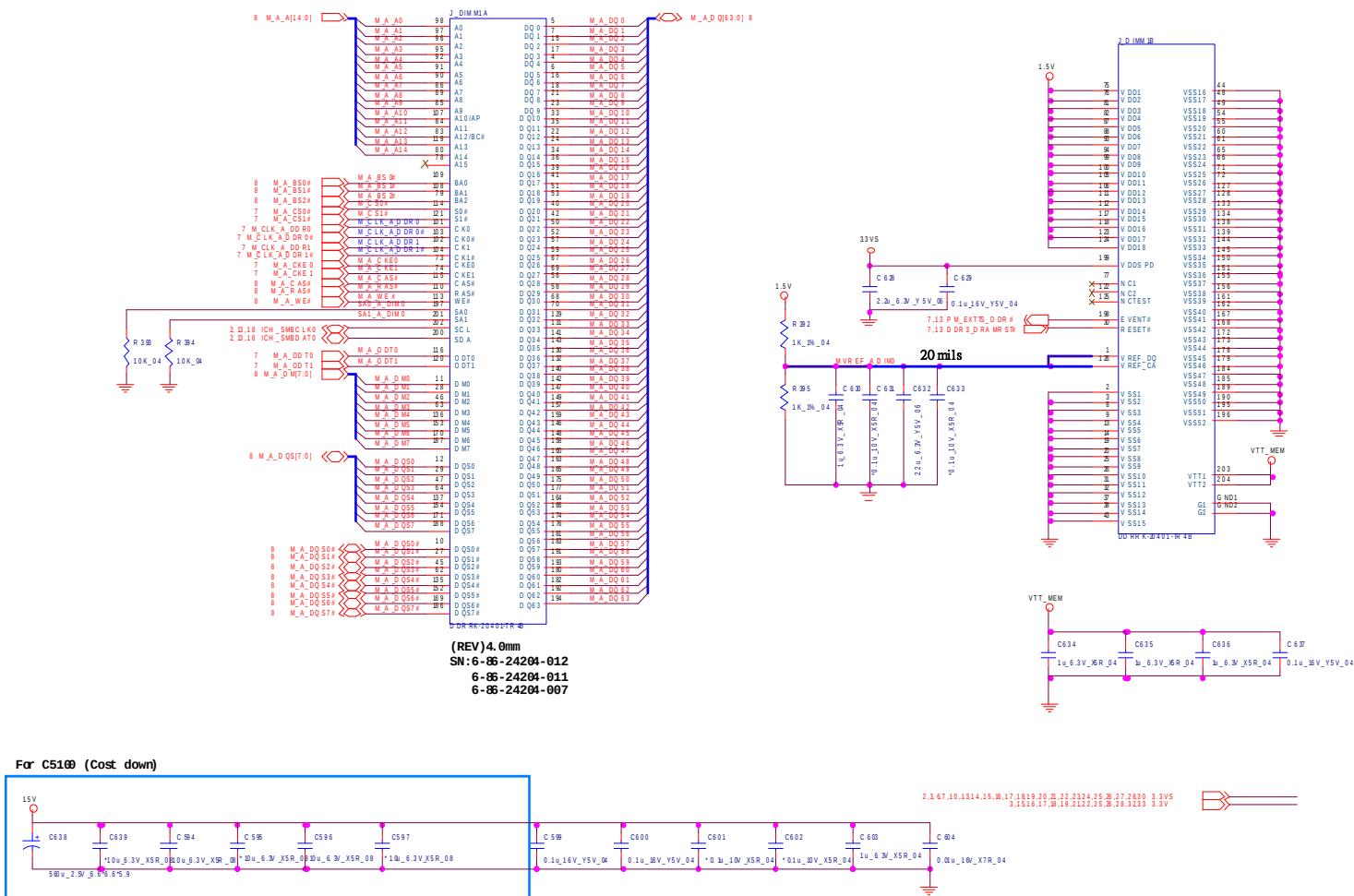
Sheet 10 of 38
CANTIGA 6/7

B.Schematic Diagrams

Sheet 11 of 38
CANTIGA 7/7



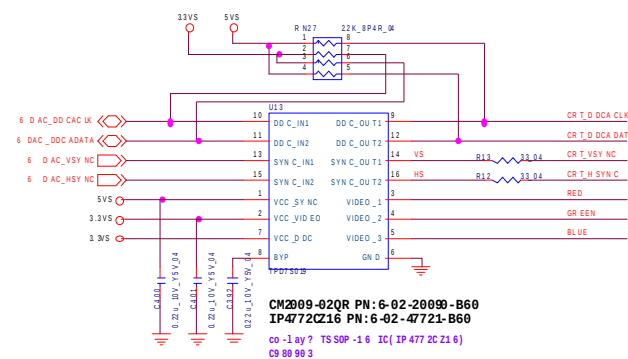
DDRIII SO-DIMM A



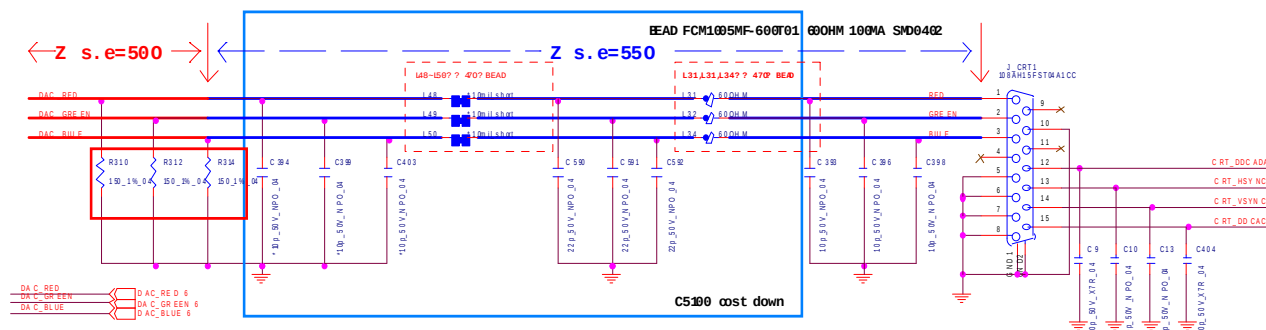
DDRIII SO-DIMM A B - 13

B.Schematic Diagrams

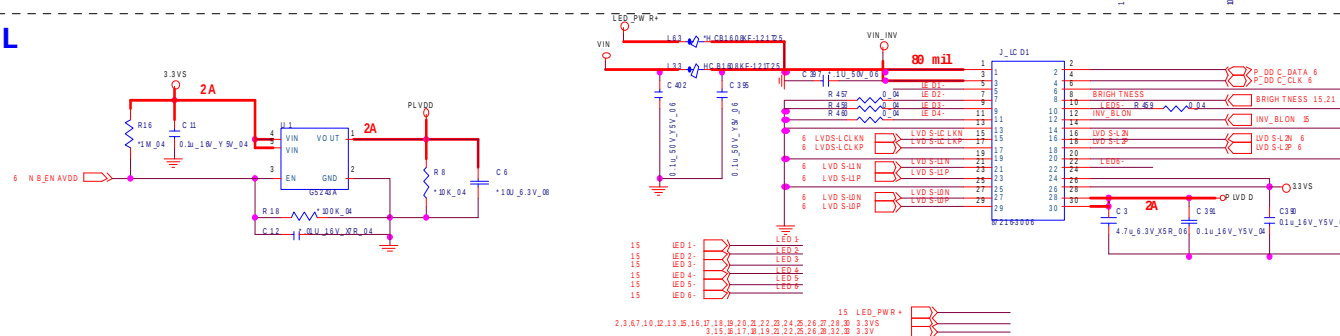
CRT



B.Schematic Diagrams



PANEL

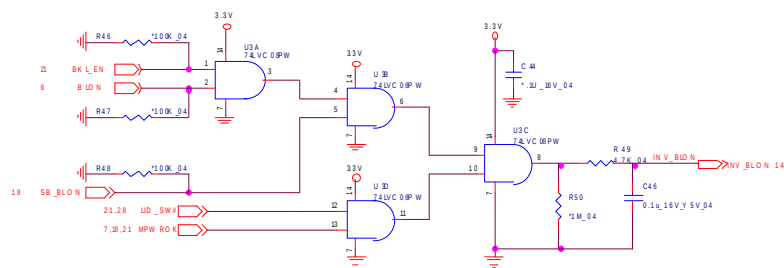


Schematic Diagrams

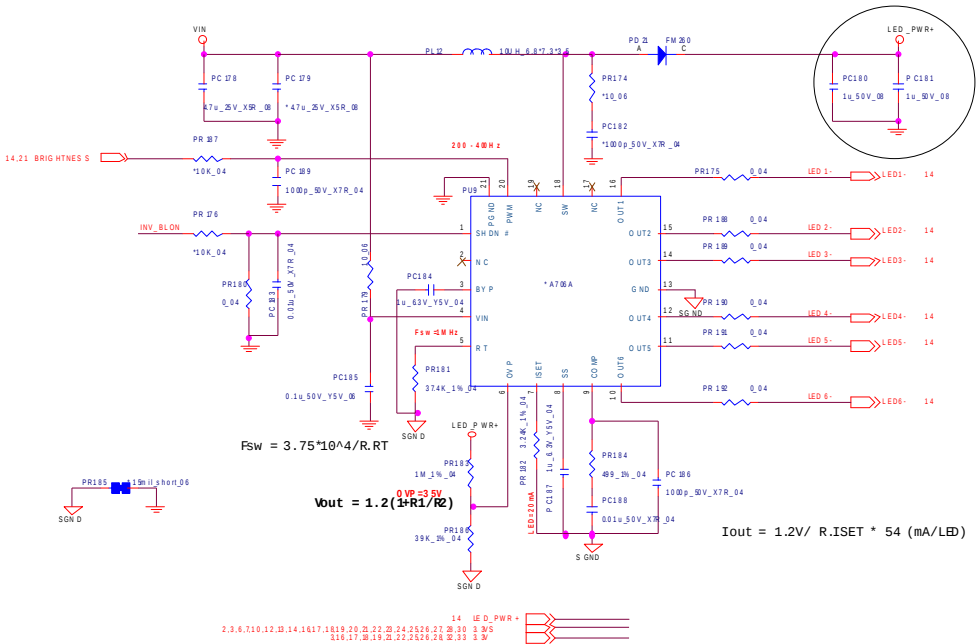
Inverter, Bluetooth, Fan

Sheet 15 of 38
Inverter, Bluetooth,
Fan

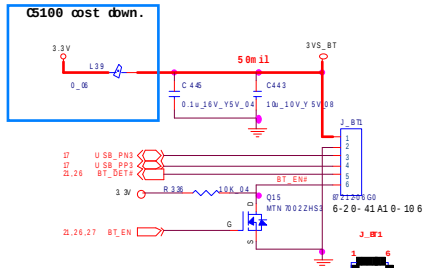
INVERTER CONNECTOR



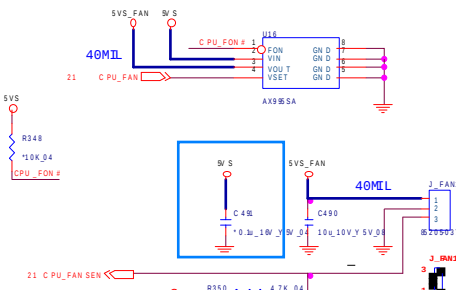
LED PANEL BACKLIGHT DRIVER



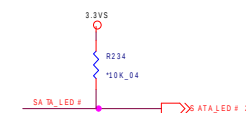
Bluetooth



FAN CONTROL



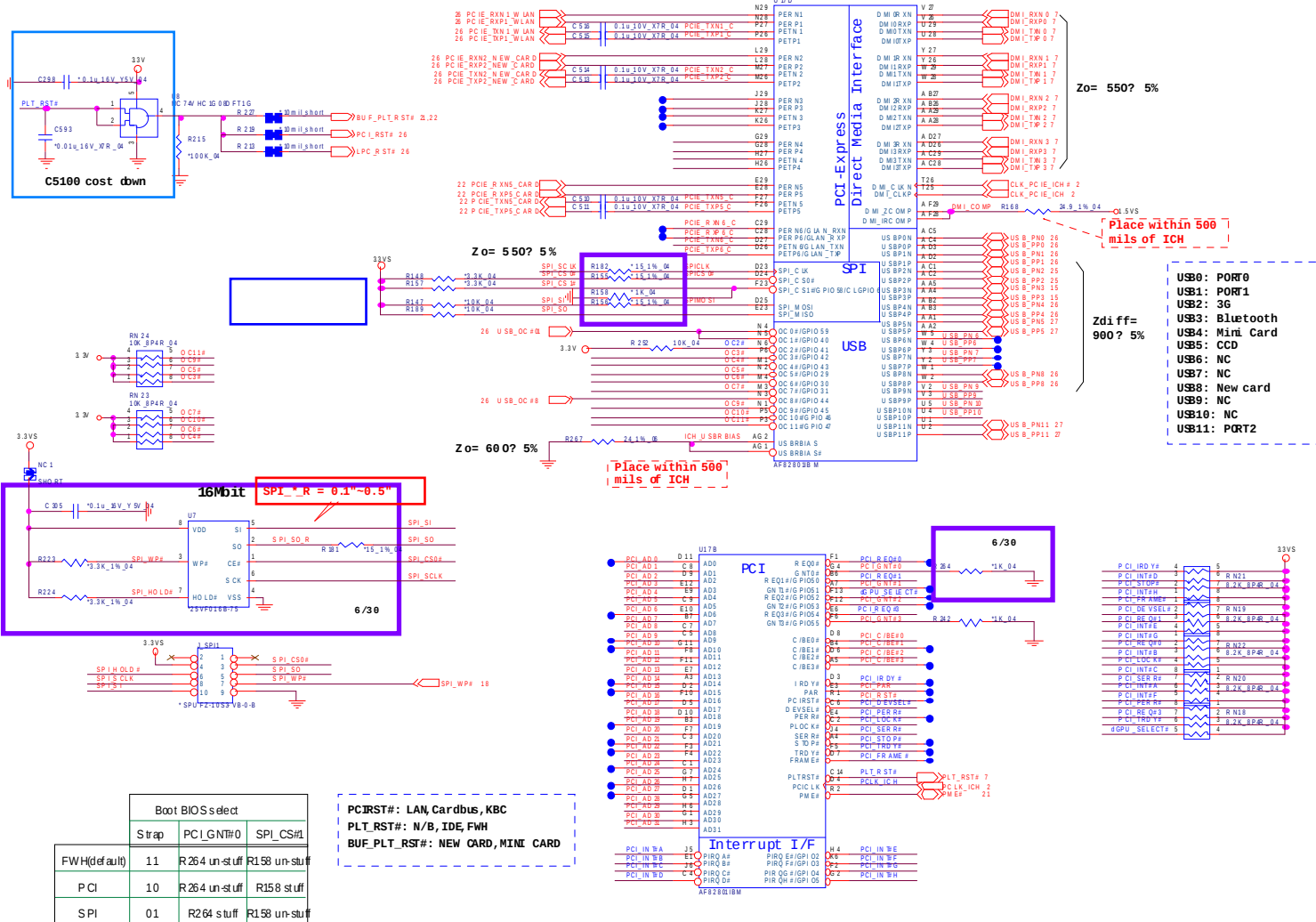
ICH9M 1/4, SATA B - 17



21,22,26,27,28,29,31 V DD 3
2,3,6,7,10,12,13,14,15,17,18,19,20,21,22,23,24,25,26,27,28,30 3.3VS
3,15,17,18,19,21,22,25,26,28,32,33 3.3V

