

# SERVICE MANUAL

W245CUQ/W246CUQ/W247CUQ/W24ACU/W24BCU

*notebook*





**Notebook Computer**

***W245CUQ/W246CUQ/W247CUQ/W24ACU/W24BCU***

**Service Manual**

### Notice

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

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

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

Version 1.0  
May 2012

### Trademarks

**Intel and Atom** are registered trademark of Intel Corporation.

**Windows**<sup>®</sup> is a registered trademark of Microsoft Corporation.

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

## About this Manual

This manual is intended for service personnel who have completed sufficient training to undertake the maintenance and inspection of personal computers.

It is organized to allow you to look up basic information for servicing and/or upgrading components of the *W245CUQ/W246CUQ/W247CUQ/W24ACU/W24BCU* series notebook PC.

The following information is included:

Chapter 1, Introduction, provides general information about the location of system elements and their specifications.

Chapter 2, Disassembly, provides step-by-step instructions for disassembling parts and subsystems and how to upgrade elements of the system.

Appendix A, Part Lists

Appendix B, Schematic Diagrams

Appendix C, Updating the FLASH ROM BIOS

### **IMPORTANT SAFETY INSTRUCTIONS**

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

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

### **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:

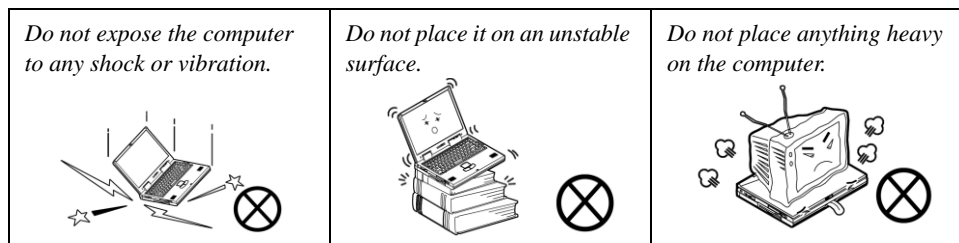
This device may not cause harmful interference.

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

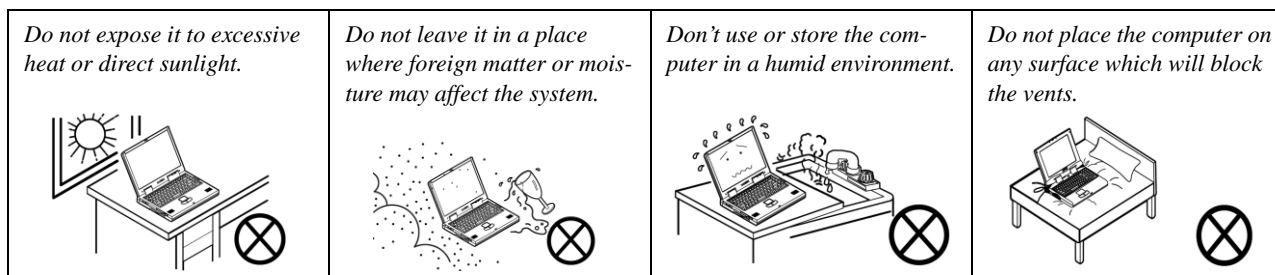
## Instructions for Care and Operation

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.



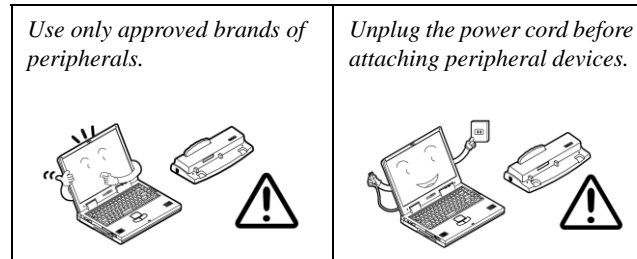
2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.



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.



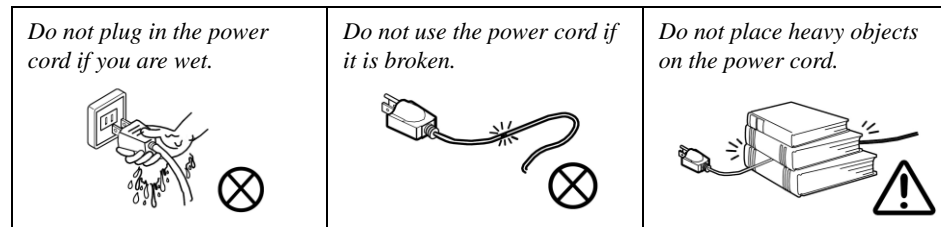
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



## 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.

### 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

<b>Introduction .....</b>	<b>1-1</b>	Top (W24ACU, W24BCU) .....	A-5
Overview .....	1-1	Bottom 3.5W (W245CUQ, W246CUQ) .....	A-6
Models Differences .....	1-1	Bottom 3.5W - No SIM (W245CUQ, W246CUQ) .....	A-7
Specifications .....	1-2	Bottom 3.5W (W24ACU, W24BCU) .....	A-8
External Locator - Top View with LCD Panel Open .....	1-4	Bottom 6.5W (W245CUQ, W246CUQ) .....	A-9
External Locator - Front & Right side Views .....	1-5	Bottom 6.5W - No SIM (W245CUQ, W246CUQ) .....	A-10
External Locator - Left Side & Rear View .....	1-6	Bottom 6.5W (W24ACU, W24BCU) .....	A-11
External Locator - Bottom View .....	1-7	LCD (W245CUQ) .....	A-12
Mainboard Overview - Top (Key Parts) .....	1-8	LCD (W246CUQ) .....	A-13
Mainboard Overview - Bottom (Key Parts) .....	1-9	LCD (W247CUQ) .....	A-14
Mainboard Overview - Top (Connectors) .....	1-10	LCD (W24ACU, W24BCU) .....	A-15
Mainboard Overview - Bottom (Connectors) .....	1-11	SATA-DVD (W245CUQ, W246CUQ) .....	A-16
<b>Disassembly .....</b>	<b>2-1</b>	SATA-DVD (W24ACU, W24BCU) .....	A-17
Overview .....	2-1	<b>Schematic Diagrams.....</b>	<b>B-1</b>
Maintenance Tools .....	2-2	System Block Diagram .....	B-2
Connections .....	2-2	CEDARVIEW CPU PART-D .....	B-3
Maintenance Precautions .....	2-3	CEDARVIEW CPU PART-A-C-F .....	B-4
Disassembly Steps .....	2-4	CEDARVIEW CPU PART-B .....	B-5
Removing the Battery .....	2-5	CEDARVIEW CPU PART-E .....	B-6
Removing the Hard Disk Drive .....	2-6	DDR3 SO-DIMM 1 .....	B-7
Removing the Optical (CD/DVD) Device .....	2-8	DDR3 SO-DIMM 2 .....	B-8
Removing the System Memory (RAM) .....	2-9	IDT CLOCK .....	B-9
Removing the Wireless LAN Module .....	2-10	Tigerpoint PART-A-B .....	B-10
Removing the 3.75G Module .....	2-11	Tigerpoint PART-C .....	B-11
Removing the Keyboard .....	2-12	Tigerpoint PART-D .....	B-12
<b>Part Lists .....</b>	<b>A-1</b>	Tigerpoint PART-E-F .....	B-13
Part List Illustration Location .....	A-2	LVDS, INVERTER .....	B-14
Top (W245CUQ, W246CUQ) .....	A-3	CRT, HDMI .....	B-15
Top (W247CUQ) .....	A-4	TPM, SATA HDD, ODD, FAN .....	B-16
		AUDIO CODEC VT1802P .....	B-17

## Preface

---


CARD READER JMB261C .....	B-18
KBC-ITE IT8518E, SPI .....	B-19
3G, WLAN, BT .....	B-20
USB PORT & USB CHARGER .....	B-21
CONN, CCD, LED .....	B-22
PWR VDD3, VDD5V, SYS15V .....	B-23
PWR SW, 3V, 5V, 3VS, 5VS, 1.5VS .....	B-24
PWR 1.05VS .....	B-25
PWR 1.5V, 0.75V .....	B-26
PWR VCORE .....	B-27
PWR AC_IN, CHARGE .....	B-28
CLICK BOARD .....	B-29
AUDIO BOARD/USB .....	B-30
POWER SWITCH & LID BOARD .....	B-31
EXTERNAL ODD BOARD .....	B-32
<b>Updating the FLASH ROM BIOS.....</b>	<b>C-1</b>

# Chapter 1: Introduction

## Overview

This manual covers the information you need to service or upgrade the *W245CUQ/W246CUQ/W247CUQ/W24ACU/W24BCU* 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 *W245CUQ/W246CUQ/W247CUQ/W24ACU/W24BCU* 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.

# Specifications



### Latest Specification Information

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



### CPU

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

Processor
Intel® Atom® Processor <b>N2600</b> <b>1.60 GHz</b> , 1MB L2 Cache & 800MHz FSB, TDP 3.5W - BGA Package, 32nm (32 Nanometer) Process Technology
Intel® Atom® Processor <b>N2800</b> <b>1.86 GHz</b> , 1MB L2 Cache & 1066MHz FSB, TDP 6.5W - BGA Package, 32nm (32 Nanometer) Process Technology
Core Logic
Intel® NM10 Express Chipset
Display
14.0" (35.56cm) HD (1366 * 768) 16:9 Panel 3.6mm thick panel <b>Model A Design II</b>
Memory
Single DDR3 Data Channel
One 204 Pin SO-DIMM Socket Supporting <b>DDRIII (DDR3)</b> 1066/1333MHz (Real Operational Frequency Depends on Processor) Memory
*2nd 204 Pin SO-DIMM Socket Supporting <b>DDRIII (DDR3)</b> 1066/1333MHz (Real Operational Frequency Depends on Processor) Memory
<b>* Note that the 2nd Memory Socket is only supported by the Atom® N2800</b>
Memory Expandable up to 4GB (Using 1GB/2GB/4GB Modules)
<b>Atom® N2600 Processors Only Support Up to 2GB of Memory</b>

Video Adapter for N2800 Processor
Intel® GMA 3650@640MHz Video Integrated with the <b>N2800 Processor</b> Total Available Graphics Memory of up to <b>384MB</b> Supports DirectX® 9
Video Adapter for N2600 Processor
Intel® GMA 3600@400MHz Video Integrated with the <b>N2600 Processor</b> Total Available Graphics Memory of up to <b>384MB</b> Supports DirectX® 9
BIOS
One 16Mb SPI Flash ROM Phoenix™ BIOS
Storage
One Changeable 2.5" 9.5 mm (h) <b>SATA</b> (Serial) Hard Disk Drive
External Super-Multi Optical Device Drive with USB Interface ( <b>Factory Option</b> )
Security
Kensington Lock BIOS Password
Audio
High Definition Audio Compliant Interface 2 * Built-In Speakers Built-In Microphone

Keyboard & Pointing Device
Isolated WinKey Keyboard Built-in TouchPad with Multi-Gesture Functionality <b>Some Designs Only:</b> Three Instant Keys for WWW, E-Mail & Silent Mode (except for some model designs in this series)
Interface
Three USB 2.0 Ports One HDMI-Out (High-Definition Multimedia Interface) 1.3a Port One External Monitor Port One Headphone-Out Jack One Microphone-In Jack One RJ-45 LAN Jack One DC-in Jack
Card Reader
Embedded Multi-In-1 Card Reader - MMC/ RS MMC - SD/ Mini SD / SDHC / SDXC - MS/ MS Pro/ MS Duo <b>Note:</b> RS MMC/ Mini SD/ MS Duo Cards require a PC adapter
Slot
Two Mini-Card Slots (USB & PCIe) <b>Slot 1:</b> for WLAN Combo Half Mini-Card Module with PCIe & USB Interface <b>Slot 2 (Factory Option):</b> for UMTS/HSPDA-based 3.75G/HSPA Module (Half Mini-Card) with USB Interface

Communication
10Mb/100Mb Base-TX Ethernet LAN 802.11b/g/n Wireless LAN Half Mini-Card Module (Factory Option) <b>Combo WLAN (802.11b/g/n) and Bluetooth v3.0 + HS</b> Half Mini-Card Module with PCIe & USB Interface (Factory Option) <b>Intel® Centrino® Wireless-N 100</b> (1*1 802.11 b/g/n) Half Mini-Card PCIe WLAN Module (Factory Option) <b>Intel® Centrino® Wireless-N 130</b> (1*1 802.11 b/g/n+) Half Mini-Card PCIe WLAN & Bluetooth 3.0 Combo Module (Factory Option) <b>Intel® Centrino® Wireless-N 1030</b> (1*2 802.11 b/g/n) Half Mini-Card PCIe WLAN & Bluetooth 3.0 Combo Module (Factory Option)
UMTS/HSPDA-based 3.75G/HSPA (Half Mini-Card) Module (Factory Option) 300K/1.3M Pixel USB PC Camera Module (Factory Option)
Operating Systems
Windows® 7 (with Service Pack 1)
Power Management
Wake On LAN Wake On USB Energy Star 5.2 Ready
Power
Full Range AC/DC Adapter AC Input: 100 - 240V, 50 - 60Hz DC Output: 19V, 1.58A (30 Watts)

Battery
Removable 6 Cell Smart Lithium-Ion Battery Pack 48.84WH Removable 3 Cell Smart Lithium-Ion Battery Pack 24.42WH (Factory Option)
Design Feature
IMR (Injected Molded Resin) or Painted Style LCD Back Covers for Some Model Designs
LED Indicators
Power/Suspend, HDD/ODD, WLAN/Bluetooth, Num Lock, Caps Lock, Scroll Lock <i>Note: Num Lock, Caps Lock, Scroll Lock indicators are not available for some designs</i>
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
<b>Design I:</b> 340mm (w) * 238mm (d) * 13.9 - 31.8mm (h) 2.0kg with 6 Cell Battery & ODD <b>Design II:</b> 340mm (w) * 238mm (d) * 12 - 30.2mm (h) 1.9kg with 6 Cell Battery & ODD <b>Design III:</b> 341mm (w) * 238.5mm (d) * 16- 34mm (h) 1.9kg with 6 Cell 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

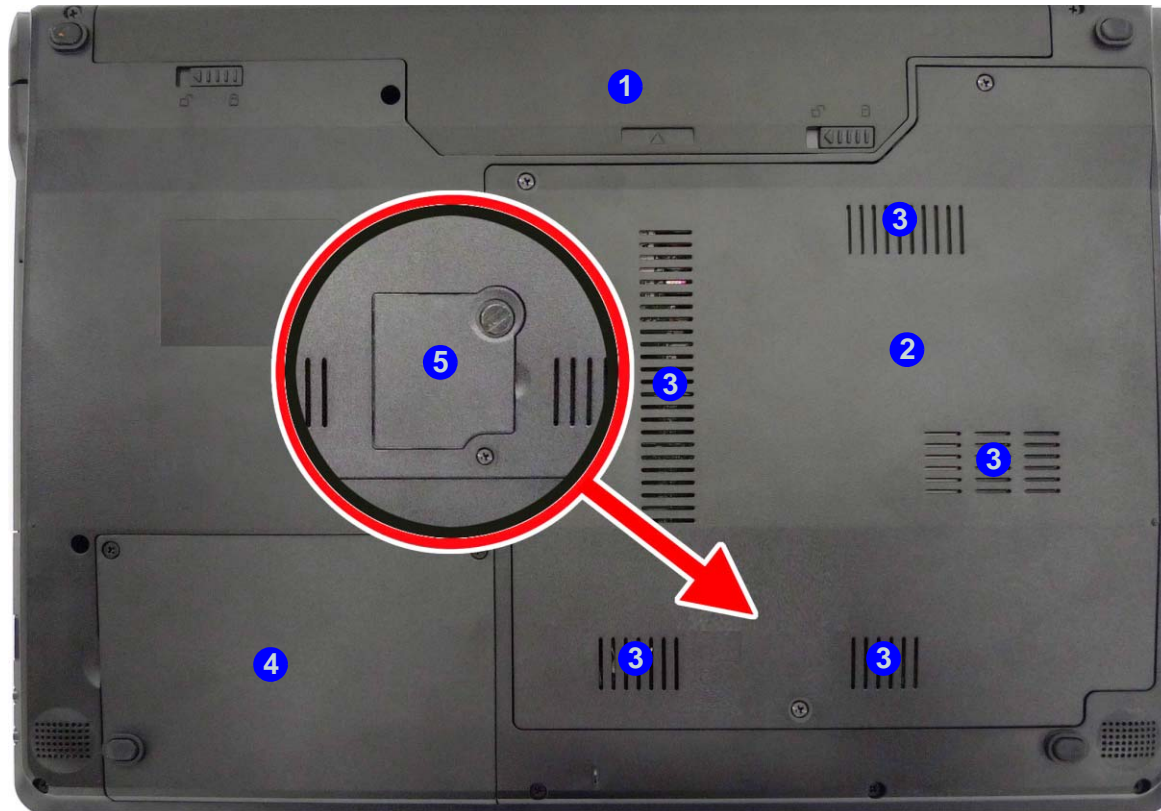


*Figure 5*  
**Rear View**

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

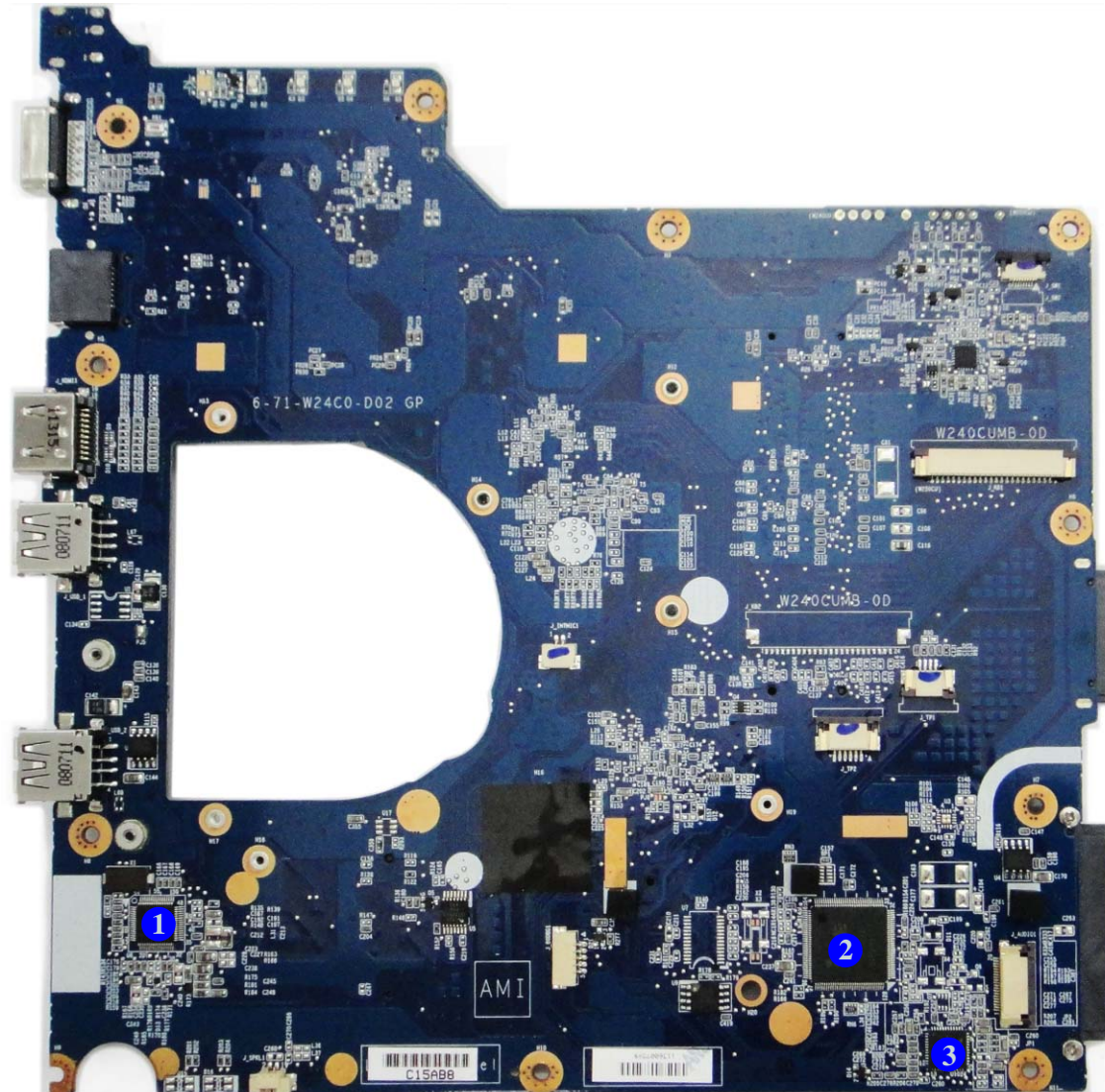
To prevent your computer from overheating make sure nothing blocks the vent/fan intakes while the computer is in use.

## Introduction

*Figure 7*  
**Mainboard Top  
Key Parts**

1. JMC261
2. ITE 8518E
3. AZALIA Codec

## Mainboard Overview - Top (Key Parts)



## Mainboard Overview - Bottom (Key Parts)



*Figure 8*  
**Mainboard Bottom  
Key Parts**

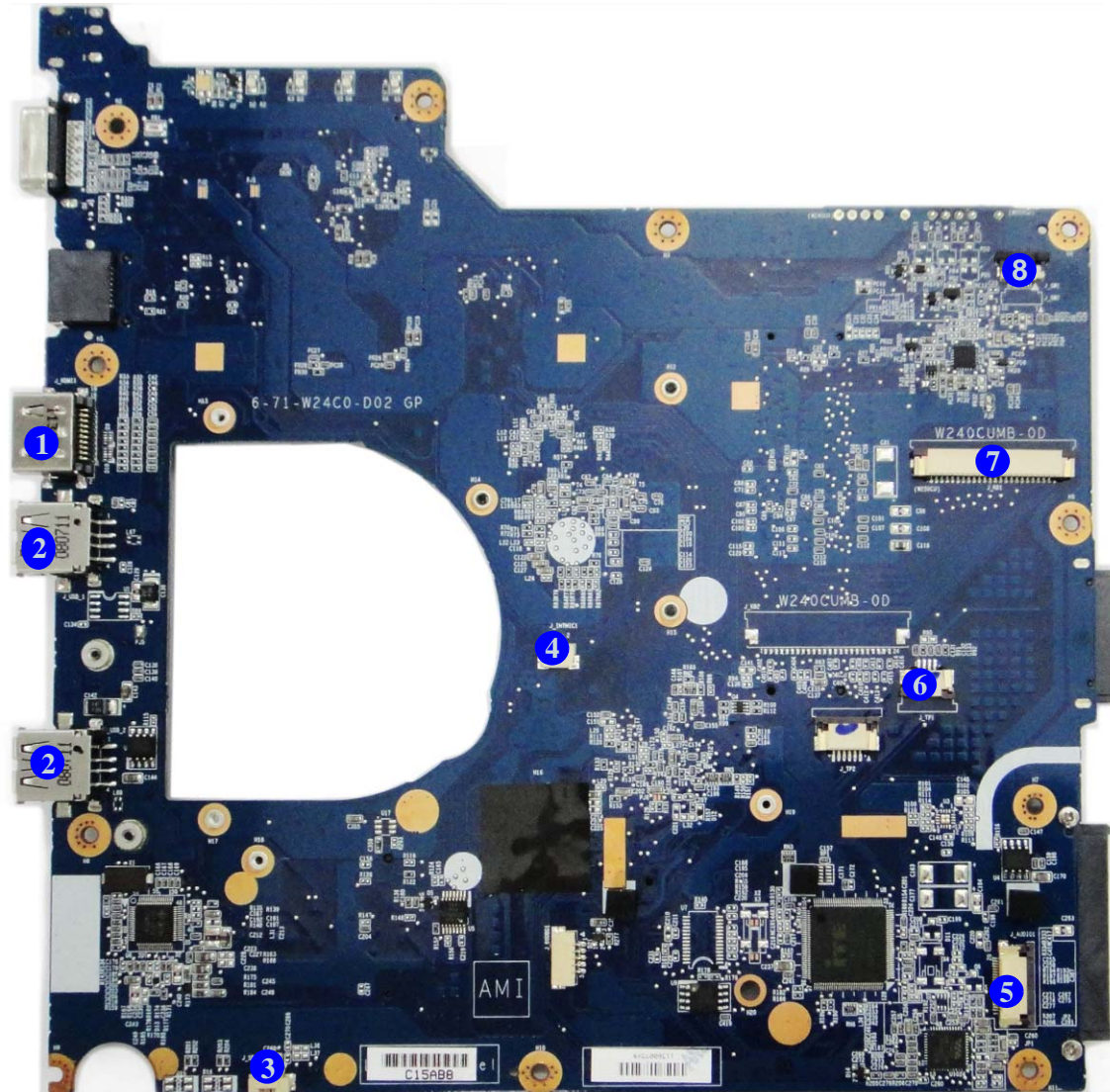
1. Memory Slots  
DDR3 SO-DIMM
2. Accelerated  
Processing Unit
3. Intel NM10 PCH
4. CMOS Battery
5. Mini-Card  
Connector (WLAN  
Module)
6. Card Reader  
Socket

## 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 *W245CUQ/W246CUQ/W247CUQ/W24ACU/W24BCU* series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

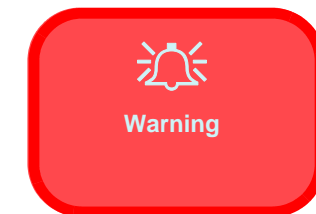
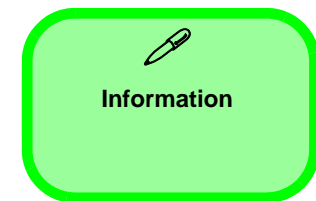
We suggest you completely review any procedure before you take the computer apart.

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-borne 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:

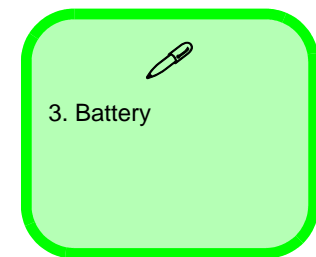
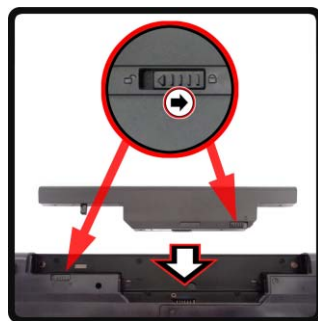
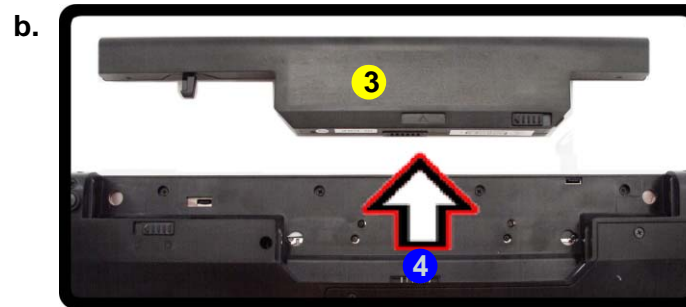
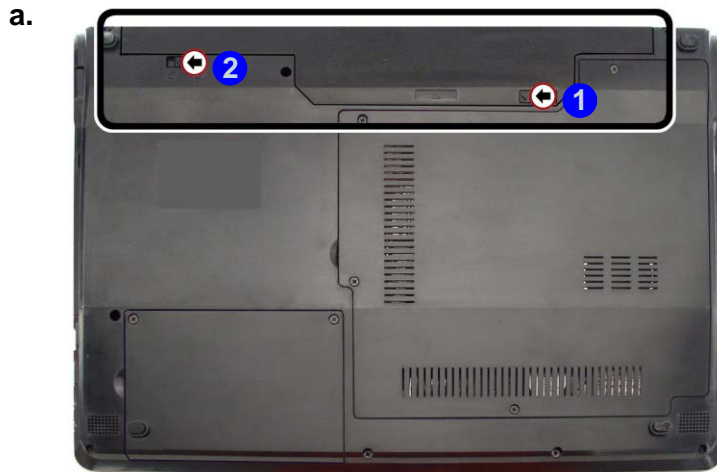
1. Remove the battery *page 2 - 5*
2. Remove the keyboard *page 2 - 12*

## 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.



## Removing the Hard Disk Drive

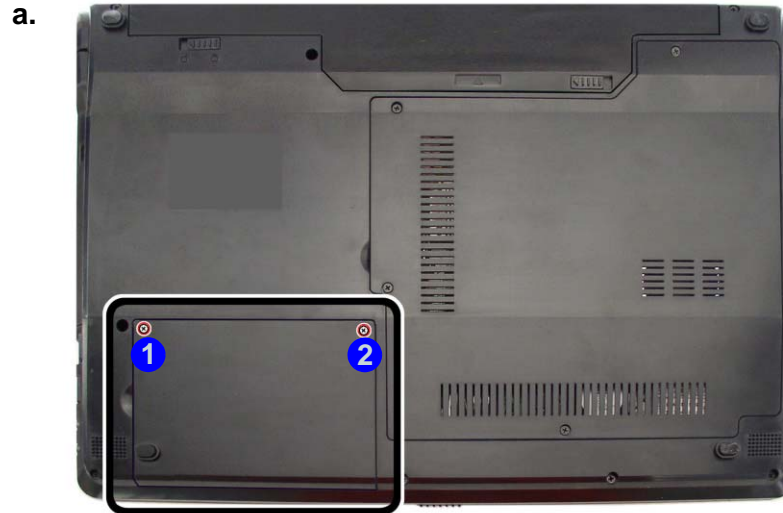
*Figure 2*  
**HDD Assembly  
Removal**

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](#)).



