

SERVICE MANUAL

W24ACZ / W243CZQ / W245CZQ

notebook



Notebook Computer

W24ACZ / W243CZQ / W245CZQ

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 **W24ACZ** / **W243CZQ** / **W245CZQ** series notebook PC.

The following information is included:

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

Appendix A, Part Lists

Appendix B, Schematic Diagrams

Appendix C, Updating the FLASH ROM BIOS

Preface

IMPORTANT SAFETY INSTRUCTIONS

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

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

CAUTION

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

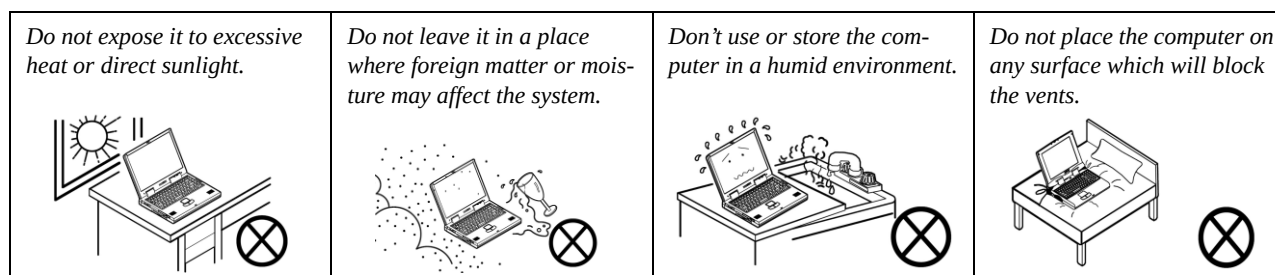
Instructions for Care and Operation

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

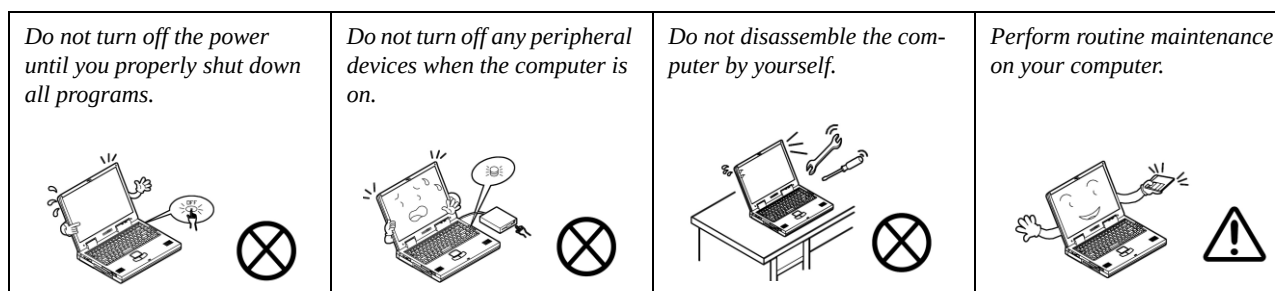
1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.



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.

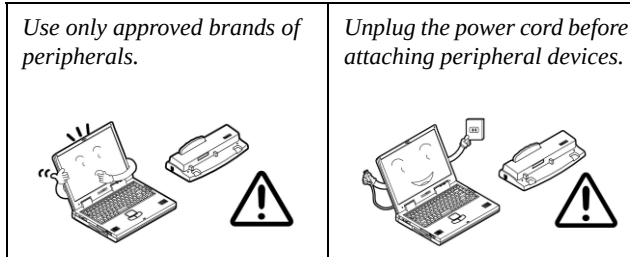


3. **Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.



Preface

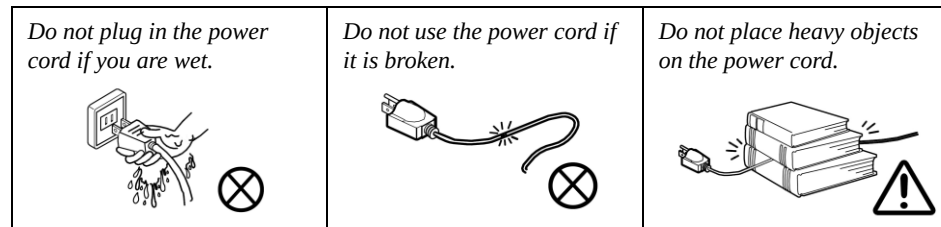
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



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.



Power Safety Warning

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

Battery Precautions

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

Battery Guidelines

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

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



Battery Disposal

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

Caution

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

Battery Level

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

Preface

Related Documents

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

User's Manual on CD

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

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 130 degrees); use the other hand to support the base of the computer (**Note: Never** lift the computer by the lid/LCD).
7. Press the power button to turn the computer "on".



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



Shut Down

Note that you should always shut your computer down by choosing **Shut Down** from the **Start Menu**.

This will help prevent hard disk or system problems.

Contents

Introduction1-1

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

Disassembly2-1

Overview	2-1
Maintenance Tools	2-2
Connections	2-2
Maintenance Precautions	2-3
Disassembly Steps	2-4
Removing the Battery	2-5
Removing the Hard Disk Drive	2-6
Removing the Optical (CD/DVD) Device	2-8
Removing the System Memory (RAM)	2-9
Removing the Wireless LAN Module	2-10
Removing the 3.75G Module	2-11
Removing the Keyboard	2-12

Part ListsA-1

Part List Illustration Location	A-2
Top (W24ACZ)	A-3
Top (W243CZQ)	A-4

Top (W245CZQ)	A-5
Bottom (W24ACZ)	A-6
Bottom - 3G (W243CZQ)	A-7
Bottom - No 3G (W243CZQ)	A-8
Bottom - SIM (W245CZQ)	A-9
Bottom - No SIM (W245CZQ)	A-10
LCD (W24ACZ)	A-11
LCD (W243CZQ)	A-12
LCD (W245CZQ)	A-13
SATA-DVD (W24ACZ)	A-14
SATA-DVD (W243CZQ)	A-15
SATA-DVD (W245CZQ)	A-16
Combo (W24ACZ)	A-17
Combo (W243CZQ)	A-18

Schematic Diagrams.....B-1

System Block Diagram	B-2
Processor 1/7	B-3
Processor 2/7	B-4
Processor 3/7	B-5
Processor 4/7	B-6
Processor 5/7	B-7
Processor 6/7	B-8
Processor 7/7	B-9
DDR3 SO-DIMM_0	B-10
DDR3 SO-DIMM_1	B-11
LVDS, Inverter	B-12
HDMI, CRT	B-13
PantherPoint - M 1/9	B-14
PantherPoint - M 2/9	B-15
PantherPoint - M 3/9	B-16

Preface

PantherPoint - M 4/9	B-17
PantherPoint - M 5/9	B-18
PantherPoint - M 6/9	B-19
PantherPoint - M 7/9	B-20
PantherPoint - M 8/9	B-21
PantherPoint - M 9/9	B-22
WLAN, CCD	B-23
3G, TPM	B-24
Card Reader, LAN RTL8402	B-25
Transformer, SATA HDD, ODD	B-26
USB 3.0 TI TUSB7320	B-27
USB 3.0/USB 2.0/USB Charger	B-28
KBC-ITE IT8518	B-29
LED	B-30
Audio Codec VT1802P/ALC269	B-31
Fan, TP, Multi-Conn	B-32
System Power	B-33
VDD3, VDD5	B-34
Power 1.5V/0.75V/1.8VS	B-35
Power 1.05VS, VTT_CPU	B-36
Power 0.85VS	B-37
Power V-Core1	B-38
Power V-Core2	B-39
Smart Charger, AC In	B-40
Click Board	B-41
Audio Board/USB	B-42
Power Switch & LID Board	B-43
External ODD Board	B-44
Power Sequence	B-45
Updating the FLASH ROM BIOS.....	C-1

Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the **W24ACZ / W243CZQ / W245CZQ** 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 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 **W24ACZ / W243CZQ / W245CZQ** 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.

Models Differences

This notebook series includes different models that vary slightly in design style, color and general appearance. Note that though your computer may look slightly different from that pictured throughout this documentation, all ports, jacks, indicators, specifications and general functions are the same for all the design styles.

Introduction

Specifications



Latest Specification Information

The specifications listed here are correct at the time of sending them to the press. Certain items (particularly processor types/speeds) may be changed, delayed or updated due to the manufacturer's release schedule. Check with your service center for more details.



CPU

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

Processor

Intel® Celeron® 847 Processor

1.10GHz, 32nm, 2MB L3 Cache, DDR3-1333MHz, TDP: 17W

Intel® Celeron® 877 Processor

1.40GHz, 32nm, 2MB L3 Cache, DDR3-1333MHz, TDP: 17W

Display

Designs I & III:

14" (35.65cm) HD (Thickness: 5.2mm)

Design II:

14" (35.65cm) HD (Thickness: 3.6mm)

Core Logic

Intel® NM70 Chipset

Memory

Two 204 Pin SO-DIMM Socket Supporting **DDR3 1333/1600MHz** Memory (The real memory operating frequency depends on the FSB of the processor)

Memory Expandable up to **8GB**

BIOS

One 48Mb SPI Flash ROM

AMI BIOS

Video Adapter

Intel® HD Graphics

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

Microsoft DirectX®10.1 Compatible

Audio

High Definition Audio Compliant Interface

2 * Built-In Speakers

Built-In Microphone

Storage

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

(**Factory Option**) Dummy ODD (**Some designs Only**)

One Changeable 2.5" 9.5mm (h) SATA HDD

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

Security

Kensington Lock Slot

BIOS Password

Keyboard

"WinKey" keyboard (with embedded numeric keypad)

Pointing Device

Built-in Touchpad

Communication

10Mb/100Mb Ethernet LAN
(Factory Option) 2M HD PC Camera Module
(Factory Option) 3G Mini-Card Module

WLAN/ Bluetooth Half Mini-Card Modules:

(Factory Option) Intel® Centrino® Wireless-N 105 Wireless LAN (802.11b/g/n)
(Factory Option) Intel® Centrino® Wireless-N 135 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 4.0

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

Mini Card Slots

Slot 1 for **WLAN** Module or **WLAN and Bluetooth** Combo Module
(Factory Option) Slot 2 for **3G** Module

Power

Full Range AC/DC Adapter
AC Input: 100 - 240V, 50 - 60Hz
DC Output: 19V, 3.42A/18.5V, 3.5A (65W)
Removable 6 Cell Smart Lithium-Ion Battery Pack, 48.84WH
(Factory Option) Removable 3 Cell Smart Lithium-Ion Battery Pack, 24.42WH
(Factory Option) Removable 6 Cell Smart Lithium-Ion Battery Pack, 62.16WH

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**Design I:**

340mm (w) * 238mm (d) * 25.05 - 33.5mm (h)
2.2kg with 48.84WH Battery & ODD

Design II:

340mm (w) * 238mm (d) * 13.9 - 31.8mm (h)
340mm (w) * 238mm (d) * 12 - 30.2mm (h)
2.2kg with 48.84WH Battery & ODD

Design III:

341mm (w) * 238.5mm (d) * 16 - 34mm (h) (h)
2.2kg with 48.84WH Battery & ODD

Introduction

Figure 1
Top View

1. Optional Built-In PC Camera
2. LCD
3. Power Button
4. Hot Key Buttons
(for some designs only)
5. LED Status Indicators
6. Keyboard
7. Built-In Microphone
8. Touchpad & Buttons

External Locator - Top View with LCD Panel Open



External Locator - Front & Right side Views



Figure 2
Front Views

1. LED Power Indicators



Figure 3
Right Side Views

1. Microphone-In Jack
2. Headphone-Out Jack
3. USB 2.0 Port
4. Optical Device Drive Bay
5. Security Lock Slot

Introduction

External Locator - Left Side & Rear View

Figure 4
Left Side View

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



Figure 5
Rear View

1. Battery



External Locator - Bottom View

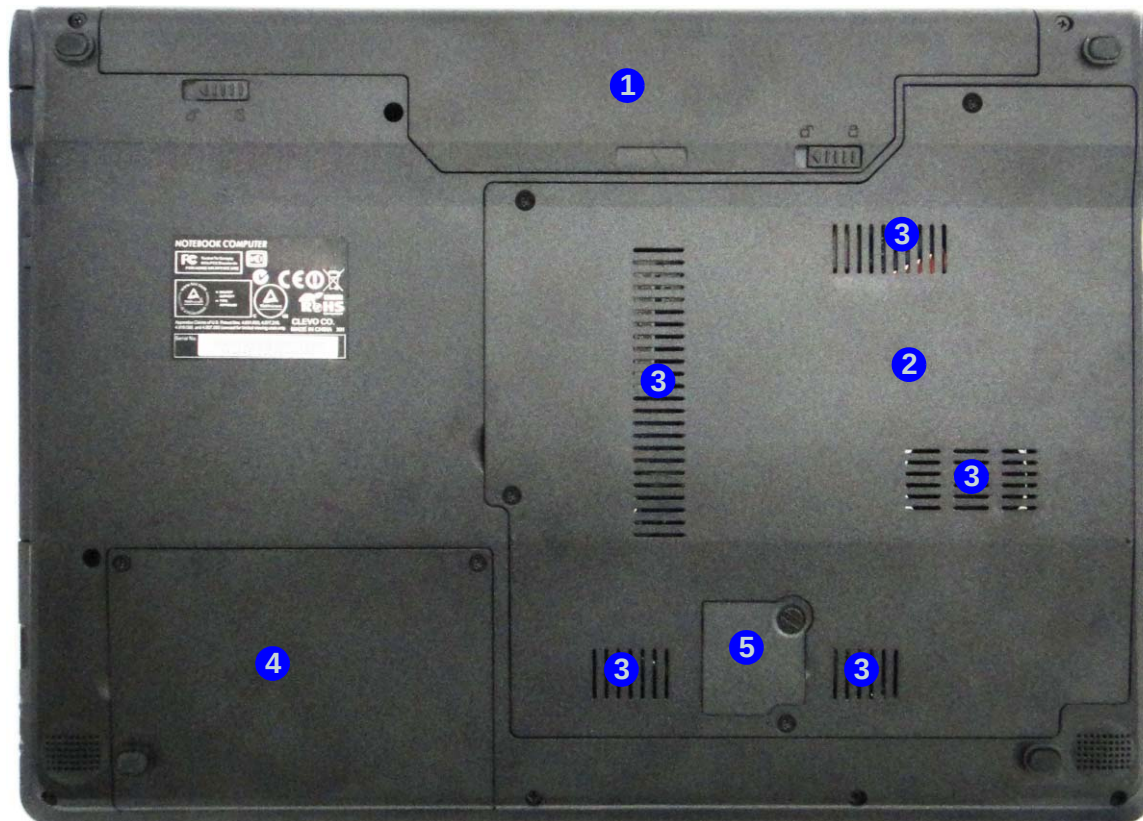


Figure 6
Bottom View

1. Battery
2. Component Bay Cover
3. Vent/Fan Intake/Outlet
4. Hard Disk Bay Cover
5. 3.75G/HSPA USIM Card Cover (optional)



Overheating

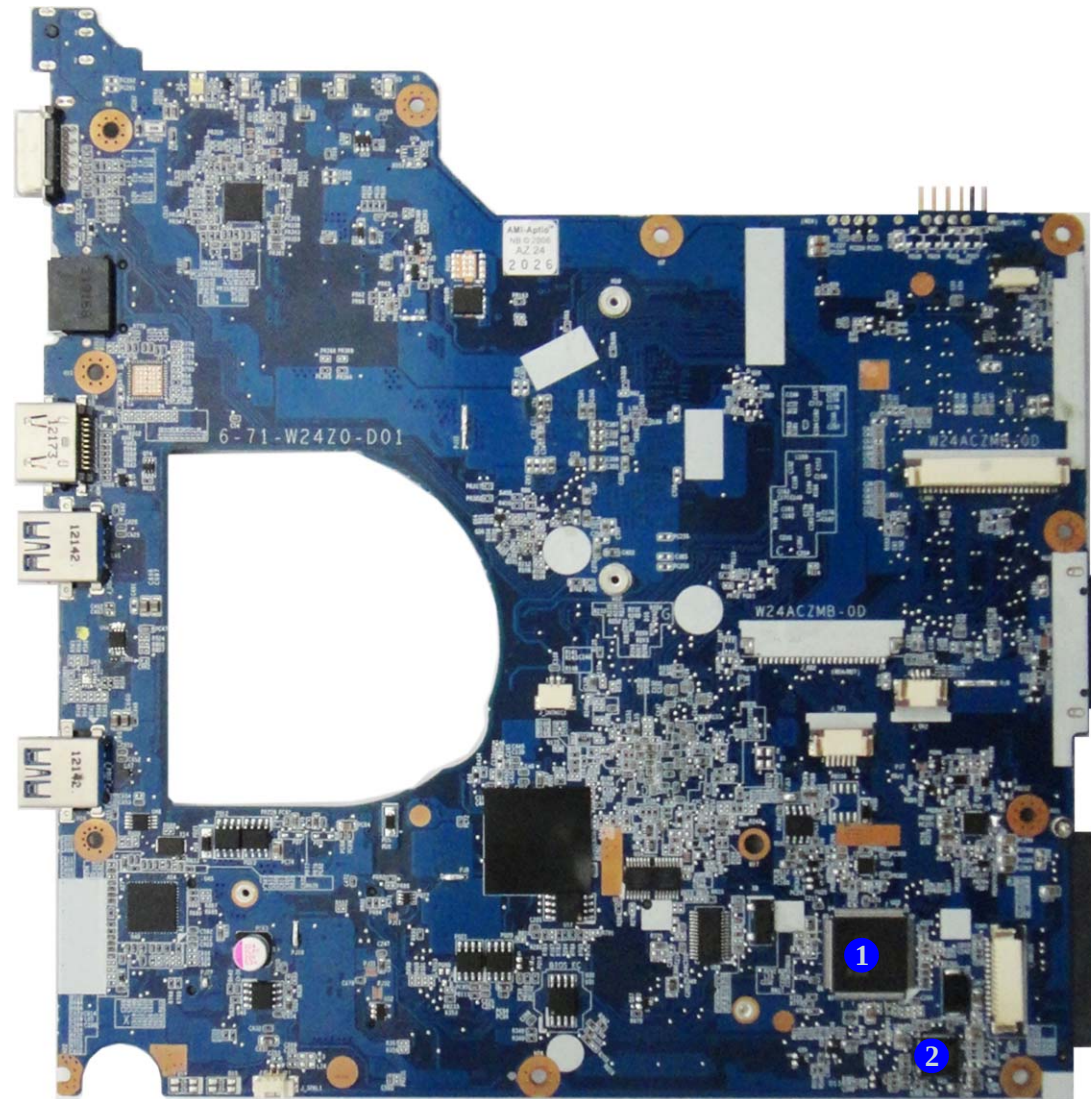
To prevent your computer from overheating make sure nothing blocks the vent/fan intakes while the computer is in use.

Introduction

Figure 7
**Mainboard Top
Key Parts**

1. ITE 8518E
2. AZALIA Codec

Mainboard Overview - Top (Key Parts)



Mainboard Overview - Bottom (Key Parts)



Figure 8
**Mainboard Bottom
Key Parts**

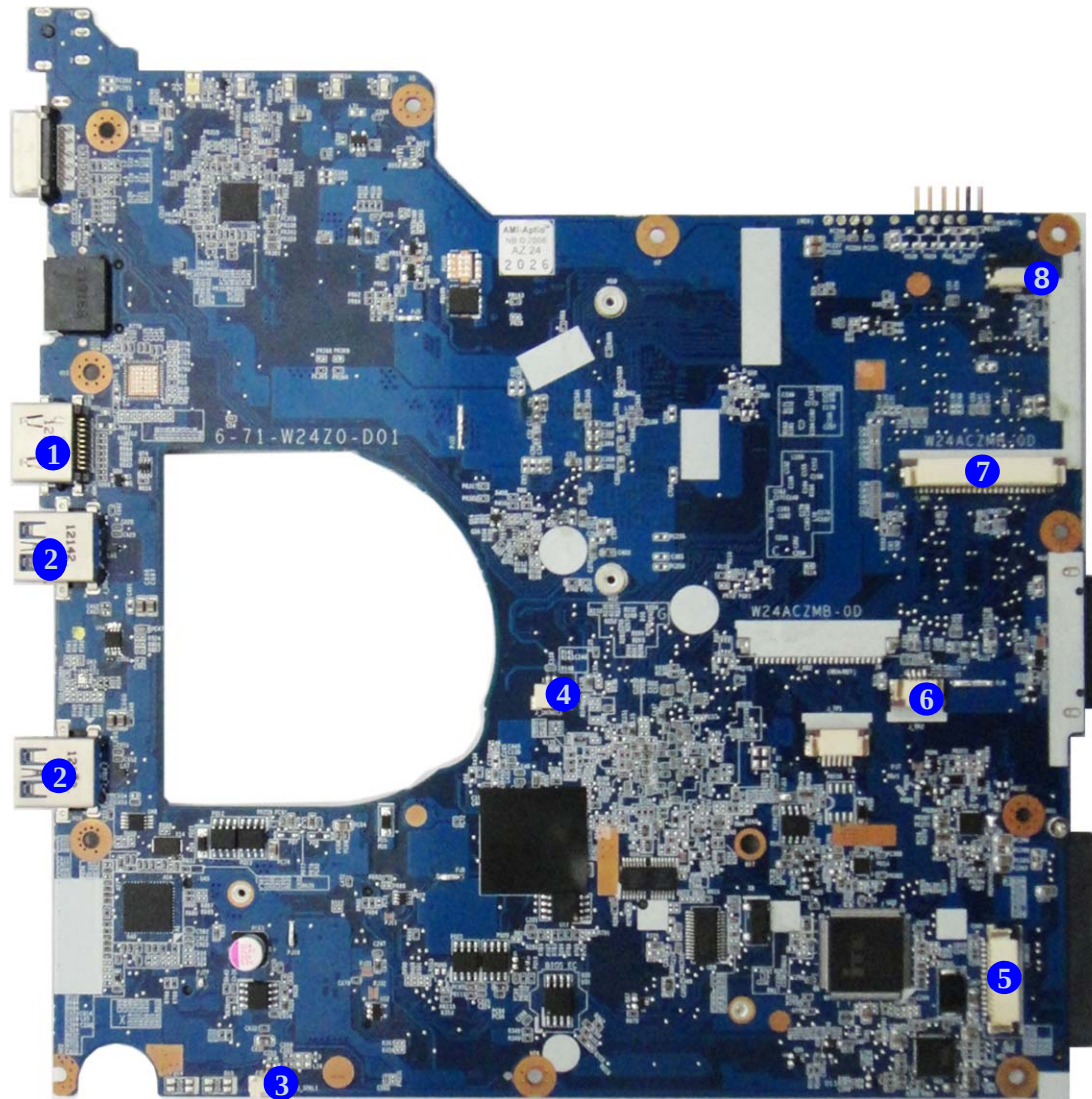
1. Memory Slots
DDR3 SO-DIMM
2. CPU Socket (No
CPU installed)
3. Intel PCH
4. CMOS Battery
5. Mini-Card
Connector (WLAN
Module)
6. Card Reader
Socket

Introduction

Figure 9
**Mainboard Top
Connectors**

1. HDMI-Out Port
2. USB Port 2.0
3. Speaker Cable Connector
4. Microphone Cable Connector
5. Audio Board Connector
6. TouchPad Cable Connector 1
7. Keyboard Cable Connector
8. Switch Board Cable Connector

Mainboard Overview - Top (Connectors)



Mainboard Overview - Bottom (Connectors)

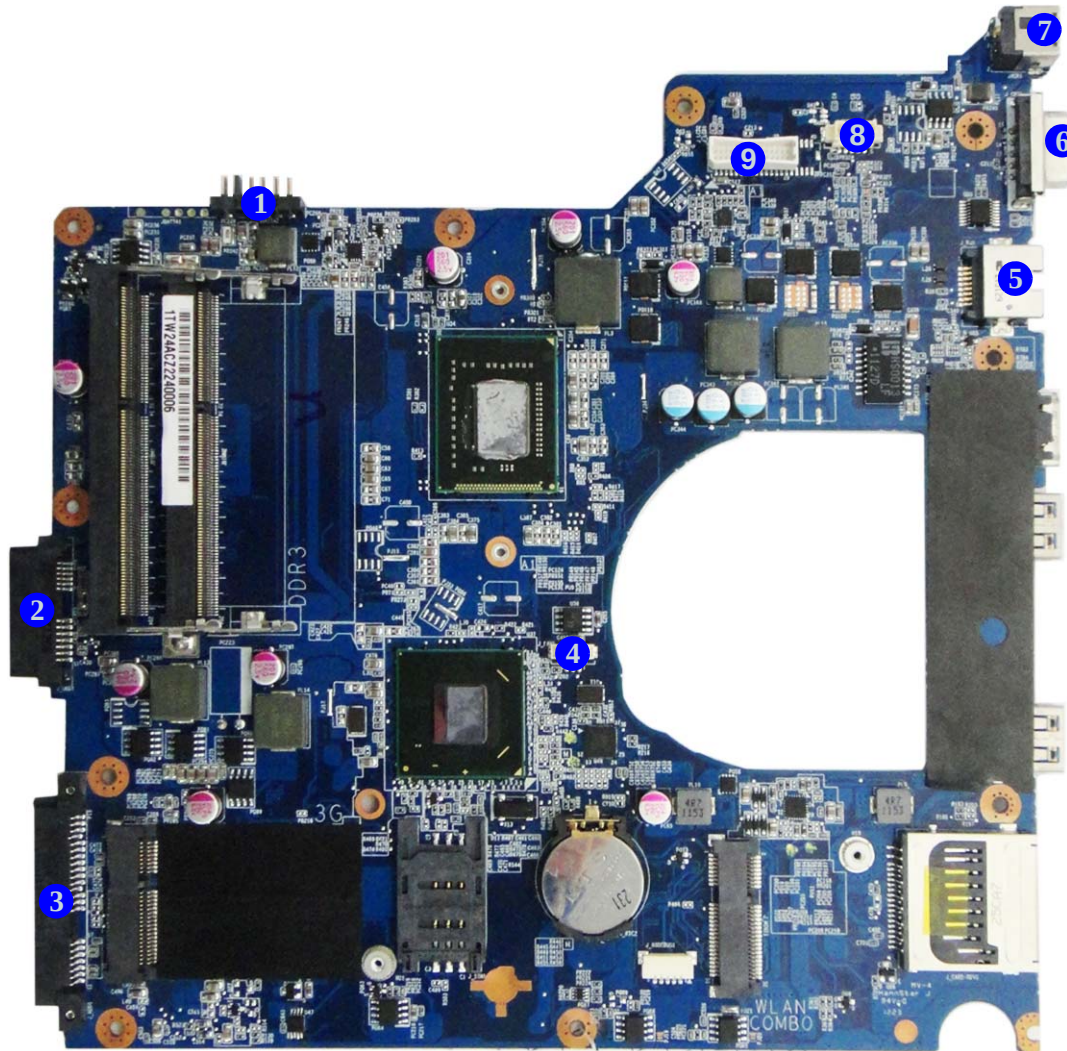


Figure 10
**Mainboard Bottom
Connectors**

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

Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the **W24ACZ / W243CZQ / W245CZQ** series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

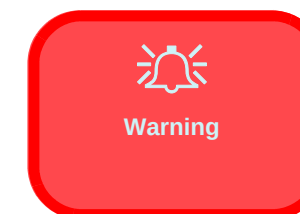
We suggest you completely review any procedure before you take the computer apart.

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

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

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

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



Disassembly

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

Maintenance Tools

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

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

Connections

Connections within the computer are one of four types:

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

Maintenance Precautions

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

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

Cleaning

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

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



Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). 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 the WLAN Module:

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

To remove the 3.75G Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the 3.75G [page 2 - 11](#)

To remove the Keyboard:

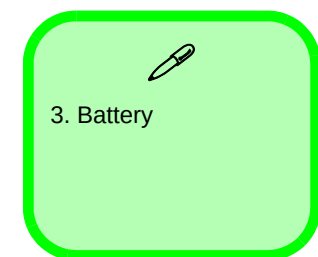
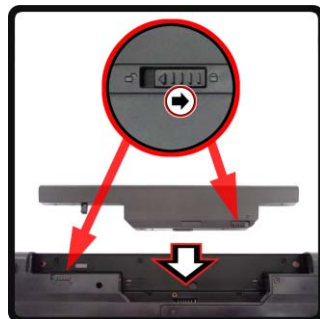
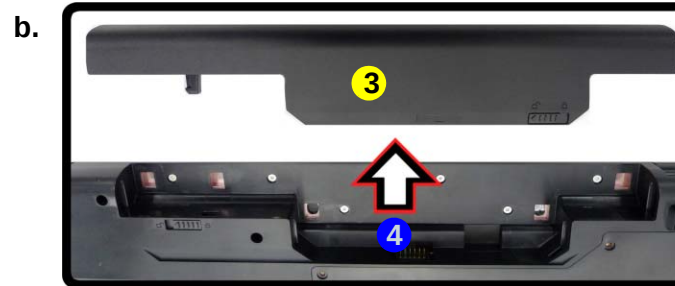
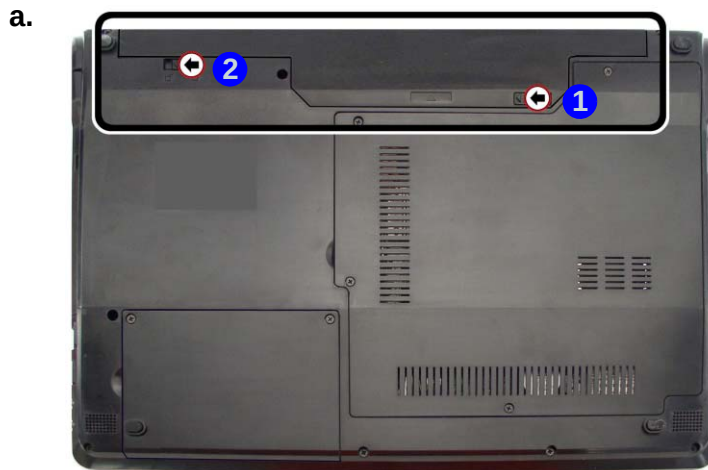
1. Remove the battery [page 2 - 5](#)
2. Remove the keyboard [page 2 - 12](#)

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*).