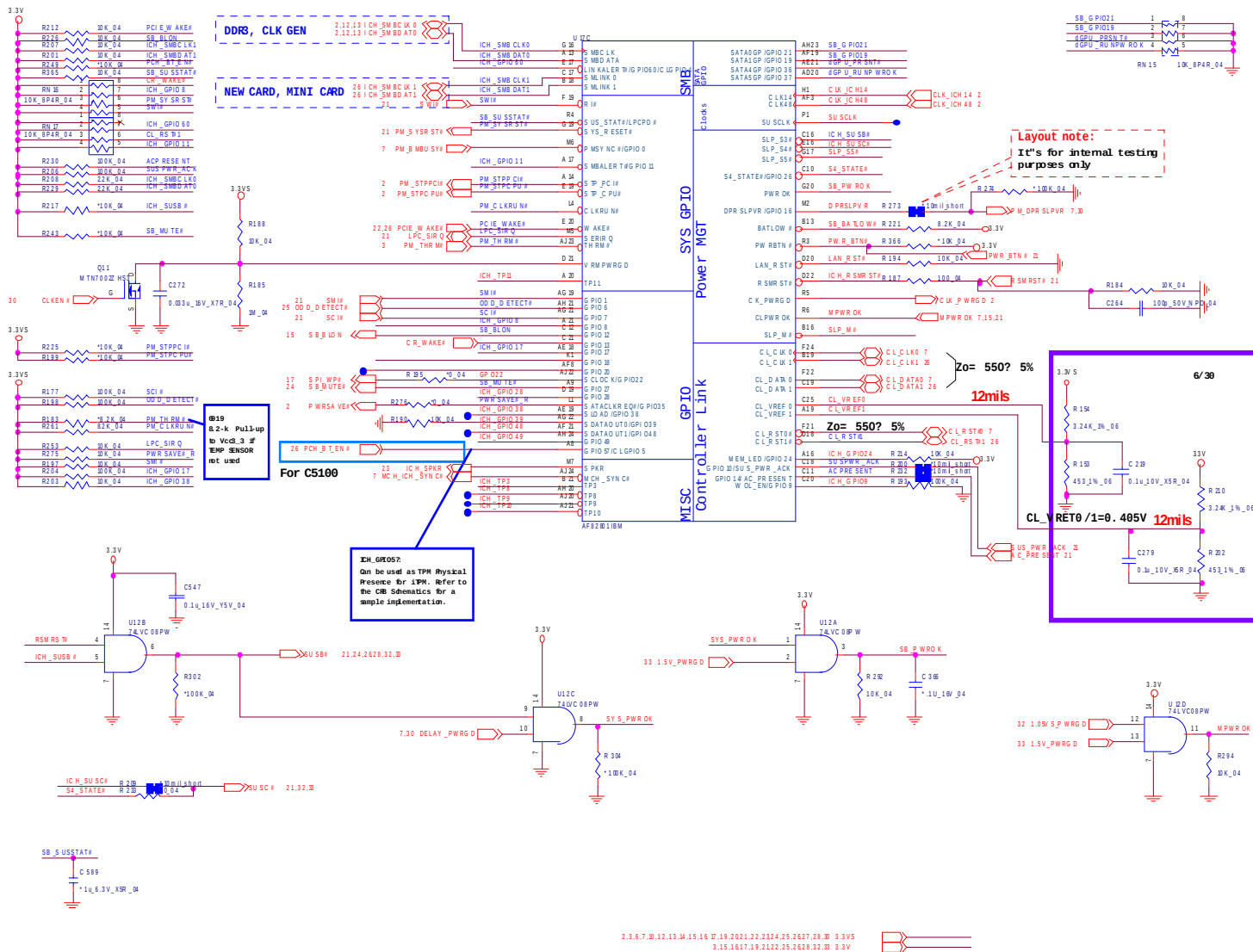
B.Schematic Diagrams

Sheet 17 of 38
ICH9M 2/4, PCI,
USB



2,3,6,7,10,12,13,14,15,16,18,19,20,21,22,23,24,25,26,27,28,30 3.3V
3,15,16,18,19,21,22,25,26,28,32,33 3.3V

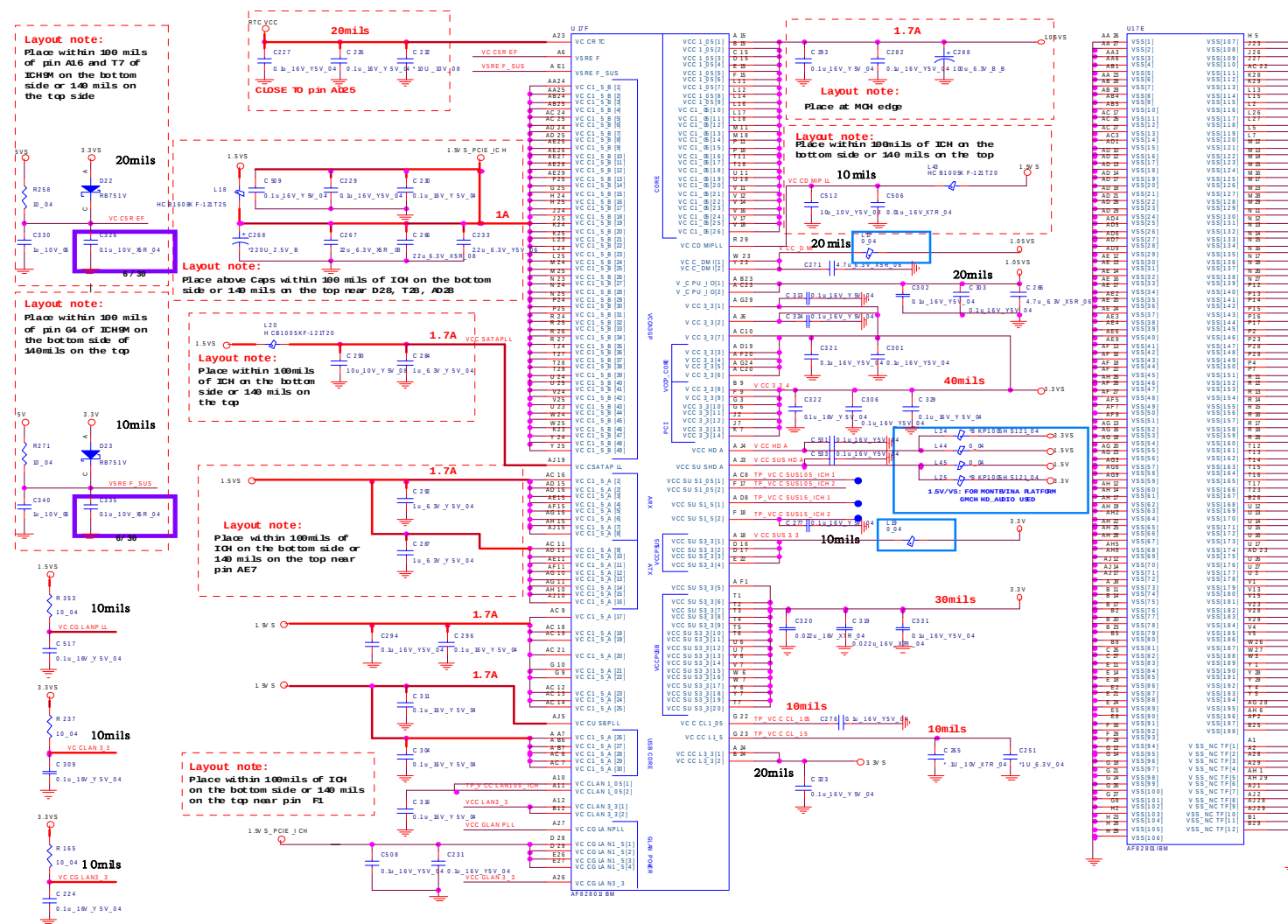
ICH9M 3/4



Sheet 18 of 38
ICH9M 3/4

ICH9M 4/4

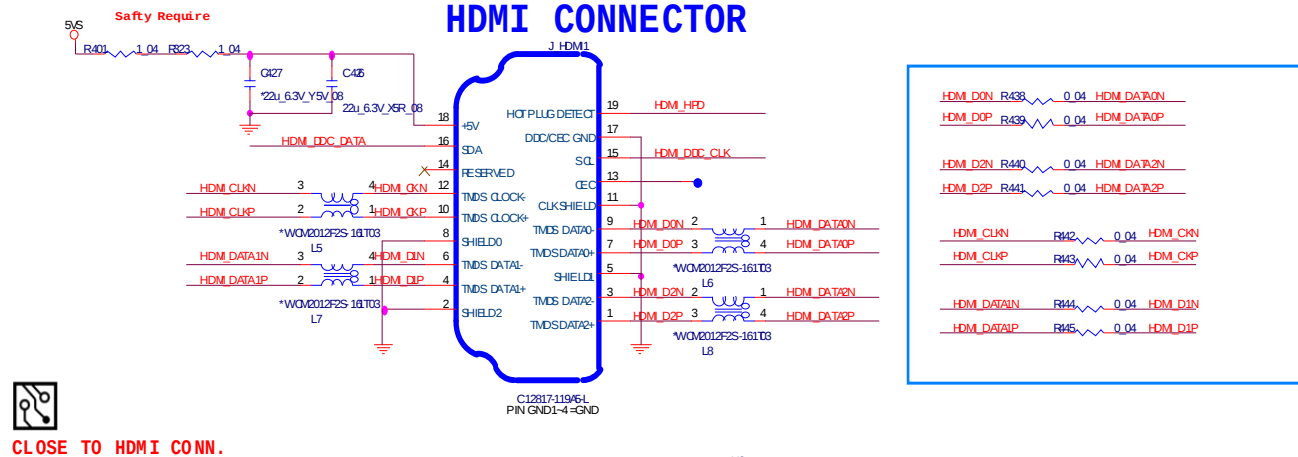
Sheet 19 of 38
ICH9M 4/4



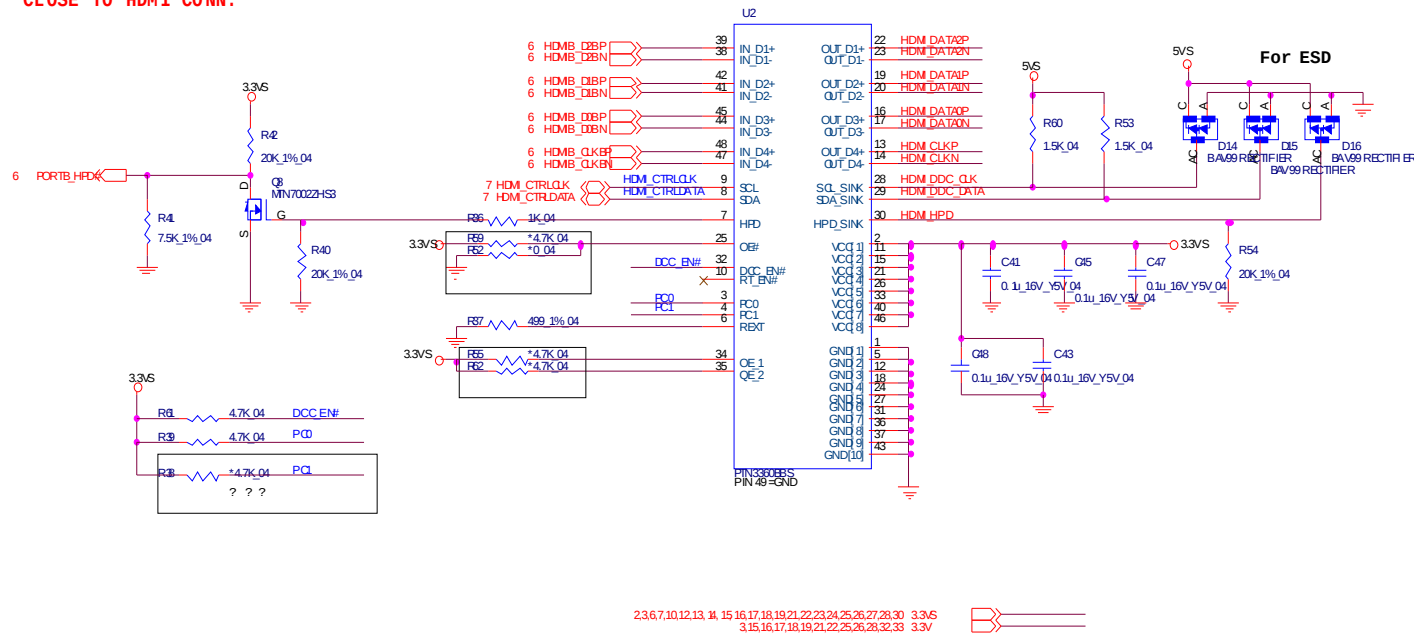