#### 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.

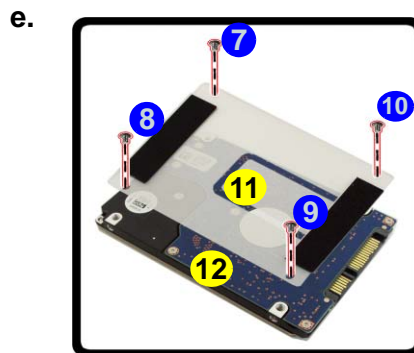
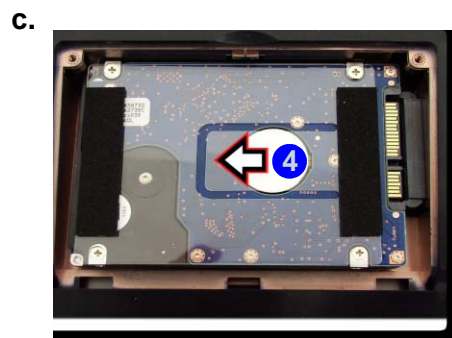
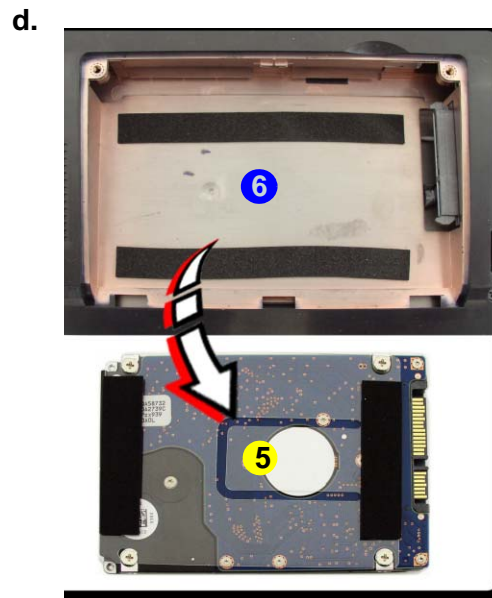
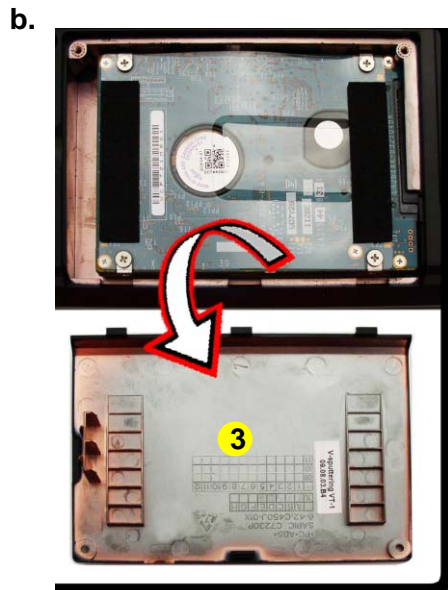
You have all the CD-ROMs and FDDs required to install your operating system and programs.

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.



- 2 Screws

- Remove the hard disk bay cover **3** (*Figure 3b*).
- Grip the tab and slide the hard disk in the direction of arrow **4** (*Figure 3c*).
- Lift the hard disk assembly **5** out of the bay **6** (*Figure 3d*).
- Remove the screw **7** - **10** and the mylar cover **11** from the hard disk **12** (*Figure 3e*).
- 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.)**

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



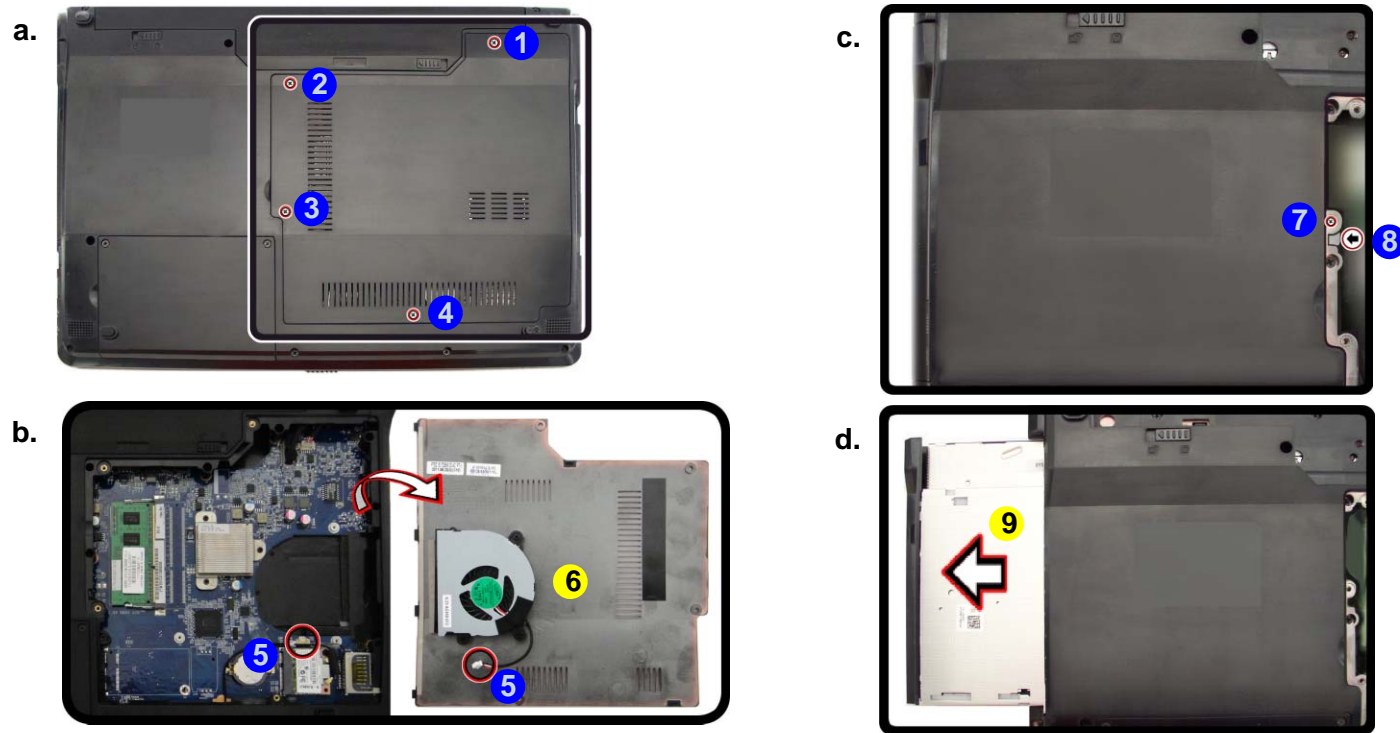
## Disassembly

### Figure 4 Optical Device Removal

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

## Removing the Optical (CD/DVD) Device

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



- 6. Component Bay Cover
- 9. Optical Device
- 4 Screws

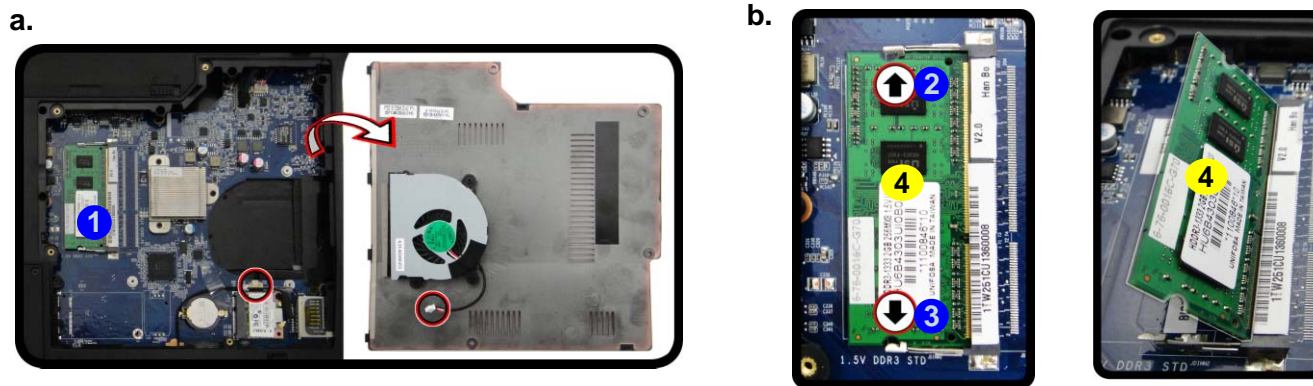


## Removing the System Memory (RAM)

The computer has one memory socket for 200 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.



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 and screws (**make sure you reconnect the fan cable before screwing down the bay cover**).
9. 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

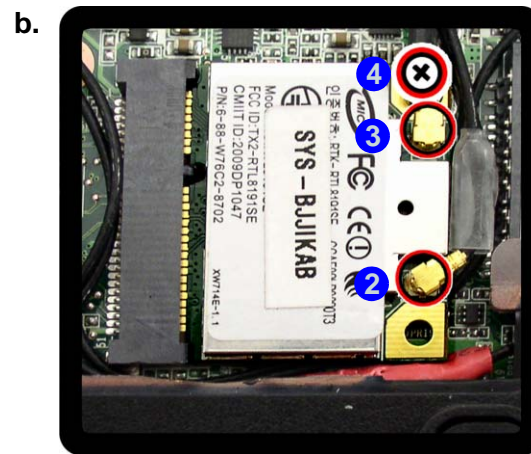
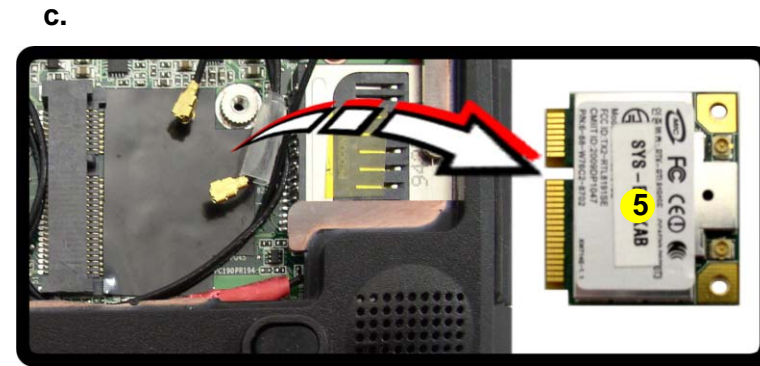
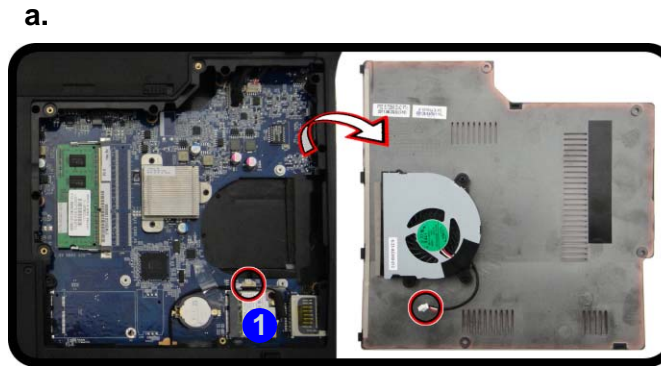
*Figure 6*  
**Wireless LAN  
 Module Removal**

- 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.

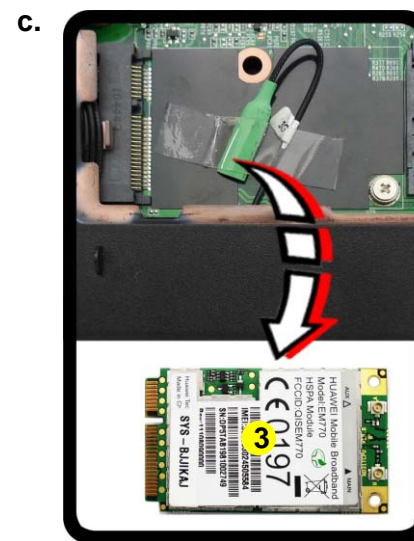


5. WLAN Module.

- 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.



4. 3.75G Module.

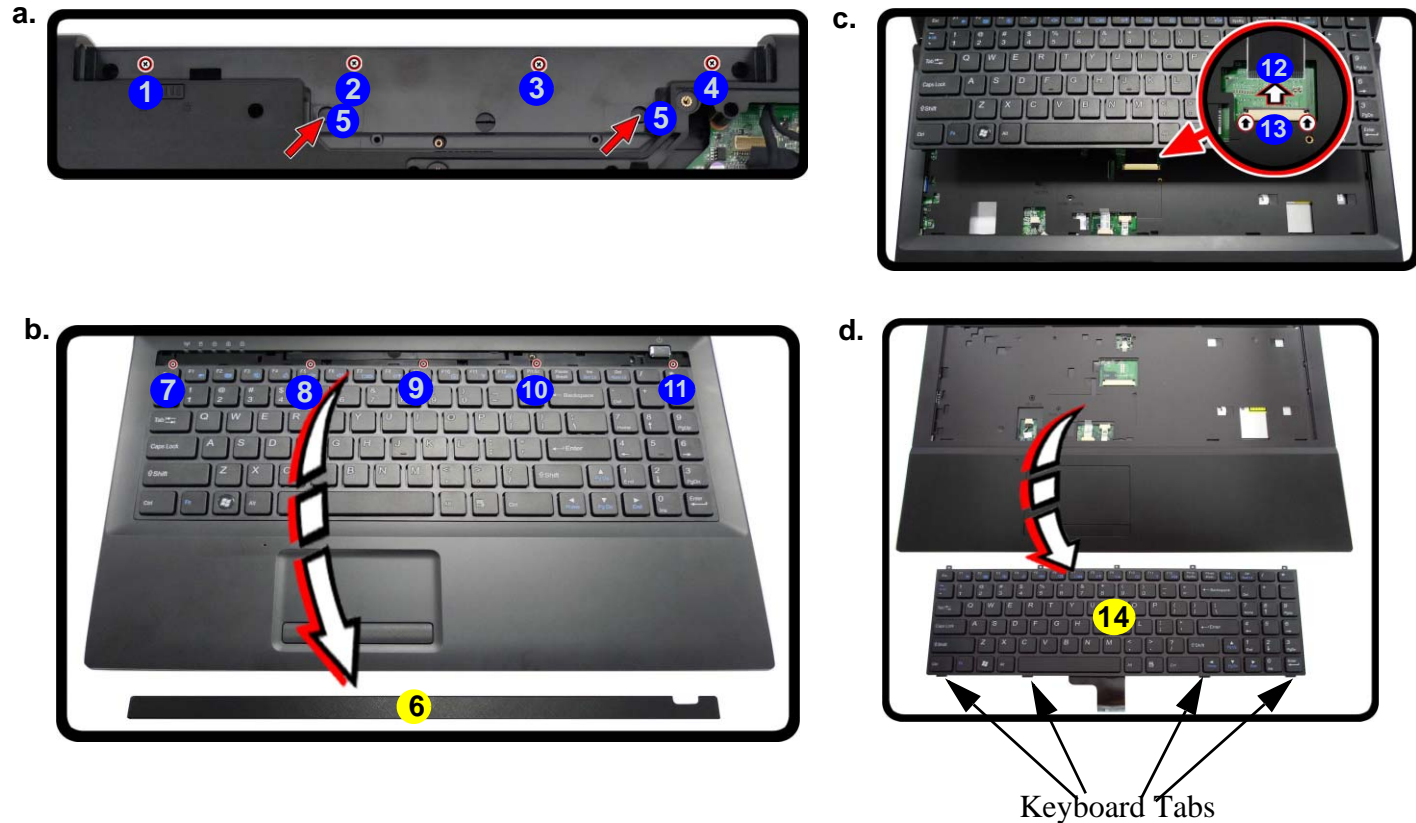

- 1 Screw

## Disassembly

Figure 8

## Keyboard Removal

- a. Remove screws from the bottom of the computer. Press at points 5 to un-snap the LED cover module 6.
  - b. Remove the LED cover module and screws from the keyboard.
  - c. Carefully lift the keyboard up and disconnect the keyboard ribbon cable from the locking collar socket.
  - d. Remove the keyboard.
1. Turn **off** the computer, and remove the battery ([page 2 - 5](#)).
  2. 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](#))).
  3. Remove the LED cover module 6 and screws 7 - 11 from the keyboard ([Figure 8b](#)).
  4. 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](#)).
  5. Carefully lift up the keyboard 14 ([Figure 8d](#)) off the computer.



**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 *W245CUQ/W246CUQ/W247CUQ/W24ACU/W24BCU* series notebook's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

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

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

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

## Part List Illustration Location

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

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

Parts	W245CUQ	W246CUQ	W247CUQ	W24ACU	W24BCU
Top	<i>page A - 3</i>		<i>page A - 4</i>	<i>page A - 5</i>	
Bottom (3.5W)	<i>page A - 6</i>			<i>page A - 8</i>	
Bottom - No SIM (3.5W)	<i>page A - 7</i>				
Bottom (6.5W)	<i>page A - 9</i>		<i>page A - 11</i>		
Bottom - No SIM (6.5W)	<i>page A - 10</i>				
LCD	<i>page A - 12</i>	<i>page A - 13</i>	<i>page A - 14</i>	<i>page A - 15</i>	
SATA DVD	<i>page A - 16</i>		<i>page A - 17</i>		

# Top (W245CUQ, W246CUQ)

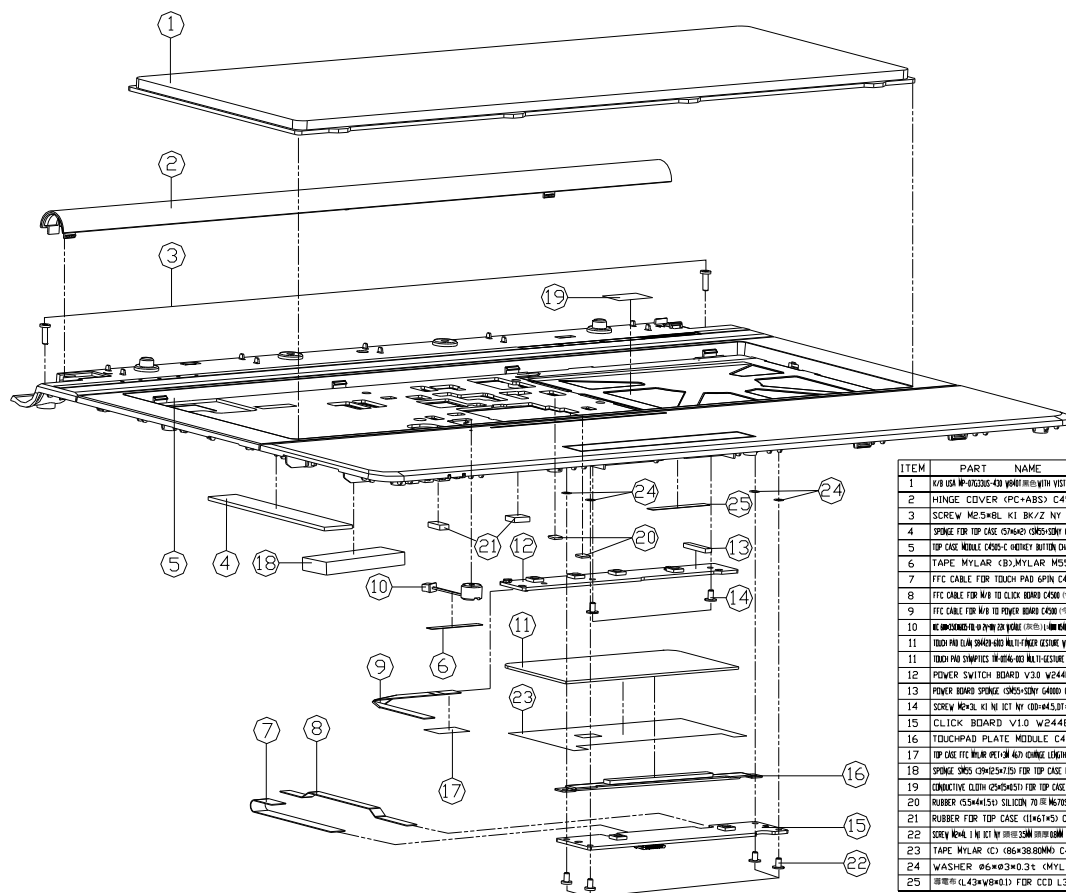


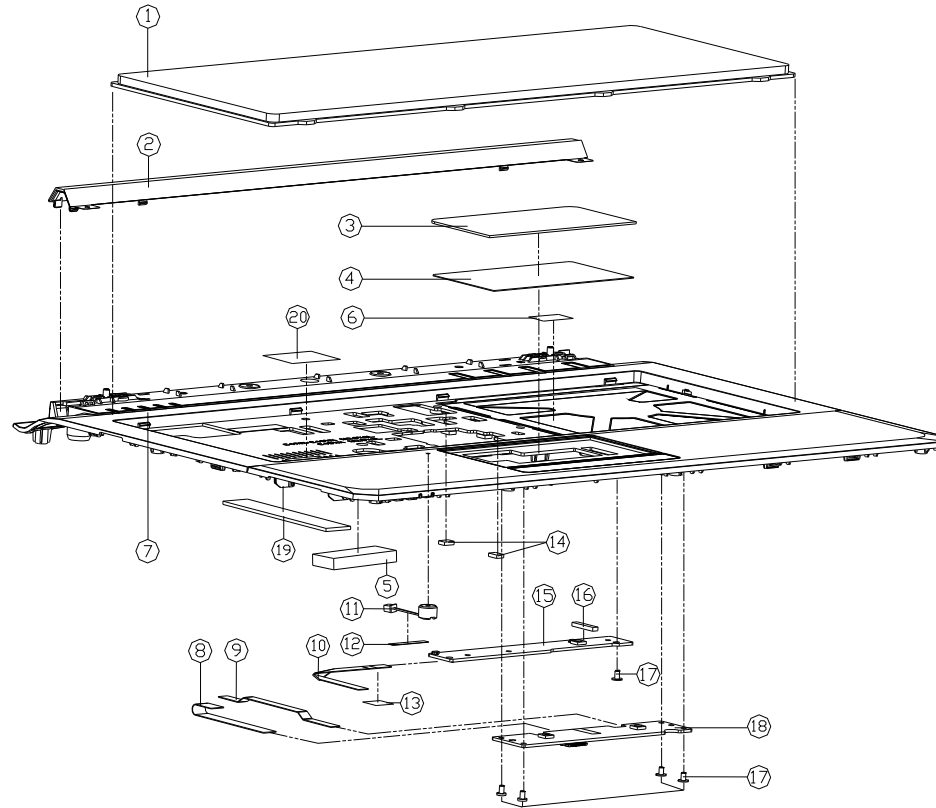
Figure A - 1  
Top (W245CUQ,  
W246CUQ)

ITEM	PART NAME	PART NO.	REMARK
1	K/R USA W-002205-00 1/8"X1/8"X1/8" NYLON KEY	6-80-W8410-011-1	
2	HINGE COVER (PC+ABS) C4505	6-42-C4552-031	
3	SCREW M2.5XBL KI BK/Z NY ICT	6-35-B6125-8R0	
4	SPACER FOR TOP CASE (576x2) (ABS+PC) G400	6-47-0019A-570	
5	TOP CASE MODULE (ABS+PC) (KEY) (BUTTON) G400	6-39-C4552-013-C	
6	TAPE MYLAR (C) (86x38) (ROUND) C4105	6-40-M55J2-020	
7	TTC CABLE FOR TOUCH PAD (PIN) C4500	6-43-C4502-010	
8	TTC CABLE FOR KEY TO CLICK BOARD (PIN) C4500	6-43-C4500-022-1	
9	TTC CABLE FOR KEY TO POWER BOARD (PIN) C4500	6-43-C4500-031-1	
10	KEYBOARD (ABS) (KEY) (BUTTON) G400	6-23-E5546-012-2	
11	TOUCH PAD (ELIMINATOR) (MULTI-TOUCH) (KEY) G400	6-49-W2542-011	FOR W245CUQ-C
11	TOUCH PAD (SIMPLE) (MULTI-TOUCH) (KEY) G400	6-49-C4802-010	FOR W246CUQ-C
12	POWER SWITCH BOARD V3.0 W244EUQ	6-77-W24ES-003	FOR W245/246CUQ-C
13	POWER BOARD SPACER (ABS+PC) G400 C4500	6-47-C4502-021	
14	SCREW M2.0X L KI NY ICT NY (00-#45.01-#4)	6-35-B1120-3RE	
15	CLICK BOARD V1.0 W244EUQ	6-77-W24E2-001	
16	TOUCHPAD PLATE MODULE C4505	6-33-C4552-101	
17	TOP CASE TTC MODULE (ABS) (KEY) (BUTTON) G400	6-40-C4502-031	
18	SPACER (ABS) (576x2) FOR TOP CASE (402)	6-47-0019A-390	
19	CONDUCTIVE CLOTH (25x45x0.1) FOR TOP CASE (402)	6-47-E4122-011	
20	RUBBER (55x44x1.5) SILICON 70 (R) M6780	6-47-M67U1-040	
21	RUBBER FILM FOR TOP CASE (11x61x5) C4505	6-47-C4552-030	
22	SCREW M2.0 X L NY ICT NY (00-#38.00-#00) 1.0	6-35-C1120-4RB	
23	TAPE MYLAR (C) (86x38) (ROUND) C4105	6-40-00150-861	
24	WASHER 06x03x0.3 (MYLAR)	6-37-02000-601	
25	WASHER (L43xW8xH1) FOR CCD L390T	6-47-L39TT-021	

A.Part Lists

# Top (W247CUQ)

Figure A - 2  
Top (W247CUQ)



ITEM	PART NAME	PART NO	REMARK
1	TOP CASE HINGE COVER MODULE WITH VISTA KEY	6-80-W8470-011-1	
2	TOP CASE HINGE COVER MODULE	6-42-E4182-102	
3	TOUCH PAD COATING MYLAR PC	6-40-E4182-021	
4	TOUCH PAD FILM SPRAYED AND MULTI-FINGER GESTURE RESISTANT	6-49-W25A2-011	
5	SPONGE (39x12.5x7.5) FOR TOP CASE	6-47-0019A-390	
6	CONDUCTIVE CLOTH (25x15x0.5) FOR TOP CASE	6-47-E4122-011	
7	TOP CASE MODULE W247BUQ-C	6-39-W2472-011-C	
8	FFC CABLE FOR TOUCH PAD (PIN C4500 (今用))	6-43-C4502-010-1	
9	FFC CABLE FOR W8 TO CLICK BOARD C4500 (今用)	6-43-C4500-022-1	
10	FFC CABLE FOR W8 TO POWER BOARD C4500 (今用)	6-43-C4500-031-1	
11	TAPE MYLAR (C) MYLAR M550J (黄色)	6-23-EM54G-012	
12	TOP CASE FFC MYLAR (PET) (46) (SWITCH LENGTH) C4500	6-40-C4502-031	
13	RUBBER (35x4x1.5) SILICON 70 (H) W670SU (黄色)	6-47-W67U1-040	
14	POWER SWITCH BOARD V3.0 W244EUQ	6-77-W24ES-D03	
15	POWER BOARD SPONGE (39x5x5) (39x5x5) C4500	6-47-C4502-021	
16	POWER BOARD (39x5x5) (39x5x5) C4500	6-35-B1120-3RD	
17	CLICK BOARD V1.0 W244EUQ	6-77-W24E2-D01	
18	SPONGE FOR TOP CASE (39x6x2) (39x5x2) C4500	6-47-0019A-570	
19	MYLAR (30x40x0.15) FOR WIRELESS PETA P170M	6-40-P1702-050	
20			