Figure 1
Battery Removal

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



Disassembly

Figure 2
**HDD Assembly
Removal**

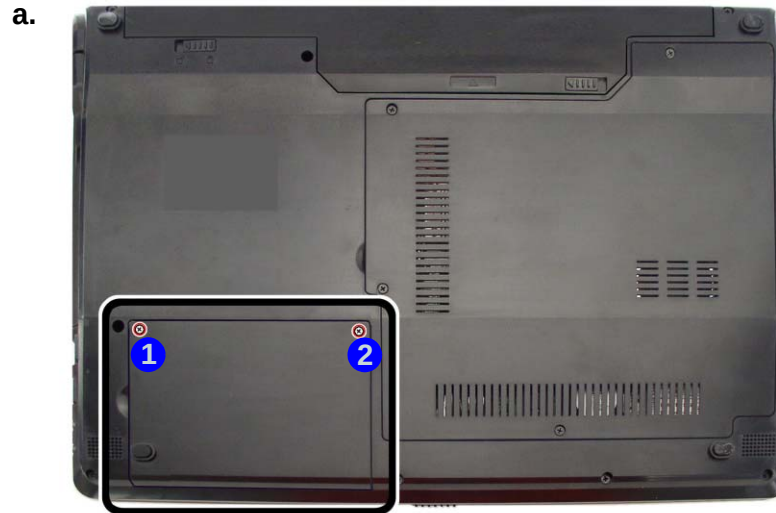
Removing the Hard Disk Drive

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.

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

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 screws ① & ② ([Figure 2a](#)).



- 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** (*Figure 3b*).
4. Grip the tab and slide the hard disk in the direction of arrow **4** (*Figure 3c*).
5. Lift the hard disk assembly **5** out of the bay **6** (*Figure 3d*).
6. Remove screws **7** - **10** and the mylar cover **11** from the hard disk **12** (*Figure 3e*).
7. Reverse the process to install a new hard disk (do not forget to replace all the screws and covers).

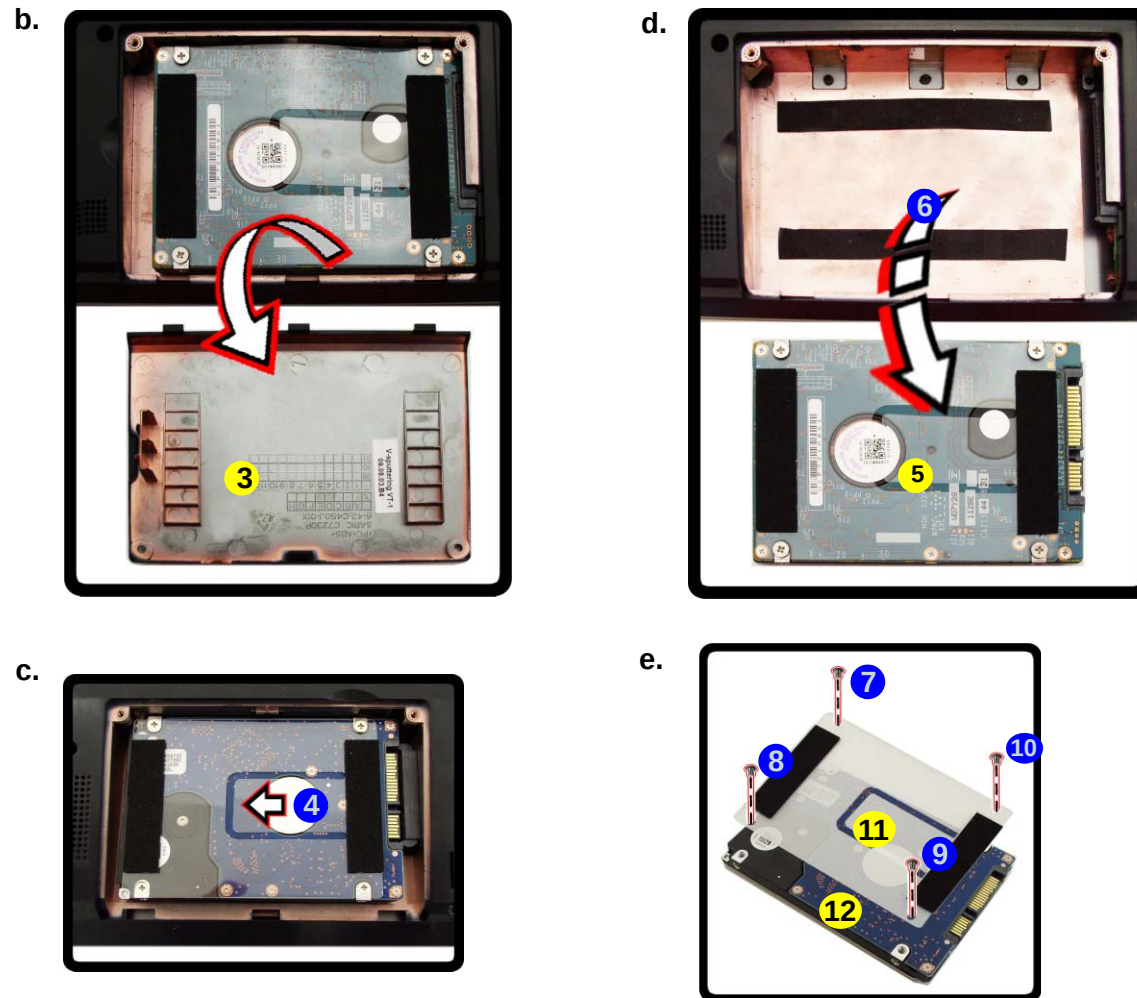


Figure 3
**HDD Assembly
Removal (cont'd.)**

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



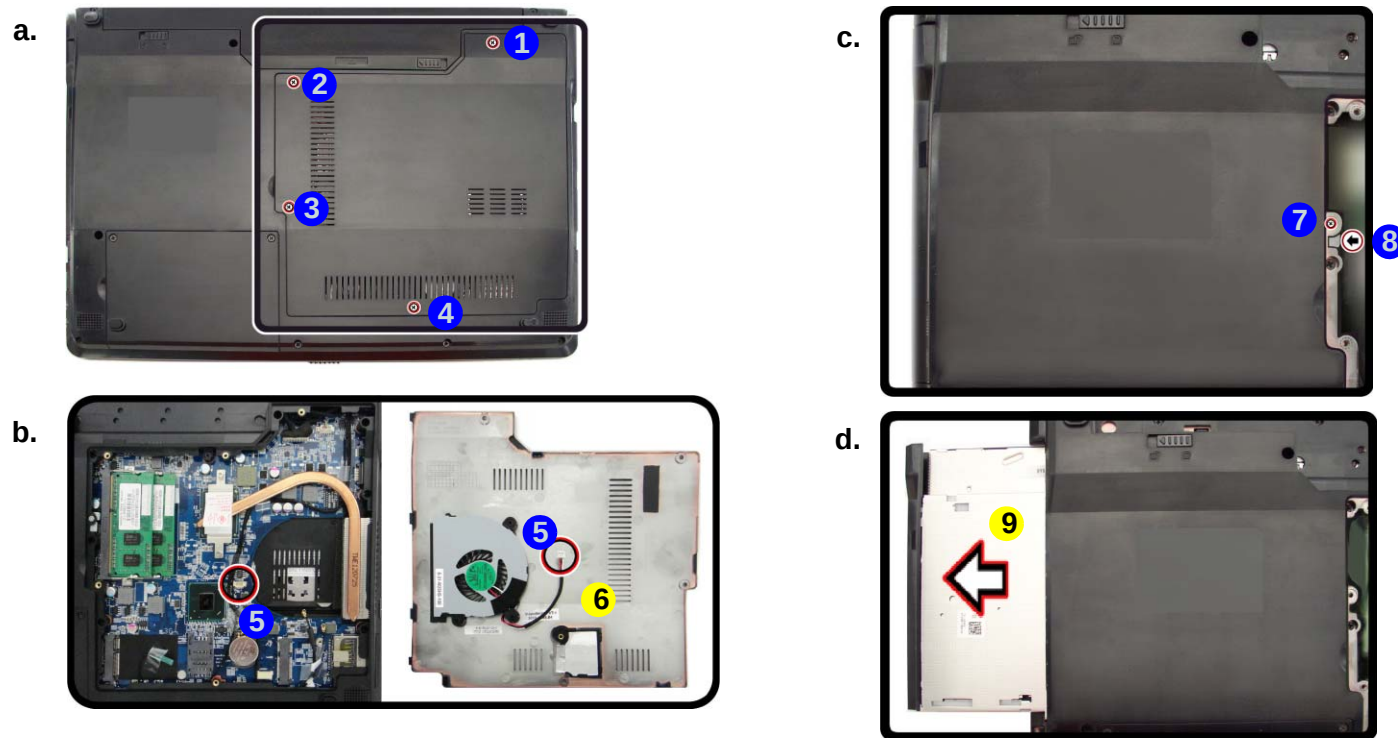
Disassembly

Figure 4
**Optical Device
Removal**

- a. Remove the screws.
- b. Remove the bay cover.
- c. Remove the screw at point 7 and use a screwdriver to carefully push out the optical device at point 8.
- d. Remove the optical device.

Removing the Optical (CD/DVD) Device

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)).
2. Locate the component bay cover and remove screws 1 - 4 ([Figure 4a](#)).
3. Carefully (**a fan and cable are attached to the under side of the cover**) lift up the bay cover.
4. Carefully disconnect the fan cable 5, and remove the cover 6 ([Figure 4b](#)).
5. Remove the screw at point 7, and use a screwdriver to carefully push out the optical device at point 8 ([Figure 4c](#)).
6. 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).
7. Restart the computer to allow it to automatically detect the new device.



- 6. Component Bay Cover
- 9. Optical Device

- 4 Screws

Removing the System Memory (RAM)

The computer has one memory socket for 204 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting **DDR3** 1333/ 1066MHz. The main memory can be expanded up to 4GB. The SO-DIMM modules supported are 1GB, 2GB and 4GB and **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, remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 8](#)).
2. The RAM modules will be visible at point **1** on the main board.
3. Gently pull the two release latches (**2** & **3**) on the sides of the memory socket.
4. The RAM module **4** will pop-up, and you can then remove it.

a.



b.



5. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
6. 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.
7. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
8. Replace the bay cover by inserting it at an angle and aligning the cover pins.
9. Replace the screws (**make sure you reconnect the fan cable before replacing all the screws and screwing down the bay cover**).
10. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

Figure 5
RAM Module
Removal

- a. Locate the memory socket.
- b. Remove the module.



Contact Warning

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



4. RAM Module

Disassembly

Figure 6
Wireless LAN
Module Removal

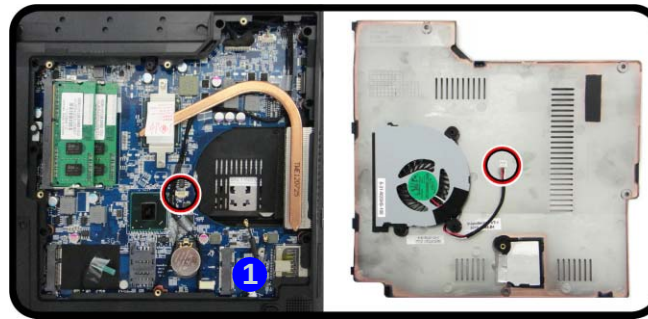
- Remove the cover.
- Disconnect the cables and remove the screw.
- Lift the WLAN module out.

Note: Make sure you reconnect the antenna cable to “1” + “2” socket (**Figure 6b**).

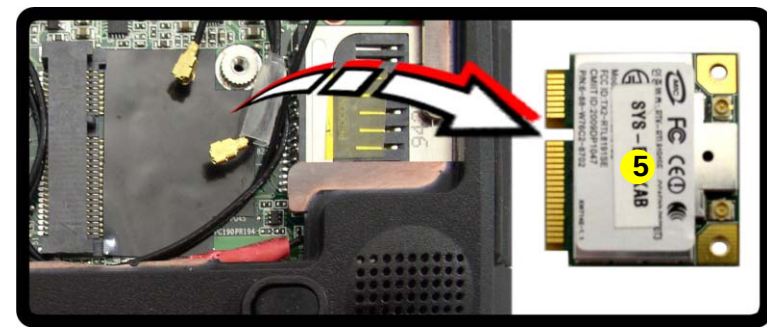
Removing the Wireless LAN Module

- Turn **off** the computer, remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 8](#)).
- The Wireless LAN module will be visible at point **1** on the mainboard.
- Carefully disconnect cables **2** - **3**, then remove screw **4** from the module socket (**Figure 6b**).
- Lift the Wireless LAN module **5** (**Figure 6c**) up and off the computer.

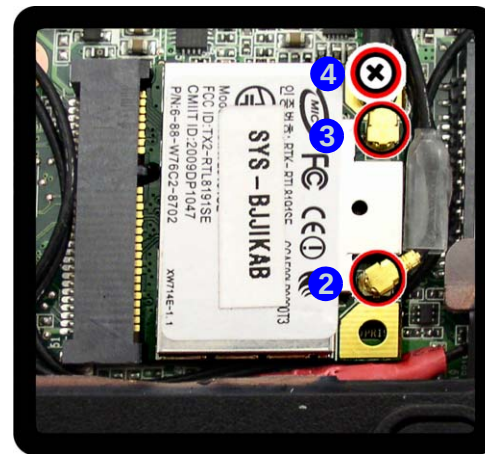
a.



c.



b.



5. WLAN Module.

- 1 Screw

Removing the 3.75G Module

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 8](#)).
2. Carefully disconnect the cable **1**, then remove the screw **2** from the module socket.
3. The 3.75G module **3** will pop-up.
4. Lift the 3.75G module ([Figure 7d](#)) up and off the computer.



Figure 7
**3.75G Module
Removal**

- a. Disconnect the cable and remove the screw.
- b. The 3.75G module will pop up.
- c. Lift the 3.75G module out.



3. 3.75G Module.

- 1 Screw

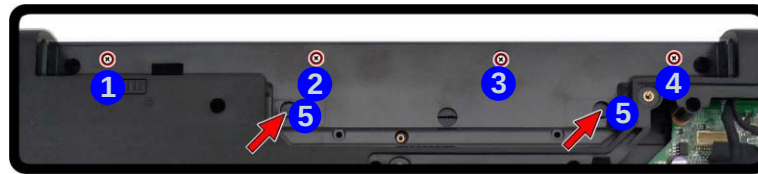
Disassembly

Figure 8

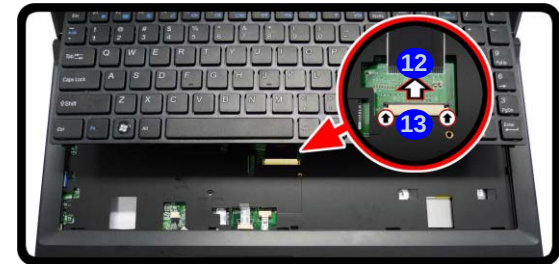
Keyboard Removal

- Remove screws from the bottom of the computer. Press at points ⑤ to un-snap the LED cover module.
 - Remove the LED cover module and screws from the keyboard.
 - Carefully lift the keyboard up and disconnect the keyboard ribbon cable from the locking collar socket.
 - Remove the keyboard.
- Turn **off** the computer, and remove the battery ([page 2 - 5](#)).
 - Remove screws ① - ④ from the bottom of the computer. Press at points ⑤ to un-snap the LED cover module ⑥ (you may need to use the Eject Pin Tool to do this ([Figure 8a](#))).
 - Remove the LED cover module ⑥ and screws ⑦ - ⑪ from the keyboard ([Figure 8b](#)).
 - Carefully lift the keyboard up, being careful not to bend the keyboard ribbon cable ⑫. Disconnect the keyboard ribbon cable ⑫ from the locking collar socket ⑬ ([Figure 8c](#)).
 - Carefully lift up the keyboard ⑭ ([Figure 8d](#)) off the computer.

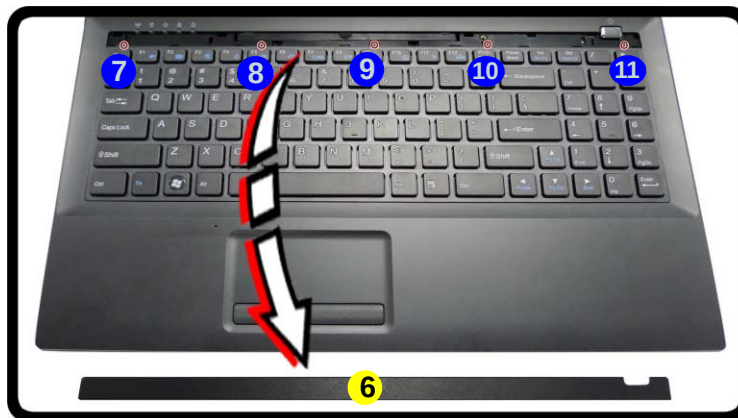
a.



c.



b.



d.



Keyboard Tabs

Re-Inserting the Keyboard

When re-inserting the keyboard firstly align the **four** keyboard tabs at the bottom ([Figure 8c](#)) at the bottom of the keyboard with the slots in the case.

6. LED Cover Module
14. Keyboard

- 9 Screws

Appendix A: Part Lists

This appendix breaks down the **W24ACZ / W243CZQ / W245CZQ** series notebook’s construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

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

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

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

Part Lists

Part List Illustration Location

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

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

Parts	W24ACZ	W243CZQ	W245CZQ
Top	<i>page A - 3</i>	<i>page A - 4</i>	<i>page A - 5</i>
Bottom	<i>page A - 6</i>		
Bottom - 3G		<i>page A - 7</i>	
Bottom - No 3G		<i>page A - 8</i>	
Bottom - SIM			<i>page A - 9</i>
Bottom - No SIM			<i>page A - 10</i>
LCD	<i>page A - 11</i>	<i>page A - 12</i>	<i>page A - 13</i>
SATA DVD	<i>page A - 14</i>	<i>page A - 15</i>	<i>page A - 16</i>
Combo	<i>page A - 17</i>	<i>page A - 18</i>	

Top (W24ACZ)

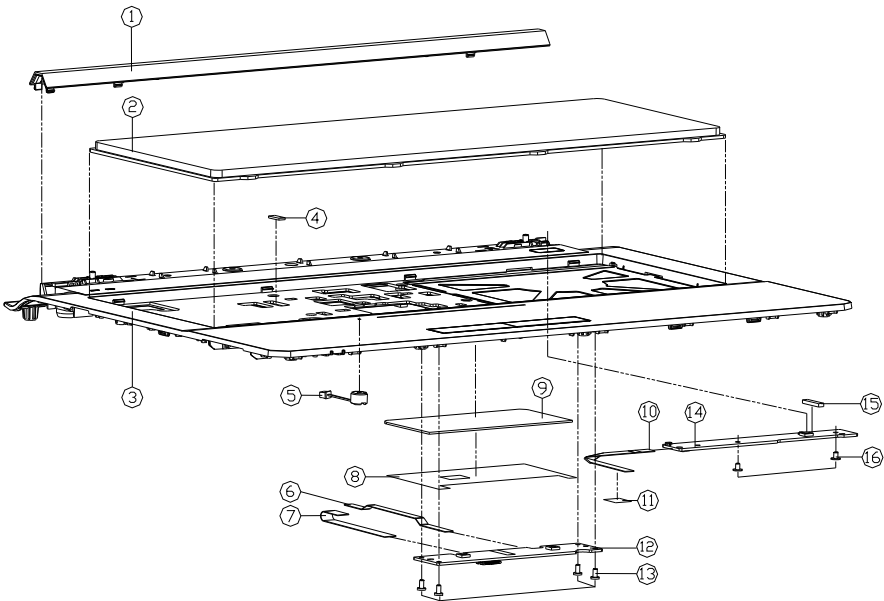


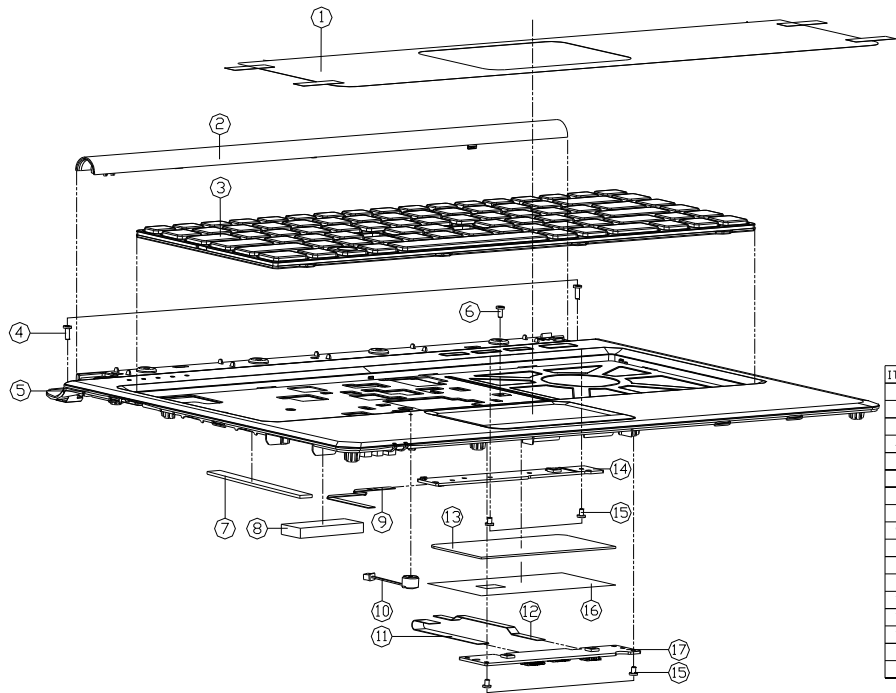
Figure A - 1
Top (W24ACZ)

ITEM	PART NAME	PART NO	REMARK
1	TOP CASE HINGE COVER MODULE C4128	6-42-E41B2-102	
2	KEY USA W-003005-00 W24ACZ WITH VISTA KEY	6-80-W84T0-011-1	
3	TOP CASE MODULE W24AHU	6-39-W24A2-011	FOR W24AHU
3	TOP CASE MODULE W24AHU-C	6-39-W24A2-011-C	FOR W24AHU-C
3	TOP CASE MODULE W24BHU	6-39-W24B2-011	FOR W24BHU
3	TOP CASE MODULE W24BHU-C	6-39-W24B2-011-C	FOR W24BHU-C
4	CASE CLIP W/ KEY PIP ON VIA TOP AREA W24C	6-47-D0190-10E	
5	W24ACZ KEY PIP ON VIA TOP AREA W24C	6-23-EM54G-012-2	
6	FFC CABLE FOR W/8 TO CLICK BOARD (HENGSHANG)	6-43-C4500-022-2	
7	FFC CABLE FOR TOUCH PAD 6PIN (HENGSHANG)	6-43-C4502-010-2	
8	TAPE NYLON (C) (86.10*38.80MM) C4105	6-40-D0150-860	
9	TOUCH PAD SYNAPTICS TM-01146-003 C4800	6-49-C4802-010	
10	FFC CABLE FOR W/8 TO POWER BOARD (HENGSHANG)	6-43-C4500-031-2	
11	TOP CASE FFC W/8 TO POWER BOARD (HENGSHANG)	6-40-C4502-031	
12	CLICK BOARD V1.0 W240BU	6-77-W2402-D01	FOR W24A/BHU-C
12	CLICK BOARD V1.0 W244EU PCB BLUE	6-77-W24E2-D01	FOR W24AEU
12	CLICK BOARD V1.0 W244EUQ	6-77-W24E2-D01	FOR W24AEL-C
13	SCREW M4X4 KI NI ICT NY (00=0.01*0.5)	6-35-B1120-4RA	
14	POWER SWITCH BOARD V2.0 E51200	6-77-E510S-D02	FOR W24A/BHU-C
14	POWER SWITCH BOARD V3.0 W25100-C PCB BLUE	6-77-W24ES-D03-AH	FOR W24AEU
14	POWER SWITCH BOARD V3.0 W2550U	6-77-W24ES-D03-A	FOR W24AEL-C
15	POWER BOARD SPONGE (305*50*4) C4800	6-47-C4502-021	
16	SCREW M4X4 KI NI ICT NY (043.0T*0.4)	6-35-B1120-3RE	

Part Lists

Top (W243CZQ)

Figure A - 2
Top (W243CZQ)



ITEM	PART NAME	PART NO	REMARK
1	TOP CASE PROTECT MYLAR (8835) W244HU	6-40-W2448-031	
2	HINGE COVER (ABS+PC) W244HU	6-42-W2442-071	
3	KEYBOARD MODULE (W244HU)	6-79-W243HU0K-010	
4	SCREW M2.5xBL KT BK/Z NY ICT	6-35-B6125-BR0	
5	TOP CASE IMR MODULE W244HU-C	6-39-W2442-012-C	
6	SCREW M2.5xSL KT BK/Z NY ICT NY	6-35-B6125-SRA	
7	SPRING FOR TOP CASE (3746) (3746) (3746)	6-47-0019A-570	
8	SPRING FOR TOP CASE (3746) (3746) (3746)	6-47-0019A-353	
9	FFC CABLE FOR M/B TO POWER BOARD (HENGSHANG)	6-43-C4500-031-2	
10	FFC CABLE FOR M/B TO POWER BOARD (HENGSHANG)	6-23-EM54G-012-2	
11	FFC CABLE FOR TOUCH PAD (HENGSHANG)	6-43-C4502-010-2	
12	FFC CABLE FOR TOUCH PAD (HENGSHANG)	6-43-C4500-022-2	
13	TOUCH PAD SYNAPTICS TM-0146-003 C4800	6-49-C4802-010	
14	POWER SWITCH BOARD V3.0 W244EU	6-77-W24ES-D03	
15	SCREW M2.5xBL KT BK/Z NY ICT NY (3746) (3746) (3746)	6-35-B1120-3RE	
16	TAPE MYLAR (C) (86.10x38.80MM) C4105	6-40-00150-B60	
17	CLICK BOARD V1.0 W244EU	6-77-W24E2-D01	

Top (W245CZQ)

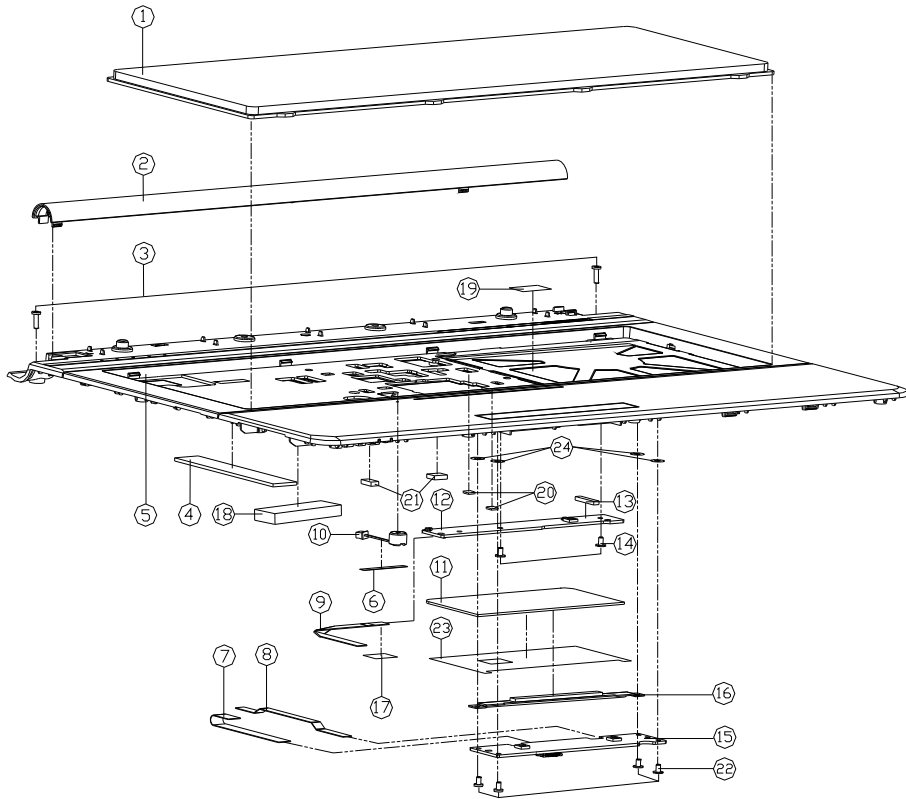


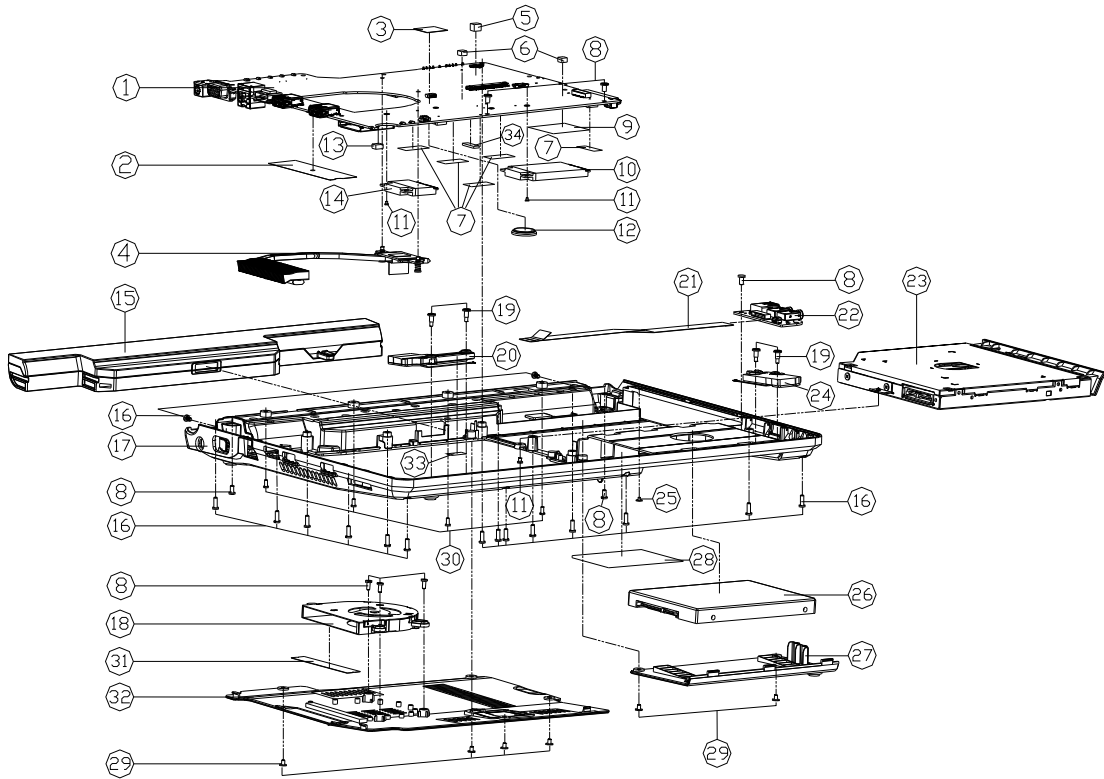
Figure A - 3
Top (W245CZQ)

