Aspire 3 A315-44

SERVICE GUIDE

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Revision History

Please refer to the table below for the updates made on this service guide.

Date	Chapter	Updates
2023/08/30	All	Initial Release
2023/09/05	Ch1	Update Features & HW specs
	Ch5	Update screw
	Ch6	Update screw

Service guide files and updates are available on the Acer/CSD website. The information in this guide is subject to change without notice.

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Conventions

The following conventions are used in this manual:

WARNING:

Indicates a potential for personal injury.

CAUTION:

Indicates a potential loss of data or damage to equipment.

IMPORTANT:

Indicates information that is important to know for the proper completion of a procedure, choice of an option, or completing a task.

NOTE:

Gives bits and pieces of additional information related to the current topic.

The following typographical conventions are used in this document:

- Book titles, directory names, file names, path names, and program/process names are shown in *italics*.

  Example:

  the DRS5 User's Guide
  /usr/local/bin/fd
  the /TPH15spool_M program

- Computer output (text that represents information displayed on a computer screen, such as menus, prompts, responses to input, and error messages) are shown in constant width.

  Example:

  ```
  [01] The server has been stopped
  ```

- User input (text that represents information entered by a computer user, such as command names, option letters, and words) are shown in constant width **bold**. Variables contained within user input are shown in square brackets ([ ]).

  Example:

  At the prompt, type run **`[file name] -m`**

- Keyboard keys are shown in bold italics.

  Example:

  After entering data, press ***Enter***.

- Screen output (text that represents information displayed on the system, such as menus, prompts, responses to input, and error messages) are shown in bold.

  Example:

  On the main menu, select **OK**.

General Information

This Service Guide provides all technical information relating to the basic configuration for Acer's global product offering. To better fit local market requirements and enhance product competitiveness, your regional office may have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capabilities). These localized features are not covered in this generic service guide. In such cases, contact your regional offices or the responsible personnel/channel to provide you with further technical details.

When ordering FRU parts:

Check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it may not be noted in this printed service guide.

For Acer-authorized service providers:

Your Acer office may have a different part number code than those given in the FRU list of this printed service guide. The list provided by your regional Acer office must be used to order FRU parts for repair and service of customer machines.

CHAPTER 1

Hardware Specifications and Configurations

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Hardware Specifications and Configurations

Features

The following is a summary of the computer's features:

Operating System

- Windows Series
- ESHELL

Platform

- AMD Lucienne FP6

System Memory

DDR4 up to 3200 MT/s SODIMM memory interface design:

- DDR4 SODIMM slots x 2, up to 16GB per slot (max.)
- Total supported memory: 32GB

Display

- 15.6" Narrow Border
- Resolution: 1920 x 1080
- Type: TN/IPS (Ultra Slim Type)
- Interface: eDP

Privacy Control

- BIOS user, supervisor, HDD passwords
- Kensington lock slot
- SecurePad with integrated fingerprint sensor on the touchpad (option)

Storage Subsystem

- Storage 1: M.2 SSD 2280 (PCIe Gen3x4 lane)
- Storage 2: M.2 SSD 2280 (PCIe Gen3x4 lane)

Graphics

- UMA

Audio Subsystem

- Codec: Realtek ALC256M-CG
- Speaker: 2 speakers of 2W (L: 4.1 cc; R: 4.1 cc)

Communication

Webcam

- FHD/HD+Digital Mic (USB module)

Wireless

- 3rd WiFi 2x2 AX + BT/BGN + BT
- Two antennas

Dimensions and Weight

Dimension

- 362.9 (H) x 237.8 (W) x 19.90 (H) mm (14.28 (L) x 9.36 (W) x 0.78 (H) inches)

Weight

- 1.8kg (4lbs)

Power Adapter and Battery

Battery

- 3-cell, 4590/4471 mAh Li-Polymer battery
- 4-cell, 3550 mAh Li-Polymer battery

Power Adapter

- Support 65W AC adapter
- Connector 3phy
- Power cord

I/O Ports

- One DC-in jack for AC adapter
- One HDMI 2.1 port
- One LAN port
- Three USB 3.1 Gen1 ports
- One USB Type-C port
- One Headphone jack
- One Kensington Lock

Special Keys and Controls

Control Buttons

- Power button x1 (embedded on the keyboard)

Keyboard

- Support reverse T cursor keys
- Chiclet Keyboard 3.6mm
- Backlight Keyboard (Optional)

Touchpad

- Precision touchpad
- Size: 125 x 76.7mm
- Interface: I2C/PS2 Dual

Environment

Temperature

- Operating: 0°C to 40°C (32°F to 104°F)
- Non-operating: -20°C to 60°C (-4°F to 140°F)

Humidity (non-condensing)

- Operating: 0%R.H to 80%R.H
- Non-operating: 0%R.H to 80%R.H

Warranty

- One-year International Travellers Warranty (ITW)

Accessories

- 65W AC adapter
- Manual Kits
- Power cord

Notebook Tour

Top View

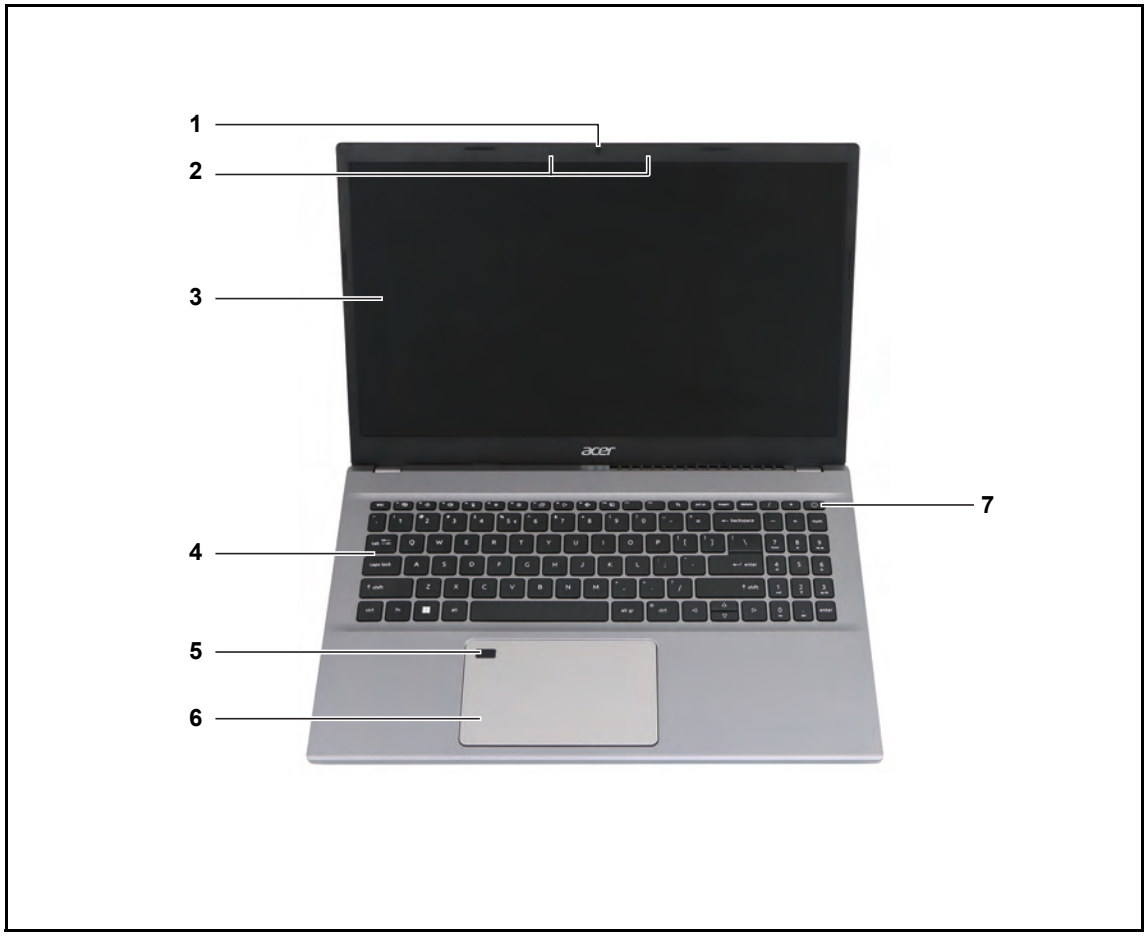


Figure 1-1. Top View

Table 1-1. Top View

#	Icon	Item	Description
1		Webcam	Web camera used for video communications.
2		Microphones	Receives audio input for sound recording or voice chatting
3		Display Screen	Displays the screen output.
4		Keyboard	Use to enter data into the computer.
5		Fingerprint Reader	Swipe a finger across the fingerprint reader for fingerprint recognition applications.
6		Touchpad	Touch-sensitive pointing device that functions like a computer mouse.

#	Icon	Item	Description
7	⏻	Power Button	Press to turn on the system on or off. The indicator lights blue when the power is on.

Left View

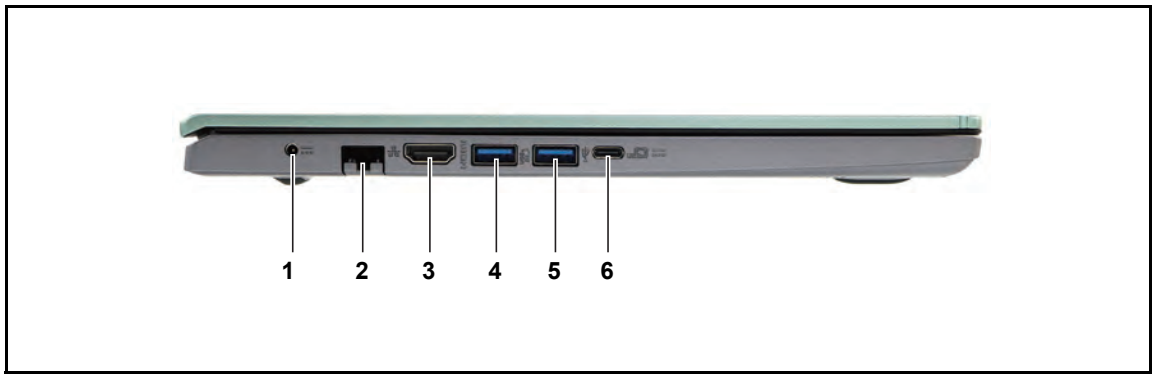


Figure 1-2. Left View

Table 1-2. Left View

#	Icon	Item	Description
1		DC-In Jack	Connects to an AC adapter.
2		LAN Port	Connects to a local area network.
3	HDMI	HDMI 2.1 Port	Supports high-definition digital video connections.
4	USB	USB 3.1 Port	Connects to 3.1 Gen1 device. It supports charging (5V/3A) devices when the computer is off. **NOTE:** Devices without USB 3.1 certification may not be compatible.
5		USB 3.1 Port	Connects to USB 3.1 Gen1 device. **NOTE:** Devices without USB 3.1 certification may not be compatible.
6	USB	Type-C Port	Connects to USB devices with a Type-C connector. • Support USB 3.2 Gen 2 with transfer speeds up to 10Gbps. • DisplayPort DP1.4 over USB-C • USB charging 3A at 5V • USB power delivery (20V).

Right View

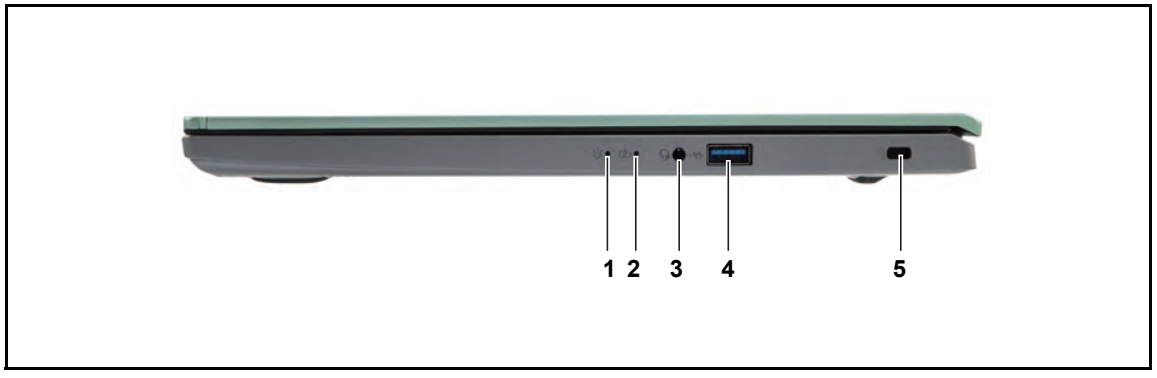
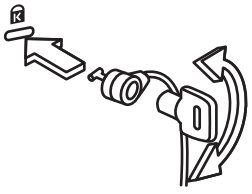


Figure 1-3. Right View

Table 1-3. Right View

#	Icon	Item	Description
1		Power Indicator	Indicates the computer power status: • **Off**: System is off. • **Blue**: System is on. • **Amber (flashing)**: System is in S3 state.
2		Battery Indicator	Indicates the computer battery status: • **Amber (flashing)**: Battery low or Battery abnormal stop charge. • **Amber**: Battery is charging with AC. • **Blue**: Battery is fully charged.
3		Audio Jack	Connects to a headset (OMTP), TRS (3pin).
4		USB 3.1 Port	Connects to USB 3.1 Gen1 device. **NOTE:** Devices without USB 3.1 certification may not be compatible.
5		Kensington Lock (7*3mm)	Connects to a Kensington-compatible computer security lock. **NOTE:** Wrap the computer security lock cable around an immovable object such as a table or handle of a locked drawer. Insert the lock into the notch and turn the key to secure the lock. Some keyless models are also available. 

Base View

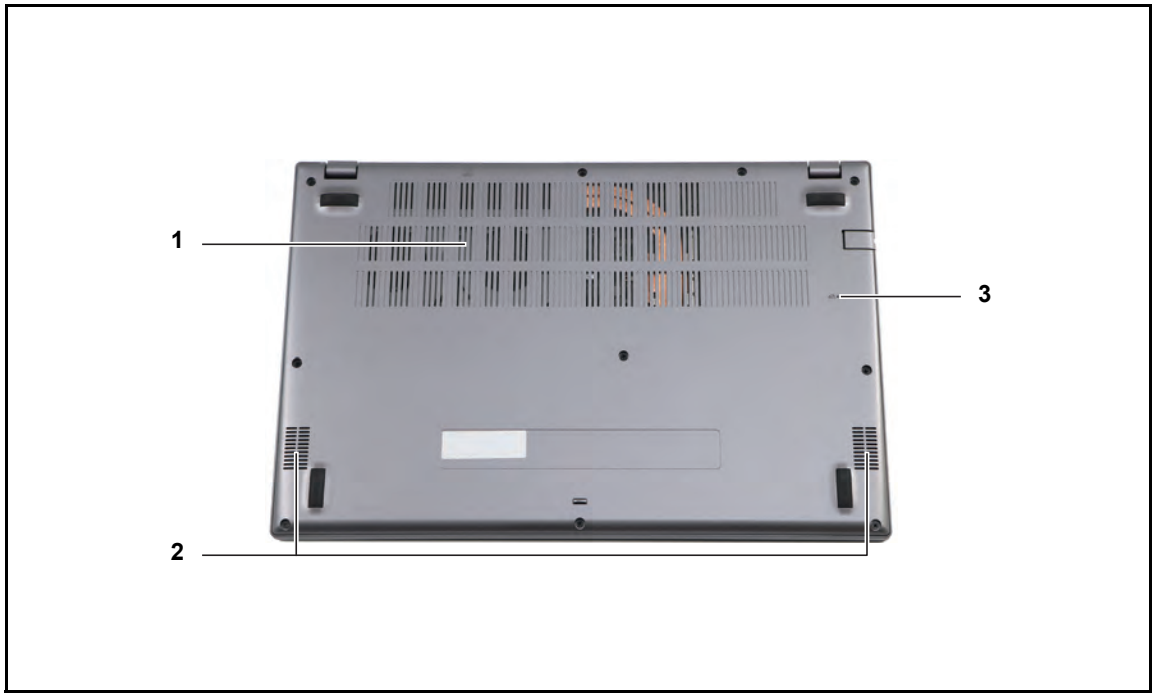


Figure 1-4. Base View

Table 1-4. Base View

#	Icon	Item	Description
1		Air Vents	Use for air flow. **CAUTION:** Do not cover the air vents.
2		Speakers	Emits audio sound.
3		Reset Button	Insert a suitable tool into the hole to reset the device.

Touchpad Basics

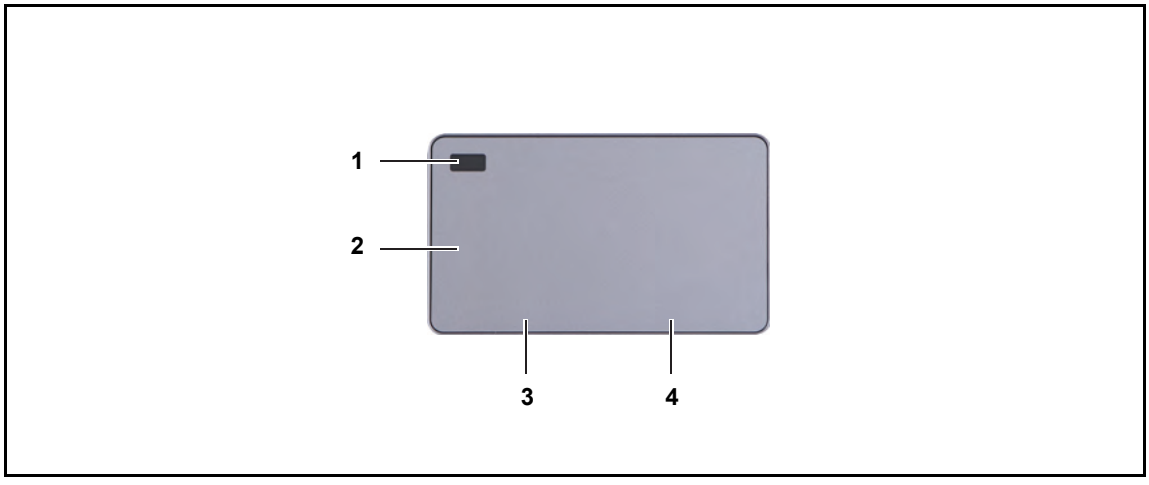


Figure 1-5. Touchpad

Table 1-5. Touchpad

#	Item	Description
1	Fingerprint Reader	Swipe a finger across the fingerprint reader for fingerprint recognition applications.
2	Touchpad	Move your finger across the touchpad to move the cursor. Tapping on the touchpad is the same as clicking the left mouse button.
3	Left Click	Press on the bottom left side of the touchpad to perform selection and execution functions. This button is equivalent to the left button on a mouse.
4	Right Click	Press on the bottom right side of the touchpad to perform selection and execution functions. This button is equivalent to the right button on a mouse.

Using the Touchpad

NOTE:

- The touchpad is sensitive to finger movements; hence, the lighter the touch, the better the response. Tapping too hard will not increase the touchpad sensitiveness.
- When using the touchpad, keep the touchpad and your fingers dry and clean.

Below is a description of basic touchpad operations:

Table 1-6. Touchpad Operations

Function	Touchpad	Bottom Left Side	Bottom Right Side
Execute	Tap twice (same speed as double-clicking a mouse button).	Quickly click twice.	
Select	Tap once.	Click once.	

Function	Touchpad	Bottom Left Side	Bottom Right Side
Drag	Tap twice; on the second tap, rest your finger on the touchpad and drag the cursor.	Press and hold, then use your finger on the touchpad to drag the cursor.	
Access context menu			Click once.

Keyboard Basics

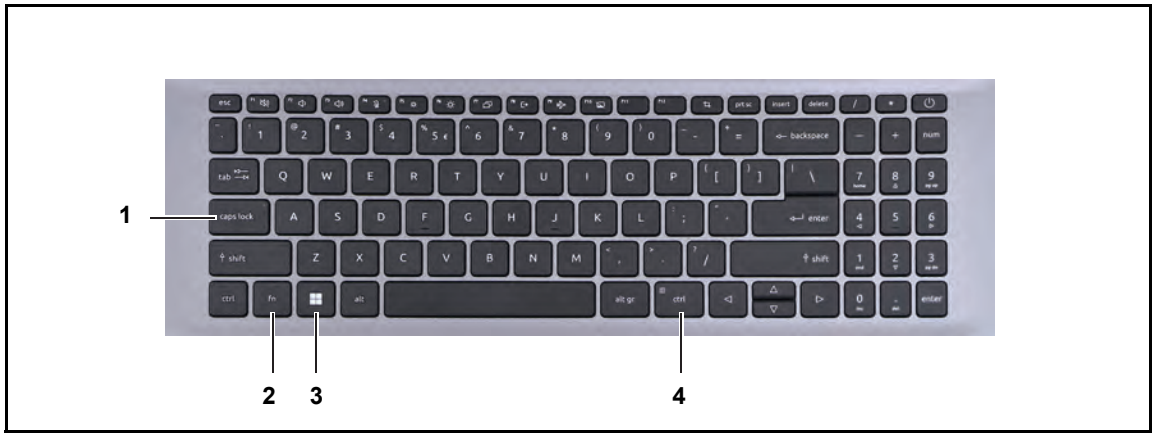


Figure 1-6. Keyboard

Table 1-7. Keyboard

#	Icon	Item	Description
1		Caps Lock Key	When Caps Lock is on, all alphabetic characters are typed in uppercase.
2	**Fn**	Function Key	Use with other key combinations to perform special functions.
3		Windows Key	• Press to launch the Start menu. • When used with other keys, provides a variety of functions. See **Windows Key** on page **1-12**.
4	<Fn> + <Ctrl>	Application Key ()	Press to open the context menu of the current application. This key has the same effect as clicking the right mouse button.

Windows Key

The table below shows the different functions that Windows key combinations can do:

Table 1-8. Windows Key Combinations

Key Combination	Description
	Opens or closes the Start menu.
 + <R>	Opens the Run dialog box.
 + <M>	Minimizes all windows.
<Shift> +  + <M>	Undo minimizes all windows.
 + <F1>	Shows the help window.
 + <E>	Opens Windows Explorer.
 + <F>	Searches for a file or folder.
 + <D>	Shows the desktop.
 + <L>	Locks the computer (if you are connected to a network domain), or switch users (if you are not connected to a network domain).
<CTRL> +  + <F>	Searches for computers (if you are on a network).
<CTRL> +  + <TAB>	Moves focus from the Start menu to the Quick Launch toolbar and to the system tray. Use the right and left arrow keys to move focus to items on the Quick Launch toolbar and the system tray.
 + <TAB>	Cycles through programs on the toolbar.
 + <F11>	Displays the system properties dialog box.
 + <U>	Opens Ease of Access Center (for Windows XP only).

Hotkeys

Hotkeys or function key combinations can be used to access computer control functions such as screen brightness, volume, and keyboard backlight.

Table 1-9. Hotkey Combinations

Function	Key Combination	Icon	Description
Speaker Toggle	<F1>		Turns the speaker on or off.
Volume Down	<F2>		Decreases the audio volume.
Volume Up	<F3>		Increases the audio volume.
Microphone Toggle	<F4>		Turns the microphones on or off.
Brightness Up	<F5>		Increases the screen brightness.
Brightness Down	<F6>		Decreases the screen brightness.
Display Toggle	<F7>		Switches the display output between the display screen, external monitor (if connected), and both.
System Access Lock	<F8>		Locks the computer (if you are connected to a network domain), or switch users (if you are not connected to a network domain).
Communication Switch	<F9>		Enables/disables wireless connectivity of your computer.
Touchpad Toggle	<F10>		Turns the touchpad on and off.

System Block Diagram

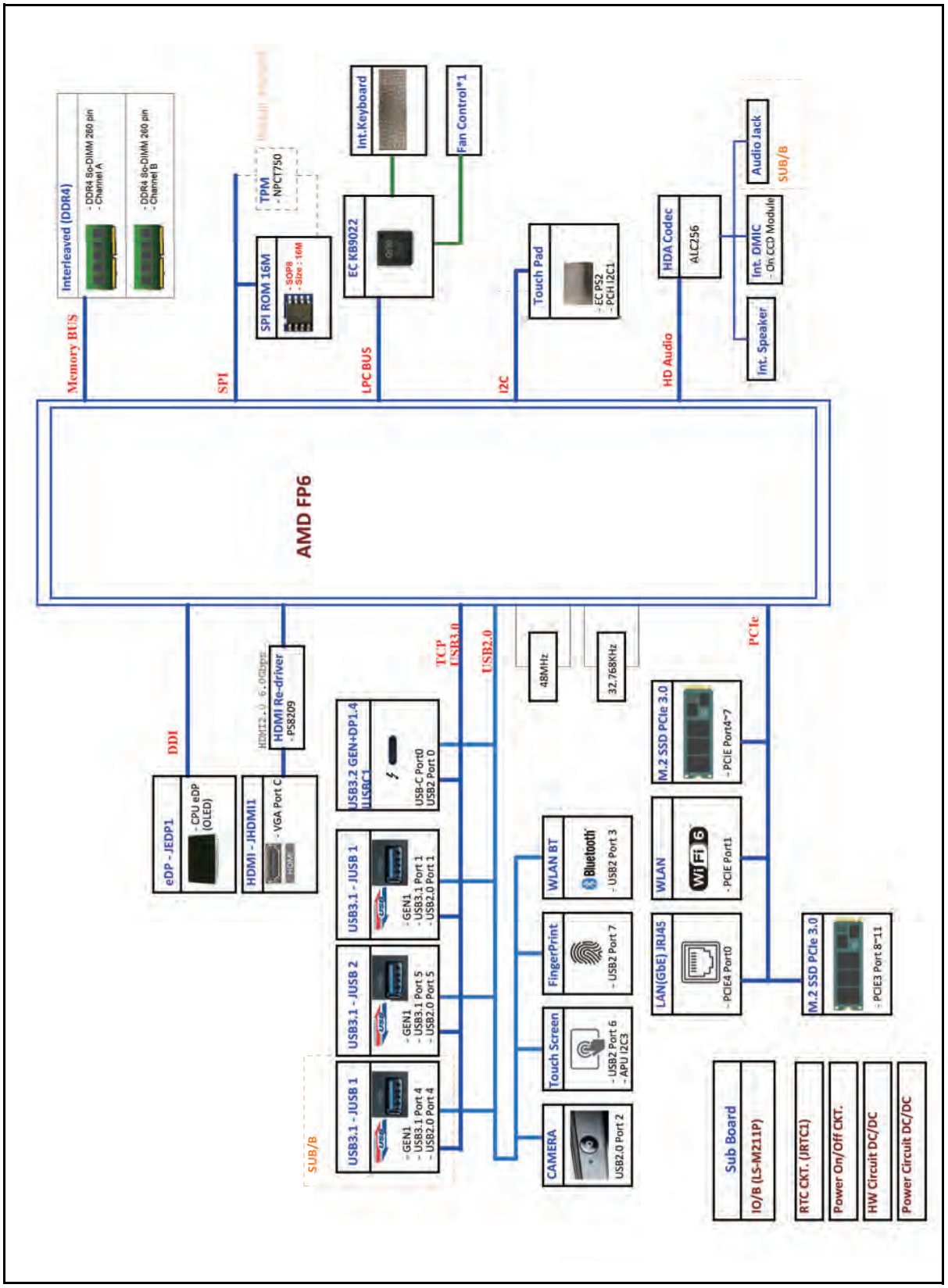


Figure 1-7. System Block Diagram

Specifications Table

Computer specifications

Item	Metric	Imperial
Dimensions		
Length	362.9 mm	14.28 inches
Width	237.8 mm	9.36 inches
Height (front to rear)	19.90 mm	0.78 inch
Weight (equipped with optical drive, flash drive, and battery)	1.8 kg	4 lbs
Input power		
Operating Voltage	65W: 18.05~19.95V	
Operating Current	65W: 3.42A	
Temperature		
Operating (not writing to optical disc)	0°C ~ 40°C	32°F ~ 104°F
Operating (writing to optical disc)	0°C ~ 40°C	32°F ~ 104°F
Non-operating	-20°C ~ 60°C	-4°F ~ 140°F
Relative humidity		
Operating	0%R.H ~ 80%R.H	
Non-operating	0%R.H ~ 80%R.H	
Maximum altitude (unpressurized)		
Operating	N/A	N/A
Non-operating	N/A	N/A
Shock		
Operating	105 G, 2 ms, Half-sine	
Non-operating	220 G, 2 ms, Half-sine	
Random vibration		
Operating	0.60 G zero-to-peak, 5 Hz to 500 Hz, 30 minutes per axis	
Non-operating	1.50 G zero-to-peak, 5 Hz to 500 Hz, 30 minutes per axis	

NOTE:
Applicable product safety standards specify thermal limits for plastic surfaces. The computer operates well within this range of temperatures.

System Board Major Chips

Item	Specification
Core Logic	AMD Lucienne Platform (FP6) • TDP: 15W of CPU (R35300U & R55500U & R75700U)
VGA	UMA
USB 2.0	N/A
USB 3.1	• 3x USB 3.1 ports • 1x USB 3.2 Type-C port
Audio Codec	Realtek ALC256
Amplifier	Realtek ALC256 build-in class-D speaker amplifier
EC	ENE KB9022
PD controller	CYPD5126
LAN	Realtek RTL8111H

Processor

Item	Specification
CPU Type	AMD Lucienne Platform (FP6)
CPU Package	BGA1140, 0.65mm ball pitch
CPU Logic	ZEN2 / ZEN3

Processor Specifications

Item	CPU Speed (GHz) (max/base)	Cores	Bus Speed (FSB/DMI/QBI)	Mfg Tech (nm)	Cache Size (L2/L3)	Package	Voltage
ADM Ryzen™ 7 Lucienne	4.30/1.80	8	N/A	7nm	4MB/ 8MB	FP6 BGA1140	0.6-1.55
ADM Ryzen™ 5 Lucienne	4.00/2.10	6	N/A	7nm	3MB/ 8MB	FP6 BGA1140	0.6-1.55
ADM Ryzen™ 3 Lucienne	3.85/2.60	4	N/A	7nm	2MB/ 4MB	FP6 BGA1140	0.6-1.55

CPU Fan True Value Table (Tj=100) Normal Mode

CPU Temperature (Low limit / High limit)	Fan Speed (RPM) (Fan1/Fan2)	SPL Spec (dBA)
0/45	0/0	0
40/48	2100/2100	22
45/51	2300/2300	25
48/54	2500/2500	28
51/57	2900/2800	31
54/60	3200/3100	34
57/63	3800/3400	37
60/70	4200/3800	40
67/80	4700/4200	43
90/100	4700/4200	43

CPU Fan True Value Table (Tj=100) Performance Mode

CPU Temperature (Low limit / High limit)	Fan Speed (RPM) (Fan1/Fan2)	SPL Spec (dBA)
0/45	0/0	0
40/48	2300/2300	25
45/51	2500/2500	28
48/54	2900/2800	31
51/57	3200/3100	34
54/60	3800/3400	37
57/63	4200/3800	40
60/70	4700/4200	43
67/80	5200/4700	46
90/100	5200/4700	46

CPU Fan True Value Table (Tj=100) Silent Mode

CPU Temperature (Low limit / High limit)	Fan Speed (RPM) (Fan1/Fan2)	SPL Spec (dBA)
0/45	0/0	0
40/48	0/0	0
45/51	2100/2100	22
48/54	2300/2300	25
51/57	2500/2500	28
54/60	2900/2800	31
57/63	3200/3100	34
60/70	3800/3400	37
67/80	4200/3800	40
90/100	4200/3800	40

System Memory of Platform

Item	Specification
Memory Controller	AMD Lucienne
DIMM Socket Number	2
Supports Memory Size per Socket	4GB/8GB/16GB
Supports Maximum Memory Size	Total 32GB
Supports DIMM Type	SODIMM
Supports DIMM Speed	DDR4 3200
Support DIMM Voltage	1.2V
Supports DIMM Package	260-pin DDR4 SODIMM

Memory Combinations

Slot 1 (GB)	Slot 2 (GB)	Total Memory (GB)
0	4	4
4	4	8
4	4	8
8	0	8
0	8	8
4	8	12
8	4	12
8	8	16
16	0	16
0	16	16
4	16	20
16	4	20
8	16	24
16	8	24
16	16	32

Video Interface

Item	Specification
Chipset	AMD Lucienne Platform
Package	FP6 BGA1140
Interface	AMD Vega Core Architecture
Memory	Dual channel memory

BIOS

Item	Specification
BIOS Vendor	Insyde
BIOS Version	V1.00
BIOS ROM Type	SPI
BIOS ROM Size	16M
Features	Insyde code base • Flash ROM 16 MB • Support Acer UI • Support multi-boot • Suspend to RAM (S0i3)/DISK(S4) • DMI utility for BIOS serial number configurable/asset tag • Support WinFlash • Wake on Lan from S0i3 • Wake on Lan from S5 in AC mode • System information • Refer to Acer BIOS specification

LAN Interface

Item	Specification
LAN Chipset	Realtek RTL8111H
LAN Connector Type	RJ45
LAN Connector Location	JRJ45 at left side
Features	• Integrated 10/100/1000M transceiver • Supports 1-Lane 2.5Gbps PCI Express Bus • Wake-On-LAN support

Keyboard

Item	Specification
Type	QV05T_A10B/QV05P_A10EWL
Total Number of Keypads	US:99 keys/UK:100 keys/JP:103keys
Windows Logo Key	Yes
Internal & External Keyboard Work Simultaneously	Yes
Features	• Support reverse T cursor keys. • Factory configurable different languages by OEM customer.

Hard Disk Drive (Listed items from AVL list)

Item	Specification		
Model Name	Hynix HFM128GD3JX016N	Kingston OM8PDP3128B-AA1	Kingston OM8PDP3256B-AA1
Capacity	128GB	128GB	256GB
Bytes per Sector	512Bytes	512Bytes	512Bytes
Data Heads	N/A	N/A	N/A
Drive Format			
Disks	N/A	N/A	N/A
Spindle Speed	N/A	N/A	N/A
Performance Specifications			
Buffer Size	4GB	N/A	N/A
Interface	PCIe Gen.3x4	PCIe Gen.3x4	PCIe Gen.3x4
Fast Data Transfer Rate (Mbits/sec, max)	8Gbits/s	8Gbits/s	8Gbits/s
DC Power Requirements			
Voltage Tolerance	3.3V±5%		

Item	Specification		
Model Name	Samsung MZVLQ256HBJD-00B00	Hynix HFM512GD3JX016N	Samsung MZVLQ512HBLU-00B00
Capacity	256GB	512GB	512GB
Bytes per Sector	512Bytes	512Bytes	512Bytes
Data Heads	N/A	N/A	N/A
Drive Format			
Disks	N/A	N/A	N/A
Spindle Speed	N/A	N/A	N/A
Performance Specifications			
Buffer Size	N/A	4GB	N/A
Interface	PCIe Gen.3x4	PCIe Gen.3x4	PCIe Gen.3x4
Fast Data Transfer Rate (Mbits/sec, max)	8Gbits/s	16Gbits/s	8Gbits/s

Item	Specification
DC Power Requirements	
Voltage Tolerance	3.3V±5%

Item	Specification	
Model Name	WDC SDBPNPZ-1T00-1114	Samsung MZVLQ1T0HBLB-00B00
Capacity	1024GB	1024GB
Bytes per Sector	512Bytes	512Bytes
Data Heads	N/A	N/A
Drive Format		
Disks	N/A	N/A
Spindle Speed	N/A	N/A
Performance Specifications		
Buffer Size	N/A	N/A
Interface	PCIe Gen.3x4	PCIe Gen.3x4
Fast Data Transfer Rate (Mbits/sec, max)	8Gbits/s	16Gbits/s
DC Power Requirements		
Voltage Tolerance	3.3V±5%	

LED 15.6”

Item	Specification	
Vendor/Model name	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	
Screen Diagonal (mm)	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 394.87 • 394.87 • 394.87 • 394.87 • 394.87 • 394.87
Active Area (mm)	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 344.16 x 193.59 mm • 344.16 x 193.59 mm • 344.16 x 193.59 mm • 344.16 x 193.59 mm • 344.16 x 193.59 mm • 344.16 x 193.59 mm
Display resolution (pixels)	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 1920 x 1080 • 1920 x 1080 • 1920 x 1080 • 1920 x 1080 • 1920 x 1080 • 1920 x 1080
Pixel Pitch (mm)	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 0.17925 x 0.17925 mm • 0.17925 x 0.17925 mm • 0.17925 x 0.17925 mm • 0.17925 x 0.17925 mm • 0.17925 x 0.17925 mm • 0.17925 x 0.17925 mm
Typical White Luminance (cd/m^2) also called Brightness	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 250 cd/m^2 • 220 cd/m^2 • 250 cd/m^2 • 250 cd/m^2 • 220 cd/m^2 • 220 cd/m^2

Item	Specification	
Contrast Ratio	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 500/700 • -/400 • 600/700 • 800/1000 • 400/500 • 400/500
Response Time (Optical Rise Time/Fall Time) msec	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 25 • 8 • 25 • 25 • 10 • 12
Typical Power Consumption (watt)	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 4.05 W • 3.4 W • 3.5 W • 4.158 W • 3.45 W • 3.12 W
Weight (without inverter)	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 360g • 360g • 360g • 365g • 370g • 360g
Physical Size (mm)	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• 350.66 x 205.24 mm • 350.66 x 205.24 mm • 350.66 x 205.25 mm • 350.66 x 205.25 mm • 350.66 x 205.25 mm • 350.66 x 205.25 mm
Electrical Interface	• AUO B156HAN02.1 VA • AUO B156HTN06.1 7A • LGD LP156WFH-SPD5 • INX N156HCA-EAB C2 • INX N156HGA-EA3 C1 • BOE NT156FHM-N61 V8.0	• eDP 1.2 • eDP 1.2 • eDP 1.3 • eDP 1.2 • eDP 1.2 • eDP 1.2

Item	Specification	
Viewing Angle (degree) Horizontal (Right) CR = 10 (Left) Vertical (Upper) CR = 10 (Lower)	• AUO B156HAN02.1 VA	• 85/85/85/85 (typ.)
	• AUO B156HTN06.1 7A	• 45/45/15/35 (typ.)
	• LGD LP156WFH-SPD5	• 85/85/85/85 (typ.)
	• INX N156HCA-EAB C2	• 89/89/89/89 (typ.)
	• INX N156HGA-EA3 C1	• 45/45/20/45 (typ.)
	• BOE NT156FHM-N61 V8.0	• 45/45/20/40 (typ.)

Internal FRU LCD Refresh Rate

Vendor	Panel Resolution	Refresh Rate (Hz)	Vendor P/N	Customer P/N	NTSC Coverage (Spec.)	Adobe Coverage	Color Depth
AUO	1920 x 1080	60	B156HAN02.1 VA	KL.15605.080	NTSC 45.00%	48%	6-bits+FRC
AUO	1920 x 1080	60	B156HTN06.1 7A	KL.15605.070	NTSC 45.00%	46%	6-bits
LGD	1920 x 1080	60	LP156WFH-SPD5	KL.15608.049	NTSC 45.00%	48%	6-bits+FRC
INX	1920 x 1080	60	N156HCA-EAB C2	KL.1560D.042	NTSC 45.00%	50%	6-bits+FRC
INX	1920 x 1080	60	N156HGA-EA3 C1	KL.1560D.035	NTSC 45.00%	50%	6-bits
BOE	1920 x 1080	60	NT156FHM-N61 V8.0	KL.1560E.015	NTSC 45.00%	47%	6-bits

APU Controller

Item	Specification
Graphics Controller Chip	AMD Lucienne
Supports	• Based on Gen 9 LP (generation 9 Low Power) graphics core architecture that enables substantial gains in performance and lower-power consumption over prior generations. • Graphic Core - 3rd Gen Graphics Next Architecture • Operating Systems Support - Windows* 10 64bit, Windows* 7 64/32 bit, Linux* OS • DirectX Support - DirectX 12 • DCE Support - HDMI 2.0 • HDCP Support
VRAM Chipset	N/A
Memory Size	Support DDR4 4GB/8GB/16GB per socket.
Interface	AMD Vega Core Architecture

Supported Resolution (GPU: Include all supported resolution)

Resolution	16 bits	32 bits	36 bits	48 bits	Others
640x480P/60Hz	X	V	X	X	X
800x600P/60Hz	X	V	X	X	X
1024x768P/60Hz	X	V	X	X	X
1280x720P/60Hz	X	V	X	X	X
1280x960P/60Hz	X	V	X	X	X
1280x1024P/60Hz	X	V	X	X	X
1680x1050P/60Hz	X	V	X	X	X
1920x1080P/60Hz	X	V	X	X	X
Legend: V = Supported; X = Not supported					

Mediatek MT7921LE Wifi/BT combo module Interface

Item	Specification
Chipset	MediaTek MT7921LE
Data Throughput	• Wifi:2TX/2RX, 2-stream spatial multiplexing up to 1201Mbps data rate. • BT:1Mbps,2Mbps and 3Mbps EDR operations.
Protocol	• 802.11b/802.11g/802.11n/802.11ac/802.11ax • Bluetooth V5.2, V4.2, V4.1, V4.0LE, V3.0+HS, V2.1+EDR
Interface	• Wifi:PCIe • BT:USB
Connector Type	M.2 (NGFF) 2230
Supported Protocol (List only supported protocols from Acer specs)	A2DP / AVCTP / AVRCP / DUN / GAVDP / HCRP / Headset / Hands Free / HID / OPP / PAN / SDAP / Serial SDAP / Serial / SYNC

Mediatek MT7922A Wifi/BT combo module Interface

Item	Specification
Chipset	MediaTek MT7922A
Data Throughput	• Wifi: 2TX/2RX, 2-stream spatial multiplexing up to 1900Mbps data rate. • BT: 1Mbps,2Mbps and 3Mbps EDR operations.
Protocol	• 802.11b/802.11g/802.11n/802.11ac/802.11ax • Bluetooth V5.2, V4.2, V4.1, V4.0LE, V3.0+HS, V2.1+EDR
Interface	• Wifi:PCIe • BT:USB
Connector Type	M.2 (NGFF) 2230
Supported Protocol (List only supported protocols from Acer specs)	A2DP / AVCTP / AVRCP / DUN / GAVDP / HCRP / Headset / Hands Free / HID / OPP / PAN / SDAP / Serial SDAP / Serial / SYNC

Realtek RTL8852BE Wifi/BT combo module Interface

Item	Specification
Chipset	Realtek RTL8852BE
Data Throughput	• Wifi:2TX/2RX, 2-stream spatial multiplexing up to 286.8 Mbps using 20MHz bandwidth, 573.5Mbps using 40MHz bandwidth, and 1201Mbps using 80MHz bandwidth. • BT:1Mbps,2Mbps and 3Mbps EDR operations.
Protocol	802.11b/802.11g/802.11n/802.11ac/802.11ax Bluetooth V5.0, V4.2, V4.1, V4.0LE, V3.0+HS, V2.1+EDR, backward compatible with BT version of 1.1, 1.2 and 2.0
Interface	• Wifi:PCIe • BT:USB
Connector Type	M.2 (NGFF) 2230
Supported Protocol (List only supported protocols from Acer specs)	A2DP / AVCTP / AVRCP / DUN / GAVDP / HCRP / Headset / Hands Free / HID / OPP / PAN / SDAP / Serial SDAP / Serial / SYNC

Mediatek MT7921LE Wifi/Bluetooth combo Module

Item	Specification
Controller	MediaTek MT7921LE
Features	• PCIE/USB module with built-in antenna • Bluetooth 5.2/5.0

Mediatek MT7922A Wifi/Bluetooth combo Module

Item	Specification
Number supported	MediaTek MT7922A
Features	• PCIE/USB module with built-in antenna • Bluetooth 5.2/5.0

Camera

Item	Specification
Vendor and Model	• Chicony CNFLH3421004970LH • Tech-front 1YHVZZZ0008
Type	HD

M.2 Interface

Item	Specification
Number supported	1
Features	Wifi/BT

3G Card (N/A)

Item	Specification
Features	N/A

Audio Codec and Amplifier

Item	Specification
Audio Controller	Audio Codec: Realtek ALC256

Audio Interface

Item	Specification
Audio Controller	Realtek ALC256
Audio Onboard or Optional	On board
Mono or Stereo	Stereo
Resolution	Support 16/20/24bit PCM
Compatibility	HD audio interface
Sampling Rate	Sample rate up to 192Khz resolution VSR (Variable Sampling Rate)
Internal Microphone	Yes
Internal Speaker/Quantity	Yes (2W speakers x2)

Mediatek MT7921LE Wireless Module 802.11a/b/g/n/ac

Item	Specification
Chipset	MediaTek MT7921LE
Data Throughput	Wifi:2TX/2RX, 2-stream spatial multiplexing up to 1201Mbps data rate.
Protocol	802.11a/802.11b/802.11g/802.11n/802.11ac/802.11ax
Interface	MT7921LE: PCIe

Mediatek MT7922A Wireless Module 802.11a/b/g/n/ac

Item	Specification
Chipset	Mediatek MT7922A
Data Throughput	Wifi:2TX/2RX, 2-stream spatial multiplexing up to 1900Mbps data rate.
Protocol	802.11a/802.11b/802.11g/802.11n/802.11ac/802.11ax
Interface	MT7922A: PCIe

Realtek RTL8852 Wireless Module 802.11a/b/g/n/ac

Item	Specification
Chipset	Realtek RTL8852
Data Throughput	Wifi:2TX/2RX, 2-stream spatial multiplexing up to 286.8 Mbps using 20MHz bandwidth, 573.5Mbps using 40MHz bandwidth, and 1201Mbps using 80MHz bandwidth.
Protocol	802.11a/802.11b/802.11g/802.11n/802.11ac/802.11ax
Interface	RTL8852BE: PCIe

Battery (Only listed components from AVL including capacity)

Item	Specification		
Vendor & Model Name	Panasonic AP19B5L	COSMX AP20CBL	LGC AP18C8K
Battery Type	Li-polymer	Li-polymer	Li-polymer
Pack Capacity	3550 wAh	4590 wAh	4471 wAh
Number of Battery Cell	4	3	3
Package Configuration	4S1P	3S1P	3S1P

USB Port

Item	Specification
USB Compliance Level	USB 3.1 / USB 3.2 Type C
Protocol	xHCI
Number of USB port(s)	• 2x USB 3.1 ports on the left side • 1x Type-C port on the left side • 1x USB 3.1 ports on the right side
Location	• 2x USB 3.1 ports on the left side • 1x Type-C port on the left side • 1x USB 3.1 ports on the right side
Output Current	• 2x USB 3.1 ports 2A • 1x Type-C port 3A • 1x USB 3.1 port 2A

USB 3.2 Type-C Port

USB Version (Speed)	Max Output Currents of 5V Power Bus	Support Power-Off USB charger Mode	Thunderbolt Version (Speed)	DISPLAYPORT Version	Power Delivery for Charging
USB 3.2 Gen2 Type-C	3.0 A	No	No	DP1.4	At leaset 65W (20V/3.5A)

HDMI Port

Item	Specification
Compliance Level	HDMI 2.1
Data Thoroughput	18Gbit/s (TMDS)
Number of HDMI Port(s)	1
Location	HDMI output port on the left side

Supported HDMI2.0 Monitor

Resolution	Refresh Rate (Hz)	Monitor
3840x2160	60Hz	Dell P2415Q
1920x1080	60Hz	ASUS VS247
1920x1080	60Hz	BenQ V2400Eco
3840x2160	144Hz	Acer XB273K P
3840x2160	60Hz	BenQ EW3270U
7680x4320	60Hz	SAMSUNG QA65Q800TAW

AC Adapter

Item	Specification
Input Rating	65W
Maximum Input AC Current	Input current will be less than 1.7Amps. at input voltage 90Vac/ 47Hz and maximum load condition.
Inrush Current	264Vac, No damage; Meet fuse and bridge diode I^2t de-rating.
Efficiency	More than 89% of average efficiency load tested at 115 Vac & 230 Vac.
Output Voltage	65W: 19.95V
Dimensions and Weight	• Delta 108*46*29.5 mm / 165g • Chicony 90*51*28.5 mm / 270g • Lite on 107*47*30 mm / 243g

System Power Management

Item	Specification
Mech. Off (G3)	All devices in the system are turned off completely.
Soft Off (G2/S5)	OS initiated shutdown. All devices in the system are turned off completely.
Working (G0/S0)	Individual devices such as the CPU and hard disk may be power managed in this state.
Suspend to RAM (S0i3)	• CPU Set Power Down • PCMCIA Suspend • Audio Power Down • Hard Disk Power Down • Super I/O Low Power mode

Card Reader (N/A)

Item	Specification
Chipset	N/A
Package	N/A
Maximum Supported Size	N/A

System LED Indicator

Item	Specification
Lock	N/A
System State	• Blue color solid on: System on • Blue color and amber color off: • Amber color blinking: S3 state
HDD Access State	N/A
Wireless State	N/A
Power Button Backlight	N/A
Battery State	**Charging** • Amber color solid on: Battery charging with AC • Blue color solid on: Battery full • Amber color blinking: Battery abnormal stop charge or battery in low power state **Discharging** • Amber color blinking: Battery in critical low state • Amber color off: Discharging state

CHAPTER 2

System Utilities

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System Utilities

BIOS Setup Utility

The *BIOS Setup Utility* is a hardware configuration program built into a computer's BIOS (Basic Input/Output System).

The BIOS utility is pre-configured and optimized so most users do not need to run this utility. However, if configuration problems occur, you may need to run the BIOS utility.

To activate the BIOS Utility, press ***F2*** during POST (power-on-self-test) when the "`Press <F2> to enter Setup.`" message is prompted on the bottom of the screen.

To change the boot device without entering the BIOS utility, press ***F12*** during POST to enter the multi-boot menu. In this menu, users can change the boot device without entering *BIOS Setup Utility*.

Navigating the Bios Setup Utility

The BIOS utility has six menu options: **Information**, **Main**, **Advanced**, **Security**, **Power**, **Boot**, and **Exit**.

To navigate through the menus options, perform the following:

- To choose a menu, use the left and right arrow keys.
- To choose an item, use the up and down arrow keys.
- To change the value of a parameter, press ***F5*** or ***F6***.
- A plus sign (+) indicates the item has sub-items.
- Press ***Enter*** to expand this item.
- Press ***Esc*** while you are in any of the menu options to go to the Exit menu.
- In any menu, you can load default settings by pressing ***F9***. You can also press ***F10*** to save any changes made and exit the *BIOS Setup Utility*.

NOTE:

- Parameter values can be changed if enclosed in square brackets [ ]. Navigation keys for a particular menu are shown on the bottom of the screen. Help for parameters are found in the Item Specific Help part of the screen. Read this carefully when making changes to parameter values.
- System information is subject to specific models.

The succeeding sections are descriptions of the menu tabs found on the *InsydeH20 BIOS Setup Utility* screen.

NOTE:

The screens provided are for reference only. Actual values may differ by model.

Information Tab

The Information tab displays a summary of the computer hardware information.

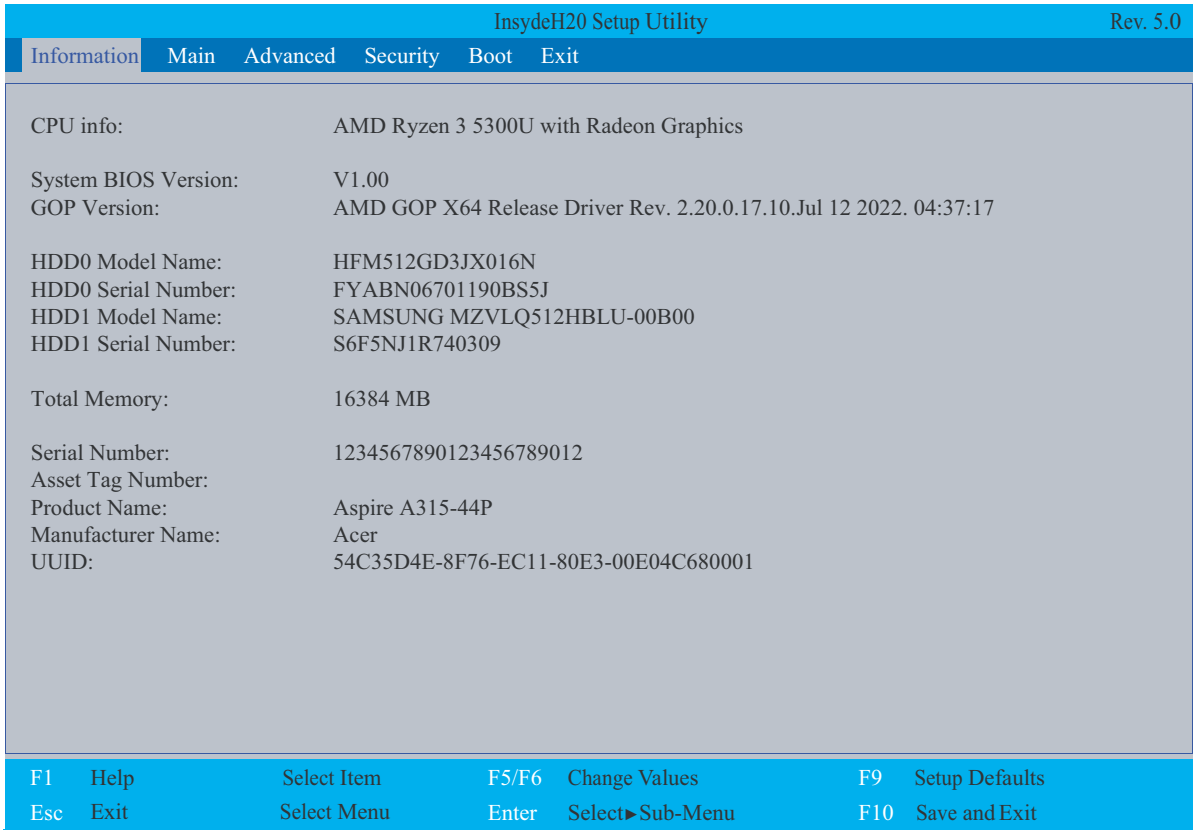


Figure 2-1. BIOS Information (Windows 11)

Table 2-1. BIOS Information Tab Parameters (Windows 11)

Product Information	Example	Remark
CPU Info	AMD Ryzen 3	Should be same with processor brand string, BIOS can get processor brand string by calling CPUID instruction.
System BIOS Version	V1.00	Should be same with SMBIOS Type 0 Offset 05h.
GOP Version	AMD GOP Driver Rev.2.20.0.17.10	GOP Version will only be shown when Boot Mode is [UEFI].
HDD Model Name	HFM512GD3JX016N	• This item show the model name of HDD installed. • The hard disk mode name is automatically detected by the system. If there is no hard disk present or unknown type, "None" should be shown on this field. • For multiple storage, add number after HDD starting from 0.

Product Information	Example	Remark

HDD Serial Number	FYABN06701190 BS5J	• This item will show the serial number of HDD installed.
		• If system has more than 1 device, the item should be listed as below:
		  • HDD0 Model Name
		  • HDD0 Serial Number
		  • HDD1 Model Name
		  • HDD1 Serial Number

Total Memory	16384 MB	The field reports the system total installed memory.
Serial Number	22 characters	Should be same with SMBIOS Type 1 Offset 07h.
Asset Tag Number	22 characters minimum	Should be same with SMBIOS Type 3 Offset 08h.
Product Name	Acer Brand Example • (Aspire) Aspire XXXX • (TravelMate) TravelMate XXXX • (Aspire One) Aspire One XXX • (Iconia) ICONIA XXXX • (N/A) XXXX Gateway Brand Example • (N/A) XXXX Packard Bell Brand Example • (EasyNote) EasyNote XXXX • (N/A) XXXX	• Should be same with SMBIOS Type 1 Offset 05h. • Product Name is defined by project POR. • The string is case sensitive and the maximum length is 25 bytes.
Manufacturer Name	Acer/Gateway/ Packard Bell / Founder	• Should be same with SMBOS Type 1 Offset 04h. • The string is case sensitive.
UUID	xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx	• It is required for all systems. • Display format: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx (follow UUID Standard)

Main Tab

The Main tab allows the user to set the system time and date, enable or disable boot option, and enable or disable recovery.

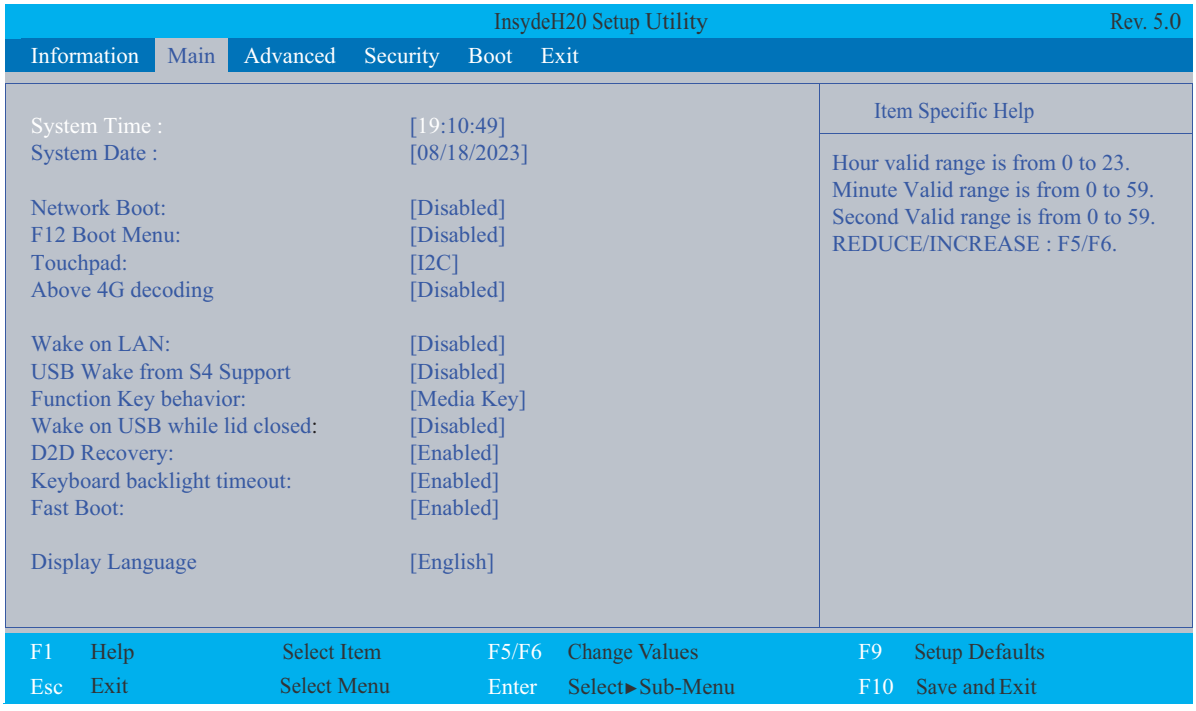


Figure 2-2. BIOS Main (Windows 11)

Table 2-2. BIOS Main Tab Parameters (Windows 11)

Product Information	Example	Remark
System Time	HH:MM:SS	• The format is the number of string. • The hours are displayed in 24-hour format. • The values set in the two fields take effect immediately.
System Date	MM/DD/YY	
Network Boot	[Enabled] / [Disabled]	Default Network Boot value in different Boot Mode: • [UEFI] Boot Mode: [Disabled]
F12 Boot Menu	[Enabled] / [Disabled]	• This function enables or disables the ability that user can press ***F12*** while POST to quickly select the boot device. • Modification to the boot device order apply only for the current session. The next time your computer is rebooted it will use again the boot device sequence as set in the **BIOS Setup Utility** > **Boot** > **Boot priority order**. • The default value is [Disabled].

Product Information	Example	Remark
Touchpad	[I2C] / [PS2]	• By default, this item is hidden. • Only visible after user press ***Ctrl + S*** in this page. • The default value is [I2C] mode.
Above 4G decoding	[Enabled] / [Disabled]	• By default, this item is hidden. • Only visible after user press ***Ctrl + S*** in this page (Main tab). • Default set as [Enabled] if project requires to support NVIDIA resizable BAR or AMD smart access memory. Otherwise, default set as [Disabled].
Wake On LAN	[Enabled] / [Disabled]	• Wake on LAN feature allows to turn on a network computer remotely by sending Magic Packet even if the system is in off state. • The default value is [Disabled]. • Panel off when wake on LAN.
USB Wake from S4 Support	[Enabled] / [Disabled]	• Support USB wake S4. • The default value is [Disabled].
Function Key behavior	[Function Key] / [Media Key]	• [Media Key]: Perform the media function by default. Hold ***Fn*** to activate ***F1*** to ***F12***. • [Function Key]: Activate ***F1*** to ***F12*** by default, Hold ***Fn*** to perform media function. • Media functions are only active under Windows. ***F1*** to ***F12*** act as normal function keys during device boot or while in BIOS.
Wake on USB while lid closed	[Enabled] / [Disabled]	• If enabled, USB devices can wake the system, even if the lid is closed. • The option grey out on modern standby supported system when "USB wake from S4 Support" disabled. • The default value is [Disabled].
D2D Recovery	[Enabled] / [Disabled]	• This function enables/disables Acer disc-to-disc Recovery. • To do Acer disc-to-disc system recovery, press **Alt**+***F10*** key during POST.
Keyboard backlight timeout	[Enabled] / [Disabled]	• The option only exists for the product support keyboard backlight and controlled by EC (USB keyboard not support). • When the option set to "Disabled", keyboard backlight stay on no matter AC/DC. • The default value is [Enabled].
Fast Boot	[Enabled] / [Disabled]	• Enable/Disable Fast boot. • The default value is [Enabled].
Display Language	[English]	• BIOS display language. • BIOS supports multi-language. • The default display language is [English].

Advanced Tab

The Advanced tab allows the user to set Virtualization and SATA port configuration.

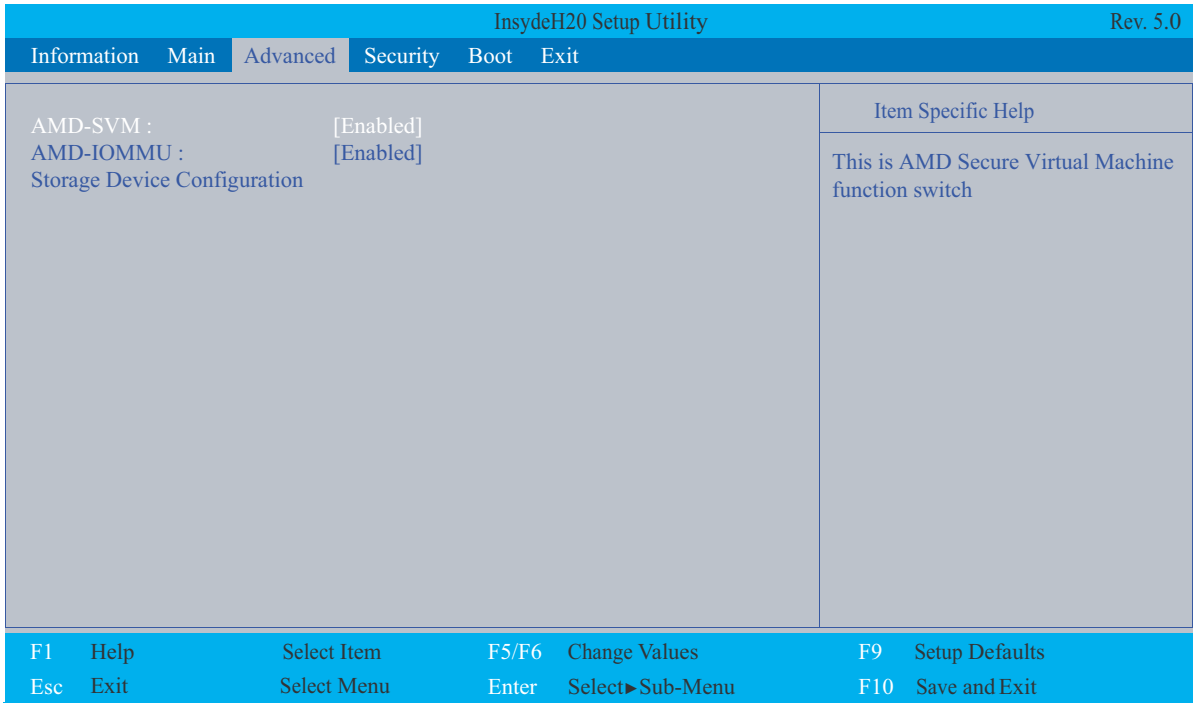


Figure 2-3. BIOS Advanced (Windows 11)

Table 2-3. BIOS Advanced Tab Parameters (Windows 11)

Product Information	Example	Remark
AMD-SVM	[Enabled] / [Disabled]	• This is AMD Secure Virtual Machine function switch. • Display when platform support the function. • The default value is [Enabled].
AMD-IOMMU	[Enabled] / [Disabled]	• This is AMD input/output memory management unit function switch. • Display when platform support the function. • The default value is [Enabled].
Storage Device Configuration	[Enabled] / [Disabled]	• Enter to configure storage device port enable/disable (such as SATA/PCIE storage device port). • Only visible if system set to AHCI.

Security Tab

The Security tab allows the user to configure and protect the computer from unauthorized use.

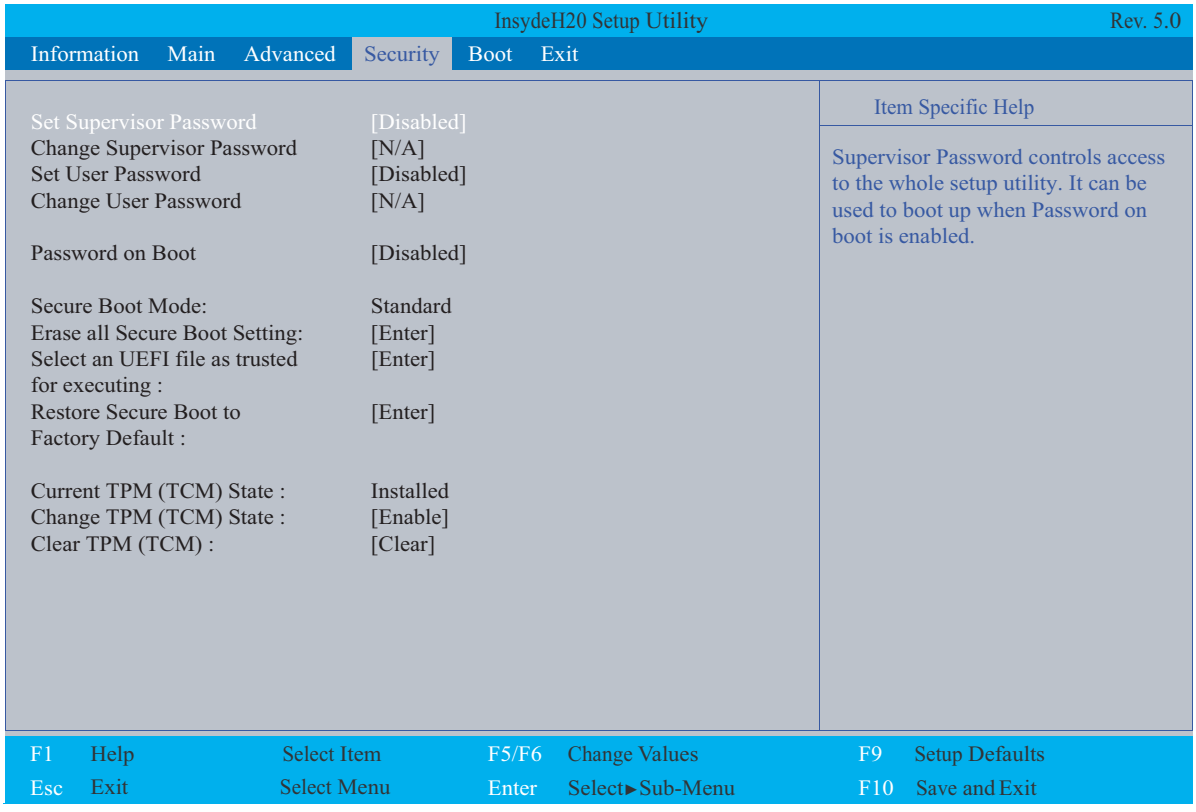
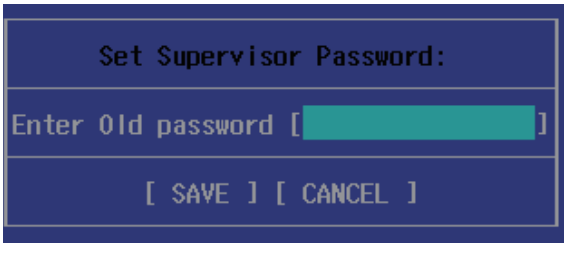
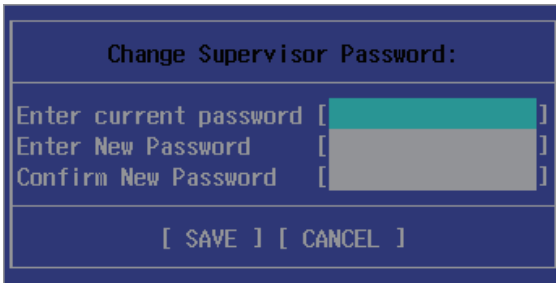


Figure 2-4. BIOS Security (Windows 11)

Table 2-4. BIOS Security Tab Parameters (Windows 11)

Product Information	Example	Remark
Set Supervisor Password	[Enter] / [Disable]	This field indicates if Supervisor / User Password is set or not. [Enabled]: Supervisor / User Password is set. [Disabled]: Supervisor / User Password is not set. If Supervisor Password it not set, User Password should be a grayed out item. When Supervisor / User Password is [Disabled] and press ***Enter***, a window similar to the following is shown:  After Supervisor / User Password is [Enabled] and press [Enter], a window similar to the following is shown for password cleaning:  The default value is [Disabled].
Set User Password	[Enable] / [Disable]	
Change Supervisor Password/ Change User Password	[N/A] / Change	If Supervisor / User Password it not set, these region should be a grayed out item. [N/A]: Supervisor / User password is not set. Change: Supervisor / User Password is set. If an old password set, it then setup will prompt with the following windows instead and a current password will be required to be entered at first. 

Product Information	Example	Remark
Change Supervisor Password/ Change User Password *(continued)*	[N/A] / Change	User can now type password in field "Enter New Password", and re-enter password in field "Confirm New Password" for verification. If the verification is OK and password setting is complete after user pressed enter. If the current password entered does not match the actual current password.  If the new password and confirm new password do not match.  For the format of the password, please refer to **Setting a Password** on page **2-14**.
Password on Boot	[Enable] / [Disable]	Defines whether a password is required or not while the events defined in this group happened. • Password on Boot option requires the Supervisor Password. During login, this should be grayed out if the User Password was used to enter BIOS Setup Utility. • Allows user to specify whether or not a password is required to boot. • The default value is [Disabled].
Secure Boot Mode	[Standard] / [Custom]	Display current Secure Boot Mode Status. • [Standard]: No manual change has been done to Secure Boot setting or user has previous restore Secure Boot to Factory Default. • [Custom]: Contents of Secure Boot signature database had been modified with "Erase all Secure Boot Setting" or "Select an UEFI file as trusted for executing before. • The default value is [Standard].

Product Information	Example	Remark
Erase all Secure Boot Setting	[Enter]	• Erase all contents in secure four variables PK, KEK, DB and DBX. • A confirmation dialog will pop up to confirm user's action.

Select an UEFI file as trusted for executing	[Enter]	• This action allows user to select all available .efi files in FAT32 partition and add the .efi hash into secure DB.
		• This action will follow below method:
		  • Display available device for users to select .efi file location.
		  • Display all files in the device and allow user to select intended file (Only efi file can be added to the signature database) and interface will allow users to go up or enter directory.
		  • If Yes, is selected, file hash will be added to signature database and return to Security Menu. If No is selected, return back to previous file selection menu.
		  • Added efi file's Boot description will be added into boot device order list's last place, max 5 entries are allowed.

Restore Secure Boot to Factory Default	[Enter]	• Restore setting back to factory settings. When save and exit the BIOS Setup Utility, default Secure Boot factory settings will be restored. • By executing this action, Secure Boot Mode will be reset to [Standard] upon next entry to the BIOS Setup Utility.
Current TPM (TCM) State		• This field indicates current TPM State. • Current TPM or TCM State description is according current TPM or TCM is connected. • Current TPM State is displayed on BIOS Setup Utility no matter Supervisor /User Password is set or not and is grayed out item that can't be modified manually.

Product Information	Example	Remark
Change TPM (TCM) State	[Enabled] / [Disabled]	• Change TPM State is displayed on BIOS Setup Utility no matter Supervisor / User Password is set or not. If Supervisor Password is not set, it should be a grayed out item. • Default TPM state for UEFI Mode is set to [Enabled] and requires Supervisor Password to change the state. • [Disabled]: BIOS don't initial TPM 2.0 device and hide the TPM 2.0 device in ACPI table, it makes no TPM device in Windows device manager. • Change TPM state will support the items list in left.
Clear TPM (TCM)	[Clear]	Change TPM State is displayed on BIOS Setup Utility no matter Supervisor / User Password is set or not. If Supervisor Password is not set, it should be a grayed out item.

NOTE:

When prompted to enter the password, three attempts are allowed before system halts. Resetting the BIOS password may require the computer to be returned to the dealer.

Selecting a UEFI File as Trusted

Perform the following to select a UEFI file as trusted for execution:

1. Use the ↑ and ↓ keys to highlight the `Select an UEFI File as trusted for executing` parameter and press ***Enter***. The `Select an UEFI file location` dialog box appears.

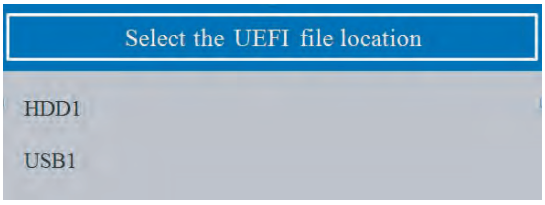


Figure 2-5. Select UEFI File Location

2. Use the ↑ and ↓ keys to select a location, then press ***Enter***. The `Select an UEFI file as trusted for executing` dialog box appears.

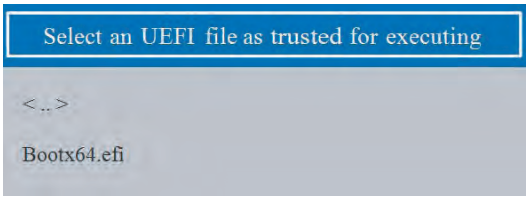


Figure 2-6. Select UEFI File

3. Select the *.efi file to execute (only *.efi files can be added to the signature database).

4. Select "Yes" to add the signature database and return to the security section. Boot description will be added in the end of the Boot device order list (maximum of 5 entries are allowed).