# Top (W24ACU, W24BCU)

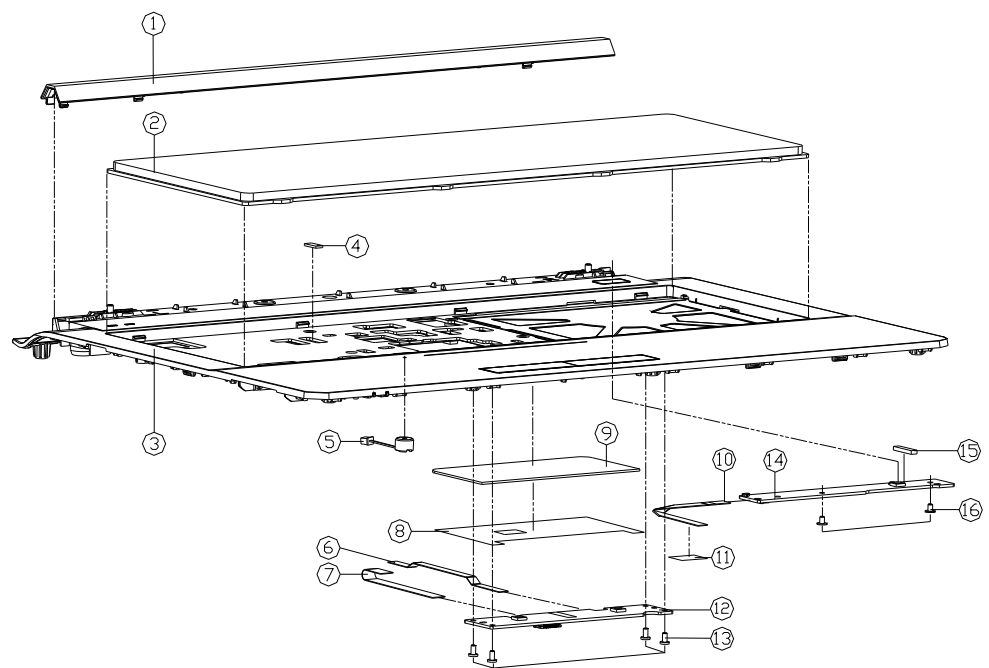


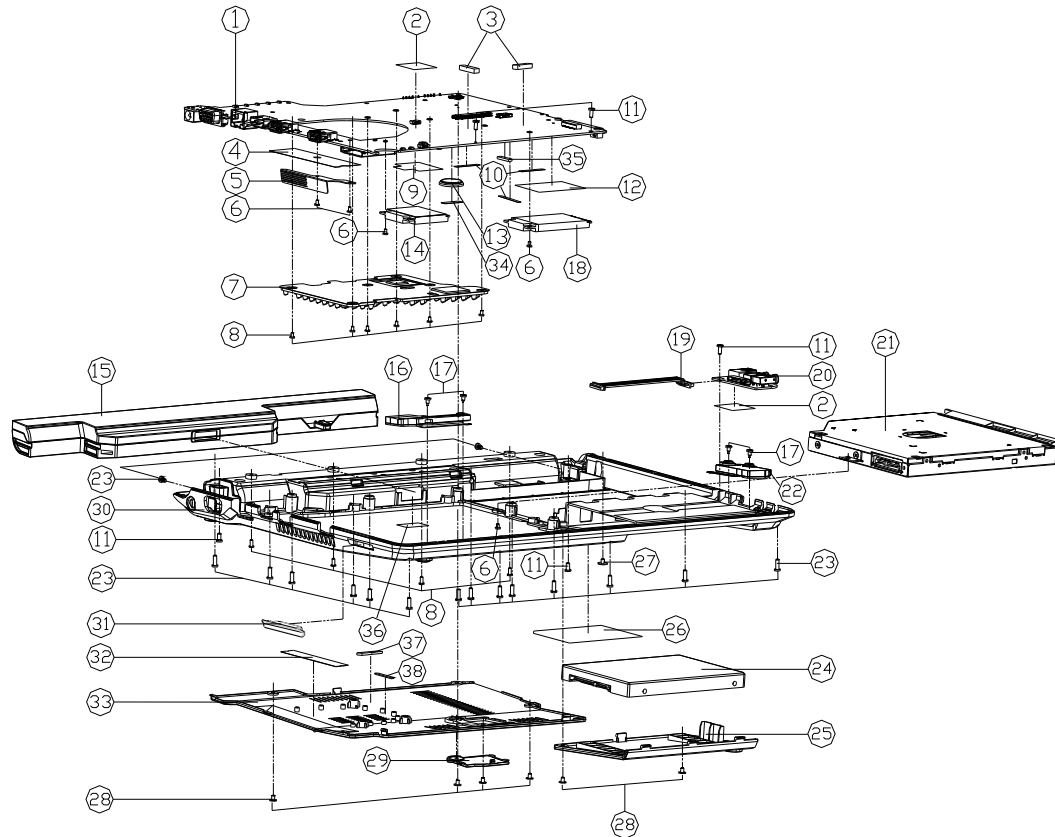
Figure A - 3  
Top (W24ACU,  
W24BCU)

ITEM	PART NAME	PART NO	REMARK
1	TOP CASE HINGE COVER MODULE E4128	6-42-E4182-102	
2	N/B USA W-90303G-431 W8017黑色 WITH VISTA KEY	6-80-W84T0-011-1	
3	TDP CASE MODULE W24AHU	6-39-W24A2-011	FDR W24ACU
3	TDP CASE MODULE W24BHU-C	6-39-W24B2-011-C	FDR W24BHU-C
4	GAGET (0.04*0.42) N/A HEAT PIPE ON VISA TOP AREA W850X	6-47-00190-10E	
5	HEAT CONDUCTIVE FILM 0.2*1.28 VOLUME 0.051 黑色 (0.051)	6-23-EM54G-012-2	
6	FFC CABLE FOR W/B TO CLICK BOARD C4500	6-43-C4500-022	
7	FFC CABLE FOR TOUCH PAD SPIN C4500	6-43-C4502-010	
8	TAPE MYLAR (C) (86.10*38.80MM) C4105	6-40-00150-860	
9	TOUCH PAD CLIM SENSOR AND MULTI-TOUCH GESTURE V25H4	6-49-W25A2-011	FDR W24ACU-C
9	TOUCH PAD SYMPTICS TM-01146-003 C4800	6-49-C4802-010	FDR W24BCU-C
10	FFC CABLE FOR W/B TO POWER BOARD C4500	6-43-C4500-031	
11	TOP CASE ITC MYLAR (0.13*1.46) CHANGE LENGTH C4500	6-40-C4502-031	
12	CLICK BOARD V1.0 W244EUD	6-77-W24E2-D01	
13	SONY P/N 1107000000 黑色 圆头 螺絲	6-35-C1120-4RB	
14	POWER SWITCH BOARD V30 W244EUD	6-77-W24ES-D03	FDR W24BCU-C
14	POWER SWITCH BOARD V30 W255EUD	6-77-W24ES-D03-A	FDR W24ACU-C
15	POWER BOARD SPENCE C485+SONY G4000 C4500	6-47-C4502-021	
16	SCREW M2*XL KI NI ICL NY (045,01-04)	6-35-B1120-3RE	

A.Part Lists

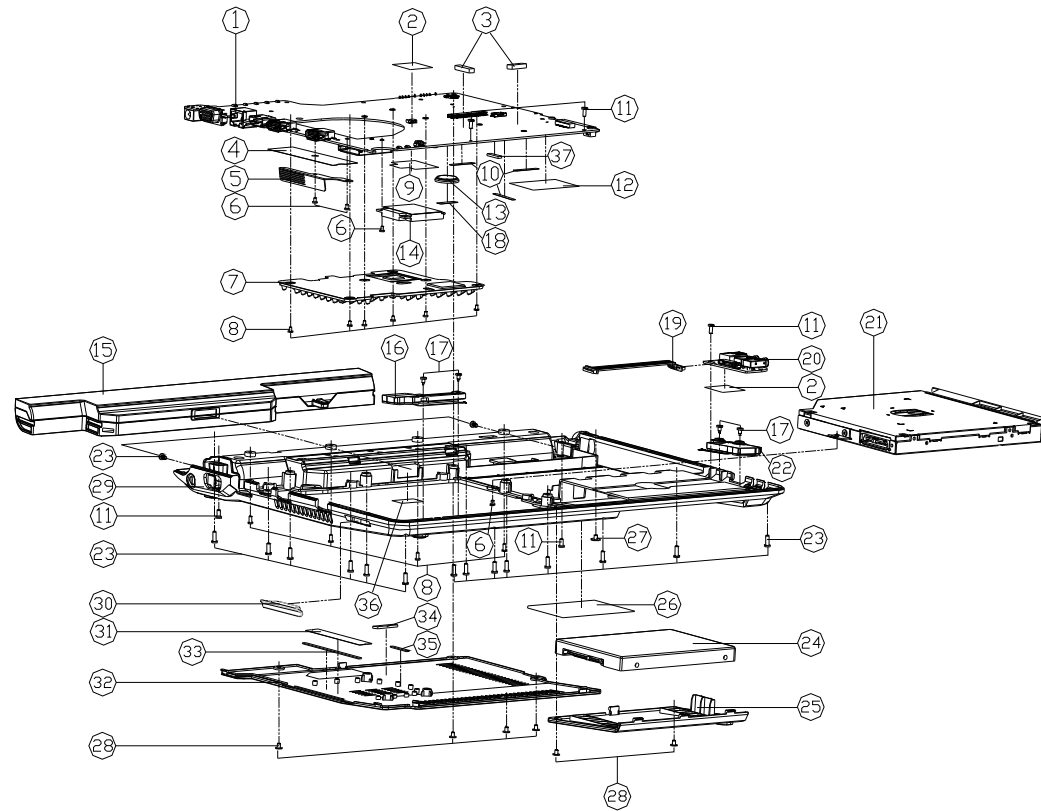
# Bottom 3.5W (W245CUQ, W246CUQ)

Figure A - 4  
Bottom 3.5W  
(W245CUQ,  
W246CUQ)



ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD VER.010 V20 (P/N:V20) (M/C:V20)	6-77-W24C0-D06A	
2	AUDIO BOARD VER.010 (P/N:V20) (M/C:V20)	6-40-C450S-030	
3	RUBBER FOR TOP CASE (114614S) C450S	6-47-C450S-030	
4	MYLAR PET FDR M/B FIN. W240BU	6-40-W240S-010	
5	HEATSHK RESPERFORATED STEEL NET W240BU	6-33-W2403-012	
6	SCREW M2x4. KI NY ICT NY (QD=44.01) B8	6-35-B1120-3RD	
7	CPU HEATSHK MODULE FOR N2600 W253DU	6-31-W23CN-101	
8	SCREW M2x4L KI BZ ICT NY	6-35-86120-4RA	
9	3G HALF CARD MYLAR PET (30282011) E420	6-40-E412S-010	
10	TAPE MYLAR (C3) MYLAR M55DUJ	6-40-M55JE-030	
11	SCREW M2x4L KI BK/Z ICT NY	6-35-86125-50A	
12	MYLAR 40-200111 (FR0) * 30-463 W2351	6-40-M7351-020	
13	BATTERY 3V 220MA RBR020228 (KTS)	6-23-6A228-030	
14	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-88-W1702-4200	(OPTION)
14	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-88-W19HF-4200	(OPTION)
14	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-88-C559F-5300	(OPTION)
14	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-88-W170F-4200	(OPTION)
14	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-88-C559F-7001	(OPTION)
14	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-88-W1102-9400	(OPTION)
14	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-88-W1102-5300	(OPTION)
15	RFU (U) (P/N:V20) (M/C:V20) (M/C:V20)	6-87-W24CS-4W4	(OPTION)
15	RFU (U) (P/N:V20) (M/C:V20) (M/C:V20)	6-87-C460S-4G4A	(OPTION)
15	RFU (U) (P/N:V20) (M/C:V20) (M/C:V20)	6-87-W240S-4PF	(OPTION)
16	PROTECT LABEL FOR W240S (C450S) (M/C:V20)	6-23-5C480-023	
17	SCREW M2x4L KI NY ICT NY FOR SPEAKER	6-35-Z1120-6R2	
18	W240A FPCISSN F300 (SMA) (M/C:V20) (M/C:V20)	6-88-W24HW-2410	
19	WIRE CABLE (SMA) M/B TO AUDIO (SMA) (C450)	6-43-C4500-013	
20	AUDIO BOARD VER.010 W240CUQ	6-77-W24C0-D02	
21	SATA DVD SUPER MULTI ASSY (OPTION)	6-79-W45000-010-C	
22	PROTECT LABEL FOR W240S (C450S) (M/C:V20)	6-23-5C480-013	
23	SCREW M2x5x8L KI BK/Z NY ICT	6-35-86125-BR0	
24	W/HDD ASS'Y E51200	6-79-E51000-J-080	
24	W/D HDD ASS'Y C4800	6-79-C480000-J-010	
25	HDD COVER MODULE C4500-C	6-42-C450J-100-C	
26	PROTECT LABEL FOR W240S (C450S) (M/C:V20)	6-45-W240S03-01-C	
26	PROTECT LABEL FOR W240S (C450S) (M/C:V20)	6-45-W240S03-01-C	
27	SCREW M2x4. KI BK/Z ICT NY (46140S)	6-35-86120-2RC	
28	SCREW M2x4L KI BK/Z ICT NY	6-35-84125-4RA	
29	SIM COVER MODULE FOR E412P-C	6-42-E412S-100-C	
30	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-39-C4503-024-C	
31	ADH RES TAPE (RESIN) FOR CPU HEATSHK MODULE FOR N2600	6-47-C450B-011	
32	AIRDUCT MYLAR DF117 W240HU	6-40-W24HB-011	
33	CPU COVER MODULE (P/N:V20) (M/C:V20) (M/C:V20)	6-42-C4503-026-C	
34	TAPE MYLAR (C3) MYLAR M55DUJ	6-40-M55JE-010	
35	RUBBER (SMA) (W240S) (M/C:V20)	6-47-W24CS-010	
36	MYLAR (15x6x0.6T) FDR M77X	6-40-M7703-010	
37	GASKET (1.3x3x0.5) FOR 1P HDD M2600	6-47-00190-334	
38	RUBBER (SMA) (W240S) (M/C:V20)	6-47-W24C3-011	

# Bottom 3.5W - No SIM (W245CUQ, W246CUQ)



ITEM	PART NAME	PART NO	REMARK
1	TOP COVER V2.0 NYLON 6/6 (116x145x3.0) (W245CUQ)	6-77-W245C-006A-F	
2	FASTENERS FOR TOP COVER (116x145x3.0) (W245CUQ)	6-40-C4505-030	
3	RUBBER FOR TOP CASE (116x145x3.0) (W245CUQ)	6-47-C4552-030	
4	NYLON PET FOR W/B FIN W245CUQ	6-40-W240S-010	
5	HEATING MECHANISM FOR STEEL NET W245CUQ	6-33-W2403-012	
6	SCREW M2.5x4L KI BZ ICT NY (06-44.0) (W245CUQ)	6-35-B1120-3RD	
7	CPU HEATING MODULE FOR W245CUQ	6-31-W23CN-101	
8	SCREW M2.5x4L KI BZ ICT NY	6-35-B6120-4RA	
9	3/8 HALF CARD NYLON PET (06-44.0) (W245CUQ)	6-40-E4125-010	
10	TAPE NYLON (C) NYLON M550J	6-40-M55J2-030	
11	SCREW M2.5x5L KI BK/Z ICT NY-	6-35-B6125-5RA	
12	NYLON 6/6 (116x145x3.0) (W245CUQ)	6-40-M7351-020	
13	BATTERY (V2.0) (3000mAh) (W245CUQ)	6-23-6A23B-030	
14	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-23-6A23B-030	(OPTION)
14	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-88-W1702-4200	(OPTION)
14	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-88-C559F-9300	(OPTION)
14	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-88-W170F-4200	(OPTION)
14	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-88-C559F-7001	(OPTION)
14	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-88-W1102-9400	(OPTION)
14	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-88-W1102-9300	(OPTION)
15	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-87-W24ES-4W4	(OPTION)
15	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-87-C480S-4G4A	(OPTION)
15	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-87-W240S-4P7	(OPTION)
16	PRODUCT LABEL FOR W245CUQ (116x145x3.0) (W245CUQ)	6-23-5C480-023	
17	SCREW M2.5x4L KI BZ ICT NY FOR SPEAKER	6-35-Z1120-6R2	
18	TAPE NYLON (C) NYLON M550J	6-40-M55J2-010	
19	WIRE CABLE W/B TO AUDIO BOARD (W245CUQ)	6-43-C4500-013	
20	AUDIO BOARD V2.0 W245CUQ	6-77-W245C-BD2	
21	SATA DVD SUPER MULTI ASSY (OPTION)	6-79-W245CUQ-010-C	
22	PRODUCT LABEL FOR W245CUQ (116x145x3.0) (W245CUQ)	6-23-5C480-013	
23	SCREW M2.5x5L KI BK/Z NY ICT	6-35-B6125-BR0	
24	W/HDD ASSY E51200	6-79-E51200J-020	
24	W/HDD ASSY E51200	6-79-C48000J-010	
25	HDD COVER MODULE C4500-C	6-42-C4503-100-C	
26	PRODUCT LABEL FOR W245CUQ (116x145x3.0) (W245CUQ)	6-45-W245CUQ-010-C	
26	PRODUCT LABEL FOR W245CUQ (116x145x3.0) (W245CUQ)	6-45-W245CUQ-010-C	
27	SCREW M2.5x4L KI BK/Z ICT NY (06-44.0)	6-35-B6120-2RC	
28	SCREW M2.5x4L KI BK/Z ICT NY	6-35-B4125-4RA	
29	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-39-C4503-024-C	
30	FASTENERS FOR BATTERY (3000mAh) (W245CUQ)	6-47-C4508-011	
31	PRODUCT NYLON (C) NYLON M550J	6-40-W24HB-011	
32	ON/OFF RUBBER COVER (116x145x3.0) (W245CUQ)	6-42-C4503-100-C	
33	SPONGE (116x145x3.0) (W245CUQ)	6-47-0019A-610	
34	GASKET (116x145x3.0) FOR IR HOUSING	6-47-00190-334	
35	RUBBER (116x145x3.0) (W245CUQ)	6-47-W24C3-011	
36	NYLON (116x145x3.0) FOR M77X	6-40-M7703-010	
37	RUBBER (116x145x3.0) (W245CUQ)	6-47-W24CS-010	

Figure A - 5  
Bottom 3.5W  
(W245CUQ,  
W246CUQ)

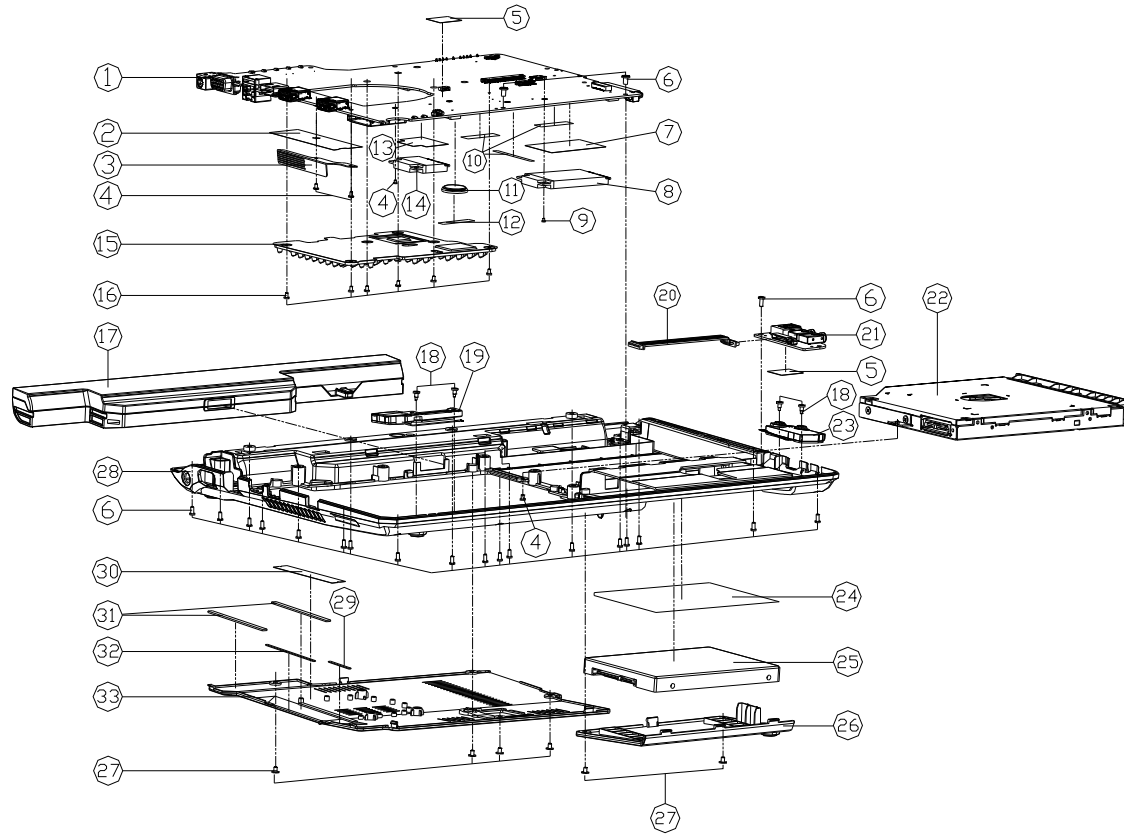
A. Part Lists

Part Lists

Bottom 3.5W (W24ACU, W24BCU)

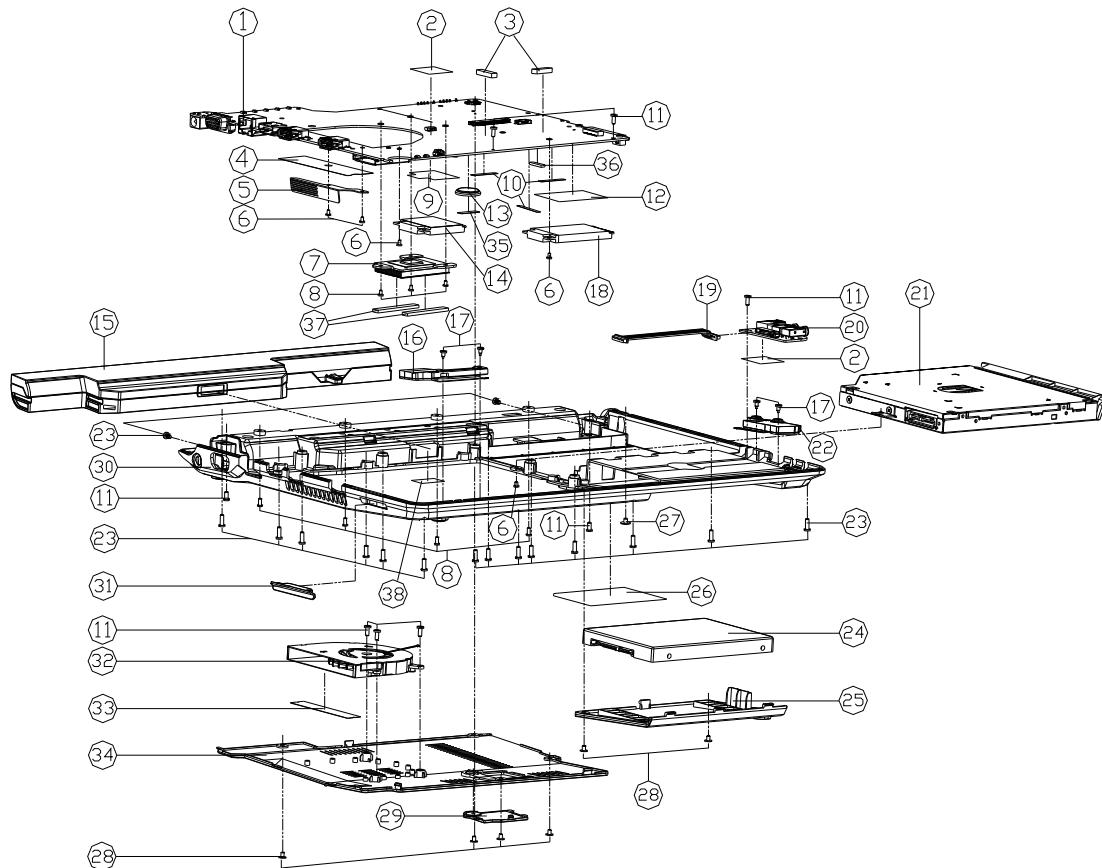
A.Part Lists

Figure A - 6  
Bottom 3.5W  
(W24ACU,  
W24BCU)



ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V28 (9/35, W/D TPO W24ACU)	6-77-W24CO-002	
1	MAIN BOARD V28 (9/35, W/D TPO W24BCU)	6-77-W24CO-002-1	
2	MYLAR FILT FOR W/D TPO W24BCU	6-40-W24DS-010	
3	HEATING WASHPROOFED STEEL NET W24BCU	6-33-W24DS-012	
4	SCREW M2X4, KI NI ICT NY (00#45.01-04)	6-35-B1120-3R0	
5	ALUM BOARD W/AL INDUCTOR (C) R15W 401 C08	6-40-C450S-030	
6	SCREW M2.5X5L, KI BK/2 ICT NY	6-35-B6125-SRA	
7	MYLAR 40X30X11 (FR0) + 3K-467 W25T	6-40-M7351-020	
8	YCBM CRUSION FIBER W/PA FULL W/AL C08 USE	6-88-W24HY-2410	(OPTION)
9	SCREW M2X4, KI NI ICT NY (00#45.01-04)	6-35-B1120-3RE	
10	TAPE MYLAR (C) MYLAR M550J	6-40-M55J2-030	
11	BATTERY 2W 200MA BBAKRC022R (K13)	6-23-6A222-030	
12	TAPE MYLAR (C) MYLAR M550J	6-40-M55J2-010	
13	3/8 HALF CARD MYLAR PETG#294010 (E42)	6-40-E412S-010	
14	ALUM BOARD W/AL INDUCTOR (C) R15W 401 C08	6-88-V1702-4200	
14	ALUM BOARD W/AL INDUCTOR (C) R15W 401 C08	6-88-V170F-4200	
14	ALUM BOARD W/AL INDUCTOR (C) R15W 401 C08	6-88-V15HF-4200	
14	ALUM BOARD W/AL INDUCTOR (C) R15W 401 C08	6-88-V1102-9400	
14	ALUM BOARD W/AL INDUCTOR (C) R15W 401 C08	6-88-C555F-7001	
14	ALUM BOARD W/AL INDUCTOR (C) R15W 401 C08	6-88-C555F-5300	
14	ALUM BOARD W/AL INDUCTOR (C) R15W 401 C08	6-88-V1102-5300	
15	CPU HEATING MODULE FOR W24BCU	6-31-W23CN-101	
16	SCREW M2X4L, KI BZ ICT NY	6-35-B6120-48A	
17	IMP L11 (0.047uF) 50V 5% (C) R15W 401 C08	6-87-W24FS-4X4	(OPTION)
17	IMP L11 (0.047uF) 50V 5% (C) R15W 401 C08	6-87-C480S-4GA4	(OPTION)
17	IMP L11 (0.047uF) 50V 5% (C) R15W 401 C08	6-87-W240S-4FF	(OPTION)
18	SCREW M2X4L, NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
19	SPEAKER (40X22) 8 OHM 100M (C) R15W 401 C08	6-23-5C480-023	
20	WIRE CABLE (4PIN W/D AUDIO (3M) C08)	6-43-C4500-013	
21	AUDIO BOARD V3.0 W244EU0	6-77-W24EB-003	
22	W/D HDD ASS'Y E4129G0	6-79-E412900-000	
22	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W24CU00-000	
23	PRODUCT LABEL FOR W24BCU (3.5) (C) R15W 401 C08	6-23-5C480-013	
24	PRODUCT LABEL FOR W24ACU	6-45-W24CU00-010	
24	PRODUCT LABEL FOR W24BCU-C	6-45-W24CU00-010-C	
25	W/HDD ASS'Y E51200	6-79-E51200J-000	
25	W/D HDD ASS'Y C4800	6-79-C480000J-010	
26	HDD COVER MODULE E41280	6-42-E418J-101	
26	HDD COVER MODULE E41280-C	6-42-E418J-101-C	
27	SCREW M2.5X3L, KI BZ ICT NY	6-35-B6125-3R0	
28	BOTTOM CASE MIDDLE (CHANG) E41280	6-39-E4183-015	FOR W24ACU
28	BOTTOM CASE MIDDLE (CHANG) E41280-C	6-39-E4183-015-C	FOR W24BCU-C
29	GASLET (0.50uF) 40V FOR CPU COVER C08	6-47-00190-25U	ONLY FOR W24BCU-C
30	AIRDUCT MYLAR DR117 W240HJ	6-40-W24HB-011	
31	GASLET (0.50uF) 40V FOR CPU COVER C08	6-47-00190-60R	ONLY FOR W24BCU-C
32	GASLET (0.50uF) 40V FOR CPU COVER C08	6-47-00190-50L	ONLY FOR W24BCU-C
33	CPU COVER MODULE E41280	6-42-E4183-103	
33	CPU COVER MODULE E41280-C	6-42-E4183-103-C	

