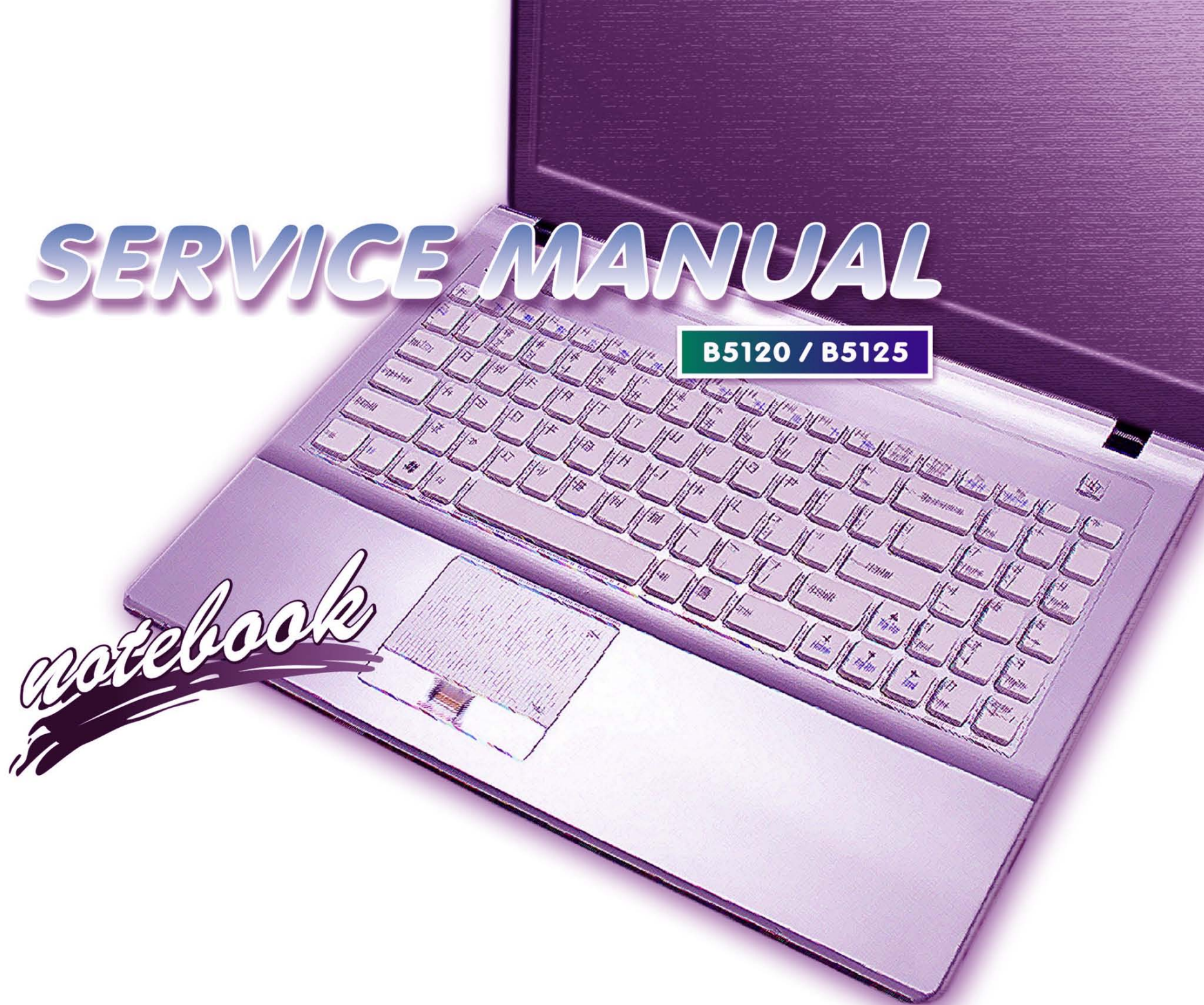


SERVICE MANUAL

B5120 / B5125

notebook



Notebook Computer

B5120/B5125

Service Manual

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Version 1.0
APRIL 2010

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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 *B5120/B5125* series notebook PC.

The following information is included:

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

Appendix A, Part Lists

Appendix B, Schematic Diagrams

Appendix C, Updating the FLASH ROM BIOS

Preface

IMPORTANT SAFETY INSTRUCTIONS

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

1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. This product is intended to be supplied by a Listed Power Unit with an AC Input of 100 - 240V, 50 - 60Hz, DC Output of 19V, 4.74A (**90W**) minimum AC/DC Adapter.

CAUTION

Always disconnect all telephone lines from the wall outlet before servicing or disassembling this equipment.

**TO REDUCE THE RISK OF FIRE, USE ONLY NO. 26 AWG OR LARGER,
TELECOMMUNICATION LINE CORD**

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

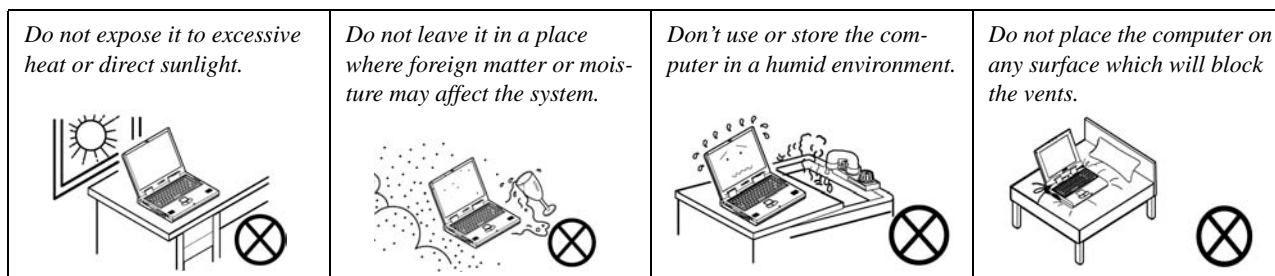
Instructions for Care and Operation

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

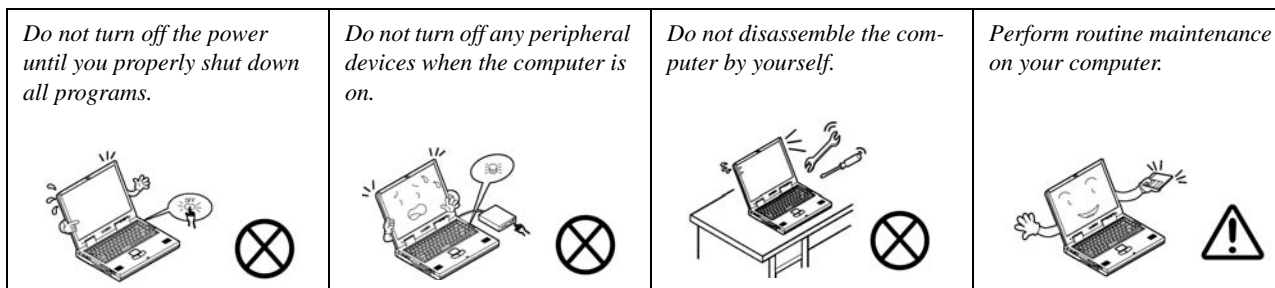
1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.



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

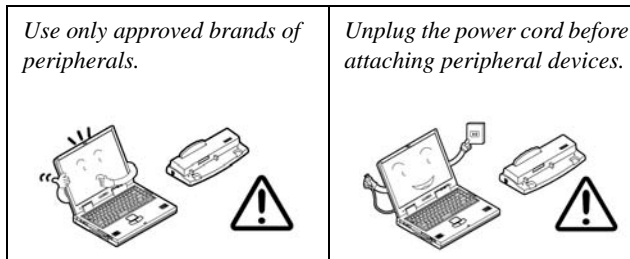


3. **Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.



Preface

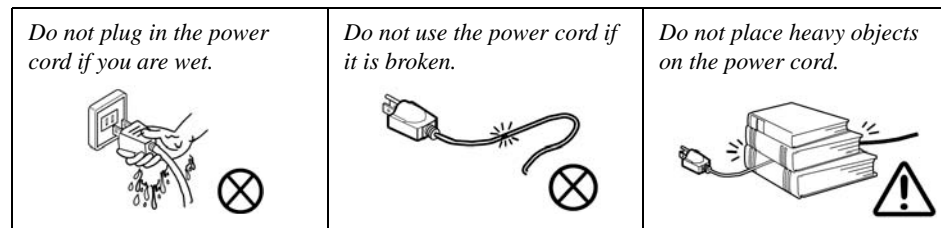
4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices.**



Power Safety

The computer has specific power requirements:

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



Power Safety Warning

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

Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not remove any batteries from the computer while it is powered on.
- 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 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.

Preface

Related Documents

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

User's Manual on CD/DVD

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

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1: Introduction

Overview

This manual covers the information you need to service or upgrade the **B5120/B5125** 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 Vista/ Window 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 **B5120/B5125** 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

Intel® Core i7 Processor

i7-620M (2.66GHz)

4MB L3 Cache & 1066MHz FSB

Intel® Core i5 Processor

i5-540M (2.53GHz), i5-520M (2.4GHz),

i5-430M (2.26GHz)

3MB L3 Cache & 1066MHz FSB

Intel® Core i3 Processor

i3-350M (2.26GHz), i3-330M (2.13GHz)

3MB L3 Cache & 1066MHz FSB

Core Logic

Intel® HM55 Chipset

BIOS

One 32Mb SPI Flash ROM

Phoenix™ BIOS

LCD Options

15.6" HD/ HD+/ FHD TFT LCD

Memory

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

Memory Expandable up to 4GB

Video Adapter

ATI Mobility Radeon™ HD 5470

1 GB of GDDR3 Video RAM

Microsoft DirectX® 11 Compatible

Security

BIOS Password

Security (Kensington® Type) Lock Slot

(**Factory Option**) Fingerprint Reader

Audio

High Definition Audio Compliant Interface

2 * Built-In Speakers

Built-In Microphone

Storage

(**Factory Option**) One Changeable 12.7mm(h) Optical Device Type Drive (Super Multi Drive Module or Blu-Ray Combo Drive Module)

One Changeable 2.5" 9.5 mm (h) **SATA** (Serial) HDD

Interface

Three USB 2.0 Ports

One eSATA Port

One HDMI-Out Port

One Headphone-Out Jack

One Microphone-In Jack

One S/PDIF Out Jack

One RJ-11 Modem Jack

One RJ-45 LAN Jack

One DC-in Jack

One External Monitor Port

One ExpressCard/34(54) Slot

Keyboard

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

Pointing Device

Built-in Touchpad (scrolling key functionality integrated)

Communication

Built-In Gigabit Ethernet LAN

(Factory Option) 56K MDC Modem, V.90 & V.92 Compliant

(Factory Option) 2.0M Pixel USB PC Camera Module

(Factory Option) Bluetooth 2.1 + EDR Module

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

Wireless LAN Module Options:

(Factory Option) Intel® WiFi Link 6200 (802.11a/g/n)

Wireless LAN Half Mini-Card Module

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

Mini Card Slots

Slot 1 for **WLAN** Module

(Factory Option) Slot 2 for **3.75G/HSPA** Module

Card Reader

Embedded 7-in-1 Card Reader (MS/ MS Pro/ SD/ Mini SD/
MMC/ RS MMC/ MS Duo)

Note: MS Duo/ Mini SD/ RS MMC Cards require a PC
adapter

Power

Full Range AC/DC Adapter

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

DC Output: 19V, 4.74A (**90W**)

6 Cell Smart Lithium-Ion Battery Pack, 48.84WH

(Factory Option) 9 Cell Smart Lithium-Ion Battery Pack,
73.26WH

Environmental Spec**Temperature**

Operating: 5°C - 35°C

Non-operating: -20°C - 60°C

Relative Humidity

Operating: 20% - 80%

Non-Operating: 10% - 90%

Dimensions & Weight

374mm (w) * 256mm (d) * 37.9mm (h)

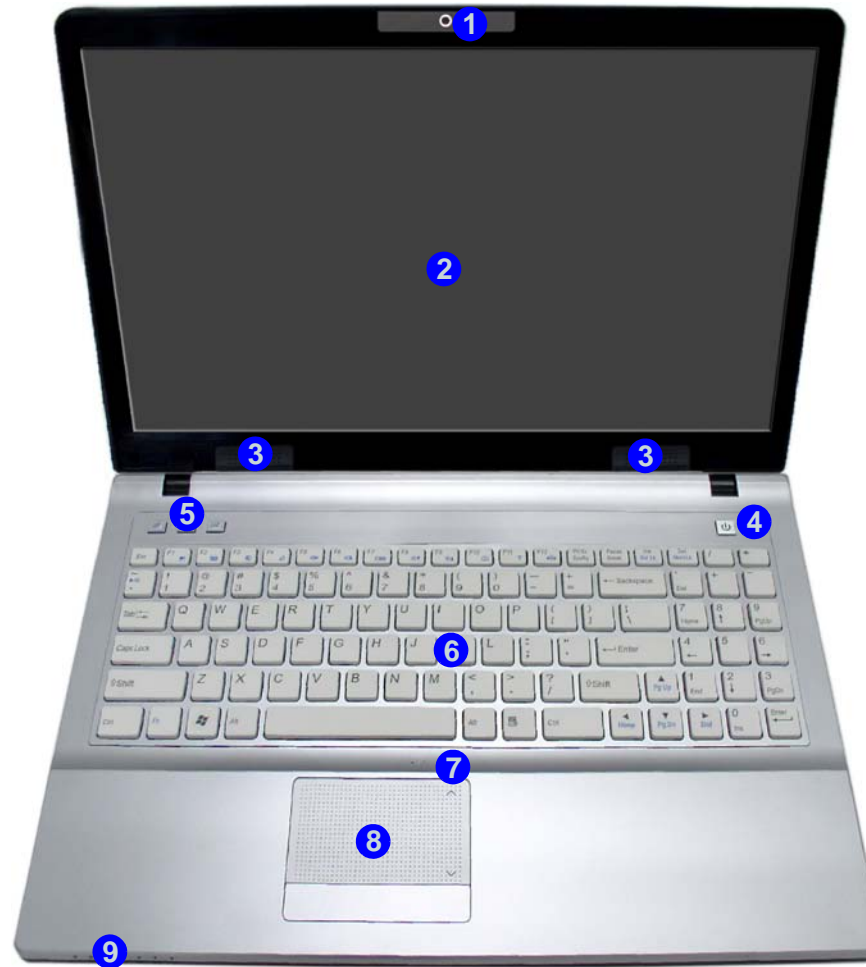
2.6 kg With 6 Cell Battery & ODD

Introduction

Figure 1
Top View

1. Optional Built-In PC Camera
2. LCD
3. Speakers
4. Power Button
5. Hot Key Buttons
6. Keyboard
7. Built-In Microphone
8. Touchpad & Buttons
9. LED Indicators

External Locator - Top View with LCD Panel Open



External Locator - Front & Right side Views



Figure 2

Front Views

1. LED Power & Communication Indicators



Figure 3

Right Side Views

1. S/PDIF-Out Jack
2. Microphone-In Jack
3. Headphone-Out Jack
4. USB 2.0 Port
5. Optical Device Drive Bay
6. RJ-11 Modem Jack
7. 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. eSATA Port
5. HDMI-Out Port
6. Vent
7. 2 * USB 2.0 Ports
8. ExpressCard/ 54(34) Slot
9. 7-in-1 Card Reader

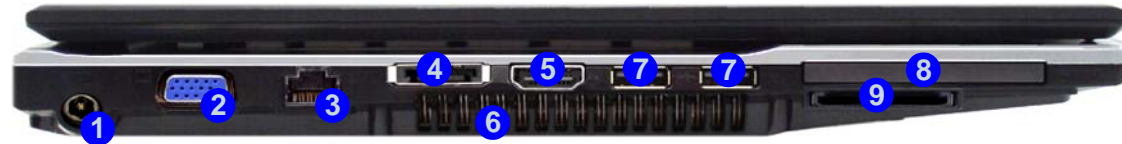


Figure 5
Rear View

1. Battery



External Locator - Bottom View

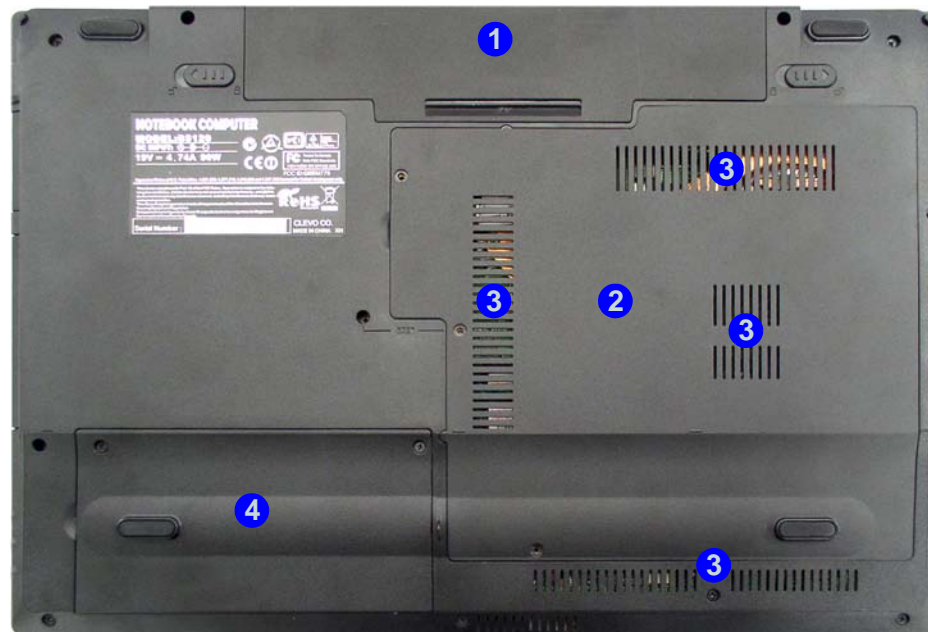


Figure 6
Bottom View

1. Battery
2. RAM & CPU Bay Cover
3. Vent
4. Hard Disk Bay Cover



Overheating

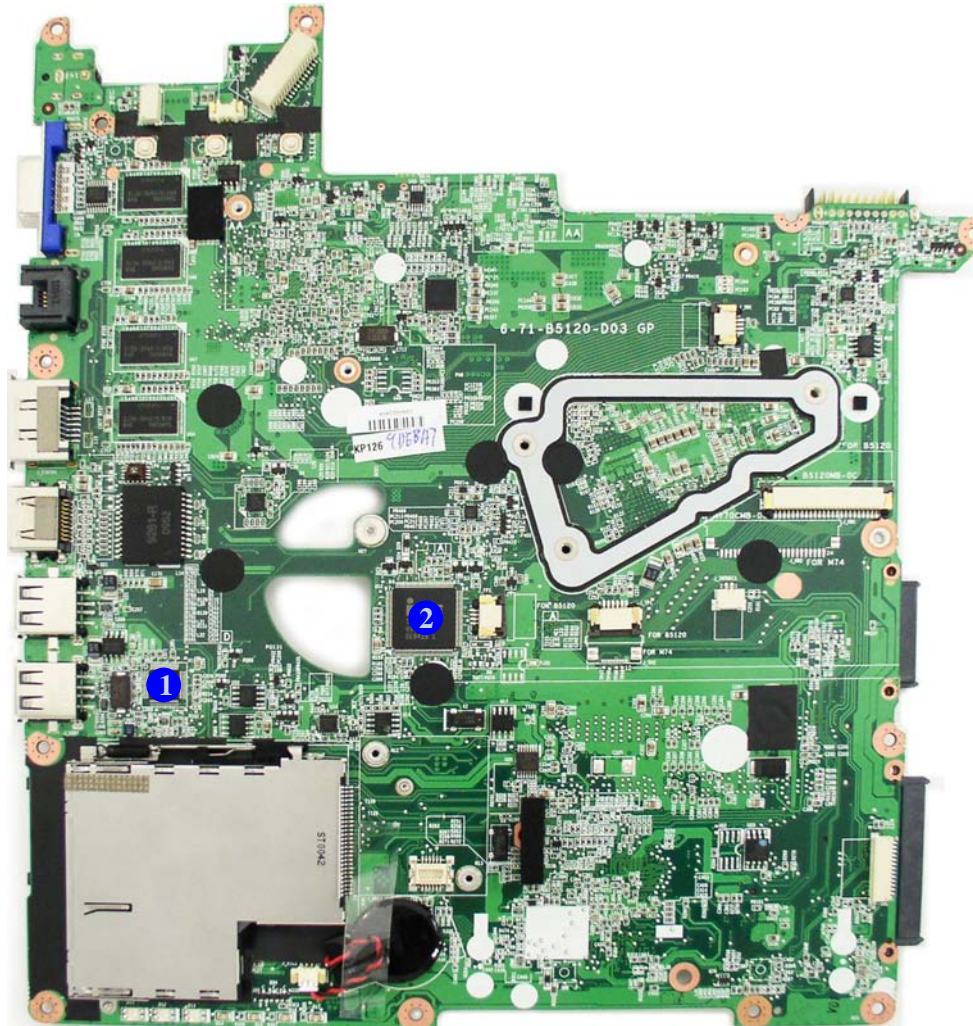
To prevent your computer from overheating, make sure nothing blocks any vent while the computer is in use.

Introduction

Figure 7
Mainboard Top
Key Parts

1. JMC251
2. KBC-ITE IT8502E

Mainboard Overview - Top (Key Parts)



Mainboard Overview - Bottom (Key Parts)

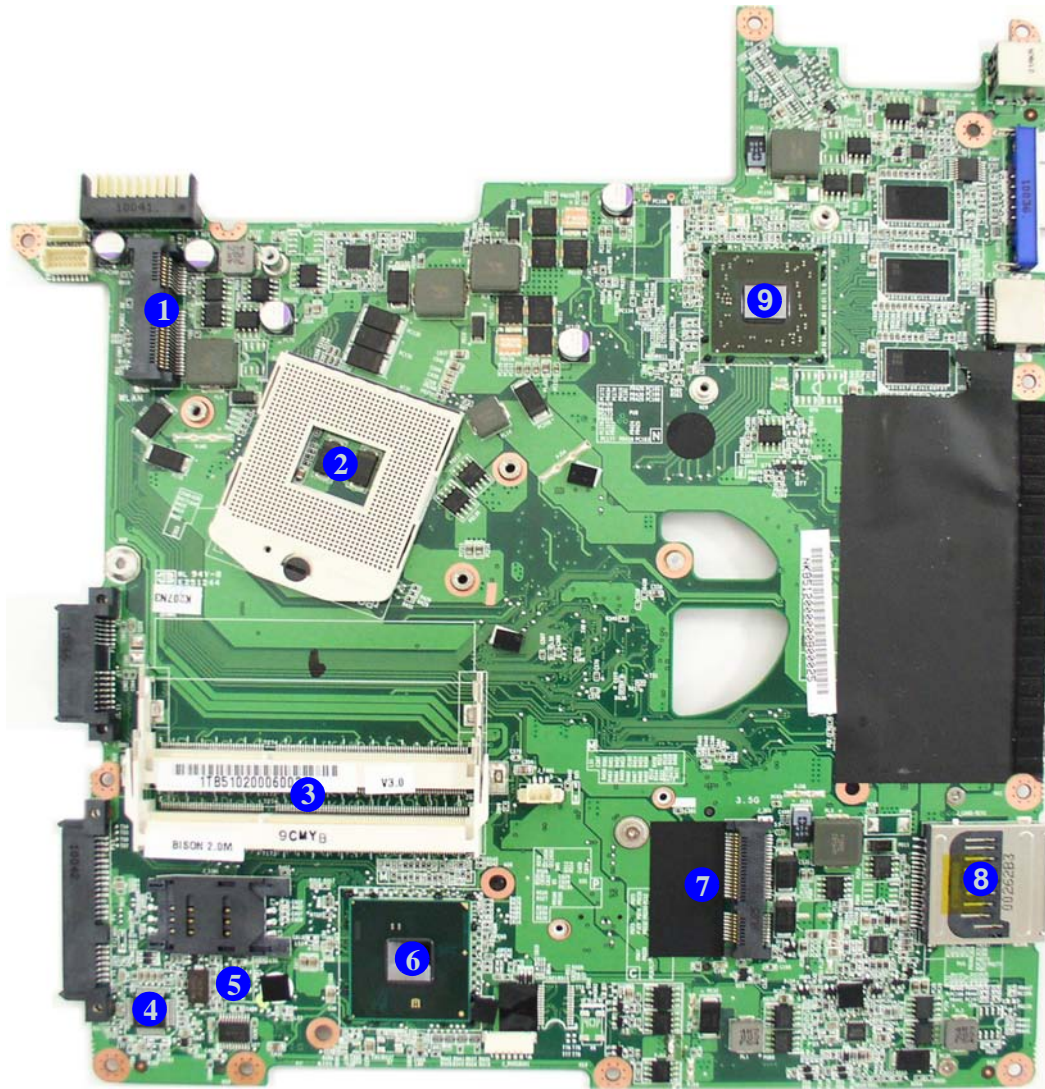


Figure 8
**Mainboard Bottom
Key Parts**

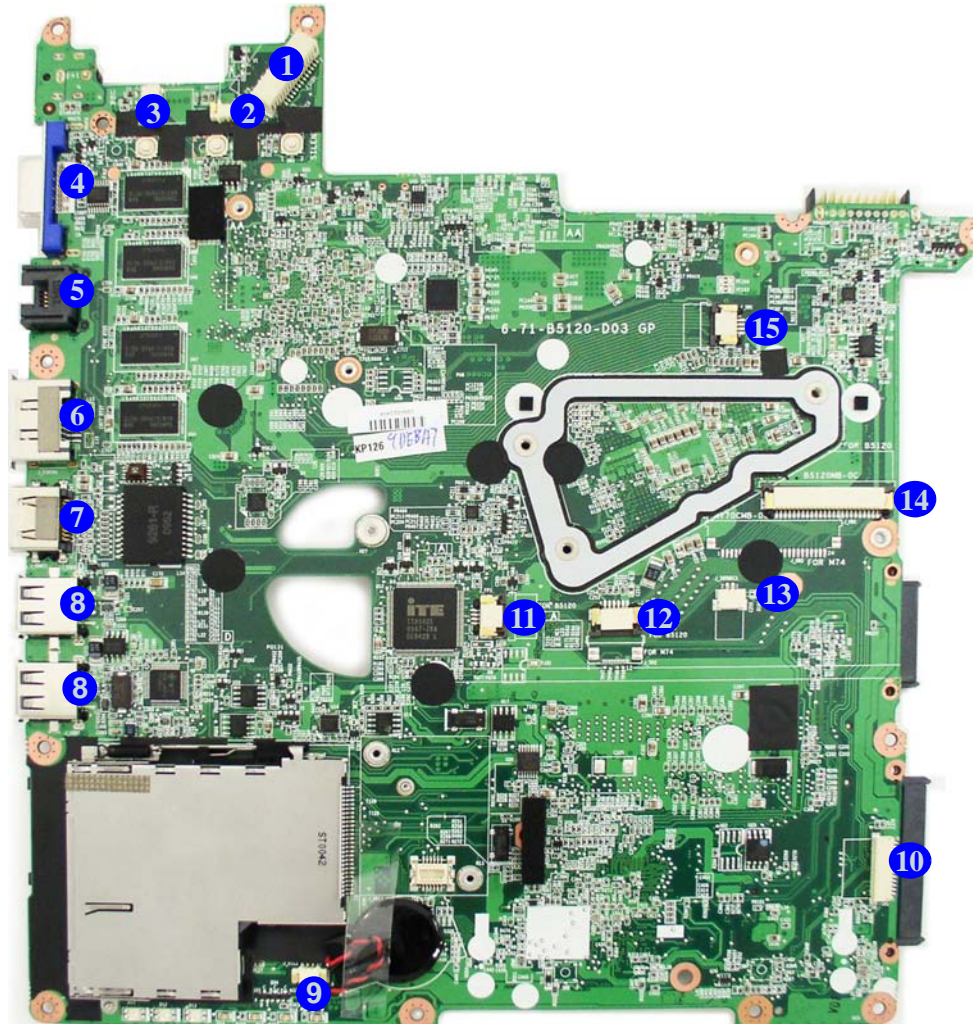
1. Mini-Card Connector (WLAN Module)
2. CPU Socket (no CPU installed)
3. Memory Slots (DDR3 SO-DIMM)
4. Azalia Codec
5. Clock Generator
6. Platform Controller Hub
7. Mini-Card Connector (3.5G Module)
8. Card Reader Socket
9. VGA

Introduction

Figure 9
**Mainboard Top
Connectors**

1. LCD Cable Connector
2. Speaker Cable Connector
3. Inverter board Connector
4. External Monitor Port
5. RJ-45 LAN Jack
6. eSATA Port
7. HDMI-Out Port
8. USB Port
9. CMOS Battery Connector
10. Multi-board Connector 1
11. Fingerprint Cable Connector
12. TouchPad Cable Connector
13. Microphone Cable Connector
14. Keyboard Cable Connector
15. Switch Connector

Mainboard Overview - Top (Connectors)



Mainboard Overview - Bottom (Connectors)

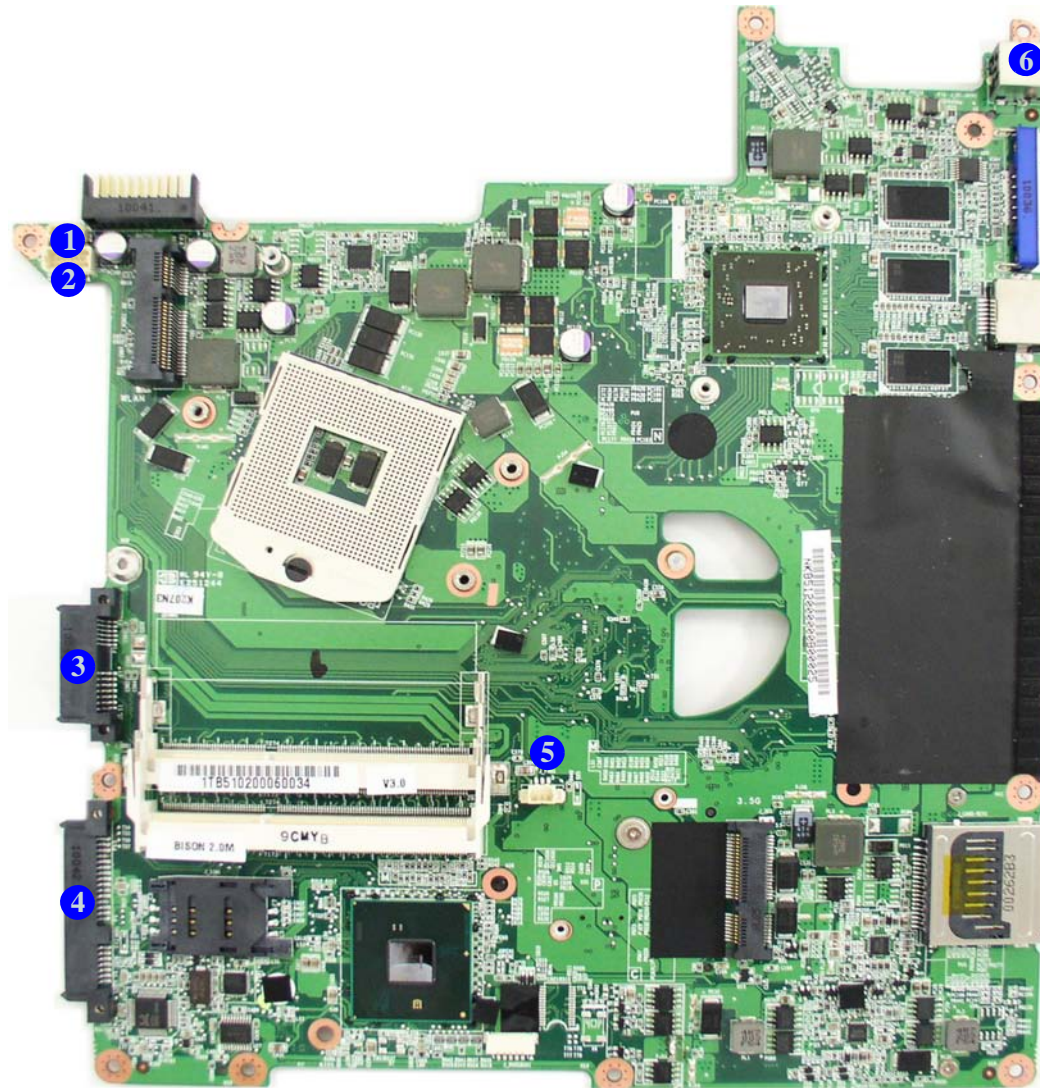


Figure 10
**Mainboard Bottom
Connectors**

1. Bluetooth Cable Connector
2. Multi-Board Connector 2
3. CD-ROM Connector
4. HDD Connector
5. CPU Fan Cable Connector
6. DC-In Jack


Chapter 2: Disassembly



Overview

This chapter provides step-by-step instructions for disassembling the **B5120/B5125** 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.


Information
Warning

Disassembly

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

Maintenance Tools

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

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

Connections

Connections within the computer are one of four types:

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

Maintenance Precautions

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

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

Cleaning

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

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



Power Safety Warning

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

Disassembly Steps

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

To remove the Battery:

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

To remove the HDD:

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

To remove the Optical Device:

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

To remove the System Memory:

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

To remove the Inverter Board:

1. Remove the battery [page 2 - 5](#)
2. Remove the inverter board [page 2 - 11](#)

To remove and install a Processor:

1. Remove the battery [page 2 - 5](#)
2. Remove the processor [page 2 - 12](#)
3. Install the processor [page 2 - 14](#)

To remove the Wireless LAN Module:

1. Remove the battery [page 2 - 5](#)
2. Remove the wireless LAN [page 2 - 15](#)

To remove the Bluetooth Module:

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

To remove the Keyboard:

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

To remove the Modem:

1. Remove the battery [page 2 - 5](#)
2. Remove the HDD [page 2 - 6](#)
3. Remove the Optical device [page 2 - 8](#)
4. Remove the processor [page 2 - 12](#)
5. Remove the keyboard [page 2 - 17](#)
6. Remove the modem [page 2 - 18](#)

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*).

