ideacentre All-In-One 510 Computer Hardware Maintenance Manual

Machine Types: FOCB[AIO 510 22-ISH/Energy Star]/FOCC[AIO 510 22-ASR/Energy Star]/FOCD[AIO 510 23-ISH/Energy Star]/FOCE[AIO 510 23-ASR/Energy Star]

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Contents

Chapter 1. About this manual

This manual contains service and reference information for Lenovo All-In-One 510 series computers listed on the cover. It is intended only for trained servicers who are familiar with Lenovo computer products.

Before servicing a Lenovo product, be sure to read the Safety Information.

The description of the TV-tuner card in this manual applies only to computers with a TV-tuner card installed. It does not apply to computers without a TV-tuner card.

Important Safety Information

Be sure to read all CAUTION and DANGER sections in this manual before following any of the instructions.

Veuillez lire toutes les consignes de type DANGER et ATTENTION du présent document avant d'exécuter les instructions.

Lesen Sie unbedingt alle Hinweise vom Typ "ACHTUNG" oder "VORSICHT" in dieser Dokumentation, bevor Sie irgendwelche Vorgänge durchführen

Leggere le istruzioni introdotte da ATTENZIONE e PERICOLO presenti nel manuale prima di eseguire una qualsiasi delle istruzioni

Certifique-se de ler todas as instruções de cuidado e perigo neste manual antes de executar qualquer uma das instruções

Es importante que lea todas las declaraciones de precaución y de peligro de este manual antes de seguir las instrucciones.

执行任何说明之前，请确保已阅读本书中的所有警告和危险声明。

執行任何指示前，請確實閱讀本書中的所有警告及危險聲明。

Chapter 2. Safety information

This chapter contains the safety information that you need to be familiar with before servicing a computer.

General safety

Follow these rules to ensure general safety:

- Keep the areas around the computer clear and clean during and after maintenance.
- When lifting any heavy object:
  1. Ensure you can stand safely without slipping.
  2. Distribute the weight of the object equally across both feet.
  3. Lift slowly. Never move suddenly or twist when you attempt to lift.
  4. Lift by standing or by pushing up with your leg muscles; this action removes the strain from the muscles in your back.
     Do not attempt to lift any objects that weigh more than 16 kg (35 lb) or objects that you think are too heavy for you.
- Do not perform any action that would create a hazard for the customer, or would make the computer unsafe.
- Before you start the computer, ensure that other service representatives and customer personnel are not in a position that would create a hazard for them.
- Place removed covers and other parts in a safe place, away from all personnel, while you are servicing the computer.
- Keep your tool case away from areas that people may walk through to ensure no-one trips over it.
- Do not wear loose clothing that can be trapped in the moving parts of a machine. Ensure that your sleeves are fastened or rolled up above your elbows. If your hair is long, tie or fasten it back.
- Insert the ends of your necktie or scarf inside clothing or fasten it with a non-conductive clip, approximately 8 centimeters (3 inches) from the end.
- Do not wear jewelry, chains, metal-frame eyeglasses, or metal fasteners for your clothing.
  Remember: Metal objects are good electrical conductors.
- Wear safety glasses when you are: hammering, drilling soldering, cutting wire, attaching springs, using solvents, or working in any other conditions that might be hazardous to your eyes.
- After service, reinstall all safety shields, guards, labels, and ground wires. Replace any safety device that is worn or defective.
- Reattach all covers correctly before returning the computer to the customer.

Electrical safety

CAUTION:
Electrical current from power, telephone, and communication cables can be hazardous. To avoid personal injury or equipment damage, disconnect any attached power cords, telecommunication cables, network cables, and modem cables before you open the computer covers, unless instructed otherwise in the installation and configuration procedures.

Observe the following rules when working on electrical equipment.

Important: Use only approved tools and test equipment. Some hand tools have handles covered with a soft material that does not insulate you when working with live electrical currents. Many customers have rubber floor mats near their equipment that contain small conductive fibers to decrease electrostatic discharge.

- Find the room emergency power-off (EPO) switch, disconnecting switch, or electrical outlet. If an electrical accident occurs, you can then operate the switch or unplug the power cord quickly.
- Do not work alone under hazardous conditions or near equipment that has hazardous voltages.
- Disconnect all power before:
  - Performing a mechanical inspection
  - Working near power supplies
  - Removing or installing Field Replaceable Units (FRUs)
- Before you start to work on the computer, unplug the power cord. If you cannot unplug it, ask the customer to power-off the electrical outlet that supplies power to the machine and to lock the electrical outlet in the off position.
- If you need to work on a computer that has exposed electrical circuits, observe the following precautions:
  - Ensure that another person, familiar with the power-off controls, is near you.
    Remember: Another person must be there to switch off the power, if necessary.
  - Use only one hand when working with powered-on electrical equipment; keep the other hand in your pocket or behind your back.
    Remember: There must be a complete circuit to cause electrical shock. By observing the above rule, you may prevent a current from passing through your body.
  - When using a tester, set the controls correctly and use the approved probe leads and accessories for that tester.
  - Stand on suitable rubber mats (obtained locally, if necessary) to insulate you from grounds such as metal floor strips and machine frames.

  Observe the special safety precautions when you work with very high voltages; these instructions are in the safety sections of the maintenance information. Use extreme care when measuring high voltages.
- Regularly inspect and maintain your electrical hand tools to ensure they are safe to use.
- Do not use worn or broken tools and testers.
- *Never assume* that power has been disconnected from a circuit. First, *check* that it has been powered off.
- Always look carefully for possible hazards in your work area. Examples of these hazards are wet floors, non-grounded power extension cables, conditions that may cause or allow power surges, and missing safety grounds.
- Do not touch live electrical circuits with the reflective surface of a plastic dental mirror. This surface is conductive, and touching a live circuit can cause personal injury and damage to the computer.
- Do not service the following parts with the power on when they are removed from their normal operating positions in a computer:
  - Power supply units
  - Pumps
  - Blowers and fans
  - Motor generators

  and similar units. (This practice ensures correct grounding of the units.)
- If an electrical accident occurs:
  - Use caution; do not become a victim yourself.

- Switch off power.
- Send another person to get medical aid.

Safety inspection guide

The intent of this inspection guide is to assist you in identifying potential hazards posed by these products. Each computer, as it was designed and built, had required safety items installed to protect users and service personnel from injury. This guide addresses only those items. However, good judgment should be used to identify potential safety hazards due to attachment of features or options not covered by this inspection guide.

If any hazards are present, you must determine how serious the apparent hazard could be and whether you can continue without first resolving the problem.

Consider the following items and the safety hazards they present:

- Electrical hazards, especially primary power (primary voltage on the frame can cause serious or fatal electrical shock).
- Explosive hazards, such as a damaged CRT face or bulging capacitor
- Mechanical hazards, such as loose or missing hardware

The guide consists of a series of steps presented as a checklist. Begin the checks with the power off, and the power cord disconnected.

Checklist:

1. Check exterior covers for damage (loose, broken, or sharp edges).
2. Power-off the computer. Disconnect the power cord.
3. Check the power cord for:
   a. A third-wire ground connector in good condition. Use a meter to measure third-wire ground continuity for 0.1 ohm or less between the external ground pin and frame ground.
   b. The power cord should be the appropriate type as specified in the parts listings.
   c. Insulation must not be frayed or worn.
4. Remove the cover.
5. Check for any obvious alterations. Use good judgment as to the safety of any alterations.
6. Check inside the unit for any obvious hazards, such as metal filings, contamination, water or other liquids, or signs of fire or smoke damage.
7. Check for worn, frayed, or pinched cables.
8. Check that the power-supply cover fasteners (screws or rivets) have not been removed or tampered with.

Handling electrostatic discharge-sensitive devices

Any computer part containing transistors or integrated circuits (ICs) should be considered sensitive to electrostatic discharge (ESD). ESD damage can occur when there is a difference in charge between objects. Protect against ESD damage by equalizing the charge so that the computer, the part, the work mat, and the person handling the part are all at the same charge.

Notes:

1. Use product-specific ESD procedures when they exceed the requirements noted here.
2. Make sure that the ESD protective devices you use have been certified (ISO 9000) as fully effective.

When handling ESD-sensitive parts:

- Keep the parts in protective packages until they are inserted into the product.
- Avoid contact with other people while handling the part.
- Wear a grounded wrist strap against your skin to eliminate static on your body.
- Prevent the part from touching your clothing. Most clothing is insulative and retains a charge even when you are wearing a wrist strap.
- Use the black side of a grounded work mat to provide a static-free work surface. The mat is especially useful when handling ESD-sensitive devices.
- Select a grounding system, such as those listed below, to provide protection that meets the specific service requirement.

  Note: The use of a grounding system is desirable but not required to protect against ESD damage.

  – Attach the ESD ground clip to any frame ground, ground braid, or green-wire ground.
  – Use an ESD common ground or reference point when working on a double-insulated or battery-operated system. You can use coax or connector-outside shells on these systems.
  – Use the round ground-prong of the AC plug on AC-operated computers.

Grounding requirements

Electrical grounding of the computer is required for operator safety and correct system function. Proper grounding of the electrical outlet can be verified by a certified electrician.

Safety notices

The CAUTION and DANGER safety notices in this section are provided in the language of English.

DANGER

Electrical current from power, telephone and communication cables is hazardous.

To avoid a shock hazard:

- **Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.**
- **Connect all power cords to a properly wired and grounded electrical outlet.**
- **Connect any equipment that will be attached to this product to a properly wired outlet.**
- **When possible, use one hand only to connect or disconnect signal cables.**
- **Never turn on any equipment when there is evidence of fire, water, or structural damage.**
- **Disconnect the attached power cords, telecommunications cables, network cables, and modem cables before you open the device covers, unless instructed otherwise in the installation and configuration procedures.**
- **Connect and disconnect cables as described in the following table when installing, moving, or opening covers on this product or attached devices.**

To Connect	To Disconnect
1. Turn everything OFF.	1. Turn everything OFF.
2. First, attach all cables to devices.	2. First, remove power cords from outlets.
3. Attach signal cables to connectors.	3. Remove signal cables from connectors.
4. Attach power cords to outlet.	4. Remove all cables from devices.
5. Turn device ON.	

CAUTION:
When replacing the lithium battery, use only Part Number 45C1566 or an equivalent type battery recommended by the manufacturer. If your system has a module containing a lithium battery, replace it only with the same module type made by the same manufacturer. The battery contains lithium and can explode if not properly used, handled, or disposed of.
Do not:

• **Throw into or immerse in water**

• **Heat to more than 100°C (212°F)**

• **Repair or disassemble**

Dispose of the battery as required by local ordinances or regulations.

CAUTION:
When laser products (such as CD-ROMs, DVD-ROM drives, fiber optic devices, or transmitters) are installed, note the following:

• **Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.**

• **Use of controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.**

DANGER

Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following:

These diodes emit radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam.

≥18 kg (37 lbs)	≥32 kg (70.5 lbs)	≥55 kg (121.2 lbs)

CAUTION:
Use safe practices when lifting.

CAUTION:
The power control button on the device and the power switch on the power supply do not turn off the electrical current supplied to the device. The device also might have more than one power cord. To remove all electrical current from the device, ensure that all power cords are disconnected from the power source.
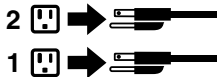
CAUTION:
Do not place any object weighing more than 82 kg (180 lbs.) on top of rack-mounted devices.

Chapter 3. General information

This chapter provides general information that applies to all computer models covered by this manual.

Specifications

This section lists the physical specifications for your computer.

This section lists the physical specifications for your computer.

Type Lenovo All-In-One 510

This section lists the physical specifications.

Environment

Air temperature:

    Operating: 10° to 35°C

    Transit: -20° to 55°C

Humidity:

    Operating: 35% to 80%

    Transit: 20% to 90% (40°C)

    Altitude: 86KPa to 106KPa

Electrical input:

    Input voltage: 90V-264V(AC)

    Input frequency: 47Hz-63Hz

Chapter 4. General Checkout

Attention: The drives in the computer you are servicing might have been rearranged or the drive startup sequence may have been changed. Be extremely careful during write operations such as copying, saving, or formatting. Data or programs can be overwritten if you select an incorrect drive.

General error messages appear if a problem or conflict is found by an application, the operating system, or both. For an explanation of these messages, refer to the information supplied with that software package.

Use the following procedure to help determine the cause of the problem:

1. Power-off the computer and all external devices.
2. Check all cables and power cords.
3. Set all display controls to the middle position.
4. Power-on all external devices.
5. Power-on the computer.
    - Look for displayed error codes.
    - Look for readable instructions or a main menu on the display.

      If you did not receive the correct response, proceed to step 6.

      If you did receive the correct response, proceed to step 7.
6. If one of the following happens, follow the instruction given:
    - If the computer displays a POST error, go to "POST error codes".
    - If the computer hangs and no error is displayed, continue at step 7.
7. If the test stops and you cannot continue, replace the last device tested.

Chapter 5. Using the Setup Utility

The Setup Utility program is used to view and change the configuration settings of your computer, regardless of which operating system you are using. However, the operating system settings might override any similar settings in the Setup Utility program.

Starting the Lenovo BIOS Setup Utility program

To start the Lenovo BIOS Setup Utility program, do the following:

1. If your computer is already on when you start this procedure, shut down the operating system and turn off the computer.
2. Press and hold the **F1** key then turn on the computer. When the Lenovo BIOS Setup Utility program is displayed, release the **F1** key.

Note: If a Power-On Password or an Administrator Password has been set, the Setup Utility program menu will not be displayed until you type your password. For more information, see "Using passwords."

Viewing and changing settings

System configuration options are listed in the Lenovo BIOS Setup Utility program menu. To view or change settings, see "Starting the Setup Utility program."

You must use the keyboard when using the Lenovo BIOS Setup Utility menu. The keys used to perform various tasks are displayed on the bottom of each screen.

Using passwords

You can use the Lenovo BIOS Setup Utility program to set passwords to prevent unauthorized persons from gaining access to your computer and data. See "Starting the Setup Utility program." The following types of passwords are available:

- Administrator Password
- Power-On Password

You do not have to set any passwords to use your computer. However, if you decide to set passwords, read the following sections.

Password considerations

A password can be any combination of letters and numbers up to 16 characters (a-z and 0-9). For security reasons, it is a good idea to use a strong password that cannot be easily compromised. We suggest that passwords should follow these rules:

- For a strong password, use 7-16 characters and a mix of letters and numbers.
- Do not use your name or your user name.
- Do not use a common word or a common name.
- Use something significantly different from your previous password.

Attention: Administrator and Power-On passwords are not case sensitive.

Administrator Password

Setting an Administrator Password deters unauthorized persons from changing configuration settings. You might want to set an Administrator Password if you are responsible for maintaining the settings of several computers.

After you set an Administrator Password, a password prompt is displayed every time you access the Lenovo BIOS Setup Utility program.

If both the Administrator and Power-On Password are set, you can type either password. However, you must use your Administrator Password to change any configuration settings.

Setting, changing, or deleting an Administrator password

To set an Administrator Password, do the following:

Note: A password can be any combination of letters and numbers up to 16 characters (a-z and 0-9). For more information, see "Password considerations" on page 13.

1. Start the Lenovo BIOS Setup Utility program (see "Starting the Lenovo BIOS Setup Utility program" on page 13).
2. From the **Security** menu, select **Set Administrator Password** and press the **Enter** key.
3. The password dialog box will be displayed. Type the password then press the **Enter** key.
4. Re-type the password to confirm, then press the **Enter** key. If you typed the password correctly, the password will be installed.

To change an Administrator Password, do the following:
1. Start the Lenovo BIOS Setup Utility program (see "Starting the Lenovo BIOS Setup Utility program" on page 13).
2. From the **Security** menu, select **Set Administrator Password** and press the **Enter** key.
3. The password dialog box will be displayed. Type the current password then press the **Enter** key.
4. Type the new password, then press the **Enter** key. Re-type the password to confirm the new password. If you typed the new password correctly, the new password will be installed. A Setup Noticed confirming that changes have been saved will be displayed.

To delete a previously set Administrator Password, do the following :
1. From the **Security** menu, select **Set Administrator Password** and press the **Enter** key.
2. The password dialog box will be displayed. Type the current password and press the **Enter** key.
3. To delete an **Administrator Password**, leave each new password line item blank, then press the **Enter** key. A Setup Notice confirming that changes have been saved will be displayed.
4. Return to the Lenovo BIOS Setup Utility program menu and select the **Exit** option.
5. Select **Save changes and Exit** from the menu.

Power-On Password

When a Power-On Password is set, you cannot start the Lenovo BIOS Setup Utility program until a valid password is typed from the keyboard.

Setting, changing, or deleting a Power-On Password

Note: A password can be any combination of letters and numbers up to 16 characters (a-z and 0-9).

To set a Power-On Password, do the following:

1. Start the Lenovo BIOS Setup Utility program (See "Starting the Lenovo BIOS Setup Utility program" on page 13.)
2. From the **Security** menu, select **Set Power-On Password** and press the **Enter** key.
3. The password dialog box will be displayed. Type the password, then press the **Enter** key.
4. Re-type the password to confirm. If you typed the password correctly, the password will be installed.

To change a Power-On Password, do the following:

1. Start the Lenovo BIOS Setup Utility program (See "Starting the Lenovo BIOS Setup Utility program" on page 13.)
2. From the **Security** menu, select **Set Power-On Password** and press the **Enter** key.
3. The password dialog box will be displayed. Type the current password then press the **Enter** key.
4. Type the new password, then press the **Enter** key. Re-type the password to confirm the new password. If you typed the new password correctly, the new password will be installed. A Setup Noticed confirming that changes have been saved will be displayed.

To delete a previously set Power-On Password, do the following :

1. From the **Security** menu, select **Set Power-On Password** and press the **Enter** key.
2. The password dialog box will be displayed. Type the current password and press the **Enter** key.
3. To delete the **Power-On Password**, leave each new password line item blank, then press Enter. A Setup Notice confirming that changes have been saved will be displayed.
4. Return to the Lenovo BIOS Setup Utility program menu and select the **Exit** option.
5. Select **Save changes and Exit** from the menu.

Enabling or disabling a device

The **Devices** options is used to enable or disable user access to the following devices:	
USB Functions	Select whether to enable or disable **USB** (Universal Serial Bus) functions. If the functions are disabled, no **USB** devices can be used.
SATA Mode	When this feature is set to **Disabled**, all devices connected to the SATA connectors (e.g. hard disk drives or the optical disk drive) are disabled and cannot be accessed.
Onboard Audio Controller	Select whether to enable or disable the **Onboard Audio Controller**. When this feature is set to **Disabled** all devices connected to the audio connectors (e.g. headphones or a microphone) are disabled and cannot be used.
Onboard Ethernet Controller or LAN Boot Agent	Select whether to enable or disable the **Onboard Ethernet Controller**, or select whether to enable or disable load onboard **PXE** (**Preboot Execution Environment**).

To enable or disable a device, do the following:

1. Start the Setup Utility program (see "Starting the Setup Utility program" on page 13).
2. From the Setup Utility program menu, select **Devices**.
3. Select an option as follows:

    Select **USB Setup**, press the **Enter** key, then select **USB Functions**.

Select **ATA Device Setup**, press the **Enter** key, then select **SATA Mode**.

Select **Audio Setup**, press the **Enter** key, then select **Onboard Audio Controller**.

Select **Network Setup**, press the **Enter** key, then select **Onboard Ethernet Support** or **LAN Boot Agent**.

4. Select **Disabled** or **Enabled** and press the **Enter** key.

5. Return to the Lenovo BIOS Setup Utility program menu and select the **Exit** option.

6. Select **Save changes and Exit** from the menu.

   Notes:

   a. If you do not want to save the settings, select **Discard changes and Exit** from the menu.

   b. Select IDE/AHCI Mode: Device driver support is required for ACHI. Depending on how the hard disk image was installed, changing this setting may prevent the system from booting.

Selecting a startup device

If your computer does not boot from a device such as the CD/DVD-ROM drive disk or hard disk as expected, follow one of the procedures below.

Selecting a temporary startup device

Use this procedure to start up from any boot device.

Note: Not all CDs, DVDs or hard disk drives are bootable.

1. Turn off your computer.

2. Press and hold the **F12** key then turn on the computer. When the **Startup Device Menu** appears, release the **F12** key.