# Bottom 6.5W (W245CUQ, W246CUQ)

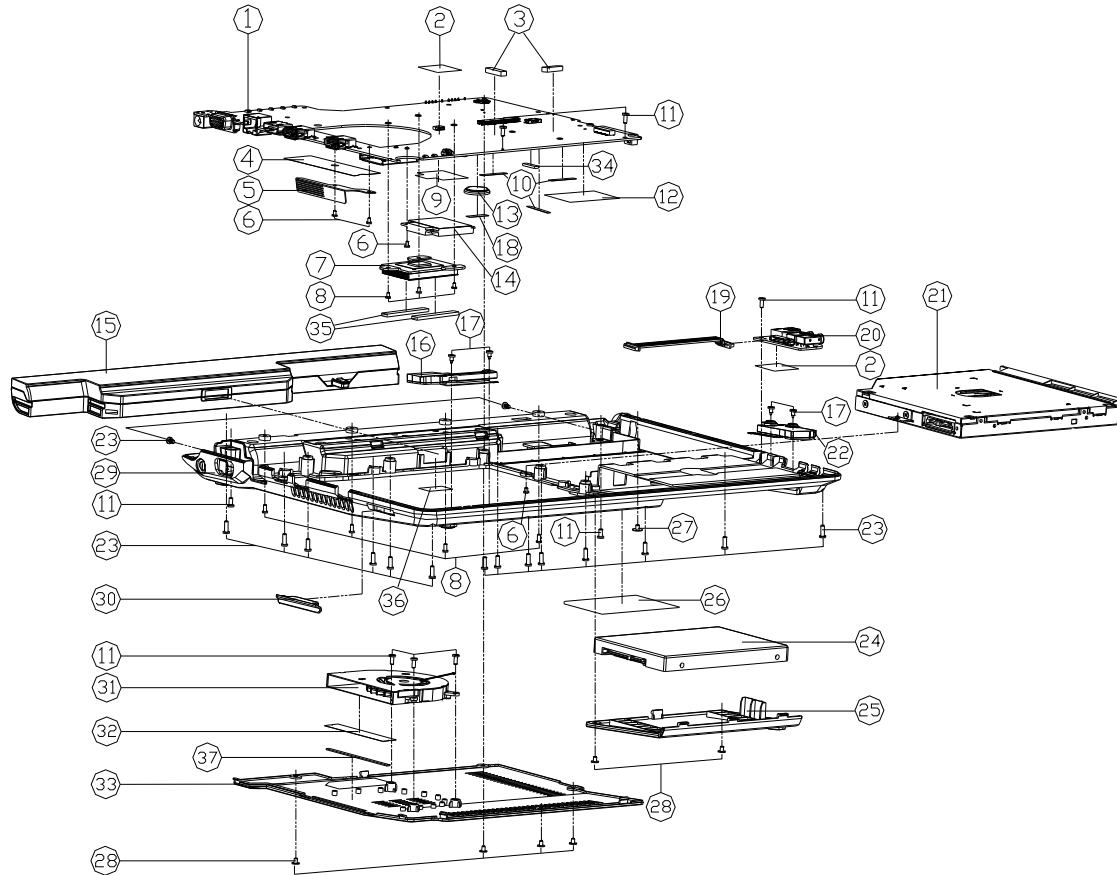


ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD VER# QV36 (W245CUQ) (W246CUQ)	6-77-W24C0-002A	
2	AUDIO BOARD MYLAR QV36 (W245CUQ) (W246CUQ)	6-40-C450S-030	
3	RUBBER FOR TOP CASE (11x61x5) C450S	6-47-C4552-030	
4	MYLAR PET FOR W/B FIN W240BU	6-40-W240S-010	
5	HEATSW MESH PERFORATED STEEL NET W240U	6-33-W2403-012	
6	SCREW HEXAL KI NI ICT NY (D5#4.0) (1.6)	6-35-B1120-3RD	
7	CPU HEATSWK MODULE FOR W240U W240CU	6-31-W24CN-101	
8	SCREW HEXAL KI DZ ICT NY#	6-35-B6120-4RA	
9	3G HMT CARD MYLAR PET (20x20x1.5) C450	6-40-E412S-010	
10	TAPE MYLAR (C)MYLAR M550J	6-40-M55J2-030	
11	SCREW M2.5xBL KI BKZZ ICT NY#	6-35-B6125-5RA	
12	MYLAR ABS (20x11) (1.5) (3M-467) W725T	6-40-W7251-020	
13	BATTERY 2V 220MA BBRCR2032R (KTS)	6-23-6A2B2-030	
14	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-88-W1702-4200	(OPTI)DN
14	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-88-W15HF-4200	(OPTI)DN
14	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-88-C555F-5300	(OPTI)DN
14	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-88-W170F-4200	(OPTI)DN
14	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-88-C555F-7001	(OPTI)DN
14	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-88-W1102-9400	(OPTI)DN
14	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-88-W1102-5300	(OPTI)DN
15	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-87-W24ES-4W4	(OPTI)DN
15	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-87-C480S-4G4A	(OPTI)DN
15	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-87-W240S-4PF	(OPTI)DN
16	SPEAKER L (W245CUQ) (W246CUQ) (3.5) (1.5) (3M-467) W725T	6-23-5C480-023	
17	SCREW HEXAL NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
18	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-88-W24HW-2410	
19	WIRE CABLE (11x61x5) (1.5) (3M-467) W725T	6-43-C4500-013	
20	AUDIO BOARD VER# QV36 (W245CUQ) (W246CUQ)	6-77-W24C0-002	
21	SATA DVD SUPER MULTI ASSY (OPTI)DN	6-79-W24C000-009-C	
22	SPEAKER R (W245CUQ) (W246CUQ) (3.5) (1.5) (3M-467) W725T	6-23-5C480-013	
23	SCREW M2.5xBL KI BKZZ NY ICT	6-35-B6125-8R0	
24	W/HDD ASSY E51200	6-79-E512000-009	
24	W/D HDD ASSY C4800	6-79-C480000-010	
25	HDD COVER MODULE C4500-C	6-42-C4500-100-C	
26	PROJECT LABEL FOR W240U-OPTIONS (11x61x5)	6-45-W240U003-011-C	
26	PROJECT LABEL FOR W240U-OPTIONS (11x61x5)	6-45-W240U003-011-C	
27	SCREW HEXAL KI BKZZ ICT NY (M2.5x5)	6-35-B6120-2RC	
28	SCREW M2.5xAL KI BKZZ ICT NY	6-35-B4125-4RA	
29	SW COVER MODULE FOR E412P-C	6-42-E412S-100-C	
30	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-39-C4503-024-C	
31	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-47-C4508-011	
32	W/B FIN (11x61x5) (1.5) (3M-467) W725T	6-23-AC450-020	
33	AIRDUCT MYLAR DFR117 W240HU	6-40-W24H8-011	
34	CPU COVER MODULE QV36 (W245CUQ) (W246CUQ)	6-42-C4503-202-C	
35	TAPE MYLAR (A)MYLAR M550J	6-40-M55J2-010	
36	RUBBER (11x61x5) (1.5) (3M-467) W725T	6-47-W24CS-010	
37	GASKET (11x61x5) (1.5) (3M-467) W725T	6-47-00190-35D	
38	MYLAR (11x61x5) (1.5) (3M-467) W725T	6-40-W7703-010	

Figure A - 7  
Bottom 6.5W  
(W245CUQ,  
W246CUQ)

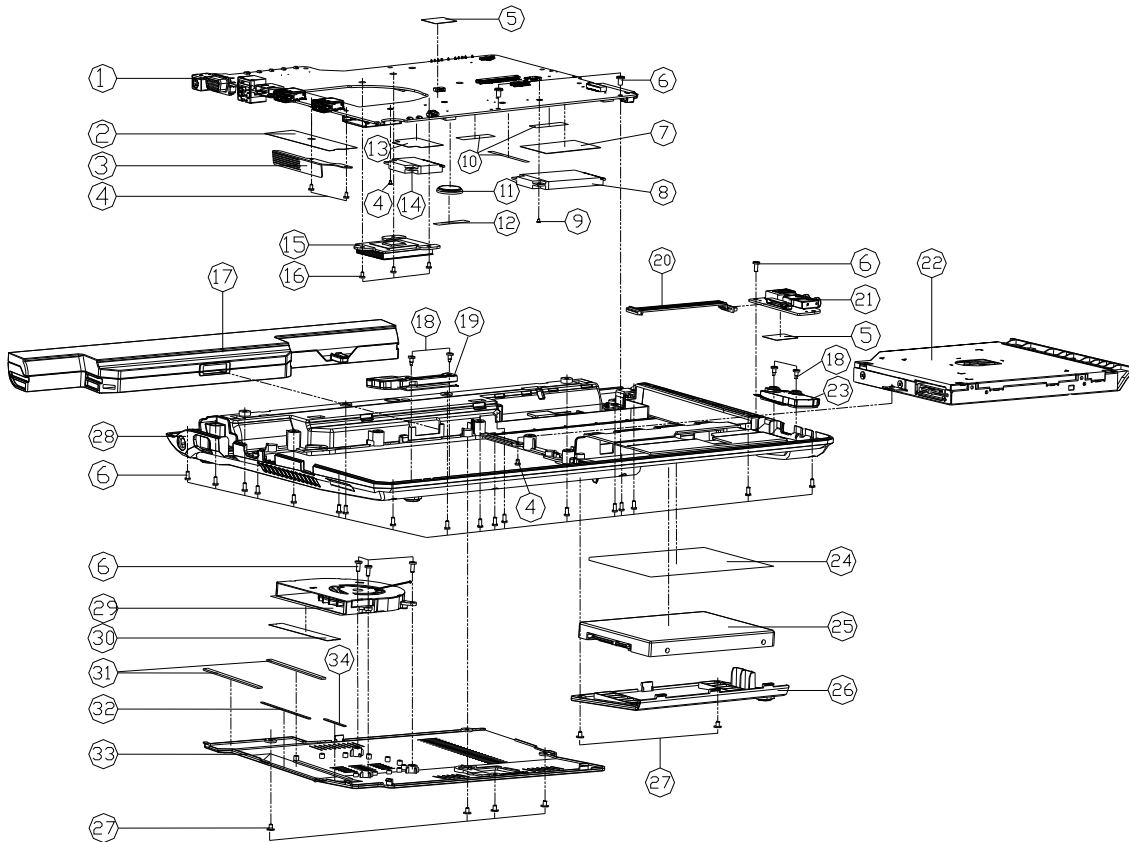
## Bottom 6.5W - No SIM (W245CUQ, W246CUQ)

Figure A - 8  
Bottom 6.5W  
(W245CUQ,  
W246CUQ)



ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V2.0 3G AND IMEI/TIMING V240U	6-77-W240C-002A-1	
2	AUDIO BOARD V2.0 3G AND IMEI/TIMING V240U	6-40-C450S-030	
3	RUBBER FOR TOP CASE (1146145) C450S	6-47-C4552-030	
4	MYLAR PET FOR M/B FIN W240BU	6-40-W240S-010	
5	HEATSINK MEHPERFORATED STEEL NET W240BU	6-33-W2403-012	
6	SCREW M2x4L KI NI ICT NY (30-440.81-68)	6-35-B1120-3RD	
7	CPU HEATSINK MODULE FOR N2800 W240U	6-31-W24CN-101	
8	SCREW M2x4L KI BZ ICT NY-	6-35-B6120-4RA	
9	3G HALF CARD MYLAR PET(30424011) C420	6-40-E412S-010	
10	TAPE MYLAR (C)MYLAR M550J	6-40-M55J2-030	
11	SCREW M2.5x5L KI BK/Z ICT NY-	6-35-B6125-SRA	
12	MYLAR 40x30x0.11 (FR83 + 3M-467) W251	6-40-M7351-020	
13	BATTERY 3V 220MA BBBCR2028 (KTS)	6-23-6A2B2-030	
14	WASHER W170F-4200	6-88-W170F-4200	(OPTION)
14	WASHER W15HF-4200	6-88-W15HF-4200	(OPTION)
14	WASHER W170F-5300	6-88-C555F-5300	(OPTION)
14	WASHER W170F-4200	6-88-W170F-4200	(OPTION)
14	WASHER W170F-7001	6-88-C555F-7001	(OPTION)
14	WASHER W1102-9400	6-88-W1102-9400	(OPTION)
14	WASHER W1102-5300	6-88-W1102-5300	(OPTION)
15	WASHER W245S-4W4	6-87-W245S-4W4	(OPTION)
15	WASHER W480S-4G4A	6-87-C480S-4G4A	(OPTION)
15	WASHER W2480S-4PF	6-87-W2480S-4PF	(OPTION)
16	WASHER W21120-6R2	6-23-5C480-023	
17	SCREW M2x4L NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
18	TAPE MYLAR (A)MYLAR M550J	6-40-M55J2-010	
19	WIRE CABLE W240U V2.0 W240U	6-43-C4500-013	
20	AUDIO BOARD V2.0 W240U	6-77-W240C-002	
21	SATA BOARD SUPER MULTI ASSY (OPTION)	6-79-W240C-003	
22	WASHER W23-5C480-013	6-23-5C480-013	
23	SCREW M2.5x4L KI BK/Z NY ICT	6-35-B6125-BRD	
24	W/HDD ASSY V2.0 E5120D	6-79-E5120D-020	
24	W/D HDD ASSY V2.0 C4500	6-79-C4500-010	
25	HDD COVER MODULE C4500-C	6-42-C450J-100-C	
26	PRODUCT LABEL FOR WINDOW-OCTAVUS LOGO (P/N)	6-45-W240C-003-01-C	
26	PRODUCT LABEL FOR WINDOW-OCTAVUS LOGO (P/N)	6-45-W240C-003-01-C	
27	SCREW M2.5x4L KI BK/Z ICT NY (06.1-05)	6-35-B6120-BRC	
28	SCREW M2.5x4L KI BK/D ICT NY	6-35-B4125-4RA	
29	WASHER W39-C4503-024-C	6-39-C4503-024-C	
30	WASHER W47-C4500-011	6-47-C4500-011	
31	WASHER W23-AC450-020	6-23-AC450-020	
32	AIRDUCT MYLAR DFRI17 W240HU	6-40-W244H-011	
33	CPU COVER MODULE C450-COUBLE HEADBAR (P/N)	6-42-C4503-102-C	
34	RUBBER DISHWASHING BRUSH W240C-C	6-47-W240C-010	
35	GASKET W640H-350 FOR M/B MYLAR M540N	6-47-00190-35D	
36	MYLAR (15x6x0.615) FOR M77X	6-40-M7703-010	
37	SPRINGER W23-1305-SIM 6400 C480	6-47-0019A-610	

# Bottom 6.5W (W24ACU, W24BCU)

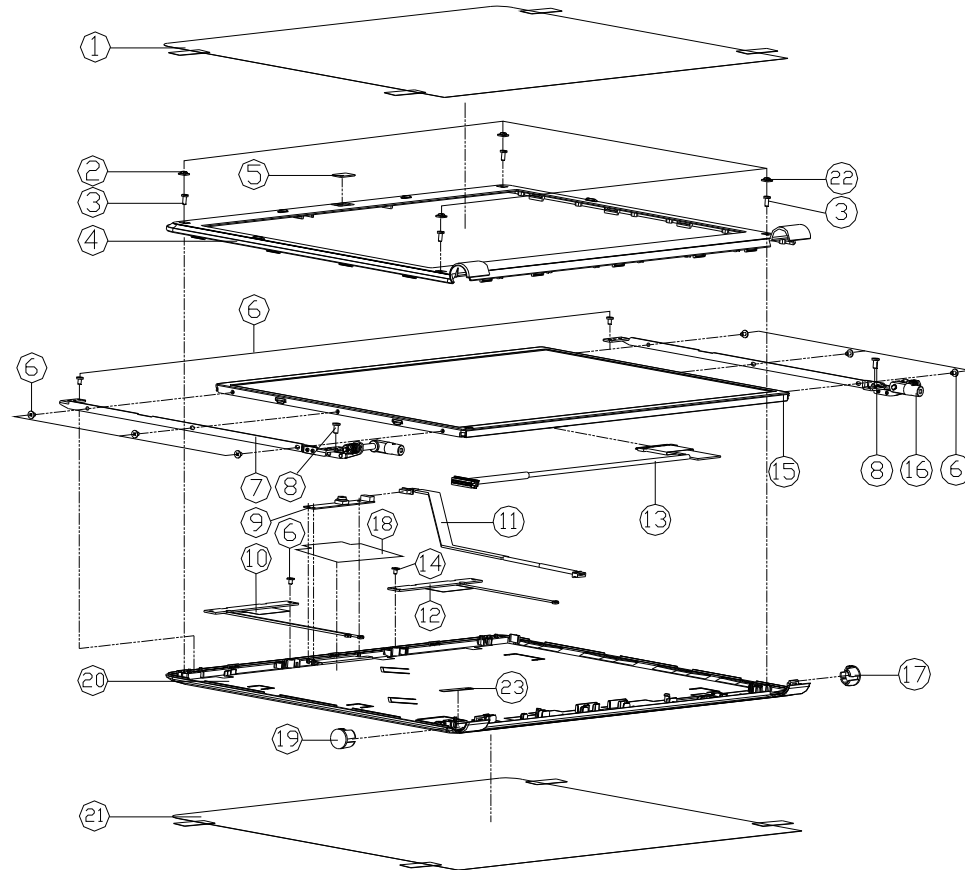


ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V22 W/36 W/D (P/N: W24ACU)	6-77-W24CU-002A	
1	MAIN BOARD V22 W/36 W/D (P/N: W24BCU)	6-77-W24CB-002A-1	
1	MAIN BOARD V22 W/36 W/D (P/N: W24DCU)	6-77-W27CO-002A-1	
2	MYLAR PET FOR W/8 FIN W24GBU	6-40-W24DS-010	
3	HEATING MESH/PERFORATED STEEL NET W24BU	6-33-W2403-012	
4	SCREW M2x4L KI BZ ICT NY	6-35-B1120-3RD	
5	ADDI BOARD MYLAR (OPTION) KIT FOR ADD CARD	6-40-C4505-030	
6	SCREW M2.5x5L KI BK/Z ICT NY	6-35-B6125-5RA	
7	MYLAR 40x30x0.17 (P/N: 3M-467) M7501	6-40-M7351-020	
8	W/36M THERMAL TISSUE FOR TAIL FIN (CARD USE)	6-88-W24HW-2410	(OPTION)
9	SCREW M2x4L KI BZ ICT NY (OPTION) KIT FOR ADD CARD	6-35-B1120-3RD	
10	TAPE MYLAR (C3)MYLAR M550J	6-40-M55J2-030	
11	BATTERY 3V 220MA 5036C2022P (CT3)	6-23-6A2B2-030	
12	TAPE MYLAR (C3)MYLAR M550J	6-40-M55J2-010	
13	3G HALF CARD MYLAR PET(GR240U) E4180	6-40-E412S-010	
14	3G HALF CARD MYLAR PET(GR240U) E4180	6-88-W1702-4200	
14	3G HALF CARD MYLAR PET(GR240U) E4180	6-88-W170F-4200	
14	3G HALF CARD MYLAR PET(GR240U) E4180	6-88-W170HF-4200	
14	3G HALF CARD MYLAR PET(GR240U) E4180	6-88-W1102-9400	
14	3G HALF CARD MYLAR PET(GR240U) E4180	6-88-C555F-7001	
14	3G HALF CARD MYLAR PET(GR240U) E4180	6-88-C555F-5300	
14	3G HALF CARD MYLAR PET(GR240U) E4180	6-88-W1102-5300	
15	CPU HEATING MODULE FOR W24BU W24ACU	6-31-W24CN-101	
16	SCREW M2x4L KI BZ ICT NY	6-35-B6125-4RA	
17	M/F 1U (H)W/24x100x50mm (OPTION) KIT FOR SPEAKER	6-87-W24ES-4W4	(OPTION)
17	M/F 1U (H)W/24x100x50mm (OPTION) KIT FOR SPEAKER	6-87-C4805-4G4B	(OPTION)
17	M/F 1U (H)W/24x100x50mm (OPTION) KIT FOR SPEAKER	6-87-W2405-4FT	(OPTION)
18	SCREW M2x6L NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
19	3D PRINTED W/36 W/D (P/N: W24ACU)	6-23-5C480-023	
20	W/36M THERMAL TISSUE FOR TAIL FIN (CARD USE)	6-43-C4500-013	
21	AUDIO BOARD V22 W/36 W/D (P/N: W24ACU)	6-77-W24CB-002A	
22	W/D HDD ASS'Y E41290	6-79-E41290Z-000	
22	SATA DVD SUPER MULTI ASSY (OPTION)	6-79-W24ACU0-000	
23	3D PRINTED W/36 W/D (P/N: W24ACU)	6-23-5C480-013	
24	PRODUCT LABEL FOR W24ACU-C	6-45-W24ACU03-010	
24	PRODUCT LABEL FOR W24BCU-C	6-45-W24BCU03-009-C	
24	PRODUCT LABEL FOR W247CU0-C	6-45-W247CU03-009-C	
25	W/72 HDD ASS'Y E51200	6-79-E51200J-000	
25	W/D HDD ASS'Y C4800	6-79-C48000J-010	
26	HDD COVER MODULE E41280	6-42-E418J-101	
26	HDD COVER MODULE E41280-C	6-42-E418J-101-C	
27	SCREW M2.5x3L KI BZ ICT NY	6-35-B6125-3R0	
28	BOTTOM CASE MODULE (CHANGE) E41280	6-39-E4183-015	FOR W24ACU
28	BOTTOM CASE MODULE (CHANGE) E41280-C	6-39-E4183-015-C	FOR W24BCU-C
29	3D PRINTED W/36 W/D (P/N: W24ACU)	6-23-AC450-020	
30	AIRDUCT MYLAR DF R117 W240BU	6-40-W24H8-011	
31	GAUZE 0.5x0.5x0.5mm FOR CPU COVER C480	6-47-00190-60R	ONLY FOR W24BCU-C
32	GAUZE 0.5x0.5x0.5mm FOR CPU COVER C480	6-47-00190-50L	ONLY FOR W24BCU-C
33	CPU COVER MODULE E41280	6-42-E4183-103	
33	CPU COVER MODULE E41280-C	6-42-E4183-103-C	
34	GAUZE 0.25x0.25x0.25mm FOR CPU COVER C480	6-47-00190-25U	ONLY FOR W24BCU-C

Figure A - 9  
Bottom 6.5W  
(W24ACU,  
W24BCU)

# LCD (W245CUQ)

Figure A - 10  
LCD (W245CUQ)



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MYLAR (R1) (MS5J) C600	6-40-C4501-011	
2	LCD FRONT COVER SCREW RUBBER SILICON C400	6-47-C4501-031	
3	SCREW NEXSL KIT+08 0*40 BK/2 ICT NY	6-35-B6120-5R0	
4	LCD FRONT COVER MODULE C4500	6-39-C4501-012	
5	CCD 3896 PMMA M810L	6-42-M8101-011	
5	W/O CCD LENS PMMA 05T C4800	6-42-C480T-010	
6	SCREW NEXSL KI NI ICT NY (00-#4.0) 01-03	6-35-B1120-3RD	
7	LCD HINGE-L SECC C4500	6-33-C4501-011	
8	SCREW M2.5XSL KI BK/2 ICT NY-	6-35-B6125-SRA	
9	UVC CAMERA LENS FOR 3896/3896 300 300 300 300 300 300	6-88-M115C-4901	OPTION
9	UVC CAMERA COVER FOR 3896 300 300 300 300 300	6-88-M111C-5100	OPTION
9	UVC CAMERA COVER FOR 3896 300 300 300 300 300	6-88-W25UC-5100	OPTION
9	UVC CAMERA LENS FOR 3896/3896 300 300 300 300 300	6-88-E510C-4904	OPTION
10	MYLAR COVER PROTECTION MYLAR (R1) (MS5J) C600	6-23-7C450-032-1	
11	WIRE CABLE FOR CCD SP 3105MM C4500	6-43-C450T-011	
12	ANTENNA WCDMA PCB 3G 8620MM HUB E4120	6-23-7E412-010	
13	WIRE CABLE FOR LVDS 29MM 0.170 CONDUCTIVE E5000	6-43-E5101-011-A	
14	SCREW NEXSL KI NI ICT NY (00-#4.5) 01-04	6-35-B1120-3RE	
15	LCD HAP NO LG (P) 10MM-10MM GLASS TPE (LED-5)MM	6-50-J8152-V02	
15	LCD HAP NO LG (P) 10MM-10MM GLASS TPE (LED-5)MM	6-50-J8152-L09	
15	LCD HAP NO (R) 10MM-10MM GLASS TPE (LED-5)MM	6-50-J8152-D03	
16	LCD HINGE-R SECC C4500	6-33-C4501-021	
17	HINGE COSMETIC RING R (CM6140) C4505	6-42-C4550-011	
18	CCD AL FOIL (AL FOIL MYLAR-011) W245CUQ	6-47-W24H1-010	
19	HINGE COSMETIC RING L (CM6140) C4505	6-42-C4550-021	
20	LCD BACK COVER AIR MODULE (CM6140) C4505-C	6-39-C4501-022-C	
21	BACK COVER PROTECTION MYLAR (R1) (MS5J) C600	6-40-C4501-020	
22	FRONT COVER PC FOR SCREW C4500	6-40-C4501-071	
23	TAPE MYLAR (R1) MYLAR MS50J	6-40-M55J2-020	



# LCD (W246CUQ)

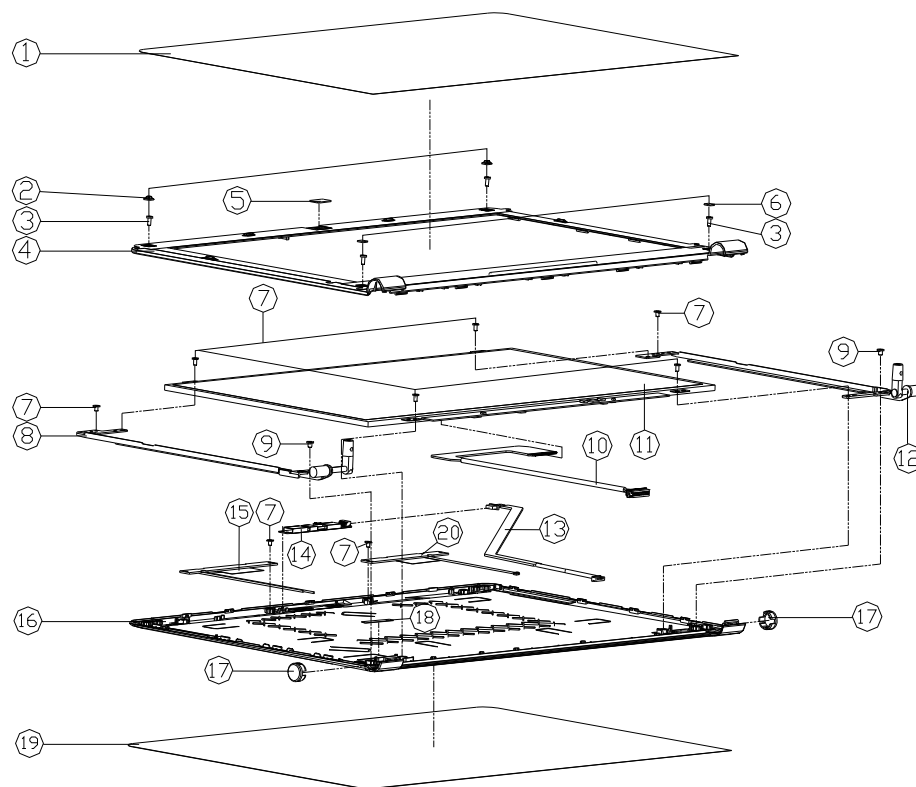


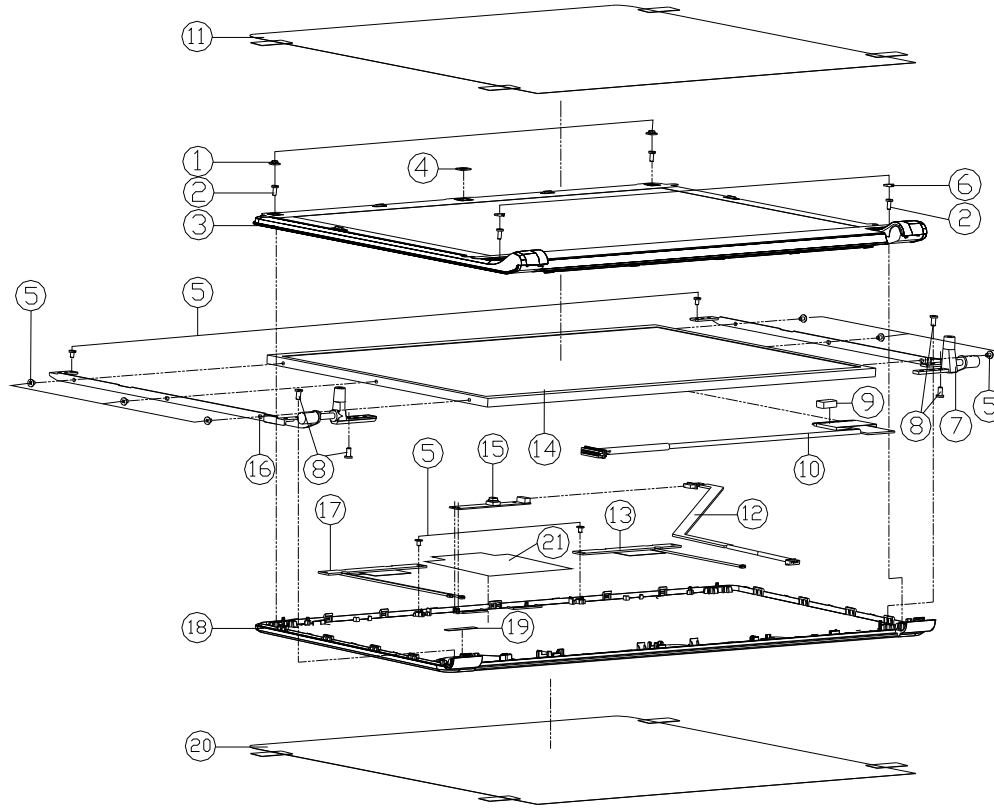
Figure A - 11  
LCD (W246CUQ)

ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MYLAR PET-IMPREGD C4500	6-40-C4501-011	
2	LCD FRONT COVER SCREW RUBBER SILICON C4500	6-47-C4501-031	
3	SCREW M2x4L KI NI ICT NY (08#4x0.01#05)	6-35-B1120-4RA	
4	LCD FRONT COVER MODULE (A00 GLUE) C4060	6-39-C4161-013	
5	CCD BEZEL PMMA M810L	6-42-M8101-011	OPTION
5	W/D CCD LENS PMMA ØST C4800	6-42-C4801-010	OPTION
6	FRONT COVER PC FOR SCREW C4500	6-40-C4501-071	
7	SCREW M2x4L KI NI ICT NY (08#4x0.01#04)	6-35-B1120-3RE	
8	LCD HINGE -L SECC C41060	6-33-C4161-011-1	
9	SCREW M2x3L I BZ ICT GY-PATCH NY (145 3#45)	6-35-C2125-3R0	
10	W/OZ SPRING HOLE (0.015MM THICKNESS) 2MM DIA. Ø1.5MM	6-43-C4161-012-A	
11	LCD 14P HD I/O MAINWRT-RO (GLARE TYPE)	6-50-J8136-B00	
12	LCD HINGE-R SECC C41060	6-33-C4161-021-1	
13	WIRE CABLE FOR CCD SP 3005M C4500 (Ø0.7)	6-43-C4501-011	
14	UV-CAMERA BEZEL FIX BEZELING-H0 200 (HOLE) M15 (YAMA)	6-88-M115C-4901	OPTION
14	UV-CAMERA CRACK FIX CAPING 200 SETI (SILVER) 200 (MITS)	6-88-M111C-5100	OPTION
14	UV-CAMERA CRACK FIX CAPING 200 (HAWK) 200 (HAWK) 200 (MITS)	6-88-W251C-5100	OPTION
14	UV-CAMERA BEZEL FIX BEZELING-300 1.5M (AA) M240 (HAWK)	6-88-E510C-4904	OPTION
15	BEZEL WITH OIL COAT (HAWK) FOR 14.5" (HAWK) M240 (HAWK)	6-23-7C450-032-1	
16	LCD BACK COVER MODULE W/WR DESIGN C4060-C	6-39-C4161-022-C	
17	HINGE COSMETIC RING ABS PA727 C4500	6-42-C4508-012	
18	TAPE MYLAR (CB) MYLAR M550J	6-40-M55J2-020	
19	BACK COVER PROTECTION MYLAR (CB) M550J C4500	6-40-C4501-020	
20	PHENOLIC 3L 100 3L PER 160/160/160/200 L 1.8MM C400	6-23-7E412-010	