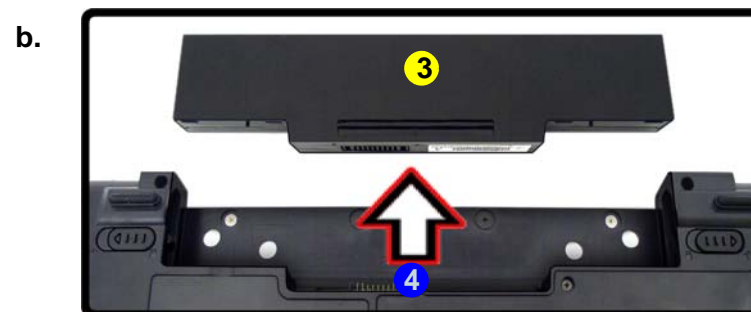
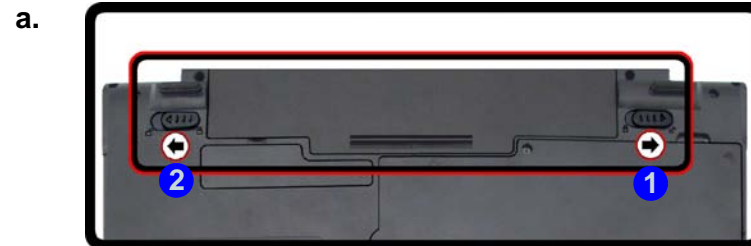
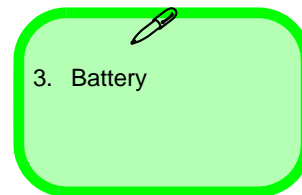


Figure 1
Battery Removal

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



Disassembly

Figure 2
**HDD Assembly
Removal**

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

Removing the Hard Disk Drive

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

Hard Disk Upgrade Process

1. Turn **off** the computer, and remove the battery ([page 2 - 5](#)).
2. Locate the hard disk bay cover and remove screws ① & ② ([Figure 2a](#)).

a.



- 2 Screws



HDD System Warning

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

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

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

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

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

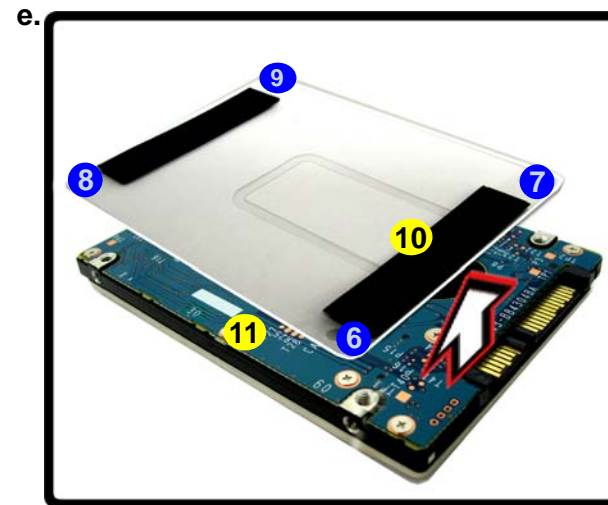
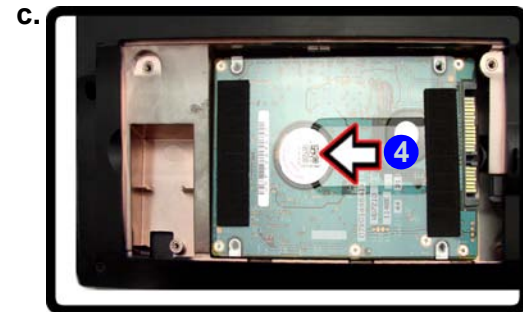
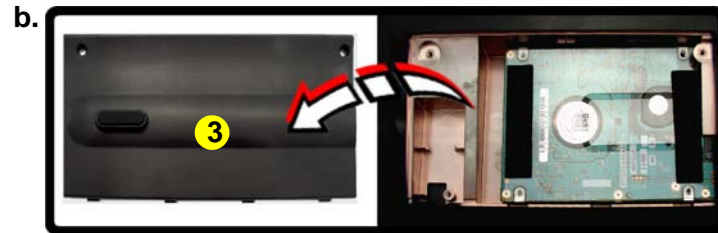


Figure 3
**HDD Assembly
Removal (cont'd.)**

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



3. HDD Bay Cover
10. Adhesive Cover
11. HDD

- 4 Screws

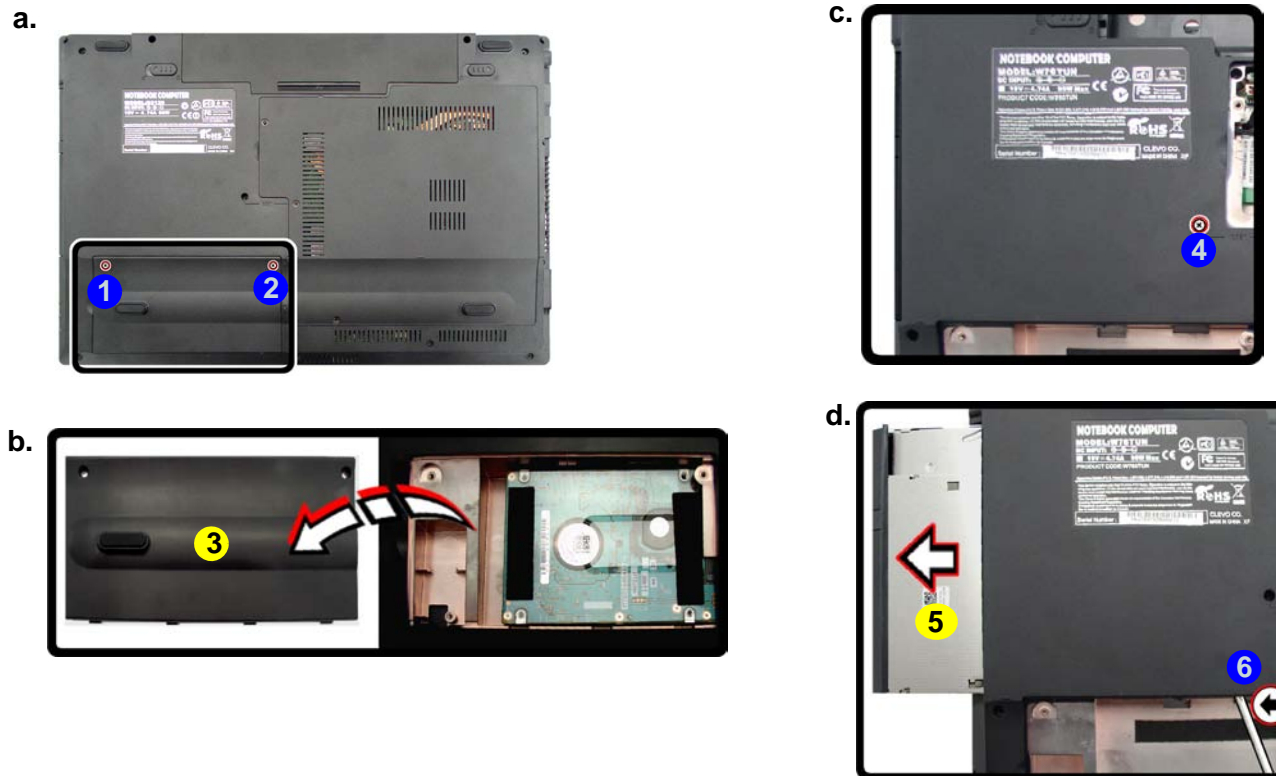
Disassembly

Figure 4
**Optical Device
Removal**

- a. Remove the screws.
- b. Remove the HDD bay cover.
- c. Remove the screw.
- d. Push the optical device out off the computer at point 6.

Removing the Optical (CD/DVD) Device

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 4a](#)).
3. Remove the hard disk bay cover **3** ([Figure 4b](#)).
4. Remove the screw at point **4** ([Figure 4c](#)), and use a screwdriver to carefully push out the optical device **5** at point **6** ([Figure 4d](#)).
5. 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).
6. Restart the computer to allow it to automatically detect the new device.



- 3. HDD Bay Cover
- 5. Optical Device

- 3 Screws

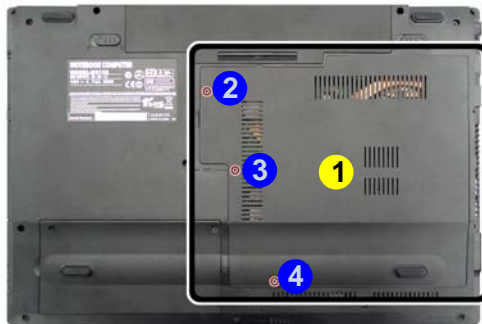
Removing the System Memory (RAM)

The computer has two memory sockets for 204 pin Small Outline Dual In-line Memory Modules (SO-DIMM) supporting DDR3 1066MHz. The main memory can be expanded up to 4GB. The SO-DIMM modules supported are 1024MB, and 2048MB and **DDRIII** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

Memory Upgrade Process

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)).
2. Locate the component bay cover **1**, and remove screws **2** - **4** ([Figure 5a](#)).
3. Carefully (**a fan and cable are attached to the under side of the cover**) lift up the bay cover.
4. Carefully disconnect the fan cable **5**, and remove the cover **1** ([Figure 5b](#)).

a.



b.

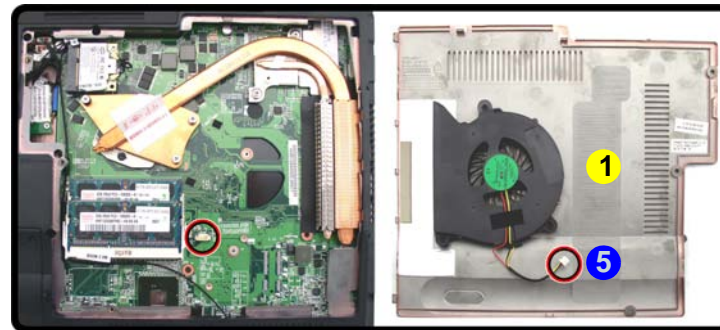


Figure 5
RAM Module Removal

- a. Remove the screws.
- b. Disconnect the fan cable and remove the bay cover.



Contact Warning

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



1. Component Bay Cover

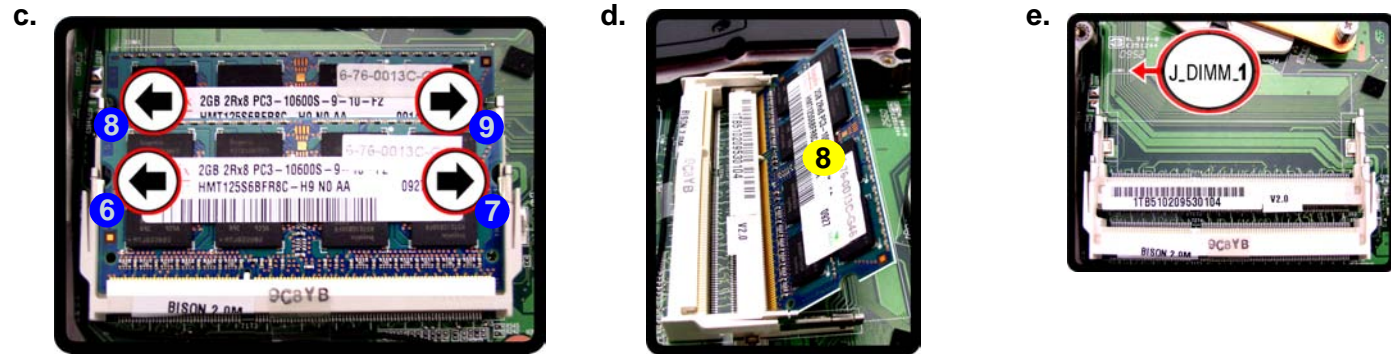
- 3 Screws

Disassembly

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

- c. Pull the release latches.
d. Remove the module(s).

5. Gently pull the two release latches (6 - 7) on the sides of the memory socket in the direction indicated by the arrows (*Figure 6c*).



Single Memory Module Installation

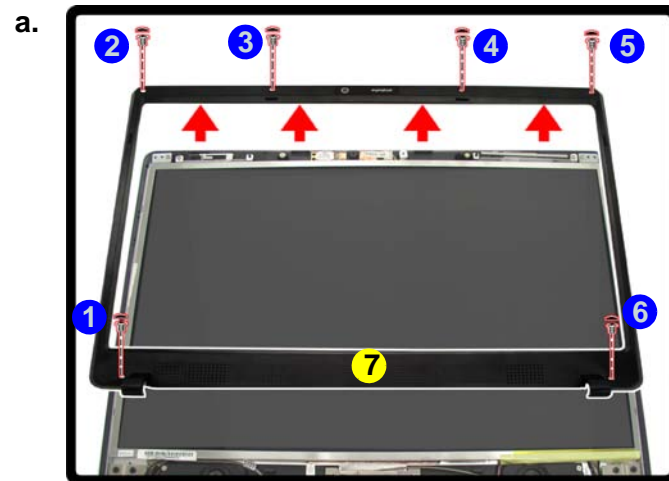
If your computer has a single memory module, then insert the module into the **Channel 0 (J_DIMM_1)** socket. In this case, this is the lower memory socket (the socket closest to the mainboard) as shown in *Figure 6e*.

6. Pull the latches (8 - 9) to release the second module if necessary (*Figure 6c*).
7. The RAM module 8 will pop-up (*Figure 6d*), and you can then remove it
8. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
9. 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.
10. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
11. Replace the bay cover and screws (**make sure you reconnect the fan cable before screwing down the bay cover**).
12. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

8. RAM Module(s)

Removing the Inverter Board

1. Turn **off** the computer, and remove the battery ([page 2 - 5](#)).
2. Remove any rubber covers, screws **1** - **6** ([Figure 7a](#)), then run your finger around the middle of the frame to carefully unsnap the LCD front panel module **7** ([Figure 7a](#)) from the back.
3. Discharge the remaining system power (see [Inverter Power Warning](#) below).
4. Remove screw **8** ([Figure 7b](#)) from the inverter, and carefully lift the inverter board up slightly.
5. Disconnect cables **9** & **10** ([Figure 7c](#)) from the inverter, then remove the inverter **11** ([Figure 7d](#)) from the LCD back cover module.



Inverter Power Warning

In order to prevent a short circuit when removing the inverter, it is necessary to discharge any remaining system power. To do so, press the computer's power button for a few seconds before disconnecting the inverter cable.

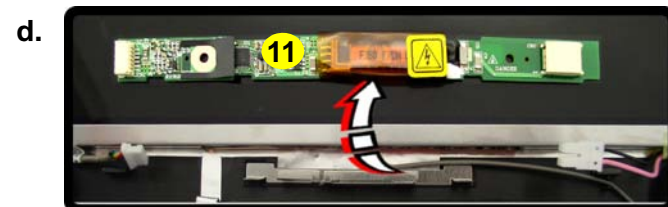
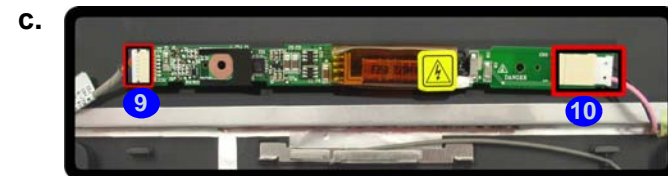


Figure 7
Inverter Board Removal

- a. Remove the screws and unsnap the LCD front panel module from the back.
- b. Discharge the remaining power from the inverter board. Remove the screw and lift the board up slightly.
- c. Disconnect the cables from the inverter.
- d. Remove the inverter.



7. LCD Front Panel
11. Inverter Board

- 7 Screws

Disassembly

Removing and Installing the Processor

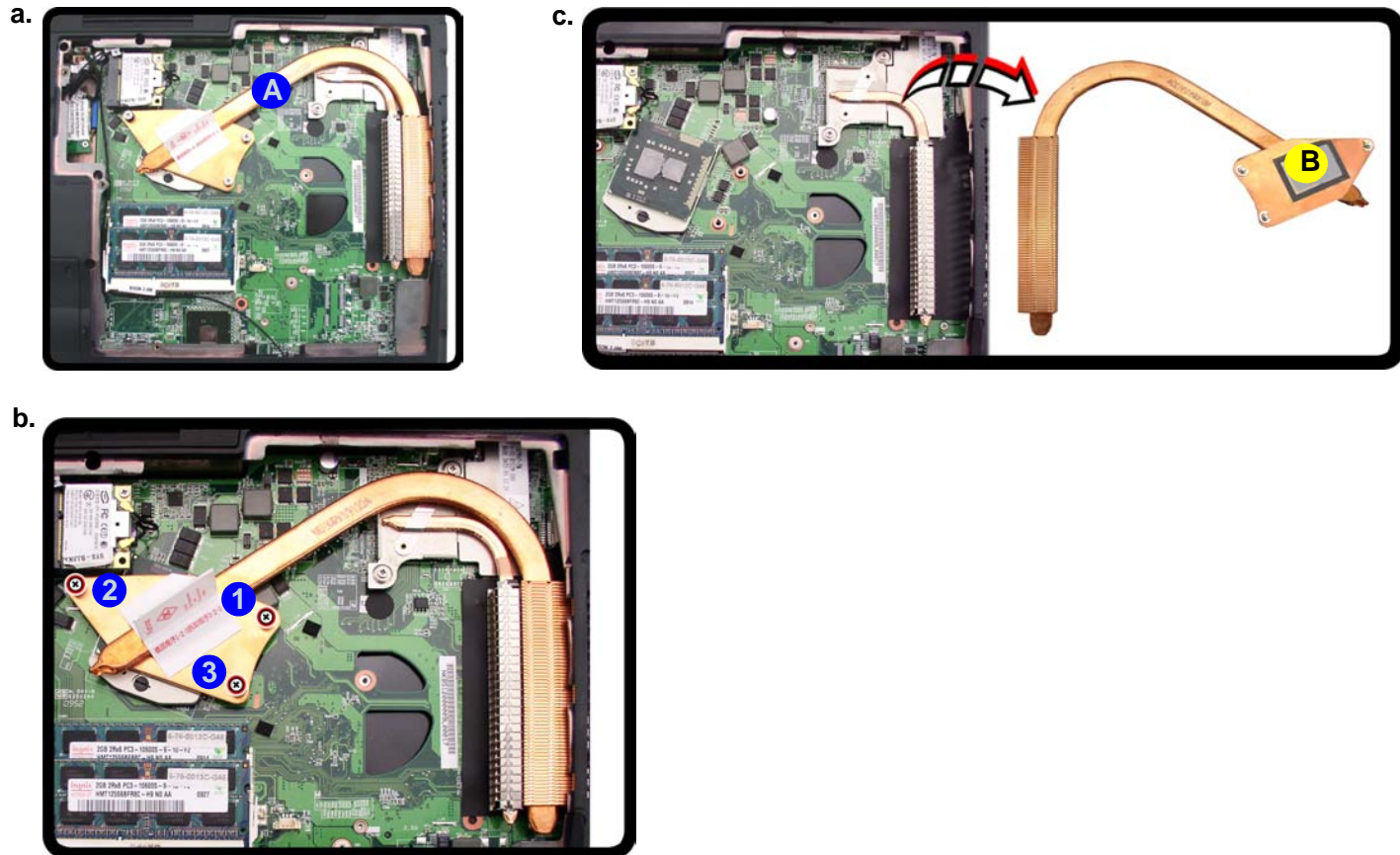
Processor Removal Procedure

1. Turn **off** the computer, remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 9](#)).
2. The CPU heat sink will be visible at point **A** ([Figure 8a](#)) on the mainboard.
3. Loosen screws **3**, **2**, **1** ([Figure 8b](#)) the reverse order to that indicated on the label.
4. Carefully lift up the heat sink **B** ([Figure 8c](#)) off the computer.

Figure 8

Processor Removal

- a. Remove the cover and locate the heat sink.
- b. Loosen the screws in the order indicated.
- c. Remove the heat sink.



B. Heat Sink

- 3 Screws (Loosen Only)


5. Turn the release latch **C** towards the unlock symbol , to release the CPU (**Figure 9d**).
6. Carefully (it may be hot) lift the CPU **D** up out of the socket (**Figure 9e**).
7. See **page 2 - 14** for information on inserting a new CPU.
8. When re-inserting the CPU, pay careful attention to the pin alignment, it will fit only one way (DO NOT FORCE IT!).

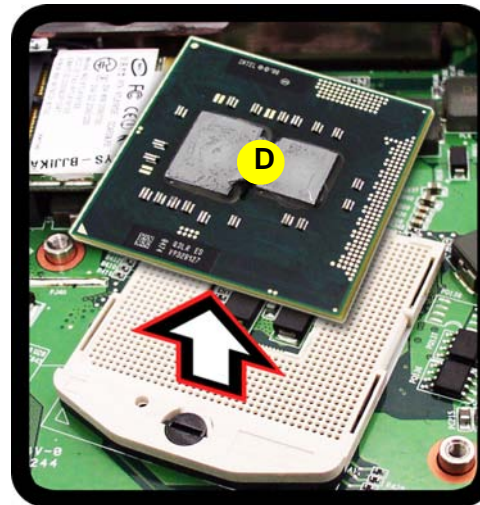
Figure 9
Processor Removal
(cont'd)

- d. Turn the release latch to unlock the CPU.
- e. Lift the CPU out of the socket.

d.



e.



Caution

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




D. CPU

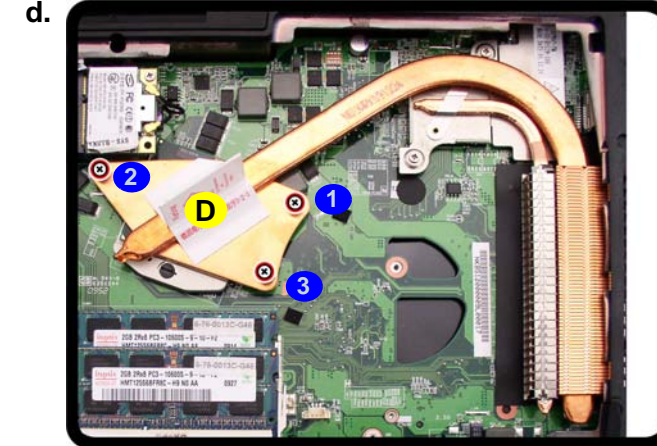
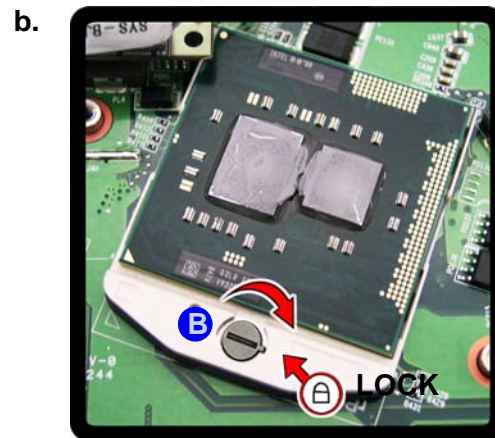
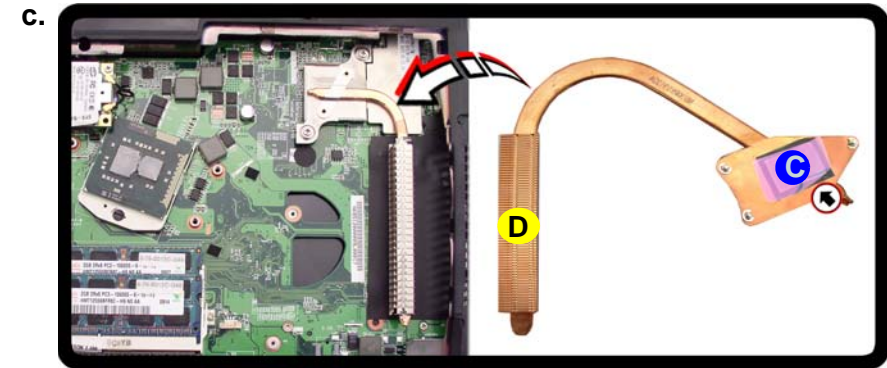
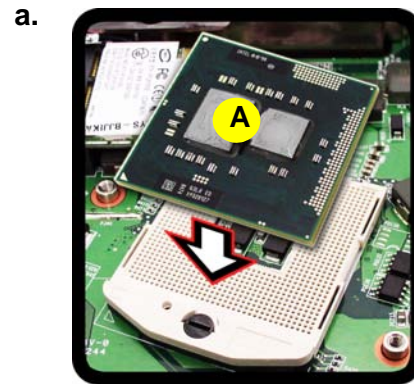
Disassembly

Figure 10
Processor Installation

- Insert the CPU.
- Turn the release latch towards the lock symbol.
- Remove the sticker from the heat sink and insert the heat sink.
- Tighten the screws in the order indicated on the label.

Processor Installation Procedure

- Insert the CPU **A** (*Figure 10a*), pay careful attention to the pin alignment, it will fit only one way (DO NOT FORCE IT!), and turn the release latch **B** towards the lock symbol  (*Figure 10b*).
- Remove the sticker **C**** (*Figure 10c*) from the heat sink.
- Insert the heat sink **D** as indicated in (*Figure 10c*).
- Tighten screws **1** - **3** (*Figure 10d*) in the order indicated on the label.
- Replace the component bay cover and tighten the screws (*page 2 - 9*).



A. CPU
D. Heat Sink

- 3 Screws (Tighten Only)

Removing the Wireless LAN Module

1. Turn **off** the computer, 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** ([Figure 11a](#)) on the mainboard.
3. Carefully disconnect cables **2** - **3**, then remove screw **4** from the module socket ([Figure 11b](#)).
4. The Wireless LAN module **5** ([Figure 11c](#)) will pop-up.
5. Lift the Wireless LAN module ([Figure 11d](#)) up and off the computer.

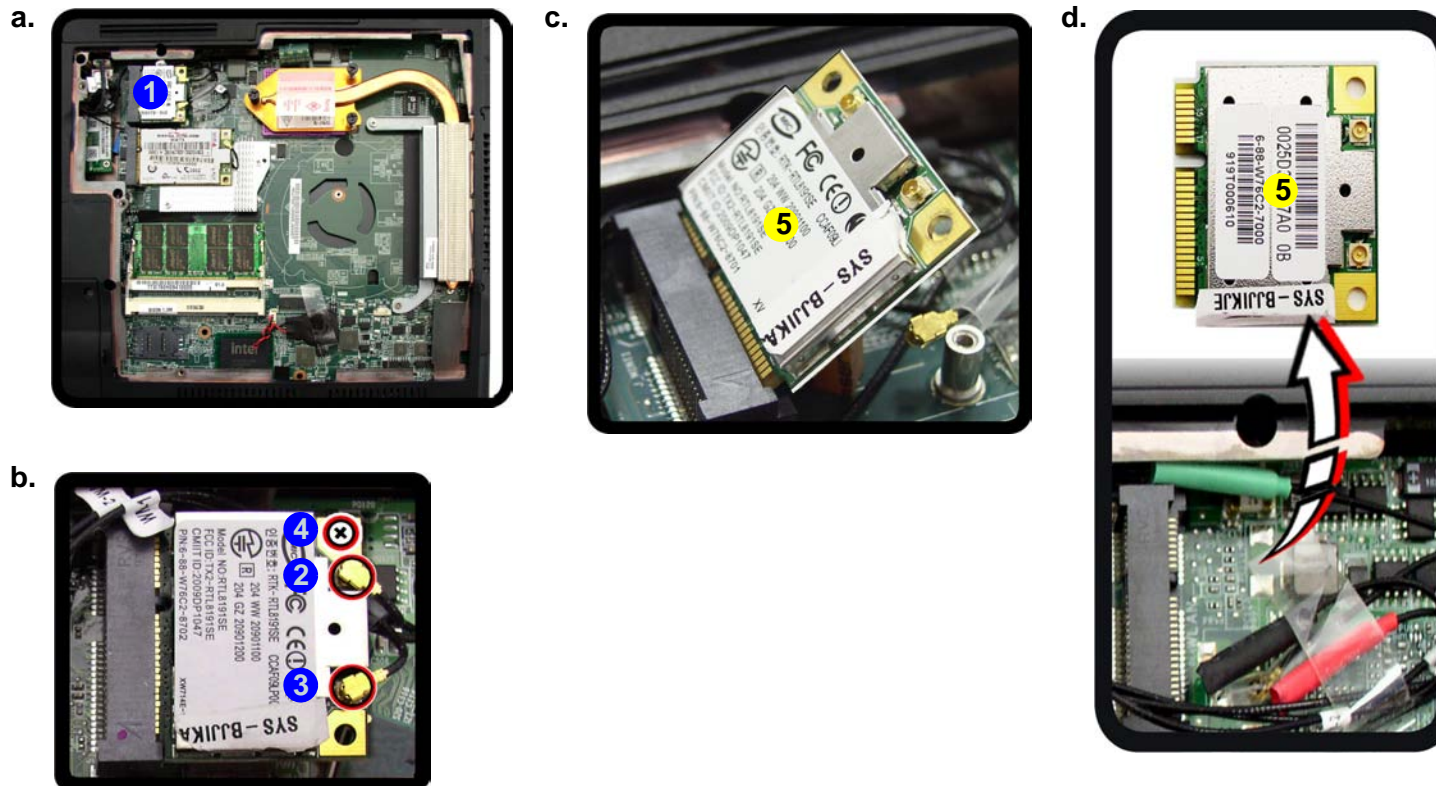


Figure 11
**Wireless LAN
Module Removal**

- a. Remove the cover.
- b. Disconnect the cable and remove the screw.
- c. The WLAN module will pop up.
- d. Lift the WLAN module out.

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



5. WLAN Module.

- 1 Screw

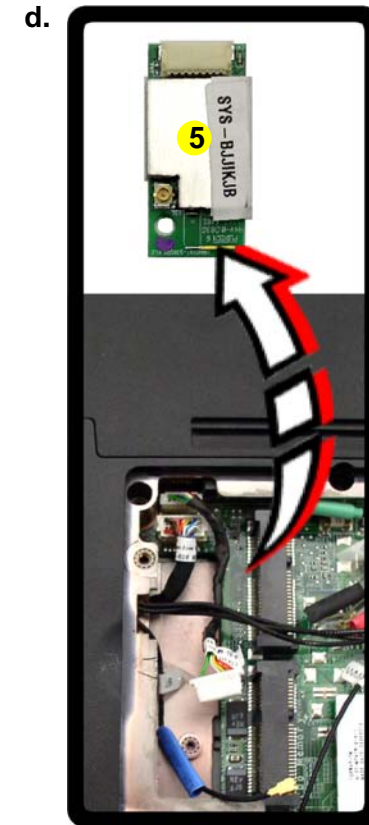
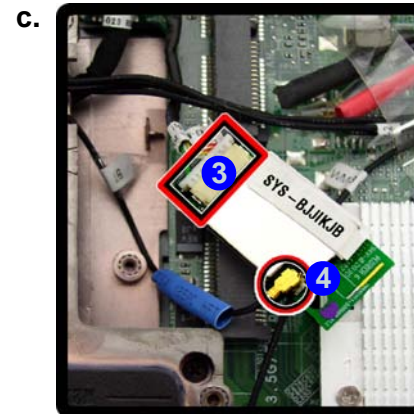
Disassembly

Figure 12
Bluetooth Module Removal

- Remove the cover and locate the Bluetooth.
- Remove the screw.
- Disconnect the cable and the connector.
- Lift the Bluetooth module up off the socket.

Removing the Bluetooth Module

- Turn **off** the computer, remove the battery ([page 2 - 5](#)) and the component bay cover ([page 2 - 9](#)).
- The Bluetooth will be visible at point **1** ([Figure 12a](#)) on the mainboard.
- Remove the screw **2** ([Figure 12b](#)) and turn the module over.
- Carefully separate the Bluetooth module from the connector **3** and disconnect the cable **4** ([Figure 12c](#)).
- Lift the Bluetooth module **5** ([Figure 12d](#)) up and off the computer.



5. Bluetooth Module

- 1 Screw

Removing the Keyboard

1. Turn **off** the computer and remove the battery **1** ([page 2 - 5](#)).
2. Remove the screws **2** - **3** and use a screwdriver to carefully push out the top cover module **5** at point **4** ([Figure 13b](#)).
3. Remove the top cover module **5** ([Figure 13c](#)) and the screws **6** - **10** ([Figure 13d](#)),
4. Carefully lift the keyboard **11** up, being careful not to bend the keyboard ribbon cable ([Figure 13e](#)).
5. Disconnect the keyboard ribbon cable **12** from the locking collar socket **13** ([Figure 13e](#))
6. Carefully lift up the keyboard **11** ([Figure 13f](#)) off the computer.