   Note: If the **Startup Device Menu** does not display using these steps, repeatedly press and release the **F12** key rather than keeping it pressed when turning on the computer.

3. Use ↑ and ↓ arrows to select the desired startup device from the **Startup Device Menu** and press the **Enter** key to begin.

   Note: Selecting a startup device from the **Startup Device Menu** does not permanently change the startup sequence.

Selecting or changing the startup device sequence

To view or permanently change the configured startup device sequence, do the following:

1. Start the Lenovo BIOS Setup Utility program (see "Starting the Lenovo BIOS Setup Utility program" on page 13).

2. From the Lenovo BIOS Setup Utility program main menu, select the **Startup** option.

3. Press the **Enter** key, and select the devices for the **Primary Boot Sequence**. Read the information displayed on the right side of the screen.

4. Use - and ¯ arrows to select a device. Use the **<+>** or **<->** keys to move a device up or down. Use the **<x>** key to exclude the device from or include the device in the boot sequence.

5. Return to the Lenovo BIOS Setup Utility program menu and select the **Exit** option.

6. Select **Save changes and Exit** from the menu.

   Notes:

a. If you do not want to save the settings, select **Discard changes and Exit** from the menu.

b. If you have changed these settings and want to return to the default settings, select **Load Optimal Defaults** from the menu.

Exiting the Lenovo BIOS Setup Utility program

After you finish viewing or changing settings, press the **Esc** key to return to the Lenovo BIOS Setup Utility program main menu. You might have to press the **Esc** key several times. Do one of the following:

- If you want to save the new settings, select **Save changes and Exit** from the menu. When the **Save & reset** window shows, select the **Yes** button, and then press the **Enter** key to exit the Lenovo BIOS Setup Utility program.

- If you do not want to save the settings, select **Discard changes and Exit** from the menu. When the **Reset Without Saving** window shows, select the **Yes** button, and then press the **Enter** key to exit the Lenovo BIOS Setup Utility program.

Chapter 6. Symptom-to-FRU Index

The Symptom-to-FRU index lists error symptoms and possible causes. The most likely cause is listed first. Always begin with Chapter 4, "General Checkout," on page 11. This index can also be used to help you decide which FRUs to have available when servicing a computer. If you are unable to correct the problem using this index, go to "Undetermined problems" on page 20.

Notes:

- If you have both an error message and an incorrect audio response, diagnose the error message first.
- If you cannot run the diagnostic tests or you get a diagnostic error code when running a test but did receive a POST error message, diagnose the POST error message first.
- If you did not receive any error message look for a description of your error symptoms in the first part of this index.

Hard disk drive boot error

A hard disk drive boot error can be caused by the following.

Error	FRU/Action
The startup drive is not included in the boot sequence configuration.	Check the configuration and ensure the startup drive is in the boot sequence.
No operating system is installed on the boot drive.	Install an operating system on the boot drive.
The boot sector on the startup drive is corrupted.	The drive must be formatted. Do the following: 1. Attempt to back up the data on the failing hard disk drive. 2. Use the operating system to format the hard disk drive.
The drive is defective.	Replace the hard disk drive.

Power Supply Problems

Follow these procedures if you suspect there is a power supply problem.

Check/Verify	FRU/Action
Check that the following are properly installed: • Power Cord • On/Off Switch connector • System Board Power Supply connectors • Microprocessor connections	Reseat connectors
Check the power cord.	Power Cord
Check the power-on switch.	Power-on Switch

POST error codes

Each time you turn the computer on, it performs a series of tests to check that the system is operating correctly and that certain options are set. This series of tests is called the *Power-On Self-Test*, or *POST*. POST does the following:

- Checks some basic motherboard operations
- Checks that the memory is working correctly
- Starts video operations
- Verifies that the boot drive is working

POST Error Message	Description/Action
Keyboard error	Cannot initialize the keyboard. Make sure the keyboard is properly connected to the computer and that no keys are held pressed during POST. To purposely configure the computer without a keyboard, select **Keyboardless operation** in **Startup** and set the option to **Enabled**. The BIOS then ignores the missing keyboard during POST.
Reboot and Select proper Boot device or Insert Boot Media in selected Boot device	The BIOS was unable to find a suitable boot device. Make sure the boot drive is properly connected to the computer. Make sure you have bootable media in the boot device.

Undetermined problems

1. Power-off the computer.
2. Remove or disconnect the following components (if connected or installed) one at a time.
   a. External devices (modem, printer, or mouse)
   b. Extended video memory
   c. External Cache
   d. External Cache RAM
   e. Hard disk drive
   f. Disk drive
3. Power-on the computer to re-test the system.
4. Repeat steps 1 through 3 until you find the failing device or component.

If all devices and components have been removed and the problem continues, replace the system board.

Chapter 7. Locating connectors, controls and components

This section provides illustrations to help locate the various connectors, controls and components of the computer.

Font view

The following illustration shows the location of controls and components on the front of the computer.

Attention: Be careful not to block any air vents on the computer. Blocked air vents can cause overheating.
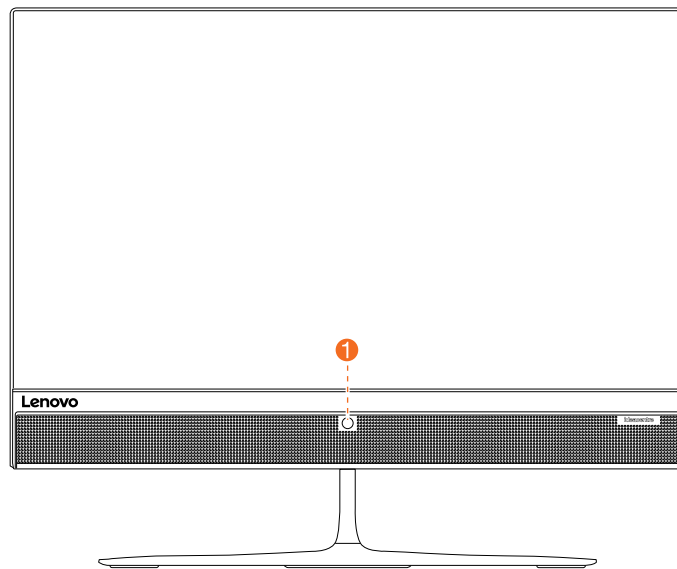
1. Built-in camera	

Left and right view

The following illustration shows the location of connectors, controls and components on the left and right side of the computer.
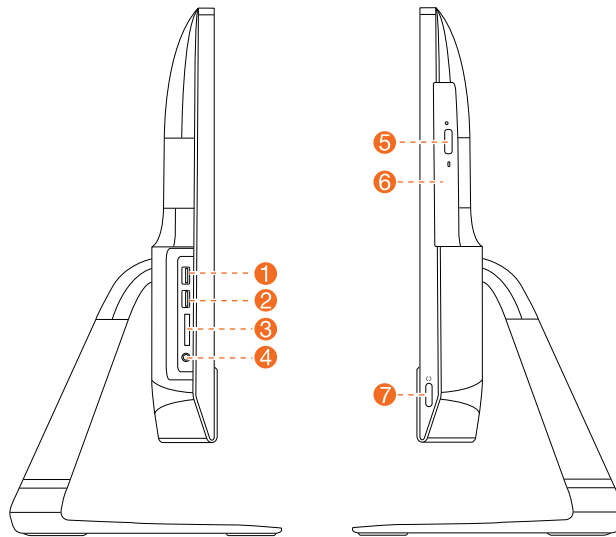
1. USB 3.0 connectors	5. Optical drive eject button
2. USB 3.0 connectors	6. Optical drive
3. Memory card reader	7. Power button
4. Combo audio jack	

Rear view

The following illustration shows the location of connectors and components on the rear of the computer.
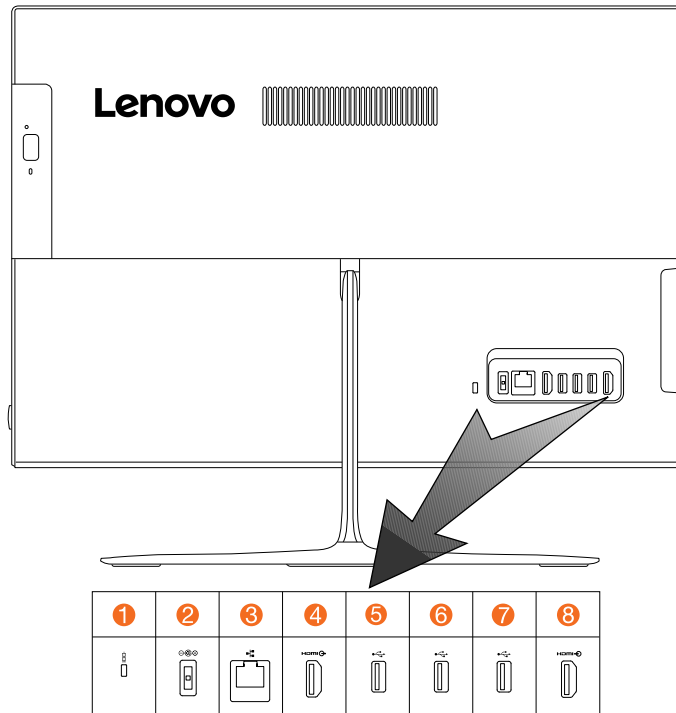
1. Security cable slot	5. USB 2.0 connector
2. Power connector	6. USB 2.0 connector
3. Ethernet connector	7. USB 2.0 connector
4. HDMI-out connector	8. HDMI-in connector

Hardware components

The following illustration shows the components that make up your computer.
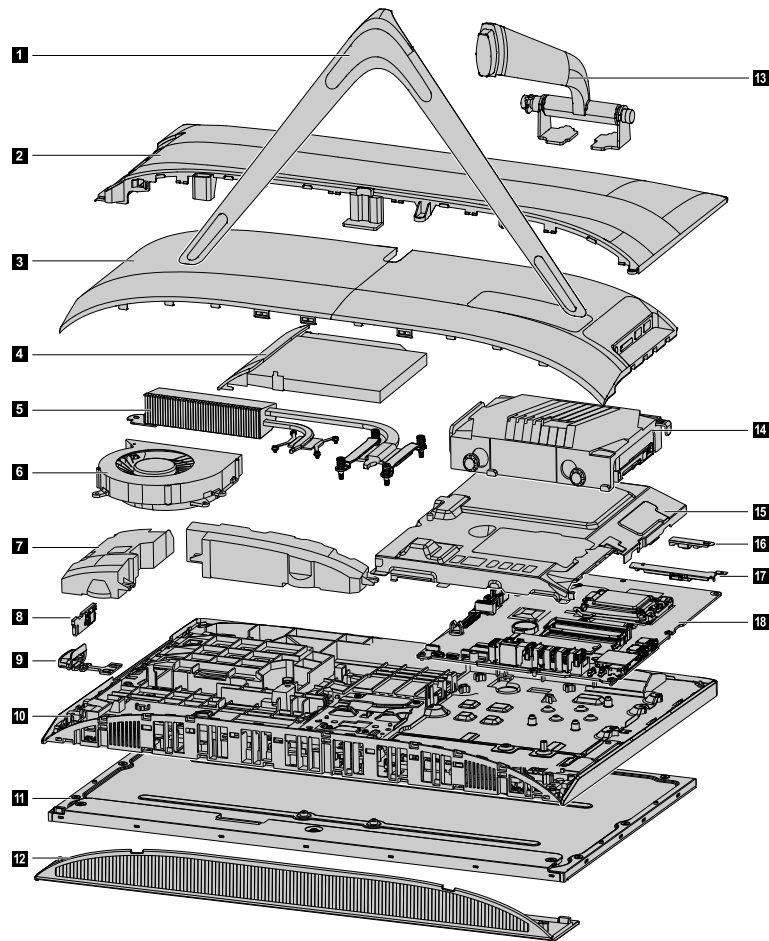
1. Stand base	10. Main frame
2. Middle cover	11. LCD panel
3. Rear cover	12. Front bezel
4. Optical disk drive	13. Stand holder
5. Heat-sink	14. Hard disk drive
6. System fan	15. EMI cover
7. Speaker system	16. Mic
8. Power switch board	17. Camera
9. Power button	18. Motherboard

Identifying parts on the motherboard

The motherboard (sometimes called the planar or system board) is the main circuit board in your computer. It provides basic computing functions and supports a variety of devices that are factory-installed or that you can install later. The following illustration shows the location of connectors and components on the front of the motherboard.
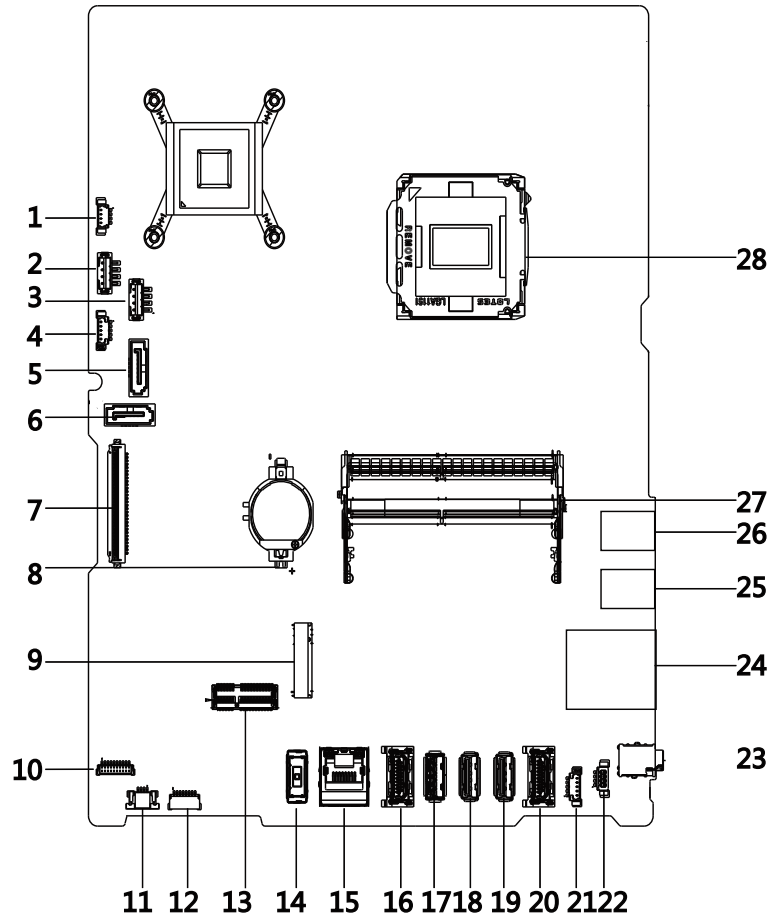
1. System fan connector	15. Ethernet connector
2. ODD power connector	16. HDMI-out connector
3. HDD power connector	17. USB 2.0 connector
4. Touch panel connector	18. USB 2.0 connector
5. ODD SATA connector	19. USB 2.0 connector
6. HDD SATA connector	20. HDMI-in connector
7. LVDS connector	21. Mic connector
8. Battery	22. Speaker connector
9. SSD SATA connector	23. Combo audio jack
10. Converter connector	24. Card reader connector
11. Power switch board connector	25. USB 3.0 connector
12. Camera connector	26. USB 3.0 connector

13. Wi-Fi card connector	27. Memory socket
14. Power connector	28. CPU socket

Chapter 8. Replacing hardware

Attention: Do not remove the computer cover or attempt any repair before reading the "Important safety information" in the Safety and Warranty Guide that was included with your computer. To obtain copies of the Safety and Warranty Guide, go to the Support Web site at: http://consumersupport.lenovo.com.

Note: Use only parts provided by Lenovo.

General information

Pre-disassembly instructions

Before starting the disassembly procedure, make sure that you do the following:

1. Turn off the power to the system and all peripherals.
2. Unplug all power and signal cables from the computer.
3. Place the system on a flat, stable surface.

Replacing the keyboard and mouse

Note: Your keyboard will be connected to a USB connector at either side or at the rear of the computer.

To replace the keyboard and mouse:

Step 1.   Remove any media from the drives, shut down the computer, and turn off all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. .

Step 4.   Locate the connector for the keyboard. Refer to Locating connectors, controls and components to locate the various connectors.

Step 5.   Disconnect the defective keyboard cable from the computer and connect the new keyboard cable to the same connector.
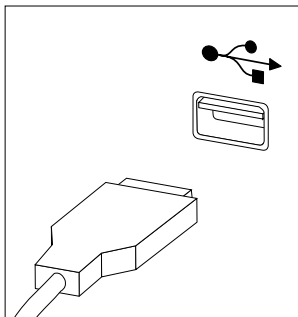
Step 6.   The mouse can be replaced using the same method.

Replacing the adapter

Attention: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Disconnect the adapter from the connector on the computer, then unplug the adapter from electrical outlet.
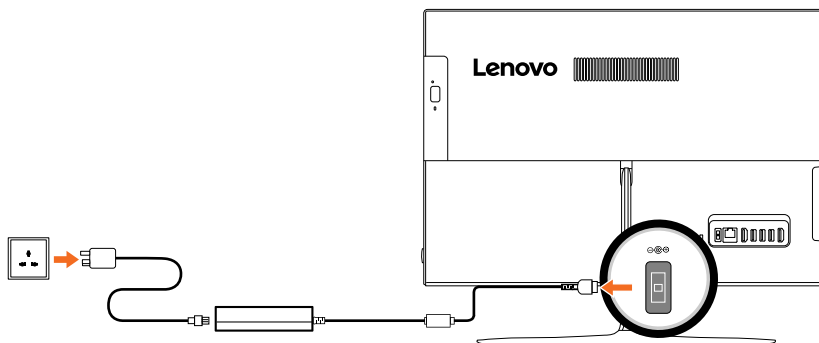
Step 3. Connect the new adapter as shown.

Removing the stand base

Attention: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the touch screen from scratches or other damage.

Step 1. Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2. Unplug all power cords from electrical outlets.

Step 3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4. Remove the rubber, and then twist the hand screw ring counter-clockwise until the stand base is loosened. **1** **2**

Step 5. Remove the stand base from the stand holder and put it aside. **3**

Removing the rear cover

Attention: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the touch screen from scratches or other damage.

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Lift up the rear cover from the two notches at the bottom of the computer.

Step 6.   To reattach the rear cover:

    a.   Align the rear cover with the chassis.

    b.   Press the rear cover until it snaps into position.

Replacing the hard disk drive

Attention: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the touch screen from scratches or other damage.

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6. Pull the hard disk drive and bracket to left **1**, and then lift them up. **2**

Step 7. Disconnect the signal cable from the hard disk drive.

Step 8. Remove the four screws that secure the hard disk drive to the bracket. **3**

Step 9. To install the new hard disk drive:

   a. Line up the new hard disk drive with the bracket and secure it with four screws.

   b. Connect the data and power cables to the new hard disk drive.

   c. Slide the hard disk drive and bracket back into position.

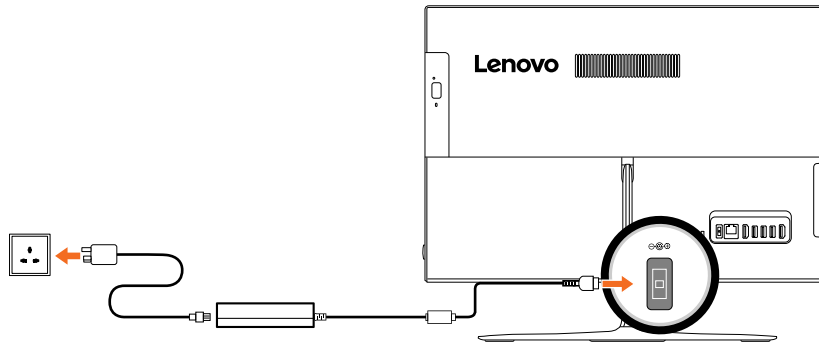Step 10. Reattach the rear cover and stand base.

Replacing the optical drive
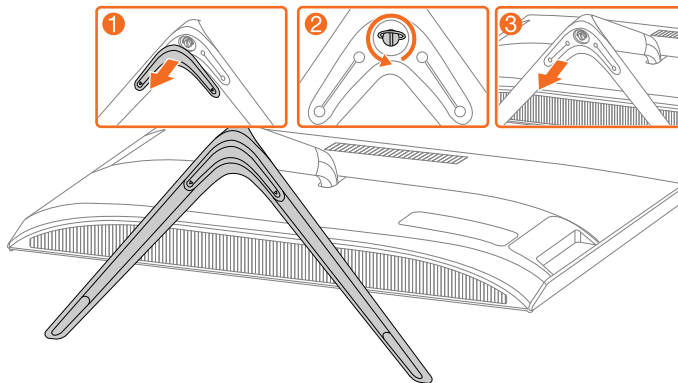
Attention: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the touch screen from scratches or other damage.