A.Part Lists

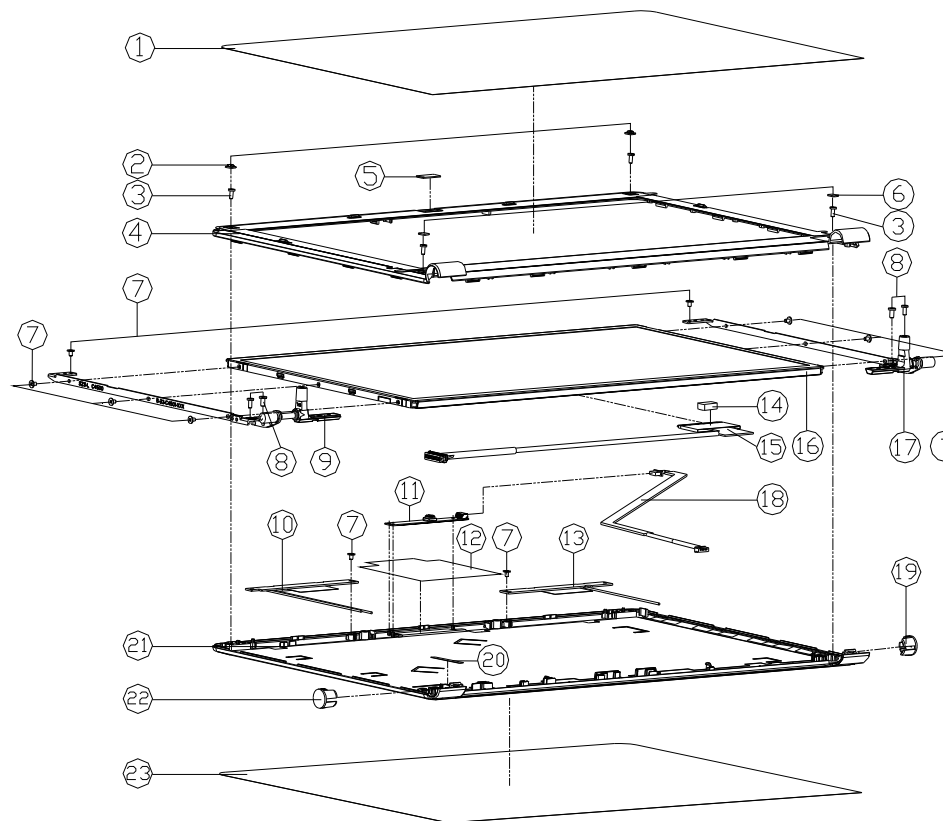
# LCD (W247CUQ)

Figure A - 12  
LCD (W247CUQ)



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER SCREW RUBBER SLICON C490	6-47-C4501-031	
2	SCREW M2x5L K1148 B=4D BK/Z ICT NY	6-35-B6120-5R0	
3	LCD FRONT COVER MODULE E41280	6-39-E4181-011	
4	CCD LENS PMMA E4128	6-42-E4181-011	OPTIGN
4	W/D CCD LENS PMMA E4128	6-42-E4181-030	OPTIGN
5	KUBERHUBBER REXL N1 ICT 01-1101 00-1111-10	6-35-B1120-3R0	
6	LCD HINGE SCREW RUBBER SLICON E4128	6-47-E4181-011	
7	LCD HINGE L SECC E4128	6-33-E4181-021	
8	SCREW M2.5xSL K1 BK/Z ICT NY-1111	6-35-B6120-5RA	
9	GASKET 010640 FOR TV CASE TOP CASE M01010	6-47-00190-102	
10	WIRE CABLE FOR LVDS 300MM C4800	6-43-C4801-091-1A	
11	LCD FRONT PROTECTION MYLAR PET-0805 (1000000)	6-40-C4501-011	
12	WIRE CABLE FOR CCD SP 3103MM C4500 (1007)	6-43-C4501-011	
13	ANTENNA VCDMA PCB 860MM 1010 E4128	6-23-7E412-010	
14	LCD TAP NO LG 0170104-FLAT GLARE TPEE ALER 52MM	6-50-J8152-L09	OPTIGN
14	LCD TAP NO CORN 0170104-FLAT GLARE TPEE ALER 52MM	6-50-J8152-D03	OPTIGN
14	LCD TAP NO BRELUX 0170104-V4 GLARE TPEE ALER 52MM	6-50-J8152-V02	OPTIGN
14	LCD TAP NO BRELUX 0170104-V5 GLARE TPEE ALER 52MM	6-50-J8152-V05	OPTIGN
15	UVG CAMERA MOUNT FOR CAMERA 200 120 100MM M20X0.4 C	6-88-E510C-4904	OPTIGN
15	UVG CAMERA MOUNT FOR CAMERA 200 120 100MM M20X0.4 C	6-88-W290C-5100	OPTIGN
15	UVG CAMERA MOUNT FOR CAMERA 200 120 100MM M20X0.4 C	6-88-M111C-5100	OPTIGN
15	UVG CAMERA MOUNT FOR CAMERA 200 120 100MM M20X0.4 C	6-88-M115C-4902	OPTIGN
16	LCD HINGE R SECC E4128	6-33-E4181-011	
17	Antenna PCB 860MM 1010 E4128	6-23-7E412-010	
18	LCD BACK COVER MODULE W247W247-C	6-39-W2471-021-C	
19	TAPE MYLAR (B)MYLAR M550J	6-40-M55J2-020	
20	BACK COVER PROTECTION MYLAR0805-0805 C450	6-40-C4501-020	
21	CCD AL FOIL (AL FOIL MYLAR=011) W240H4	6-47-W24H1-010	

# LCD (W24ACU, W24BCU)



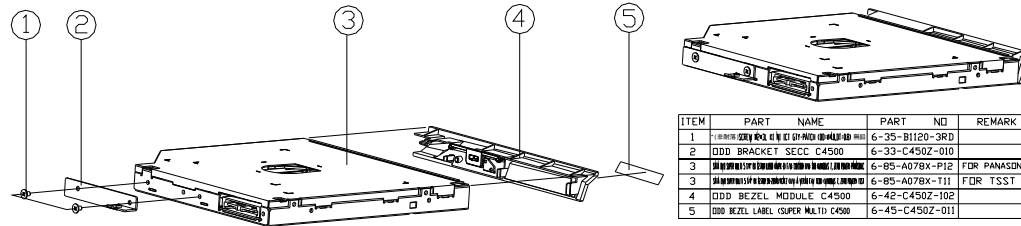
ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION INLARET (MENS) ASM	6-40-C4501-011	
2	LCD FRONT COVER SCREW RUBBER SLIDING CASI	6-47-C4501-031	
3	SCREW MEXSL KX1-08 0-40 0-40 0-40 0-40	6-35-B6120-SR0	
4	LCD FRONT COVER MODULE C4500	6-39-C4501-012	
4	LCD FRONT COVER MODULE C4500 (FOR W24ACU)	6-39-C4501-K12-M	
5	CCD BRK PMMA M810L	6-42-M8101-011	FDR W24ABU
5	W/D CCD LENS PMMA 05T C4800	6-42-C4801-010	
6	FRONT COVER PC FOR SCREW C4500	6-40-C4501-071	
7	SCREW MEXSL KX1-08 0-40 0-40 0-40 0-40	6-35-B1120-SR0	
8	SCREW MEXSL KX1-08 0-40 0-40 0-40 0-40	6-35-B6125-SR0	
9	LCD HINGE L SECC E41280	6-33-E4181-021	
10	WIRE CABLE FOR LVDS 300MM C4800	6-43-C4801-011-A	
11	HINGE COSMETIC RING L (CM640) C4500	6-42-C4558-011	FDR W24AHU
11	HINGE COSMETIC RING R (CM640) C4500	6-42-C4558-021	FDR W24AHU
11	HINGE COSMETIC RING L (CM640) C4500	6-42-C4558-021	FDR W24AHU
11	HINGE COSMETIC RING R (CM640) C4500	6-42-C4558-011	FDR W24AHU
12	CCP AL FIBER GLASS NYLON-66 NYLON-66	6-47-W24H1-010	
13	TAPE NYLAR (B) NYLAR M550J	6-40-M55-J-020	
14	GASKET (GASKET FOR TV CONE TOP CASE MOUNT)	6-47-00190-102	
15	WIRE CABLE FOR LVDS 300MM C4800	6-43-C4801-091-1A	FDR W24ABU
16	LCD FRONT COVER PROTECTION INLARET (MENS) ASM	6-40-C4511-010	
17	LCD HINGE L SECC E41280	6-33-E4181-011	
18	WIRE CABLE FOR LVDS 300MM C4800	6-43-C4801-011	
19	HINGE COSMETIC RING L (CM640) C4500	6-42-C4558-011	FDR W24AHU
19	HINGE COSMETIC RING R (CM640) C4500	6-42-C4558-021	FDR W24AHU
20	TAPE NYLAR (B) NYLAR M550J	6-40-M55-J-020	
21	LCD BACK COVER MODULE C4500	6-39-W24A1-021-SC	FDR W24ABU
21	LCD BACK COVER MODULE W24AHU	6-39-W24A1-021	FDR W24AHU
21	LCD BACK COVER MODULE W24AHU-C	6-39-W24A1-021-C	FDR W24AHU-C
21	LCD BACK COVER MODULE W24AHU	6-39-W24A1-021	FDR W24AHU
21	LCD BACK COVER MODULE W24AHU-C	6-39-W24A1-021-C	FDR W24AHU-C
21	LCD BACK COVER MODULE W24AHU-C	6-39-W24A1-020-MC	FDR W24AHU-C
21	LCD BACK COVER MODULE W24AHU-C	6-39-W24A1-020-MC	FDR W24AHU-C
22	HINGE COSMETIC RING L (CM640) C4500	6-42-C4558-021	FDR W24AHU
22	HINGE COSMETIC RING R (CM640) C4500	6-42-C4558-030	FDR W24AHU
23	BACK COVER PROTECTION INLARET (MENS) ASM	6-40-C4511-010	

Figure A - 13  
LCD (W24ACU,  
W24BCU)

A.Part Lists

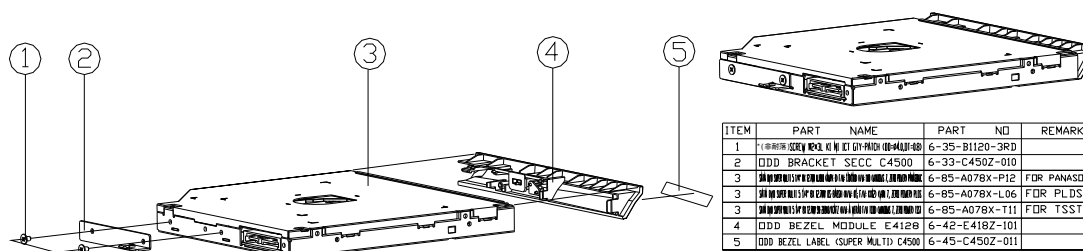
## SATA-DVD (W245CUQ, W246CUQ)

Figure A - 14  
SATA-DVD  
(W245CUQ,  
W246CUQ)



ITEM	PART	NAME	PART	NO	REMARK
1		DDD BEZEL LABEL (SUPER MULT)	6-35-B1120-3RD		
2	DDD BRACKET SECC	C4500	6-33-C450Z-010		
3		DDD BEZEL MODULE (C4500)	6-85-A078X-P12		FDR PANASONIC
3		DDD BEZEL MODULE (C4500)	6-85-A078X-T11		FDR TSST
4	DDD BEZEL MODULE	C4500	6-42-C450Z-102		
5	DDD BEZEL LABEL (SUPER MULT)	C4500	6-45-C450Z-011		

# SATA-DVD (W24ACU, W24BCU)



ITEM	PART NAME	PART NO	REMARK
1	ODD BEZEL LABEL (SUPER MULTI) C4500	6-35-B1120-3RD	
2	ODD BRACKET SECC C4500	6-33-C450Z-010	
3	ODD OPTICAL PICKUP UNIT (SUPER MULTI) C4500	6-85-A078X-P12	FOR PANASONIC
3	ODD OPTICAL PICKUP UNIT (SUPER MULTI) C4500	6-85-A078X-L06	FOR PLDS
3	ODD OPTICAL PICKUP UNIT (SUPER MULTI) C4500	6-85-A078X-T11	FOR TSST
4	ODD BEZEL MODULE E412B	6-42-E418Z-101	
5	ODD BEZEL LABEL (SUPER MULTI) C4500	6-45-C450Z-011	

Figure A - 15  
SATA-DVD  
(W24ACU,  
W24BCU)



# Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the *W245CUQ/W246CUQ/W247CUQ/W24ACU/W24BCU* 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>TPM, SATA HDD, ODD, FAN - Page B - 16</i>	<i>AUDIO BOARD/USB - Page B - 30</i>
<i>CEDARVIEW CPU PART-D - Page B - 3</i>	<i>AUDIO CODEC VT1802P - Page B - 17</i>	<i>POWER SWITCH &amp; LID BOARD - Page B - 31</i>
<i>CEDARVIEW CPU PART-A-C-F - Page B - 4</i>	<i>CARD READER JMB261C - Page B - 18</i>	
<i>CEDARVIEW CPU PART-B - Page B - 5</i>	<i>KBC-ITE IT8518E, SPI - Page B - 19</i>	
<i>CEDARVIEW CPU PART-E - Page B - 6</i>	<i>3G, WLAN, BT - Page B - 20</i>	
<i>DDR3 SO-DIMM 1 - Page B - 7</i>	<i>USB PORT &amp; USB CHARGER - Page B - 21</i>	
<i>DDR3 SO-DIMM 2 - Page B - 8</i>	<i>CONN, CCD, LED - Page B - 22</i>	
<i>IDT CLOCK - Page B - 9</i>	<i>PWR VDD3, VDD5V, SYS15V - Page B - 23</i>	
<i>Tigerpoint PART-A-B - Page B - 10</i>	<i>PWR SW, 3V, 5V, 3VS, 5VS, 1.5VS - Page B - 24</i>	
<i>Tigerpoint PART-C - Page B - 11</i>	<i>PWR 1.05VS - Page B - 25</i>	
<i>Tigerpoint PART-D - Page B - 12</i>	<i>PWR 1.5V, 0.75V - Page B - 26</i>	
<i>Tigerpoint PART-E-F - Page B - 13</i>	<i>PWR VCORE - Page B - 27</i>	
<i>LVDS, INVERTER - Page B - 14</i>	<i>PWR AC_IN, CHARGE - Page B - 28</i>	
<i>CRT, HDMI - Page B - 15</i>	<i>CLICK BOARD - Page B - 29</i>	

*Table B - 1*  
**Schematic  
Diagrams**

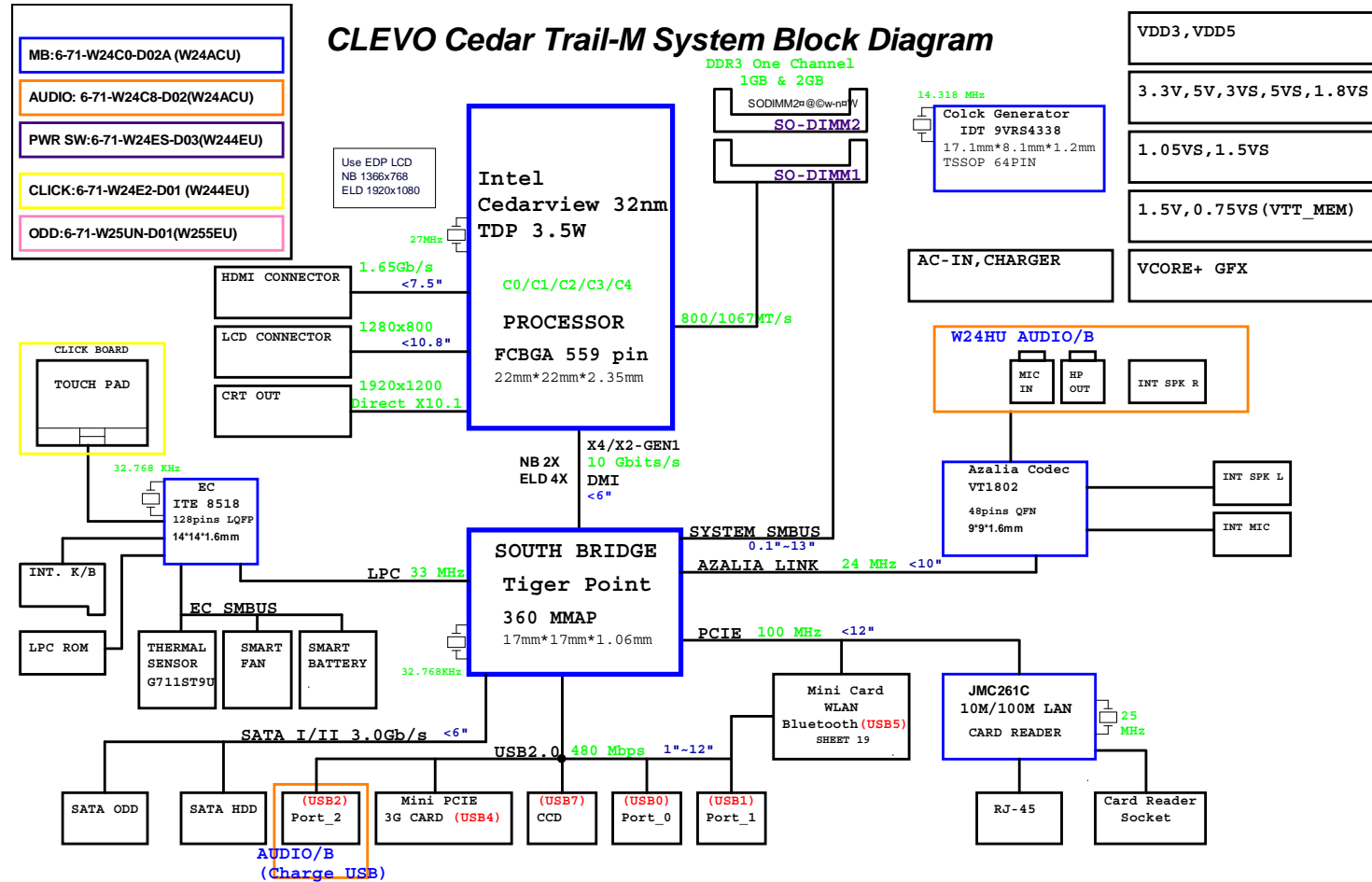


### Version Note

The schematic diagrams in this chapter are based upon version 6-7P-W24C5-003. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

# System Block Diagram

Sheet 1 of 31  
System Block  
Diagram

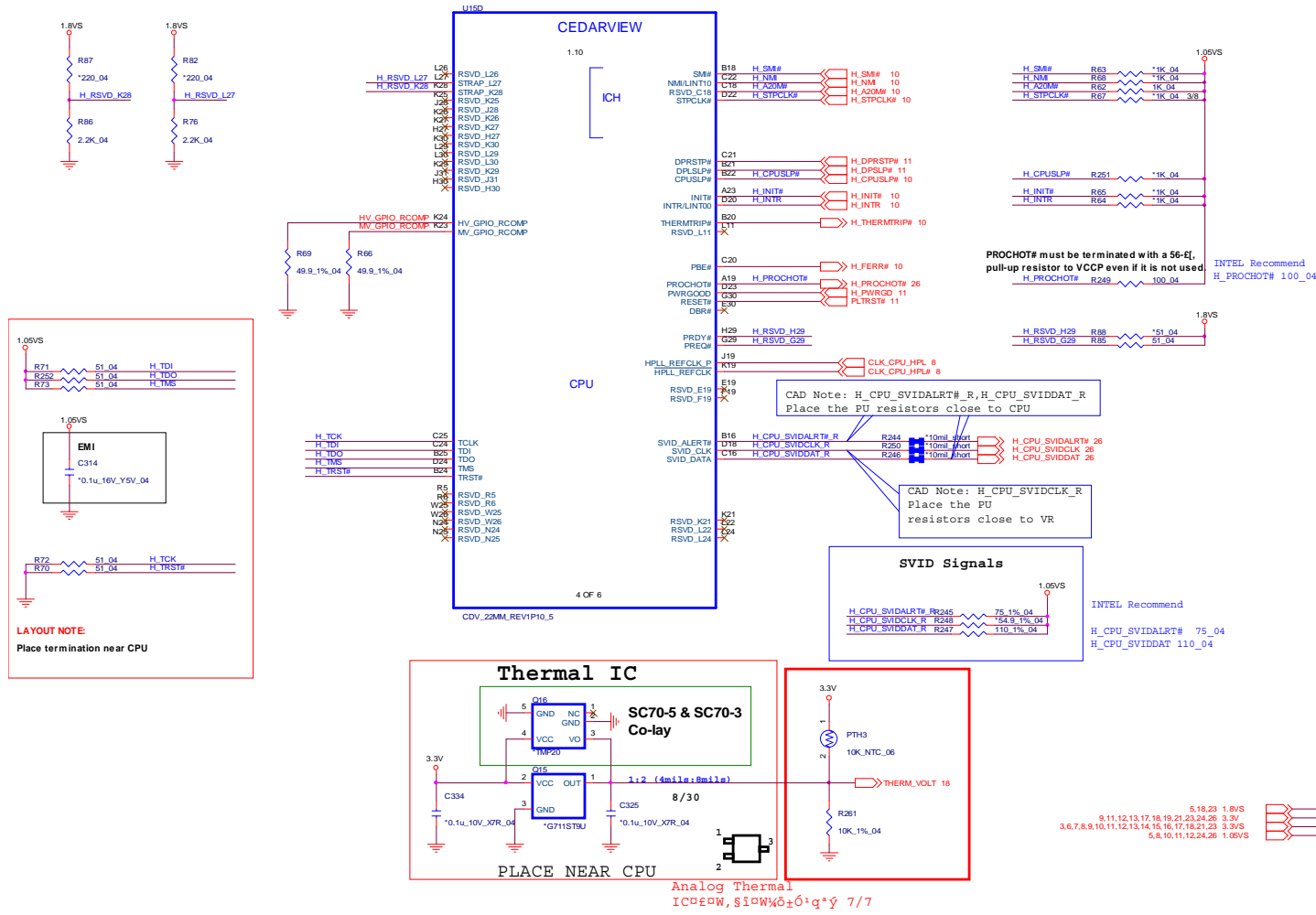




# CEDARVIEW CPU PART-D

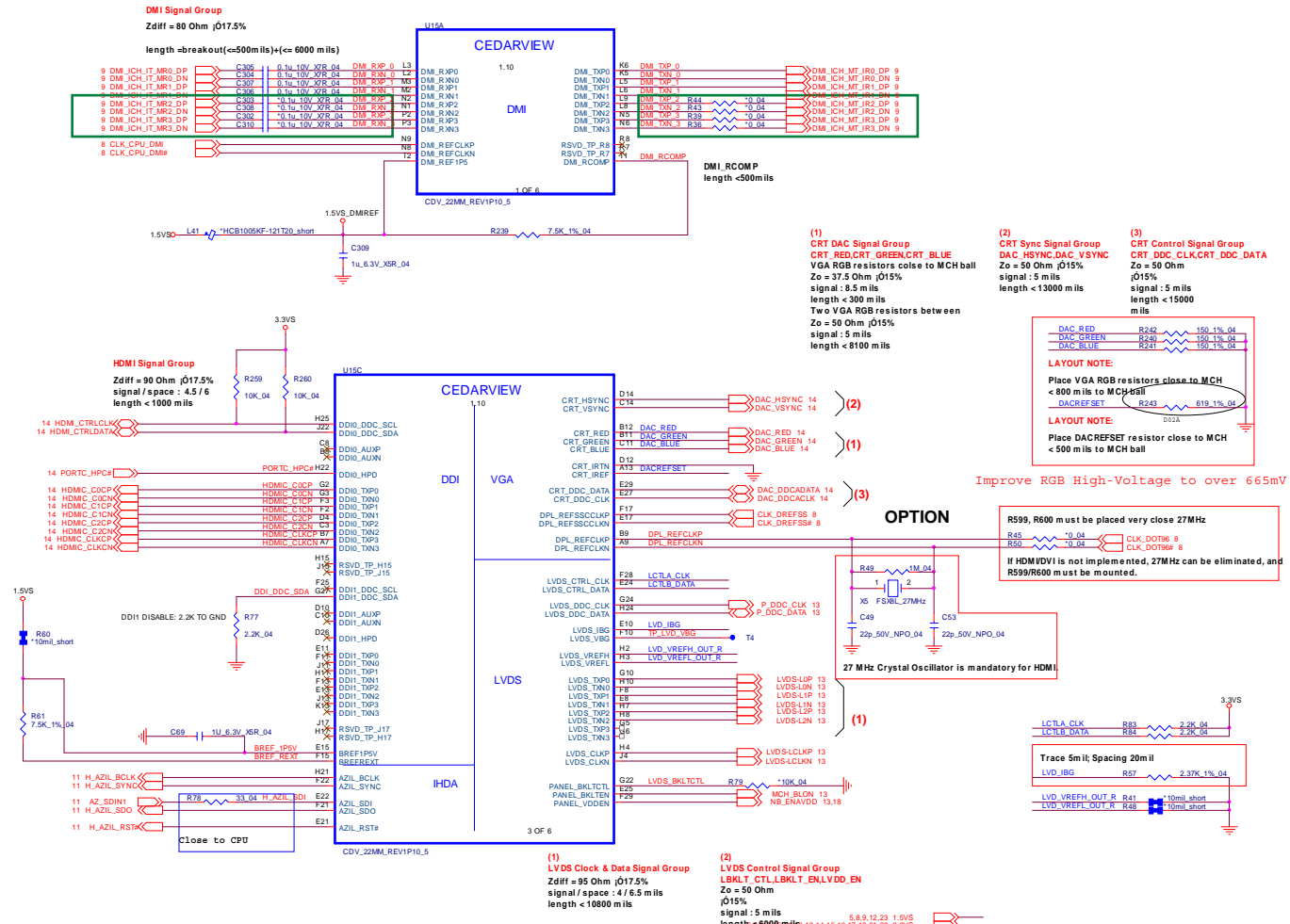
Sheet 2 of 31  
CEDARVIEW CPU  
PART-D

B.Schematic Diagrams



# CEDARVIEW CPU PART-A-C-F

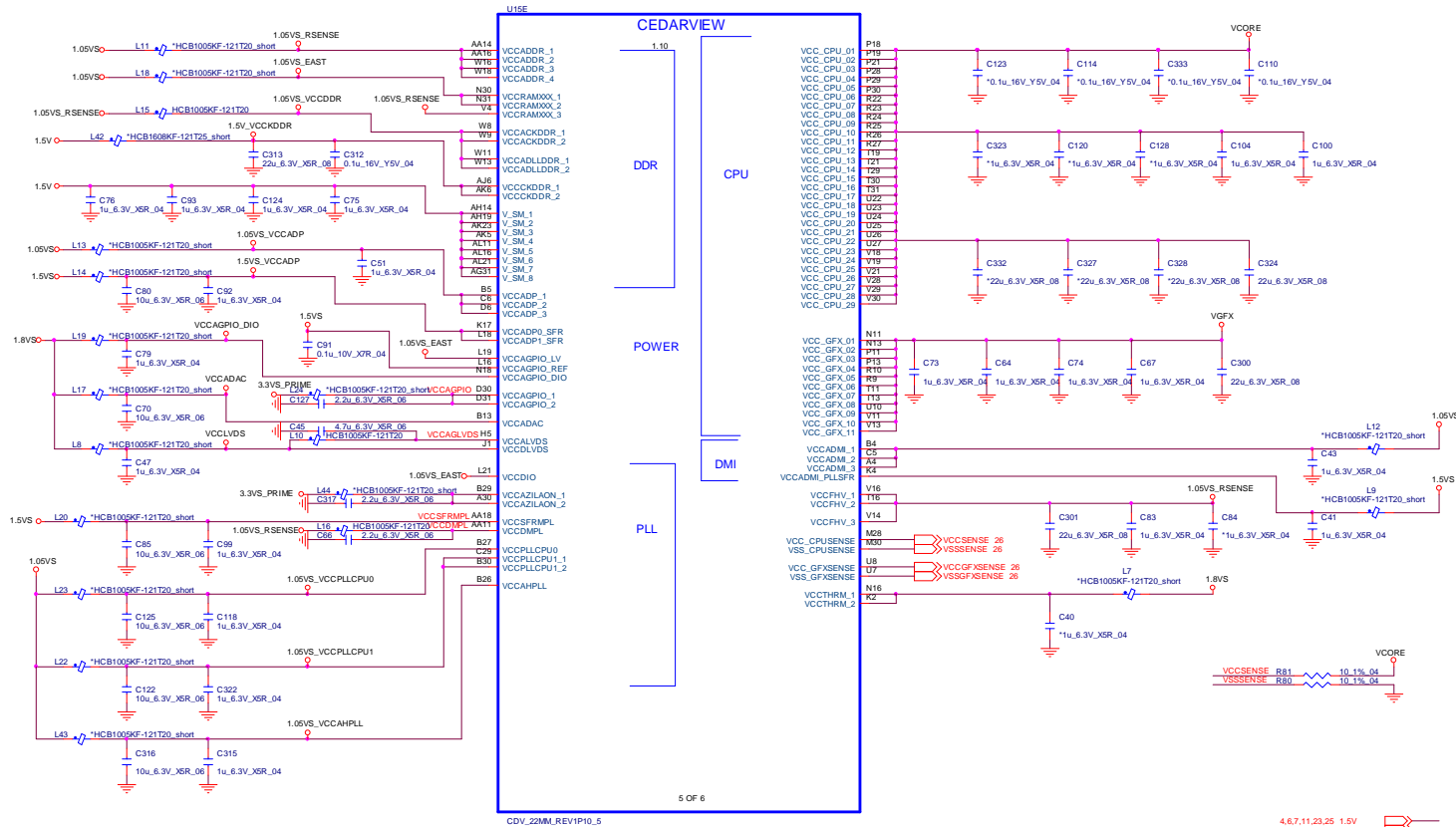
Sheet 3 of 31  
CEDARVIEW CPU  
PART-A-C-F