2,3,6,7,10,12,13,14,15,16,17,18,20,21,22,23,24,25,26,27,28,30 3.3V
3,15,16,17,18,21,22,25,26,28,32,33 3.3V

HDMI

HDMI

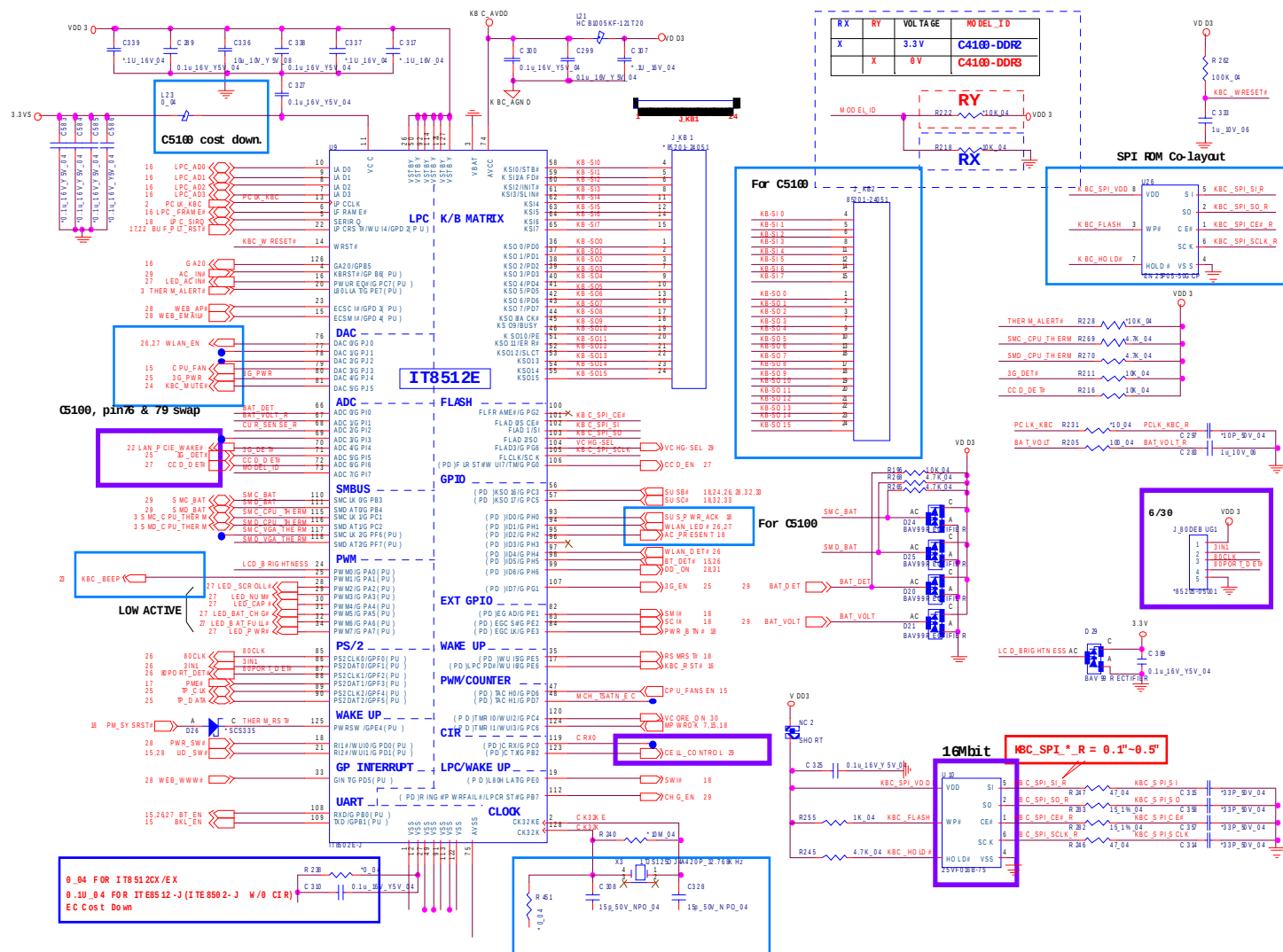


Sheet 20 of 38
HDMI

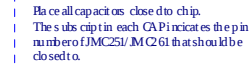


KBC-ITE IT8502E

Sheet 21 of 38
KBC-ITE IT8502E

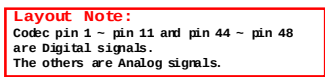


Sheet 22 of 38
Card Reader/LAN
JMB261C



CODEC (VT1812)