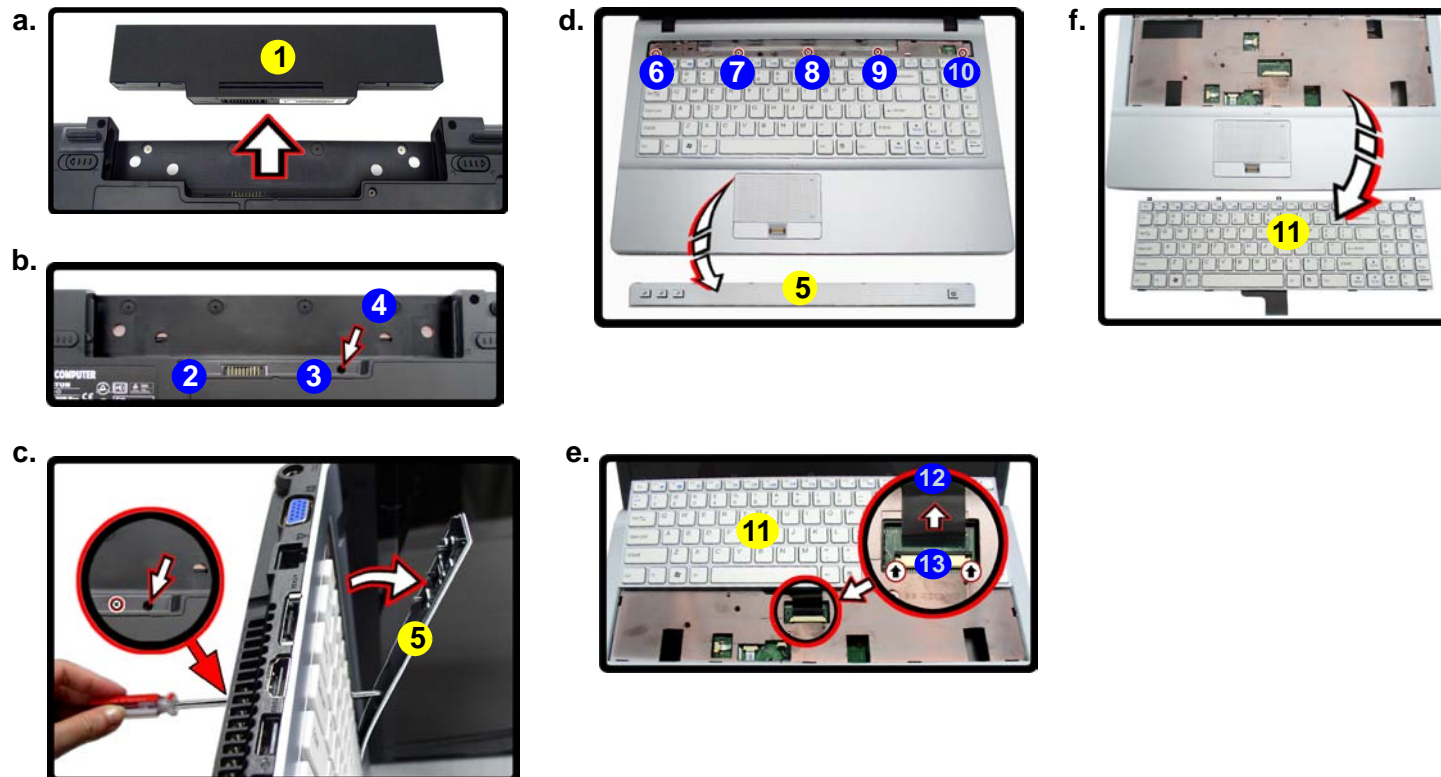


Figure 13
Keyboard Removal

- a. Remove the battery.
- b. Remove the screws and use a screwdriver to carefully push out the top cover module at point **4**.
- c. Remove the top cover module.
- d. Remove the screws.
- e. Lift the keyboard up and disconnect the cable from the locking collar.
- f. Remove the keyboard.



1. Battery
5. Top cover module
11. Keyboard

- 7 Screws

Disassembly

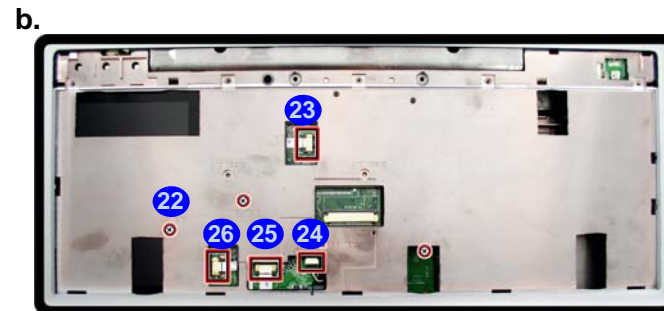
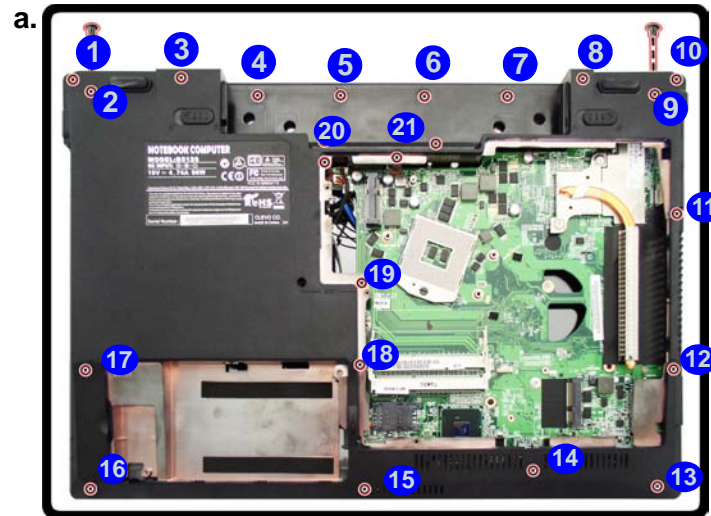
Figure 14

Modem Removal

- Remove the screws.
- Turn the computer over, remove the screw and disconnect the cables.

Removing the Modem

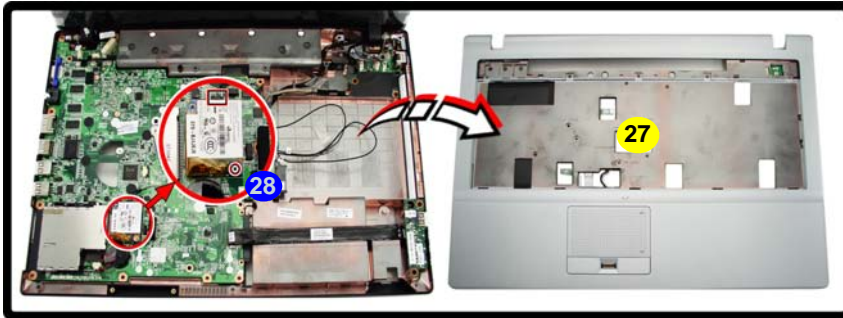
- Turn **off** the computer, remove the battery ([page 2 - 5](#)), HDD ([page 2 - 6](#)), component bay cover ([page 2 - 9](#)), optical device ([page 2 - 8](#)), CPU ([page 2 - 12](#)), bluetooth ([page 2 - 16](#)) and keyboard ([page 2 - 17](#)).
- Remove screws **1** - **21** from the bottom case ([Figure 14a](#)).
- Turn the computer over, remove screw **22** and disconnect cables **23** - **26** ([Figure 14b](#)).



- 22 Screws

4. Carefully lift the top case **27** up and off the computer (**Figure 15c**).
5. Remove screw **28** from the module and disconnect cable (**Figure 15c**).
6. Carefully lift the modem **29** up and off the socket (**Figure 15d**).

c.



d.

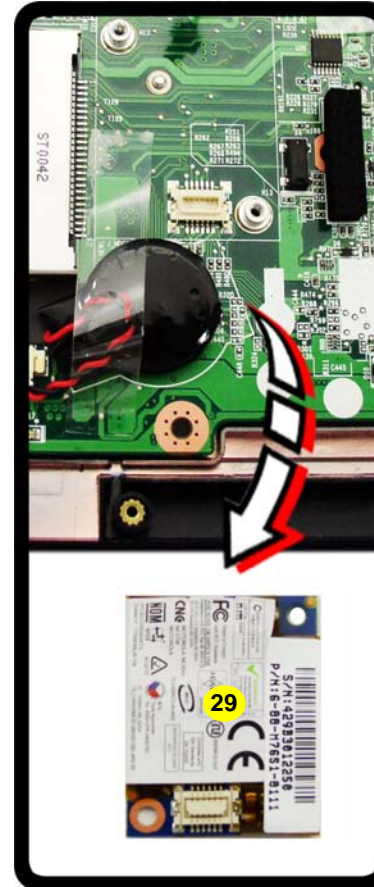


Figure 15
Modem Removal
(cont'd.)

- c. Lift the top case off the computer.
- d. Remove screw and disconnect cable.
- e. Lift the modem off the socket.



27. Top Case
29. Modem

- 1 Screw

Appendix A: Part Lists

This appendix breaks down the *B5120/B5125* series notebook's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

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

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

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

Part Lists

PART LIST ILLUSTRATION LOCATION

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

Table A- 1
**PART LIST ILLUS-
TRATION LOCATION**

| Parts | Pages |
|-------------------------------|-------------------|
| B5120 Top without Fingerprint | <i>page A - 3</i> |
| B5125 Top without Fingerprint | <i>page A - 4</i> |
| B5120 Top with Fingerprint | <i>page A - 5</i> |
| B5125 Top with Fingerprint | <i>page A - 6</i> |
| Bottom | <i>page A - 7</i> |
| LCD | <i>page A - 8</i> |
| DVD SUPER-MULTI | <i>page A - 9</i> |

B5120 TOP WITHOUT FINGERPRINT

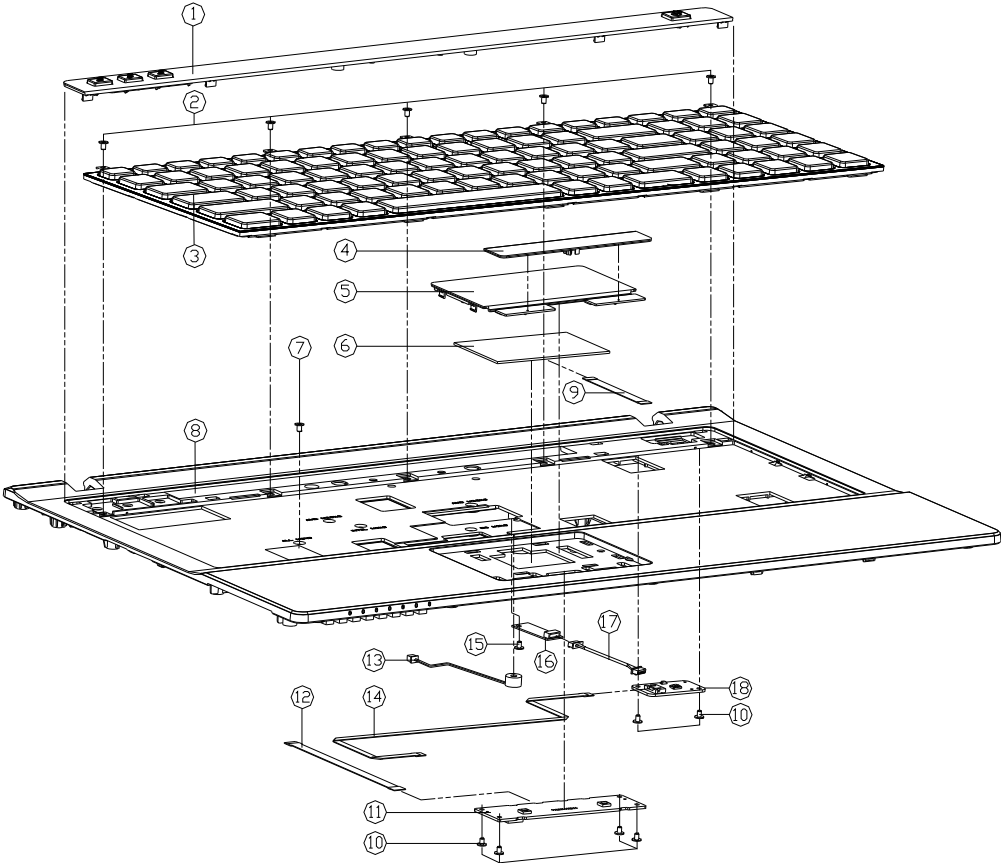


Figure A - 1
B5120 TOP WITH-
OUT
FINGERPRINT

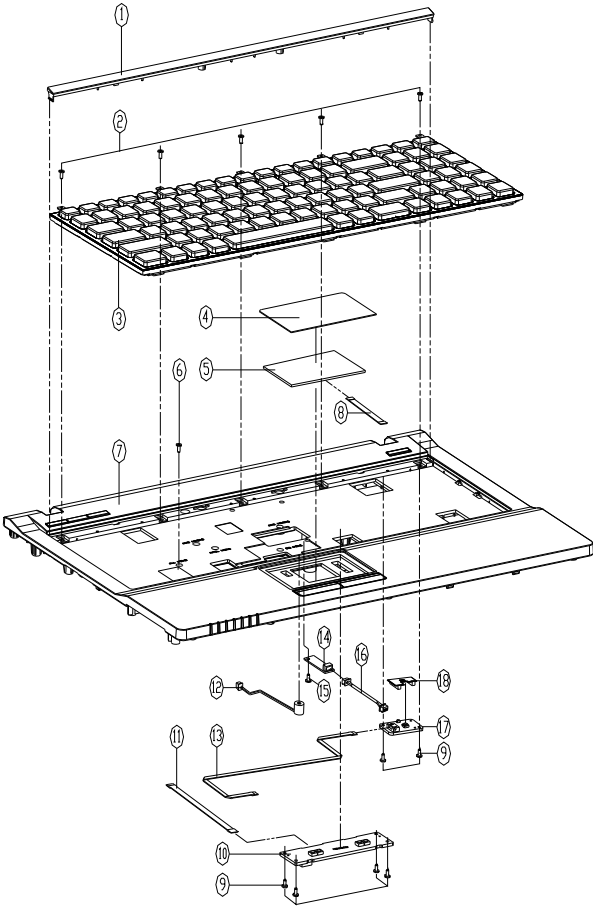
| ITEM | PART NAME | PART NO | REMARK |
|------|---|-------------------|----------|
| 1 | TOP COVER MODULE W760S (PH08) | 6-42-W76S2-B01 | |
| 2 | SCREW M2X5.5 KI BK/2 ICT NYK35 T-H3 (PH08) | 6-35-B6120-2RB | |
| 3 | KEY BOARD WITH TOUCH PAD (PH08) | 6-79-W760S00K-010 | |
| 4 | CLICK BUTTON COVER W/D FP MODULE (PH08) | 6-42-W76S2-200 | |
| 5 | CLICK BUTTON PLATE (GALV. COATED) (PH08) | 6-42-W76S2-012 | |
| 6 | TOUCH PAD TM-00398-003 W840T (PH08) | 6-49-W84T2-020 | |
| 7 | SCREW M2X4 KI BK ICT NY (00-#45,01-04) (PH08) | 6-39-W8120-3RD | |
| 8 | TOP CASE MODULE W760S (PH08) | 6-39-W76S0-014 | |
| 9 | THE CASE FOR CLICK BOARD TO TOUCH PAD (GALV. COATED) (PH08) | 6-43-W76S0-041 | |
| 10 | POWER SWITCH BOARD W/D KEY (PH08) | 6-35-B1120-3RE | |
| 11 | CLICK BOARD V1.0 (W/D FP) M770CU (PH08) | 6-77-M77C2-001-E | |
| 12 | THE CASE FOR KEY TO CLICK BOARD (GALV. COATED) (PH08) | 6-43-W76S0-020-E | |
| 13 | THE CASE FOR KEY TO CLICK BOARD (GALV. COATED) (PH08) | 6-23-EM62E-010-E | |
| 14 | THE CASE FOR KEY TO CLICK BOARD (GALV. COATED) (PH08) | 6-43-W76S0-010-E | |
| 15 | POWER SWITCH BOARD W/D KEY (PH08) | 6-35-B1120-3RD | |
| 16 | POWER SWITCH BOARD W/D KEY (PH08) | 6-88-M73T5-3901 | (OPTION) |
| 17 | POWER SWITCH BOARD W/D KEY (PH08) | 6-88-M77C5-5300 | (OPTION) |
| 18 | POWER SWITCH BOARD W/D KEY (PH08) | 6-43-M76S8-011 | (OPTION) |
| 19 | POWER SWITCH BOARD V3.0 M740S (PH08) | 6-77-M74SS-003 | |

A.Part Lists

Part Lists

B5125 TOP WITHOUT FINGERPRINT

Figure A - 2
B5125 TOP WITH-
OUT
FINGERPRINT



| ITEM | PART NAME | PART NO | REMARK |
|------|---------------------------|----------------|--------|
| 1 | TOP COVER PLATE WITH HOLE | 6-42-W7652-000 | |
| 2 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 3 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 4 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 5 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 6 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 7 | TOP COVER PLATE WITH HOLE | 6-42-W7652-000 | |
| 8 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 9 | KEYBOARD | 6-77-W7652-000 | |
| 10 | BATTERY | 6-77-W7652-000 | |
| 11 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 12 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 13 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 14 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 15 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 16 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 17 | SCREW M3X4.5 | 6-25-B6120-000 | |
| 18 | SCREW M3X4.5 | 6-25-B6120-000 | |

B5120 TOP WITH FINGERPRINT

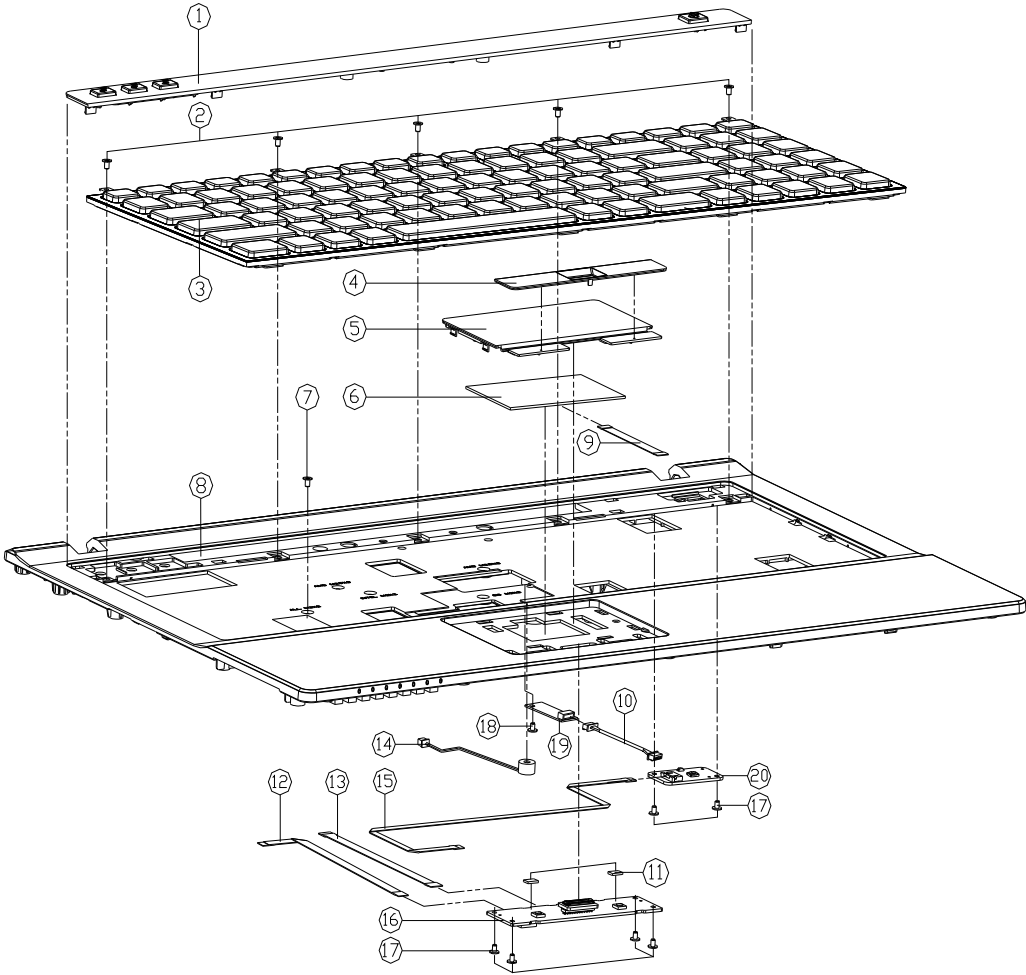


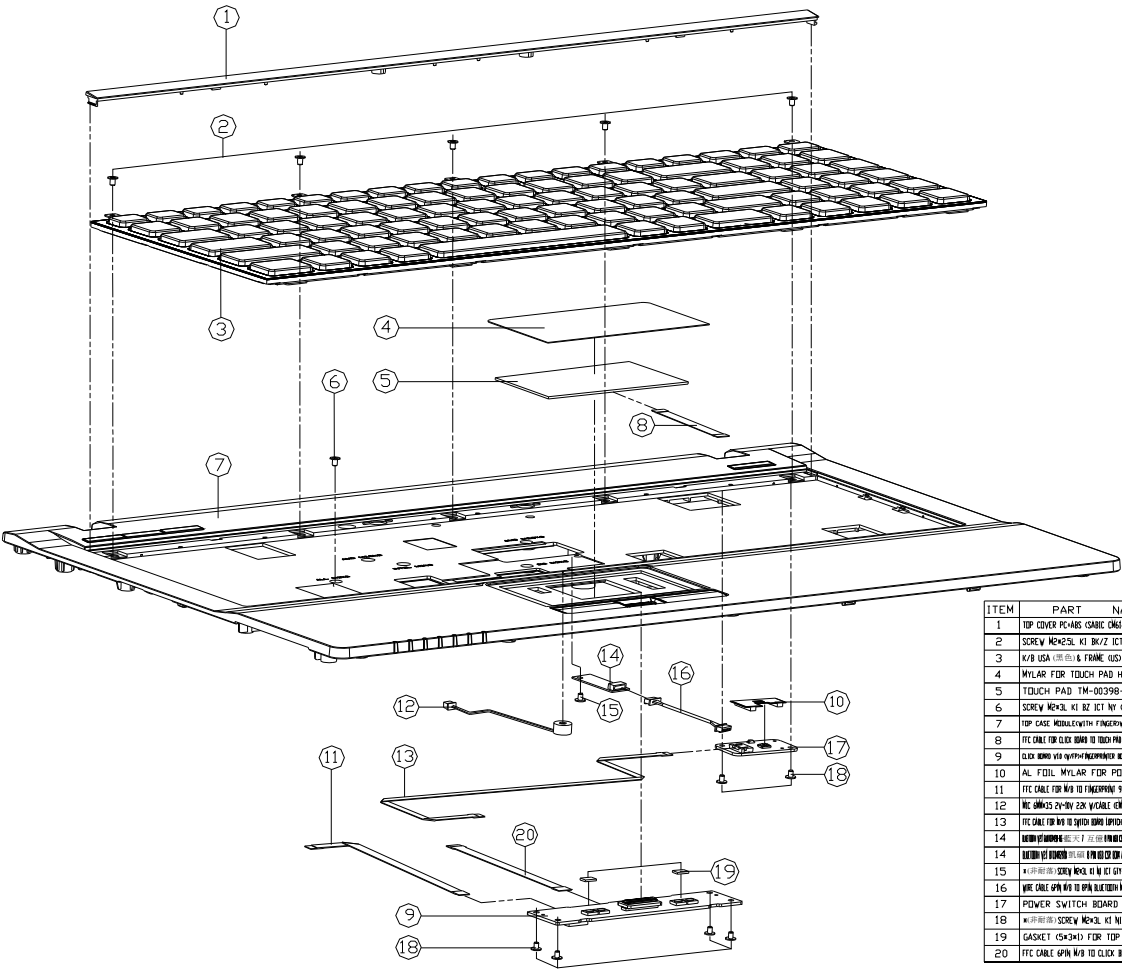
Figure A - 3
B5120 Top with
Fingerprint

| ITEM | PART NAME | PART NO | REMARK |
|------|--|-------------------|----------|
| 1 | TOP COVER MODULE W760S | 6-42-W76S2-801 | |
| 2 | SCREW NENSL KI B02 ICT NW035 T-03 | 6-35-B6120-2RB | |
| 3 | KEYBOARD ASSEMBLY W760S | 6-79-W760S00K-010 | |
| 4 | CLICK BUTTON COVER FP MODULE W760S | 6-42-W76S2-700 | |
| 5 | CLICK BUTTON PLATE PC-ABS CLACK CHAIR T001 Y001 | 6-42-W76S2-012 | |
| 6 | TOUCH PAD TM-00398-003 W840T | 6-49-W84T2-020 | |
| 7 | SCREW NENSL KI B2 ICT NY 000-445.01-440 | 6-35-B6120-3RD | |
| 8 | TOP CASE MODULE W760S | 6-39-W76S2-014 | |
| 9 | FP CABLE FOR CLICK BOARD TO TOUCH PAD SWAP FOR W760S | 6-43-M76S0-041 | |
| 10 | FP CABLE SWAP W760S TO TOUCH PAD SWAP FOR W760S | 6-43-M76S8-011 | (OPTION) |
| 11 | GASKET (S40X4) FOR TOP CASE W760S | 6-47-00190-05K | |
| 12 | FP CABLE FOR W760S TO TOUCH PAD SWAP FOR W760S | 6-43-W76SF-010-1 | |
| 13 | FP CABLE SWAP W760S TO TOUCH PAD SWAP FOR W760S | 6-43-W76S0-020-1 | |
| 14 | FP CABLES 2X-01W 22X W760S CLACK CHAIR T001 Y001 | 6-23-EM62E-010-2 | |
| 15 | FP CABLE FOR W760S TO TOUCH PAD SWAP FOR W760S | 6-43-W76S0-010-1 | |
| 16 | FP CABLE SWAP W760S TO TOUCH PAD SWAP FOR W760S | 6-77-M77CA-N01 | |
| 17 | SCREW NENSL KI NY ICT GUY-PATEN | 6-35-B1120-3RE | |
| 18 | SCREW NENSL KI NY ICT GUY-PATEN | 6-35-B1120-3RD | |
| 19 | POWER SWITCH BOARD V30 W740S | 6-88-M73T5-3901 | (OPTION) |
| 20 | POWER SWITCH BOARD V30 W740S | 6-88-M73T5-5300 | (OPTION) |

Part Lists

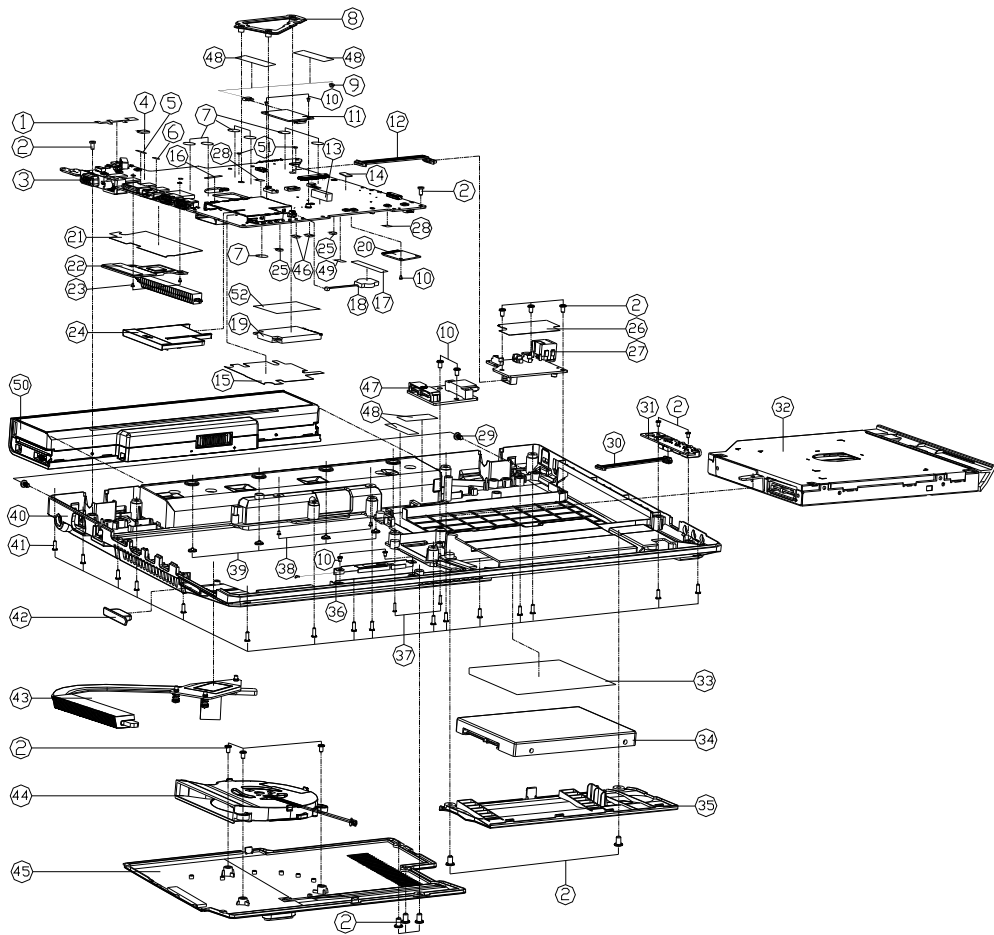
B5125 TOP WITH FINGERPRINT

Figure A - 4
B5125 TOP WITH
FINGERPRINT



| ITEM | PART NAME | PART NO | REMARK |
|------|---|-------------------|----------|
| 1 | TOP COVER PC+ABS (SABIC OMAGAD 7000)W/NOSS | 6-42-W7652-080 | |
| 2 | SCREW M2X2.5L KI BK/Z ICT NY#35 T-03 | 6-35-B6120-2RB | |
| 3 | K/B USA (CTE) & FRAME (QST) MODULE W/6SS | 6-79-W765500K-010 | |
| 4 | MYLAR FOR TOUCH PAD HF200 W/6SS | 6-40-W7652-021 | |
| 5 | TOUCH PAD TM-00398-003 W/40T | 6-49-W84T2-020 | |
| 6 | SCREW M2X1 KI BK ICT NY (00)H45,0T-040 | 6-35-B6120-3RD | |
| 7 | TOP CASE MODULE WITH FINGERPRINT/CLICK | 6-39-W7652-014 | |
| 8 | ITE CABLE FOR CLICK BOARD TO TOUCH PAD SWM FOR W/6SS | 6-43-M7650-041 | |
| 9 | CLICK BOARD VIA OPTIC/PCB/POWER BOARD VIA ASSY W/6SS | 6-77-M77CA-N01 | |
| 10 | AL FOIL MYLAR FOR POWER W/6SS | 6-40-W7652-050 | |
| 11 | ITE CABLE FOR W/6 TO FINGERPRINT SWM FOR W/6SS | 6-43-W765F-010-1 | |
| 12 | ITE CABLES 2X-0V 2X V CABLE CABLES-FIL-01 W/6SS | 6-23-EM62E-010-2 | |
| 13 | ITE CABLE FOR W/6 TO TOUCH BOARD OPTIC/PCB/POWER BOARD VIA ASSY W/6SS | 6-43-W7650-010-1 | |
| 14 | KEYBOARD FOR W/6 TO TOUCH BOARD OPTIC/PCB/POWER BOARD VIA ASSY W/6SS | 6-88-M73T5-3901 | (OPTION) |
| 14 | KEYBOARD FOR W/6 TO TOUCH BOARD OPTIC/PCB/POWER BOARD VIA ASSY W/6SS | 6-88-M77CS-5300 | (OPTION) |
| 15 | W/6 CABLE FOR W/6 TO TOUCH BOARD OPTIC/PCB/POWER BOARD VIA ASSY W/6SS | 6-35-B1120-3RD | |
| 16 | W/6 CABLE FOR W/6 TO TOUCH BOARD OPTIC/PCB/POWER BOARD VIA ASSY W/6SS | 6-43-M765B-011 | (OPTION) |
| 17 | POWER SWITCH BOARD V30 W/40S | 6-77-M74SS-D03 | |
| 18 | W/6 CABLE FOR W/6 TO TOUCH BOARD OPTIC/PCB/POWER BOARD VIA ASSY W/6SS | 6-35-B1120-3RE | |
| 19 | GASKET (CH-04) FOR TOP CASE W/6SS | 6-47-00190-05K | |
| 20 | ITE CABLE FOR W/6 TO TOUCH BOARD OPTIC/PCB/POWER BOARD VIA ASSY W/6SS | 6-43-W7650-020-1 | |