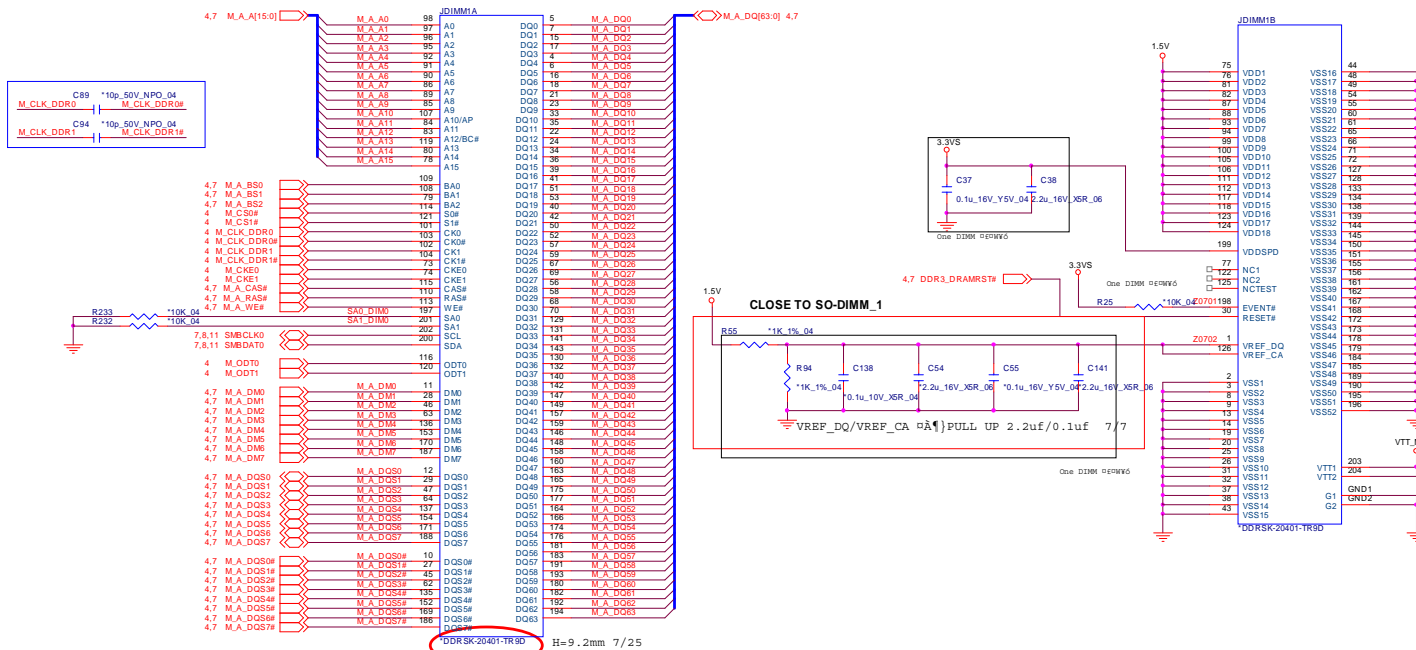
# CEDARVIEW CPU PART-E

Sheet 5 of 31  
CEDARVIEW CPU  
PART-E



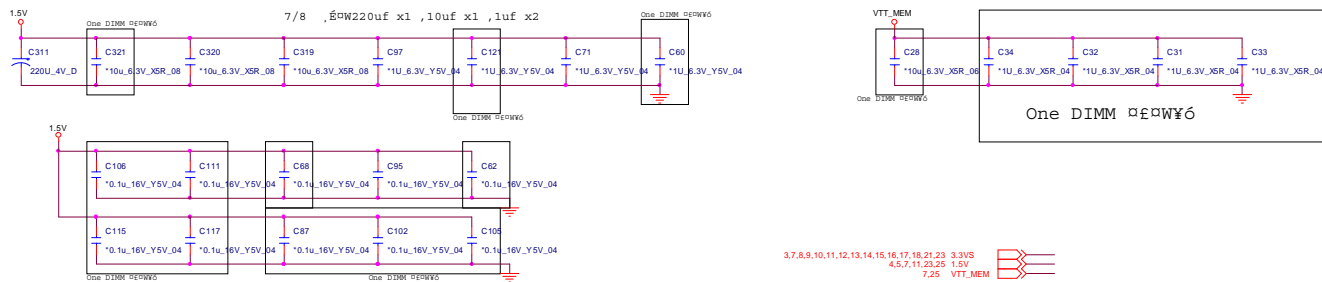
# DDR3 SO-DIMM 1

## SO-DIMM 1 CLOSE TO CPU



Sheet 6 of 31  
DDR3 SO-DIMM 1

B.Schematic Diagrams

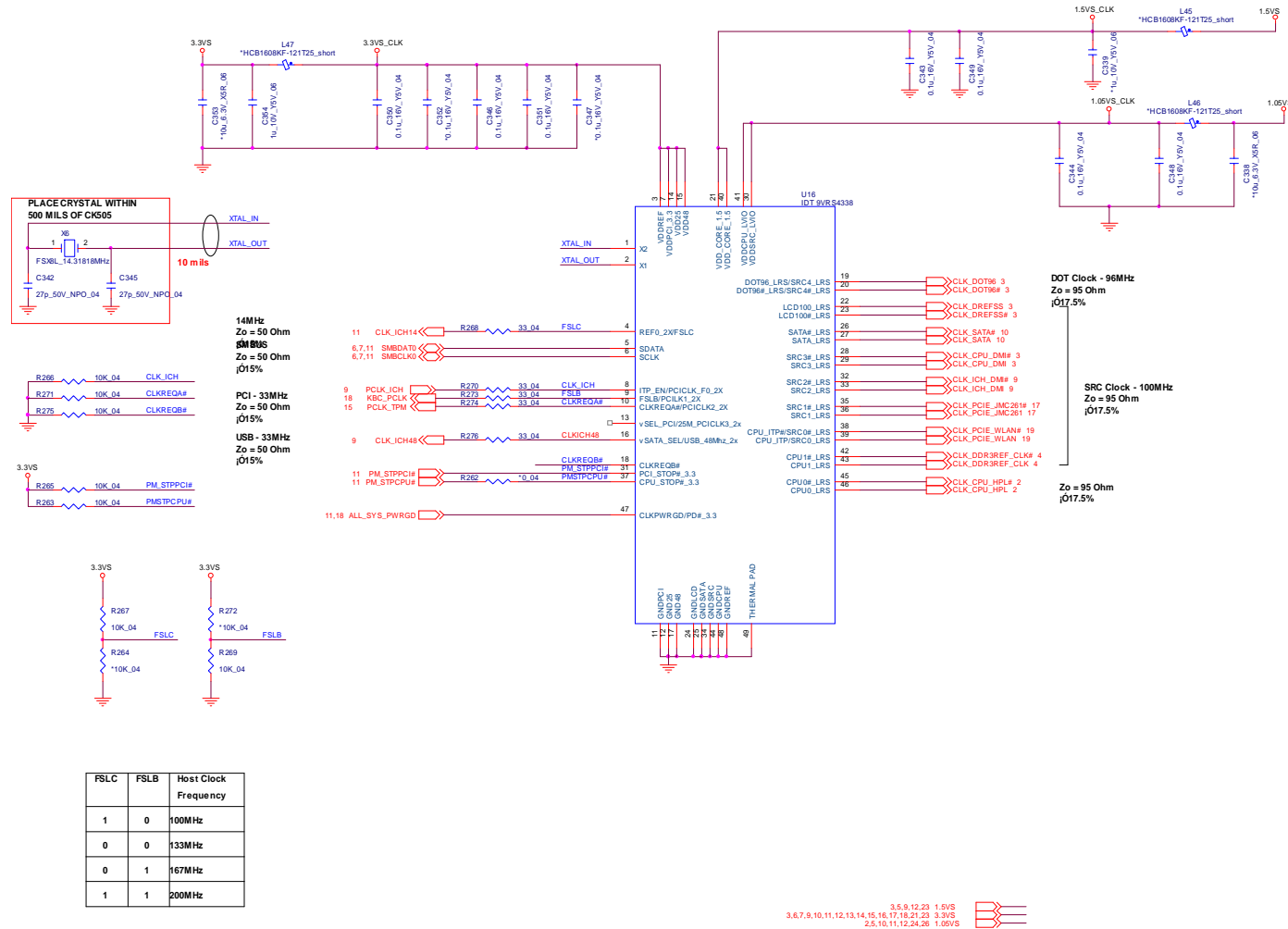


# DDR3 SO-DIMM 2

## SO-DIMM 2



# IDT CLOCK



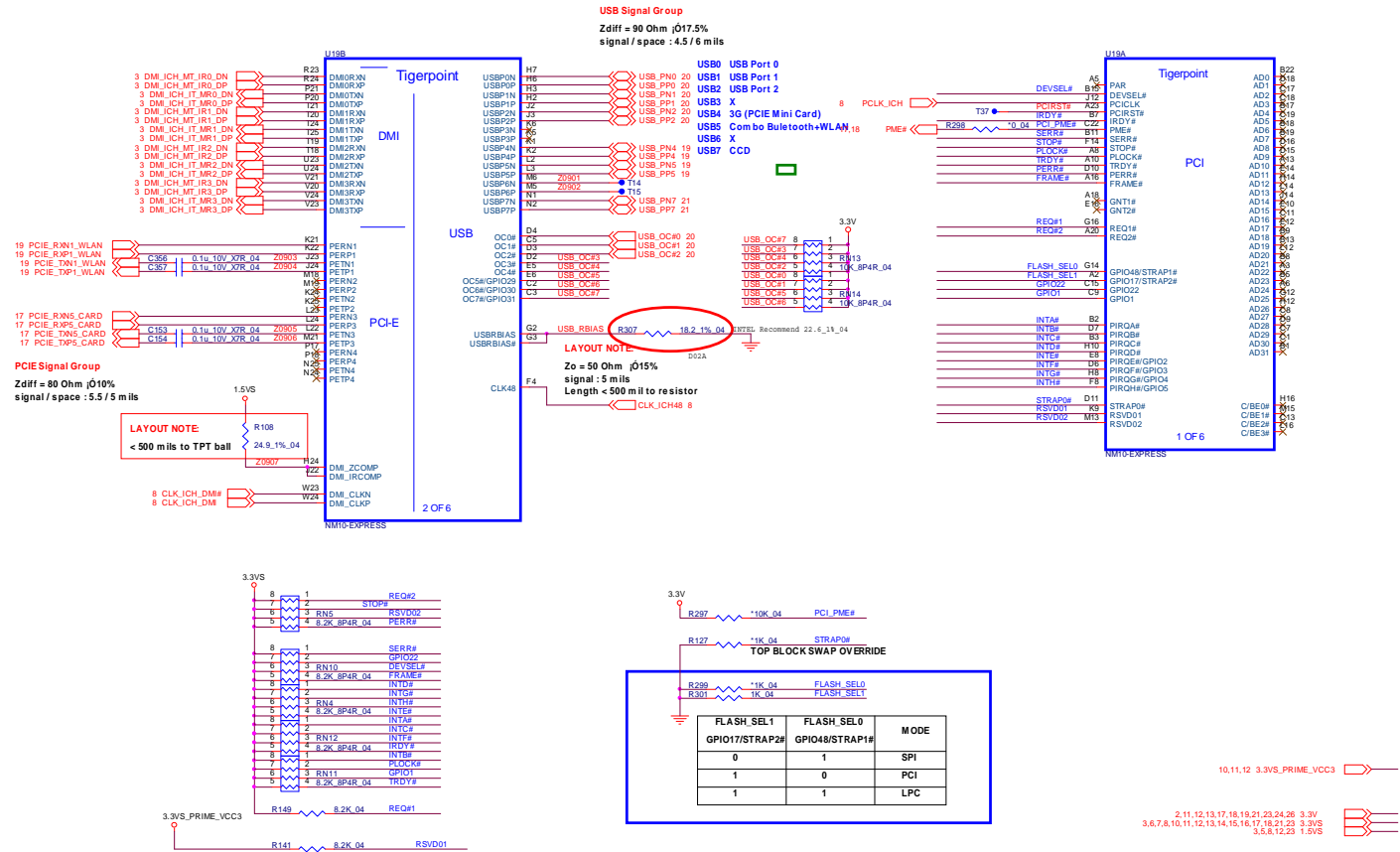
Sheet 8 of 31  
IDT CLOCK

# Schematic Diagrams

## Tigerpoint PART-A-B

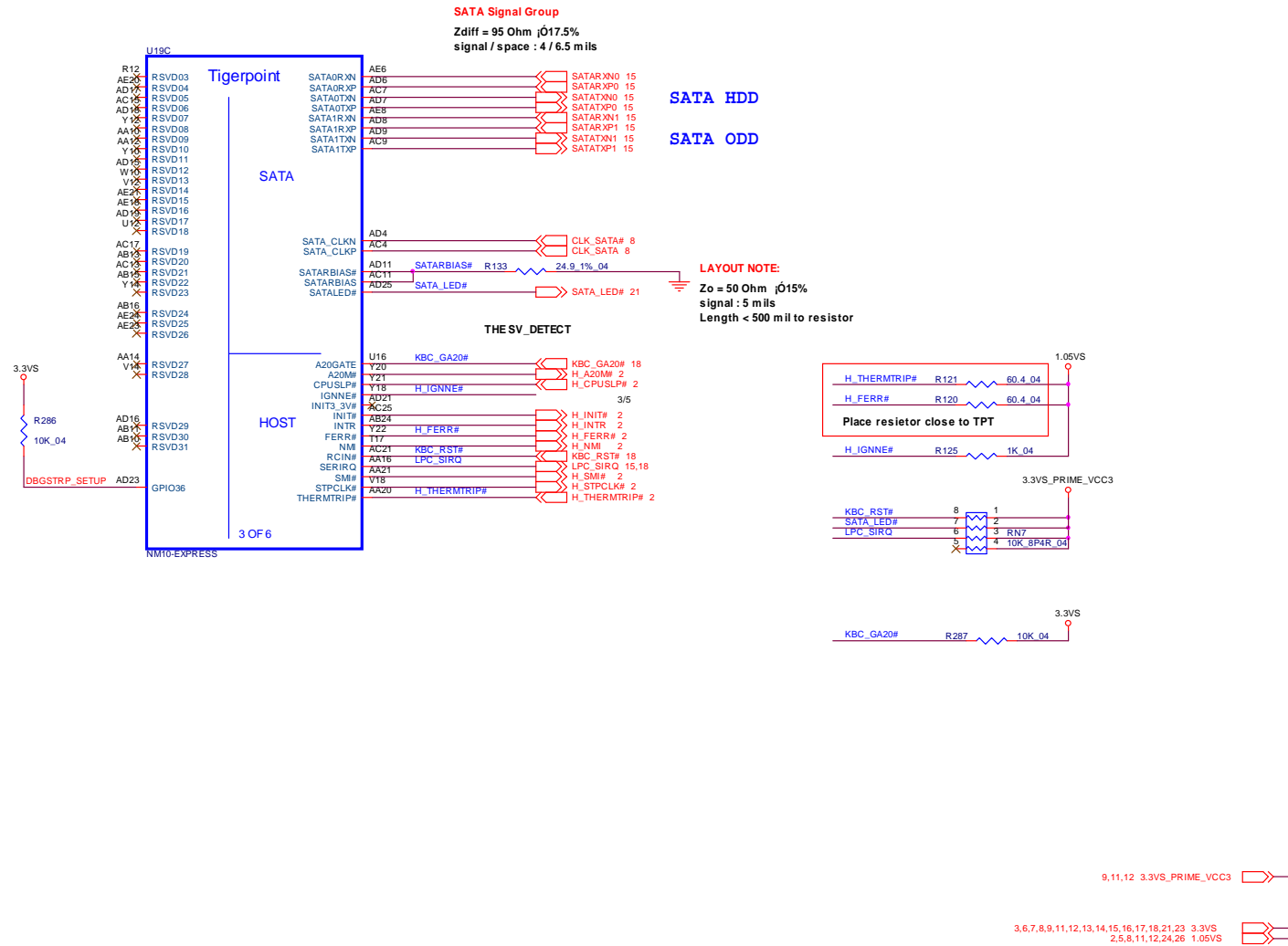
B.Schematic Diagrams

Sheet 9 of 31  
Tigerpoint PART-A-B





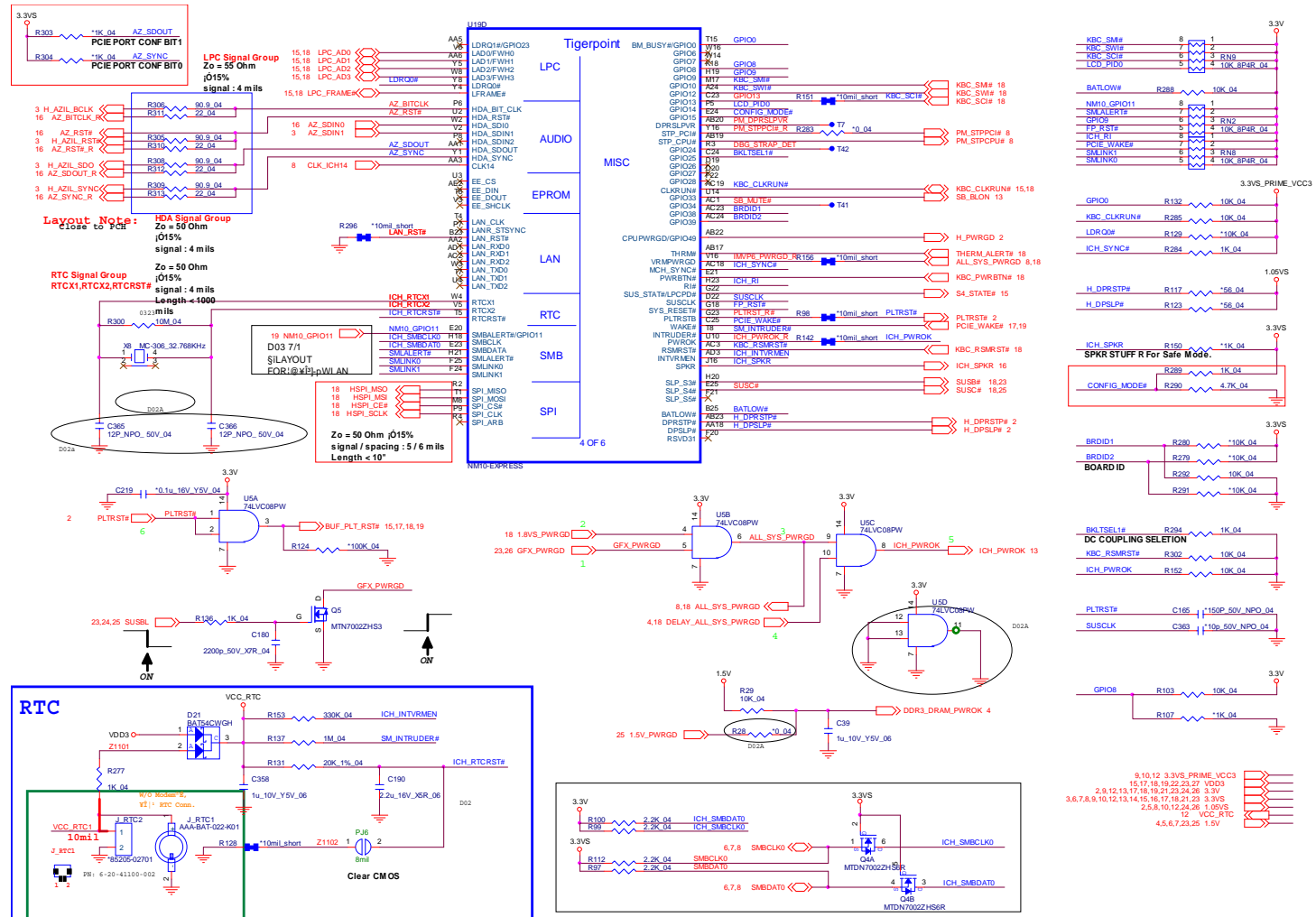
# Tigerpoint PART-C



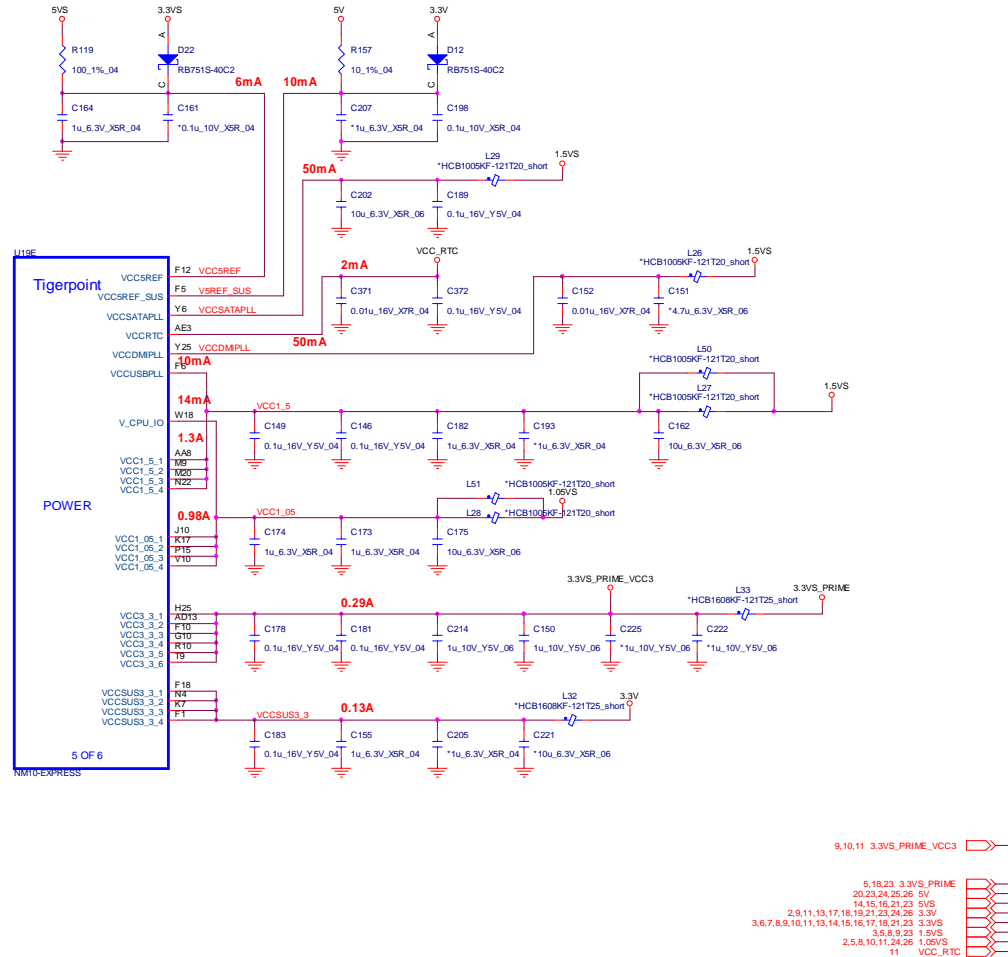
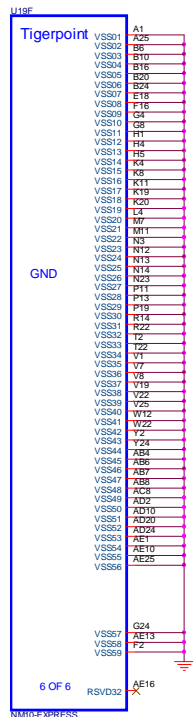
Sheet 10 of 31  
 Tigerpoint PART-C

# Tigerpoint PART-D

Sheet 11 of 31  
Tigerpoint PART-D



# Tigerpoint PART-E-F

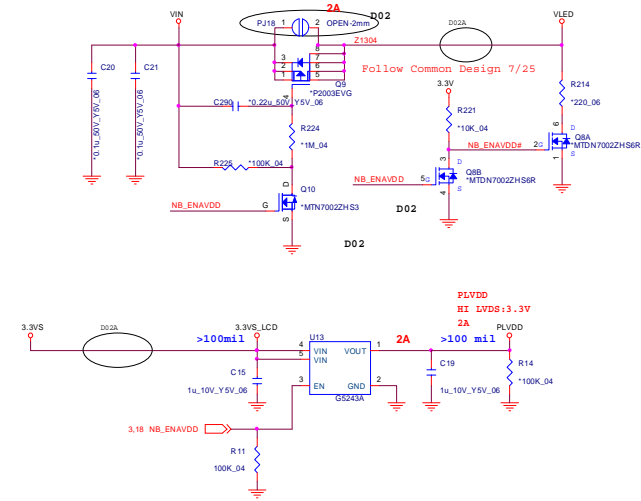
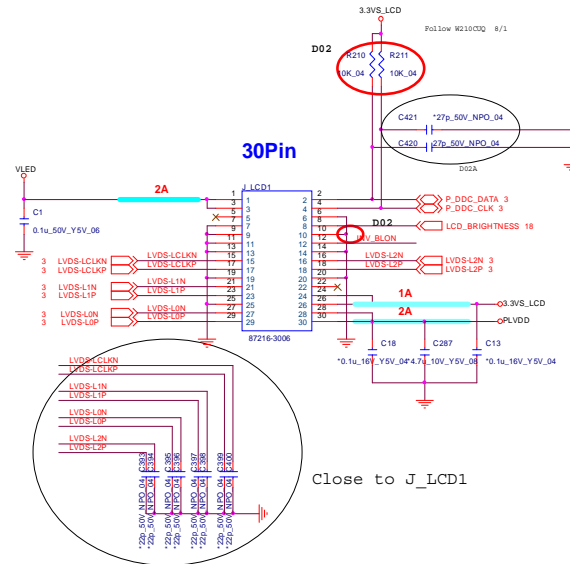