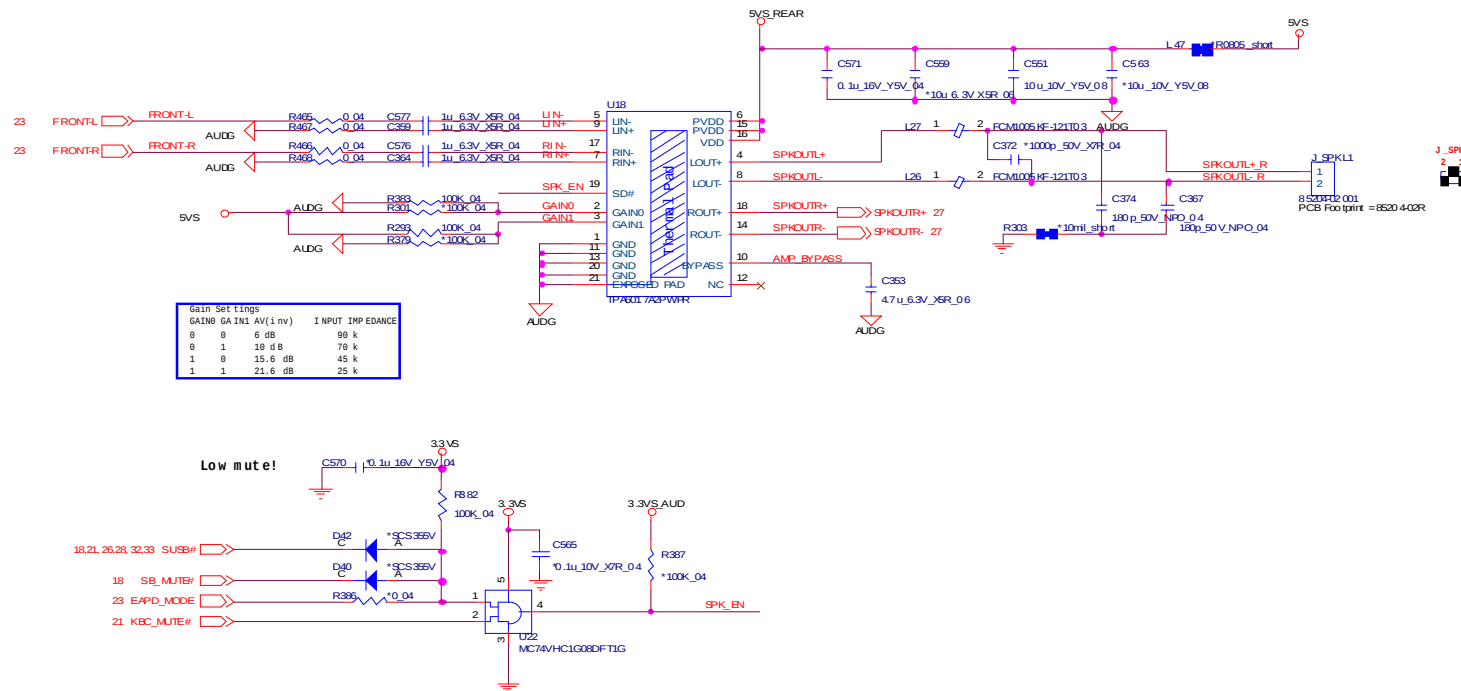
PC BEEP



2,3,6,7,10,12,13,14,15,16,17,18,19,20,21,22,24,25,26,27,28,30 3.3V
3,15,16,17,18,19,21,22,25,26,28,32,33 3.3V

Audio AMP

AMP (TPA6017 or N7010)

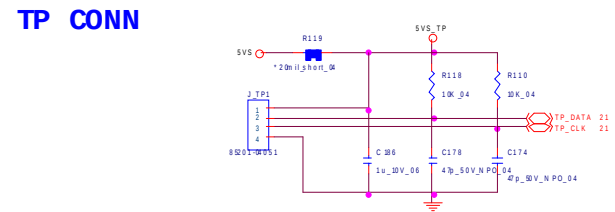
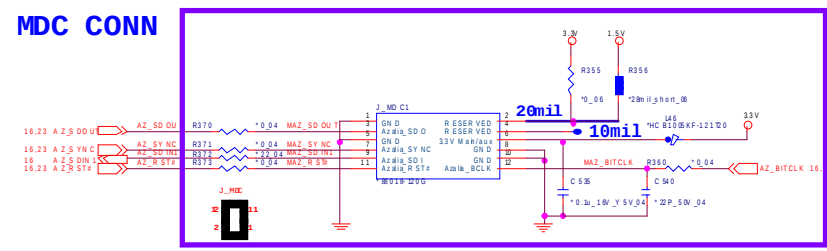
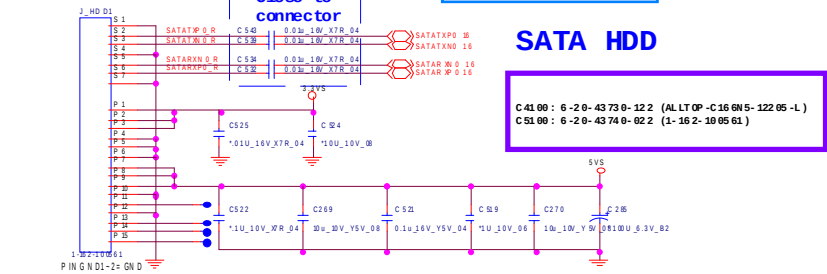
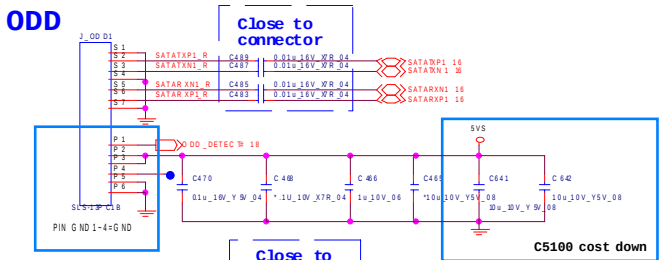


Sheet 24 of 38
Audio AMP

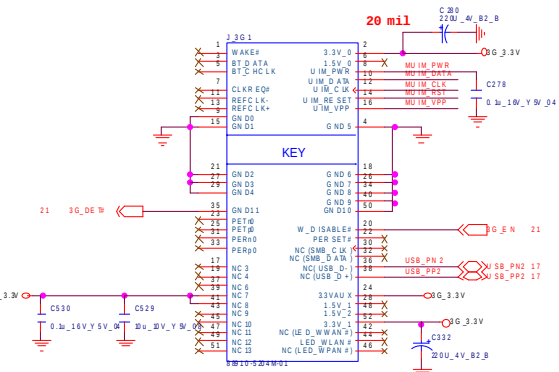
Schematic Diagrams

HDD, ODD, MDC, TP, Conn, 3G

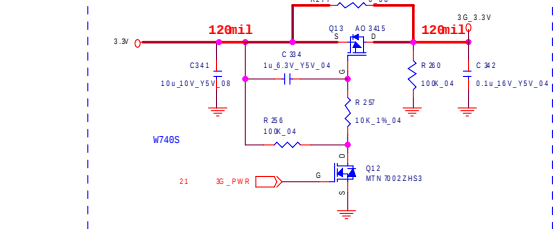
Sheet 25 of 38
HDD, ODD, MDC,
TP, Conn, 3G