BOTTOM



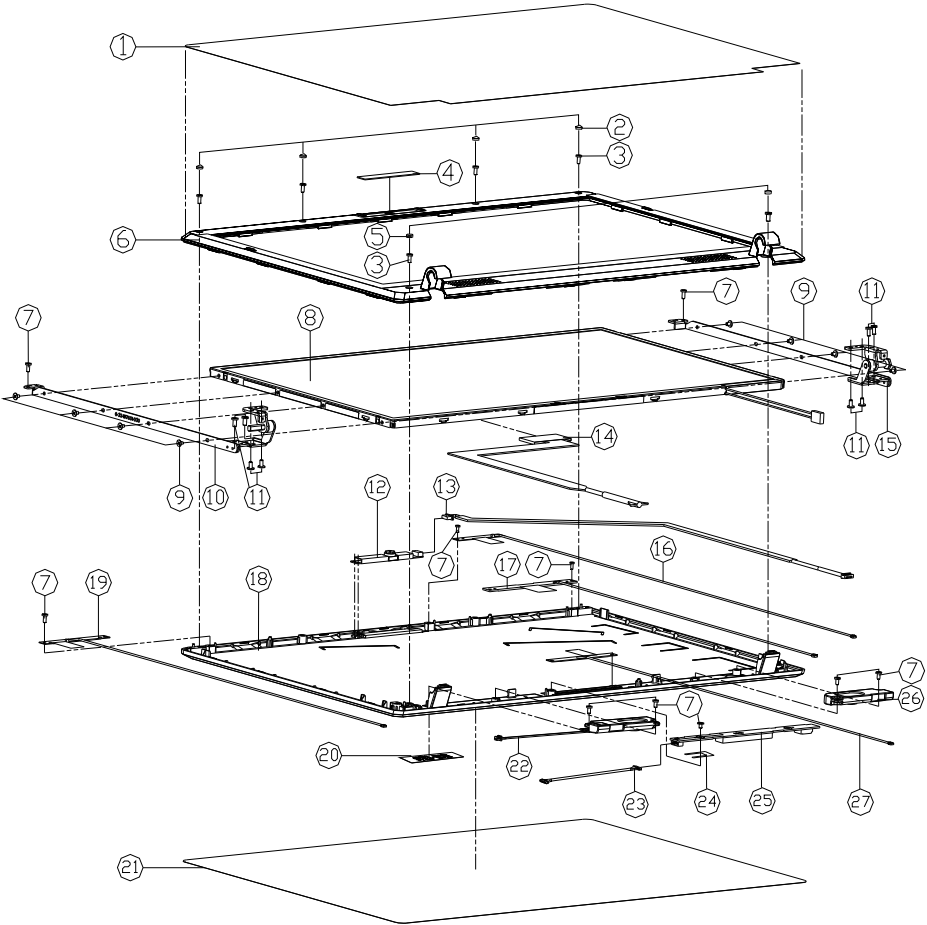
| ITEM | PART NAME | PART NO | REMARK |
|------|--|-------------------|----------|
| 1 | HOLEY RUBER TOP NO OTHER (END OF BOX) NYLON | 6-40-M74TS-021 | |
| 2 | SCREW M2.5x5L K1 BK/2 ICT NY- | 6-35-B6125-SRA | |
| 3 | MAIN BOARD V3.0 (W/30) B5120 | 6-77-B5120-D03 | |
| 3 | MAIN BOARD V3.0 (W/D 30) B5120 | 6-77-B5120-D03-1 | |
| 4 | MB TOP RUBBER SILICONE M740T | 6-47-M74TS-030 | |
| 5 | C-STAT (0.0540.25D) FOR M740T | 6-47-M74TS-010 | |
| 6 | MON (0.0540.25D) FOR M740T | 6-47-M74TS-020 | |
| 7 | MYLAR D10 FRB3 M760S | 6-40-M76S0-010 | |
| 8 | CPU SUPPORT BRACKET SECC M780U | 6-33-M77CS-010 | |
| 9 | WIRE CABLE CPU MAIN BOARD TO MIC MODULE | 6-43-W76CU-010 | |
| 10 | WIRE CABLE CPU MAIN BOARD TO MIC MODULE | 6-35-B1120-300 | |
| 11 | MOUSE ADJ. JACK FOR M740T (OPTIONAL) | 6-88-W76H1-010 | (OPTION) |
| 11 | MOUSE ADJ. JACK FOR M740T (OPTIONAL) | 6-88-L3911-S300 | (OPTION) |
| 11 | MOUSE ADJ. JACK FOR M740T (OPTIONAL) | 6-88-M76S1-011 | (OPTION) |
| 11 | MOUSE ADJ. JACK FOR M740T (OPTIONAL) | 6-88-W76S1-S300 | (OPTION) |
| 12 | TYPE CABLE FOR MAIN BOARD TO CPU SUPPORT BRACKET | 6-43-M7700-020 | |
| 13 | TOUCH PAD SPRING (0.0540) OF M740S | 6-47-0019A-20A | |
| 14 | MIC MYLAR (FRB3) (TERADAKA750F) M740S | 6-40-M74SS-031 | |
| 15 | NEW CARD MYLAR FRB3 (5000) M740T | 6-40-M74TS-011 | |
| 16 | NEW CARD (4400) FOR NEW CARD BOX M740T | 6-47-M76TS-010 | |
| 17 | TAPE MYLAR (A) MYLAR M550J | 6-40-M55J2-010 | |
| 18 | NEW CARD (4400) FOR NEW CARD BOX M740T | 6-23-22015-PEC | |
| 19 | WIRE CABLE CPU MAIN BOARD TO CPU SUPPORT BRACKET | 6-88-S100W-0810 | (OPTION) |
| 20 | WIRE CABLE CPU MAIN BOARD TO CPU SUPPORT BRACKET | 6-88-M77C2-0210 | (OPTION) |
| 20 | WIRE CABLE CPU MAIN BOARD TO CPU SUPPORT BRACKET | 6-88-W76C2-700 | (OPTION) |
| 20 | WIRE CABLE CPU MAIN BOARD TO CPU SUPPORT BRACKET | 6-88-C4902-4702 | (OPTION) |
| 20 | WIRE CABLE CPU MAIN BOARD TO CPU SUPPORT BRACKET | 6-88-W76C2-700 | (OPTION) |
| 21 | HEAT SINK MYLAR FRB3 (5000) M740S | 6-40-M74SN-013 | |
| 22 | VGA THERMAL MODULE B5120 | 6-31-B512N-101 | |
| 23 | SCREW M2x3L K1 NI ICT NY- | 6-35-B1120-3RA | |
| 24 | DUMMY NEW CARD PC+ABS THERMAL | 6-42-T12R3-011 | |
| 25 | MOTOR CASE SUPPORT RUBBER (0.0540) SILICONE | 6-47-W76CS-010 | |
| 26 | MIC MYLAR FRB3 (5000) M740S | 6-40-M74SU-011 | |
| 27 | MULTI I/O BOARD V3.0 M770CU | 6-77-M77C1-D03 | |
| 28 | PROTECT MB MYLAR FRB3 M740S | 6-40-M74SS-020 | |
| 29 | SCREW M2x4L K1 BZ ICT NY- | 6-35-B6120-4RA | |
| 30 | WIRE CABLE CPU MAIN BOARD TO CPU SUPPORT BRACKET | 6-43-W76S0-052 | |
| 31 | PHONE JACK V.30 BOARD V3.0 M770CU | 6-77-M77CA-D03A | |
| 32 | SATA DVD SUPER MULTI ASSY (OPTIONAL) M740S | 6-79-W760C00-000 | |
| 32 | SATA DVD SUPER MULTI ASSY (OPTIONAL) M740S | 6-79-W760C00-000 | |
| 33 | PRODUCT LABEL FOR B5120 | 6-45-B5120003-010 | |
| 33 | PRODUCT LABEL FOR B5120 | 6-45-B5120003-010 | |
| 34 | W/D HDD ASSY W760S | 6-79-W760S00J-010 | |
| 35 | HDD COVER MODULE (0.0540) W760S | 6-42-W76SJ-102 | |
| 36 | ANTENNA WIRE 24G/25G PIFA W740M | 6-23-W76C-031 | (OPTION) |
| 37 | SCREW M2x5L K1 BK/2 ICT NY- | 6-35-B6120-BR0 | |
| 38 | SCREW M2x5L K1 BK/2 ICT NY- | 6-35-B6120-3R0 | |
| 39 | SCREW M2x5L K1 BK/2 ICT NY- | 6-35-B6120-2R0 | |
| 40 | MOTOR CASE SUPPORT RUBBER (0.0540) SILICONE | 6-39-W76S3-014 | |
| 41 | SCREW M2x5L K1 BK/2 NY ICT | 6-35-B6125-BR0 | |
| 42 | RUBBER GROMMET (0.0540) NYLON | 6-47-M76S8-010 | |
| 43 | CPU THERMAL MODULE B5120 | 6-31-B512N-201 | |
| 44 | FAN MODULE M740S | 6-31-M74SS-102 | |
| 45 | CPU COVER MODULE W760CU (0.0540) | 6-42-W76CS-100 | |
| 46 | RUBBER (0.0540) SILICONE NYLON | 6-47-M76T1-040 | |
| 47 | DOD BRIDGE BOARD V1.0 W760S | 6-77-W760N-001 | |
| 48 | TAPE MYLAR (C) MYLAR M550J | 6-40-M55J2-030 | |
| 49 | MB MYLAR PET (0.0540) M760TUN | 6-40-W76TS-010 | |
| 50 | MBP S L1 (0.0540) W760S | 6-87-W76SS-4RA | (OPTION) |
| 50 | MBP S L1 (0.0540) W760S | 6-87-W74SS-4CAA | (OPTION) |
| 50 | MBP S L1 (0.0540) W760S | 6-87-M660S-4PA | (OPTION) |
| 51 | TOP CASE SUPPORT RUBBER (0.0540) SILICONE | 6-47-W76CS-010 | |
| 52 | MYLAR (0.0540) FRB3 (3M-40) M750T | 6-40-M7351-020 | |

Figure A - 5
BOTTOM

Part Lists

LCD

Figure A - 6
LCD



| ITEM | PART NAME | PART NO | REMARK |
|------|--|------------------|---------------|
| 1 | LCD PROTECT FILM (PET) (W760S) (W760S) (W760S) | 6-40-W76S1-041 | |
| 2 | LCD FRONT COVER (HUB) (HUB) (HUB) (HUB) | 6-47-W76S1-050 | |
| 3 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6120-5R0 | |
| 4 | CCD LINES (PHMA) (W/CCD) (W760S) (W760S) | 6-42-W76ST-011 | W/ CCD |
| 4 | CCD LINES (PHMA) (W/CCD) (W760S) (W760S) | 6-42-W76ST-011-T | W/ CCD |
| 4 | CCD LINES (PHMA) (W/CCD) (W760S) (W760S) | 6-42-W76ST-020 | W/O CCD |
| 5 | LCD FRONT COVER (HUB) (HUB) (HUB) (HUB) | 6-47-W76S1-030 | |
| 6 | LCD FRONT COVER MODULE (W760S) (W760S) (W760S) | 6-39-W76S1-012 | FOR W76XCU |
| 6 | LCD FRONT COVER MODULE (W760S) (W760S) (W760S) | 6-39-W76S1-013-T | FOR W76XCU |
| 7 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-C1120-4RB | |
| 8 | LCD (15.4" HD) (AU) (W760S) (W760S) (W760S) | 6-50-LA157-G02 | FOR LED PANEL |
| 8 | LCD (15.4" HD) (AU) (W760S) (W760S) (W760S) | 6-50-LB155-V03 | FOR LED PANEL |
| 8 | LCD (15.4" HD) (AU) (W760S) (W760S) (W760S) | 6-50-LB257-G01 | FOR LED PANEL |
| 8 | LCD (15.4" HD) (AU) (W760S) (W760S) (W760S) | 6-50-LB257-G02 | FOR LED PANEL |
| 8 | LCD (15.4" HD) (AU) (W760S) (W760S) (W760S) | 6-50-LA157-G03 | FOR LED PANEL |
| 8 | LCD (15.4" HD) (AU) (W760S) (W760S) (W760S) | 6-50-LB155-G03 | FOR LED PANEL |
| 8 | LCD (15.4" HD) (AU) (W760S) (W760S) (W760S) | 6-50-LB155-G04 | FOR LED PANEL |
| 8 | LCD (15.4" HD) (AU) (W760S) (W760S) (W760S) | 6-50-LB155-G05 | FOR LED PANEL |
| 9 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B1120-3RC | |
| 10 | LCD HINGE-L (SECC) (W760S) (W760S) (W760S) | 6-33-W7601-030-1 | FOR LED PANEL |
| 10 | LCD HINGE-L (SECC) (W760S) (W760S) (W760S) | 6-33-W7601-031-1 | FOR W76XCU |
| 11 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 12 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 13 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 14 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 15 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 16 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 17 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 18 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 19 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 20 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 21 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 22 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 23 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 24 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 25 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 26 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |
| 27 | SCREW (W760S) (W760S) (W760S) (W760S) | 6-35-B6125-5RA | |

SATA DVD SUPER-MULTI

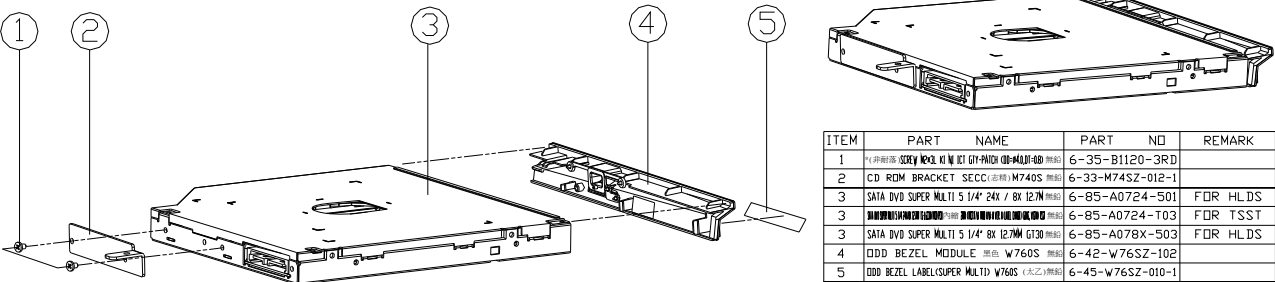


Figure A - 7
SATA DVD SUPER-MULTI

Part Lists

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the **B5120/B5125** 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>PARK S3 LVDS & STRAPS - Page B - 21</i> | <i>POWER 3.3V/5V - Page B - 40</i> |
| <i>CLOCK GENERATOR - Page B - 3</i> | <i>PCH 1/9 (RTC, FWH, HDA, SATA) - Page B - 22</i> | <i>POWER 1.8V - Page B - 41</i> |
| <i>CPU 1/7 (DMI, PEG, FDI) - Page B - 4</i> | <i>PCH 2/9 (PCI-E, SMBUS, CLK) - Page B - 23</i> | <i>POWER 1.5V/0.75V - Page B - 42</i> |
| <i>CPU 2/7 (CLK, MISC) - Page B - 5</i> | <i>PCH 3/9 (DMI, FDI, MISC) - Page B - 24</i> | <i>POWER 1.1VS_VTT - Page B - 43</i> |
| <i>CPU 3/7 (DDR3) - Page B - 6</i> | <i>PCH 4/9 (LVDS, CRT, DP) - Page B - 25</i> | <i>POWER Vram 1.5VS - Page B - 44</i> |
| <i>CPU 4/7 (POWER) - Page B - 7</i> | <i>PCH 5/9 (PCI, USB, NVRAM) - Page B - 26</i> | <i>V-CORE - Page B - 45</i> |
| <i>CPU 5/7 (VGFX POWER) - Page B - 8</i> | <i>PCH 6/9 (GPIO) - Page B - 27</i> | <i>M92 VDDC - Page B - 46</i> |
| <i>CPU 6/7 (GND) - Page B - 9</i> | <i>PCH 7/9 (POWER) - Page B - 28</i> | <i>AC_IN, CHARGER - Page B - 47</i> |
| <i>CPU 7/7 (RESERVED) - Page B - 10</i> | <i>PCH 8/9 (POWER) - Page B - 29</i> | <i>HDMI - Page B - 48</i> |
| <i>DDR3 SO-DIMM_0 - Page B - 11</i> | <i>PCH 9/9 (GND) - Page B - 30</i> | <i>AUDIO BOARD - Page B - 49</i> |
| <i>DDR3 SO-DIMM_1 - Page B - 12</i> | <i>NEW CARD, MINI PCIE - Page B - 31</i> | <i>FINGER SENSOR BOARD TCS4X - Page B - 50</i> |
| <i>PANEL, INVERTER, CRT - Page B - 13</i> | <i>3G, TPM - Page B - 32</i> | <i>POWER SWITCH BOARD FOR M74 - Page B - 51</i> |
| <i>PARK S3 PCIE_INTERFACE - Page B - 14</i> | <i>USB, FAN, TP, FP, MULTI-CONN - Page B - 33</i> | <i>FINGER BOARD FOR M74 - Page B - 52</i> |
| <i>PARK S3 MAIN GENERIC - Page B - 15</i> | <i>CARD READER (JMC 251) - Page B - 34</i> | <i>POWER SWITCH BOARD FOR M76 - Page B - 53</i> |
| <i>PARK S3 DP POWER - Page B - 16</i> | <i>SATA ODD, LED, HOTKEY, LID, BT - Page B - 35</i> | <i>EXTERNAL ODD BOARD FOR W76 - Page B - 54</i> |
| <i>PARK S3 POWER - Page B - 17</i> | <i>LAN (JMC251), MODEM - Page B - 36</i> | <i>ODD BOARD FOR M760T - Page B - 55</i> |
| <i>PARK S3 MEM_INTERFACE - Page B - 18</i> | <i>AUDIO CODEC ALC272 - Page B - 37</i> | <i>CLICK FINGER BOARD FOR M77 - Page B - 56</i> |
| <i>PARK S3 DDR3 MEMORY A - Page B - 19</i> | <i>KBC-ITE IT8502E - Page B - 38</i> | <i>MULTI-FUNCTION BOARD - Page B - 57</i> |
| <i>PARK S3 DDR3 MEMORY B - Page B - 20</i> | <i>5VS, 3.3VS, 1.5VS, VIN1 - Page B - 39</i> | |

Table B - 1
**SCHEMATIC
DIAGRAMS**

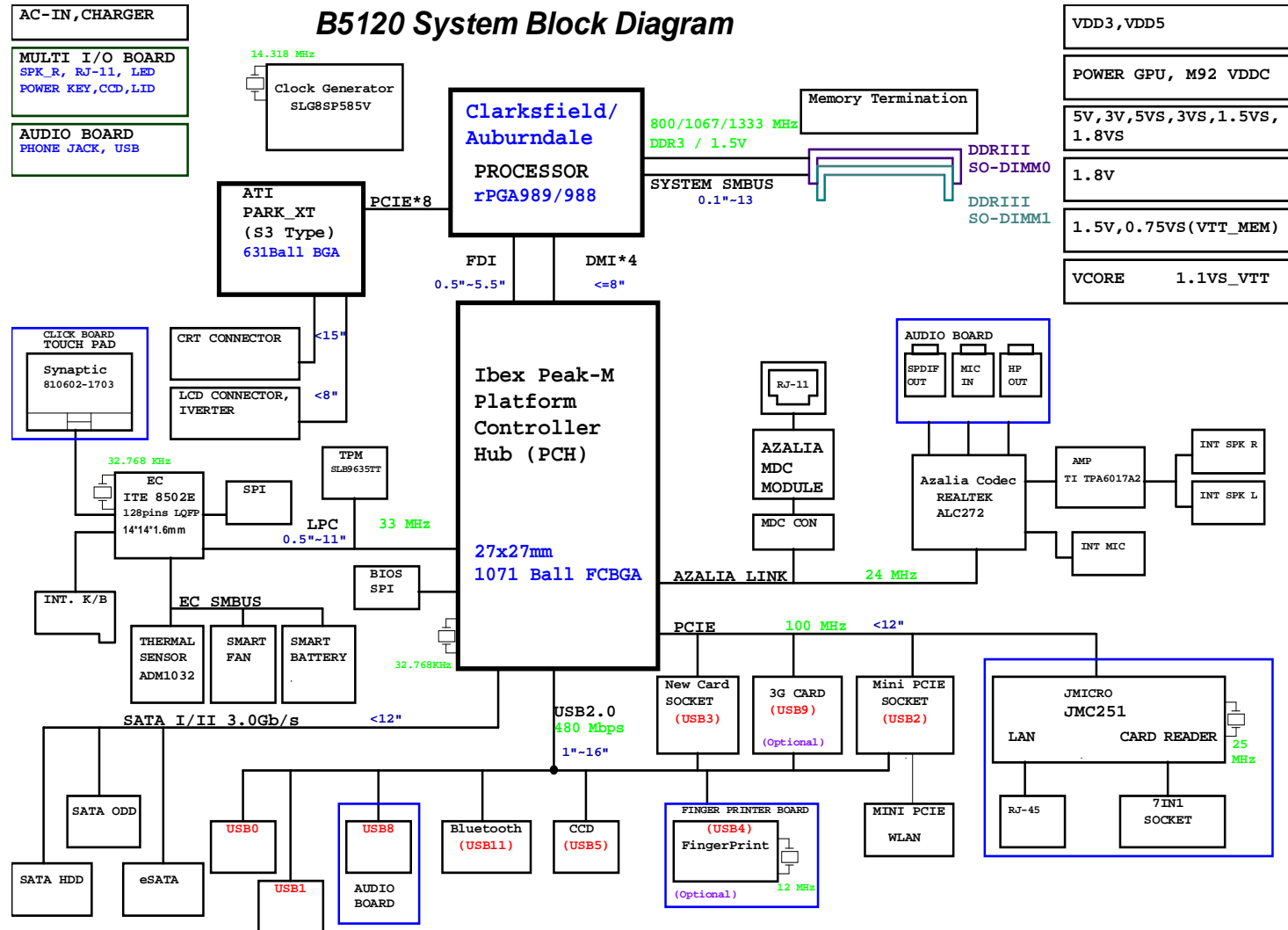


Version Note

The schematic diagrams in this chapter are based upon version 6-7P-B512A-002. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

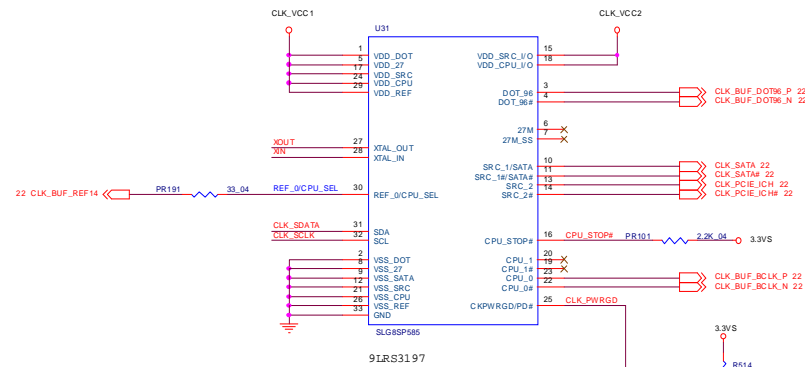
SYSTEM BLOCK DIAGRAM

Sheet 1 of 56
SYSTEM BLOCK
DIAGRAM

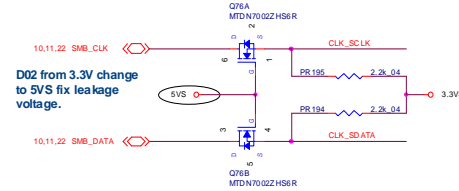


CLOCK GENERATOR

CLOCK GENERATOR



SMBus

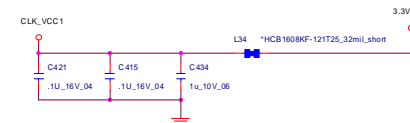


CPU_SEL During CK_PEWGD Latch Pin1

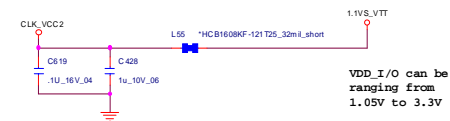


| PIN_30 | CPU_0 | CPU_1 |
|---------------|--------|--------|
| 0 (default) | 133MHz | 133MHz |
| 1 (0.7V-1.5V) | 100MHz | 100MHz |

CLKGEN POWER

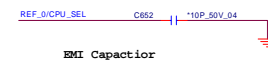


0.1uF near the every power pin



0.1uF near the every power pin

EMI



| | |
|-----------|--|
| 5V5 | 12,21,27,28,32,34,36,38,40,44,47 |
| 3.3V | 3,4,12,13,21,22,23,25,26,28,30,31,32,33,34,35,36,40,41,42,43 |
| 3.3V5 | 10,11,12,13,14,21,22,23,25,26,27,28,30,31,32,33,34,36,37,38,44,45,47 |
| 1.1V5_VTT | 4,6,7,20,21,22,23,26,27,28,42,44 |

Sheet 2 of 56
CLOCK
GENERATOR

PROCESSOR 1/7 (DMI,PEG,FDI)

It applies to Aurubrande and Clarkfield discrete graphic design.

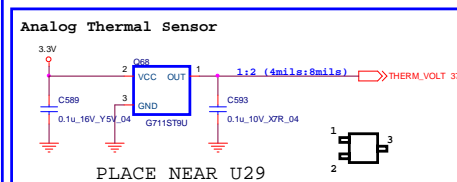
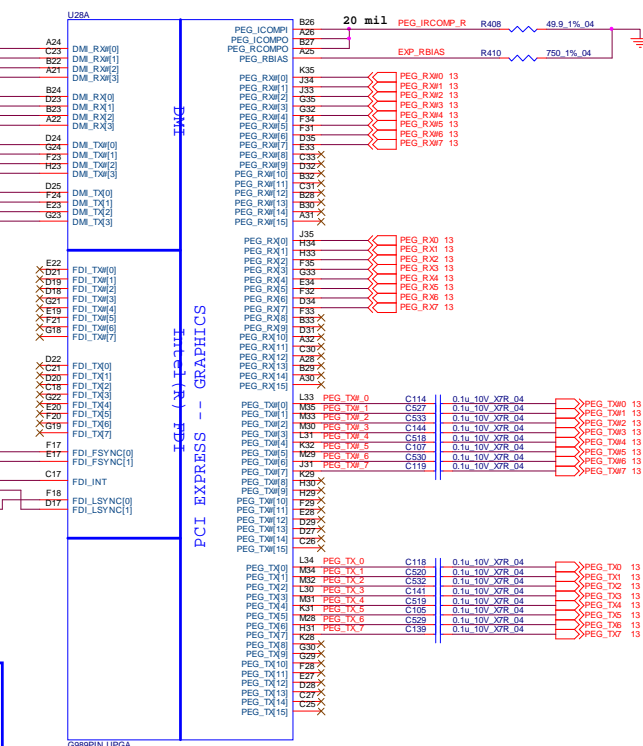
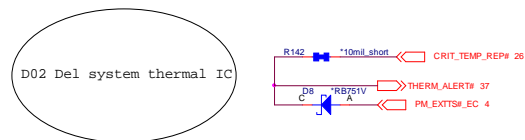
If discrete graphic chip is used for Aurubrande, VMD5 (OPF core) rail can be connected to GND if motherboard only supports discrete graphics and also in a common motherboard design if OPFX VR is not trusted. On the other hand, if the VR is trusted, VMD5 can be left floating in a common motherboard design (GFX VR keeps VMD5 from floating).

In addition, FDI_LN0[7:0] and FDI_KN0[7:0] can be left floating on the PCN. FDI_LN1[7:0] and FDI_LN2[7:0] can be left floating on the Aurubrande.

In OPFX_NRM, FDI_PWN0[0:1], FDI_LN0[0:1], FDI_LN1[0:1] and FDI_LN2[0:1] signals should be tied to GND (through 1K \times 7 resistors) in the common motherboard design case. Please note that if these signals are left floating, there are no functional impacts but a small amount of power (~15 mW) maybe wasted. VMD5_SENSE can be left floating on Aurubrande.

OPFX_REF_SCLK and FDI_REF_SCLK can be connected to GND on Aurubrande directly if motherboard only supports discrete graphics. In a common motherboard design, these two signals are driven by PCN (even if Graphics is disabled by RST0) to avoid external termination is required.

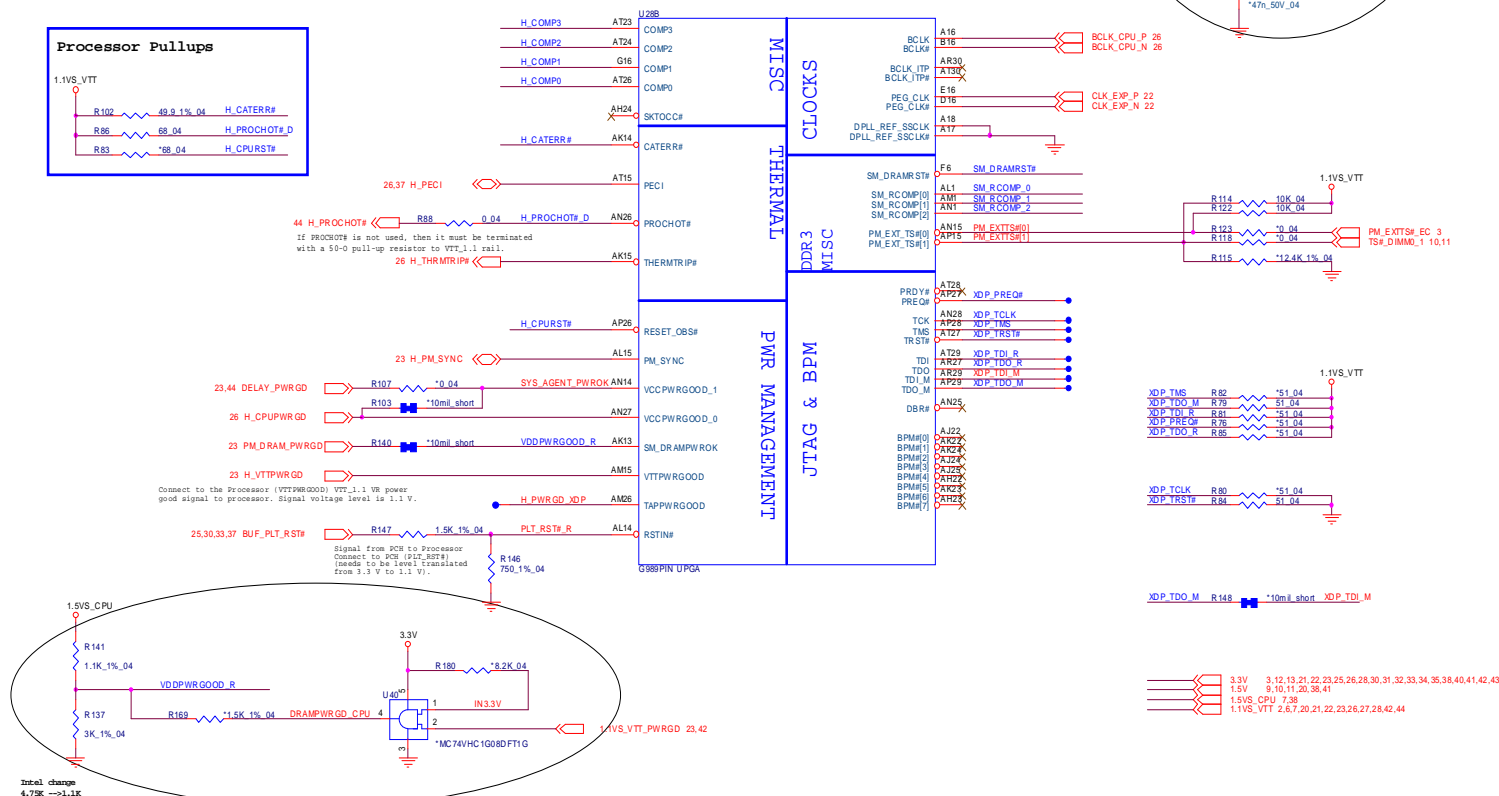
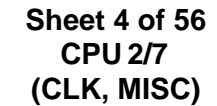
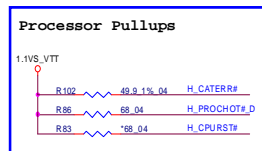
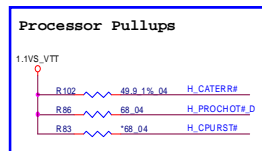
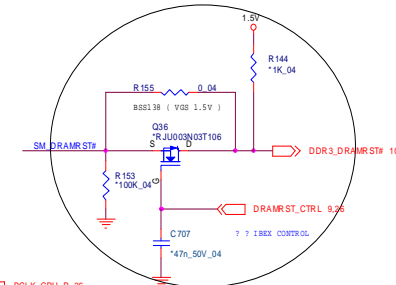
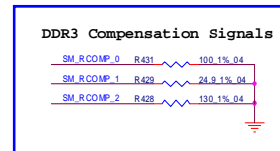
PULL HIGH? ? ? IBEX? PAGE22