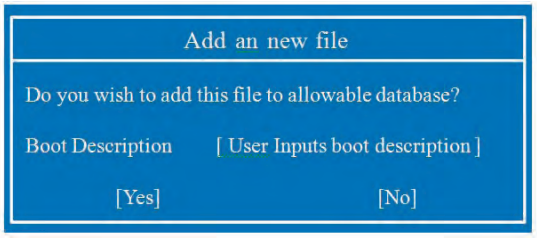


Figure 2-7. Add New File

Setting a Password

Perform the following to set the supervisor password:

1. Use the ↑ and ↓ keys to highlight the `Set Supervisor Password` parameter and press ***Enter***. The `Set Supervisor Password` dialog box appears.

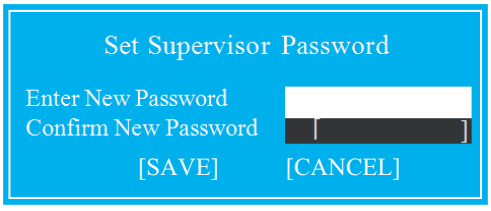


Figure 2-8. Set Supervisor Password

2. Type the password in the `Enter New Password` field.

NOTE:

Passwords are not case sensitive and the length must not exceed 12 characters. The following characters may be used in a password.

A - Z	Alphabets A through Z (Not Case Sensitive)
0 - 9	Numerical Characters
-	Dash
=	Equal Sign
[	Left Bracket
]	Right Bracket
.	Period
,	Comma
;	Semi-colon
/	Slash
\	Back-slash

IMPORTANT:

Use care when typing a password. Characters do not appear on the screen.

3. Retype the password in the `Confirm New Password` field.

4. Press ***Enter***. The `Setup Notice` dialog box appears.



Figure 2-9. Setup Notice

5. Press ***Enter*** to complete the password setting. After setting the supervisor password, the computer sets the `Supervisor Password Is` parameter to `Set`.

6. Press ***F10*** to save changes and exit *BIOS Setup Utility*.

NOTE:

The same procedures apply in setting the user password and HDD password.

When the supervisor password is set, the `Set User Password` and `Password on Boot` parameters are enabled for users to configure.

Removing a Password

Perform the following to remove a password:

NOTE:

Below are the procedures for removing the supervisor password. The same procedures apply in removing the user and HDD passwords.

When the supervisor password is removed, the user password is automatically removed.

1. Use the ↑ and ↓ keys to highlight the `Set Supervisor Password` parameter and press ***Enter***. The `Set Supervisor Password` dialog box appears.

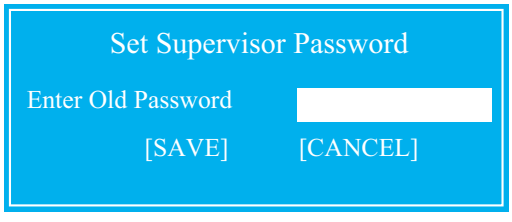


Figure 2-10. Set Supervisor Password

2. Press ***Enter*** to complete the password setting. The computer sets the `Supervisor Password Is` parameter to `Clear`.



Figure 2-11. Setup Notice

3. Press ***F10*** to save changes and exit *BIOS Setup Utility*.

Boot Tab

The Boot tab allows the user to configure the order of boot devices used to load the operating system.

Use ↑ and ↓ keys to select a device and press ***F5*** or ***F6*** to change the value.

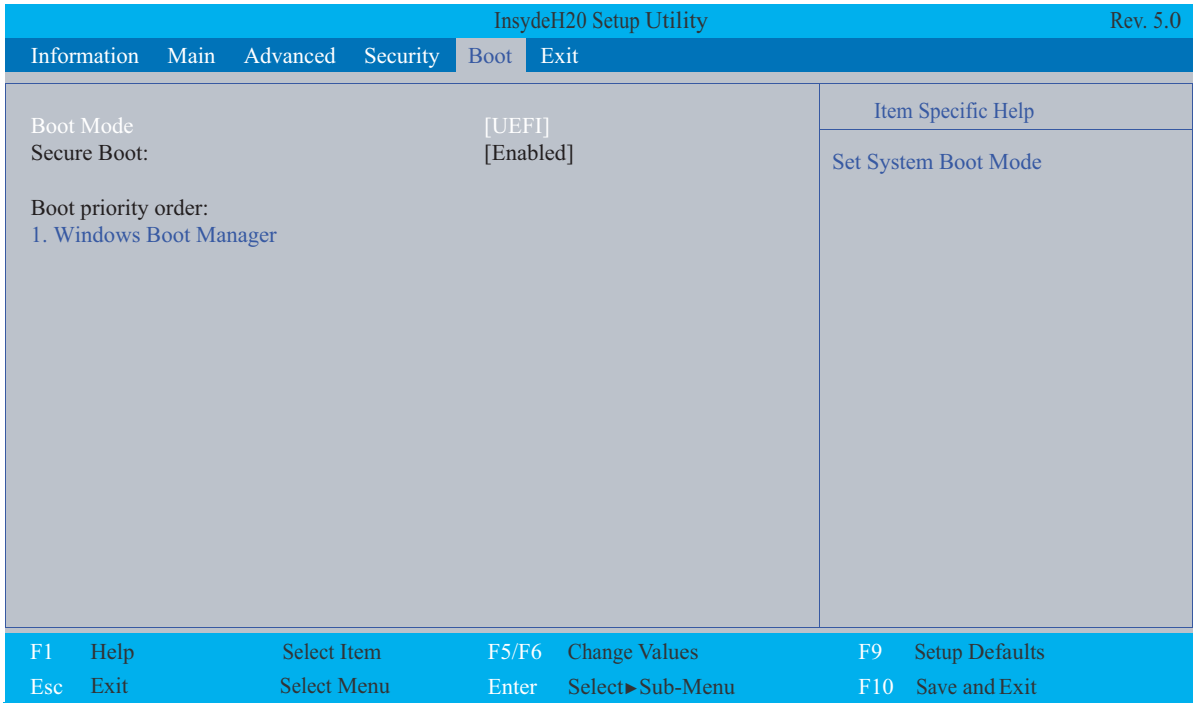


Figure 2-12. BIOS Boot (Windows 11)

Table 2-5. BIOS Boot Tab Parameters (Windows 11)

Product Information	Example	Remark
Boot Mode	[UEFI]	• Default Boot Mode: BIOS need to check OS type for this default setting. • The default value is [UEFI].
Secure Boot	[Enabled] / [Disabled]	• When default Boot Mode is [UEFI], default Secure Boot status is [Enabled] and CSM module can't be loaded during boot. • If user sets Secure Boot to [Disabled], firmware will bypass secure boot verification. • The Secure Boot status is only available on [UEFI] Boot Mode. • In [UEFI] Boot Mode, Secure Boot status is default gray out and could only be modified by following actions: • Supervisor password had been set. • When BIOS "Load Setup Defaults" is executed, if default Boot Mode is [UEFI], Secure Boot will reset to [Enabled], on the contrary.

Product Information	Example	Remark
Boot Priority Order		• When Boot Mode changed, the Boot Priority Order won't be refreshed until next BIOS Setup Utility entry. • When Boot Mode is [UEFI] and users enable Windows To GO Startup Options under OS, an USB class boot entry name "USB Entry for Windows To GO" will be inserted into the top of the Boot Priority Order and Boot Option Menu. • If "USB Entry for Windows To Go" present, and BIOS "Load Setup Defaults" is executed, "USB Entry for Windows To Go" will be set to 1st Boot Device in Boot Priority Order. • Only display bootable devices.

NOTE:

- Wired connection will display `Network Boot-IPV4` and `Network Boot-IPV6` as two separate network boot devices.
- After Windows 10 OS is installed, a `Windows Boot Manager` will be generated and displayed on top of the boot device priority.
- Non-physical boot devices can be deleted in the Boot Priority Order List, this includes `A trusted boot entry` and `Windows Boot Manager`.
- If two (2) HDD is configured as RAID, only HDD0 is presented.

Exit Tab

The Exit tab allows the user to save or discard changes and quit the *BIOS Setup Uitility*.

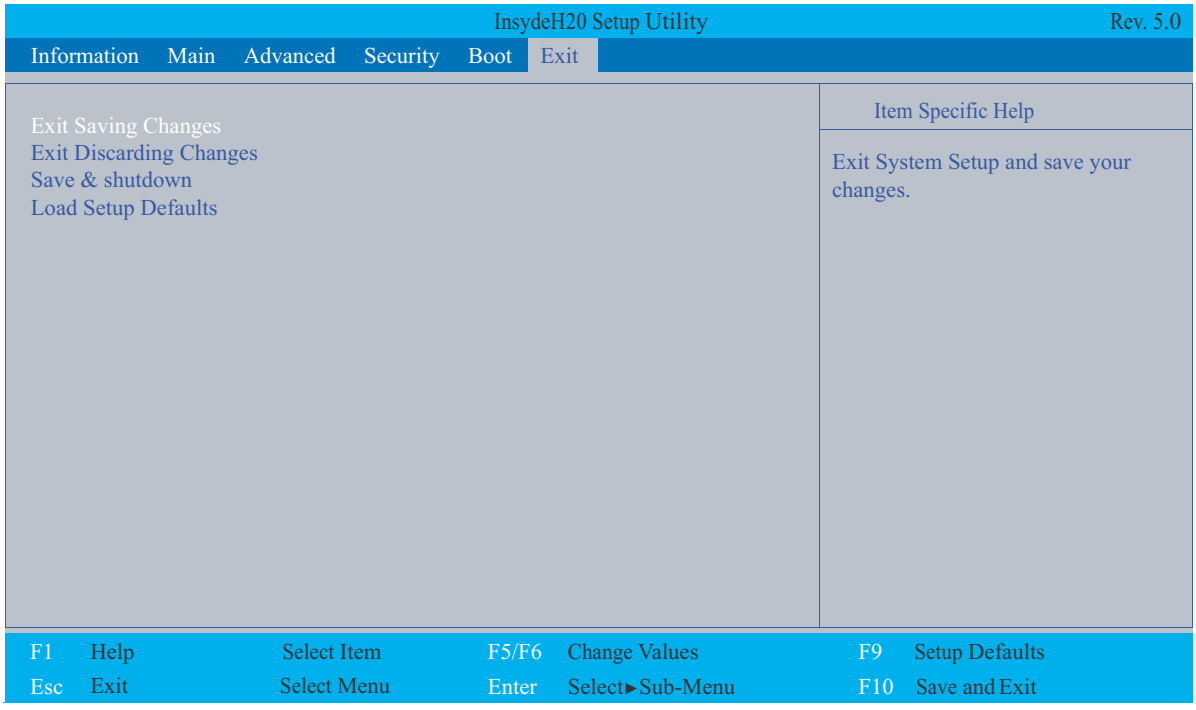
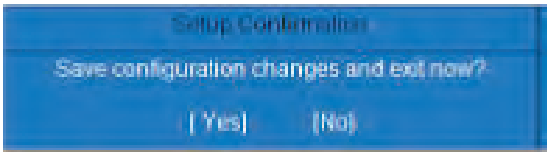


Figure 2-13. BIOS Exit

Table 2-6. BIOS Exit Tab Parameters

Parameter	Description
Exit Saving Changes	• Allow users to save changes and reboot the system. • A confirmation message will pop up as below when user executes this item. System will save changes and then continue to reboot if ”Yes” is selected or will stay in Setup Utility if No is selected. 
Exit Discarding Changes	• Allow users to discard changes before exiting Setup Utility. • A confirmation message will pop up as below when user executes this item. System will discard changes then continue to reboot if ”Yes” is selected or will stay in Setup Utility if No is selected. 

Parameter	Description
Save & shutdown	• Allow users to save changes and shutdown the system. • A confirmation message will pop up as below when user executes this item. System will save changes then continue to shutdown if ”Yes” is selected or will stay in Setup Utility if No is selected.
Load Setup Defaults	• Allow user to load factory default configurations in Setup Utility. • A confirmation message will pop up as below when user executes this item. System will stay in Setup Utility after either selection. 

Boot Manager

The *Boot Manager* allows users to select the boot device without accessing the BIOS utility.

NOTE:

Boot Manager is available only if the `F12 Boot Menu` parameter in `Main` menu is set to `Enabled` (refer to **Main Tab** on page **2-5**).

Perform the following to use the F12 Boot menu:

1. Start the computer.
2. When prompted, press ***F12*** during POST. The `Boot Manager` screen appears.

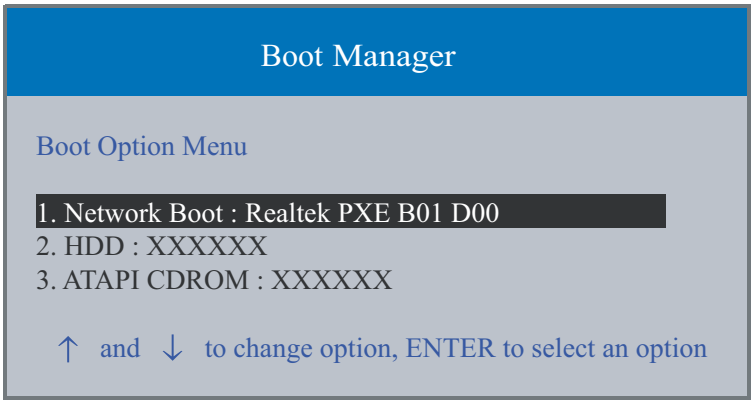


Figure 2-14. Boot Manager Screen

3. Use the ↑ and ↓ keys to highlight a boot device.
4. Press ***Enter*** to select and continue with the boot procedure.

BIOS Secure Flash Utilities

BIOS Flash memory updates are required for the following conditions:

- New versions of system programs
- New features or options
- Restore a BIOS when it becomes corrupted

Use the Flash utility to update the system BIOS Flash ROM.

Perform the following to run a BIOS Flash update:

1. Prepare a bootable USB HDD/FDD.
2. Download and copy the Flash utilities to the bootable USB HDD/FDD.

BIOS Flash may be performed by one of the following:

- Shell Secure Flash Utility (see **Shell Secure Flash Utility SOP (For Service BIOS)** on page **2-22**).
- Windows Secure Flash Utility (see **Windows Secure Flash Utility SOP (For Service BIOS)** on page **2-26**).

NOTE:

- If a Crisis Recovery Disc is not available, create one before BIOS Flash utility is used. See **Creating a USB Flash Crisis Disk** on page **2-46**.
- Do not install memory related drivers (XMS, EMS, DPMI) when BIOS Flash is used.
- Use an AC adaptor power supply when running BIOS Flash utility. If the battery pack does not contain power to finish loading BIOS Flash, do not boot the system.
- Flash utility has auto execution function.

Shell Secure Flash Utility SOP (For Service BIOS)

1. In Windows OS, unzip the compressed file of BIOS ROM package "**BIOS_V1.xxS_Shell_ X64.zip**" (V1.xx = Version 1.xx), and then copy the "Shell" and "EFI" folder to the root of the USB HDD (formatted as FAT32).

   NOTE: In the example below, the file is unzip and saved in E:\ location.

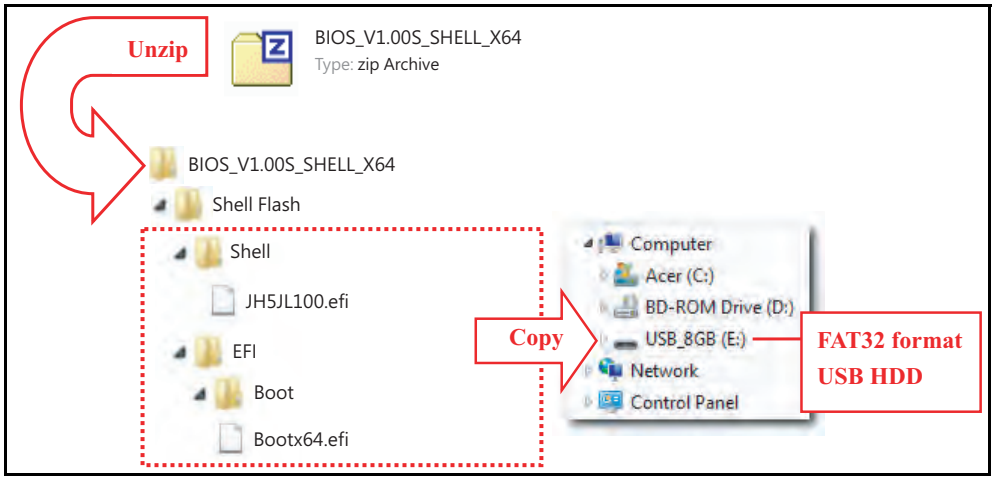


Figure 2-15. Unzip and Copy BIOS ROM Package

2. Power on the target machine. Press ***F2*** during boot to enter the *BIOS Setup Menu*. In the `Boot` menu, ensure the **Boot Mode** is "**UEFI**". Then set the "**USB HDD**:" as the first boot device in *Boot priority order*.

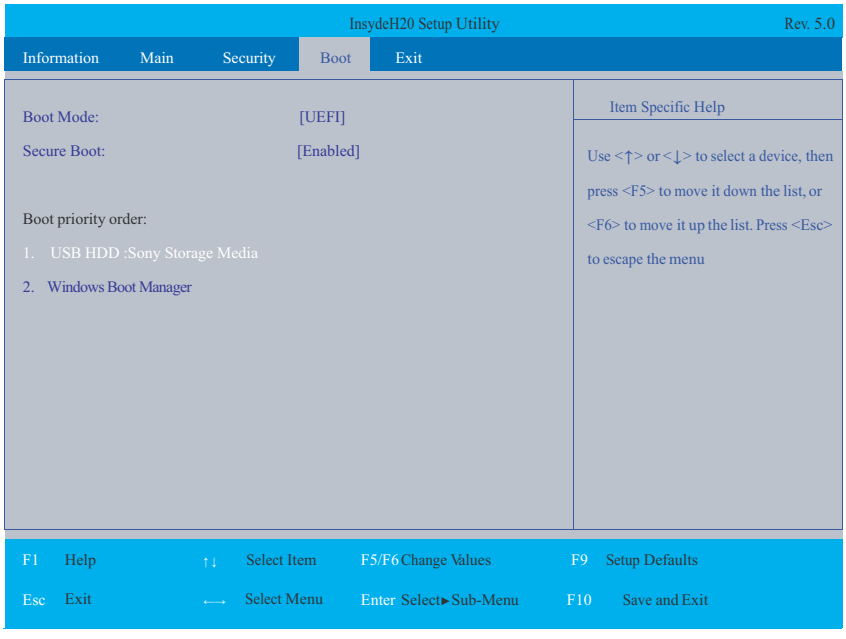


Figure 2-16. Configure Boot Parameters

3. On the `Exit` menu, choose "**YES**" on **Exit Saving Changes**. The system will save changes and reboot.

4. The system will reboot and enter Shell environment from the USB disk. Find the location of the “Removable HardDisk” in the device mapping table and open that path. For this example, the disk path is set to "fs1:" and the folder path is set to “cd shell”.

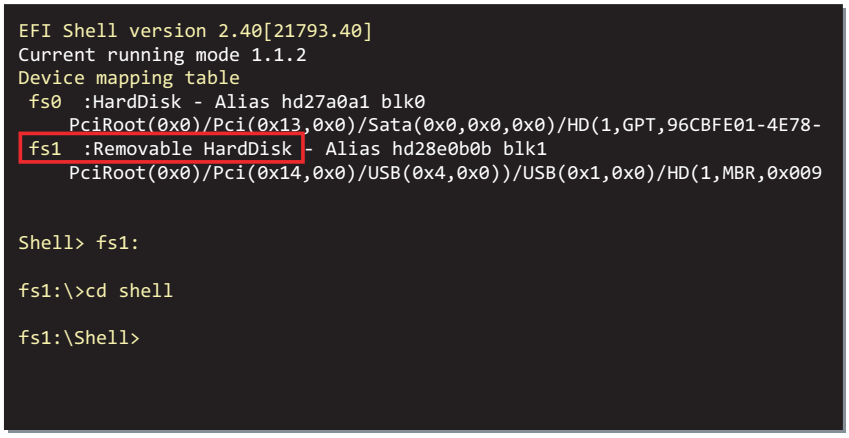


Figure 2-17. Change Folder Path

5. Execute the “**JH5JL100.efi**“ file. The system will perform auto reboot.

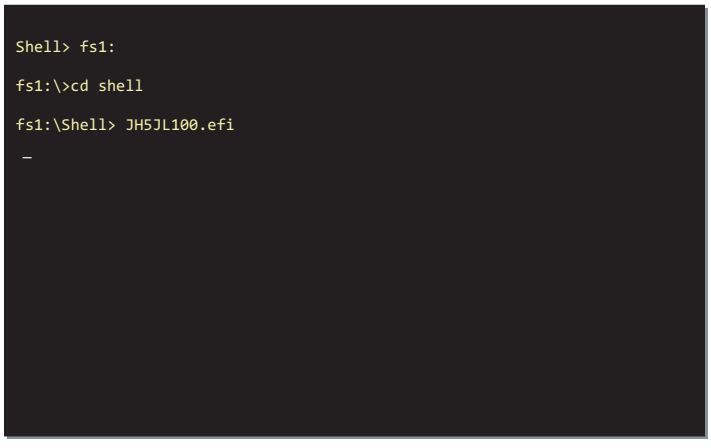


Figure 2-18. Execute the JH5JL100.efi

6. After the system reboot, the BIOS and EC firmware are now ready to be updated.

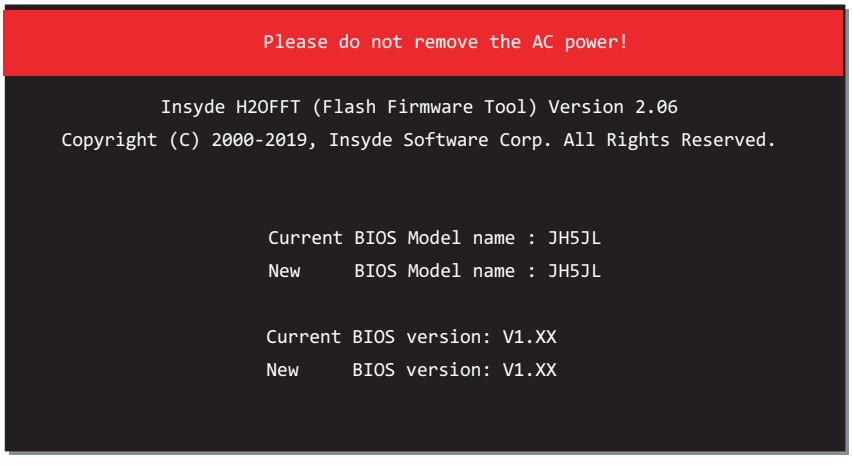


Figure 2-19. Ready to Update

7. The system will start doing secure flash.

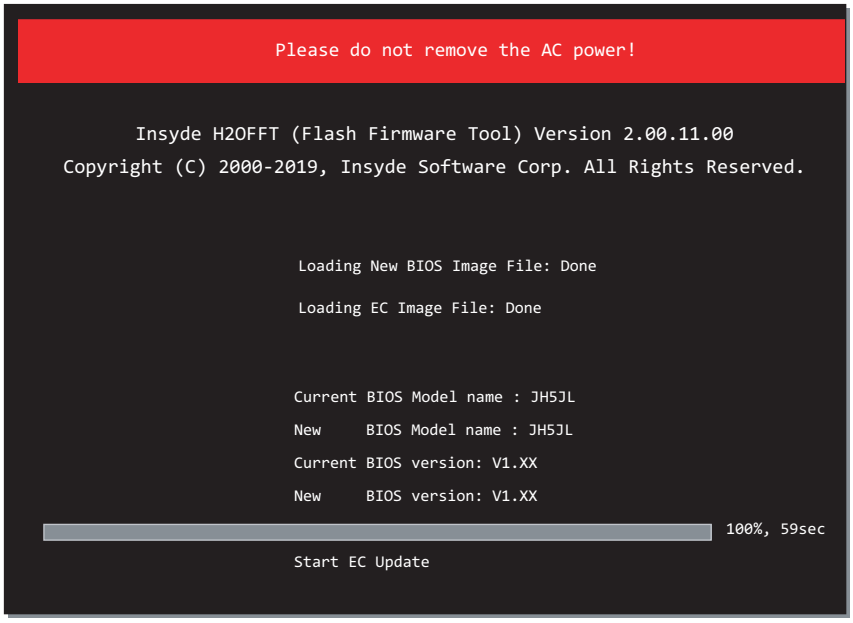


Figure 2-20. Start Secure Flash

IMPORTANT:

- While flashing BIOS, do not remove the AC power source. If the warning message below is shown, check if the AC power is plugged in.

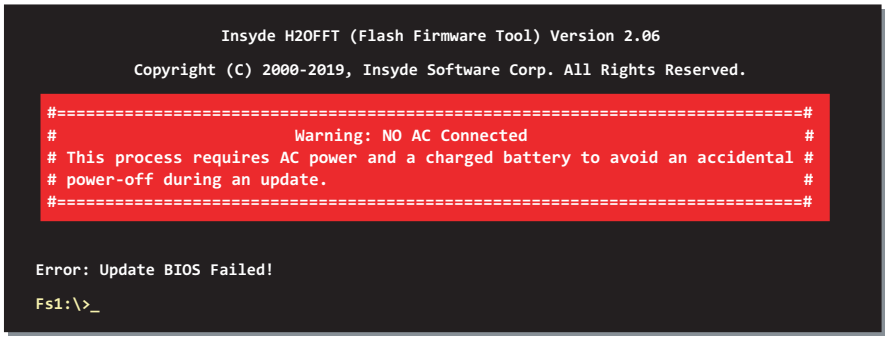


Figure 2-21. AC Detect Error

- If the warning message below is displayed, make sure the battery is not disconnected from the system.

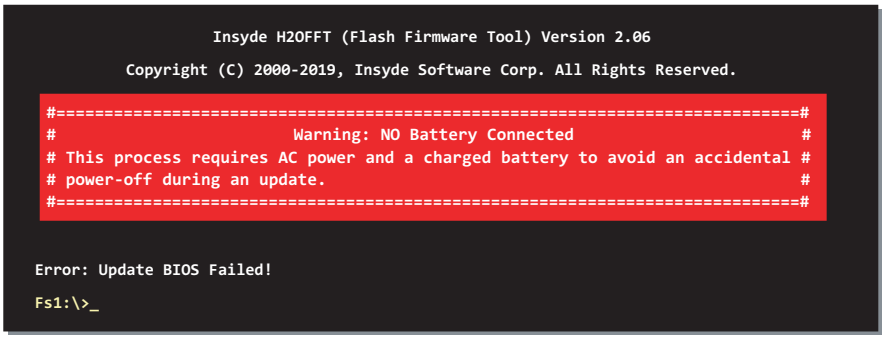


Figure 2-22. Battery Disconnected

- If the warning message below is displayed, make sure the battery power is above 25%.

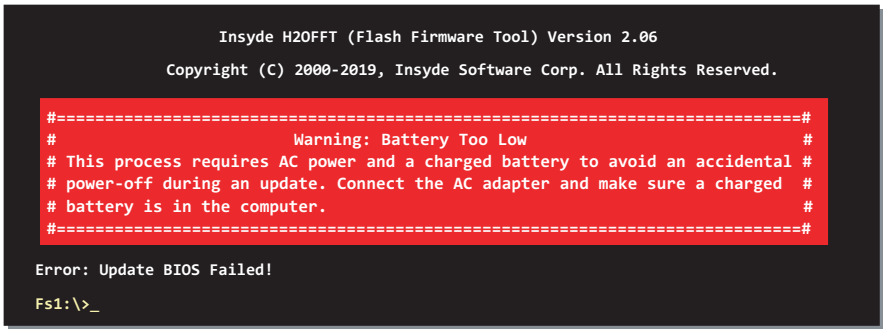


Figure 2-23. Battery Power is Low

Windows Secure Flash Utility SOP (For Service BIOS)

NOTE:

Due to ESP (EFI System Partition), Winflash does not support Legacy mode. If the platform without windows OS, please use Shell Flash Utility package to flash BIOS and EC firmware.

1. In Windows OS, unzip the compressed file of BIOS ROM package "**BIOS_V1.xxS_ W11X64.zip**" (V1.xx = Version 1.xx), and copy the contents of the folder to your computer.

   NOTE: In the example below, the file is unzip and saved in "**C:**' location.

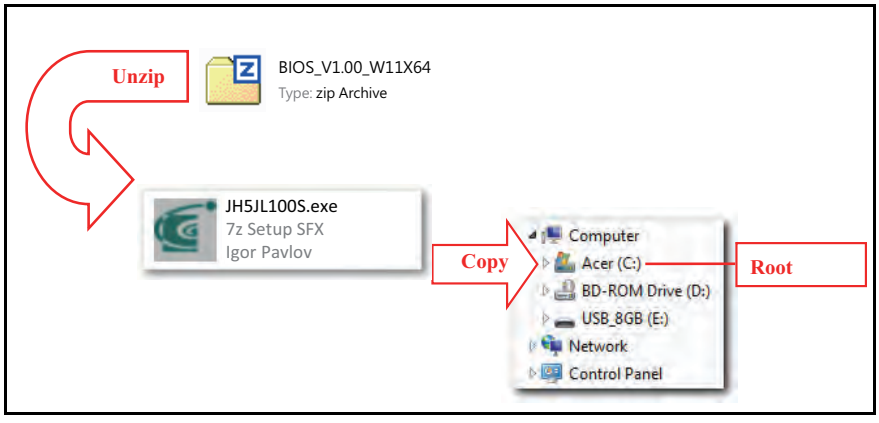


Figure 2-24. Unzip and Copy BIOS ROM Package

2. Click the Windows key shortcut "***WINKEY + X***" on the keyboard to display the Windows Mobility Center application. Then choose "**Command Prompt (Admin)**".

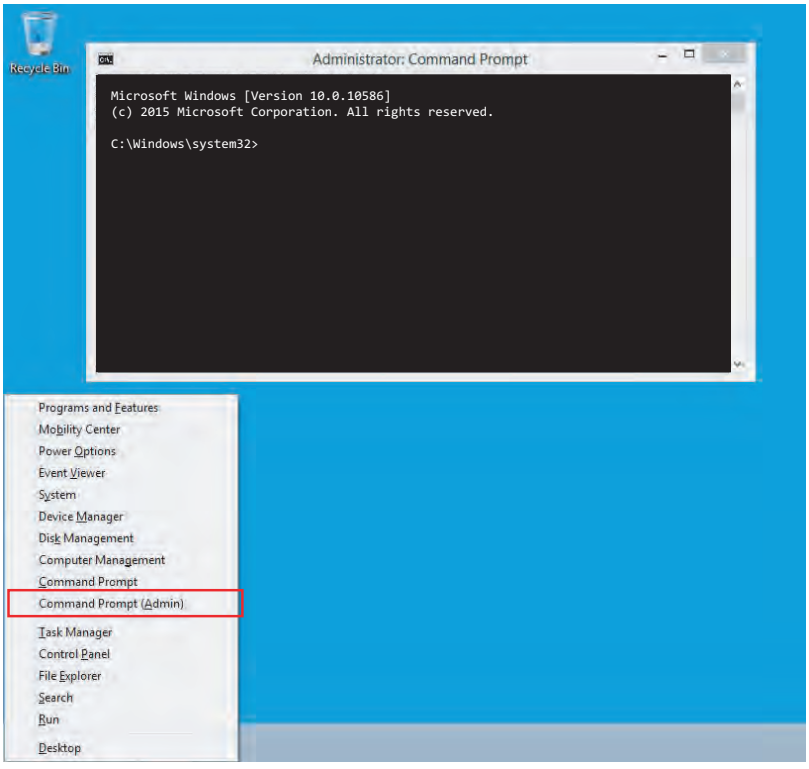


Figure 2-25. Run Command Prompt

3. If User Account Control is enabled, a “Do you want to allow the following program to make changes to this computer?” appears on the screen. Click **Yes** to continue.

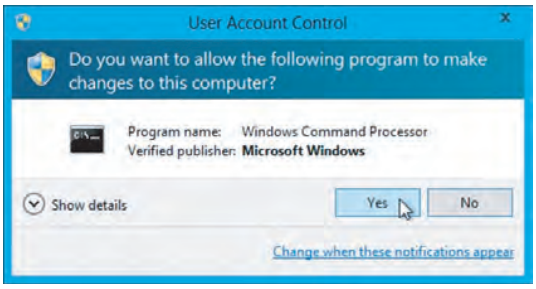


Figure 2-26. Enable Modifications

4. Change the directory to the "BIOS_V1.xxS_ W11X64\Win" folder with Command Prompt window.

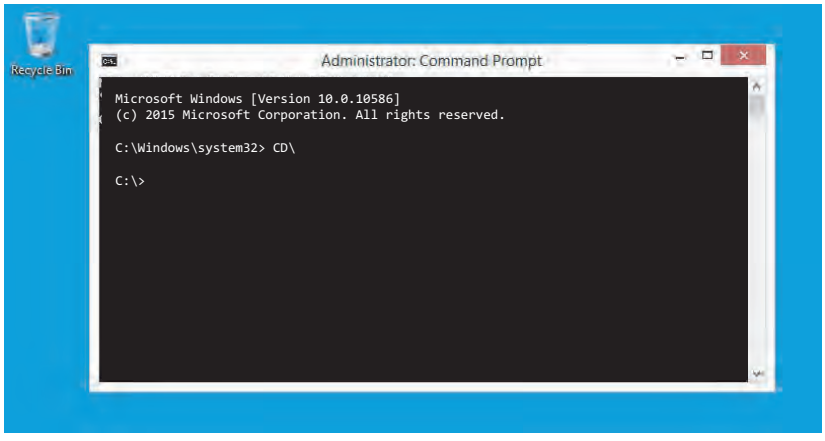


Figure 2-27. Change the Directory

5. Execute the “**JH5JL100S.exe**“ file then the system will do automatic reboot. This file will flash BIOS and EC firmware.

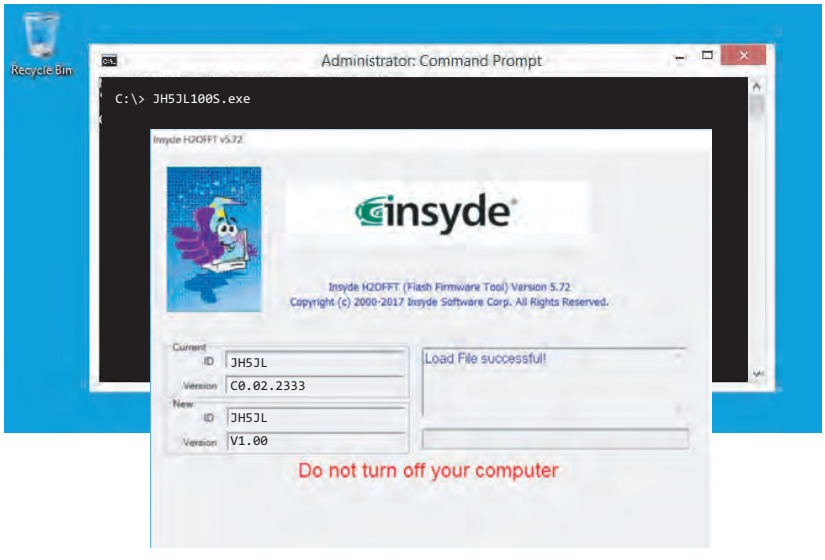


Figure 2-28. Execute the JH5JL100S.exe

NOTE:

Before flashing BIOS, make sure that the AC power source is plugged in. If the warning message below appears, check if the AC is properly plugged in.



Figure 2-29. AC Detect Error

CAUTION:

If the warning message below is displayed, make sure the battery is not disconnected from the system.



Figure 2-30. Battery Disconnected

CAUTION:

If the warning message below is displayed, make sure the battery power is above 25%.

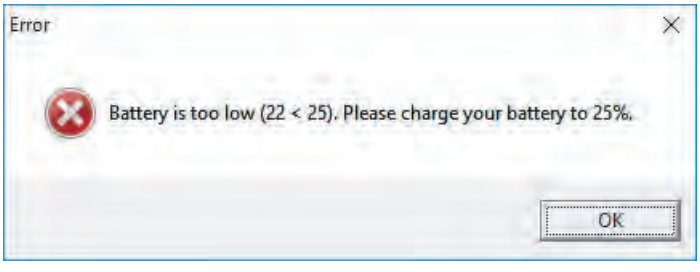


Figure 2-31. Battery Power is Low

6. The system will automatically reboot and start doing secure flash.

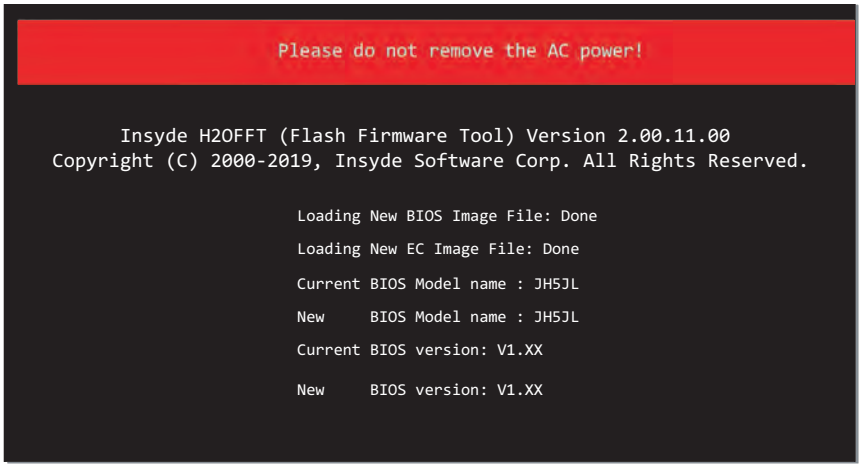


Figure 2-32. Start Secure Flash

NOTE:

While flashing BIOS on Secure flash window, do not remove the AC power source. If the warning message below is shown, check if the AC power is plugged in.

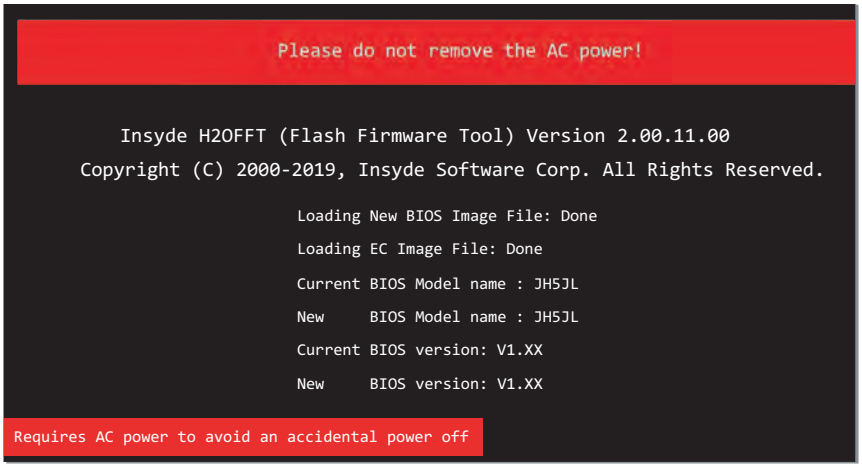


Figure 2-33. AC Detect Error

7. When the flash process is complete, the update progress shows 100%. The system will reboot.

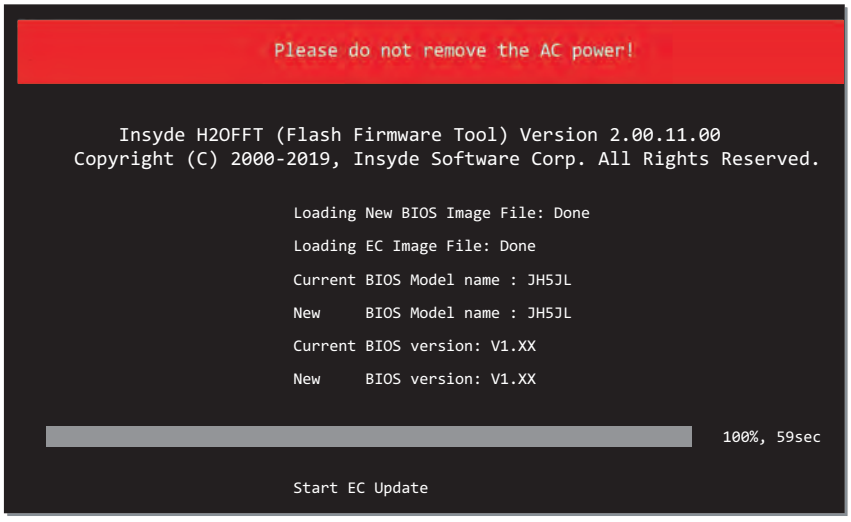


Figure 2-34. Flash Complete

1. In Windows OS, unzip the compressed file of BIOS ROM package "**BIOS_V1.xxS_ W11X64.zip**" (V1.xx = Version 1.xx), and copy the contents of the folder to your computer.

   NOTE: In the example below, the file is unzip and saved in "**C:**' location.

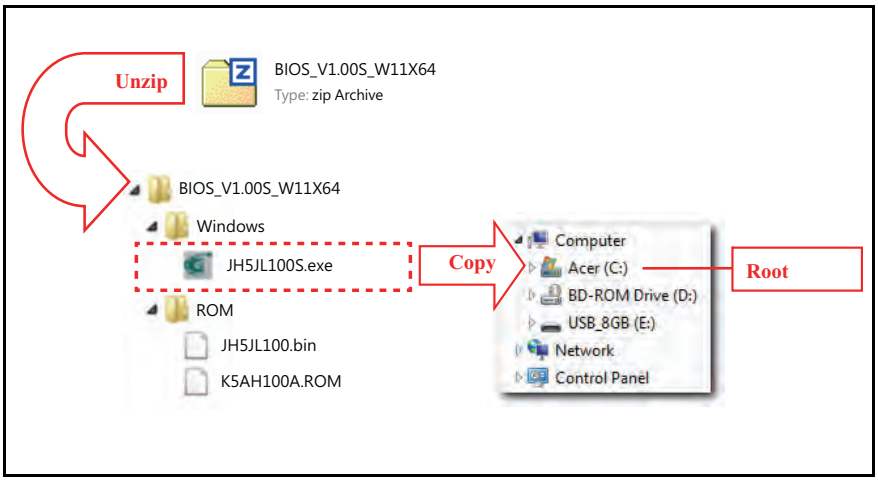


Figure 2-35. Unzip and Copy BIOS ROM Package

2. Click the Windows key shortcut "***WINKEY + X***" on the keyboard to display the Windows Mobility Center application. Then choose "**Command Prompt (Admin)**".

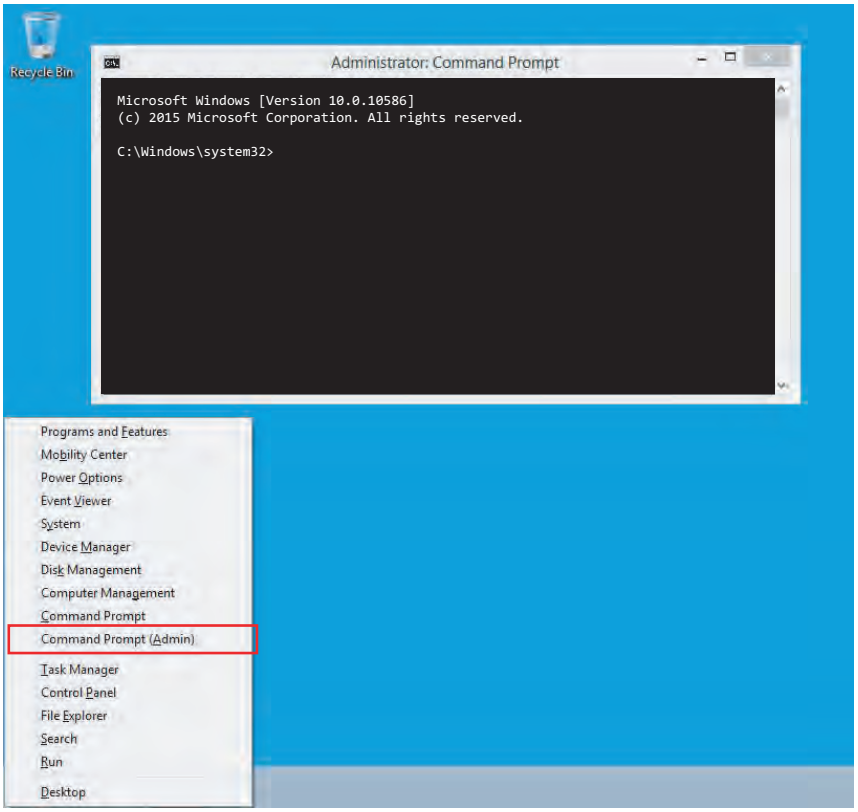


Figure 2-36. Run Command Prompt

3. If User Account Control is enabled, a “Do you want to allow the following program to make changes to this computer?” appears on the screen. Click **Yes** to continue.

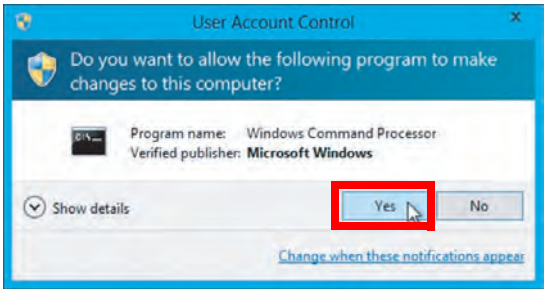


Figure 2-37. Enable Modifications

4. Change to path where **JH5JL100S.exe** is saved.

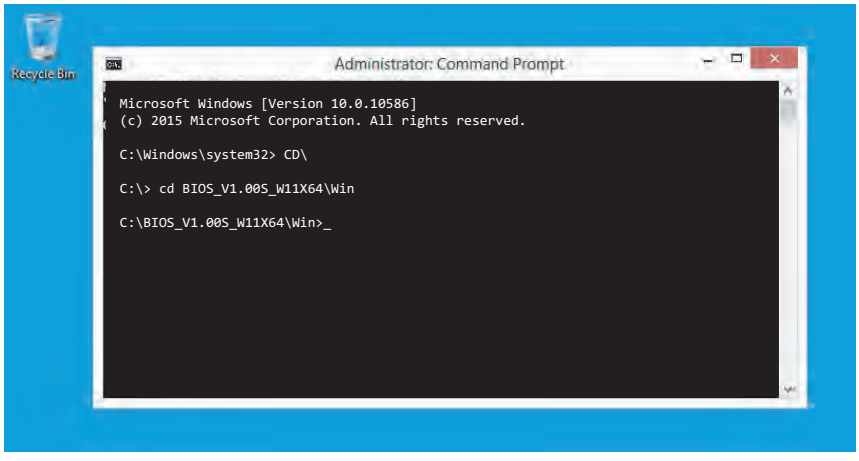


Figure 2-38. Change the Directory

5. Execute the “**JH5JL100S.exe**“ file then the system will do automatic reboot. This file will flash BIOS and EC firmware.

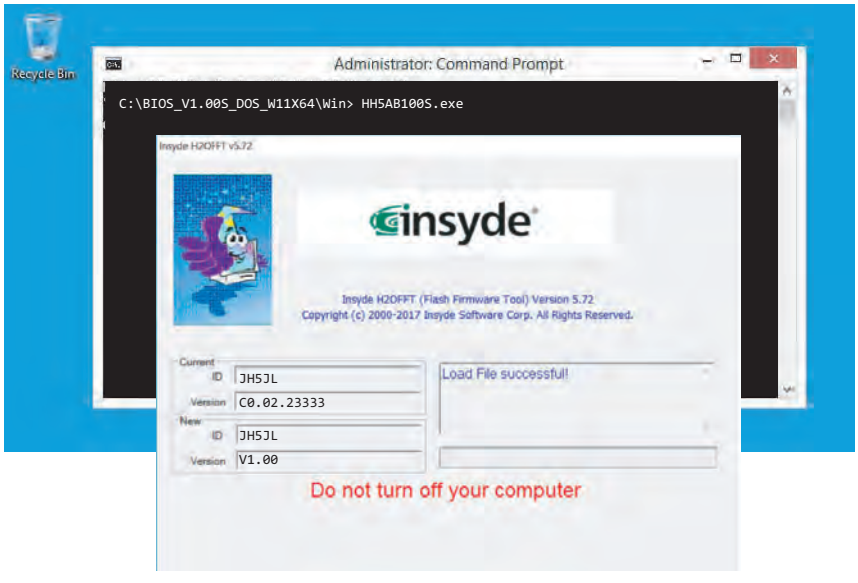


Figure 2-39. Execute the JH5JL100S.exe

NOTE:

Before flashing BIOS, make sure that the AC power source is plugged in. If the warning message below appears, check if the AC is properly plugged in.



Figure 2-40. AC Detect Error

CAUTION:

If the warning message below is displayed, make sure the battery is not disconnected from the system.



Figure 2-41. Battery Disconnected

CAUTION:

If the warning message below is displayed, make sure the battery power is above 25%.

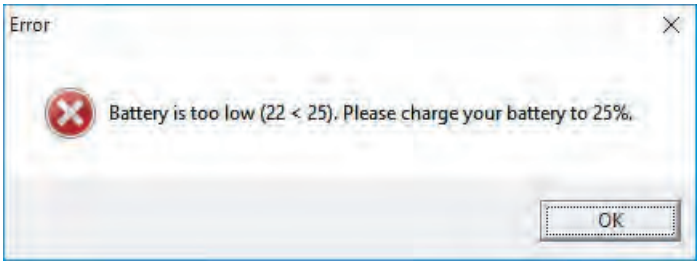


Figure 2-42. Battery Power is Low

6. The system will automatically reboot and start doing secure flash.

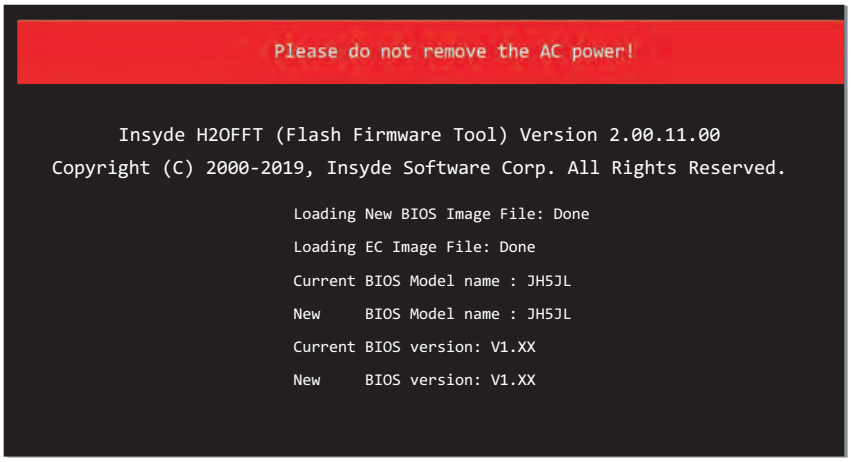


Figure 2-43. Start Secure Flash

NOTE:

While flashing BIOS on Secure flash window, do not remove the AC power source. If the warning message below is shown, check if the AC power is plugged in.

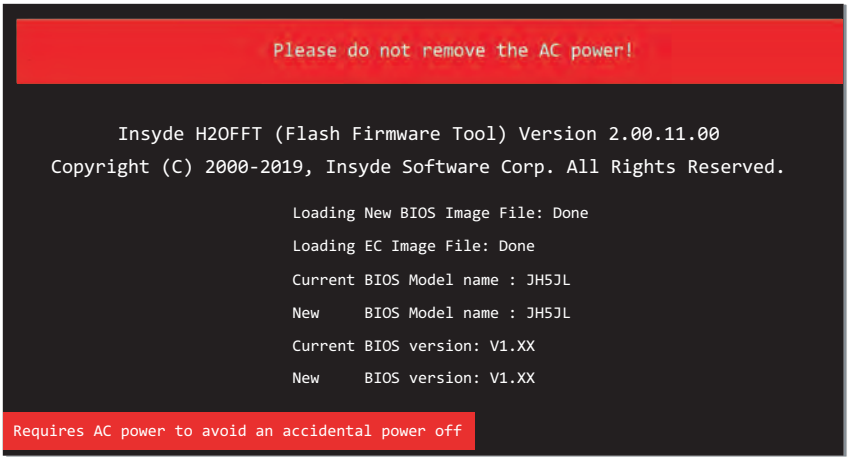


Figure 2-44. AC Detect Error

7. When the flash process is complete, the update progress shows 100%. The system will reboot.

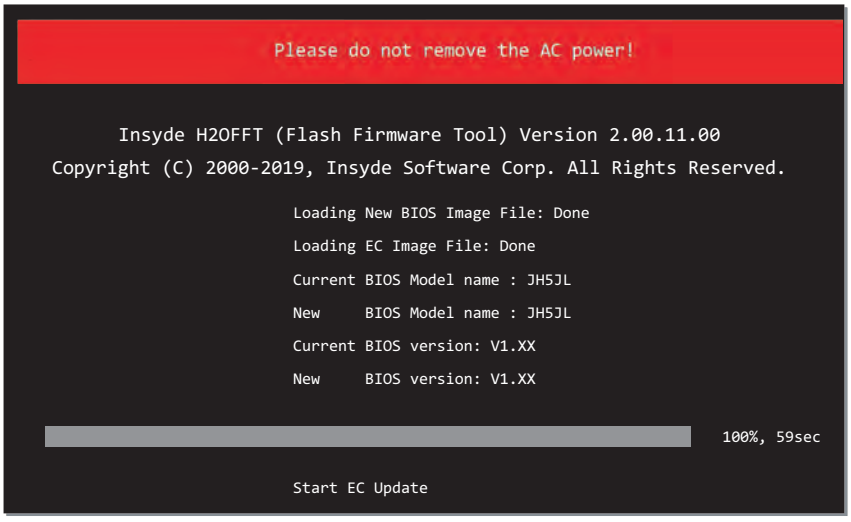


Figure 2-45. Flash Complete

DMITools Utility SOP

The *DMI (Desktop Management Interface) Tool* copies BIOS information to EEPROM and used in the DMI pool for hardware management.

When the BIOS shows `Verifying DMI pool data,` it is checking that the table correlates with the hardware before sending it to the operating system (Windows, etc.).

Using DMITools (x64)

Filename: **DMITOOLSx64.exe**

Usage Options:

```
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================
USAGE : DMITOOLSx64 [/Rm |/Rp |/Rfgsn |/Rmbsn |/RUUID |/Rasset |/RLM]
                    [/Wm |/Wp |/Wfgsn |/Wmbsn |/GWUUID |/WUUID |/Wasset]
                    [/WLM] [STRING]
       [/Rm]      : Read Manufacturer Name.
       [/Wm]      : Write Manufacturer Name to EEPROM.  (Max.= 16 characters)
       [/Rp]      : Read Product Name.
       [/Wp]      : Write Product Name to EEPROM.       (Max.= 30 characters)
       [/Rfgsn]   : Read F/G Serial Number.
       [/Wfgsn]   : Write F/G Serial Number to EEPROM.   (Max.= 22 characters)
       [/Rmbsn]   : Read M/B Serial Number.
       [/Wmbsn]   : Write M/B Serial Number to EEPROM.  (Max.= 32 characters)
       [/RUUID]   : Read UUID.
       [/GWUUID]  : Generate UUID and Write.           (Ignore String )
       [/WUUID]   : Write UUID to EEPROM.            (Max.= 20 Hex number)
       [/Rasset]  : Read Asset Tag.
       [/Wasset]  : Write Asset Tag to EEPROM.            (Max.= 32 characters)
       [/RLM]     : Read LAN MAC from EEPROM.
       [/WLM]     : Write LAN MAC to EEPROM.        (Max.= 12 Hex number)
              <Write LAN MAC only support Atheros/ Realtek LAN>
```

Figure 2-46. Usage Options

To update the DMI Pool, perform the following:

1. In Windows OS, copy "**DMITOOLSx64.exe**" to the Tools directory of a WinPE3.0/4.0 System Disk.

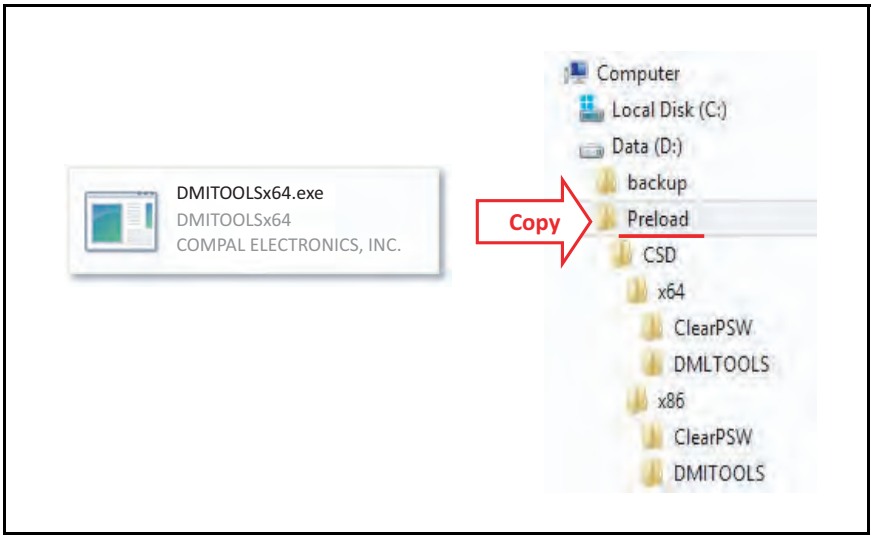


Figure 2-47. Copy File

NOTE:
Above path is an example only.

2. On the target device, boot to WinPE3.0/4.0 Server and execute **DMITOOLSx64.exe** to display the usage options help.

The following examples show the commands and the corresponding output information:

1. Read DMI Information from Memory

[Instruction & Output] Read Manufacture Name

```
C:\>DMITOOLSx64 /Rm
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

Manufacturer  : Acer
```

Figure 2-48. Read Manufacture Name

[Instruction & Output] Read Product Name

```
C:\>DMITOOLSx64 /Rp
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

Product Name   : xxxx xx-xxx
```

Figure 2-49. Read Product Name

[Instruction & Output] Read Serial Number

```
C:\>DMITOOLSx64 /Rfgsn
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

Serial Number  : 01234567890123456789
```

Figure 2-50. Read Serial Number

[Instruction & Output] Read M/B Serial Number

```
C:\>DMITOOLSx64 /Rmbsn
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

M/B Serial Number  : 1122334455667788990
```

Figure 2-51. Read M/B Serial Number

[Instruction & Output] Read UUID

```
C:\>DMITOOLSx64 /RUUID
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

UUID String    : E37BADAD-7022-E811-9855-9828A606B8AD
                 AD AD 7B E3 22 70 11 E8 98 55 98 28 A6 06 B8 AD
```

Figure 2-52. Read UUID

[Instruction & Output] Read Asset Tag

```
C:\>DMITOOLSx64 /Rasset
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

Asset Tag String    : Acer Asset Tag
```

Figure 2-53. Read Asset Tag

[Instruction & Output] Read LAN MAC

```
C:\>DMITOOLSx64 /RLM
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

LAN MAC: B8-88-E3-42-6F-BF
```

Figure 2-54. Read LAN MAC Address

2. Write Manufacturer Name to EEPROM

[Instruction] `DMITOOLSx64 /Wm Acer`

```
C:\>DMITOOLSx64 /Wm Acer
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

Waiting……
Successful, Please restart system to make this new DMI data effective.
```

Figure 2-55. Write Manufacturer Name

3. Write Product Name to EEPROM

[Instruction] `DMITOOLSx64 /Wp xxxx xx-xxx`

```
C:\>DMITOOLSx64 /Wp xxxx xx-xxx
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

Waiting……
Successful, Please restart system to make this new DMI data effective.
```

Figure 2-56. Write Product Name

4. Write Serial Number to EEPROM

[Instruction] `DMITOOLSx64 /Wfgsn 01234567890123456789`

```
C:\>DMITOOLSx64 /Wfgsn 01234567890123456789
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================

Waiting……
Successful, Please restart system to make this new DMI data effective.
```

Figure 2-57. Write Serial Number

5. Write M/B Serial Number to EEPROM

[Instruction] `DMITOOLSx64 /Wmbsn 01234567890123456789`

```
C:\>DMITOOLSx64 /Wmbsn 01234567890123456789
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================


Waiting.....................................
Successful, Please restart system to make this new DMI data effective.
```

Figure 2-58. Write M/B Serial Number

6. Generate and Write UUID to EEPROM (Create UUID from Intel WFM20.pdf)

[Instruction] `DMITOOLSx64 /GWUUID`

```
C:\>DMITOOLSx64 /GWUUID
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================


Waiting.....................................
Write UUID... 39643236-6134-6231-6232
Successful, Please restart system to make this new DMI data effective.
```

Figure 2-59. Generate and Write UUID

7. Write UUID to EEPROM

[Instruction] `DMITOOLSx64 /WUUID B57428EB4CB211E1BED7`

```
C:\>DMITOOLSx64 /WUUID B57428EB4CB211E1BED7
================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
================================================================


Waiting.....................................
Successful, Please restart system to make this new DMI data effective.
```

Figure 2-60. Write UUID

NOTE:

SMBIOS UUID used little-endian byte encoding for the first three fields: time_low, time_mid, time_hi_and_version.

For example:

The UUID 00112233-4455-6677-8899-AABBCCDDEEFF would thus be represented as: 33221100554477668899AABBCCDDEEFF.

Table 2-7. UUID Byte Order and RFC4122 Field Names

Offset	RFC 4122 Name	Length	Value	Description
00h	time_low	DWORD	Varies	Low field of the timestamp
04h	time_mid	WORD	Varies	Middle field of the timestamp
06h	time_hi_and_version	WORD	Varies	High fied of the timestamp multiplexed with the version number
08h	clock_seq_hi_and_reserved	BYTE	Varies	High field of the clock sequence multiplexed with the variant
09h	clock_seq_low	BYTE	Varies	Low field of the clock sequence
0Ah	Node	6 BYTEs	Varies	Spatially unique node identifier

8. Write Asset Tag to EEPROM

[Instruction] `DMITOOLSx64 /Wasset Acer Asstag`

```
C:\>DMITOOLSx64 /Wasset Acer Asstag
=================================================================
 Compal Electronics, INC.                          V3. 0. 0. 11
 Author : STD SID TEAM
 Utility: [WinPE] DMITOOLSx64.exe
 WARNING: THIS PROGRAM IS FOR INTERNAL USE ONLY.
 Copyright (C) 2015 Compal Electronics, INC. All rights reserved.
=================================================================

Waiting.....
Successful, Please restart system to make this new DMI data effective.
```

Figure 2-61. Write Asset Tag

NOTE:

- After writing items (2)~(8), restart the system to get the latest DMI data.
- If using the write command, enter the correct command string. Otherwise, it will display a syntax error.

```
C:\>DMITOOLSx64 /Wlm

ERROR:   The syntax of the command is incorrect!

Parameter is lack case:
ERROR : The input parameter is lack.
Over parameters case:
ERROR : The input parameter is too much.
Syntax is wrong case:
ERROR : The syntax of the command is incorrect.
Write command with String which length is too long case:
ERROR : The string length is invalid.
Write UUID and its length is too long or short case:
ERROR : The UUID length is invalid.
Write LAN MAC and its length is too long or short case:
ERROR : The LAN MAC length is invalid.
Write UUID and don't use Hexadecimal number case:
ERROR : The input parameter is invalid, Please use hexadecimal number.
Write LAN MAC in Broadcom LAN case:
ERROR : Write LAN MAC only support Atheros/ Realtek LAN
```

Figure 2-62. Syntax error

LAN EEPROM Utility SOP

LAN EEPROM Utility SOP (x64)

1. Extract “**LAN EEPROM Utility**” folder onto your desktop.
2. Find and execute “**DisableUAC.reg**”. Click **Yes** and **OK**. Then restart your computer.

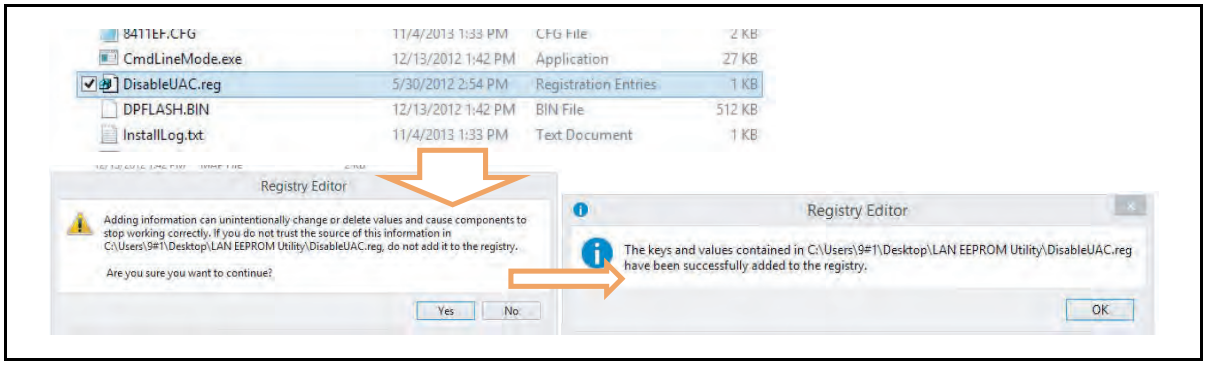


Figure 2-63. Execute “DisableUAC.reg”

3. After restart, find and execute “**WINPG64.BAT**”. It will automatically update your MAC address. Then press any key to check if the MAC address has already been updated.

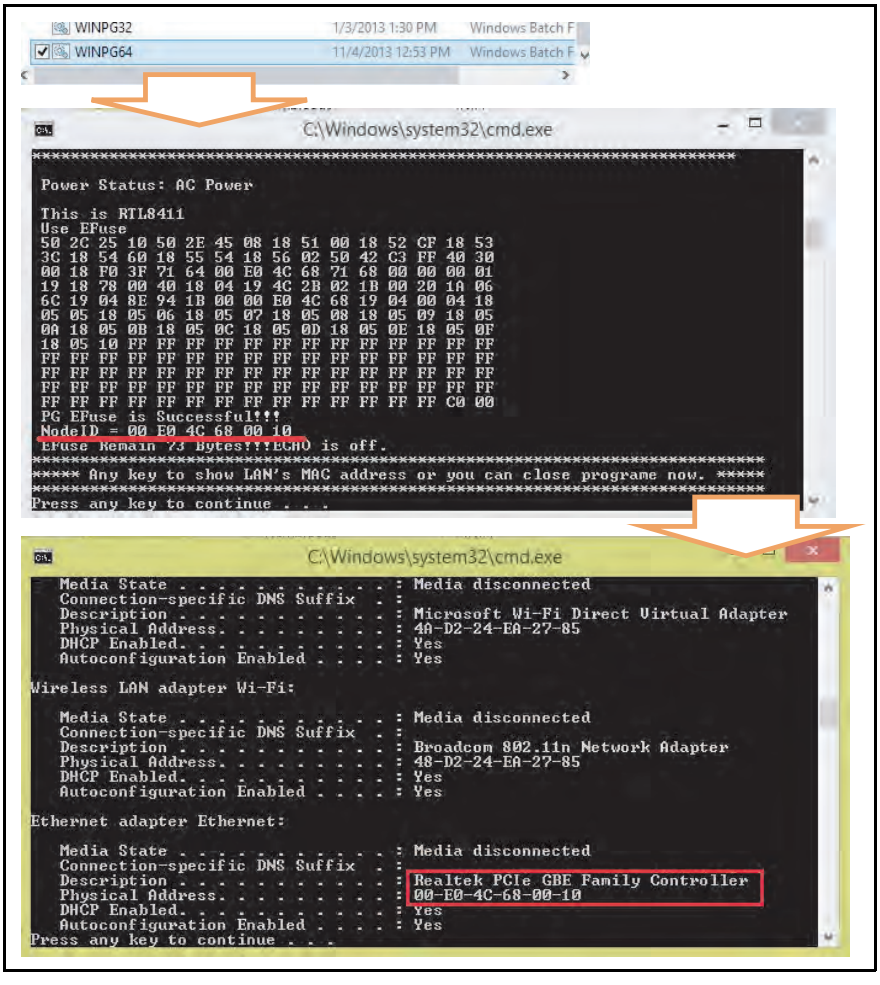


Figure 2-64. Execute “WINPG64.BAT”

4. To manually specify your MAC address, find “**WINPG64.BAT**“. Right-click your mouse on the file and select “`Edit`” to edit the file.

   Add **RTNicPgW64.exe/efuse/nodeid “MAC”** as shown in the below illustration. Then save the file and repeat step 3.

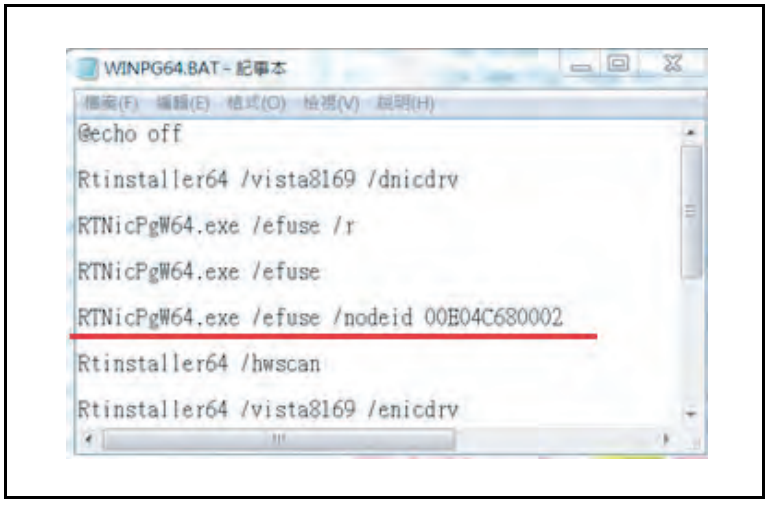


Figure 2-65. Modify MAC Address

Crisis Utility SOP

When to Use the Crisis S.O.P?

- When the system hangs while updating BIOS.
- When power failure occurs and the system shuts down while updating BIOS.
- When the system cannot boot normally after updating BIOS (i.e. a black screen appears without a POST logo, etc.).

Creating a USB Flash Crisis Disk

To create a Crisis USB flash disk, perform the following:

1. On a machine with Windows OS, plug in a USB flash disk.

2. Launch *Windows Explorer*, the USB flash disk is shown as a “Removable Disk”. Right-click the mouse on the USB flash disk, then select `Format` to format the USB disk.

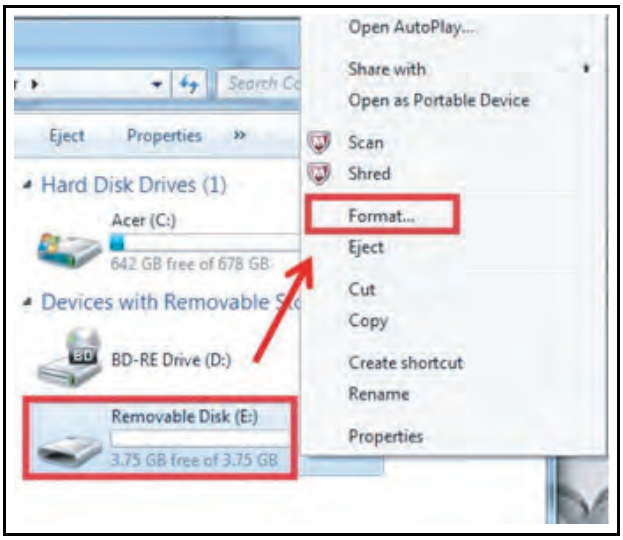


Figure 2-66. Format USB Flash Disk (1 of 2)

3. In the dialog shown below, set the following options:
   - File System: Select “FAT32”
   - Format Options: Select “Quick Format”

   Then, click **Start** to execute the formatting operation.

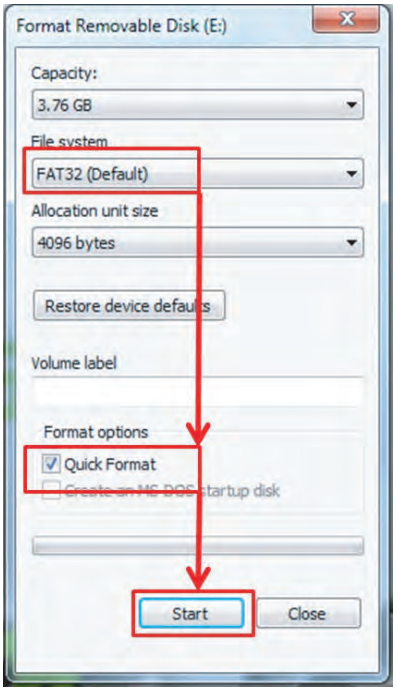


Figure 2-67. Format USB Flash Disk (2 of 2)

4. Click **OK** to confirm format when the following dialog box appears on the screen.

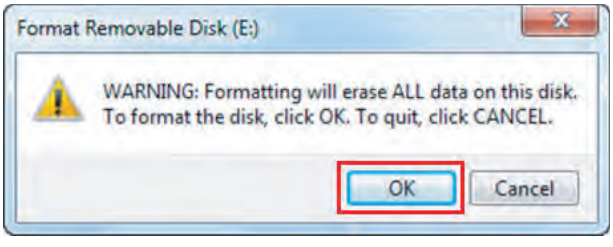


Figure 2-68. Confirm Format

5. When formatting is complete, click **OK** to close the dialog box.

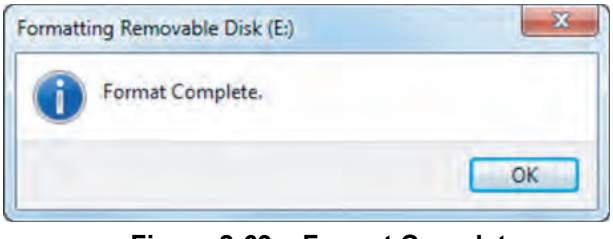


Figure 2-69. Format Complete

6. In Windows OS, unzip the compressed Crisis utility package (i.e. in this case, "**Crisis_Disk_v1.xx.zip**"). Then copy the "**JH5JLX64.fd**" file to the root directory of the USB flash disk made in the proceeding steps.

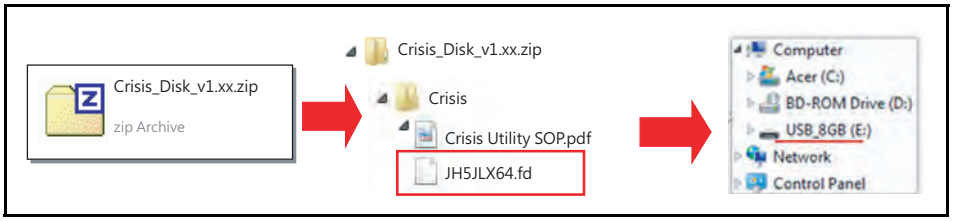


Figure 2-70. Unzip and Copy Crisis Package

NOTE:

Make sure the size of "**JH5JLX64.fd**" is about17.3MB, and that there is no other *.fd file in the root directory of the USB flash disk.