ITEM	PART NAME	PART NO	REMARK
1	K/1 USA W-003000-001 (W245CZQ) WITH VISTA KEY	6-80-W8410-011-1	
2	HINGE COVER (PC+ABS) C4505	6-42-C4552-031	
3	SCREW M2.5xBL K1 BK/Z NY ICT	6-35-B6125-BR0	
4	SPONGE FOR TOP CASE (S4640) (C4505) (C4505)	6-47-0019A-570	
5	TOP CASE MODULE CASE-C (KEY) (C4505) (C4505)	6-39-C4552-013-C	
6	TAPE MYLAR (B) MYLAR M550J	6-40-M55J2-020	
7	ITC CABLE FOR TOUCH PAD (PIN) (C4505) (C4505)	6-43-C4502-010-2	
8	ITC CABLE FOR W/1 TO CLICK BOARD (C4505) (C4505)	6-43-C4500-022-2	
9	ITC CABLE FOR W/1 TO POWER BOARD (C4505) (C4505)	6-43-C4500-031-2	
10	WEAR-RESISTANT FILM (W/1 TO POWER BOARD) (C4505) (C4505)	6-23-EM54G-012-2	
11	TOUCH PAD SYNAPTICS TM-0146-003 C4800	6-49-C4802-010	
12	POWER SWITCH BOARD V3.0 W244EU0	6-77-W24ES-003	
13	POWER BOARD SPONGE (C4505) (C4505) (C4505)	6-47-C4502-021	
14	SCREW M2xL K1 NI ICT NY (00-045.01) (04)	6-35-B1120-3RE	
15	CLICK BOARD V1.0 W244EU0	6-77-W24E2-001	
16	TOUCHPAD PLATE MODULE C4505	6-33-C4552-101	
17	TOP CASE ITC W/1 (PIN) (C4505) (C4505) (C4505)	6-40-C4502-031	
18	SPONGE (C4505) (C4505) (C4505) (C4505)	6-47-0019A-390	
19	CONDUCTIVE CLIMB (C4505) (C4505) (C4505)	6-47-E4122-011	
20	RUBBER (S4640) (C4505) (C4505) (C4505)	6-47-M67U1-040	
21	TOP W/1 RUBBER (C4505) (C4505) (C4505)	6-47-M770U-081	
22	SCREW M2xL K1 NI ICT NY (00-045.01) (04)	6-35-B1120-4RA	
23	TAPE MYLAR (C) (06x38.80) (C4505)	6-40-00150-861	
24	WASHER (06x03x0.3) (MYLAR)	6-37-02000-601	

This exploded view diagram illustrates the assembly of the HP Z840 Workstation. The components are numbered 1 through 29, indicating the sequence of assembly. The diagram shows the main chassis (13), the front bezel (4), the top cover (5), the internal components including the motherboard (16), memory modules (17), storage drives (18, 19, 20, 21), and the power supply (22). It also shows the rear panel (23), the front panel (24), and the bottom cover (25). The diagram is a technical drawing with dashed lines indicating the alignment and assembly path of the parts.

ITEM	PART NAME	PART NO.	REMARK
1	MAIN BOARD V23 (V35/V2) TPO W24C2	6-77-W2420-002	
1	MAIN BOARD V23 (V20 V35/V2) TPO W24C2	6-77-W2420-002-1	
1	MAIN BOARD V23 (V35/V2) TPO W24C2	6-77-W2420-002	
2	MYLAR PET FOR M35/50 CHARGE LENS V24B	6-77-W2405-011	
3	ANODE BARRIER COATINGS (FOR KE100) 401	6-40-C405-030	
4	CPU HEATSINK MODULE W24C2	6-31-W242N-100	
5	SCREW M2X5xL 1/4 INK BZK ITZ NYLON	6-35-B6125-48A	
6	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-87-E4183-074	(OPTION)
6	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-87-C4085-44A	(OPTION)
6	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-87-W2405-011	(OPTION)
7	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-40-P1803-020	
8	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-88-W2405-7000	(OPTION)
8	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-88-W3455-8700	(OPTION)
8	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-88-W3455-4400	(OPTION)
8	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-88-W2405-011	(OPTION)
8	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-88-W1092-9200	(OPTION)
8	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-88-W1092-4400	(OPTION)
8	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-88-W1092-010	(OPTION)
9	MYLAR 600MIL (1985 + 38-65) W351	6-88-W3513-020	FOR W35/100 (OPTION)
10	MYLAR 600MIL (1985 + 38-65) W351	6-88-B8904-6300	
11	MYLAR 600MIL (1985 + 38-65) W351	6-35-B2355-38E	
12	BATTERY 3V 220MA W24C2 (1985 + 38-65) W351	6-23-E6820-030	
13	BATTERY CASE MODULE CHARGE LENS W24C2	6-39-E4183-010	
14	IMP MODULE W24C2 (1985 + 38-65) W351	6-31-W2405-100	
15	STRUCTURE MYLAR 300MIL W24C2 (1985 + 38-65) W351	6-40-W2405-011	
16	COVER MODULE W24C2 (1985 + 38-65) W351	6-42-E4183-103	
17	SCREW M2X5xL 1/4 INK BZK ITZ NYLON	6-35-W1120-68E	
18	SPRINGER 1/8INCH 1/2IN 1/4IN 3/16IN 1/8IN 1/16IN	6-23-E5412-010	
19	IMP 150 (HIGH VOLTAGE) FOR M35/50 CHARGE LENS	6-43-W2405-012	
20	ALUMINUM BOARD V40 W24C2	6-77-W2408-004-A	
21	SATA DVD SUPER MULTI ASSY OPTIM	6-79-W24820-020	
22	SATA BLU-RAY COMBO MULTI ASSY OPTIM	6-79-W2484CV-010	
23	W/D HDD ASSY E51200	6-79-E51200Z-000	
24	SPRINGER 1/8INCH 1/2IN 1/4IN 3/16IN 1/8IN 1/16IN	6-23-E5412-020	
25	PRODUCT LABEL FOR W24C2	6-45-W24000-000	
26	W/D HDD ASSY E51200	6-79-E51200J-000	
27	W/D HDD ASSY E51200	6-79-E51200J-000	
28	HDD COVER MODULE E4128	6-42-E418J-101	
29	SCREW M2X5xL 1/4 INK BZK ITZ NYLON	6-35-B6125-48A	
30	MYLAR (15X60X0.6T) FOR M77X	6-40-W7703-010	
31	SCREW 800MIL (1985 + 38-65) W351	6-35-B1120-38D	
32	GASDET (3X40X0.5) FOR D47W 1/4	6-47-00190-130	

Bottom - 3G (W243CZQ)

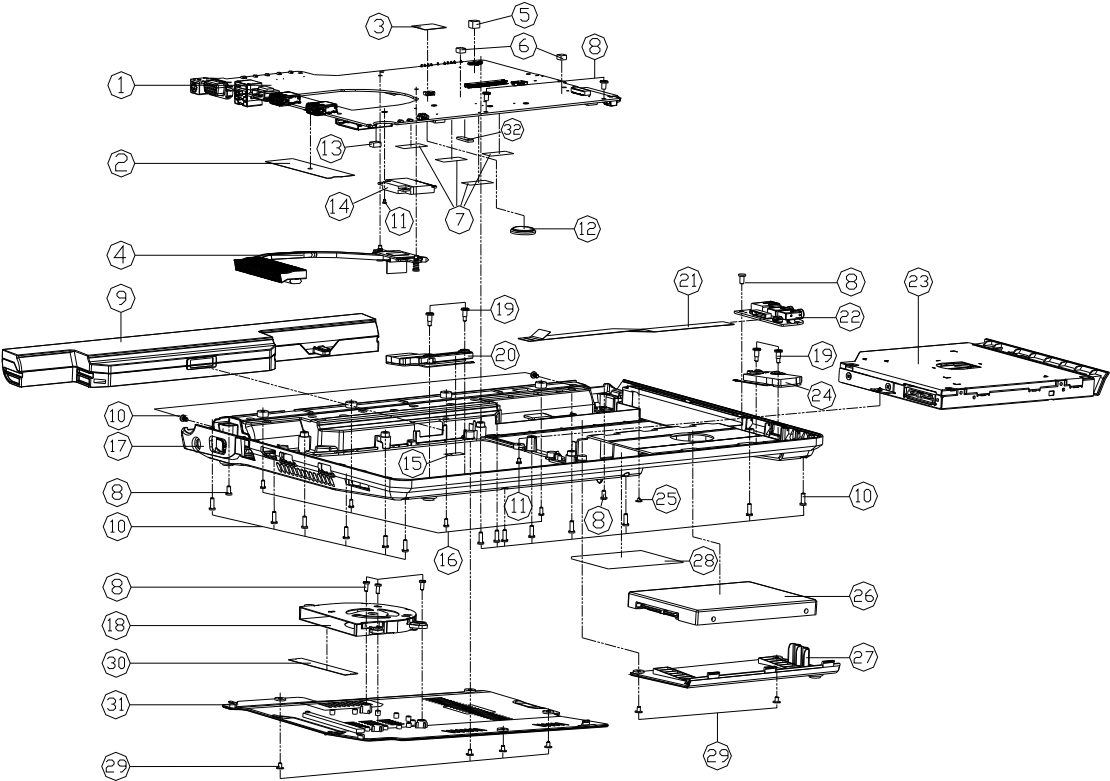


ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V28 (V36/V37) TPO W243CZQ-C	6-77-W243CZQ-00P	
1	MAIN BOARD V28 (V36/V37) TPO W243CZQ-C	6-77-W243CZQ-00P	
2	MYLAR PET FOR W/FIN CHARGE (LQW) W243CZQ-C	6-40-W243CZQ-011	
3	AUDIO AMP W/ALU W/ALU (V36) (V37) (V38) (V39) (V40)	6-40-C4503-030	
4	CPU HEATSINK MODULE W243CZQ-C	6-31-W243CZQ-100	
5	GASKET (Q444) W/OUT CAR FOR W243CZQ-C	6-47-0019A-60B	
6	TOUCH PAD RUBBER SILICONE (C31050) W243CZQ-C	6-47-W243CZQ-010	
7	TAPE MYLAR TRANSPARENT (C201043) P204H	6-40-P1803-020	
8	SCREW M2.5x4L K1 BK/Z ICT NY	6-35-B6125-5RA	
9	MYLAR 40x30x0.1 (0.003 + 3K-467) M7351	6-40-M7351-020	
10	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-88-W243W-2410	(OPTION)
11	SCREW M2x3L K1 NI ICT NY (00+445,01+44)	6-35-B1120-3RE	
12	BATTERY 3V 220MA BBBC20328 (KTS)	6-23-6A282-030	
13	GASKET (Q444) FOR TV COMA TOP CASE M2010U	6-47-00190-102	
14	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-88-W25H2-7000	
14	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-88-W345F-8700	
14	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-88-W345F-9400	
14	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-88-W25H2-9400	
14	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-88-W1102-4200	
14	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-88-W110F-4200	
15	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-87-C4855-4G48	(OPTION)
15	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-87-C4125-4D74	(OPTION)
15	W/ALU EMISSION F307 HPA FULL MIN-CARD USB	6-87-W243E5-4W4	(OPTION)
16	SCREW M2.5x4L K1 BK/Z NY ICT	6-35-B6125-9R0	
17	BOTTOM CASE MODULE (Q444) W243CZQ-C	6-39-W243C-012-C	
18	FAN MODULE W251H02	6-31-W25H5-100	
19	SCREW M2x4L NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
20	SPK CABLE (1.18x152 LxW 0.75x0.118) L1818X C402	6-23-5E412-010	
21	ITE CABLE (1.18x152 LxW 0.75x0.118) L1818X C402	6-43-W2400-012-2	
22	AUDIO BOARD V4.0 W243CZQ-C	6-77-W243C-004-A	
23	W/D ODD ASSY W244H02 (OPTION)	6-79-W244H02-000	
23	SATA BLU-RAY COMBO ASSY (OPTION)	6-79-W243BL00-010	
23	SATA DVD SUPER MULTI ASSY (OPTION)	6-79-W243BL00-000	
24	SPK CABLE (1.18x152 LxW 0.75x0.118) L1818X C402	6-23-5E412-020	
25	SCREW M2x4L K1 BK/Z ICT NY (06,1+03)	6-35-B6120-2RC	
26	W/D HDD ASSY E51200	6-79-E512000J-000	
26	W/D HDD ASSY E51200	6-79-E512000J-000	
27	MOD COVER MODULE W244H02-C	6-42-W244J-101-C	
28	PRODUCT LABEL FOR W243CZQ-C	6-45-W243CZQ-000-C	
29	SCREW M2.5x4L K1 BK/D ICT NY	6-35-B4125-4RA	
30	SCREW M2x4L K1H-B40 BK/Z ICT NY	6-35-B6120-5R0	
31	AIRDUCT MYLAR DFR117 W240HU	6-40-W24H8-011	
32	CPU COVER MODULE W36 W244HU-C	6-42-W243-102-C	
33	MYLAR (15x6x0.61) FOR M77X	6-40-M7703-010	
34	GASKET (13x5x0.5) FOR D470W T/D	6-47-00190-135	

Figure A - 5
Bottom - SIM
(W243CZQ)

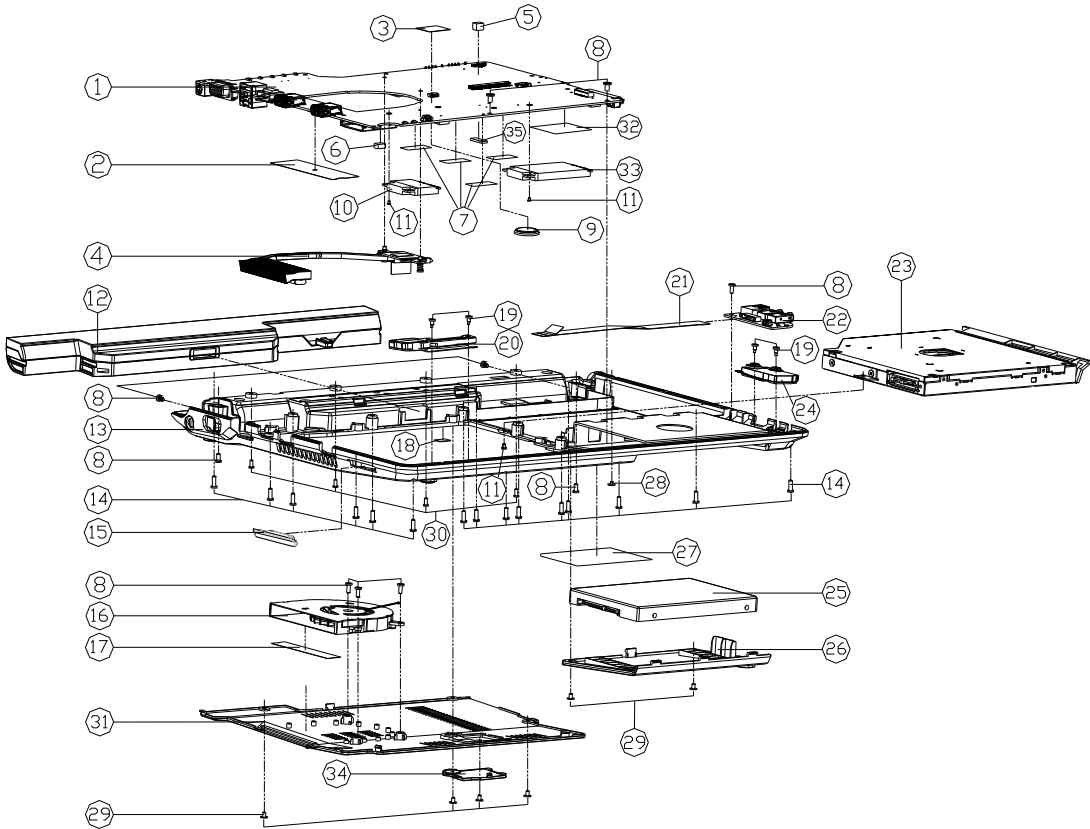
Bottom - No 3G (W243CZQ)

Figure A - 6
Bottom - No SIM
(W243CZQ)



ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V2.0 (W/D 3G/W/D 1P) W243CZQ	6-77-W243CZQ-002-1	
2	MYLAR PET TOP W/D FIN CHANGE LENGTH W244H1	6-40-W240S-011	
3	AUDIO BOARD W244H01 (1P) W244H1 (2P) W244H2	6-40-C450S-030	
4	CPU HEATSINK MODULE W244CZ	6-31-W242N-100	
5	GASKET (GASKET) WITHOUT CAR FOR W244H1	6-47-W2442-010	
6	TOUCH PAD RUBBER SILICONE (37X55) W244H	6-47-W2442-010	
7	TAPE MYLAR TRANSPARENT (20X104X0.5) P180H	6-40-P1803-020	
8	SCREW M2.5XSL KT BK/Z ICT NY	6-35-B6125-5RA	
9	IMP SLD (1P) W244H01 (2P) W244H2 (3P) W244H3 (4P) W244H4 (5P) W244H5 (6P) W244H6 (7P) W244H7 (8P) W244H8 (9P) W244H9 (10P) W244H10 (11P) W244H11 (12P) W244H12 (13P) W244H13 (14P) W244H14 (15P) W244H15 (16P) W244H16 (17P) W244H17 (18P) W244H18 (19P) W244H19 (20P) W244H20 (21P) W244H21 (22P) W244H22 (23P) W244H23 (24P) W244H24 (25P) W244H25 (26P) W244H26 (27P) W244H27 (28P) W244H28 (29P) W244H29 (30P) W244H30 (31P) W244H31 (32P) W244H32 (33P) W244H33 (34P) W244H34 (35P) W244H35 (36P) W244H36 (37P) W244H37 (38P) W244H38 (39P) W244H39 (40P) W244H40 (41P) W244H41 (42P) W244H42 (43P) W244H43 (44P) W244H44 (45P) W244H45 (46P) W244H46 (47P) W244H47 (48P) W244H48 (49P) W244H49 (50P) W244H50 (51P) W244H51 (52P) W244H52 (53P) W244H53 (54P) W244H54 (55P) W244H55 (56P) W244H56 (57P) W244H57 (58P) W244H58 (59P) W244H59 (60P) W244H60 (61P) W244H61 (62P) W244H62 (63P) W244H63 (64P) W244H64 (65P) W244H65 (66P) W244H66 (67P) W244H67 (68P) W244H68 (69P) W244H69 (70P) W244H70 (71P) W244H71 (72P) W244H72 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(826P) W244H826 (827P) W244H827 (828P) W244H828 (829P) W244H829 (830P) W244H830 (831P) W244H831 (832P) W244H832 (833P) W244H833 (834P) W244H834 (835P) W244H835 (836P) W244H836 (837P) W244H837 (838P) W244H838 (839P) W244H839 (840P) W244H840 (841P) W244H841 (		

Bottom - SIM (W245CZQ)

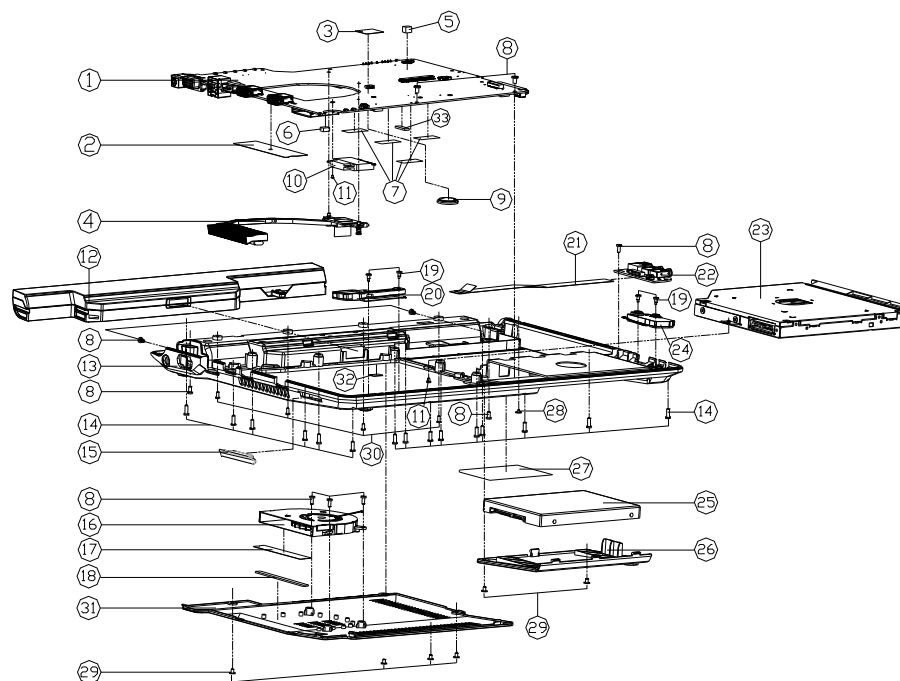


ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V28 QV36V/190 W245CZQ-C	6-77-W245CZQ0-000	
1	MAIN BOARD V28 QV36V/190 W245CZQ-C	6-77-W245CZQ0-000	
2	MYLAR PET FOR W3 FIN CHANGE LENGTH W240H	6-40-W240S-011	
3	AUDIO BOARD W240H400 (C) 100 KHZ 40 CMM	6-40-C450S-030	
4	CPU HEATSINK MODULE W24ACZ	6-31-W24ZN-100	
5	GASKET (GASKET) WITHOUT EAF FOR W24ACZ-C	6-47-0019A-60B	
6	GASKET (GASKET) FOR TV CMM TOP CASE MOUNT	6-47-00190-102	
7	TAPE MYLAR TRANSPARENT (C) 100 KHZ 40 CMM	6-40-P1803-020	
8	SCREW M2.5x5L KI BK/ZZ ICT NY-	6-35-B612S-5RA	
9	BATTERY 3V 200MA BBKCR20328 (KTS)	6-23-6A2B2-030	
10	W/O COVER MODULE FOR W245CZQ (OPTION)	6-88-W25H2-7000	
10	W/O COVER MODULE FOR W245CZQ (OPTION)	6-88-W345F-8700	
10	W/O COVER MODULE FOR W245CZQ (OPTION)	6-88-W345F-9400	
10	W/O COVER MODULE FOR W245CZQ (OPTION)	6-88-W25H2-9400	
10	W/O COVER MODULE FOR W245CZQ (OPTION)	6-88-W1102-4200	
10	W/O COVER MODULE FOR W245CZQ (OPTION)	6-88-W110F-4200	
11	SCREW M2x3 KI NY ICT NY (C) 100 KHZ 40 CMM	6-35-B1120-3R3	
12	W/O COVER MODULE FOR W245CZQ (OPTION)	6-87-C480S-46A	(OPTION)
12	W/O COVER MODULE FOR W245CZQ (OPTION)	6-87-C412S-407A	(OPTION)
12	W/O COVER MODULE FOR W245CZQ (OPTION)	6-87-W245S-4V4	(OPTION)
13	W/O COVER MODULE FOR W245CZQ (OPTION)	6-39-C4503-023-C	
14	SCREW M2.5x5L KI BK/ZZ NY ICT	6-35-B612S-8R0	
15	W/O COVER MODULE FOR W245CZQ (OPTION)	6-47-C4508-011	
16	FAN MODULE W251HUQ	6-31-W25HS-100	
17	AIRDUCT MYLAR DFR117 W240HU	6-40-W24HB-011	
18	MYLAR (15x6x0.6T) FDR M77X	6-40-M7703-010	
19	SCREW M2x4.2L NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
20	SPK CABLE L 100KHZ 10V 80 DB 100KHZ 10V	6-23-5E412-010	
21	W/O COVER MODULE FOR W245CZQ (OPTION)	6-43-W2400-012-2	
22	AUDIO BOARD V4.0 W24ACZ	6-77-W240B-004-A	
23	W/O DDD ASSY W240H400 (OPTION)	6-79-W240H402-000	
23	DATA DVD SUPER MULTI ASSY (OPTION)	6-79-W245CZQ0-000	
24	SPK CABLE L 100KHZ 10V 80 DB 100KHZ 10V	6-23-5E412-020	
25	W/O DDD ASSY E51200	6-79-E51200J-000	
25	W/O DDD ASSY E51200	6-79-E51200J-020	
26	MOD COVER MODULE C4500-C	6-42-C450J-100-C	
27	PRODUCT LABEL FOR W245CZQ-C	6-45-W245CZQ0-000-C	
28	SCREW M2x4L KI BK/ZZ ICT NY (6x1.0S)	6-35-B6120-2RC	
29	SCREW M2.5x4L KI BK/ZZ ICT NY	6-35-B412S-4RA	
30	SCREW M2.5x4L KI BZ ICT NY-	6-35-B6120-4RA	
31	W/O COVER MODULE FOR W245CZQ (OPTION)	6-42-C4123-103-C	
32	MYLAR 40x30x0.1T (FR3) 3M-467 M7351	6-40-M7351-020	
33	W/O COVER MODULE FOR W245CZQ (OPTION)	6-88-S180W-8300	
34	SIM COVER MODULE FOR E412P-C	6-42-E412S-100-C	
35	GASKET (13x5x0.5D) FOR B470V 1/C	6-47-00190-135	

Figure A - 7
Bottom - 3G
(W245CZQ)

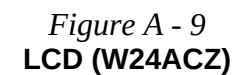
A.Part Lists

Figure A - 8
Bottom - No 3G
(W245CZQ)