4,12,13,21,22,23,25,26,28,30,31,32,33,34,35,38,40,41,42,43 3.3V
21,30,34,37,38,39,46 VDD3

Schematic Diagrams

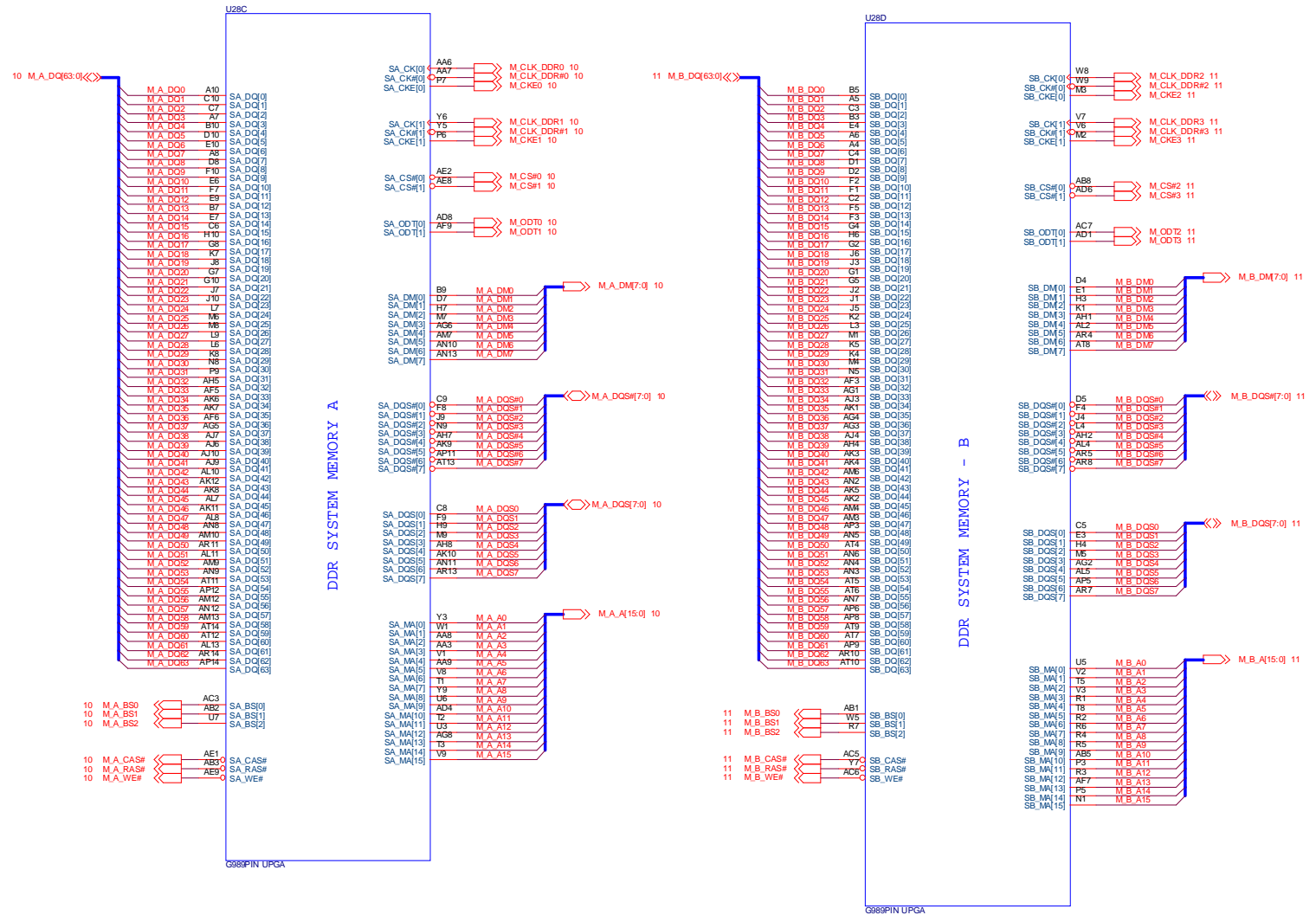
Schematic Diagrams

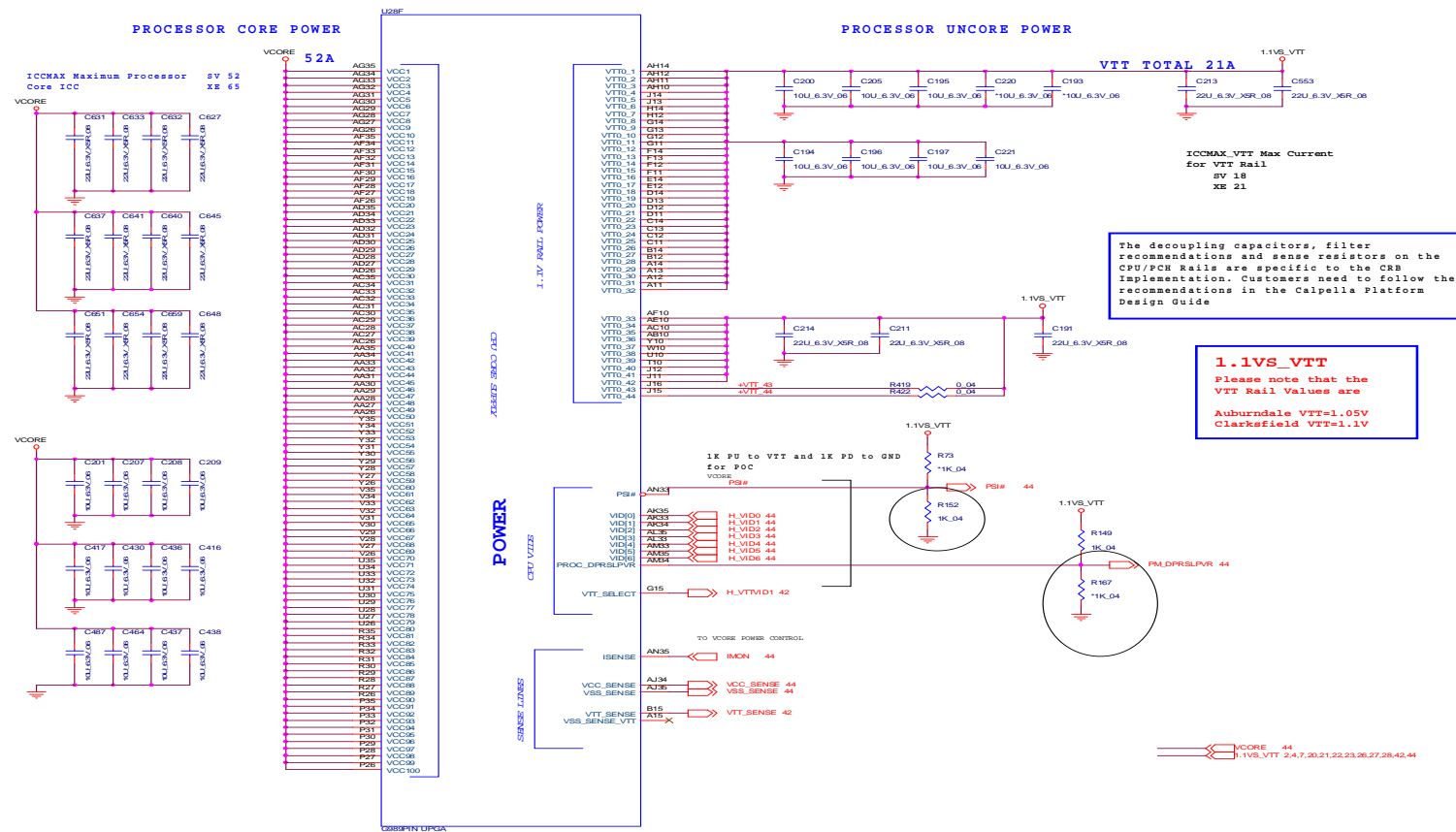


CPU 3/7 (DDR3)

PROCESSOR 3/7 (DDR3)

Sheet 5 of 56
CPU 3/7
(DDR3)





Sheet 6 of 56
CPU 4/7
(POWER)

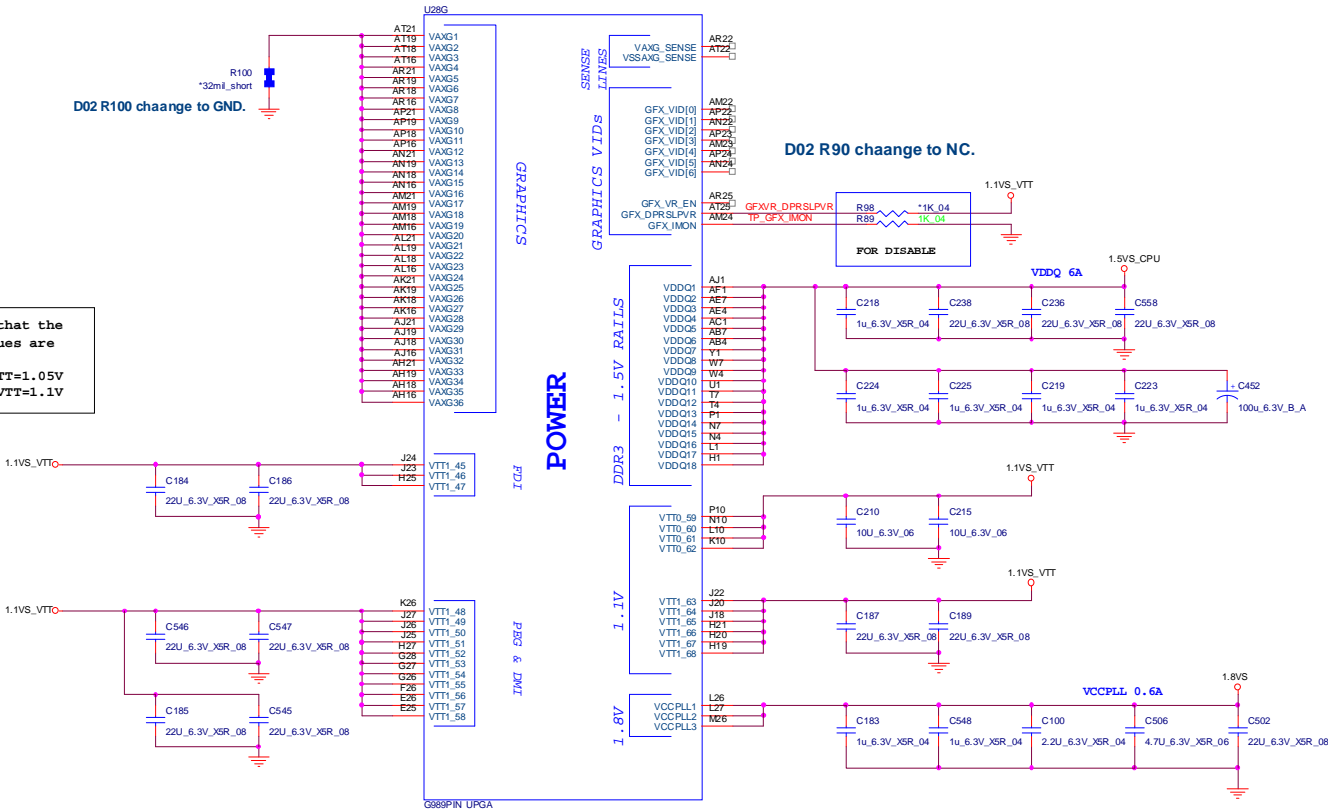
Schematic Diagrams

CPU 5/7 (VGFX POWER)

PROCESSOR 5/7 (GRAPHICS POWER)

Sheet 7 of 56
CPU 5/7
(VGFX POWER)

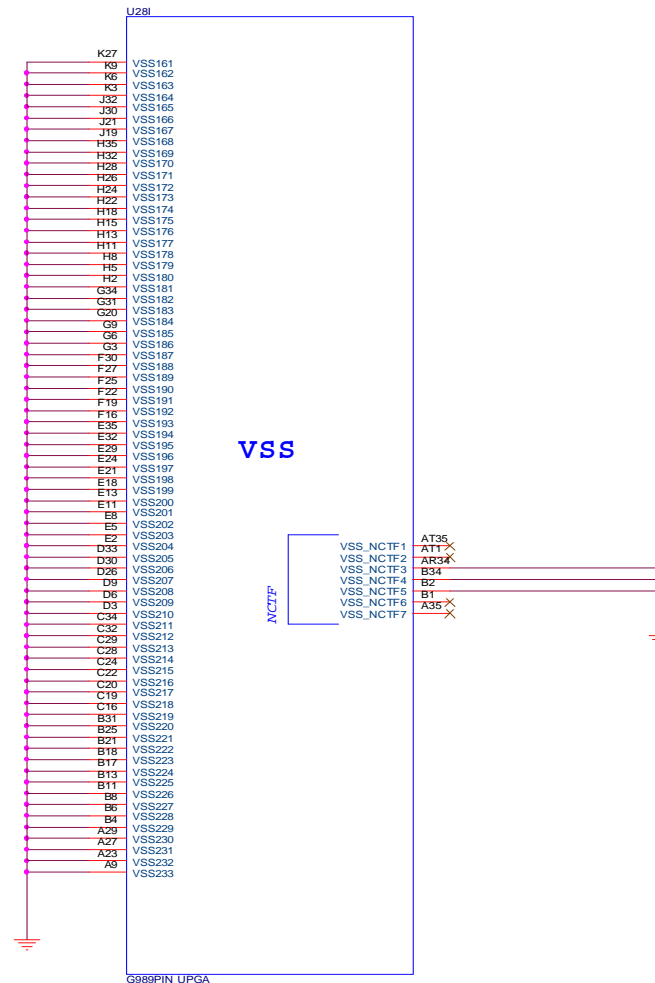
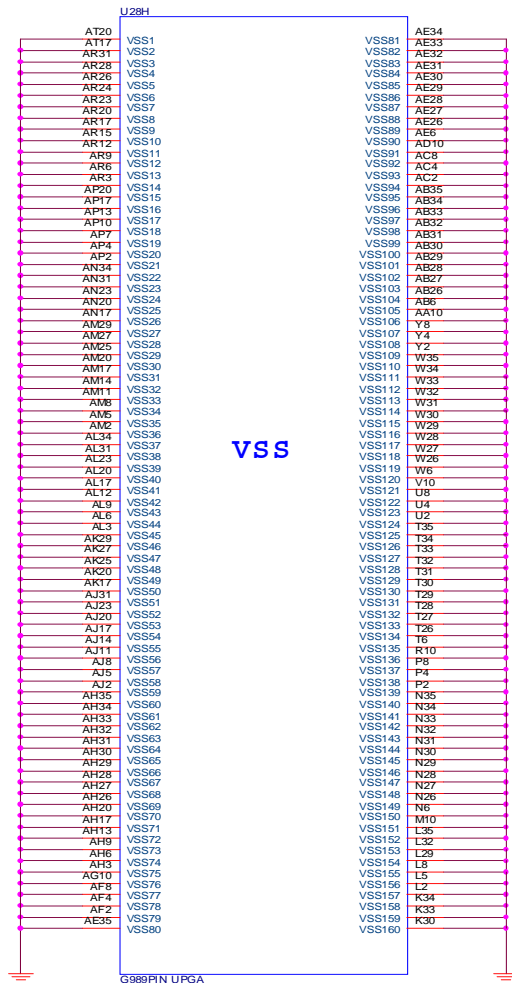
Please note that the
VTT Rail Values are
Auburndale VTT=1.05V
Clarksfield VTT=1.1V



1.5VS_CPU 4,38
1.5VS 20,27,40
1.1VS_VTT 2,4,6,20,21,22,23,26,27,28,42,44
1.5V 4,9,10,11,20,38,41

CPU 6/7 (GND)

PROCESSOR 6 / 7 (GND)



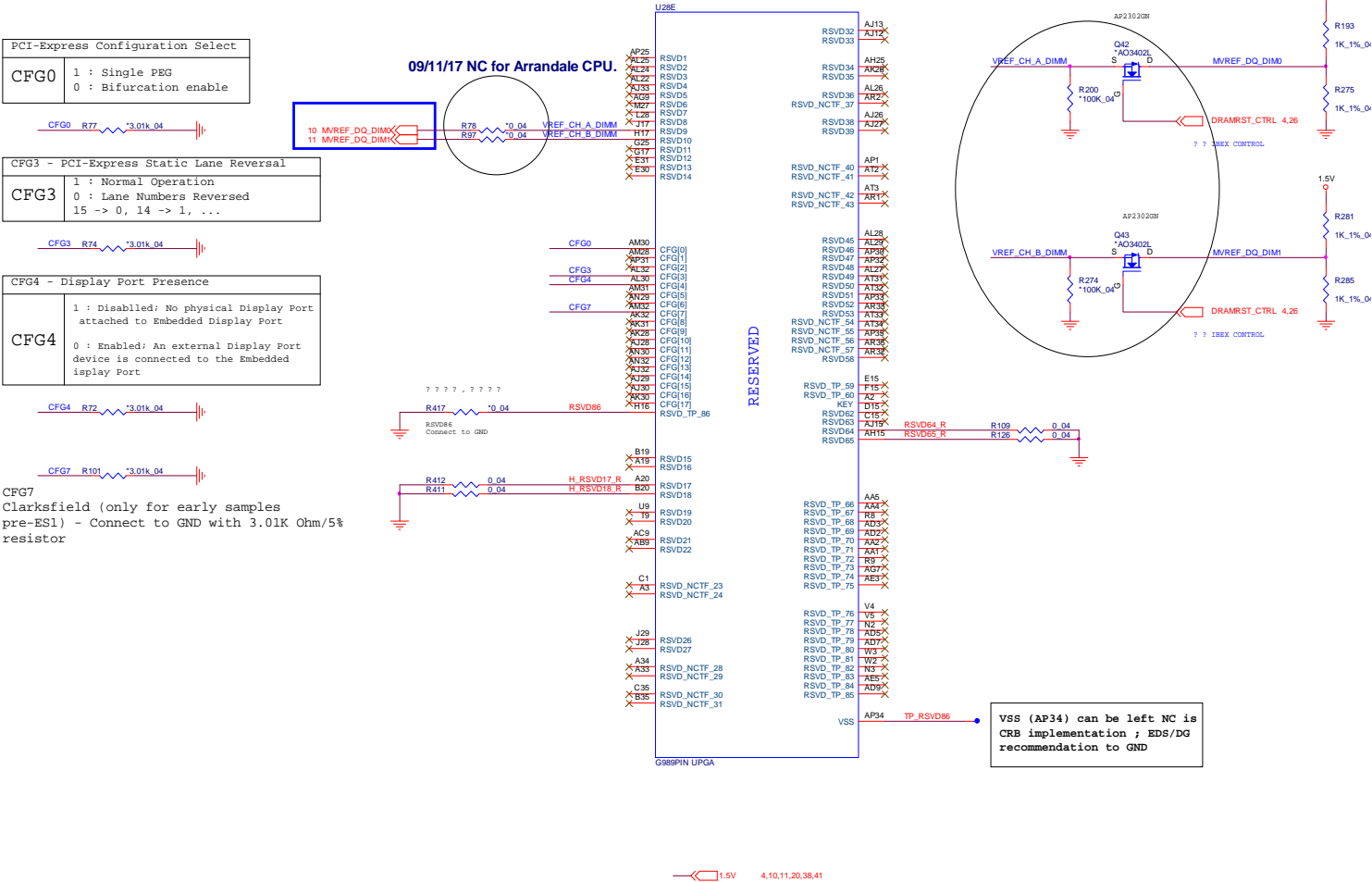
Sheet 8 of 56
CPU 6/7 (GND)

Schematic Diagrams

CPU 7/7 (RESERVED)

PROCESSOR 7/7 (RESERVED)

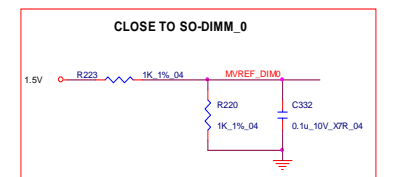
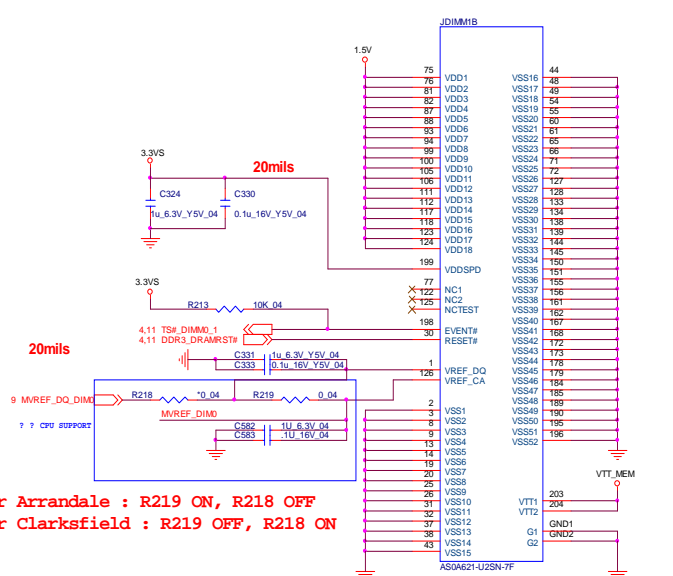
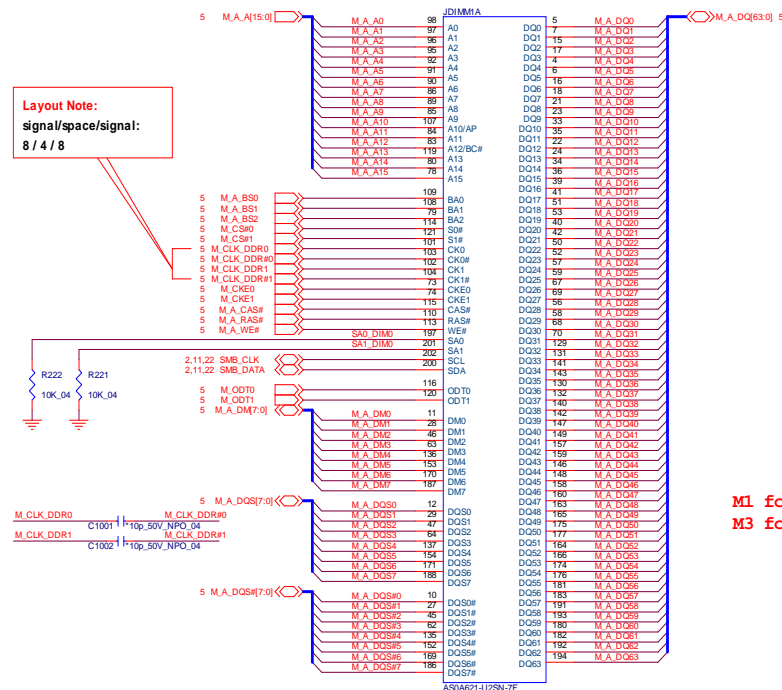
Sheet 9 of 56
CPU 7/7
(RESERVED)



DDR3 SO-DIMM_0

SO-DIMM A

CHANGE TO STANDARD

Sheet 10 of 56
DDR3 SO-DIMM_0

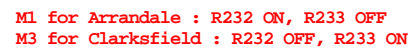
B.Schematic Diagrams

SO-DIMM B

Layout Note:
signal/space/signal:
8 / 4 / 8



SO-DIMM_1 is placed farther from the GMCH than SO-DIMM_0



Sheet 13 of 56
PARK S3
PCIE INTERFACE

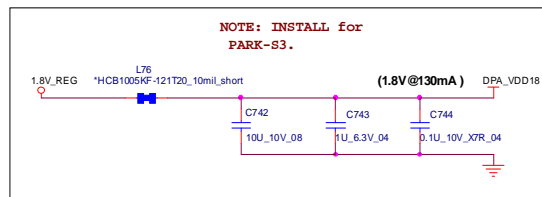
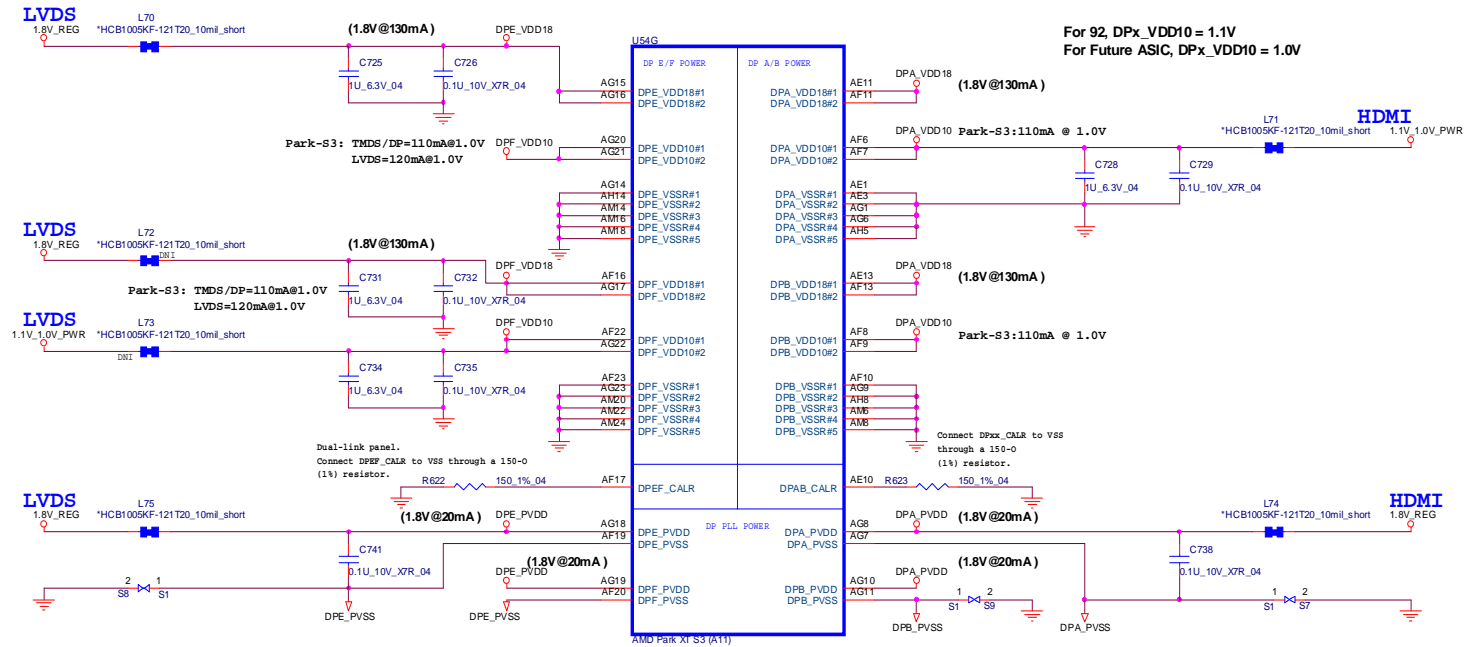


Sheet 14 of 56
PARK S3 MAIN
GENERIC



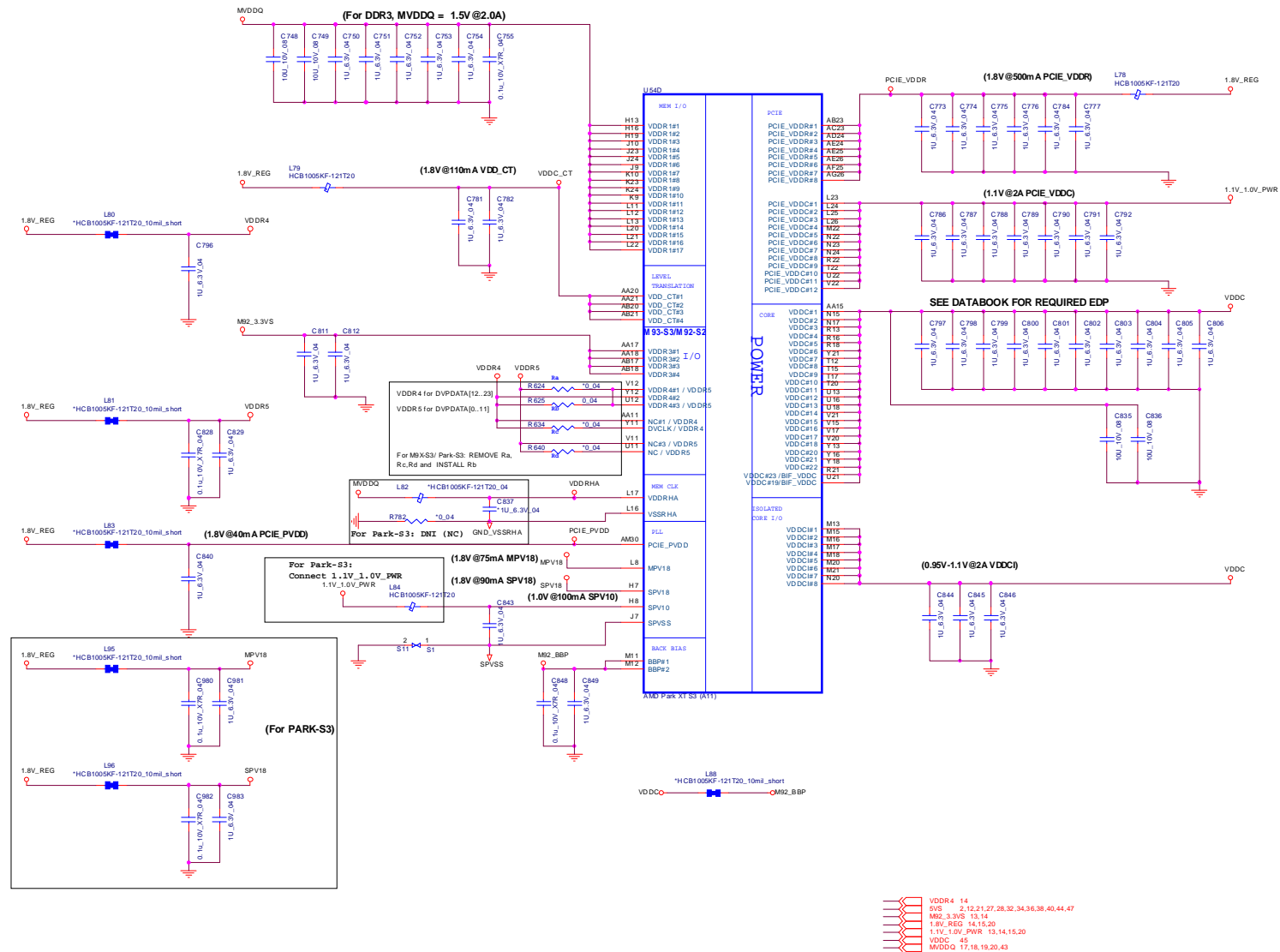
PARK S3 DP POWER

Sheet 15 of 56
PARK S3 DP
POWER



1.8V_REG 14,16,20
1.1V_1.0V_PWR 13,14,16,20

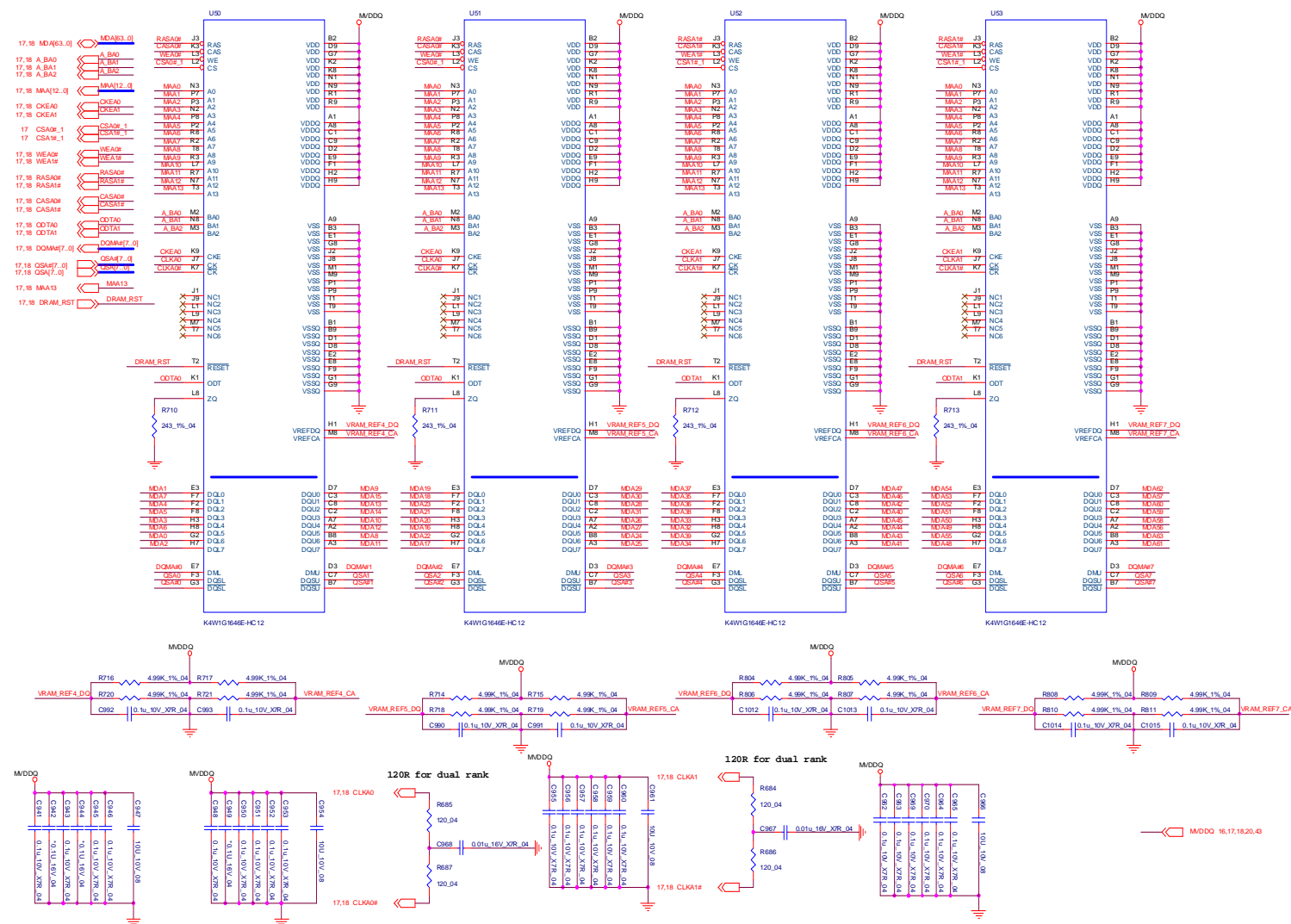
PARK S3 POWER



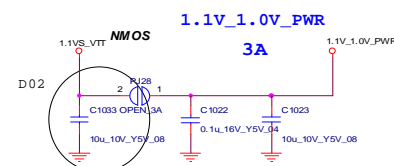
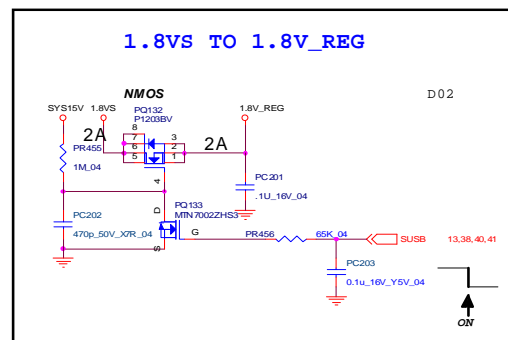
Sheet 16 of 56
PARK S3 POWER