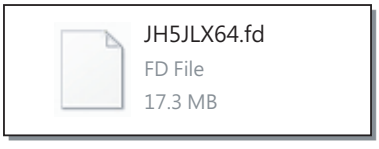


Figure 2-71. Check File Size

1. Turn off the target machine and make sure the AC is plugged in.

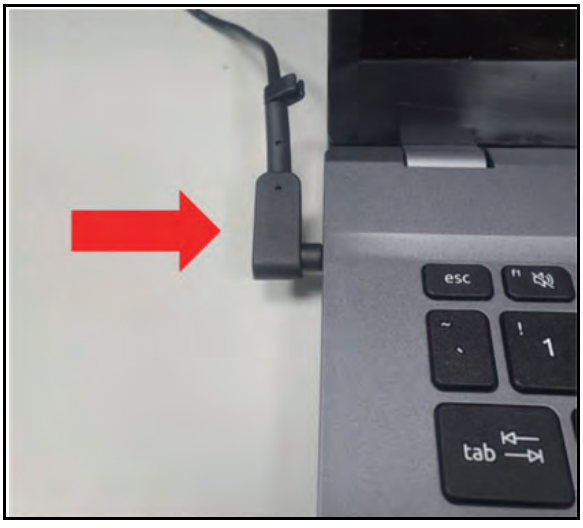


Figure 2-72. Ensure AC is Plugged In

2. Plug in the USB flash disk.

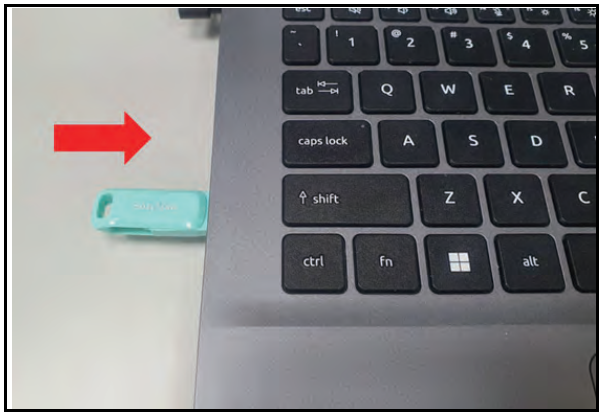


Figure 2-73. Plug In USB Flash Disk

3. Press and hold ***Fn*** and ***Esc***.

   DO NOT release ***Fn*** and ***Esc*** so far, and continue with step 4.

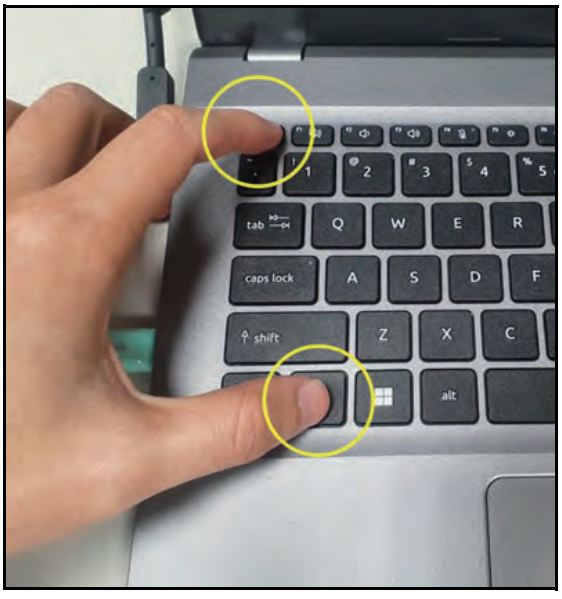


Figure 2-74. Hold Down <Fn> + <Esc>

4. As ***Fn*** and ***Esc*** are pressed, press the ***Power*** button to turn on the machine.

   Wait for 3~5 seconds to make sure the system fan is on full speed, and then you may release ***Fn*** and ***Esc***.

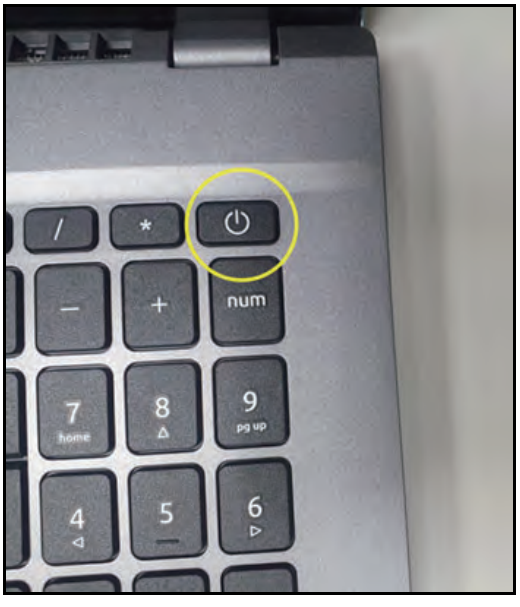


Figure 2-75. Power On

5. Wait for 3~5 minutes for the system to complete the *Crisis* operation. The system will automatically shutdown.

NOTE:

If the waiting time takes more than 5 minutes, the system recovery might have failed. Check the following:

- BIOS filename (i.e. "**JH5JLX64.fd**") is correct and the file is in the root directory of the USB flash Crisis disk.
- Remove the battery to reset the embedded controller status.
- Repeat steps 1~4.

BIOS Shipping Mode SOP

1. Power on the system. Then press ***F2*** and right ***Shift*** simultaneously to boot into Setup Utility.



Figure 2-76. Press <F2> + right <Shift>

2. Verify that the Setup Utility label (**InsydeH20 Setup Utility (Manufacture)**) is displayed in **RED text**.

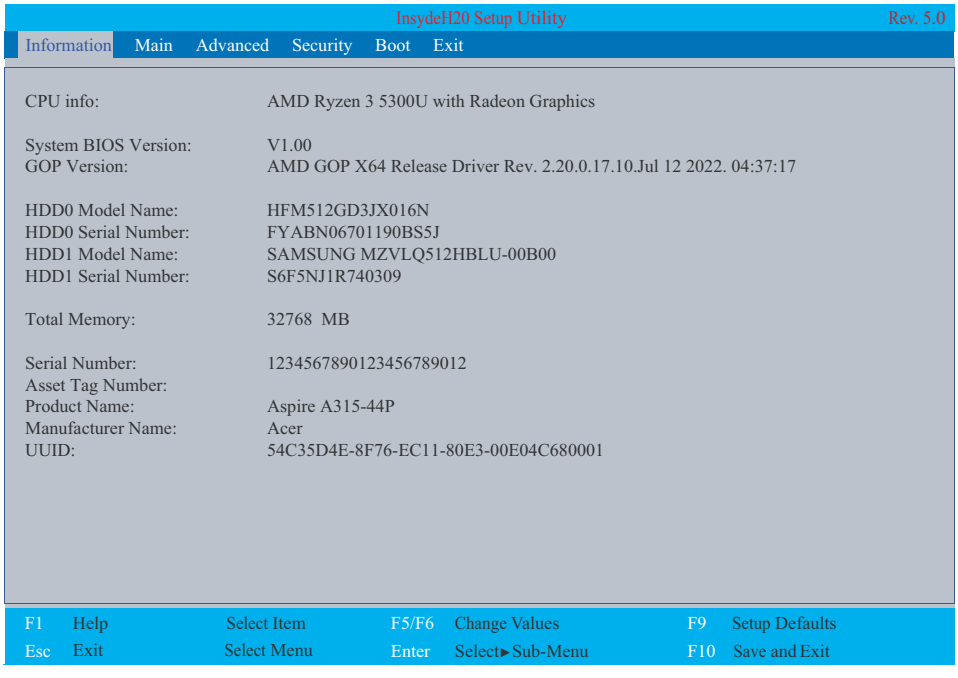


Figure 2-77. Verify Setup Utility Label

3. Ensure that the AC adapter has been removed.

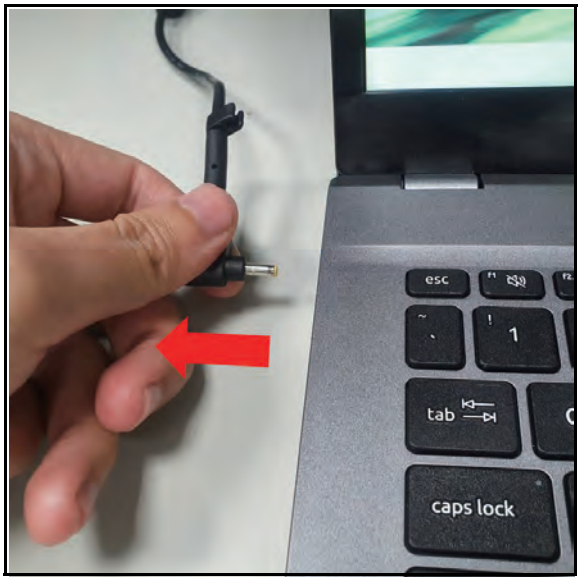


Figure 2-78. Unplug the AC Adapter

4. Press ***F10*** to save changes and exit. The system will automatically shut down and enter Shipping mode.

5. In Shipping mode, press the **Power** button to check the system CANNOT be powered on for ensuring safe transport of the device.

CHAPTER 3

Jumper and Connectors Location

Jumper and Connector Locations 3-2

Mainboard Top View 3-2

Mainboard Bottom View 3-3

USB Board 3-4

Clear CMOS Jumper 3-5

Jumper and Connector Locations

Mainboard Top View

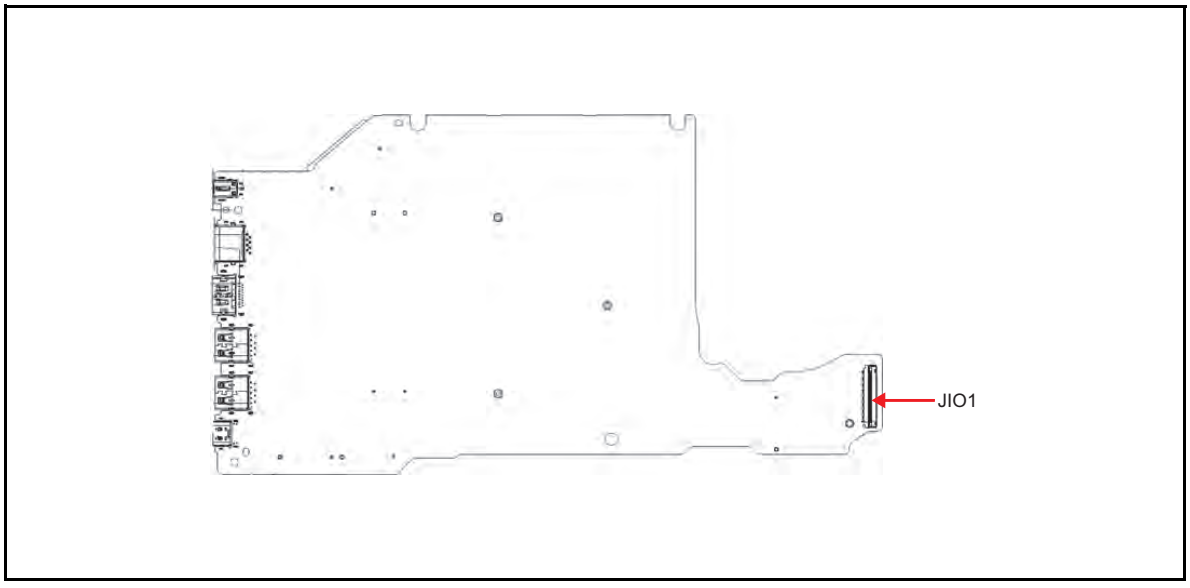


Figure 3-1. Mainboard Top

Table 3-1. Mainboard Top Jumper and Connector

Item	Description
JIO1	MB to IO/B connector

Mainboard Bottom View

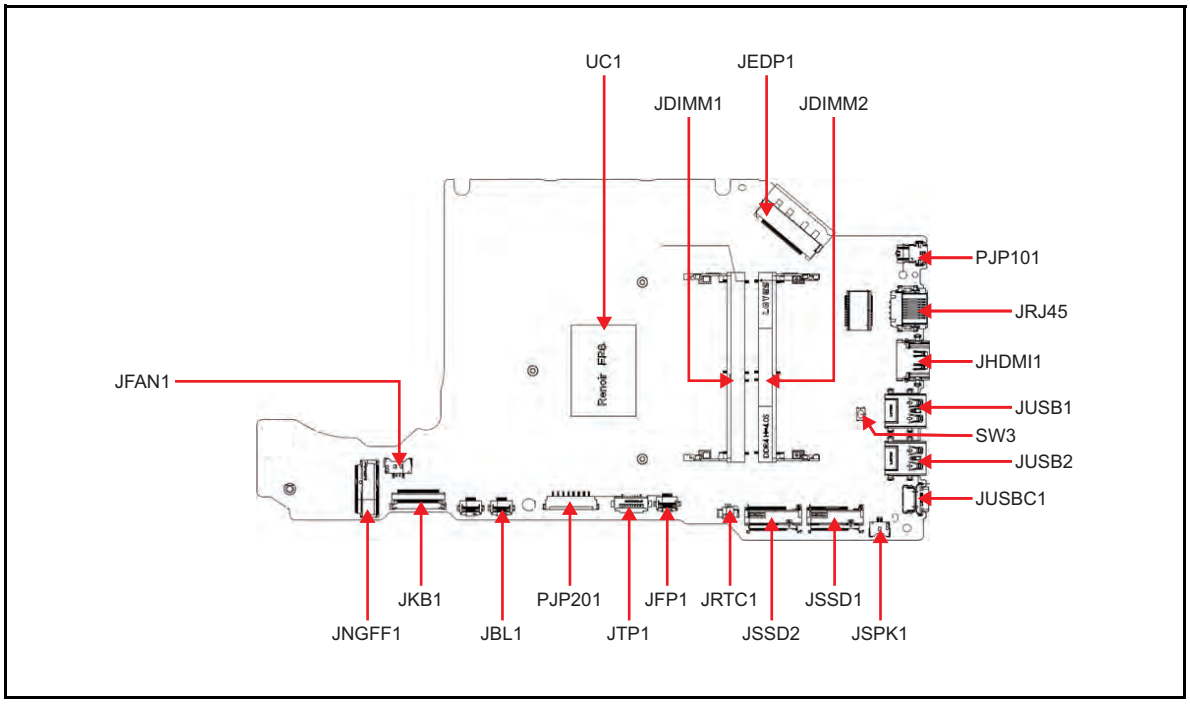


Figure 3-2. Mainboard Bottom

Table 3-2. Mainboard Bottom Jumper and Connectors

Item	Description
JFAN1	Fan Connector
JNGFF1	NGFF WLAN Card Connector
JKB1	Keyboard Connector
JBL1	Keyboard Backlight Connector
PJP201	Battery connector
JTP1	Touchpad Connector
JFP1	FingerPrint Connector
JRTC1	RTC Battery connector
JSSD2	M.2 SSD Connector
JSSD1	M.2 SSD Connector
JSPK1	Speaker Connector

Item	Description
JUSBC1	Type-C Connector
JUSB2	USB3.1 Connector
SW3	EC Reset Switch
JUSB1	USB3.1 Connector
JHDMI1	HDMI Connector
JRJ45	LAN Connector
PJP101	DC-IN Cable Connector
JDIMM2	DDR4 Connector
JEDP1	Panel Connector
JDIMM1	DDR4 Connector
UC1	AMD APU Chip

USB Board

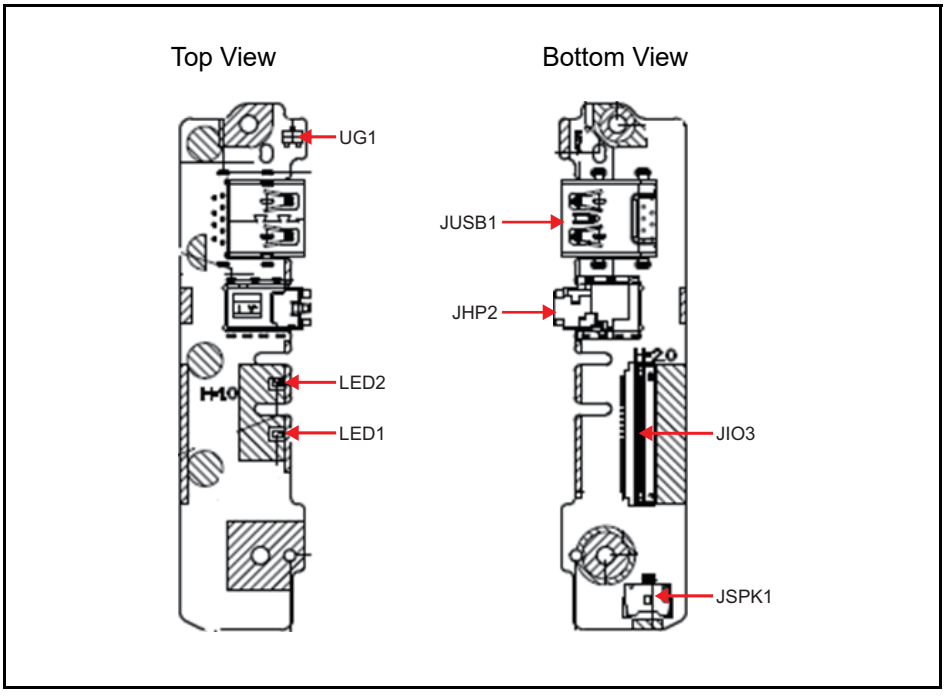


Figure 3-3. USB Board

Table 3-3. USB Board Connectors

Item	Description
UG1	Hell Sensor
LED2	Power LED
LED1	Battery LED
JUSB1	USB2.0 connector

Item	Description
JHP2	Headphone Connector
JIO3	IO/B to MB Connector
JSPK1	Speaker Connector

Clear CMOS Jumper

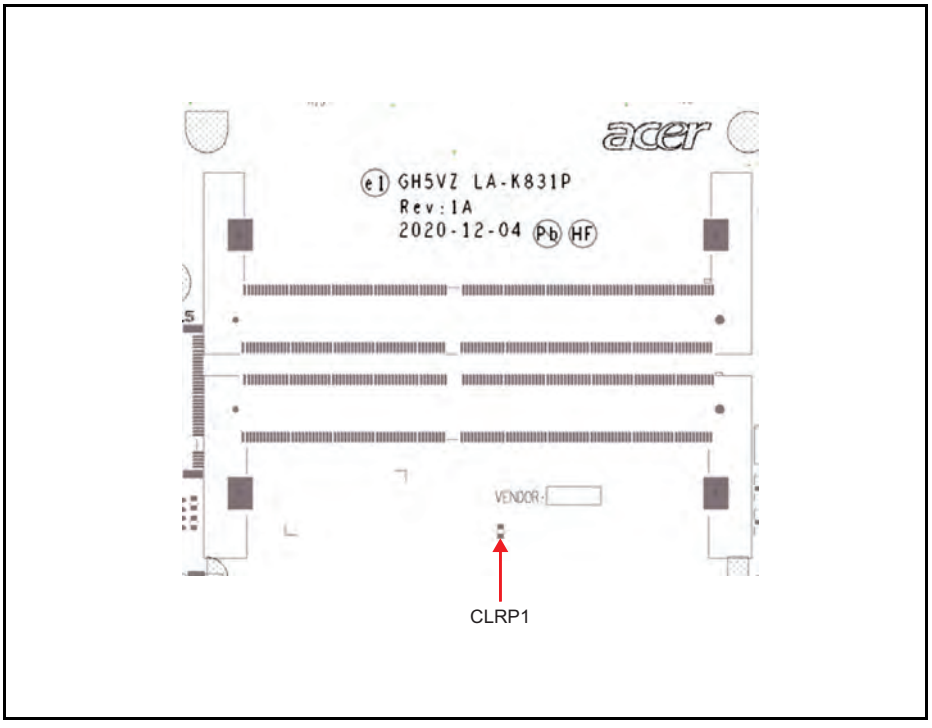


Figure 3-4. Clear CLRP1

Table 3-4. Clear CMOS Jumper

Item	Description
CLRP1	Clear CMOS Jumper

CHAPTER 4

Troubleshooting

Troubleshooting 4-2

General Information 4-2

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Troubleshooting

This chapter contains information about troubleshooting common problems associated with the device.

General Information

The following procedures are a guide for troubleshooting computer problems. The step by step procedures are designed to be performed as described.

NOTE:

- The diagnostic tests are intended to test only Acer products. Non-Acer products, prototype cards, or modified options can give false errors and invalid system responses.
- Do not replace a non-defective FRU.

1. Obtain as much detail as possible about the problem.
2. If possible, verify the symptoms by re-creating the failure through diagnostic tests or by repeating the operation that led to the problem.
3. Use Table 4-1 with the verified symptom(s) to determine the solution.

Table 4-1. Verified Symptoms

Symptoms	See
Power on Issues	**Figure 4-1. Power On Issues** on page **4-3**
No Display Issues	**Figure 4-2. No Display Issues** on page **4-4**
LCD Picture Failure	**Figure 4-3. LCD Picture Failure** on page **4-6**
Internal Keyboard Failure	**Figure 4-4. Internal Keyboard Failure** on page **4-7**
Touchpad Failure	**Figure 4-5. Touchpad Failure** on page **4-7**
Internal Speaker Failure	**Figure 4-6. Internal Speaker Failure** on page **4-8**
Internal Microphone Failure	**Figure 4-7. Internal Microphone Record Failure** on page **4-10**
USB3.0 Failure	**Figure 4-8. USB3.0 Failure** on page **4-11**
Wireless Function Failure	**Figure 4-9. Wireless Function Test Failure** on page **4-12**
Bluetooth Function Failure	**Figure 4-10. Bluetooth Function Test Failure** on page **4-13**
Units Thermal Failure	**Figure 4-11. Units Thermal Failure** on page **4-14**
Cosmetic Failure	**Figure 4-12. Cosmetic Failure** on page **4-15**
Other Functions Failure	Page **4-16**

4. If the issue is still not resolved, see **Online Support Information** on page **8-2**.

Power On Issues

If the system does not power on, perform the following:

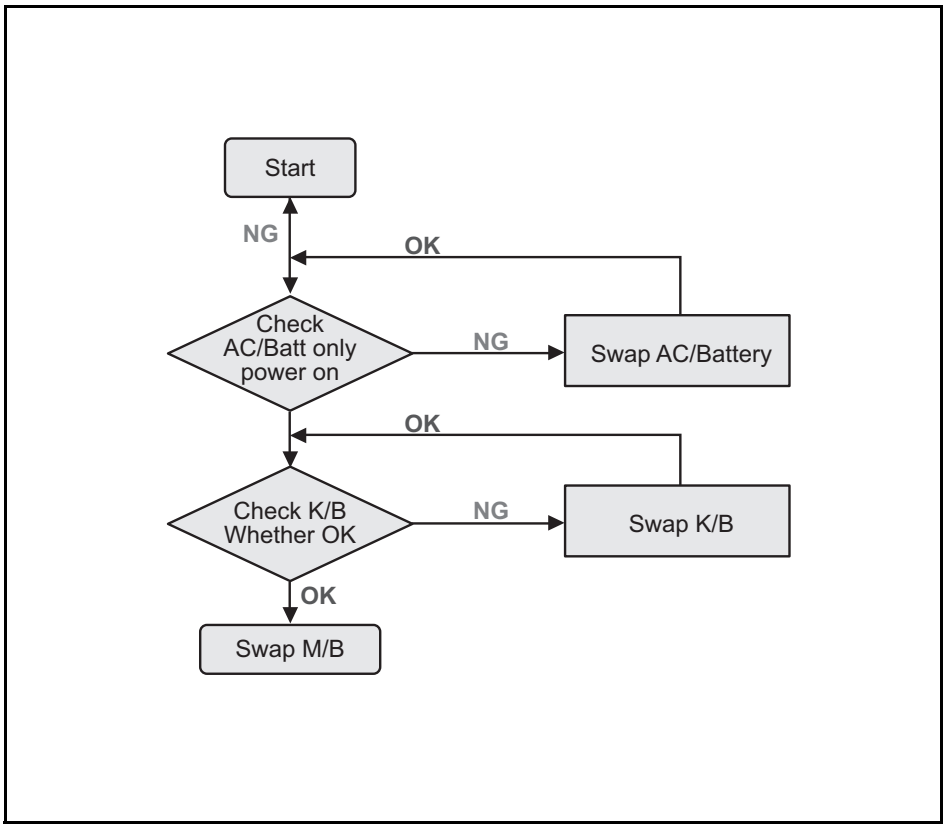


Figure 4-1. Power On Issues

Computer Shuts Down Intermittently

If the system powers off at intervals, perform the following.

1. Makes sure the power cable is properly connected to the computer and the electrical outlet.
2. Remove all extension cables between the computer and the outlet.
3. Remove all surge protectors between the computer and the electrical outlet. Plug the computer directly into a known serviceable electrical outlet.
4. Remove all external and non-essential hardware connected to the computer that are not necessary to boot the computer to the failure point.
5. Remove any recently installed software.
6. If the issue is still not resolved, refer to **Online Support Information** on page **8-2**.

No Display Issues

If the system does not display, perform the following:

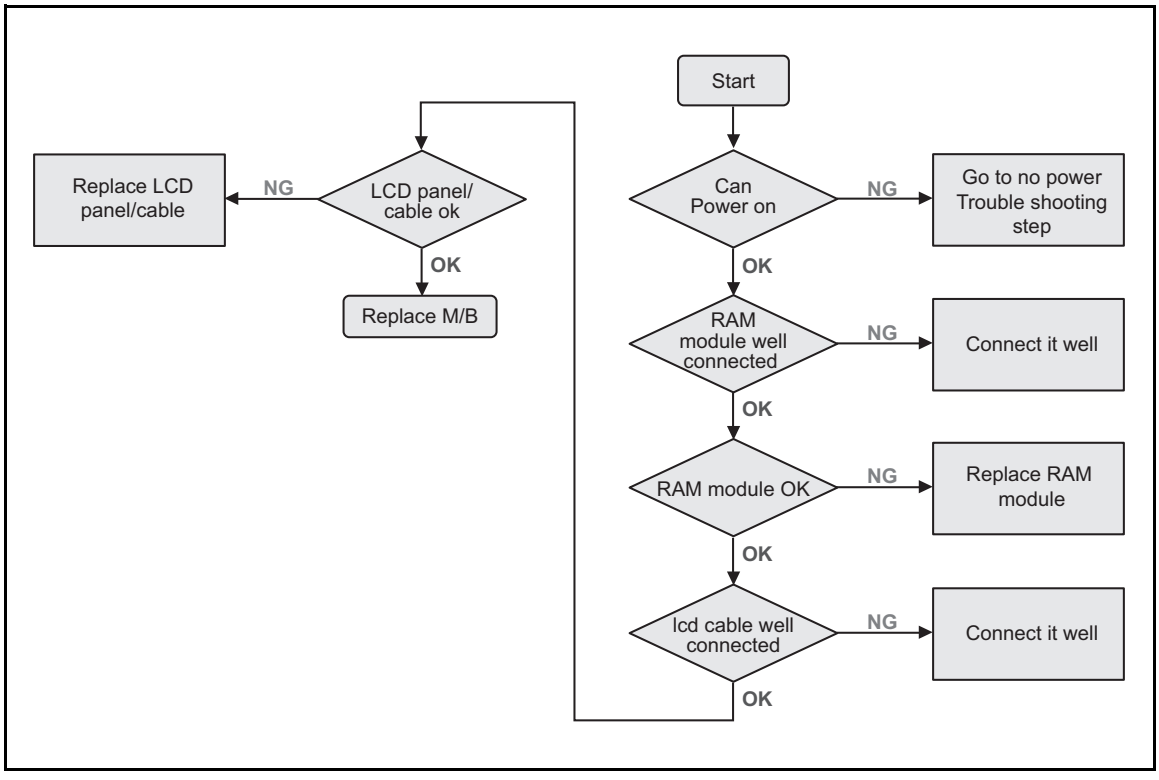


Figure 4-2. No Display Issues

No POST or Video

If the POST or video does not appear, perform the following:

1. Make sure that internal display is selected. Switching between internal and external by pressing Fn+F5. Reference Product pages for specific model procedures.
2. Make sure the computer has power by checking for one of the following:
   - Fans start up
   - Status LEDs illuminate
3. If there is no power, refer to **Power On Issues** on page **4-3**. Otherwise, continue to the next step.
4. If there is power, drain the stored power by removing the power cable. Hold the power button for 10 seconds.
5. Connect the power and reboot the computer.
6. Connect an external monitor to the computer and switch between the internal display and the external display is by pressing Fn+F5.
7. If the POST or video appears on the external display only, refer to **LCD Picture Failure** on page **4-6**. Otherwise, continue to the next step.
8. Disconnect the power and all external devices including port replicators or docking stations.

9. Remove any memory cards.
10. Start the computer. If the computer boots correctly, add the devices one by one until the failure point is discovered.
11. If the issue is still not resolved, refer to **Online Support Information** on page **8-2**.

Abnormal Video

If the video appears abnormal, perform the following:

1. Boot the computer.
   - If permanent vertical/horizontal lines or dark spots appear in the same location, the LCD is faulty and should be replaced.
   - If extensive pixel damage is present (different colored spots in the same locations on the screen), the LCD is faulty and should be replaced.

NOTE:
Make sure that the computer is not running on battery alone as this may reduce display brightness.

2. Adjust the brightness to its highest level. Refer to the User Manual for instructions on adjusting the settings. If the display is too dim at the highest brightness setting, the LCD is faulty and should be replaced.
3. Check the display resolution is correctly configured:
   - Minimize or close all Windows.
   - If display size is only abnormal in an application, check the view settings and control/mouse wheel zoom feature in the application.
   - If desktop display resolution is not normal, right-click on the desktop and select `Personalize Display Settings`.
   - Click and drag the Resolution slider to the desired resolution.
   - Click ***Apply*** and check the display. Readjust if necessary.
4. Roll back the video driver to the previous version if updated.
5. Remove and reinstall the video driver.
6. Check the Device Manager to determine that:
   - The device is properly installed. There are no red Xs or yellow exclamation marks
   - There are no device conflicts
   - No hardware is listed under Other Devices
7. Run the *Windows Memory Diagnostic* from the operating system DVD and follow the on-screen prompts.
8. If the issue is still not resolved, refer to **Online Support Information** on page **8-2**.

LCD Picture Failure

If the LCD picture fails, perform the following:

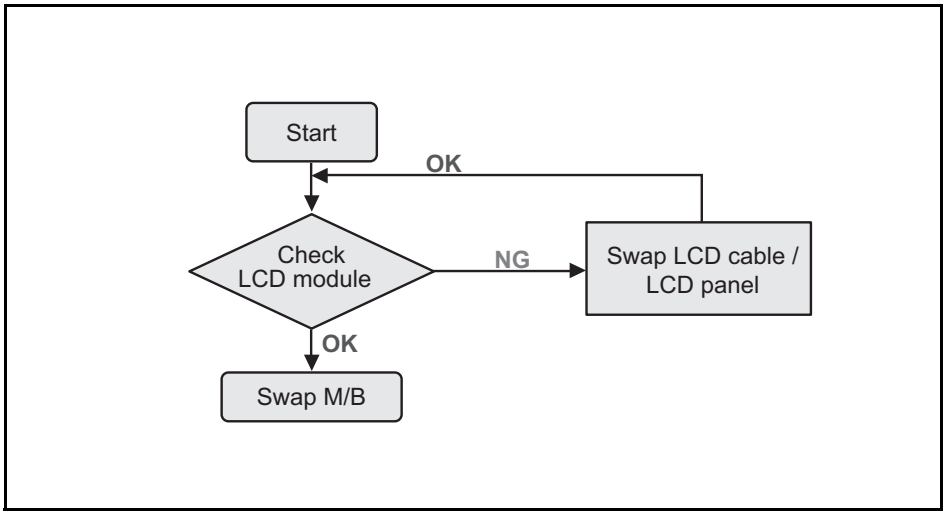


Figure 4-3. LCD Picture Failure

Internal Keyboard Failure

If the internal keyboard function fails, perform the following:

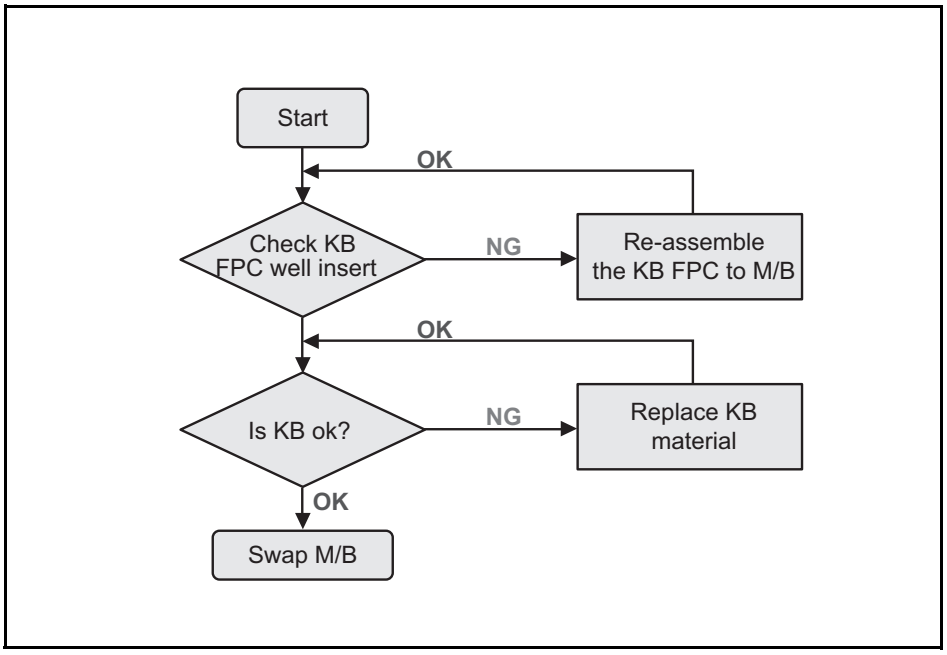


Figure 4-4. Internal Keyboard Failure

Touchpad Failure

If the touchpad fails, perform the following:

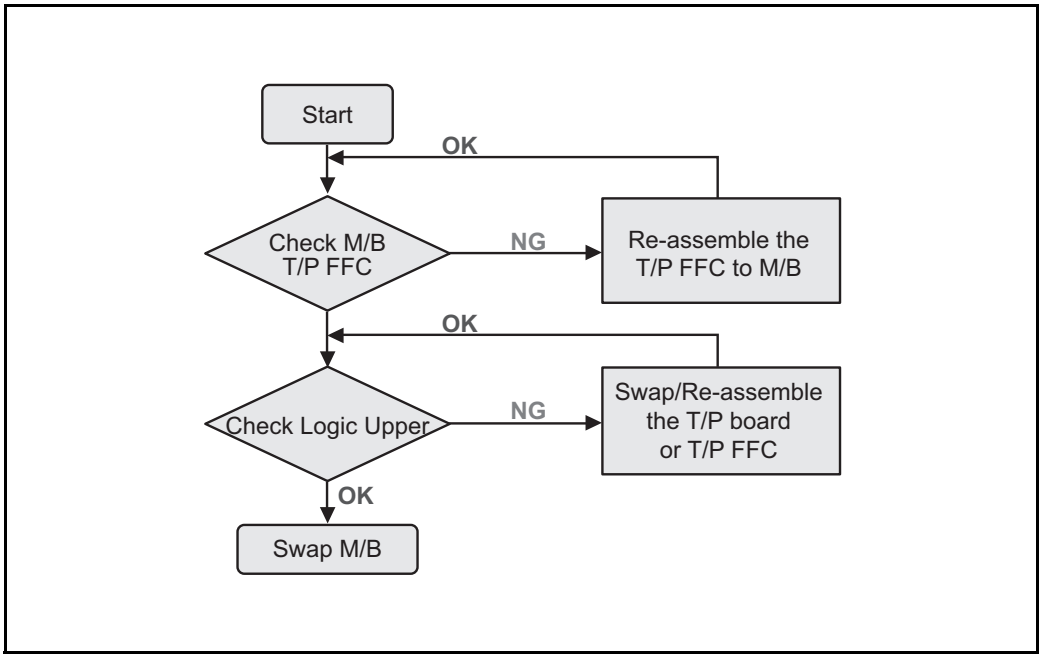


Figure 4-5. Touchpad Failure

Internal Speaker Failure

If the internal speaker fails, perform the following:

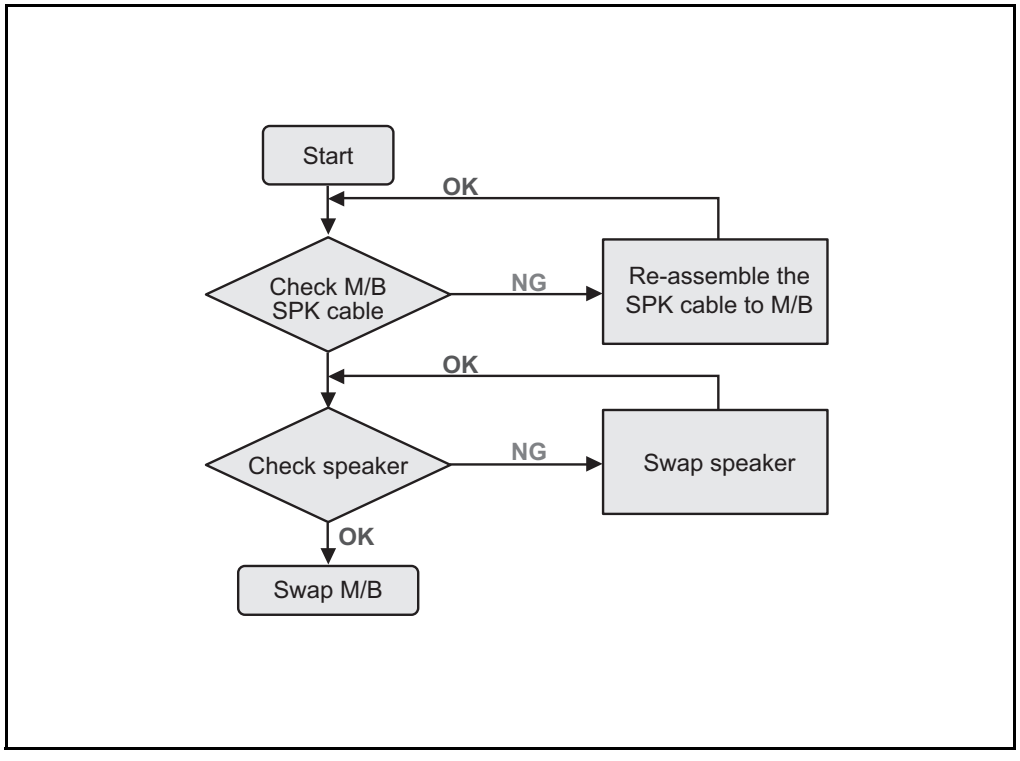


Figure 4-6. Internal Speaker Failure

Sound Problems

Perform the following:

1. Boot the computer.
2. Check the **Device Manager** to determine that:
   - The device is properly installed
   - There are no red Xs or yellow exclamation marks
   - There are no device conflicts
   - No hardware is listed under Other Devices
3. If updated recently, roll back the audio driver to the previous version.
4. Remove and reinstall the audio driver.
5. Make sure that all volume controls are set mid range:
   - Click the volume icon on the taskbar
   - Drag the slider to 50. Confirm that the volume is not muted.
   - Click Mixer to verify that other audio applications are set to 50 and not muted.
6. Confirm that Speakers is selected as the default audio device (green check mark) in the Control Panel.

NOTE:

If **Speakers** is not shown, right-click on the Playback tab and select **Show Disabled Devices** (clear by default).

7. Select **Speakers** and click **Configure** to start Speaker Setup. Follow the on-screen prompts to configure the speakers.
8. Remove any recently installed hardware or software.
9. Restore system and file settings from a known good date using System Restore.
10. If the issue is remains, repeat step 9, selecting an earlier time and date.
11. Reinstall the Operating System.
12. If the issue is still not resolved, refer to **Online Support Information** on page **8-2**.

Internal Microphone Record Failure

If the internal microphone fails to record, perform the following:

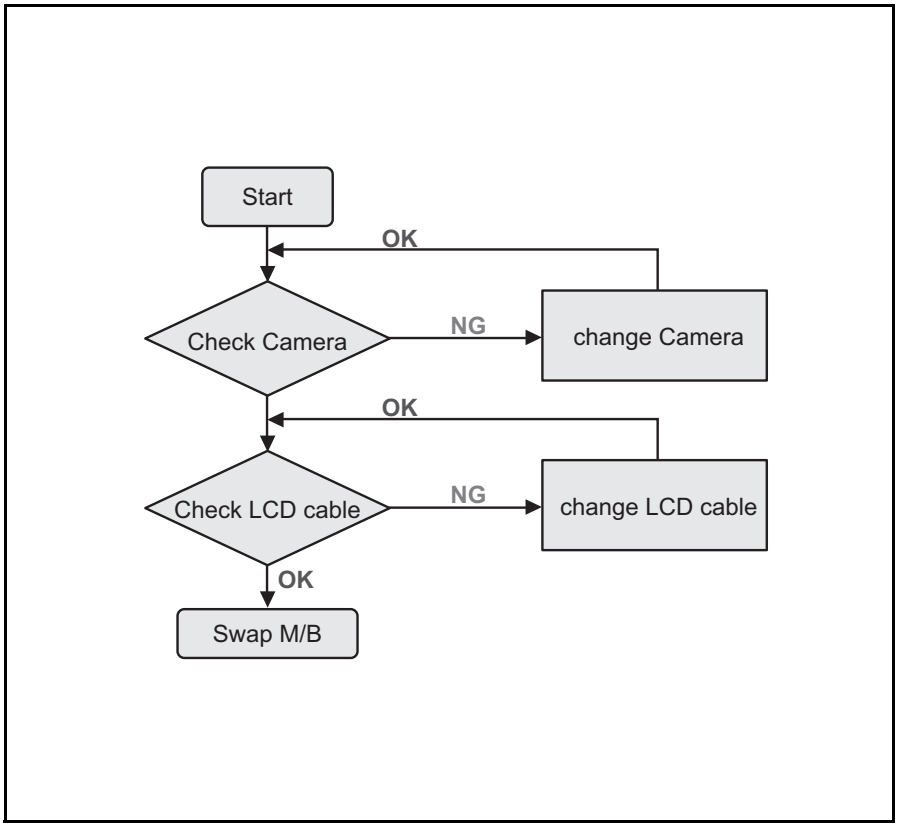


Figure 4-7. Internal Microphone Record Failure

USB3.0 Failure

If the USB3.0 function fails, perform the following:

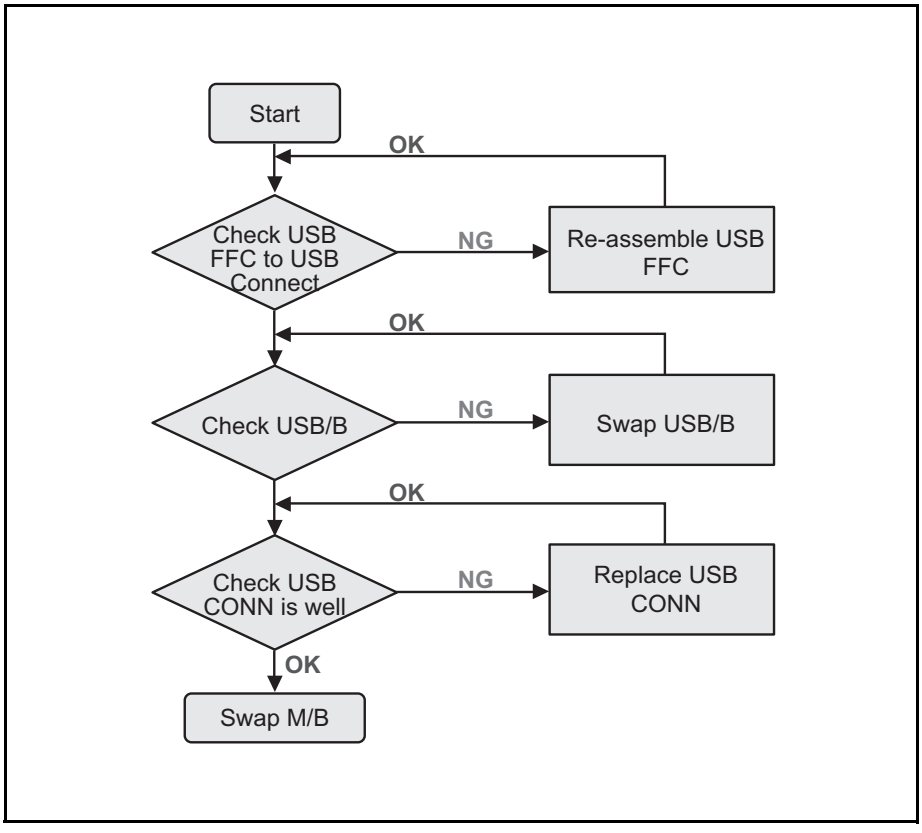


Figure 4-8. USB3.0 Failure

Wireless Function Test Failure

If the wireless function test fails, perform the following:

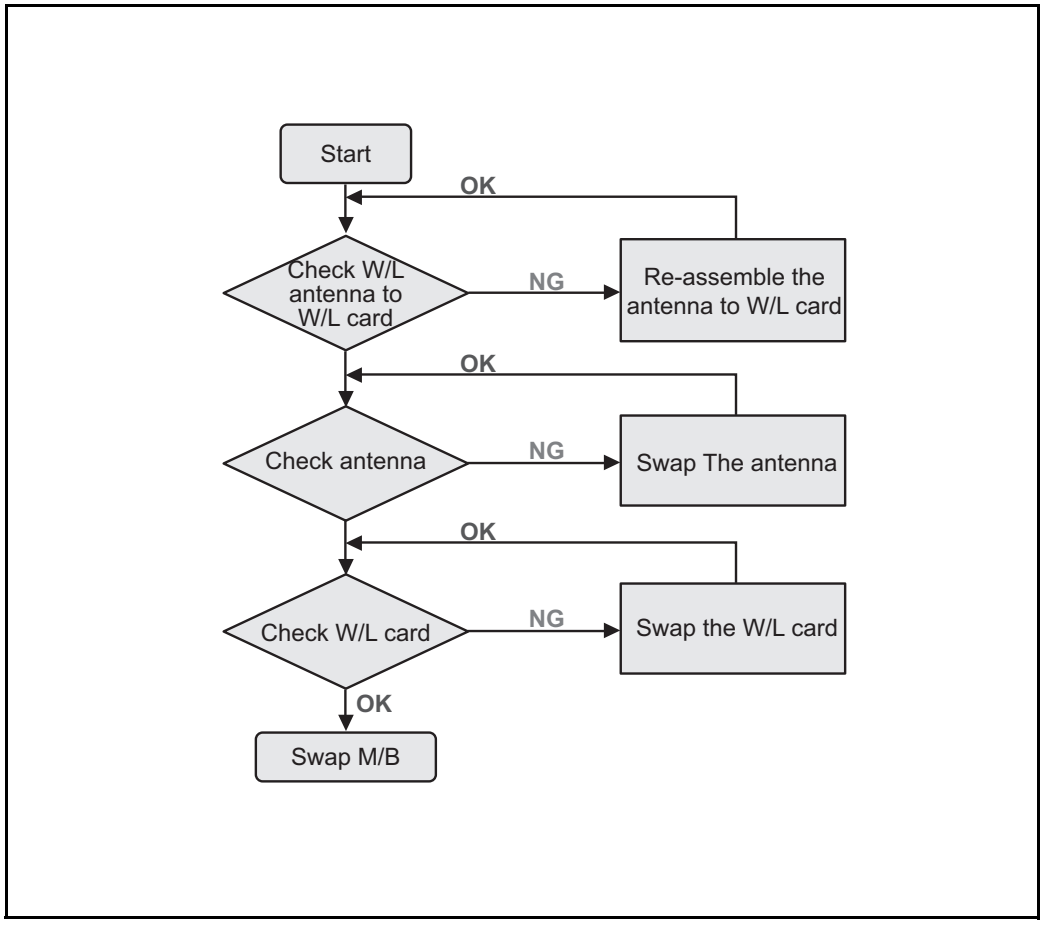


Figure 4-9. Wireless Function Test Failure

Bluetooth Function Test Failure

If the Bluetooth function test fails, perform the following:

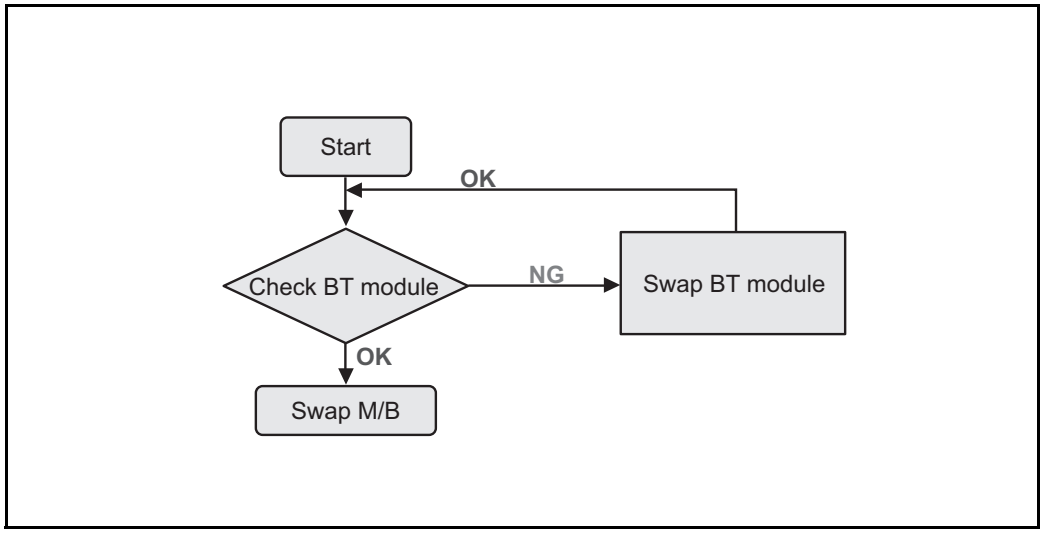


Figure 4-10. Bluetooth Function Test Failure

Units Thermal Failure

If the units thermal fails, perform the following:

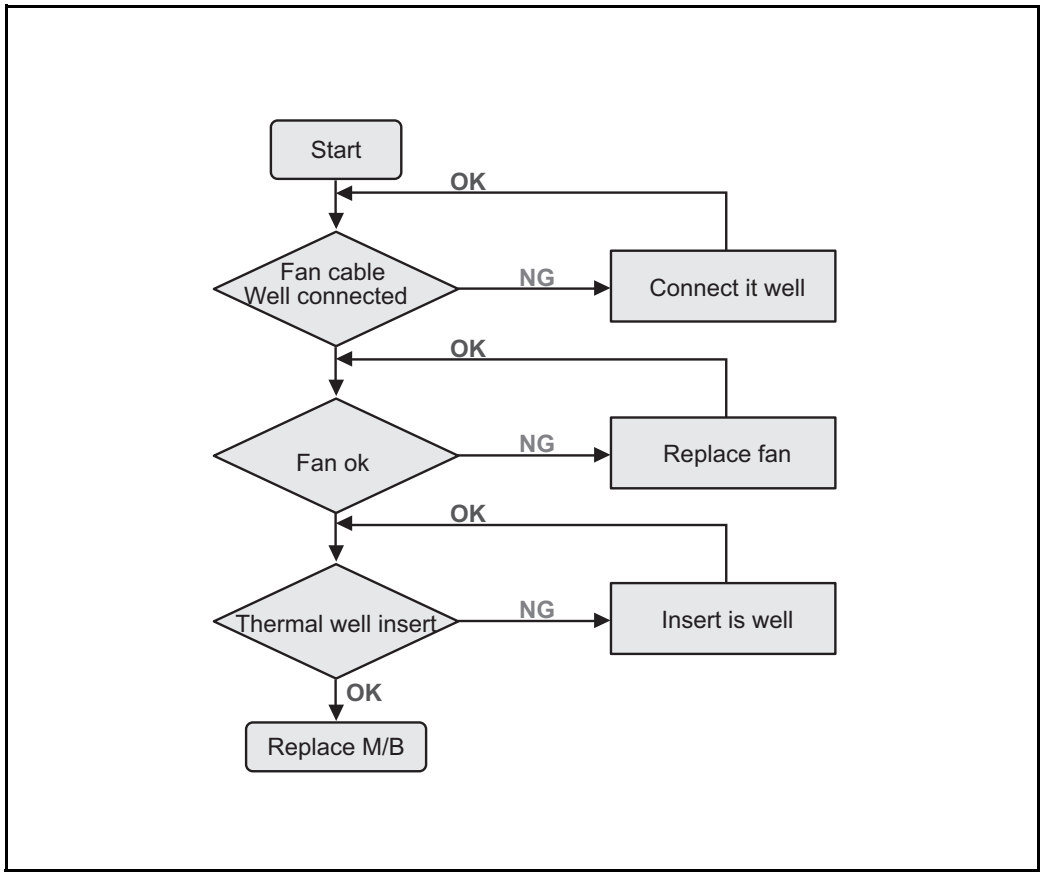


Figure 4-11. Units Thermal Failure

Cosmetic Failure

If the cosmetic fails, perform the following:

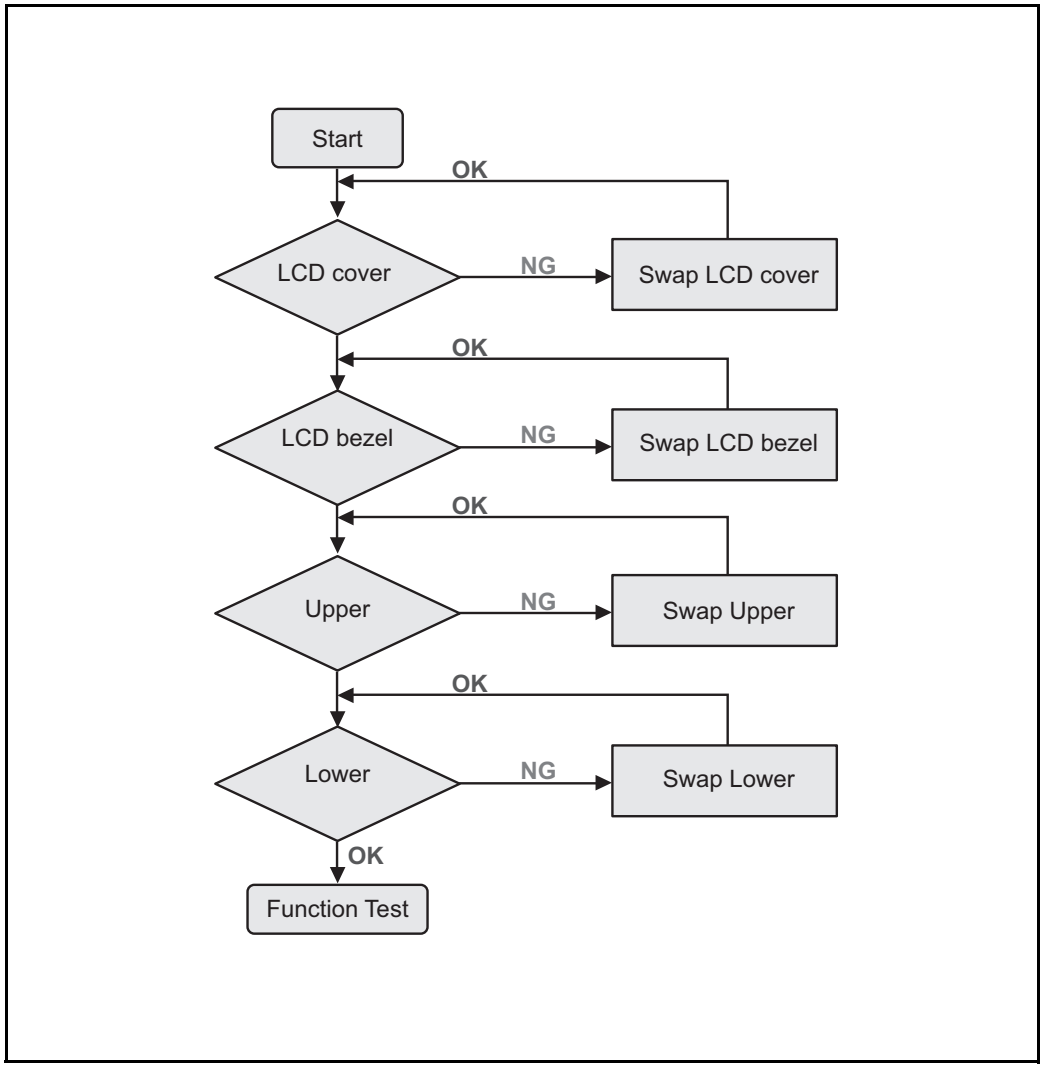


Figure 4-12. Cosmetic Failure

Other Functions Failure

If other functions such as the HDMI switch, LAN connect, extend MIC, extend speaker, USB3.0 fail, perform the following:

1. Check if the Drive is working properly.
2. Check if the test fixture is ok.
3. Swap the mainboard.

Mainboard CMOS Discharge

If there is a wrong CMOS setting, such as password, CMOS data will be cleaned to default setting by discharging (short pads): **JCMOS1**.

The discharge location is near RAM connector as shown on the following illustration.

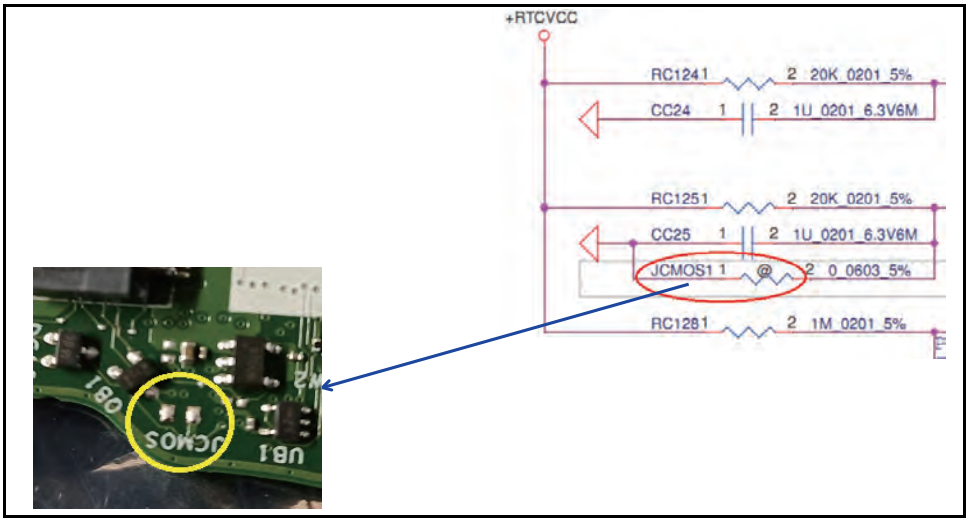


Figure 4-13. Location of JCMOS1

Random Loss of BIOS Settings

If the computer is experiencing intermittent loss of BIOS information, perform the following:

1. If the computer is more than one year old, replace the CMOS battery.
2. Run a complete virus scan using up to date software to confirm the computer is virus free.
3. If the computer is experiencing HDD information loss, disconnect and reconnect the power.
4. If the BIOS settings are still lost, replace the cables.
5. If HDD information is missing from the BIOS, the drive may be defective and should be replaced.
6. Replace the mainboard.
7. If the issue is still not resolved, refer to **Online Support Information** on page **8-2**.

Intermittent Problems

Intermittent system hang problems can be caused by a variety of reasons that have nothing to do with a hardware defect, such as: cosmic radiation, electrostatic discharge, or software errors. FRU replacement should be considered only when a recurring problem exists.

When analyzing an intermittent problem, perform the following:

1. Run the advanced diagnostic test (refer to **System Utilities** on page **2-2**) for the system board in loop mode at least 10 times.
2. If no error is detected, do not replace any FRU.
3. If an error is detected, replace the FRU. Rerun the test to verify that there are no more errors.

Undetermined Problems

The diagnostic problems do not identify which adapter or device failed, which installed devices are incorrect, whether a short circuit is suspected, or whether the system is inoperative.

NOTE:

- Verify that all attached devices are supported by the computer.
- Verify that the power supply being used at the time of the failure is operating correctly. (refer to **Power On Issues** on page **4-3**).

Perform the following procedures to isolate the failing FRU:

1. Remove power from the computer.
2. Visually check FRUs for damage. If any problems are found, replace the FRU.
3. Remove or disconnect all of the following devices:
   - Non-Acer devices
   - Printer, mouse, and other external devices
   - Hard disk drive
   - DIMM
   - CD-ROM/Diskette drive Module
   - PC Cards
4. Apply power to the computer.
5. Determine if the problem has changed.
6. If the problem does not recur, connect the removed devices until failing FRU is found.
7. If the problem remains, replace the following:
   - System board
   - LCD assembly

Post Codes

The following are the InsydeH2O™ Functionality POST code tables. The components of the POST code table includes: SEC phase, PEI phase, DXE phase, BDS phase, CSM functions, S3 functions, and ACPI functions.

Table 4-2. POST Code Range

Phase	POST Code Range
SEC	0x01 – 0x0F
PEI	0x70 – 0x9F
DXE	0x40 – 0x6F
BDS	0x10 – 0x3F
SMM	0xA0 – 0xBF
S3	0xC0 – 0xCF
ASL	0x51 – 0x55
	0xE1 – 0xE4
PostBDS	0xF9 – 0xFE
InsydeH2ODDT™ Reserve	0xD0 – 0xD7
OEM Reserve	0xE8 – 0xEB
Reserved	0xD8 – 0xE0
	0xE5 – 0xE7
	0xEC – 0xF8

Table 4-3. SEC Phase POST Code Table

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
SEC_SYSTEM_POWER_ON	SEC	01	CPU power on and switch to Protected mode
SEC_BEFORE_MICROCODE_PATCH	SEC	02	Patching CPU microcode
SEC_AFTER_MICROCODE_PATCH	SEC	03	Setup Cache as RAM
SEC_ACCESS_CSR*	SEC	04	PCIE MMIO Base Address initial
SEC_GENERIC_MSRINIT*	SEC	05	CPU Generic MSR initialization
SEC_CPU_SPEEDCFG*	SEC	06	Setup CPU speed
SEC_SETUP_CAR_OK	SEC	07	Cache as RAM test
SEC_FORCE_MAX_RATIO*	SEC	08	Tune CPU frequency ratio to maximum level
SEC_GO_TO_SECSTARTUP	SEC	09	Setup BIOS ROM cache
SEC_GO_TO_PEICORE	SEC	0A	Enter Boot Firmware Volume
⇛ **NOTE:** * 3rd party relate functions - Platform dependence.			

Table 4-4. PEI Phase POST Code Table

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
PEI_SIO_INIT	PEI	70	Super I/O Initialization
PEI_CPU_REG_INIT	PEI	71	CPU Early Initialization
PEI_CPU_AP_INIT*	PEI	72	Multi-processor Early Initial
PEI_CPU_HT_RESET*	PEI	73	HyperTransport Initialization
PEI_PCIE_MMIO_INIT	PEI	74	PCIE MMIO BAR Initialization
PEI_NB_REG_INIT	PEI	75	North Bridge Early Initialization
PEI_SB_REG_INIT	PEI	76	South Bridge Early Initialization
PEI_PCIE_TRAINING*	PEI	77	PCIE Training
PEI_TPM_INIT	PEI	78	TPM Initialization
PEI_SMBUS_INIT	PEI	79	SMBUS Early Initialization
PEI_PROGRAM_CLOCK_GEN	PEI	7A	Clock Generator Initialization

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
PEI_IGD_EARLY_INITIAL*	PEI	7B	Internal Graphic device early Initialization
PEI_HECI_INIT*	PEI	7C	HECI Initialization
PEI_WATCHDOG_INIT*	PEI	7D	Watchdog timer Initialization
PEI_MEMORY_INIT	PEI	7E	Memory Initial for Normal boot.
PEI_MEMORY_INIT_FOR_CRISIS	PEI	7F	Memory Initial for Crisis Recovery
PEI_MEMORY_INSTALL	PEI	80	Simple Memory test
PEI_TXTPEI*	PEI	81	TXT function early Initialization
PEI_SWITCH_STACK	PEI	82	Start to use Memory
PEI_MEMORY_CALLBACK	PEI	83	Set cache for physical memory
PEI_ENTER_RECOVERY_MODE	PEI	84	Recovery device Initialization
PEI_RECOVERY_MEDIA_FOUND	PEI	85	Found Recovery image
PEI_RECOVERY_MEDIA_NOT_FOUND	PEI	86	Recovery image not found
PEI_RECOVERY_LOAD_FILE_DONE	PEI	87	Load Recovery Image completed
PEI_RECOVERY_START_FLASH	PEI	88	Start Flash BIOS with Recovery image
PEI_ENTER_DXEIPL	PEI	89	Loading BIOS image to RAM
PEI_FINDING_DXE_CORE	PEI	8A	Loading DXE core
PEI_GO_TO_DXE_CORE	PEI	8B	Enter DXE core
PEI_IFFS_TRANSITION_START	PEI	8C	iFFS Transition Start
PEI_IFFS_TRANSITION_END	PEI	8D	iFFS Transition End
⇛ **NOTE:** * 3rd party relate functions - Platform dependence.			

Table 4-5. DXE Phase POST Code Table

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
DXE_TCGDXE*	DXE	40	TPM initial in DXE
DXE_SB_SPI_INIT*	DXE	41	South bridge SPI initialization
DXE_CF9_RESET*	DXE	42	Setup Reset service
DXE_SB_SERIAL_GPIO_INIT*	DXE	43	South bridge Serial GPIO initialization

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
DXE_SMMACCESS*	DXE	44	Setup SMM ACCESS service
DXE_NB_INIT*	DXE	45	North bridge Middle initialization
DXE_SIO_INIT*	DXE	46	Super I/O DXE initialization
DXE_LEGACY_REGION*	DXE	47	Setup Legacy Region service
DXE_SB_INIT*	DXE	48	South Bridge Middle initialization
DXE_IDENTIFY_FLASH_DEVICE	DXE	49	Identify Flash device
DXE_FTW_INIT	DXE	4A	Fault Tolerant Write verification
DXE_VARIABLE_INIT	DXE	4B	Variable Service initialization
DXE_VARIABLE_INIT_FAIL	DXE	4C	Fail to initial Variable Service
DXE_MTC_INIT	DXE	4D	MTC Initial
DXE_CPU_INIT	DXE	4E	CPU Middle Initialization
DXE_MP_CPU_INIT	DXE	4F	Multi-processor Middle Initialization
DXE_SMBUS_INIT	DXE	50	SMBUS Driver Initialization
DXE_SMART_TIMER_INIT	DXE	51	8259 Initialization
DXE_PCRTC_INIT	DXE	52	RTC Initialization
DXE_SATA_INIT*	DXE	53	SATA Controller early Initialization
DXE_SMM_CONTROLER_INIT*	DXE	54	Setup SMM Control service
DXE_LEGACY_INTERRUPT*	DXE	55	Setup Legacy Interrupt service
DXE_RELOCATE_SMBASE	DXE	56	Relocate SMM BASE
DXE_FIRST_SMI	DXE	57	SMI test
DXE_VTD_INIT*	DXE	58	VTD Initial
DXE_BEFORE_CSM16_INIT	DXE	59	Legacy BIOS Initialization
DXE_AFTER_CSM16_INIT	DXE	5A	Legacy interrupt function Initialization
DXE_LOAD_ACPI_TABLE	DXE	5B	ACPI Table Initialization
DXE_SB_DISPATCH*	DXE	5C	Setup SB SMM Dispatcher service
DXE_SB_IOTRAP_INIT*	DXE	5D	Setup SB IOTRAP Service
DXE_SUBCLASS_DRIVER*	DXE	5E	Build AMT Table
DXE_PPM_INIT*	DXE	5F	PPM Initialization

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
DXE_HECIDRV_INIT*	DXE	60	HECIDRV Initialization
DXE_VARIABLE_RECLAIM	DXE	61	Variable store garbage collection and reclaim operation
DXE_FLASH_PART_NONSUPPORT	DXE	62	Do not support flash part (which is defined in SpiDevice.c)
⇒ **NOTE:** * 3rd party relate functions - Platform dependence.			

Table 4-6. BDS Phase POST Code Table

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
BDS_ENTER_BDS	BDS	10	Enter BDS entry
BDS_INSTALL_HOTKEY	BDS	11	Install Hotkey service
BDS_ASF_INIT*	BDS	12	ASF Initialization
BDS_PCI_ENUMERATION_START	BDS	13	PCI enumeration
BDS_BEFORE_PCIIO_INSTALL	BDS	14	PCI resource assign complete
BDS_PCI_ENUMERATION_END	BDS	15	PCI enumeration complete
BDS_CONNECT_CONSOLE_IN	BDS	16	Keyboard Controller, Keyboard and Mouse initialization
BDS_CONNECT_CONSOLE_OUT	BDS	17	Video device initialization
BDS_CONNECT_STD_ERR	BDS	18	Error report device initialization
BDS_CONNECT_USB_HC	BDS	19	USB host controller initialization
BDS_CONNECT_USB_BUS	BDS	1A	USB BUS driver initialization
BDS_CONNECT_USB_DEVICE	BDS	1B	USB device driver initialization
BDS_NO_CONSOLE_ACTION	BDS	1C	Console device initial fail
BDS_DISPLAY_LOGO_SYSTEM_INFO	BDS	1D	Display logo or system information
BDS_START_IDE_CONTROLLER	BDS	1E	IDE controller initialization
BDS_START_SATA_CONTROLLER	BDS	1F	SATA controller initialization
BDS_START_ISA_ACPI_CONTROLLER	BDS	20	SIO controller initialization
BDS_START_ISA_BUS	BDS	21	ISA BUS driver initialization
BDS_START_ISA_FDD	BDS	22	Floppy device initialization

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
BDS_START_ISA_SEIRAL	BDS	23	Serial device initialization
BDS_START_IDE_BUS	BDS	24	IDE device initialization
BDS_START_AHCI_BUS	BDS	25	AHCI device initialization
BDS_CONNECT_LEGACY_ROM	BDS	26	Dispatch option ROMs
BDS_ENUMERATE_ALL_BOOT_OPTIO N	BDS	27	Get boot device information
BDS_END_OF_BOOT_SELECTION	BDS	28	End of boot selection
BDS_ENTER_SETUP	BDS	29	Enter Setup Menu
BDS_ENTER_BOOT_MANAGER	BDS	2A	Enter Boot manager
BDS_BOOT_DEVICE_SELECT	BDS	2B	Try to boot system to OS
BDS_EFI64_SHADOW_ALL_LEGACY_ ROM	BDS	2C	Shadow Misc Option ROM
BDS_ACPI_S3SAVE	BDS	2D	Save S3 resume required data in RAM
BDS_READY_TO_BOOT_EVENT	BDS	2E	Last Chipset initial before boot to OS
BDS_GO_LEGACY_BOOT	BDS	2F	Start to boot Legacy OS
BDS_GO_UEFI_BOOT	BDS	30	Start to boot UEFI OS
BDS_LEGACY16_PREPARE_TO_BOOT	BDS	31	Prepare to Boot to Legacy OS
BDS_EXIT_BOOT_SERVICES*	BDS	32	Send END of POST Message to ME via HECI
BDS_LEGACY_BOOT_EVENT	BDS	33	Last Chipset initial before boot to Legacy OS.
BDS_ENTER_LEGACY_16_BOOT	BDS	34	Ready to Boot Legacy OS.
BDS_RECOVERY_START_FLASH	BDS	35	Fast Recovery Start Flash.
BDS_START_SDHC_BUS	BDS	36	SDHC device initial.
BDS_CONNECT_ATA_LEGACY	BDS	37	Ata Legacy device initial.
BDS_CONNECT_SD_LEGACY	BDS	38	SD Legacy device initial.
⇛ **NOTE:** * 3rd party relate functions - Platform dependence.			

Table 4-7. PostBDS POST Code Table

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
POST_BDS_NO_BOOT_DEVICE	POST_BDS	F9	No Boot Device
POST_BDS_START_IMAGE	POST_BDS	FB	UEFI Boot Start Image
POST_BDS_ENTER_INT19	POST_BDS	FD	Legacy 16 boot entry
POST_BDS_JUMP_BOOT_SECTOR	POST_BDS	FE	Try to Boot with INT 19

Table 4-8. S3 Functions POST Code Table

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
S3_RESTORE_MEMORY_CONTROLLER	PEI	C0	Memory initial for S3 resume
S3_INSTALL_S3_MEMORY	PEI	C1	Get S3 resume required data from memory
S3_SWITCH_STACK	PEI	C2	Start to use memory during S3 resume
S3_MEMORY_CALLBACK	PEI	C3	Set cache for physical memory during S3 resume
S3_ENTER_S3_RESUME_PEIM	PEI	C4	Start to restore system configuration
S3_BEFORE_ACPI_BOOT_SCRIPT	PEI	C5	Restore system configuration stage1
S3_BEFORE_RUNTIME_BOOT_SCRIPT	PEI	C6	Restore system configuration stage2
S3_BEFORE_RELOCATE_SMM_BASE	PEI	C7	Relocate SMM BASE during S3 resume
S3_BEFORE_MP_INIT	PEI	C8	Multi-processor initial during S3 resume
S3_BEFORE_RESTORE_ACPI_CALLBACK	PEI	C9	Start to restore system configuration in SMM
S3_AFTER_RESTORE_ACPI_CALLBACK	PEI	CA	Restore system configuration in SMM complete
S3_GO_TO_FACS_WAKING_VECTOR	PEI	CB	Back to OS

Table 4-9. ACPI Functions POST Code Table

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
ASL_ENTER_S1	ASL	51	Prepare to enter S1
ASL_ENTER_S3	ASL	53	Prepare to enter S3
ASL_ENTER_S4	ASL	54	Prepare to enter S4
ASL_ENTER_S5	ASL	55	Prepare to enter S5
ASL_WAKEUP_S1	ASL	E1	System wakeup from S1
ASL_WAKEUP_S3	ASL	E3	System wakeup from S3
ASL_WAKEUP_S4	ASL	E4	System wakeup from S4
ASL_WAKEUP_S5	ASL	E5	System wakeup from S5

Table 4-10. SMM Functions POST Code Table

Functionality Name (Include\PostCode.h)	Phase	Post Code	Description
SMM_IDENTIFY_FLASH_DEVICE	SMM	0xA0	Identify Flash device in SMM
SMM_SMM_PLATFORM_INIT	SMM	0xA2	SMM service initial
SMM_ACPI_ENABLE_START	SMM	0xA6	OS call ACPI enable function
SMM_ACPI_ENABLE_END	SMM	0xA7	ACPI enable function complete
SMM_S1_SLEEP_CALLBACK	SMM	0xA1	Enter S1
SMM_S3_SLEEP_CALLBACK	SMM	0xA3	Enter S3
SMM_S4_SLEEP_CALLBACK	SMM	0xA4	Enter S4
SMM_S5_SLEEP_CALLBACK	SMM	0xA5	Enter S5
SMM_ACPI_DISABLE_START	SMM	0xA8	OS call ACPI disable function
SMM_ACPI_DISABLE_END	SMM	0xA9	ACPI disable function complete

Table 4-11. InsydeH20DDT Debugger POST Code Table

Functionality Name	Post Code	Description
Used by Insyde debugger	0x0D	Waiting for device connect
Used by Insyde debugger	0xD0	Waiting for device connect
Used by Insyde debugger	0xD1	InsydeH2ODDT Ready
Used by Insyde debugger	0xD2	EHCI not found
Used by Insyde debugger	0xD3	Debug port connect low speed device
Used by Insyde debugger	0xD4	DDT Cable become low speed device
Used by Insyde debugger	0xD5	DDT Cable Transmission Error (Get descriptor fail)
Used by Insyde debugger	0xD6	DDT Cable Transmission Error (Set Debug mode fail)
Used by Insyde debugger	0xD7	DDT Cable Transmission Error (Set address fail)

CHAPTER 5

Service and Maintenance

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Service and Maintenance

Introduction

This chapter contains general information about the notebook, a list of tools needed to perform the required maintenance and step by step procedures on how to remove and install components on the notebook computer.

