

SERVICE MANUAL

W251BLQ / W253BLQ / W253BZQ / W258BZQ

notebook



Notebook Computer

W251BLQ / W253BLQ / W253BZQ / W258BZQ

Service Manual

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About this Manual

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

It is organized to allow you to look up basic information for servicing and/or upgrading components of the *W251BLQ* / *W253BLQ* / *W253BZQ* / *W258BZQ* series notebook PC.

The following information is included:

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

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

Appendix A, Part Lists

Appendix B, Schematic Diagrams

Appendix C, Updating the FLASH ROM BIOS

IMPORTANT SAFETY INSTRUCTIONS

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

1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. This product is intended to be supplied by a Listed Power Unit with an AC Input of 100 - 240V, 50 - 60Hz, DC Output of 19V, 1.58A (**30W**) or 19V, 3.42A or 18.5V, 3.5A (**65W**) minimum AC/DC Adapter.

CAUTION

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

FCC Statement

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

This device may not cause harmful interference.

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

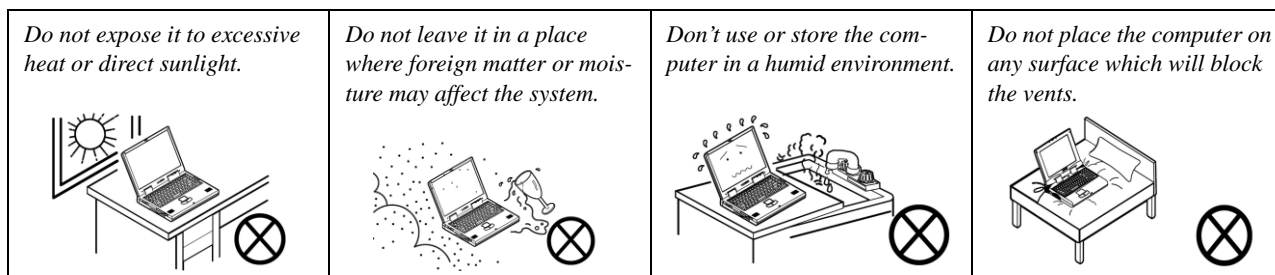
Instructions for Care and Operation

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

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



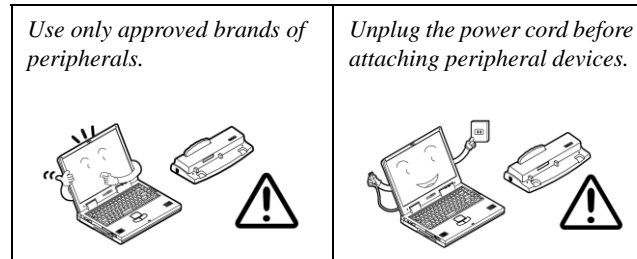
2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.



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



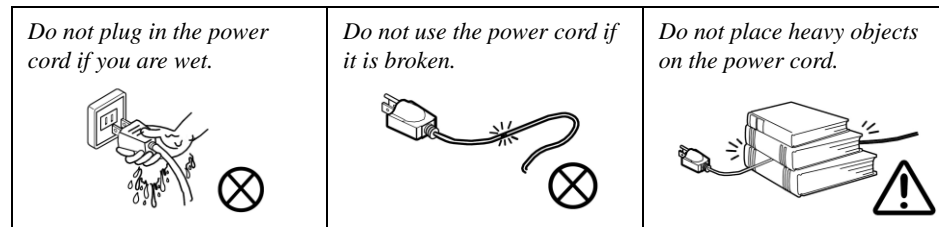
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



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/DVD

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

System Startup

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Insert the battery and make sure it is locked in position.
4. Securely attach any peripherals you want to use with the computer (e.g. keyboard and mouse) to their ports.
5. Attach the AC/DC adapter to the DC-In jack on the left of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter.
6. Use one hand to raise the lid/LCD to a comfortable viewing angle (do not exceed 130 degrees); use the other hand (as illustrated in [Figure 1](#)) to support the base of the computer (**Note: Never** lift the computer by the lid/LCD).
7. Press the power button to turn the computer "on".

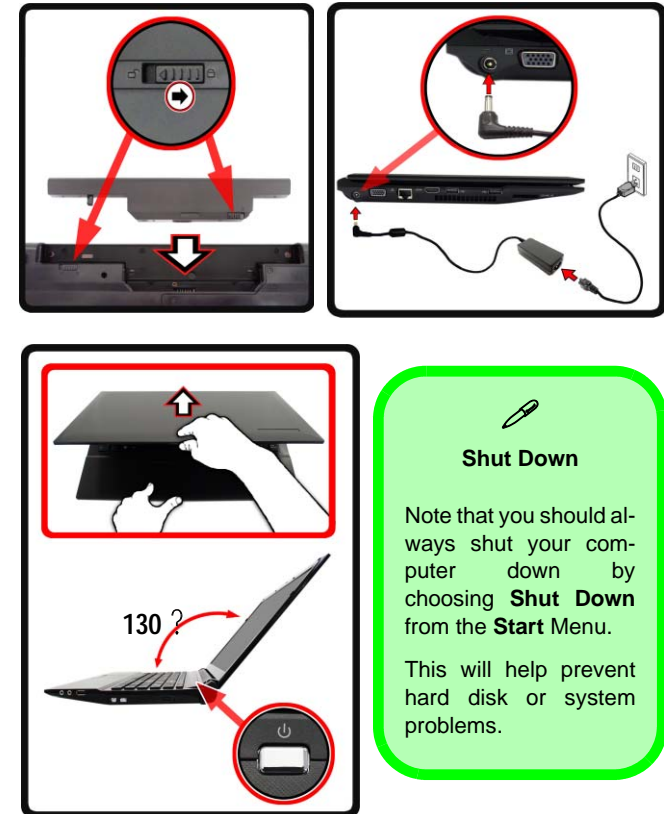


Figure 1
Opening the Lid/LCD/
Computer with AC/DC
Adapter Plugged-In

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Preface


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Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the **W251BLQ / W253BLQ / W253BZQ / W258BZQ** 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 the *User's Manual*. The manual is shipped with the computer.

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

The **W251BLQ / W253BLQ / W253BZQ / W258BZQ** series notebook is designed to be upgradeable. See [Disassembly on page 2 - 1](#) for a detailed description of the upgrade procedures for each specific component. Please take note of the warning and safety information indicated by the “” symbol.

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

Introduction

Specifications



Latest Specification Information

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



CPU

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

Processor Options

AMD-E Series Accelerated Processing Unit - E2-1800 (1.7GHz)

1MB L2 Cache, 40nm, DDR3-1333MHz, TDP 18W

AMD-E Series Accelerated Processing Unit - E1-1200 (1.4GHz)

1MB L2 Cache, 40nm, DDR3-1066MHz, TDP 18W

AMD-C Series (Dual-Core) Accelerated Processing Unit - C-70 (1.0GHz)

1MB L2 Cache, 40nm, DDR3-1066MHz, TDP 9W

BIOS

AMI BIOS (One 32Mb SPI Flash ROM)

LCD Options

15.6" (39.62cm) HD TFT LCD

Memory

Two 204 Pin SO-DIMM Sockets Supporting **DDR3 1066/1333MHz** Memory

Memory Expandable up to **8GB**

Video Adapter

AMD Radeon™ HD 7290 (C-70 APU Integrated)

Shared Memory Architecture of up to **1469MB**

Microsoft® DirectX11 Compatible

AMD Radeon™ HD 7310 (E1-1200 APU Integrated)

Shared Memory Architecture of up to **1469MB**

Microsoft® DirectX11 Compatible

AMD Radeon™ HD 7340 (E2-1800 APU Integrated)

Shared Memory Architecture of up to **1469MB**

Microsoft® DirectX11 Compatible

Core Logic

AMD A68M Chipset

Storage

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

One Changeable 2.5" 9.5mm (h) SATA HDD

Audio

High Definition Audio Compliant Interface

2 * Built-In Speakers

Built-In Microphone

Keyboard

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

Pointing Device

Built-in Touchpad

Interface

Two USB 3.0 Ports

One USB 2.0 Port

One HDMI-Out Port

One Headphone-Out Jack

One Microphone-In Jack

One RJ-45 LAN Jack

One External Monitor Port

One DC-in Jack

Card Reader

Embedded Multi-In-1 Card Reader

MMC (MultiMedia Card) / RS MMC

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

MS (Memory Stick) / MS Pro / MS Duo

Mini Card Slots

Slot 1 for **WLAN** Module or **WLAN and Bluetooth** Combo Module

(Factory Option) Slot 2 for **3G** Module

Communication

Built-In 10Mb/100Mb Ethernet LAN

(Factory Option) 300K Pixels/2M HD PC Camera Module

(Factory Option) 3G Mini-Card Module

WLAN/ Bluetooth Half Mini-Card Modules:

(Factory Option) Third-Party Wireless LAN (**802.11b/g/n**) + Bluetooth **4.0**

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

Security

Security (Kensington® Type) Lock Slot

BIOS Password

Environmental Spec

Temperature

Operating: 5°C - 35°C

Non-Operating: -20°C - 60°C

Relative Humidity

Operating: 20% - 80%

Non-Operating: 10% - 90%

Power

(for C-70 APU)

6 Cell Smart Lithium-Ion Battery Pack, 48.84WH

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

Full Range AC/DC Adapter

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

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

Or

(for E1-1200, E2-1800 APU)

6 Cell Smart Lithium-Ion Battery Pack, 48.84WH

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

Full Range AC/DC Adapter

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

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

Dimensions & Weight

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

2.25kg (with 48.84WH Battery and ODD)

Or

374mm (w) * 250mm (d) * 20 - 37.2mm (h)

2.45kg (with 48.84WH Battery and ODD)

Introduction

External Locator - Top View with LCD Panel Open

Figure 1
Top View

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



External Locator - Front & Right Side Views

FRONT VIEW



Figure 2
Front View
1. LED Power Indicator

RIGHT SIDE VIEW



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

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. USB 3.0 Port
- 6. Vent
- 7. Multi-in-1 Card Reader

LEFT SIDE VIEW



Figure 5
Rear View

- 1. Security Lock Slot
- 2. Battery

REAR VIEW



External Locator - Bottom View

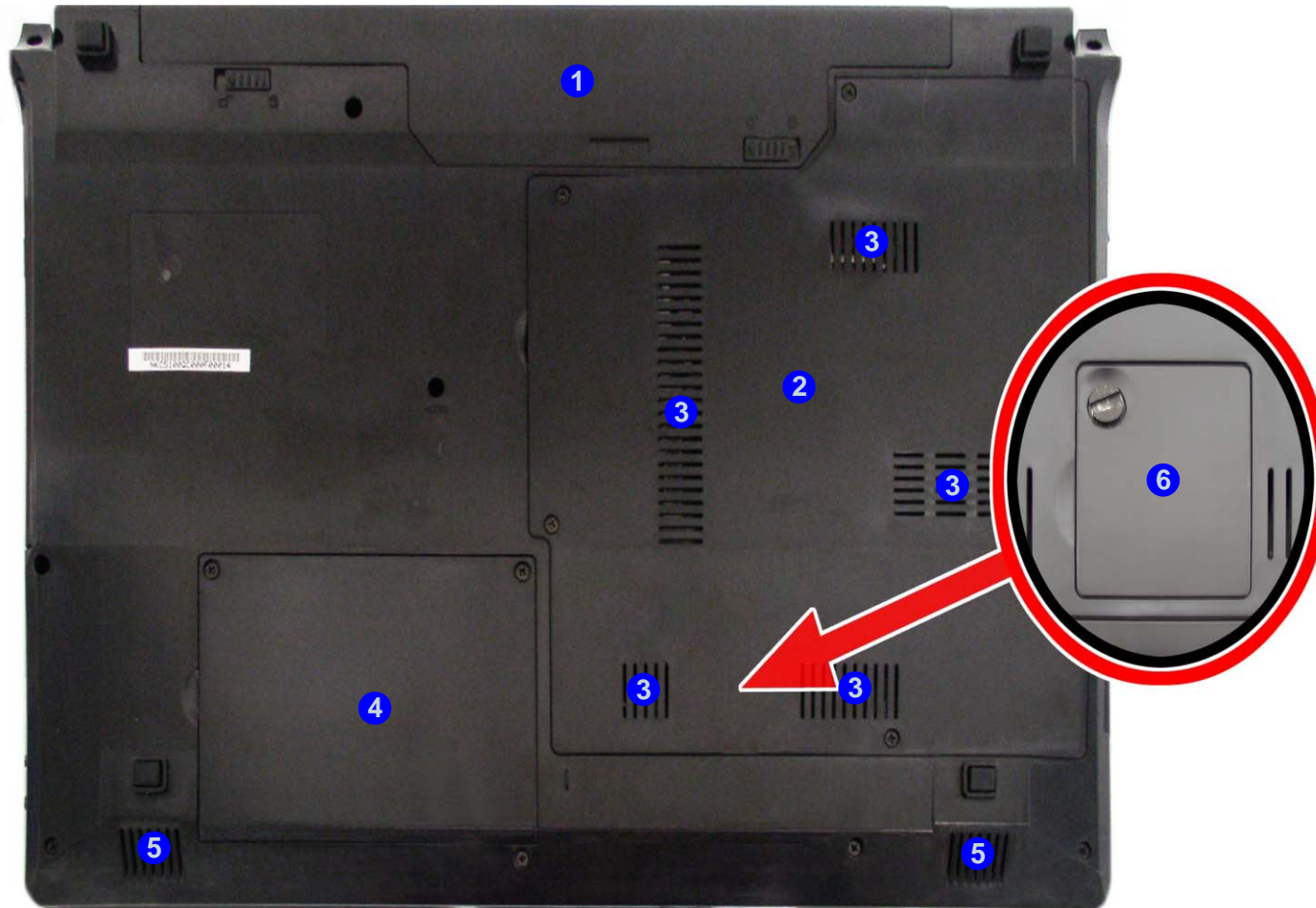


Figure 6
Bottom View

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



Overheating

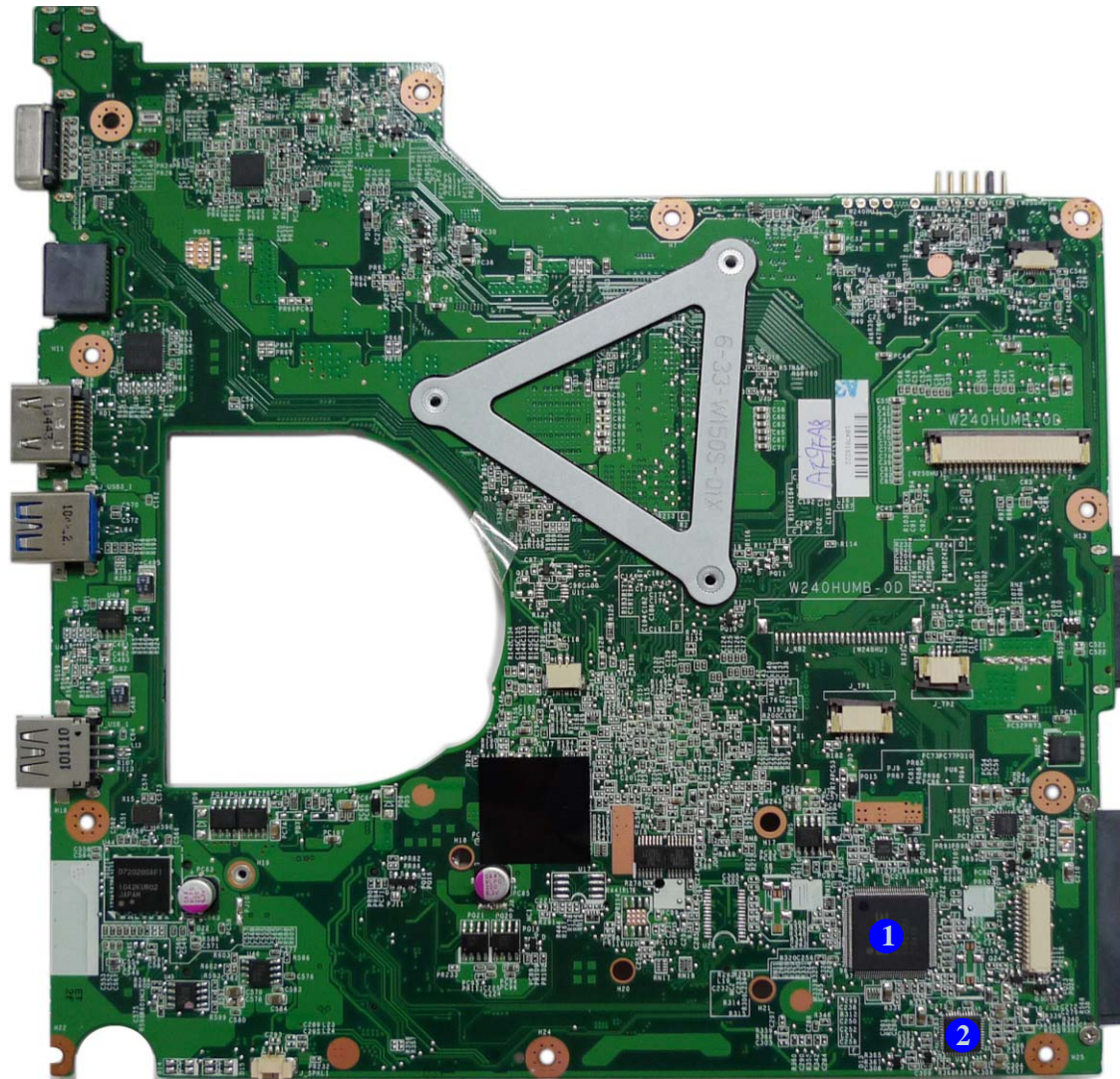
To prevent your computer from overheating, make sure nothing blocks any vent while the computer is in use.

Introduction

Figure 7
**Mainboard Top
Key Parts**

1. KBC-ITE IT8518
2. Audio Codec
VT1802P

Mainboard Overview - Top (Key Parts)



Mainboard Overview - Bottom (Key Parts)

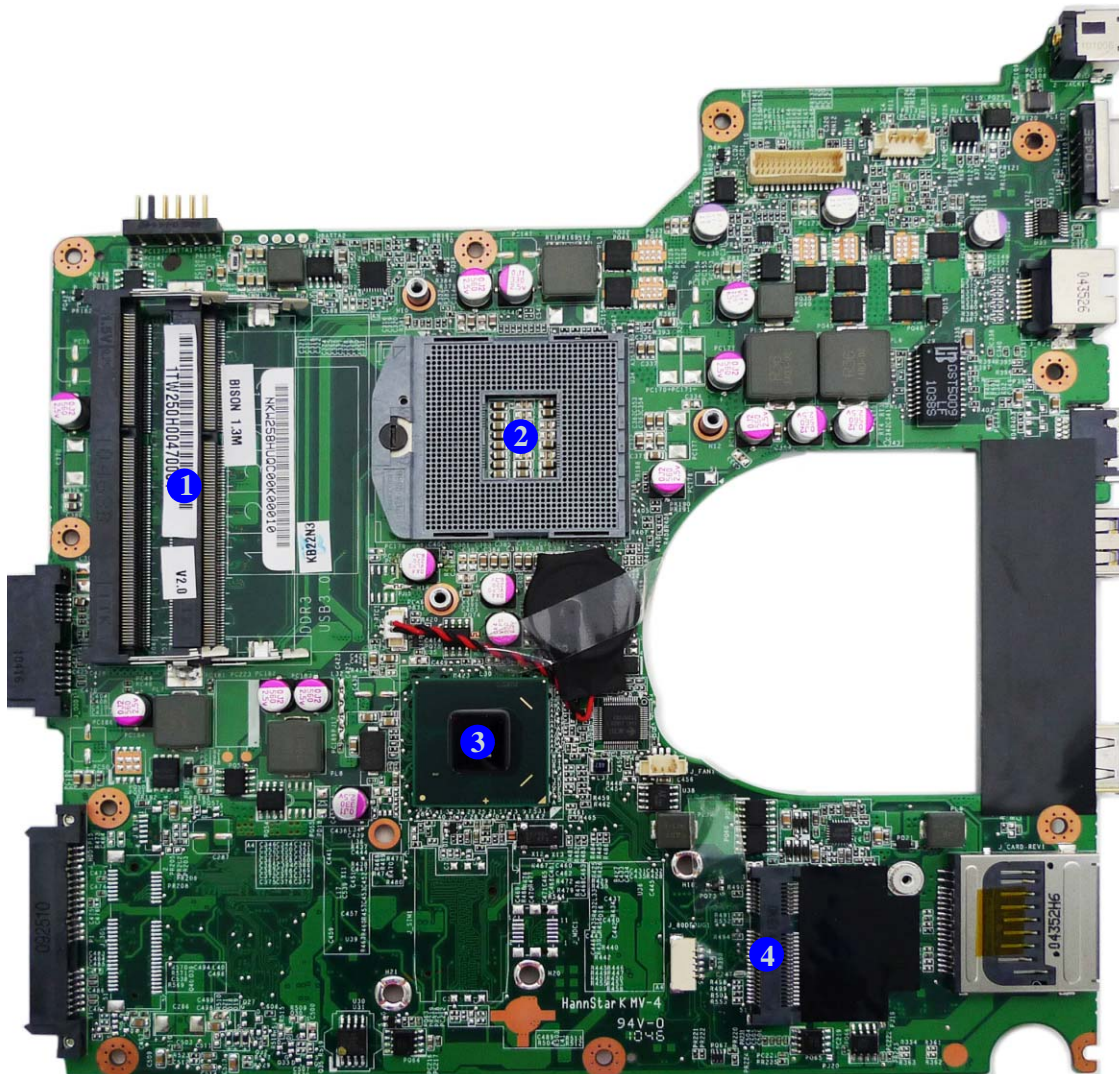


Figure 8
**Mainboard Bottom
Key Parts**

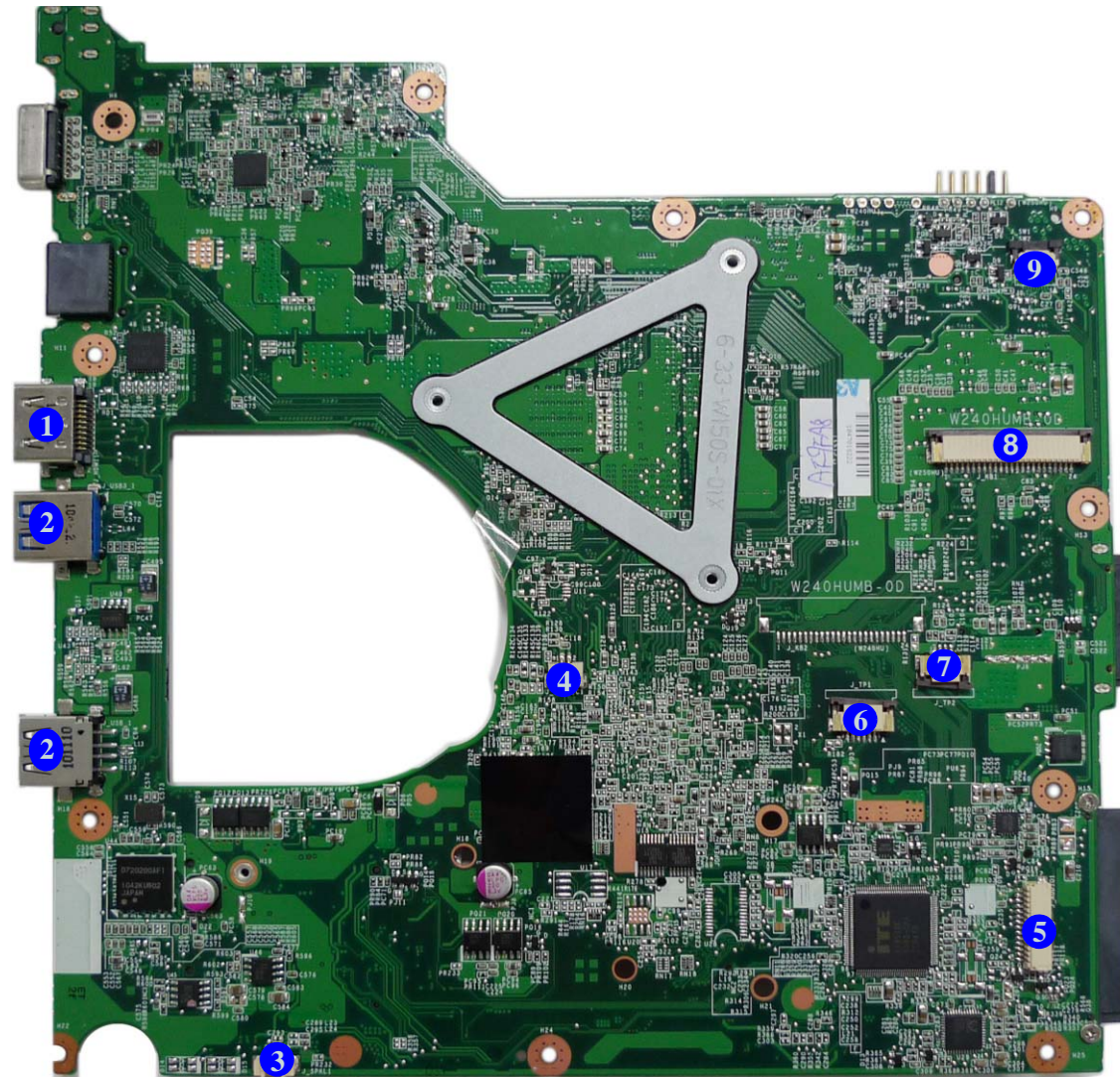
1. Memory Slots
DDR3 SO-DIMM
2. CPU Socket (no
CPU installed)
3. Platform Controller
Hub
4. Mini-Card
Connector (WLAN
Module)