ITEM	PART NAME	PART NO	REMARK
1	MAIN DRIVE SHAFT 2000 1/2" DIA 2000-20	6-47-245200-10-1	
2	MILAR KIT FOR MD 1000 CROWN LENGTH 4000	6-40-24505-010	
3	AXIS ROLLER JOINTS 2000 1/2" DIA 2000-20	6-40-24505-030	
4	GPU HEATING MIDDLE 2000 1/2" DIA	6-31-24524-100	
5	CAPUT IMAGING VIEWING CAN FOR VIEWER	6-44-20094-608	
6	SPRINGER FOR 1000 1/2" DIA 2000-20	6-47-20094-102	
7	1000 1/2" DIA TRANSDUCER CROWN PIPES	6-40-21803-020	
8	SCREW M25x4. KI B/KZ ICT NY	6-35-26125-SRA	
9	BATTERY 2V 2000A 880003020 0151	6-23-64282-300	
10	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
11	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
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13	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
14	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
15	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
16	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
17	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
18	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
19	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
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21	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
22	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
23	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
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27	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
28	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
29	SCREW M25x4. KI B/KZ NY ICT	6-35-26125-SRA	
30	SCREW M25x4. KI B/KZ NY ICT	6-47-45008-010	
31	FAN MODULE W25H100	6-31-26548-100	
32	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
33	SPRINGER 1000 1/2" DIA 2000-20	6-47-20094-102	OPTION
34	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
35	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	OPTION
36	SPRINGER 1000 1/2" DIA 2000-20	6-08-2558-7000	
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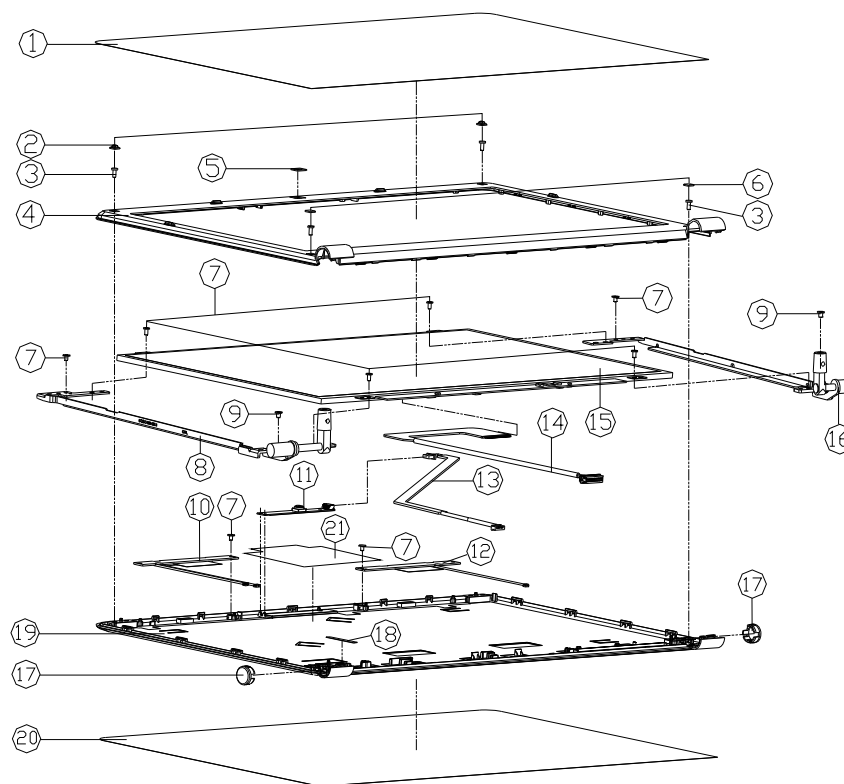
A.Part Lists



ITEM	PART NAME	PART NO	REMARK
1	LED FRONT COVER PROTECTION RAIL PVL1800 C4500	6-40-C4501-011	
2	LED FRONT COVER SCREW RUBBER SILICON C4500	6-47-C4501-031	
3	SCREW M6X16 K11-60 DUBU BK/2 ICT NY	6-35-B6120-580	
4	LED FRONT COVER MIDDLE C4500	6-39-C4501-012	
5	LED FRONT COVER MIDDLE GREENLED/RED/WHITE C4500	6-39-C4501-012-M	
6	LED FRONT COVER MIDDLE GREENLED/RED/WHITE C4500	6-39-C4501-012-M	FOR W24A1
7	C/D 鋸板 PMMA M810L	6-42-M8101-011	
8	W/C DUBU LENS PMMA Ø51 C4800	6-42-C4801-010	
9	FRONT COVER FOR FCD SCREW C4500	6-40-C4501-031	
10	SCREW M6X16 NI NY ICT NY (FCD-M810-08)	6-35-B1120-37D	
11	SCREW M6X5L K1 BK/2 ICT NY	6-35-B6125-SR1	
12	LED HINGE L SECC E41280	6-33-E4128-010	
13	LED HINGE L SECC E41280	6-33-E4128-010	
14	LED HINGE L SECC E41280	6-33-E4128-010	
15	LED HINGE L SECC E41280	6-33-E4128-010	
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71	LED HINGE L SECC E41280	6-33-E4128-010	
72	LED HINGE L SECC E41280	6-33-E4128-010	
73	LED HINGE L SECC E41280	6-33-E4128-010	
74	LED HINGE L SECC E41280	6-33-E4128-010	
75	LED HINGE L SECC E41280	6-33-E4128-010	
76	LED HINGE L SECC E41280	6-33-E4128-010</	

LCD (W243CZQ)

Figure A - 10
LCD (W243CZQ)



ITEM	PART NAME	PART NO	REMARK
1	LED FRONT COVER PROTECTION M8*16*0.85 C450	6-40-C4501-01	
2	LCD FRONT COVER SCREW RUBBER SLIPON C450	6-47-C4501-031	
3	SCREW M4*16 NI NI ICT NY (C00-4401-01-05)	6-35-B1120-4A1	
4	LCD FRONT COVER MODULE (G00 G40) C41660	6-39-C4161-013	
4	LED FRONT COVER MODULE (H00 H40) C4500	6-39-C4161-013-SI	
5	CCD 阵列 PMMA M810L	6-42-M8101-011	
5	CCD LENS PMMA E5120Q	6-42-E5101-031	
5	W/O CCD LENS PMMA 031 C4800	6-42-C4807-010	
6	FRONT COVER PC FCT NY FOR C4500	6-40-C4501-071	
7	SCREW M2*16 NI NI ICT NY (45-331-61)	6-35-B1120-3RE	
8	LCD HINGE -L SECC C25X41069	6-33-C4161-011	
9	SCREW M2*16 NI NI ICT NY-PAN IN (145-343)	6-35-C2225-343	
10	WIRE CABLE TYP C00 S0 2053MM W42410-C	6-23-W7244-080-I	
11	ONE CAMERA COVER FOR THE 300 301 302 303 304 305 306 307 308 309 310	6-88-M1110-5100	OPTION
12	ONE CAMERA LENS TO REMOVING ON IN 304 305 306 307 308 309 310	6-88-W15C-4901	OPTION
13	ONE CAMERA COVER FOR 0202 IN 30 300 301 302 303 304 305 306 307 308 309 310	6-88-W21EC-5100	OPTION
14	ONE CAMERA LENS TO REMOVING ON 30 300 301 302 303 304 305 306 307 308 309 310	6-88-M115C-4902	OPTION
15	ANTENNA W/ 30 300 301 302 303 304 305 306 307 308 309 310	6-23-W724E-010	
16	WIRE CABLE TYP C00 S0 2053MM W42410-C	6-43-W24E11-010	
17	ONE 300 301 302 303 304 305 306 307 308 309 310	6-43-C4161-012-A	
18	LED MP IN IMPELLER REMOVING IN 300 301 302 303 304 305 306 307 308 309 310	6-50-H8136-300	
19	LED MP IN LG IMPELLER-LIKE 300 301 302 303 304 305 306 307 308 309 310	6-50-H8136-106	
20	LCD HINGE-R SECC AS2 C41660	6-33-C4161-021	
21	HINGE COSMETIC RING ABS P27 C4500	6-42-C4508-012	
22	TAPE MYLAR (R).MYLAR M550J	6-40-M55J-020	
23	BACK COVER MODULE W24340-C	6-39-W2431-080-C	
24	BACK COVER PROTECTION M8*16*0.85 C450	6-40-C4501-020	
25	AL FOIL FOR TP E5120	6-47-E5182-020	

LCD (W245CZQ)

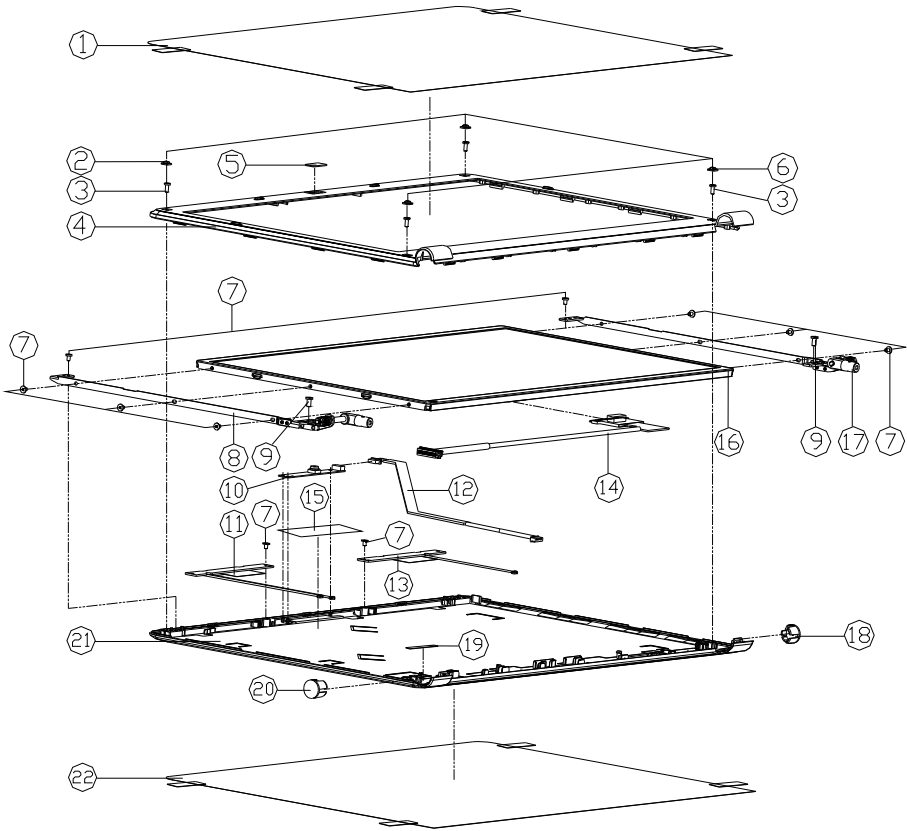


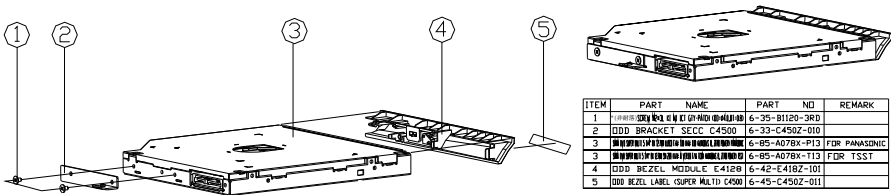
Figure A - 11
LCD (W245CZQ)

ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MYLAR (PET-300PHS) C4500	6-40-C4501-011	
2	LCD FRONT COVER SCREW RUBBER SLICOM C4500	6-47-C4501-031	
3	SCREW M2x5xSL K11-BK/Z ICT NY	6-35-B6120-5R0	
4	LCD FRONT COVER MODULE C4500	6-39-C4501-012	
5	CCD IMAGE PMMA M810L	6-42-M8101-011	
6	W/O CCD LENS PMMA 0.5T C4800	6-42-C4801-010	
7	FRONT COVER PC FOR SCREW C4500	6-40-C4501-071	
8	SCREW M2x5xSL K11-BK/Z ICT NY	6-35-B1120-3RE	
9	LCD HINGE-L SECC C4500	6-33-C4501-011	
10	SCREW M2.5xSL K11-BK/Z ICT NY	6-35-B6125-5RA	
10	UVC CAMERA HOUSING FOR CAMERA IN IN SP4 DRESS TYPE1	6-88-W15EC-4901	OPTION
10	UVC CAMERA HOUSING FOR CAMERA IN IN SP4 DRESS TYPE2	6-88-W21EC-5100	OPTION
10	UVC CAMERA HOUSING FOR CAMERA IN IN SP4 DRESS TYPE3	6-88-M115C-4902	OPTION
10	UVC CAMERA HOUSING FOR CAMERA IN IN SP4 DRESS TYPE4	6-88-M111C-5100	OPTION
11	WIRE CABLE FOR CCD SP 3005MM V245CZQ (HL)	6-23-7C450-032-1	
12	ANTENNA VCMNA PCB 3G 860MM HL E4120	6-43-W24ET-010	
13	WIRE CABLE FOR LVDS 290MM OL/TL CCM64-HD C4500	6-23-7E412-010	
14	AL FOIL FOR TP E512BQ	6-43-E5101-011-A	
15	LCD MAP HL LG LIPANHA-FLM GLARE TYPE LCD 5.0MM	6-47-E5182-020	
16	LCD MAP HL LG LIPANHA-FLM GLARE TYPE LCD 5.0MM	6-50-J8152-L0B	
17	LCD MAP HL LG LIPANHA-FLM GLARE TYPE LCD 5.0MM	6-50-J8152-H04	
18	LCD HINGE-R SECC C4500	6-33-C4501-021	
19	HINGE COSMETIC RING R (CM6140) C4505	6-42-C4558-011	
20	TAPE MYLAR (B) MYLAR M550J	6-40-M55J2-020	
21	HINGE COSMETIC RING L (CM6140) C4505	6-42-C4558-021	
22	LCD BACK COVER IMR MODULE (CHANGE) C4500-C	6-39-C4551-022-C	
22	BACK COVER PROTECTION MYLAR(BES-300PHS) C4500	6-40-C4501-020	

Part Lists

SATA-DVD (W24ACZ)

Figure A - 12
SATA-DVD
(W24ACZ)



SATA-DVD (W243CZQ)

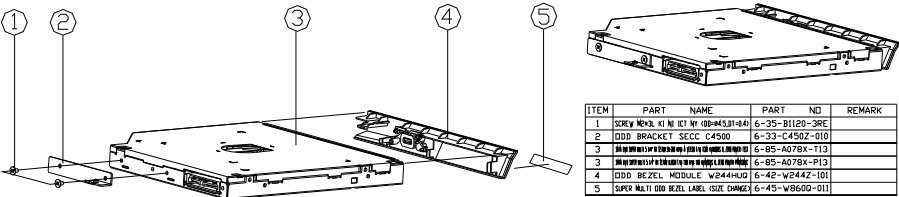
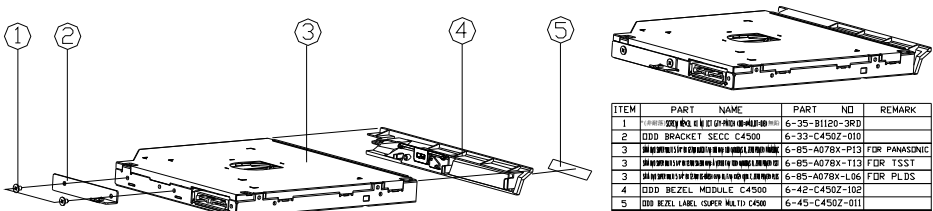


Figure A - 13
SATA-DVD
(W243CZQ)

SATA-DVD (W245CZQ)

Figure A - 14
SATA-DVD
(W245CZQ)



Combo (W24ACZ)

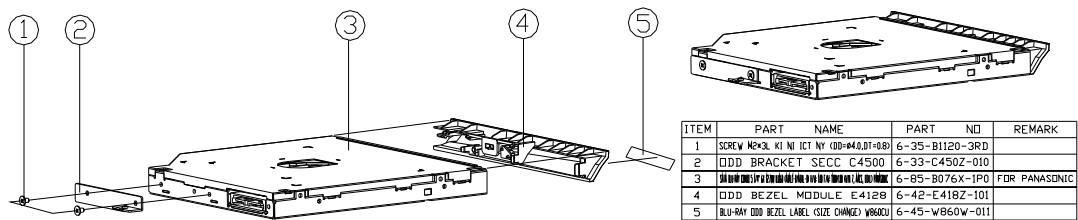
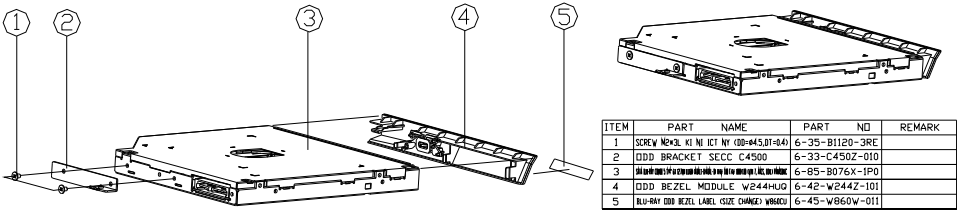


Figure A - 15
Combo (W24ACZ)

Part Lists

Combo (W243CZQ)

Figure A - 16
Combo
(W243CZQ)



Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the **W24ACZ / W243CZQ / W245CZQ** 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>PantherPoint - M 6/9 - Page B - 19</i>	<i>Power 1.05VS, VTT_CPU - Page B - 36</i>
<i>Processor 1/7 - Page B - 3</i>	<i>PantherPoint - M 7/9 - Page B - 20</i>	<i>Power 0.85VS - Page B - 37</i>
<i>Processor 2/7 - Page B - 4</i>	<i>PantherPoint - M 8/9 - Page B - 21</i>	<i>Power V-Core1 - Page B - 38</i>
<i>Processor 3/7 - Page B - 5</i>	<i>PantherPoint - M 9/9 - Page B - 22</i>	<i>Power V-Core2 - Page B - 39</i>
<i>Processor 4/7 - Page B - 6</i>	<i>WLAN, CCD - Page B - 23</i>	<i>Smart Charger, AC In - Page B - 40</i>
<i>Processor 5/7 - Page B - 7</i>	<i>3G, TPM - Page B - 24</i>	<i>Click Board - Page B - 41</i>
<i>Processor 6/7 - Page B - 8</i>	<i>Card Reader, LAN RTL8402 - Page B - 25</i>	<i>Audio Board/USB - Page B - 42</i>
<i>Processor 7/7 - Page B - 9</i>	<i>Transformer, SATA HDD, ODD - Page B - 26</i>	<i>Power Switch & LID Board - Page B - 43</i>
<i>DDR3 SO-DIMM_0 - Page B - 10</i>	<i>USB 3.0 TI TUSB7320 - Page B - 27</i>	<i>External ODD Board - Page B - 44</i>
<i>DDR3 SO-DIMM_1 - Page B - 11</i>	<i>USB 3.0/USB 2.0/USB Charger - Page B - 28</i>	<i>Power Sequence - Page B - 45</i>
<i>LVDS, Inverter - Page B - 12</i>	<i>KBC-ITE IT8518 - Page B - 29</i>	
<i>HDMI, CRT - Page B - 13</i>	<i>LED - Page B - 30</i>	
<i>PantherPoint - M 1/9 - Page B - 14</i>	<i>Audio Codec VT1802P/ALC269 - Page B - 31</i>	
<i>PantherPoint - M 2/9 - Page B - 15</i>	<i>Fan, TP, Multi-Conn - Page B - 32</i>	
<i>PantherPoint - M 3/9 - Page B - 16</i>	<i>System Power - Page B - 33</i>	
<i>PantherPoint - M 4/9 - Page B - 17</i>	<i>VDD3, VDD5 - Page B - 34</i>	
<i>PantherPoint - M 5/9 - Page B - 18</i>	<i>Power 1.5V/0.75V/1.8VS - Page B - 35</i>	

Table B - 1
**Schematic
Diagrams**

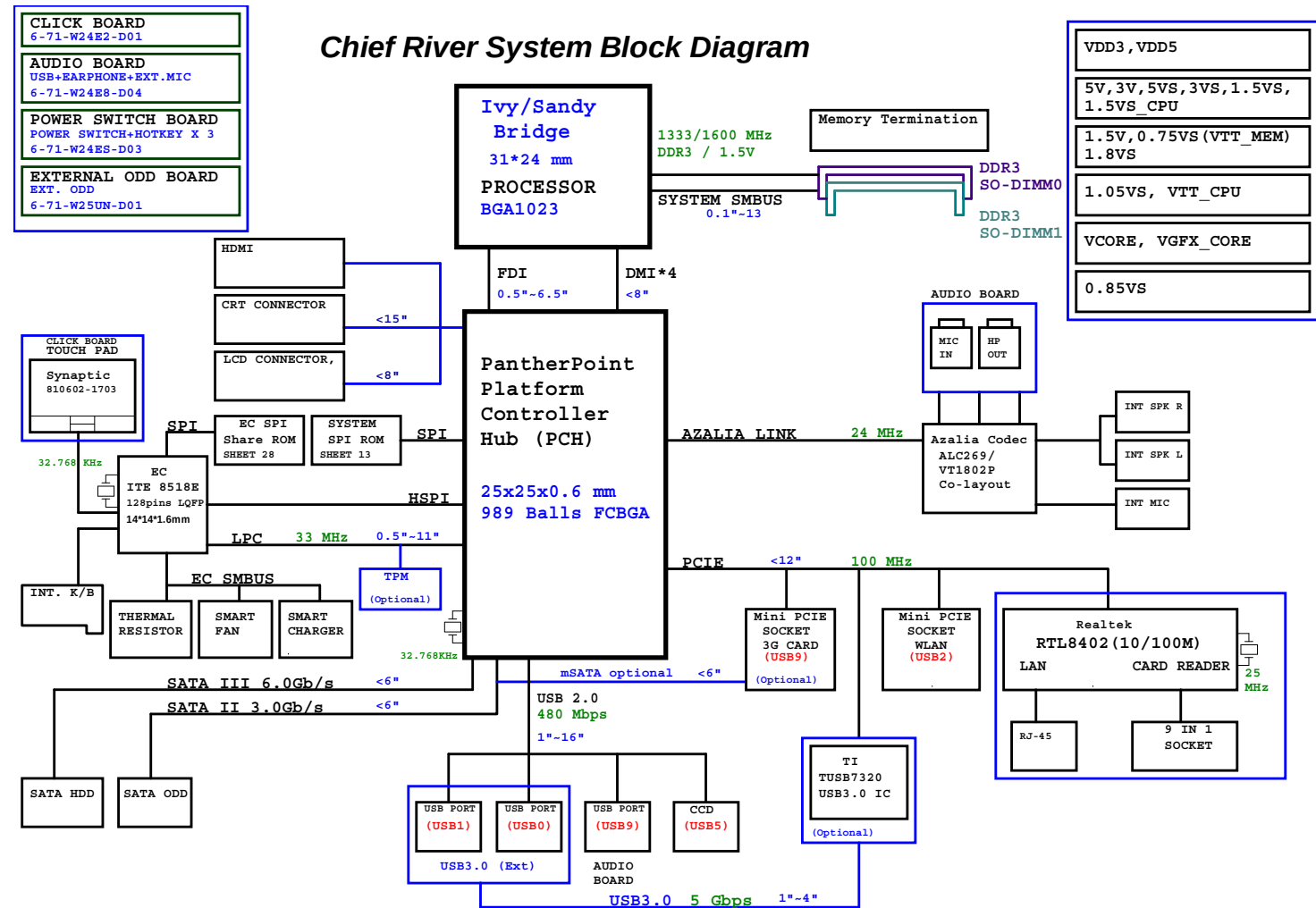


Version Note

The schematic diagrams in this chapter are based upon version 6-7P-W24Z5-002. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

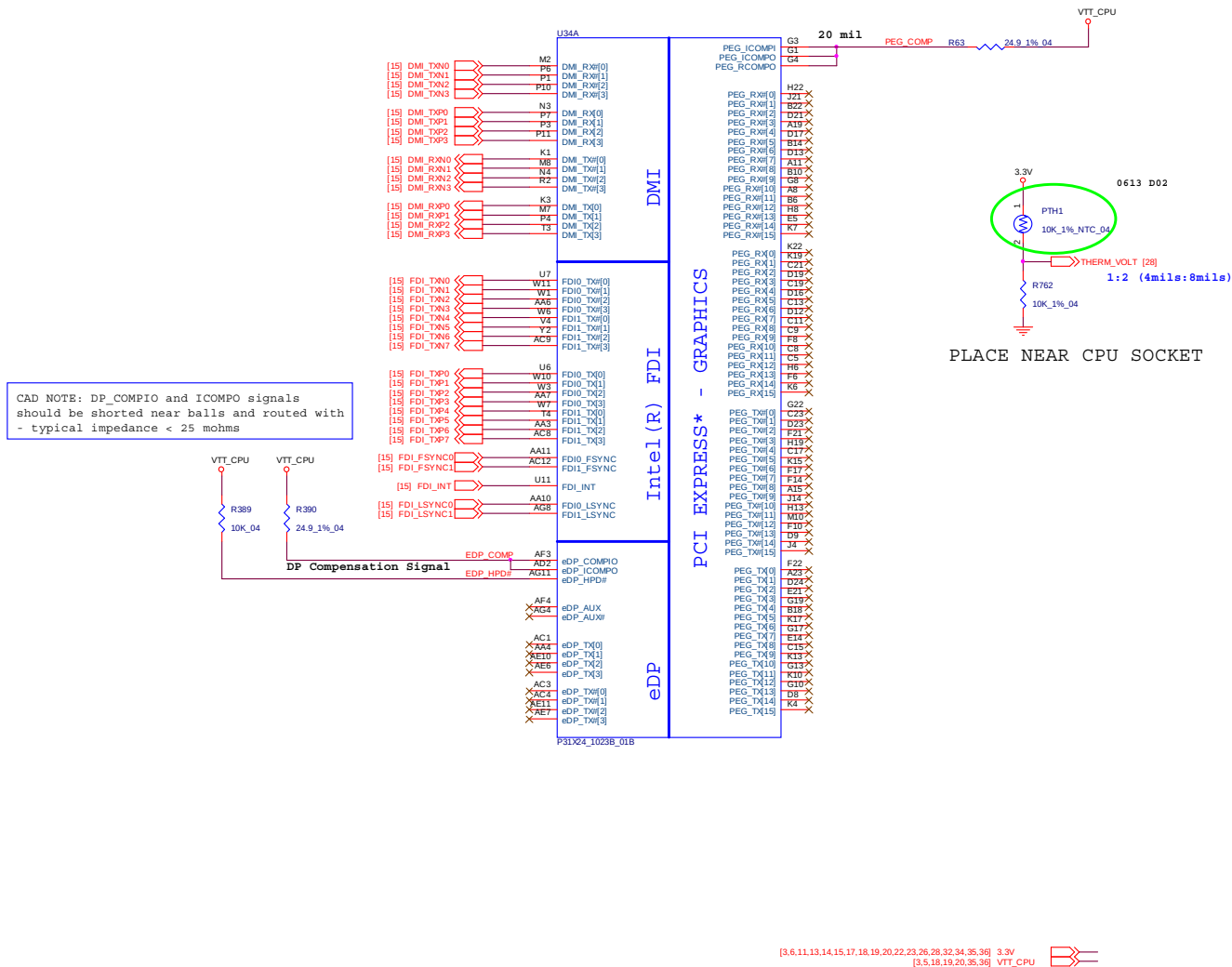
System Block Diagram

Sheet 1 of 44
System Block
Diagram



Processor 1/7

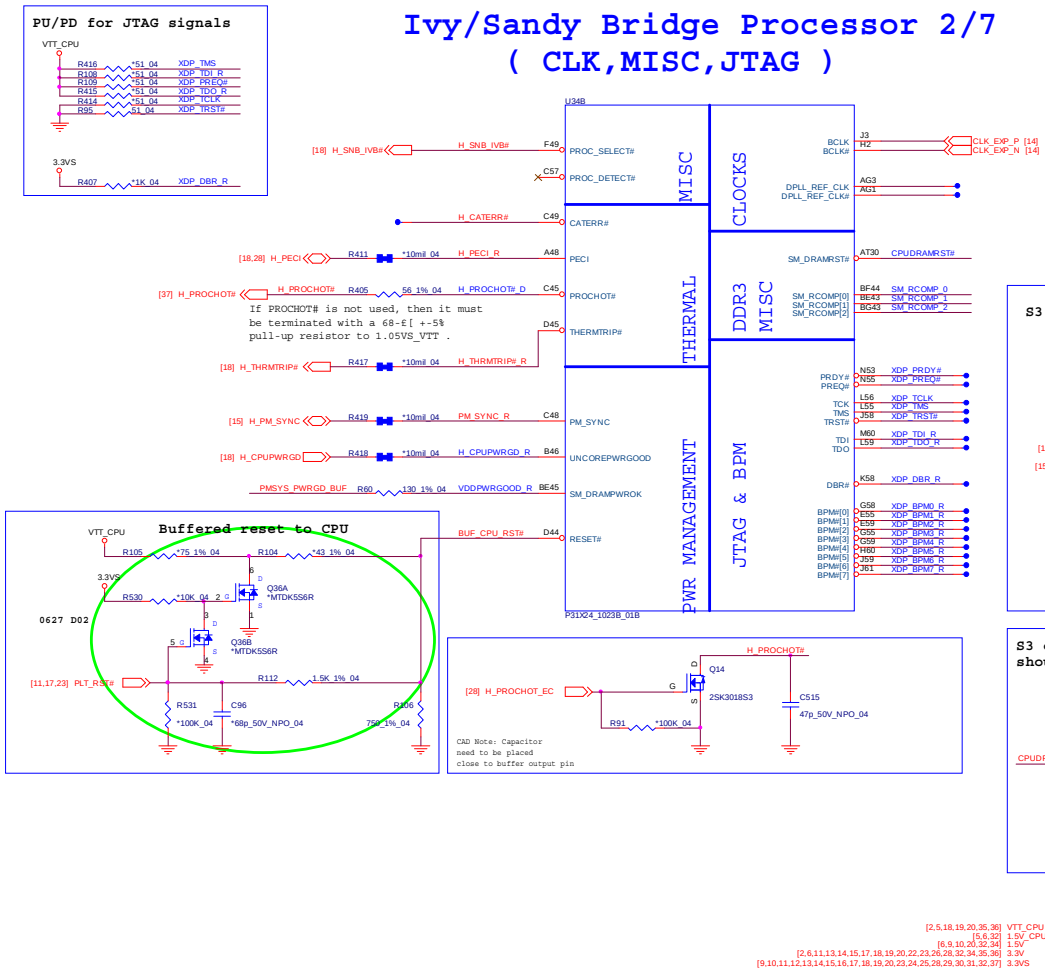
Ivy/Sandy Bridge Processor 1/7 (DMI,PEG,FDI)