Recommended Equipment

The following tools are required to perform maintenance on the notebook:

- Wrist grounding strap and conductive mat
- Flat screwdriver
- Philips screwdriver
- Pointed plastic pry or similar object
- Tweezers

Table 5-5. Main Screw List

Screw Name	Screw Type	Quantity
M 2.0 x 2.5		3
M 2.5 x 2.5		6
M 2.0 x 2.3		2
M 2.0 x 4.0		7
M 2.5 x 6.0		6
M 2.0 x 3.0		2
M 2.5 x 6.0		10

Maintenance Flowchart

The flowchart in **Figure 5-1. Maintenance Flow** and **Figure 5-2. LCD Module Maintenance Flow** provide a graphic representation of the module removal and installation sequences. It provides information on what components need to be removed and installed during servicing.

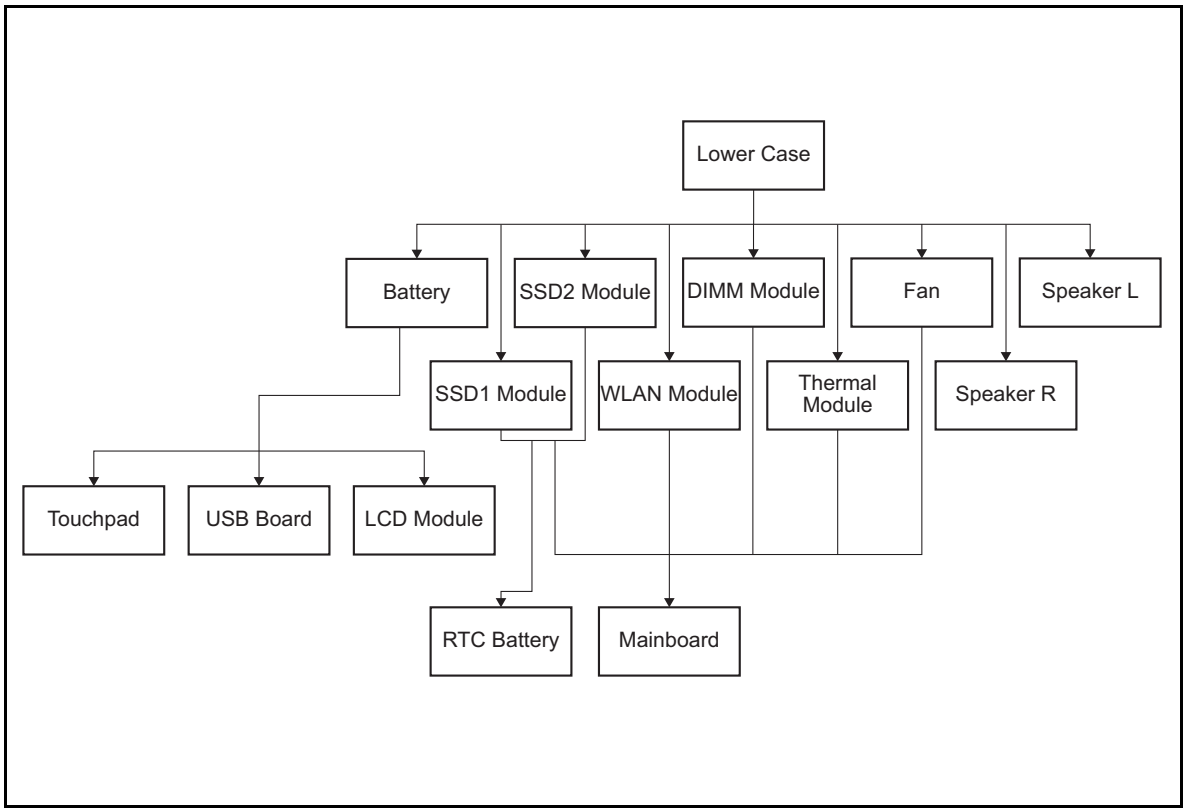


Figure 5-1. Maintenance Flow

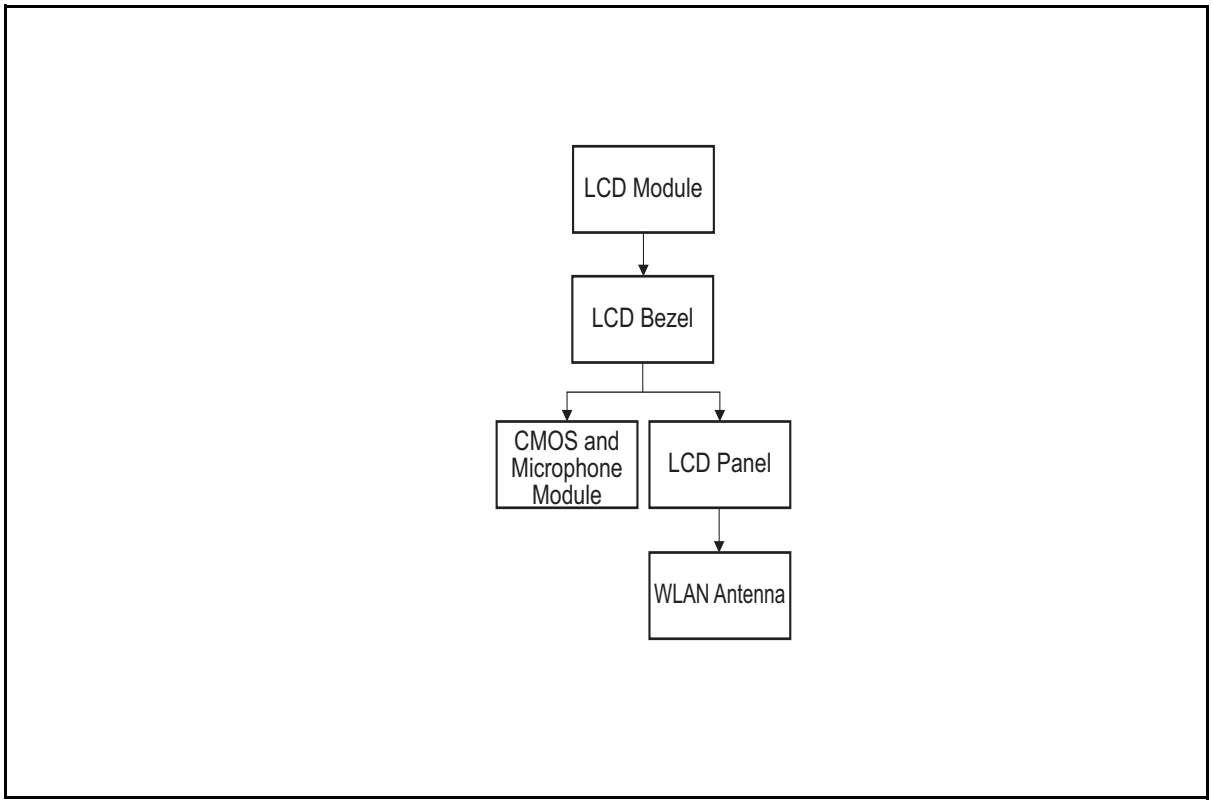


Figure 5-2. LCD Module Maintenance Flow

Getting Started

The flowcharts (**Figure 5-1**, page **5-4** and **Figure 5-2**, page **5-5**) identify sections illustrating the entire removal and installation sequence. Observe the order of the sequence to avoid damage to any of the hardware components.

Perform the following prior to performing any maintenance procedures:

1. Place the system on a flat work surface.
2. Make sure the system is completely powered down.
   a. If the device is in powered up mode, shut down the system normally.
   b. If the device is in sleep mode, wait for the Home Screen to clear. Then, shut down normally.
3. Disconnect the AC Adapter and remove all cables from the system and its peripherals.

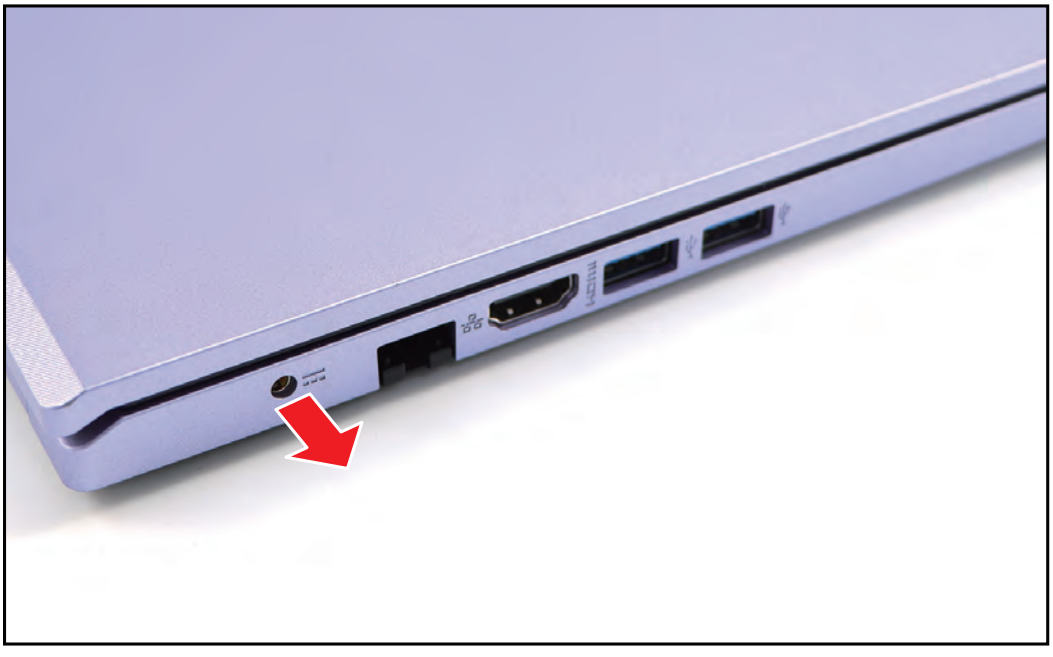


Figure 5-3. Disconnecting the Power Adapter

Lower Case Removal

1. Remove the ten (10) screws securing the lower case to the upper case.

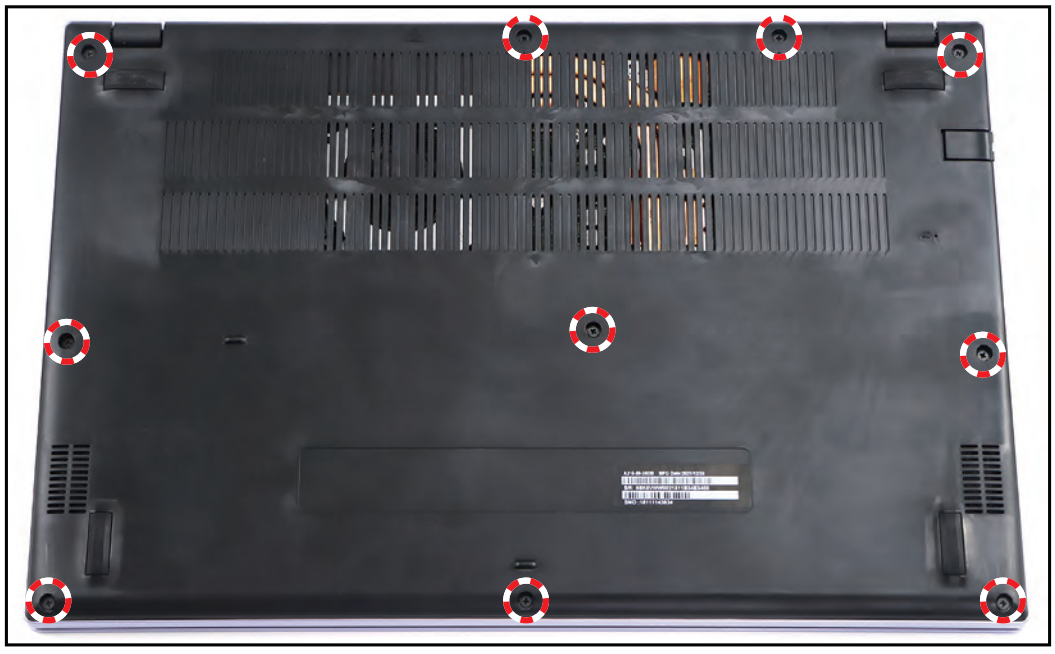


Figure 5-4. Removing the Screws

2. Pry the lower case from the bottom side to release the latches.

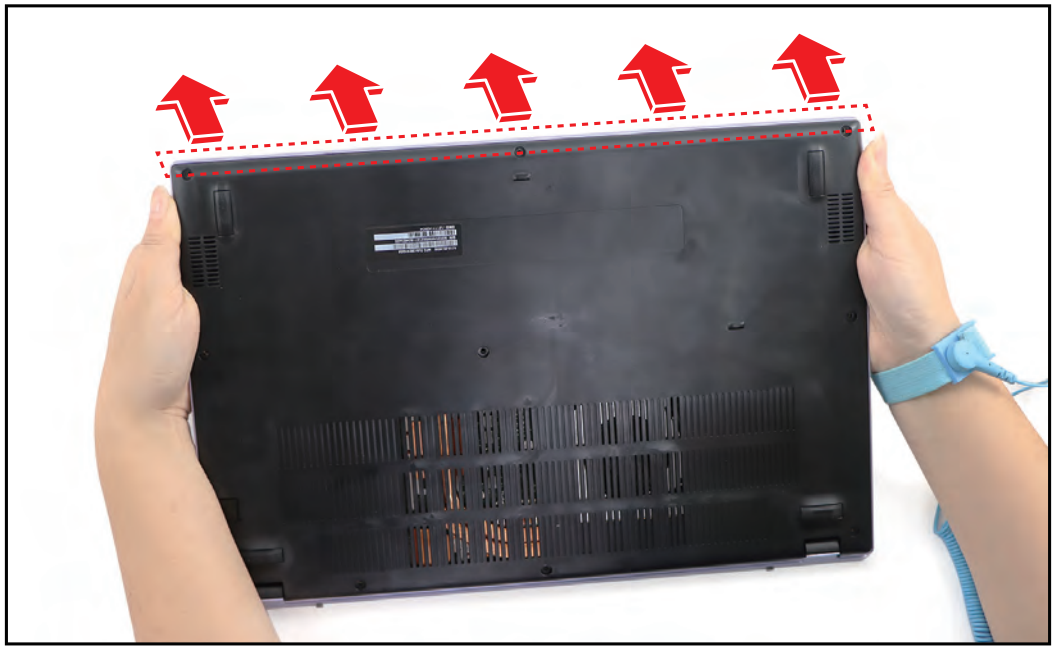


Figure 5-5. Releasing the Lower Case

3. Continue releasing the remaining latches. Then remove the lower case.



Figure 5-6. Removing the Lower Case

4. Detach the acetate tape from the battery cable connector.

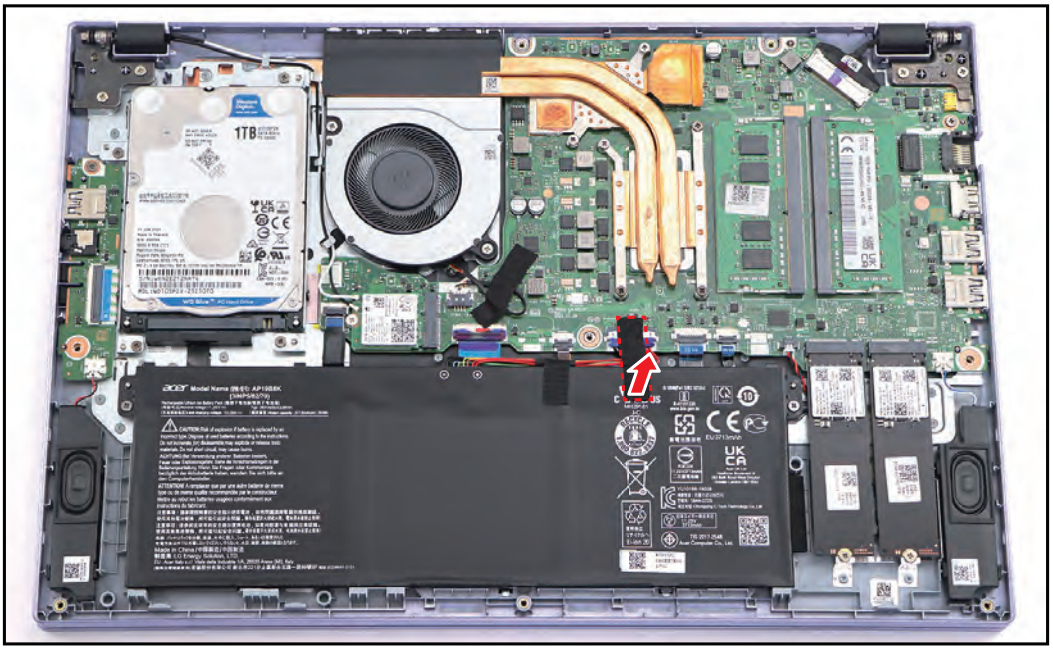


Figure 5-7. Detaching the Acetate Tape

5. Disconnect the battery cable from the mainboard connector.

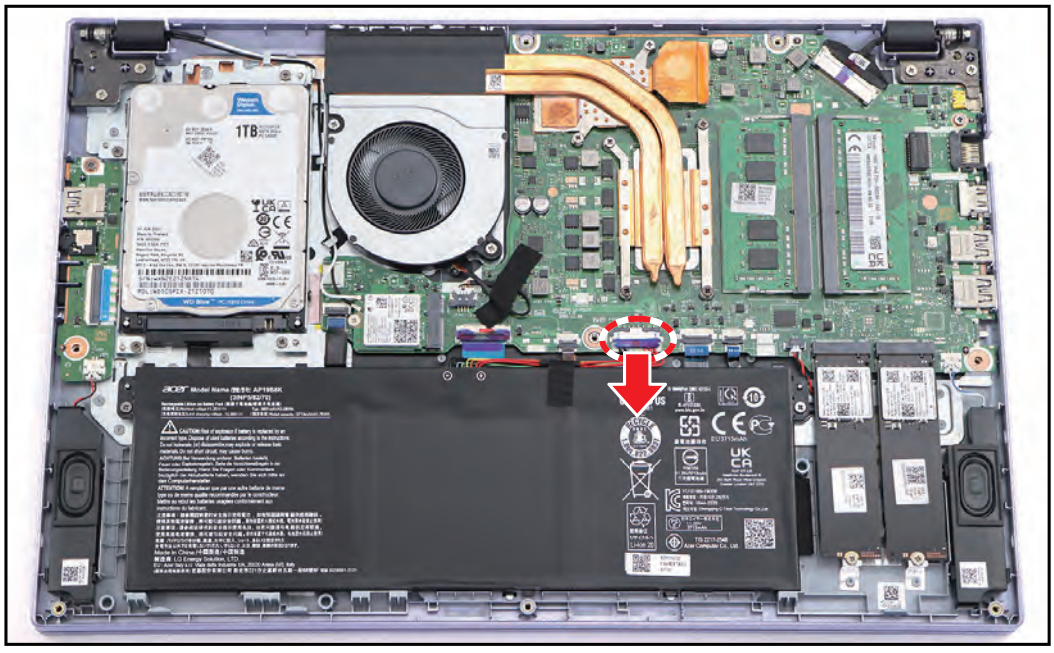


Figure 5-8. Disconnecting the Battery Cable

Lower Case Installation

1. Connect the battery cable to the mainboard connector.

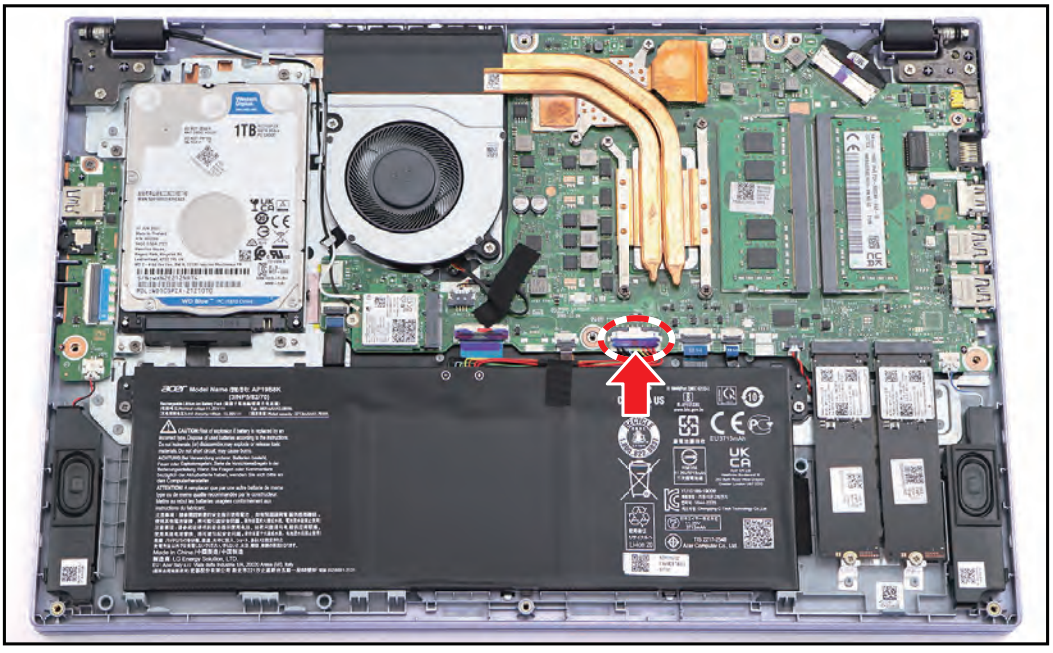


Figure 5-9. Connecting the Battery Cable

2. Secure the battery cable connector in place with the acetate tape.

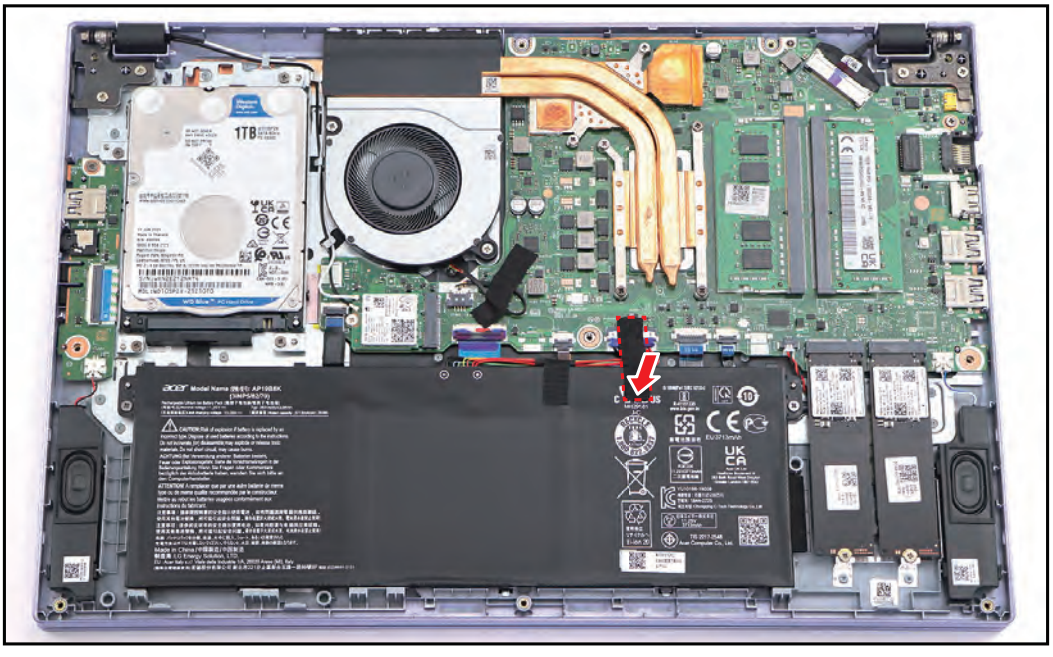


Figure 5-10. Attaching the Acetate Tape

3. Align and install the lower case on the upper case.

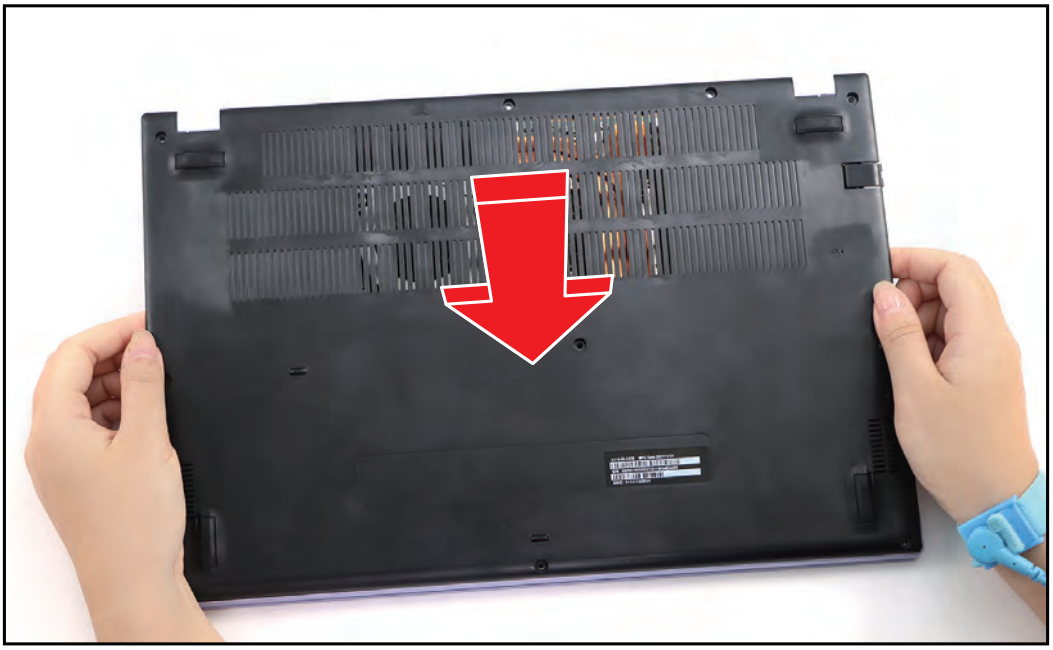


Figure 5-11. Installing the Lower Case (1 of 2)

4. Press firmly the side latches until they snapped into place.

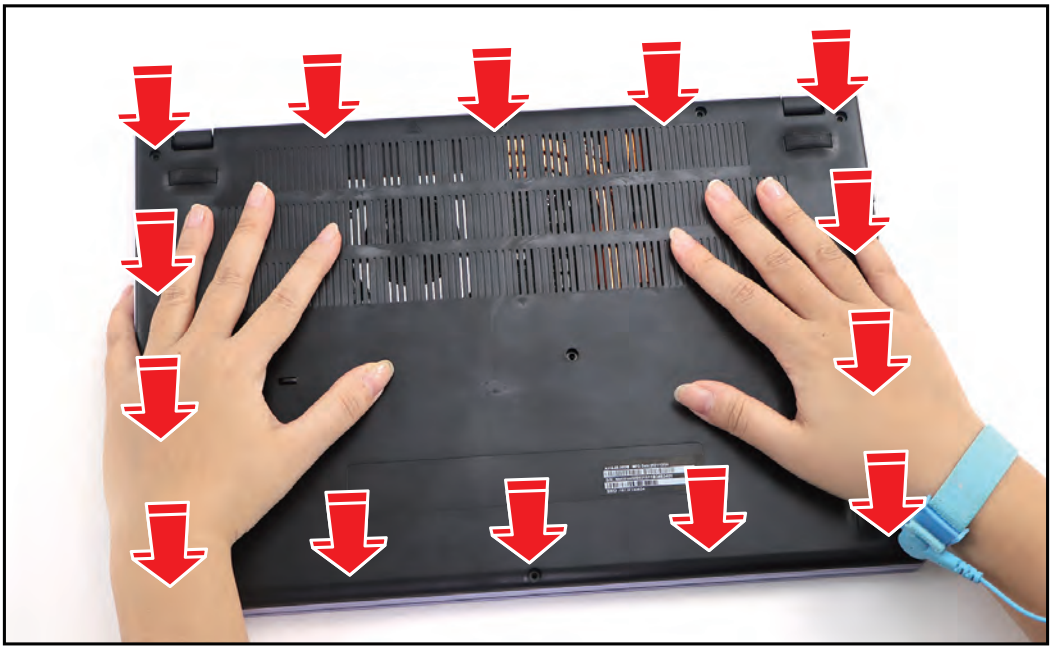


Figure 5-12. Installing the Lower Case (2 of 2)

5. Attach the ten (10) screws to secure the lower case.

NOTE: Screw torque force = 2.55~3.0kgf.cm

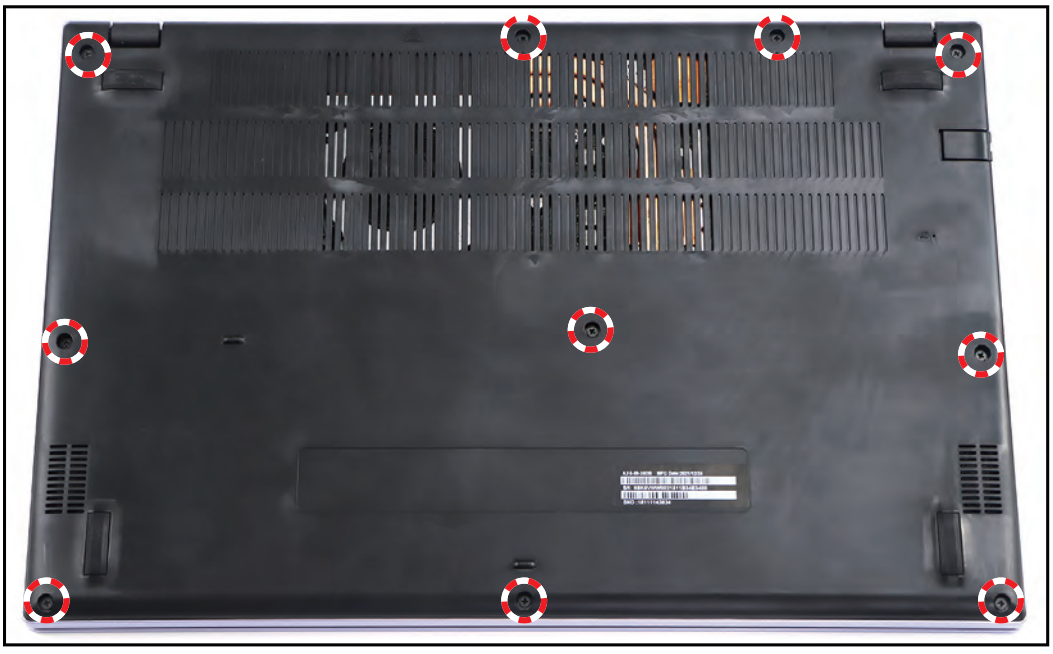


Figure 5-13. Securing the Screws

Table 5-6. Lower Case Screws

Screw Name	Screw Type	Torque	Quantity
M 2.5 x 6.0		2.55~3.0kgf.cm	10

Battery Removal

Prerequisite:

* **Lower Case Removal** on page **5-7**

1. Remove the two (2) screws securing the battery to the upper case.

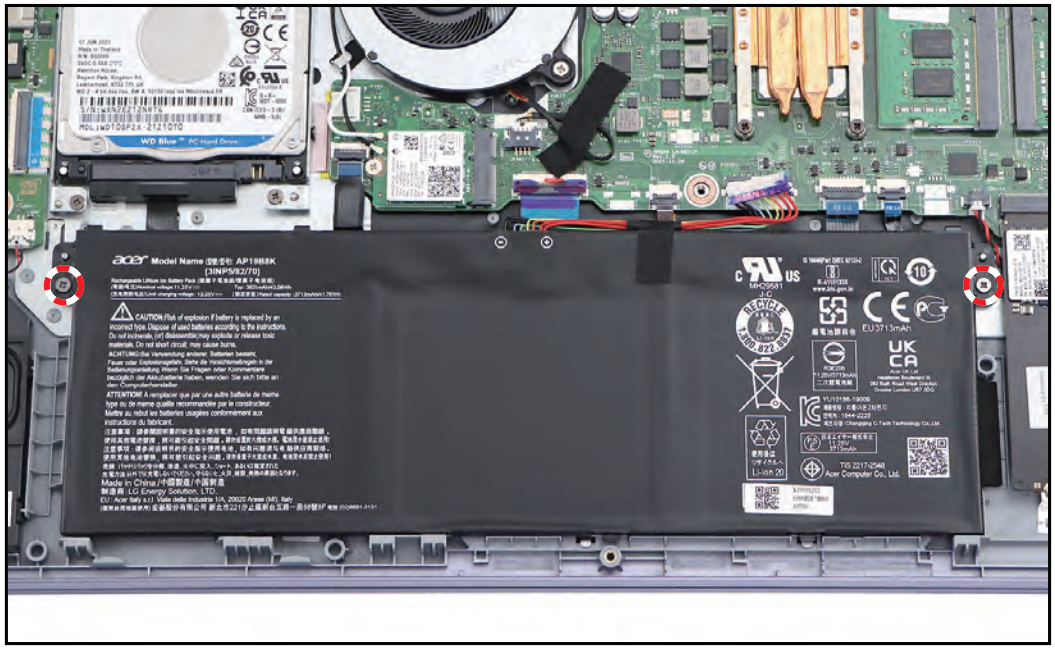


Figure 5-14. Removing the Screws

2. Release the battery latches and then remove the battery from its slot on the upper case.

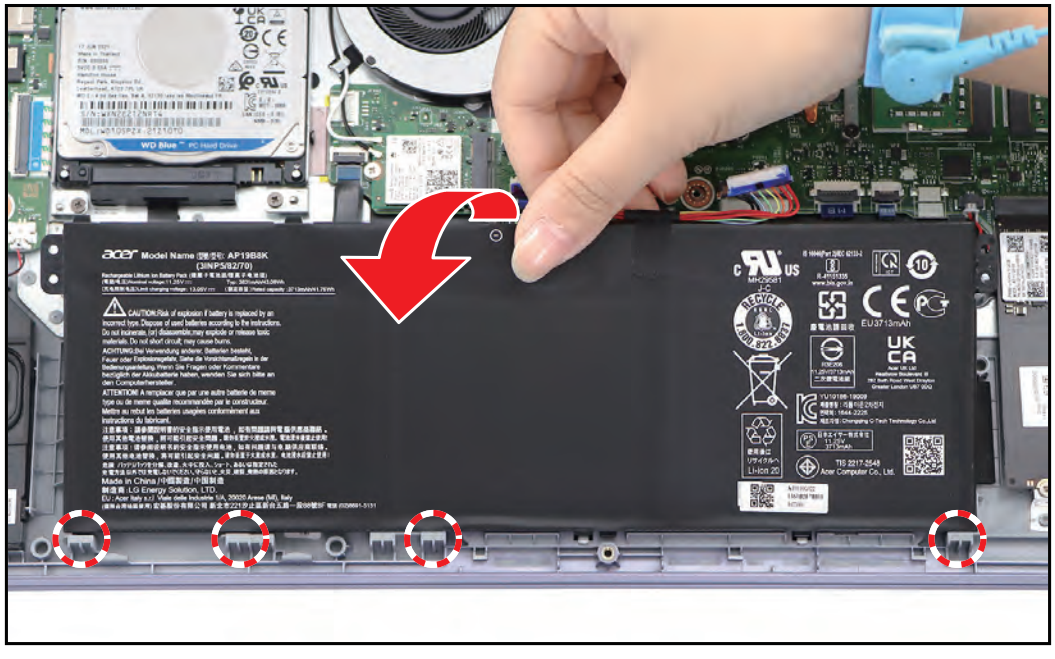


Figure 5-15. Removing the Battery

Battery Installation

1. By aligning with the guide pins, slide the bottom tabs of the battery to the slots on the upper case. Then push the upper side of the battery slightly until the battery is fully seated onto its slot.

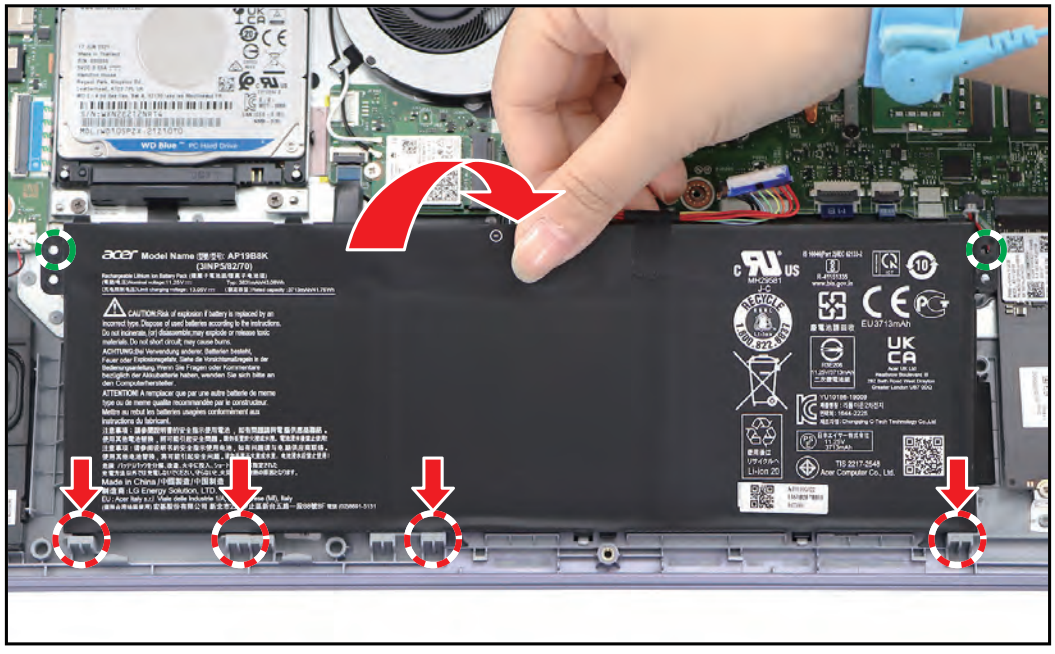


Figure 5-16. Installing the Battery

2. Attach the two (2) screws to secure the battery to the upper case.

   NOTE: Screw torque force = 1.8~2.2kgf.cm

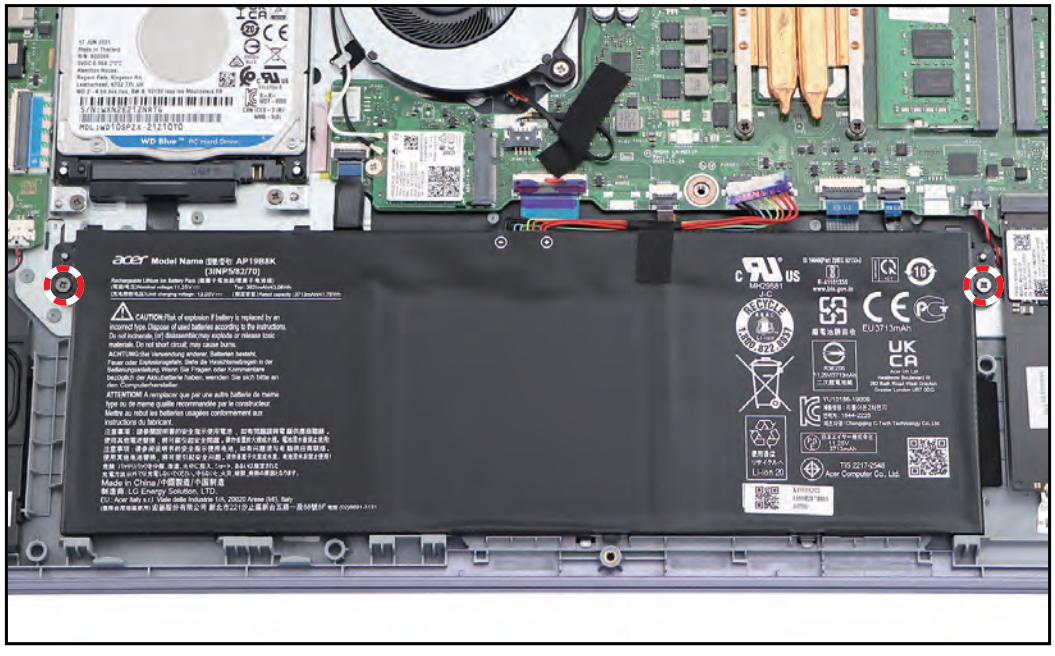


Figure 5-17. Securing the Screws

3. Install the lower case (see **Lower Case Installation** on page **5-10**).

Table 5-7. Battery Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 4.0		1.8~2.2kgf.cm	2

SSD1/SSD2 Module Removal

Prerequisite:

* **Lower Case Removal** on page **5-7**

1. Remove the screw securing the SSD1 module to the upper case.



Figure 5-18. Removing the Screw

2. Pull to disconnect the SSD1 module from the mainboard connector. Then remove the SSD1 module.



Figure 5-19. Removing the SSD Module

3. Repeat steps 1~2 to remove the SSD2 module (if applicable).

SSD1/SSD2 Module Installation

1. Connect the SSD1 module to the mainboard connector.



Figure 5-20. Connecting the SSD1 Module Connector

2. Attach the screw to secure the SSD1 module to the upper case.

NOTE: Screw torque force = 1.8~2.0kgf.cm

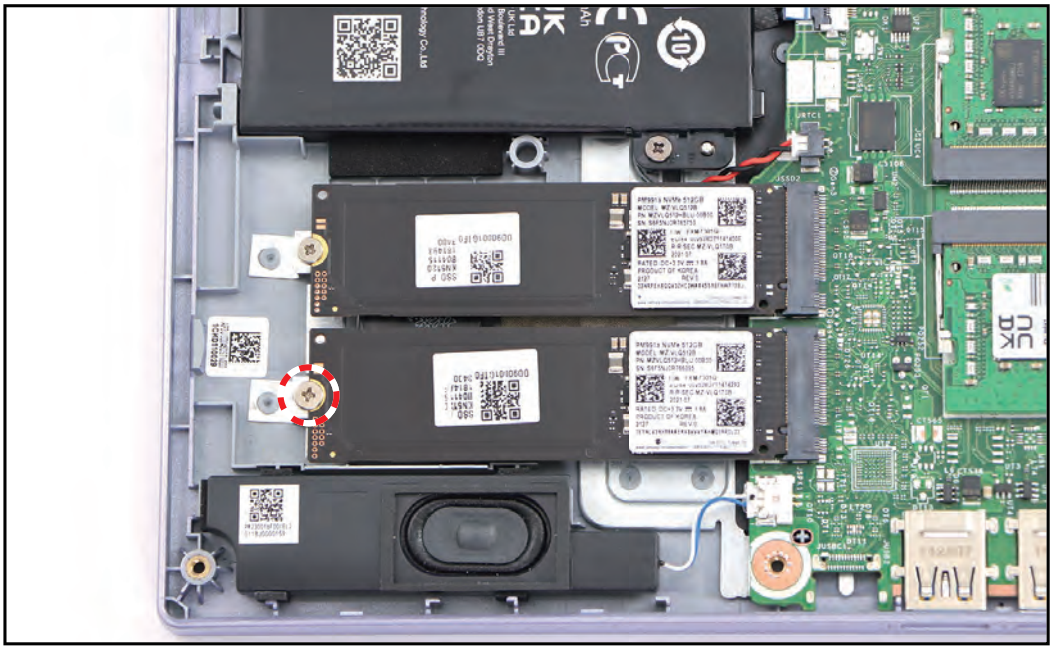


Figure 5-21. Securing the Screw

3. Repeat steps 1~2 to install the SSD2 module (if applicable).

4. Install the lower case (see **Lower Case Installation** on page **5-10**).

Table 5-8. SSD Module Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 3.0		1.8~2.0kgf.cm	1

WLAN Module Removal

Prerequisite:

- **Lower Case Removal** on page **5-7**

1. Disconnect the WLAN antenna cables.

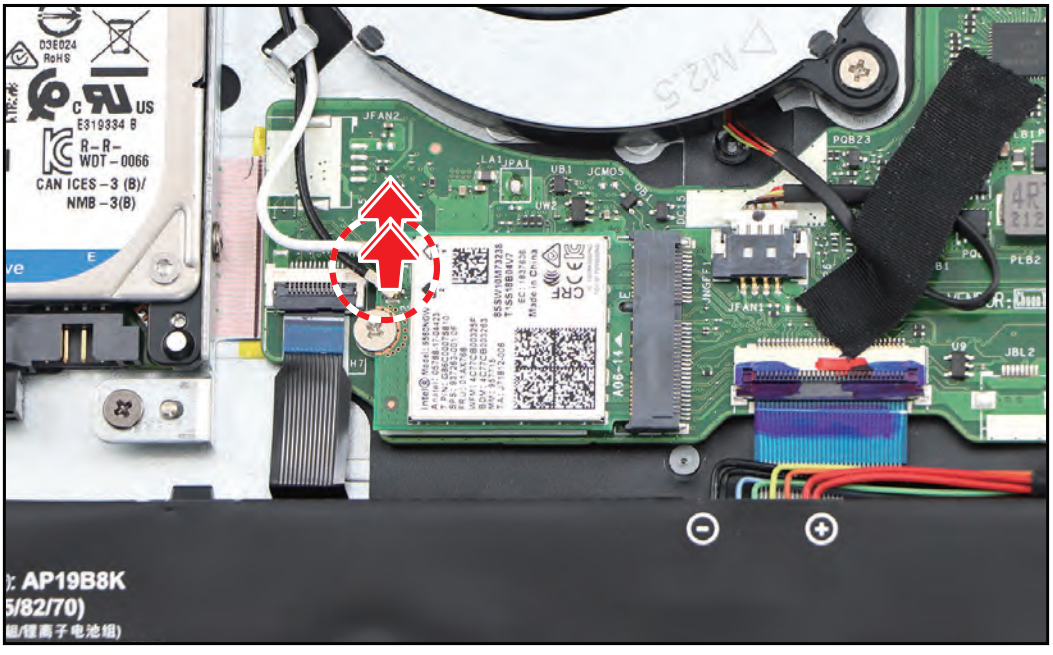


Figure 5-22. Disconnecting the WLAN Antenna Cables

2. Remove the screw securing the WLAN module to the mainboard.

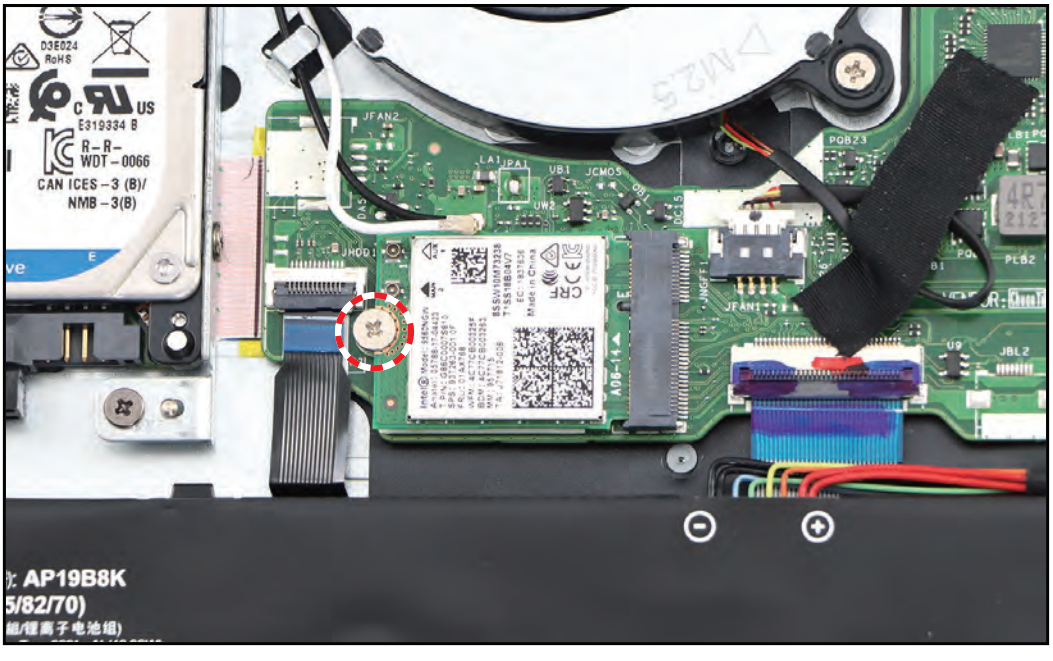


Figure 5-23. Removing the Screw

3. Pull to disconnect the WLAN module from the mainboard connector. Then remove the WLAN module.

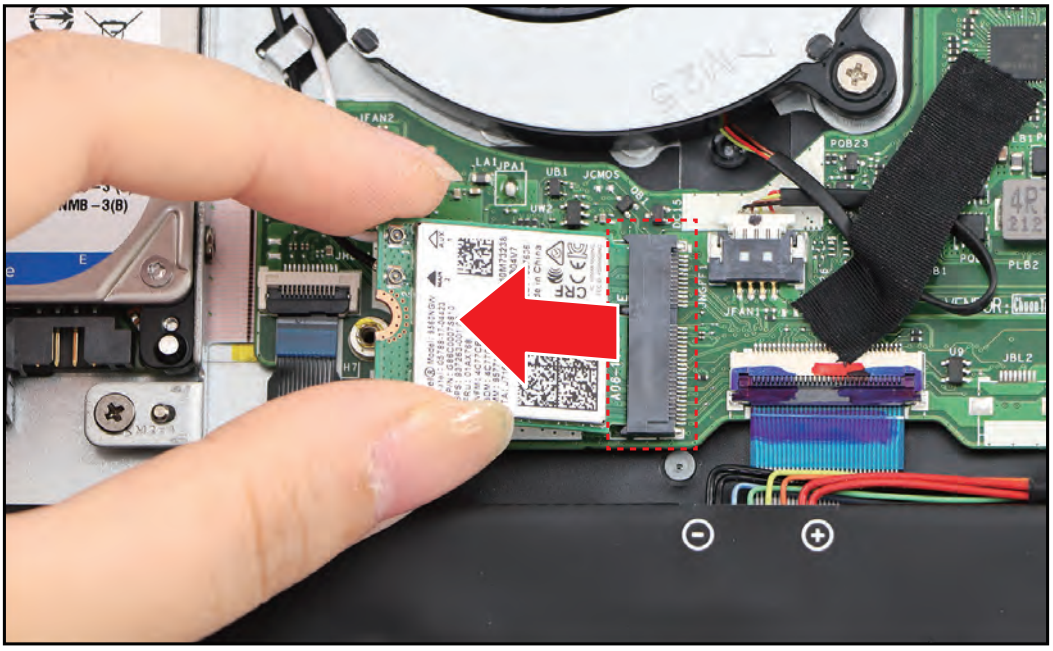


Figure 5-24. Removing the WLAN Module

WLAN Module Installation

1. Connect the WLAN module to the mainboard connector.

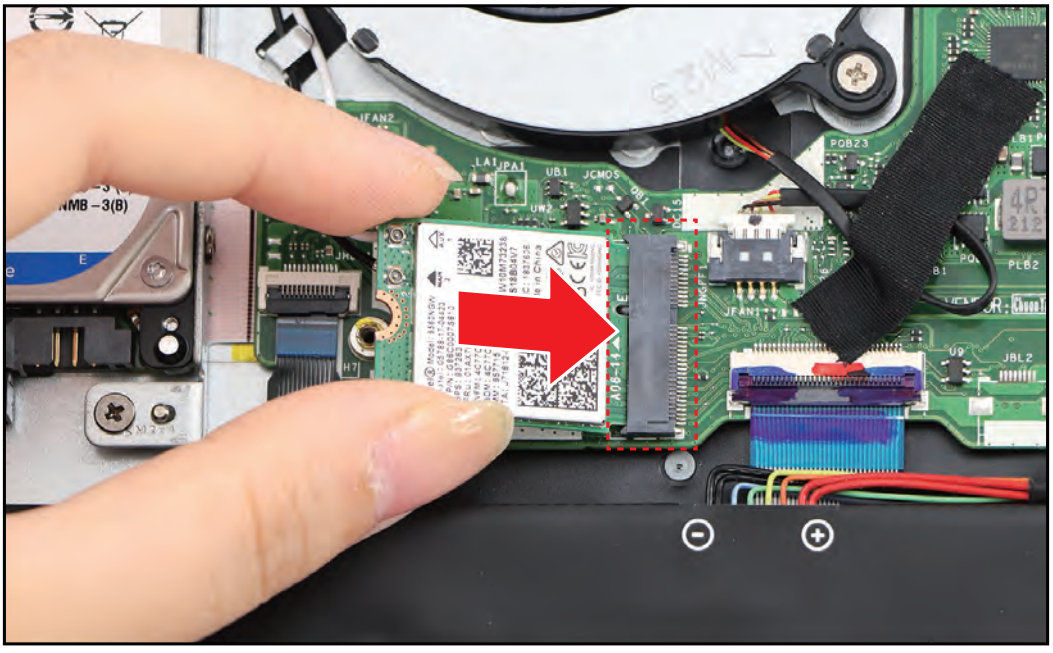


Figure 5-25. Connecting the WLAN Module Connector

2. Attach the screw to secure the WLAN module to the mainboard.

NOTE: Screw torque force = 1.8~2.2kgf.cm

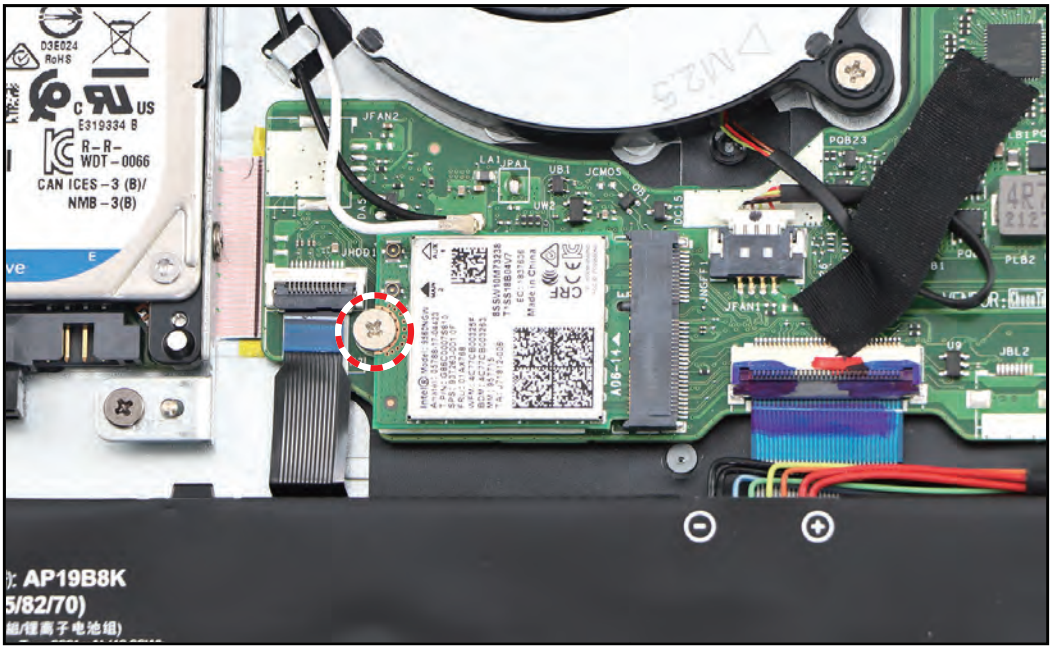


Figure 5-26. Securing the Screw

3. Connect the main antenna cable (black) to the connector closer to the screw and the auxiliary antenna cable (white) to the other connector on the WLAN module.

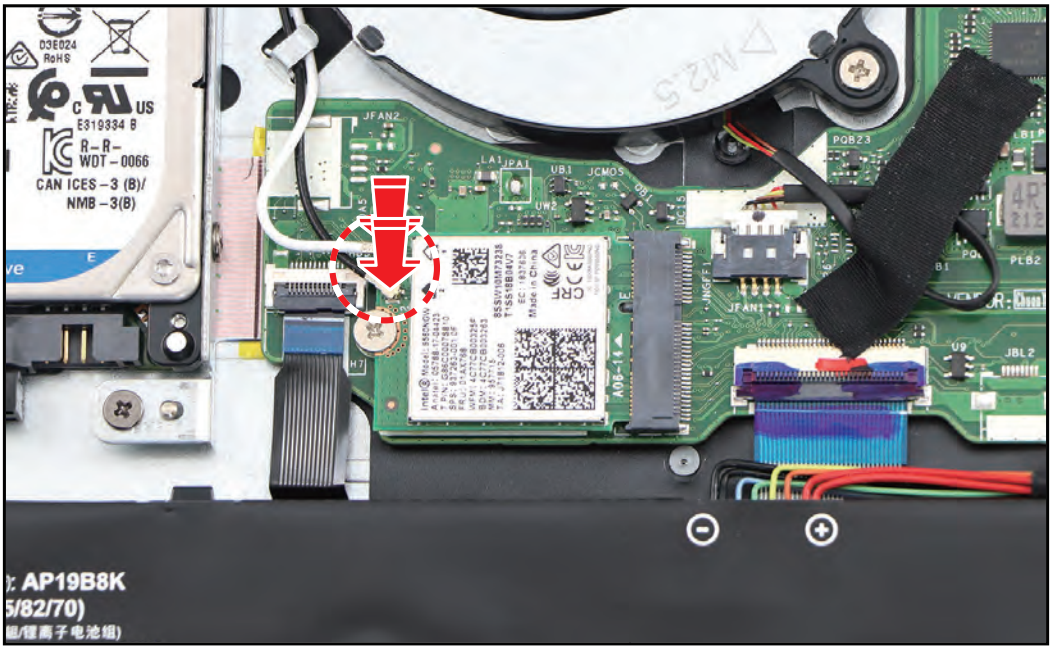


Figure 5-27. Connecting the WLAN Antenna Cables

4. Install the lower case (see **Lower Case Installation** on page **5-10**).

Table 5-9. WLAN Module Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 2.5		1.8~2.2kgf.cm	1

DIMM Module Removal

Prerequisite:

* **Lower Case Removal** on page **5-7**

1. Push the module clips outwards.

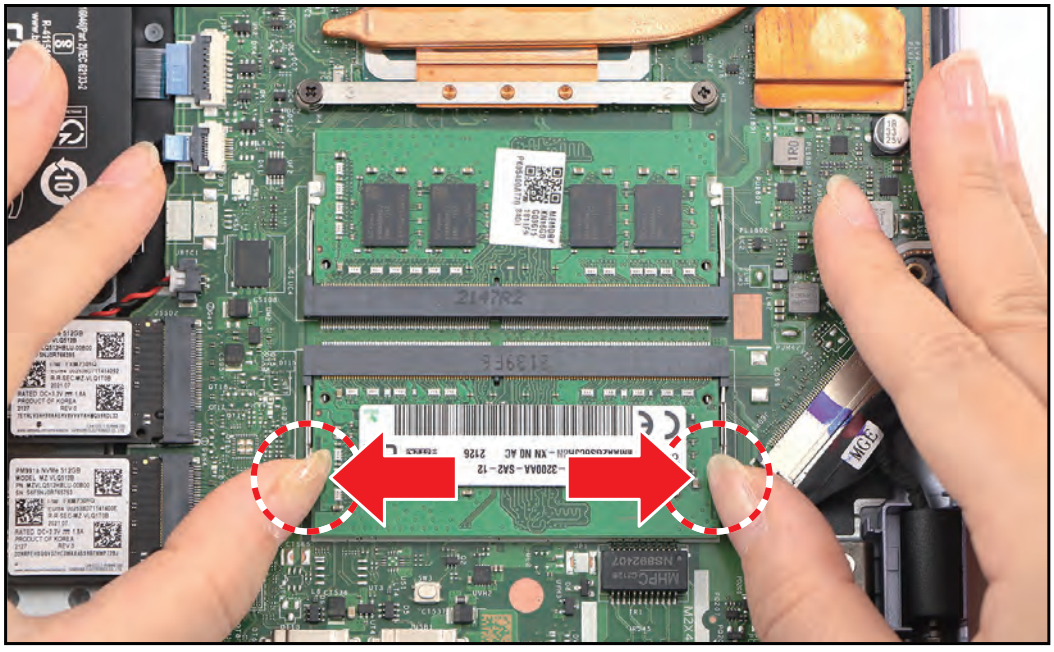


Figure 5-28. Unclipping the Module Clips

2. Pull to remove the memory module from the mainboard connector. Then remove the memory module.

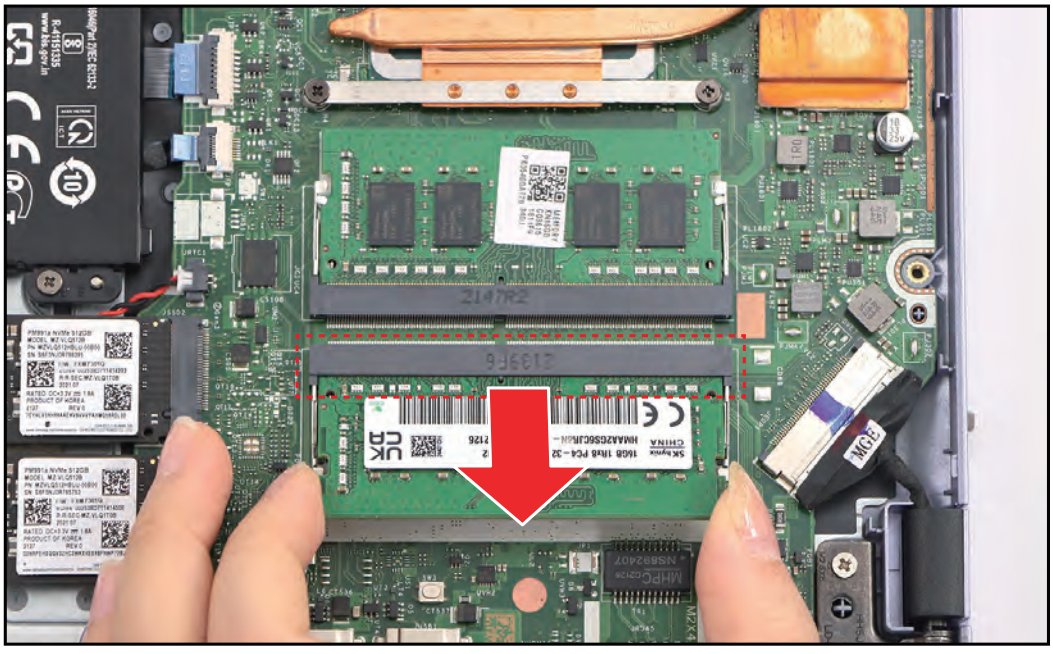


Figure 5-29. Removing the DIMM Module

DIMM Module Installation

1. Connect the memory module to the mainboard connector.

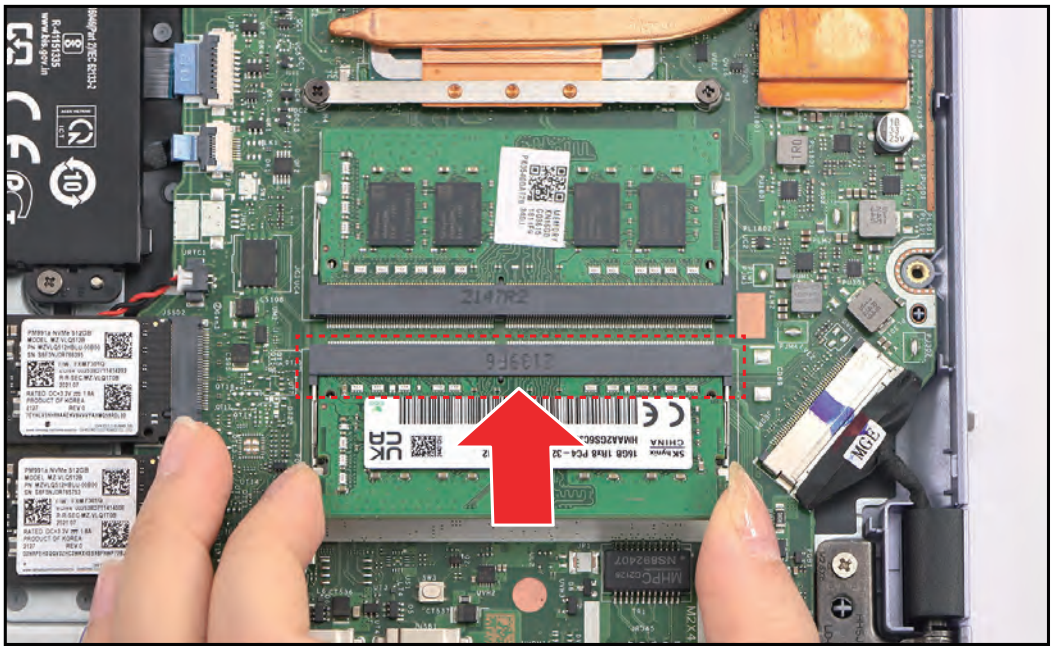


Figure 5-30. Installing the DIMM Module (1 of 2)

2. Push down the memory module until the clips lock in place.

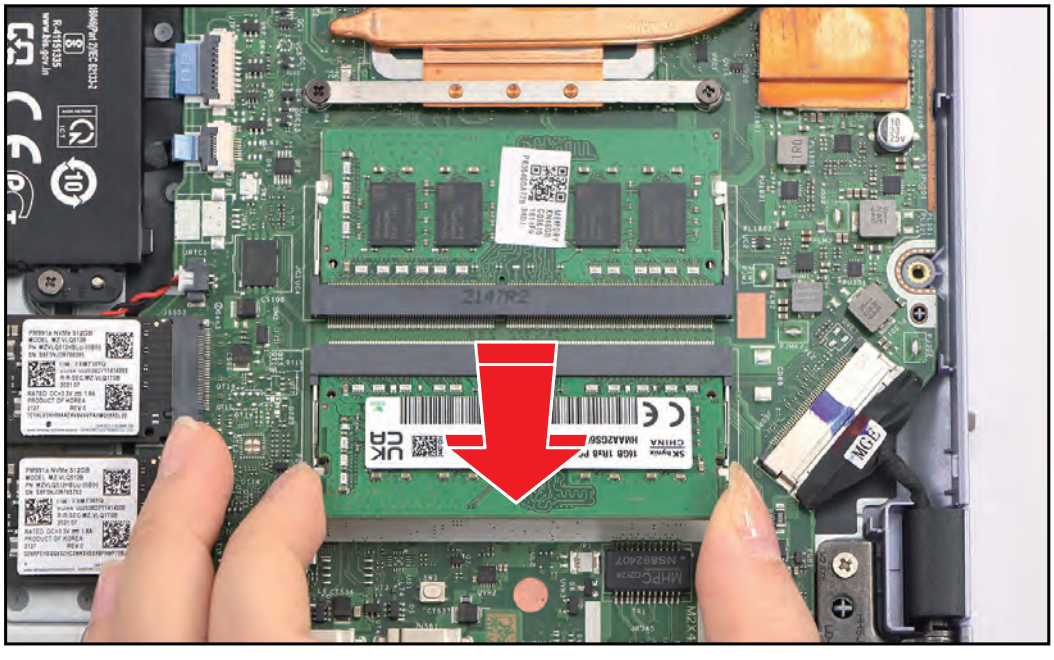


Figure 5-31. Installing the DIMM Module (2 of 2)

3. Install the lower case (see **Lower Case Installation** on page **5-10**).

Thermal Module Removal

Prerequisite:

- **Lower Case Removal** on page **5-7**

1. Remove the three (3) screws securing the thermal module to the mainboard.

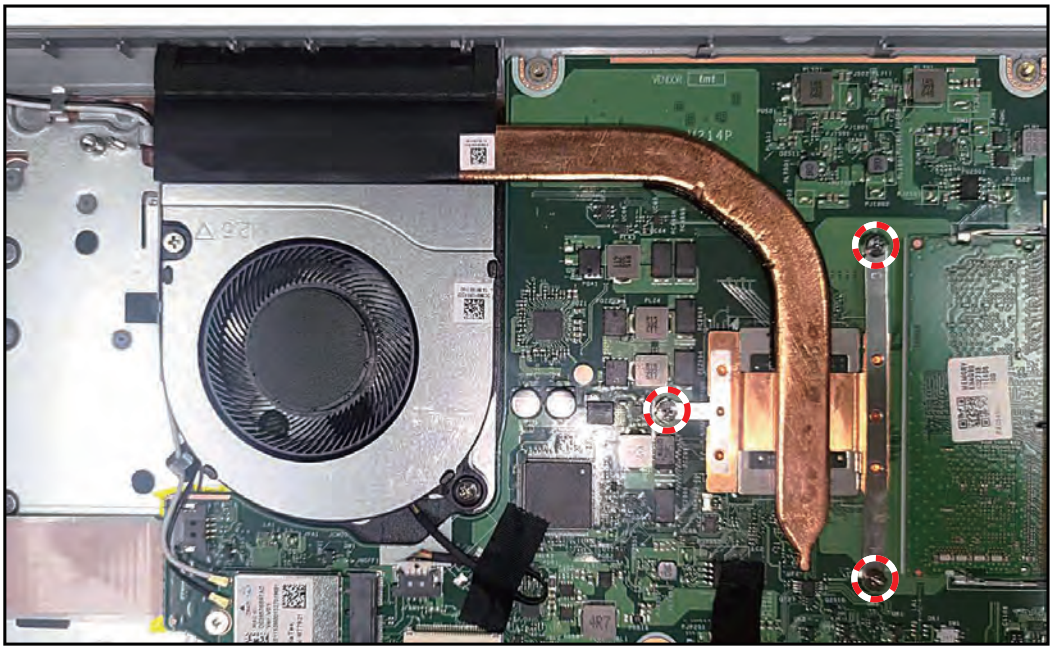


Figure 5-32. Removing the Screws

2. Lift to remove the thermal module from the mainboard and upper case.

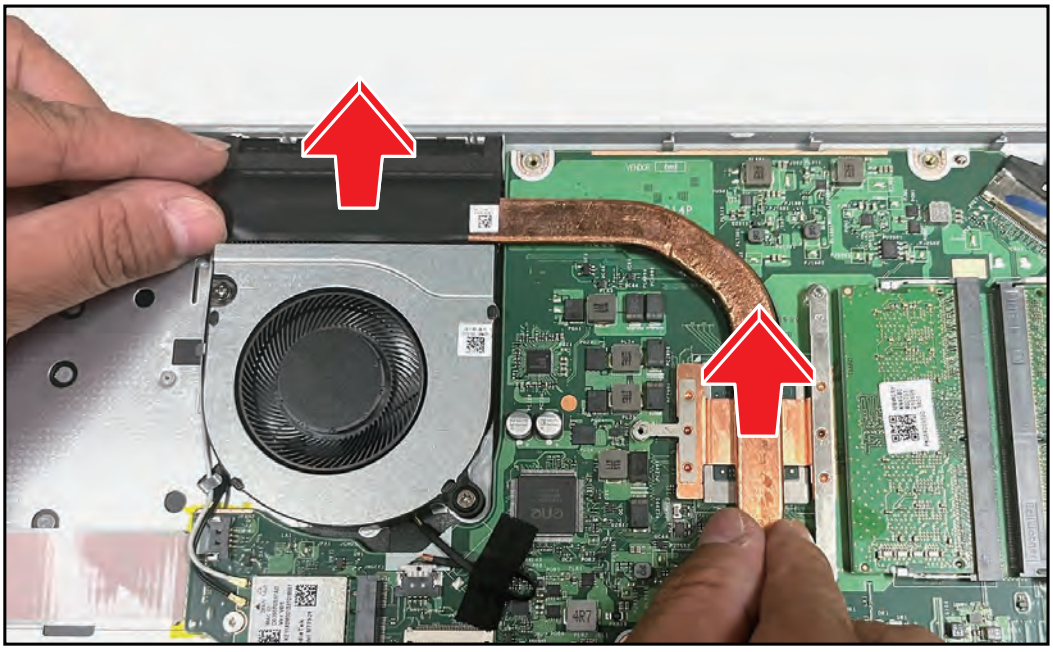


Figure 5-33. Removing the Thermal Module

Thermal Module Installation

1. Align and install the thermal module onto its slot on the mainboard and upper case.

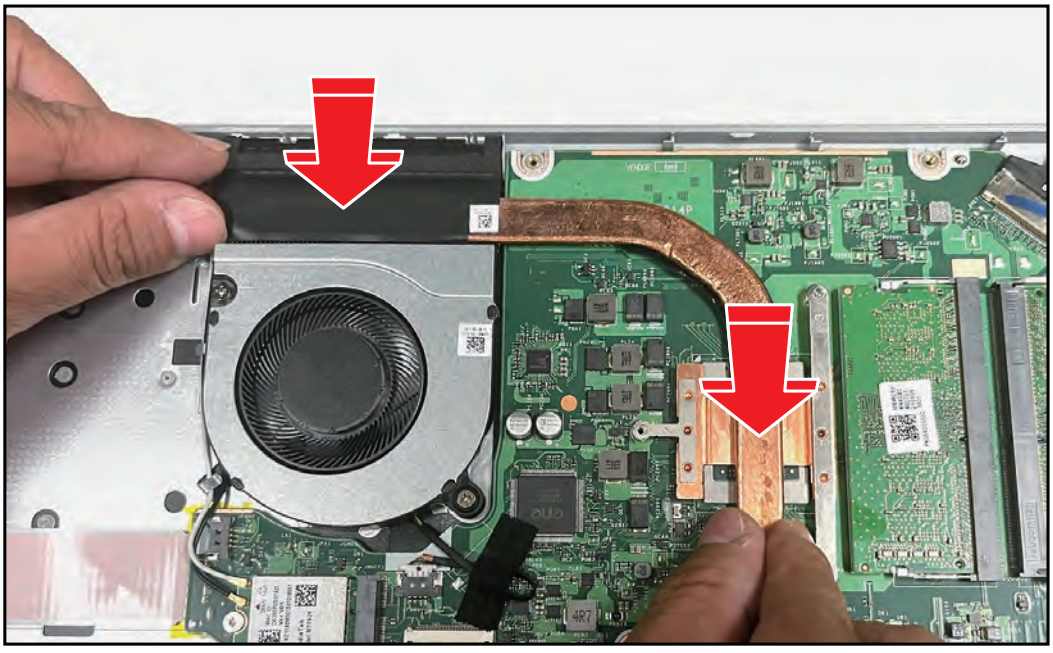


Figure 5-34. Installing the Thermal Module

2. Attach the three (3) screws to secure the thermal module to the mainboard.

   NOTE: Screw torque force = 1.8~2.2kgf.cm

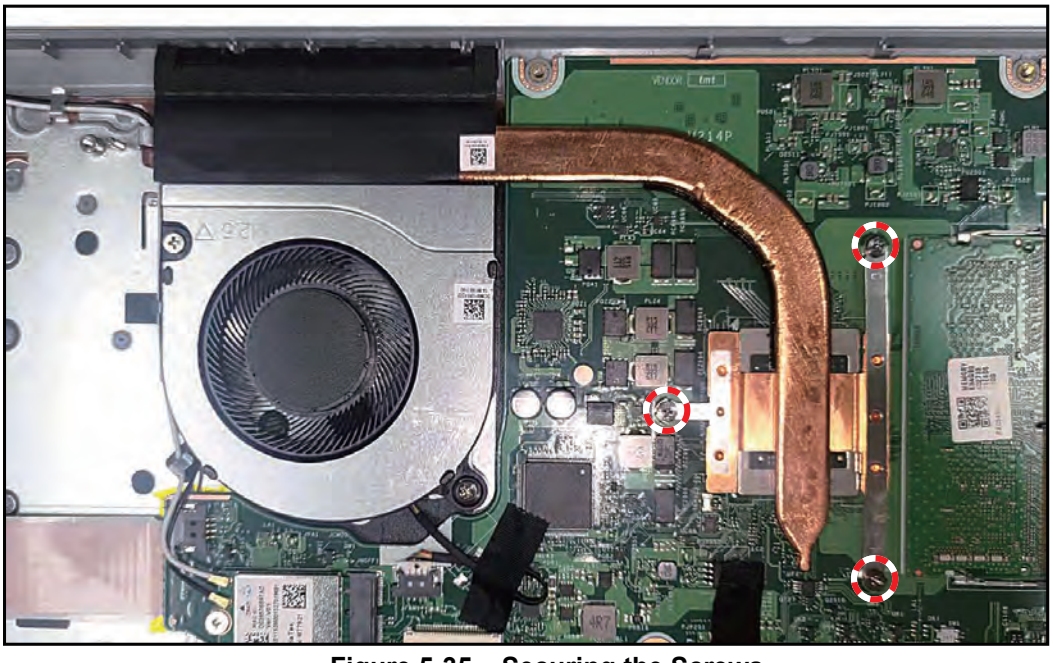


Figure 5-35. Securing the Screws

3. Install the lower case (see **Lower Case Installation** on page **5-10**).

Table 5-10. Thermal Module Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 4.0		1.8~2.2kgf.cm	3