Step 1. Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2. Unplug all power cords from electrical outlets.

Step 3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4. Remove the stand base. Refer to Removing the stand base.

Step 5. Remove the rear cover. Refer to Removing the rear cover.

Step 6.　Locate the optical removal notch, and then push the optical drive out using a screw driver .

Step 7.　Push a small iron stick (paper clip) into the small hole on the optical drive bezel so that the disk springs out as shown.

Step 8.   Remove the optical drive bezel from the optical drive as shown. **1 2**
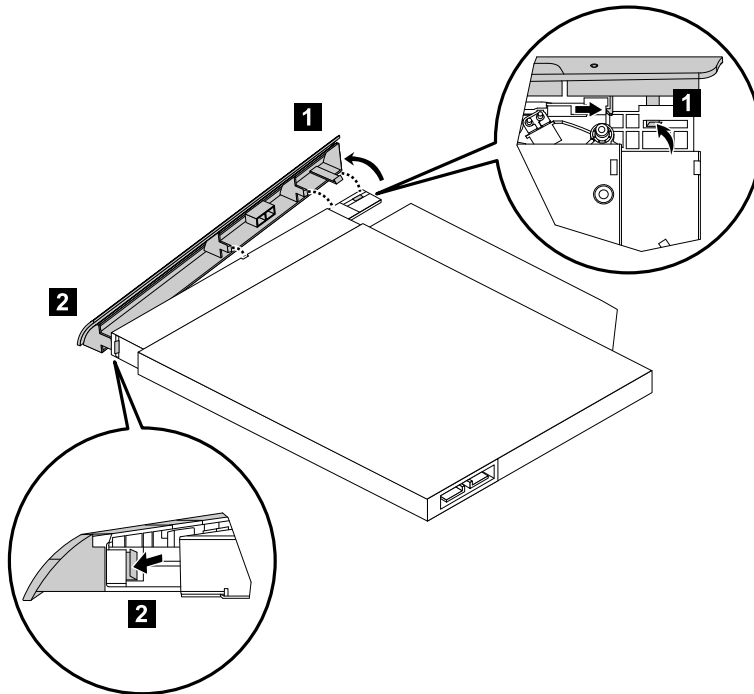
Step 9.   To install the new optical drive:

a.   Insert the tabs on the optical drive bezel into the corresponding holes in the new optical drive, and then push the bezel back into position.

b.   Gently push the disk forward until it snaps into position.

c.   Slide the new optical drive into the drive bay.

Step 10. Reattach the rear cover and stand base.

Replacing the memory module
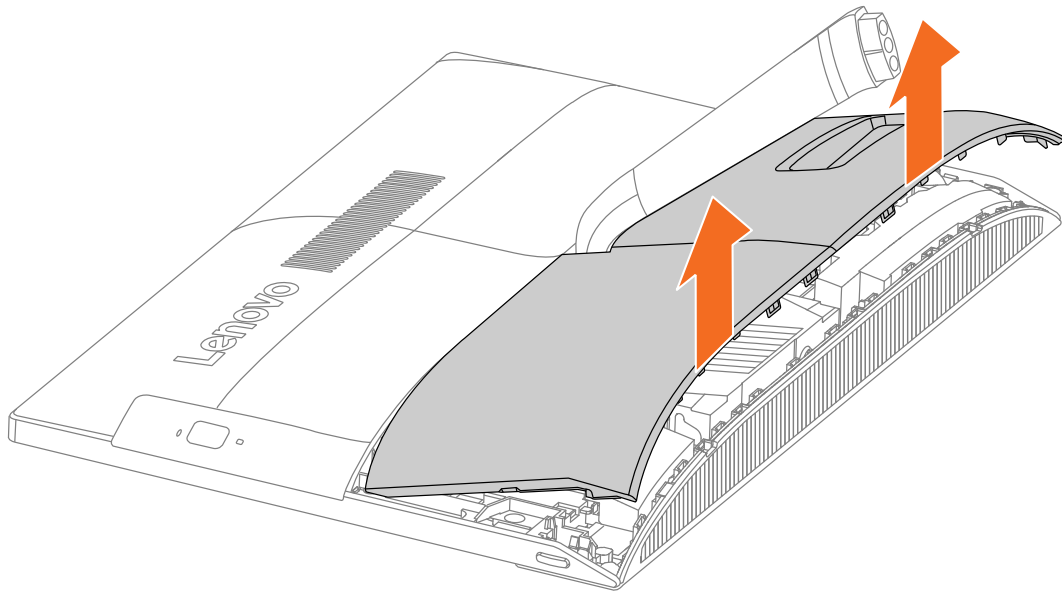
Attention: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the touch screen from scratches or other damage.

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6.   Remove the memory cover. ▮1

Step 7.   Open the retaining clips ▮2 and gently pull the memory module out of the memory socket. ▮3

Step 8.   To install the new memory module:

   a.   Position the new memory module over the memory slot. Ensure that the notch ▮2 on the memory module aligns correctly with the slot key ▮1 in the memory socket. Press the memory module down until snaps into position.
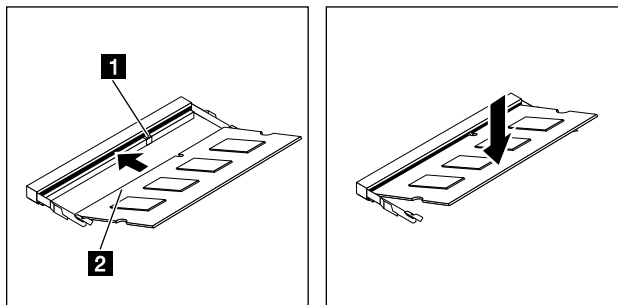
   b.   Reinstall the memory cover.

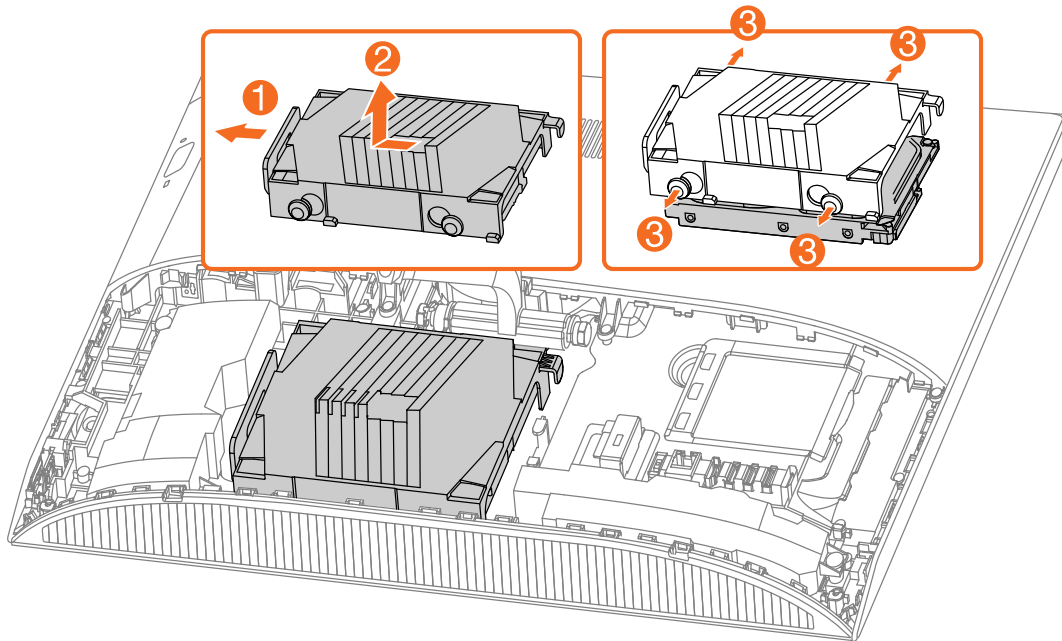Step 9.   Reattach the rear cover and stand base.

Replacing the solid state drive

Attention: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the touch screen from scratches or other damage.

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4. Remove the stand base. Refer to Removing the stand base.

Step 5. Remove the rear cover. Refer to Removing the rear cover.

Step 6. Remove the memory cover. **1**

Step 7. Remove the screw that secure the solid state drive to the motherboard **2**, and then slide out the solid state drive. **3**

Step 8. To install the new solid state drive:

    a. Insert the solid state drive into the slot.

    b. Secure the new solid state drive to motherboard with one screw.

    c. Reinstall the memory cover.

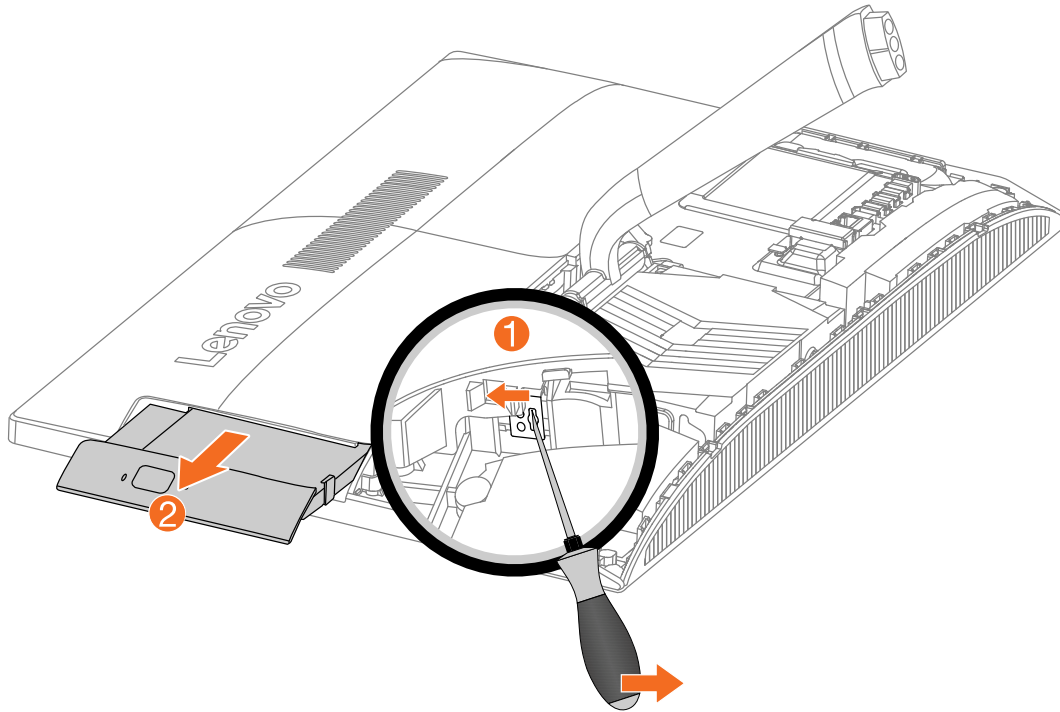Step 9. Reattach the rear cover and stand base.

Removing the stand holder

Attention: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.
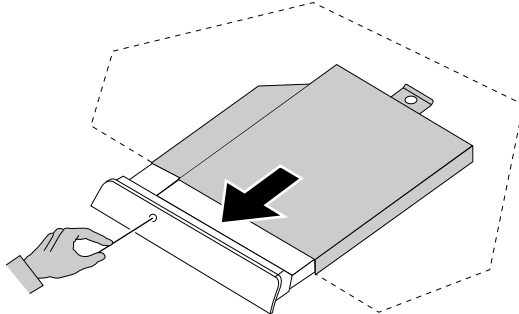
Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the touch screen from scratches or other damage.

Step 1. Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2. Unplug all power cords from electrical outlets.

Step 3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4. Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6.   Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7.   Remove the two screws that secure the stand holder to the chassis, and then lift up the stand holder to remove it.

Step 8.   To reattach the stand holder:

   a.   Align the holes in the stand holder with the corresponding holes in the chassis.

   b.   Secure the stand holder to the chassis with two screws.
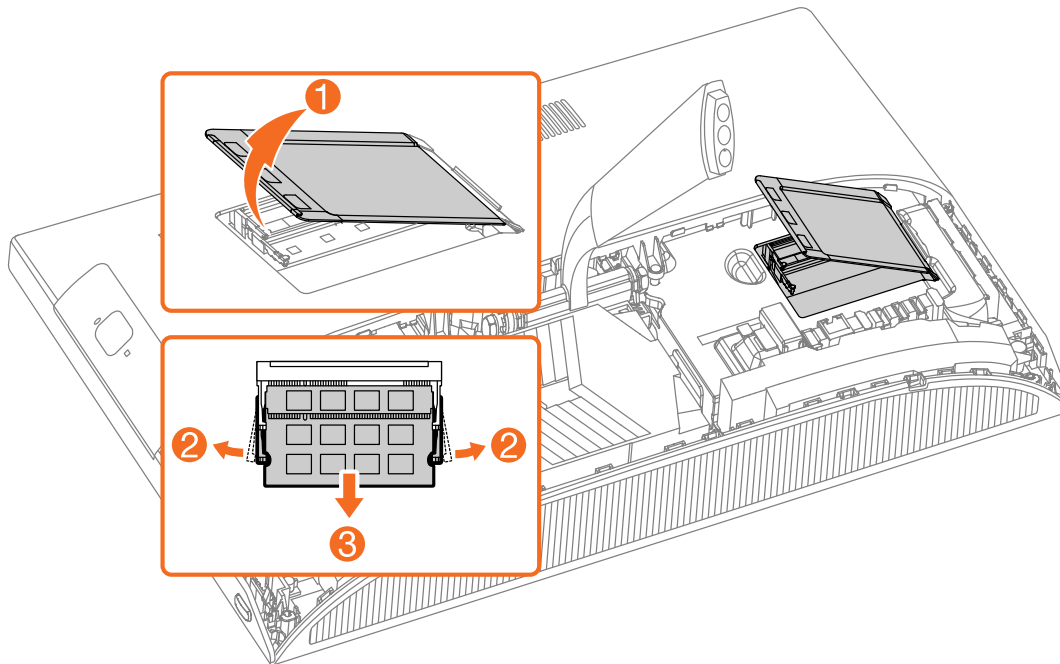
Replacing the power switch board

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the power switch board

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6. Disconnect the signal cable from the power switch board. **1**

Step 7. Push the locking pin outward to release the power switch board **2**, and then lift the power switch board up to remove it.
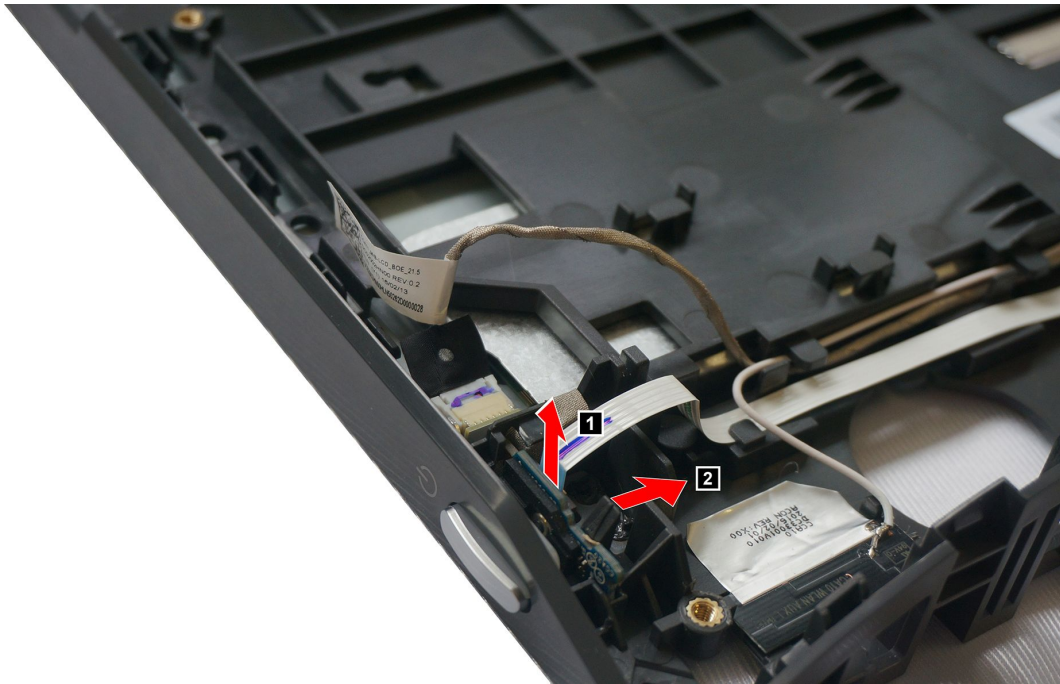
Step 8. To install the new power switch board:

    a. Attach the new power switch board to the chassis and secure it with the locking pin.

    b. Connect the signal cable to the new power switch board.

Step 9. Reattach the rear cover and stand base.

Removing the middle cover

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To remove the middle cover:

Step 1. Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2. Unplug all power cords from electrical outlets.

Step 3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4. Remove the stand base. Refer to Removing the stand base.

Step 5. Remove the rear cover. Refer to Removing the rear cover.

Step 6. Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7. Remove the optical drive. Refer to Replacing the optical drive.

Step 8.   Remove the stand holder. Refer to Removing the stand holder.

Step 9.   Remove the four screws that secure the middle cover to the chassis.

Step 10. Lift up the middle cover as shown.

Step 11. To reattach the middle cover:

a. Line up the middle cover with the chassis.

b. Secure the middle cover to the chassis with four screws.
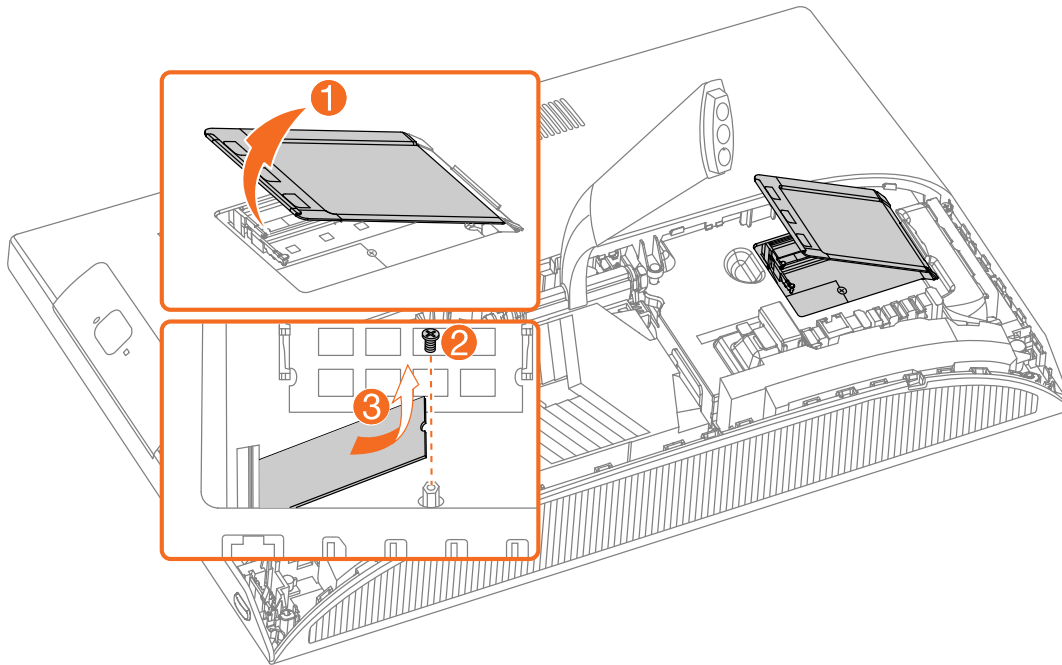
Removing the EMI cover

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the EMI cover

Step 1. Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2. Unplug all power cords from electrical outlets.

Step 3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4. Remove the stand base. Refer to Removing the stand base.

Step 5. Remove the rear cover. Refer to Removing the rear cover.

Step 6. Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7. Remove the optical drive. Refer to Replacing the optical drive.

Step 8. Remove the stand holder. Refer to Removing the stand holder.