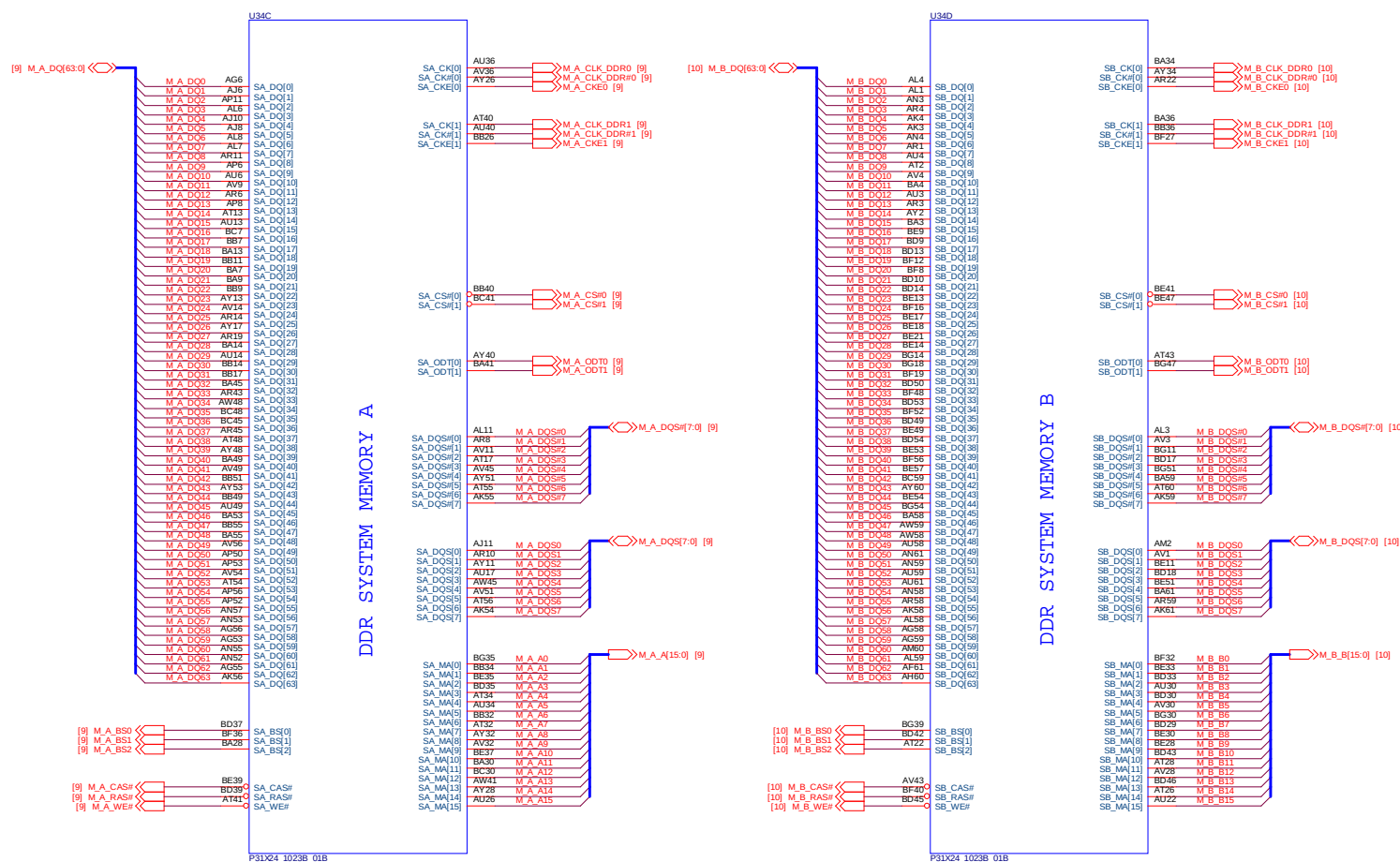
Schematic Diagrams

Processor 2/7

Sheet 3 of 44
Processor 2/7



Ivy/Sandy Bridge Processor 3/7 (DDR3)



Sheet 4 of 44
Processor 3/7

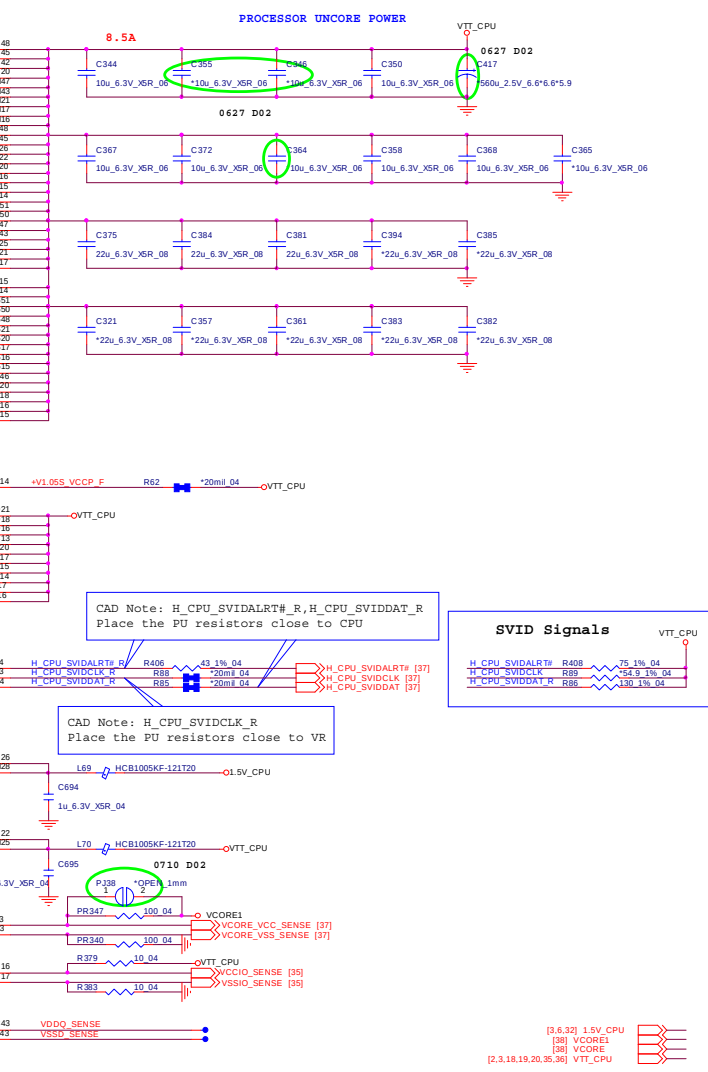
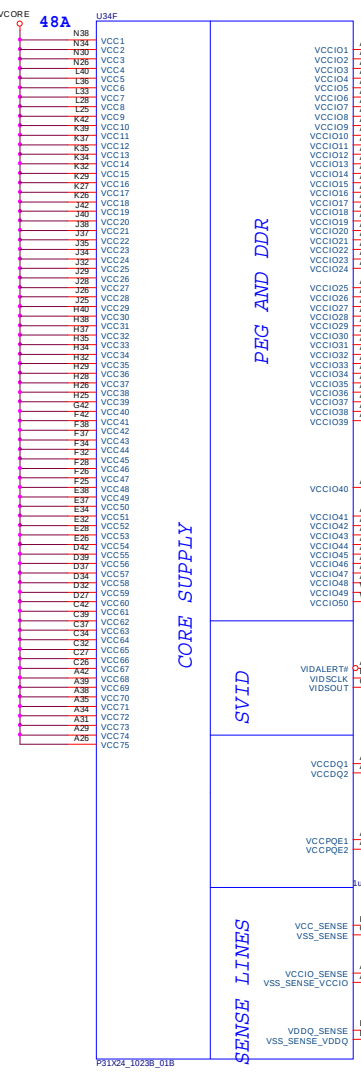
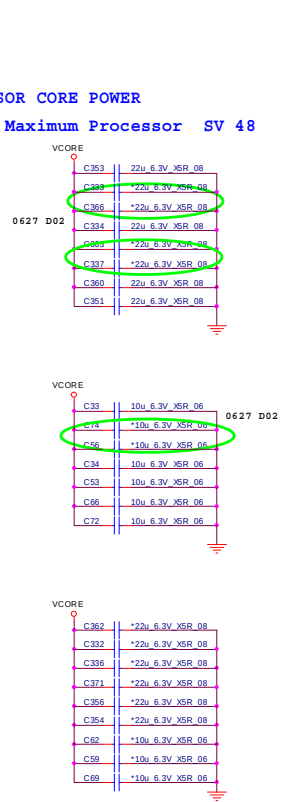
Schematic Diagrams

Processor 4/7

Ivy/Sandy Bridge Processor 4/7

Sheet 5 of 44
Processor 4/7

PROCESSOR CORE POWER
ICCMAX Maximum Processor SV 48

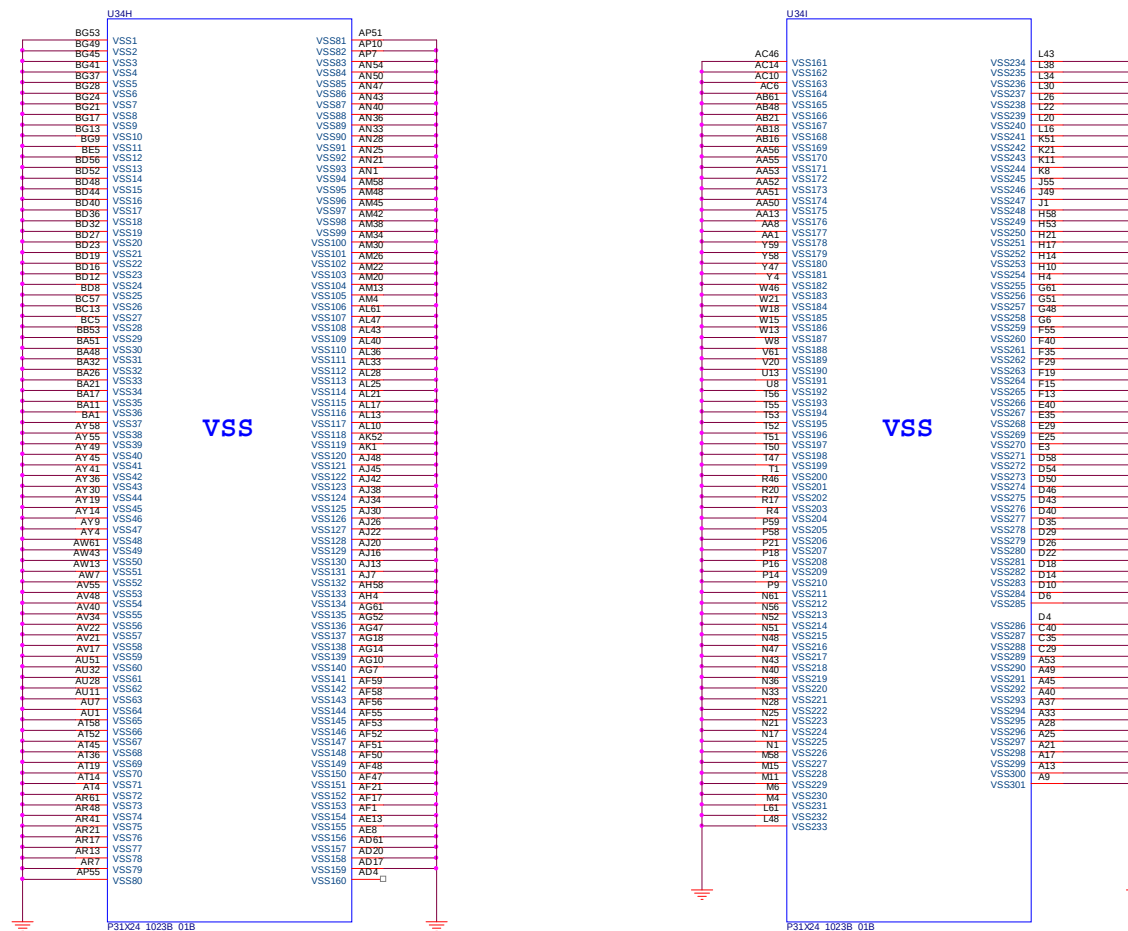


0710 D02

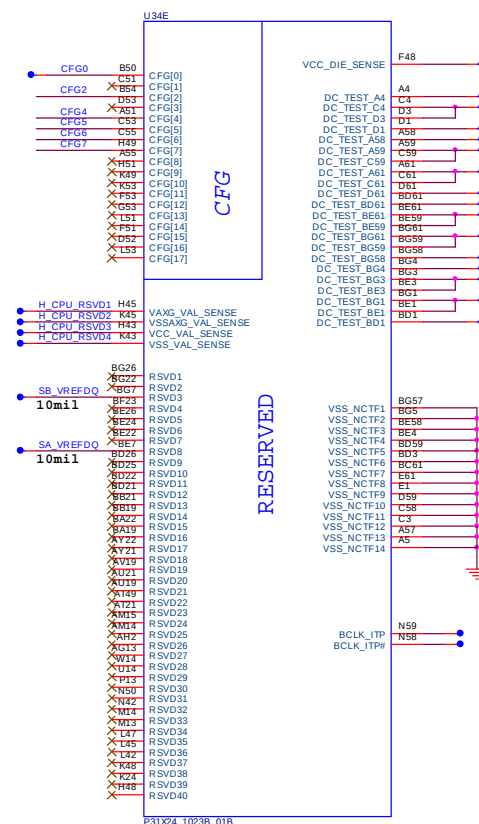


Processor 6/7

Ivy\Sandy Bridge Processor 6/7 (GND)



Ivy/Sandy Bridge Processor 7/7
(RESERVED)



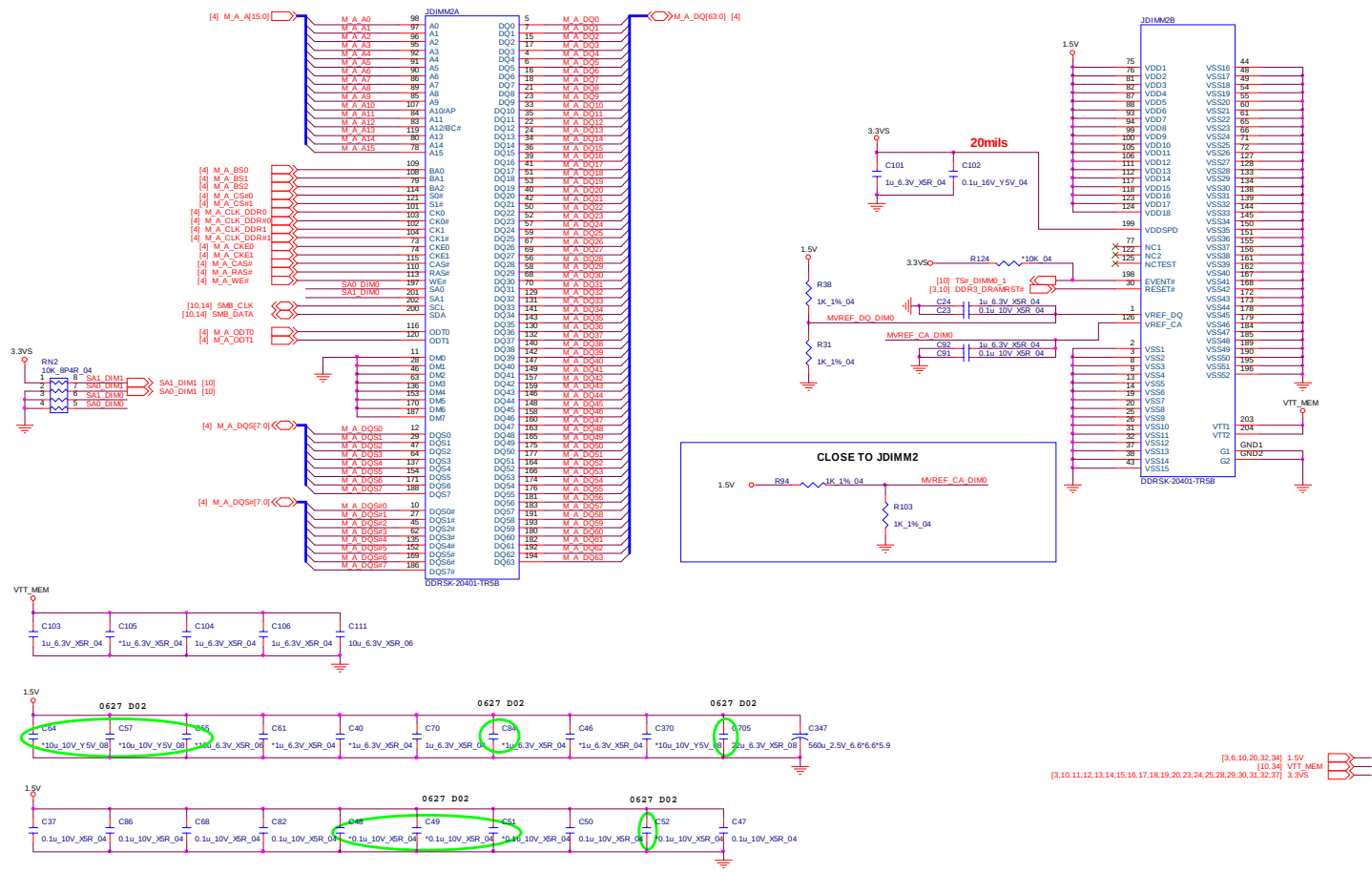
Processor 7/7 B - 9

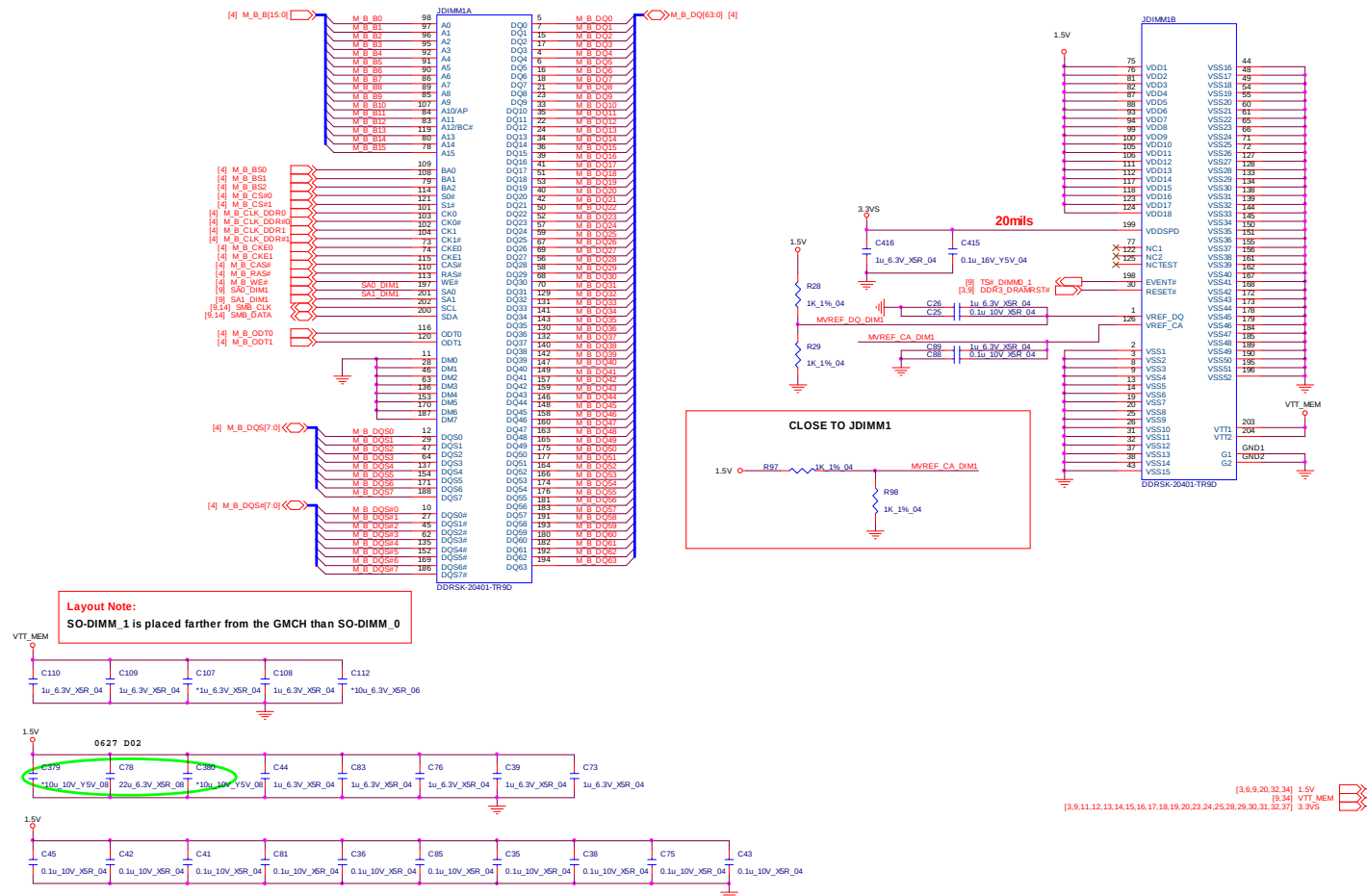
Schematic Diagrams

DDR3 SO-DIMM_0

SO-DIMM A CHANGE TO STANDARD

Sheet 9 of 44
DDR3 SO-DIMM_0

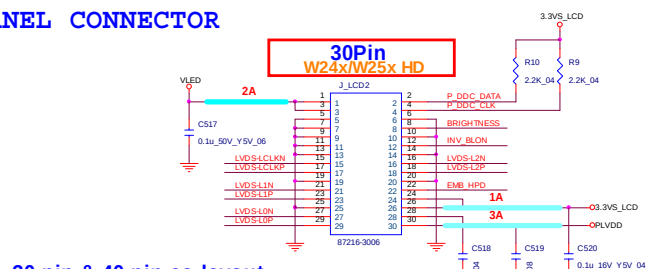




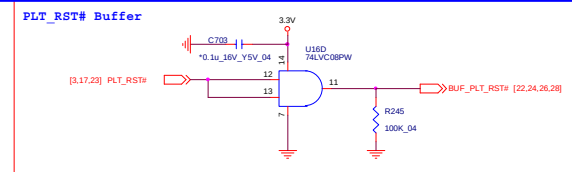
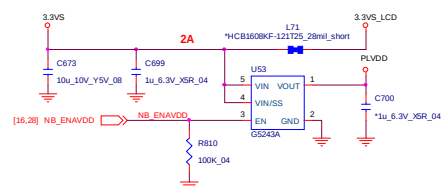
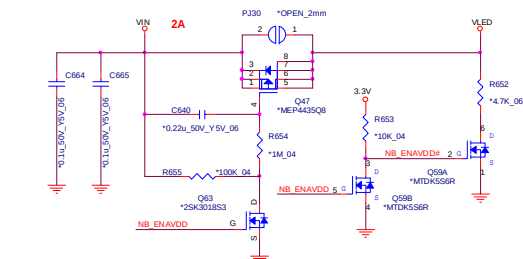
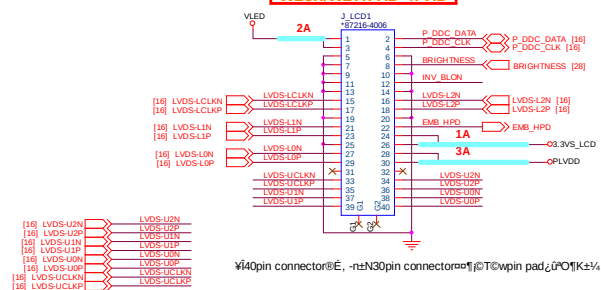
Sheet 10 of 44
DDR3 SO-DIMM_1

B.Schematic Diagrams

Sheet 11 of 44
LVDS, Inverter



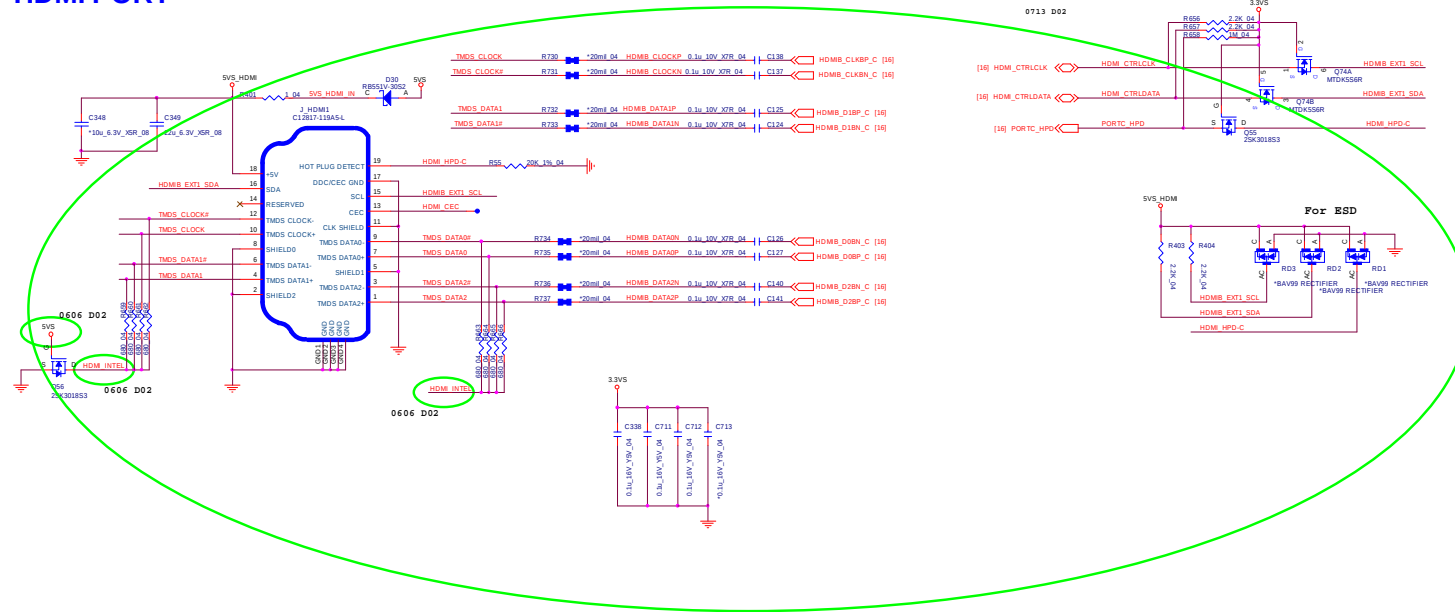
40Pin
W25x/W27x HD+/FHD



[12,13,20,25,30,31,32,37] 5VS
 [32,33,34,35,36,37,38,39] VIN
 [2,3,6,13,14,15,17,18,19,20,22,23,26,28,32,34,35,36] 3.3V
 [3,9,10,12,13,14,15,16,17,18,19,20,23,24,25,28,29,30,31,32,37] 3.3VS
 [32,33,35] SYS15V