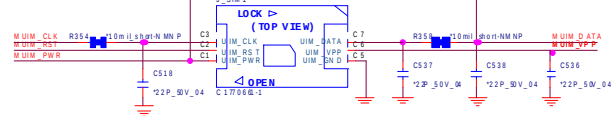
3G



3G POWER

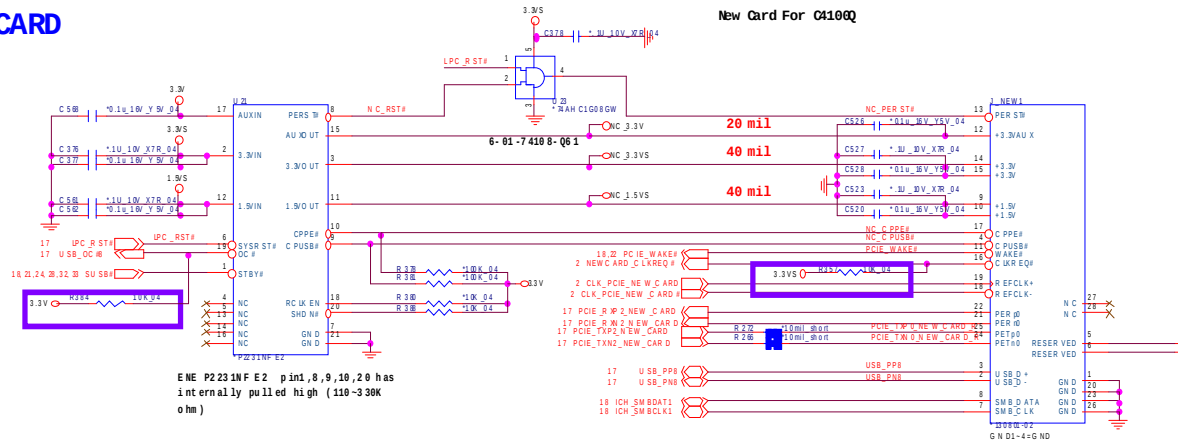


SIM card



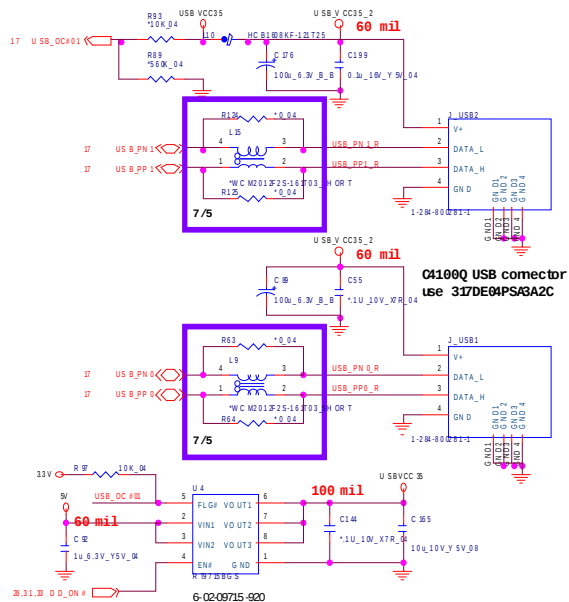
New Card, USB, Mini PCIE

NEW CARD

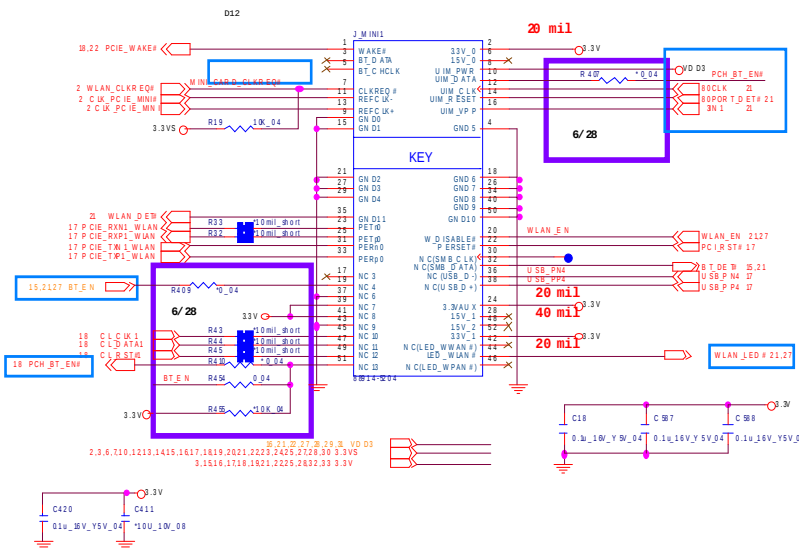


Sheet 26 of 38
New Card, USB,
Mini PCIE

USB PORT



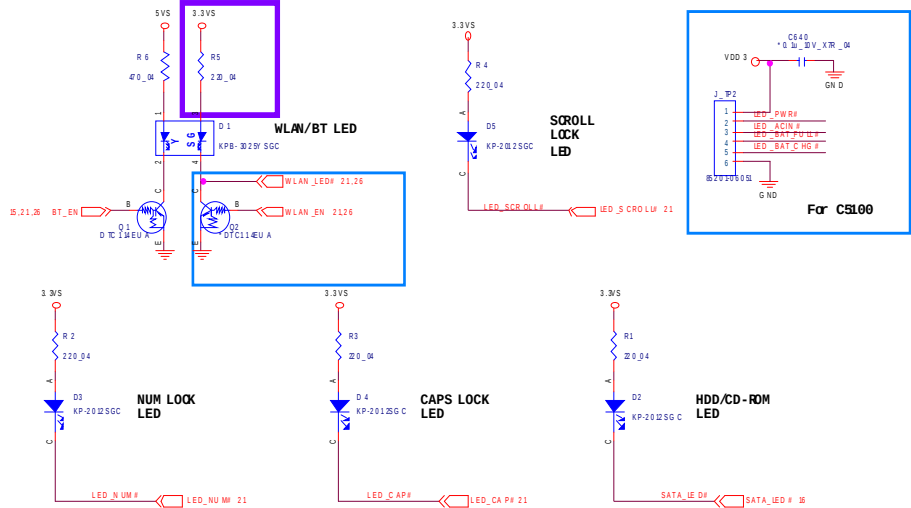
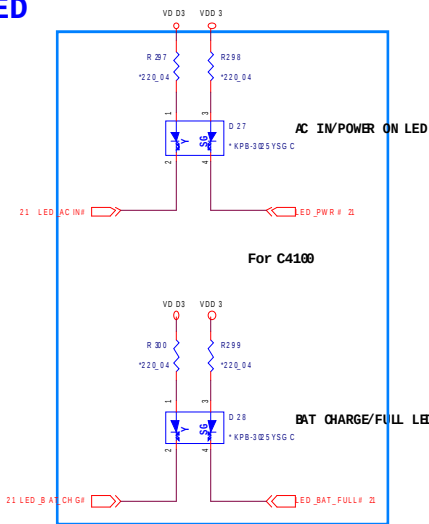
MINI CARD



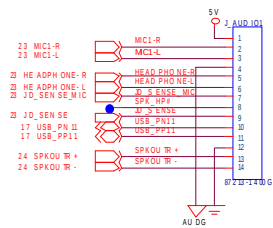
Schematic Diagrams

LED, CCD, Audio Conn

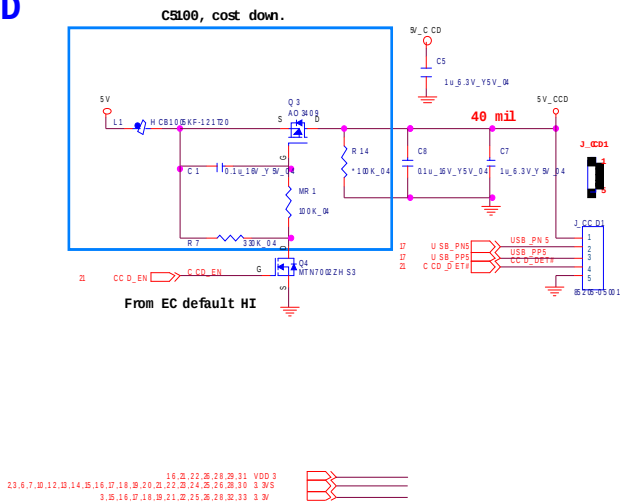
LED



Audio/USB CONN

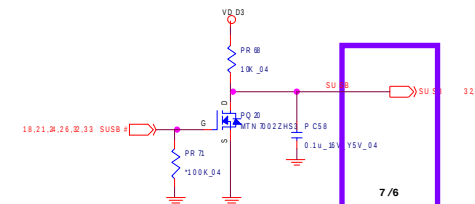
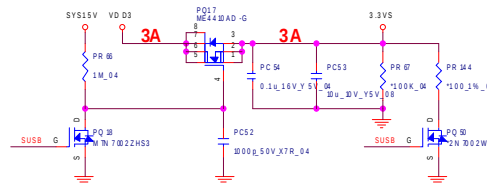
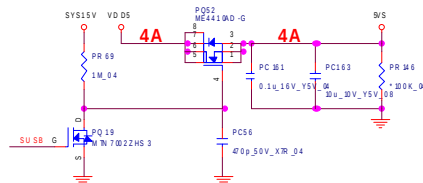
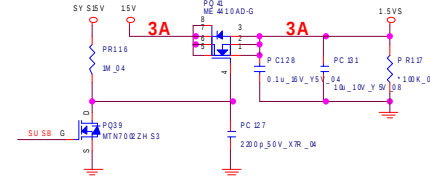
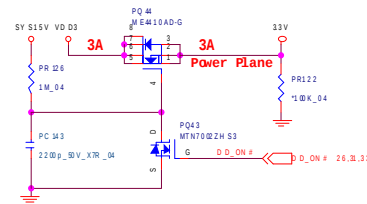
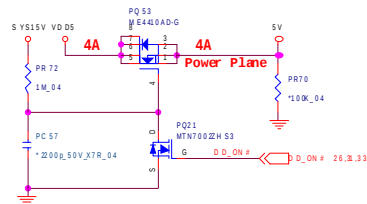


CCD

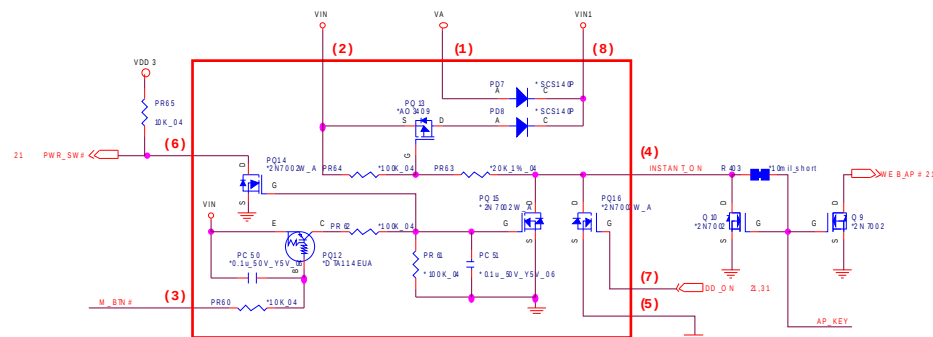


System Power, PWR SW

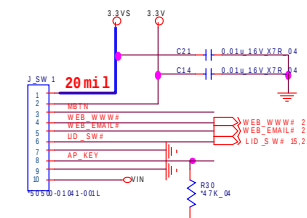
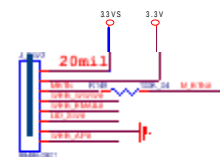
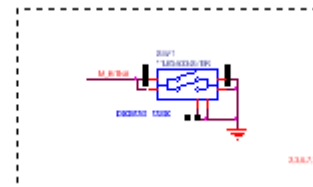
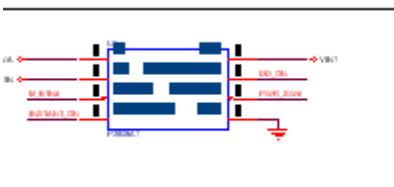
5V, 3.3V, 5VS, 3.3VS, 1.5VS