Sheet 12 of 31  
Tigerpoint PART-E-F

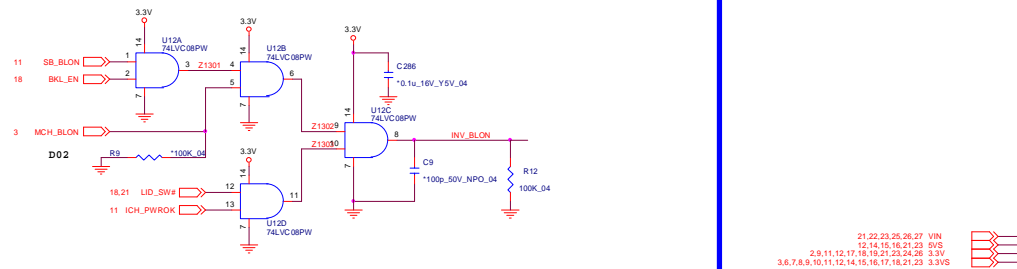
B.Schematic Diagrams

# LVDS, INVERTER

## PANEL CONNECTOR

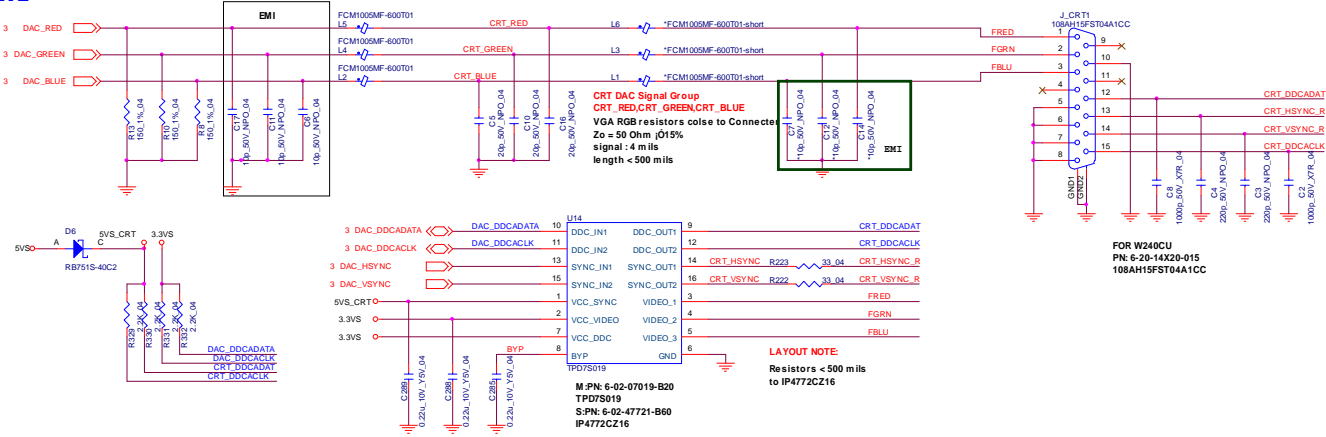


## BACKLIGHT ON CONTROL

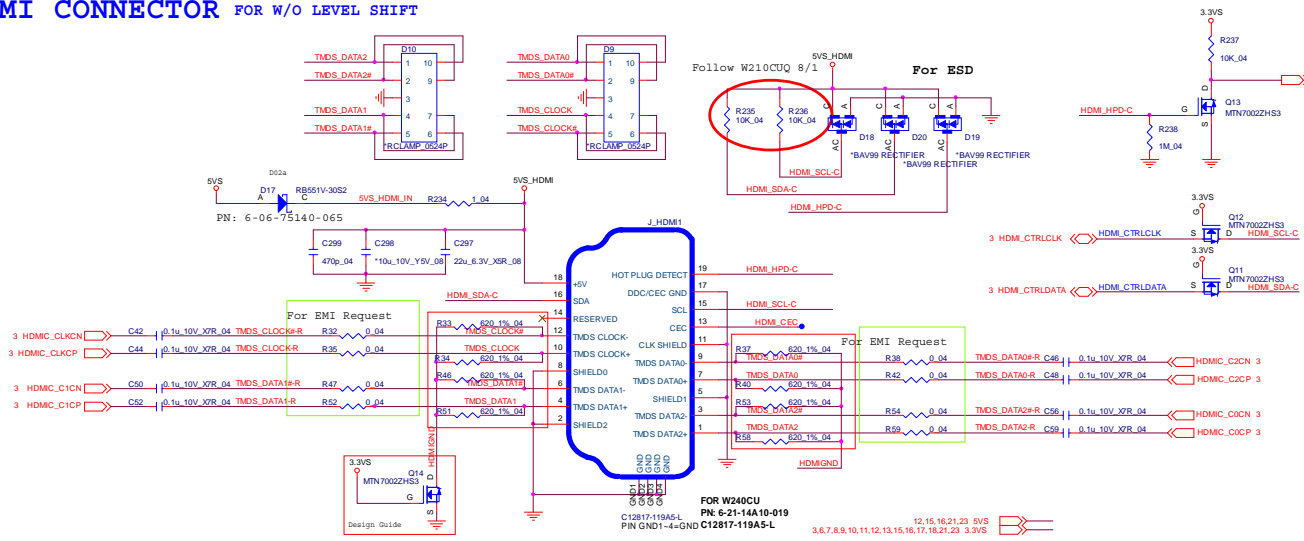


# CRT, HDMI

## CRT

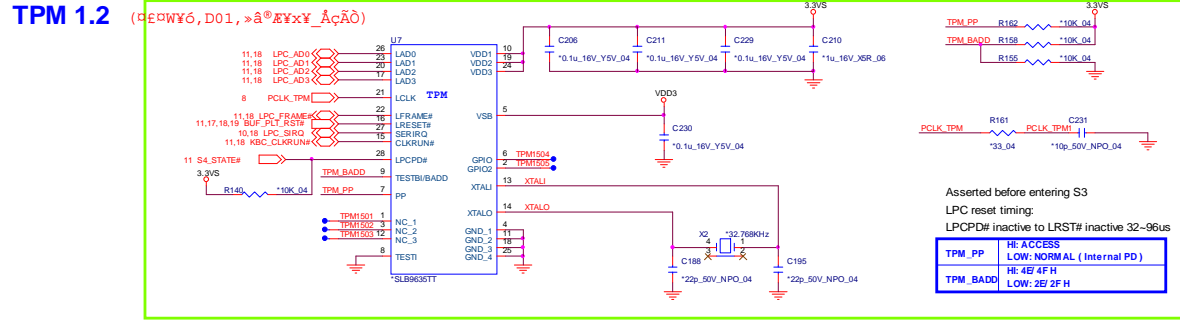


## HDMI CONNECTOR FOR W/O LEVEL SHIFT



Sheet 14 of 31  
 CRT, HDMI

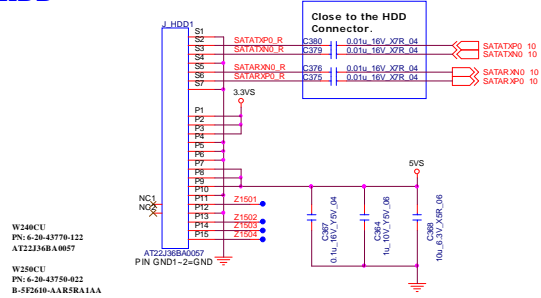
# TPM, SATA HDD, ODD, FAN



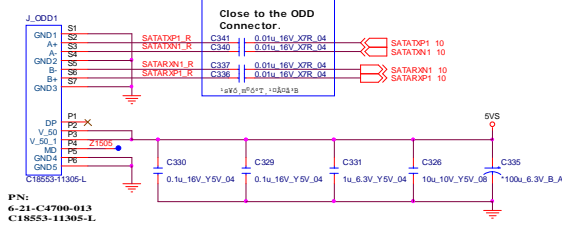
Sheet 15 of 31  
TPM, SATA HDD,  
ODD, FAN

B.Schematic Diagrams

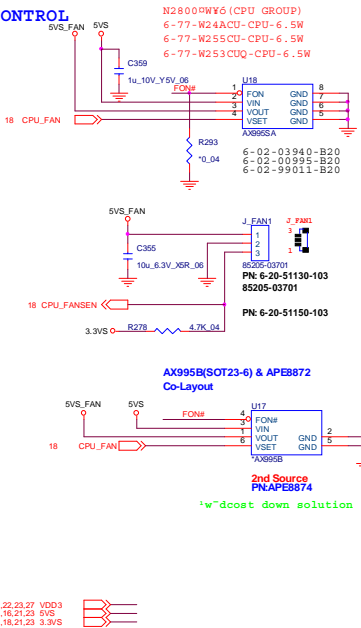
## SATA HDD



## SATA ODD

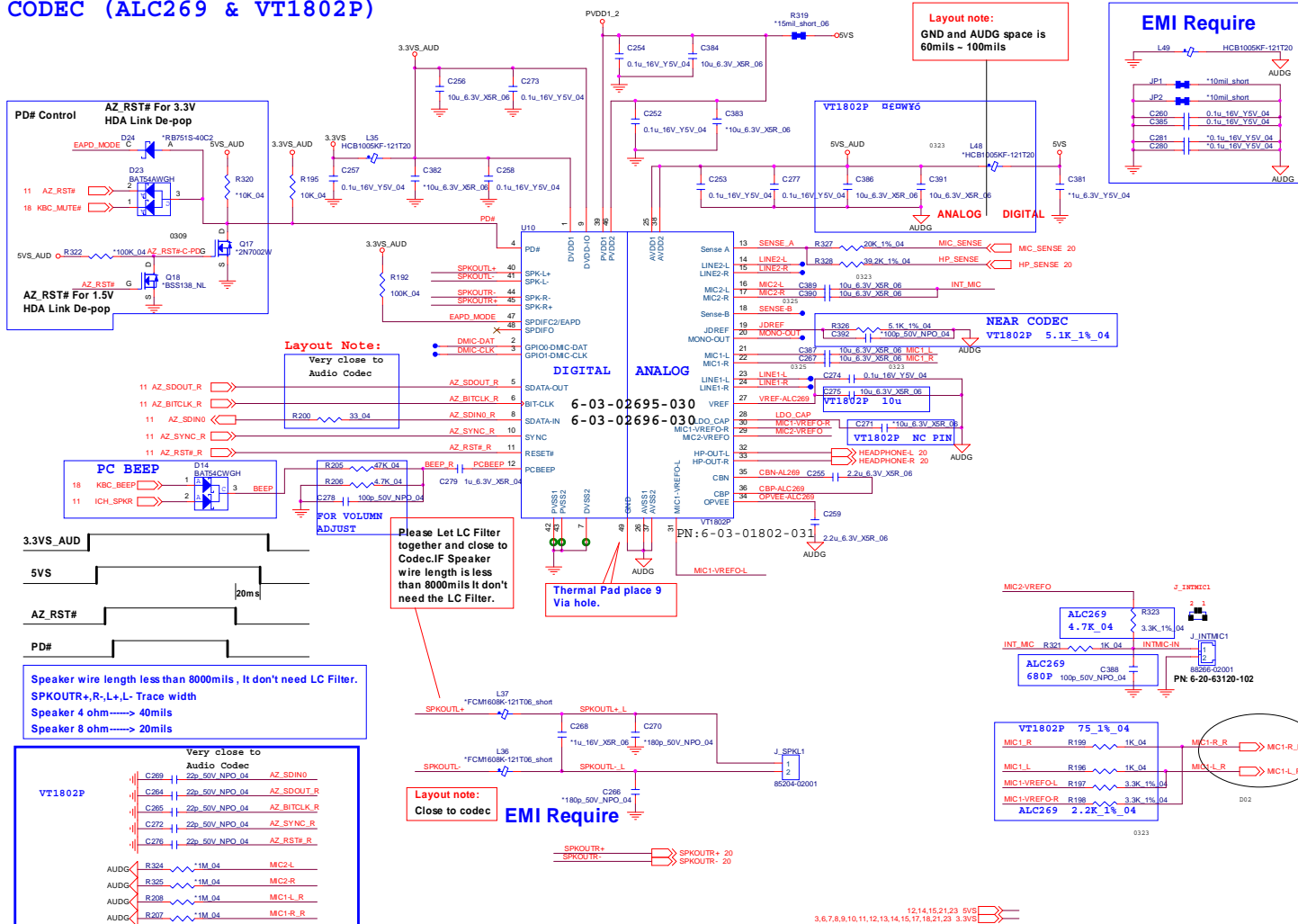


## FAN CONTROL



# AUDIO CODEC VT1802P

CODEC (ALC269 & VT1802P)

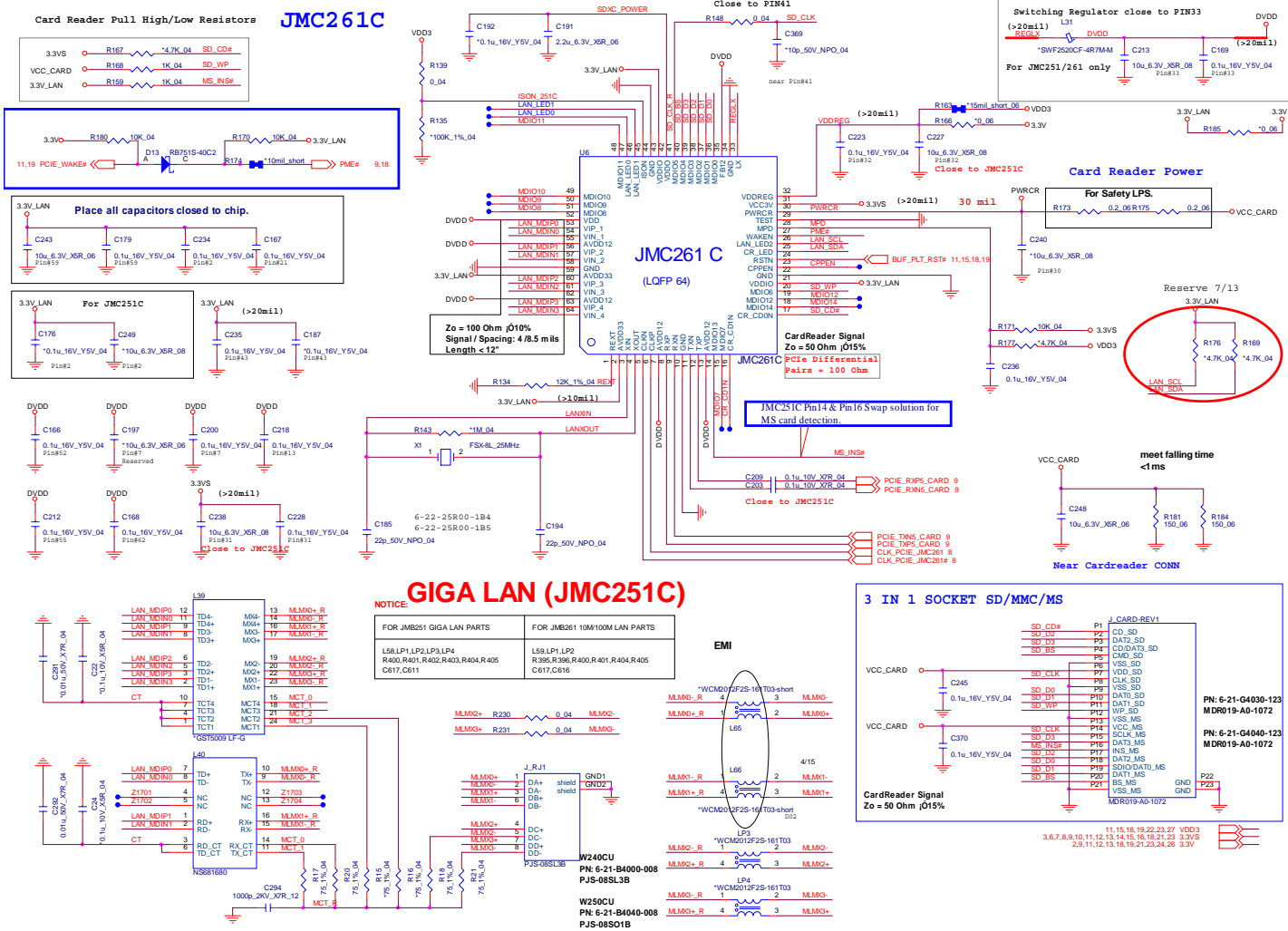


Sheet 16 of 31  
 AUDIO CODEC  
 VT1802P

B.Schematic Diagrams

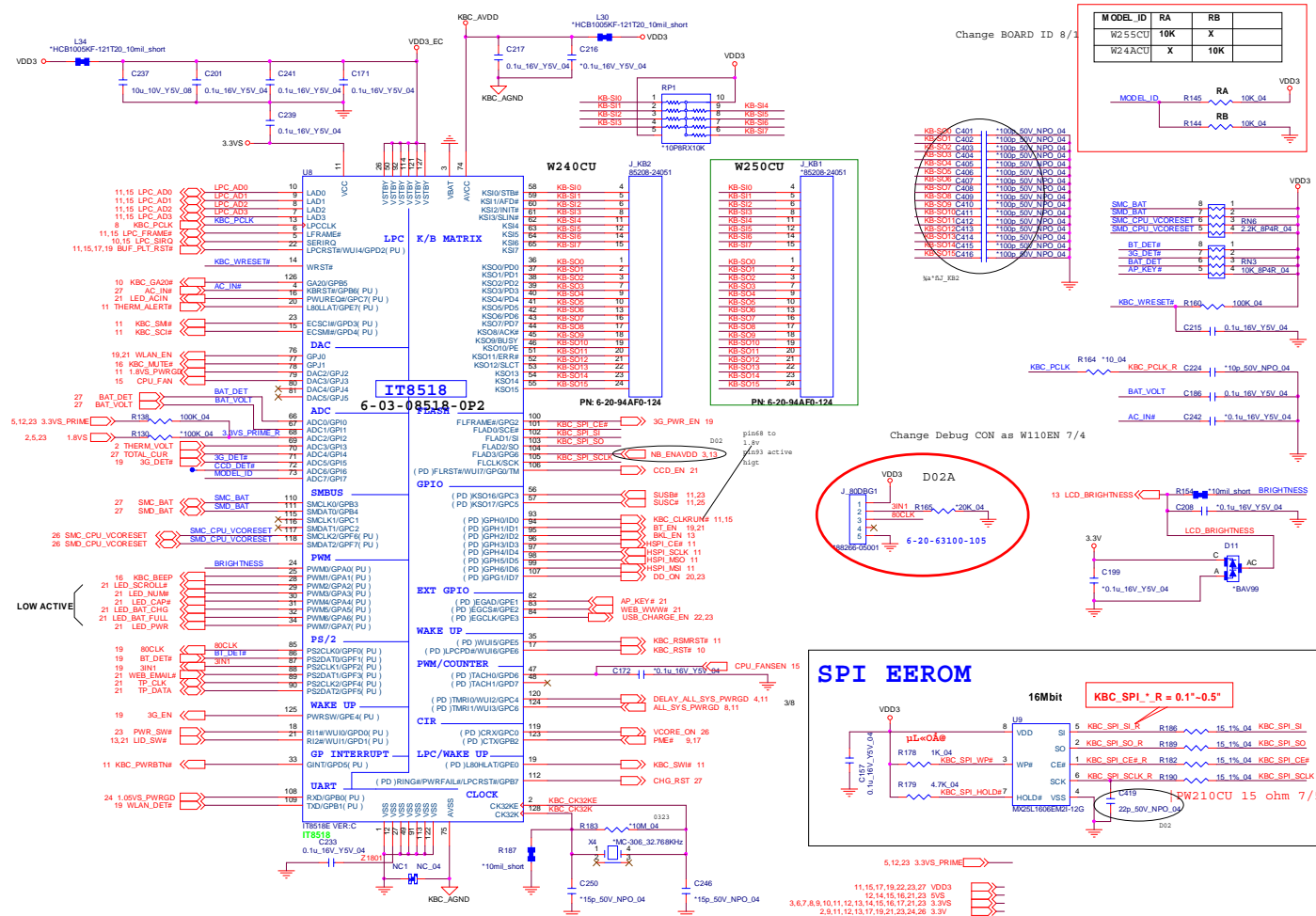
# CARD READER JMB261C

Sheet 17 of 31  
CARD READER  
JMB261C





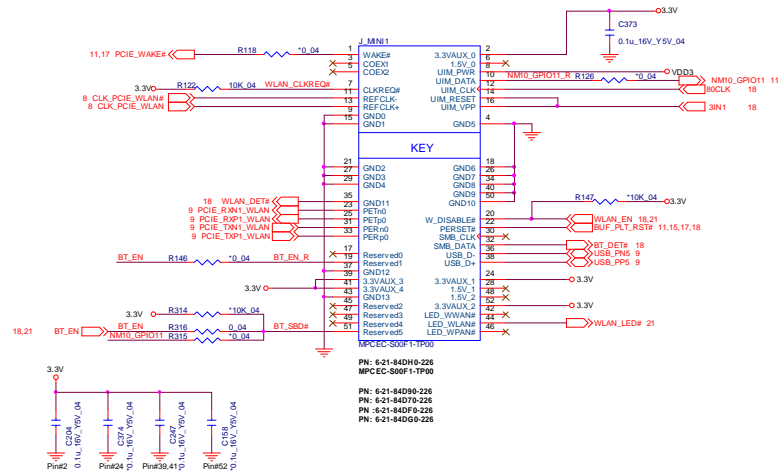
# KBC-ITE IT8518E, SPI



Sheet 18 of 31  
KBC-ITE IT8518E,  
SPI

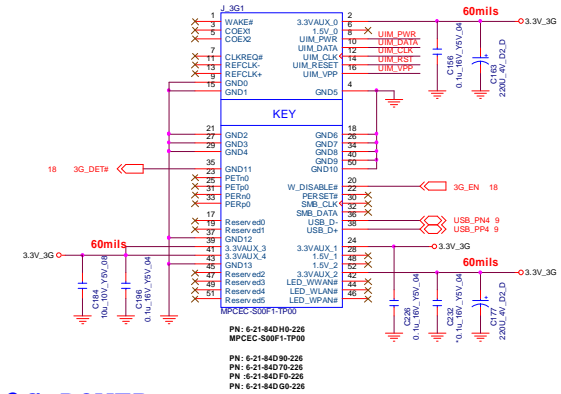
# 3G, WLAN, BT

## MINI-PCIE CARD AND Debug Port

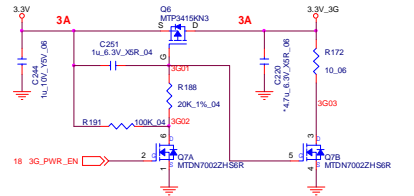


Sheet 19 of 31  
3G, WLAN, BT

## 3G CARD



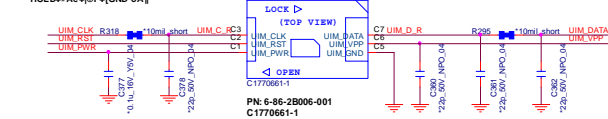
## 3G POWER



## SIM CONN

### LAYOUT NOTE:

- SIM#500\*H1%uM(E10mI)
- 600\*H1%uM(E10mI)
- SIM

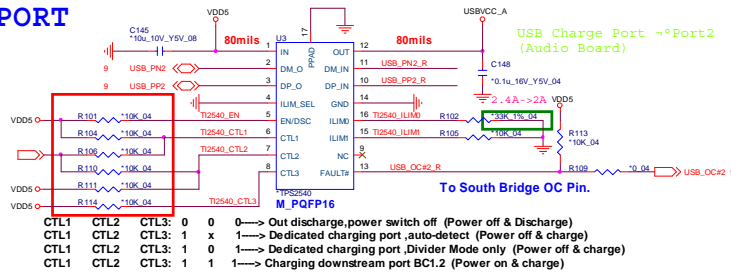


2,8,11,12,13,17,18,22,23,27 VDD3  
3.3V

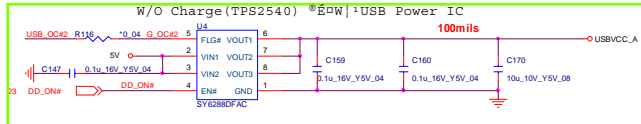
# USB PORT & USB CHARGER

## USB Charge PORT USB\_PORT\_2

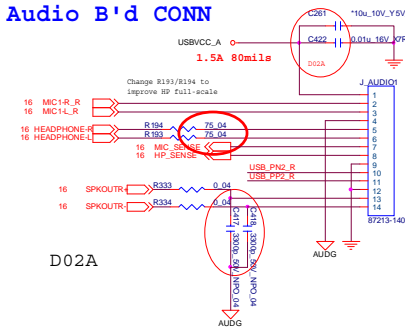
MODEL	FUNCTION
AC/DC	H Charge
Battery	L Discharge



W/O Charge (TPS2540) \*EPW|+USB Power IC

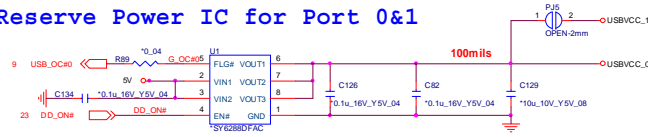


## Audio B'd CONN

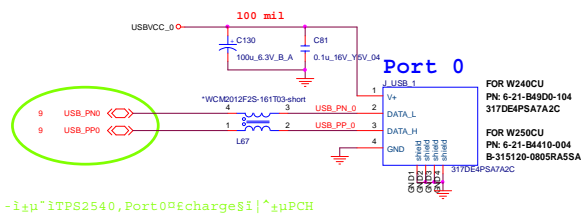
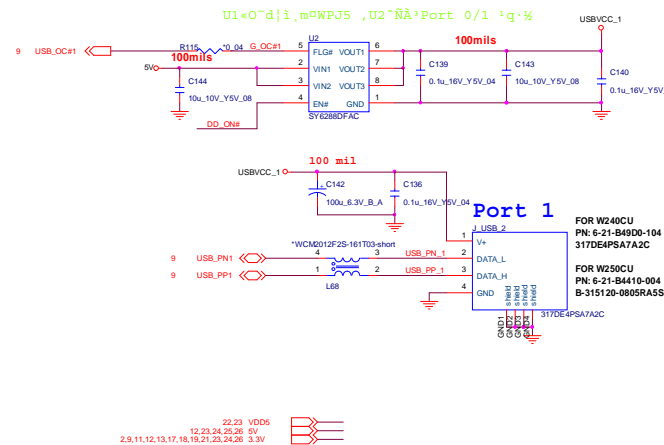