Fan Module Removal

Prerequisite:

- **Lower Case Removal** on page **5-7**

1. Detach the acetate tape from the fan cable.

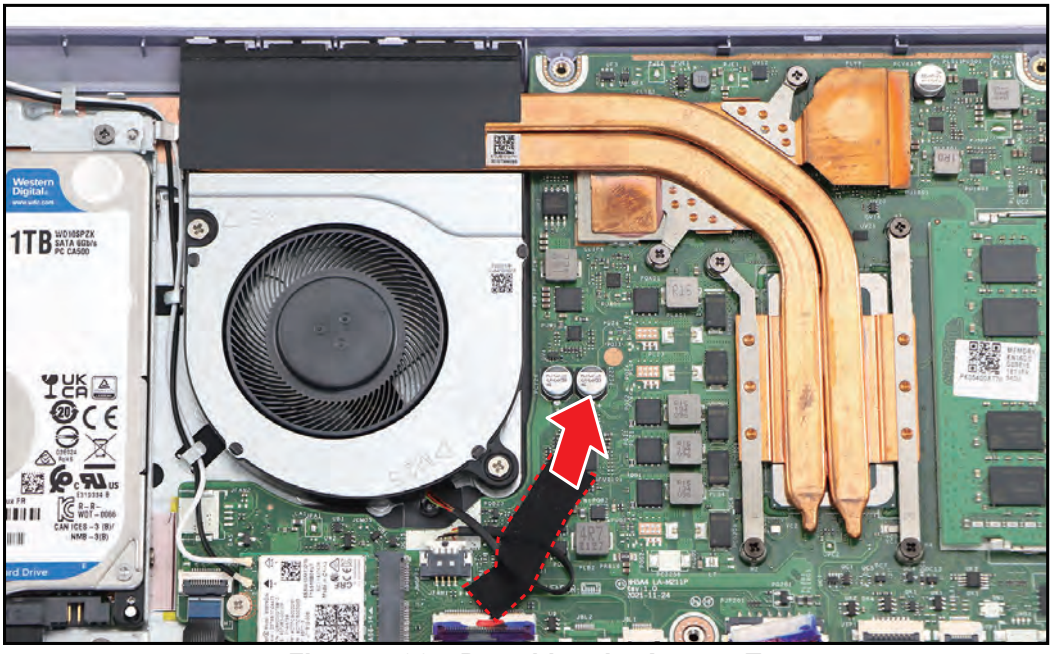


Figure 5-36. Detaching the Acetate Tape

2. Disconnect the fan cable from the mainboard connector.

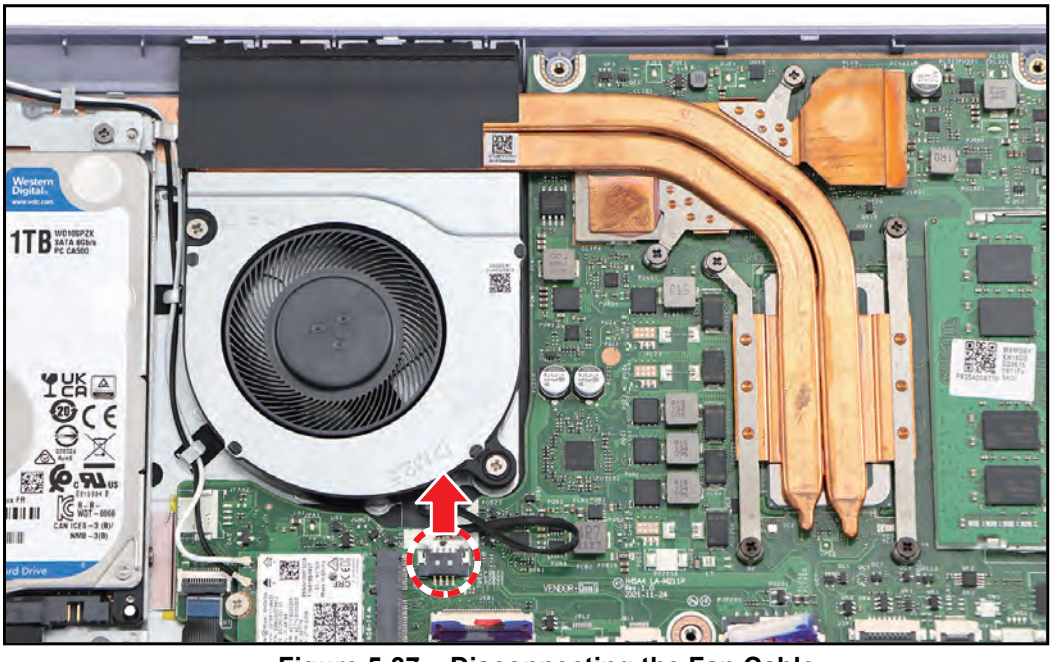


Figure 5-37. Disconnecting the Fan Cable

3. Remove the two (2) screws securing the fan module to the upper case.

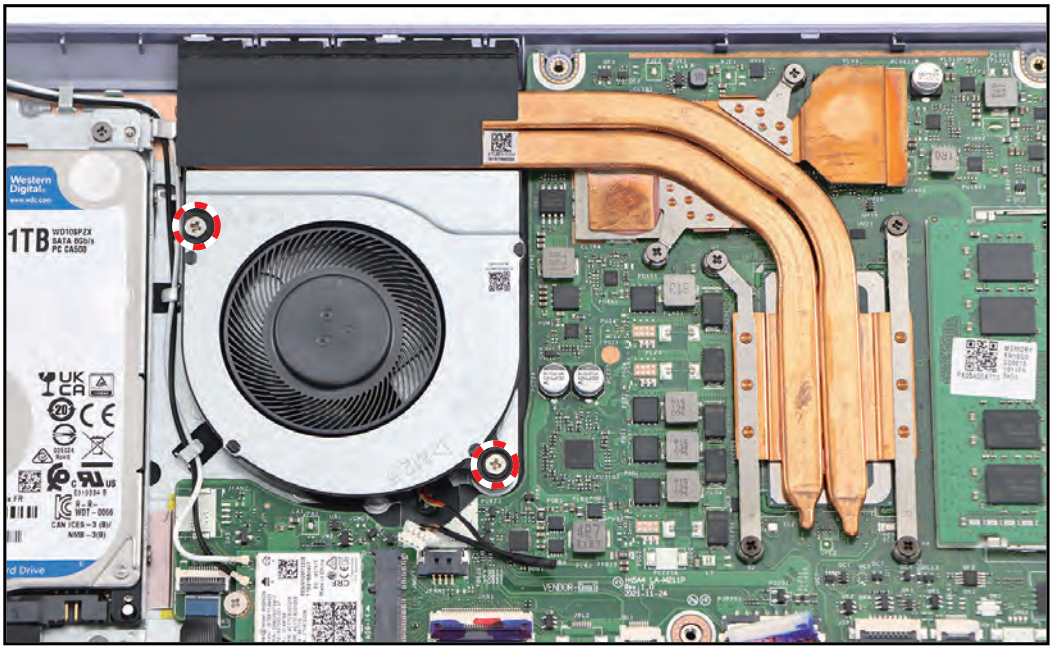


Figure 5-38. Removing the Screws

4. Lift to remove the fan module from the upper case.

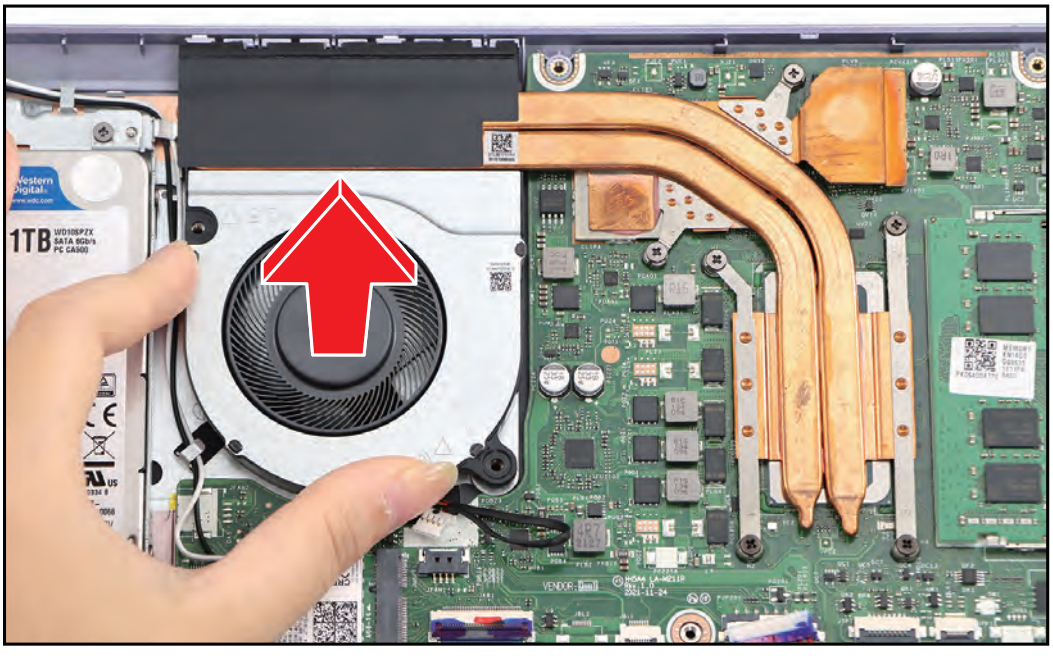


Figure 5-39. Removing the Fan Module

Fan Module Installation

1. Align and install the fan module onto its slot on the upper case.

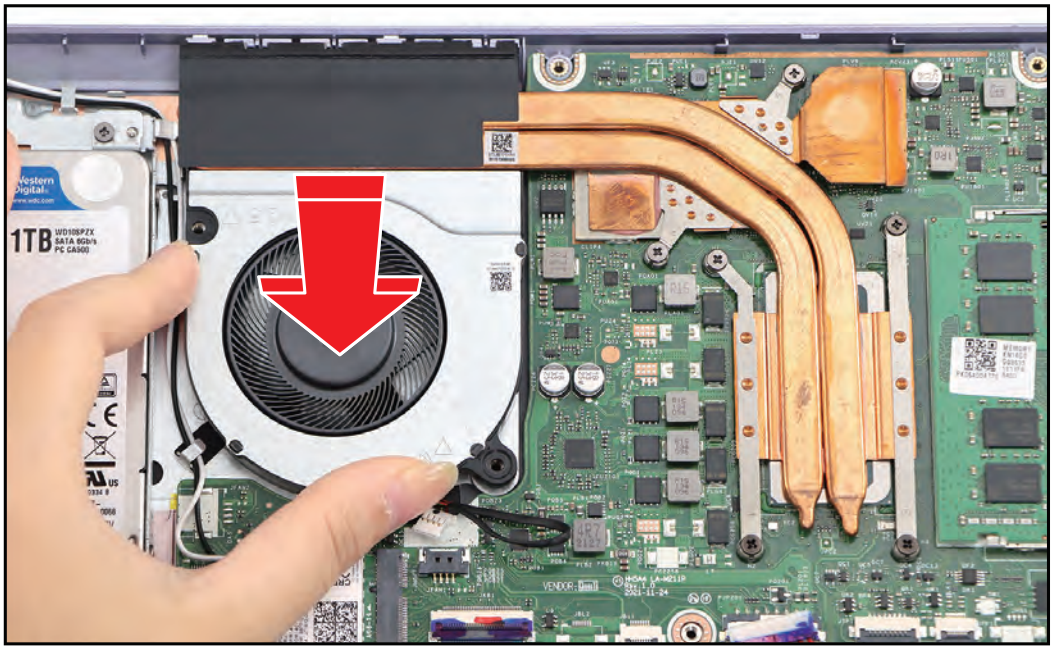


Figure 5-40. Installing the Fan Module

2. Attach the two (2) screws to secure the fan module to the upper case.

NOTE: Screw torque force = 2.55~3.45kgf.cm

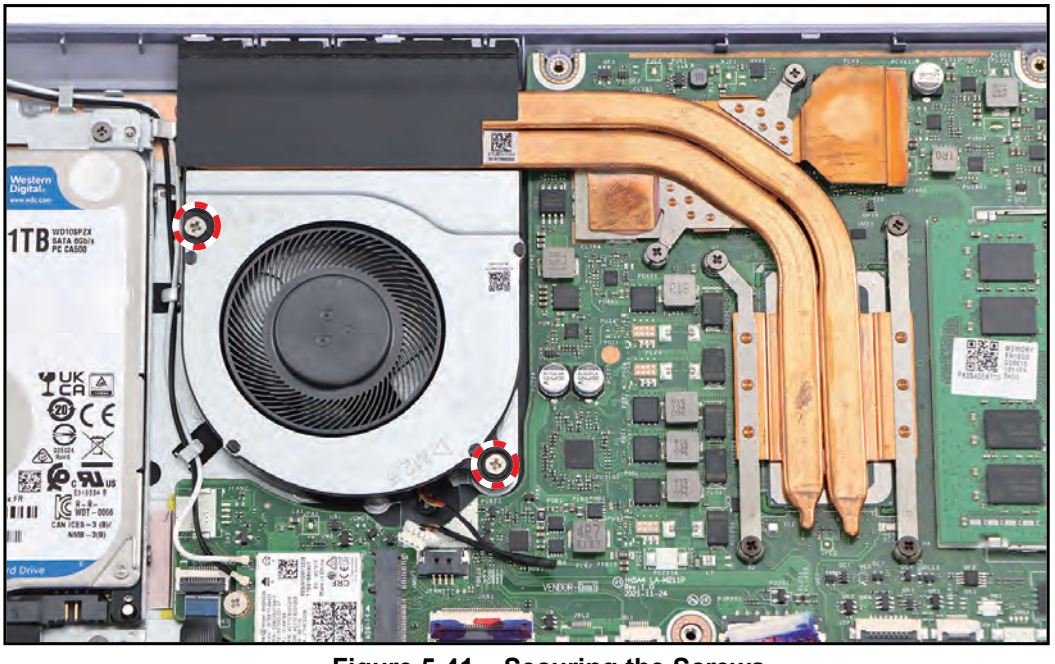


Figure 5-41. Securing the Screws

3. Connect the fan cable to the mainboard connector.

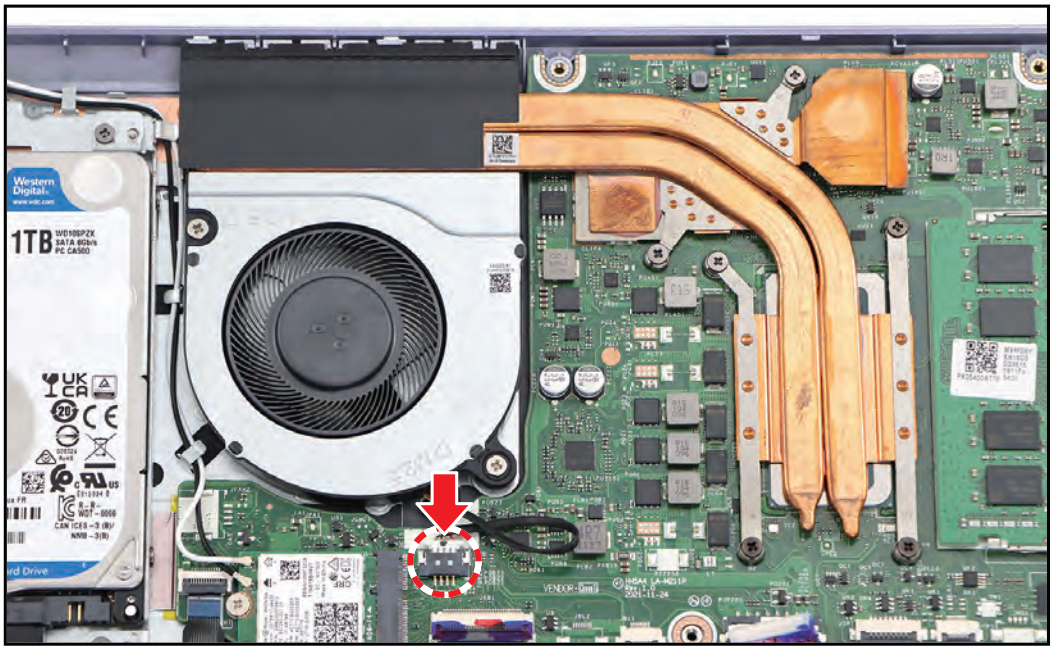


Figure 5-42. Connecting the Fan Cable

4. Secure the fan cable in place with the acetate tape.

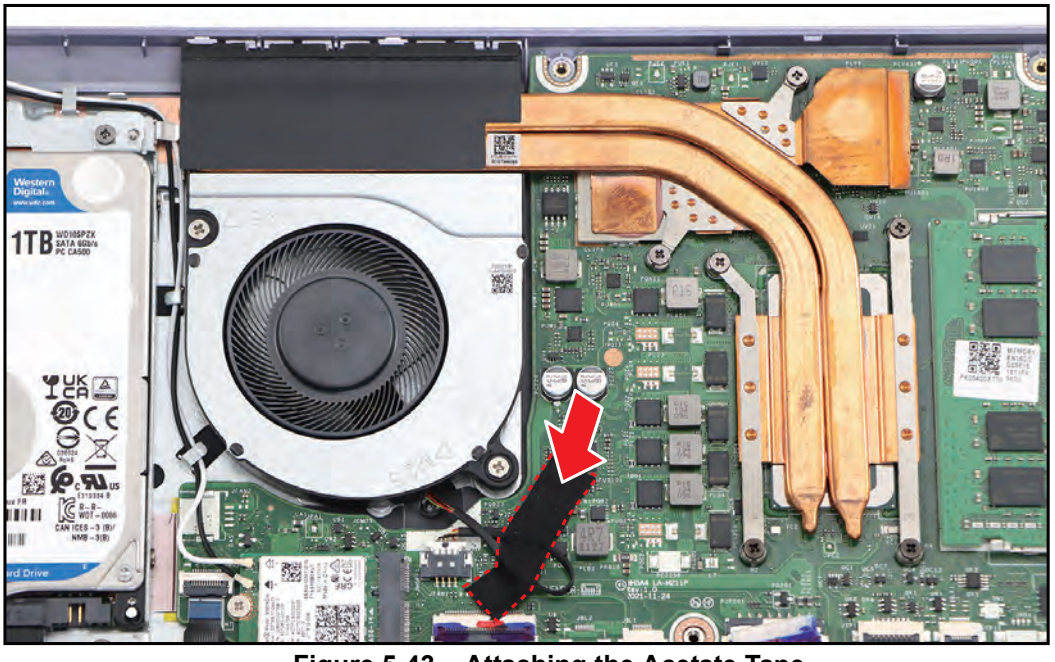


Figure 5-43. Attaching the Acetate Tape

5. Install the lower case (see **Lower Case Installation** on page **5-10**).

Table 5-11. Fan Module Screws

Screw Name	Screw Type	Torque	Quantity
M 2.5 x 6.0		2.55~3.45kgf.cm	2

Right Speaker Removal

Prerequisite:

* **Lower Case Removal** on page **5-7**

1. Disconnect the speaker cable from the USB board connector.



Figure 5-44. Disconnecting the Speaker Cable

2. Remove the right speaker from the upper case.

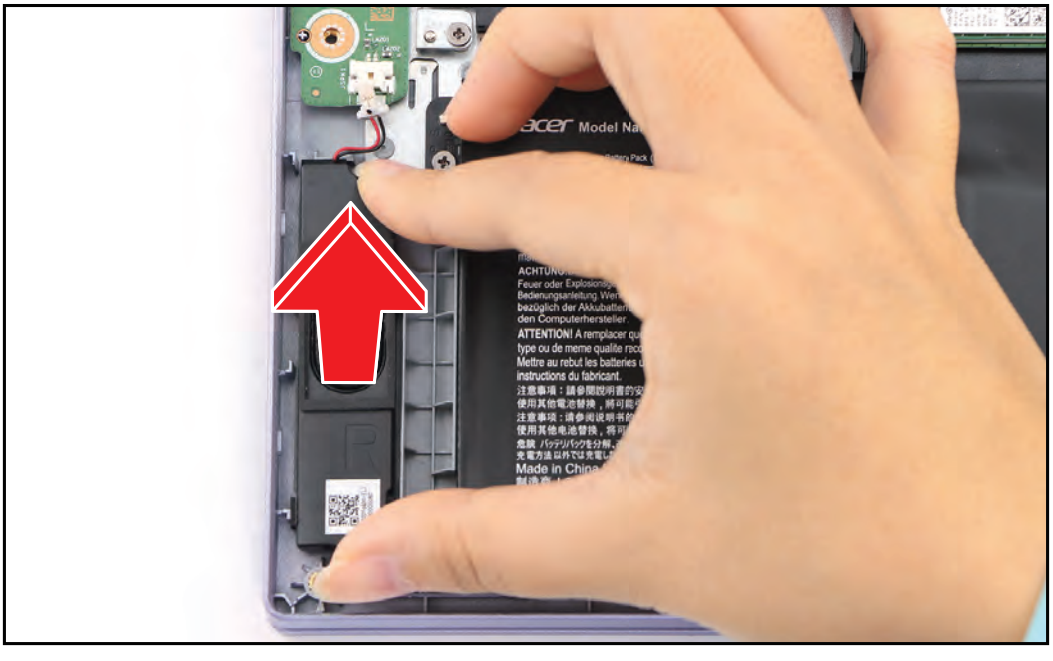


Figure 5-45. Removing the Right Speaker

Right Speaker Installation

1. Align and install the right speaker onto its slot on the upper case.

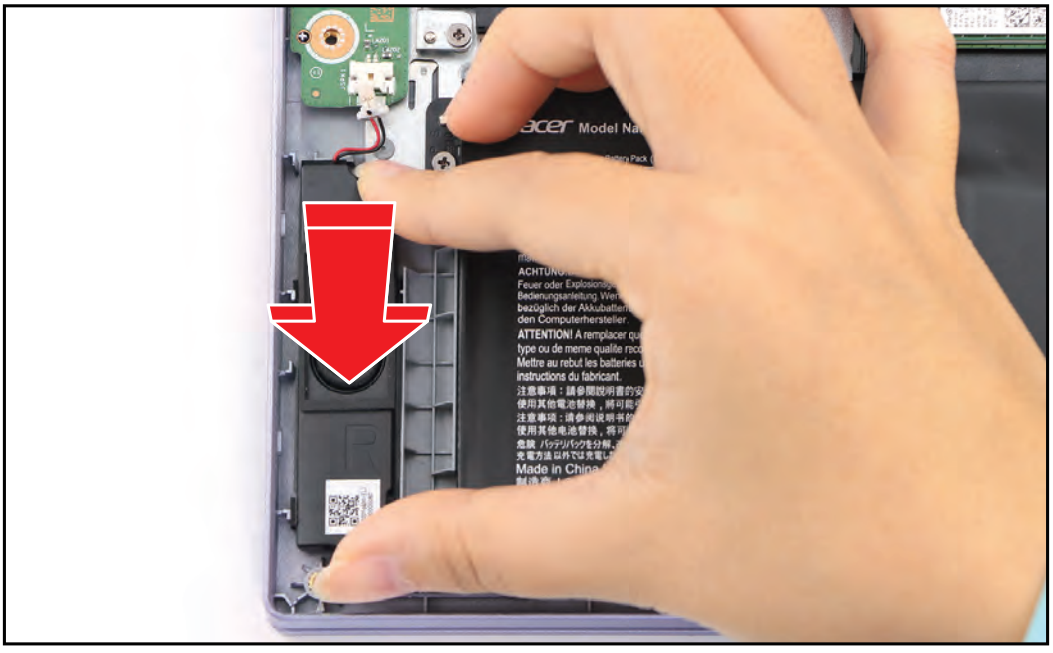


Figure 5-46. Installing the Right Speaker

2. Connect the speaker cable to the USB board connector.

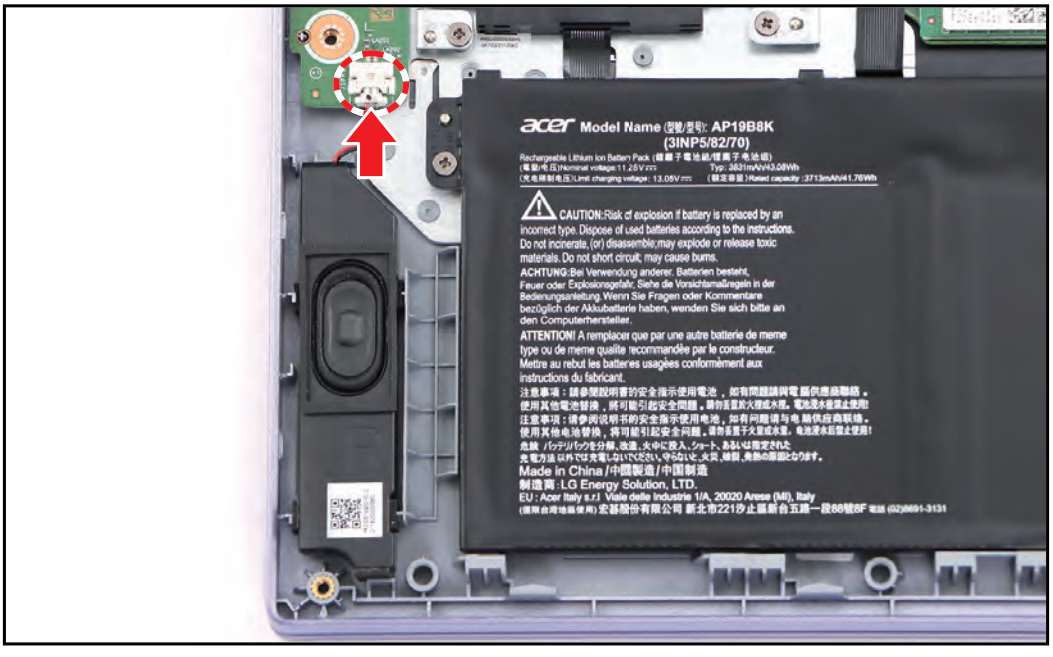


Figure 5-47. Connecting the Speaker Cable

3. Install the lower case (see **Lower Case Installation** on page **5-10**).

Left Speaker Removal

Prerequisite:

* **Lower Case Removal** on page **5-7**

1. Disconnect the speaker cable from the mainboard connector.

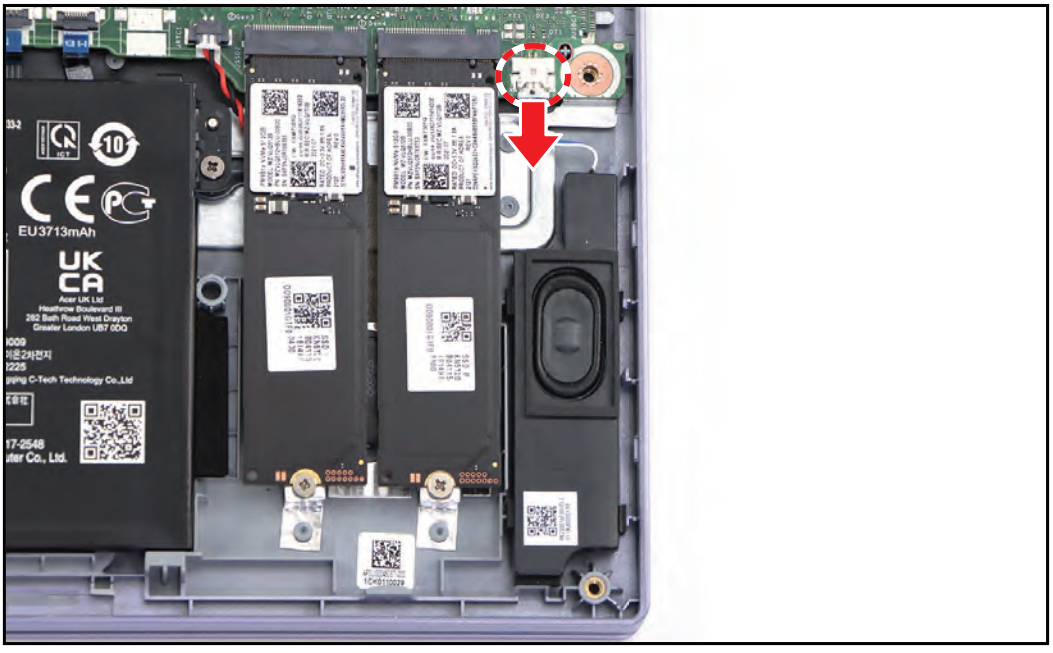


Figure 5-48. Disconnecting the Speaker Cable

2. Remove the left speaker from the upper case.

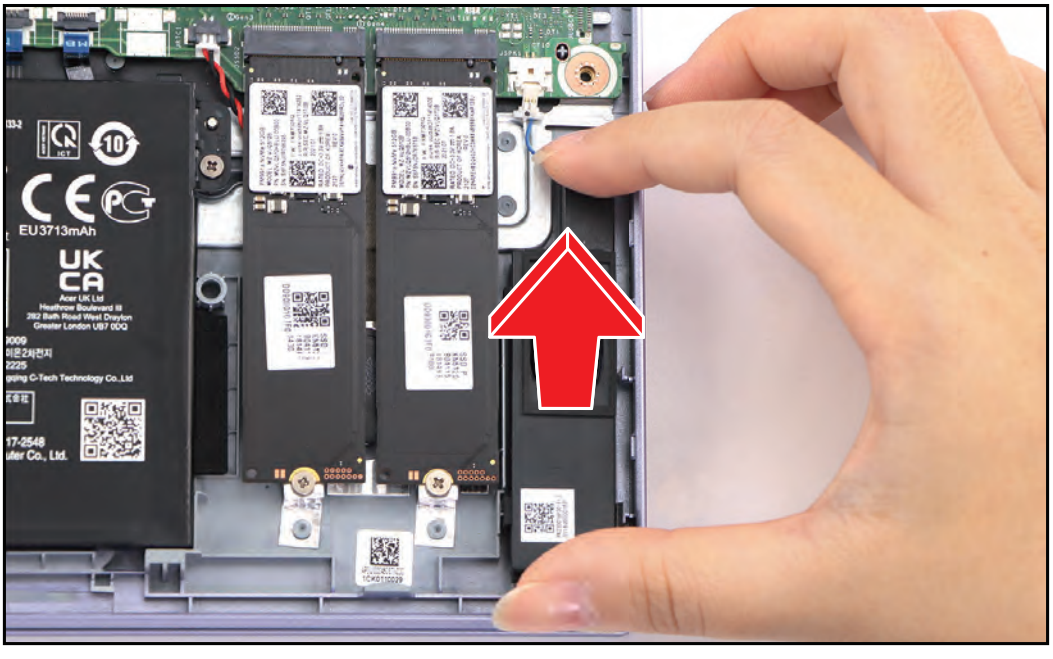


Figure 5-49. Removing the Left Speaker

Left Speaker Installation

1. Align and install the left speaker onto its slot on the upper case.

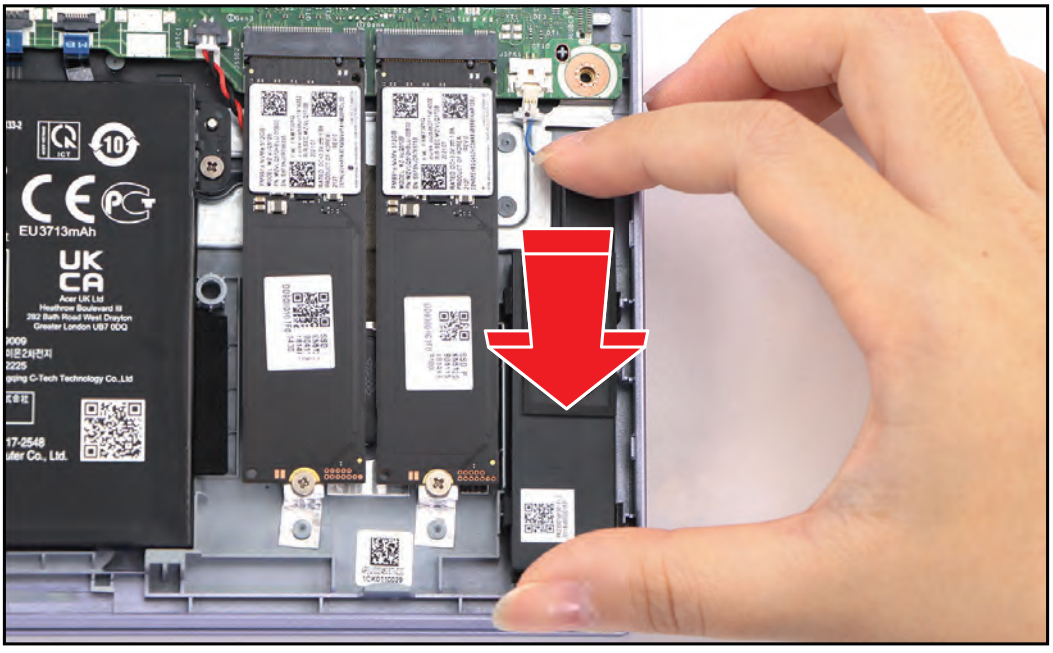


Figure 5-50. Installing the Left Speaker

2. Connect the speaker cable to the mainboard connector.

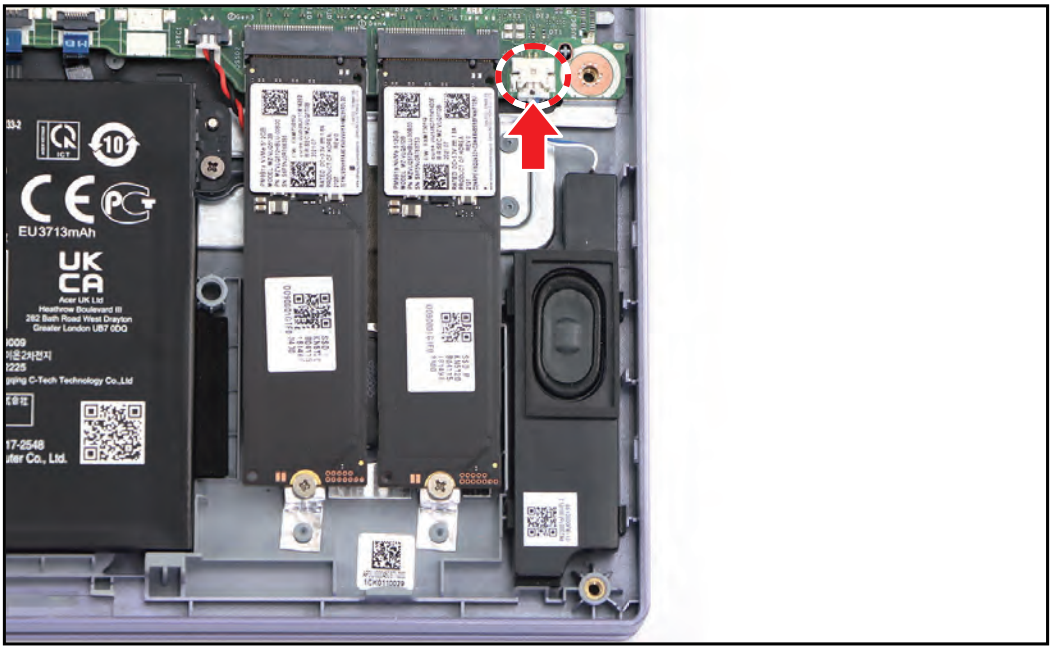


Figure 5-51. Connecting the Speaker Cable

3. Install the lower case (see **Lower Case Installation** on page **5-10**).

Touchpad Removal

Prerequisite:

- **Battery Removal** on page **5-13**

1. Release the latches and disconnect the touchpad FFC from the mainboard and touchpad connectors. Then detach the middle portion (A) of the touchpad FFC from the touchpad bracket and remove the touchpad FFC.

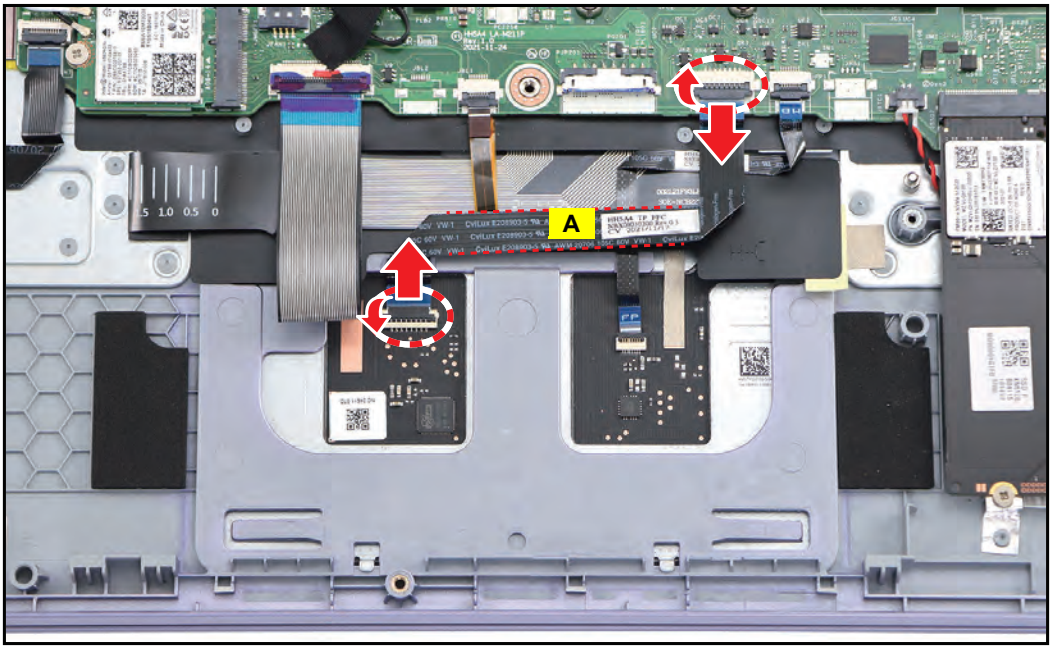


Figure 5-52. Removing the Touchpad FFC

2. Release the latches and disconnect the fingerprint FFC from the mainboard and touchpad connectors. Then detach the middle portion (B) of the fingerprint FFC from the upper case and remove the fingerprint FFC.

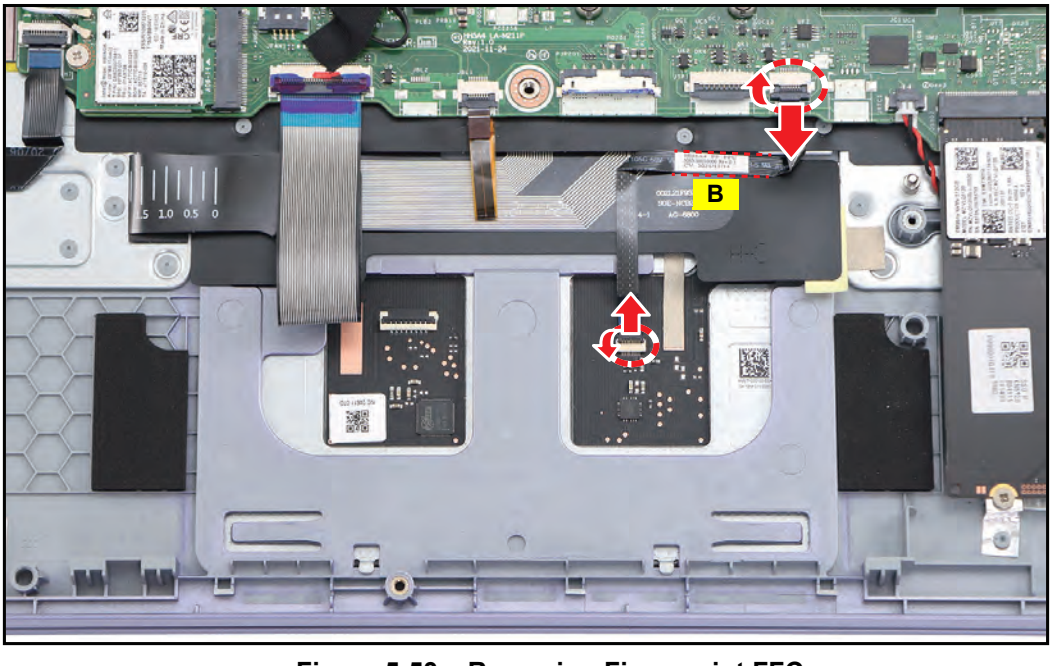


Figure 5-53. Removing Fingerprint FFC

3. Lift the mylar tab for better access of the conductive tape. Then detach the conductive tape from the touchpad and upper case.

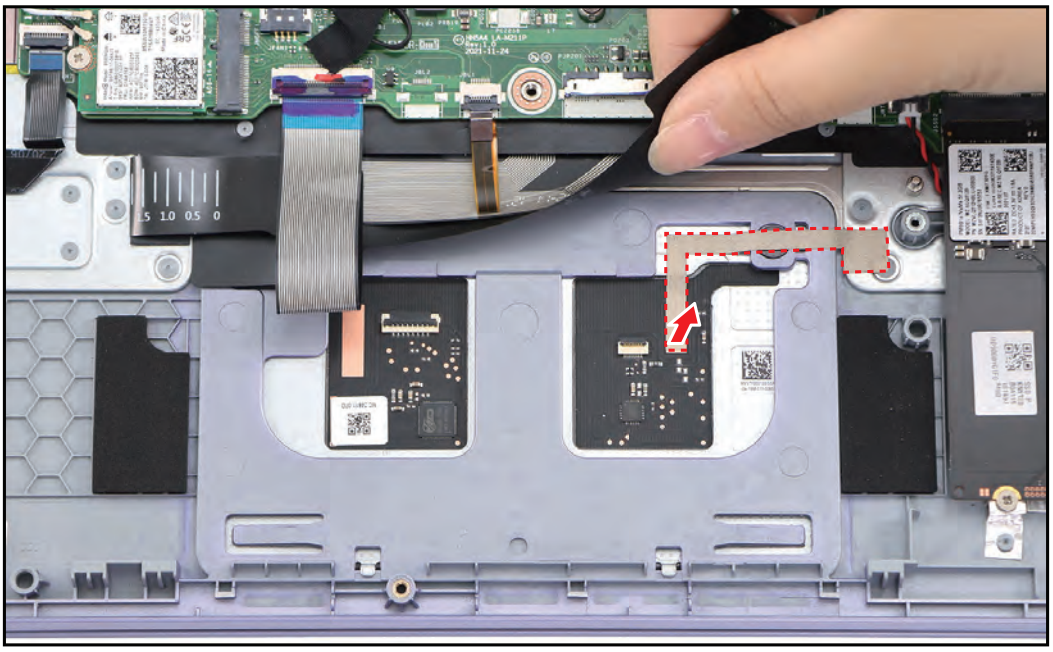


Figure 5-54. Detaching the Conductive Tape

4. Remove the two (2) screws securing the touchpad to the upper case.



Figure 5-55. Removing the Screws

5. Place one of your hands underneath the touchpad. Use a pointed device to push on the screw holes and then slide the bottom part of the touchpad forward to disengage it from the latches.
6. Remove the touchpad from the upper case.

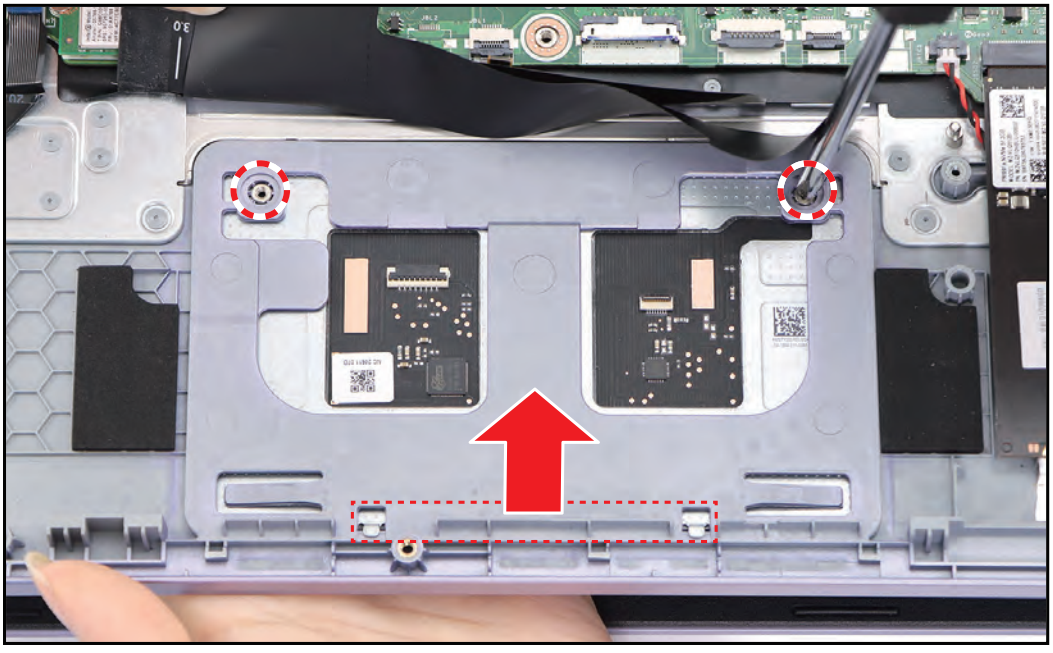


Figure 5-56. Removing the Touchpad

Touchpad Installation

1. Slide the touchpad into the bottom tabs until it is fully engaged. Then push the touchpad slightly upwards until the screw holes are properly aligned.

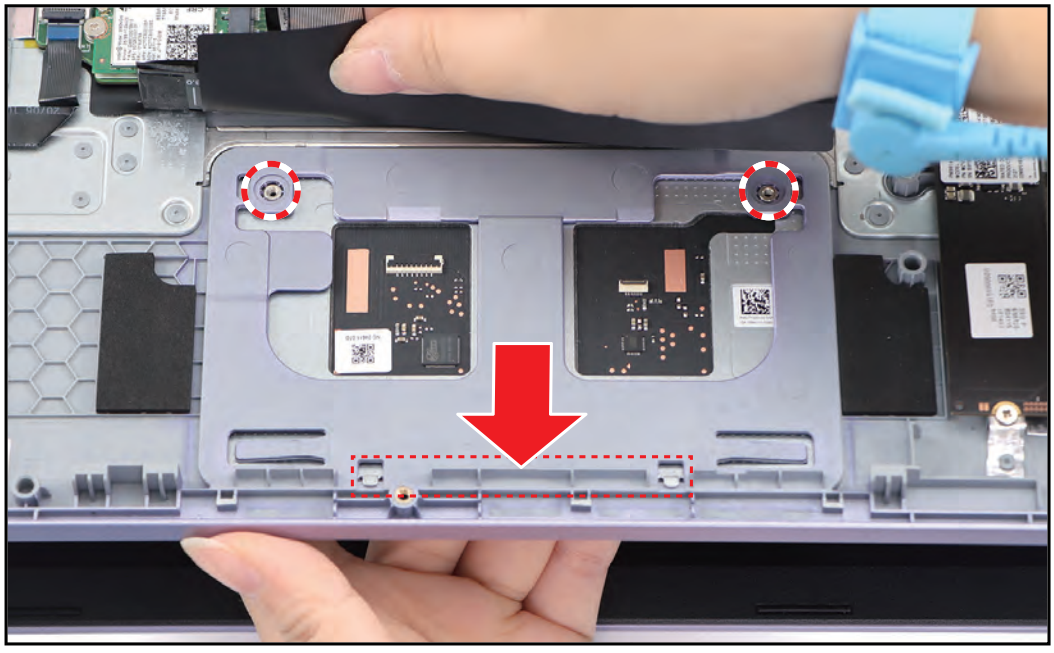


Figure 5-57. Installing the Touchpad

2. Lift the mylar tab for better access of the screws. Then attach the two (2) screws to secure the touchpad to the upper case.

NOTE: Screw torque force = 1.8~2.2kgf.cm

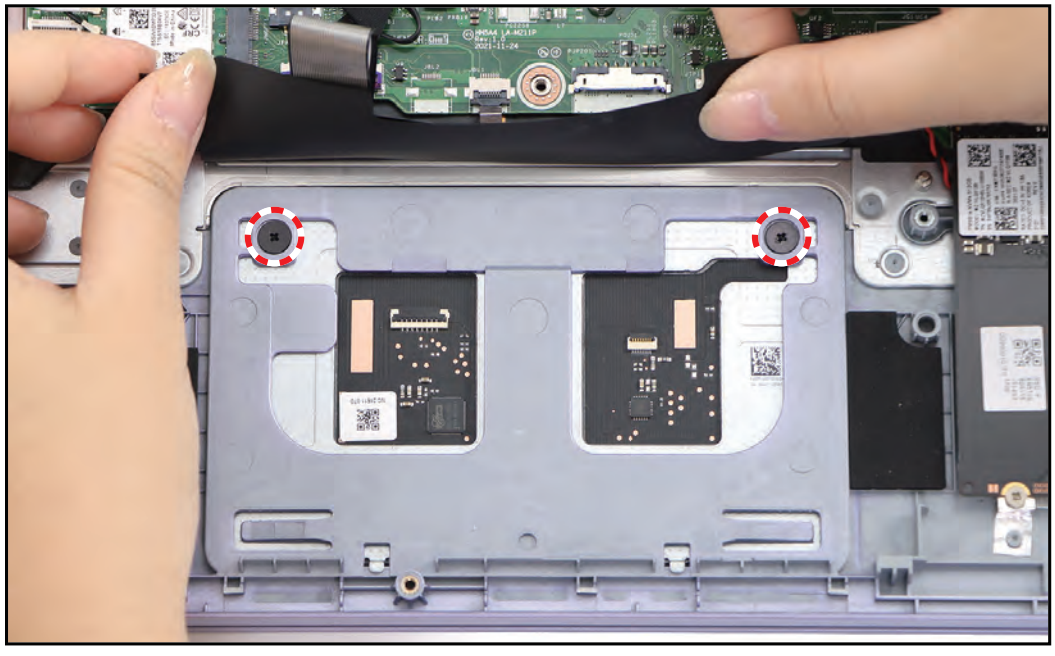


Figure 5-58. Securing the Screws

3. Attach the conductive tape to the touchpad bracket and upper case.

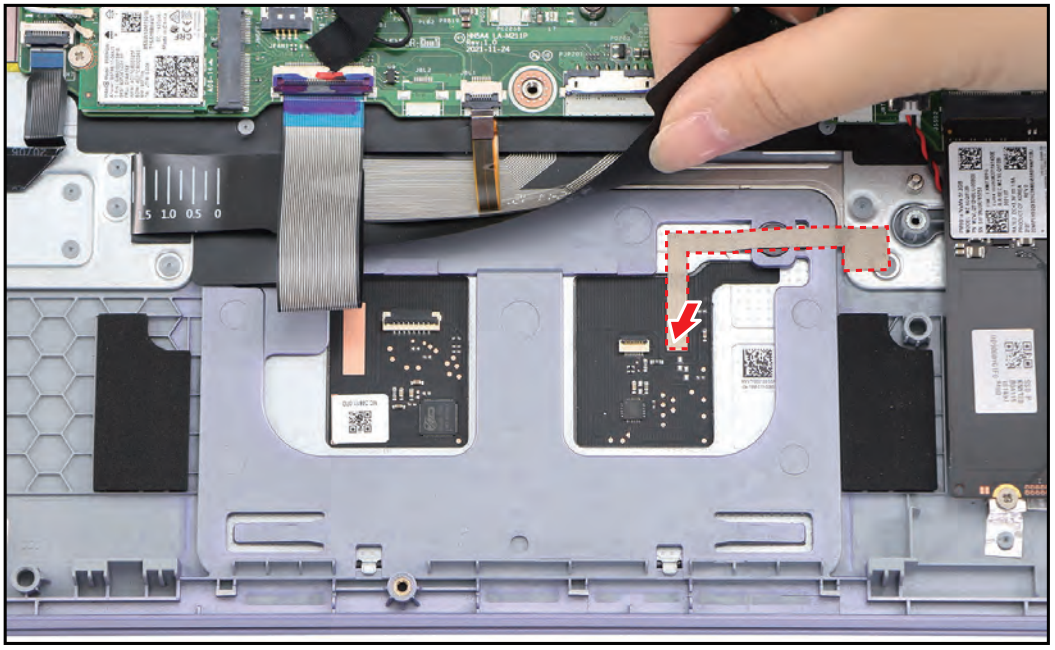


Figure 5-59. Attaching the Conductive Tape

4. Attach the middle portion (A) of the fingerprint FFC to the upper case. Then connect one end of the fingerprint FFC to the touchpad connector and the other end to the mainboard connector. Secure the cable latches.

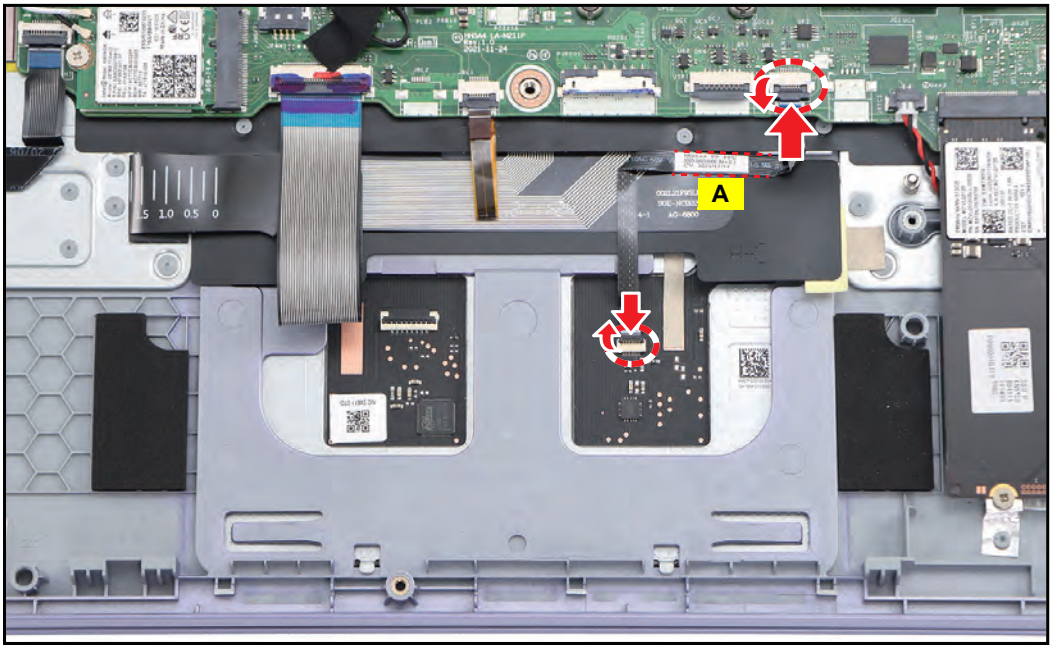


Figure 5-60. Connecting the Fingerprint FFC

5. Attach the middle portion (B) of the touchpad FFC to the touchpad bracket. Then connect one end of the touchpad FFC to the touchpad connector and the other end to the mainboard connector. Secure the cable latches.

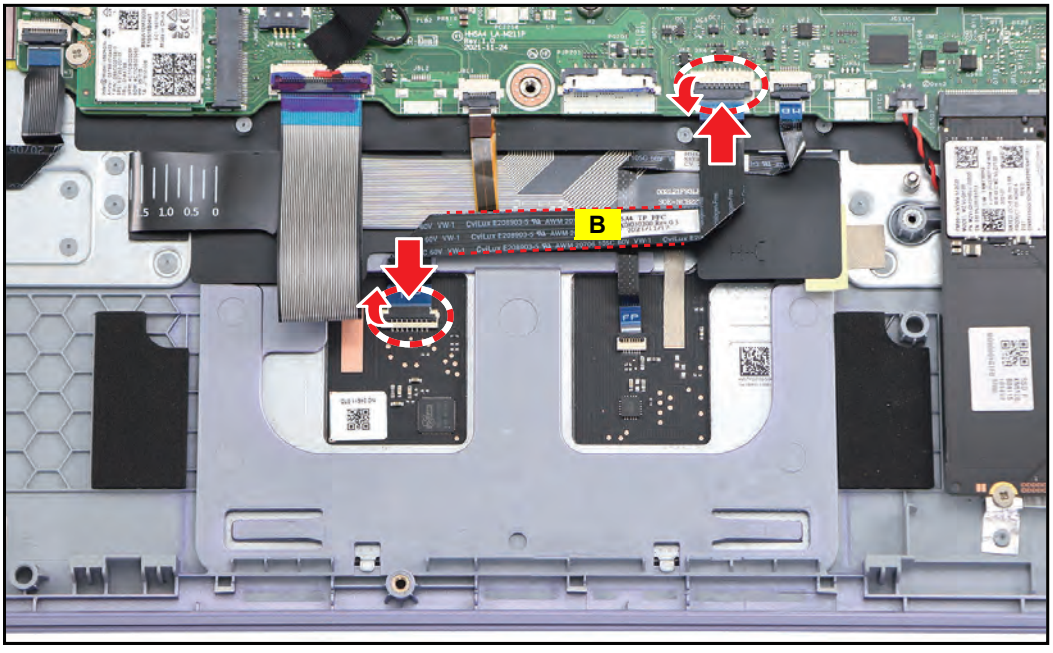


Figure 5-61. Connecting the Touchapd FFC

6. Install the battery (see **Battery Installation** on page **5-14**).

Table 5-12. Touchpad Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 2.3		1.8~2.2kgf.cm	2

RTC Battery Removal

Prerequisite:

- **SSD1/SSD2 Module Removal** on page **5-16**

1. Disconnect the RTC battery cable from the mainboard connector.

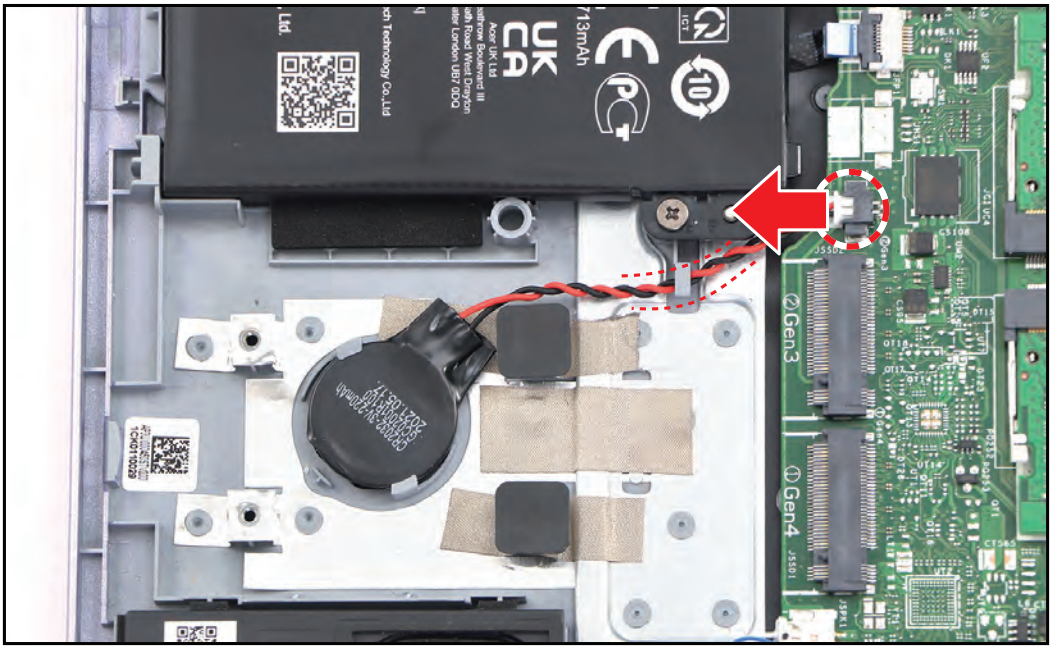


Figure 5-62. Diconnecting the RTC Battery Cable

2. Pry to detach the adhesive tape underneath the RTC battery. Then remove the RTC battery.

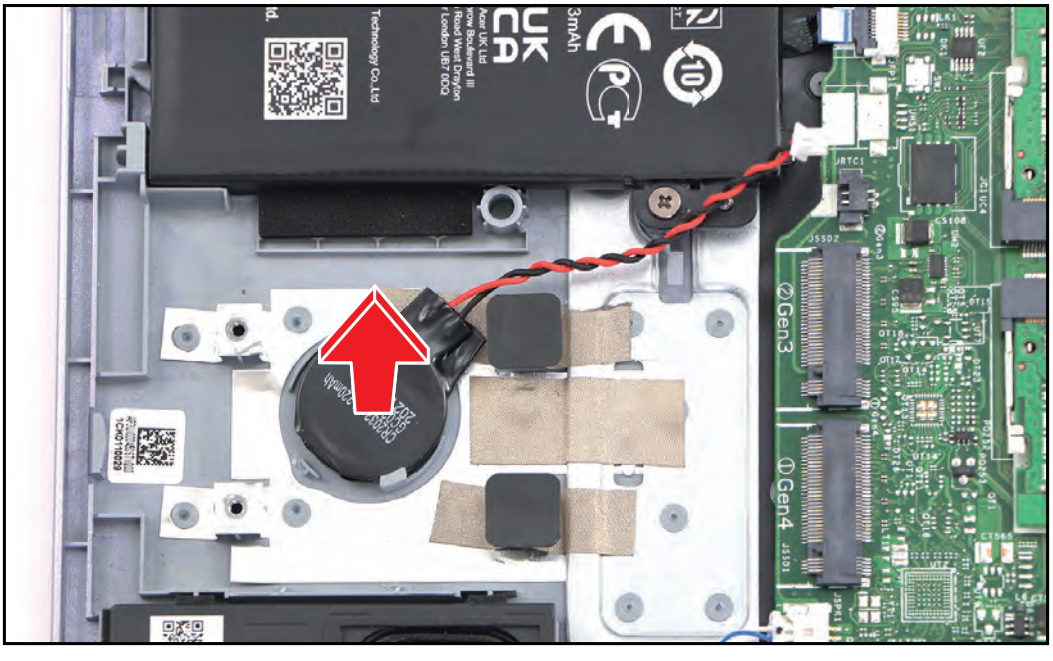


Figure 5-63. Removing the RTC Battery

RTC Battery Installation

1. Align and install the RTC battery onto its slot on the upper case.

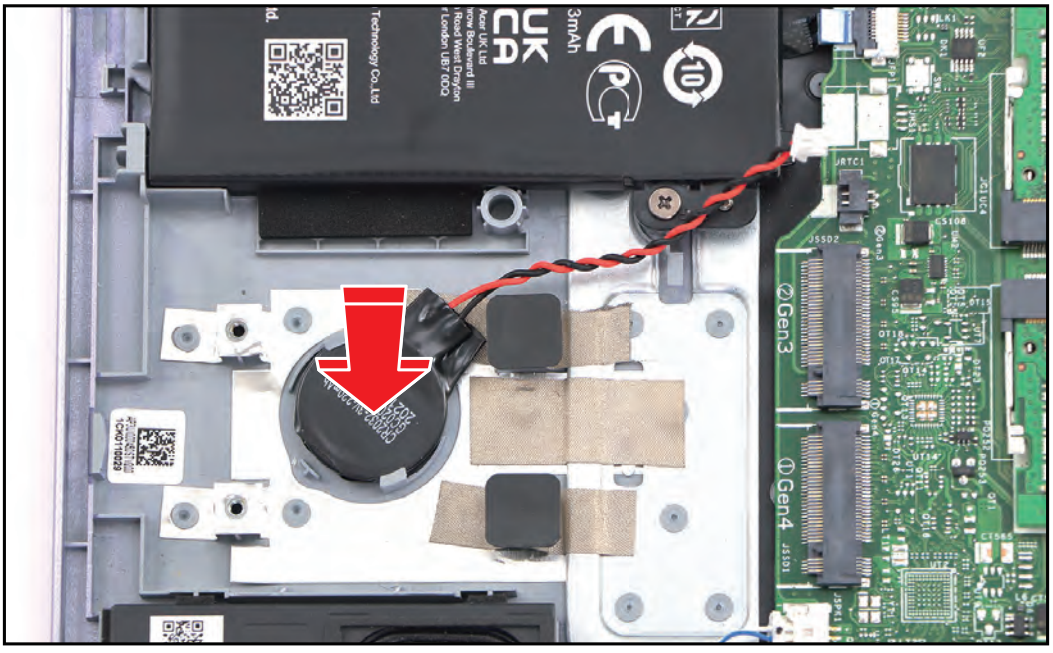


Figure 5-64. Installing the RTC Battery

2. Connect the RTC battery cable to the mainboard connector.

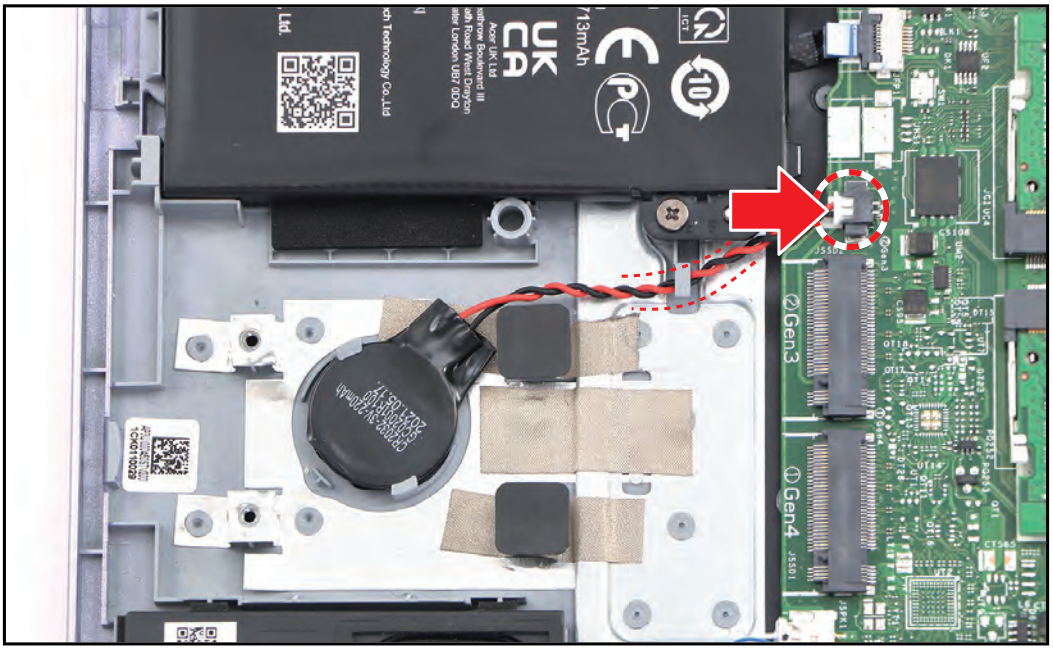


Figure 5-65. Connecting the RTC Battery Cable

3. Install the SSD modules (see **SSD1/SSD2 Module Installation** on page **5-17**).

USB Board Removal

Prerequisite:

- **Battery Removal** on page **5-13**

1. Release the latch and disconnect the USB board FFC from the USB board connector.
2. Disconnect the speaker cable from the USB board connector.