Sheet 28 of 38
SYSTEM POWER,
PWR SW



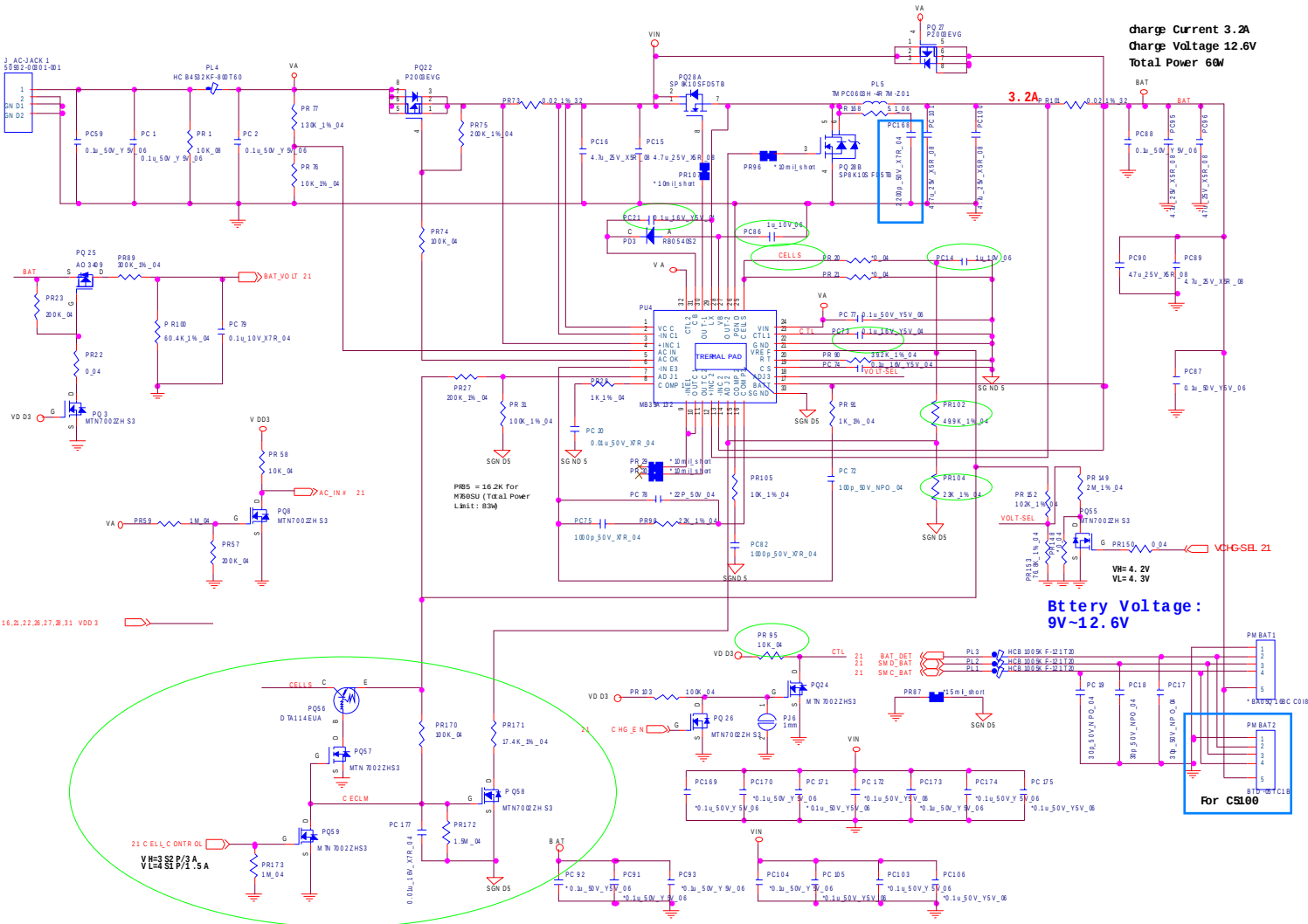
POWER SWITCH CONNECTOR



Schematic Diagrams

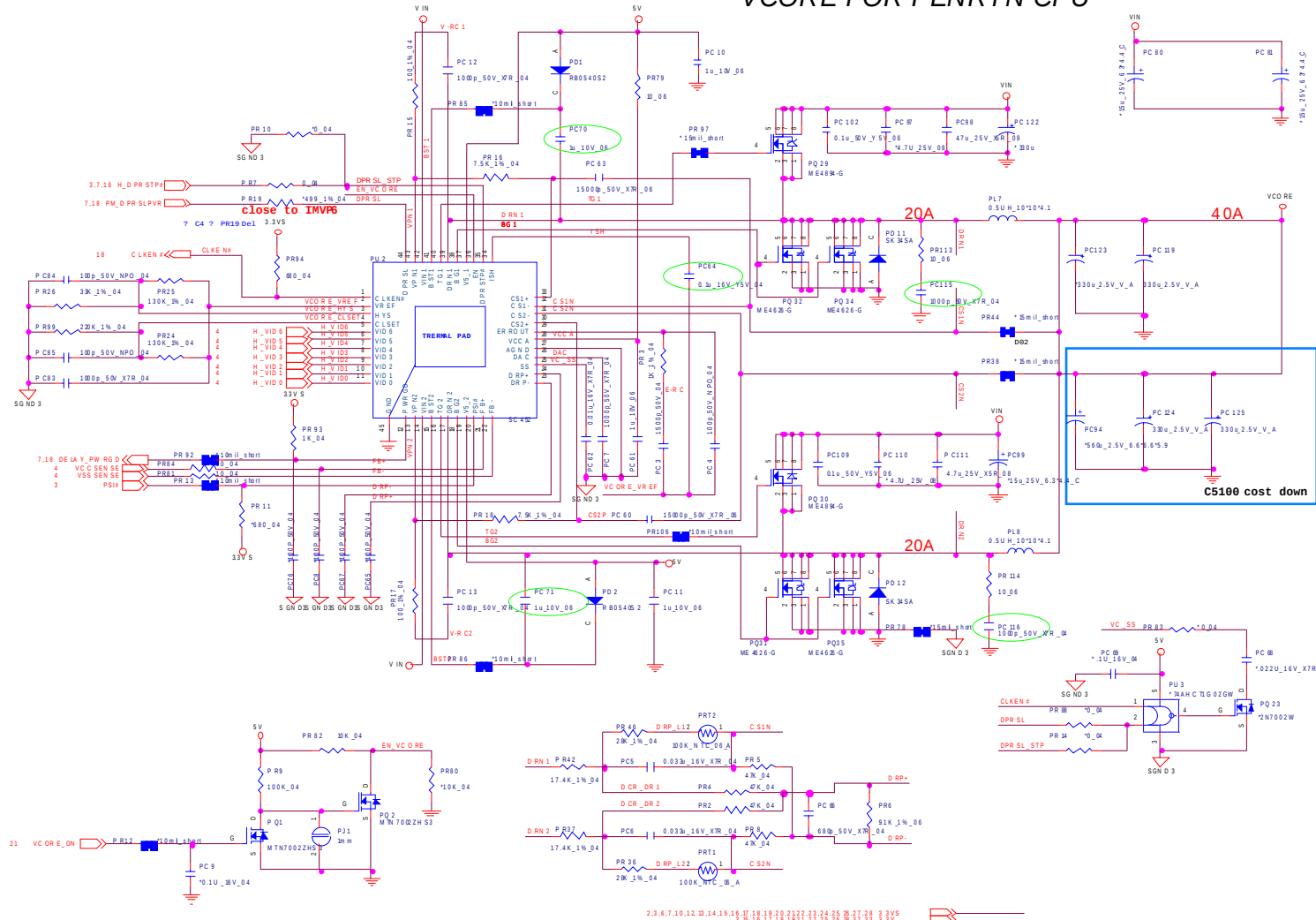
AC_In, Charger

Sheet 29 of 38
AC_In, Charger



VCORE

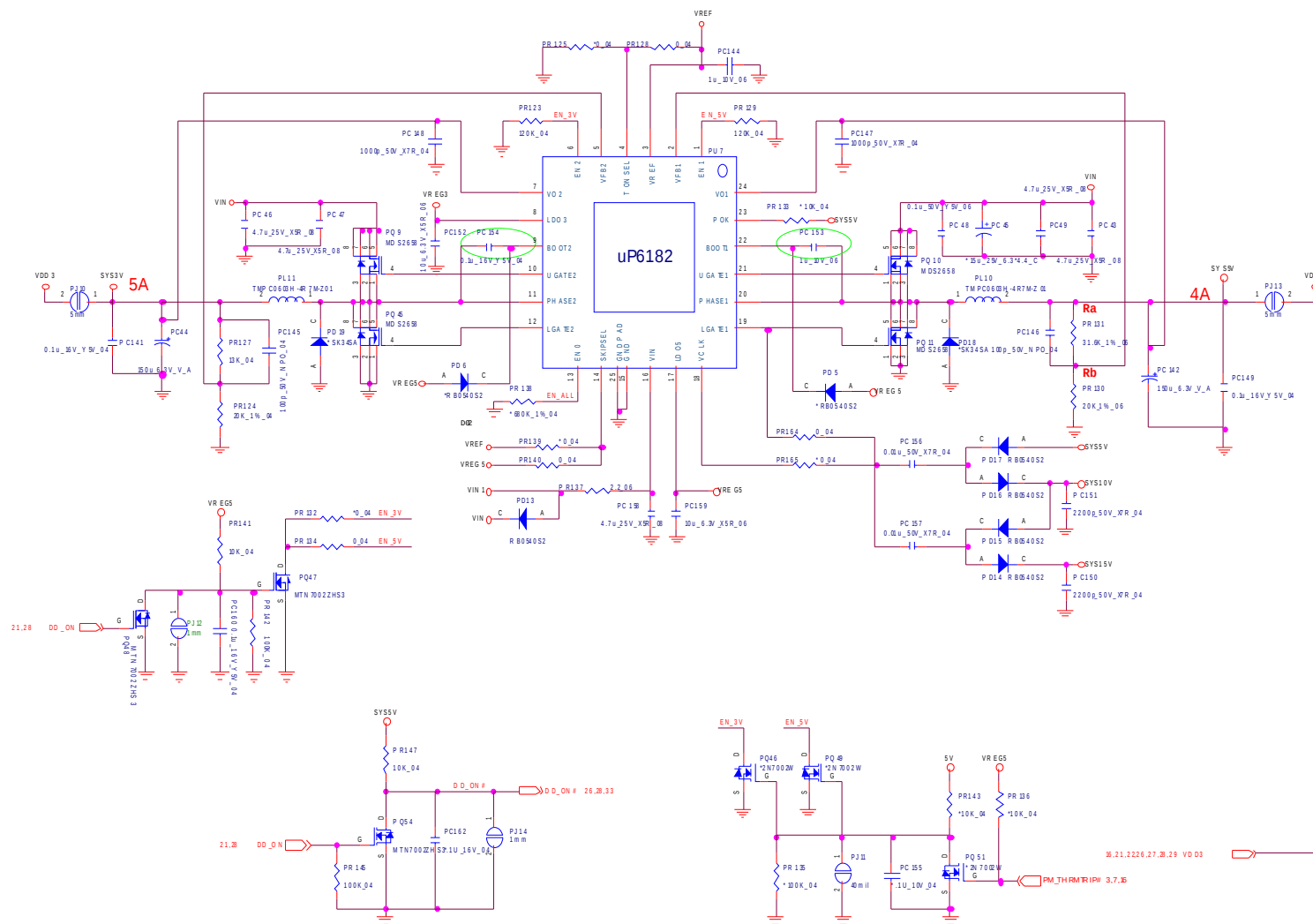
VCORE FOR PENRYN CPU



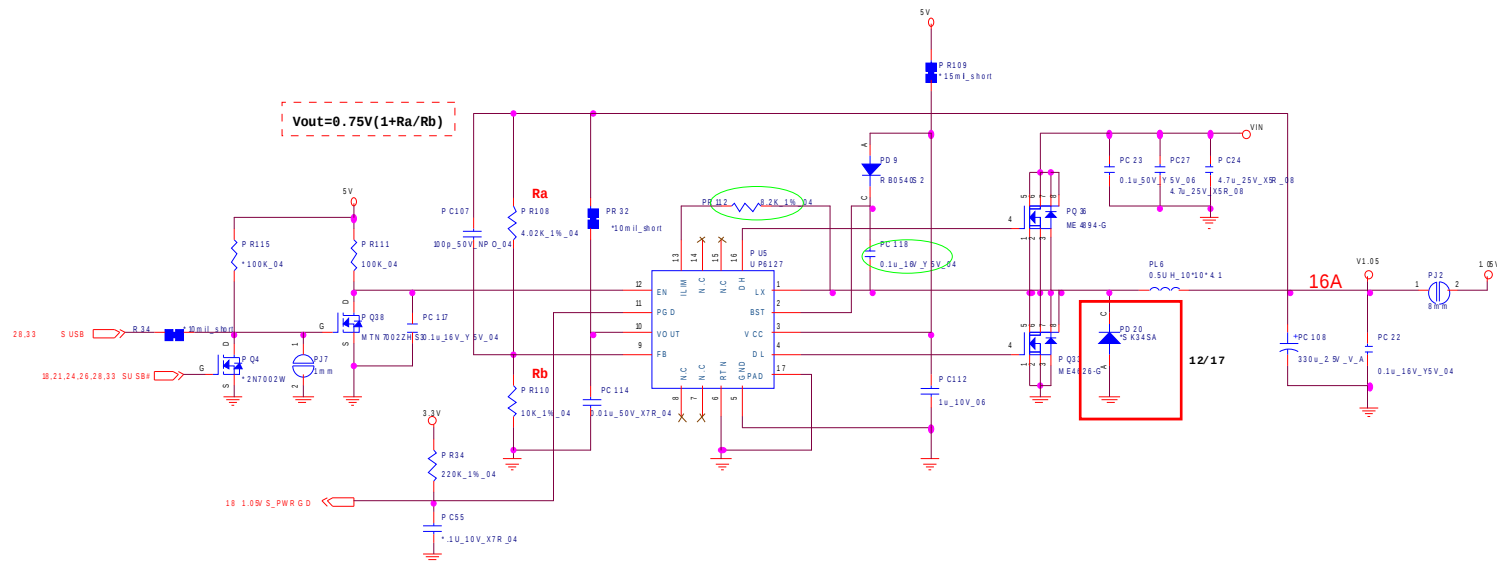
Sheet 30 of 38
VCORE

VDD3, VDD5

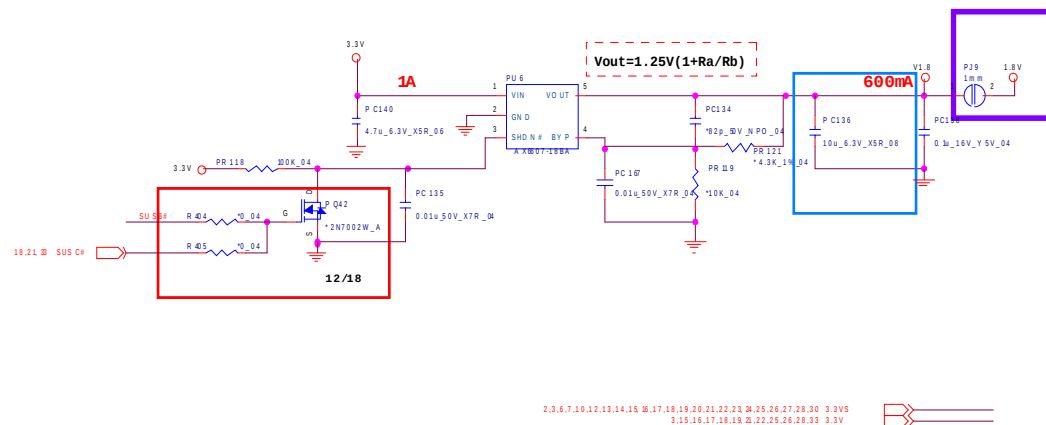
Sheet 31 of 38
VDD3, VDD5



1.8V/1.05VS



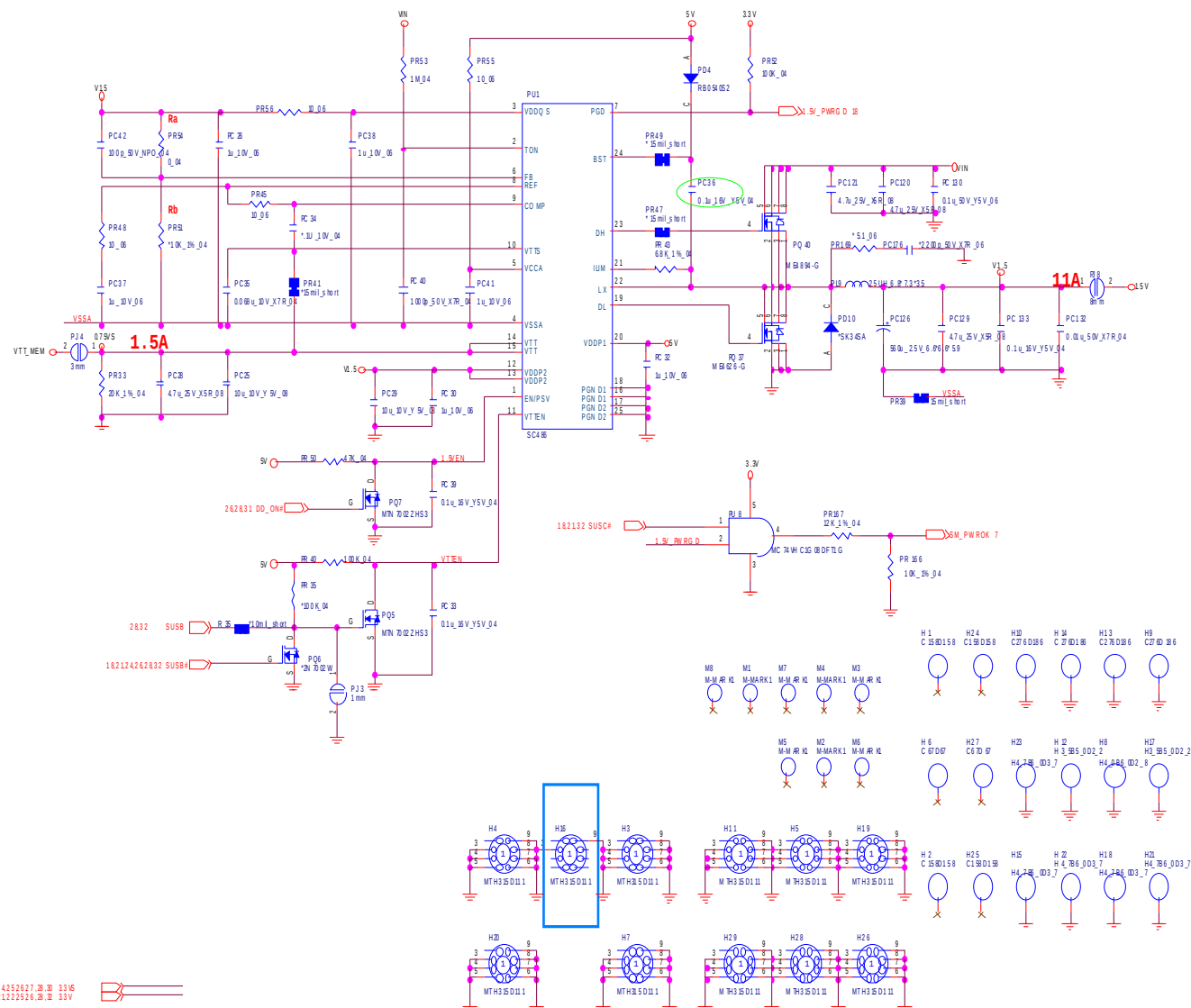
Sheet 32 of 38
1.8V/1.05VS



1.5V,0.75VS

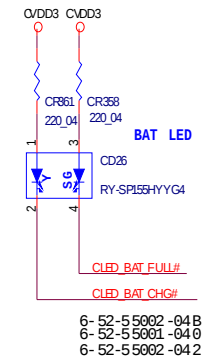
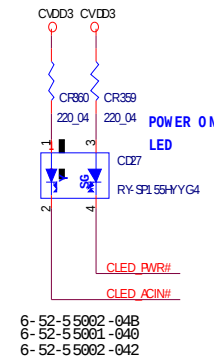
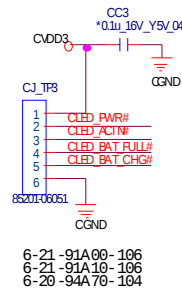