Introduction

Figure 9
**Mainboard Top
Connectors**

1. HDMI-Out Port
2. USB 3.0 Port
3. Speaker Cable Connector
4. Microphone Cable Connector
5. Audio Board Connector
6. TouchPad Cable Connector 1
7. TouchPad Cable Connector 2
8. Keyboard Cable Connector
9. Switch Board Cable Connector

Mainboard Overview - Top (Connectors)



Mainboard Overview - Bottom (Connectors)

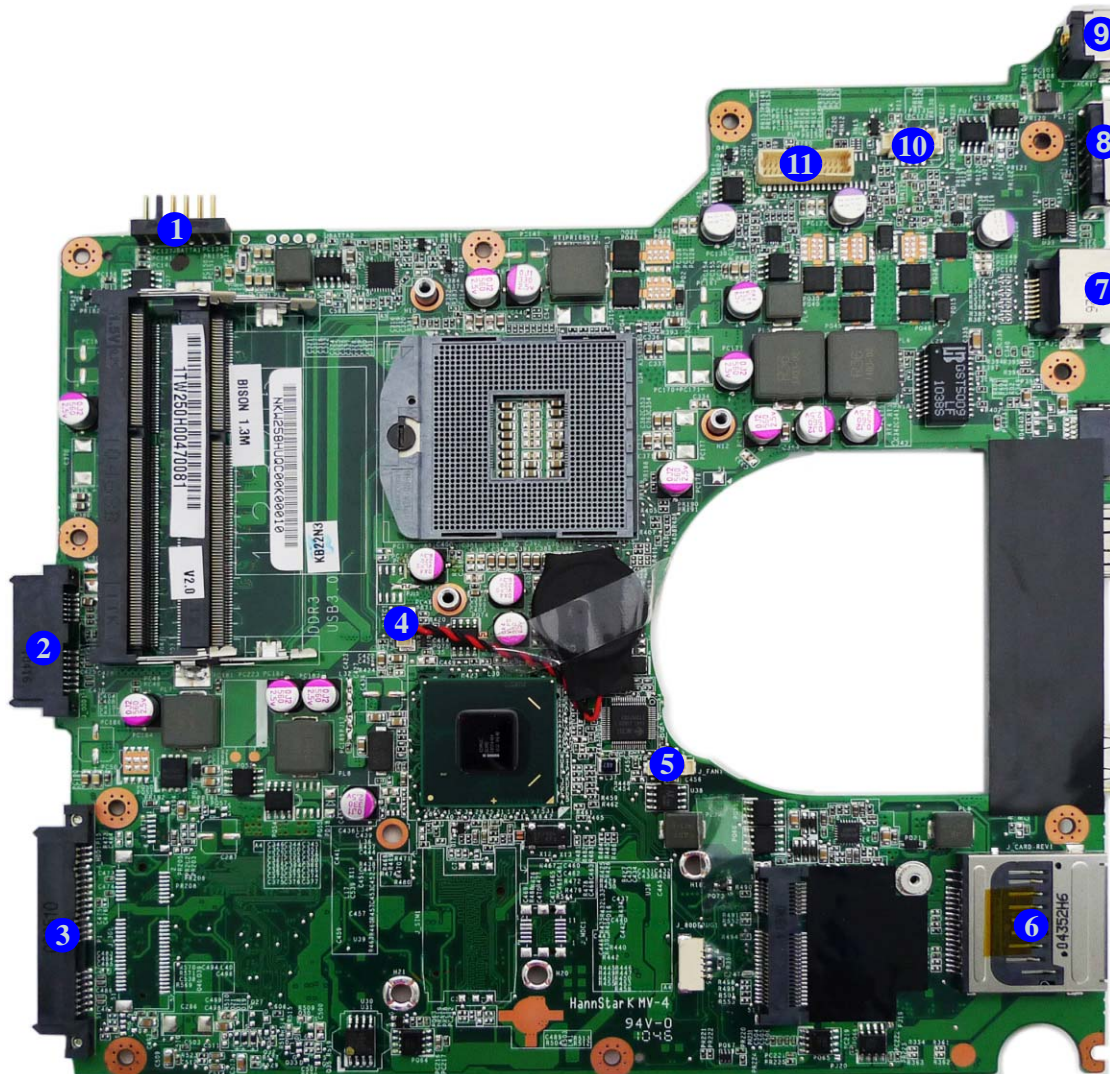


Figure 10
**Mainboard Bottom
Connectors**

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


Chapter 2: Disassembly



Overview

This chapter provides step-by-step instructions for disassembling the *W251BLQ / W253BLQ / W253BZQ / W258BZQ* series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

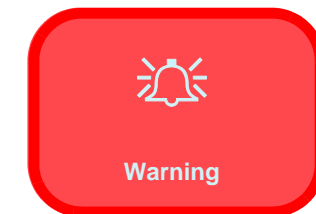
We suggest you completely review any procedure before you take the computer apart.

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 Wireless LAN Module:

1. Remove the battery *page 2 - 5*
2. Remove the WLAN module *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*).

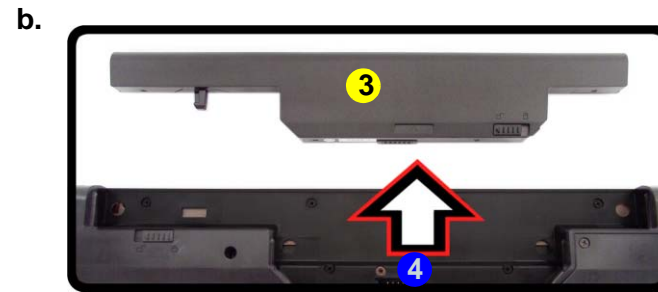
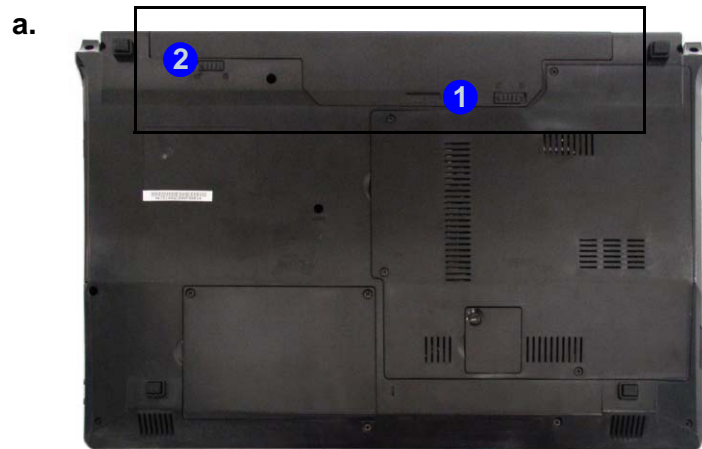
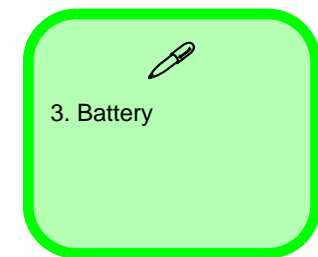


Figure 1
Battery Removal

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



Removing the Hard Disk Drive

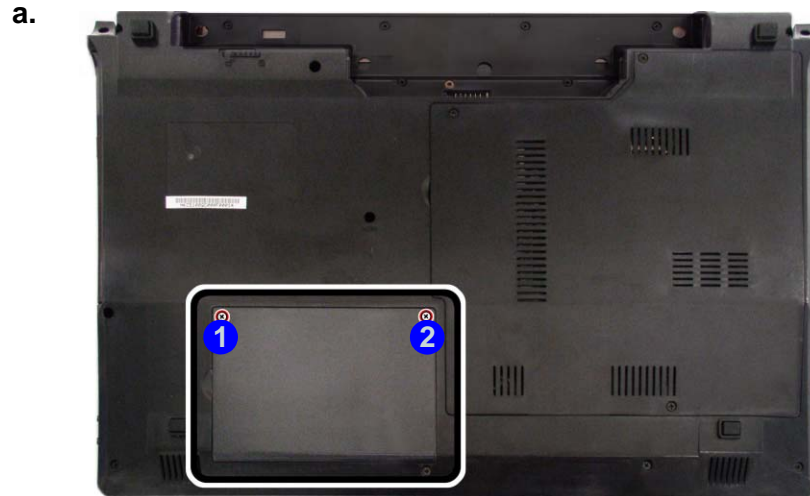
Figure 2
**HDD Assembly
Removal**

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

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

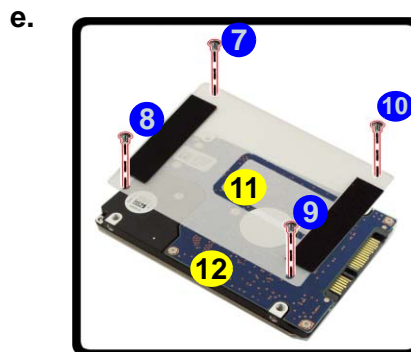
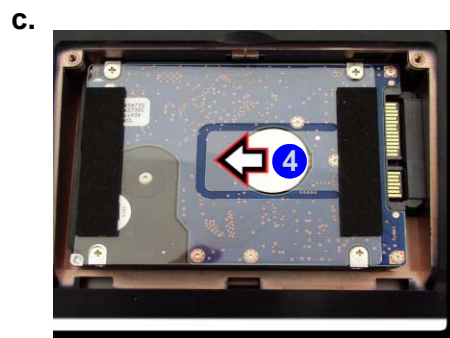
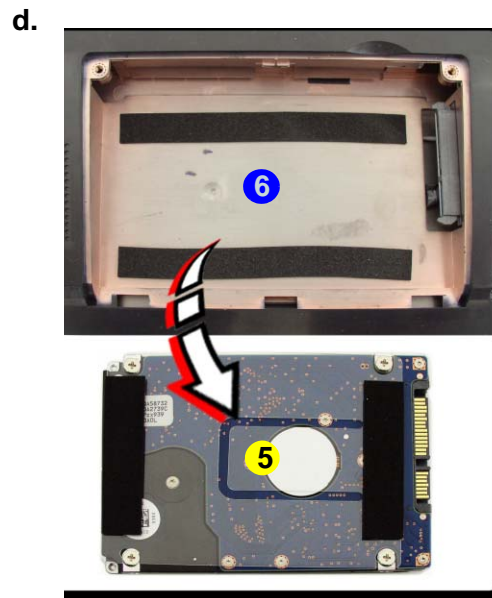
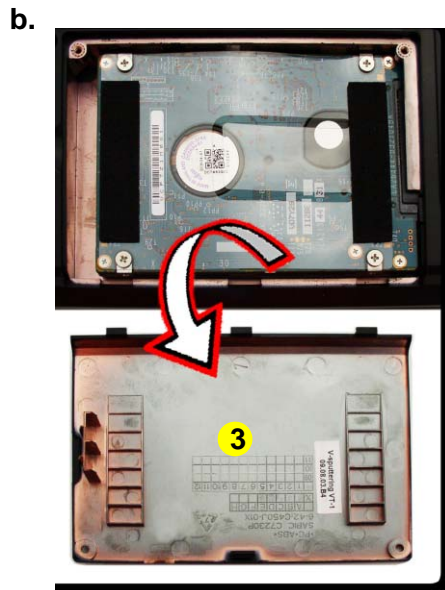
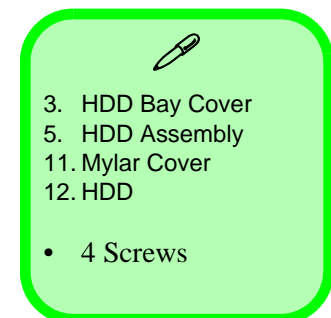


Figure 3
**HDD Assembly
Removal (cont'd.)**

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



Disassembly

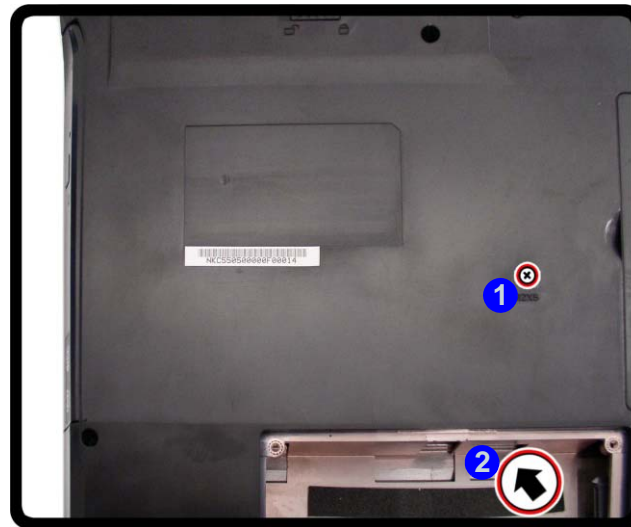
Figure 4
**Optical Device
Removal**

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

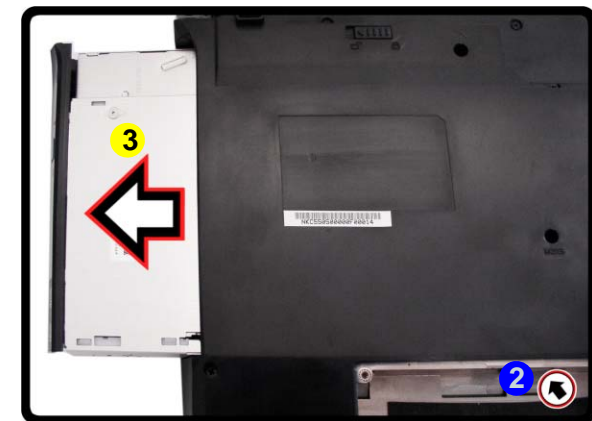
Removing the Optical (CD/DVD) Device

- Turn **off** the computer, remove the battery ([page 2 - 5](#)) and hard disk ([page 2 - 6](#)).
- Remove the screw at point **1** ([Figure 4a](#)).
- Use a screwdriver to carefully push out the optical device **3** at point **2** ([Figure 4b](#)).
- 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.

a.



b.



3. Optical Device

- 1 Screw

Removing the System Memory (RAM)

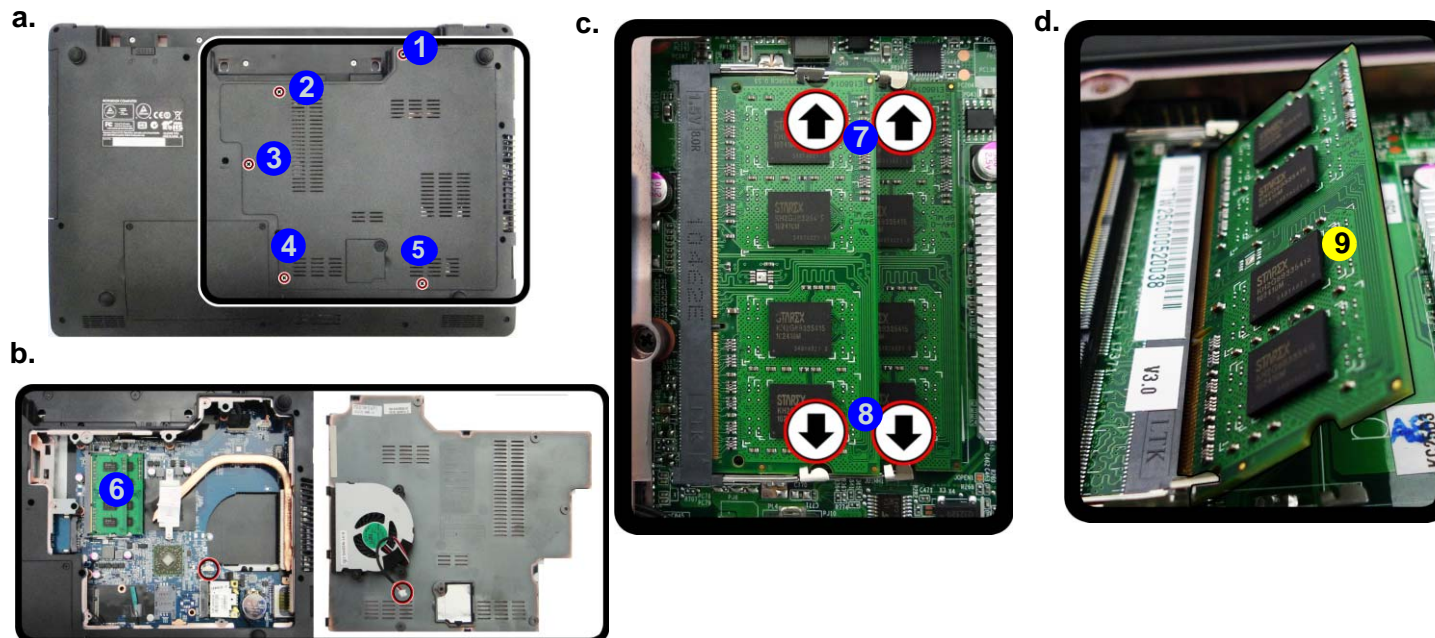
The computer has two memory sockets for 204 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDRIII (DDR3) Up to 1066/1333 MHz. The main memory can be expanded up to 8GB. The SO-DIMM modules supported are 1024MB and 2048MB **DDRIII** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.


Memory Upgrade Process

1. Turn **off** the computer, turn it over and remove the battery ([page 2 - 5](#)).
2. Remove screws **1** - **5** and the component bay cover ([Figure 5a](#)).
3. The RAM modules will be visible at point **6** on the mainboard ([Figure 5b](#)).
4. Gently pull the two release latches (**7** & **8**) on the sides of the memory socket in the direction indicated by the arrows ([Figure 5c](#)). The RAM module **9** will pop-up ([Figure 5d](#)), and you can then remove it.


Figure 5
RAM Module Removal

- Remove the screws and component bay cover.
- The RAM modules will be visible at point **5** on the mainboard.
- Pull the release latches.
- 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.


9. RAM Module

- 5 Screws

Disassembly

Figure 6
**RAM Module
Removal (cont'd.)**

e. Properly re-insert the bay cover pins.

5. Pull the latches to release the second module if necessary.
6. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
7. The module will only fit one way as defined by its pin alignment. Make sure the module is seated as far into the slot as it will go. **DO NOT FORCE IT**; it should fit without much pressure.
8. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
9. Replace the bay cover and screws (**make sure you reconnect the fan cable before screwing down the bay cover**).
Note that there are four cover pins which need to be aligned with slots in the case, to insure a proper cover fit, before screwing down the bay cover ([Figure 6d](#)).



10. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

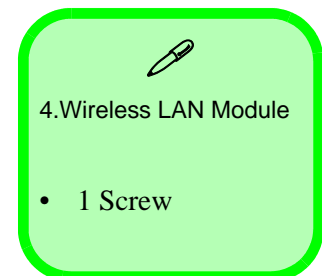
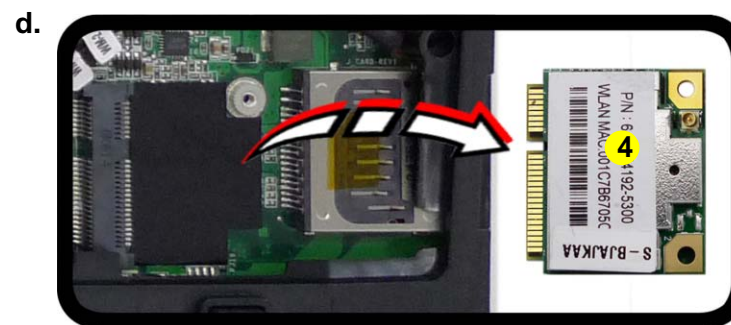
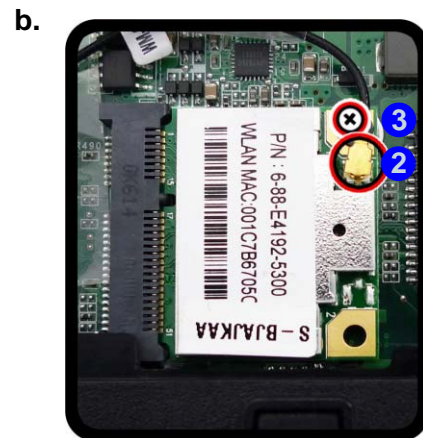
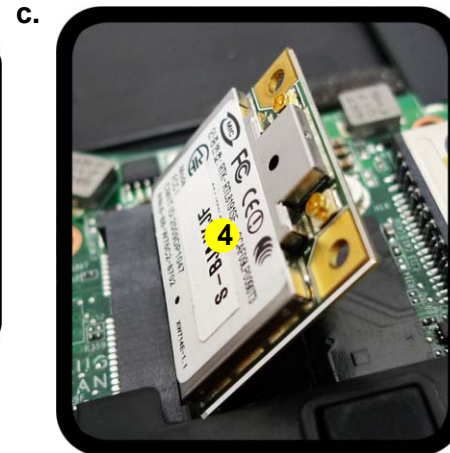
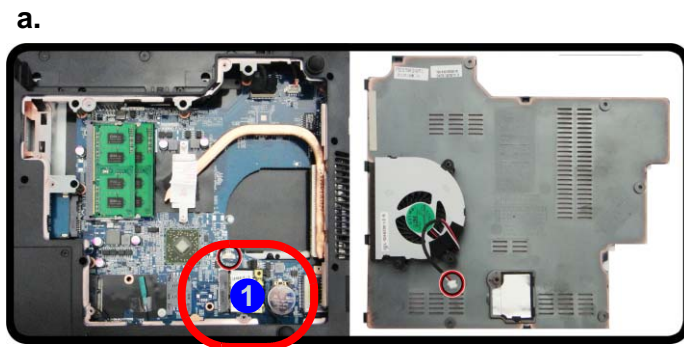
Removing the Wireless LAN Module

1. Turn **off** the computer, turn it over, and remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 9](#)).
2. The Wireless LAN module will be visible at point **1** on the mainboard ([Figure 7a](#)).
3. Carefully disconnect the cable **2**, and then remove the screw **3** ([Figure 7b](#)).
4. The Wireless LAN module **4** ([Figure 7c](#)) will pop-up, and you can remove it from the computer ([Figure 7d](#)).