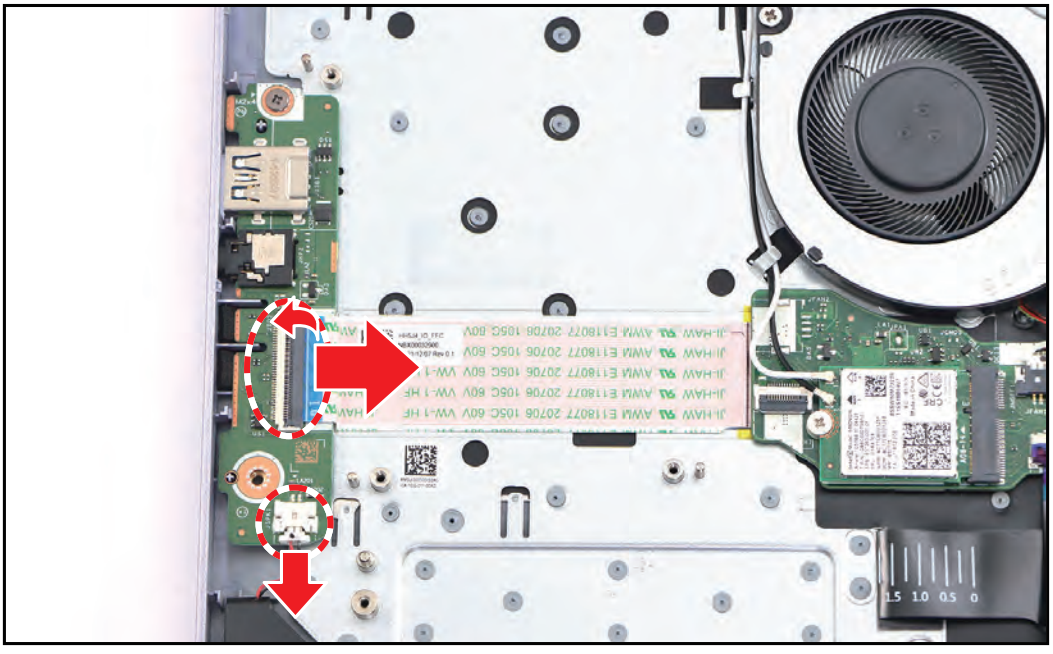


Figure 5-66. Disconnecting the Cables

3. Remove the screw securing the USB board to the upper case.

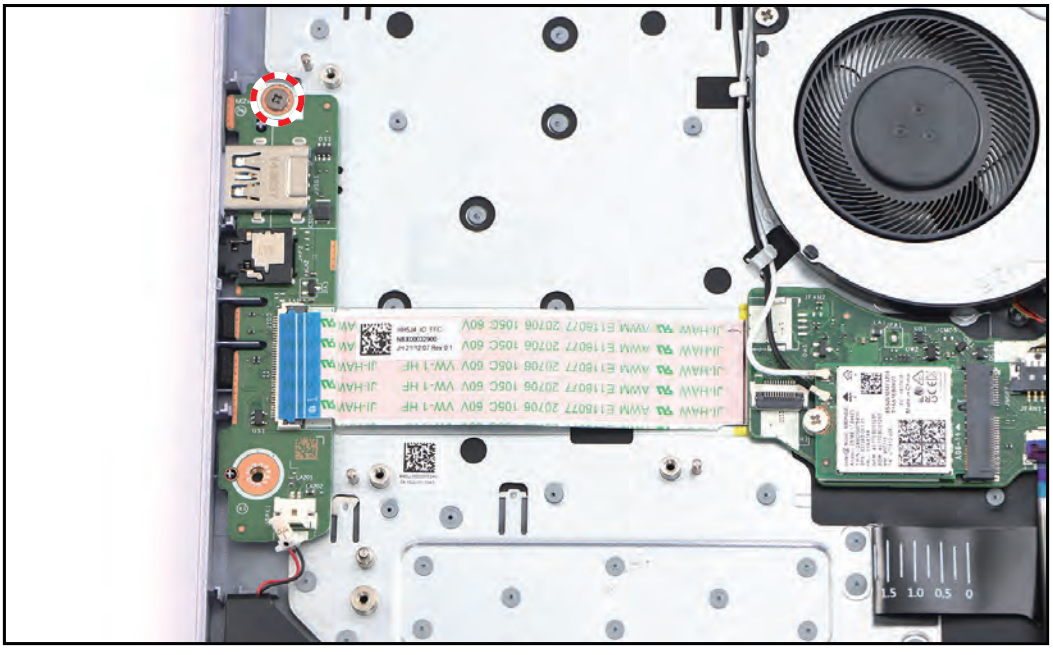


Figure 5-67. Removing the Screw

4. Remove the USB board from the upper case.

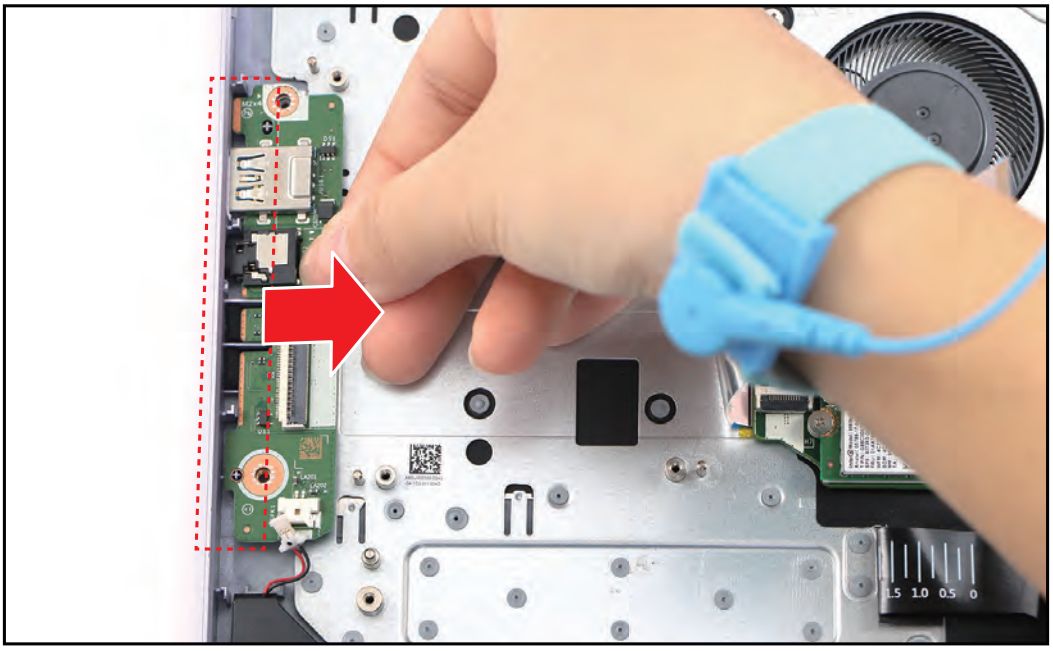


Figure 5-68. Removing the USB Board

USB Board Installation

1. By aligning with the guide pins, install the USB board onto its slot on the upper case.

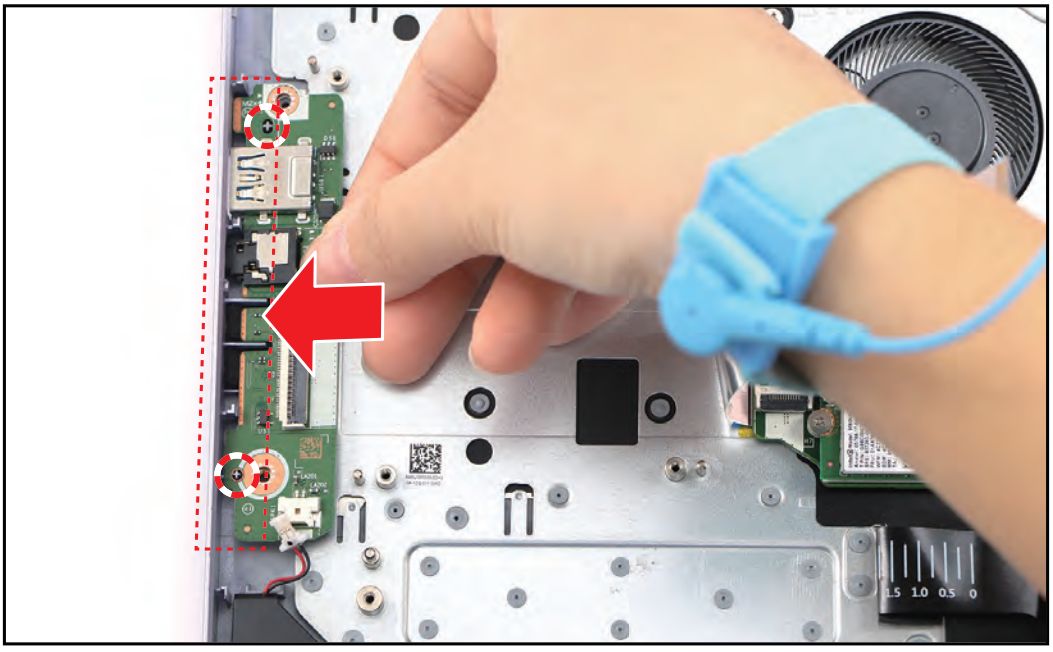


Figure 5-69. Installing the USB Board

2. Attach the screw to secure the USB board to the upper case.

NOTE: Screw torque force = 1.8~2.2kgf.cm

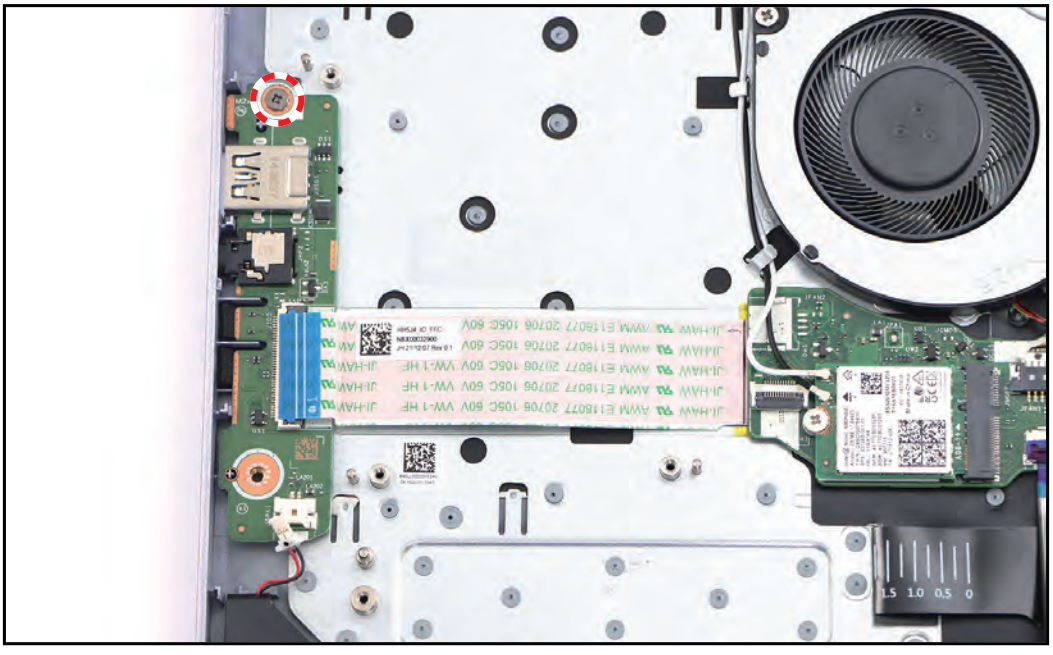


Figure 5-70. Securing the Screw

3. Connect the speaker cable to the USB board connector.

4. Connect the USB board FFC to the USB board connector and secure the latch.

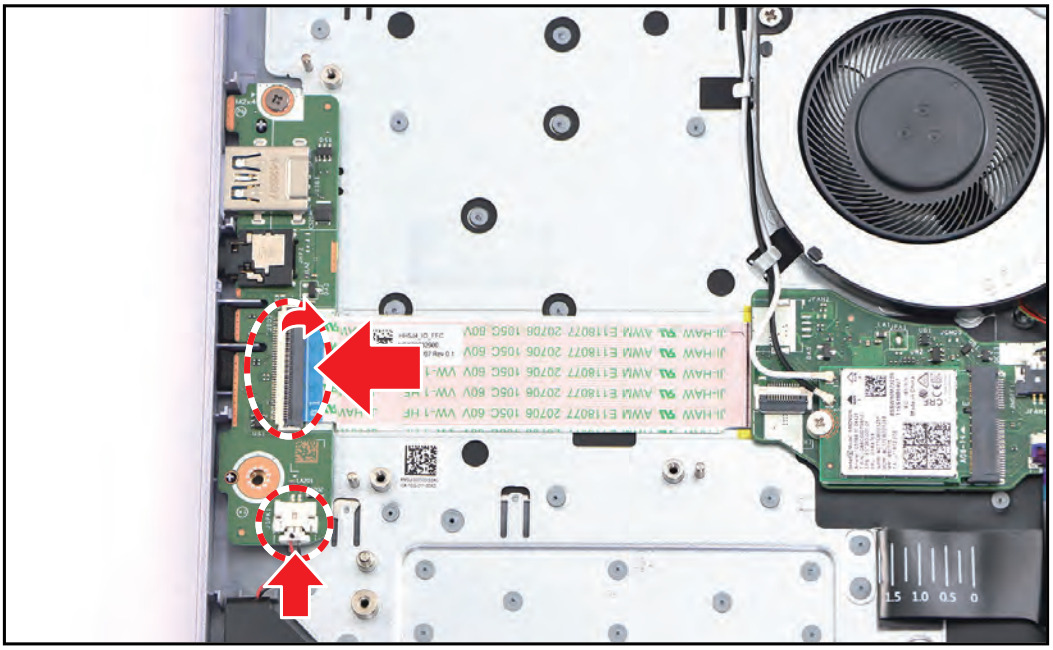


Figure 5-71. Connecting the Cables

5. Install the battery (see **Battery Installation** on page **5-14**).

Table 5-13. USB Board Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 4.0		1.8~2.2kgf.cm	1

LCD Module Removal

Prerequisite:

- **Battery Removal** on page **5-13**

1. Disconnect the WLAN antenna cables from the WLAN module connectors and unroute the cables from the cable guides on the upper case.

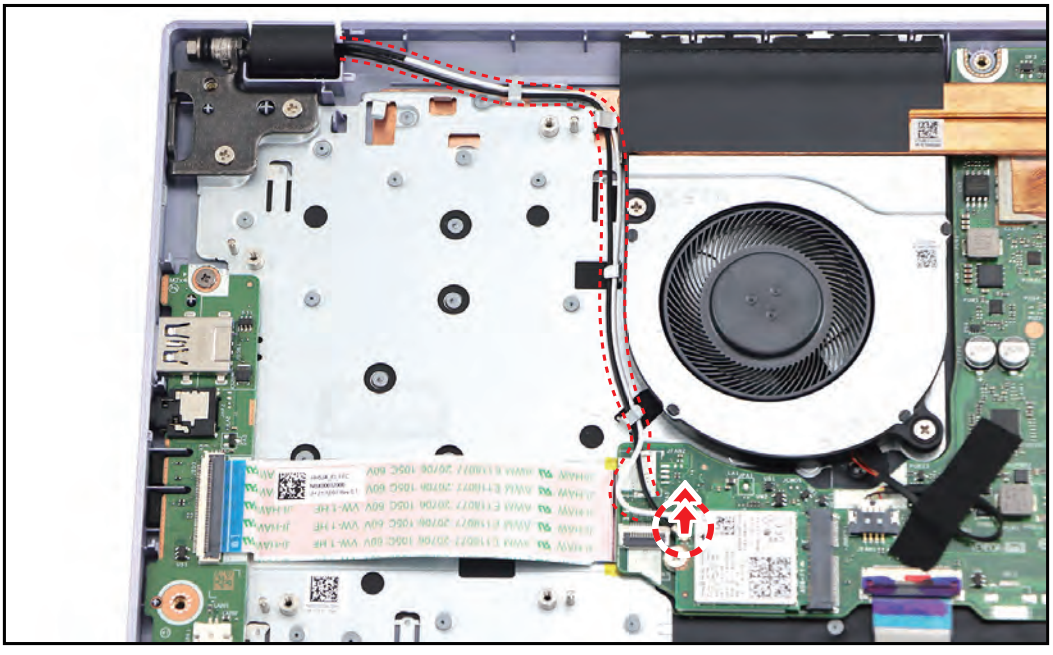


Figure 5-72. Disconnecting the WLAN Antenna Cables

2. Disconnect the eDP cable from the mainboard connector.

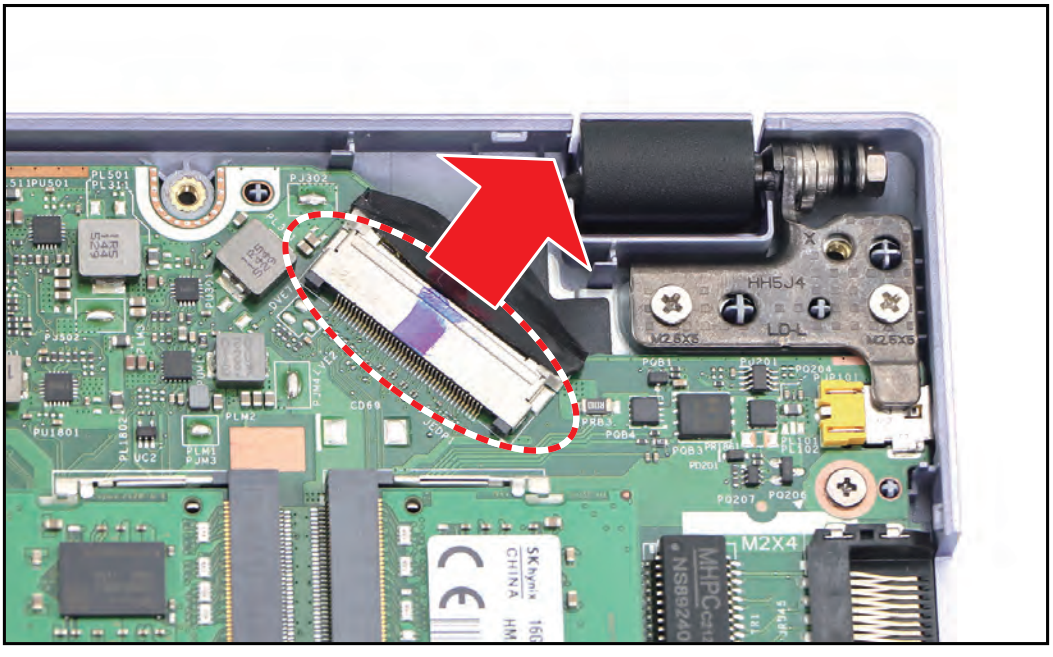


Figure 5-73. Disconnecting the eDP Cable

3. Remove the four (4) screws securing the LCD hinges and LCD module to the upper case.

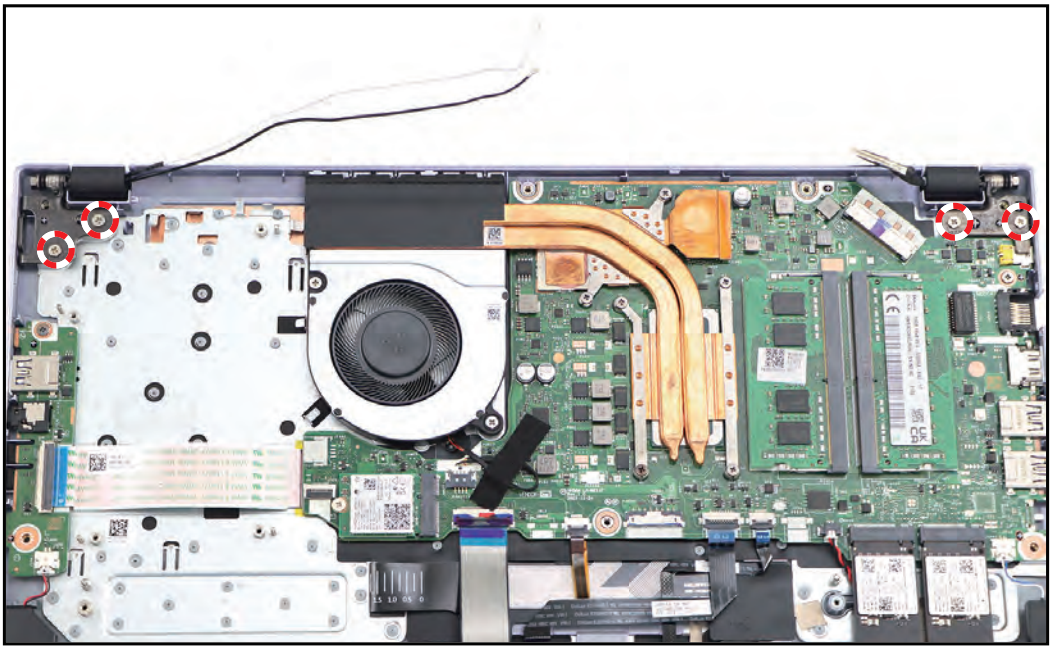


Figure 5-74. Removing the Screws

4. Lift the upper case until it is fully open.

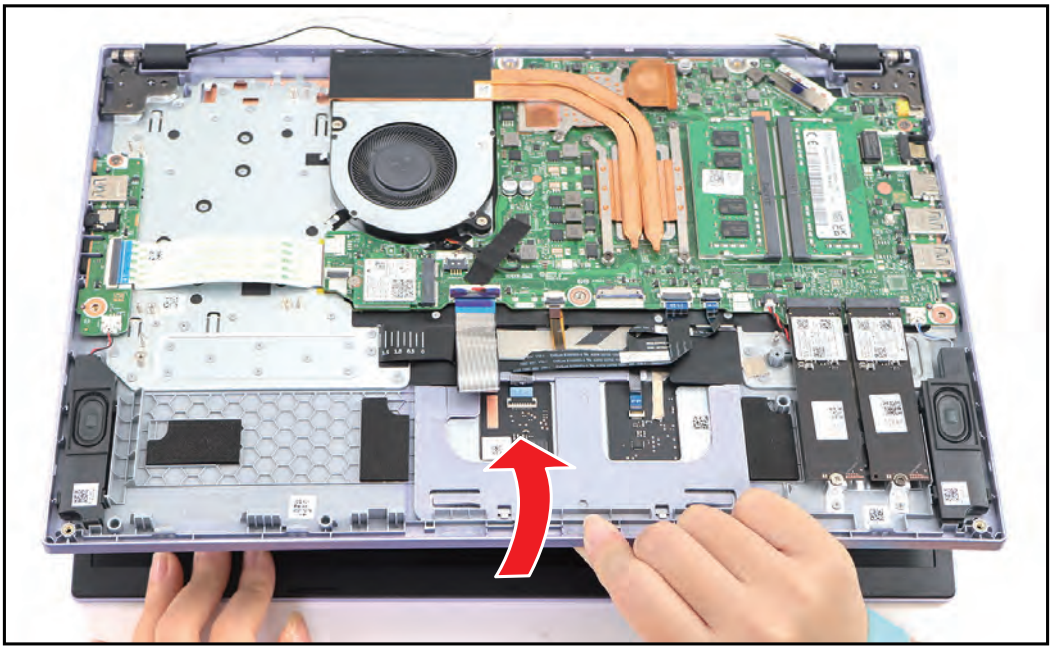


Figure 5-75. Lifting the Upper Case

5. Close the upper case and lift both LCD hinges until they are fully extended.

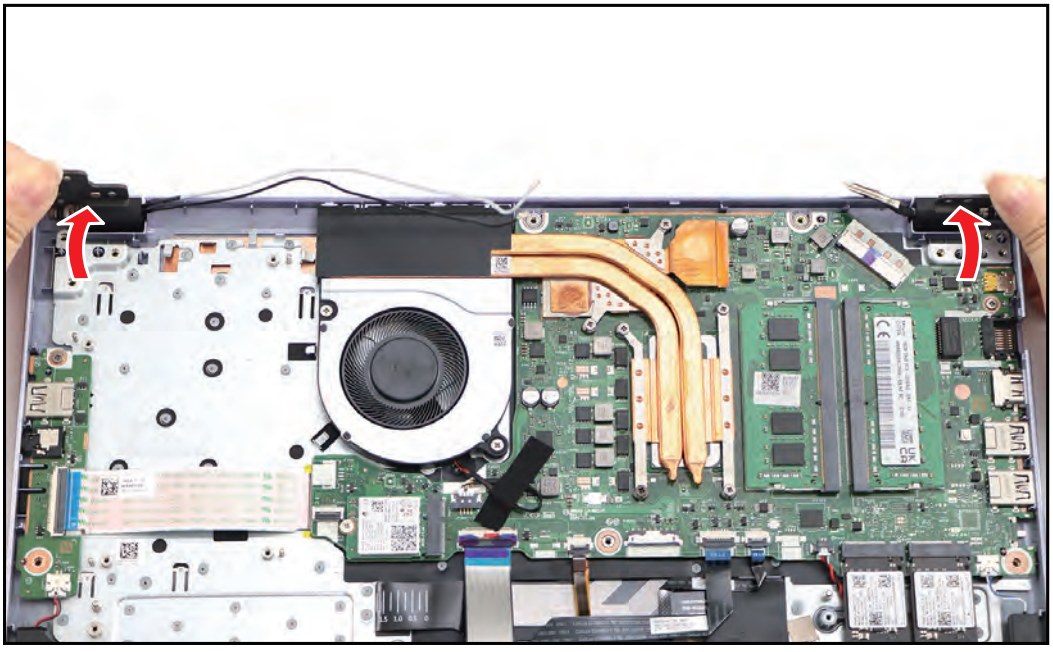


Figure 5-76. Extending the LCD Hinges

6. Open the upper case again. Then remove the LCD module away from the upper case.

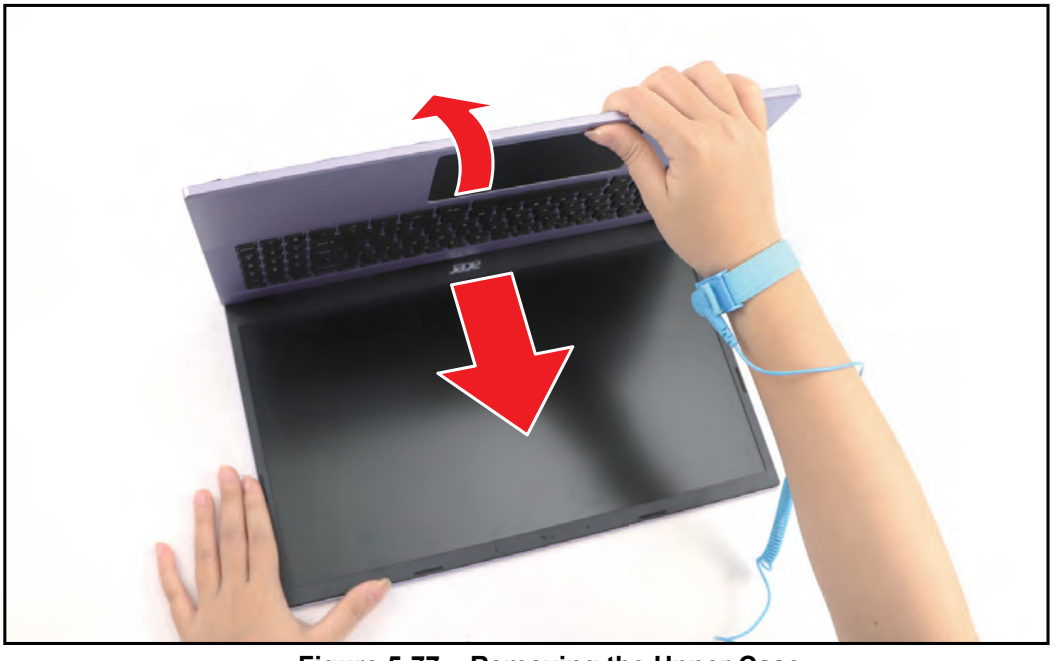


Figure 5-77. Removing the Upper Case

LCD Module Installation

1. By holding the upper case upright and the keyboard is facing you, align the upper case with the LCD hinge slots on the LCD module. Then close the upper case.

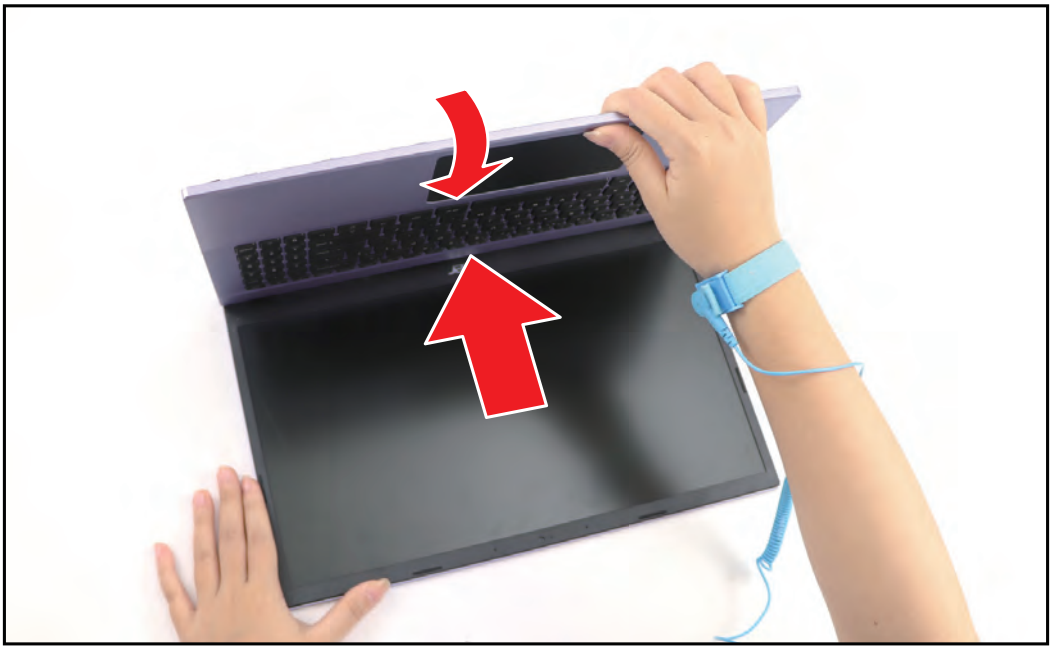


Figure 5-78. Installing the LCD Module

2. Close both LCD hinges until there are fully seated in place.

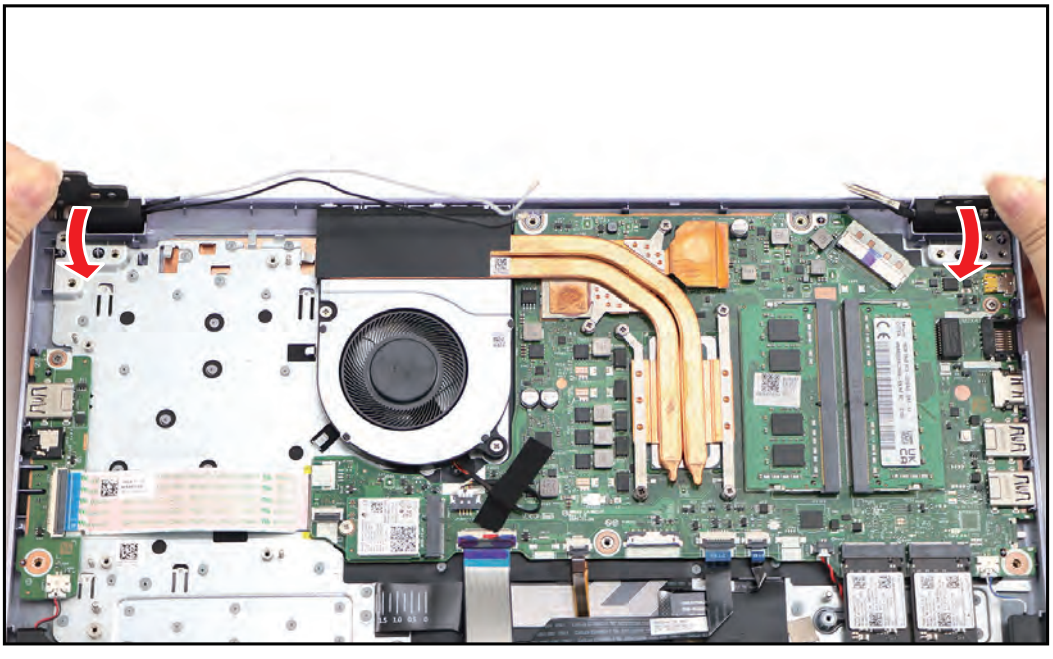


Figure 5-79. Closing the Hinges

3. Attach the four (4) screws to secure the LCD hinges and LCD module to the upper case.

NOTE: Screw torque force = 2.55~3.45kgf.cm

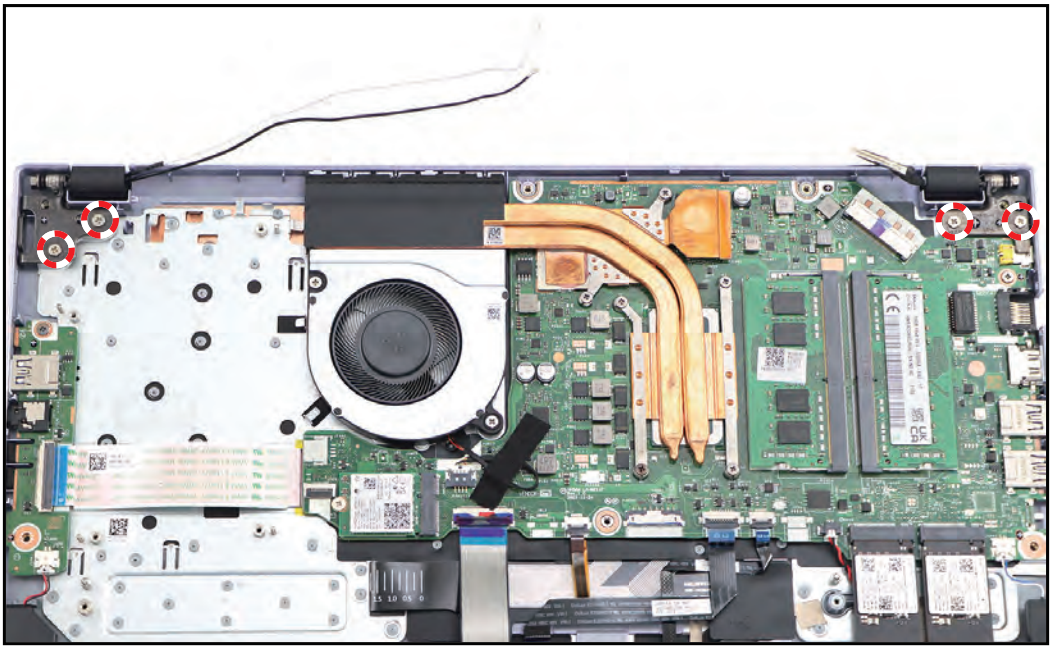


Figure 5-80. Securing the Screws

4. Connect the eDP cable to the mainboard connector.

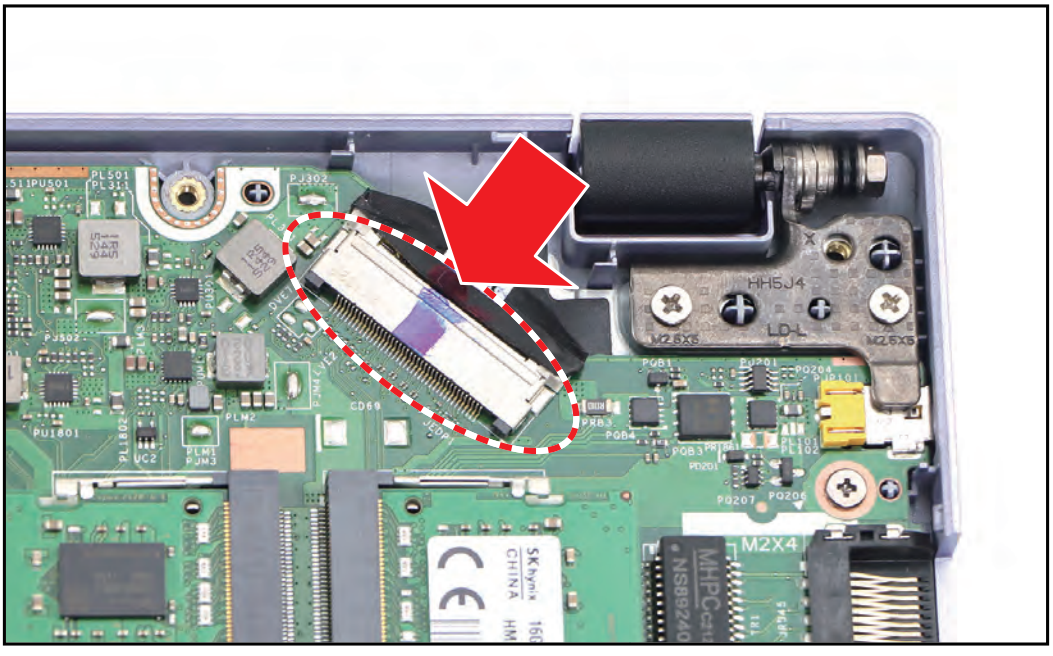


Figure 5-81. Connecting the eDP Cable

5. Route the WLAN antenna cables through the cable guides on the upper case. Then connect the WLAN antenna cables to the WLAN module connectors.

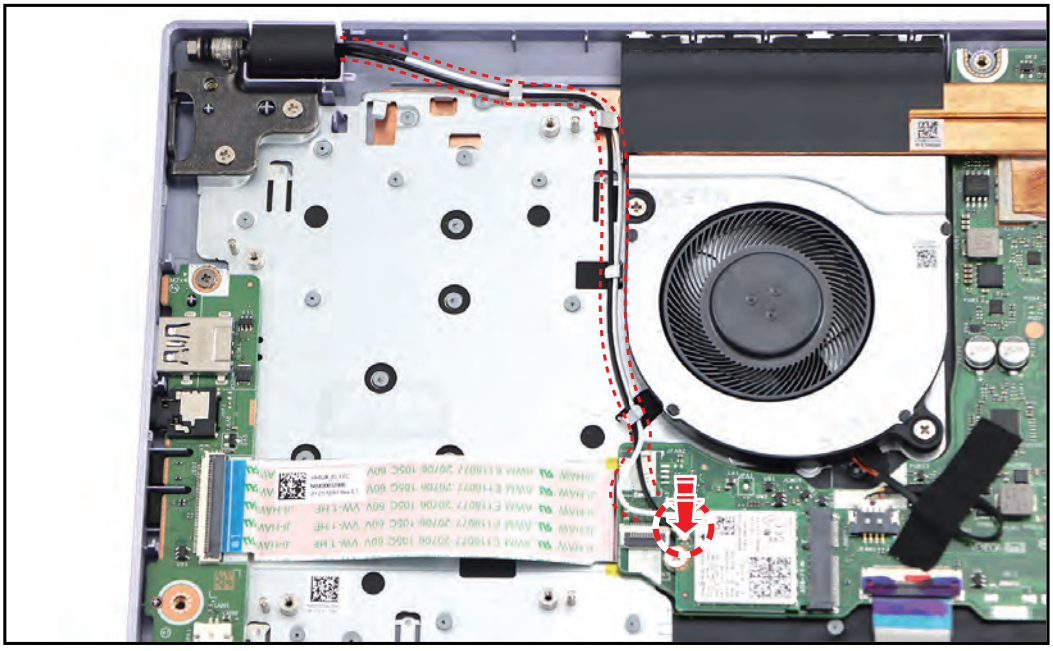


Figure 5-82. Connecting the WLAN Antenna Cables

6. Install the battery (see **Battery Installation** on page **5-14**).

Table 5-14. LCD Module Screws

Screw Name	Screw Type	Torque	Quantity
M 2.5 x 6.0		2.55~3.45kgf.cm	4

Mainboard Removal

Prerequisite:

- **SSD1/SSD2 Module Removal** on page **5-16**
- **WLAN Module Removal** on page **5-19**
- **DIMM Module Removal** on page **5-23**
- **Thermal Module Removal** on page **5-25**
- **Fan Module Removal** on page **5-28**

1. Remove the two (2) screws securing the right side of the LCD hinge.

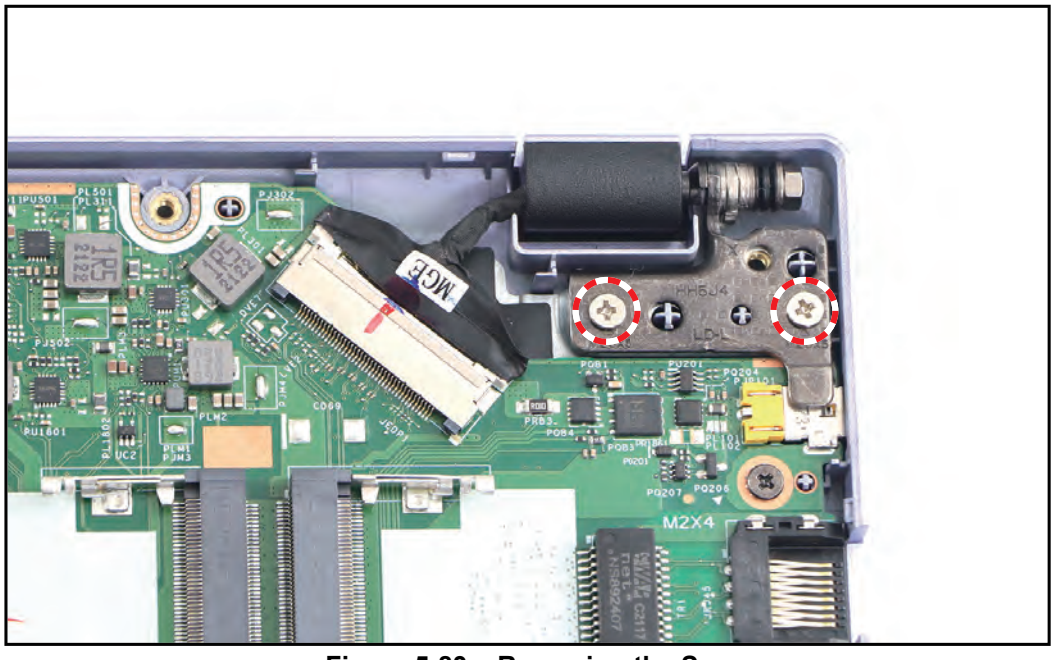


Figure 5-83. Removing the Screws

2. Lift the upper case until it is fully open.

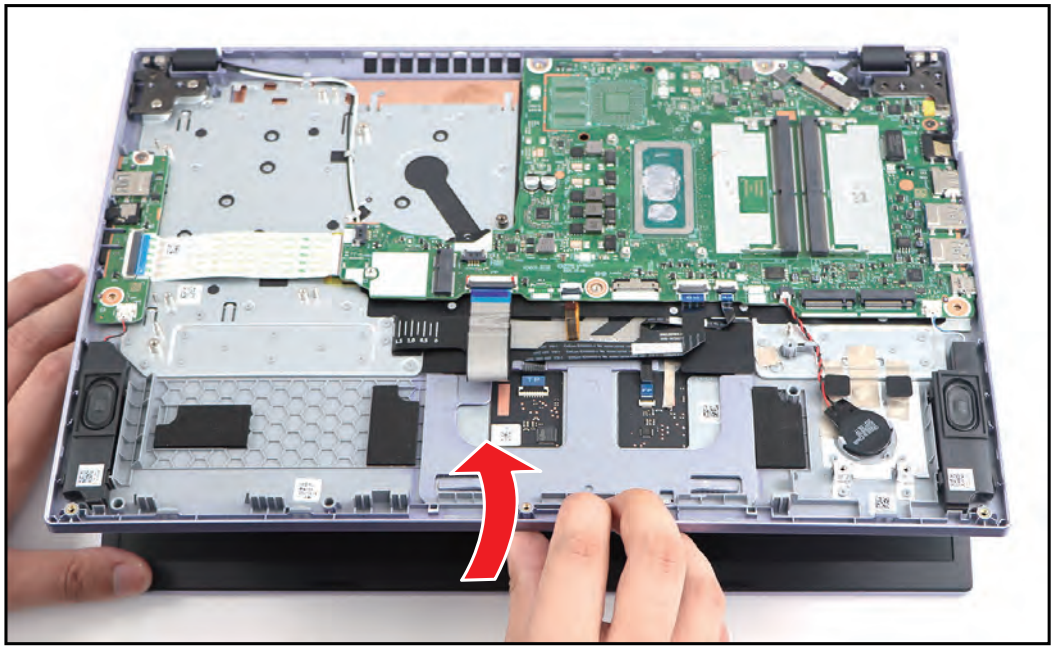


Figure 5-84. Opening the Upper Case

3. Close the upper case and lift the right side of LCD hinge until it is fully extended.

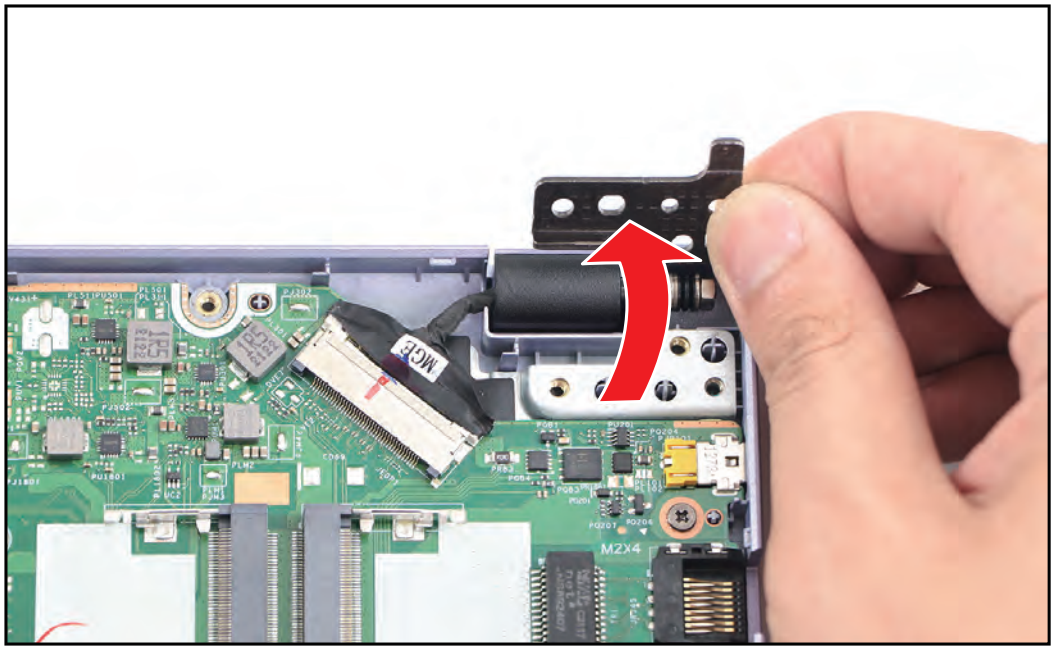


Figure 5-85. Extending the LCD Hinge

4. Release the latch and disconnect the USB board FFC from the USB board connector (A).
5. Release the latch (if necessary) and disconnect the following cables from the mainboard connectors:
   - Keyboard FPC (B)
   - Keyboard backlight FFC (C)
   - Touchpad FFC (D)
   - Fingerprint FFC (E)
   - RTC battery cable (F)
   - Speaker cable (G)
   - eDP cable (H)

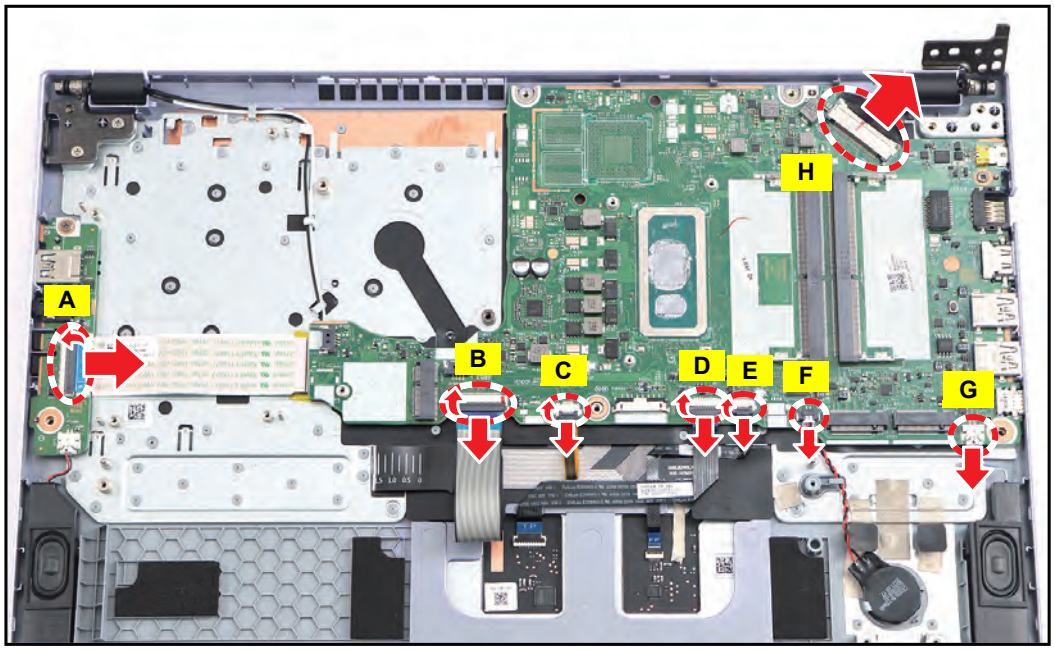


Figure 5-86. Disconnecting the Cables

6. Remove the screw securing the mainboard to the upper case.

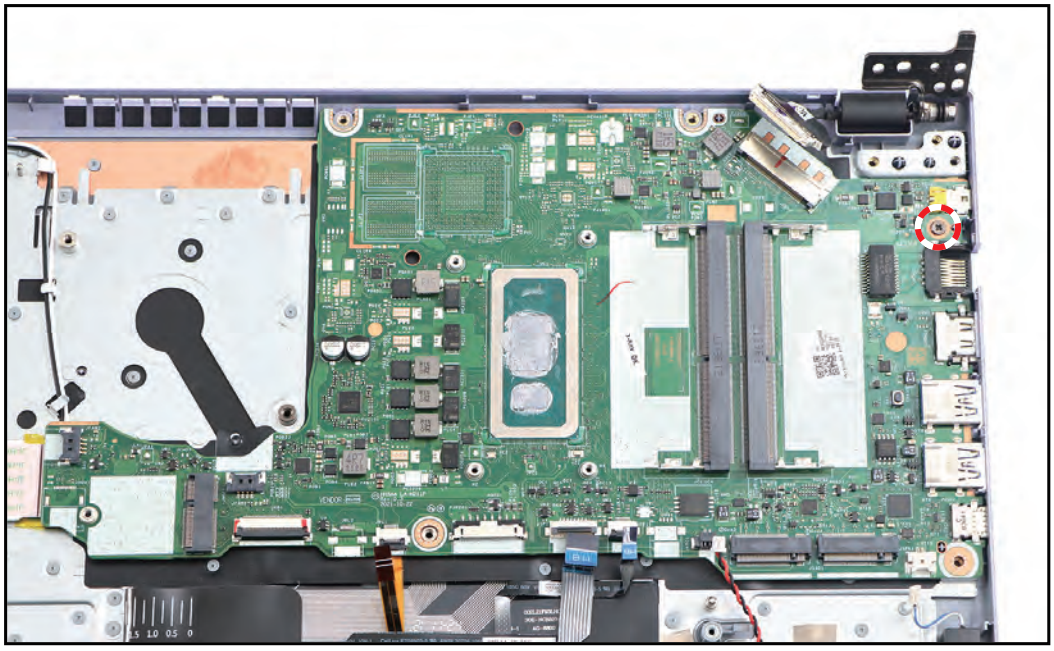


Figure 5-87. Removing the Screw

7. Slide the mainboard to release the I/O connectors from their slots, and then remove the mainboard from the upper case.

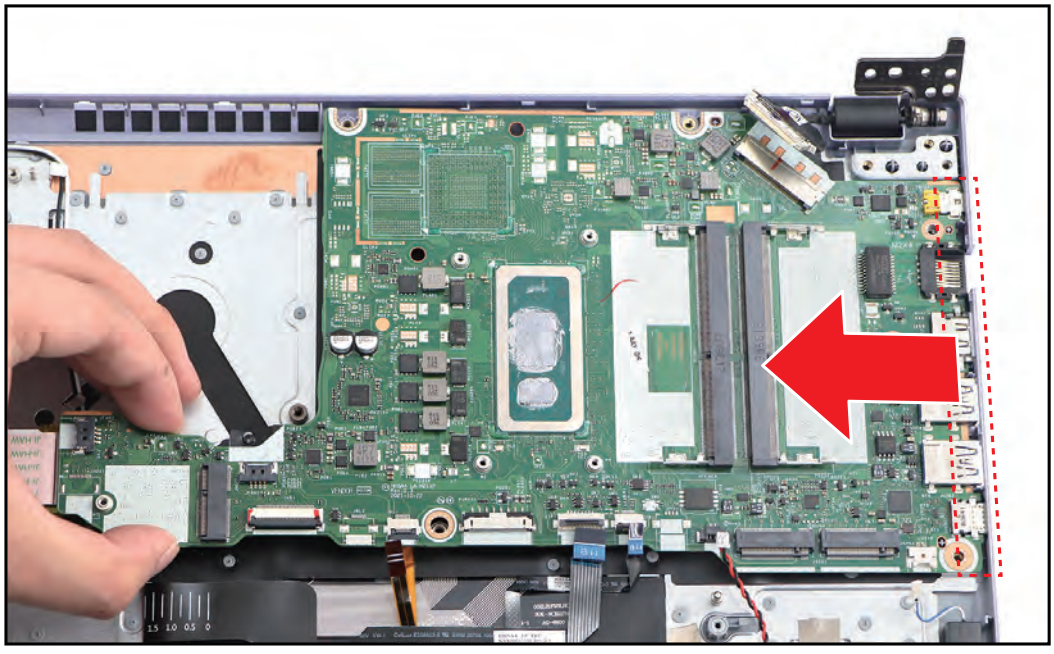


Figure 5-88. Removing the Mainboard

8. Detach the adhesive tape from the USB board FFC connector.

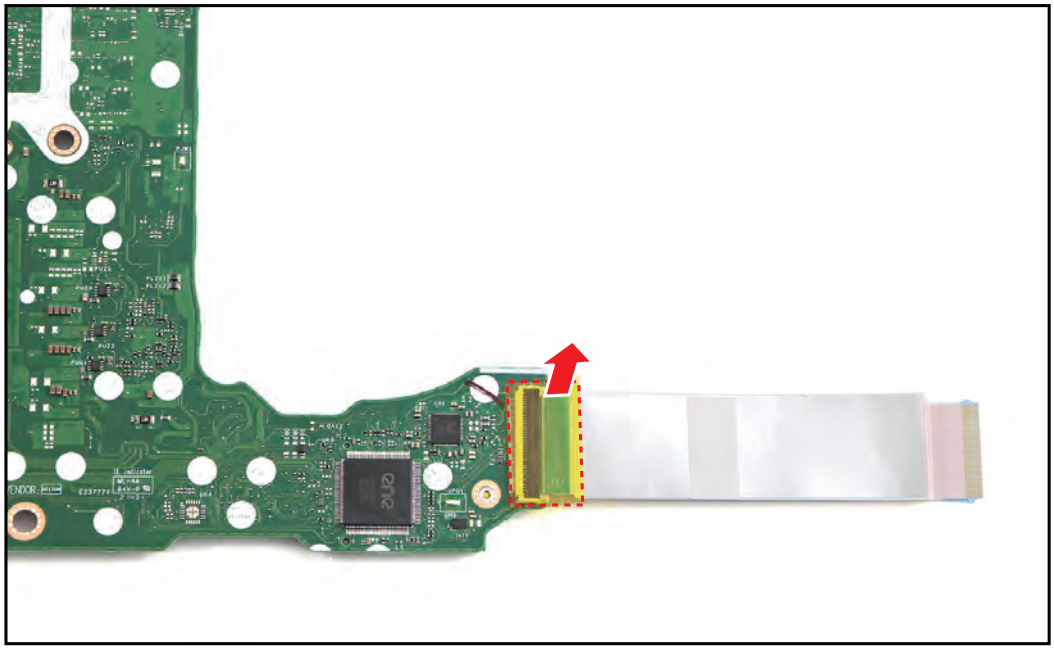


Figure 5-89. Detaching the Adhesive Tape

9. Release the latch and disconnect the USB board FFC from the mainboard connector. Then remove the USB board FFC.

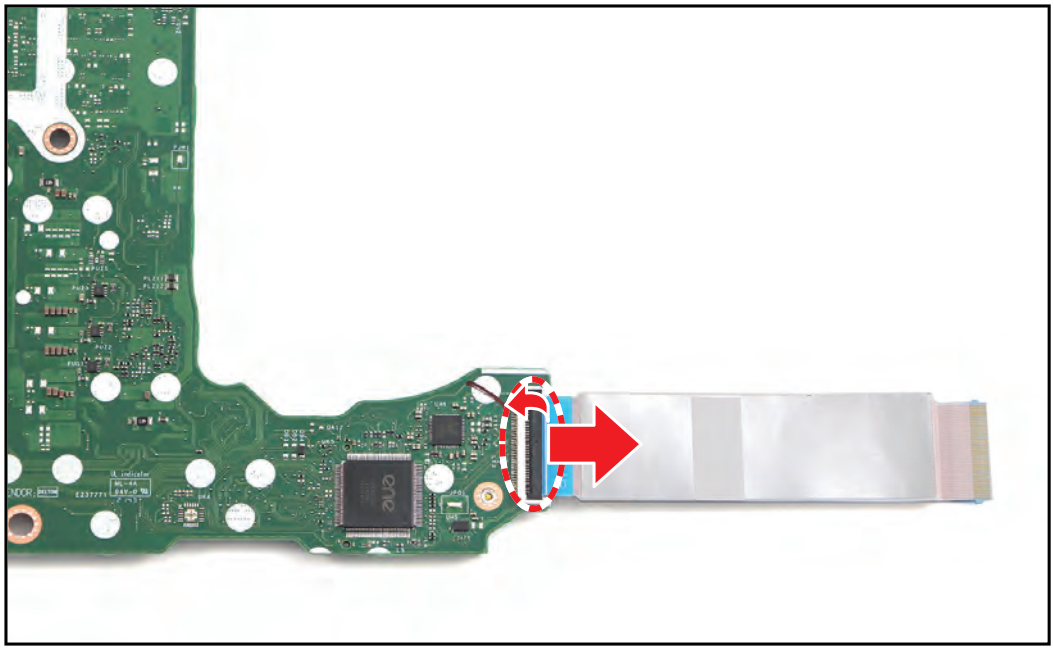


Figure 5-90. Removing the USB Board FFC

Mainboard Installation

1. Connect the USB board FFC to the mainboard connector and secure the latch.

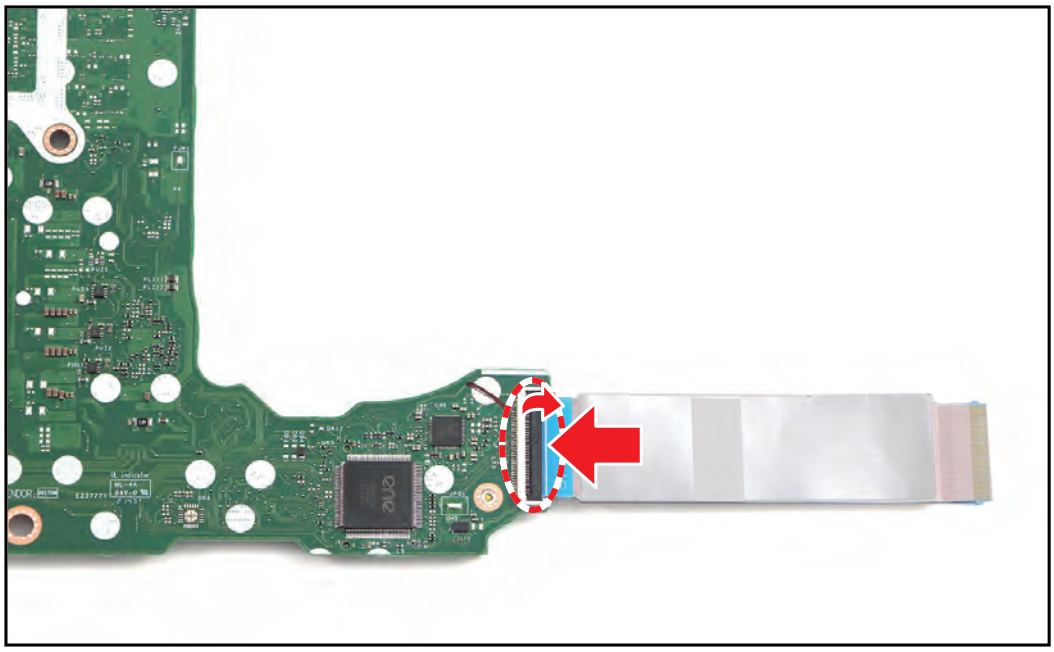


Figure 5-91. Connecting the USB Board FFC

2. Secure the USB board FFC connector with an adhesive tape.

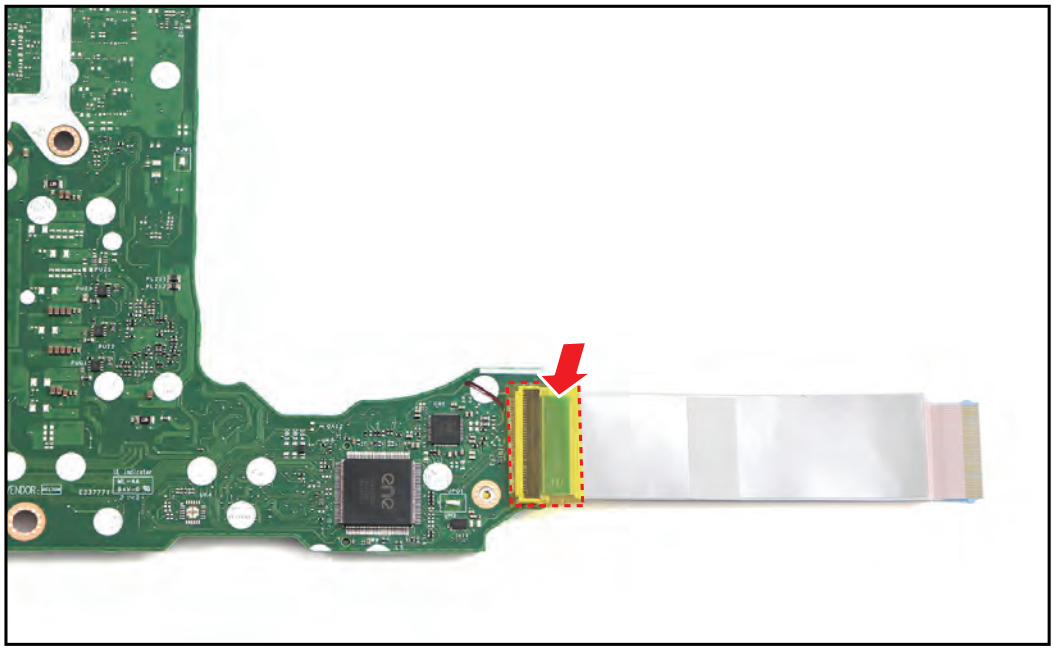


Figure 5-92. Attaching the Adhesive Tape

3. Install the mainboard by aligning and inserting its I/O connectors into their slots on the upper case.

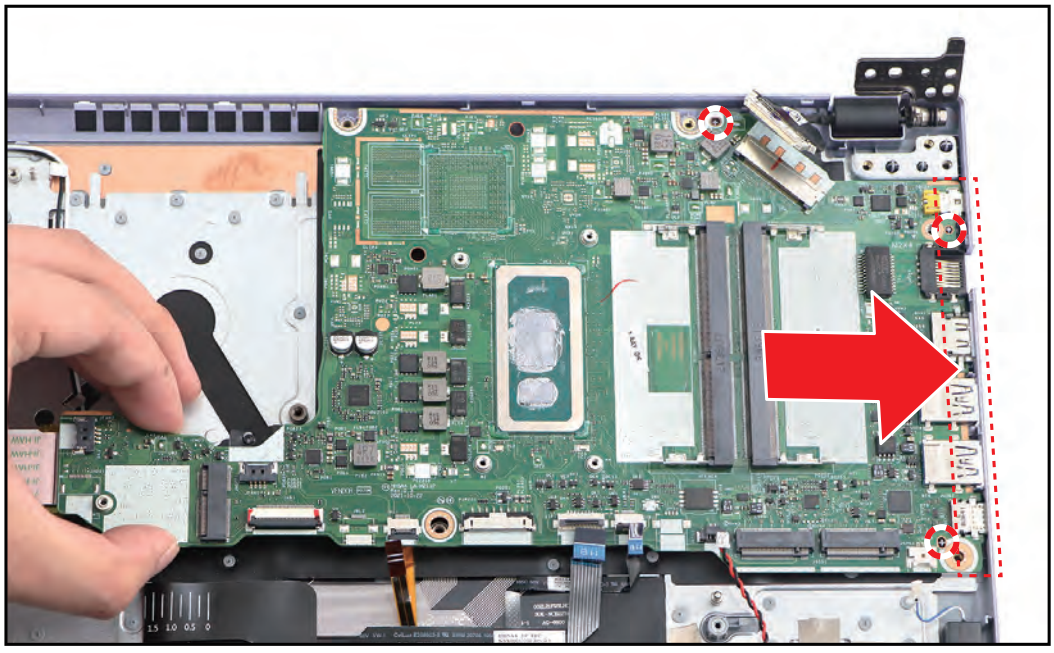


Figure 5-93. Installing the Mainboard

4. Attach the screw to secure the mainboard to the upper case.

NOTE: Screw torque force = 1.8~2.2kgf.cm

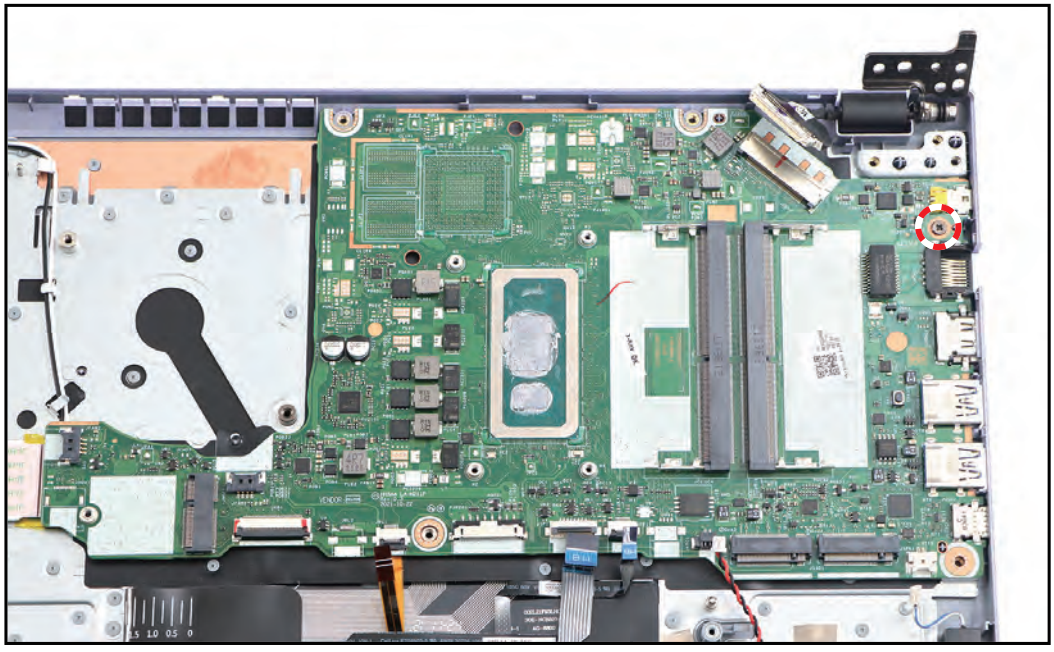


Figure 5-94. Securing the Screw

5. Connect the USB board FFC (A) to the USB board connector and secure the latch.
6. Connect the following cables to the mainboard connectors and secure the latch (if necessary):
   - Keyboard FPC (B)
   - Keyboard backlight FFC (C)
   - Touchpad FFC (D)
   - Fingerprint FFC (E)
   - RTC battery cable (F)
   - Speaker cable (G)
   - eDP cable (H)

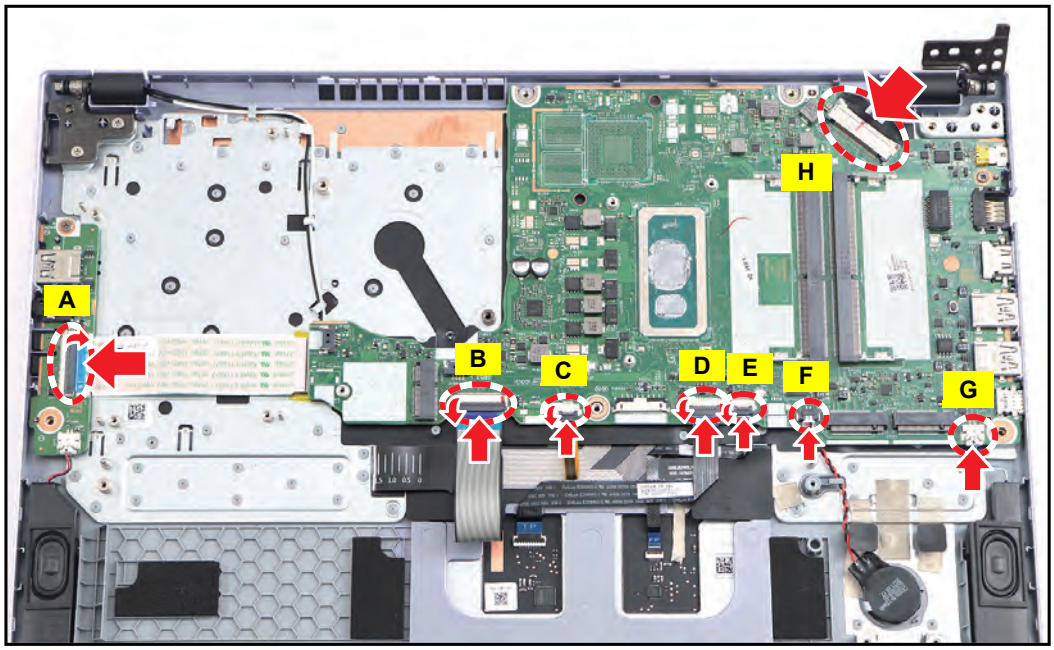


Figure 5-95. Connecting the Cables

7. Close the right side of LCD hinge until it is fully seated in place.

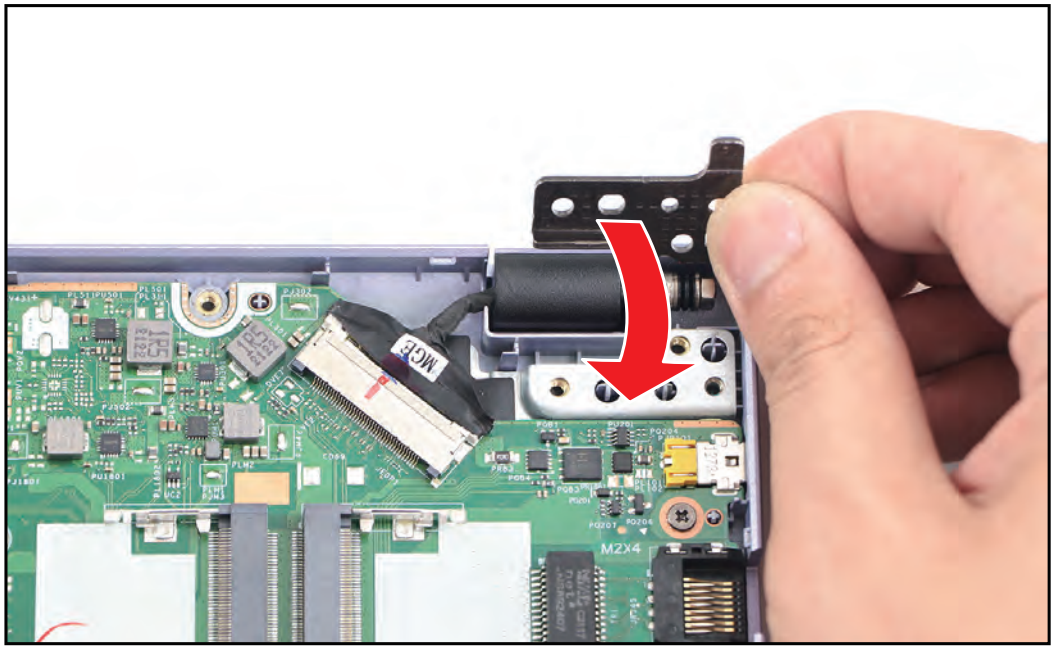


Figure 5-96. Closing the LCD Hinge

8. Attach the two (2) screws to secure the right side of LCD hinge to the upper case.

   NOTE: Screw torque force = 2.55~3.45kgf.cm

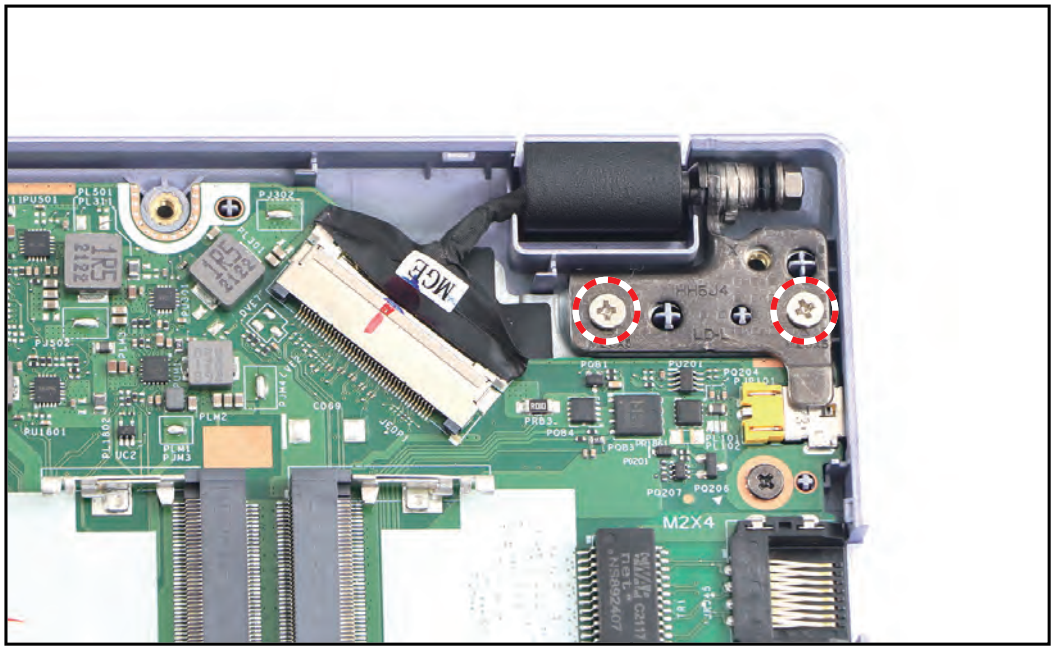


Figure 5-97. Securing the Screws

9. Install the SSD module (see **SSD1/SSD2 Module Installation** on page **5-17**).

10. Install the WLAN module (see **WLAN Module Installation** on page **5-21**).

11. Install the memory module (see **DIMM Module Installation** on page **5-24**).

12. Install the thermal module (see **Thermal Module Installation** on page **5-26**).

13. Install the fan modules (see **Fan Module Installation** on page **5-30**).

Table 5-15. Mainboard Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 4.0		1.8~2.2kgf.cm	1 (Mainboard)
M 2.5 x 6.0		2.55~3.45kgf.cm	2 (LCD Hinge)

LCD Bezel Removal

Prerequisite:

- **LCD Module Removal** on page **5-48**

1. Pry the LCD bezel from the upper side to release latches.

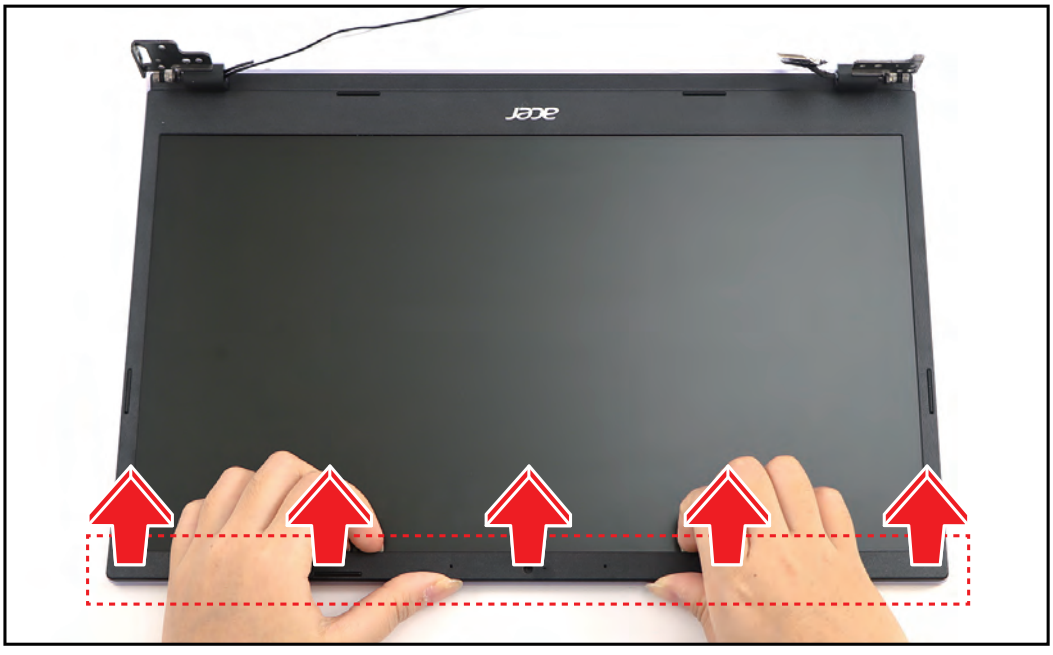


Figure 5-98. Removing the LCD Bezel (1 of 4)

2. While pushing the inner parts of the LCD bezel outwards, slightly bend the outer parts of the LCD bezel inwards to release the right side latches.