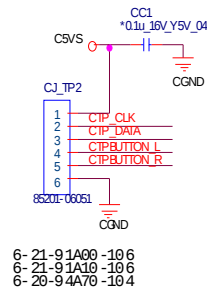
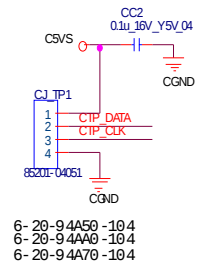
B.Schematic Diagrams

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1.5V,0.75VS

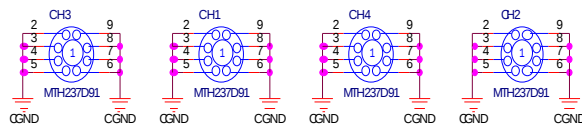
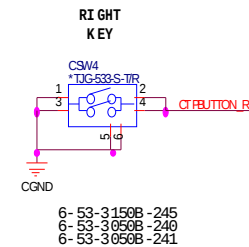
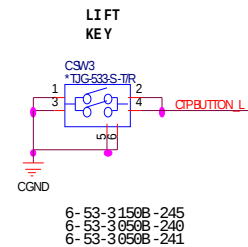
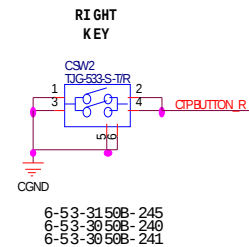
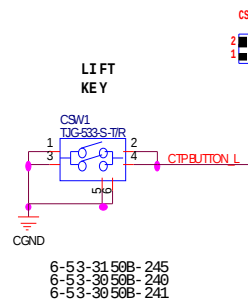


Click Board

CLICK BOARD



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Click Board



Schematic Diagrams

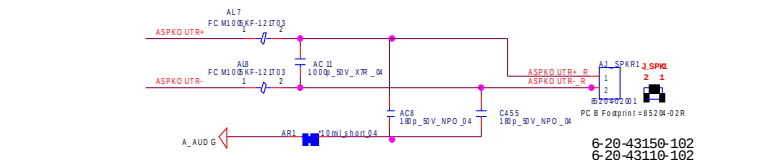
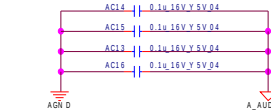
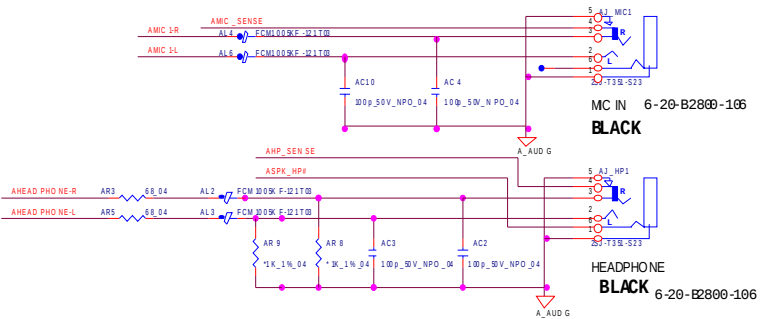
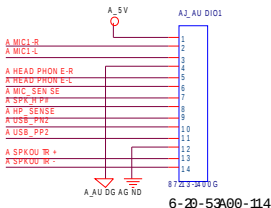
Audio Board/USB
USB PORT