B.Schematic Diagrams

Sheet 19 of 56
PARK S3 DDR3
MEMORY B



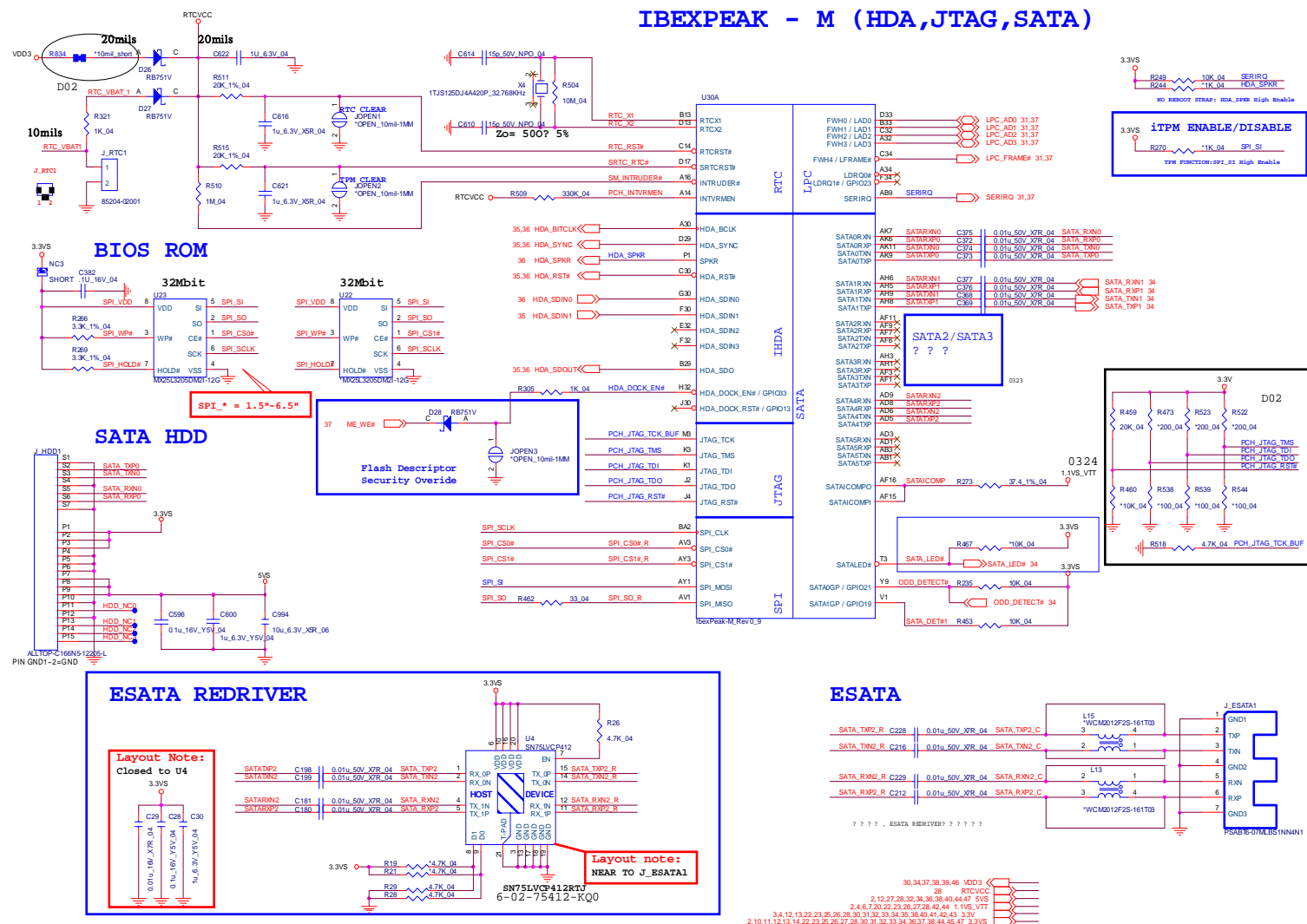
LVDS Interface



| | |
|--|----------|
| AMD RESERVED CONFIGURATION STRAPS | |
| ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOS ARE USED THEY MUST NOT CONFLICT DURING RESET | |
| H2SYN0 | GENERIC0 |
| PULLUP PADS ARE NOT REQUIRED FOR THESE STRAPS BUT IF THESE GPIOS ARE USED THEY MUST NOT CONFLICT DURING RESET | |
| GPI021_BB_EN | |

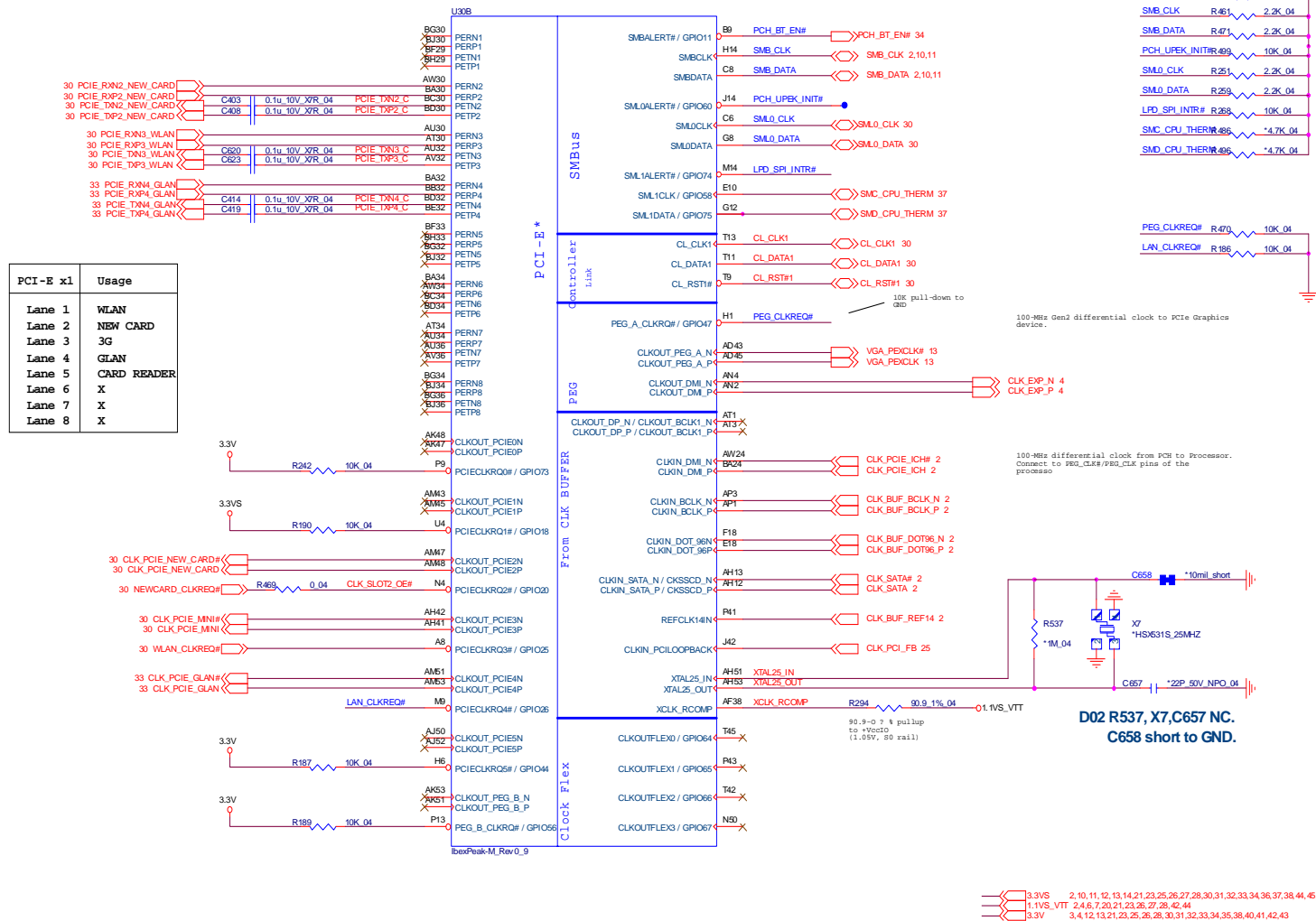
B.Schematic Diagrams

IBEXPEAK - M (HDA,JTAG,SATA)



PCH 2/9 (PCI-E, SMBUS, CLK)

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



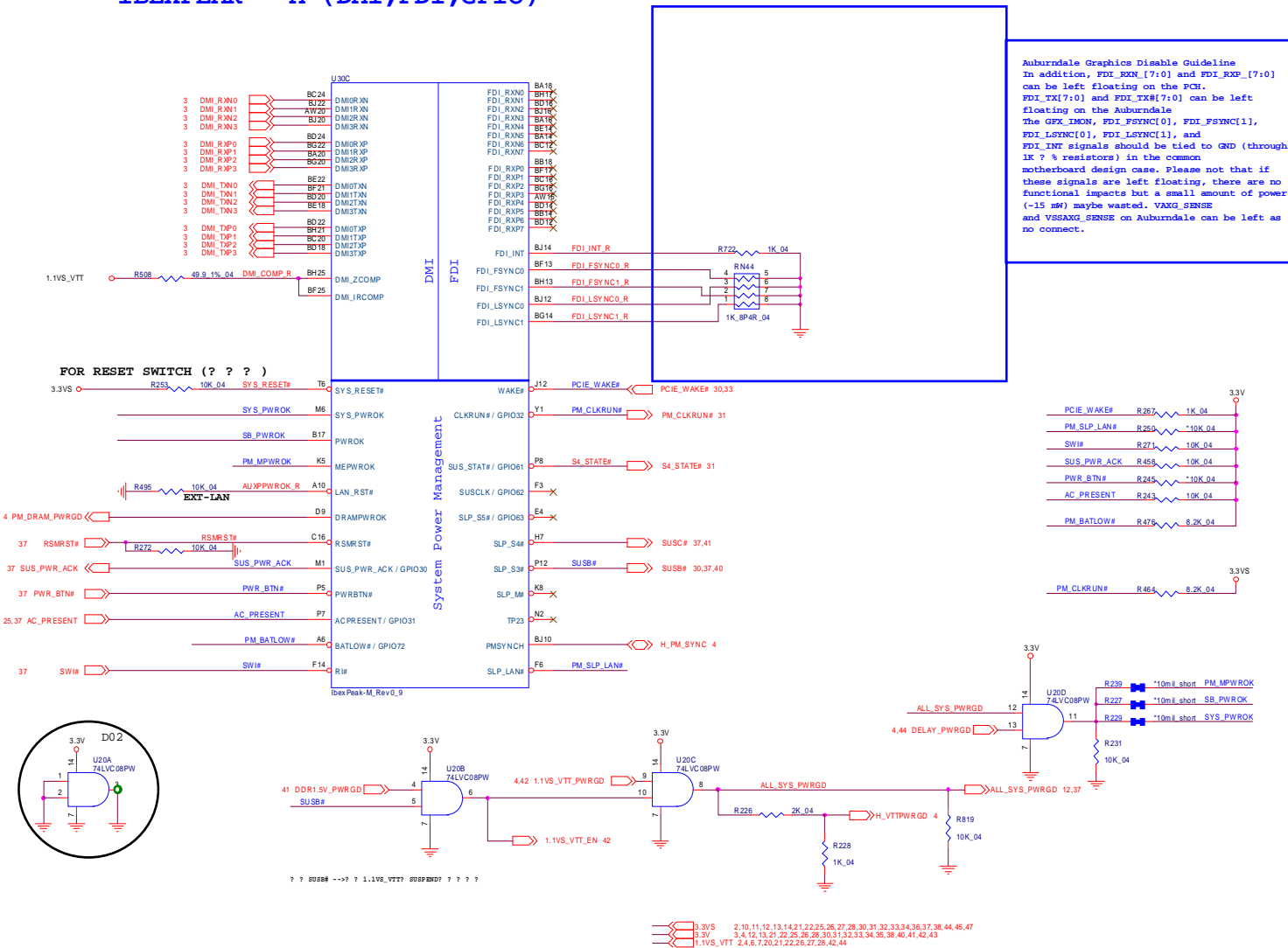
Sheet 22 of 56
PCH 2/9
(PCI-E, SMBUS,
CLK)

Schematic Diagrams

PCH 3/9 (DMI, FDI, MISC)

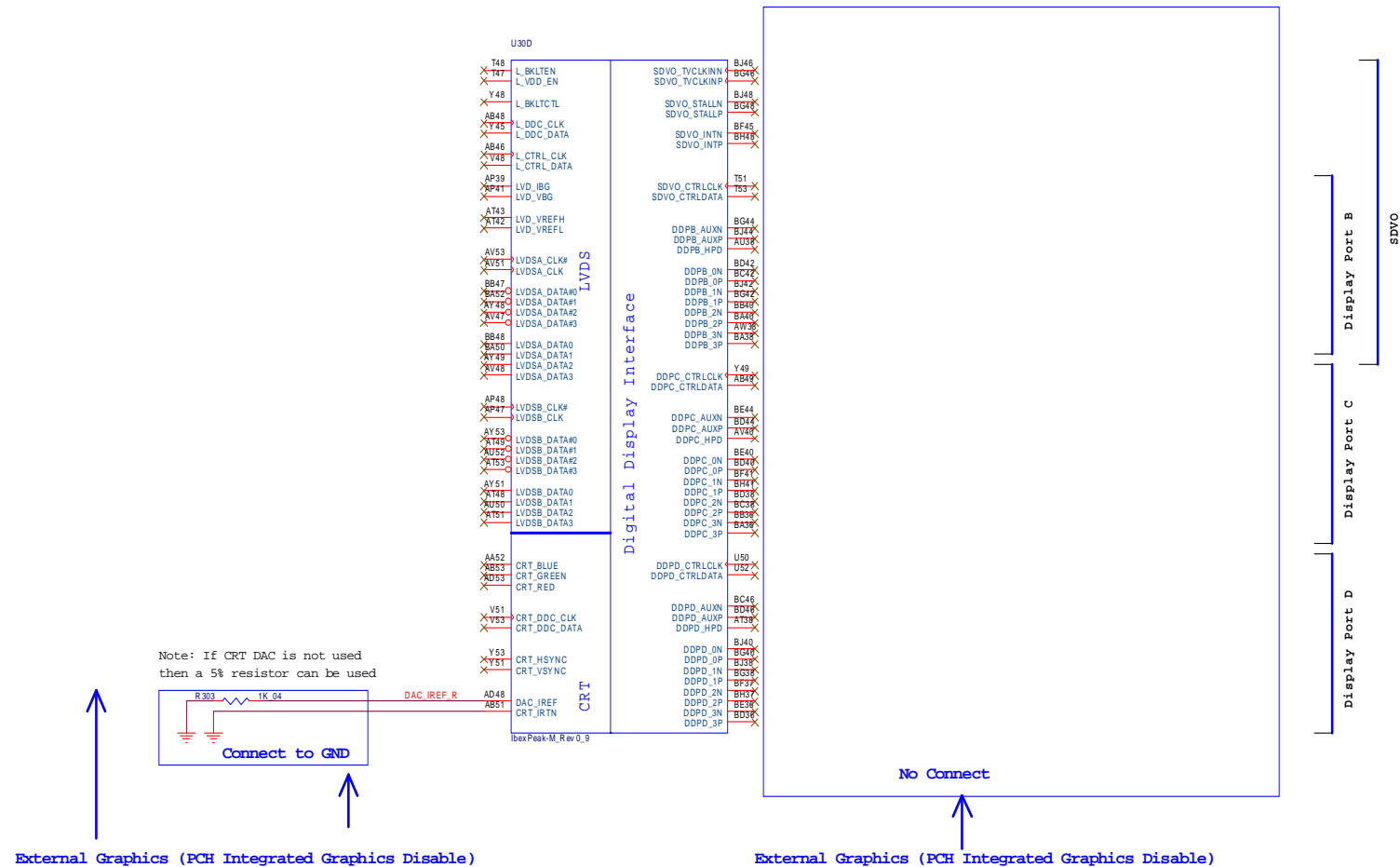
IBEXPEAK - M (DMI, FDI, GPIO)

Sheet 23 of 56
PCH 3/9
(DMI, FDI, MISC)



PCH 4/9 (LVDS, CRT, DP)

IBEXPEAK - M (LVDS,DDI)



Sheet 24 of 56
PCH 4/9
(LVDS, CRT, DP)

2,10,11,12,13,14,21,22,23,25,26,27,28,30,31,32,33,34,36,37,38,44,45,47 3.3VS
2,12,21,27,28,32,34,36,38,40,44,47 5VS



B.Schematic Diagrams

| Boot BIOS Strap | | |
|-----------------|-----------|--------------------|
| PCI_GNT#0 | PCI_GNT#1 | Boot BIOS Location |
| 0 | 0 | LPC |
| 0 | 1 | Reserved (NAND) |
| 1 | 0 | PCI |
| 1 | 1 | SPI |

The diagram shows two resistors, R311 and R299, connected to ground. R311 is connected to PCI_GNT#0 and R299 is connected to PCI_GNT#1. Both resistors are labeled '1K_04'.

| 3.VS | | | | | | |
|------|--------------|--------|--------------|-----------|--|--|
| | | 4 | 5 | INT_PIRGE | | |
| | RN37 | 3 | 6 | PCI_IRDYA | | |
| | 8.2K_8P4R_04 | 2 | 7 | PCI_FERR | | |
| | | 4 | 5 | PCI_PERR | | |
| | RN9 | 4 | 6 | PCI_LOCK | | |
| | 8.2K_8P4R_04 | 3 | 7 | PCI_PERR | | |
| | | 1 | 8 | PCI_SERR | | |
| | | 2 | 7 | PCI_PERR | | |
| | RN41 | 3 | 6 | PCI_IRDYA | | |
| | 8.2K_8P4R_04 | 2 | 7 | INT_PIRGE | | |
| | | 4 | 5 | INT_PIRGE | | |
| | RN36 | 3 | 6 | INT_PIRGE | | |
| | 8.2K_8P4R_04 | 2 | 7 | INT_PIRGE | | |
| | | 4 | 5 | INT_PIRGE | | |
| | RN42 | 4 | 6 | INT_PIRGE | | |
| | 8.2K_8P4R_04 | 3 | 7 | INT_PIRGE | | |
| | | 1 | 8 | PCI_RECV | | |
| | | 2 | 7 | PCI_RECV | | |
| | | 4 | 5 | INT_PIRGE | | |
| | R524 | 10K_04 | DGPU_SELECTW | | | |

BACKLIGHT CONTROL FROM IGPU/DGPU

PIN PLT RST# to Buffer

PIN PLT_RST# to Buffer

37 PME#

13,31 PLT_RST#

22 CLK_PCI_FB

37 PCLK_KBC

31 PCLK_TPM

22_04 CLK_PCI_FB

22_04 CLK_PCI_KBC

22_04 CLK_PCI_TPM

3.3VS

C371 1U_16V_04

PLT_RST#

U21 MC74VHC1G08DFT1G

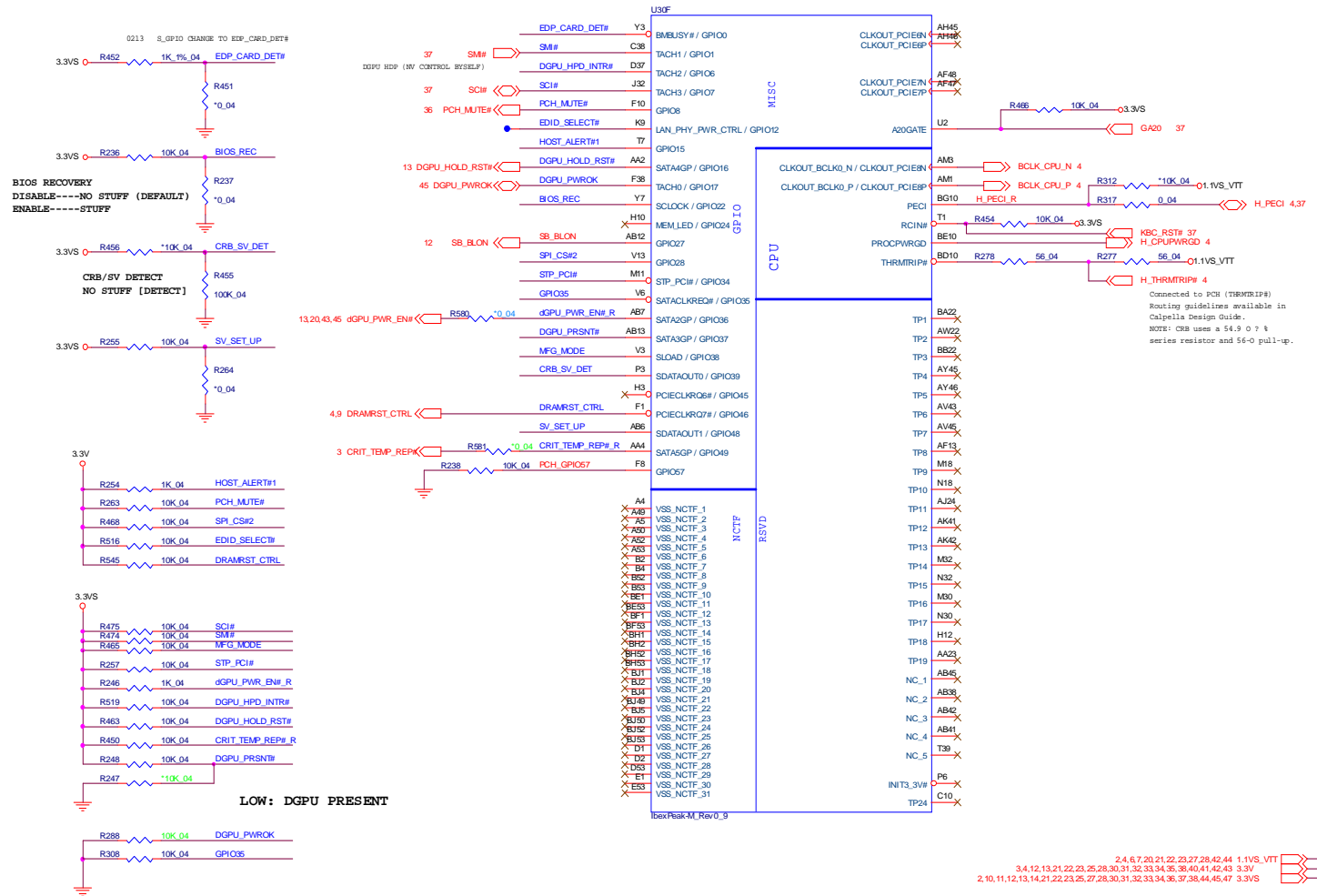
BUF_PLT_RST# 4.30,3.37

R241 100K_04

2, 10, 11, 12, 13, 14, 21, 22, 23, 26, 27, 28, 30, 31, 32, 33, 34, 36, 37, 38, 44, 45, 47 3.3VS
3.4, 12, 13, 21, 22, 23, 26, 28, 30, 31, 32, 33, 34, 35, 38, 40, 41, 42, 43 3.3V

PCH 6/9 (GPIO)

IBEXPEAK - M (GPIO,VSS_NCTF,RSVD)



B.Schematic Diagrams

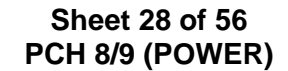
B.Schematic Diagrams

B.Schematic Diagrams



B.Schematic Diagrams

IBEXPEAK - M (POWER)

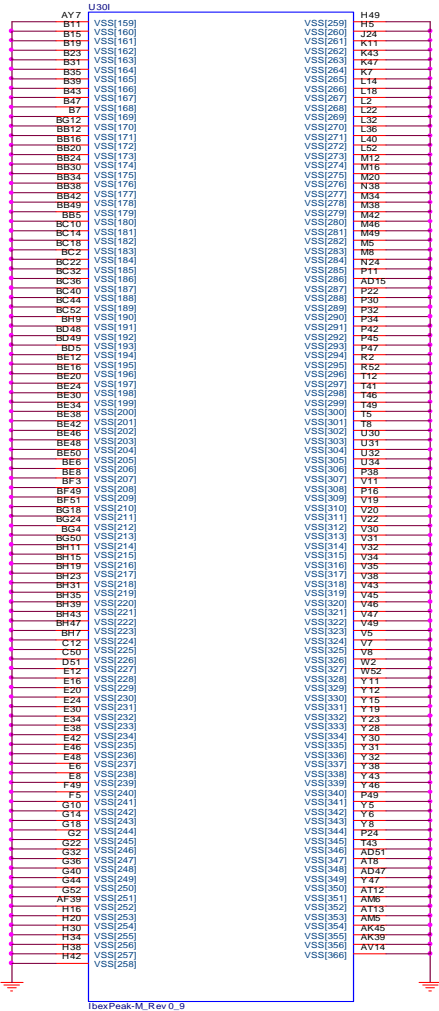
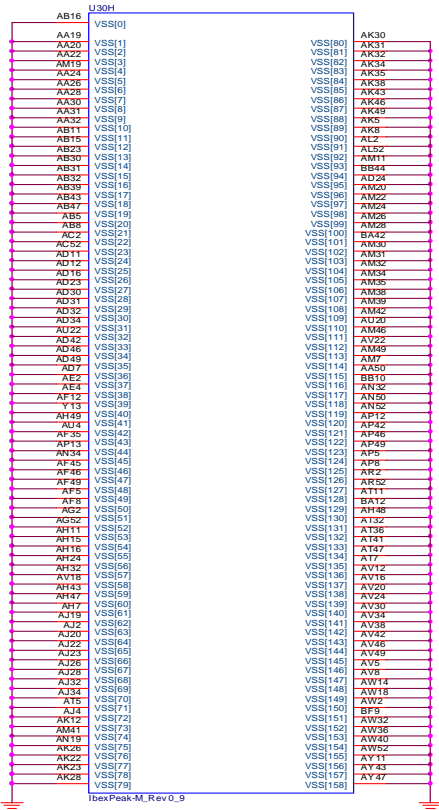


Schematic Diagrams

PCH 9/9 (GND)

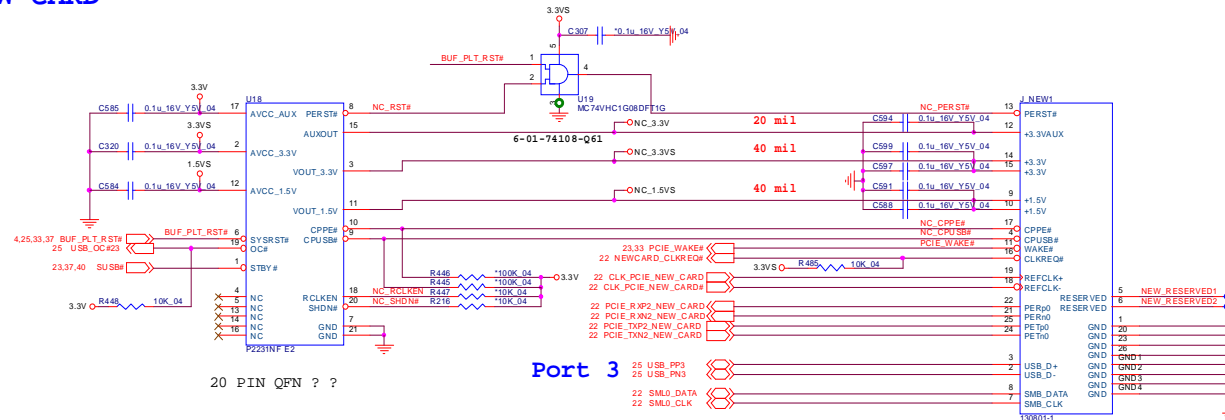
IBEXPEAK - M (GND)

Sheet 29 of 56
PCH 9/9 (GND)



NEW CARD, MINI PCIE

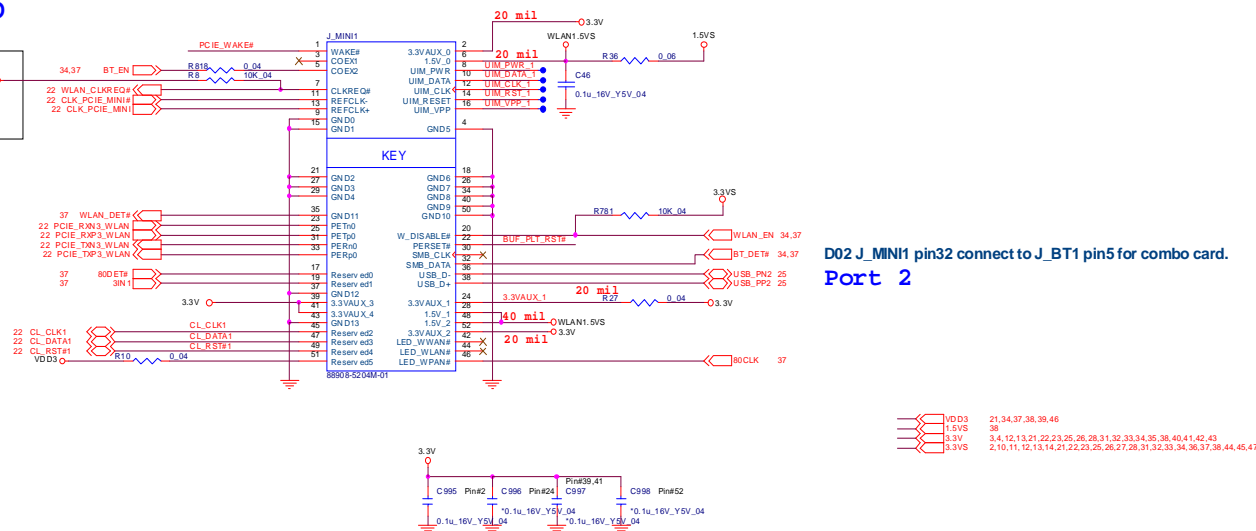
NEW CARD



Sheet 30 of 56
NEW CARD, MINI
PCIE

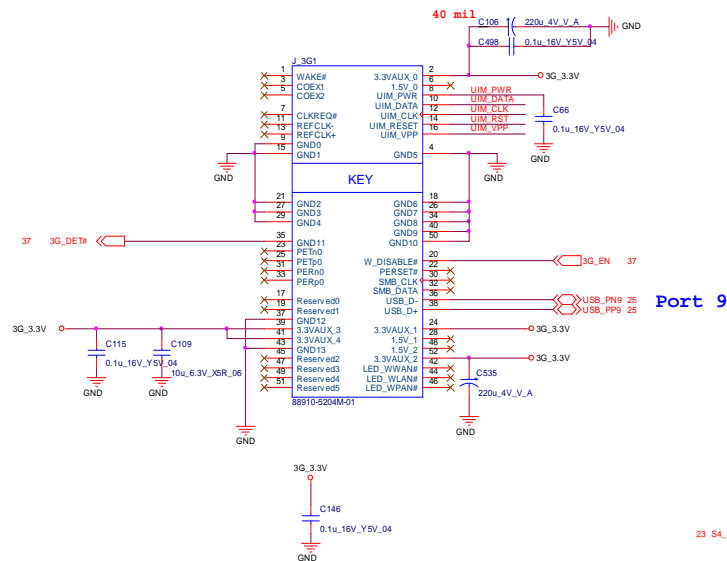
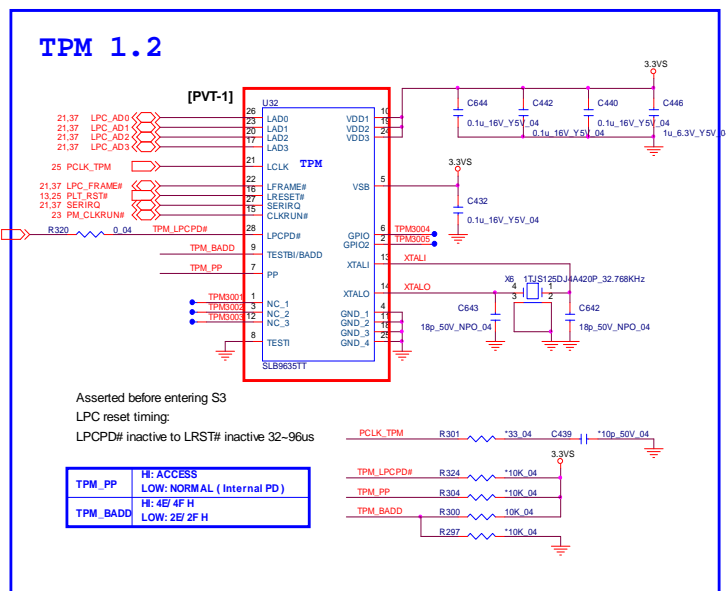
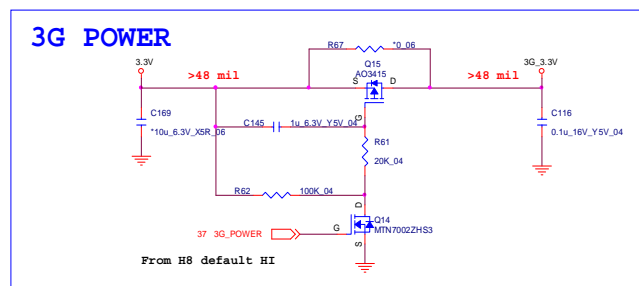
MINI CARD

D02 R8 from 3.3VS
change to 3.3V for
GPIO25 AUX
power plane.