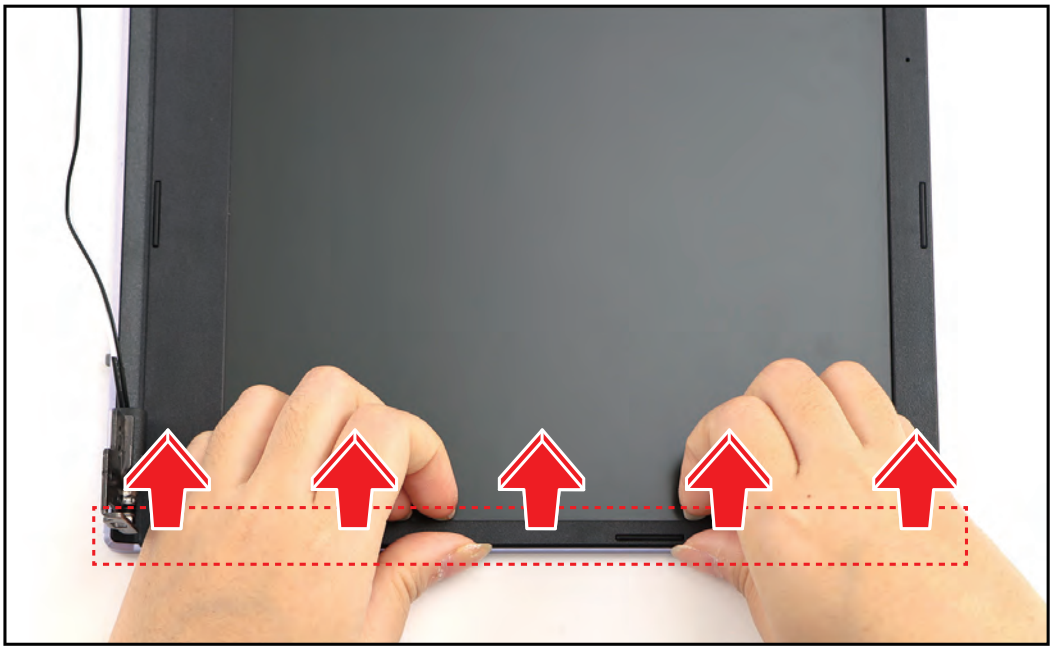


Figure 5-99. Removing the LCD Bezel (2 of 4)

3. While pushing the inner parts of the LCD bezel outwards, slightly bend the outer parts of the LCD bezel inwards to release the left side latches.

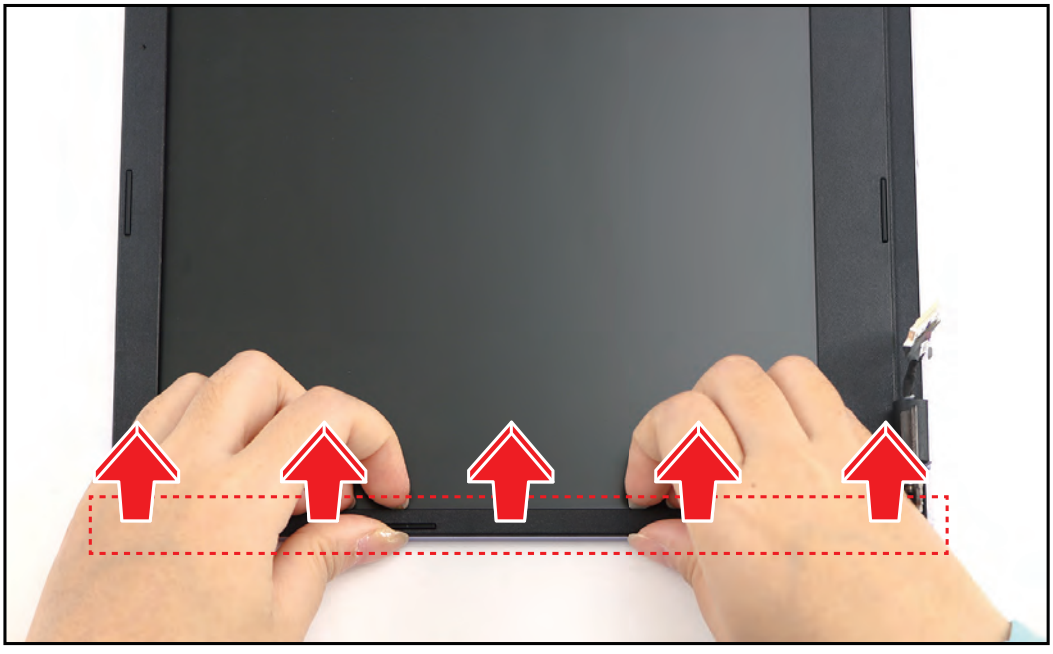


Figure 5-100. Removing the LCD Bezel (3 of 4)

4. Continue to pry the bottom side latches and remove the bezel.

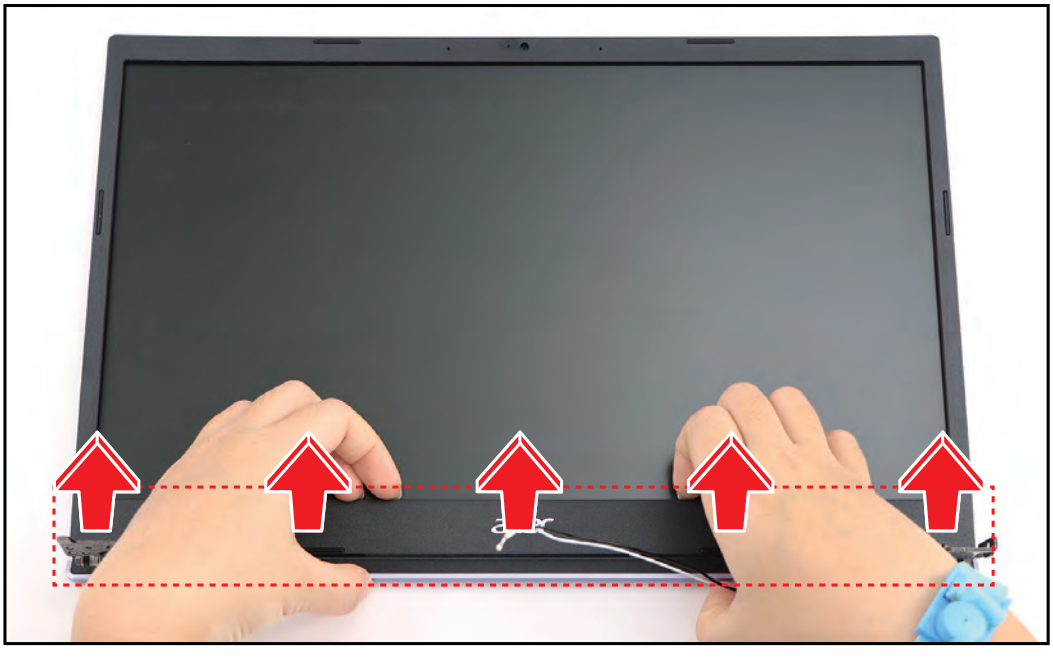


Figure 5-101. Removing the LCD Bezel (4 of 4)

LCD Bezel Installation

1. Align and install the LCD bezel onto both sides of the hinges. Make sure the eDP cable and the WLAN antenna cables are routed through the LCD hinge caps.



Figure 5-102. Installing the LCD Bezel (1 of 3)

2. Making sure the cables would not get caught, press the left and right side latches to install the LCD bezel.

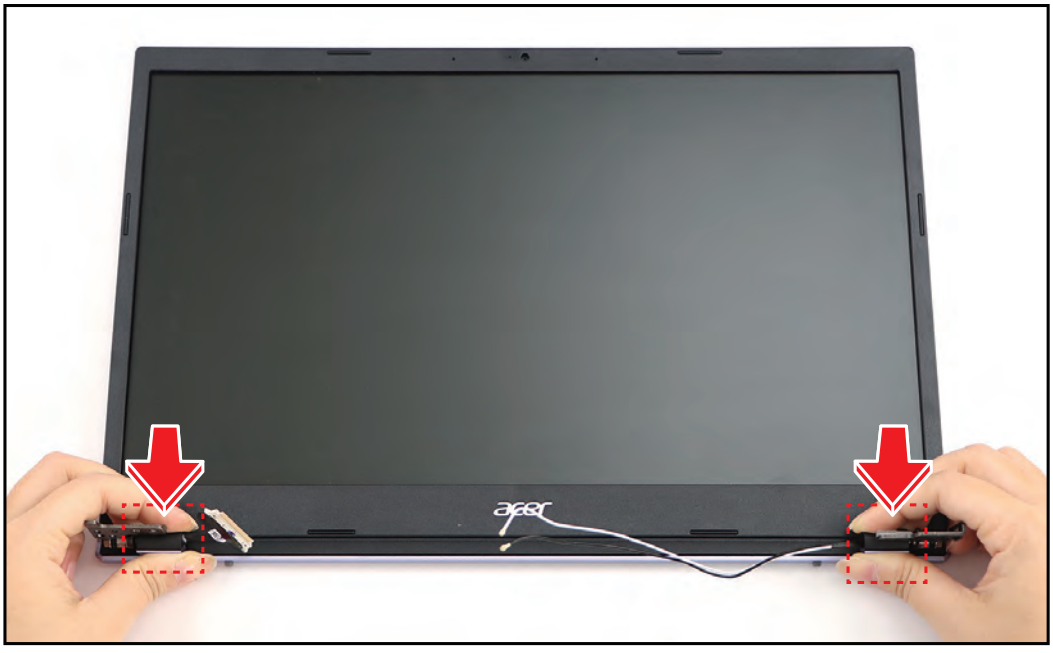


Figure 5-103. Installing the LCD Bezel (2 of 3)

3. Press firmly to secure the LCD bezel latches.

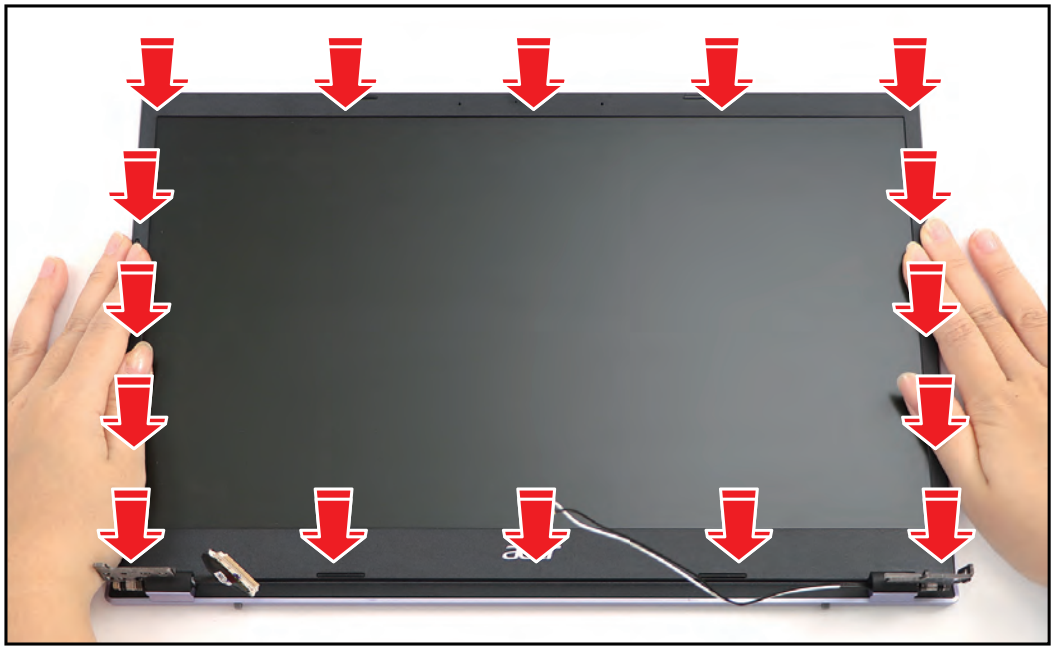


Figure 5-104. Installing the LCD Bezel (3 of 3)

4. Install the LCD module (see **LCD Module Installation** on page **5-51**).

CMOS and Dual Microphone Module Removal

Prerequisite:

- **LCD Bezel Removal** on page **5-64**

1. Disconnect the eDP cable from the CMOS and dual microphone module connector. Then unroute the eDP cable from the cable guides on the LCD cover.

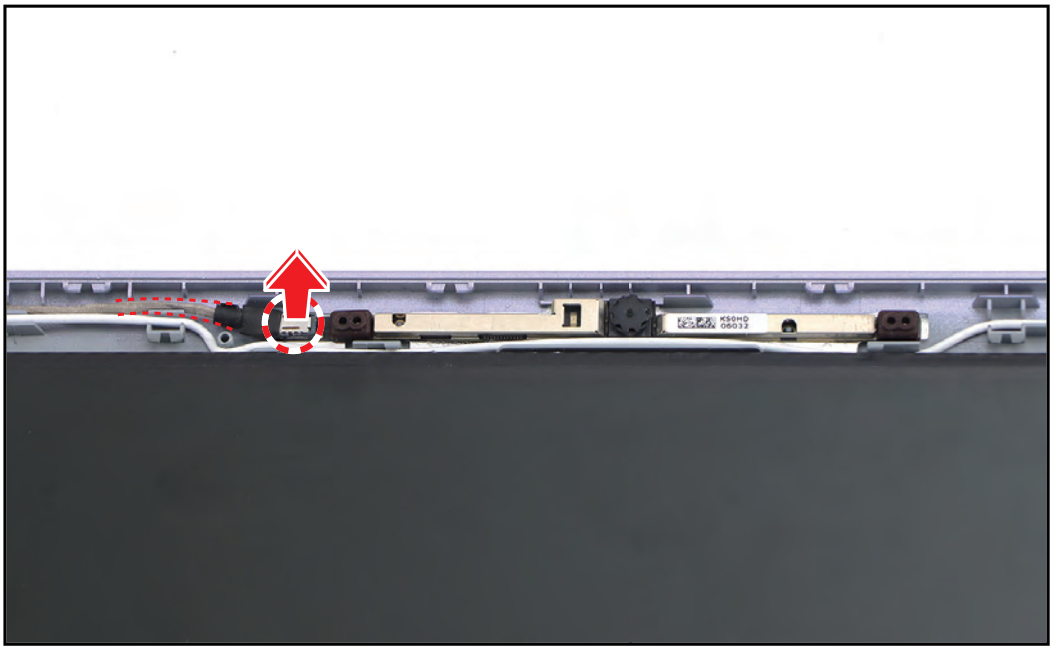


Figure 5-105. Disconnecting the eDP Cable

2. Pry to remove the CMOS and dual microphone module from its slot on the LCD cover.

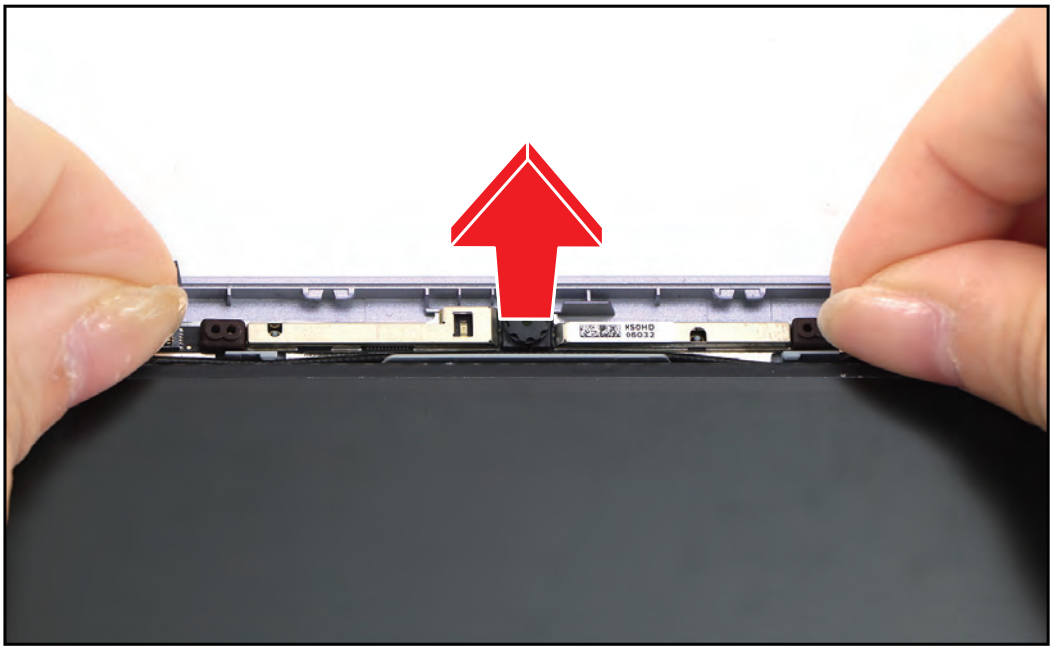


Figure 5-106. Removing the CMOS and Dual Microphone Module

3. Carefully remove the two (2) microphone rubbers from the CMOS and dual microphone module.

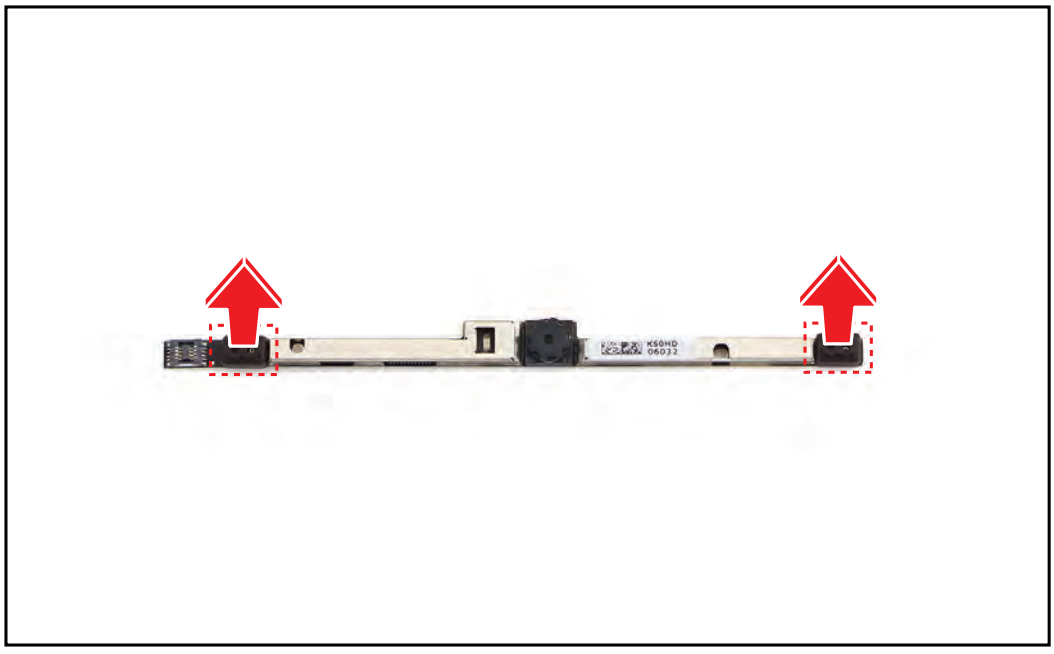


Figure 5-107. Removing the Microphone Rubbers

CMOS and Dual Microphone Module Installation

1. Install the two (2) microphone rubbers onto their respective slots on the CMOS and dual microphone module.

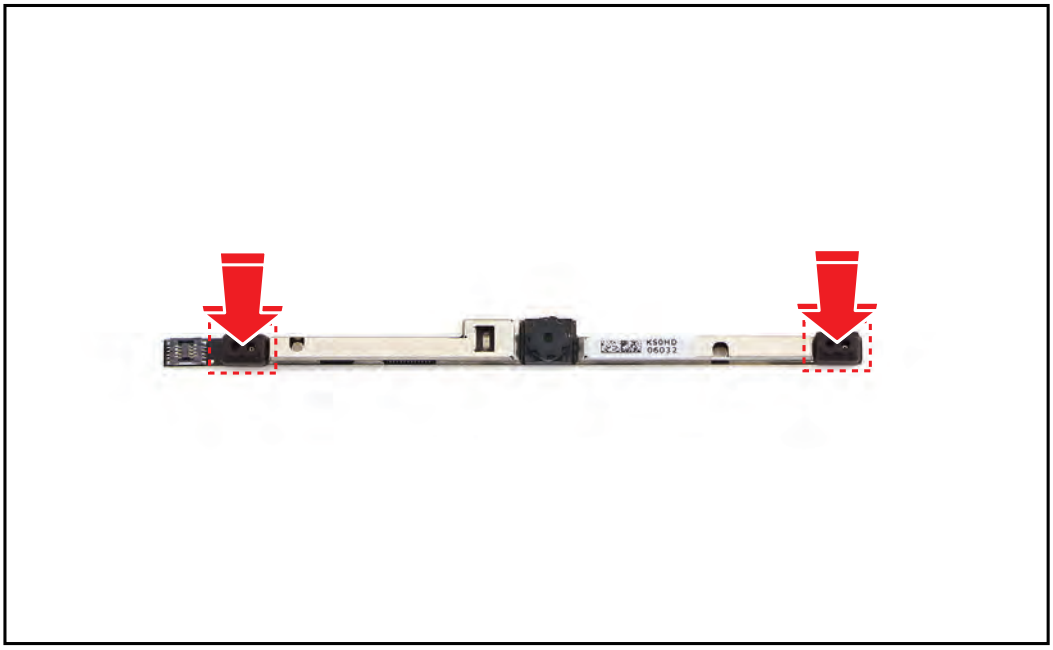


Figure 5-108. Installing the Microphone Rubbers

2. By aligning with the guide pins, install the CMOS and dual microphone module into its slot on the LCD cover.

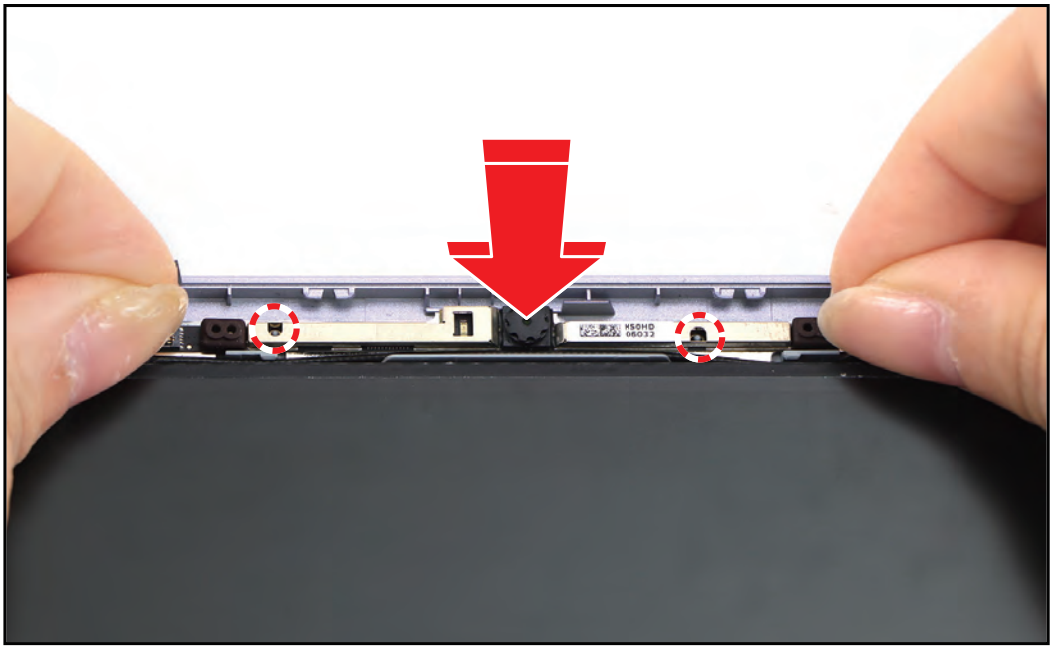


Figure 5-109. Installing the CMOS and Dual Microphone Module

3. Route the eDP cable through the cable guides on the LCD cover and connect the eDP cable to the CMOS and dual microphone module connector.

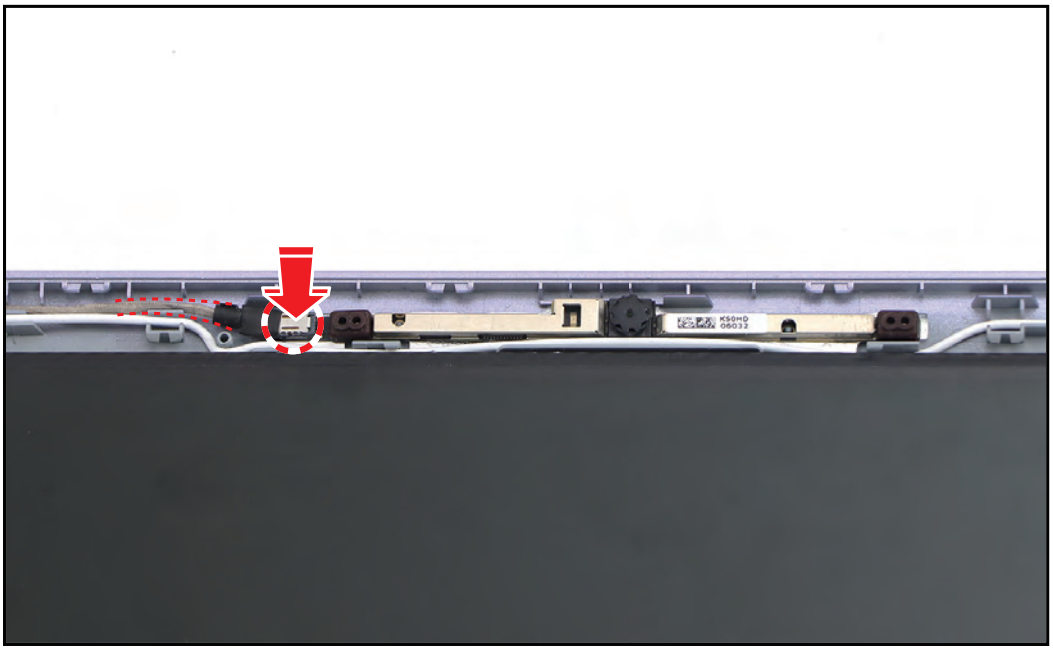


Figure 5-110. Connecting the eDP Cable

4. Install the LCD bezel (see **LCD Bezel Installation** on page **5-66**).

LCD Panel Removal

Prerequisite:

- **LCD Bezel Removal** on page **5-64**

1. Unroute the auxiliary antenna cable and the eDP cable from the cable guides on the bottom and left sides of the LCD cover.



Figure 5-111. Unrouting the Cables

2. Continue unrouting the auxiliary antenna cable and the eDP cable from the top side cable guides.

3. Disconnect the eDP cable from the CMOS and dual microphone module connector.

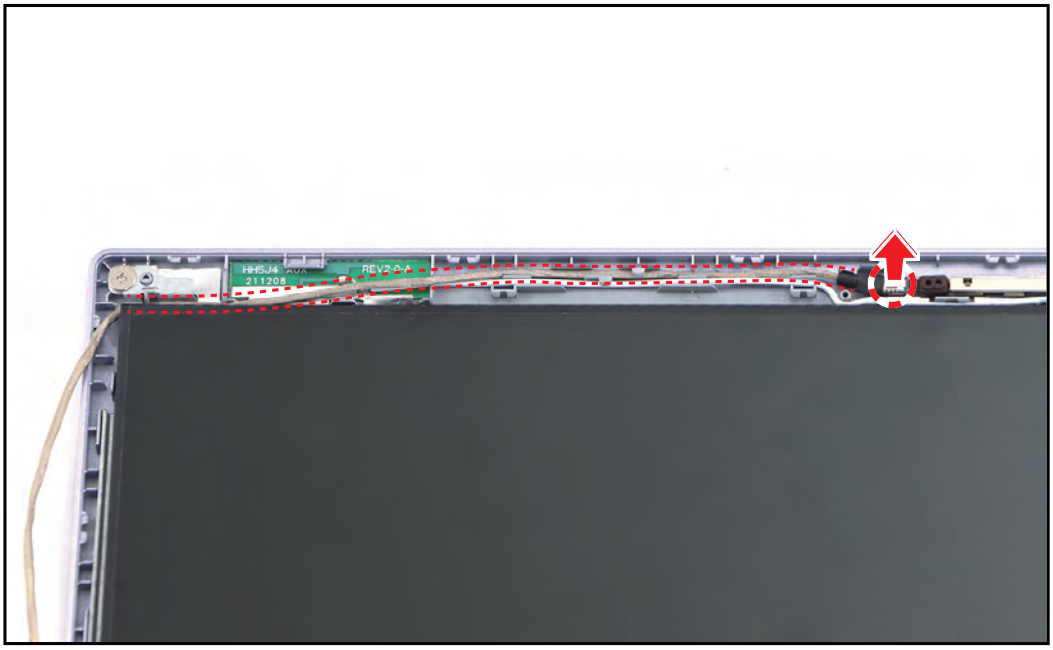


Figure 5-112. Unrouting and Disconnecting Cables

4. Unroute the auxiliary antenna cable from the bottom and right side cable guides.

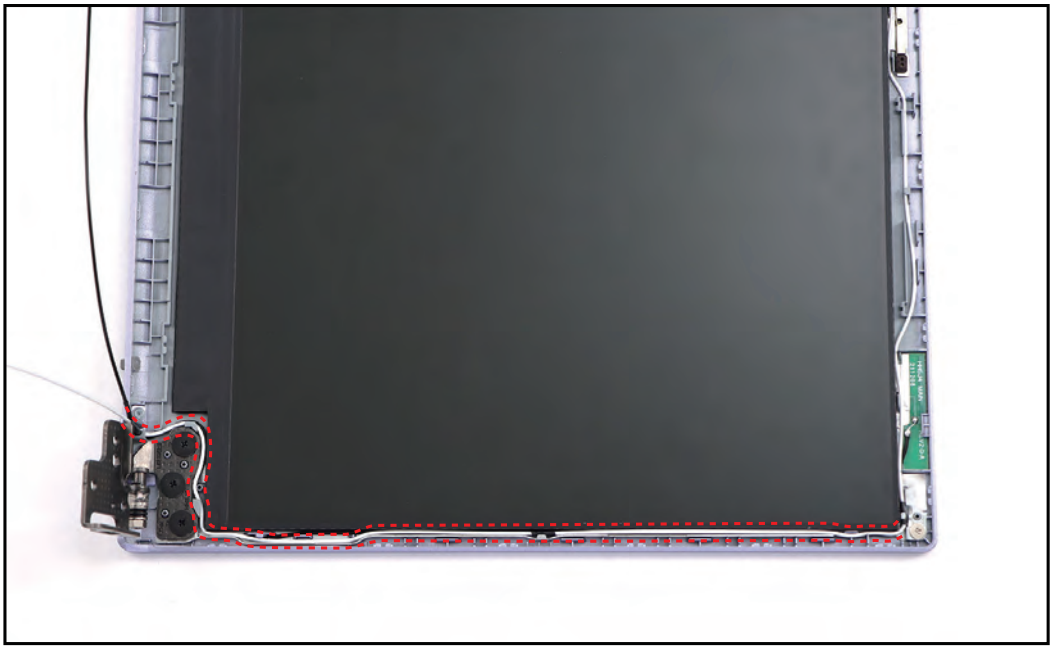


Figure 5-113. Unrouting the Auxiliary Antenna Cable (1 of 2)

5. Unroute the auxiliary antenna cable from the upper side cable guides.



Figure 5-114. Unrouting the Auxiliary Antenna Cable (2 of 2)

6. Unroute the main antenna cable from the bottom and left side cable guides.

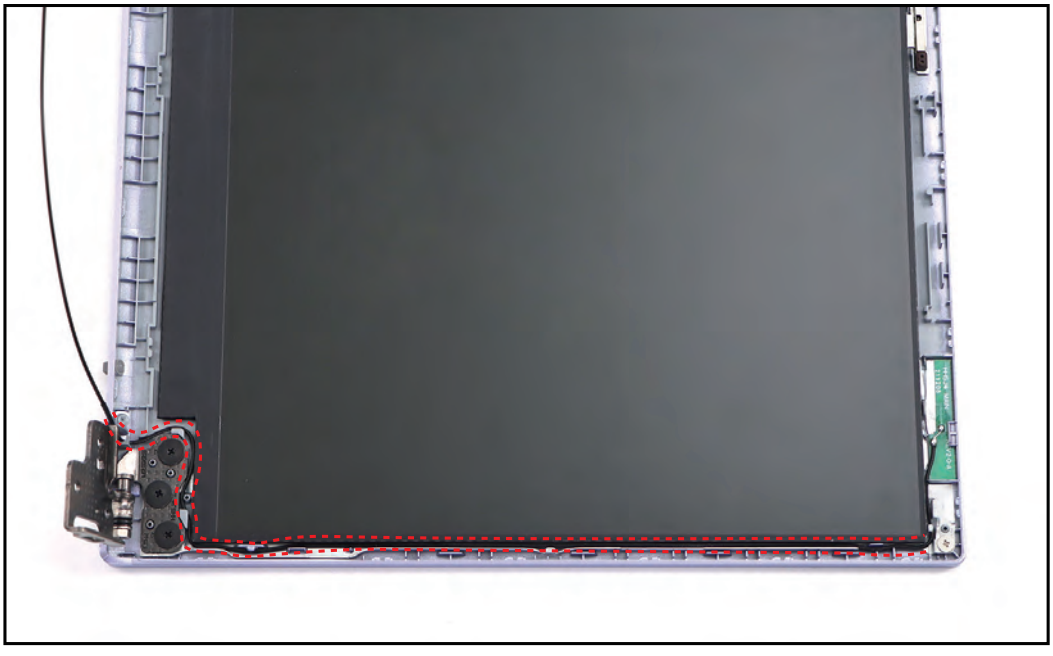


Figure 5-115. Unrouting the Main Antenna Cable

7. Remove the six (6) screws from the LCD hinges and two (2) screws from the LCD brackets.

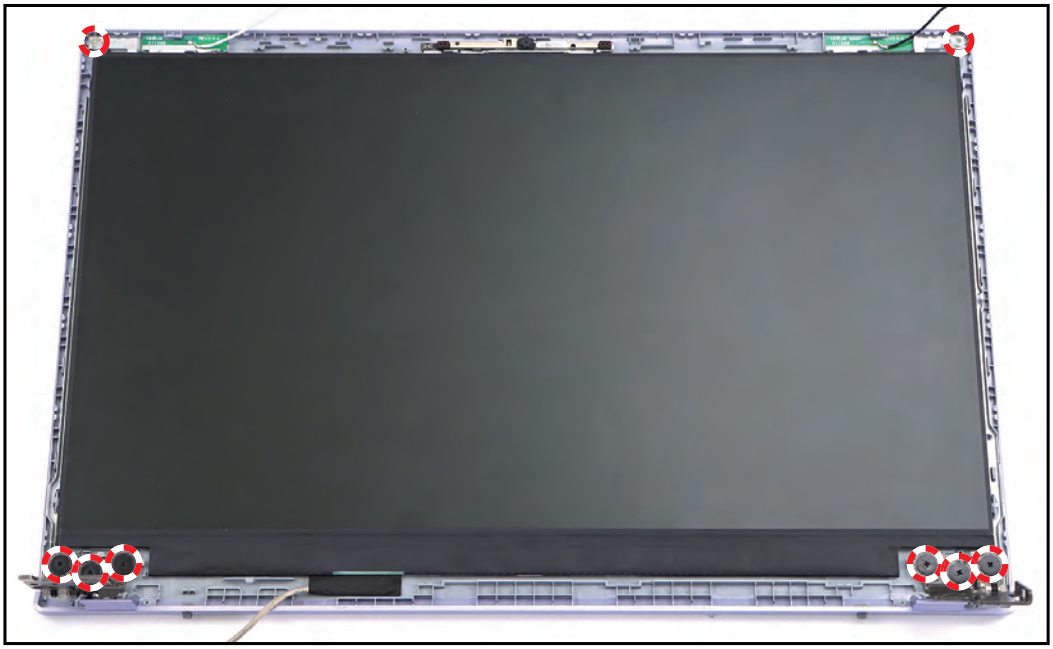


Figure 5-116. Removing the Screws

8. Remove the LCD hinges from the LCD cover.



Figure 5-117. Removing the LCD Hinges

9. Carefully flip the LCD panel to access the eDP cable connector.

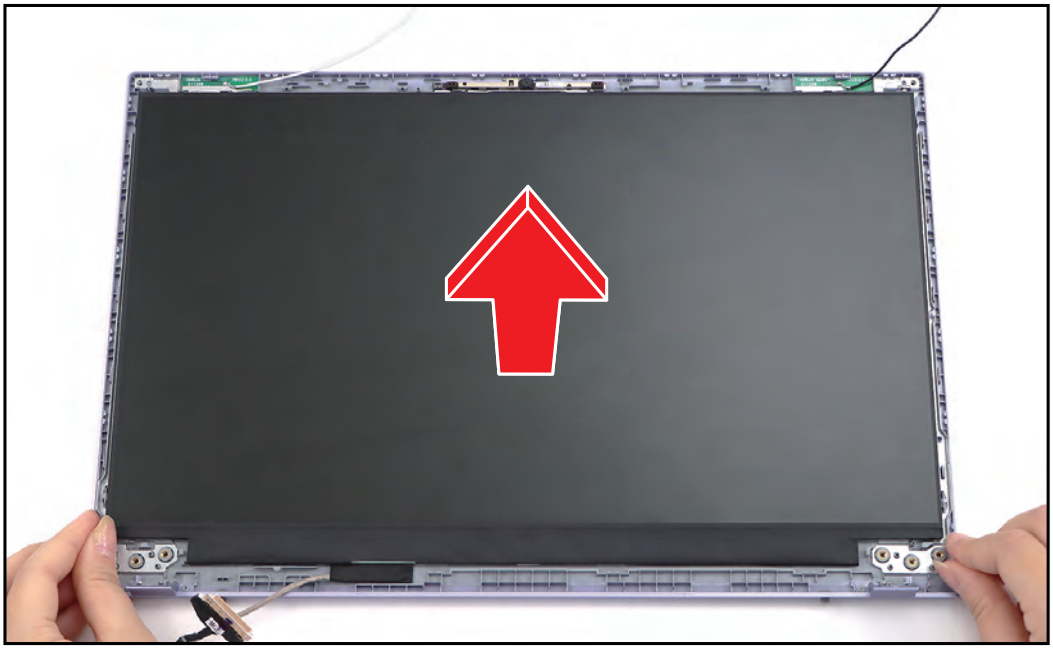


Figure 5-118. Flipping the LCD Panel

10. Detach the mylar from the eDP cable connector.

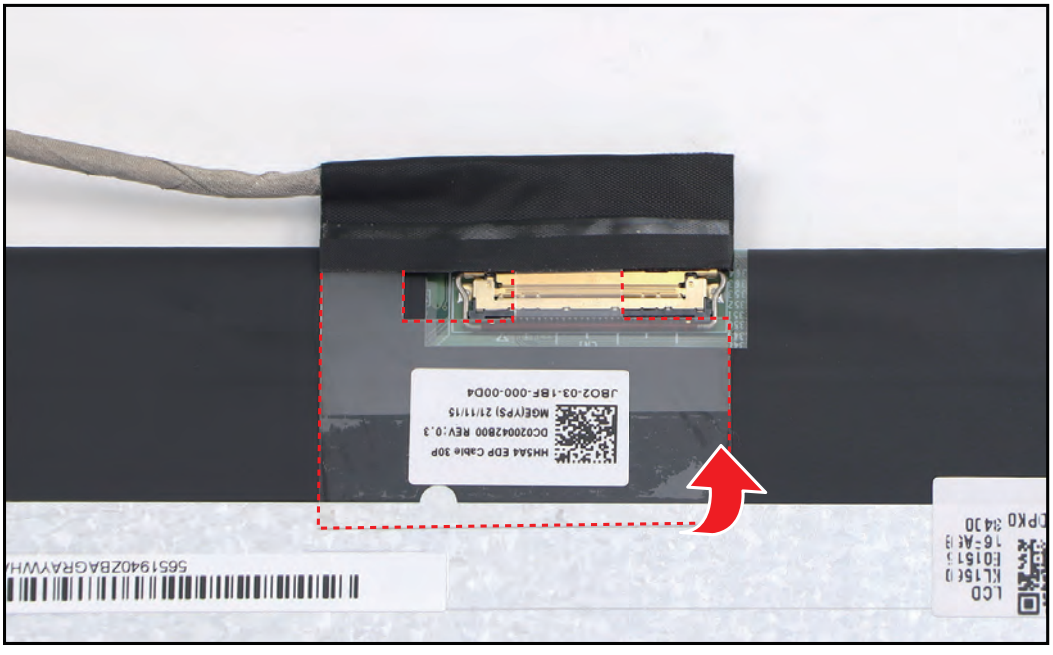


Figure 5-119. Detaching the Mylar

11. Disengage the eDP cable latch.

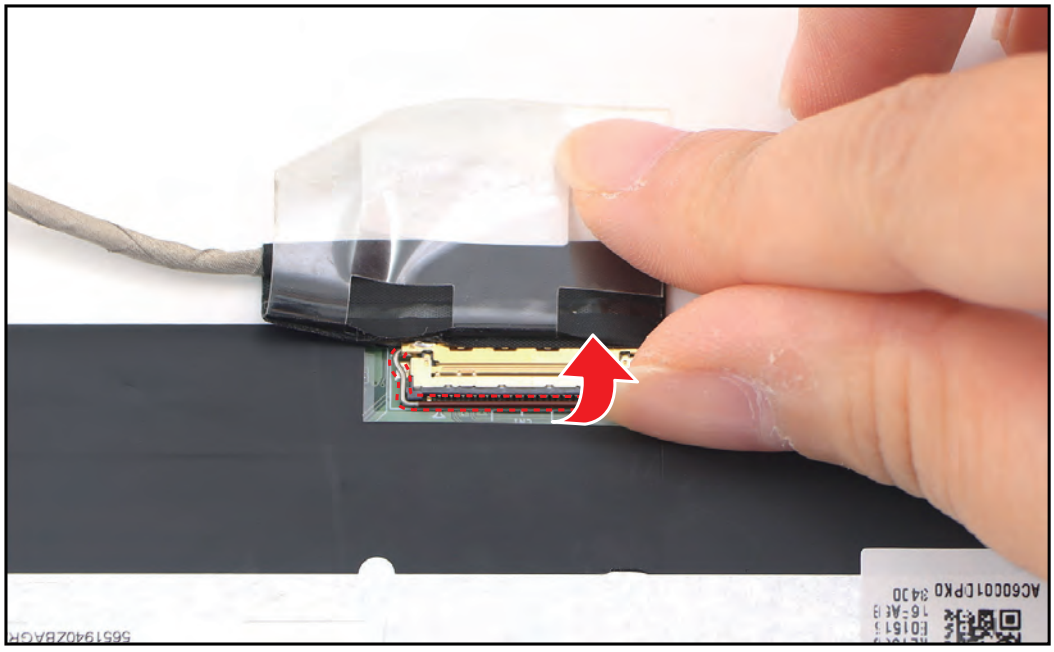


Figure 5-120. Disengaging the Latch

12. Disconnect the eDP cable from the LCD panel connector.

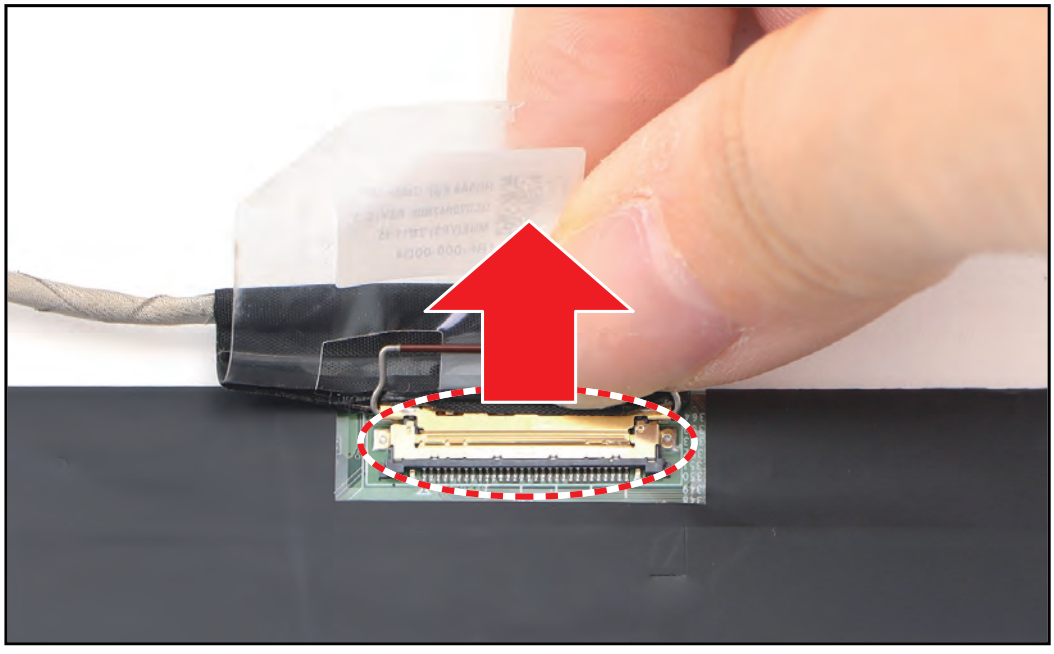


Figure 5-121. Disconnecting the eDP Cable

13. Pry slightly to access the double-sided mounting tape underneath the LCD brackets. Then pull to detach the double-sided mounting tape from the LCD cover. Repeat the same procedure to remove the double-sided mounting tape on another side of the LCD panel.

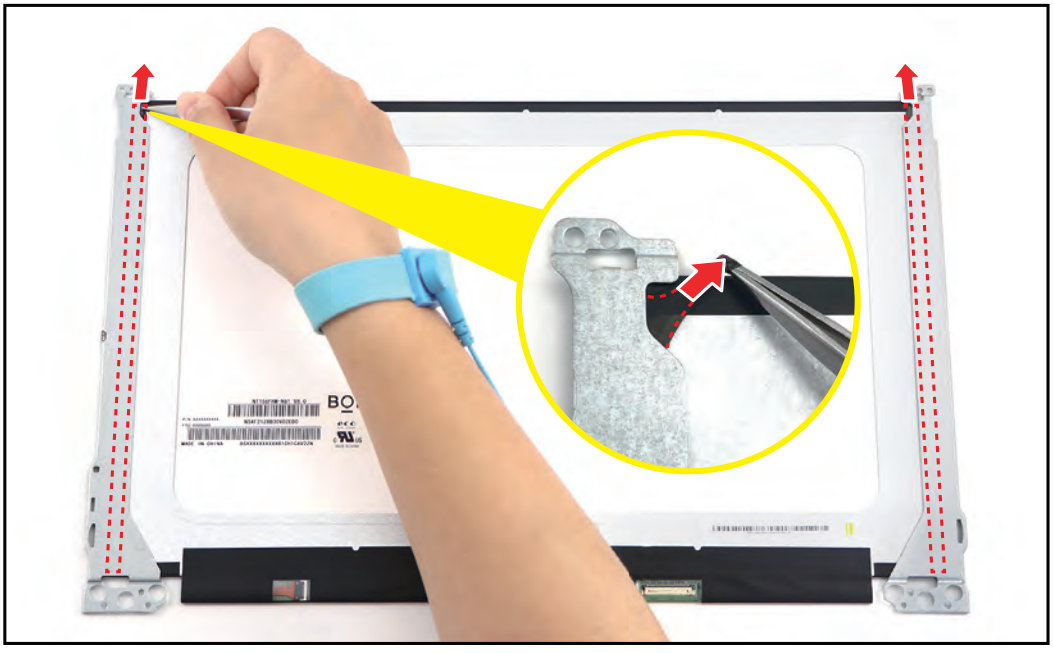


Figure 5-122. Detaching the Double-sided Mounting Tapes

14. Remove the LCD brackets.



Figure 5-123. Removing the LCD Brackets

LCD Panel Installation

1. Attach the double-sided mounting tapes on both LCD brackets and press each tape for about 30 seconds.

   NOTE: Make sure to apply the double-sided mounting tapes onto the designated slots as shown in the below illustration.

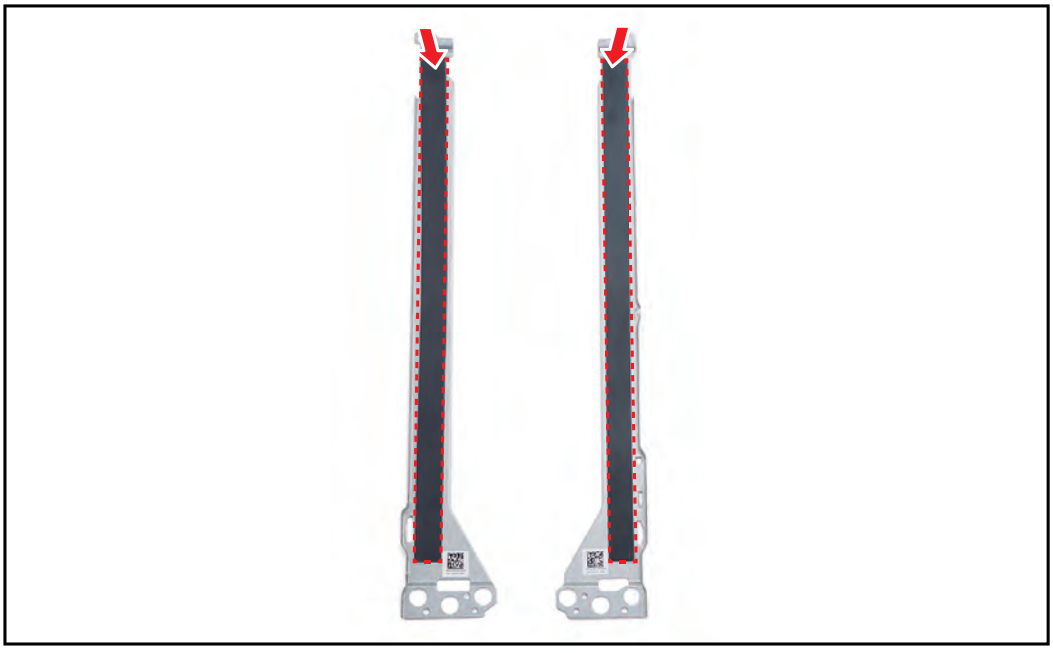


Figure 5-124. Attaching the Double-sided Mounting Tapes

2. Align by the guide pins and then install the LCD brackets to the LCD panel.

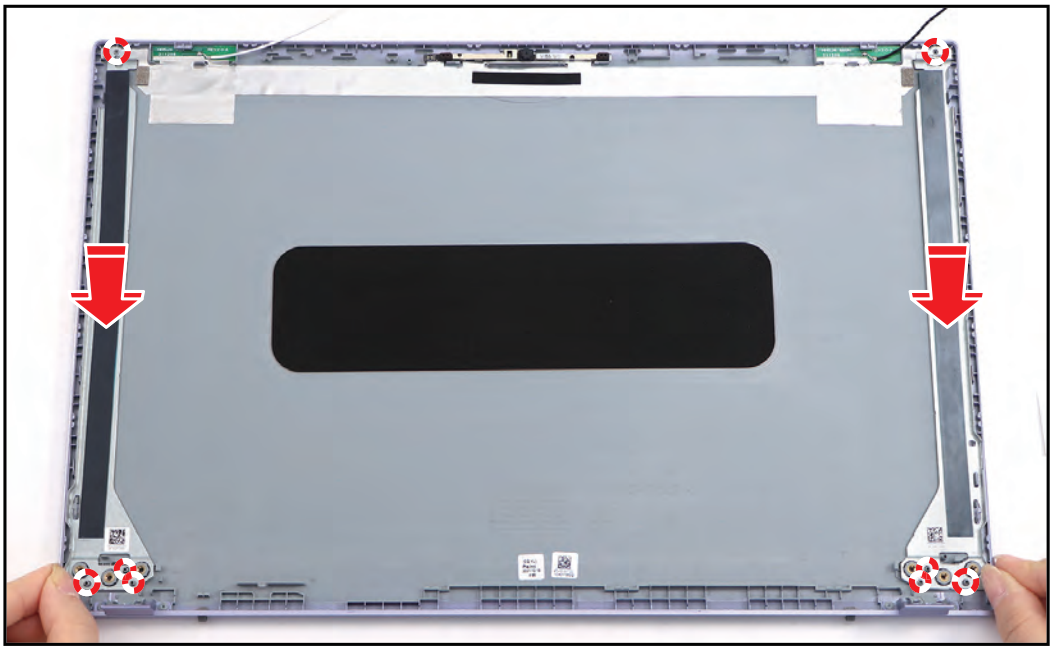


Figure 5-125. Installing the LCD Brackets

3. Attach the two (2) screws to secure the LCD brackets to the LCD panel.

NOTE: Screw torque force = 1.8~2.2kgf.cm

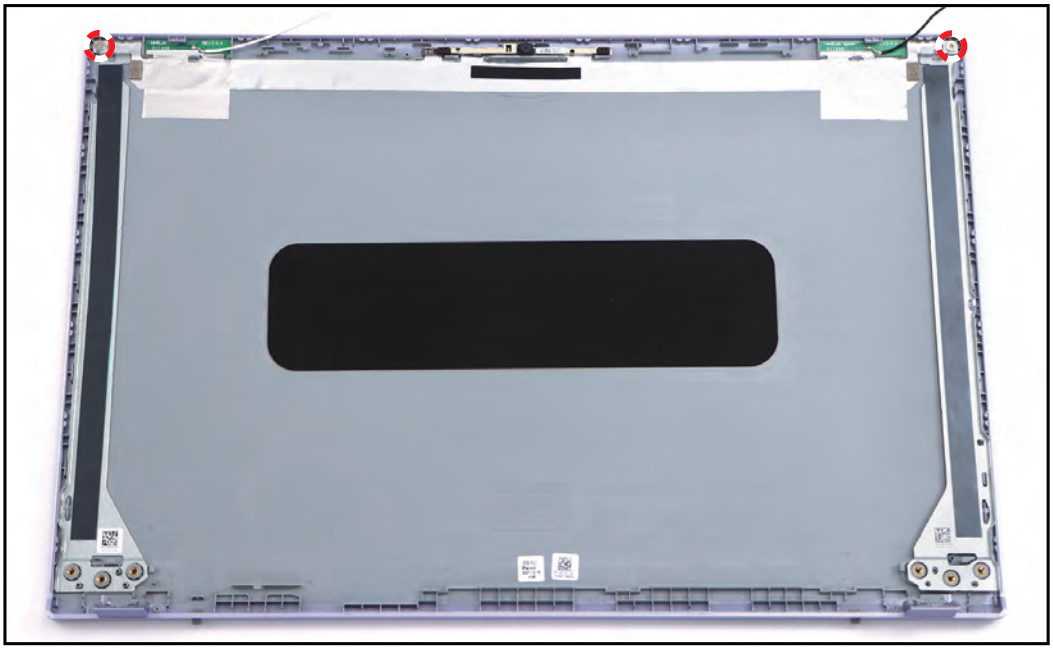


Figure 5-126. Securing the Screws

4. Align by the guide pins and then install the LCD hinges into their slots on the LCD cover.



Figure 5-127. Installing the LCD Hinges

5. Attach the six (6) screws to secure the LCD hinges in place.

NOTE: Screw torque force = 2.55~3.45kgf.cm

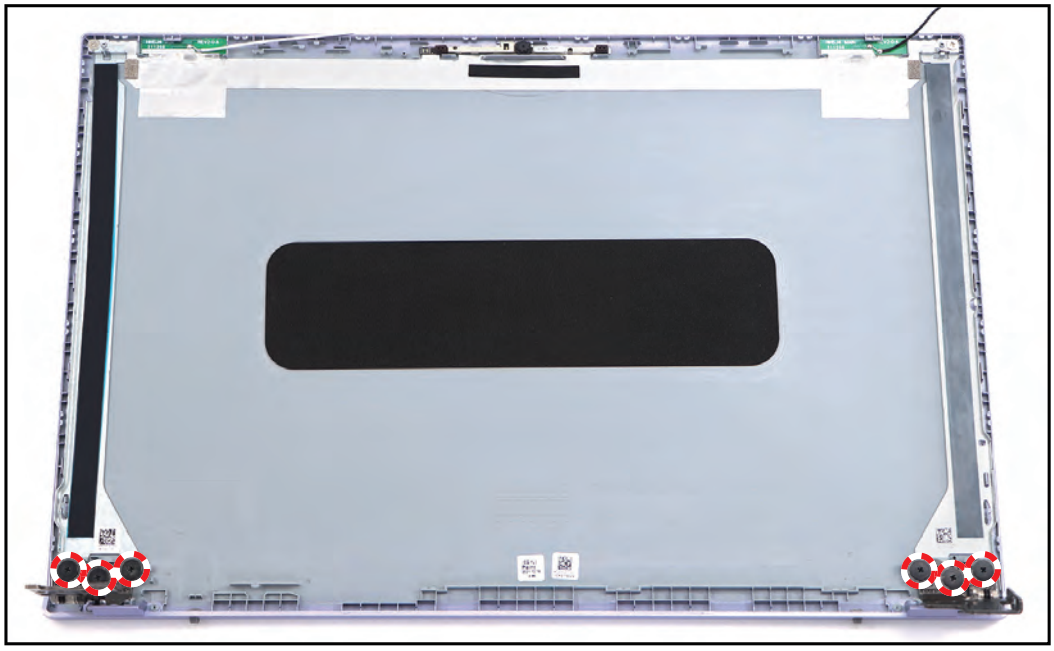


Figure 5-128. Securing the Screws

6. Connect the eDP cable to the LCD panel connector.

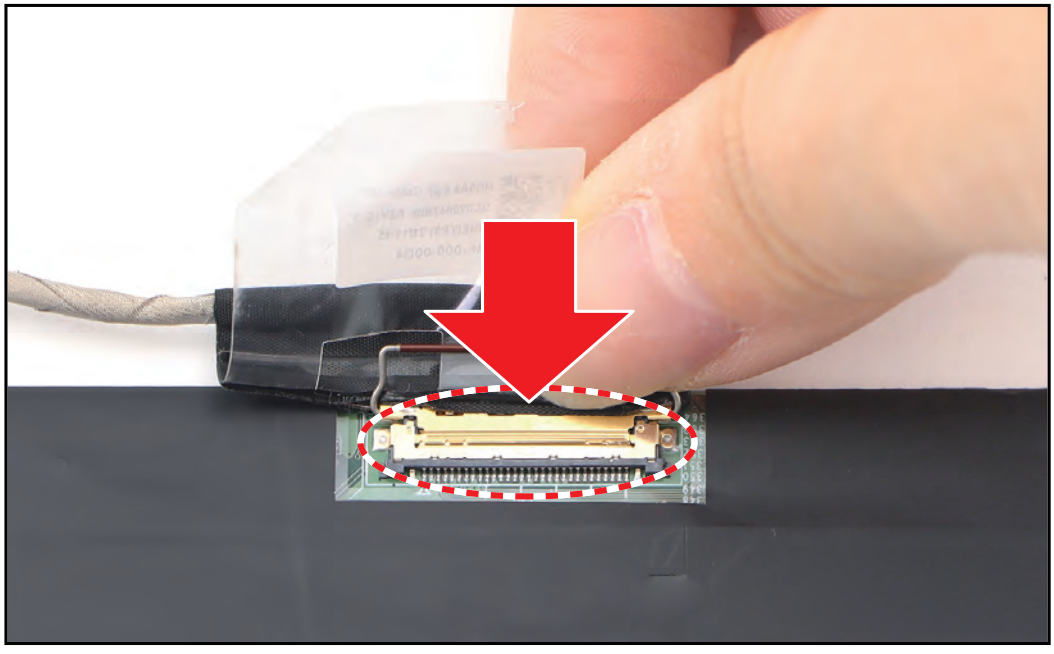


Figure 5-129. Connecting the eDP Cable

7. Secure the eDP cable latch.

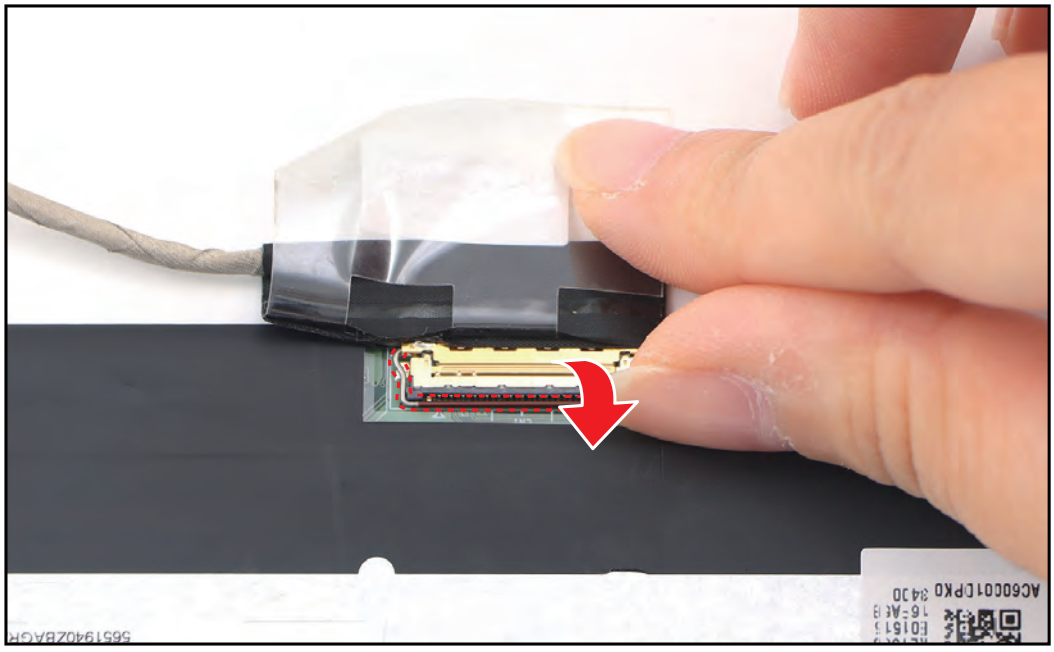


Figure 5-130. Securing the Latch

8. Attach the mylar to secure the eDP cable in place.

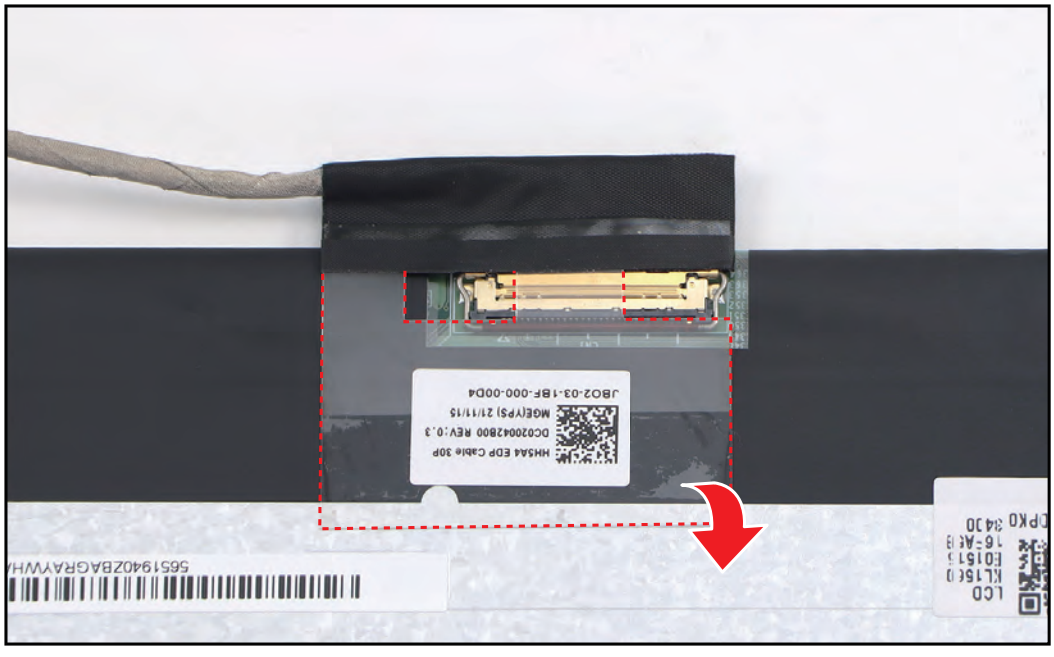


Figure 5-131. Attaching the Mylar

9. Place the LCD alignment 0.5mm mylars at the designated locations on the upper, right, and left sides of the LCD cover. Then peel off the protective film from the double-sided mounting tapes.

10. Starting from the upper and right sides where the 0.5mm mylars are positioned, carefully place the LCD panel on the LCD cover. Then press the LCD panel down until it is firmly seated on the LCD cover.

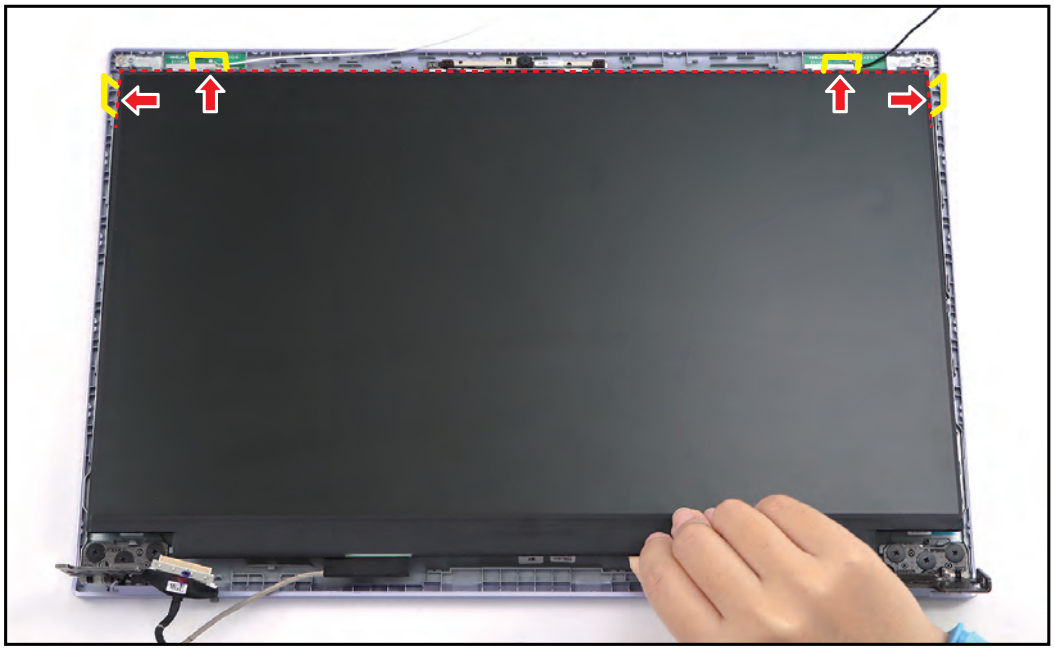


Figure 5-132. Installing the LCD Panel

11. Remove the LCD alignment 0.5mm mylars from the LCD cover.

12. Route the main antenna cable through the right and bottom side cable guides.

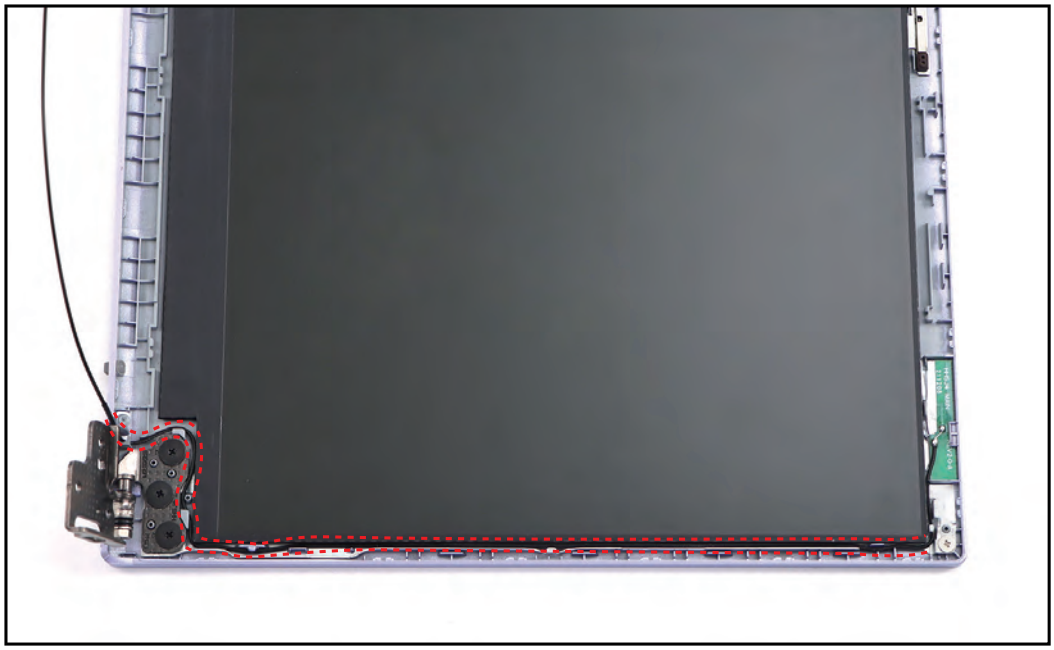


Figure 5-133. Routing the Main Antenna Cable

13. Route the auxiliary antenna cable through the upper side cable guides.



Figure 5-134. Routing the Auxiliary Antenna Cable (1 of 2)

14. Continue routing the auxiliary antenna cable through the right and bottom side cable guides.

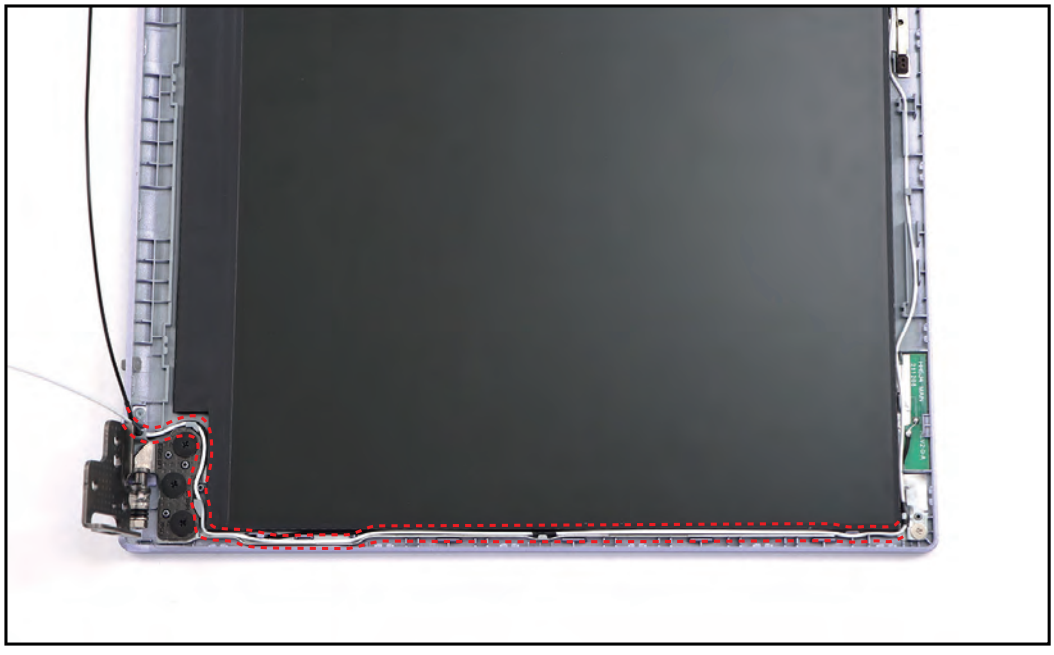


Figure 5-135. Routing the Auxiliary Antenna Cable (2 of 2)

15. Route the eDP cable through the upper cable guides on the LCD cover and connect the eDP cable to the CMOS and dual microphone module connector.