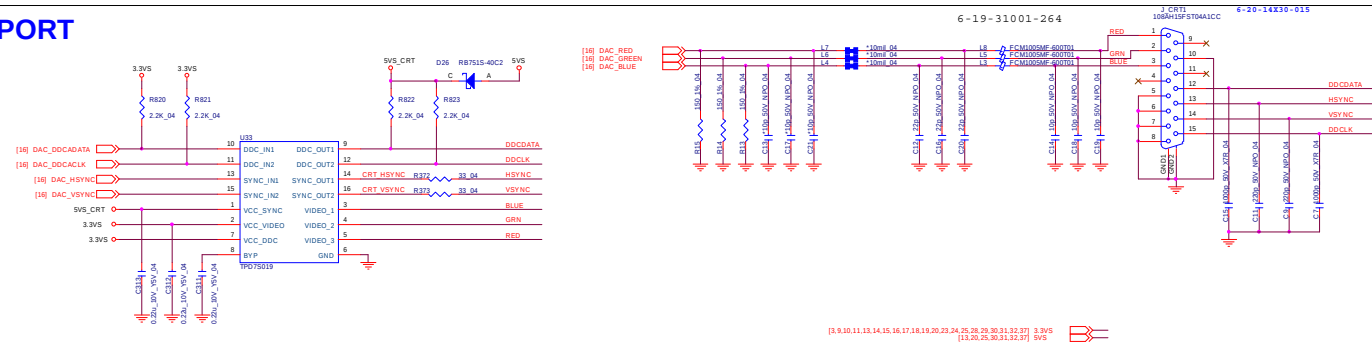
HDMI, CRT

HDMI PORT



Sheet 12 of 44
HDMI, CRT

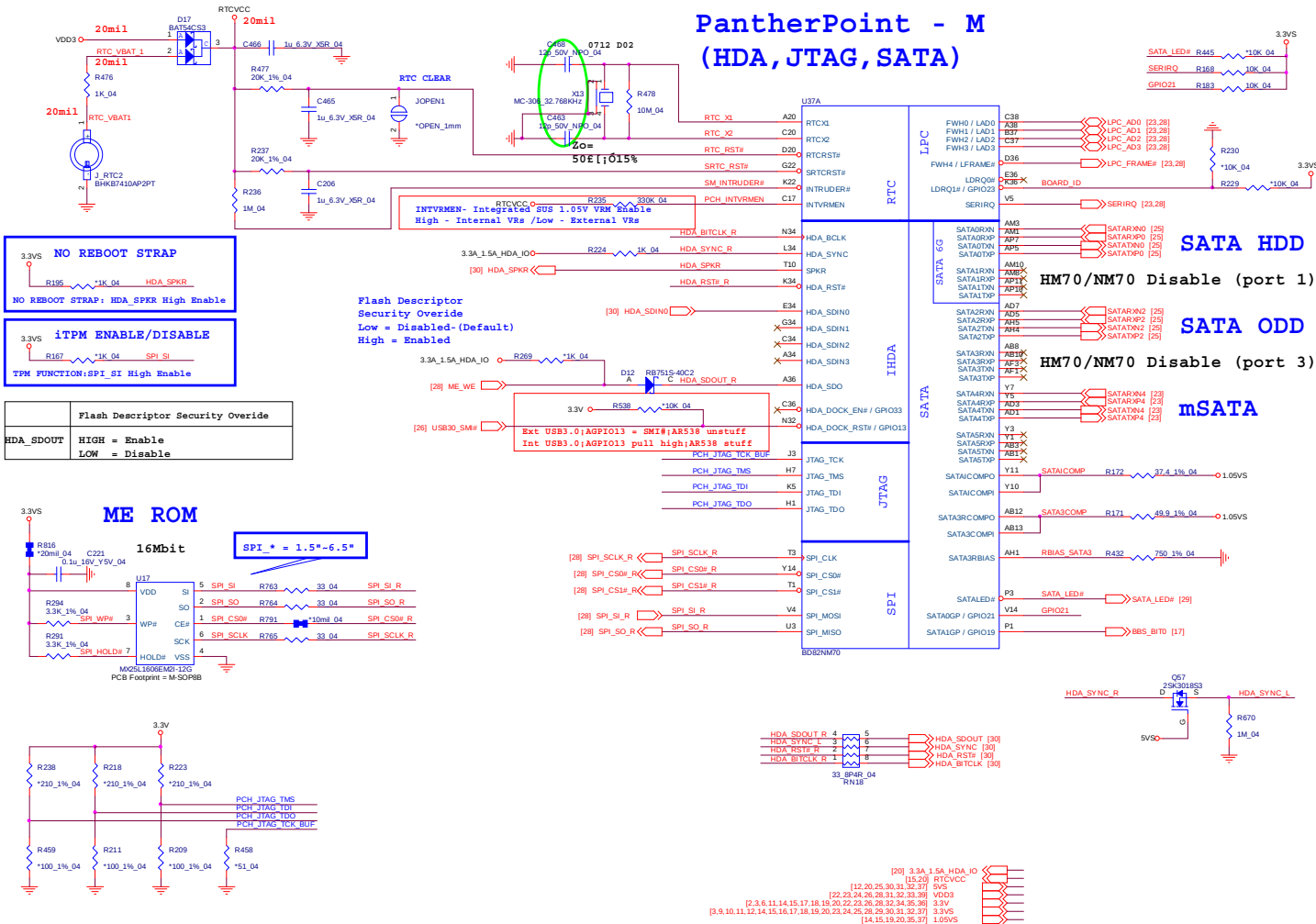
CRT PORT



PantherPoint - M 1/9

B.Schematic Diagrams

Sheet 13 of 44
PantherPoint - M
1/9



PantherPoint - M (PCI-E, SMBUS, CLK)

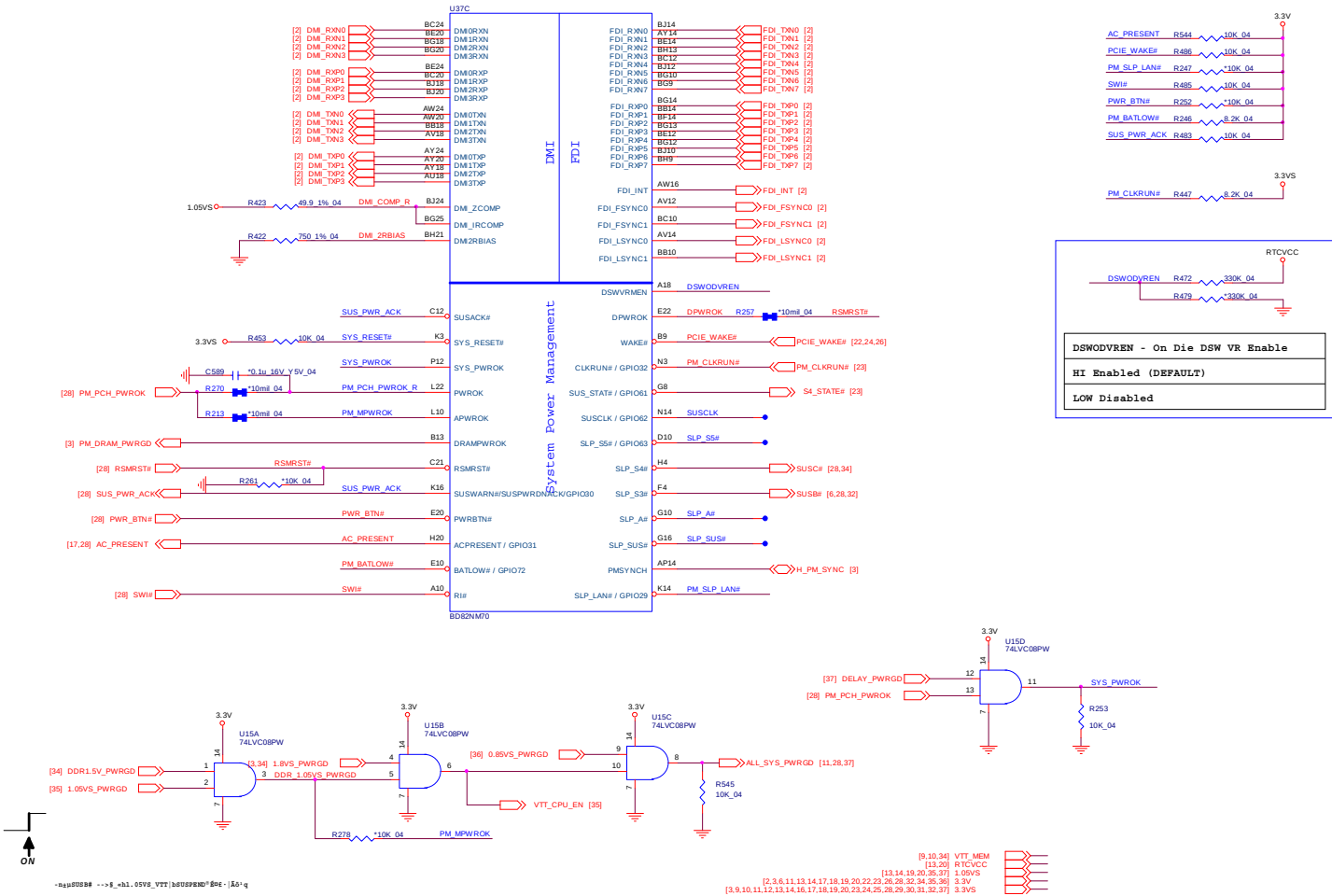


Schematic Diagrams

PantherPoint - M 3/9

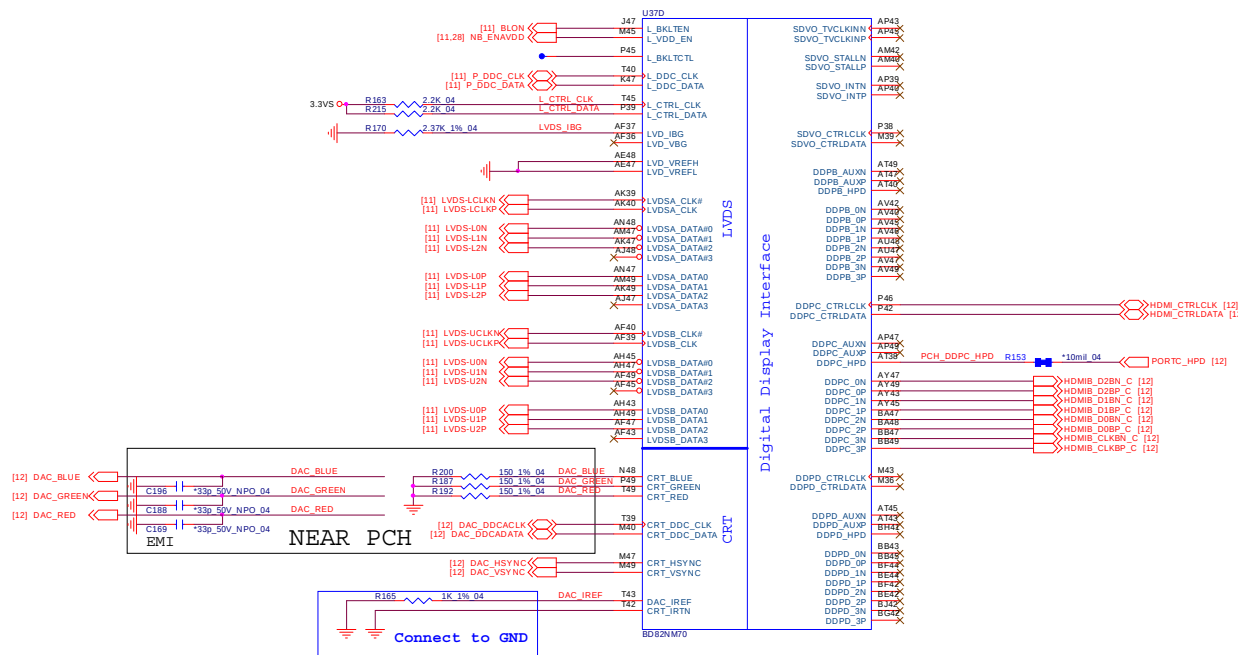
PantherPoint -M (DMI,FDI,GPIO)

Sheet 15 of 44
PantherPoint - M
3/9



PantherPoint - M 4/9

PantherPoint -M (LVDS, DDI, CRT)

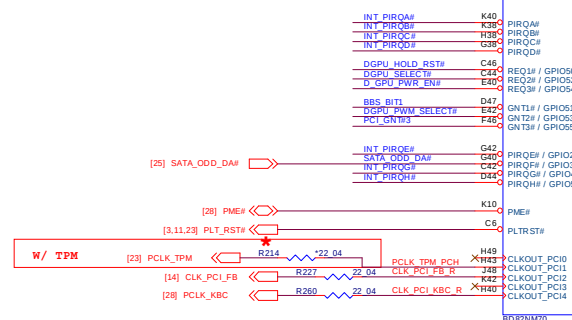
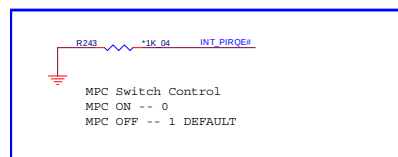
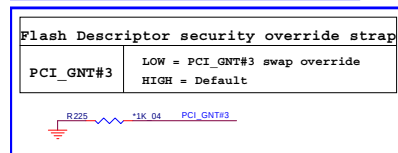
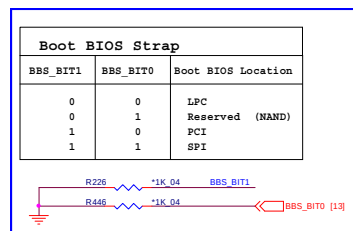


Sheet 16 of 44
PantherPoint - M
4/9

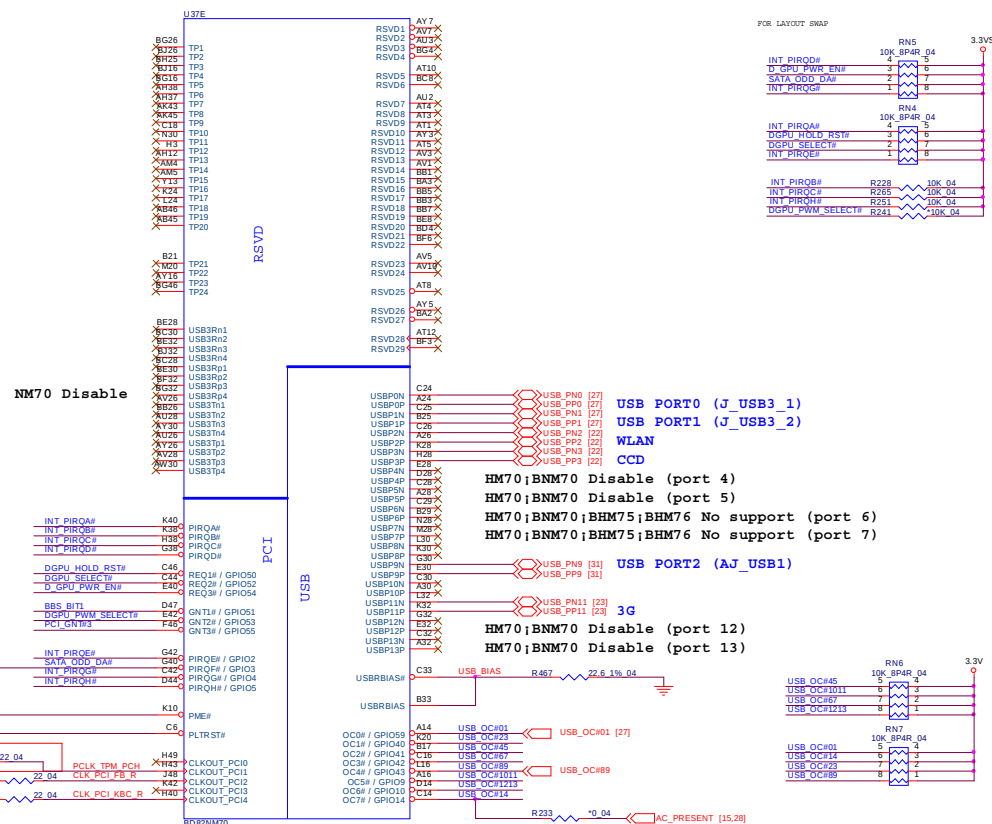
PantherPoint - M 5/9

B. Schematic Diagrams

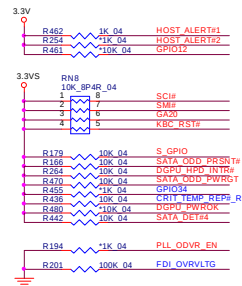
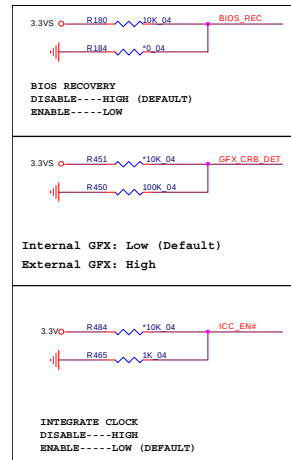
Sheet 17 of 44
PantherPoint - M
5/9



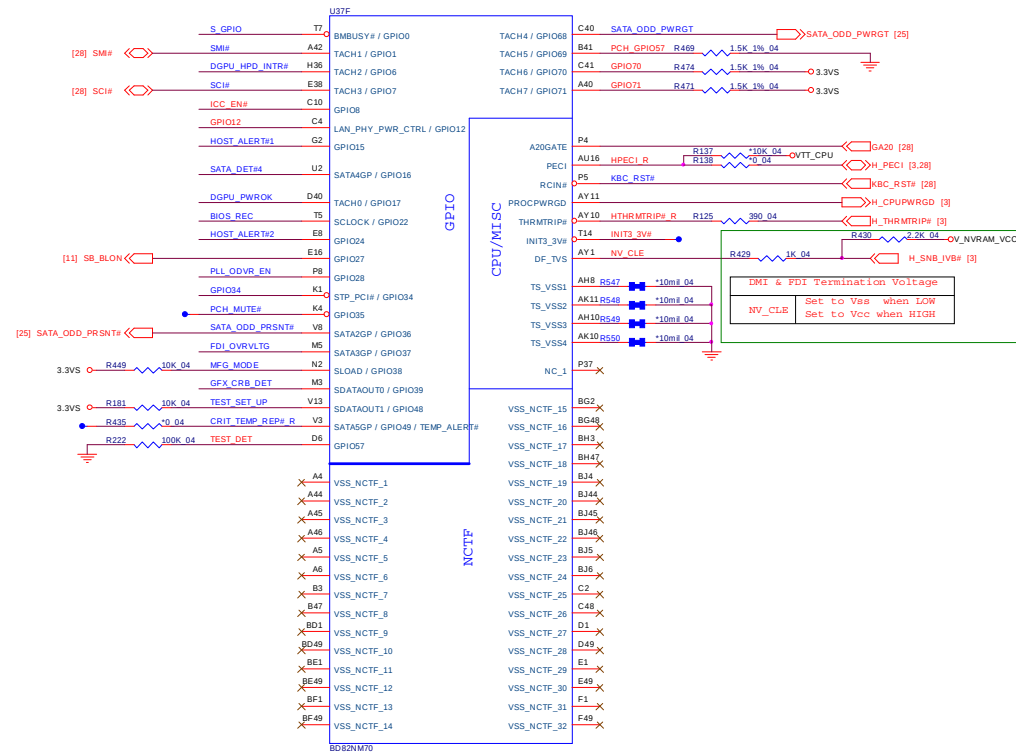
PantherPoint -M (PCI,USB,NVRAM)



PantherPoint - M 6/9



PantherPoint - M (GPIO,VSS_NCTF,RSVD)



Sheet 18 of 44
PantherPoint - M
6/9

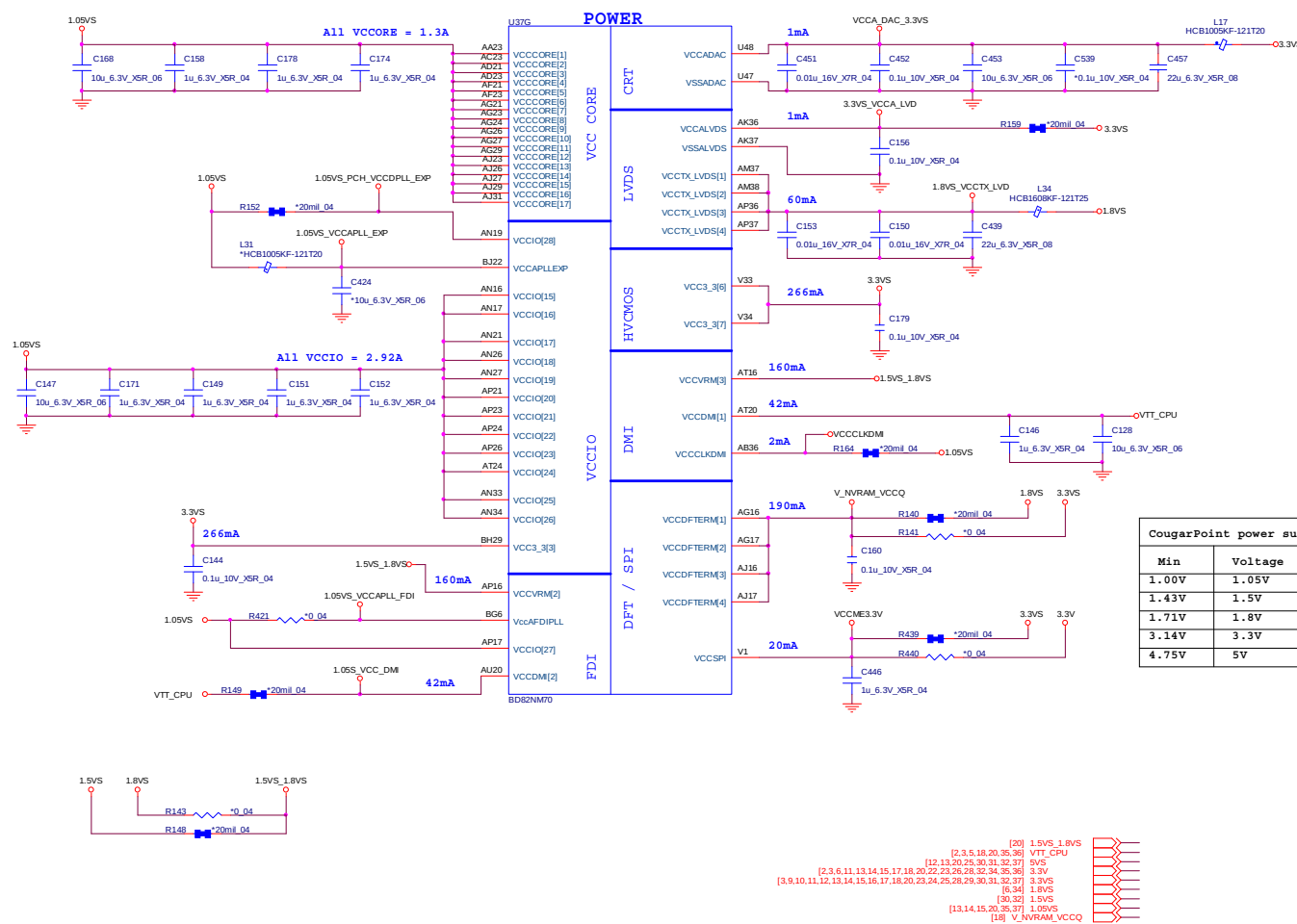
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[3,9,10,11,12,13,14,15,16,17,19,20,23,24,25,26,28,30,31,32,37] 3.3VS

[19] V_NVRAM_VCCQ

PantherPoint - M 7/9

PantherPoint -M (POWER)



CougarPoint power supply range		
Min	Voltage	Max
1.00V	1.05V	1.10V
1.43V	1.5V	1.58V
1.71V	1.8V	1.89V
3.14V	3.3V	3.47V
4.75V	5V	5.25V

Sheet 20 of 44
PantherPoint - M
8/9

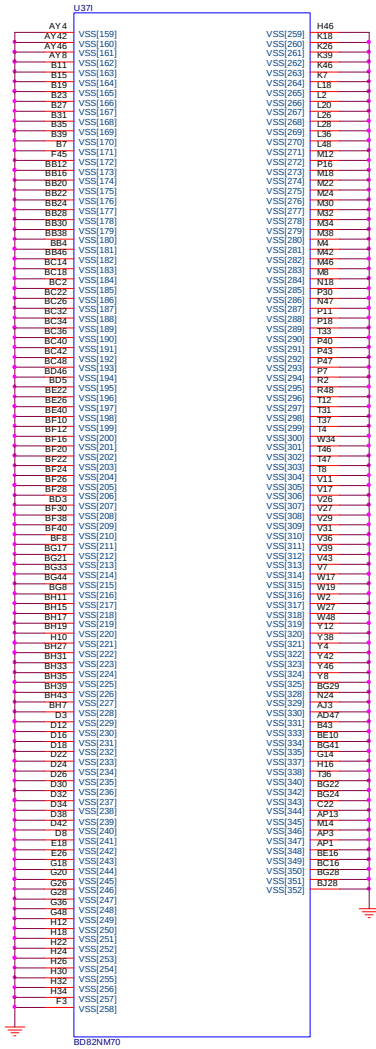
Voltage Rail	Voltage	50 Iccmax	Current (A)
V_CPU_IO	1.05	1	(mA)
VSRF	5	1	(mA)
VSRF_Sus	5	1	(mA)
Vcc1_3	3.3	0.266	
VccADAC3	1.05	1	(mA)
VccADPLL	1.05	0.08	
VccADPLL	1.05	0.08	
VccCore	1.05	1.3	
VccDMI	1.1	0.042	
VccIO	1.05	2.925	
VccASW	1.05	1.01	
VccSPI	3.3	0.020	
VccDSW_3	3.3	2	(mA)
VccDFCWR	1.8	0.19	
VccDSW_3_3	3.3	0.097	
VccSUS_HDA	3.3	1	(mA)
VccVRM	1.5	0.16	
VccCLKM1	1.05	0.02	
VccSEC	1.05	0.095	
VccDFCLKM	1.05	0.055	
VccALVDS	3.3	(mA)	
VccTX_LVDS	1.8	0.06	



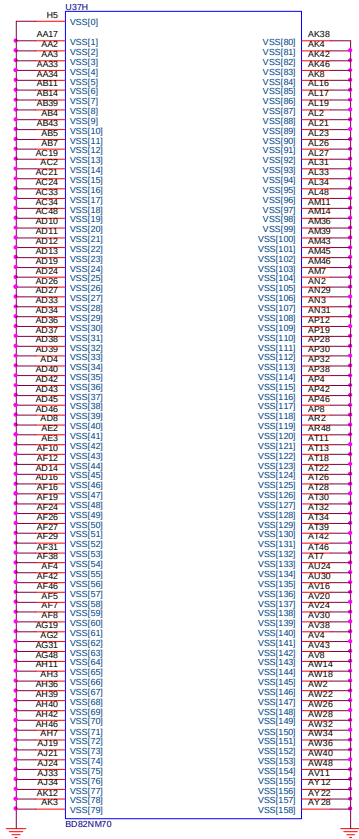
Schematic Diagrams

PantherPoint - M 9/9

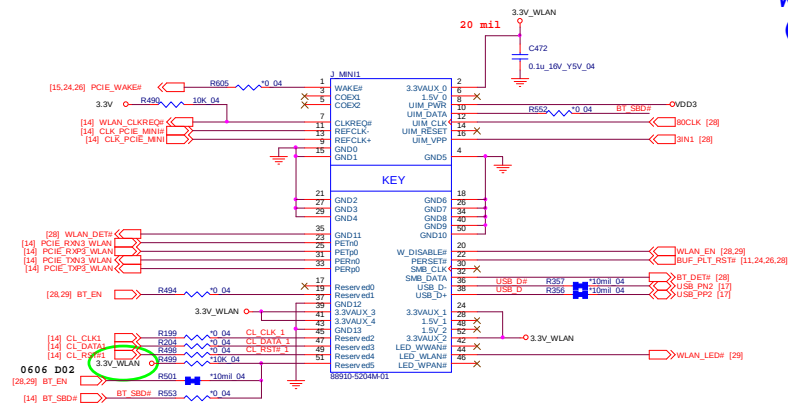
Sheet 21 of 44
PantherPoint - M
9/9



PantherPoint -M (GND)



MINI CARD WLAN

[illegible]

Sheet 22 of 44
WLAN, CCD

5V

C2

*1u_6.3V_XSR_04

U41

VIN

VOUT

EN

GND

GSS43A

1

2

3

4

5

48 mil

C6

0.1u_10V_Y5V_04

C5

*1u_6.3V_XSR_04

C4

1u_6.3V_XSR_04

5V_CCD

N1_CCD1

J_CCD1

1

2

3

4

5

85205-06001

[17] USB_PNIX

[17] USB_PP3V

[28] CCD_DE1P

[28] CCD_EN

From EC default HI

[2,3,6,11,13,14,15,17,18,19,20,23,26,28,32,34,35,36] 3.3V

[10,26,27,31,32,34,35,36] 5V

[13,23,24,26,28,31,32,33,35] VDD3

3G, TPM

W/ 3G;G

3G POWER

SIM CONN

TPM 1.2

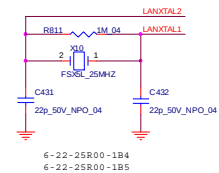
W/ TPM; G

```
Y' * *0: sYó-nWYó;AY] $t;G
PCLK TPM;GR214(P17)
```

TPM_PP	H: ACCESS L: NORMAL (Int. PD)	Default
TPM_BADD	H: 4E/ 4F H L: 2E/ 2F H	Default

Card Reader, LAN RTL8402

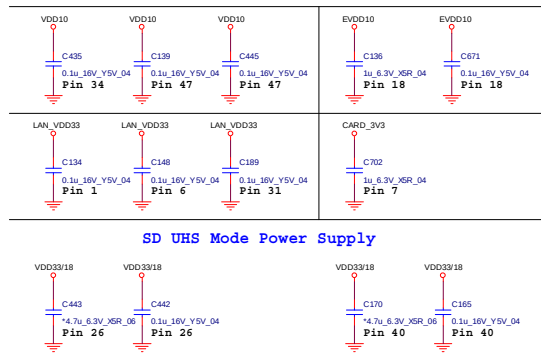
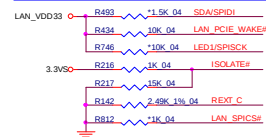
RTL8402



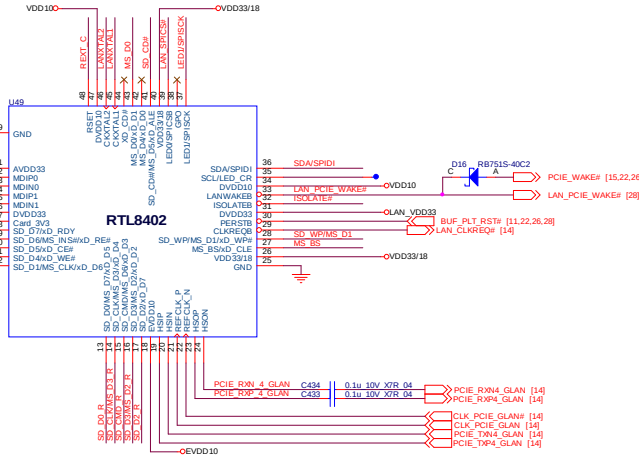
LAN VDD33 Rising Time;G
1ms ~ 100ms

VDD33 ~ R747 ~ 0.05 ~ LAN_VDD33
VDD10 ~ R749 ~ 0.04 ~ EVDD10

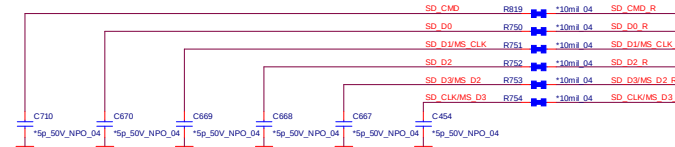
R749 must be removed for RTL8402 application.