TO M/B

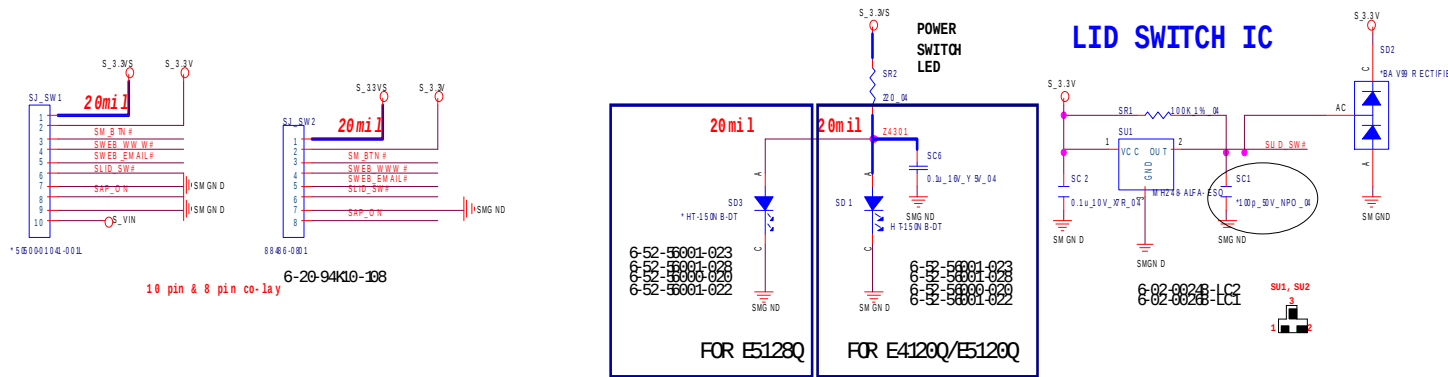
AUDIO JACK

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Audio Board/USB



Power Switch & Lid Board

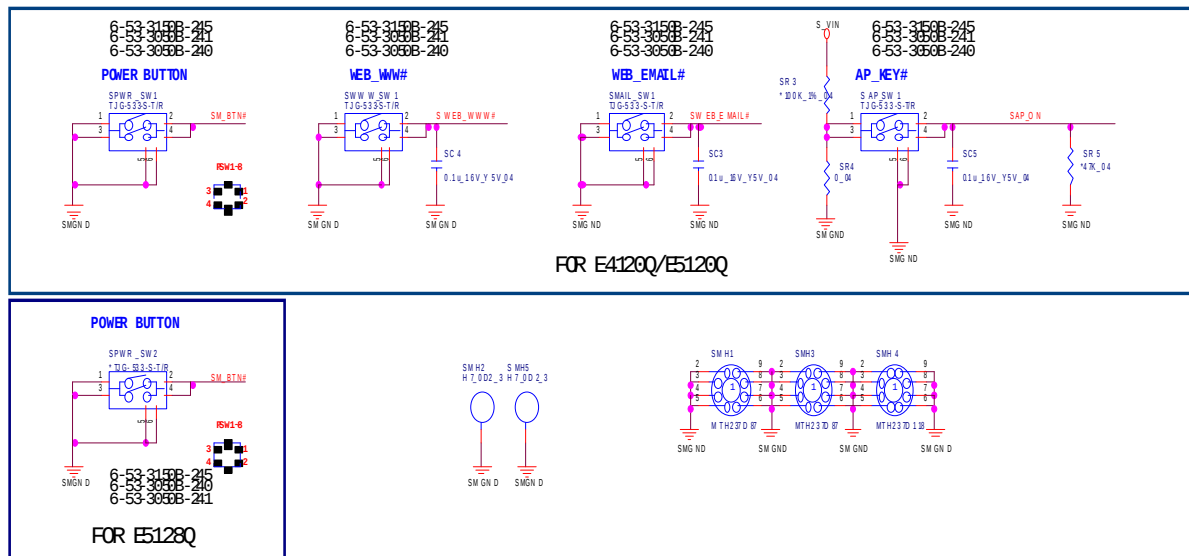
POWER SW & LED & HOT KEY



Sheet 36 of 38
Power Switch & Lid Board

B.Schematic Diagrams

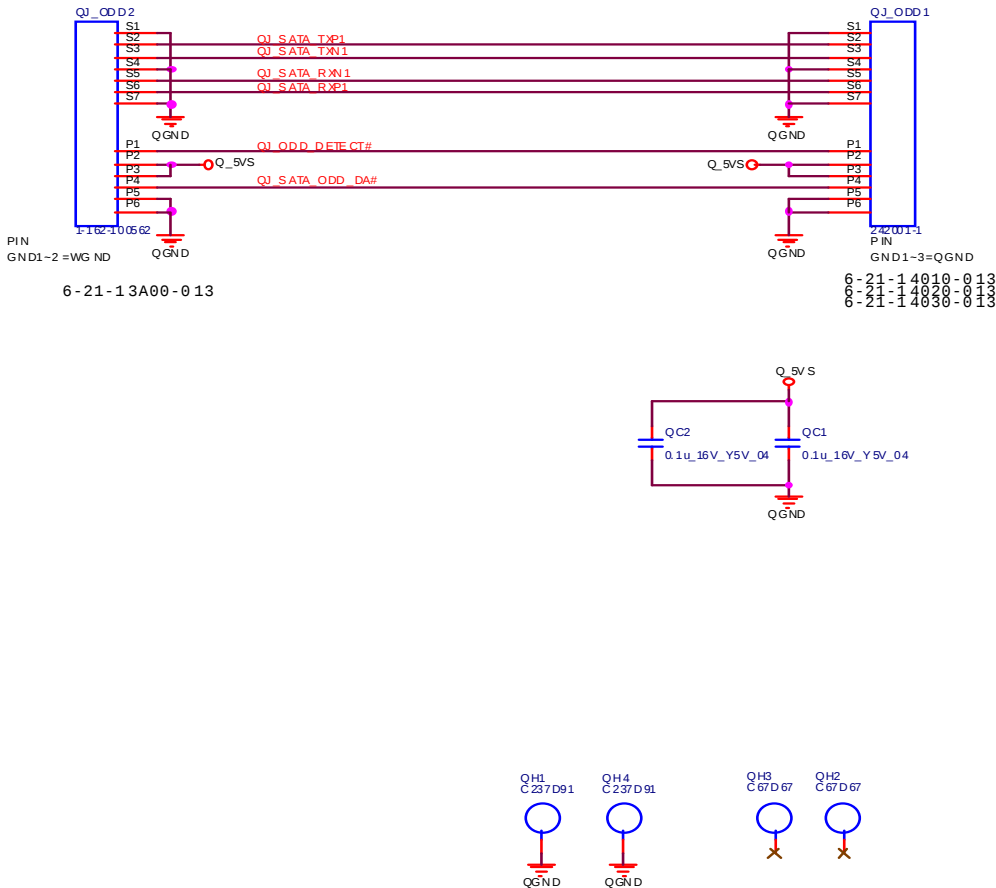
HOT KEY



External Odd Board
ODD BOARD FOR E5120Q

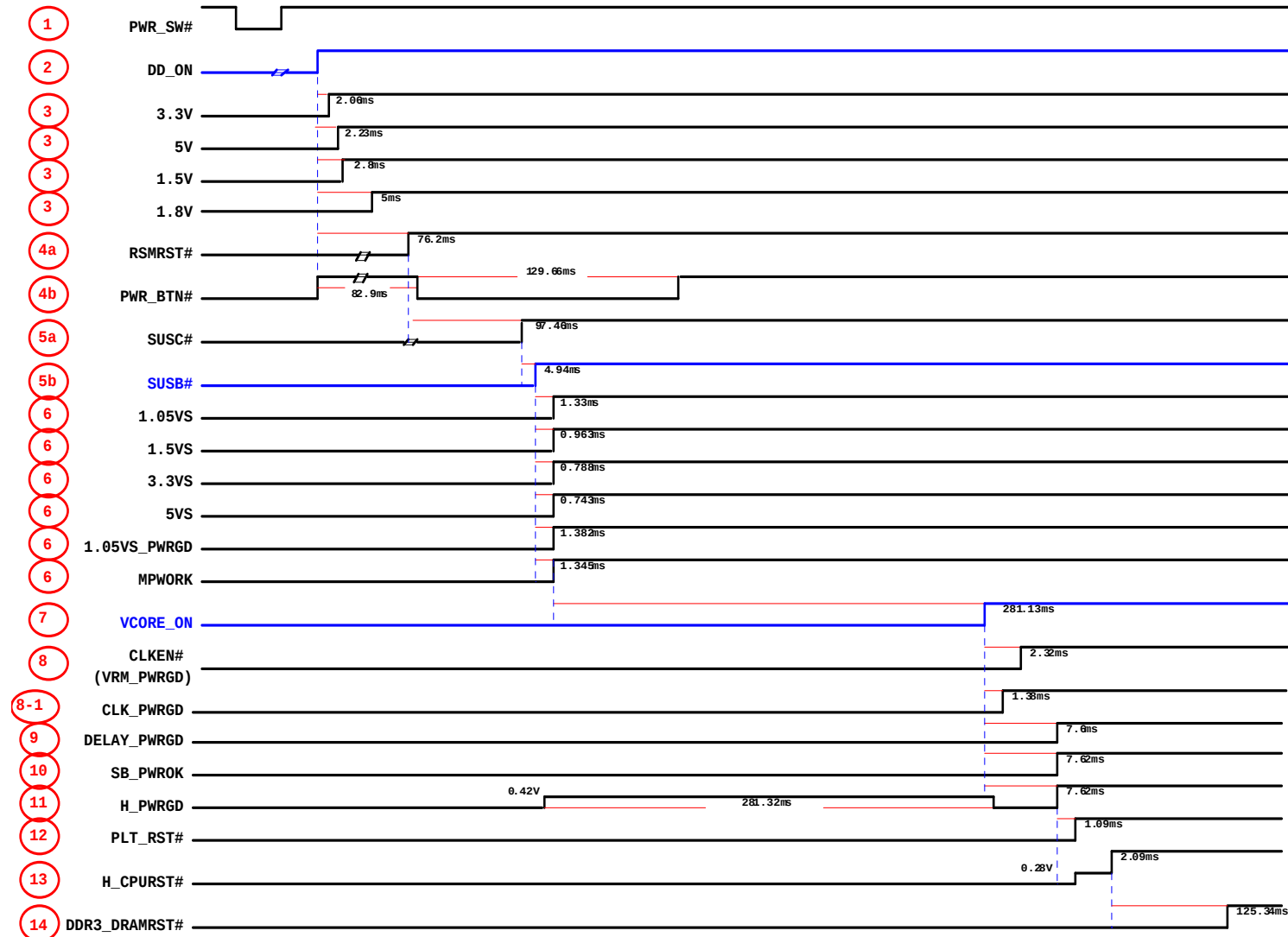
B.Schematic Diagrams

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External Odd Board



Power Sequence V1.0

C5100 V1.0 POWER ON SEQUENCE



Sheet 38 of 38
Power Sequence
V1.0

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).

BIOS Update

Use the flash tools to update the BIOS

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

C:\> Flash.bat

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

Restart the computer (booting from the HDD)

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

www.s-manuals.com