B.Schematic Diagrams

3G

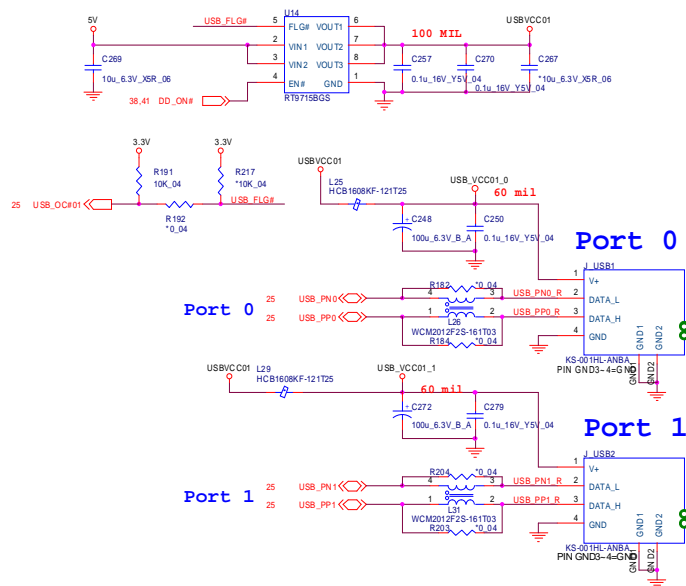
[illegible]

| | | |
|---|-------|---|
|  | 3.3V | 3, 4, 12, 13, 21, 22, 23, 25, 26, 28, 30, 32, 33, 34, 35, 38, 40, 41, 42, 43 |
| | 3.3VS | 2, 10, 11, 12, 13, 14, 21, 22, 23, 25, 26, 27, 28, 30, 32, 33, 34, 36, 37, 38, 44, 45, 47 |

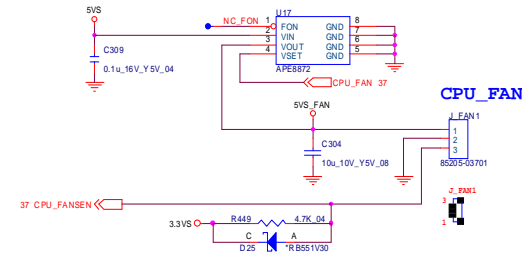
B - 32 3G, TPM

USB, FAN, TP, FP, MULTI-CONN

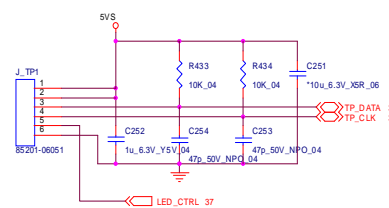
USB PORT*2



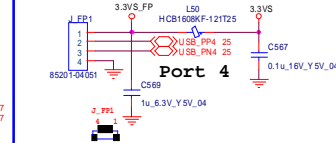
FAN CONTROL



CLICK CONN FOR M760T/B5120

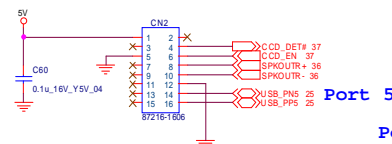


FP CONN

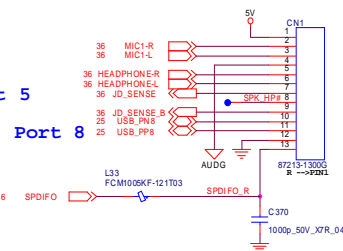


MULTI I/O CONN

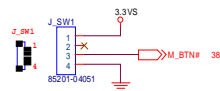
FOR MULTI IO BOARD



FOR PHONE JACK BOARD

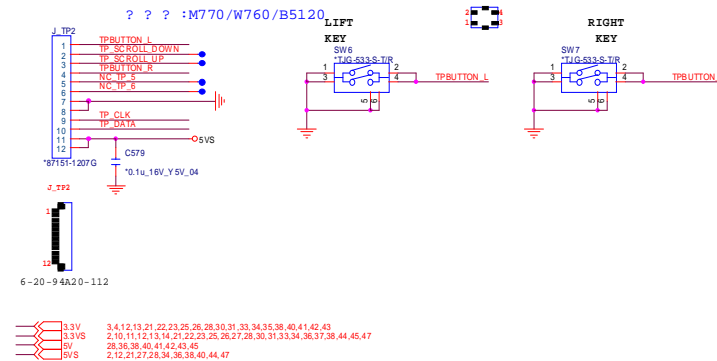


FOR POWER SWITCH BOARD



CLICK CONN FOR M740T

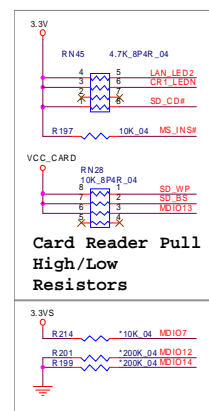
???:M770/W760/B5120



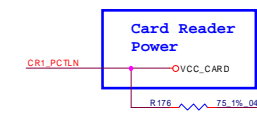
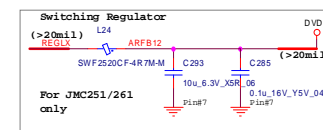
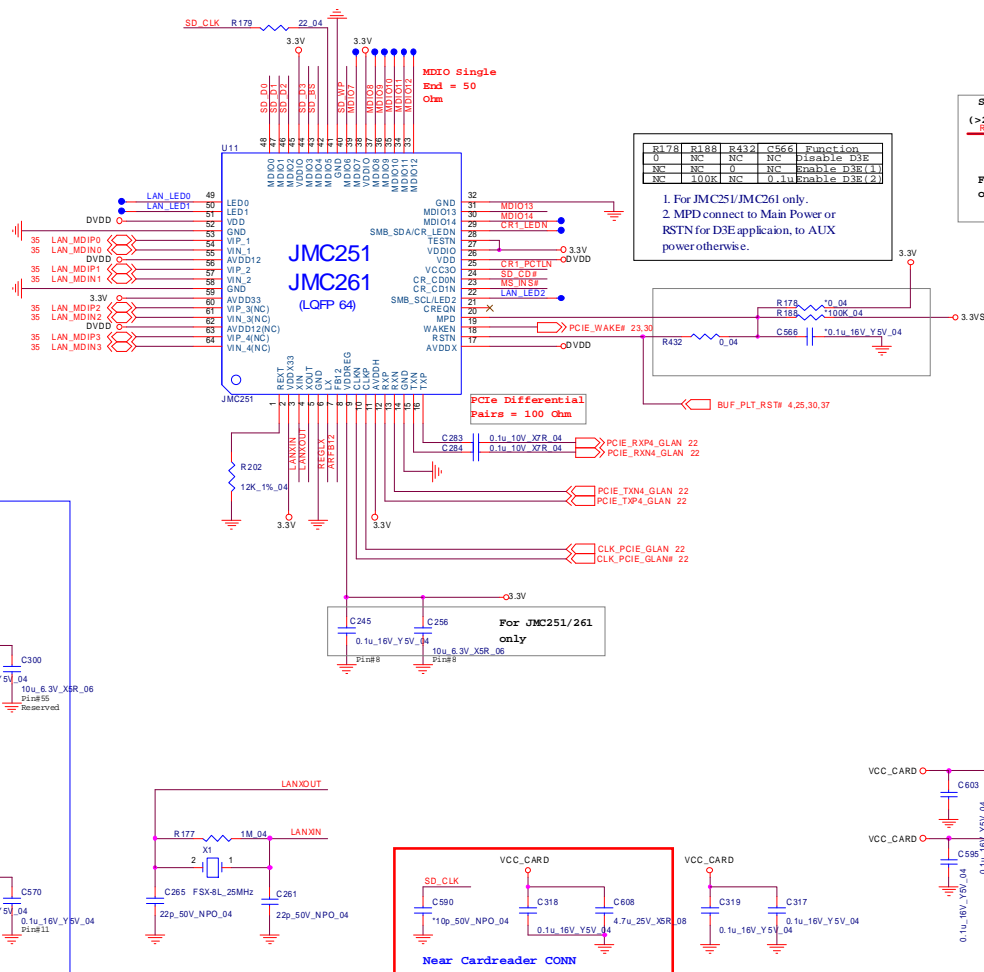
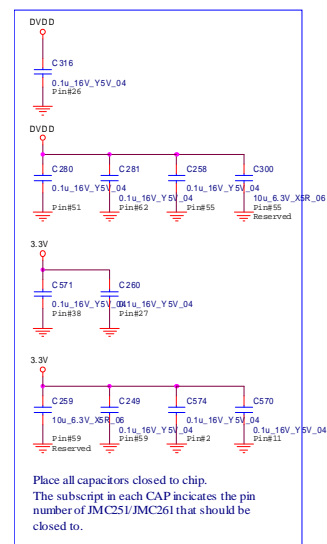
Sheet 32 of 56
USB, Fan, TP, FP,
MULTI-CONN

B.Schematic Diagrams

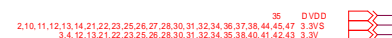
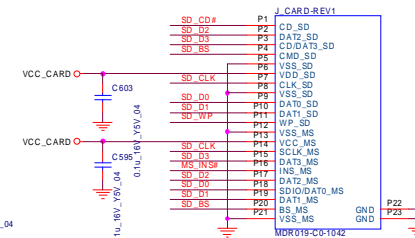
JMC251



Sheet 33 of 56
CARD READER
(JMC 251)

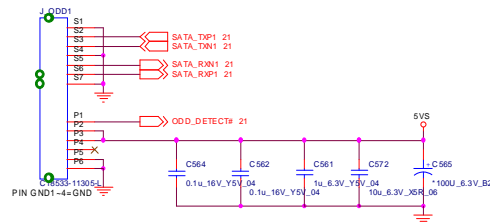


Card Reader Connector

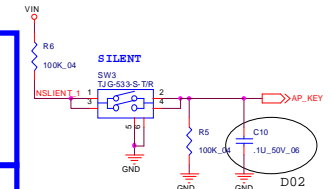
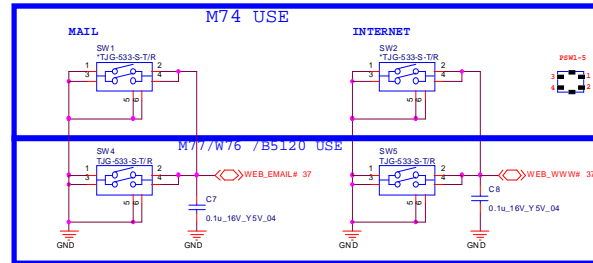


SATA ODD, LED, HOTKEY, LID, BT

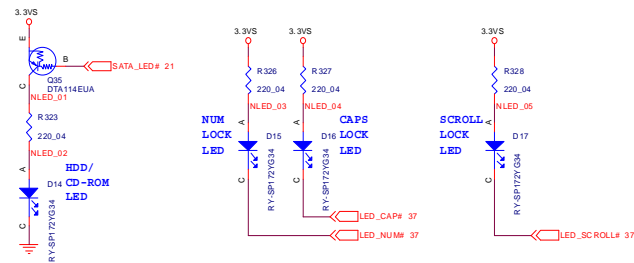
SATA ODD



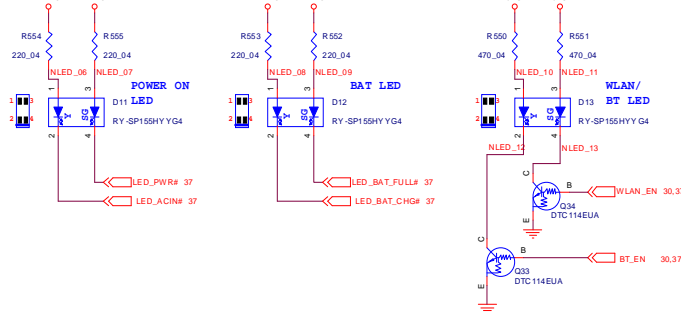
HOT KEY



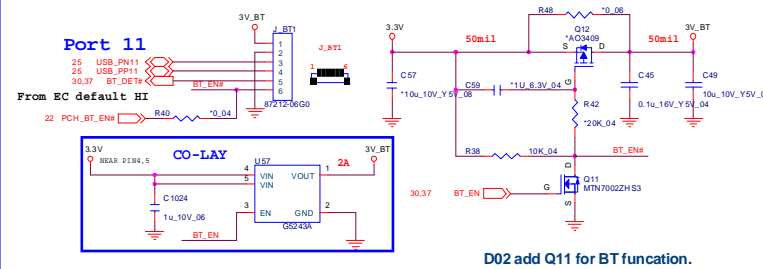
LED



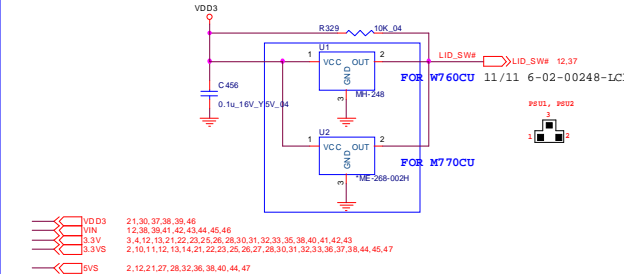
D04-0925



Bluetooth

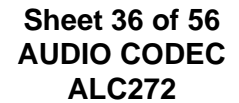


LID SWITCH IC

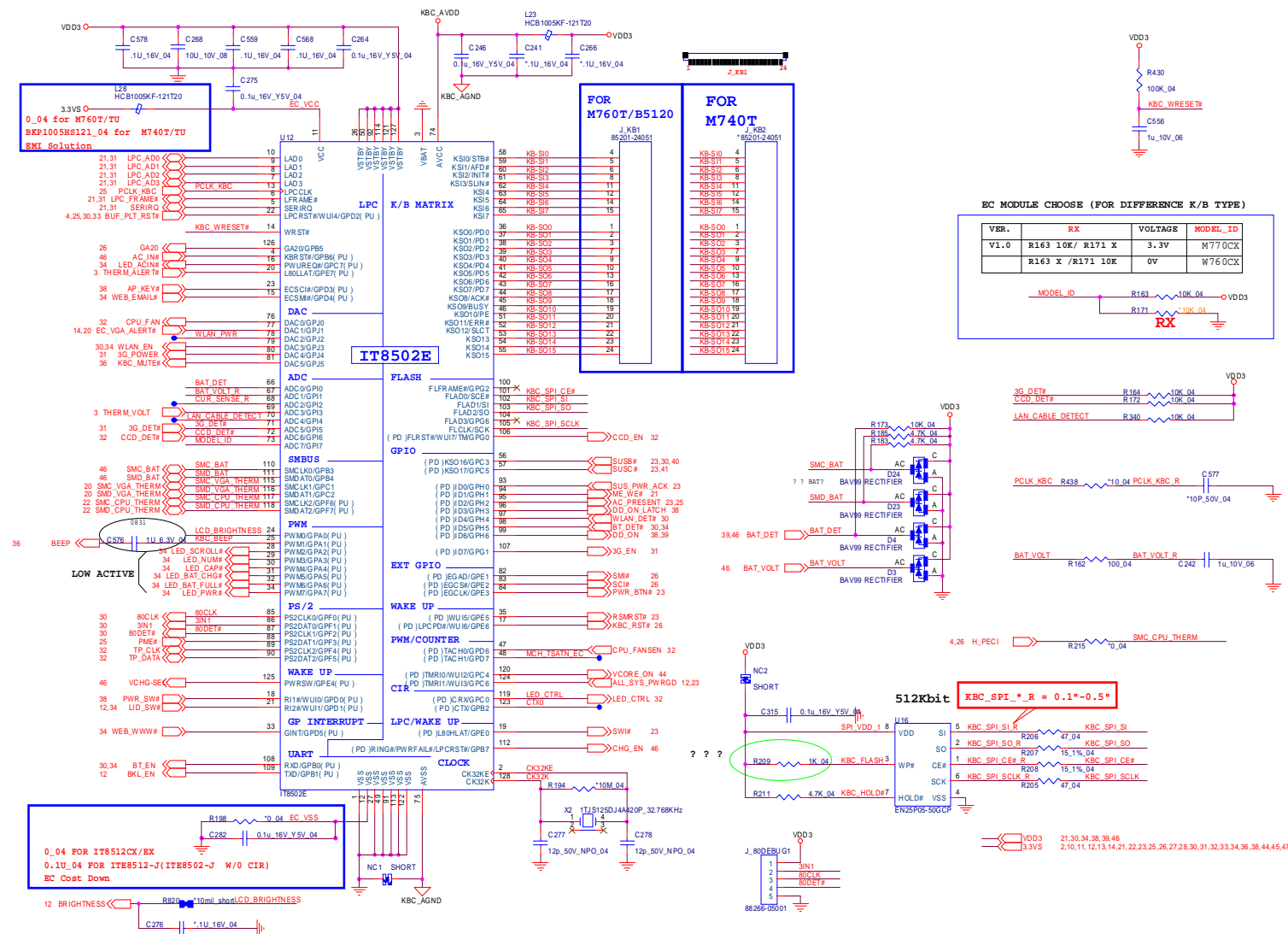


Sheet 34 of 56
SATA ODD, LED,
HOTKEY, LID, BT

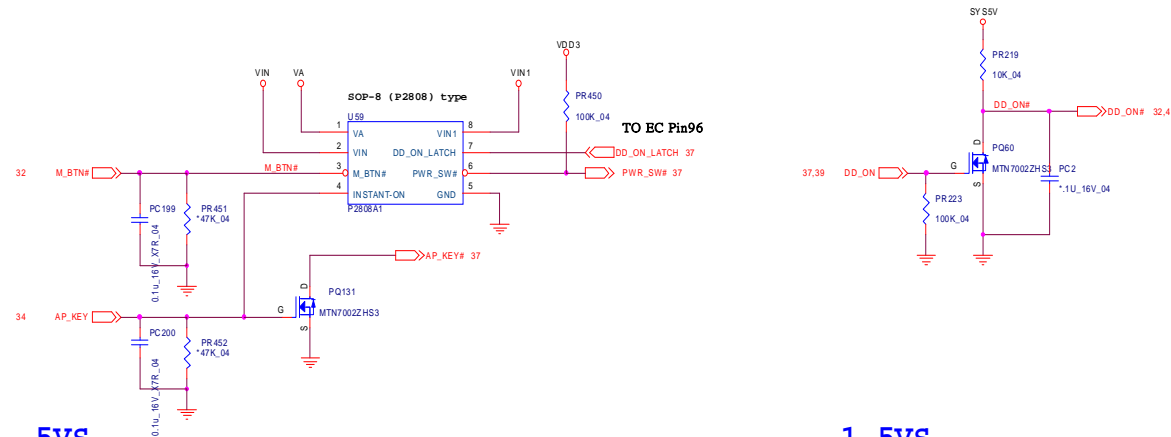
CODEC (ALC272-GR)



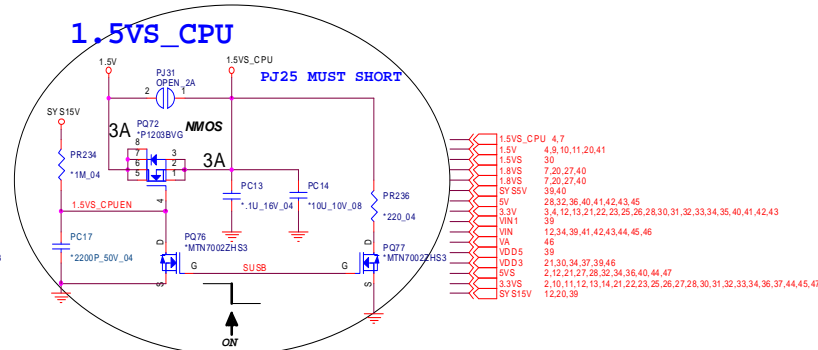
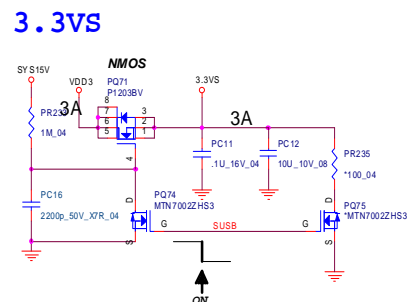
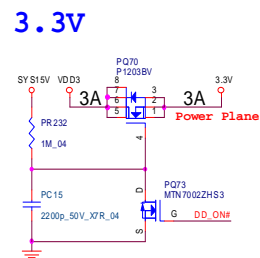
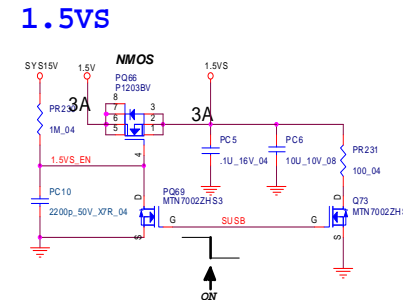
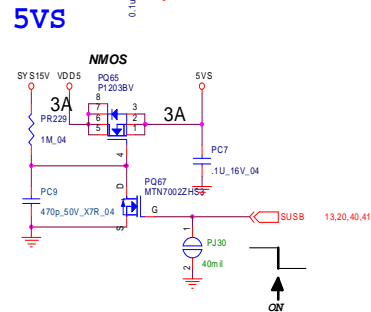
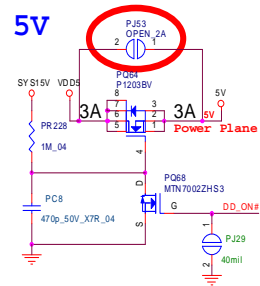
B - 38 KBC-ITE IT8502E



5VS, 3.3VS, 1.5VS, VIN1



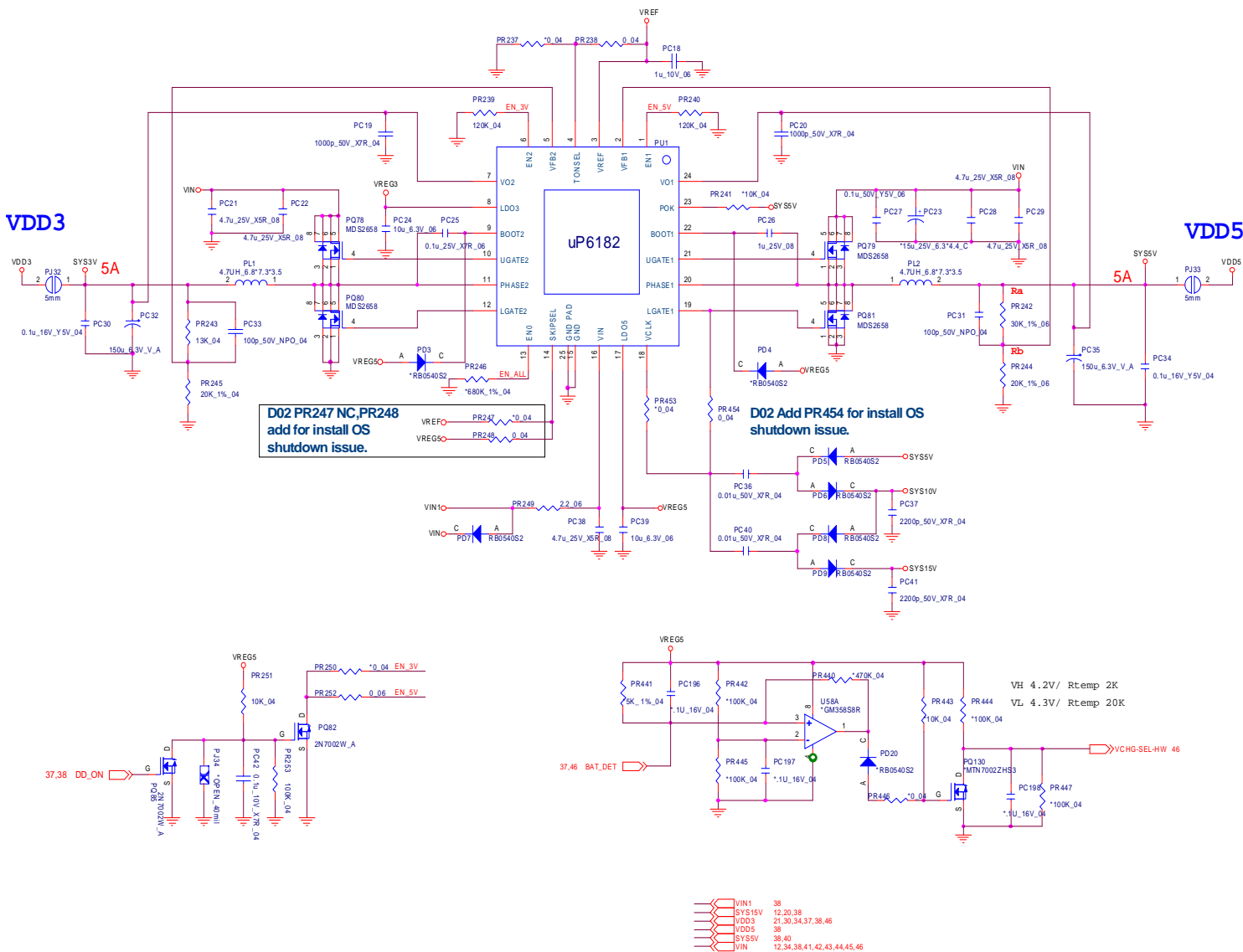
Sheet 38 of 56
5VS, 3.3VS, 1.5VS,
VIN1



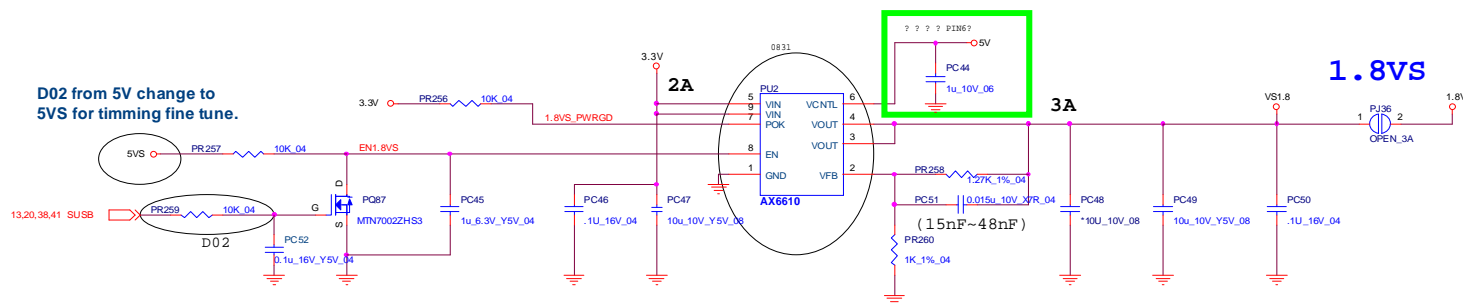
Schematic Diagrams

POWER 3.3V/5V

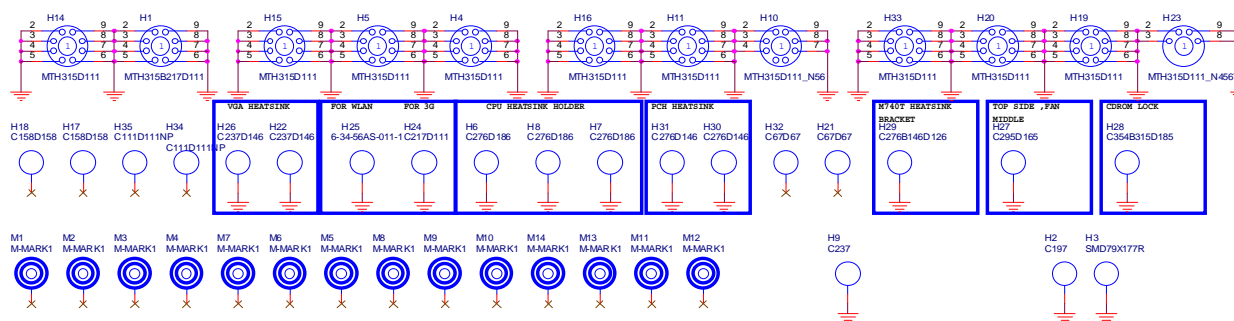
Sheet 39 of 56
POWER 3.3V/5V



Schematic diagram of the USB interface circuit. The circuit includes a USB connector with pins 23, 30, 37, and 38, 41. Pin 23 is connected to the D+ pin of the MTN7002ZHS3 IC. Pin 30 is connected to the D- pin. Pin 37 is connected to the GND pin. Pin 38, 41 is connected to the SUSB pin. The IC is powered by SY5SV through a PR255 resistor and a 10K_O4 pull-up resistor. A PC43 capacitor is connected between the SUSB pin and the IC's SUSB pin. The IC is also connected to a 1.1U_16V_04 capacitor.



Sheet 40 of 56
POWER 1.8V



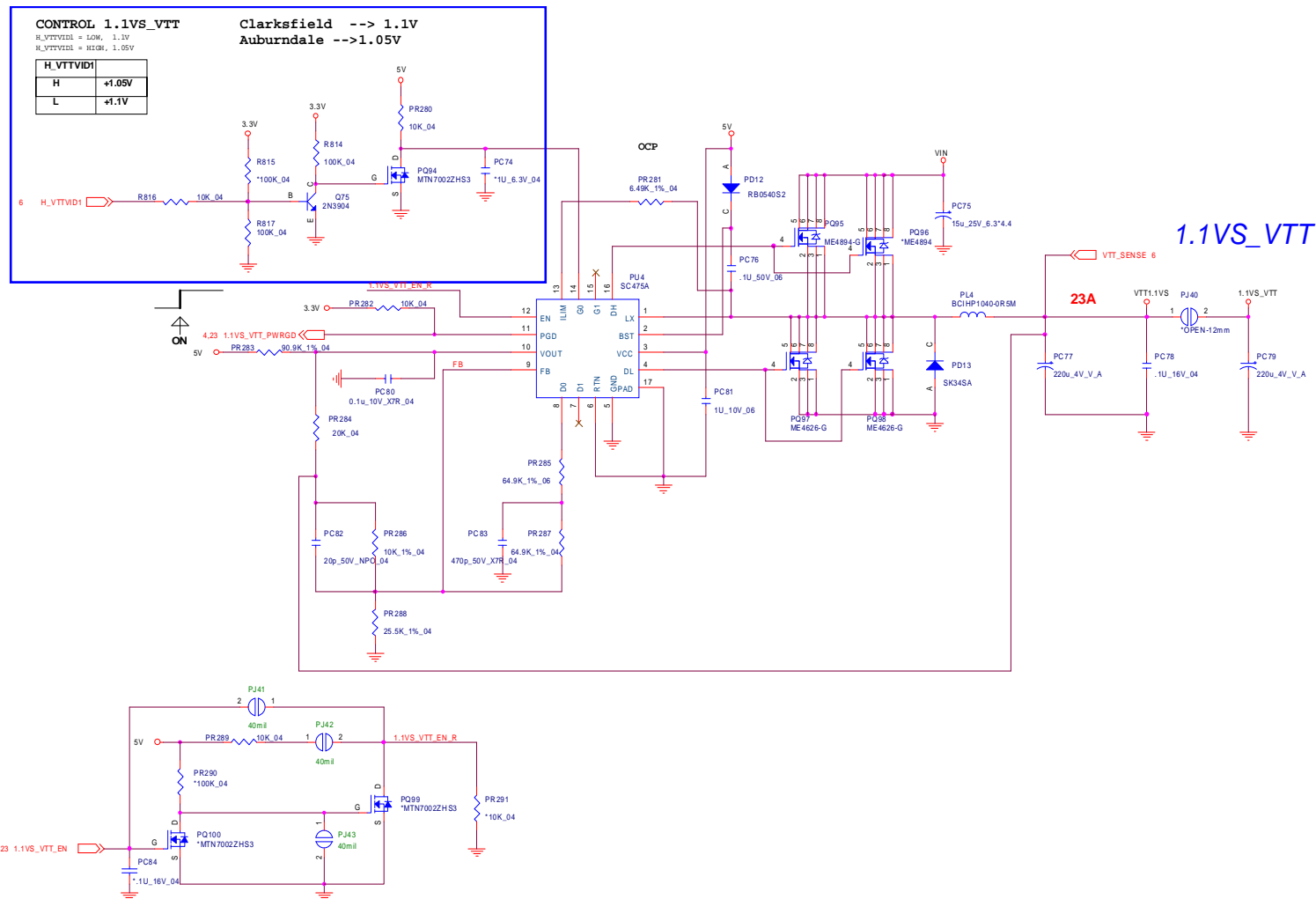
28, 32, 36, 38, 41, 42, 43, 45 5V
7, 20, 27 1.8VS
2, 10, 11, 12, 13, 14, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 33, 34, 36, 37, 38, 44, 45, 47 3.3VS
7, 20, 27 1.8VS
38, 39 SYSSV
12, 34, 38, 39, 41, 42, 43, 44, 45, 46 VIN
2, 12, 21, 27, 28, 32, 34, 36, 38, 44, 47 5VS
3, 4, 12, 13, 21, 22, 23, 25, 26, 28, 30, 31, 32, 33, 34, 35, 38, 41, 42, 43 3.3V

POWER 1.5V/0.75V

B.Schematic Diagrams

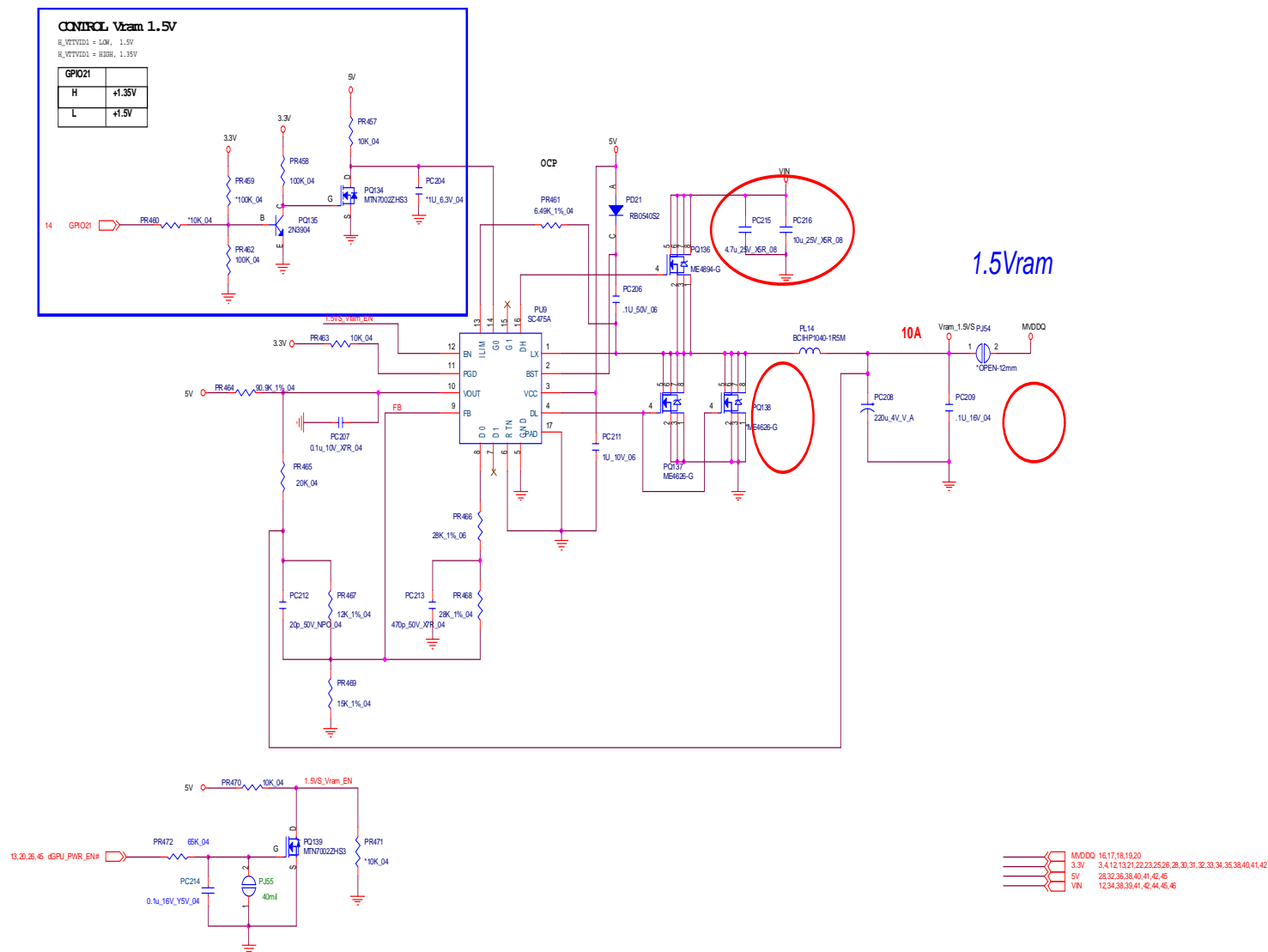
The schematic diagram illustrates the VTT board's internal circuitry. At the core is the uP6163 microcontroller (PU3), which manages the VTT (Vibration Test Test) signal. The board is powered by a 5V supply, which is regulated down to 1.5V using a series of regulators and capacitors. Key components include the VTT_MEM header (P137), the VTT_USB header (P138), and various passive components like resistors (PR) and capacitors (PC). The diagram also shows the connection of the VTT signal to the VTT_MEM header and the VTT_USB header. The board is labeled with 'VTT' and '1.5V'.