Figure 7
Wireless LAN Module Removal

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

Note: Make sure you reconnect the antenna cable to the “1 + 2” socket ([Figure 7b](#)).



Disassembly

Figure 8

Keyboard Removal

- Remove screws from the bottom of the computer. Press at points 5 to un-snap the LED cover module.
- Remove the LED cover module and screws from the keyboard.
- Carefully lift the keyboard up and disconnect the keyboard ribbon cable from the locking collar socket.
- Remove the keyboard.

Re-Inserting the Keyboard

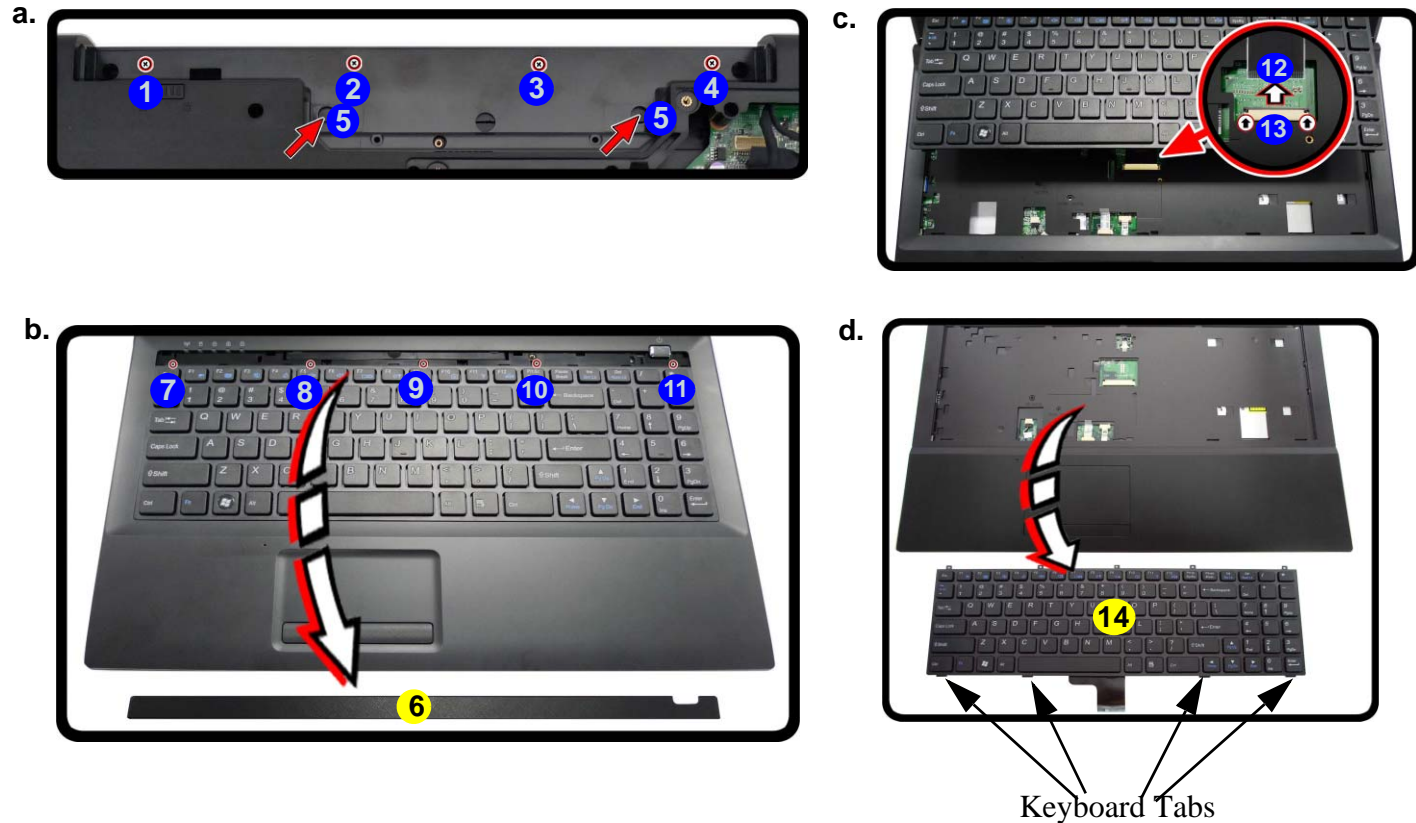
When re-inserting the keyboard firstly align the **four** keyboard tabs at the bottom (Figure 8c) at the bottom of the keyboard with the slots in the case.

6. LED Cover Module
14. Keyboard

- 9 Screws

Removing the Keyboard

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



Appendix A:Part Lists

This appendix breaks down the *W251BLQ / W253BLQ / W253BZQ / W258BZQ* series notebook's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

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

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

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

Part List Illustration Location

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

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

Part	W251BLQ	W253BLQ	W253BZQ	W258BZQ
Top	<i>page A - 3</i>	<i>page A - 4</i>		<i>page A - 5</i>
Bottom	<i>page A - 6</i>	<i>page A - 7</i>	<i>page A - 8</i>	<i>page A - 9</i>
DVD Dual Drive	<i>page A - 10</i>	<i>page A - 11</i>		<i>page A - 12</i>
LCD	<i>page A - 13</i>	<i>page A - 14</i>	<i>page A - 15</i>	<i>page A - 16</i>

Top (W251BLQ)

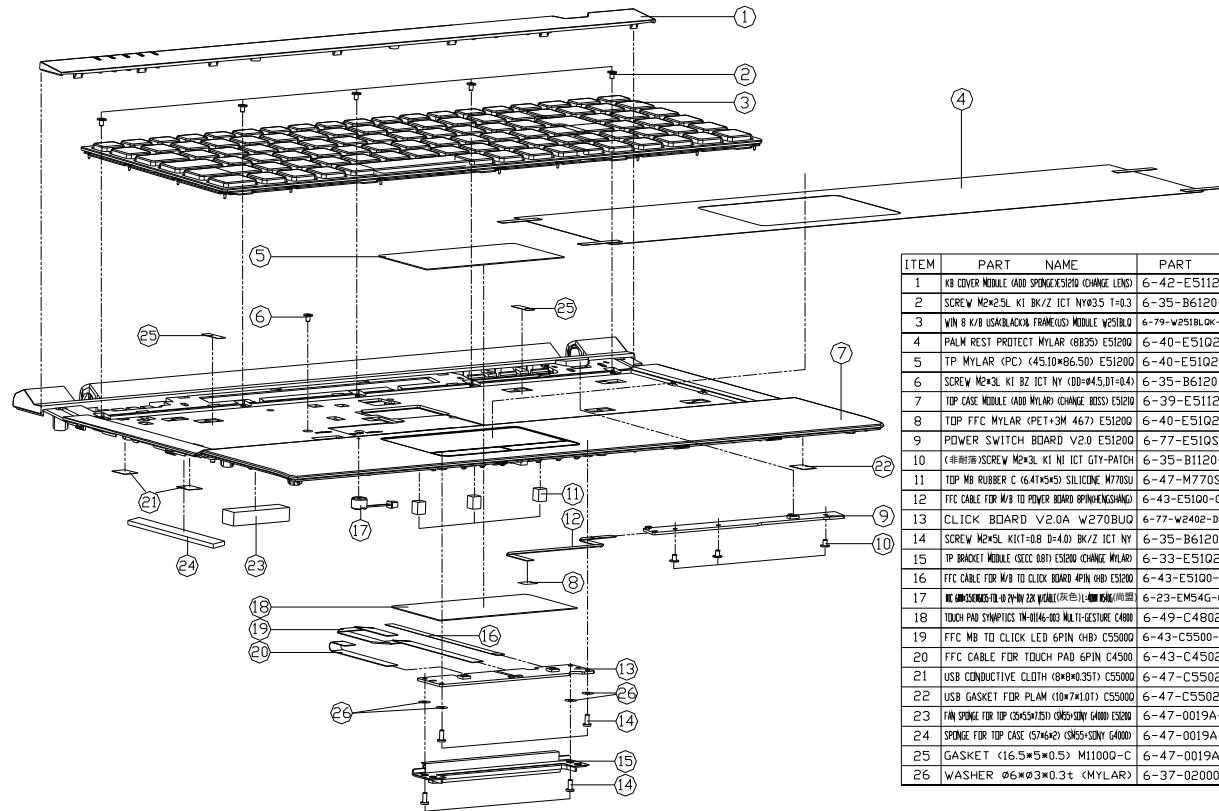
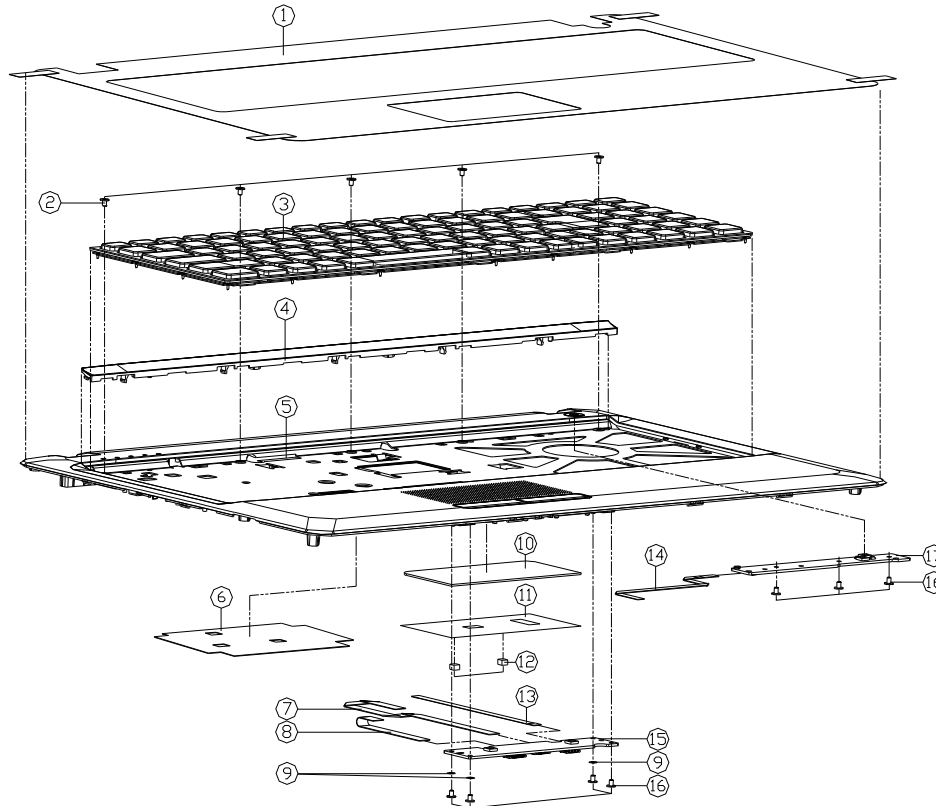


Figure A - 1
Top (W251BLQ)

ITEM	PART NAME	PART NO	REMARK
1	KB COVER MODULE (ADD SPONGE) (CHANGE LENS)	6-42-E5112-10B	
2	SCREW M2*2.5L KI BK/Z ICT NY#35 T=0.3	6-35-B6120-2RB	
3	WIN B K/B US/BLACK/FRAMCOSS) MODULE W251R/D	6-79-W251BLQK-010-W	
4	PALM REST PROTECT MYLAR (8835) E51200	6-40-E51Q2-051	
5	TP MYLAR (PC) (45.10*86.50) E51200	6-40-E51Q2-042	
6	SCREW M2*3L KI BZ ICT NY (DD-#4.5,DT-0.4)	6-35-B6120-3RD	
7	TOP CASE MODULE (ADD MYLAR) (CHANGE BOSS) E51200	6-39-E5112-016	
8	TOP FFC MYLAR (PET+3M 46.7) E51200	6-40-E51Q2-080	
9	POWER SWITCH BOARD V2.0 E51200	6-77-E51Q3-D02	
10	(#000#)SCREW M2*3L KI NI ICT GTY-PATCH	6-35-B1120-3RE	
11	TOP MB RUBBER C (6.41*5.45) SILICONE W705U	6-47-M770S-0B1	
12	FFC CABLE FOR M/B TO POWER BOARD (PIN#ENSHANG)	6-43-E51Q0-022-2	
13	CLICK BOARD V2.0A W270BLQ	6-77-W2402-D02A-A	
14	SCREW M2*5L KI(T=0.8 D=4.0) BK/Z ICT NY	6-35-B6120-5RD	
15	TP BRACKET MODULE (SECC 0.8T) E51200 (CHANGE MYLAR)	6-33-E51Q2-102	
16	FFC CABLE FOR M/B TO CLICK BOARD (PIN 6PIN) E51200	6-43-E51Q0-010-1	
17	FFC CABLE FOR M/B TO TOUCH BOARD (PIN 6PIN) E51200	6-23-EM54G-012-2	
18	TOUCH PAD SYNAPTICS TM-01146-003 MULTI-GESTURE C480	6-49-C4802-010	
19	FFC MB TO CLICK LED 6PIN (CH) C55000	6-43-C5500-010-1	
20	FFC CABLE FOR TOUCH PAD 6PIN C4500	6-43-C4502-010	
21	USB CONDUCTIVE CLOTH (8*8*0.35T) C55000	6-47-C5502-010	
22	USB GASKET FOR PLAM (10*7*1.0T) C55000	6-47-C5502-020	
23	FAN SPONGE FOR TOP CASE (57*6*2) (S65+S65) (G400) E51200	6-47-0019A-353	
24	SPONGE FOR TOP CASE (57*6*2) (S65+S65) (G400)	6-47-0019A-570	
25	GASKET (16.5*5*0.5) M11000-C	6-47-0019A-160	
26	WASHER Ø6*Ø3*0.3t (MYLAR)	6-37-02000-601	

Top (W253BLQ / W253BZQ)

Figure A - 1
Top (W251BLQ /
W253BLQ /
W253BZQ /
W258BZQ)



ITEM	PART NAME	PART NO	REMARK
1	C CASE PROTECT MYLAR(MYLAR 01T) W253HPD	6-40-W2530-011	REMARK
2	SCREW M2xSL KI BK/Z ICT NY#3.5 T+0.3	6-35-B6120-2RB	
3	TP RUBBER (SILICON RUBER BK 5X5#62T) W253HPD	6-47-W2532-020	
4	CENTER COVER SABC C7230P-700C W253HPD	6-42-W2532-062	
5	TDP CASE MODULE W253HPD	6-39-W2532-011	
6	MYLAR DI FRIL FOR TOP CASE (166723#225) W25HPD	6-40-W25P2-010	
7	FFC MB TO CLICK LED 6PIN (HS) C55000	6-43-C5500-010-2	
8	FFC CABLE FOR TOUCH PAD 6PIN C4500	6-43-C4502-010	
9	WASHER Ø6*Ø3*0.3t (MYLAR)	6-37-02000-601	
10	TOUCH PAD SYNTHETICS IM-0114-003 MULTI-GESTURE C4800	6-49-C4802-010	
11	TP MYLAR(Ø6*42.5*0.25T) W253HPD	6-40-W2532-030-1	
12	TP RUBBER (SILICON RUBER BK 5X5#62T) W253HPD	6-47-W2532-020	
13	FFC CABLE FOR M/B TO CLICK BOARD 4PIN (4H)	6-43-E5100-010-1	
14	FFC CABLE FOR M/B TO POWER BOARD (8PIN)(HS)WAND	6-43-E5100-022-2	
15	CLICK BOARD V2.0A W270BU0	6-77-W2402-D02A-A	FOR W253BZQ/BLQ
15	CLICK BOARD V1.0 W255EU	6-77-W24E2-D01-A	FOR W253CZQ
16	SCREW M2x3L KI NI ICT NY (ØØ=Ø45,Ø1=Ø4)	6-35-B1120-3RE	
17	POWER SWITCH BOARD V3.0 W253EU0	6-77-W24ES-D03-C	

Top (W258BZQ)

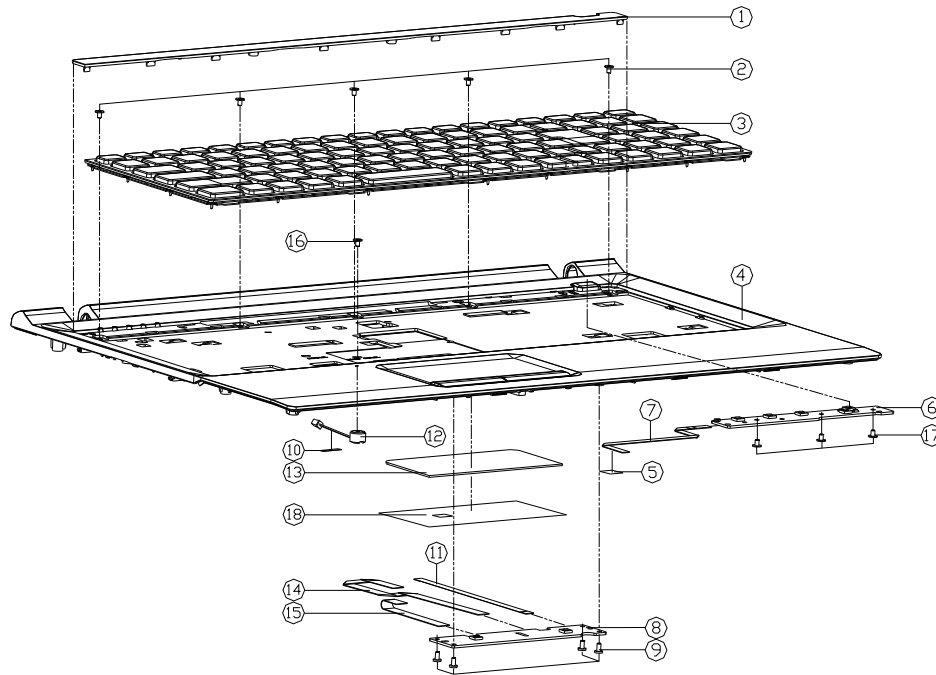
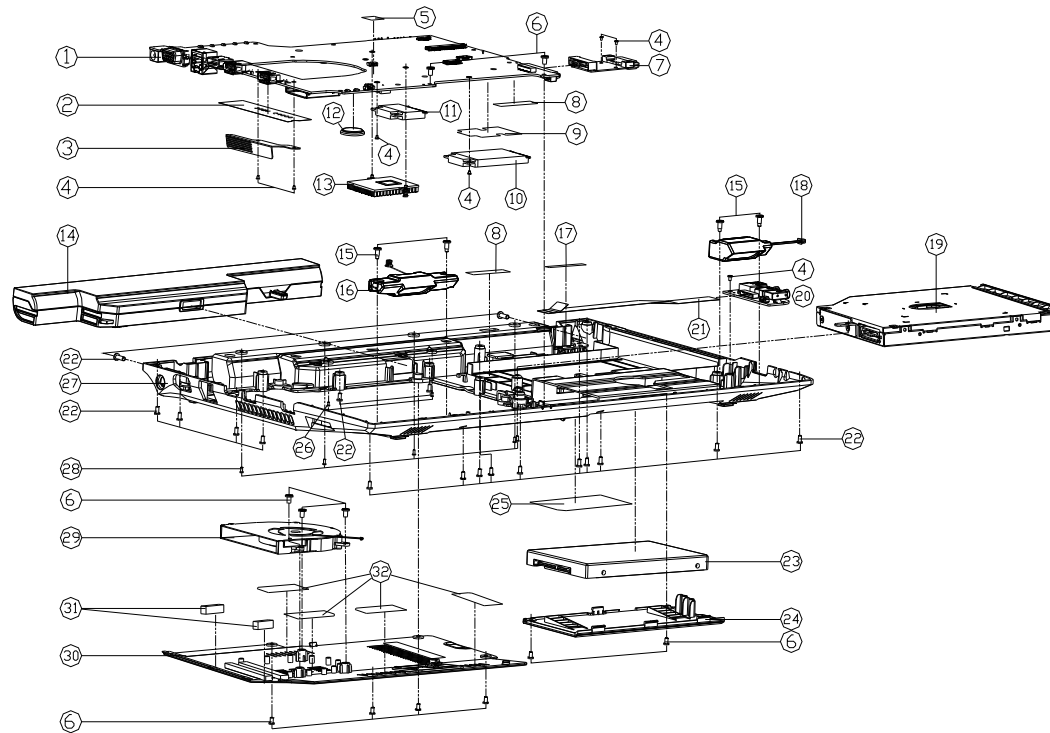


Figure A - 1
Top (W258BZQ)

ITEM	PART NAME	PART NO	REMARK
1	KB COVER PC+ABS(CM6140) E51280ND PAINTING	6-42-E5182-012	
2	SCREW M2x2.5L KI BK/Z ICT NY#35 T=0.3	6-35-B6120-2RB	
3	K/B USA(BLACK) FRAME(CUS) MODULE E51200	6-79-E51200K-010	
4	TOP CASE MODULE (CHANGEKIP AND ND PAINTING)	6-39-E5182-014	
4	TOP CASE MODULE (TP AND ND PAINTING)E5128	6-39-E5182-014-C	
5	TOP FFC MYLAR (PET+3M 467) E51200	6-40-E5102-080	
6	POWER SWITCH BOARD V2.0 E51280	6-77-E518S-D02	
7	FFC CABLE FOR M/B TO POWER BOARD 8PIN E5120	6-43-E5100-022	
8	CLICK BOARD V1.0 W250BUQ	6-77-W2402-D01-A	
9	(#44)SCREW M2x1.1 BZ ICT G1+PATCH (1-08 0-4)	6-35-C6120-4RB	
10	TAPE MYLAR (C),MYLAR M550J	6-40-M55J2-020	
11	FFC CABLE FOR M/B TO CLICK BOARD 4PIN E5120	6-43-E5100-010	
12	ME 6005SCREWS-TL-0 2x4-2V 228 W/DIA(0.8) (L=1.0) NY#35	6-23-EM54G-012	
13	TOUCH PAD SYMPHONY TM-0146-003 MULTI-GESTURE C400	6-49-C4802-010	
14	FFC MB TO CLICK LED 6PIN C55000	6-43-C5500-010	
15	FFC CABLE FOR TOUCH PAD 6PIN C4500	6-43-C4502-010	
16	SCREW M2x3L KI BZ ICT NY (DD=04.5,DT=0.4)	6-35-B6120-3RD	
17	SCREW M2x3L KI NI ICT NY (DD=04.5,DT=0.4)	6-35-B1120-3RE	
18	TAPE MYLAR (C) (86.10x38.80MM) C4105	6-40-00150-860	