Step 9. Remove the middle cover. Refer to Removing the middle cover.

Step 10. Remove the six screws that secure the EMI cover to the chassis, and then lift it up.

Step 11. To install the new EMI cover:

    a. Align the holes in the EMI cover with the mounting holes in the chassis.

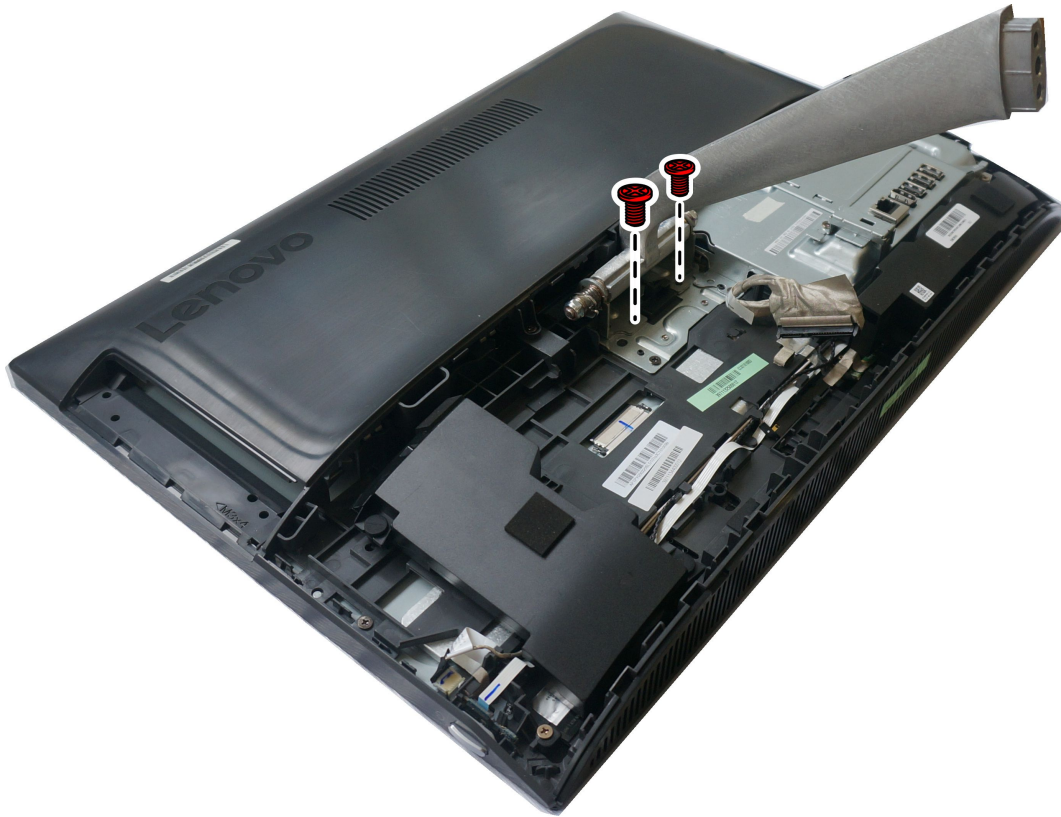   b. Secure the EMI cover to the chassis with six screws.

Replacing the LCD panel module

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the LCD panel module:

Step 1. Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2. Unplug all power cords from electrical outlets.

Step 3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4. Remove the stand base. Refer to Removing the stand base.

Step 5. Remove the rear cover. Refer to Removing the rear cover.

Step 6. Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7. Remove the optical drive. Refer to Replacing the optical drive.

Step 8.   Remove the stand holder. Refer to Removing the stand holder.

Step 9.   Remove the middle cover. Refer to Removing the middle cover.

Step 10. Remove the EMI cover. Refer to Removing the EMI cover.

Step 11. Remove the front bezel as shown.

Step 12. Remove the side I/O cover.

Step 13. Disconnect the converter cable **1** and LVDS cable **2**.

Step 14. Remove the thirteen screws that secure the main frame to the LCD panel.
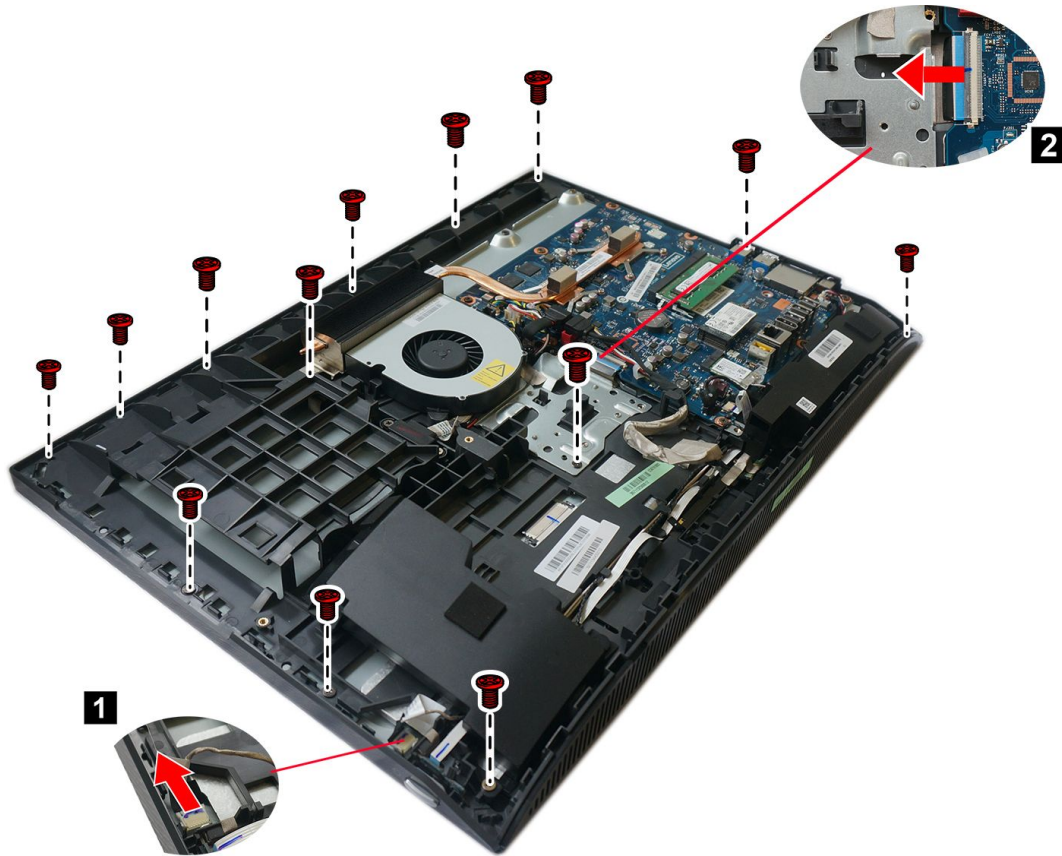
Step 15. Lift up the main frame as shown to remove it.

Step 16. If your device is a touch computer, disconnect the touch cable from the connector on the motherboard. Otherwise, skip this step. Refer to Locating connectors, controls and components to locate the touch connector.

Step 17. To install the new the LCD panel module:

  a. Align the new LCD panel with the main frame.

  b. Secure the new LCD panel to the main frame with thirteen screws.

  c. Connect the touch(touch model only), LVDS and converter cables to the connectors in the new LCD panel.

Step 18. Reattach the side I/O cover, EMI cover, middle cover, front bezel, stand holder, optical drive, hard disk drive, rear cover, and stand base.

Replacing the Wi-Fi card

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.
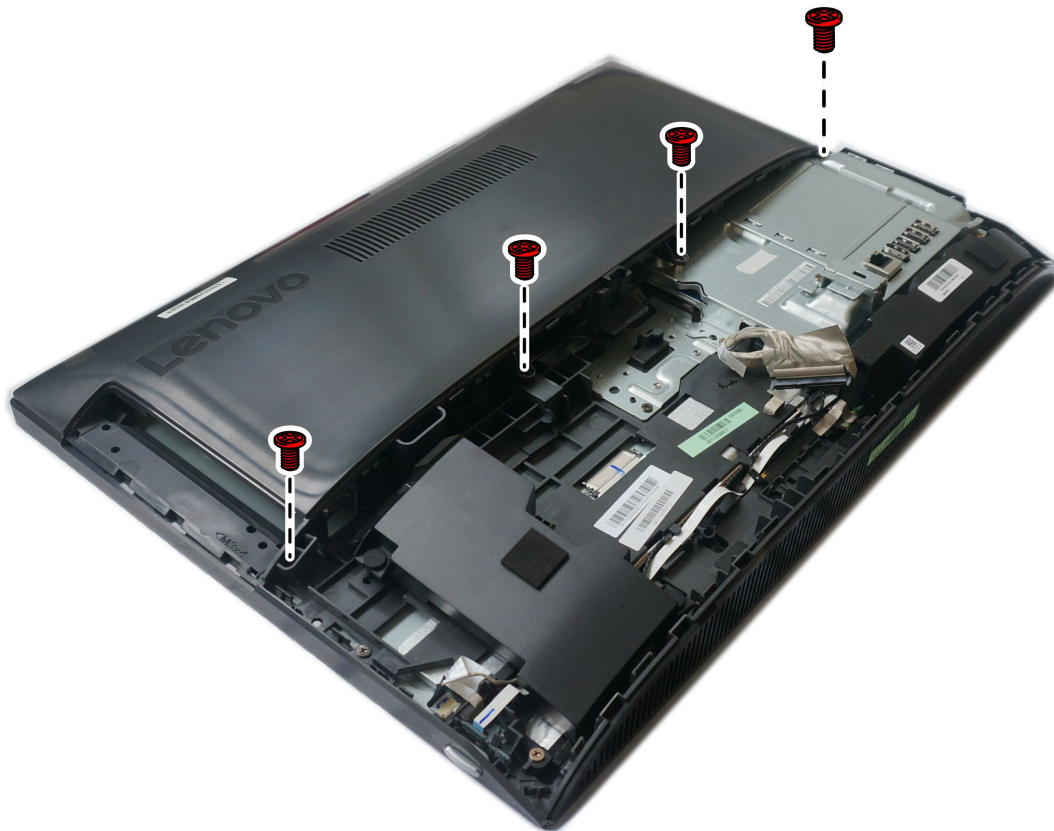
Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the Wi-Fi card:

Step 1. Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2. Unplug all power cords from electrical outlets.

Step 3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4. Remove the stand base. Refer to Removing the stand base.

Step 5. Remove the rear cover. Refer to Removing the rear cover.

Step 6. Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7. Remove the optical drive. Refer to Replacing the optical drive.

Step 8. Remove the stand holder. Refer to Removing the stand holder.

Step 9. Remove the middle cover. Refer to Removing the middle cover.

Step 10. Remove the EMI cover. Refer to Removing the EMI cover.

Step 11. Disconnect the antenna cables from the Wi-Fi card. **1**

Step 12. Remove the screw that secures the Wi-Fi card to the motherboard. **2**

Step 13. Pull the Wi-Fi card out of the slot.
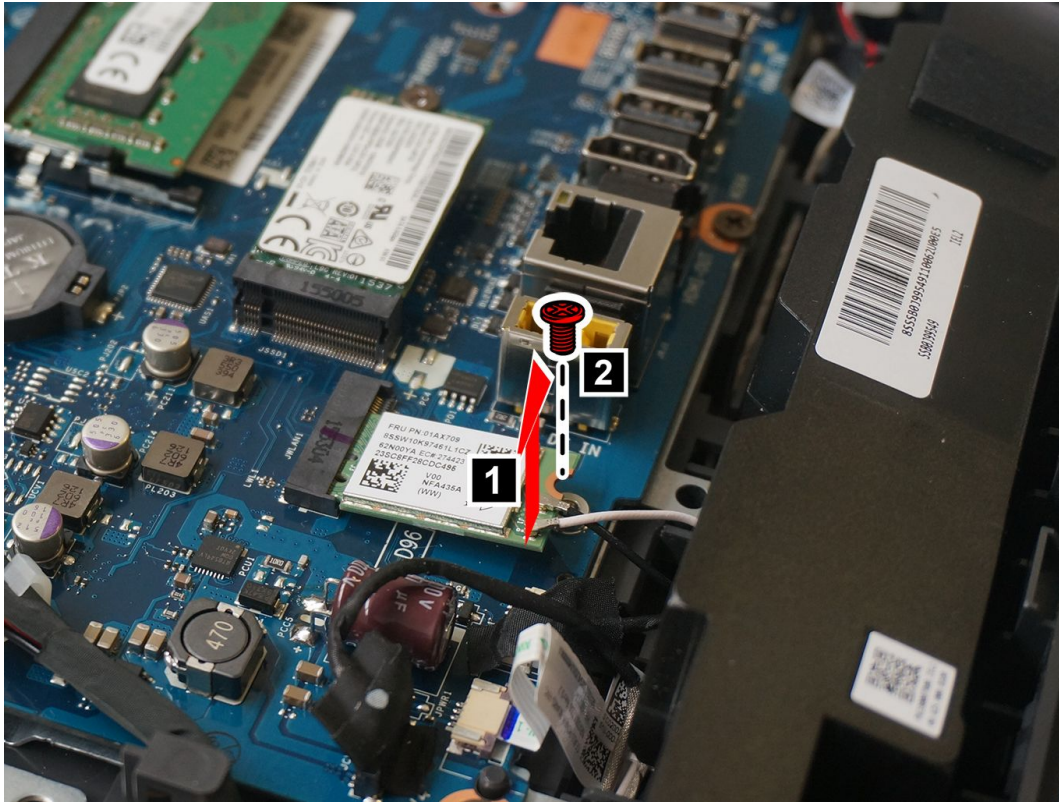
Step 14. To install the new Wi-Fi card:

    a.   Insert the new Wi-Fi card into the Wi-Fi card slot.

    b.   Secure new the Wi-Fi card to the motherboard with the screw.

    c.   Connect the antenna cables to the new Wi-Fi card.

Step 15. Reattach the EMI cover, middle cover, stand holder, optical drive, hard disk drive, rear cover, and stand base.

Replacing the system fan

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the system fan

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6.   Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7.   Remove the optical drive. Refer to Replacing the optical drive.

Step 8.   Remove the stand holder. Refer to Removing the stand holder.

Step 9.   Remove the middle cover. Refer to Removing the middle cover.

Step 10. Remove the EMI cover. Refer to Removing the EMI cover.

Step 11. Remove the screw that secures the system fan to the chassis.

Step 12. Disconnect the system fan power cable from the motherboard.

Step 13. Lift the system fan up to remove it.

Step 14. To install the new system fan:

      a.   Place the new system fan into position, and then secure it to the chassis with one screw.

      b.   Connect the system fan power cable to the connector on the motherboard.

Step 15. Reattach the EMI cover, middle cover, stand holder, optical drive, hard disk drive, rear cover, and stand base.

Replacing the heat-sink

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the heat-sink:

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6.   Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7.   Remove the optical drive. Refer to Replacing the optical drive.

Step 8.   Remove the stand holder. Refer to Removing the stand holder.

Step 9.   Remove the middle cover. Refer to Removing the middle cover.

Step 10. Remove the EMI cover. Refer to Removing the EMI cover.

Step 11. Loosen the nine screws that secure the heat-sink to the motherboard, and then lift up the heat-sink and remove it.

> **Attention:** Place the heat-sink upside down on a flat surface to prevent thermal grease from contaminating other components.

> **Attention:** Use an alcohol pad to wipe the thermal grease off the CPU.

Step 12. To install the new heat-sink:

    a.   Position the new heat-sink on the motherboard so that the nine screws are aligned with the holes in the motherboard and wind shielding.

    b.   Tighten the screws in numeric order to secure the new heat-sink to the motherboard.

Step 13. Reattach the EMI cover, middle cover, stand holder, optical drive, hard disk drive, rear cover, and stand base.

Replacing the motherboard

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the motherboard:

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6.   Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7.   Remove the optical drive. Refer to Replacing the optical drive.

Step 8.   Remove the stand holder. Refer to Removing the stand holder.

Step 9.   Remove the middle cover. Refer to Removing the middle cover.

Step 10. Remove the EMI cover. Refer to Removing the EMI cover.

Step 11. Remove the memory modules. Refer to Replacing the memory module.

Step 12. Remove the solid state drive. Refer to Replacing the solid state drive.

Step 13. Remove the heat-sink. Refer to Replacing the heat-sink.

Step 14. Remove the Wi-Fi card. Refer to Replacing the Wi-Fi card.

Step 15. Remove all the cables from the motherboard.

Step 16. Remove the six screws that secure the motherboard to the chassis, and then lift the motherboard up to remove it.
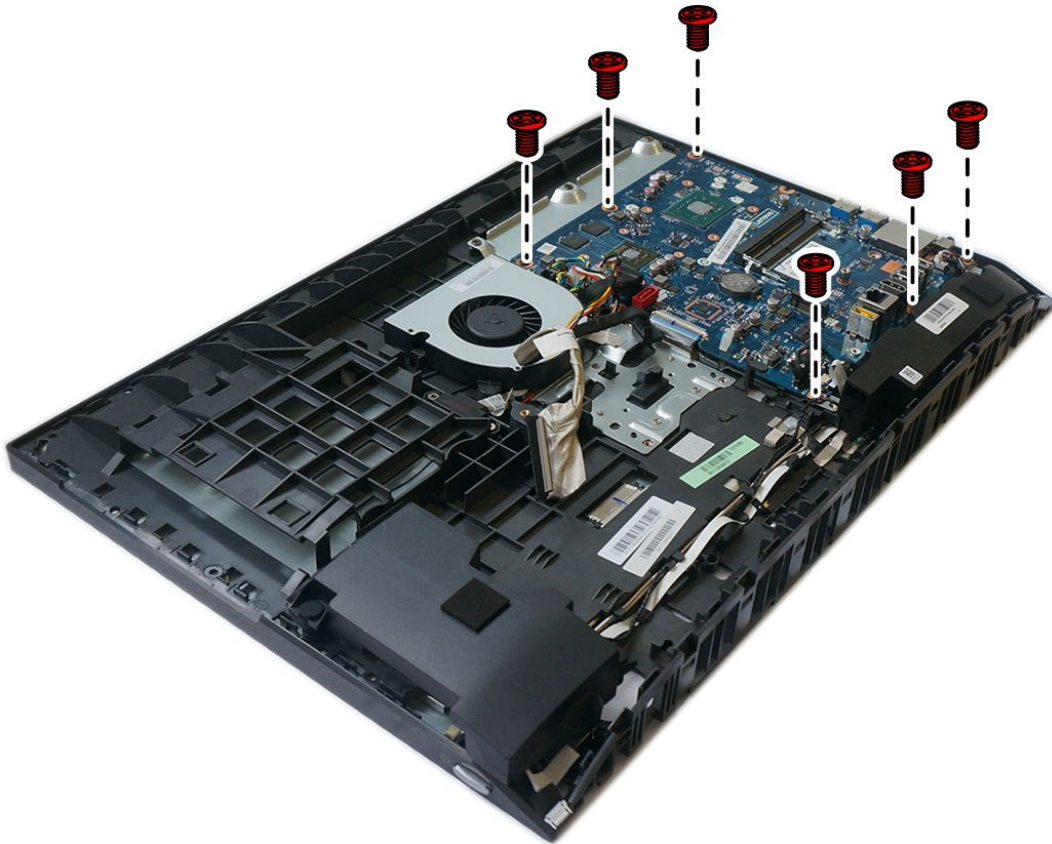
Step 17. To install the new motherboard:

    a.   Align the six screw holes in the new motherboard with the screw holes in the chassis.

    b.   Secure the new motherboard to the chassis with six screws.

    c.   Connect all the cables to the new motherboard.

Step 18. Install the following parts to the new motherboard:

- Wi-Fi card
- Heat-sink
- Solid state drive
- Memory module

Step 19. Reattach the EMI cover, middle cover, stand holder, optical drive, hard disk drive, rear cover, and stand base.

Replacing the speaker system

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the speaker system:

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6.   Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7.   Remove the optical drive. Refer to Replacing the optical drive.

Step 8.   Remove the stand holder. Refer to Removing the stand holder.

Step 9.   Remove the middle cover. Refer to Removing the middle cover.

Step 10.   Remove the EMI cover. Refer to Removing the EMI cover.

Step 11.   Disconnect the speaker cable from the connector on the motherboard **1**, and then slide the rubber screws of the speaker system out of the screw slots.