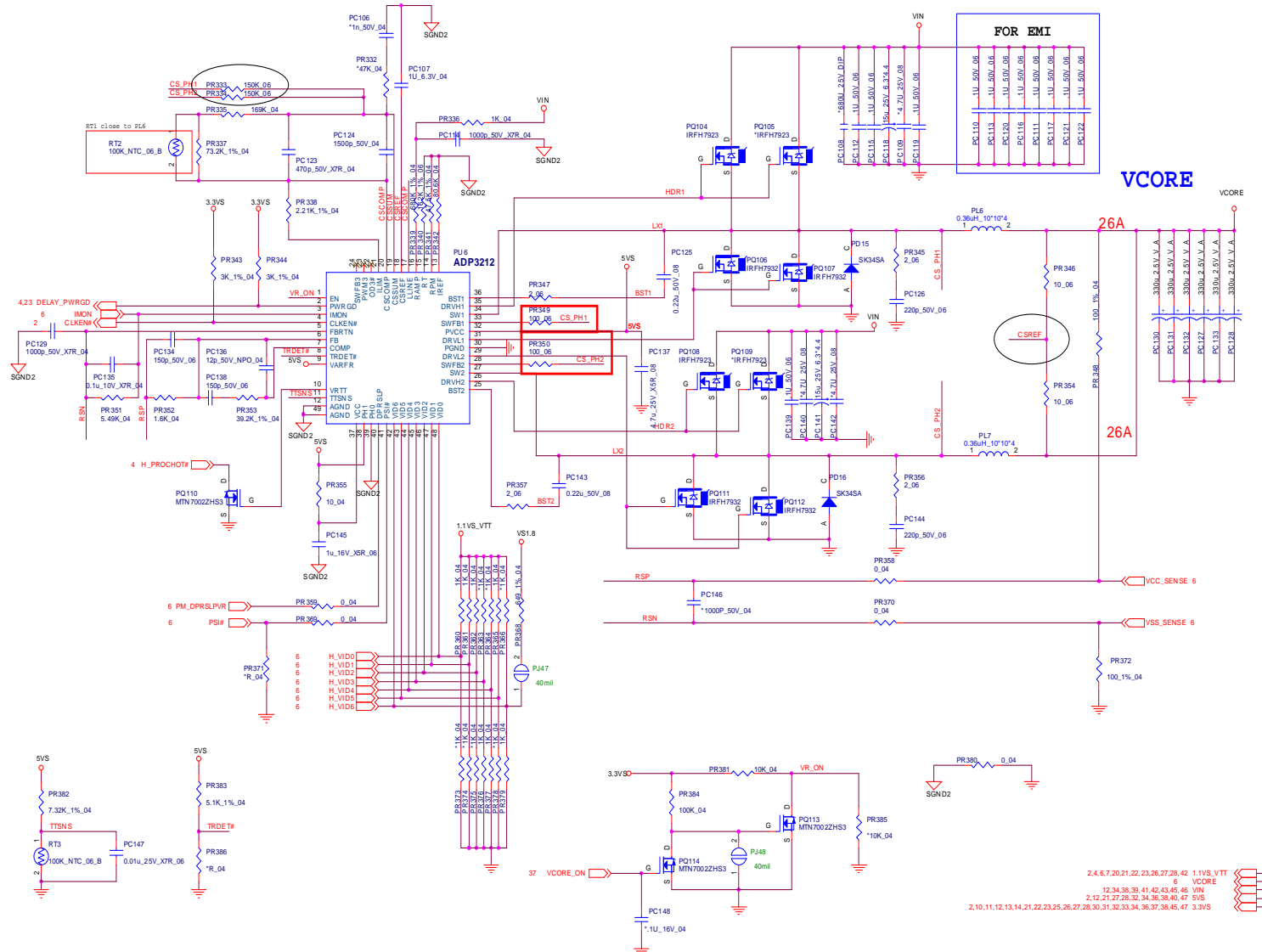
POWER 1.1VS_VTT



Sheet 42 of 56
POWER 1.1VS_VTT

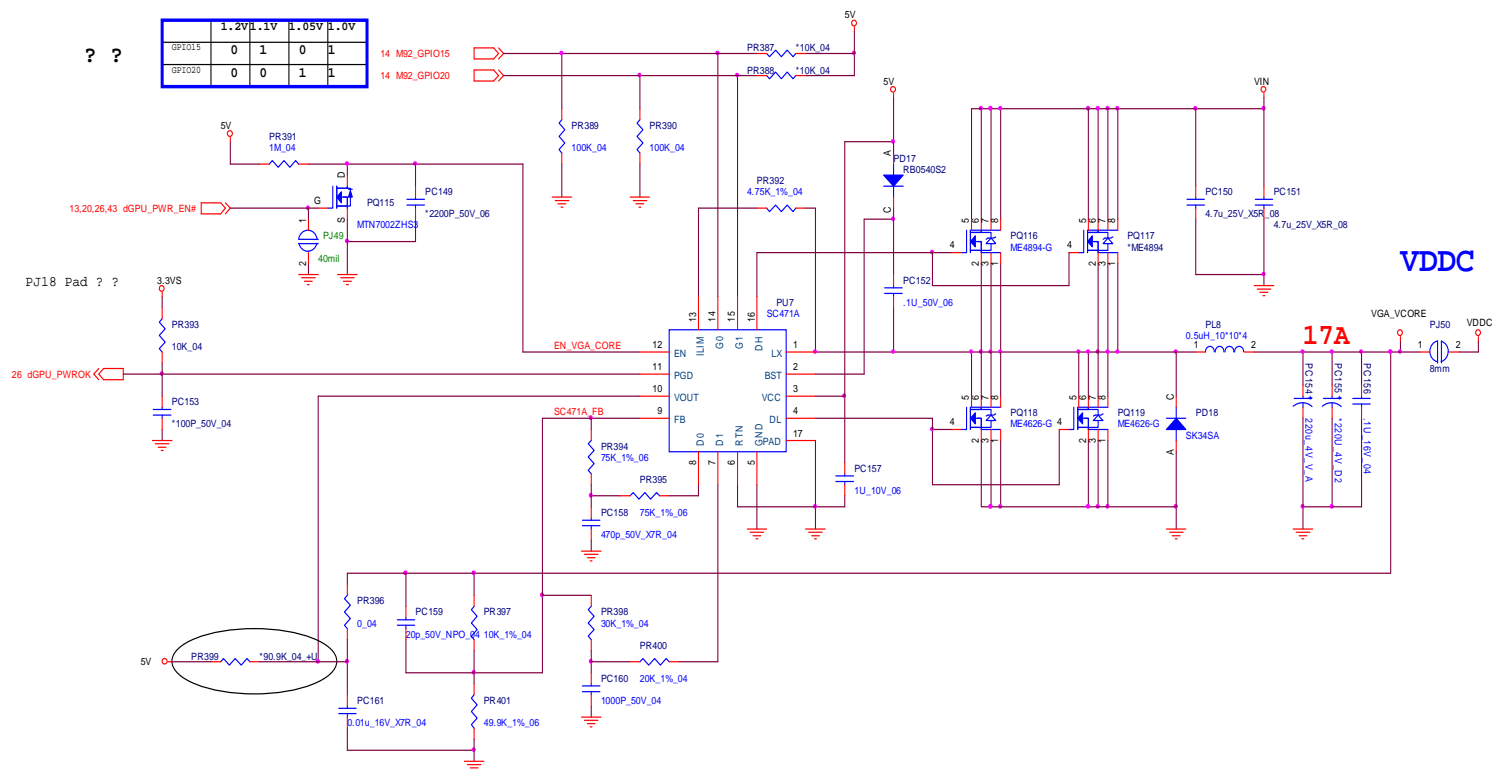
Sheet 43 of 56
POWER VRAM
1.5VS





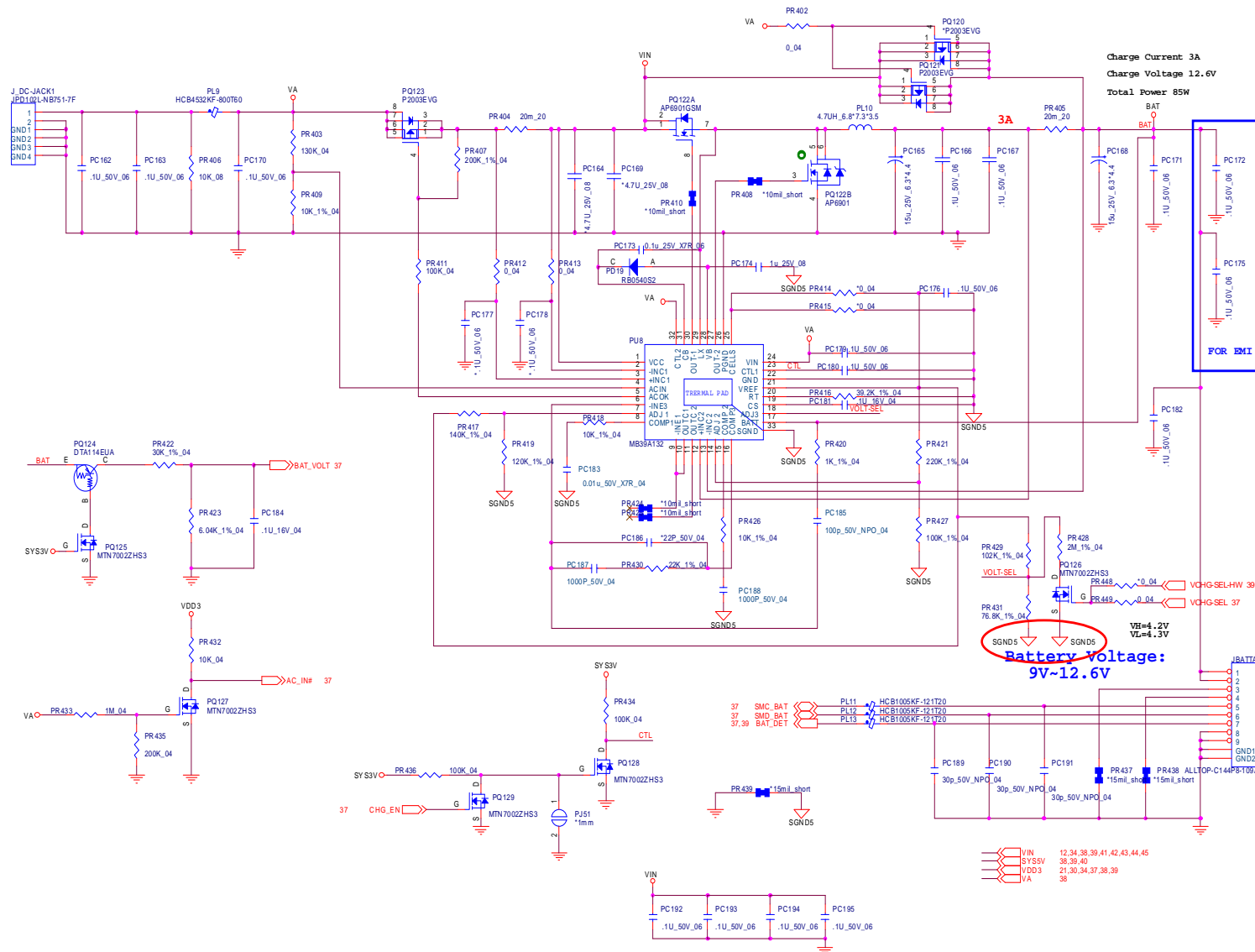
FOR ATI M92-S2 XT VGA

| | 1.2V | 1.1V | 1.05V | 1.0V |
|--------|------|------|-------|------|
| GPIO15 | 0 | 1 | 0 | 1 |
| GPIO20 | 0 | 0 | 1 | 1 |



16 VDDC
12,34,38,39,41,42,43,44,46 VIN
28,32,36,38,40,41,42,43 5V
2, 10, 11, 12, 13, 14, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 33, 34, 36, 37, 38, 44, 47 3.3VS

AC_IN, CHARGER

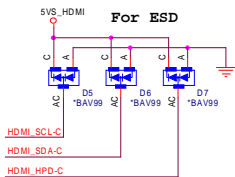
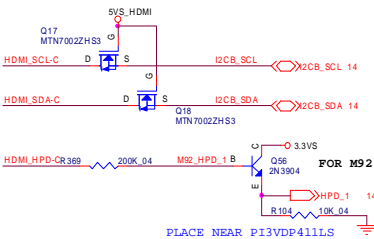
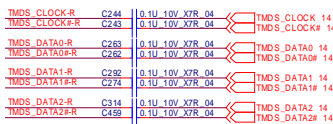
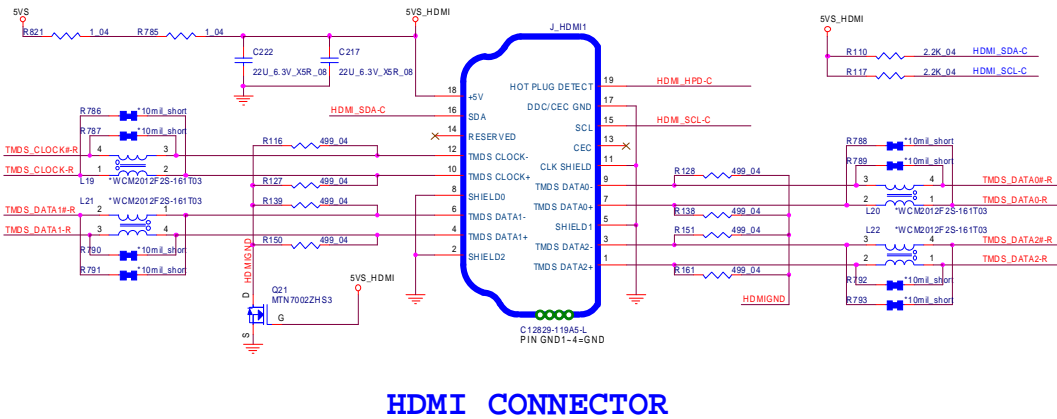


Sheet 46 of 56
AC_IN, CHARGER

Schematic Diagrams

HDMI

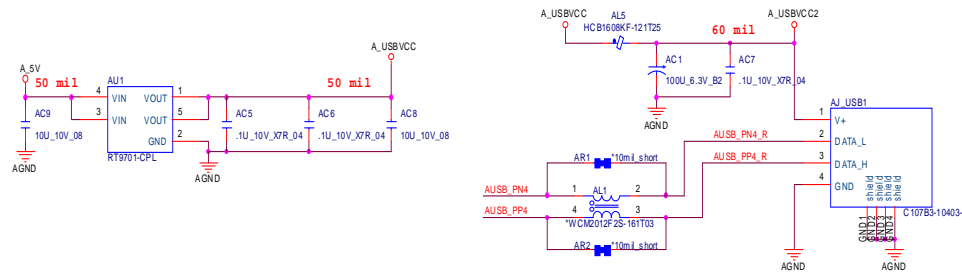
Sheet 47 of 56
HDMI



2,10,11,12,13,14,21,22,23,25,26,27,28,30,31,32,33,34,36,37,38,44,45 3.3V
2,12,21,27,28,32,34,36,38,40,44 5V

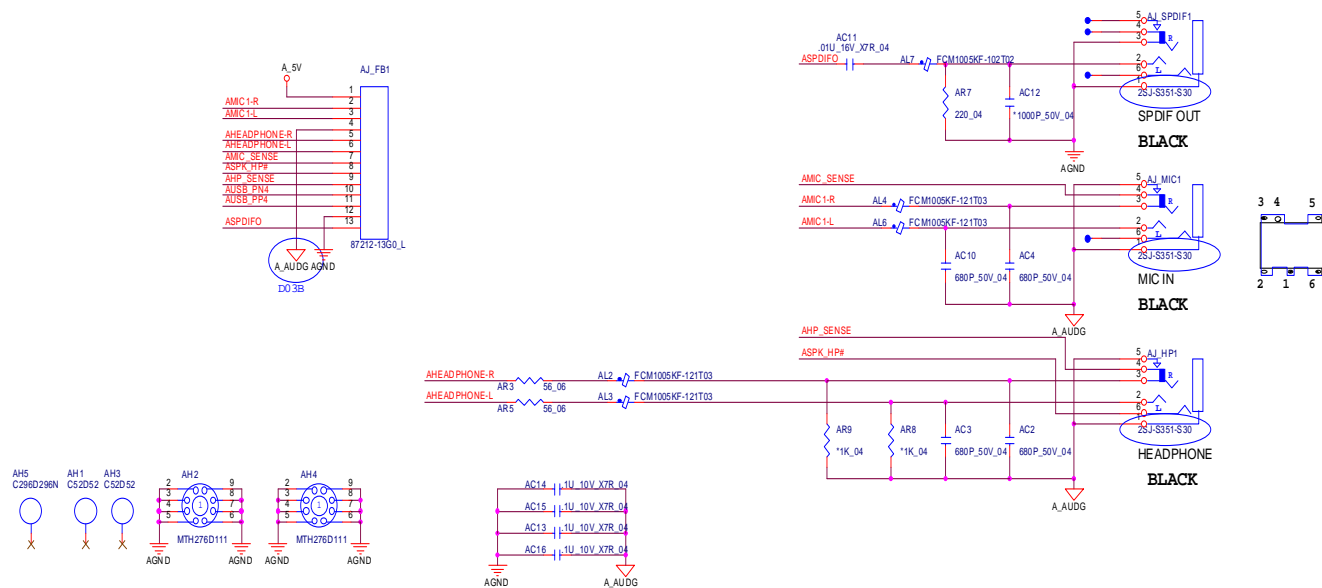
AUDIO BOARD

USB PORT



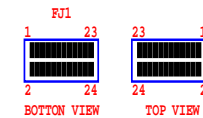
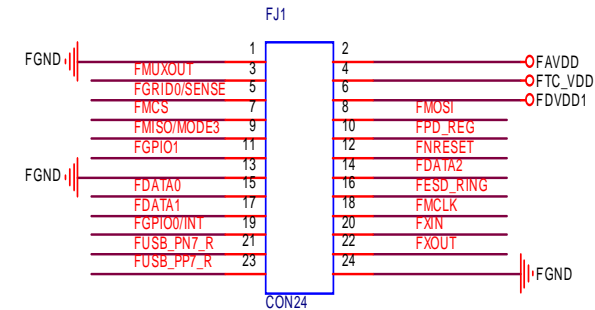
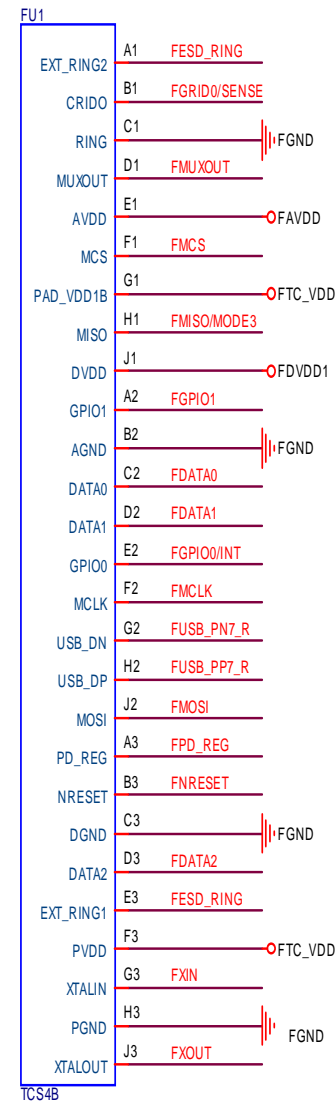
Sheet 48 of 56
AUDIO BOARD

AUDIO JACK



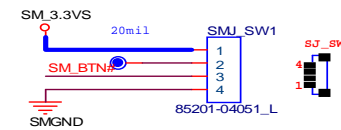
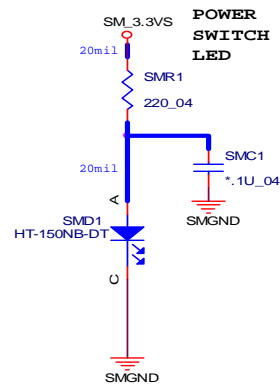
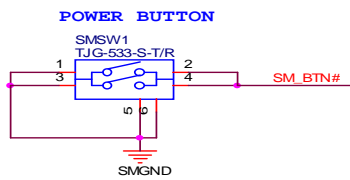
FINGER SENSOR BOARD TCS4X

Sheet 49 of 56
FINGER SENSOR
BOARD TCS4X

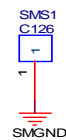
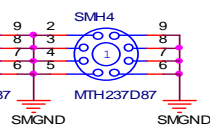
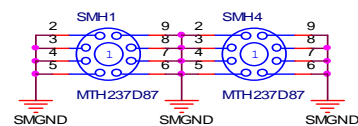
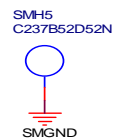


POWER SWITCH BOARD FOR M74

POWER SW & POWER LED FOR M74



Sheet 50 of 56
POWER SWITCH
BOARD FOR M74



FINGER BOARD FOR M74

B.Schematic Diagrams

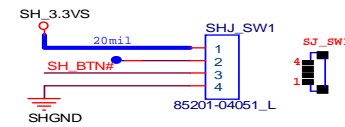
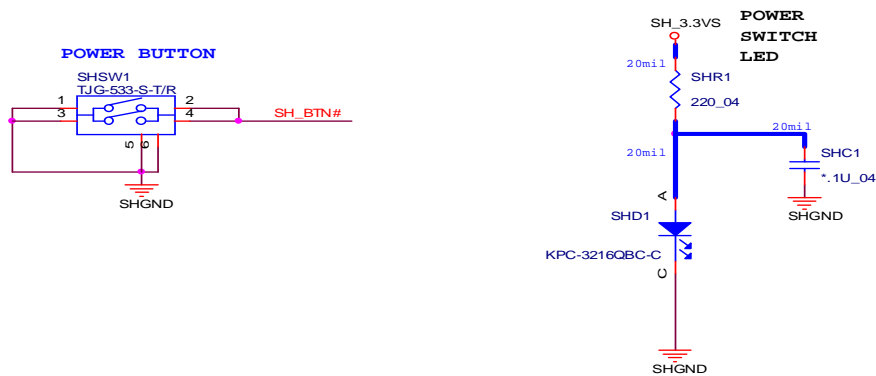
The image shows a complex PCB layout for a custom board. The layout is organized into several functional blocks:

- Top Section:** Contains components like FCC13, FCC14, and FCC15. It also includes a section for FCCT3.3V_F and FCCTC_VDD_F.
- Central Section:** Features a microcontroller (FCU1) and various peripheral components like FCCT3.3V_F, FCCTC_VDD_F, and FCCTC_VDD1_F.
- Bottom Section:** Shows a connector (CON24A) and various signal traces like FCCTC_VDD_F, FCCTC_VDD1_F, and FCCTC_VDD2_F.
- Right Section:** Contains components like FCCT3.3V_F, FCCTC_VDD_F, and FCCTC_VDD1_F.

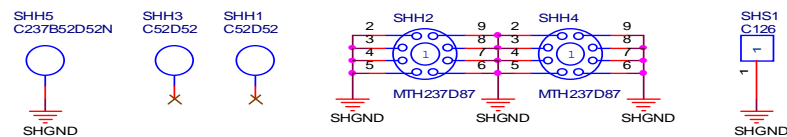
The layout is color-coded with red and blue traces. Labels include component values, pin numbers, and functional block names. The layout is a detailed representation of a custom PCB design.

POWER SWITCH BOARD FOR M76

POWER SW & POWER LED FOR M76



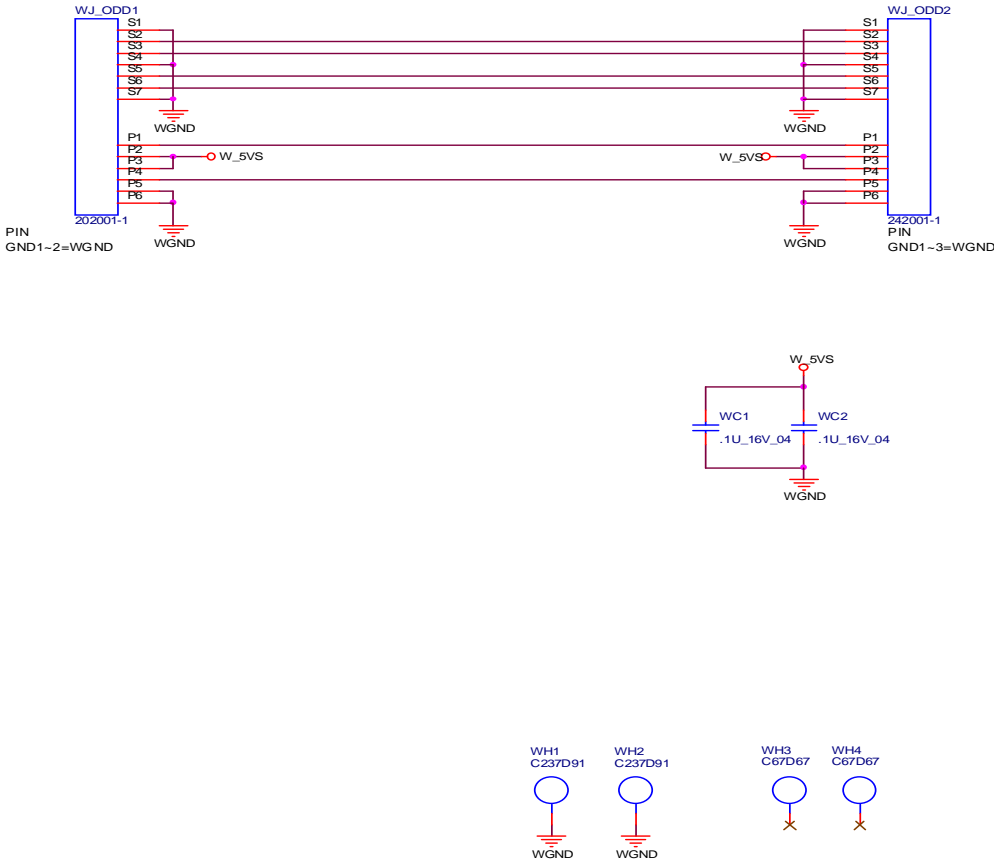
Sheet 52 of 56
POWER SWITCH
BOARD FOR M76



EXTERNAL ODD BOARD FOR W76

ODD BOARD FOR W76

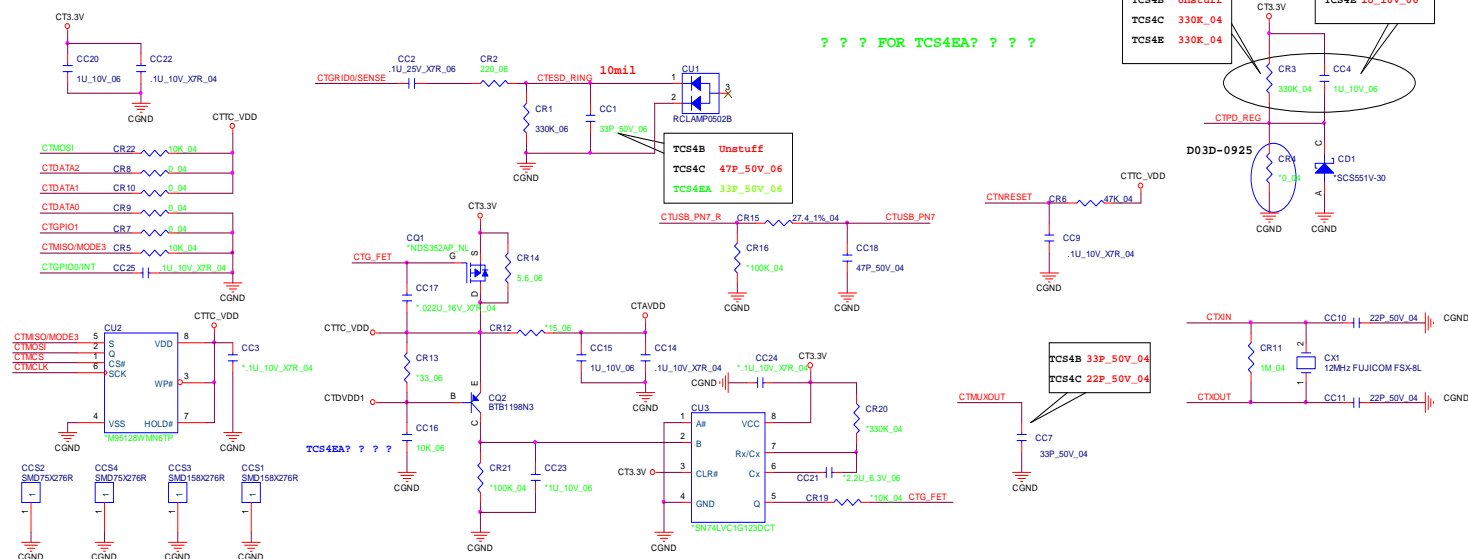
Sheet 53 of 56
EXTERNAL ODD
BOARD FOR W76



Sheet 54 of 56
ODD BOARD FOR
M760T

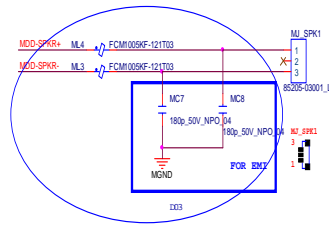
B.Schematic Diagrams

CLICK BOARD

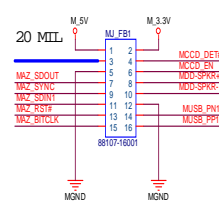


MULTI-FUNCTION BOARD

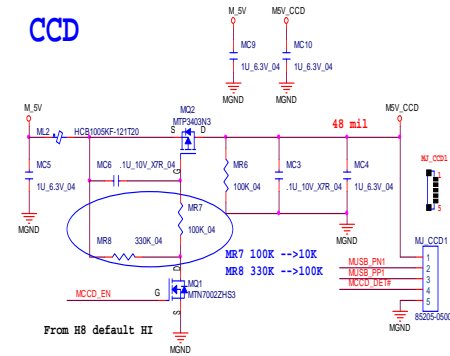
SPEAKER CONNECTOR



MULTI I/O CONN



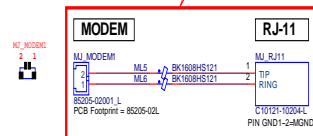
CCD



RJ-11

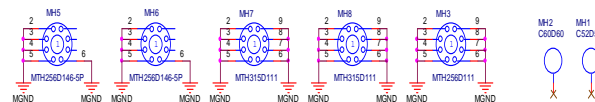
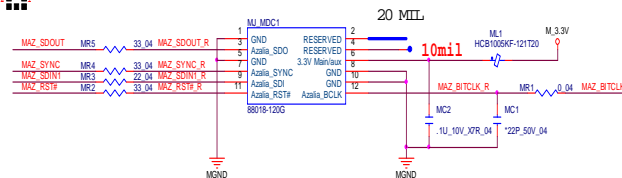
????????

?? 2.5mm ??



FOR M7700U/M7600U/M7600?
MODEM ON M/B ? ? ? ? ? MU_MODEM1
ML5,ML6,MU_RJ11,? ? ? ? ? ?

MDC MODULE



Sheet 56 of 56
MULTI-FUNCTION
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.