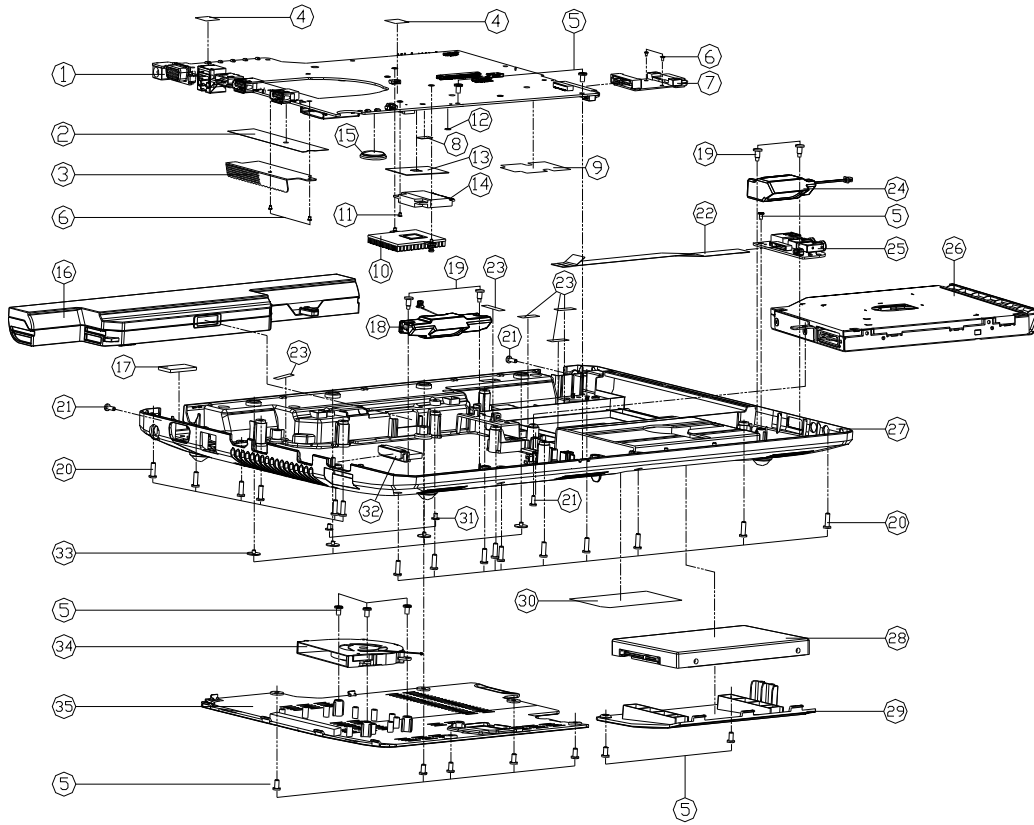
Bottom (W251BLQ)

Figure A - 2
Bottom
(W251BLQ)



ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V20 (W/3G/W/D 1PM) W251BLQ	6-77-W2510-D02	
2	MYLAR PET FOR M/B FIN W240BU	6-40-W240S-010	
3	HEATSINK MESH/PERFORATED STEEL NET W240BU	6-33-W2403-012	
4	SCREW M2xL KI NI ICT NY (D0-#4.0,D1-#8)	6-35-B1120-3RD	
5	AUDIO BOARD MYLAR 20x20x51 (0.001 PET+3M 40) C600	6-40-C450S-030	
6	SCREW M2.5xSL KI BK/Z ICT NY	6-35-B6125-5RA	
7	DDD BRIDGE BOARD V1.0 E5120Q	6-77-E510N-D01	
8	TAPE MYLAR (C),MYLAR M550J	6-40-MS5J2-030	
9	MYLAR 475x31 (PET+3M467) C4100	6-40-C410S-010	ONLY FOR W/3G
10	MYLAR SCREW M200x220 2000 4000 FULL MIP-CPU USE 3800A	6-B8-S180W-8300	(OPTION)
11	BATTERY 3V 220MA BBBCR2032B (KTS)	6-88-W345F-8700	(OPTION)
12	BATTERY 3V 220MA BBBCR2032B (KTS)	6-23-6A2B2-030	
13	CPU (9W) HEATSINK MODULE W240BU	6-31-W240N-102	FOR 9W
14	SNIP SLI III/V5500/6200/7300 500/500 900/2000 C420	6-87-E412S-4D7A	(OPTION)
15	SCREW M2x6.2L NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
16	SPEAKER 0.1Wx2 IN BY 20MM PRE20000-4 AX (VCD) C500	6-23-5E51Q-011	
17	TAPE MYLAR (B),MYLAR M550J	6-40-MS5J2-020	
18	SPEAKER 0.1Wx2 IN BY 20MM PRE2000-4 AX (VCD) C500	6-23-5E51Q-021	
19	SATA DVD SUPER MULTI ASSY (OPTION)	6-79-W251BLQ-010	
19	W/D ODD ASS'Y E5120Q	6-79-E5120002-000	
20	AUDIO BOARD V1.0 W251BLQ	6-77-W25L8-D01	
21	FFC CABLE 1P W/B TO AUDIO BOARD (CHANGING)	6-43-W2500-011-2	
22	SCREW M2.5xBL KI BK/Z NY ICT	6-35-B6125-8R0	
23	W/D HDD ASS'Y C4800	6-79-C480000J-010	
23	W/HDD ASS'Y E5120Q	6-79-E512000J-020	
24	HDD COVER (PC+ABS) E5120Q	6-42-E51QJ-011	
25	PRODUCT LABEL FOR W251BLQ	6-45-W251BLQ3-010	
26	SCREW M2xL 1 BZ ICT G1Y-PATCH NY (1-#5 D=4)	6-35-C2120-3RD	
27	BOTTOM CASE MODULE E5120Q(CHANGING)	6-39-E51Q3-013	
28	SCREW M2xSL KI CT-#8 D=4.0 BK/Z ICT NY	6-35-B6120-5R0	
29	FAN MODULE W251HUQ	6-31-W25HS-100	
30	CPU COVER MODULE W/3G E5120Q (CHANGING)	6-42-E51Q3-103	
30	CPU COVER MODULE W/D 3G E5120Q (CHANGING)	6-42-E51Q3-203	
31	SPRING COIL 16x10x0.8-1.95 FOR CPU COVER W240BU	6-47-W2403-010-1	
32	MYLAR FOR CPU COVER(49x28x0.1) (PET+G4000)	6-40-C4808-010	

Bottom (W253BLQ)



ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V23 (W/D 36W/D 1P) W253BLQ-C	6-77-W2530-DL2-1	
2	MYLAR PET FOR W/B FIN CHANGE LENGTH W240BU	6-40-W240S-011	
3	HEATSINK MESH PERFORATED STEEL NET W253DU	6-33-W23C3-010	
4	AUDIO BOARD MYLAR 2PK20451 (1#) PET-3M 4G) C45M	6-40-C450S-030	
5	SCREW M2.5*5L KI BK/Z ICT NY	6-35-B6125-5RA	
6	SCREW M2*XL KI BZ ICT NY (DD=44.5,DT=04)	6-35-B6120-3RD	
7	DDD BRIDGE BOARD V1.0 E5120Q	6-77-E510N-D01	
8	TAPE MYLAR TRANSPARENT (30*10*005) P180M	6-40-P1803-020	
9	MYLAR 47.5*31 (PET+3M467) C410Q	6-40-C410S-010	
10	CPU (9W) HEATSINK MODULE W240BU	6-31-W240N-102	
11	SCREW M2*XL KI NI ICT NY (DD=44.5,DT=04)	6-35-B1120-3RE	
12	LCD FRONT COVER RUBBER SILICON DD-45MM	6-47-W76S1-030	
13	MYLAR FOR CPU 44*44 HOLE (D40) PET+3M467 W270BU	6-40-W27BS-030	
14	W/O DVD DRIVE BEZEL ASS'Y W/O CPU PET (OPTION) W253HPQ	6-88-W1702-4200	(OPTION)
14	W/O DVD DR. COVER (TEXTURE) FOR W/O CPU (OPTION) W253HPQ	6-88-W15HF-4200	(OPTION)
14	W/O LCD FRONT COVER (TEXTURE) FOR W/O CPU (OPTION) W253HPQ	6-88-W25HF-9400	(OPTION)
15	BATTERY 3V 220MA BBBCR2032B (KTS)	6-23-6A2B2-030	
16	IMP S LI (11V/400mAh) 32P SPALDER PSE 500C601 W44DU	6-87-W24ES-4W4	
17	SPEAKER (20*14*51) DR-4365 FOR BOTTOM CASE W253HPQ	6-47-0019A-243	
18	SPK CABLE 01 14*2 NY 01 19MM DT-400MM-1 (CELLING) E510U	6-23-5E510-011-1	
19	SCREW M2*2L NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
20	SCREW M2.5*8L KI BK/Z NY ICT	6-35-B6125-8RD	
21	SCREW M2*5L KI CT-08 D=4.0 BK/Z ICT NY	6-35-B6120-5R0	
22	FFC CABLE TAP W/B TO AUDIO BOARD (HENGSHANG)	6-43-W2500-011-2	
23	TAPE MYLAR TRANSPARENT (30*5*005) W253HPQ	6-40-W25P3-010	
24	SPK CABLE 00 30*6 NY 01 23MM DT-400MM-1 (CELLING) E510U	6-23-5E510-021-1	
25	AUDIO BOARD V1.0 W251BLQ	6-77-W25L8-D01	
26	SATA DVD SUPER MULTI ASS'Y (OPTION)	6-79-W253BLQ0-010-C	
26	W/O DDD ASS'Y W253HPQ	6-79-W253HPQ2-000	
27	BOTTOM CASE MODULE (TEXTURE) W253HPQ-C	6-39-W2533-011-C	
28	W/O HDD ASS'Y C4800	6-79-C480000-J-010	
28	W/HDD ASS'Y E5120Q	6-79-E512000-J-020	
29	HDD COVER SABBIC C7230P (TEXTURE) W253HPQ-C	6-42-W253J-011-C	
30	PRODUCT LABEL FOR W253BLQ	6-45-W253BLQ3-010	
31	SCREW M2*XL L BZ ICT GIY-PATCH NY (1*45 D=4)	6-35-C2120-3R0	
32	ESATA RUBBER SILICON RUBBER W253HUQ	6-47-W2503-010	
33	SCREW M2*2L KI BK/Z ICT NY (4*6, T=0.6)	6-35-B6120-2RE	
34	FAN MODULE W251HUQ	6-31-W25HS-100	
35	CPU COVER MODULE (TEXTURE) W253HUQ-C	6-42-W2503-101-C	

Figure A - 3
Bottom
(W253BLQ)

Bottom (W253BZQ)

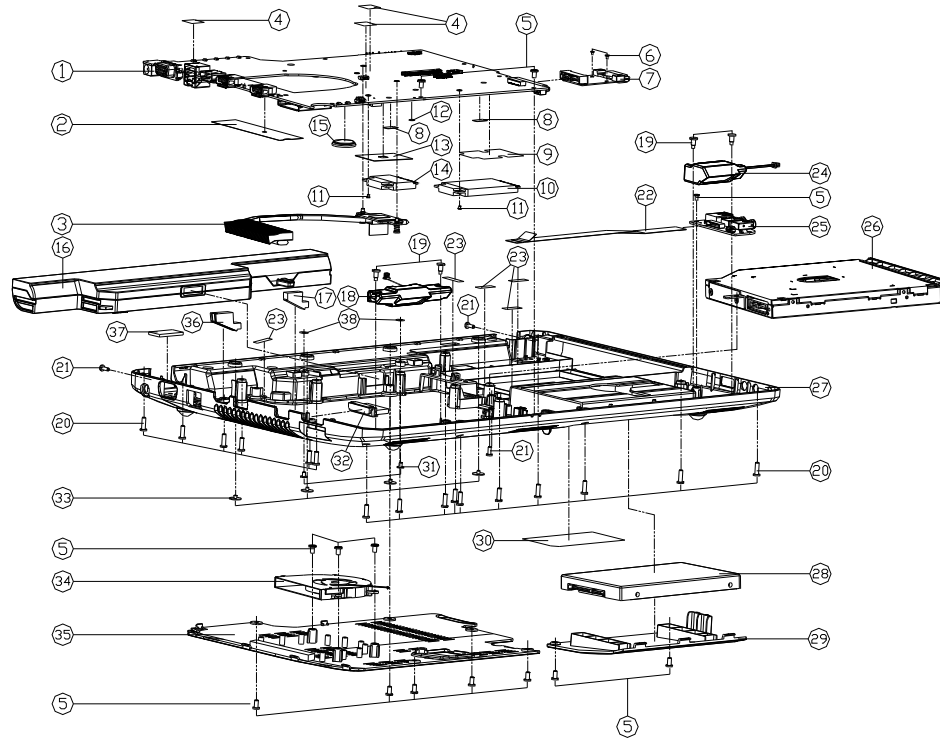
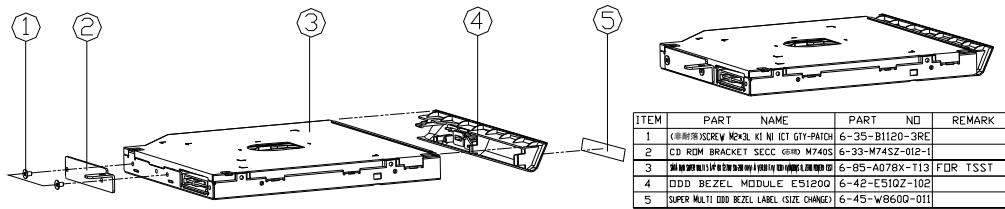


Figure A - 4
Bottom
(W253BZQ)

ITEM	PART NAME	PART NO	REMARK
1	MAIN BOARD V20 (W/3G/W/1PM) W253BZQ	6-77-W2530-DBE-2	
1	MAIN BOARD V20 (W/3G/W/1PM) W253BZQ	6-77-W2530-DBE-2	
2	MYLAR PET FOR W/8 FTN (W/MAZ LOGIN) W253BZQ	6-40-W240S-011	
3	CPU HEATSINK MODULE (CPU) W253BZQ	6-31-W278N-100	
4	AUDIO BOARD MODULE (CPU) W/253BZQ	6-40-C450S-030	
5	SCREW M2.5X6L KI NI ICT NY FOR SPEAKER	6-35-B612S-5RA	
6	SCREW M2X1.1 NI ICT NY (D0=45.0T=84)	6-35-B6120-3R0	
7	DDD BRIDGE BOARD V1.0 E5120G	6-77-E510N-001	
8	TAPE MYLAR TRANSPARENT (CPU) W/253BZQ	6-40-P1803-020	
9	MYLAR 475X31 (PET+3M467) C4100	6-40-C410S-010	
10	MYLAR COVER RUBBER SILICON (D0=49M)	6-88-S180W-8300	(OPTION)
11	SCREW M2X1.1 NI ICT NY (D0=45.0T=84)	6-35-B1120-3RE	
12	LCD FRONT COVER RUBBER SILICON (D0=49M)	6-47-W7651-030	
13	MYLAR FOR CPU (444) (MIL PET+3M467) W253BZQ	6-40-W278S-030	
14	MYLAR COVER RUBBER SILICON (D0=49M)	6-88-W345F-8700	(OPTION)
14	MYLAR COVER RUBBER SILICON (D0=49M)	6-88-W345F-9400	(OPTION)
15	BATTERY 3V 220MA BBRCR2032B (X1S)	6-23-6A2B2-030	
16	MYLAR TRANSPARENT (CPU) W/253BZQ	6-87-E412S-4D7A	
17	RUBBER-2 FOR BOTTOM CASE W253BZQ	6-47-W2503-030	
18	SPRINGER (M2.5X6) FOR BOTTOM CASE W253BZQ	6-23-5W25P-020-2	
19	SCREW M2.5X6L NI ICT NY FOR SPEAKER	6-35-Z1120-6R2	
20	SCREW M2.5X6L KI BK/Z NY ICT	6-35-B612S-8R0	
21	SCREW M2X1.1 NI ICT NY (D0=45.0T=84)	6-35-B6120-5R0	
22	TAPE MYLAR TRANSPARENT (CPU) W/253BZQ	6-43-W2500-011-2	
23	TAPE MYLAR TRANSPARENT (CPU) W/253BZQ	6-40-W2503-010	
24	SPRINGER (M2.5X6) FOR BOTTOM CASE W253BZQ	6-23-5W25P-010-2	
25	AUDIO BOARD V1.0 W251BLO	6-77-W2518-001	
26	SATA DVD SUPER MULTI ASSY (OPTION)	6-79-W253000-010	
26	W/O DDD ASS'Y W253HPQ	6-79-W253002-000	
27	BOTTOM CASE MODULE (TEXTURE) W253BZQ	6-39-W2533-011	
28	W/O HDD ASS'Y C4800	6-79-C480000J-010	
28	W/HDD ASS'Y E5120G	6-79-E512000J-020	
29	HDD COVER SANE (TEXTURE) W253BZQ	6-42-W253J-011	
30	PRODUCT LABEL FOR W253BZQ	6-45-W253203-010	
31	SCREW M2X1.1 NI ICT NY (D0=45.0T=84)	6-35-C2120-3R0	
32	SILICA RUBBER SILICON RUBBER W253BZQ	6-47-W2503-010	
33	SCREW M2X1.1 NI ICT NY (D0=45.0T=84)	6-35-B6120-3RE	
34	FAN MODULE W251HUG	6-31-W251S-100	
35	CPU COVER MODULE (TEXTURE) W253BZQ	6-42-W2503-101	
36	RUBBER FOR BOTTOM CASE W253BZQ	6-47-W2503-020	
37	SPRING (M2.5X6) FOR BOTTOM CASE W253BZQ	6-47-0019A-243	
38	WASHER #6X#3X0.31 (MYLAR)	6-37-02000-601	

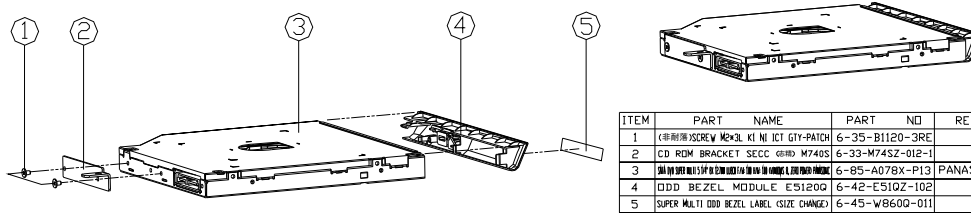
DVD (W251BLQ)

Figure 6
DVD (W251BLQ)



DVD (W258BZQ)

Figure A - 8
DVD (W258BZQ)



ITEM	PART NAME	PART NO	REMARK
1	ネジ (SCREW) M2.5X1.2 (PH)	6-35-B1120-3RE	
2	CD-ROM BRACKET SECC (M)	6-33-M74SZ-012-1	
3	CD-ROM DRIVE (DVD) (M)	6-85-A078X-P13	PANASONIC
4	DDD BEZEL MODULE (S)	6-42-E510Z-102	
5	SUPER MULTI DDD BEZEL LABEL (SIZE CHANGE)	6-45-W8600-011	

LCD (W251BLQ)

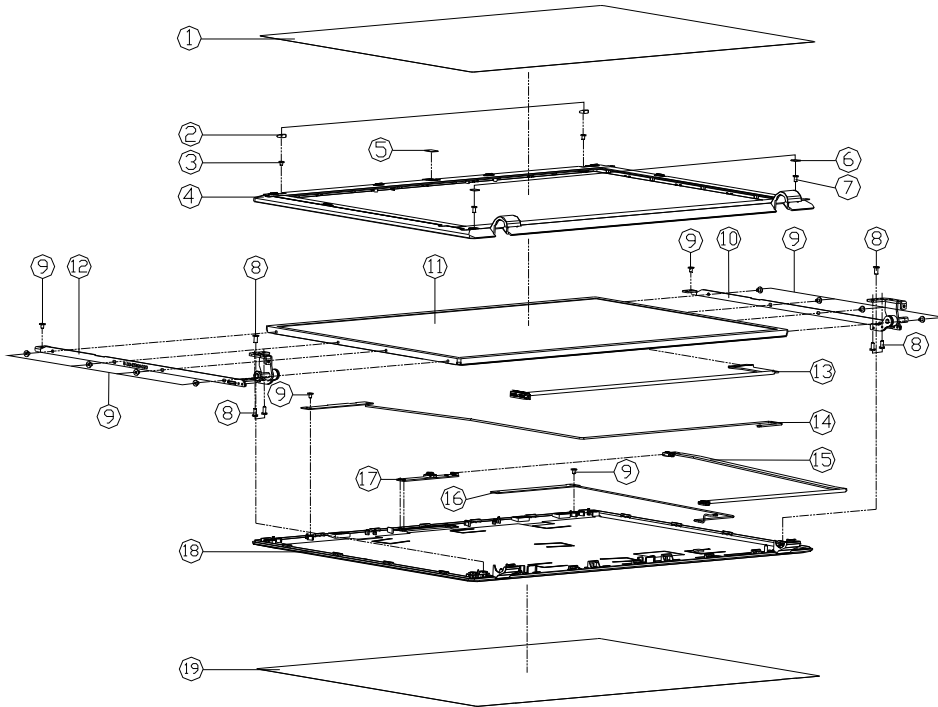


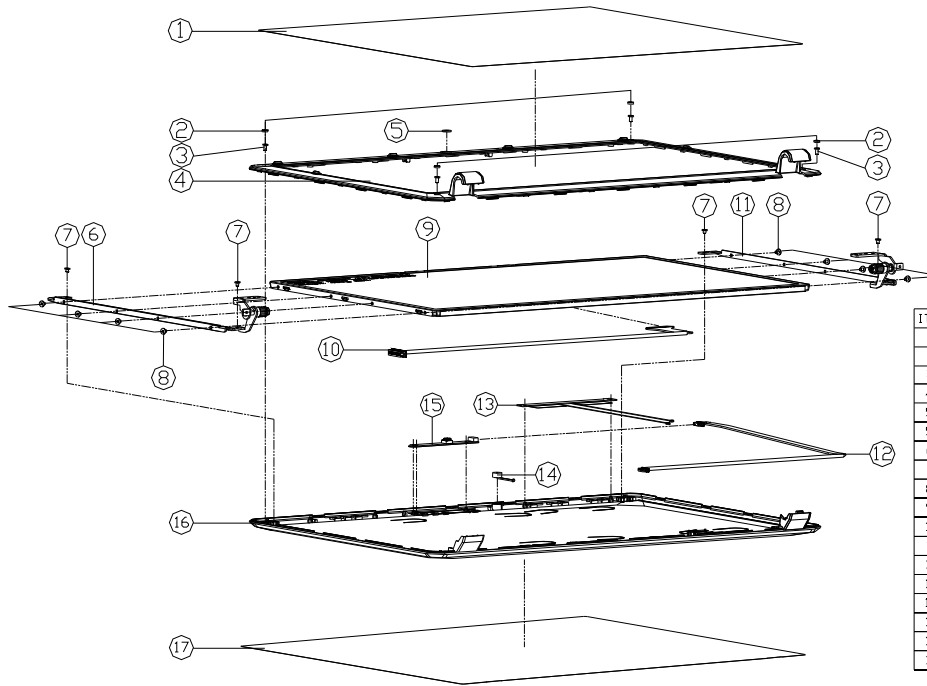
Figure A - 9
LCD (W251BLQ)

ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MYLAR (PET) (08095) E51200	6-40-E5101-030	
2	LCD FRONT COVER SCREW RUBBER SILICON E51200	6-47-E5108-011	
3	SCREW M2x3L KI RZ ICT NY (00=84.5,01=84)	6-35-B6120-3RD	
4	LCD FRONT COVER MODULE E51200 (CHANGE)	6-39-E5101-012	
5	CCD LENS PMMA E51200	6-42-E5101-031	
5	W/O CCD LENS PMMA E51200	6-42-E5101-040	
6	FRONT COVER MYLAR PC FOR SCREW E51200	6-40-E5108-011	
7	SCREW M2x6L KI BK/2 ICT NY (035 1=04)	6-35-B6120-6RB	
8	SCREW M2.5x5L 00000 0.4MM KI BK/2 ICT NY	6-35-B6120-5RD	
9	(30-0000) SCREW M2x3L KI NI ICT GY-PATCH	6-35-B1120-3RE	
10	LCD HINGE R SK7 W255HUM (SINHER)	6-33-W25U1-010	
11	LCD HINGE HD LG LPT56WH-TLBI (LED) 5.5MM	6-50-LB155-L0C	FOR W25XBLO
12	LCD HINGE L SK7 W255HUM (SINHER)	6-33-W25U1-020	
13	WIRE CABLE FOR LVDS 29MM (L/PS CONDUCTOR) E51200	6-43-E5101-011-B	
13	WIRE CABLE FOR LVDS 29MM (L/PS CONDUCTOR) E51200	6-43-W25H1-010-A	
14	OPTIONAL WIRE SK FOR LVDS 29MM (L/PS CONDUCTOR) E51200	6-23-7W25H-020	ONLY FOR W25BLO
15	WIRE CABLE FOR CCD SP 225MM (L) E51200	6-43-E5101-011	
16	OPTIONAL WIRE SK FOR CCD SP 225MM (L) E51200	6-23-7W25H-010	
17	LVC CAMERA GROUND FIX (E51200) OR HD (E51200) (E51200) (E51200)	6-88-W21EC-5100	OPTION
17	LVC CAMERA GROUND FIX (E51200) OR HD (E51200) (E51200) (E51200)	6-88-W15EC-4901	OPTION
18	LCD BACK COVER MODULE E51200	6-39-E5101-021	
19	LCD BACK COVER PROTECTION MYLAR (0805-08095) E51200	6-40-E5101-041	

A.Part Lists

LCD (W253BLQ)

Figure A - 10
LCD (W253BLQ)



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MOLAR (PET-30695) ES200	6-40-E5101-030-1	
2	LCD FRONT COVER SCREW RUBBER (M435) W253HPQ	6-47-W2531-041	
3	SCREW M2*4L K1 BNI ICT NY	6-35-B9120-4RA	
4	LCD FRONT COVER MODULE (MP1) W253HPQ	6-39-W2531-011	
5	CCD LENS PMMA G9000 (MP1) W253HPQ	6-42-W2531-011	
5	W/O CCD LENS PMMA G9000 W253HPQ	6-42-W2531-040	
6	LCD HINGE L (MP1) W253HPQ	6-33-W2531-021	
7	SCREW M2*3L 1 BZ ICT GY-PATCH NY (1-05 D=45)	6-35-C2125-3R0	
8	SCREW M2*3L K1 NI ICT NY (OD=04.5,DT=0.4)	6-35-B1120-3RE	
9	LCD 15.6" HD LG L1P156WH4-TLNI (GLARE TYPE)	6-50-L8155-L0J	
10	WIRE CABLE FOR LVDS 29PIN 04.10 CON(2454-041) ES200	6-43-E5101-011-A	
11	LCD HINGE R (MP1) W253HPQ	6-33-W2531-011	
12	WIRE CABLE FOR CCD SP 229MM (GL) ES1200	6-43-E510T-011	
13	MIC 6MM*22 10V-2V 22K W/CABLE L=650MM W253HPQ	6-23-7W25H-010	
14	I/O CAMERA CHECKY FIX CAP 306 300 3211 SV1200-300 W100	6-88-M111C-5100	
16	LCD BACK COVER MODULE (MP1) W253HPQ-C	6-39-W2531-021-C	
17	LCD BACK COVER PROTECTION MOLAR (BBS-30695) ES200	6-40-E5101-041	

LCD (W253BZQ)

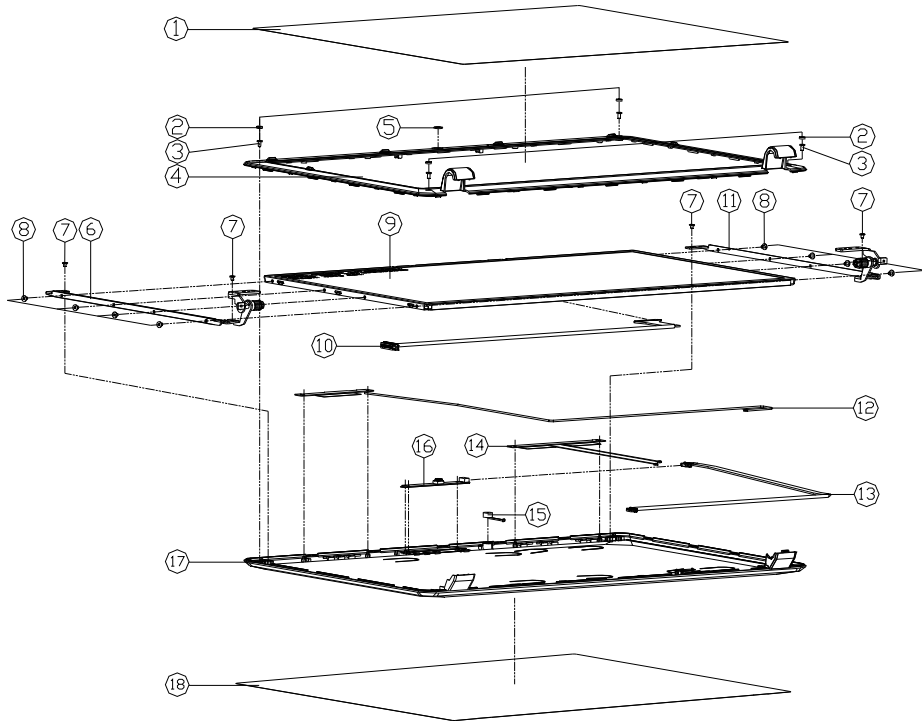


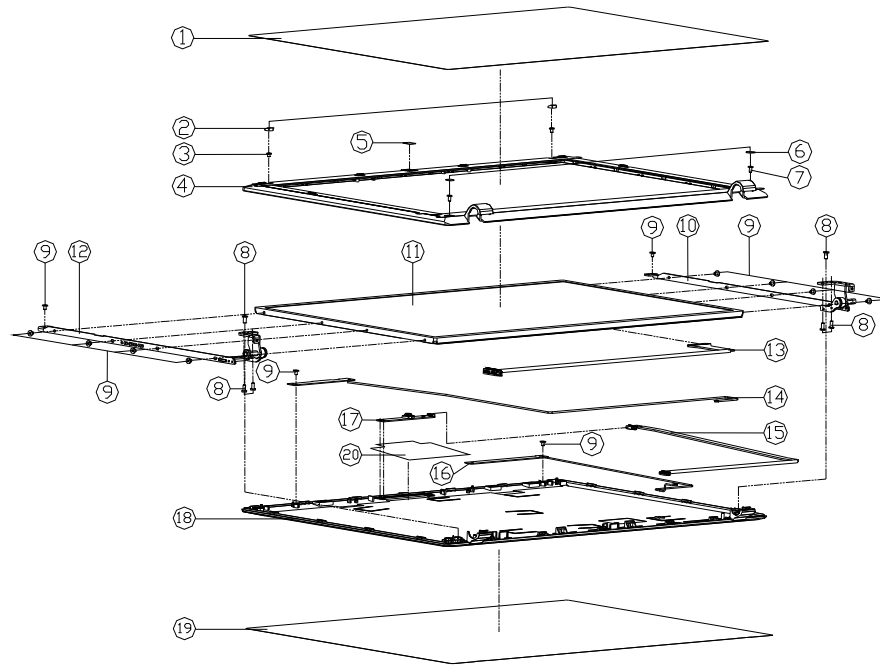
Figure A - 11
LCD (W253BZQ)

ITEM	PART NAME	PART NO	REMARK
1	LED FRONT COVER PROTECTION (MILAR 0825-3895) (ES20)	6-40-E5101-030-1	
2	LED FRONT COVER SCREW RUBBER (M4.35) W253PQ	6-47-W2531-041	
3	SCREW M2x4L KI BNI ICT NY	6-35-B9120-4RA	
4	LCD FRONT COVER MODULE (MP1) W253HPQ	6-39-W2531-011	
5	CCD LENS PMMA (G900) (MP1) W253HPQ	6-42-W2531-011	
5	W/O CCD LENS PMMA (G900) W253HPQ	6-42-W2531-040	
6	LCD HINGE L (MP1) W253HPQ	6-33-W2531-021	
7	SCREW M2x3L I 32 ICT GY-RATCH NY (145 B45)	6-35-C2125-3R0	
8	SCREW M2x3L KI IN ICT NY (40+M4.5,DT-84)	6-35-B1120-3RE	
9	LED 15.6" HD LG LPT56WH-TL2P (GLARE TYPE) (ES20)	6-50-L8155-M04	FOR W253CZD
9	LED 15.6" HD LG LPT56WH-TL2P (GLARE TYPE) (ES20)	6-50-L8155-LOH	FOR W253CZD
9	LED 15.6" HD LG LPT56WH-TL2P (GLARE TYPE) (ES20)	6-50-L8155-LOC	FOR W253CZD/BZD
9	LED 15.6" HD LG LPT56WH-TL2P (GLARE TYPE) (ES20)	6-50-L8155-LOJ	FOR W253CZD/BZD
10	WIRE CABLE FOR LVDS 29PIN (M478) (CONV64-440) (ES20)	6-43-E5101-011-A	
11	LCD HINGE R (MP1) W253HPQ	6-33-W2531-011	
12	ANTENNA FOR 3G/3.5G/4G/4.5G/5G/6G/7G (ES20)	6-23-7W250-010	
13	WIRE CABLE FOR CCD SP 22PIN (M4) (ES20)	6-43-E5101-011	FOR W253CZD/BZD
13	WIRE CABLE FOR CCD SP 22PIN (M4) (ES20)	6-43-W250T-010	FOR W253CZD
14	ANTENNA COVER FOR 3G/3.5G/4G/4.5G/5G/6G/7G (ES20)	6-23-7W25H-010	
15	MIC CABLE 2W-2V 23P W/CABLE L-146MM W253PQ	6-23-EW253-011	
16	MIC CABLE 2W-2V 23P W/CABLE L-146MM W253PQ	6-88-W15EC-4901	
16	MIC CABLE 2W-2V 23P W/CABLE L-146MM W253PQ	6-88-M115C-4902	
16	MIC CABLE 2W-2V 23P W/CABLE L-146MM W253PQ	6-88-W21EC-5100	
16	MIC CABLE 2W-2V 23P W/CABLE L-146MM W253PQ	6-88-M111C-5100	
17	LCD BACK COVER MODULE (MP1) W253HPQ	6-39-W2531-021	
18	LED BACK COVER PROTECTION (MILAR 0825-3895) (ES20)	6-40-E5101-041	

A.Part Lists

LCD (W258BZQ)

Figure A - 12
LCD (W258BZQ)



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER PROTECTION MOLAR (E5108) E5200	6-40-E5101-030	
2	LCD FRONT COVER SCREW RUBBER SILICON E5200	6-47-E5108-011	
3	SCREW M2x3L KI RZ ICT NY (00#44S,DT-04)	6-35-B6120-3RD	
4	LCD FRONT COVER MODULE E5200 (CHARGE)	6-39-E5101-012	
5	CCD LENS PMMA E51200	6-42-E5101-031	
5	W/D CCD LENS PMMA E51200	6-42-E5101-040	
6	FRONT COVER MOLAR PC FOR SCREW E5200	6-40-E5108-011	
7	SCREW M2x6L KI BK/Z ICT NY(035 t=0.4)	6-35-B6120-6RB	
8	SCREW M2x5xL BR/TP 0.4MM KI BK/Z ICT NY	6-35-B6125-5RB	
9	SCREW M2x3L KI NI ICT G1Y-PATCH	6-35-B1120-3RE	
10	LCD HINGE R SK7 W25SHUM (SINHER)	6-33-W25U1-010	
11	LCD 15.6" HD LG IPS6WH4-FILM (GLARE TYPE)	6-50-L8155-L0J	
12	LCD HINGE L SK7 W25SHUM (SINHER)	6-33-W25U1-020	
13	WIRE CABLE FOR LVDS 29MM O.D. (CONDUCTOR) E5200	6-43-E5101-011-B	
13	WIRE CABLE FOR LVDS 29MM O.D. (CONDUCTOR) E5200	6-43-W25H-010-A	
14	WIRE CABLE FOR CCD SP 22MM O.D. (E5200)	6-23-7W25H-020	ONLY FOR WESTBLO
15	WIRE CABLE FOR CCD SP 22MM O.D. (E5200)	6-43-E510T-011	
16	WIRE CABLE FOR LVDS 29MM O.D. (CONDUCTOR) E5200	6-23-7W25H-010	
17	WIRE CABLE FOR LVDS 29MM O.D. (CONDUCTOR) E5200	6-88-W15EC-4901	OPTION
18	LCD BACK COVER MODULE E5200 (GND PAINTING)	6-39-E5181-022-C	
19	LCD BACK COVER PROTECTION MOLAR (E5200) E5200	6-40-E5101-041	
20	CCD AL. FOL. AL. FOL. MOLAR-011) W2404U	6-47-W24H1-010	

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the *W251BLQ / W253BLQ / W253BZQ / W258BZQ* notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

Diagram - Page	Diagram - Page
<i>System Block Diagram - Page B - 2</i>	<i>Audio Codec VT1802P - Page B - 19</i>
<i>Ontario MEM & PCIE I/F, AP - Page B - 3</i>	<i>USB 3.0/USB Charge - Page B - 20</i>
<i>Ontario Display/CLK/MISC - Page B - 4</i>	<i>KBC-ITE IT8518 - Page B - 21</i>
<i>Ontario Power & Decoupling - Page B - 5</i>	<i>LED/MDC/BT - Page B - 22</i>
<i>NAGUA DDR3 SO-DIMMS A - Page B - 6</i>	<i>Fan/TP/Multi CON - Page B - 23</i>
<i>NAGUA DDR3 SO-DIMMS B - Page B - 7</i>	<i>5VS/3.3VS/1.8VS/1.5VS/1.IVS - Page B - 24</i>
<i>HUDSON PCIE/PCI/CLOCK/FCH - Page B - 8</i>	<i>Power VDD3, VDD5 - Page B - 25</i>
<i>HUDSON GPIO/USB/STRAP - Page B - 9</i>	<i>Power 1.5V/0.75V - Page B - 26</i>
<i>HUDSON SATA/DEBUG IO/SPI - Page B - 10</i>	<i>Power 1.IV/IVS - Page B - 27</i>
<i>HUDSON Power Decoupling - Page B - 11</i>	<i>Power 1.8VS - Page B - 28</i>
<i>POWERGOOD/TPM - Page B - 12</i>	<i>APU Core/NB Core - Page B - 29</i>
<i>ANX3110 ASIC - Page B - 13</i>	<i>Charger, DC In - Page B - 30</i>
<i>LVDS/Inverter - Page B - 14</i>	<i>Click Board - Page B - 31</i>
<i>HDMI/CRT - Page B - 15</i>	<i>Audio Board/USB - Page B - 32</i>
<i>CCD/3G - Page B - 16</i>	<i>Power Switch & LID Board - Page B - 33</i>
<i>CardReader/LAN RTL8402 - Page B - 17</i>	<i>External ODD Board - Page B - 34</i>
<i>Mini PCIE/SATA HDD/ODD - Page B - 18</i>	

Table B - 1
**SCHEMATIC
DIAGRAMS**

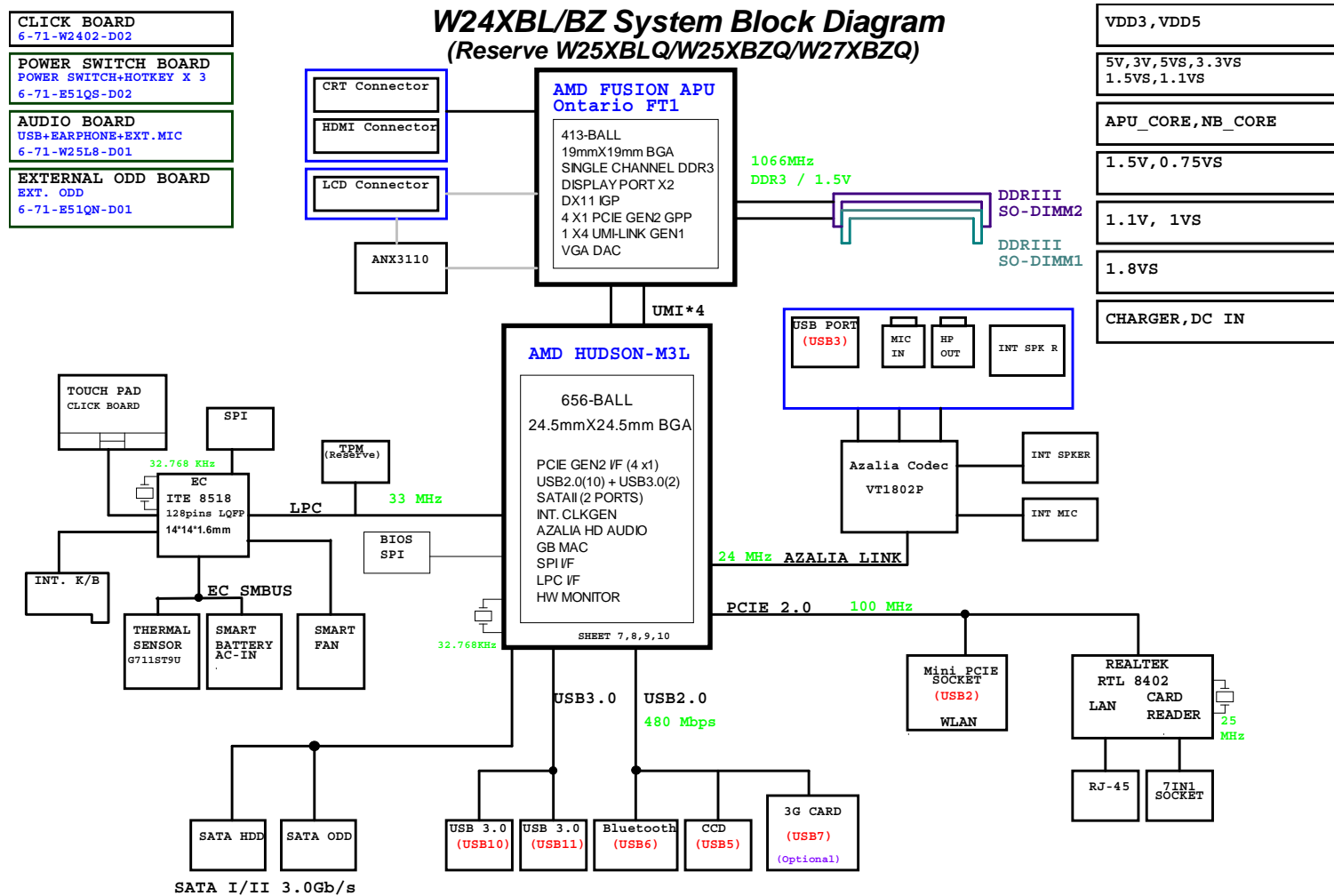


Version Note

The schematic diagrams in this chapter are based upon version 6-7P-W25L5-002. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