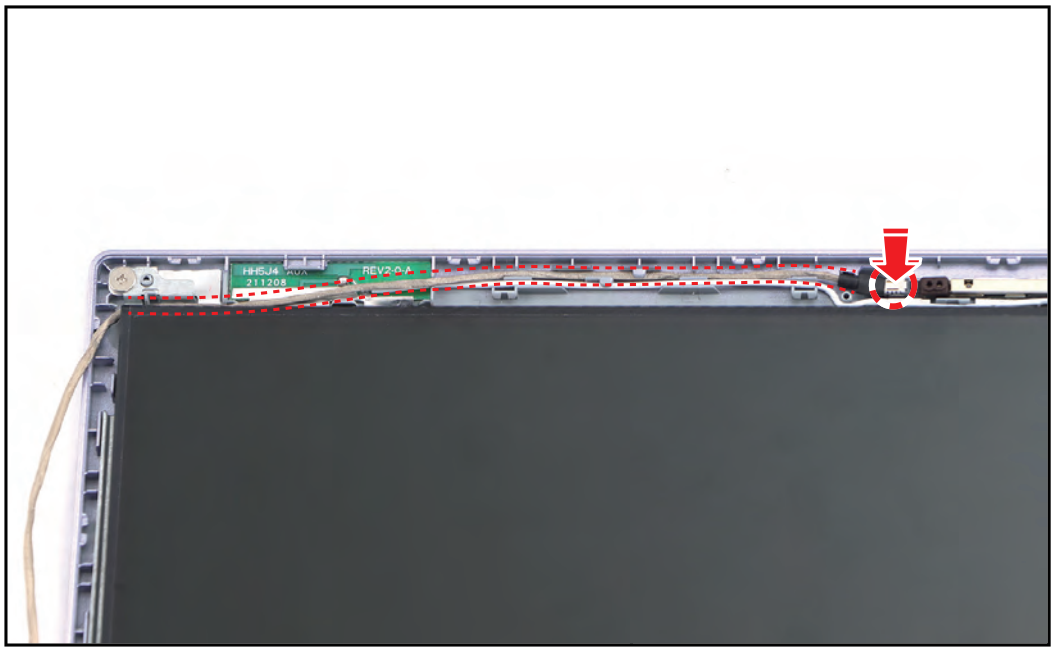


Figure 5-136. Connecting and Routing the eDP Cable

16. Route the eDP cable through the left and bottom side cable guides.



Figure 5-137. Routing the eDP Cable

17. Install the LCD bezel (see **LCD Bezel Installation** on page **5-66**).

Table 5-16. LCD Panel Screws

Screw Name	Screw Type	Torque	Quantity
M 2.5 x 2.5		2.55~3.45kgf.cm	6 (LCD Hinges)
M 2.0 x 2.5		1.8~2.2kgf.cm	2 (LCD Bracket)

WLAN Antenna Removal

Prerequisite:

- **LCD Panel Removal** on page **5-72**

1. Detach the auxiliary antenna from the LCD cover.

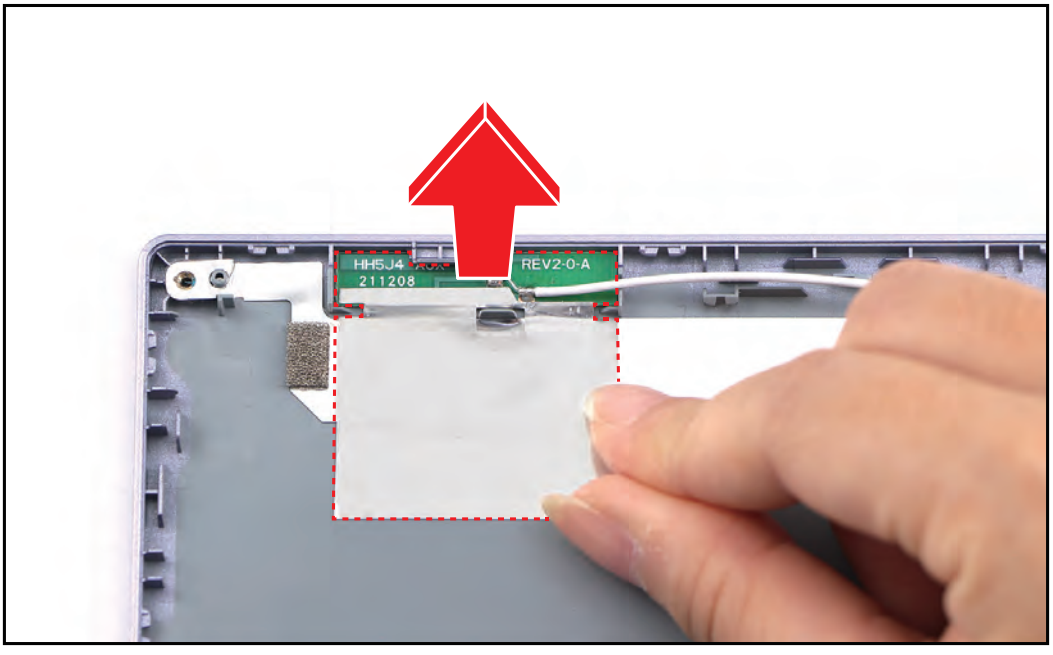


Figure 5-138. Detaching the Auxiliary Antenna

2. Detach the main antenna from the LCD cover.

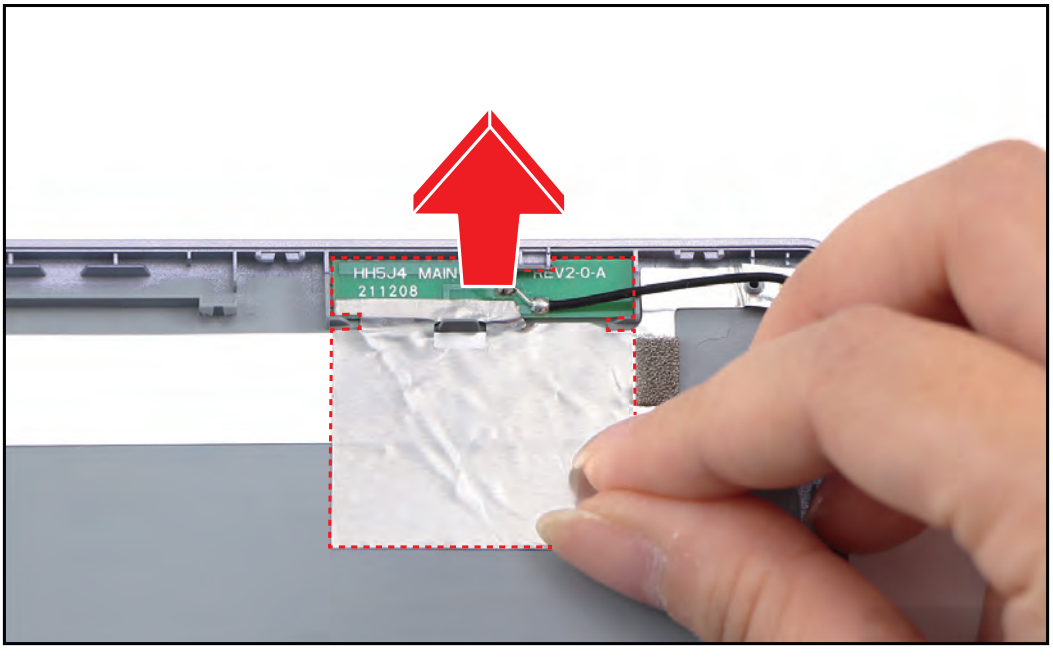


Figure 5-139. Detaching the Main Antenna

WLAN Antenna Installation

1. By aliging with the guide pins, attach the main antenna onto its slot on the LCD cover.

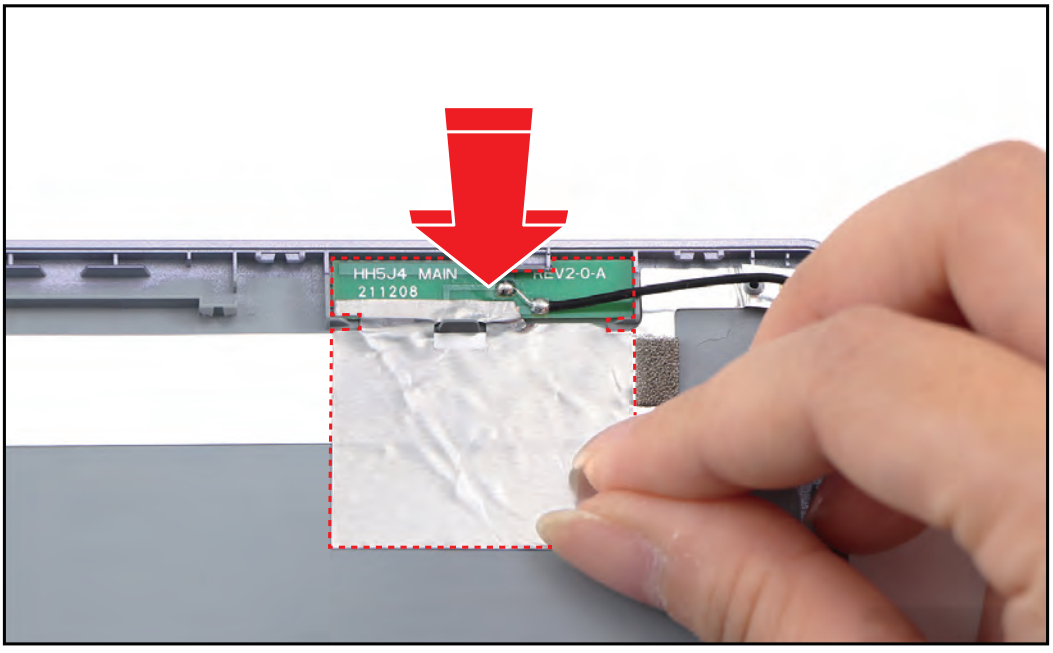


Figure 5-140. Attaching the Main Antenna

2. By aliging with the guide pins, attach the auxiliary antenna onto its slot on the LCD cover.

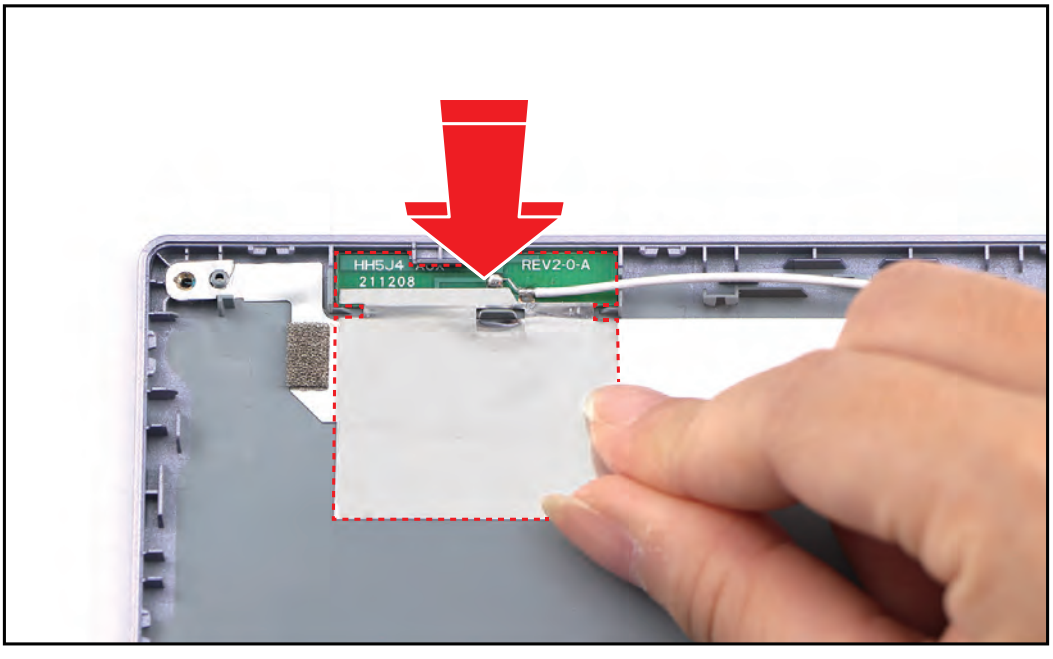


Figure 5-141. Attaching the Auxiliary Antenna

3. Install the LCD panel (see **LCD Panel Installation** on page **5-79**).

CHAPTER 6

Field Replaceable Unit List

FRU (Field Replaceable Unit) List 6-2

Exploded Diagram 6-3

Main Assembly 6-3

Upper Case Assembly 6-5

LCD Assembly 6-6

Screw List 6-30

FRU (Field Replaceable Unit) List

This chapter provides the FRU (Field Replaceable Unit) listing in global configurations for the Aspire 3 A315-44. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

NOTE:

When ordering FRU parts, check the most up-to-date information available on the regional web or channel. Part number changes will not be noted on the printed Service Guide. For Acer Authorized Service Providers, the Acer office may have a different part number code from those given in the FRU list of this printed Service Guide. Users MUST use the local FRU list provided by the regional Acer office to order FRU parts for repair and service of customer machines.

NOTE:

To scrap or to return the defective parts, users should follow local government ordinances or regulations on proper disposal, or follow the rules set by the regional Acer office on how to return the defective parts.

Exploded Diagram

Main Assembly

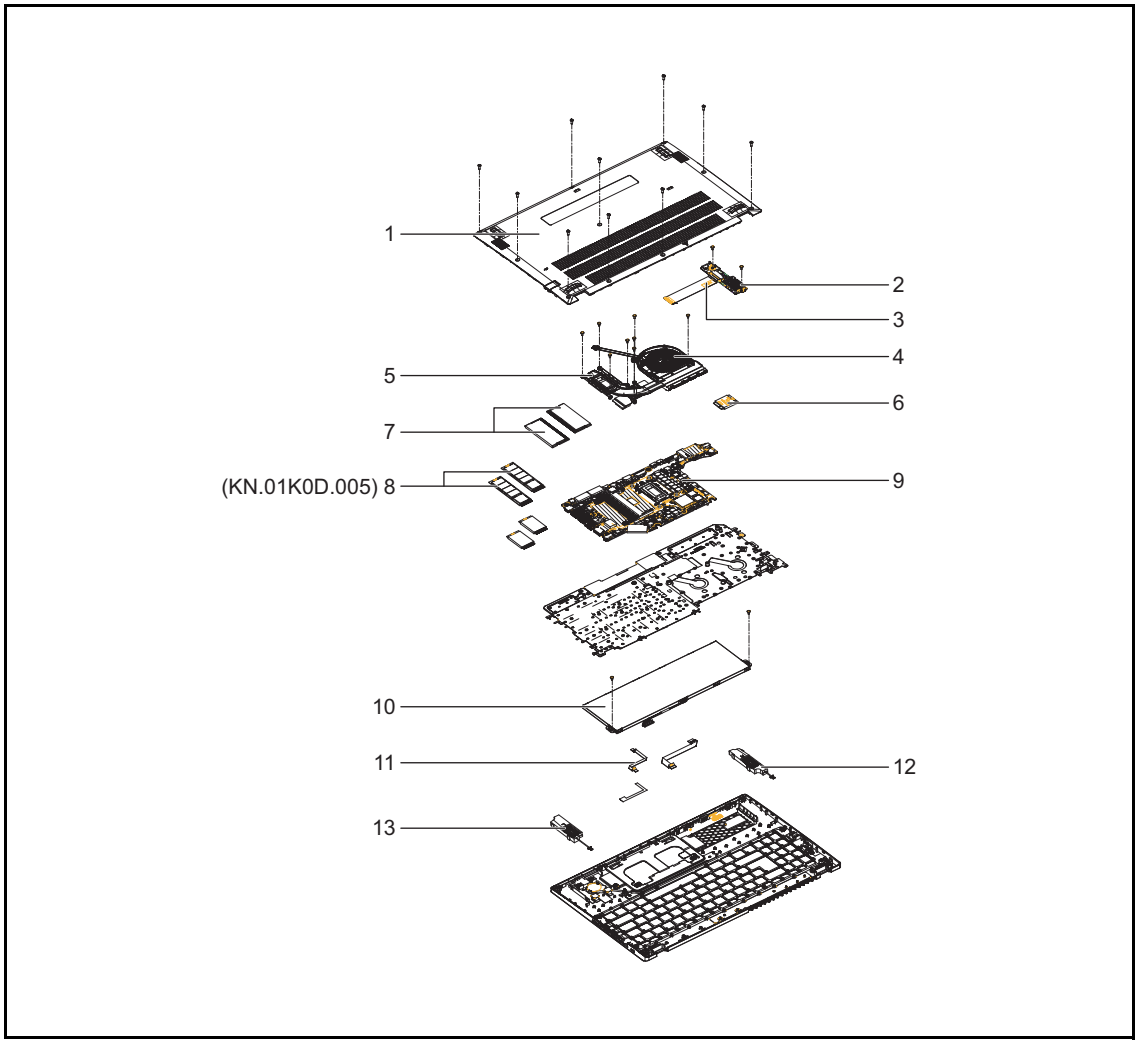


Figure 6-1. Main Assembly Exploded Diagram

Table 6-1. Main Assembly Exploded Diagram

No.	Description	Acer P/N
1	LOWERCASE ASSY - BLACK	60.K6WN2.001
2	IO BOARD	55.K3MN2.001
3	FFC CABLE FOR IO BOARD	50.K3MN2.001
4	FAN	23.K6WN2.001
5	THERMAL MODULE - UMA	NC.26111.0CB
6	Wireless LAN MEDIATEK 802.11ax Bluetooth FM MT7921LE WiFi 6 2x2 AX+BT M.2 2230	KE.11X0M.001

No.	Description	Acer P/N
7	Memory HYNIX SO-DIMM DDRIV 3200 16GB HMAA2GS6CJR8N-XN LF+HF 1024*16 RG C-die	KN.16G0G.036
8	Flash Disk MICRON SSD NAND 1024GB Micron 2450 1024GB MTFDKBA1T0TFK-1BC15ABYY LF+HF	KN.01K04.005
9	Mainboard A315-44P AMD RYZEN R75700U UMA	NB.KSJ11.001
10	Battery PANASONIC Typ.41Wh 3550mAh 3S1P AP19B5K 248x84.4x5.5(mm) AP19B 11.55V 55W Polymer	KT.00305.011
11	FFC CABLE FOR FINGERPRINT	50.K3LN2.001
12	SPEAKER - R	23.K6WN2.003
13	SPEAKER - L	23.K6WN2.002

Upper Case Assembly

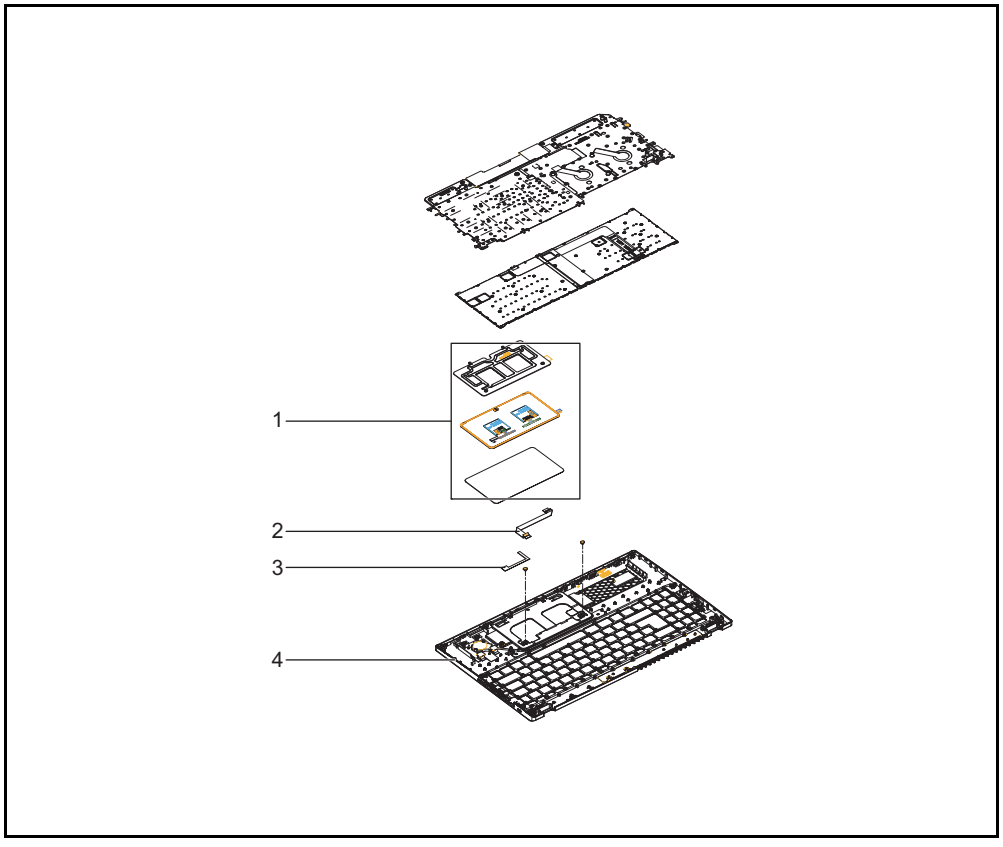


Figure 6-2. Upper Case Assembly Exploded Diagram

Table 6-2. Upper Case Assembly Exploded Diagram

No.	Description	Acer P/N
1	TOUCHPAD ASSY SILVER - ELANTECH NC.24611.06Z	56.K6WN2.001
2	FFC CABLE FOR TOUCHPAD	50.K3MN2.002
3	TOUCHPAD CONDUCTIVE TAPE	47.K3MN2.002
4	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International acer legend, texture, Power Icon(NK.I1513.1QQ,NK.I1517.0NK,NK.I151S.0EM)	6B.K6WN2.001

LCD Assembly

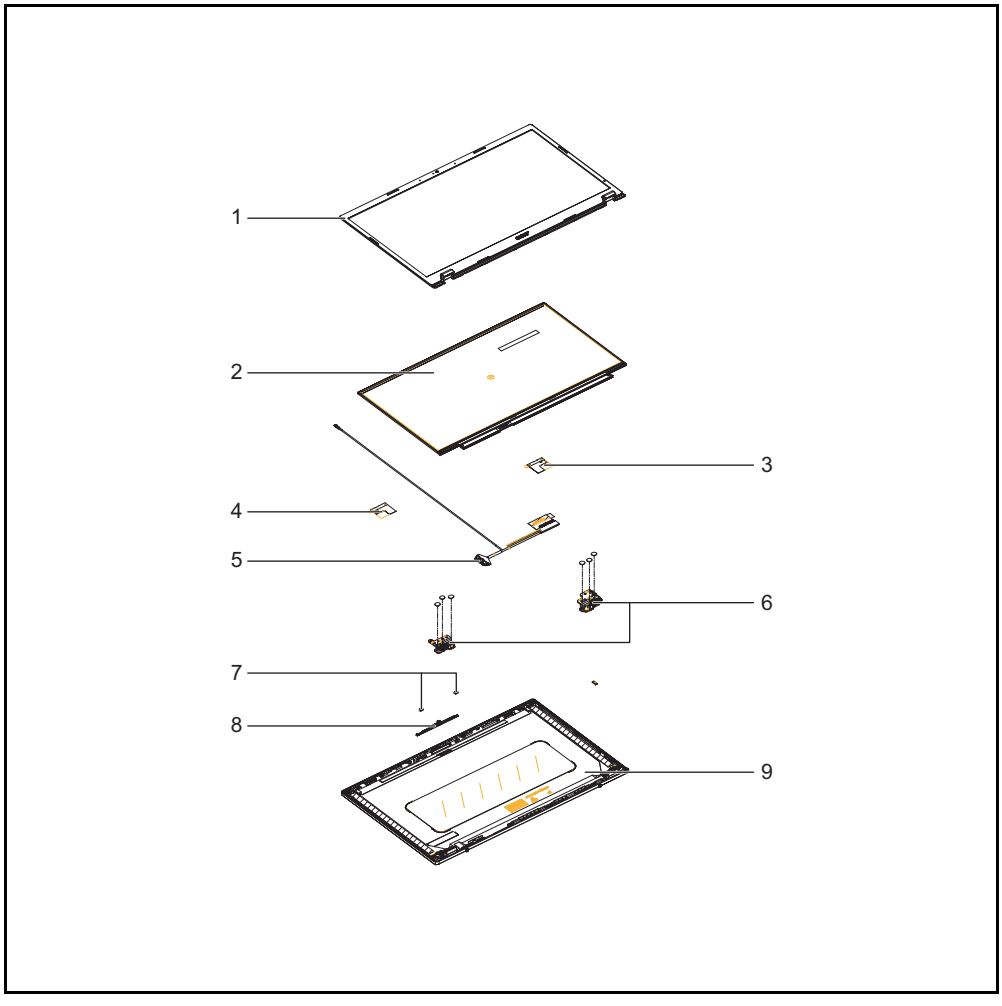


Figure 6-3. LCD Assembly Exploded Diagram

Table 6-3. LCD Assembly Exploded Diagram

No.	Description	Acer P/N
1	LCD BEZEL ASSY - BLACK	60.K6WN2.003
2	LED LCD Panel LPL 15.6"W FHD None Glare LP156WFH-SPD5 LF 250nit 25ms 700:1 (eDP, Value IPS,narrow, 3.2mm max)	KL.15608.049
3	ANTENNA WLAN MAIN	50.K6WN2.002
4	ANTENNA WLAN AUX	50.K6WN2.003
5	LCD EDP CABLE	50.K3MN2.005
6	LCD HINGE - R	33.K6WN2.003
	LCD HINGE - L	33.K6WN2.002
7	MIC RUBBER	47.K3MN2.001

No.	Description	Acer P/N
8	Camera CHICONY HD Camera CNFLH34 GC1009 RTS5855 1L3B059F2(BG) ZTS6735 TNR	KS.0HD06.032
9	LCD COVER ASSY - SILVER	60.K6WN2.002

FRU List

Table 6-4. FRU List

Category	Acer Description	Acer P/N
ADAPTER		
	Adapter DELTA ADP-45FE FD 45W 3PHY (1.1x3.0x7.7) Brick 19V/2.37A Black	KP.04501.017
	Adapter LITE-ON PA-1450-26A3 45W 3PHY (1.1x3.0x7.7) Brick 19V/2.37A Black	KP.04503.011
	Adapter Chicony Power A045R072P 45W 3PHY (1.1x3.0x7.7) Brick 19V/2.37A Black	KP.0450H.013
	Adapter Chicony Power A045R098P 45W 1.1x3.0x7.7 Brick 19V/2.37A Black	KP.0450H.019
	Adapter DELTA ADP-65DE BA 65W 3PHY (1.1x3.0x7.7) Brick 19V/3.42A Black	KP.06501.012
	Adapter LITE-ON PA-1650-50A3 65W 3PHY (1.1x3.0x7.7) Brick 19V/3.42A Black	KP.06503.018
	Adapter Chicony Power A065R178P 65W 3PHY (1.1x3.0x7.7) Brick 19V/3.42A Black	KP.0650H.013
	Adapter DELTA ADP-65DE BH 65W 3PHY (1.1x3.0x7.7) Brick 19V/3.42A Black	KP.06501.015
BATTERY		
	Battery PANASONIC Typ.41Wh 3550mAh 3S1P AP19B5K 248x84.4x5.5(mm) AP19B 11.55V 55W Polymer	KT.00305.011
	Battery SIMPLO Typ.42Wh 3634mAh 3S1P AP18C7K 248x84.4x5.5(mm) AP18C 11.55V 45W Polymer	KT.00307.010
	Battery LGES Typ.43Wh 3830mAh 3S1P AP19B8K 248x84.4x5.5(mm) AP19B 11.25V 45W Polymer	KT.0030G.022
	Battery LGES Typ.50Wh 4470mAh 3S1P AP18C8K 248x84.4x5.5(mm) AP18C 11.25V 65W Polymer	KT.0030G.020
	Battery CosMx Typ.53Wh 3S1P AP20CBL 248x84.4x5.5(mm) AP20C 11.55V 65W Li-Ion	KT.0030B.002
	Battery PANASONIC Typ.55Wh 3550mAh 4S1P AP19B5L 248x84.4x5.5(mm) AP19B 15.4V 70W Polymer	KT.00405.010
BOARD		
	IO BOARD	55.K3MN2.001

Category	Acer Description	Acer P/N
CABLE		
	FFC CABLE FOR IO BOARD	50.K3MN2.001
	FFC CABLE FOR TOUCHPAD	50.K3MN2.002
	FFC CABLE FOR FINGERPRINT	50.K3LN2.001
	POWER CORD 1M BLACK SOUTH AFRICA - NEW	27.HEEN2.001
	POWER CORD 1M BLACK BLACK AUSTRALIA	27.Q28N2.002
	POWER CORD 1M BLACK EU	27.Q28N2.003
	POWER CORD 1M BLACK EU(New source)	27.Q7DN2.001
	POWER CORD 1M BLACK DENMARK	27.Q28N2.004
	POWER CORD 1M BLACK ISRAEL	27.Q28N2.005
	POWER CORD 1M BLACK ITALIAN	27.Q28N2.006
	POWER CORD 1M BLACK JAPAN	27.Q28N2.007
	POWER CORD 1M BLACK CHINA - NEW	27.HEEN2.002
	POWER CORD 1M BLACK INDIA	27.Q28N2.009
	POWER CORD 1M BLACK SWISS	27.Q28N2.010
	POWER CORD 1M BLACK UK	27.Q28N2.011
	POWER CORD 1M BLACK UK(New source)	27.Q7DN2.002
	POWER CORD 1M BLACK TWN	27.Q28N2.012
	POWER CORD 1M BLACK ARGENTINA - NEW	27.HEEN2.003
	POWER CORD 1M BLACK KOREA	27.Q28N2.014
	POWER CORD 1M BLACK US	27.Q28N2.015
	POWER CORD 1M BLACK US(New source)	27.Q7DN2.003
	POWER CORD 1M BLACK BRAZIL	27.Q28N2.016

Category	Acer Description	Acer P/N
	ANTENNA WLAN MAIN	50.K6WN2.002
	ANTENNA WLAN AUX	50.K6WN2.003
	LCD EDP CABLE	50.K3MN2.005
CAMERA		
	Camera CHICONY HD Camera CNFLH34 GC1009 RTS5855 1L3B059F2(BG) ZTS6735 TNR	KS.0HD06.032
	Camera Tech-Front HD Camera YHVC OV9734 SPCA2112N 1L3B059F1(BG) ZTS6735 TNR	KS.0HD0Q.018
CASE/COVER/BRACKET ASSEMBLY		
	LOWERCASE ASSY - BLACK	60.K6WN2.001
	LOWERCASE ASSY - BLACK FOR SLIM	60.K6SN2.001
	LCD COVER ASSY - SILVER	60.K6WN2.002
	LCD COVER ASSY - MOONSTONE PURPLE	60.K6YN2.001
	LCD COVER ASSY - WILLOW GREEN	60.K6XN2.001
	LCD BEZEL ASSY - BLACK	60.K6WN2.003
	LCD HINGE - L	33.K6WN2.002
	LCD HINGE - R	33.K6WN2.003

Category	Acer Description	Acer P/N
	LCD BRACKET - L	33.K6WN2.004
	LCD BRACKET - R	33.K6WN2.005
FAN		
	FAN	23.K6WN2.001
	FAN FOR SLIM SKU	23.K6SN2.001
HEATSINK		
	THERMAL MODULE - UMA	NC.26111.0CB
HDD		
	Flash Disk MICRON SSD NAND 1024GB Micron 2450 1024GB MTFDKBA1T0TFK-1BC15ABYY LF+HF	KN.01K04.005
	Flash Disk KINGSTON SSD NAND 128GB OM8PDP3128B-AA1 LF+HF	KN.12807.034
	Flash Disk HYNIX SSD NAND 128GB M.2 2280 BC711 HFM128GD3JX016N LF+HF	KN.1280G.007
	Flash Disk KINGSTON SSD NAND 128GB OM8PDP3128B-AA1 LF+HF	KN.12807.034
	Flash Disk HYNIX SSD NAND 128GB M.2 2280 BC711 HFM128GD3JX016N LF+HF	KN.1280G.007
	Flash Disk HYNIX SSD NAND 512GB M.2 2280 BC711 HFM512GD3JX016N LF+HF	KN.5120G.034
	Flash Disk HYNIX SSD NAND 1024GB M.2 2280 BC901 1024G HFS001TEJ9X110N LF+HF	KN.01K0G.004
	Flash Disk APACER SSD NAND 128GB 3D TLC AP128GPB44801-07 LF+HF	KN.12801.003
	Flash Disk KINGSTON SSD NAND 128GB OM8PGP4128Q-AA LF+HF	KN.12807.040
	Flash Disk MICRON SSD NAND 256GB Micron 2550 256GB MTFDKBA256TGE LF+HF	KN.25604.045

Category	Acer Description	Acer P/N
	Flash Disk KINGSTON SSD NAND 256GB OM8PDP3256B-AA1 LF+HF	KN.25607.028
	Flash Disk KINGSTON SSD NAND 256GB OM8SEP4256Q-AA LF+HF	KN.25607.029
	Flash Disk HYNIX SSD NAND 256GB M.2 2280 BC711 HFM256GD3JX016N LF+HF	KN.2560G.030
	Flash Disk MICRON SSD NAND 512GB Micron 2450 512GB MTFDKBA512TFK-1BC15ABYY LF+HF	KN.51204.038
	Flash Disk KINGSTON SSD NAND 512GB OM8PGP4512Q-AA LF+HF	KN.51207.014
	Flash Disk SAMSUNG SSD NAND 512GB M.2 2280 PM991a MZVLQ512HBLU-00B00 FW# FXM7301Q LF+HF	KN.5120B.041
	Flash Disk SAMSUNG SSD NAND 512GB M.2 2280 PM9B1 MZVL4512HBLU-00BTW LF+HF	KN.5120B.043
KEYBOARD ASSEMBLY		
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International acer legend, texture, Power Icon(NK.I1513.1QQ,NK.I1517.0NK,NK.I151S.0EM)	6B.K6WN2.001
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Greek acer legend, texture, Power Icon(NK.I1513.1QJ,NK.I1517.0ND,NK.I151S.0EG)	6B.K6WN2.002
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Arabic acer legend, texture, Power Icon(NK.I1513.1QG,NK.I1517.0NB,NK.I151S.0EE)	6B.K6WN2.003
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Traditional Chinese acer legend, texture, Power Icon(NK.I1513.1QH,NK.I1517.0NC,NK.I151S.0EF)	6B.K6WN2.004
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Russian acer legend, texture, Power Icon(NK.I1513.1QL,NK.I1517.0NF,NK.I151S.0EI)	6B.K6WN2.005

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Hebrew acer legend, texture, Power Icon(NK.I1513.1QR,NK.I1517.0NL,NK.I151S.0EN)	6B.K6WN2.006
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Thailand acer legend, texture, Power Icon(NK.I1513.1QP,NK.I1517.0NJ,NK.I151S.0EL)	6B.K6WN2.007
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Korean acer legend, texture, Power Icon(NK.I1513.1QK,NK.I1517.0NE,NK.I151S.0EH)	6B.K6WN2.008
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Ukrainian acer legend, texture, Power Icon(NK.I1513.1QM,NK.I1517.0NG,NK.I151S.0EJ)	6B.K6WN2.009
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Persian acer legend, texture, Power Icon(NK.I1513.1QN,NK.I1517.0NH,NK.I151S.0EK)	6B.K6WN2.010
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Canadian French acer legend, texture, Power Icon(NK.I1513.1QS,NK.I1517.0NM,NK.I151S.0EO)	6B.K6WN2.011
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Bulgaria acer legend, texture, Power Icon(NK.I1513.1QT,NK.I1517.0NN,NK.I151S.0EP)	6B.K6WN2.012
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black UK acer legend, texture, Power Icon(NK.I1513.1RC,NK.I1517.0P7,NK.I151S.0F8)	6B.K6WN2.013
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black German acer legend, texture, Power Icon(NK.I1513.1R1,NK.I1517.0NW,NK.I151S.0EX)	6B.K6WN2.014

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Swiss/G acer legend, texture, Power Icon(NK.I1513.1RA,NK.I1517.0P5,NK.I151S.0F6)	6B.K6WN2.015
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Belgium acer legend, texture, Power Icon(NK.I1513.1QV,NK.I1517.0NQ,NK.I151S.0ER)	6B.K6WN2.016
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Danish acer legend, texture, Power Icon(NK.I1513.1QY,NK.I1517.0NT,NK.I151S.0EU)	6B.K6WN2.017
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Italian acer legend, texture, Power Icon(NK.I1513.1R3,NK.I1517.0NY,NK.I151S.0EZ)	6B.K6WN2.018
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black French acer legend, texture, Power Icon(NK.I1513.1R0,NK.I1517.0NV,NK.I151S.0EW)	6B.K6WN2.019
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Hungarian acer legend, texture, Power Icon(NK.I1513.1R2,NK.I1517.0NX,NK.I151S.0EY)	6B.K6WN2.020
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Norwegian acer legend, texture, Power Icon(NK.I1513.1R5,NK.I1517.0P0,NK.I151S.0F1)	6B.K6WN2.021
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Portuguese acer legend, texture, Power Icon(NK.I1513.1R6,NK.I1517.0P1,NK.I151S.0F2)	6B.K6WN2.022
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Spanish acer legend, texture, Power Icon(NK.I1513.1R8,NK.I1517.0P3,NK.I151S.0F4)	6B.K6WN2.023
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Turkish acer legend, texture, Power Icon(NK.I1513.1RB,NK.I1517.0P6,NK.I151S.0F7)	6B.K6WN2.024
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Sweden acer legend, texture, Power Icon(NK.I1513.1R9,NK.I1517.0P4,NK.I151S.0F5)	6B.K6WN2.025

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black FR/Arabic acer legend, texture, Power Icon(NK.I1513.1QZ,NK.I1517.0NU,NK.I151S.0EV)	6B.K6WN2.026
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Nordic acer legend, texture, Power Icon(NK.I1513.1R4,NK.I1517.0NZ,NK.I151S.0F0)	6B.K6WN2.027
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black SLO/CRO acer legend, texture, Power Icon(NK.I1513.1R7,NK.I1517.0P2,NK.I151S.0F3)	6B.K6WN2.028
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black CZ/SK acer legend, texture, Power Icon(NK.I1513.1QX,NK.I1517.0NS,NK.I151S.0ET)	6B.K6WN2.029
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Brazilian Portuguese acer legend, texture, Power Icon(NK.I1513.1QW,NK.I1517.0NR,NK.I151S.0ES)	6B.K6WN2.030
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black ALA-Spanish acer legend, texture, Power Icon(NK.I1513.1QU,NK.I1517.0NP,NK.I151S.0EQ)	6B.K6WN2.031
	UPPERCASE ASSY - SILVER W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 103KS Black Japanese acer legend, texture, Power Icon(NK.I1513.1RD,,)	6B.K6WN2.032
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International acer legend, texture, Power Icon(NK.I1513.1QQ,NK.I1517.0NK,NK.I151S.0EM)	6B.K6YN2.001
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Greek acer legend, texture, Power Icon(NK.I1513.1QJ,NK.I1517.0ND,NK.I151S.0EG)	6B.K6YN2.002

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Arabic acer legend, texture, Power Icon(NK.I1513.1QG,NK.I1517.0NB,NK.I151S.0EE)	6B.K6YN2.003
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Traditional Chinese acer legend, texture, Power Icon(NK.I1513.1QH,NK.I1517.0NC,NK.I151S.0EF)	6B.K6YN2.004
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Russian acer legend, texture, Power Icon(NK.I1513.1QL,NK.I1517.0NF,NK.I151S.0EI)	6B.K6YN2.005
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Hebrew acer legend, texture, Power Icon(NK.I1513.1QR,NK.I1517.0NL,NK.I151S.0EN)	6B.K6YN2.006
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Thailand acer legend, texture, Power Icon(NK.I1513.1QP,NK.I1517.0NJ,NK.I151S.0EL)	6B.K6YN2.007
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Korean acer legend, texture, Power Icon(NK.I1513.1QK,NK.I1517.0NE,NK.I151S.0EH)	6B.K6YN2.008
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Ukrainian acer legend, texture, Power Icon(NK.I1513.1QM,NK.I1517.0NG,NK.I151S.0EJ)	6B.K6YN2.009
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Persian acer legend, texture, Power Icon(NK.I1513.1QN,NK.I1517.0NH,NK.I151S.0EK)	6B.K6YN2.010

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Canadian French acer legend, texture, Power Icon(NK.I1513.1QS,NK.I1517.0NM,NK.I151S.0EO)	6B.K6YN2.011
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Bulgaria acer legend, texture, Power Icon(NK.I1513.1QT,NK.I1517.0NN,NK.I151S.0EP)	6B.K6YN2.012
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black UK acer legend, texture, Power Icon(NK.I1513.1RC,NK.I1517.0P7,NK.I151S.0F8)	6B.K6YN2.013
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black German acer legend, texture, Power Icon(NK.I1513.1R1,NK.I1517.0NW,NK.I151S.0EX)	6B.K6YN2.014
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Swiss/G acer legend, texture, Power Icon(NK.I1513.1RA,NK.I1517.0P5,NK.I151S.0F6)	6B.K6YN2.015
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Belgium acer legend, texture, Power Icon(NK.I1513.1QV,NK.I1517.0NQ,NK.I151S.0ER)	6B.K6YN2.016
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Danish acer legend, texture, Power Icon(NK.I1513.1QY,NK.I1517.0NT,NK.I151S.0EU)	6B.K6YN2.017
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Italian acer legend, texture, Power Icon(NK.I1513.1R3,NK.I1517.0NY,NK.I151S.0EZ)	6B.K6YN2.018

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black French acer legend, texture, Power Icon(NK.I1513.1R0,NK.I1517.0NV,NK.I151S.0EW)	6B.K6YN2.019
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Hungarian acer legend, texture, Power Icon(NK.I1513.1R2,NK.I1517.0NX,NK.I151S.0EY)	6B.K6YN2.020
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Norwegian acer legend, texture, Power Icon(NK.I1513.1R5,NK.I1517.0P0,NK.I151S.0F1)	6B.K6YN2.021
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Portuguese acer legend, texture, Power Icon(NK.I1513.1R6,NK.I1517.0P1,NK.I151S.0F2)	6B.K6YN2.022
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Spanish acer legend, texture, Power Icon(NK.I1513.1R8,NK.I1517.0P3,NK.I151S.0F4)	6B.K6YN2.023
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Turkish acer legend, texture, Power Icon(NK.I1513.1RB,NK.I1517.0P6,NK.I151S.0F7)	6B.K6YN2.024
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Sweden acer legend, texture, Power Icon(NK.I1513.1R9,NK.I1517.0P4,NK.I151S.0F5)	6B.K6YN2.025
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black FR/Arabic acer legend, texture, Power Icon(NK.I1513.1QZ,NK.I1517.0NU,NK.I151S.0EV)	6B.K6YN2.026
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Nordic acer legend, texture, Power Icon(NK.I1513.1R4,NK.I1517.0NZ,NK.I151S.0F0)	6B.K6YN2.027

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black SLO/CRO acer legend, texture, Power Icon(NK.I1513.1R7,NK.I1517.0P2,NK.I151S.0F3)	6B.K6YN2.028
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black CZ/SK acer legend, texture, Power Icon(NK.I1513.1QX,NK.I1517.0NS,NK.I151S.0ET)	6B.K6YN2.029
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Brazilian Portuguese acer legend, texture, Power Icon(NK.I1513.1QW,NK.I1517.0NR,NK.I151S.0ES)	6B.K6YN2.030
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black ALA-Spanish acer legend, texture, Power Icon(NK.I1513.1QU,NK.I1517.0NP,NK.I151S.0EQ)	6B.K6YN2.031
	UPPERCASE ASSY - MOONSTONE PURPLE W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 103KS Black Japanese acer legend, texture, Power Icon(NK.I1513.1RD,,)	6B.K6YN2.032
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International acer legend, texture, Power Icon(NK.I1513.1QQ,NK.I1517.0NK,NK.I151S.0EM)	6B.K6XN2.001
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Greek acer legend, texture, Power Icon(NK.I1513.1QJ,NK.I1517.0ND,NK.I151S.0EG)	6B.K6XN2.002
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Arabic acer legend, texture, Power Icon(NK.I1513.1QG,NK.I1517.0NB,NK.I151S.0EE)	6B.K6XN2.003

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Traditional Chinese acer legend, texture, Power Icon(NK.I1513.1QH,NK.I1517.0NC,NK.I151S.0EF)	6B.K6XN2.004
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Russian acer legend, texture, Power Icon(NK.I1513.1QL,NK.I1517.0NF,NK.I151S.0EI)	6B.K6XN2.005
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Hebrew acer legend, texture, Power Icon(NK.I1513.1QR,NK.I1517.0NL,NK.I151S.0EN)	6B.K6XN2.006
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Thailand acer legend, texture, Power Icon(NK.I1513.1QP,NK.I1517.0NJ,NK.I151S.0EL)	6B.K6XN2.007
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Korean acer legend, texture, Power Icon(NK.I1513.1QK,NK.I1517.0NE,NK.I151S.0EH)	6B.K6XN2.008
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Ukrainian acer legend, texture, Power Icon(NK.I1513.1QM,NK.I1517.0NG,NK.I151S.0EJ)	6B.K6XN2.009
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Persian acer legend, texture, Power Icon(NK.I1513.1QN,NK.I1517.0NH,NK.I151S.0EK)	6B.K6XN2.010
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Canadian French acer legend, texture, Power Icon(NK.I1513.1QS,NK.I1517.0NM,NK.I151S.0EO)	6B.K6XN2.011

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Bulgaria acer legend, texture, Power Icon(NK.I1513.1QT,NK.I1517.0NN,NK.I151S.0EP)	6B.K6XN2.012
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black UK acer legend, texture, Power Icon(NK.I1513.1RC,NK.I1517.0P7,NK.I151S.0F8)	6B.K6XN2.013
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black German acer legend, texture, Power Icon(NK.I1513.1R1,NK.I1517.0NW,NK.I151S.0EX)	6B.K6XN2.014
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Swiss/G acer legend, texture, Power Icon(NK.I1513.1RA,NK.I1517.0P5,NK.I151S.0F6)	6B.K6XN2.015
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Belgium acer legend, texture, Power Icon(NK.I1513.1QV,NK.I1517.0NQ,NK.I151S.0ER)	6B.K6XN2.016
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Danish acer legend, texture, Power Icon(NK.I1513.1QY,NK.I1517.0NT,NK.I151S.0EU)	6B.K6XN2.017
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Italian acer legend, texture, Power Icon(NK.I1513.1R3,NK.I1517.0NY,NK.I151S.0EZ)	6B.K6XN2.018
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black French acer legend, texture, Power Icon(NK.I1513.1R0,NK.I1517.0NV,NK.I151S.0EW)	6B.K6XN2.019
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Hungarian acer legend, texture, Power Icon(NK.I1513.1R2,NK.I1517.0NX,NK.I151S.0EY)	6B.K6XN2.020

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Norwegian acer legend, texture, Power Icon(NK.I1513.1R5,NK.I1517.0P0,NK.I151S.0F1)	6B.K6XN2.021
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Portuguese acer legend, texture, Power Icon(NK.I1513.1R6,NK.I1517.0P1,NK.I151S.0F2)	6B.K6XN2.022
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Spanish acer legend, texture, Power Icon(NK.I1513.1R8,NK.I1517.0P3,NK.I151S.0F4)	6B.K6XN2.023
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Turkish acer legend, texture, Power Icon(NK.I1513.1RB,NK.I1517.0P6,NK.I151S.0F7)	6B.K6XN2.024
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Sweden acer legend, texture, Power Icon(NK.I1513.1R9,NK.I1517.0P4,NK.I151S.0F5)	6B.K6XN2.025
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black FR/Arabic acer legend, texture, Power Icon(NK.I1513.1QZ,NK.I1517.0NU,NK.I151S.0EV)	6B.K6XN2.026
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Nordic acer legend, texture, Power Icon(NK.I1513.1R4,NK.I1517.0NZ,NK.I151S.0F0)	6B.K6XN2.027
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black SLO/CRO acer legend, texture, Power Icon(NK.I1513.1R7,NK.I1517.0P2,NK.I151S.0F3)	6B.K6XN2.028
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black CZ/SK acer legend, texture, Power Icon(NK.I1513.1QX,NK.I1517.0NS,NK.I151S.0ET)	6B.K6XN2.029

Category	Acer Description	Acer P/N
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Brazilian Portuguese acer legend, texture, Power Icon(NK.I1513.1QW,NK.I1517.0NR,NK.I151S.0ES)	6B.K6XN2.030
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black ALA-Spanish acer legend, texture, Power Icon(NK.I1513.1QU,NK.I1517.0NP,NK.I151S.0EQ)	6B.K6XN2.031
	UPPERCASE ASSY - WILLOW GREEN W/NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 103KS Black Japanese acer legend, texture, Power Icon(NK.I1513.1RD,,)	6B.K6XN2.032
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International acer legend, texture, Power Icon(NK.I1513.1QQ,NK.I1517.0NK,NK.I151S.0EM)	6B.K6SN2.001
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Greek acer legend, texture, Power Icon(NK.I1513.1QJ,NK.I1517.0ND,NK.I151S.0EG)	6B.K6SN2.002
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Arabic acer legend, texture, Power Icon(NK.I1513.1QG,NK.I1517.0NB,NK.I151S.0EE)	6B.K6SN2.003
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Traditional Chinese acer legend, texture, Power Icon(NK.I1513.1QH,NK.I1517.0NC,NK.I151S.0EF)	6B.K6SN2.004
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Russian acer legend, texture, Power Icon(NK.I1513.1QL,NK.I1517.0NF,NK.I151S.0EI)	6B.K6SN2.005

Category	Acer Description	Acer P/N
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Hebrew acer legend, texture, Power Icon(NK.I1513.1QR,NK.I1517.0NL,NK.I151S.0EN)	6B.K6SN2.006
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Thailand acer legend, texture, Power Icon(NK.I1513.1QP,NK.I1517.0NJ,NK.I151S.0EL)	6B.K6SN2.007
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Korean acer legend, texture, Power Icon(NK.I1513.1QK,NK.I1517.0NE,NK.I151S.0EH)	6B.K6SN2.008
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Ukrainian acer legend, texture, Power Icon(NK.I1513.1QM,NK.I1517.0NG,NK.I151S.0EJ)	6B.K6SN2.009
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black Persian acer legend, texture, Power Icon(NK.I1513.1QN,NK.I1517.0NH,NK.I151S.0EK)	6B.K6SN2.010
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Canadian French acer legend, texture, Power Icon(NK.I1513.1QS,NK.I1517.0NM,NK.I151S.0EO)	6B.K6SN2.011
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 99KS Black US International w/ Bulgaria acer legend, texture, Power Icon(NK.I1513.1QT,NK.I1517.0NN,NK.I151S.0EP)	6B.K6SN2.012
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black UK acer legend, texture, Power Icon(NK.I1513.1RC,NK.I1517.0P7,NK.I151S.0F8)	6B.K6SN2.013

Category	Acer Description	Acer P/N
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black German acer legend, texture, Power Icon(NK.I1513.1R1,NK.I1517.0NW,NK.I151S.0EX)	6B.K6SN2.014
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Swiss/G acer legend, texture, Power Icon(NK.I1513.1RA,NK.I1517.0P5,NK.I151S.0F6)	6B.K6SN2.015
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Belgium acer legend, texture, Power Icon(NK.I1513.1QV,NK.I1517.0NQ,NK.I151S.0ER)	6B.K6SN2.016
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Danish acer legend, texture, Power Icon(NK.I1513.1QY,NK.I1517.0NT,NK.I151S.0EU)	6B.K6SN2.017
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Italian acer legend, texture, Power Icon(NK.I1513.1R3,NK.I1517.0NY,NK.I151S.0EZ)	6B.K6SN2.018
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black French acer legend, texture, Power Icon(NK.I1513.1R0,NK.I1517.0NV,NK.I151S.0EW)	6B.K6SN2.019
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Hungarian acer legend, texture, Power Icon(NK.I1513.1R2,NK.I1517.0NX,NK.I151S.0EY)	6B.K6SN2.020
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Norwegian acer legend, texture, Power Icon(NK.I1513.1R5,NK.I1517.0P0,NK.I151S.0F1)	6B.K6SN2.021
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Portuguese acer legend, texture, Power Icon(NK.I1513.1R6,NK.I1517.0P1,NK.I151S.0F2)	6B.K6SN2.022

Category	Acer Description	Acer P/N
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Spanish acer legend, texture, Power Icon(NK.I1513.1R8,NK.I1517.0P3,NK.I151S.0F4)	6B.K6SN2.023
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Turkish acer legend, texture, Power Icon(NK.I1513.1RB,NK.I1517.0P6,NK.I151S.0F7)	6B.K6SN2.024
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Sweden acer legend, texture, Power Icon(NK.I1513.1R9,NK.I1517.0P4,NK.I151S.0F5)	6B.K6SN2.025
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black FR/Arabic acer legend, texture, Power Icon(NK.I1513.1QZ,NK.I1517.0NU,NK.I151S.0EV)	6B.K6SN2.026
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Nordic acer legend, texture, Power Icon(NK.I1513.1R4,NK.I1517.0NZ,NK.I151S.0F0)	6B.K6SN2.027
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black SLO/CRO acer legend, texture, Power Icon(NK.I1513.1R7,NK.I1517.0P2,NK.I151S.0F3)	6B.K6SN2.028
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black CZ/SK acer legend, texture, Power Icon(NK.I1513.1QX,NK.I1517.0NS,NK.I151S.0ET)	6B.K6SN2.029
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black Brazilian Portuguese acer legend, texture, Power Icon(NK.I1513.1QW,NK.I1517.0NR,NK.I151S.0ES)	6B.K6SN2.030
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 100KS Black ALA-Spanish acer legend, texture, Power Icon(NK.I1513.1QU,NK.I1517.0NP,NK.I151S.0EQ)	6B.K6SN2.031

Category	Acer Description	Acer P/N
	UPPERCASE ASSY FOR UMA SLIM - SILVER W/ NBL Keyboard QV05T_A10B QV05T Internal 15 Standard 103KS Black Japanese acer legend, texture, Power Icon(NK.I1513.1RD,,)	6B.K6SN2.032
LCD PANEL		
	LED LCD Panel LPL 15.6"W FHD None Glare LP156WFH-SPD5 LF 250nit 25ms 700:1 (eDP, Value IPS,narrow, 3.2mm max)	KL.15608.049
	LED LCD Panel CMI 15.6"W FHD None Glare N156HCA-EAB C2 LF 250nit 25ms 700:1 (eDP, value IPS, narrow border, 3.2mm max)	KL.1560D.042
	LED LCD Panel CMI 15.6"W FHD None Glare N156HGA-EA3 C1 LF 220nit 10ms 500:1 (eDP, narrow border, 3.2mm max, value)	KL.1560D.035
	LED LCD Panel BOE 15.6"W FHD None Glare NT156FHM-N61 V8.0 LF 220nit 10ms 500:1 (eDP, narrow border, 3.2mm max, value)	KL.1560E.015
	LED LCD Panel AUO 15.6"W FHD IPS None Glare B156HAN02.1 H/W VA 250nit NTSC 45% 60Hz 25ms 800:1 (Narrow border)	KL.15605.080
	LED LCD Panel AUO 15.6"W FHD TN None Glare B156HTN06.1 H/W 7A 220nit NTSC 45% 60Hz 8ms 400:1 (Narrow border, 3.2t max)	KL.15605.070
MAINBOARD		
	Mainboard A315-44P AMD RYZEN R35300U UMA	
	Mainboard A315-44P AMD RYZEN R55500U UMA	
	Mainboard A315-44P AMD RYZEN R75700U UMA	NB.KSJ11.001
MEMORY		
	Memory HYNIX SO-DIMM DDRIV 3200 16GB HMAA2GS6CJR8N-XN LF+HF 1024*16 RG C-die	KN.16G0G.036
	Memory SAMSUNG SO-DIMM DDRIV 3200 4GB M471A5244BB0-CWE LF+HF D20 B-die	KN.4GB0B.054
	Memory A-DATA SO-DIMM DDRIV 3200 4GB AO1P32NC4U1-BFJS LF+HF 512x16 MIZ11B:E MFR	KN.4GB0C.030
	Memory HYNIX SO-DIMM DDRIV 3200 4GB HMA851S6DJR6N-XN LF+HF 512*16 DA	KN.4GB0G.054

Category	Acer Description	Acer P/N
	Memory MICRON SO-DIMM DDRIV 3200 8GB MTA8ATF1G64HZ-3G2R1 LF+HF 1anm, Z41C	KN.8GB04.057
	Memory SAMSUNG SO-DIMM DDRIV 3200 8GB M471A1K43EB1-CWE LF+HF 1024*8 1znm E-die	KN.8GB0B.067
	Memory HYNIX SO-DIMM DDRIV 3200 8GB HMAA1GS6CJR6N-XN LF+HF 1024*16 RG C-die	KN.8GB0G.073
	Memory A-DATA SO-DIMM DDRIV 3200 4GB AO1P32NC4U1-BIES LF+HF MI-Z41C8, MFR	KN.4GB0C.032
MISCELLANEOUS		
	MIC RUBBER	47.K3MN2.001
	TOUCHPAD CONDUCTIVE TAPE	47.K3MN2.002
	LCD PANEL ADHESIVE	47.K6WN2.001
	LCD ALIGNMENT MYLAR 10x5x0.4mm	47.Q55N2.002
POINT DEVICE		
	TOUCHPAD ASSY SILVER - ELANTECH NC.24611.06Z	56.K6WN2.001
	TOUCHPAD ASSY MOONSTONE PURPLE - ELANTECH NC.24611.06Z	56.K6YN2.001
	TOUCHPAD ASSY WILLOW GREEN - ELANTECH NC.24611.06Z	56.K6XN2.001
	TOUCHPAD ASSY SILVER - SYNAPTICS NC.24611.070	56.K6WN2.002
	TOUCHPAD ASSY MOONSTONE PURPLE - SYNAPTICS NC.24611.070	56.K6YN2.002
	TOUCHPAD ASSY WILLOW GREEN - SYNAPTICS NC.24611.070	56.K6XN2.002
	TOUCHPAD ASSY BLACK W/FINGERPRINT - ELANTECH NC.24611.07D	TBD
SPEAKER		
	SPEAKER - L	23.K6WN2.002
	SPEAKER - R	23.K6WN2.003

Category	Acer Description	Acer P/N
WLAN		
	Wireless LAN MEDIATEK 802.11ax Bluetooth FM MT7921LE WiFi 6 2x2 AX+BT M.2 2230	KE.11X0M.001
	Wireless LAN AMD Wi-Fi 6E BT5.2 MT7922_RZ616 AMD 2x2 M.2 2230 PCIe	KE.WF60A.001
	Wireless LAN AZUREWAVE Wi-Fi 6E BT5.2 MT7902_AW-XB552NF Mediatek 1x1 M.2 2230 PCIe	KE.WF60Z.001

Screw List

Table 6-5. Screw List

CATEGORY	Description	Part No.
SCREWS		
	SCREW 2.0D 2.5L K 5D 0.5T NI NL	86.H14N2.001
	SCREW 2.5D 2.5L K 8D 0.6T ZK NL	86.H14N2.002
	SCREW 2.5D 6.0L K 4.6D NI NL	86.H14N2.003
	SCREW M M 2.0D 4.0L K 4.6D BNI NL	86.Q99N2.001
	SCREW 2D 2.3L K 7D 0.5T ZK NL	86.A1DN2.001
	SCREW 2.5D 6L K 4.6D ZK NL	86.GD0N2.007

CHAPTER 7

Test Compatible Components

Test Compatible Components 7-2

Microsoft® Windows® 10 Environment Test 7-2

Aspire 3 A315-44 7-2

Test Compatible Components

This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Windows® 10 environment.

Refer to the following lists for components, adapter cards, and peripherals which have passed these tests. Regarding configuration, combination and test procedures, please refer to the Aspire 3 A315-44 Compatibility Test Report released by the Acer Mobile System Testing Department.

Microsoft® Windows® 10 Environment Test

Aspire 3 A315-44

Table 7-1. Aspire 3 A315-44

Vendor	Type	Description	Part No.
A COVER			
10001012 COMPAL	Moonstone Purple 15 PC+ABS Painting	Compal A cover Moonstone Purple 15 PC+ABS Painting	NC.21011.1A9
10001012 COMPAL	Pure Silver 15 PC+ABS Painting	Compal A cover Pure Silver 15 PC+ABS Painting	NC.21011.11T
10001012 COMPAL	Willow Green 15 PC+ABS Painting	Compal A cover Willow Green 15 PC+ABS Painting	NC.21011.1A8
ACCESSORY			
10001012 COMPAL	Callisto HDD upgrade kit	Callisto HDD upgrade kit	NC.23811.0AB
60019190 NEWTECH	Webcam Cover (NB, Black)	Acer Webcam Cover Webcam Cover AWC110 for NB, Black (2in1, Retail Pack)	NC.23811.09M
ADAPTER			
60035715 DELTA-SINGAPORE	65W_3phy	Adapter DELTA ADP-65DE BA 65W 3PHY (1.1x3.0x7.7) Brick 19V/3.42A Black	KP.06501.012
60036752 LITE-ON SINGAPORE	65W_3phy	Adapter LITE-ON PA-1650-50A3 65W 3PHY (1.1x3.0x7.7) Brick 19V/3.42A Black	KP.06503.018

Vendor	Type	Description	Part No.
60016453 CHICONY POWER	65W_3phy	Adapter Chicony Power A065R178P 65W 3PHY (1.1x3.0x7.7) Brick 19V/ 3.42A Black	KP.0650H.013
60035715 DELTA-SINGAPORE	65W_3phy INDIA BLACK	Adapter DELTA ADP-65DE BH 65W 3PHY (1.1x3.0x7.7) Brick 19V/3.42A Black	KP.06501.015
AUDIO CODEC			
10004786 REALTEK	Realtek ALC256M-CG (HDA)_G4 -C	Realtek ALC256M-CG (HDA)_G4 -C	NC.21011.19V
B COVER			
10001012 COMPAL	Shale Black 15 PC+ABS Texture w/ Camera	Compal B cover Shale Black 15 PC+ABS Texture w/ Camera	NC.21011.0B8
BATTERY			
60001535 PANASONIC	3CELL3.55	Battery PANASONIC Typ.41Wh 3550mAh 3S1P AP19B5K 248x84.4x5.5(mm) AP19B 11.55V 55W Polymer	KT.00305.011
60002162 SIMPLO	3CELL3.63	Battery SIMPLO Typ.42Wh 3634mAh 3S1P AP18C7K 248x84.4x5.5(mm) AP18C 11.55V 45W Polymer	KT.00307.010
60070657 LG ENERGY	3CELL3.83	Battery LGES Typ.43Wh 3830mAh 3S1P AP19B8K 248x84.4x5.5(mm) AP19B 11.25V 45W Polymer	KT.0030G.022
60070657 LG ENERGY	3CELL4.2	Battery LGES Typ.50Wh 4470mAh 3S1P AP18C8K 248x84.4x5.5(mm) AP18C 11.25V 65W Polymer	KT.0030G.020
60069689 COSMX BATTERY	3CELL4.59	Battery CosMx Typ.53Wh 3S1P AP20CBL 248x84.4x5.5(mm) AP20C 11.55V 65W Li-Ion	KT.0030B.002
10000981 MISC (END USER)	40Wh_150300	Battery 40Wh_150300 Dummy	KT.DUM00.031
60001535 PANASONIC	4CELL3.55	Battery PANASONIC Typ.55Wh 3550mAh 4S1P AP19B5L 248x84.4x5.5(mm) AP19B 15.4V 70W Polymer	KT.00405.010
10000981 MISC (END USER)	50Wh_150300	Battery 50Wh_150300 Dummy	KT.DUM00.033

Vendor	Type	Description	Part No.
C COVER			
10001012 COMPAL	Moonstone Purple 15 PC+ABS Painting	Compal C cover Moonstone Purple 15 PC+ABS Painting	NC.21011.1AB
10001012 COMPAL	Pure Silver 15 PC+ABS Painting	Compal C cover Pure Silver 15 PC+ABS Painting	NC.21011.0V3
10001012 COMPAL	Willow Green 15 PC+ABS Painting	Compal C cover Willow Green 15 PC+ABS Painting	NC.21011.1AA
CAMERA			
10256402 CHICONY	HDFF_U_W_ M2R0_3.2T01 TN	Camera CHICONY HD Camera CNFLH34 GC1009 RTS5855 1L3B059F2(BG) ZTS6735 TNR	KS.0HD06.032
10174742 TECH-FRONT(CQ)	HDFF_U_W_ M2R0_3.2T01 TN	Camera Tech-Front HD Camera YHVC OV9734 SPCA2112N 1L3B059F1(BG) ZTS6735 TNR	KS.0HD0Q.018
CPU			
60002168 AMD	R35300U	CPU(BGA) AMD RYZEN 3 5300U FP6 3.8 GHz 2M Lucienne 100-000000376	KC.R3002.530
60002168 AMD	R55500U	CPU(BGA) AMD RYZEN 5 5500U FP6 4.0 GHz 3M Lucienne 100-000000375	KC.R5002.550
60002168 AMD	R75700U	CPU(BGA) AMD RYZEN 7 5700U FP6 4.3 GHz 4M Lucienne 100-000000371	KC.R7002.570
D COVER			
10001012 COMPAL	Moonstone Purple 15 PC+ABS Painting S	Compal D cover Moonstone Purple 15 PC+ABS Painting S	NC.21011.1AF
10001012 COMPAL	Pure Silver 15 PC+ABS Painting S	Compal D cover Pure Silver 15 PC+ABS Painting S	NC.21011.1AD
10001012 COMPAL	Shale Black 15 PC+ABS Texture	Compal D cover Shale Black 15 PC+ABS Texture	NC.21011.0BA
10001012 COMPAL	Shale Black 15 PC+ABS Texture S	Compal D cover Shale Black 15 PC+ABS Texture S	NC.21011.1AC
10001012 COMPAL	Willow Green 15 PC+ABS Painting S	Compal D cover Willow Green 15 PC+ABS Painting S	NC.21011.1AE

Vendor	Type	Description	Part No.
DIGITAL MICROPHONE			
10000981 MISC (END USER)	Digital Mic	Dual Digital Mic (Built on Camera Module)	NC.26711.001
FINGERPRINT			
10000981 MISC	FP on Touchpad	MISC FP on Touchpad	NC.22011.001
HDD			
60002050 MICRON SG	F801024PM4	Flash Disk MICRON SSD NAND 1024GB Micron 2450 1024GB MTFDKBA1T0TFK-1BC15ABYY LF+HF	KN.01K04.005
60040600 KINGSTON	F80128PM	Flash Disk KINGSTON SSD NAND 128GB OM8PDP3128B-AA1 LF+HF	KN.12807.034
60002045 SK HYNIX	F80128PM	Flash Disk HYNIX SSD NAND 128GB M.2 2280 BC711 HFM128GD3JX016N LF+HF	KN.1280G.007
60040600 KINGSTON	F80256PM	Flash Disk KINGSTON SSD NAND 256GB OM8PDP3256B-AA1 LF+HF	KN.25607.028
60002045 SK HYNIX	F80256PM	Flash Disk HYNIX SSD NAND 256GB M.2 2280 BC711 HFM256GD3JX016N LF+HF	KN.2560G.030
60002045 SK HYNIX	F801024PM4	Flash Disk HYNIX SSD NAND 1024GB M.2 2280 BC901 1024G HFS001TEJ9X110N LF+HF	KN.01K0G.004
10000119 AMT	F80128PM	Flash Disk APACER SSD NAND 128GB 3D TLC AP128GPB44801-07 LF+HF	KN.12801.003
60040600 KINGSTON	F80128PM	Flash Disk KINGSTON SSD NAND 128GB OM8PGP4128Q-AA LF+HF	KN.12807.040
60002050 MICRON SG	F80256PM4	Flash Disk MICRON SSD NAND 256GB Micron 2550 256GB MTFDKBA256TGE LF+HF	KN.25604.045
60040600 KINGSTON	F80256PM4	Flash Disk KINGSTON SSD NAND 256GB OM8SEP4256Q-AA LF+HF	KN.25607.029
60002050 MICRON SG	F80512PM4	Flash Disk MICRON SSD NAND 512GB Micron 2450 512GB MTFDKBA512TFK-1BC15ABYY LF+HF	KN.51204.038
60040600 KINGSTON	F80512PM4	Flash Disk KINGSTON SSD NAND 512GB OM8PGP4512Q-AA LF+HF	KN.51207.014

Vendor	Type	Description	Part No.
60002215 SAMSUNG	F80512PM4	Flash Disk SAMSUNG SSD NAND 512GB M.2 2280 PM9B1 MZVL4512HBLU-00BTW LF+HF	KN.5120B.043
HDD 2			
60040600 KINGSTON	F80128PM	Flash Disk KINGSTON SSD NAND 128GB OM8PDP3128B-AA1 LF+HF	KN.12807.034
60002045 SK HYNIX	F80128PM	Flash Disk HYNIX SSD NAND 128GB M.2 2280 BC711 HFM128GD3JX016N LF+HF	KN.1280G.007
60002045 SK HYNIX	F80512PM	Flash Disk HYNIX SSD NAND 512GB M.2 2280 BC711 HFM512GD3JX016N LF+HF	KN.5120G.034
60040600 KINGSTON	F80256PM	Flash Disk KINGSTON SSD NAND 256GB OM8PDP3256B-AA1 LF+HF	KN.25607.028
60002045 SK HYNIX	F80256PM	Flash Disk HYNIX SSD NAND 256GB M.2 2280 BC711 HFM256GD3JX016N LF+HF	KN.2560G.030
KEYBOARD			
10001044 CHICONY	QV05P_A10B WL	Phantom KB CHICONY QV05P_A10BWL QV05P Internal 15 Standard Black Acer legend White BL, indicator LED, Power ICON	NK.I1513.1NH
60004864 DARFON	QV05P_A10B WL	Phantom KB DARFON QV05P_A10BWL QV05P Internal 15 Standard Black Acer legend White BL, indicator LED, Power ICON	NK.I1517.0MB
60052236 SUNREX	QV05P_A10B WL	Phantom KB SUNREX QV05P_A10BWL QV05P Internal 15 Standard Black Acer legend White BL, indicator LED, Power ICON	NK.I151S.0DD
10001044 CHICONY	QV05T_A10B	Phantom KB CHICONY QV05T_A10B QV05T Internal 15 Standard Black acer legend, texture, Power Icon	NK.I1513.1NJ
60004864 DARFON	QV05T_A10B	Phantom KB DARFON QV05T_A10B QV05T Internal 15 Standard Black acer legend, texture, Power Icon	NK.I1517.0MC
60052236 SUNREX	QV05T_A10B	Phantom KB SUNREX QV05T_A10B QV05T Internal 15 Standard Black acer legend, texture, Power Icon	NK.I151S.0DE
LAN			
PLM00014 ODM	Non AVAP Lan	None AVAP Lan	NA.22411.00B

Vendor	Type	Description	Part No.
LCD			
60003089 LG	N15.6FHDSU PILB	LED LCD Panel LPL 15.6"W FHD None Glare LP156WFH-SPD5 LF 250nit 25ms 700:1 (eDP, Value IPS,narrow, 3.2mm max)	KL.15608.049
60031663 CMI STSP BRANCH	N15.6FHDSU PILB	LED LCD Panel CMI 15.6"W FHD None Glare N156HCA-EAB C2 LF 250nit 25ms 700:1 (eDP, value IPS, narrow border, 3.2mm max)	KL.1560D.042
10001022 INNOLUX	N15.6FHDSU PLB	LED LCD Panel CMI 15.6"W FHD None Glare N156HGA-EA3 C1 LF 220nit 10ms 500:1 (eDP, narrow border, 3.2mm max, value)	KL.1560D.035
60038572 BOE(HK)	N15.6FHDSU PLB	LED LCD Panel BOE 15.6"W FHD None Glare NT156FHM-N61 V8.0 LF 220nit 10ms 500:1 (eDP, narrow border, 3.2mm max, value)	KL.1560E.015
10001012 COMPAL	60003316 AUO	LED LCD Panel AUO 15.6"W FHD IPS None Glare B156HAN02.1 H/W VA 250nit NTSC 45% 60Hz 25ms 800:1 (Narrow border)	KL.15605.080
10001012 COMPAL	60003316 AUO	LED LCD Panel AUO 15.6"W FHD TN None Glare B156HTN06.1 H/W 7A 220nit NTSC 45% 60Hz 8ms 400:1 (Narrow border, 3.2t max)	KL.15605.070
MEMORY			
10000981 MISC (END USER)	SO16GBIV	Memory SO-DIMM DDRIV 16GB Dummy LF+HF Dummy	KN.16G00.002
60002045 SK HYNIX	SO16GBIV	Memory HYNIX SO-DIMM DDRIV 3200 16GB HMAA2GS6CJR8N-XN LF+HF 1024*16 RG C-die	KN.16G0G.036
10000981 MISC (END USER)	SO4GBIV	Memory SO-DIMM DDRIV 4GB Dummy LF+HF Dummy	KN.4GB00.019
60002215 SAMSUNG	SO4GBIV	Memory SAMSUNG SO-DIMM DDRIV 3200 4GB M471A5244BB0-CWE LF+HF D20 B-die	KN.4GB0B.054
60001955 A-DATA	SO4GBIV	Memory A-DATA SO-DIMM DDRIV 3200 4GB AO1P32NC4U1-BFJS LF+HF 512x16 MIZ11B:E MFR	KN.4GB0C.030
60002045 SK HYNIX	SO4GBIV	Memory HYNIX SO-DIMM DDRIV 3200 4GB HMA851S6DJR6N-XN LF+HF 512*16 DA	KN.4GB0G.054

Vendor	Type	Description	Part No.
60001955 A-DATA	SO4GBIV	Memory A-DATA SO-DIMM DDRIV 3200 4GB AO1P32NC4U1-BIES LF+HF MI-Z41C8, MFR	KN.4GB0C.032
10000981 MISC (END USER)	SO8GBIV	Memory SO-DIMM DDRIV 8GB Dummy LF+HF Dummy	KN.8GB00.010
60002050 MICRON SG	SO8GBIV	Memory MICRON SO-DIMM DDRIV 3200 8GB MTA8ATF1G64HZ-3G2R1 LF+HF 1anm, Z41C	KN.8GB04.057
60002215 SAMSUNG	SO8GBIV	Memory SAMSUNG SO-DIMM DDRIV 3200 8GB M471A1K43EB1-CWE LF+HF 1024*8 1znm E-die	KN.8GB0B.067
60002045 SK HYNIX	SO8GBIV	Memory HYNIX SO-DIMM DDRIV 3200 8GB HMAA1GS6CJR6N-XN LF+HF 1024*16 RG C-die	KN.8GB0G.073
NB CHIPSET			
10000981 MISC	none NB Chipset	NB Chipset none NB Chipset without NB Chipset	KI.22600.054
PACKAGING			
10001071 GOLDEN ARROW	2022-Brown Box	2022 Brown Box GA Rev 1.0	NC.25811.121
SPEAKER			
10000981 MISC (END USER)	Speaker	Stereo Speaker	NC.24211.002
THERMAL			
10358242 AURAS TECH.	Y22-A315-Lucienne-U-UMA-01 + Y21-7070T65-P1	AURAS Y22-A315-Lucienne-U-UMA-01 + Y21-7070T65-P1	NC.26111.0CB
TOUCHPAD			
60040786 ELANTECH	CP5rWIP3M	Elantec Touchpad CP5rWIP3M PTP SC577C-1200 125x76.7mm PCB (Moisture+MSB)	NC.24611.06Z
60040547 SYNAPTICS	CP5rWIP3M	Synaptics Touchpad CP5rWIP3M PTP TM-P3761-001 125x76.7mm PCB (Moisture+MSB)	NC.24611.070
60040786 ELANTECH	SP5rWIP3M	Elantec Touchpad SP5rWIP3M SecureIDPad FC6780-2201 IC Black, Mylar Black Moisture	NC.24611.07D

Vendor	Type	Description	Part No.
WIFI ANTENNA			
60057854 GALTRONICS	PIFA 2019 Galtronics	Galtronics PIFA Antenna Galtronic PIFACommon Type 2019	NC.23511.00U
WIRELESS LAN			
10000105 WNC	2x2 AC+BT	Wireless LAN Bluetooth 2x2 AC Dummy	KE.11D0N.001
10000981 MISC (END USER)	2x2 AX+BT 6E	Wireless LAN Wi-Fi 6E 2x2 AX 6E 2x2 Dummy	KE.WF60N.011
10001023 LITE-ON	3rd WiFi 6 2x2 AX+BT M.2 2230	Wireless LAN MEDIATEK 802.11ax Bluetooth FM MT7921LE WiFi 6 2x2 AX+BT M.2 2230	KE.11X0M.001
60064885 CNTS	WIFI 6E 2X2 BT AMD PCIe	Wireless LAN AMD Wi-Fi 6E BT5.2 MT7922_RZ616 AMD 2x2 M.2 2230 PCIe	KE.WF60A.001
60014201 AZURE WAVE	WIFI 6E 1X1 BT AzureWave PCIe MT7902	Wireless LAN AZUREWAVE Wi-Fi 6E BT5.2 MT7902_AW-XB552NF Mediatek 1x1 M.2 2230 PCIe	KE.WF60Z.001

CHAPTER 8

Online Support Information

Online Support Information 8-2

Introduction 8-2

Online Support Information

Introduction

This section describes online technical support services available to help users repair their Acer Systems.

For distributors, dealers, ASP or TPM, please refer the technical queries to a local Acer branch office. Acer Branch Offices and Regional Business Units may access our website. However some information sources will require a user i.d. and password. These can be obtained directly from Acer CSD Taiwan.

Acer's Website offers convenient and valuable support resources.

In the Technical Information section users can download information on all of Acer's Notebook, Desktop and Server models including:

- Service guides for all models
- Bios updates
- Software utilities
- Spare parts lists
- TABs (Technical Announcement Bulletin)

For these purposes, we have included an Acrobat File to facilitate the problem-free downloading of our technical materials.

Also contained on this website are:

- Detailed information on Acer's International Traveler's Warranty (ITW)
- Returned material authorization procedures
- An overview of all the support services we offer, accompanied by a list of telephone, fax and email contacts for all your technical queries.

We are always looking for ways to optimize and improve our services, do not hesitate to direct any suggestions or comments to us.