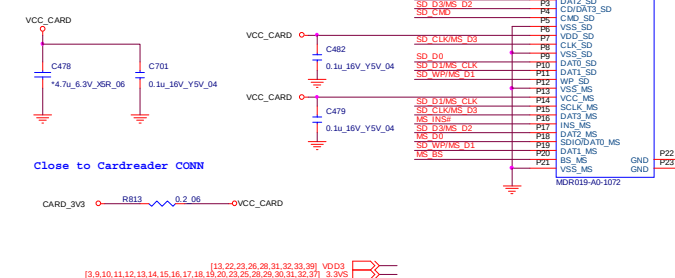
SD UHS Mode Power Supply



Close to RTL8402 for SDXC EMI



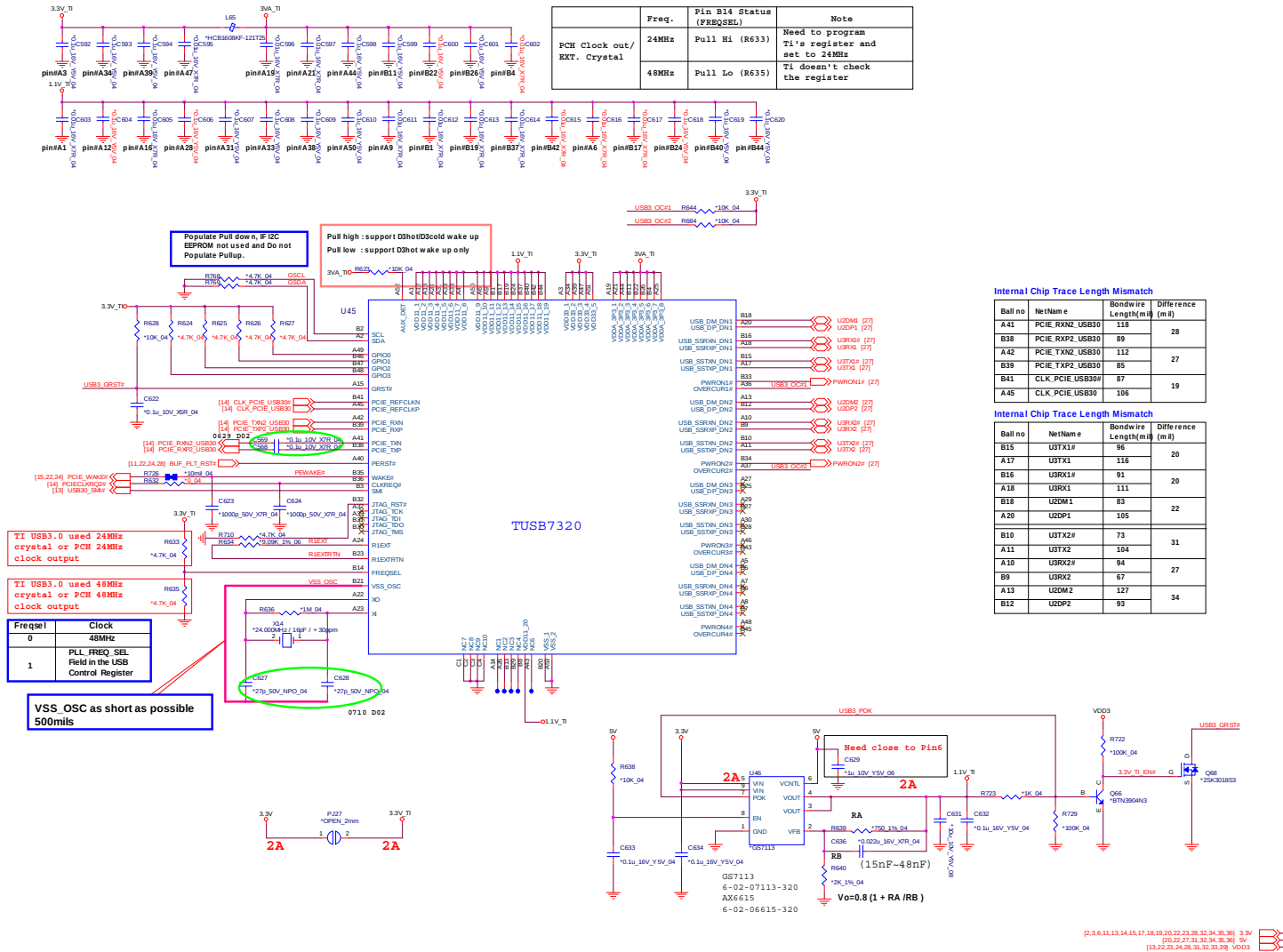
4 IN 1 SOCKET SD/MMC/MS/MS Pro



Close to Cardreader CONN

CARD_3V3 ~ R813 ~ 0.2 Ohm ~ VCC_CARD

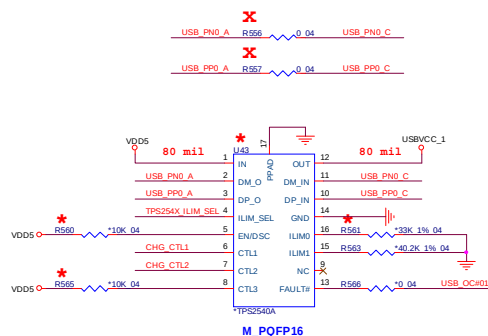
Sheet 24 of 44
Card Reader, LAN
RTL8402



Sheet 26 of 44
USB 3.0 TI
TUSB7320

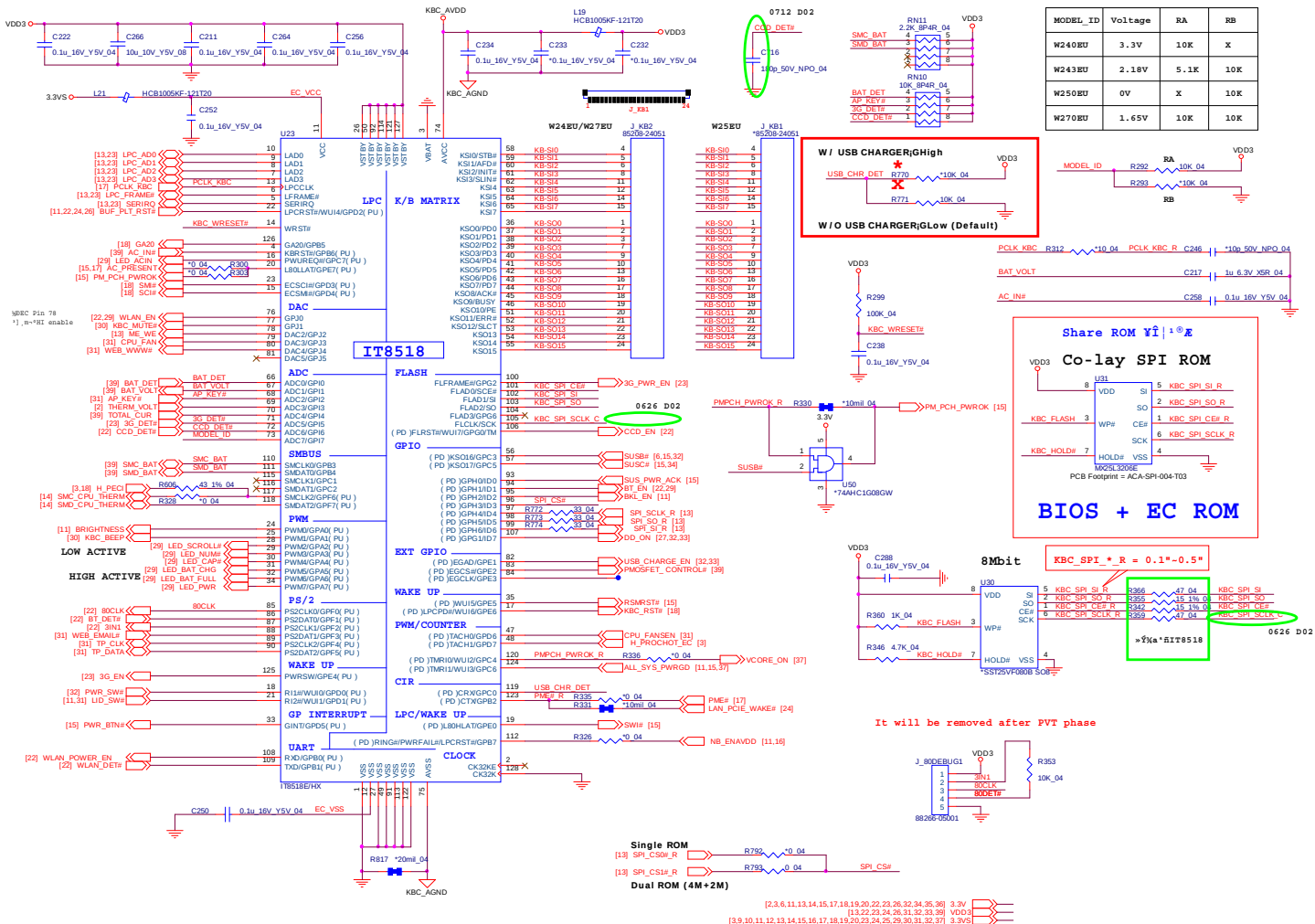
B.Schematic Diagrams

USB 3.0/USB 2.0/USB Charger



CTL1	CTL2	CTL3:	0	0	0----> Out discharge, power switch Off
CTL1	CTL2	CTL3:	0	x	1----> Dedicated charging port, auto-detect
CTL1	CTL2	CTL3:	1	0	1----> Dedicated charging port, Divider Mode only
CTL1	CTL2	CTL3:	1	1	1----> Charging downstream port, BC1.2.

KBC-ITE IT8518

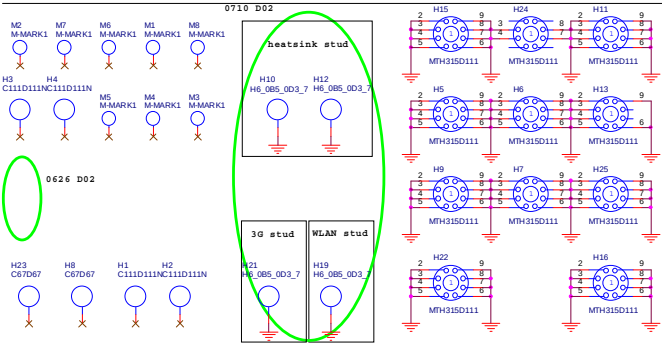
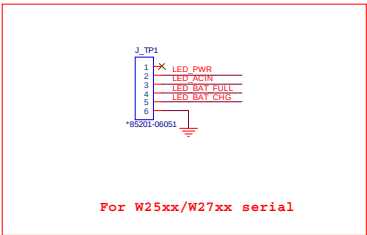
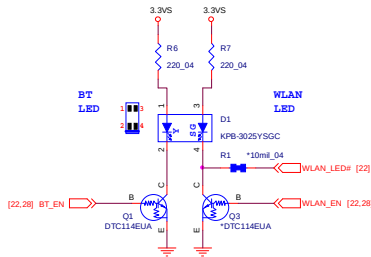
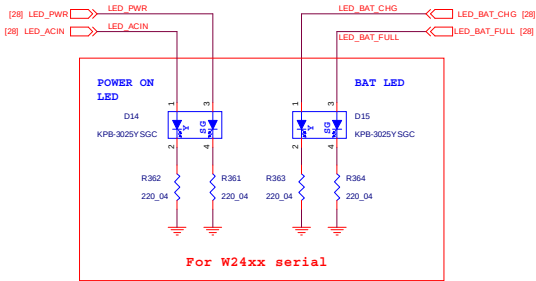
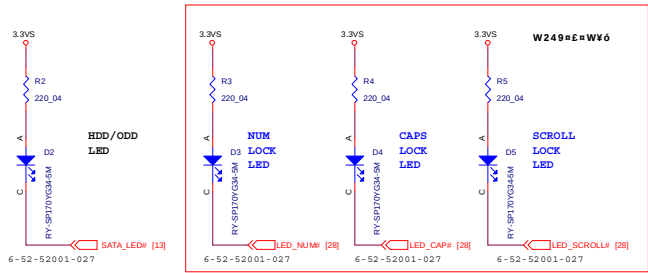


Sheet 28 of 44
KBC-ITE IT8518

Schematic Diagrams

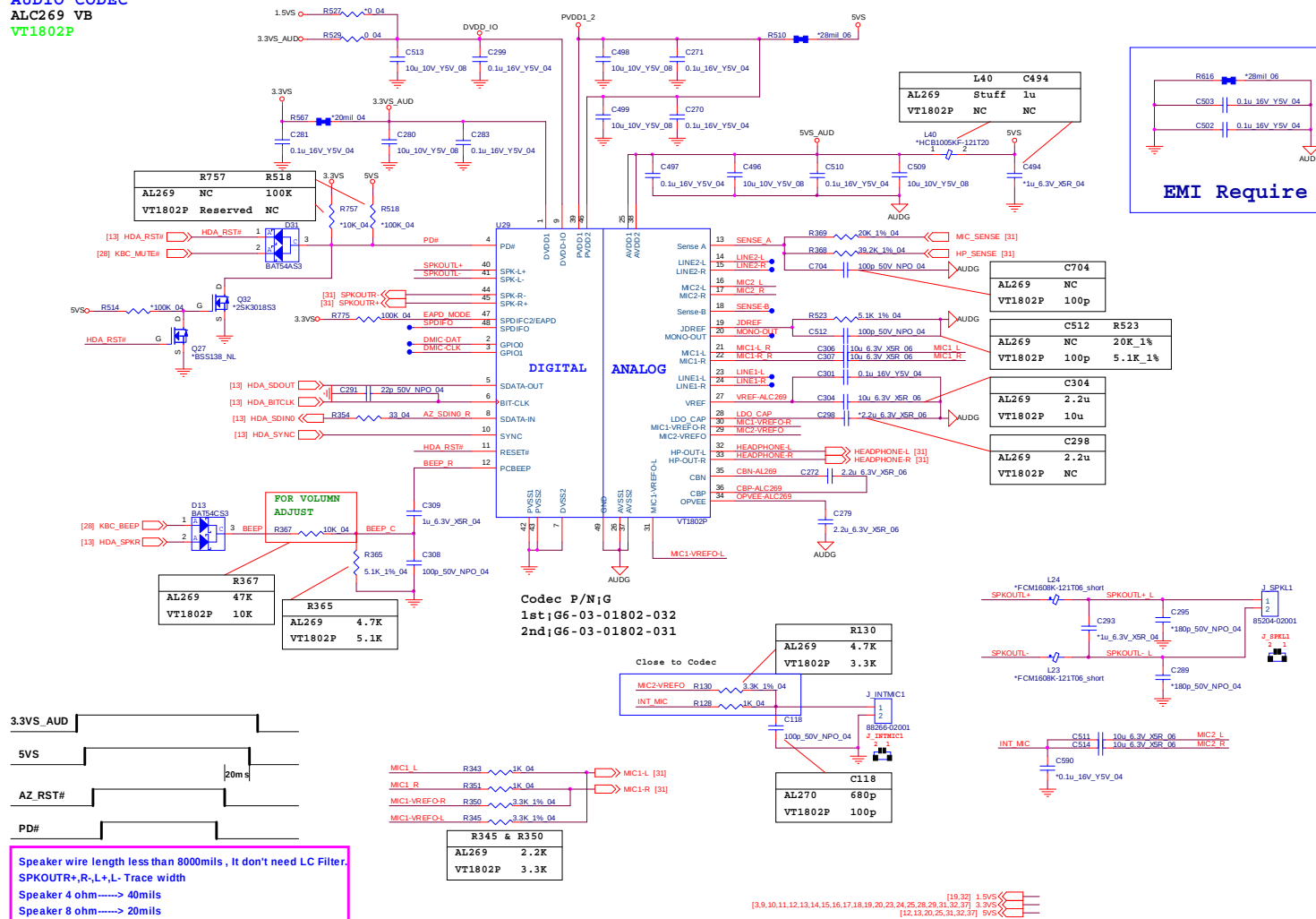
LED

LED



[3,9,10,11,12,13,14,15,16,17,18,19,20,23,24,25,26,28,30,31,32,37] 3.3VS

AUDIO CODEC
ALC269 VB
VT1802P

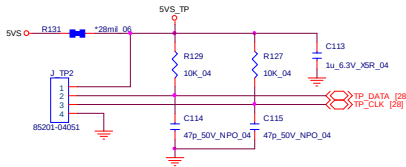


Schematic Diagrams

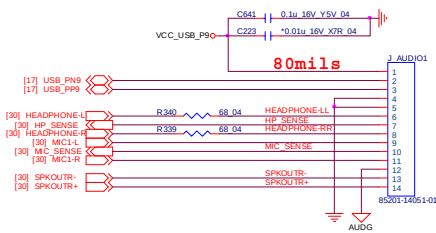
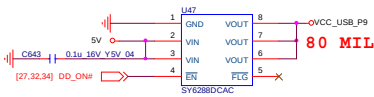
Fan, TP, Multi-Conn

Sheet 31 of 44
Fan, TP, Multi-Conn

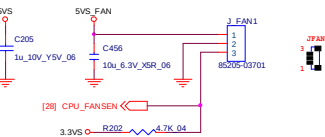
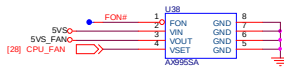
CLICK B'd CONN