Step 12.   Lift up the speaker system to remove it. **2**

Step 13.   To install the new speaker system:

   a.   Slide in the rubber screws of the new speaker system into the screw slots in the chassis.

   b.   Connect the cable to the motherboard.

Step 14.   Reattach EMI cover, middle cover, stand holder, optical drive, hard disk drive, rear cover, and stand base.

Replacing the camera

Note: Turn off the computer and wait 3 to 5 minutes to let it cool down before removing the cover.

Note: It may be helpful to place the computer face-down on a soft flat surface for this procedure. Lenovo recommends that you use a blanket, towel, or other soft cloth to protect the computer screen from scratches or other damage.

To replace the camera:

Step 1.   Remove any media from the drives, shut down the operating system, and turn off the computer and all attached devices.

Step 2.   Unplug all power cords from electrical outlets.

Step 3.   Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to Locating connectors, controls and components to locate the various connectors.

Step 4.   Remove the stand base. Refer to Removing the stand base.

Step 5.   Remove the rear cover. Refer to Removing the rear cover.

Step 6.   Remove the hard disk drive. Refer to Replacing the hard disk drive.

Step 7.   Remove the optical drive. Refer to Replacing the optical drive.

Step 8.   Remove the stand holder. Refer to Removing the stand holder.

Step 9.   Remove the middle cover. Refer to Removing the middle cover.

Step 10. Remove the EMI cover. Refer to Removing the EMI cover.

Step 11. Remove the speaker system. Refer to Replacing the speaker system.

Step 12. Disconnect the camera cable form the corresponding connector on the motherboard. Refer to Locating connectors, controls and components.

Step 13. Push the locking pin outwards **1**, and then lift up the camera module. **2**
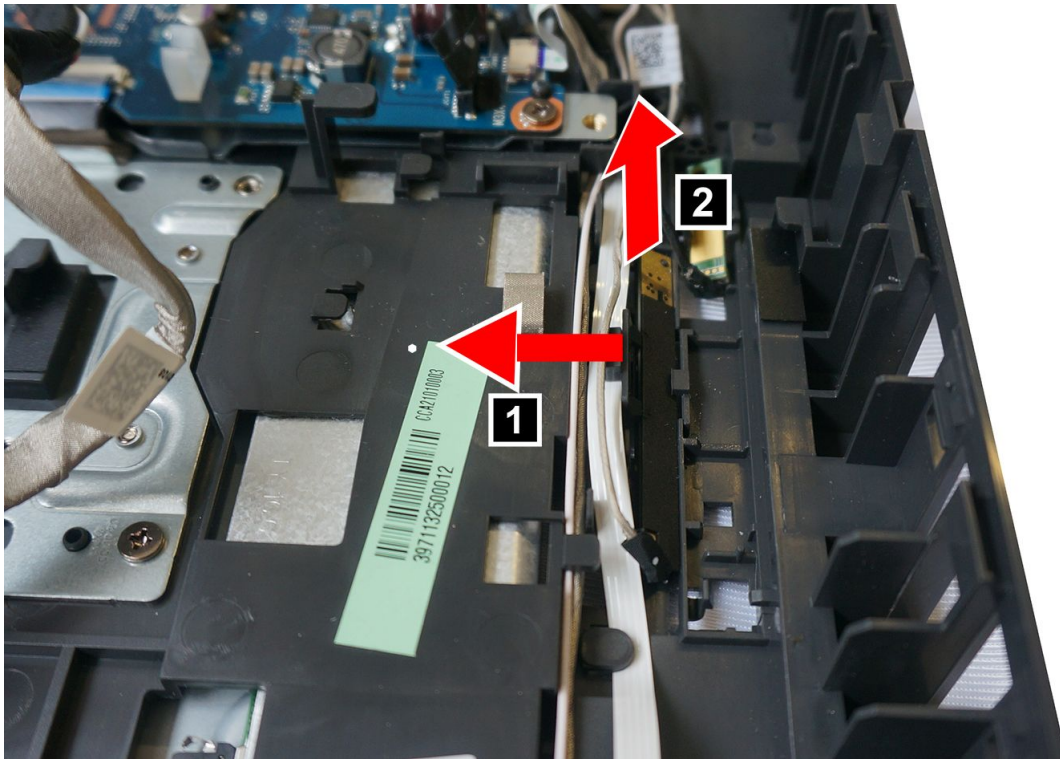
Step 14. To install the new camera:

    a.   Connect the camera cable to the new camera.

    b.   Push the camera locking pin outwards, and then place the new camera into position.

Step 15. Reattach the speaker system, EMI cover, middle cover, stand holder, optical drive, hard disk drive, rear cover, and stand base.

Chapter 9. FRU lists

This chapter lists the information on the field replaceable units (FRUs) for ideacentre All-In-One 510 desktop computer.

> **Attention:** Be sure to read and understand all the safety information before replacing any FRUs.

> **Notes:** FRUs that have a 1 or 2 in the CRU column are Customer Replaceable Units (CRUs).
>
> - **1**– identifies parts that are fairly simple to replace, requiring few or no tools.
> - **2**– identifies parts that are slightly more difficult to replace.
> - **N**-identifies parts that are not to be replaced by the customer.

Table 1. AIO 510–22ASR FRU list

FRU P/N	Description
AC_ADAPTER	
00PC726	AC_ADAPTER,90W,100-240Vac,3P
00PC727	AC_ADAPTER,120W,100-240Vac,3P
ANTENNA	
00XJ086	C4C5 antenna
BDPLANAR	
00UW342	MB,A9,UMA,NO,DPK
00UW343	MB,A9,UMA,WIN,DPK
00UW344	MB,A6,UMA,NO,DPK
00UW345	MB,A6,UMA,WIN,DPK
00UW346	MB,E2,UMA,NO,DPK
00UW347	MB,E2,UMA,WIN,DPK
00UW348	MB,A9,M435,1G,NO,DPK
00UW349	MB,A9,M435,1G,WIN,DPK
00UW350	MB,A6,M435,1G,NO,DPK
00UW351	MB,A6,M435,1G,WIN,DPK
00UW352	MB,A9,UMA,HDMI IN,NO,DPK
00UW353	MB,A9,UMA,HDMI IN,WIN,DPK
00UW354	MB,A6,UMA,HDMI IN,NO,DPK
00UW355	MB,A6,UMA,HDMI IN,WIN,DPK
00UW356	MB,E2,UMA,HDMI IN,NO,DPK
00UW357	MB,E2,UMA,HDMI IN,WIN,DPK
01GJ028	MB,E2,M435,1G,NO DPK
01GJ029	MB,E2,M435,1G,WIN DPK
CABLE	
31032953	GS BLK1.0m3wire CCC power cord(R)

Table 1. AIO 510–22ASR FRU list (continued)

31033857	LW BLK1.0m3wire ULCSA power cord(R)
31033858	VL BLK1.0m3wire ULCSA power cord(R)
31035332	LW BLK 1.0m VDE power cord(R)
31035395	LW BLK 1.0m India power cord(R)
31035396	LW BLK 1.0m UK power cord(R)
31035397	LW BLK 1.0m ANZ power cord(R)
31035828	LW BLK 1.0m Brazil power cord(R)
31038885	LW BLK 1.0m Taiwan C5 power cord(R)
31039100	LW BLK 1.0m Argentina C5 power cord(R)
31039101	LW BLK 1.0m Denmark C5 power cord(R)
31039103	LW BLK 1.0m Switzerland C5 power cord(R)
31039104	LW BLK 1.0m Italy C5 power cord(R)
31039105	LW BLK 1.0m SA C5 power cord(R)
31039106	LW BLK 1.0m Korea C5 power cord(R)
31039107	LW BLK 1.0m Israel C5 power cord(R)
31045147	LX(ASAP) 1.0M C5 CCC power cord
31049496	Volex 1.0M C5 UK power cord
31049497	Volex 1.0M C5 EU power cord
31049498	Volex 1.0M C5 KOR power cord
31049499	Volex 1.0M C5 TW power cord
31049500	Volex 1.0M C5 ANZ power cord
31049501	Volex 1.0M C5 SA power cord
31049502	Volex 1.0M C5 ISI power cord
31049503	Volex 1.0M C5 DEN power cord
31049504	Volex 1.0M C5 ITY power cord
31049505	Volex 1.0M C5 BR power cord
31049507	Volex 1.0M C5 LA power cord
31049508	Volex 1.0M C5 SWI power cord
31049517	LX(ASAP) 1.0M C5 UL power cord
31049518	LX(ASAP) 1.0M C5 EU power cord
31049520	LX(ASAP) 1.0M C5 ANZ power cord
00XJ043	C4C5 HDD SATA cable
00XJ045	C4 ODD SATA cable
00XJ049	C4C5 Power board FFC
00XJ051	C4 LVDS cable
00XJ053	C4C5S5 Camera cable
00XJ055	C4C5S5 MIC cable
00XJ056	C4C5S5 Touch cable
CAMERA	

Table 1. AIO 510–22ASR FRU list (continued)

01AH324	AIO 510 720P Cam
COVER	
01EF427	Rear Cover Black,nHDMI In,C4
01EF428	Rear Cover White,nHDMI In,C4
01EF429	Rear Cover Black,HDMI In,C4
01EF430	Rear Cover White,HDMI In,C4
DT_KYB	
00UW407	Liteon SK-8861 2.4G KB(BR)-BLK
00XH587	USB Calliope KB BK ENG
00XH588	USB Calliope KB BK ARA
00XH591	USB,Calliope,KB,BK,BEL ENG
00XH593	USB Calliope KB BK BUL
00XH594	USB Calliope KB BK TC/ENG
00XH595	USB Calliope KB BK CZE
00XH598	USB Calliope KB BK FRA
00XH601	USB Calliope KB BK GER
00XH602	USB Calliope KB BK GRE
00XH604	USB Calliope KB BK HBW
00XH605	USB Calliope KB BK HUN
00XH607	USB Calliope KB BK ITA
00XH608	USB Calliope KB BK JPN
00XH610	USB Calliope KB BK KOR
00XH611	USB,Calliope,KB,BK,LA SPA
00XH614	USB Calliope KB BK POR
00XH616	USB Calliope KB BK RUS
00XH618	USB Calliope KB BK SLK
00XH619	USB Calliope KB BK SPA
00XH621	USB Calliope KB BK SWS
00XH622	USB Calliope KB BK THAI
00XH624	USB Calliope KB BK TUR
00XH625	USB Calliope KB BK UKE
00XH626	USB Calliope KB BK EURO ENG
00XH627	USB Calliope KB BK SLV
00XH630	USB Calliope KB BK IND ENG
00XH633	USB Calliope KB BK NORDIC
00XH635	USB Calliope KB BK CAN ENG/FRA
00XH637	USB,Calliope,KB,WH,ENG
00XH638	USB,Calliope,KB,WH,ARA
00XH641	USB,Calliope,KB,WH,BEL ENG

Table 1. AIO 510–22ASR FRU list (continued)

00XH643	USB,Calliope,KB,WH,BUL
00XH644	USB,Calliope,KB,WH,TC/ENG
00XH645	USB,Calliope,KB,WH,CZE
00XH648	USB,Calliope,KB,WH,FRA
00XH651	USB,Calliope,KB,WH,GER
00XH652	USB,Calliope,KB,WH,GRE
00XH654	USB,Calliope,KB,WH,HBW
00XH655	USB,Calliope,KB,WH,HUN
00XH657	USB,Calliope,KB,WH,ITA
00XH658	USB,Calliope,KB,WH,JPN
00XH660	USB,Calliope,KB,WH,KOR
00XH661	USB Calliope KB WH LA SPA
00XH664	USB,Calliope,KB,WH,POR
00XH666	USB,Calliope,KB,WH,RUS
00XH668	USB,Calliope,KB,WH,SLK
00XH669	USB,Calliope,KB,WH,SPA
00XH671	USB,Calliope,KB,WH,SWS
00XH672	USB,Calliope,KB,WH,THAI
00XH674	USB,Calliope,KB,WH,TUR
00XH675	USB,Calliope,KB,WH,UKE
00XH676	USB,Calliope,KB,WH,EURO,ENG
00XH677	USB,Calliope,KB,WH,SLV
00XH680	USB,Calliope,KB,WH,IND,ENG
00XH683	USB,Calliope,KB,WH,NORDIC
00XH685	USB,Calliope,KB,WH,CAN,ENG/FRA
01AH627	Liteon 2.4G Black SK-8861 US
01AH628	Liteon 2.4G Black SK-8861 US-MY
01AH629	Liteon 2.4G Black SK-8861 TW
01AH630	Liteon 2.4G Black SK-8861 TH
01AH631	Liteon 2.4G Black SK-8861 CS-SK
01AH632	Liteon 2.4G Black SK-8861 US-IN
01AH633	Liteon 2.4G Black SK-8861 RU
01AH634	Liteon 2.4G Black SK-8861 GB
01AH635	Liteon 2.4G Black SK-8861 Nordic
01AH636	Liteon 2.4G Black SK-8861 LA
01AH637	Liteon 2.4G Black SK-8861 LA-AR
01AH638	Liteon 2.4G Black SK-8861 SA
01AH639	Liteon 2.4G Black SK-8861 CH
01AH640	Liteon 2.4G Black SK-8861 DE

Table 1. AIO 510–22ASR FRU list (continued)

01AH641	Liteon 2.4G Black SK-8861 TR
01AH642	Liteon 2.4G Black SK-8861 ES
01AH643	Liteon 2.4G Black SK-8861 SL
01AH644	Liteon 2.4G Black SK-8861 IT
01AH645	Liteon 2.4G Black SK-8861 IL
01AH646	Liteon 2.4G Black SK-8861 FR
01AH647	Liteon 2.4G Black SK-8861 GR
01AH648	Liteon 2.4G Black SK-8861 HU
01AH649	Liteon 2.4G Black SK-8861 BG
01AH650	Liteon 2.4G Black SK-8861 KR
01AH651	Liteon 2.4G Black SK-8861 JP
01AH652	Liteon 2.4G Black SK-8861 EN-FR
01AH653	Liteon 2.4G Black SK-8861 PT
01AH654	Liteon 2.4G Black SK-8861 BE-EN
01AH655	Liteon 2.4G Black SK-8861 US-EU
FAN	
00XD821	Sysfan for QT 90x15mm
HDD_ASM	
00PC550	HDD,500G,7200,DT3,SATA3,STD
00PC551	HDD,1TB,7200,DT3,SATA3,STD
45K0623	HDD,1TB,7200,DT3,SATA3,STD
45K0629	HDD,500G,7200,DT3,SATA3,STD
HEATSINK	
01EF355	FRU UMA Thermal Module
01EF356	FRU DIS Thermal Module
KYB_MOUSE	
25210987	Liteon SK-8861(US) 2.4G KB-White8
25210988	Liteon SK-8861(US-MY) 2.4G KB-White8
25210989	Liteon SK-8861(TW) 2.4G KB-White8
25210990	Liteon SK-8861(TH) 2.4G KB-White8
25210991	Liteon SK-8861(CS-SK) 2.4G KB-White8
25210992	Liteon SK-8861(US-IN) 2.4G KB-White8
25210993	Liteon SK-8861(RU) 2.4G KB-White8
25210994	Liteon SK-8861(GB) 2.4G KB-White8
25210995	Liteon SK-8861(Nordic) 2.4G KB-White8
25210996	Liteon SK-8861(LA) 2.4G KB-White8
25210997	Liteon SK-8861(LA-AR) 2.4G KB-White8
25210998	Liteon SK-8861(SA) 2.4G KB-White8
25210999	Liteon SK-8861(CH) 2.4G KB-White8

Table 1. AIO 510–22ASR FRU list (continued)

25211000	Liteon SK-8861(DE) 2.4G KB-White8
25211001	Liteon SK-8861(TR) 2.4G KB-White8
25211002	Liteon SK-8861(ES) 2.4G KB-White8
25211003	Liteon SK-8861(SL) 2.4G KB-White8
25211004	Liteon SK-8861(IT) 2.4G KB-White8
25211005	Liteon SK-8861(IL) 2.4G KB-White8
25211006	Liteon SK-8861(FR) 2.4G KB-White8
25211007	Liteon SK-8861(GR) 2.4G KB-White8
25211008	Liteon SK-8861(HU) 2.4G KB-White8
25211009	Liteon SK-8861(BG) 2.4G KB-White8
25211010	Liteon SK-8861(KR) 2.4G KB-White8
25211011	Liteon SK-8861(JP) 2.4G KB-White8
25211012	Liteon SK-8861(EN-FR) 2.4G KB-White8
25211013	Liteon SK-8861(PT) 2.4G KB-White8
25211014	Liteon SK-8861(BE-EN) 2.4G KB-White8
25211015	Liteon SK-8861(US-EU) 2.4G KB-White8
25211016	Liteon SM-8861(WW) 2.4G Mouse White
25211017	Liteon SM-8861 2.4G Mouse(No Battery)WTE
LINECORD	
31503352	LX(ASAP) 1.0M C5 UK power cord
31503353	LX(ASAP) 1.0M C5 India power cord
31503354	LX(ASAP) 1.0M C5 Taiwan power cord
31503355	LX(ASAP) 1.0M C5 South Africa power cord
31503356	LX(ASAP) 1.0M C5 Argentina power cord
31503357	LX(ASAP) 1.0M C5 Brazil power cord
31503358	LX(ASAP) 1.0M C5 Korea power cord
31503359	LX(ASAP) 1.0M C5 Italy power cord
31503360	LX(ASAP) 1.0M C5 Danmark power cord
31503361	LX(ASAP) 1.0M C5 Switzerland power cord
31503362	LX(ASAP) 1.0M C5 Israel power cord
31503423	Longwell 1.0M C5 2pin Japan power cord
31503424	Volex 1.0M C5 2pin Japan power cord
31503425	LS 1.0M C5 2pin Japan power cord
00XL002	Fru, JP,Anti-TR,1M,2P,NON-LH
00XL003	Fru, JP,Anti-TR,1M,2P,NON-LH
00XL051	Fru,US/CA,1M,3P,NON-LH
00XL052	Fru, US/CA,1M,3P,NON-LH
00XL053	Fru, US/CA,1M,3P,NON-LH
00XL057	Fru, LINECORD,AR,1M,3P,NON-LH

Table 1. AIO 510–22ASR FRU list (continued)

00XL058	Fru, LINECORD,AR,1M,3P,NON-LH
00XL059	Fru, LINECORD,AR,1M,3P,NON-LH
00XL060	Fru, LINECORD,BR,1M,3P,NON-LH
00XL061	Fru, LINECORD,BR,1M,3P,NON-LH
00XL062	Fru, LINECORD,BR,1M,3P,NON-LH
00XL063	Fru, EU/KR,1M,3P,NON-LH
00XL064	Fru, EU/KR,1M,3P,NON-LH
00XL065	Fru, EU/KR,1M,3P,NON-LH
00XL066	Fru, LINECORD,DK,1M,3P,NON-LH
00XL067	Fru, LINECORD,DK,1M,3P,NON-LH
00XL068	Fru, LINECORD,DK,1M,3P,NON-LH
00XL069	Fru, LINECORD,CH,1M,3P,NON-LH
00XL070	Fru, LINECORD,CH,1M,3P,NON-LH
00XL071	Fru, LINECORD,CH,1M,3P,NON-LH
00XL072	Fru, LINECORD,IT,1M,3P,NON-LH
00XL073	Fru, LINECORD,IT,1M,3P,NON-LH
00XL074	Fru, LINECORD,IT,1M,3P,NON-LH
00XL075	Fru, LINECORD,GB,1M,3P,NON-LH
00XL076	Fru, LINECORD,GB,1M,3P,NON-LH
00XL077	Fru, LINECORD,GB,1M,3P,NON-LH
00XL078	Fru, LINECORD,AU,1M,3P,NON-LH
00XL079	Fru, LINECORD,AU,1M,3P,NON-LH
00XL080	Fru, LINECORD,AU,1M,3P,NON-LH
00XL081	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL082	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL083	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL084	Fru, LINECORD,IL,1M,3P,NON-LH
00XL085	Fru, LINECORD,IL,1M,3P,NON-LH
00XL086	Fru, LINECORD,IL,1M,3P,NON-LH
00XL089	Fru, LINECORD,CN,1M,3P,NON-LH
00XL090	Fru, LINECORD,CN,1M,3P,NON-LH
00XL091	Fru, LINECORD,TW,1M,3P,NON-LH
00XL092	Fru, LINECORD,TW,1M,3P,NON-LH
00XL093	Fru, LINECORD,TW,1M,3P,NON-LH
00XL094	Fru, LINECORD,IN,1M,3P,NON-LH
00XL096	Fru, LINECORD,IN,1M,3P,NON-LH
00XL097	Fru, LINECORD,TH,1M,3P,NON-LH
5L60J33143	lux 0014+H03VV-F 0.75/3C+0011
MECH_ASM	