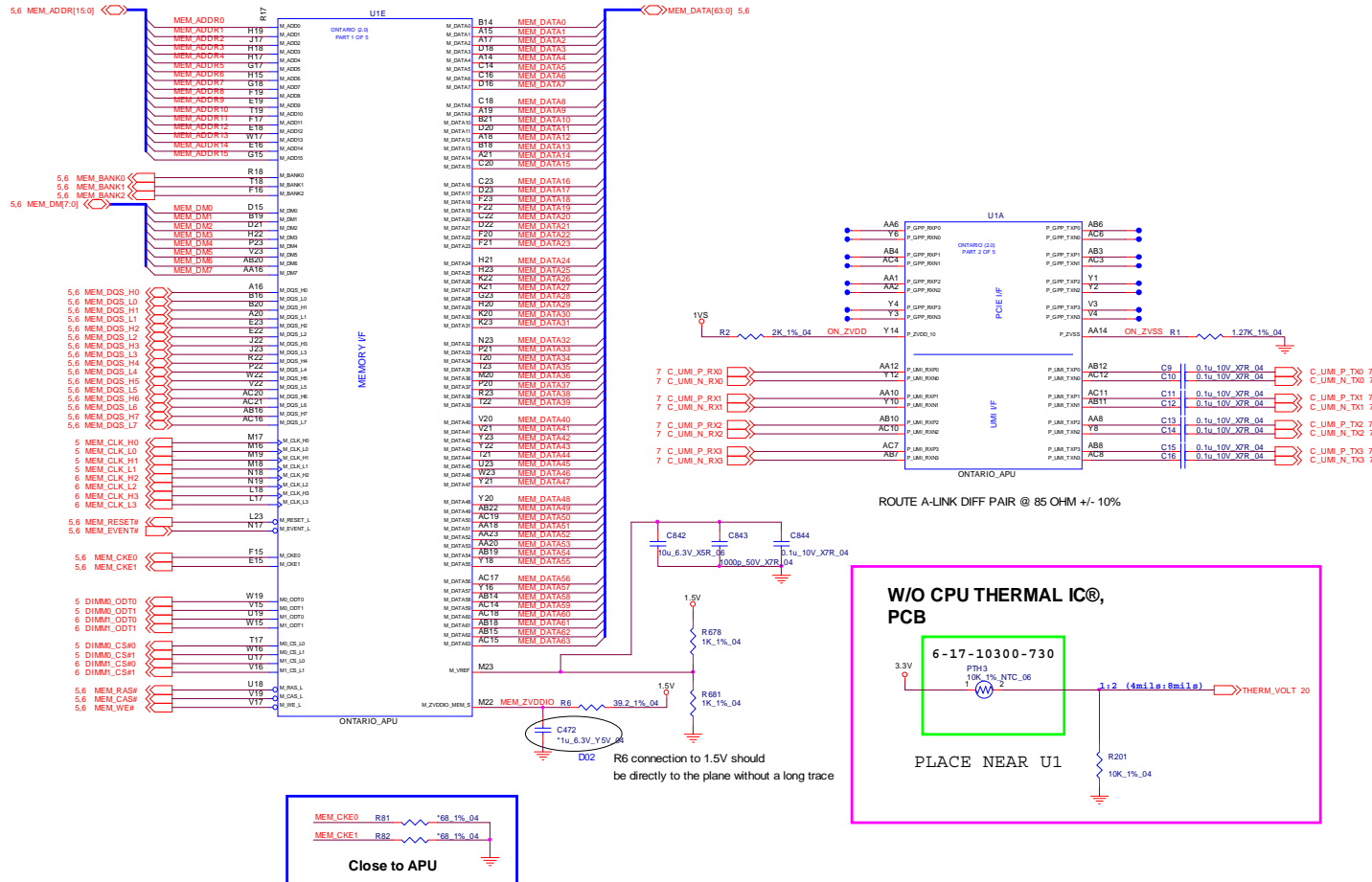
System Block Diagram

Sheet 1 of 33
System Block
Diagram



Ontario MEM & PCIE I/F, AP

ONTARIO MEM & PCIE I/F, AP



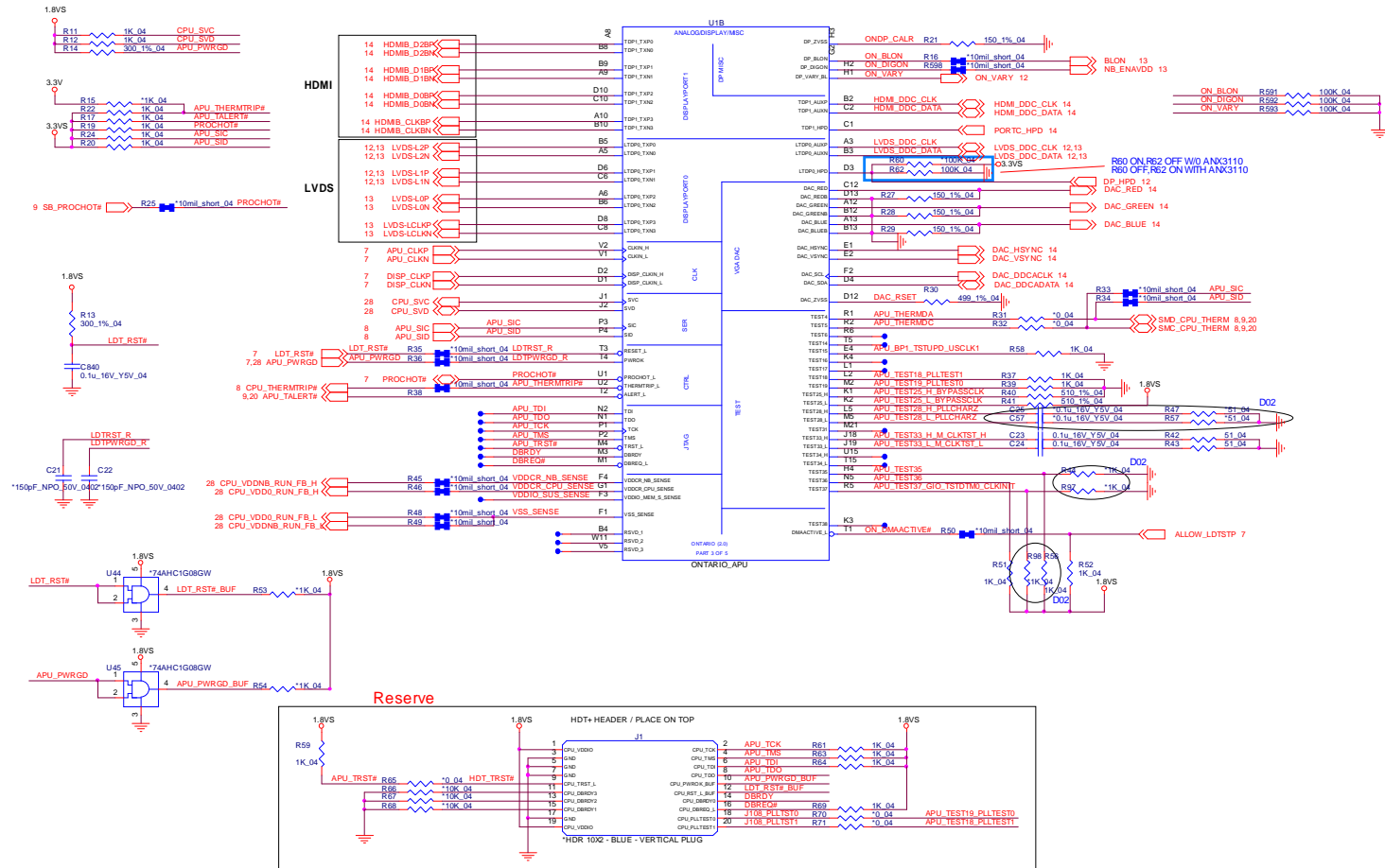
Sheet 2 of 33
Ontario MEM &
PCIE I/F, AP

B.Schematic Diagrams

Ontario Display/CLK/MISC

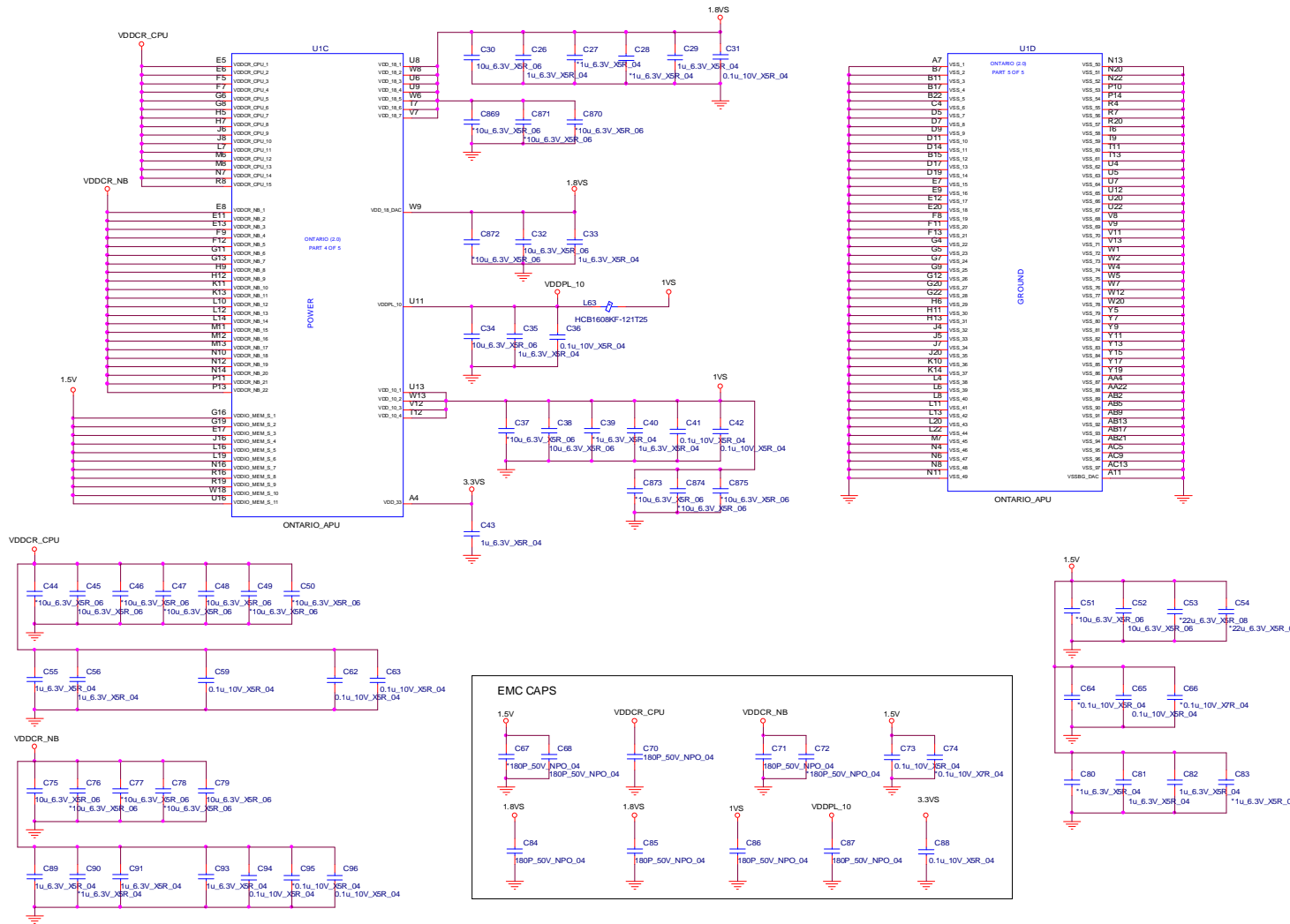
Sheet 3 of 33
Ontario Display/
CLK/MISC

ONTARIO DISPLAY/CLK/MISC



Ontario Power & Decoupling

ONTARIO POWER & DECOUPLING



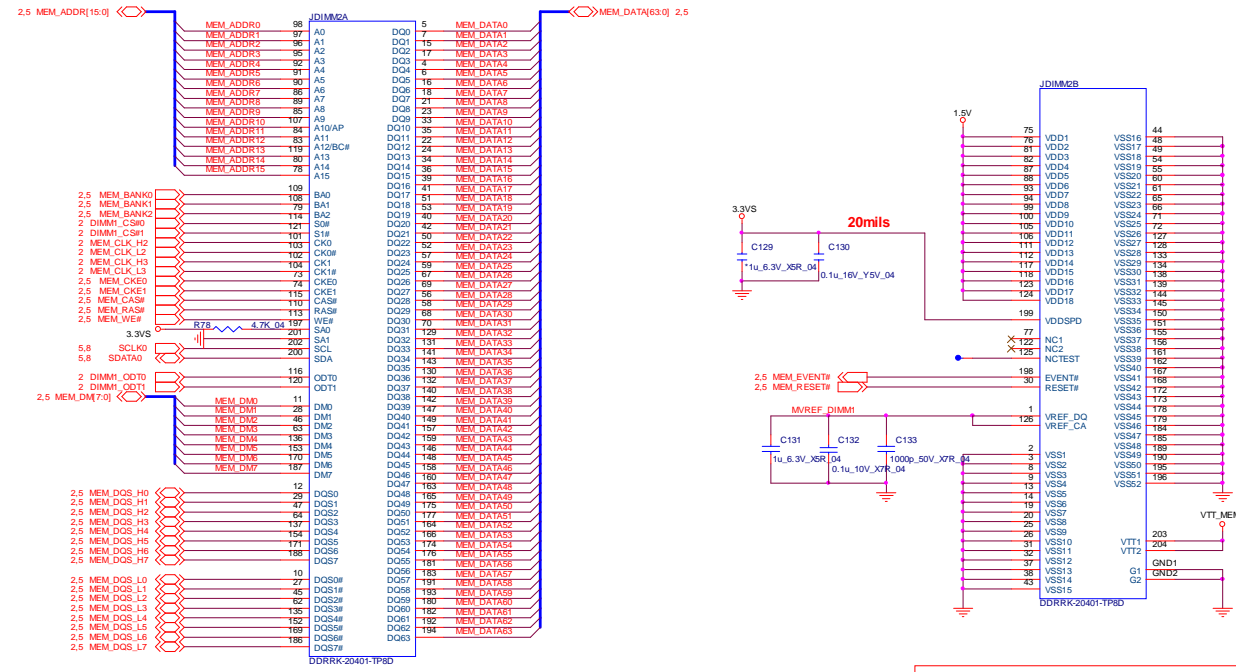
B.Schematic Diagrams

Sheet 4 of 33
Ontario Power & Decoupling

NAGUA DDR3 SO-DIMMS B

SO-DIMM B

INAGUA DDR3 SO-DIMMS B

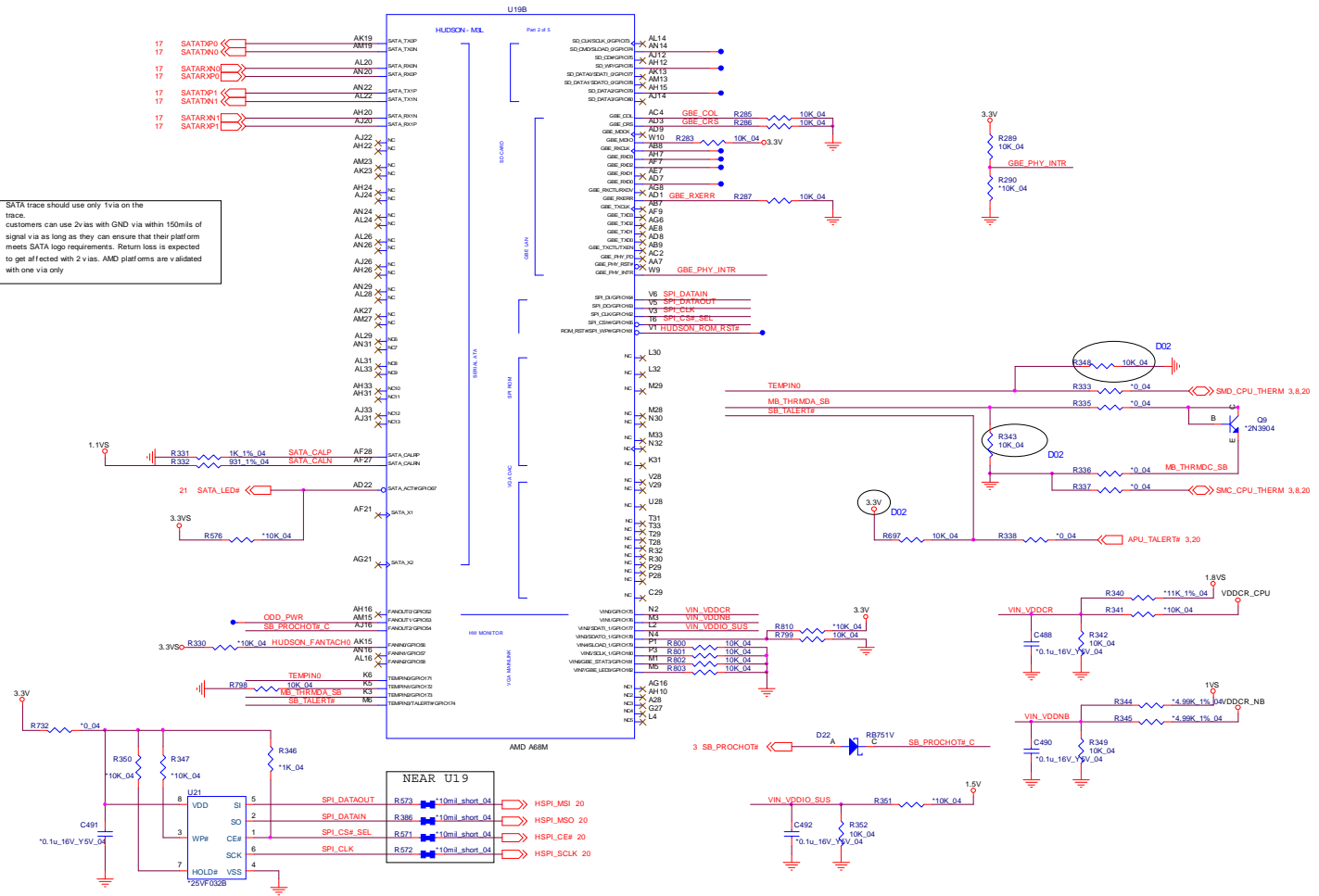


HUDSON SATA/DEBUG IO/SPI

HUDSON SATA/DEBUG IO/SPI

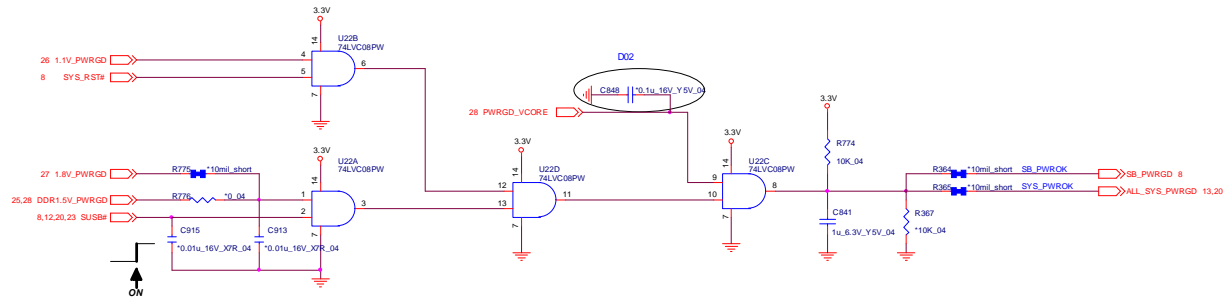
Sheet 9 of 33
HUDSON SATA/
DEBUG IO/SPI

SATA trace should use only 1 via on the trace. customers can use 2vias with GND via within 150mils of signal via as long as they can ensure that their platform meets SATA logo requirements. Return loss is expected to get affected with 2 vias. AMD platforms are validated with one via only

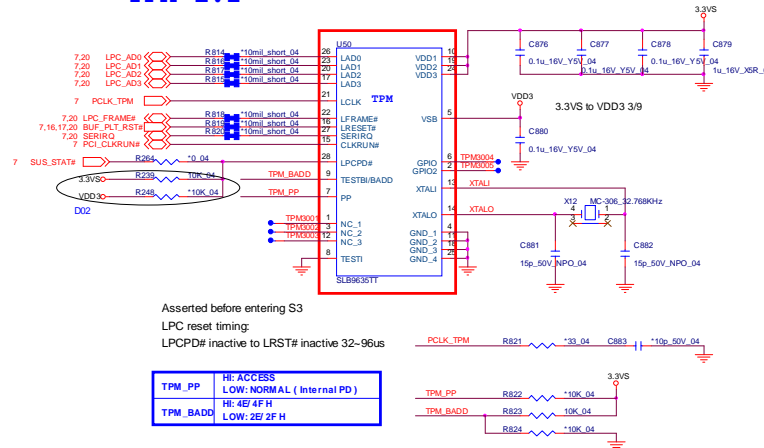


POWERGOOD/TPM

Sheet 11 of 33
POWERGOOD/TPM

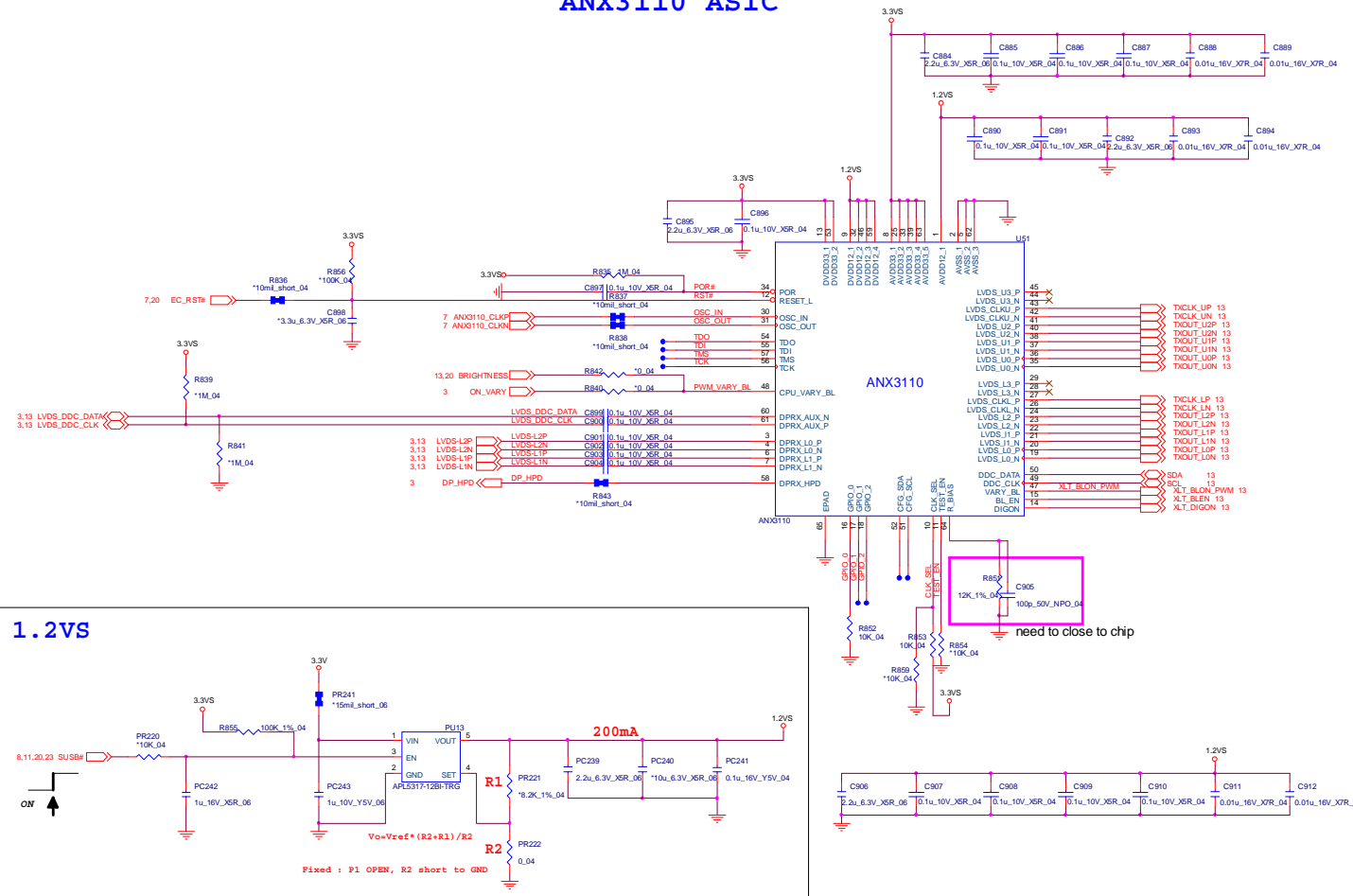


TPM 1.2



ANX3110 ASIC

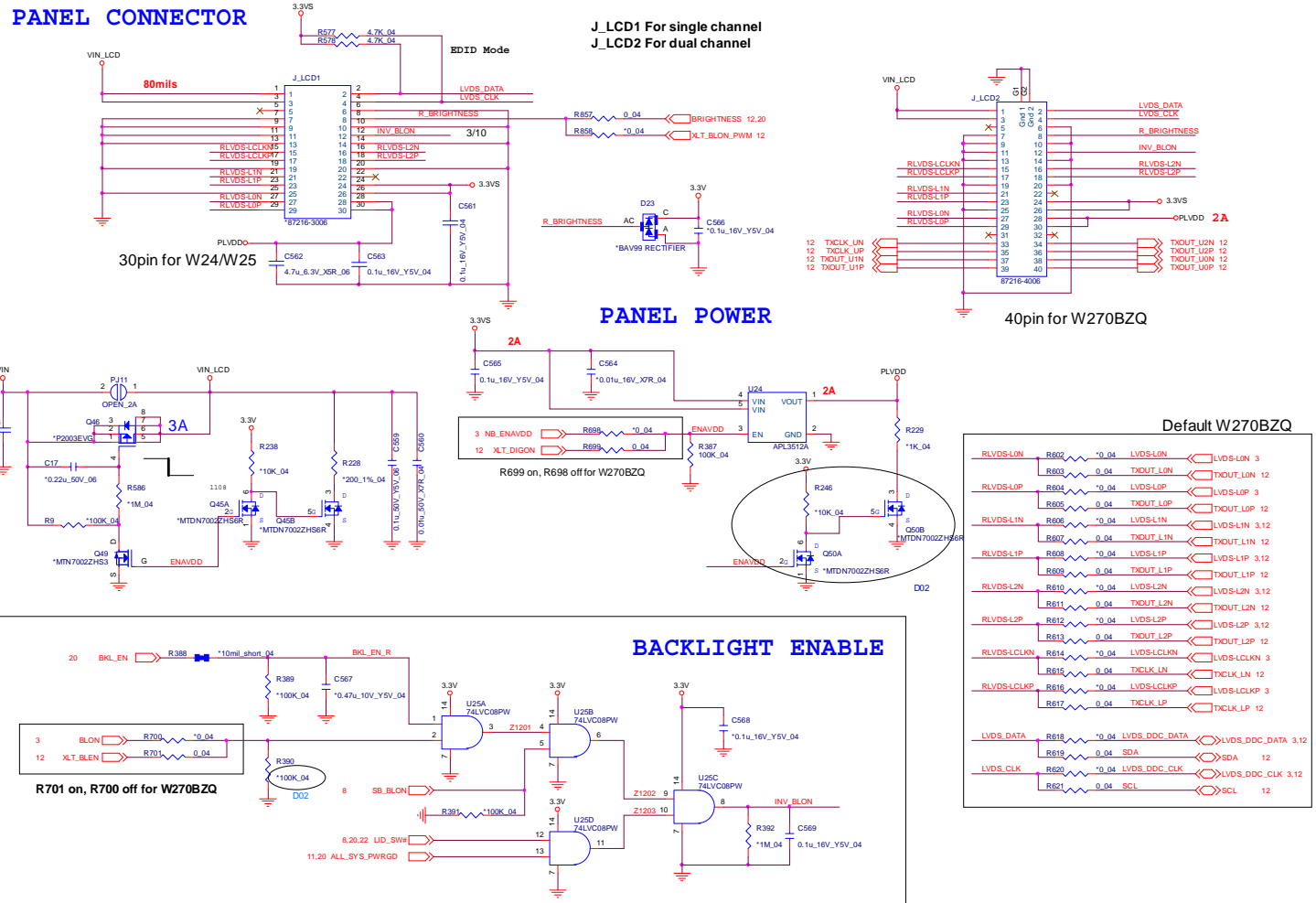
ANX3110 ASIC



Sheet 12 of 33
ANX3110 ASIC

LVDS/Inverter

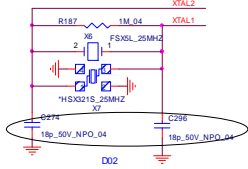
Sheet 13 of 33
LVDS/Inverter



CardReader/LAN RTL8402

LAN (RTL8402)