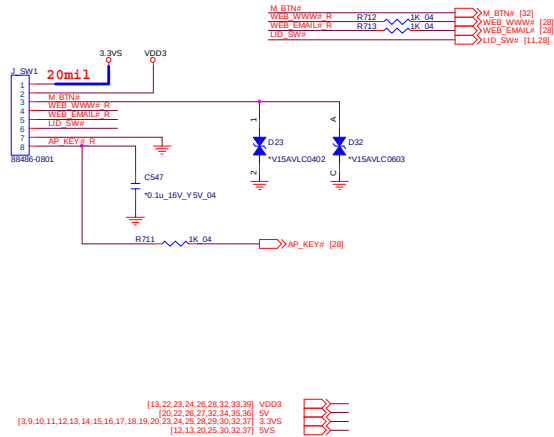
Audio B'd CONN



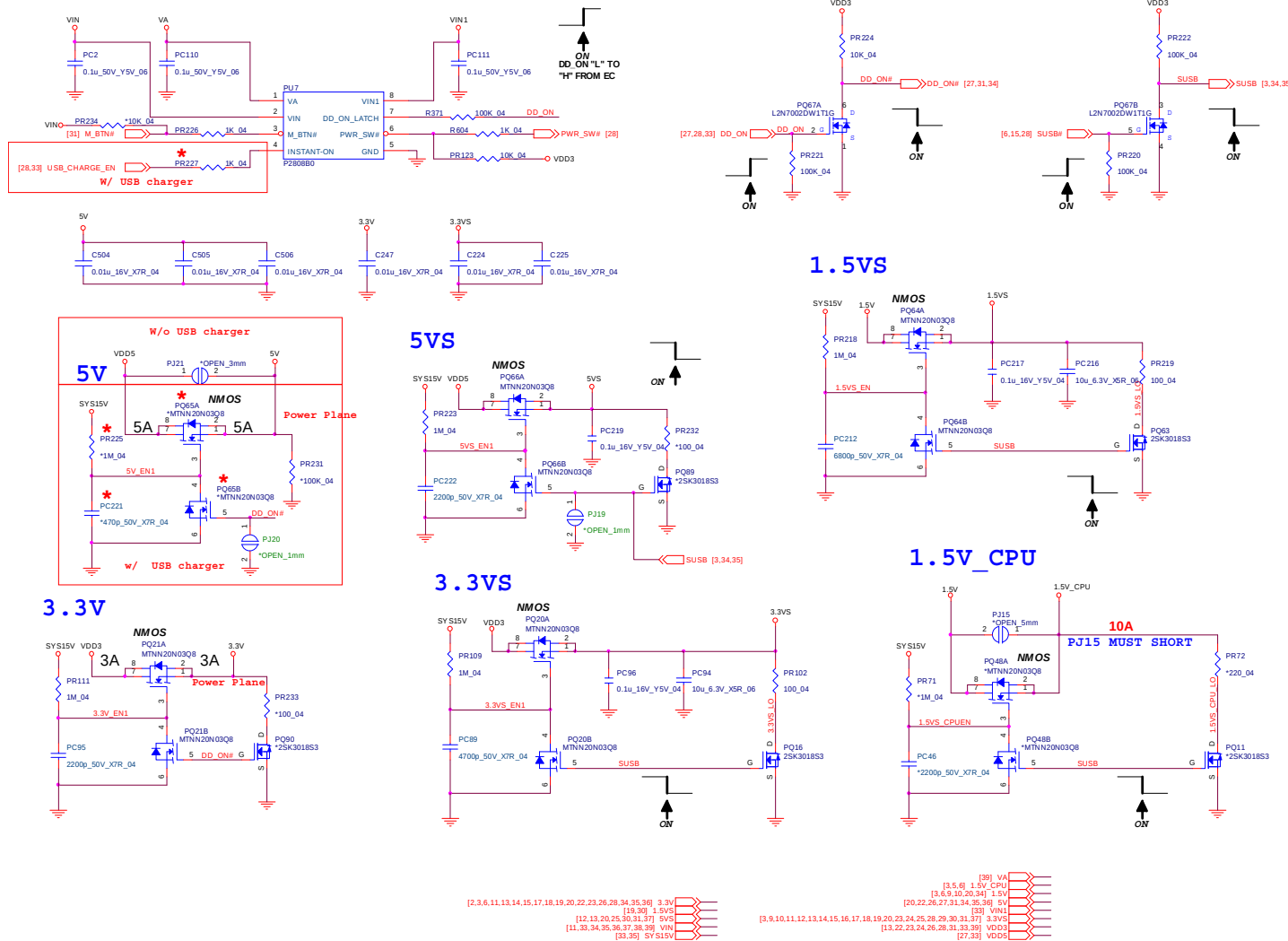
FAN CONTROL



POWER SWITCH B'd CONN



System Power B - 33

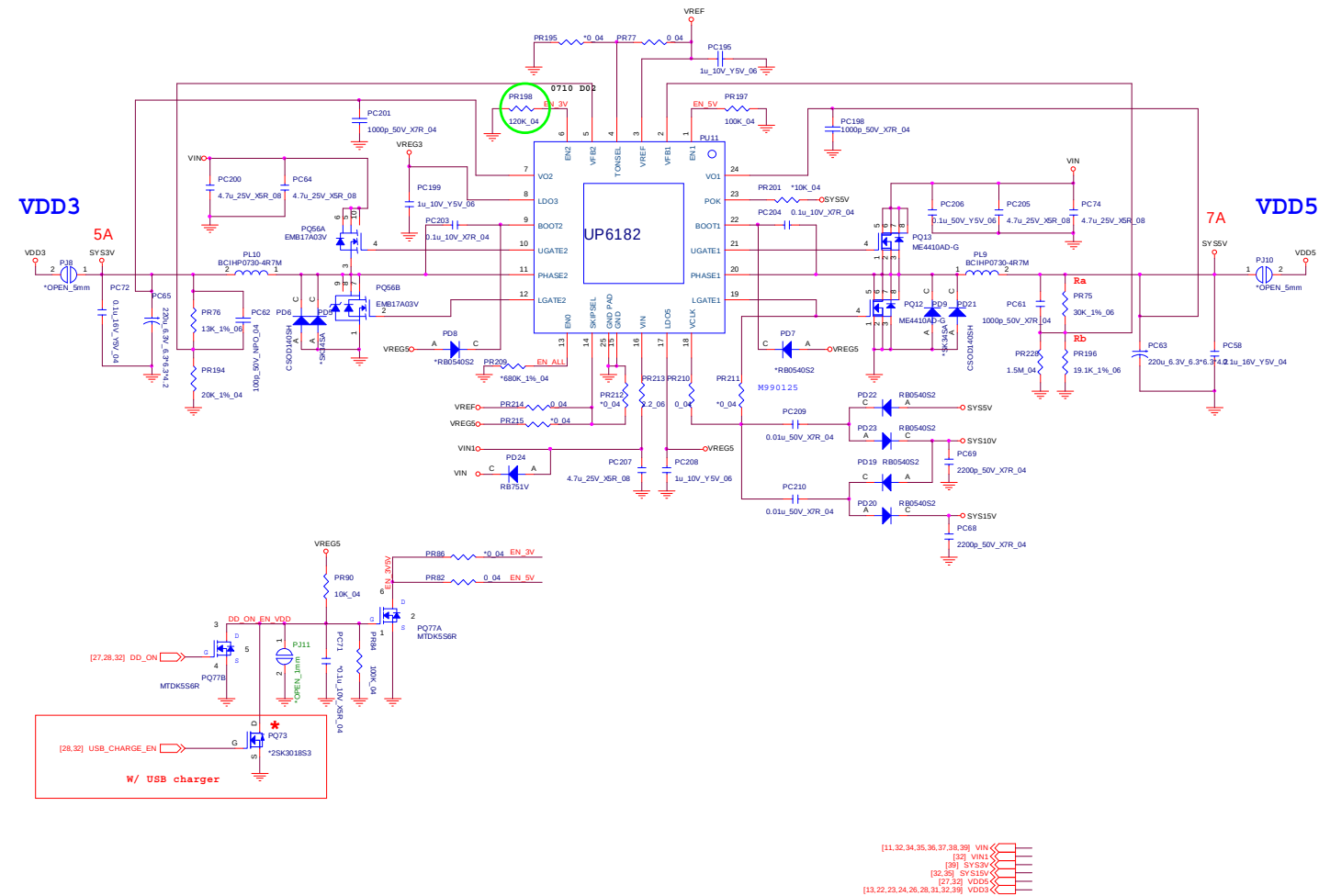


Schematic Diagrams

VDD3, VDD5

VDD3 / VDD5

Sheet 33 of 44
VDD3, VDD5

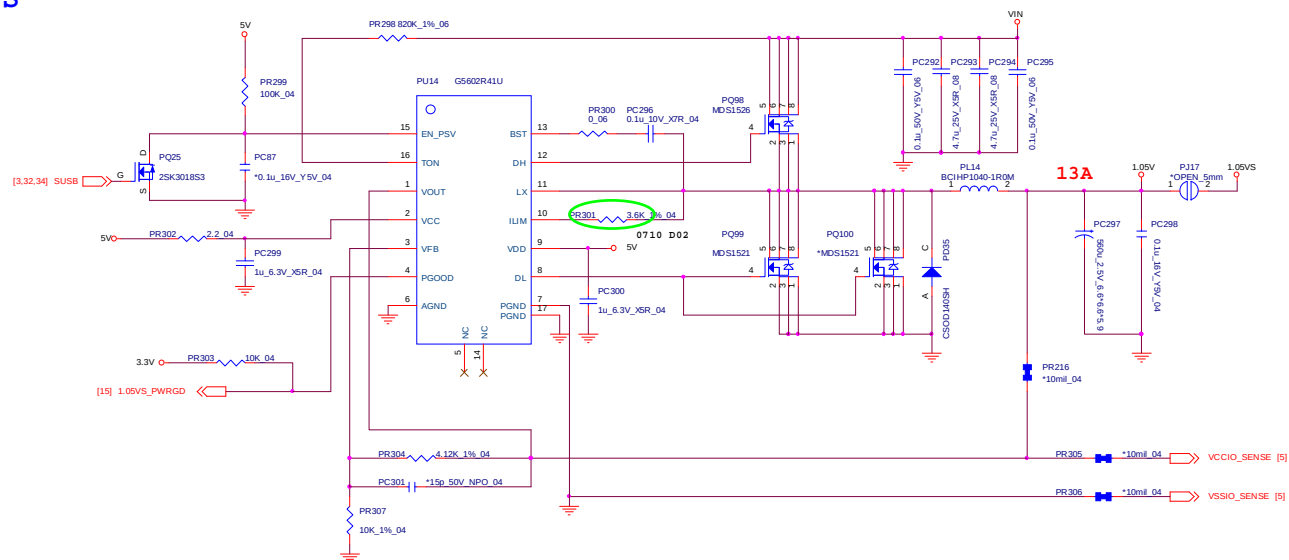


Sheet 34 of 44
Power 1.5V/0.75V/
1.8VS

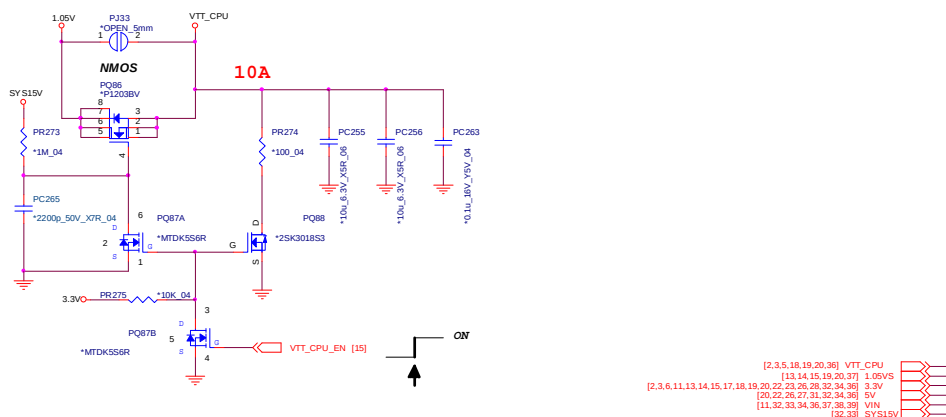


B. Schematic Diagrams

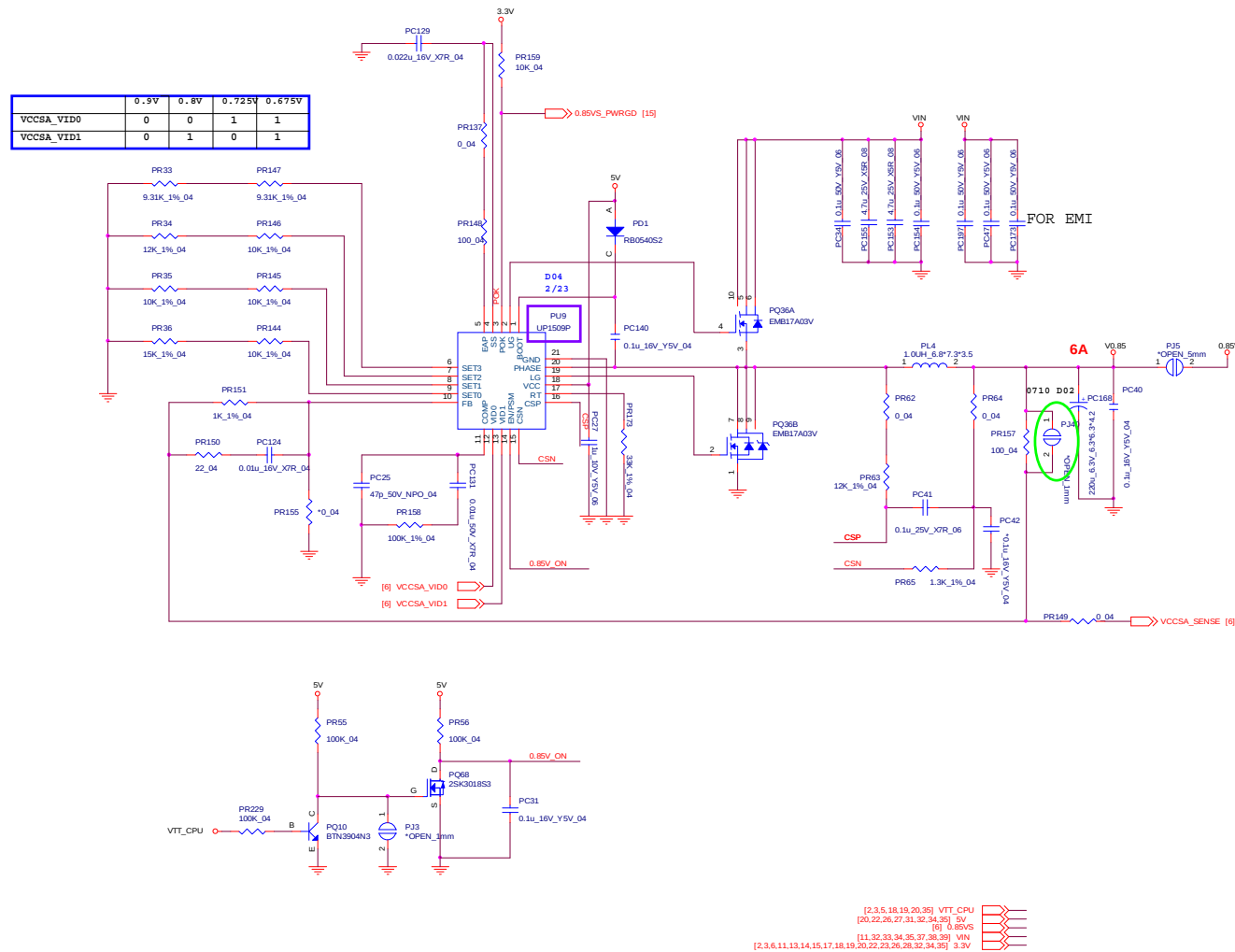
1.05Vs



VTT_CPU



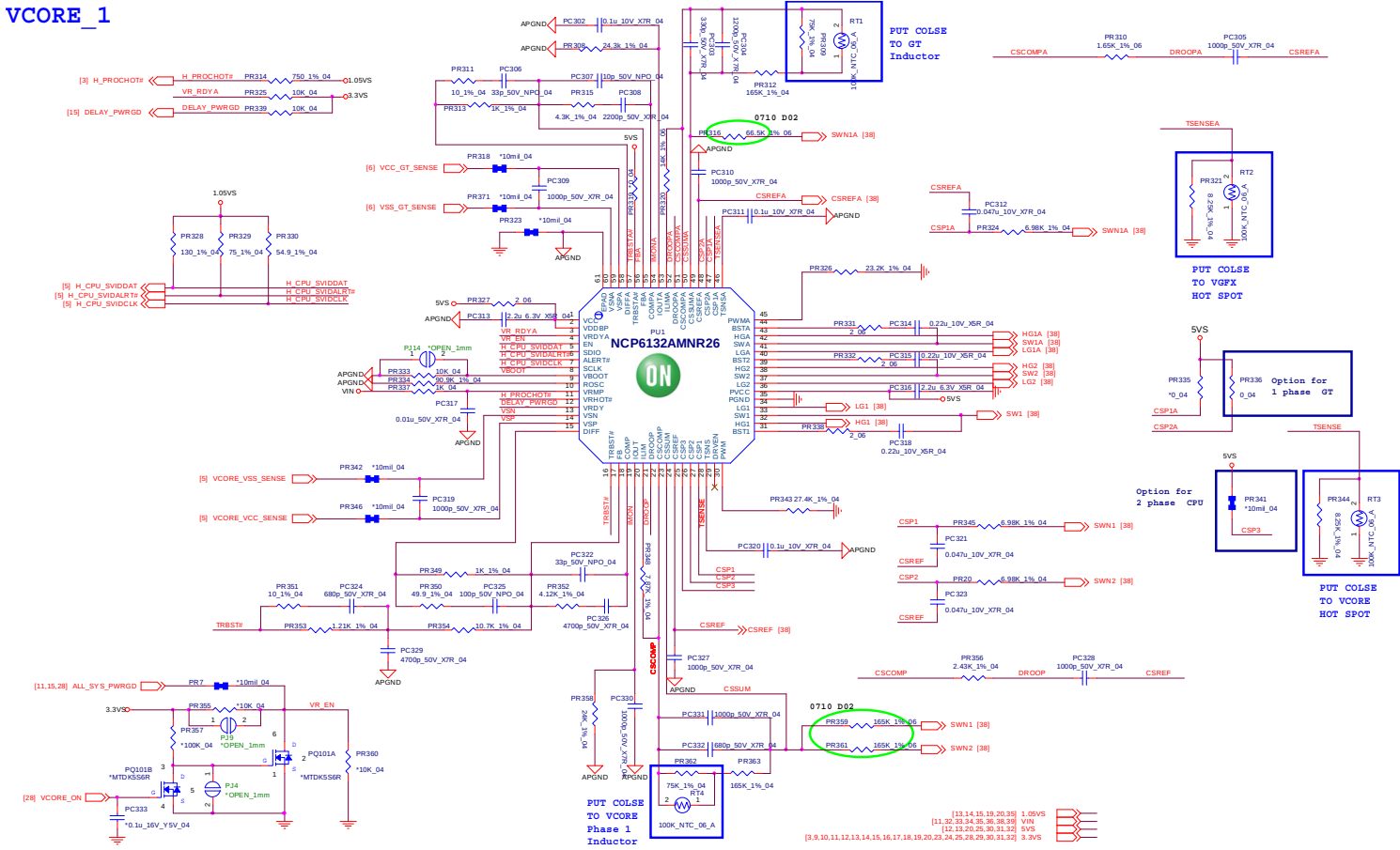
0.85Vs



Schematic Diagrams

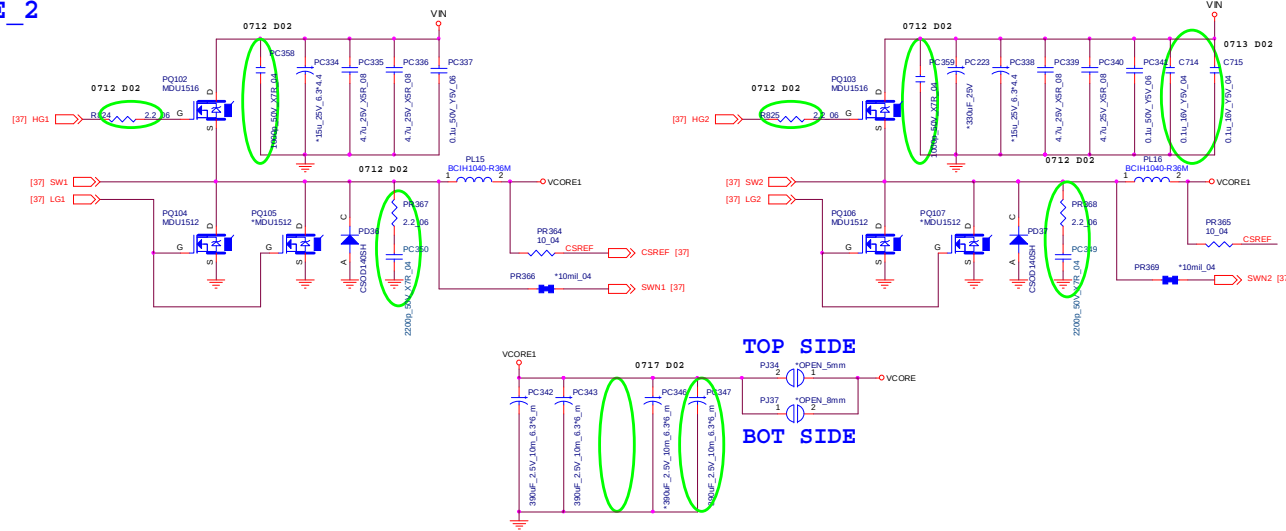
Power V-Core1

Sheet 37 of 44
Power V-Core1

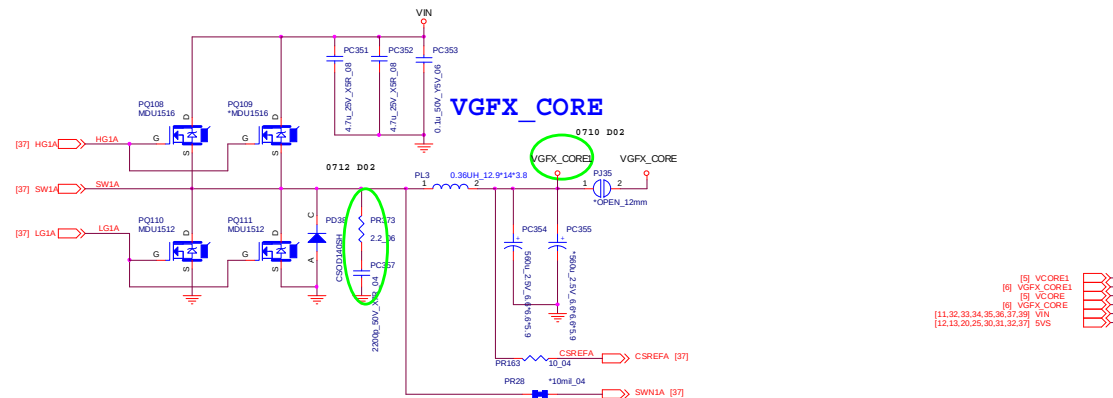


Power V-Core2

VCORE_2

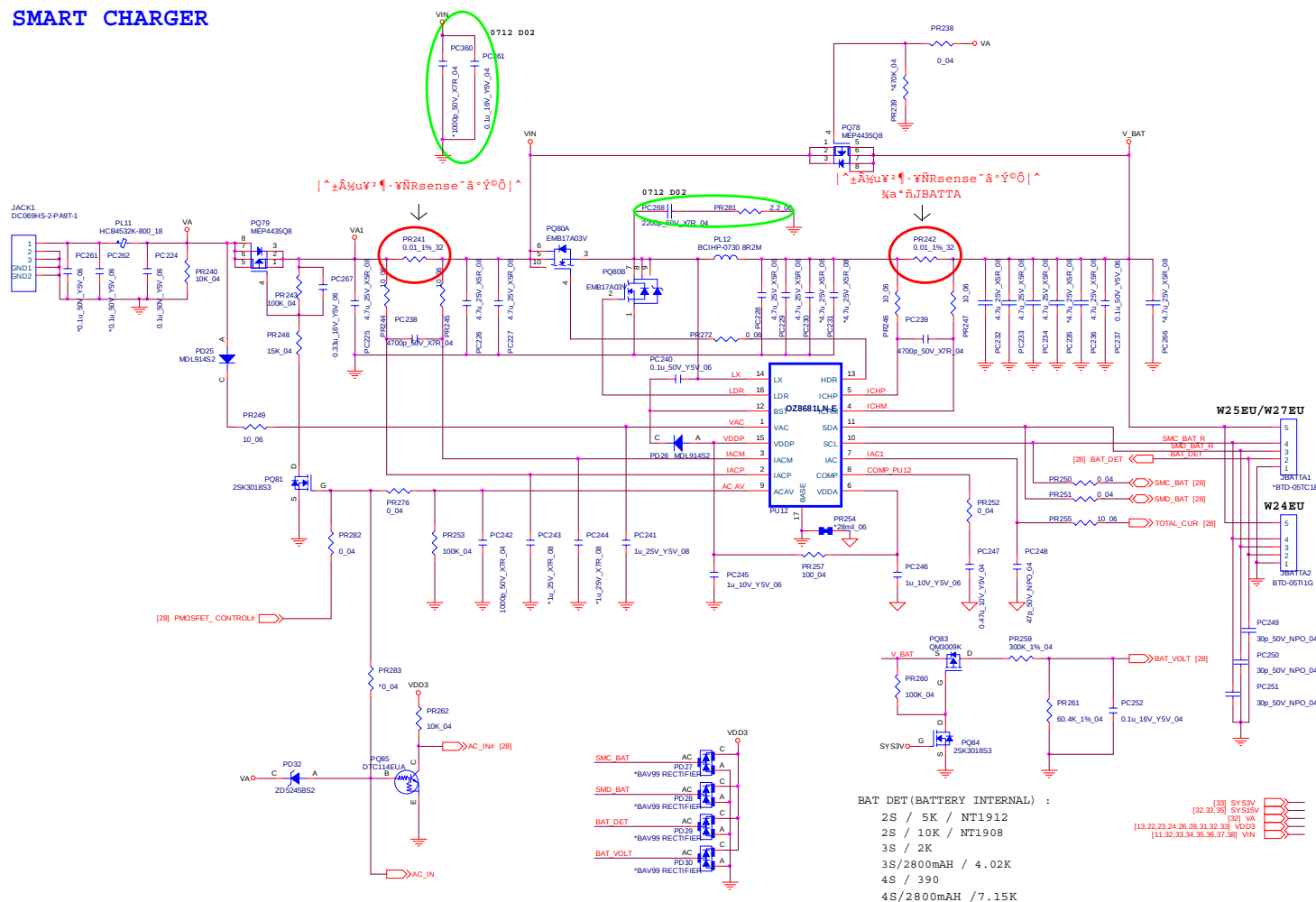


VGFX_CORE



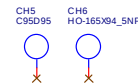
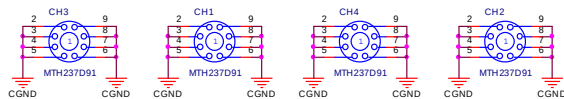
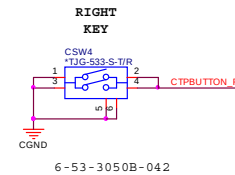
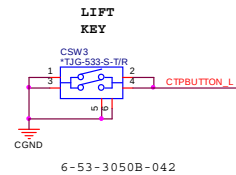
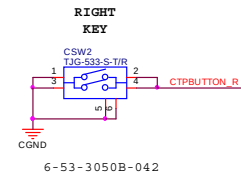
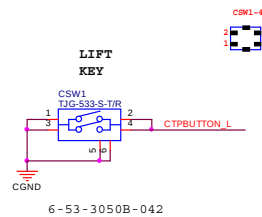
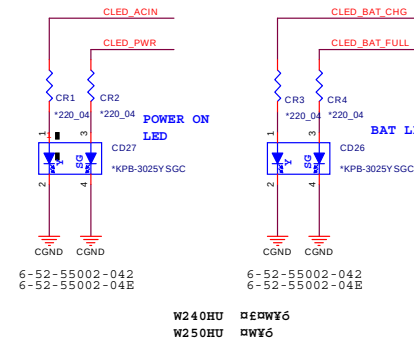
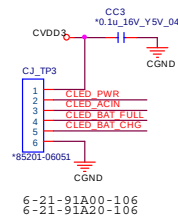
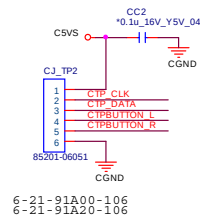
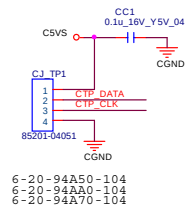
Sheet 38 of 44
Power V-Core2

SMART CHARGER



Click Board

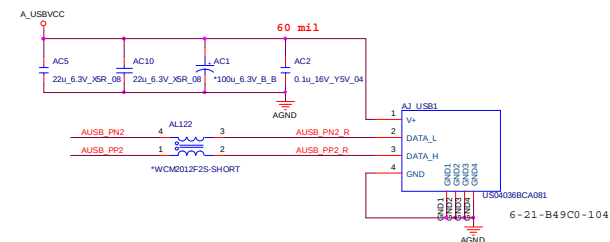
CLICK BOARD



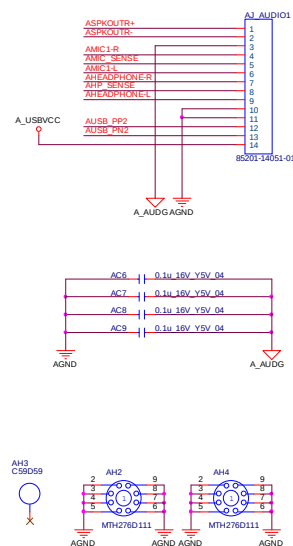
Sheet 40 of 44
Click Board

Audio Board/USB

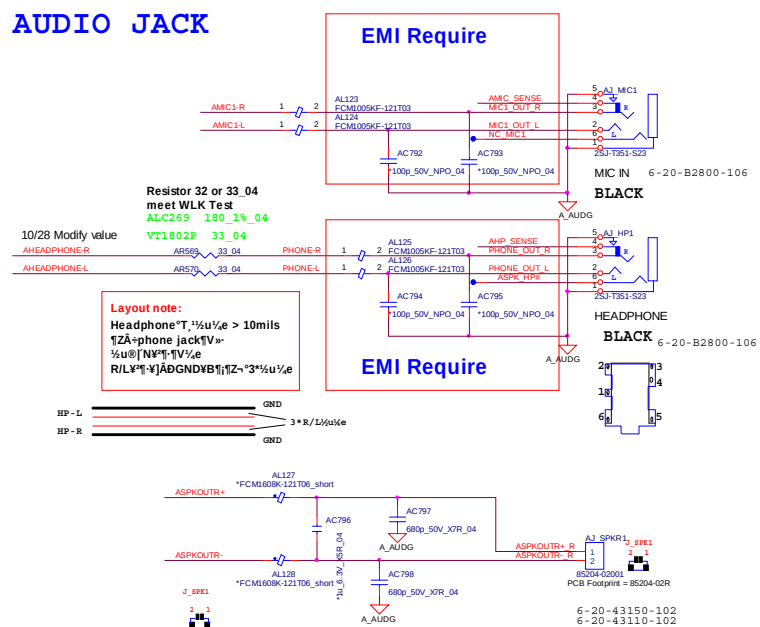
USB PORT



TO M/B

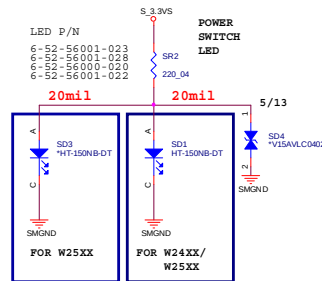
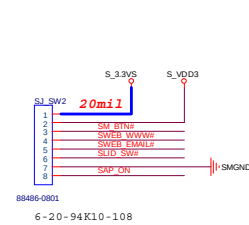


AUDIO JACK

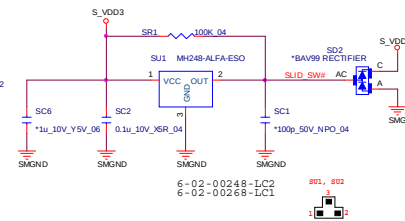


Power Switch & LID Board

POWER SW & LED & HOT KEY



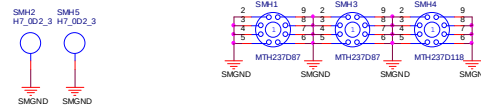
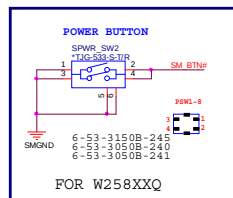
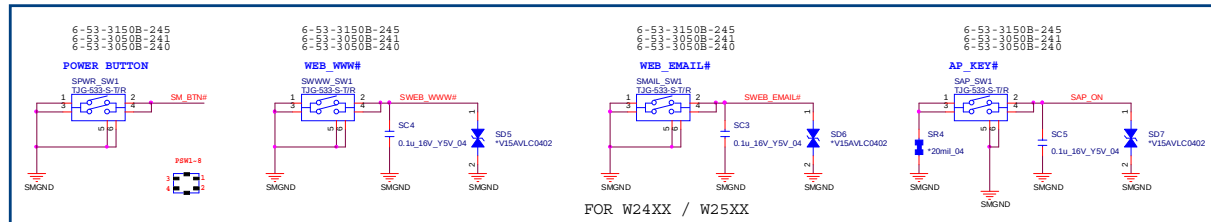
LID SWITCH IC



Sheet 42 of 44
Power Switch & LID
Board

B.Schematic Diagrams

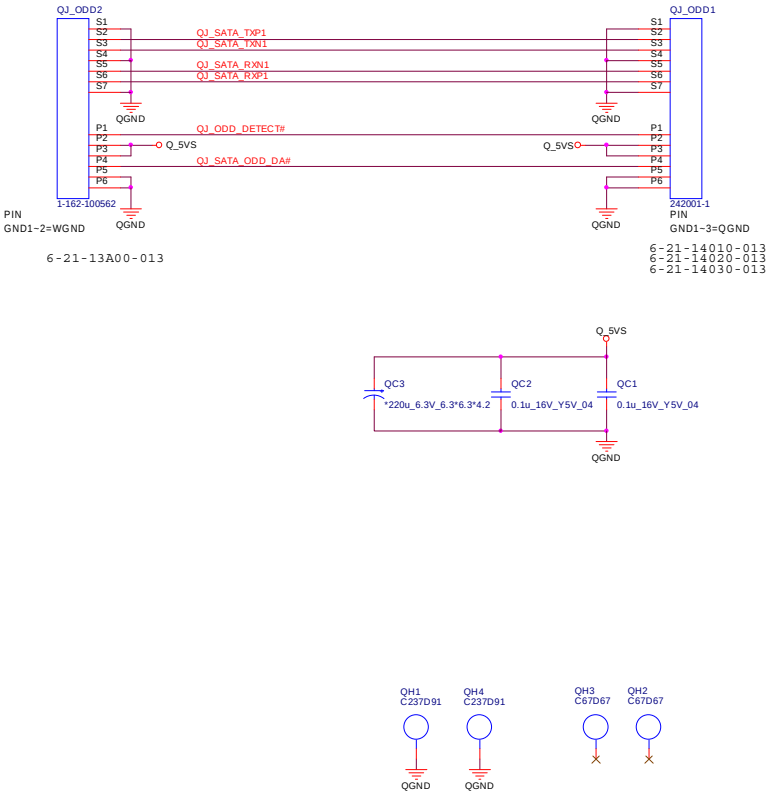
HOT KEY



External ODD Board

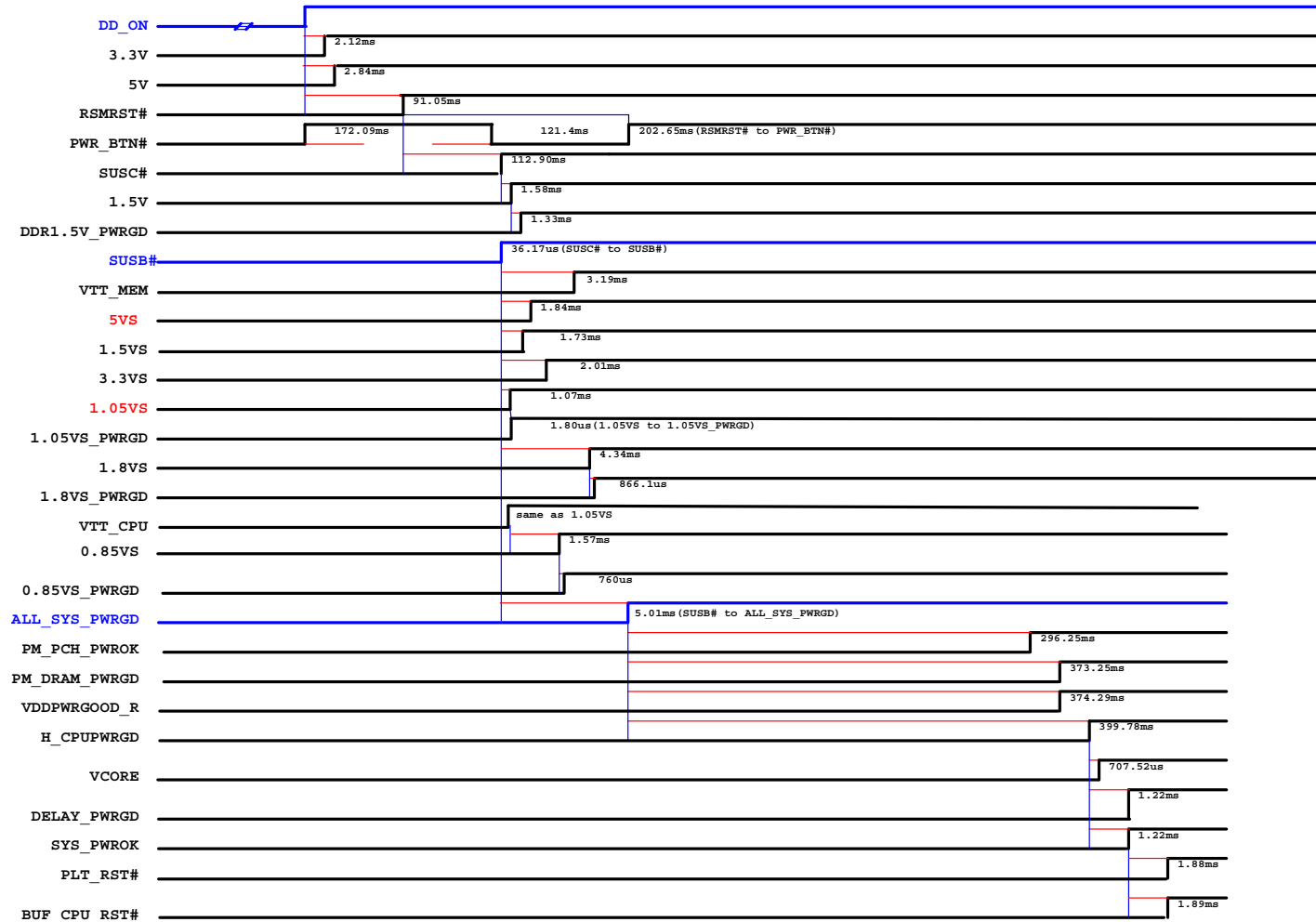
ODD BOARD

Sheet 43 of 44
External ODD
Board



Power Sequence

W2xxCZ-D01 POWER ON SEQUENCE



Sheet 44 of 44
Power Sequence

Appendix C: Updating the FLASH ROM BIOS

To update the FLASH ROM BIOS, you must:

- Download the BIOS update from the web site.
- Unzip the files onto a bootable CD/DVD/USB Flash Drive.
- Reboot your computer from an external CD/DVD/USB Flash Drive.
- Use the flash tools to update the flash BIOS using the commands indicated below.
- Restart the computer booting from the HDD and press **F2** at startup enter the BIOS.
- Load setup defaults from the BIOS and save the default settings and exit the BIOS to restart the computer.
- After rebooting the computer you may restart the computer again and make any required changes to the default BIOS settings.

Download the BIOS

1. Go to www.clevo.com.tw and point to **E-Services** and click **E-Channel**.
2. Use your user ID and password to access the appropriate download area (BIOS), and download the latest BIOS files (the BIOS file will be contained in a batch file that may be run directly once unzipped) for your computer model (see sidebar for important information on BIOS versions).

Unzip the downloaded files to a bootable CD/DVD/ or USB Flash drive

1. Insert a bootable CD/DVD/USB flash drive into the CD/DVD drive/USB port of the computer containing the downloaded files.
2. Use a tool such as Winzip or Winrar to unzip all the BIOS files and refresh tools to your bootable CD/DVD/USB flash drive (you may need to create a bootable CD/DVD with the files using a 3rd party software).

Set the computer to boot from the external drive

1. With the bootable CD/DVD/USB flash drive containing the BIOS files in your CD/DVD drive/USB port, restart the computer and press **F2** (in most cases) to enter the BIOS.
2. Use the arrow keys to highlight the **Boot** menu.
3. Use the “+” and “-” keys to move boot devices up and down the priority order.
4. Make sure that the CD/DVD drive/USB flash drive is set first in the boot priority of the BIOS.
5. Press **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