Table 1. AIO 510–22ASR FRU list (continued)

01EF402	GT Stand light silver C4/5
01EF403	GT Stand deep silver C4/5
01EF404	Stronkin Stand light silver
01EF405	Stronkin Stand deep silver
01EF415	HDD CAGE
01EF416	ASSY Shielding for HDD
01EF417	ASSY Frame for MB_ASR
01EF418	MB SHIELDING,W/HDMI
01EF431	ASSY Mid Cover, Black, C4 ASR
01EF432	ASSY Mid Cover, White, C4 ASR
01EF435	ASSY Panel housing_ASR, white
01EF436	ASSY Panel housing_ASR, black
01EF439	ODD Bezel Black,C4
01EF440	ODD Bezel White,C4
01AG958	Display LGD LM215WF9-SSA1 NT
00XL297	C4 21.5" Non-AIT BL cable
01AG959	Display BOE MV215FHM-N40 NT
00XL297	C4 21.5" Non-AIT BL cable
01AG960	Display LGD LM215WFA-SSA1 Touch
00XL296	C4 21.5" LG AIT BL cable
00XJ056	C4C5S5 Touch cable
01AG955	FRU Panel LGD LM230WF9-SSA2 NT
00XL300	C5S5 23" Non-AIT BL cable
01AG956	FRU Panel BOE MV230FHM-N20 NT
00XL300	C5S5 23" Non-AIT BL cable
01AG957	Display LGD LM230WF7-SSB1 Touch
00XL299	C5S5 23" LG AIT BL cable
00XJ056	C4C5S5 Touch cable
01EF444	FRONT COVER,NON-CAM Black C4
01EF445	FRONT COVER,NON-CAM WHITE C4
01EF446	FRONT COVER,W/CAM Black C4
01EF447	FRONT COVER,W/CAM WHITE C4
01EF471	DUMMY ODD Bezel Black,C4
01EF472	DUMMY ODD Bezel White,C4
01EF473	MB SHIELDING,WO/HDMI
MECHANICAL	
01EF422	Rubber, For speaker lock
01EF448	Cover, Side IO Cover,White
01EF449	Cover, Side IO Cover,Black

Table 1. AIO 510–22ASR FRU list (continued)

01EF450	SPONGE, For Front housing, C4
01EF457	Bracket, For kensinton lock
01EF458	Bracket, For camera module
01EF459	Bracket, For Panel,C5
01EF469	Bracket,For WIFI Antenna Kit
01EF537	Bracket Latch, For ODD
MEMORY	
01AG700	2GB DDR4 2400 SoDIMM
01AG701	4GB DDR4 2400 SoDIMM
01AG704	2GB DDR4 2400 SoDIMM
01AG705	2GB DDR4 2400 SoDIMM
01AG706	2GB DDR4 2400 SoDIMM
01AG707	4GB DDR4 2400 SoDIMM
01AG708	4GB DDR4 2400 SoDIMM
01AG709	4GB DDR4 2400 SoDIMM
01AG710	8GB DDR4 2400 SoDIMM
01AG711	8GB DDR4 2400 SoDIMM
01AG712	8GB DDR4 2400 SoDIMM
MICROPHONE	
01AH402	AIO 510 Microphone
MOUSE	
00PH131	USB Calliope Mouse Black(Orange wh
00PH132	USB,Calliope,Mouse,White
00UW408	Liteon SM-8861(WW) Mouse Black
01AH700	Liteon SM-8861(WW) Mouse Black
OPT_DRIVE	
00FC442	SMD,DT,SATA,9.5mm,x8,w/o bezel
SPEAKERINT	
01AH925	AIO 510 speaker
WIRELESS	
00JT482	Wireless,CMB,CBT,8821AE
01AX709	Wireless,CMB,LTN,NFA435A

Table 2. AIO 510–22ISH FRU list

FRU P/N	Description
AC_ADAPTER	
00PC727	AC_ADAPTER,120W,100-240Vac,3P
ANTENNA	
00XJ086	C4C5 antenna

Table 2. AIO 510–22ISH FRU list (continued)

BDPLANAR	
00UW358	MB UMA NO DPK
00UW359	MB UMA WIN DPK
00UW360	MB M435 1G NO DPK
00UW361	MB M435 1G WIN DPK
00UW362	MB M435 2G NO DPK
00UW363	MB M435 2G WIN DPK
00UW364	MB,UMA,HDMI IN,NO DPK
00UW365	MB,UMA,HDMI IN,WIN DPK
CABLE	
31032953	GS BLK1.0m3wire CCC power cord(R)
31033857	LW BLK1.0m3wire ULCSA power cord(R)
31033858	VL BLK1.0m3wire ULCSA power cord(R)
31035332	LW BLK 1.0m VDE power cord(R)
31035395	LW BLK 1.0m India power cord(R)
31035396	LW BLK 1.0m UK power cord(R)
31035397	LW BLK 1.0m ANZ power cord(R)
31035828	LW BLK 1.0m Brazil power cord(R)
31038885	LW BLK 1.0m Taiwan C5 power cord(R)
31039100	LW BLK 1.0m Argentina C5 power cord(R)
31039101	LW BLK 1.0m Denmark C5 power cord(R)
31039103	LW BLK 1.0m Switzerland C5 power cord(R)
31039104	LW BLK 1.0m Italy C5 power cord(R)
31039105	LW BLK 1.0m SA C5 power cord(R)
31039106	LW BLK 1.0m Korea C5 power cord(R)
31039107	LW BLK 1.0m Israel C5 power cord(R)
31045147	LX(ASAP) 1.0M C5 CCC power cord
31049496	Volex 1.0M C5 UK power cord
31049497	Volex 1.0M C5 EU power cord
31049498	Volex 1.0M C5 KOR power cord
31049499	Volex 1.0M C5 TW power cord
31049500	Volex 1.0M C5 ANZ power cord
31049501	Volex 1.0M C5 SA power cord
31049502	Volex 1.0M C5 ISI power cord
31049503	Volex 1.0M C5 DEN power cord
31049504	Volex 1.0M C5 ITY power cord
31049505	Volex 1.0M C5 BR power cord
31049507	Volex 1.0M C5 LA power cord
31049508	Volex 1.0M C5 SWI power cord

Table 2. AIO 510–22ISH FRU list (continued)

31049517	LX(ASAP) 1.0M C5 UL power cord
31049518	LX(ASAP) 1.0M C5 EU power cord
31049520	LX(ASAP) 1.0M C5 ANZ power cord
00XJ043	C4C5 HDD SATA cable
00XJ045	C4 ODD SATA cable
00XJ049	C4C5 Power board FFC
00XJ051	C4 LVDS cable
00XJ053	C4C5S5 Camera cable
00XJ055	C4C5S5 MIC cable
00XJ056	C4C5S5 Touch cable
CAMERA	
01AH324	AIO 510 720P Cam
COVER	
01EF427	Rear Cover Black,nHDMI In,C4
01EF428	Rear Cover White,nHDMI In,C4
01EF429	Rear Cover Black,HDMI In,C4
01EF430	Rear Cover White,HDMI In,C4
DT_KYB	
00UW407	Liteon SK-8861 2.4G KB(BR)-BLK
00XH587	USB Calliope KB BK ENG
00XH588	USB Calliope KB BK ARA
00XH591	USB,Calliope,KB,BK,BEL ENG
00XH593	USB Calliope KB BK BUL
00XH594	USB Calliope KB BK TC/ENG
00XH595	USB Calliope KB BK CZE
00XH598	USB Calliope KB BK FRA
00XH601	USB Calliope KB BK GER
00XH602	USB Calliope KB BK GRE
00XH604	USB Calliope KB BK HBW
00XH605	USB Calliope KB BK HUN
00XH607	USB Calliope KB BK ITA
00XH608	USB Calliope KB BK JPN
00XH610	USB Calliope KB BK KOR
00XH611	USB,Calliope,KB,BK,LA SPA
00XH614	USB Calliope KB BK POR
00XH616	USB Calliope KB BK RUS
00XH618	USB Calliope KB BK SLK
00XH619	USB Calliope KB BK SPA
00XH621	USB Calliope KB BK SWS

Table 2. AIO 510–22ISH FRU list (continued)

00XH622	USB Calliope KB BK THAI
00XH624	USB Calliope KB BK TUR
00XH625	USB Calliope KB BK UKE
00XH626	USB Calliope KB BK EURO ENG
00XH627	USB Calliope KB BK SLV
00XH630	USB Calliope KB BK IND ENG
00XH633	USB Calliope KB BK NORDIC
00XH635	USB Calliope KB BK CAN ENG/FRA
00XH637	USB,Calliope,KB,WH,ENG
00XH638	USB,Calliope,KB,WH,ARA
00XH641	USB,Calliope,KB,WH,BEL ENG
00XH643	USB,Calliope,KB,WH,BUL
00XH644	USB,Calliope,KB,WH,TC/ENG
00XH645	USB,Calliope,KB,WH,CZE
00XH648	USB,Calliope,KB,WH,FRA
00XH651	USB,Calliope,KB,WH,GER
00XH652	USB,Calliope,KB,WH,GRE
00XH654	USB,Calliope,KB,WH,HBW
00XH655	USB,Calliope,KB,WH,HUN
00XH657	USB,Calliope,KB,WH,ITA
00XH658	USB,Calliope,KB,WH,JPN
00XH660	USB,Calliope,KB,WH,KOR
00XH661	USB Calliope KB WH LA SPA
00XH664	USB,Calliope,KB,WH,POR
00XH666	USB,Calliope,KB,WH,RUS
00XH668	USB,Calliope,KB,WH,SLK
00XH669	USB,Calliope,KB,WH,SPA
00XH671	USB,Calliope,KB,WH,SWS
00XH672	USB,Calliope,KB,WH,THAI
00XH674	USB,Calliope,KB,WH,TUR
00XH675	USB,Calliope,KB,WH,UKE
00XH676	USB,Calliope,KB,WH,EURO,ENG
00XH677	USB,Calliope,KB,WH,SLV
00XH680	USB,Calliope,KB,WH,IND,ENG
00XH683	USB,Calliope,KB,WH,NORDIC
00XH685	USB,Calliope,KB,WH,CAN,ENG/FRA
01AH627	Liteon 2.4G Black SK-8861 US
01AH628	Liteon 2.4G Black SK-8861 US-MY
01AH629	Liteon 2.4G Black SK-8861 TW

Table 2. AIO 510–22ISH FRU list (continued)

01AH630	Liteon 2.4G Black SK-8861 TH
01AH631	Liteon 2.4G Black SK-8861 CS-SK
01AH632	Liteon 2.4G Black SK-8861 US-IN
01AH633	Liteon 2.4G Black SK-8861 RU
01AH634	Liteon 2.4G Black SK-8861 GB
01AH635	Liteon 2.4G Black SK-8861 Nordic
01AH636	Liteon 2.4G Black SK-8861 LA
01AH637	Liteon 2.4G Black SK-8861 LA-AR
01AH638	Liteon 2.4G Black SK-8861 SA
01AH639	Liteon 2.4G Black SK-8861 CH
01AH640	Liteon 2.4G Black SK-8861 DE
01AH641	Liteon 2.4G Black SK-8861 TR
01AH642	Liteon 2.4G Black SK-8861 ES
01AH643	Liteon 2.4G Black SK-8861 SL
01AH644	Liteon 2.4G Black SK-8861 IT
01AH645	Liteon 2.4G Black SK-8861 IL
01AH646	Liteon 2.4G Black SK-8861 FR
01AH647	Liteon 2.4G Black SK-8861 GR
01AH648	Liteon 2.4G Black SK-8861 HU
01AH649	Liteon 2.4G Black SK-8861 BG
01AH650	Liteon 2.4G Black SK-8861 KR
01AH651	Liteon 2.4G Black SK-8861 JP
01AH652	Liteon 2.4G Black SK-8861 EN-FR
01AH653	Liteon 2.4G Black SK-8861 PT
01AH654	Liteon 2.4G Black SK-8861 BE-EN
01AH655	Liteon 2.4G Black SK-8861 US-EU
FAN	
00XD814	Sysfan for Mutuo_P9 110x15mm
HDD_ASM	
00PC550	HDD,500G,7200,DT3,SATA3,STD
00PC551	HDD,1TB,7200,DT3,SATA3,STD
45K0623	HDD,1TB,7200,DT3,SATA3,STD
45K0629	HDD,500G,7200,DT3,SATA3,STD
HEATSINK	
01EF353	UMA Thermal Module
01EF354	DIS Thermal Module
KYB_MOUSE	
25210987	Liteon SK-8861(US) 2.4G KB-White8
25210988	Liteon SK-8861(US-MY) 2.4G KB-White8

Table 2. AIO 510–22ISH FRU list (continued)

25210989	Liteon SK-8861(TW) 2.4G KB-White8
25210990	Liteon SK-8861(TH) 2.4G KB-White8
25210991	Liteon SK-8861(CS-SK) 2.4G KB-White8
25210992	Liteon SK-8861(US-IN) 2.4G KB-White8
25210993	Liteon SK-8861(RU) 2.4G KB-White8
25210994	Liteon SK-8861(GB) 2.4G KB-White8
25210995	Liteon SK-8861(Nordic) 2.4G KB-White8
25210996	Liteon SK-8861(LA) 2.4G KB-White8
25210997	Liteon SK-8861(LA-AR) 2.4G KB-White8
25210998	Liteon SK-8861(SA) 2.4G KB-White8
25210999	Liteon SK-8861(CH) 2.4G KB-White8
25211000	Liteon SK-8861(DE) 2.4G KB-White8
25211001	Liteon SK-8861(TR) 2.4G KB-White8
25211002	Liteon SK-8861(ES) 2.4G KB-White8
25211003	Liteon SK-8861(SL) 2.4G KB-White8
25211004	Liteon SK-8861(IT) 2.4G KB-White8
25211005	Liteon SK-8861(IL) 2.4G KB-White8
25211006	Liteon SK-8861(FR) 2.4G KB-White8
25211007	Liteon SK-8861(GR) 2.4G KB-White8
25211008	Liteon SK-8861(HU) 2.4G KB-White8
25211009	Liteon SK-8861(BG) 2.4G KB-White8
25211010	Liteon SK-8861(KR) 2.4G KB-White8
25211011	Liteon SK-8861(JP) 2.4G KB-White8
25211012	Liteon SK-8861(EN-FR) 2.4G KB-White8
25211013	Liteon SK-8861(PT) 2.4G KB-White8
25211014	Liteon SK-8861(BE-EN) 2.4G KB-White8
25211015	Liteon SK-8861(US-EU) 2.4G KB-White8
25211016	Liteon SM-8861(WW) 2.4G Mouse White
25211017	Liteon SM-8861 2.4G Mouse(No Battery)WTE
25211018	Liteon SM-8861 2.4G Mouse(MY) White
25211019	Liteon SM-8861 2.4G Mouse(JP) White
LINECORD	
31503352	LX(ASAP) 1.0M C5 UK power cord
31503353	LX(ASAP) 1.0M C5 India power cord
31503354	LX(ASAP) 1.0M C5 Taiwan power cord
31503355	LX(ASAP) 1.0M C5 South Africa power cord
31503356	LX(ASAP) 1.0M C5 Argentina power cord
31503357	LX(ASAP) 1.0M C5 Brazil power cord
31503358	LX(ASAP) 1.0M C5 Korea power cord

Table 2. AIO 510–22ISH FRU list (continued)

31503359	LX(ASAP) 1.0M C5 Italy power cord
31503360	LX(ASAP) 1.0M C5 Danmark power cord
31503361	LX(ASAP) 1.0M C5 Switzerland power cord
31503362	LX(ASAP) 1.0M C5 Israel power cord
31503423	Longwell 1.0M C5 2pin Japan power cord
31503424	Volex 1.0M C5 2pin Japan power cord
31503425	LS 1.0M C5 2pin Japan power cord
00XL002	Fru, JP,Anti-TR,1M,2P,NON-LH
00XL003	Fru, JP,Anti-TR,1M,2P,NON-LH
00XL051	Fru,US/CA,1M,3P,NON-LH
00XL052	Fru, US/CA,1M,3P,NON-LH
00XL053	Fru, US/CA,1M,3P,NON-LH
00XL057	Fru, LINECORD,AR,1M,3P,NON-LH
00XL058	Fru, LINECORD,AR,1M,3P,NON-LH
00XL059	Fru, LINECORD,AR,1M,3P,NON-LH
00XL060	Fru, LINECORD,BR,1M,3P,NON-LH
00XL061	Fru, LINECORD,BR,1M,3P,NON-LH
00XL062	Fru, LINECORD,BR,1M,3P,NON-LH
00XL063	Fru, EU/KR,1M,3P,NON-LH
00XL064	Fru, EU/KR,1M,3P,NON-LH
00XL065	Fru, EU/KR,1M,3P,NON-LH
00XL066	Fru, LINECORD,DK,1M,3P,NON-LH
00XL067	Fru, LINECORD,DK,1M,3P,NON-LH
00XL068	Fru, LINECORD,DK,1M,3P,NON-LH
00XL069	Fru, LINECORD,CH,1M,3P,NON-LH
00XL070	Fru, LINECORD,CH,1M,3P,NON-LH
00XL071	Fru, LINECORD,CH,1M,3P,NON-LH
00XL072	Fru, LINECORD,IT,1M,3P,NON-LH
00XL073	Fru, LINECORD,IT,1M,3P,NON-LH
00XL074	Fru, LINECORD,IT,1M,3P,NON-LH
00XL075	Fru, LINECORD,GB,1M,3P,NON-LH
00XL076	Fru, LINECORD,GB,1M,3P,NON-LH
00XL077	Fru, LINECORD,GB,1M,3P,NON-LH
00XL078	Fru, LINECORD,AU,1M,3P,NON-LH
00XL079	Fru, LINECORD,AU,1M,3P,NON-LH
00XL080	Fru, LINECORD,AU,1M,3P,NON-LH
00XL081	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL082	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL083	Fru, LINECORD,ZA,1M,3P,NON-LH

Table 2. AIO 510–22ISH FRU list (continued)

00XL084	Fru, LINECORD,IL,1M,3P,NON-LH
00XL085	Fru, LINECORD,IL,1M,3P,NON-LH
00XL086	Fru, LINECORD,IL,1M,3P,NON-LH
00XL089	Fru, LINECORD,CN,1M,3P,NON-LH
00XL090	Fru, LINECORD,CN,1M,3P,NON-LH
00XL091	Fru, LINECORD,TW,1M,3P,NON-LH
00XL092	Fru, LINECORD,TW,1M,3P,NON-LH
00XL093	Fru, LINECORD,TW,1M,3P,NON-LH
00XL094	Fru, LINECORD,IN,1M,3P,NON-LH
00XL096	Fru, LINECORD,IN,1M,3P,NON-LH
00XL097	Fru, LINECORD,TH,1M,3P,NON-LH
5L60J33143	lux 0014+H03VV-F 0.75/3C+0011
MECH_ASM	
01EF402	GT Stand light silver C4/5
01EF403	GT Stand deep silver C4/5
01EF404	Stronkin Stand light silver
01EF405	Stronkin Stand deep silver
01EF415	HDD CAGE
01EF416	ASSY Shielding for HDD
01EF418	MB SHIELDING,W/HDMI
01EF433	ASSY Mid Cover, Black,C4 ISH
01EF434	ASSY Mid Cover, White,C4 ISH
01EF437	ASSY Panel housing_ISH,white
01EF438	ASSY Panel housing_ISH,black
01EF439	ODD Bezel Black,C4
01EF440	ODD Bezel White,C4
01AG958	Display LGD LM215WF9-SSA1 NT
00XL297	C4 21.5" Non-AIT BL cable
01AG959	Display BOE MV215FHM-N40 NT
00XL297	C4 21.5" Non-AIT BL cable
01AG960	Display LGD LM215WFA-SSA1 Touch
00XL296	C4 21.5" LG AIT BL cable
00XJ056	C4C5S5 Touch cable
01AG955	FRU Panel LGD LM230WF9-SSA2 NT
00XL300	C5S5 23" Non-AIT BL cable
01AG956	FRU Panel BOE MV230FHM-N20 NT
00XL300	C5S5 23" Non-AIT BL cable
01AG957	Display LGD LM230WF7-SSB1 Touch
00XL299	C5S5 23" LG AIT BL cable