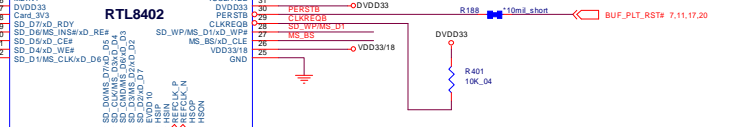
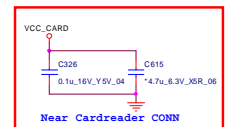
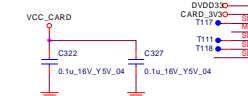
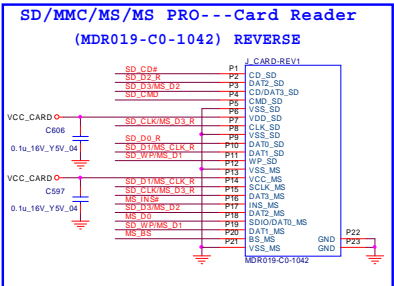
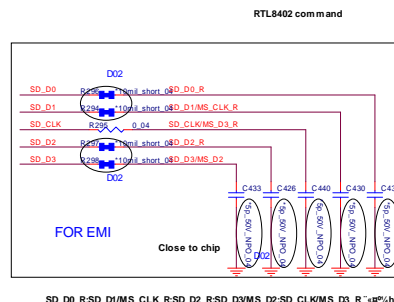
Crystal 8045 & 3225 Co-layer meet realtek Freq tolerance 50ppm



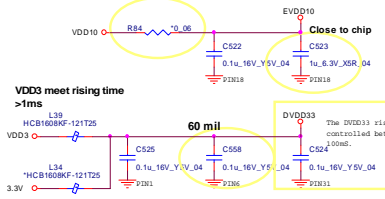
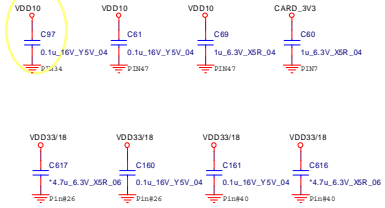
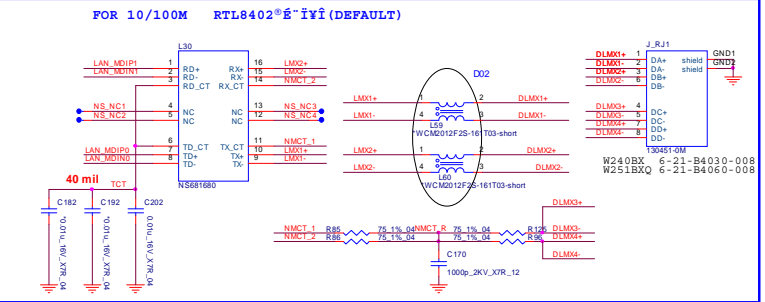
From PCH LAN 25MHz meet realtek Freq tolerance 50ppm



1A0-host/q-CARD@p@EVCC_CARD
1qAEAS@0.5W S-1h0-Y-n1ms A[]



RTL8402 incorporates a linear Low dropout regulator

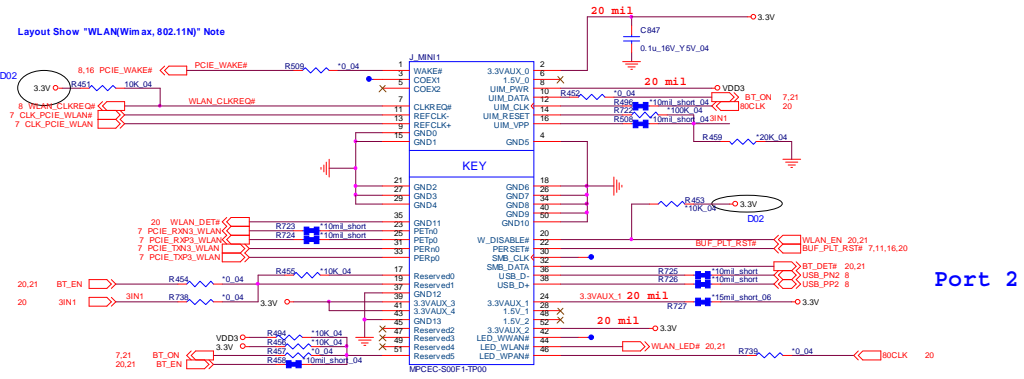


Sheet 16 of 33
CardReader/LAN
RTL8402

B.Schematic Diagrams

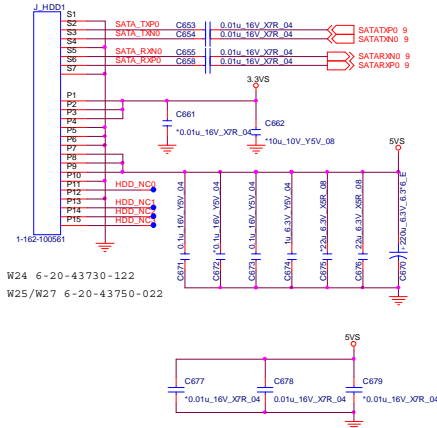
Mini PCIE/SATA HDD/ODD

MINI CARD (WLAN,Port 5)