Sheet 20 of 31  
USB PORT & USB  
CHARGER

## Reserve Power IC for Port 0&1



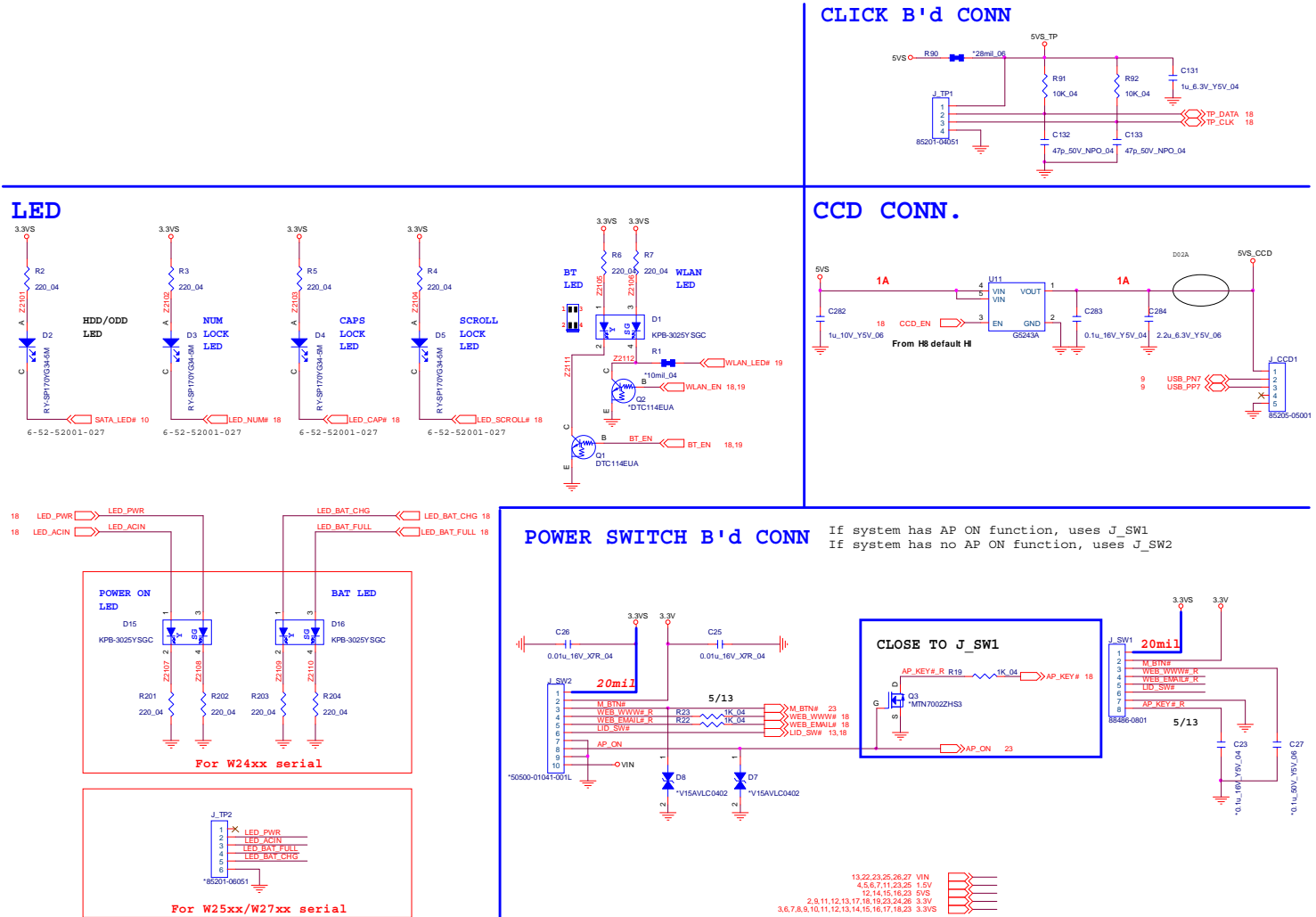
## USB PORT\_0&1



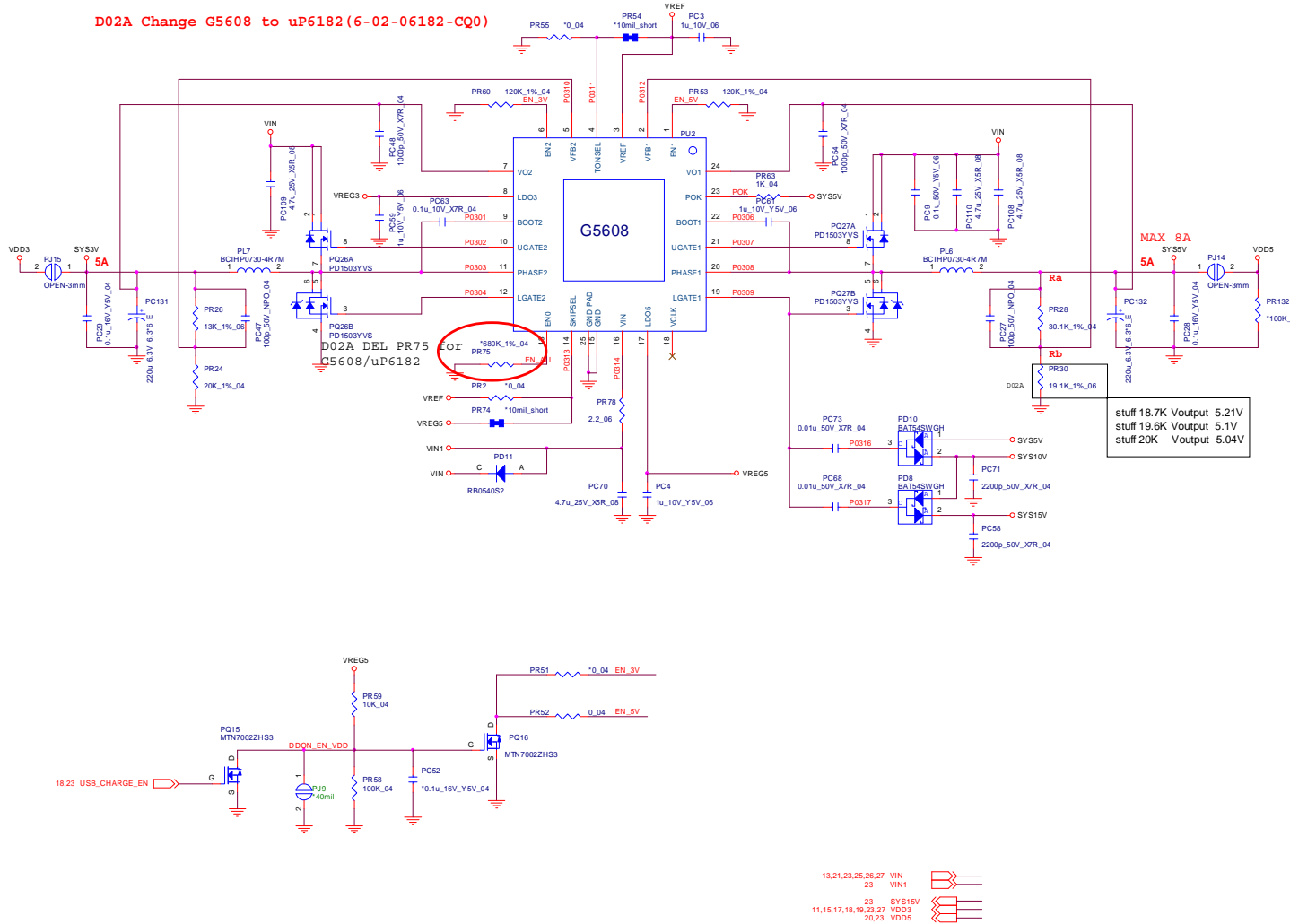
-i+μ+TPS2540,Port0+ChargeSi|+μPCH

# CONN, CCD, LED

Sheet 21 of 31  
CONN, CCD, LED



# PWR VDD3, VDD5V, SYS15V



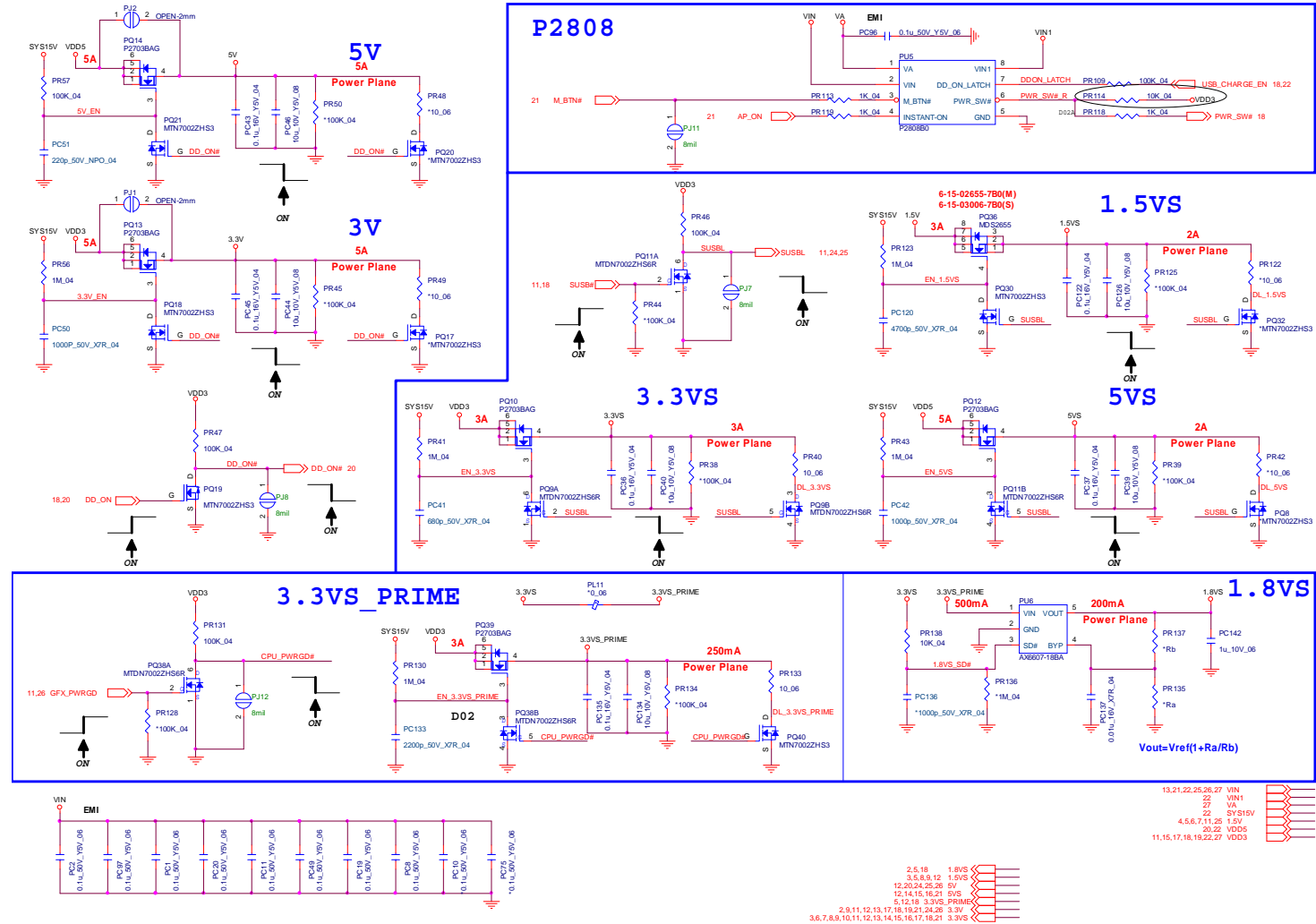
Sheet 22 of 31  
PWR VDD3,  
VDD5V, SYS15V

# Schematic Diagrams

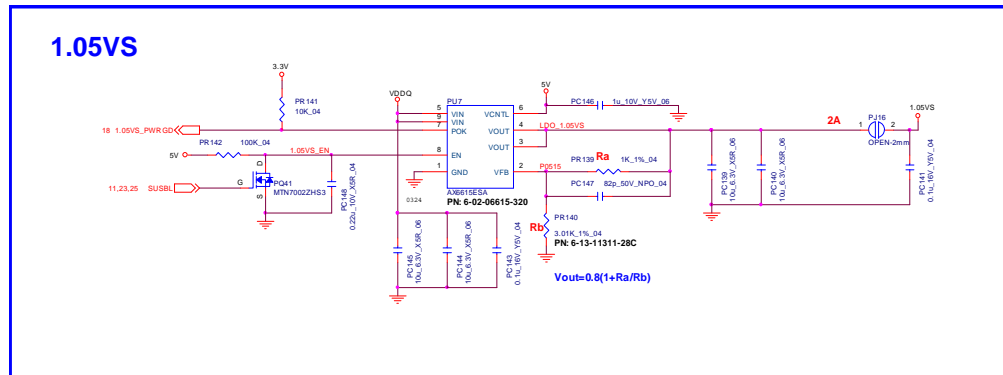
## PWR SW, 3V, 5V, 3VS, 5VS, 1.5VS

B.Schematic Diagrams

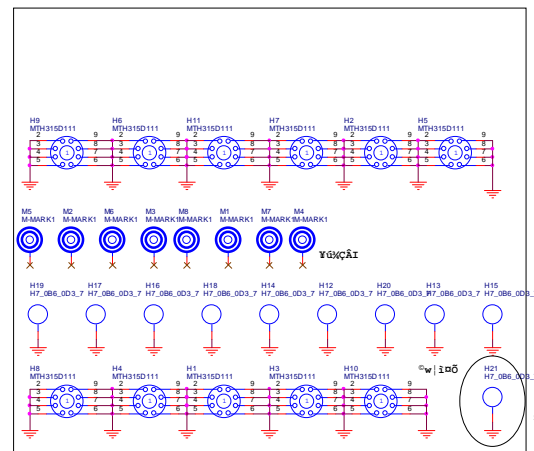
Sheet 23 of 31  
PWR SW, 3V, 5V,  
3VS, 5VS, 1.5VS



# PWR 1.05VS



Sheet 24 of 31  
PWR 1.05VS

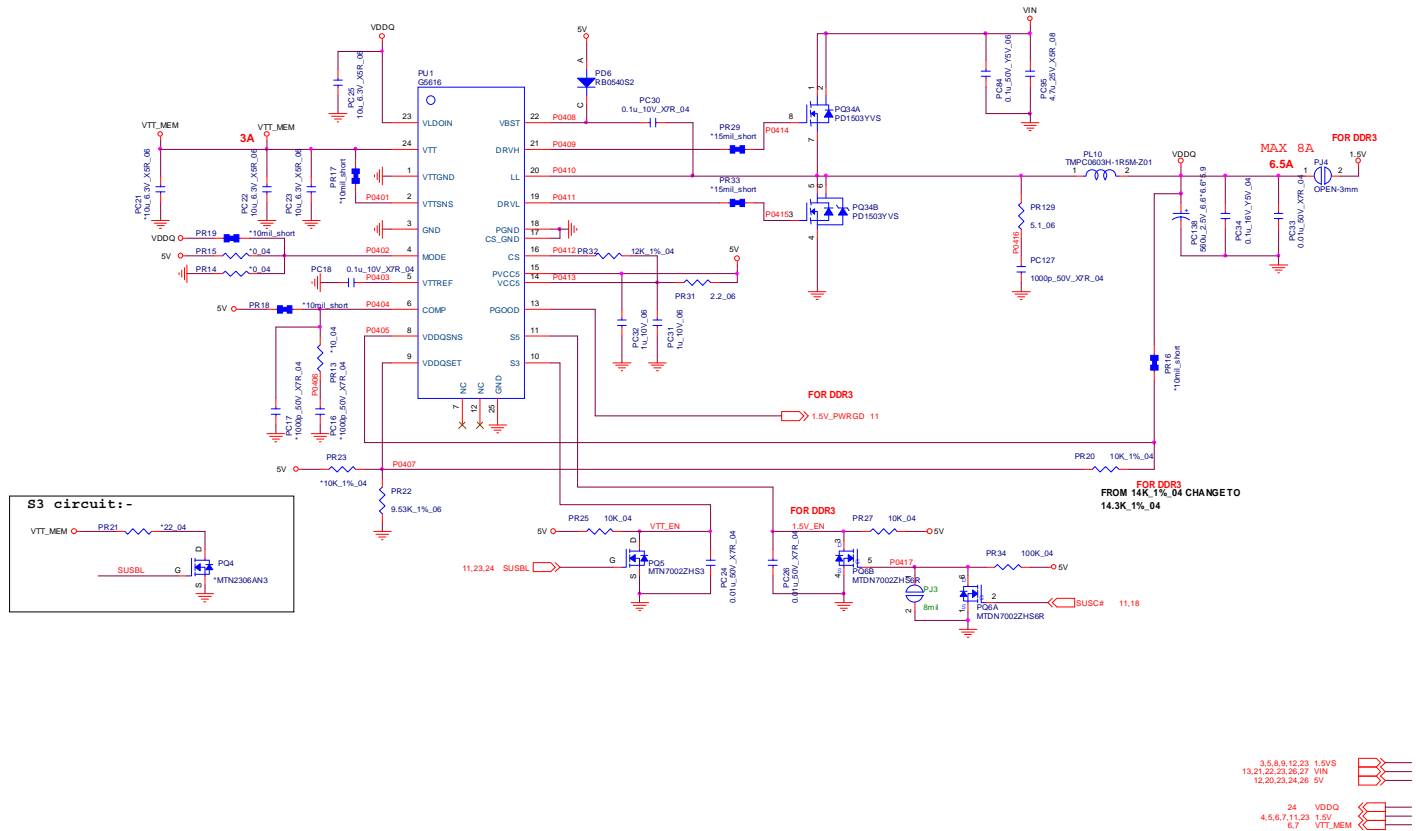


- 12,20,23,25,26 5V
- 2,9,11,12,13,17,18,19,21,23,26 3.3V
- 25 VDDQ
- 2,5,8,10,11,12,26 1.05VS

# Schematic Diagrams

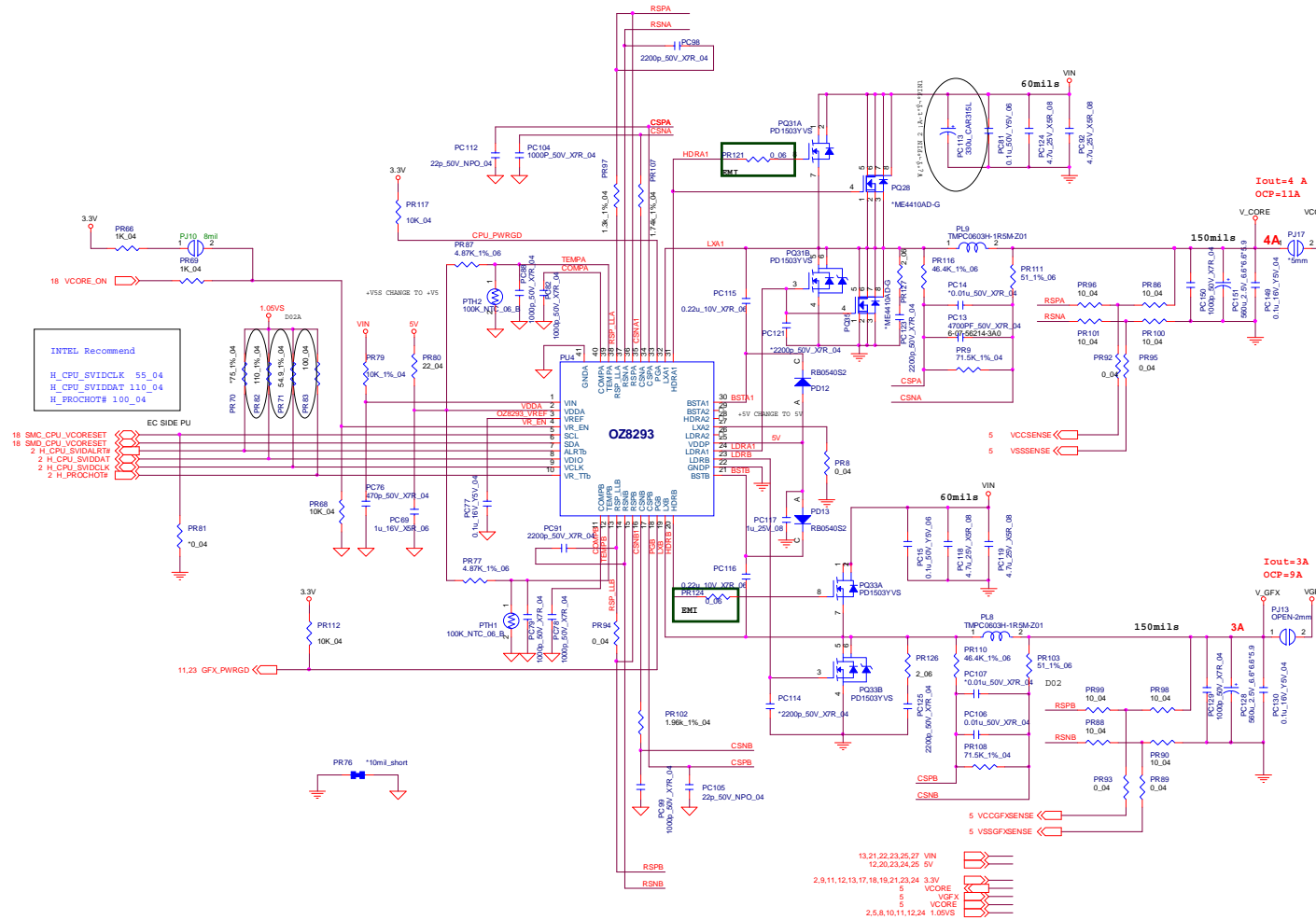
## PWR 1.5V, 0.75V

Sheet 25 of 31  
PWR 1.5V, 0.75V





# PWR VCORE



Sheet 26 of 31  
PWR VCORE

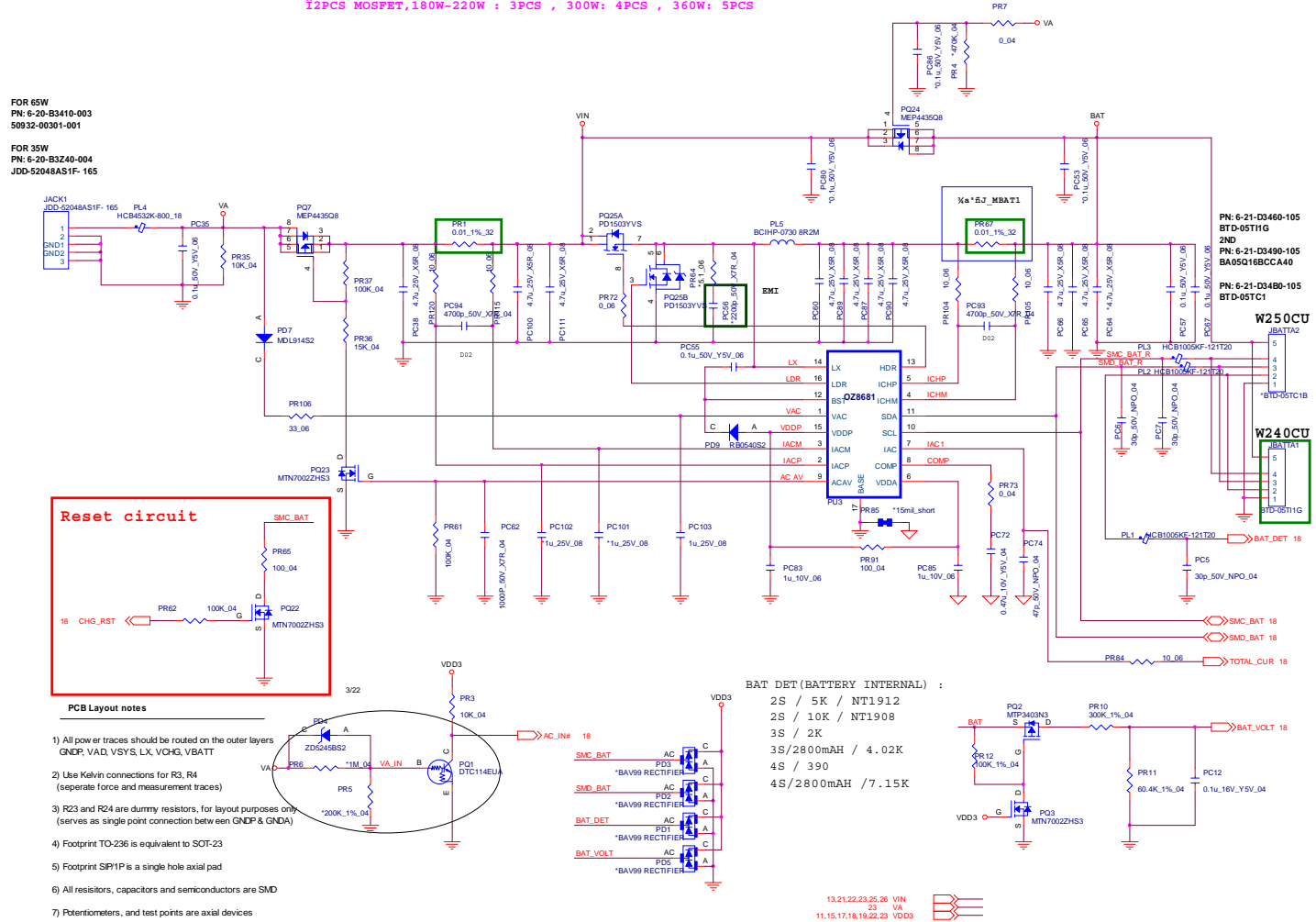
# PWR AC\_IN, CHARGE

Sheet 27 of 31  
PWR AC\_IN,  
CHARGE

12PCS MOSFET,180W-220W : 3PCS , 300W: 4PCS , 360W: 5PCS

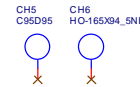
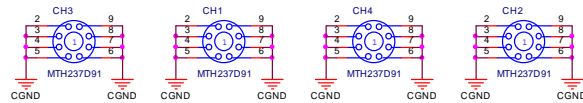
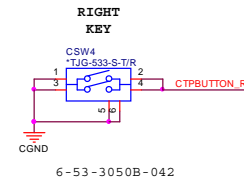
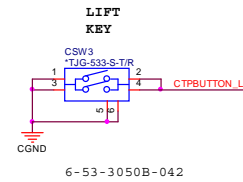
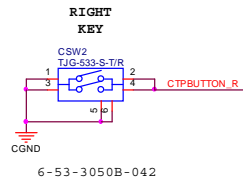
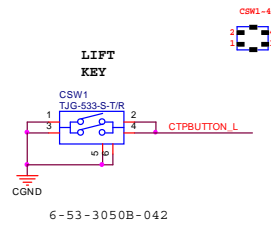
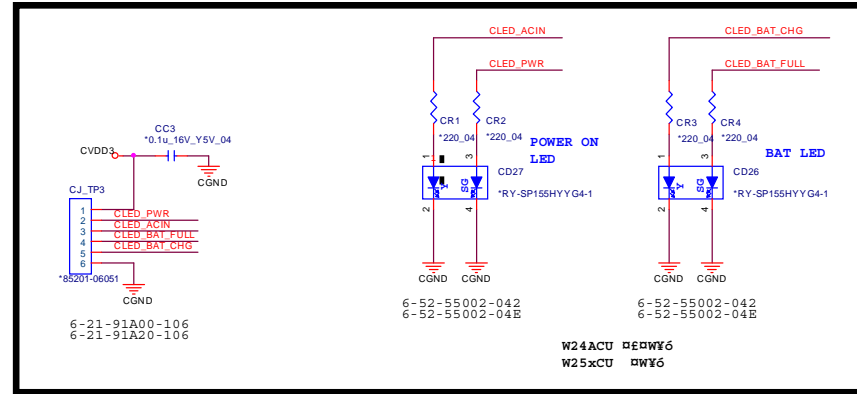
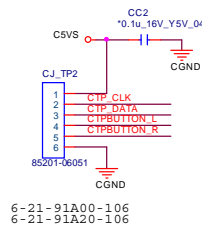
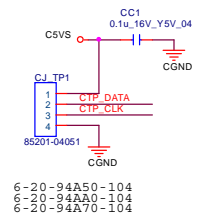
FOR 65W  
PN: 6-20-B3410-003  
50932-00301-001

FOR 35W  
PN: 6-20-B3240-004  
JDD-52048AS1F-165



# CLICK BOARD

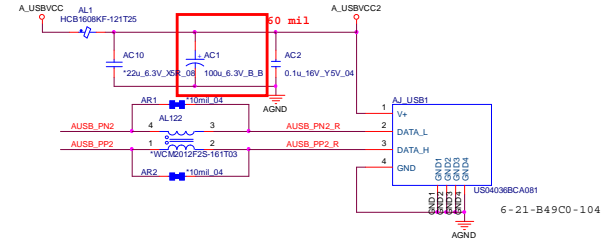
## CLICK BOARD



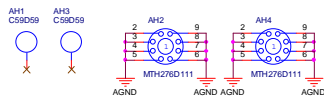
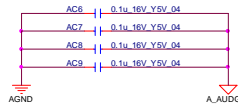
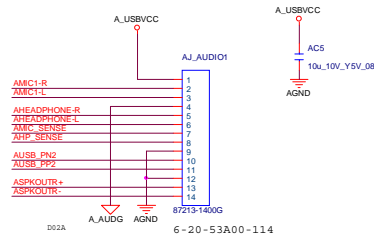
Sheet 28 of 31  
CLICK BOARD

# AUDIO BOARD/USB

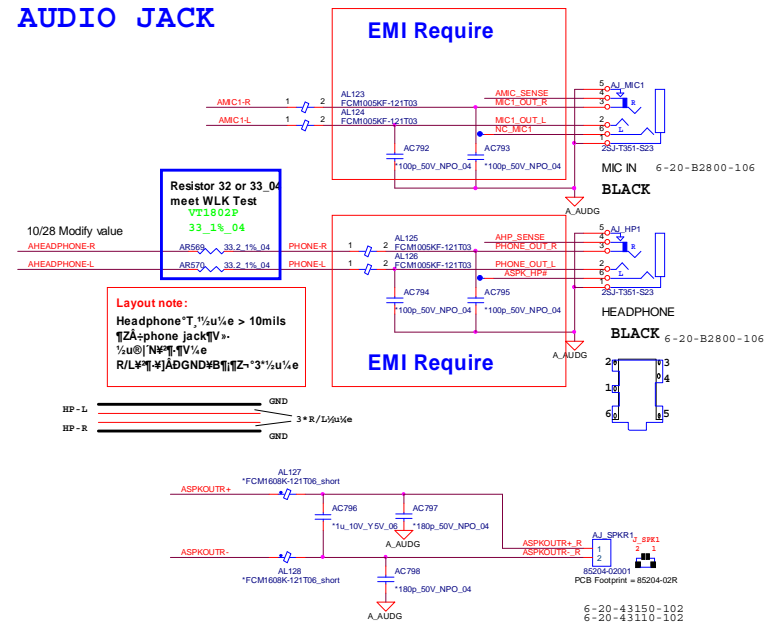
## USB PORT



## TO M/B



## AUDIO JACK



Resistor 32 or 33 Ohm  
meet WLK Test  
V1218 02P  
33.2 1% 04

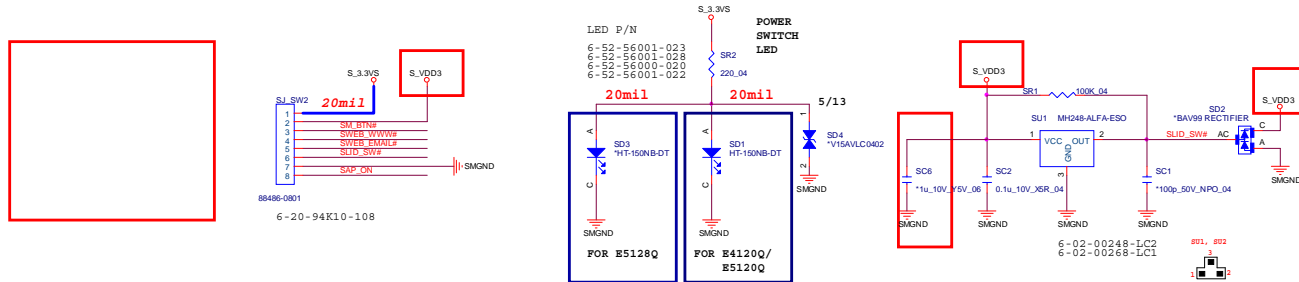
Layout note:  
Headphone jack V+ > 10mils  
Headphone jack V- > 10mils  
Headphone jack GND > 10mils

Sheet 29 of 31  
AUDIO BOARD/  
USB

B.Schematic Diagrams

# POWER SWITCH & LID BOARD

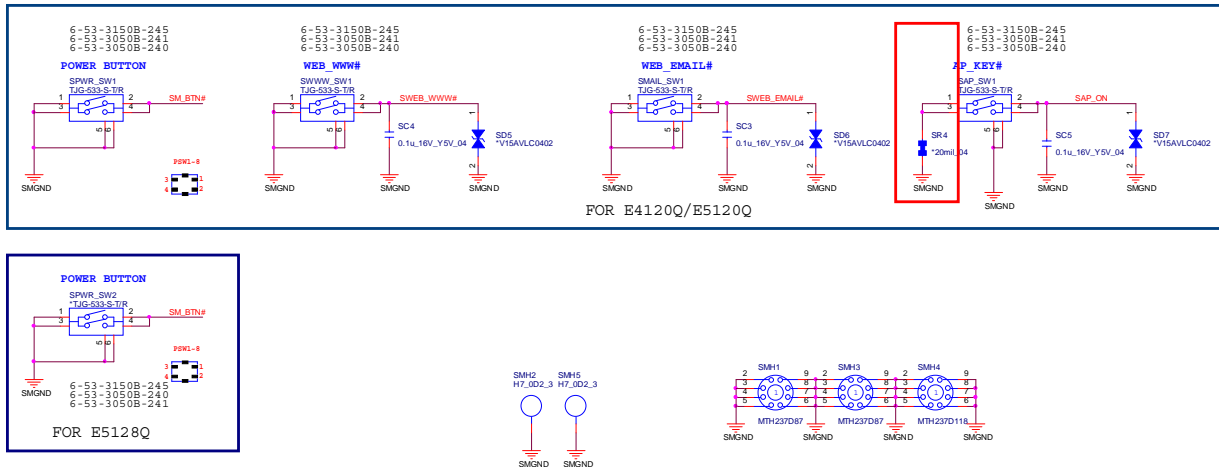
## POWER SW & LED & HOT KEY



Sheet 30 of 31  
 POWER SWITCH &  
 LID BOARD

B.Schematic Diagrams

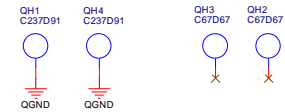
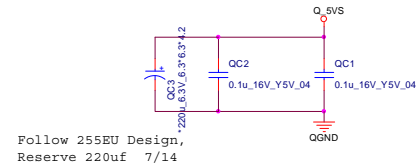
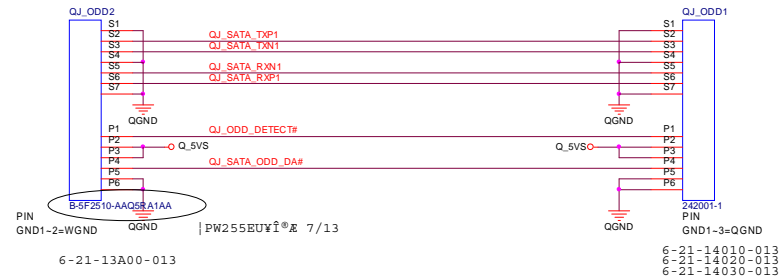
## HOT KEY



# EXTERNAL ODD BOARD

## ODD BOARD FOR E5120Q

Sheet 31 of 31  
EXTERNAL ODD  
BOARD



# 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](http://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](http://www.s-manuals.com)