Table 2. AIO 510–22ISH FRU list (continued)

00XJ056	C4C5S5 Touch cable
01EF444	FRONT COVER,NON-CAM Black C4
01EF445	FRONT COVER,NON-CAM WHITE C4
01EF446	FRONT COVER,W/CAM Black C4
01EF447	FRONT COVER,W/CAM WHITE C4
01EF464	ASSY Frame for MB_ISH
01EF471	DUMMY ODD Bezel Black,C4
01EF472	DUMMY ODD Bezel White,C4
01EF473	MB SHIELDING,WO/HDMI
MECHANICAL	
01EF422	Rubber, For speaker lock
01EF448	Cover, Side IO Cover,White
01EF449	Cover, Side IO Cover,Black
01EF450	SPONGE, For Front housing, C4
01EF457	Bracket, For kensinton lock
01EF458	Bracket, For camera module
01EF459	Bracket, For Panel,C5
01EF469	Bracket,For WIFI Antenna Kit
01EF537	Bracket Latch, For ODD
MEMORY	
01AG700	2GB DDR4 2400 SoDIMM
01AG701	4GB DDR4 2400 SoDIMM
01AG704	2GB DDR4 2400 SoDIMM
01AG705	2GB DDR4 2400 SoDIMM
01AG706	2GB DDR4 2400 SoDIMM
01AG707	4GB DDR4 2400 SoDIMM
01AG708	4GB DDR4 2400 SoDIMM
01AG709	4GB DDR4 2400 SoDIMM
01AG710	8GB DDR4 2400 SoDIMM
01AG711	8GB DDR4 2400 SoDIMM
01AG712	8GB DDR4 2400 SoDIMM
MICROPHONE	
01AH402	AIO 510 Microphone
MOUSE	
00PH131	USB Calliope Mouse Black(Orange wh
00PH132	USB,Calliope,Mouse,White
00UW408	Liteon SM-8861(WW) Mouse Black
01AH700	Liteon SM-8861(WW) Mouse Black
01AH701	Liteon SM-8861 Mouse(MY) Black

Table 2. AIO 510–22ISH FRU list (continued)

01AH702	Liteon SM-8861(JP) Mouse-Black
OPT_DRIVE	
00FC442	SMD,DT,SATA,9.5mm,x8,w/o bezel
SP	
00XG111	Intel Core i3-6100T 3.2GHz 35W
00XG113	Intel Celeron G3900T 2.6GHz 35W
00XG114	Intel Pentium G4400T 2.9GHz 35W
01AG005	I I5-6400T 2.2GHz/4C/6M 35W
01AG047	I I5-6400T 2.2GHz/4C/6M 35W
SPEAKERINT	
01AH925	AIO 510 speaker
SSD_ASM	
00JT086	128G,M.2,2280,SATA6G,LTON,STD
00UP420	128G,M.2,2280,SATA6G,SAMSG,STD
WIRELESS	
00JT482	Wireless,CMB,CBT,8821AE
00JT497	Wireless,CMB,IN,3165 ac

Table 3. AIO 510–23ASR FRU list

FRU P/N	Description
AC_ADAPTER	
00PC726	AC_ADAPTER,90W,100-240Vac,3P
00PC727	AC_ADAPTER,120W,100-240Vac,3P
ANTENNA	
00XJ086	C4C5 antenna
BDPLANAR	
00UW366	MB AMD A9-941 UMA NO DPK
00UW367	MB AMD A9-941 UMA WIN DPK
00UW368	MB AMD A6-921 UMA NO DPK
00UW369	MB AMD A6-921 UMA WIN DPK
00UW370	MB AMD E2-901 UMA NO DPK
00UW371	MB AMD E2-901 UMA WIN DPK
00UW372	MB AMD A9-941 M435 2G NO DPK
00UW373	MB AMD A9-941 M435 2G WIN DPK
00UW374	MB AMD A6-921 M435 2G NO DPK
00UW375	MB AMD A6-921 M435 2G WIN DPK
CABLE	
31032953	GS BLK1.0m3wire CCC power cord(R)
31033857	LW BLK1.0m3wire ULCSA power cord(R)

Table 3. AIO 510–23ASR FRU list (continued)

31033858	VL BLK1.0m3wire ULCSA power cord(R)
31035332	LW BLK 1.0m VDE power cord(R)
31035395	LW BLK 1.0m India power cord(R)
31035396	LW BLK 1.0m UK power cord(R)
31035397	LW BLK 1.0m ANZ power cord(R)
31035828	LW BLK 1.0m Brazil power cord(R)
31038885	LW BLK 1.0m Taiwan C5 power cord(R)
31039100	LW BLK 1.0m Argentina C5 power cord(R)
31039101	LW BLK 1.0m Denmark C5 power cord(R)
31039103	LW BLK 1.0m Switzerland C5 power cord(R)
31039104	LW BLK 1.0m Italy C5 power cord(R)
31039105	LW BLK 1.0m SA C5 power cord(R)
31039106	LW BLK 1.0m Korea C5 power cord(R)
31039107	LW BLK 1.0m Israel C5 power cord(R)
31045147	LX(ASAP) 1.0M C5 CCC power cord
31049496	Volex 1.0M C5 UK power cord
31049497	Volex 1.0M C5 EU power cord
31049498	Volex 1.0M C5 KOR power cord
31049499	Volex 1.0M C5 TW power cord
31049500	Volex 1.0M C5 ANZ power cord
31049501	Volex 1.0M C5 SA power cord
31049502	Volex 1.0M C5 ISI power cord
31049503	Volex 1.0M C5 DEN power cord
31049504	Volex 1.0M C5 ITY power cord
31049505	Volex 1.0M C5 BR power cord
31049507	Volex 1.0M C5 LA power cord
31049508	Volex 1.0M C5 SWI power cord
31049517	LX(ASAP) 1.0M C5 UL power cord
31049518	LX(ASAP) 1.0M C5 EU power cord
31049520	LX(ASAP) 1.0M C5 ANZ power cord
00XJ043	C4C5 HDD SATA cable
00XJ046	C5 ODD SATA cable
00XJ049	C4C5 Power board FFC
00XJ052	C5S5 LVDS cable
00XJ053	C4C5S5 Camera cable
00XJ055	C4C5S5 MIC cable
00XJ056	C4C5S5 Touch cable
DT_KYB	
00UW407	Liteon SK-8861 2.4G KB(BR)-BLK

Table 3. AIO 510–23ASR FRU list (continued)

00XH587	USB Calliope KB BK ENG
00XH588	USB Calliope KB BK ARA
00XH591	USB,Calliope,KB,BK,BEL ENG
00XH593	USB Calliope KB BK BUL
00XH594	USB Calliope KB BK TC/ENG
00XH595	USB Calliope KB BK CZE
00XH598	USB Calliope KB BK FRA
00XH601	USB Calliope KB BK GER
00XH602	USB Calliope KB BK GRE
00XH604	USB Calliope KB BK HBW
00XH605	USB Calliope KB BK HUN
00XH607	USB Calliope KB BK ITA
00XH608	USB Calliope KB BK JPN
00XH610	USB Calliope KB BK KOR
00XH611	USB,Calliope,KB,BK,LA SPA
00XH614	USB Calliope KB BK POR
00XH616	USB Calliope KB BK RUS
00XH618	USB Calliope KB BK SLK
00XH619	USB Calliope KB BK SPA
00XH621	USB Calliope KB BK SWS
00XH622	USB Calliope KB BK THAI
00XH624	USB Calliope KB BK TUR
00XH625	USB Calliope KB BK UKE
00XH626	USB Calliope KB BK EURO ENG
00XH627	USB Calliope KB BK SLV
00XH630	USB Calliope KB BK IND ENG
00XH633	USB Calliope KB BK NORDIC
00XH635	USB Calliope KB BK CAN ENG/FRA
00XH637	USB,Calliope,KB,WH,ENG
00XH638	USB,Calliope,KB,WH,ARA
00XH641	USB,Calliope,KB,WH,BEL ENG
00XH643	USB,Calliope,KB,WH,BUL
00XH644	USB,Calliope,KB,WH,TC/ENG
00XH645	USB,Calliope,KB,WH,CZE
00XH648	USB,Calliope,KB,WH,FRA
00XH651	USB,Calliope,KB,WH,GER
00XH652	USB,Calliope,KB,WH,GRE
00XH654	USB,Calliope,KB,WH,HBW
00XH655	USB,Calliope,KB,WH,HUN

Table 3. AIO 510–23ASR FRU list (continued)

00XH657	USB,Calliope,KB,WH,ITA
00XH658	USB,Calliope,KB,WH,JPN
00XH660	USB,Calliope,KB,WH,KOR
00XH661	USB Calliope KB WH LA SPA
00XH664	USB,Calliope,KB,WH,POR
00XH666	USB,Calliope,KB,WH,RUS
00XH668	USB,Calliope,KB,WH,SLK
00XH669	USB,Calliope,KB,WH,SPA
00XH671	USB,Calliope,KB,WH,SWS
00XH672	USB,Calliope,KB,WH,THAI
00XH674	USB,Calliope,KB,WH,TUR
00XH675	USB,Calliope,KB,WH,UKE
00XH676	USB,Calliope,KB,WH,EURO,ENG
00XH677	USB,Calliope,KB,WH,SLV
00XH680	USB,Calliope,KB,WH,IND,ENG
00XH683	USB,Calliope,KB,WH,NORDIC
00XH685	USB,Calliope,KB,WH,CAN,ENG/FRA
01AH627	Liteon 2.4G Black SK-8861 US
01AH628	Liteon 2.4G Black SK-8861 US-MY
01AH629	Liteon 2.4G Black SK-8861 TW
01AH630	Liteon 2.4G Black SK-8861 TH
01AH631	Liteon 2.4G Black SK-8861 CS-SK
01AH632	Liteon 2.4G Black SK-8861 US-IN
01AH633	Liteon 2.4G Black SK-8861 RU
01AH634	Liteon 2.4G Black SK-8861 GB
01AH635	Liteon 2.4G Black SK-8861 Nordic
01AH636	Liteon 2.4G Black SK-8861 LA
01AH637	Liteon 2.4G Black SK-8861 LA-AR
01AH638	Liteon 2.4G Black SK-8861 SA
01AH639	Liteon 2.4G Black SK-8861 CH
01AH640	Liteon 2.4G Black SK-8861 DE
01AH641	Liteon 2.4G Black SK-8861 TR
01AH642	Liteon 2.4G Black SK-8861 ES
01AH643	Liteon 2.4G Black SK-8861 SL
01AH644	Liteon 2.4G Black SK-8861 IT
01AH645	Liteon 2.4G Black SK-8861 IL
01AH646	Liteon 2.4G Black SK-8861 FR
01AH647	Liteon 2.4G Black SK-8861 GR
01AH648	Liteon 2.4G Black SK-8861 HU

Table 3. AIO 510–23ASR FRU list (continued)

01AH649	Liteon 2.4G Black SK-8861 BG
01AH650	Liteon 2.4G Black SK-8861 KR
01AH651	Liteon 2.4G Black SK-8861 JP
01AH652	Liteon 2.4G Black SK-8861 EN-FR
01AH653	Liteon 2.4G Black SK-8861 PT
01AH654	Liteon 2.4G Black SK-8861 BE-EN
01AH655	Liteon 2.4G Black SK-8861 US-EU
FAN	
00XD821	Sysfan for QT 90x15mm
HDD_ASM	
00PC550	HDD,500G,7200,DT3,SATA3,STD
00PC551	HDD,1TB,7200,DT3,SATA3,STD
00PC552	HDD,2TB,7200,DT3,SATA3,STD
45K0623	HDD,1TB,7200,DT3,SATA3,STD
45K0625	HDD,2TB,7200,DT3,SATA3,STD
45K0629	HDD,500G,7200,DT3,SATA3,STD
HEATSINK	
01EF355	FRU UMA Thermal Module
01EF356	FRU DIS Thermal Module
KYB_MOUSE	
25210987	Liteon SK-8861(US) 2.4G KB-White8
25210988	Liteon SK-8861(US-MY) 2.4G KB-White8
25210989	Liteon SK-8861(TW) 2.4G KB-White8
25210990	Liteon SK-8861(TH) 2.4G KB-White8
25210991	Liteon SK-8861(CS-SK) 2.4G KB-White8
25210992	Liteon SK-8861(US-IN) 2.4G KB-White8
25210993	Liteon SK-8861(RU) 2.4G KB-White8
25210994	Liteon SK-8861(GB) 2.4G KB-White8
25210995	Liteon SK-8861(Nordic) 2.4G KB-White8
25210996	Liteon SK-8861(LA) 2.4G KB-White8
25210997	Liteon SK-8861(LA-AR) 2.4G KB-White8
25210998	Liteon SK-8861(SA) 2.4G KB-White8
25210999	Liteon SK-8861(CH) 2.4G KB-White8
25211000	Liteon SK-8861(DE) 2.4G KB-White8
25211001	Liteon SK-8861(TR) 2.4G KB-White8
25211002	Liteon SK-8861(ES) 2.4G KB-White8
25211003	Liteon SK-8861(SL) 2.4G KB-White8
25211004	Liteon SK-8861(IT) 2.4G KB-White8
25211005	Liteon SK-8861(IL) 2.4G KB-White8

Table 3. AIO 510–23ASR FRU list (continued)

25211006	Liteon SK-8861(FR) 2.4G KB-White8
25211007	Liteon SK-8861(GR) 2.4G KB-White8
25211008	Liteon SK-8861(HU) 2.4G KB-White8
25211009	Liteon SK-8861(BG) 2.4G KB-White8
25211010	Liteon SK-8861(KR) 2.4G KB-White8
25211011	Liteon SK-8861(JP) 2.4G KB-White8
25211012	Liteon SK-8861(EN-FR) 2.4G KB-White8
25211013	Liteon SK-8861(PT) 2.4G KB-White8
25211014	Liteon SK-8861(BE-EN) 2.4G KB-White8
25211015	Liteon SK-8861(US-EU) 2.4G KB-White8
25211016	Liteon SM-8861(WW) 2.4G Mouse White
LINECORD	
31503352	LX(ASAP) 1.0M C5 UK power cord
31503353	LX(ASAP) 1.0M C5 India power cord
31503354	LX(ASAP) 1.0M C5 Taiwan power cord
31503355	LX(ASAP) 1.0M C5 South Africa power cord
31503356	LX(ASAP) 1.0M C5 Argentina power cord
31503357	LX(ASAP) 1.0M C5 Brazil power cord
31503358	LX(ASAP) 1.0M C5 Korea power cord
31503359	LX(ASAP) 1.0M C5 Italy power cord
31503360	LX(ASAP) 1.0M C5 Danmark power cord
31503361	LX(ASAP) 1.0M C5 Switzerland power cord
31503362	LX(ASAP) 1.0M C5 Israel power cord
31503423	Longwell 1.0M C5 2pin Japan power cord
31503424	Volex 1.0M C5 2pin Japan power cord
31503425	LS 1.0M C5 2pin Japan power cord
00XL002	Fru, JP,Anti-TR,1M,2P,NON-LH
00XL003	Fru, JP,Anti-TR,1M,2P,NON-LH
00XL051	Fru,US/CA,1M,3P,NON-LH
00XL052	Fru, US/CA,1M,3P,NON-LH
00XL053	Fru, US/CA,1M,3P,NON-LH
00XL057	Fru, LINECORD,AR,1M,3P,NON-LH
00XL058	Fru, LINECORD,AR,1M,3P,NON-LH
00XL059	Fru, LINECORD,AR,1M,3P,NON-LH
00XL060	Fru, LINECORD,BR,1M,3P,NON-LH
00XL061	Fru, LINECORD,BR,1M,3P,NON-LH
00XL062	Fru, LINECORD,BR,1M,3P,NON-LH
00XL063	Fru, EU/KR,1M,3P,NON-LH
00XL064	Fru, EU/KR,1M,3P,NON-LH

Table 3. AIO 510–23ASR FRU list (continued)

00XL065	Fru, EU/KR,1M,3P,NON-LH
00XL066	Fru, LINECORD,DK,1M,3P,NON-LH
00XL067	Fru, LINECORD,DK,1M,3P,NON-LH
00XL068	Fru, LINECORD,DK,1M,3P,NON-LH
00XL069	Fru, LINECORD,CH,1M,3P,NON-LH
00XL070	Fru, LINECORD,CH,1M,3P,NON-LH
00XL071	Fru, LINECORD,CH,1M,3P,NON-LH
00XL072	Fru, LINECORD,IT,1M,3P,NON-LH
00XL073	Fru, LINECORD,IT,1M,3P,NON-LH
00XL074	Fru, LINECORD,IT,1M,3P,NON-LH
00XL075	Fru, LINECORD,GB,1M,3P,NON-LH
00XL076	Fru, LINECORD,GB,1M,3P,NON-LH
00XL077	Fru, LINECORD,GB,1M,3P,NON-LH
00XL078	Fru, LINECORD,AU,1M,3P,NON-LH
00XL079	Fru, LINECORD,AU,1M,3P,NON-LH
00XL080	Fru, LINECORD,AU,1M,3P,NON-LH
00XL081	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL082	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL083	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL084	Fru, LINECORD,IL,1M,3P,NON-LH
00XL085	Fru, LINECORD,IL,1M,3P,NON-LH
00XL086	Fru, LINECORD,IL,1M,3P,NON-LH
00XL089	Fru, LINECORD,CN,1M,3P,NON-LH
00XL090	Fru, LINECORD,CN,1M,3P,NON-LH
00XL091	Fru, LINECORD,TW,1M,3P,NON-LH
00XL092	Fru, LINECORD,TW,1M,3P,NON-LH
00XL093	Fru, LINECORD,TW,1M,3P,NON-LH
00XL094	Fru, LINECORD,IN,1M,3P,NON-LH
00XL096	Fru, LINECORD,IN,1M,3P,NON-LH
00XL097	Fru, LINECORD,TH,1M,3P,NON-LH
5L60J33143	lux 0014+H03VV-F 0.75/3C+0011
MECH_ASM	
01EF402	GT Stand light silver C4/5
01EF403	GT Stand deep silver C4/5
01EF404	Stronkin Stand light silver
01EF405	Stronkin Stand deep silver
01EF406	ASSY Front housing, W
01EF407	ASSY Front housing, B
01EF408	ASSY Rear cover, W

Table 3. AIO 510–23ASR FRU list (continued)

01EF409	ASSY Rear cover, B
01EF410	ASSY Panel housing_ASR,W
01EF411	ASSY Panel housing_ASR,B
01EF412	ASSY M_cover ASR,C5, W
01EF413	ASSY M_cover ASR,C5, B
01EF415	HDD CAGE
01EF416	ASSY Shielding for HDD
01EF417	ASSY Frame for MB_ASR
01EF418	MB SHIELDING,W/HDMI
MECHANICAL	
01EF422	Rubber, For speaker lock
01EF451	EMI_GASKET_Rear IO
01EF452	EMI_GASKET_HDMI_A
01EF453	EMI_GASKET_HDMI_B
01EF454	SPONGE,For Front housing,C5
01EF455	Cover, Side IO Cover,White
01EF456	Cover, Side IO Cover,Black
01EF457	Bracket, For kensinton lock
01EF458	Bracket, For camera module
01EF459	Bracket, For Panel,C5
01EF465	ASSY Bezel with ODD,RAM,W
01EF466	ASSY Bezel with ODD,RAM,B
01EF467	Bezel,Without ODD White C5
01EF468	Bezel,Without ODD BlackC5
01EF469	Bracket,For WIFI Antenna Kit
01EF537	Bracket Latch, For ODD
MEMORY	
01AG700	2GB DDR4 2400 SoDIMM
01AG701	4GB DDR4 2400 SoDIMM
01AG704	2GB DDR4 2400 SoDIMM
01AG705	2GB DDR4 2400 SoDIMM
01AG706	2GB DDR4 2400 SoDIMM
01AG707	4GB DDR4 2400 SoDIMM
01AG708	4GB DDR4 2400 SoDIMM
01AG709	4GB DDR4 2400 SoDIMM
01AG710	8GB DDR4 2400 SoDIMM
01AG711	8GB DDR4 2400 SoDIMM
01AG712	8GB DDR4 2400 SoDIMM
MICROPHONE	