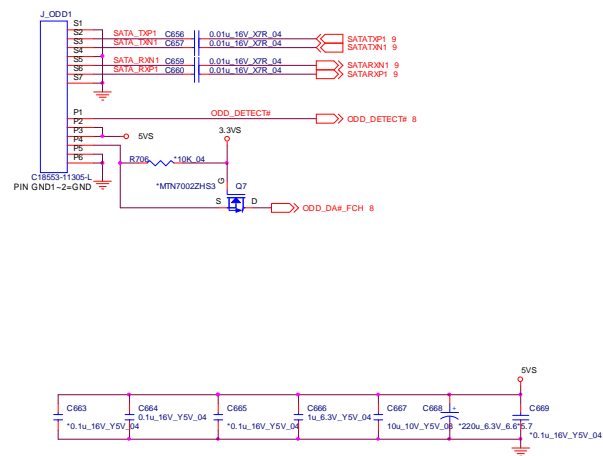


Sheet 17 of 33
Mini PCIE/SATA HDD/
ODD

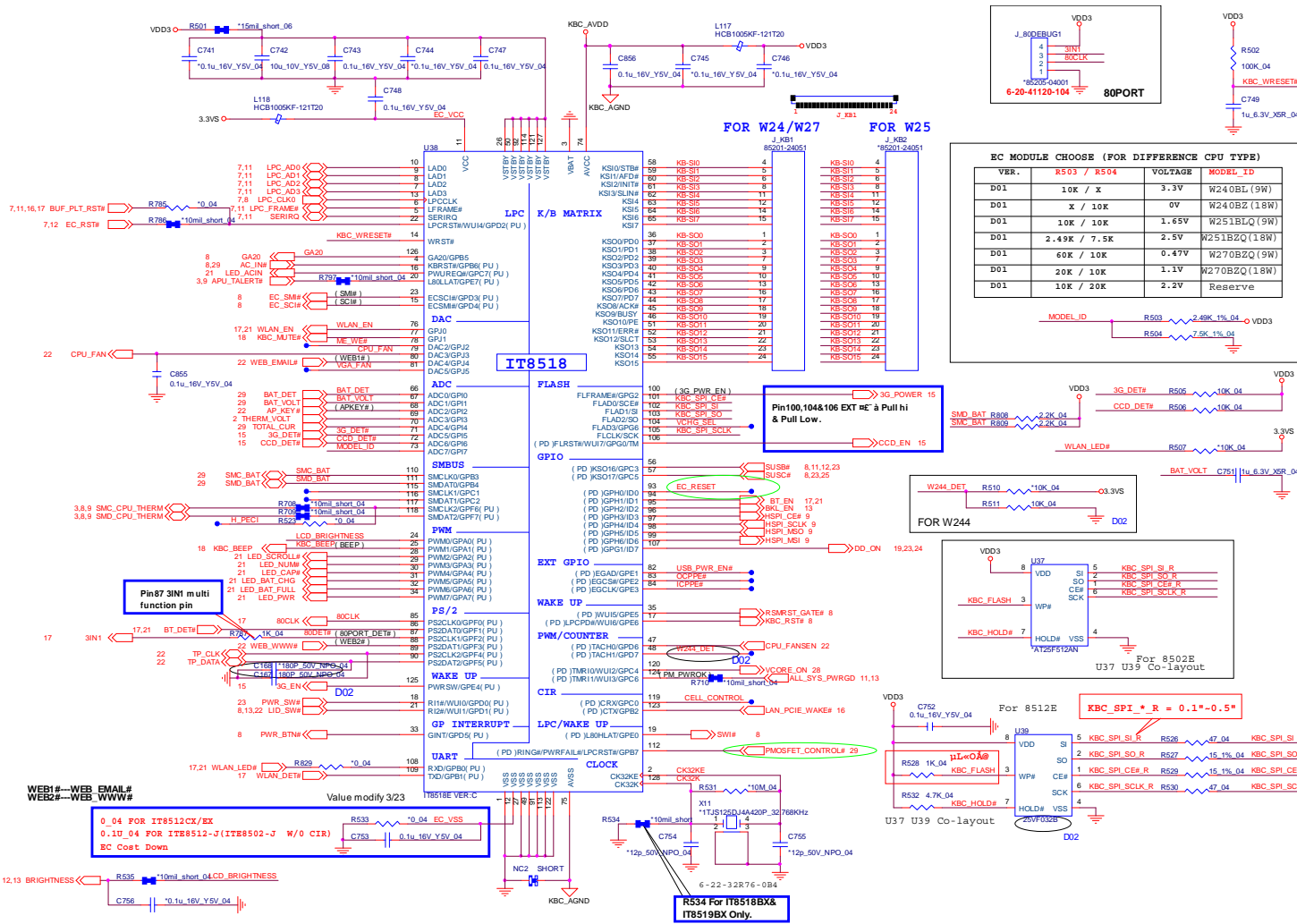
SATA HDD



SATA ODD



KBC-ITE IT8518

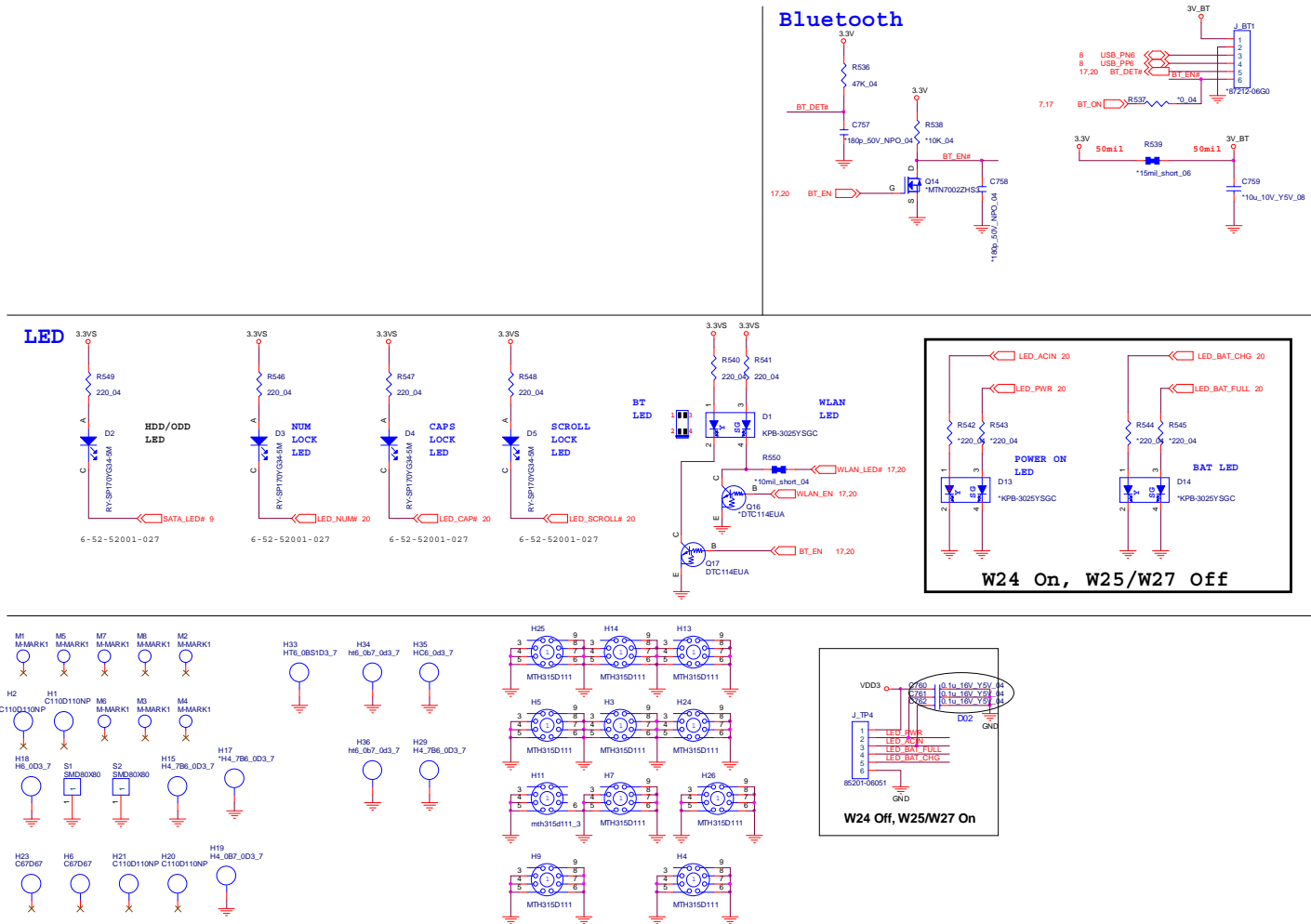


Sheet 20 of 33
KBC-ITE IT8518

B.Schematic Diagrams

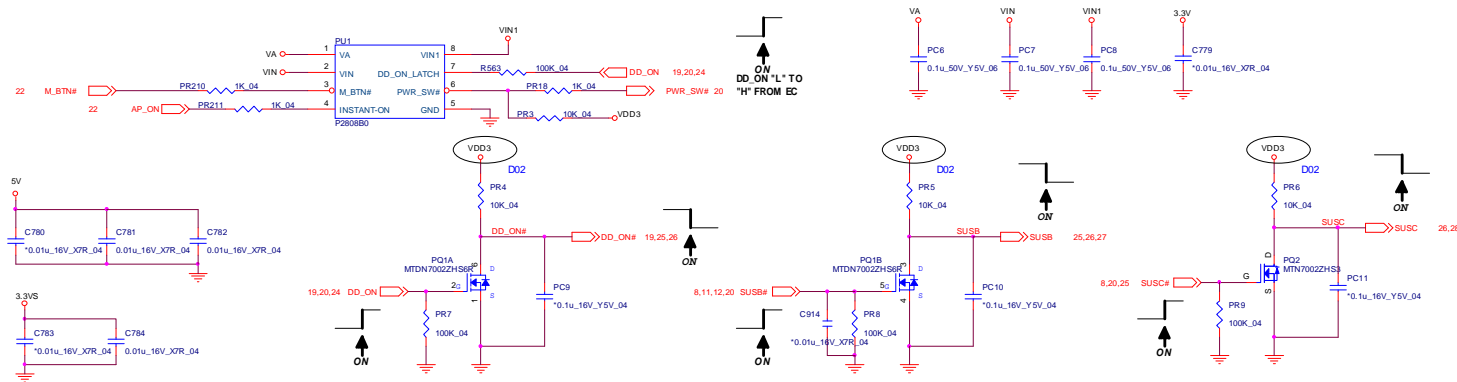
LED/MDC/BT

Sheet 21 of 33
LED/MDC/BT

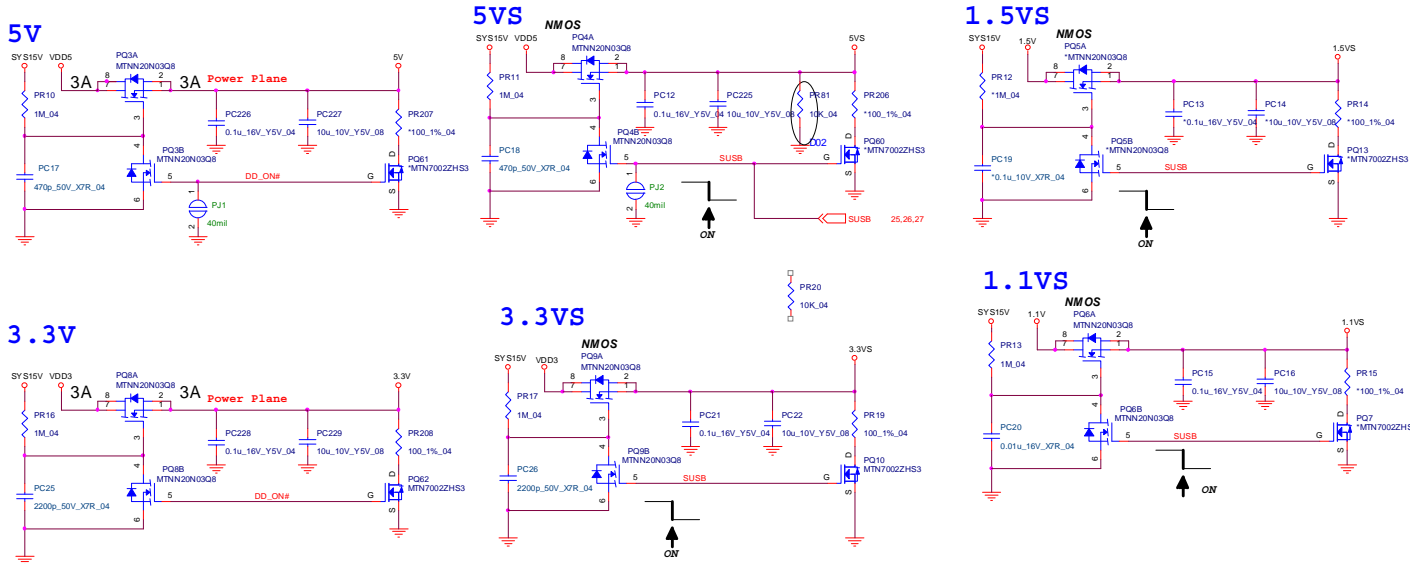


Schematic Diagrams

5VS/3.3VS/1.8VS/1.5VS/1.1VS

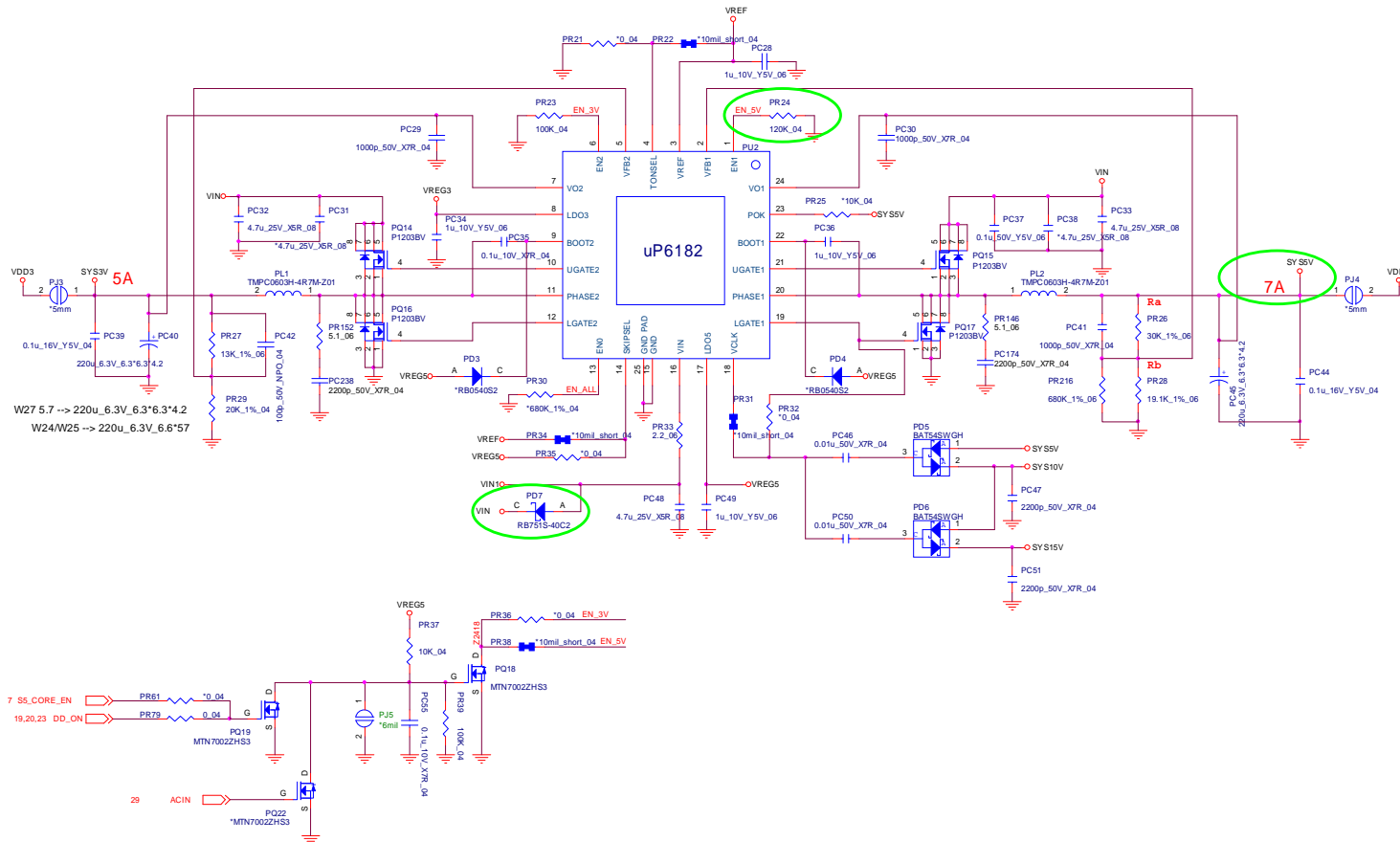


Sheet 23 of 33
5VS/3.3VS/1.8VS/
1.5VS/1.1VS



B.Schematic Diagrams

Power VDD3, VDD5



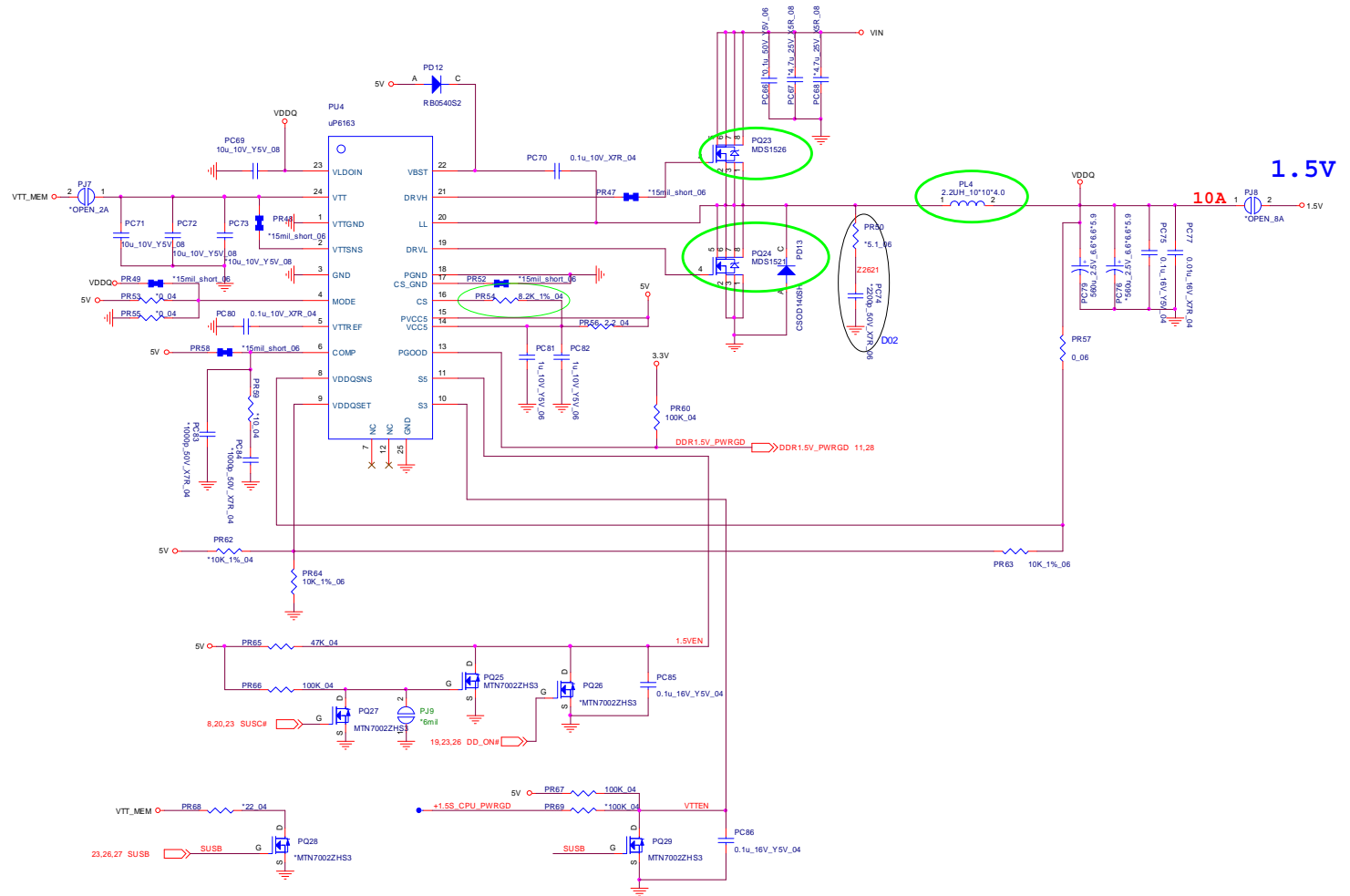
Sheet 24 of 33
Power VDD3, VDD5

Schematic Diagrams

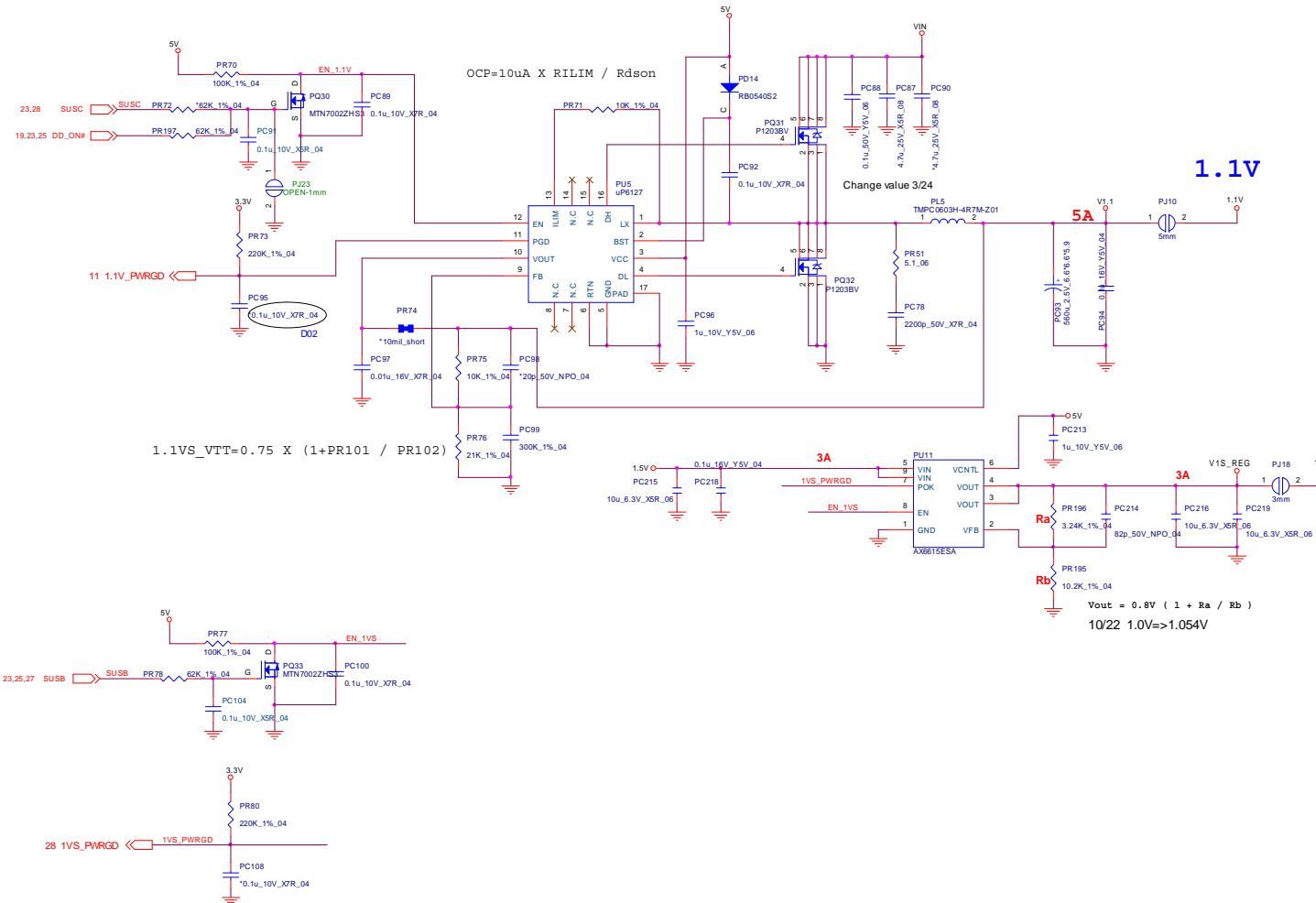
Power 1.5V/0.75V

B.Schematic Diagrams

Sheet 25 of 33
Power 1.5V/0.75V



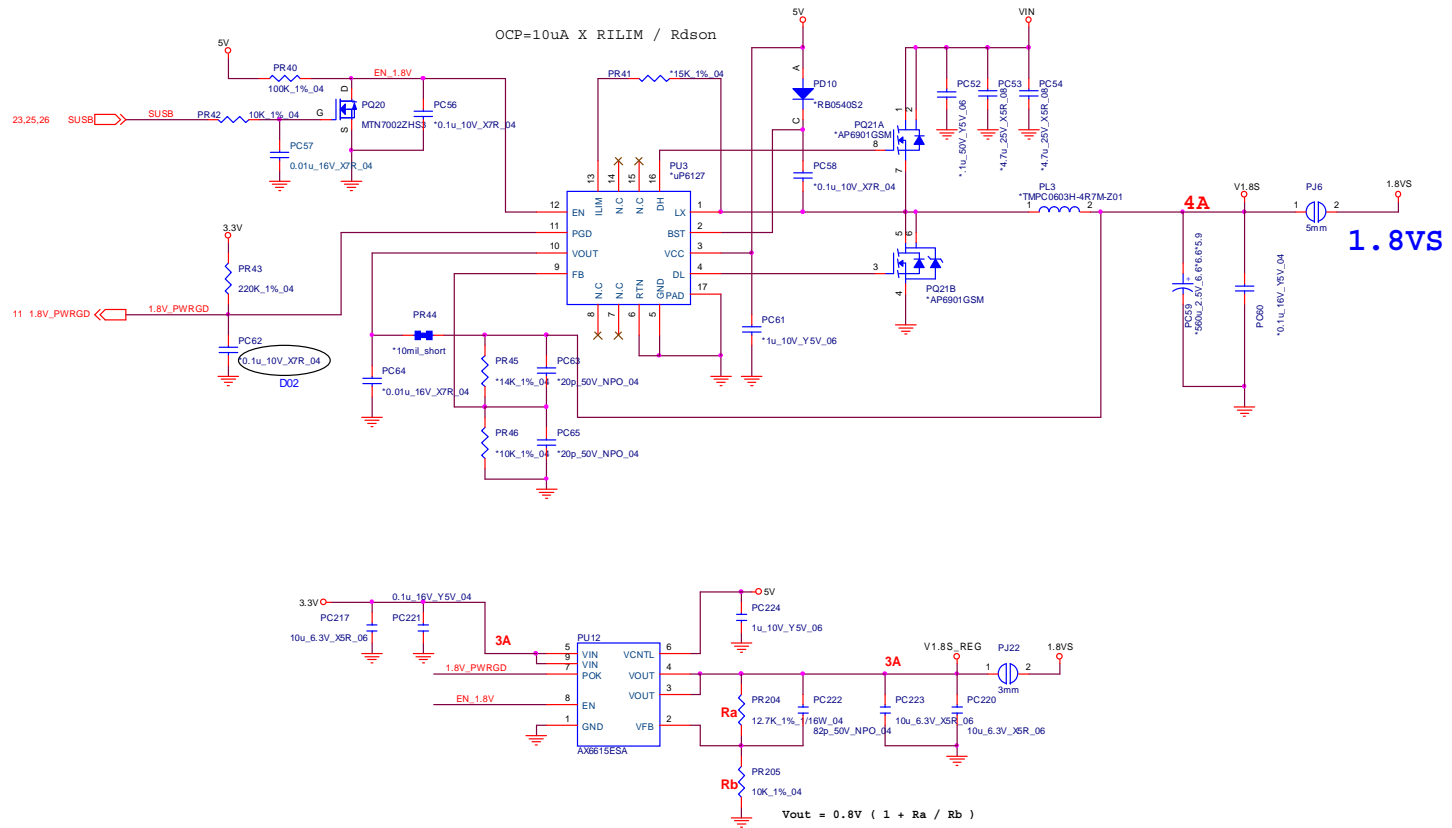
Power 1.1V/1VS



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Power 1.1V/1VS

Power 1.8VS

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Power 1.8VS

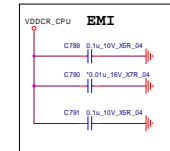
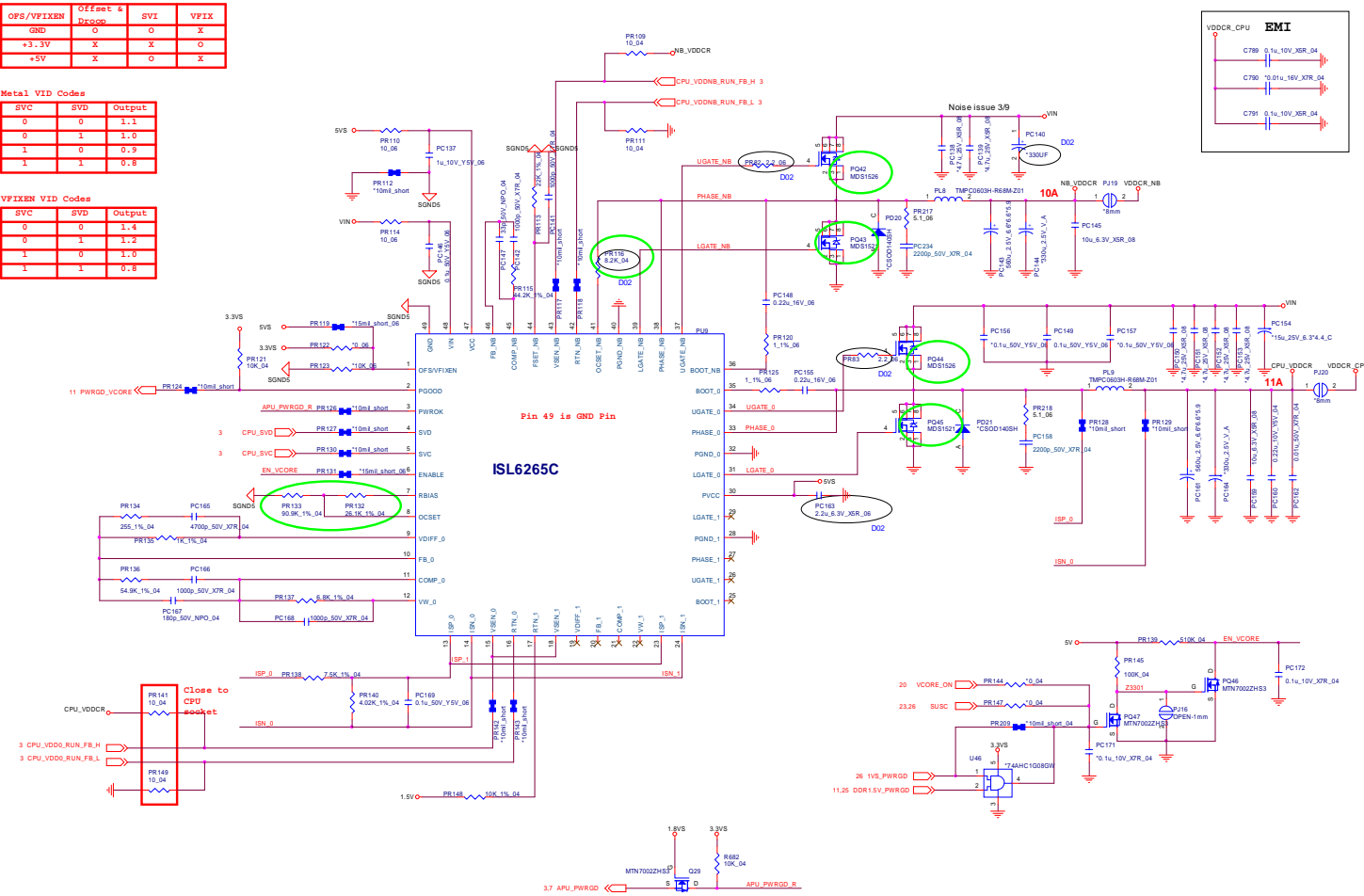


APU Core/NB Core

OPS/VFIXEN	Offset & Prog	SVID	VFIX
GND	0	0	X
+3.3V	X	X	0
+5V	X	0	X

SVC	SVD	Output
0	0	1.1
0	1	2.0
1	0	0.9
1	1	0.8

SVC	SVD	Output
0	0	1.4
0	1	1.2
1	0	1.0
1	1	0.8

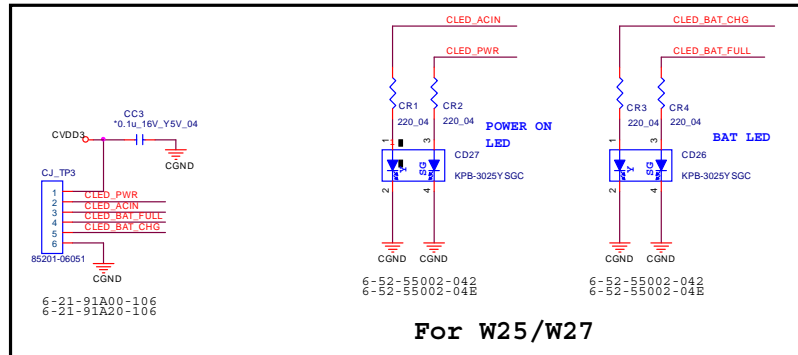
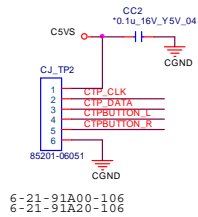
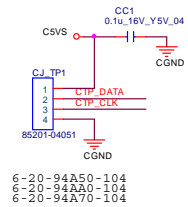


Sheet 28 of 33
APU Core/NB Core

B.Schematic Diagrams

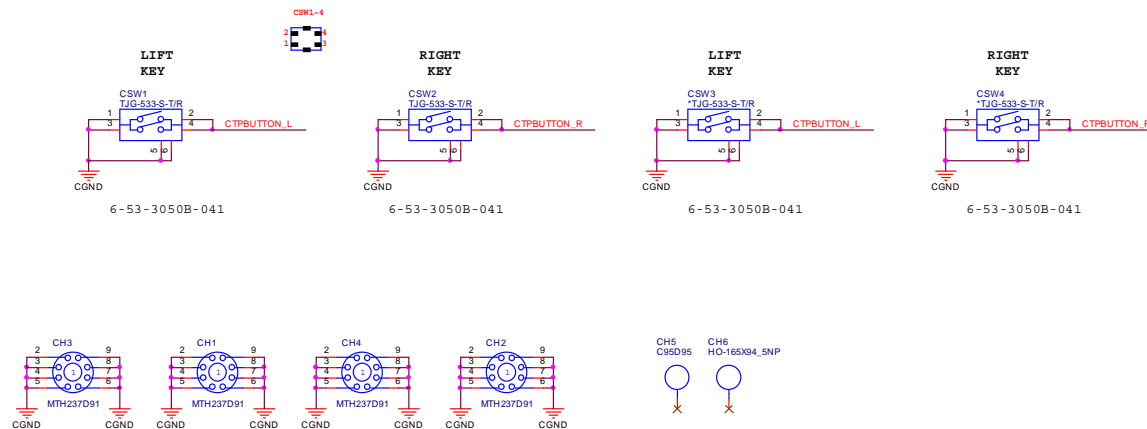
Click Board

CLICK BOARD



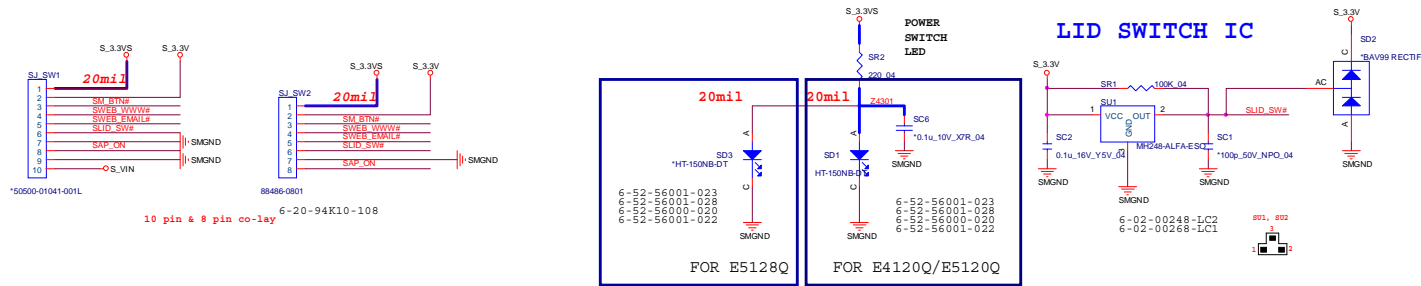
Sheet 30 of 33
Click Board

B.Schematic Diagrams



Power Switch & LID Board

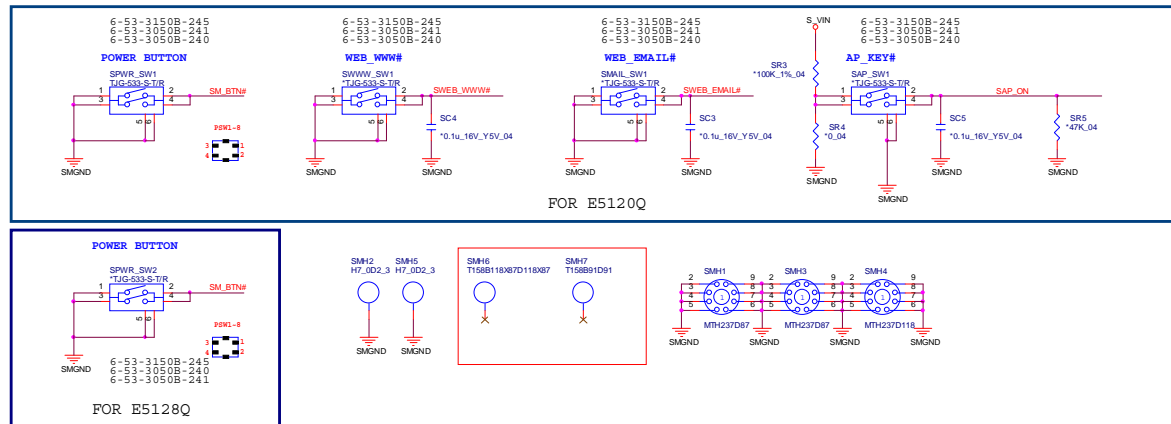
POWER SW & LED & HOT KEY



Sheet 32 of 33
Power Switch & LID Board

B.Schematic Diagrams

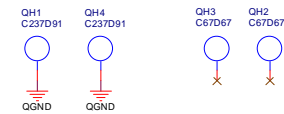
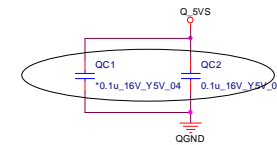
HOT KEY



External ODD Board

ODD BOARD

Sheet 33 of 33
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 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