Table 3. AIO 510–23ASR FRU list (continued)

01AH402	AIO 510 Microphone
MOUSE	
00PH131	USB Calliope Mouse Black(Orange wh
00PH132	USB,Calliope,Mouse,White
01AH700	Liteon SM-8861(WW) Mouse Black
OPT_DRIVE	
00FC442	SMD,DT,SATA,9.5mm,x8,w/o bezel
SPEAKERINT	
01AH925	AIO 510 speaker
SSD_ASM	
00JT086	128G,M.2,2280,SATA6G,LTON,STD
00JT087	256G,M.2,2280,SATA6G,LTON,STD
00UP420	128G,M.2,2280,SATA6G,SAMSG,STD
00UP422	256G,M.2,2280,SATA6G,SAMSG,STD
WIRELESS	
00JT482	Wireless,CMB,CBT,8821AE
01AX709	Wireless,CMB,LTN,NFA435A

Table 4. AIO 510–23ISH FRU list

FRU P/N	Description
AC_ADAPTER	
00PC727	AC_ADAPTER,120W,100-240Vac,3P
ANTENNA	
00XJ086	C4C5 antenna
BDPLANAR	
00UW376	MB Intel Skylake-H110,UMA,HDMI
00UW377	MB Intel Skylake-H110,UMA,HDMI
00UW378	MB Intel Skylake-H110,940MX 2G,
00UW379	MB Intel Skylake-H110,940MX 2G,
CABLE	
31032953	GS BLK1.0m3wire CCC power cord(R)
31033857	LW BLK1.0m3wire ULCSA power cord(R)
31033858	VL BLK1.0m3wire ULCSA power cord(R)
31035332	LW BLK 1.0m VDE power cord(R)
31035395	LW BLK 1.0m India power cord(R)
31035396	LW BLK 1.0m UK power cord(R)
31035397	LW BLK 1.0m ANZ power cord(R)
31035828	LW BLK 1.0m Brazil power cord(R)
31038885	LW BLK 1.0m Taiwan C5 power cord(R)

Table 4. AIO 510–23ISH FRU list (continued)

31039100	LW BLK 1.0m Argentina C5 power cord(R)
31039101	LW BLK 1.0m Denmark C5 power cord(R)
31039103	LW BLK 1.0m Switzerland C5 power cord(R)
31039104	LW BLK 1.0m Italy C5 power cord(R)
31039105	LW BLK 1.0m SA C5 power cord(R)
31039106	LW BLK 1.0m Korea C5 power cord(R)
31039107	LW BLK 1.0m Israel C5 power cord(R)
31045147	LX(ASAP) 1.0M C5 CCC power cord
31049496	Volex 1.0M C5 UK power cord
31049497	Volex 1.0M C5 EU power cord
31049498	Volex 1.0M C5 KOR power cord
31049499	Volex 1.0M C5 TW power cord
31049500	Volex 1.0M C5 ANZ power cord
31049501	Volex 1.0M C5 SA power cord
31049502	Volex 1.0M C5 ISI power cord
31049503	Volex 1.0M C5 DEN power cord
31049504	Volex 1.0M C5 ITY power cord
31049505	Volex 1.0M C5 BR power cord
31049507	Volex 1.0M C5 LA power cord
31049508	Volex 1.0M C5 SWI power cord
31049517	LX(ASAP) 1.0M C5 UL power cord
31049518	LX(ASAP) 1.0M C5 EU power cord
31049520	LX(ASAP) 1.0M C5 ANZ power cord
00XJ043	C4C5 HDD SATA cable
00XJ046	C5 ODD SATA cable
00XJ049	C4C5 Power board FFC
00XJ052	C5S5 LVDS cable
00XJ053	C4C5S5 Camera cable
00XJ055	C4C5S5 MIC cable
00XJ056	C4C5S5 Touch cable
DT_KYB	
00UW407	Liteon SK-8861 2.4G KB(BR)-BLK
00XH587	USB Calliope KB BK ENG
00XH588	USB Calliope KB BK ARA
00XH591	USB,Calliope,KB,BK,BEL ENG
00XH593	USB Calliope KB BK BUL
00XH594	USB Calliope KB BK TC/ENG
00XH595	USB Calliope KB BK CZE
00XH598	USB Calliope KB BK FRA

Table 4. AIO 510–23ISH FRU list (continued)

00XH601	USB Calliope KB BK GER
00XH602	USB Calliope KB BK GRE
00XH604	USB Calliope KB BK HBW
00XH605	USB Calliope KB BK HUN
00XH607	USB Calliope KB BK ITA
00XH608	USB Calliope KB BK JPN
00XH610	USB Calliope KB BK KOR
00XH611	USB,Calliope,KB,BK,LA SPA
00XH614	USB Calliope KB BK POR
00XH616	USB Calliope KB BK RUS
00XH618	USB Calliope KB BK SLK
00XH619	USB Calliope KB BK SPA
00XH621	USB Calliope KB BK SWS
00XH622	USB Calliope KB BK THAI
00XH624	USB Calliope KB BK TUR
00XH625	USB Calliope KB BK UKE
00XH626	USB Calliope KB BK EURO ENG
00XH627	USB Calliope KB BK SLV
00XH630	USB Calliope KB BK IND ENG
00XH633	USB Calliope KB BK NORDIC
00XH635	USB Calliope KB BK CAN ENG/FRA
00XH637	USB,Calliope,KB,WH,ENG
00XH638	USB,Calliope,KB,WH,ARA
00XH641	USB,Calliope,KB,WH,BEL ENG
00XH643	USB,Calliope,KB,WH,BUL
00XH644	USB,Calliope,KB,WH,TC/ENG
00XH645	USB,Calliope,KB,WH,CZE
00XH648	USB,Calliope,KB,WH,FRA
00XH651	USB,Calliope,KB,WH,GER
00XH652	USB,Calliope,KB,WH,GRE
00XH654	USB,Calliope,KB,WH,HBW
00XH655	USB,Calliope,KB,WH,HUN
00XH657	USB,Calliope,KB,WH,ITA
00XH658	USB,Calliope,KB,WH,JPN
00XH660	USB,Calliope,KB,WH,KOR
00XH661	USB Calliope KB WH LA SPA
00XH664	USB,Calliope,KB,WH,POR
00XH666	USB,Calliope,KB,WH,RUS
00XH668	USB,Calliope,KB,WH,SLK

Table 4. AIO 510–23ISH FRU list (continued)

00XH669	USB,Calliope,KB,WH,SPA
00XH671	USB,Calliope,KB,WH,SWS
00XH672	USB,Calliope,KB,WH,THAI
00XH674	USB,Calliope,KB,WH,TUR
00XH675	USB,Calliope,KB,WH,UKE
00XH676	USB,Calliope,KB,WH,EURO,ENG
00XH677	USB,Calliope,KB,WH,SLV
00XH680	USB,Calliope,KB,WH,IND,ENG
00XH683	USB,Calliope,KB,WH,NORDIC
00XH685	USB,Calliope,KB,WH,CAN,ENG/FRA
01AH627	Liteon 2.4G Black SK-8861 US
01AH628	Liteon 2.4G Black SK-8861 US-MY
01AH629	Liteon 2.4G Black SK-8861 TW
01AH630	Liteon 2.4G Black SK-8861 TH
01AH631	Liteon 2.4G Black SK-8861 CS-SK
01AH632	Liteon 2.4G Black SK-8861 US-IN
01AH633	Liteon 2.4G Black SK-8861 RU
01AH634	Liteon 2.4G Black SK-8861 GB
01AH635	Liteon 2.4G Black SK-8861 Nordic
01AH636	Liteon 2.4G Black SK-8861 LA
01AH637	Liteon 2.4G Black SK-8861 LA-AR
01AH638	Liteon 2.4G Black SK-8861 SA
01AH639	Liteon 2.4G Black SK-8861 CH
01AH640	Liteon 2.4G Black SK-8861 DE
01AH641	Liteon 2.4G Black SK-8861 TR
01AH642	Liteon 2.4G Black SK-8861 ES
01AH643	Liteon 2.4G Black SK-8861 SL
01AH644	Liteon 2.4G Black SK-8861 IT
01AH645	Liteon 2.4G Black SK-8861 IL
01AH646	Liteon 2.4G Black SK-8861 FR
01AH647	Liteon 2.4G Black SK-8861 GR
01AH648	Liteon 2.4G Black SK-8861 HU
01AH649	Liteon 2.4G Black SK-8861 BG
01AH650	Liteon 2.4G Black SK-8861 KR
01AH651	Liteon 2.4G Black SK-8861 JP
01AH652	Liteon 2.4G Black SK-8861 EN-FR
01AH653	Liteon 2.4G Black SK-8861 PT
01AH654	Liteon 2.4G Black SK-8861 BE-EN
01AH655	Liteon 2.4G Black SK-8861 US-EU

Table 4. AIO 510–23ISH FRU list (continued)

FAN	
00XD814	Sysfan for Mutuo_P9 110x15mm
HDD_ASM	
00PC550	HDD,500G,7200,DT3,SATA3,STD
00PC551	HDD,1TB,7200,DT3,SATA3,STD
00PC552	HDD,2TB,7200,DT3,SATA3,STD
45K0623	HDD,1TB,7200,DT3,SATA3,STD
45K0625	HDD,2TB,7200,DT3,SATA3,STD
45K0629	HDD,500G,7200,DT3,SATA3,STD
HEATSINK	
01EF353	UMA Thermal Module
01EF354	DIS Thermal Module
KYB_MOUSE	
25210987	Liteon SK-8861(US) 2.4G KB-White8
25210988	Liteon SK-8861(US-MY) 2.4G KB-White8
25210989	Liteon SK-8861(TW) 2.4G KB-White8
25210990	Liteon SK-8861(TH) 2.4G KB-White8
25210991	Liteon SK-8861(CS-SK) 2.4G KB-White8
25210992	Liteon SK-8861(US-IN) 2.4G KB-White8
25210993	Liteon SK-8861(RU) 2.4G KB-White8
25210994	Liteon SK-8861(GB) 2.4G KB-White8
25210995	Liteon SK-8861(Nordic) 2.4G KB-White8
25210996	Liteon SK-8861(LA) 2.4G KB-White8
25210997	Liteon SK-8861(LA-AR) 2.4G KB-White8
25210998	Liteon SK-8861(SA) 2.4G KB-White8
25210999	Liteon SK-8861(CH) 2.4G KB-White8
25211000	Liteon SK-8861(DE) 2.4G KB-White8
25211001	Liteon SK-8861(TR) 2.4G KB-White8
25211002	Liteon SK-8861(ES) 2.4G KB-White8
25211003	Liteon SK-8861(SL) 2.4G KB-White8
25211004	Liteon SK-8861(IT) 2.4G KB-White8
25211005	Liteon SK-8861(IL) 2.4G KB-White8
25211006	Liteon SK-8861(FR) 2.4G KB-White8
25211007	Liteon SK-8861(GR) 2.4G KB-White8
25211008	Liteon SK-8861(HU) 2.4G KB-White8
25211009	Liteon SK-8861(BG) 2.4G KB-White8
25211010	Liteon SK-8861(KR) 2.4G KB-White8
25211011	Liteon SK-8861(JP) 2.4G KB-White8
25211012	Liteon SK-8861(EN-FR) 2.4G KB-White8

Table 4. AIO 510–23ISH FRU list (continued)

25211013	Liteon SK-8861(PT) 2.4G KB-White8
25211014	Liteon SK-8861(BE-EN) 2.4G KB-White8
25211015	Liteon SK-8861(US-EU) 2.4G KB-White8
25211016	Liteon SM-8861(WW) 2.4G Mouse White
25211018	Liteon SM-8861 2.4G Mouse(MY) White
LINECORD	
31503352	LX(ASAP) 1.0M C5 UK power cord
31503353	LX(ASAP) 1.0M C5 India power cord
31503354	LX(ASAP) 1.0M C5 Taiwan power cord
31503355	LX(ASAP) 1.0M C5 South Africa power cord
31503356	LX(ASAP) 1.0M C5 Argentina power cord
31503357	LX(ASAP) 1.0M C5 Brazil power cord
31503358	LX(ASAP) 1.0M C5 Korea power cord
31503359	LX(ASAP) 1.0M C5 Italy power cord
31503360	LX(ASAP) 1.0M C5 Danmark power cord
31503361	LX(ASAP) 1.0M C5 Switzerland power cord
31503362	LX(ASAP) 1.0M C5 Israel power cord
31503423	Longwell 1.0M C5 2pin Japan power cord
31503424	Volex 1.0M C5 2pin Japan power cord
31503425	LS 1.0M C5 2pin Japan power cord
00XL002	Fru, JP,Anti-TR,1M,2P,NON-LH
00XL003	Fru, JP,Anti-TR,1M,2P,NON-LH
00XL051	Fru,US/CA,1M,3P,NON-LH
00XL052	Fru, US/CA,1M,3P,NON-LH
00XL053	Fru, US/CA,1M,3P,NON-LH
00XL057	Fru, LINECORD,AR,1M,3P,NON-LH
00XL058	Fru, LINECORD,AR,1M,3P,NON-LH
00XL059	Fru, LINECORD,AR,1M,3P,NON-LH
00XL060	Fru, LINECORD,BR,1M,3P,NON-LH
00XL061	Fru, LINECORD,BR,1M,3P,NON-LH
00XL062	Fru, LINECORD,BR,1M,3P,NON-LH
00XL063	Fru, EU/KR,1M,3P,NON-LH
00XL064	Fru, EU/KR,1M,3P,NON-LH
00XL065	Fru, EU/KR,1M,3P,NON-LH
00XL066	Fru, LINECORD,DK,1M,3P,NON-LH
00XL067	Fru, LINECORD,DK,1M,3P,NON-LH
00XL068	Fru, LINECORD,DK,1M,3P,NON-LH
00XL069	Fru, LINECORD,CH,1M,3P,NON-LH
00XL070	Fru, LINECORD,CH,1M,3P,NON-LH

Table 4. AIO 510–23ISH FRU list (continued)

00XL071	Fru, LINECORD,CH,1M,3P,NON-LH
00XL072	Fru, LINECORD,IT,1M,3P,NON-LH
00XL073	Fru, LINECORD,IT,1M,3P,NON-LH
00XL074	Fru, LINECORD,IT,1M,3P,NON-LH
00XL075	Fru, LINECORD,GB,1M,3P,NON-LH
00XL076	Fru, LINECORD,GB,1M,3P,NON-LH
00XL077	Fru, LINECORD,GB,1M,3P,NON-LH
00XL078	Fru, LINECORD,AU,1M,3P,NON-LH
00XL079	Fru, LINECORD,AU,1M,3P,NON-LH
00XL080	Fru, LINECORD,AU,1M,3P,NON-LH
00XL081	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL082	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL083	Fru, LINECORD,ZA,1M,3P,NON-LH
00XL084	Fru, LINECORD,IL,1M,3P,NON-LH
00XL085	Fru, LINECORD,IL,1M,3P,NON-LH
00XL086	Fru, LINECORD,IL,1M,3P,NON-LH
00XL089	Fru, LINECORD,CN,1M,3P,NON-LH
00XL090	Fru, LINECORD,CN,1M,3P,NON-LH
00XL091	Fru, LINECORD,TW,1M,3P,NON-LH
00XL092	Fru, LINECORD,TW,1M,3P,NON-LH
00XL093	Fru, LINECORD,TW,1M,3P,NON-LH
00XL094	Fru, LINECORD,IN,1M,3P,NON-LH
00XL096	Fru, LINECORD,IN,1M,3P,NON-LH
00XL097	Fru, LINECORD,TH,1M,3P,NON-LH
5L60J33143	lux 0014+H03VV-F 0.75/3C+0011
MECH_ASM	
01EF402	GT Stand light silver C4/5
01EF403	GT Stand deep silver C4/5
01EF404	Stronkin Stand light silver
01EF405	Stronkin Stand deep silver
01EF406	ASSY Front housing, W
01EF407	ASSY Front housing, B
01EF408	ASSY Rear cover, W
01EF409	ASSY Rear cover, B
01EF415	HDD CAGE
01EF416	ASSY Shielding for HDD
01EF418	MB SHIELDING,W/HDMI
01EF460	ASSY Panel housing_ISH,W
01EF461	ASSY Panel housing_ISH,B

Table 4. AIO 510–23ISH FRU list (continued)

01EF462	ASSY M_cover for ISH,C5,W
01EF463	ASSY M_cover for ISH,C5, B
01EF464	ASSY Frame for MB_ISH
MECHANICAL	
01EF422	Rubber, For speaker lock
01EF451	EMI_GASKET_Rear IO
01EF452	EMI_GASKET_HDMI_A
01EF453	EMI_GASKET_HDMI_B
01EF454	SPONGE,For Front housing,C5
01EF455	Cover, Side IO Cover,White
01EF456	Cover, Side IO Cover,Black
01EF457	Bracket, For kensinton lock
01EF458	Bracket, For camera module
01EF459	Bracket, For Panel,C5
01EF465	ASSY Bezel with ODD,RAM,W
01EF466	ASSY Bezel with ODD,RAM,B
01EF467	Bezel,Without ODD White C5
01EF468	Bezel,Without ODD BlackC5
01EF469	Bracket,For WIFI Antenna Kit
01EF537	Bracket Latch, For ODD
MEMORY	
01AG700	2GB DDR4 2400 SoDIMM
01AG701	4GB DDR4 2400 SoDIMM
01AG704	2GB DDR4 2400 SoDIMM
01AG705	2GB DDR4 2400 SoDIMM
01AG706	2GB DDR4 2400 SoDIMM
01AG707	4GB DDR4 2400 SoDIMM
01AG708	4GB DDR4 2400 SoDIMM
01AG709	4GB DDR4 2400 SoDIMM
01AG710	8GB DDR4 2400 SoDIMM
01AG711	8GB DDR4 2400 SoDIMM
01AG712	8GB DDR4 2400 SoDIMM
MICROPHONE	
01AH402	AIO 510 Microphone
MOUSE	
00PH131	USB Calliope Mouse Black(Orange wh
00PH132	USB,Calliope,Mouse,White
01AH700	Liteon SM-8861(WW) Mouse Black
01AH701	Liteon SM-8861 Mouse(MY) Black

Table 4. AIO 510–23ISH FRU list (continued)

OPT_DRIVE	
00FC442	SMD,DT,SATA,9.5mm,x8,w/o bezel
SP	
00XG111	Intel Core i3-6100T 3.2GHz 35W
00XG113	Intel Celeron G3900T 2.6GHz 35W
00XG114	Intel Pentium G4400T 2.9GHz 35W
01AG002	I I7-6700T 2.8GHz/4C/8M 35W
01AG005	I I5-6400T 2.2GHz/4C/6M 35W
01AG044	Intel I7-6700T 2.8GHz/4C/8M 35W
01AG047	I I5-6400T 2.2GHz/4C/6M 35W
SPEAKERINT	
01AH925	AIO 510 speaker
SSD_ASM	
00JT095	128G,M.2,2280,PCIe3x4,SAMSG,STD
00JT096	256G,M.2,2280,PCIe3x4,SAMSG,STD
WIRELESS	
00JT482	Wireless,CMB,CBT,8821AE
00JT497	Wireless,CMB,IN,3165 ac

Chapter 10. General information

This chapter provides general information that applies to all computer models covered by this manual.

Additional Service Information

This chapter provides additional information that the service representative might find helpful.

Power management

Power management reduces the power consumption of certain components of the computer such as the system power supply, processor, hard disk drives, and some monitors.

Advanced configuration and power interface (ACPI) BIOS

As this computer has an ACPI BIOS system, the operating system is allowed to control the power management features of the computer and the settings for Advanced Power Management (APM) BIOS mode is ignored. Not all operating systems support ACPI BIOS mode.

Automatic Power-On features

The Automatic Power-On features within the Power Management menu allow you to enable and disable features that turn on the computer automatically.

* Wake Up on Alarm: You can specify a date and time at which the computer will be turned on automatically. This can be either a single event , a daily event or a weekly event.
* Wake Up on LAN: This feature allows LAN adapter card to wake the System.