

TravelMate P214-52/P214-52G

# RECYCLE GUIDE

## Revision History

Refer to the table below for the updates made to this service guide.

Date	Version	Chapter	Updates
11-01-2019	V 1.00		
11-05-2019	V 1.01		Update the screw list
11-19-2019	V 1.02		Update the screw list

Service guide files and updates are available on the ACER/CSD Website. For more information, go to <http://csd.acer.com.tw>. The information in this guide is subject to change without notice.

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## Disclaimer

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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.

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 angle brackets (< >).

Example:

At the prompt, type run **<file name> -m**

- Keyboard keys are shown in ***bold italics***.

Example:

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

# General Information

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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, the regional office may have decided to extend the functionality of a machine (such as add-on cards, modems, or extra memory capabilities). These localized features are not covered in this generic service guide. In such cases, contact the regional offices or the responsible personnel/channel to provide further technical details.

When ordering FRU parts: Check the most up-to-date information available on the Website. If, for whatever reason, a part number change is made, it may not be noted in this printed service guide.

Acer-authorized Service Providers: The Acer office may have a different part number code than those given in the FRU list in this service guide. A list must be provided by the regional Acer office to order FRU parts for repair and service of customer machines.

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# Machine Maintenance Procedures

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## Introduction

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

## General Information

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The product previews seen in the following procedures may not represent the final product color or configuration. Cable paths and positioning may also differ from the actual model. During the removal and installation of components, make sure all available cable channels and clips are used and that the cables are installed in the same position.

All prerequisites must be completed prior to starting maintenance.

## Recommended Equipment

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The following equipment are recommended to do the following maintenance procedures:

- Wrist grounding strap and conductive mat
- Philips screwdriver
- Plastic tweezers
- Flat plastic pry

# Pre-disassembly Instructions

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Do the following prior to starting any maintenance procedures:

1. Place the system on a stable work surface.
2. Remove AC adapter (A) from the system and peripherals ([Figure 1-1](#)).
3. Remove all cables from system.



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**Figure 1-1. AC Adapter Outlet**

4. Remove the SD card from the SD card slot (B) ([Figure 1-2](#)).



---

**Figure 1-2. SD Card Removal**

**⇒ NOTE:**

Make sure the system is completely powered off.



# Disassembly Process

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The disassembly process is divided into the following sections:

- Main unit disassembly
- LCD module disassembly

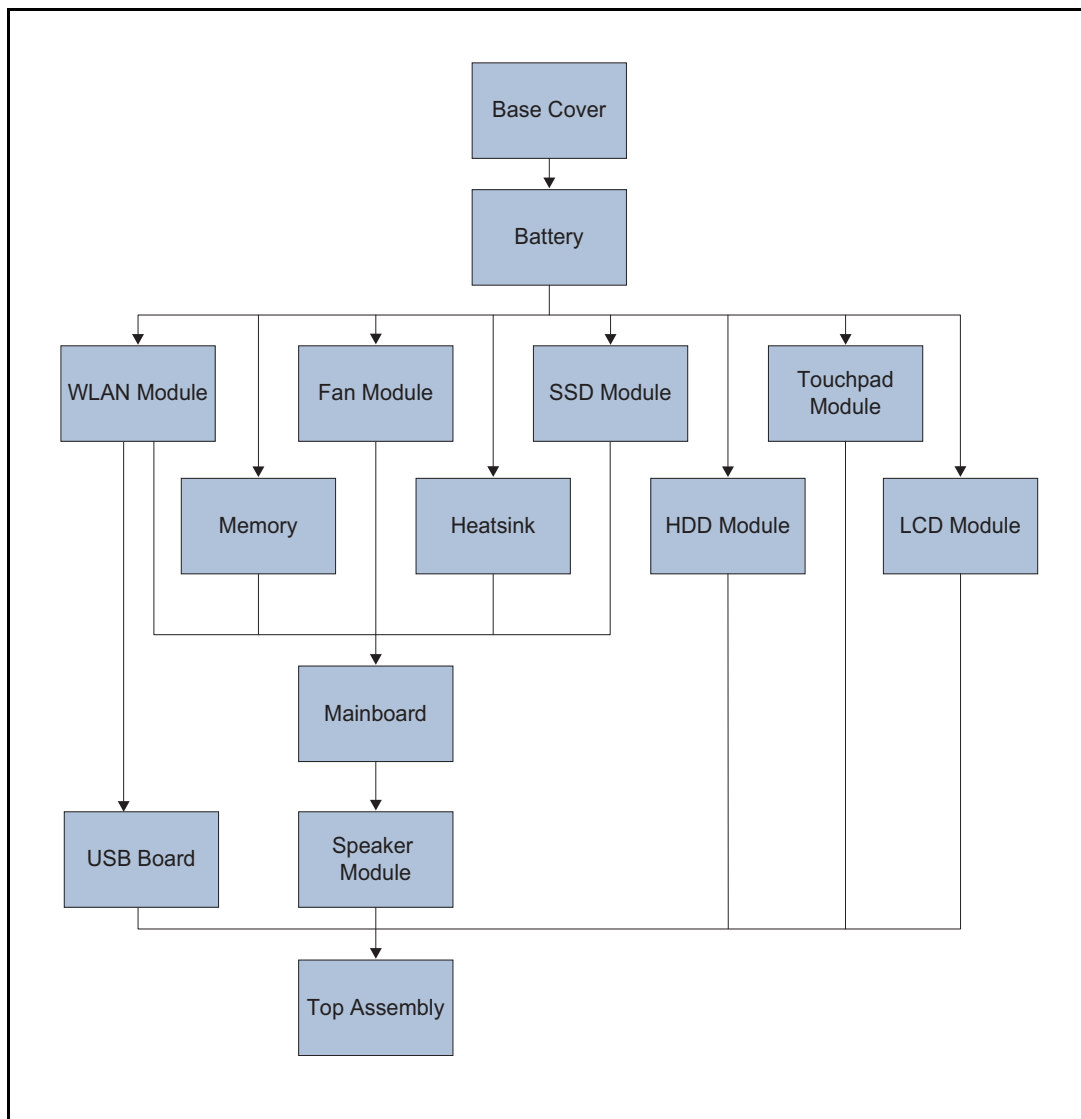
The flowcharts provided in the succeeding disassembly sections illustrate the entire disassembly sequence. Observe the order of the sequence to avoid damage to any of the hardware components. For example, when removing the heatsink, remove first the base cover, battery, and fan module in that order.

**Table 3-1. Main Screw List**

Size	Quantity	Acer Part No.
SCREW M2.5*4.0-I(NI)(NYLOK)IRON	12	86.RYYN7.001
SCREW M2.5*2.5-I(BNI)(NYLOK)T=0.6	8	86.SHXN7.003
SCREW M3*0.5+3.5I	4	86.TDY07.003
M2.5*5.2	12	
SCREW M2.0*3.0-I(BZN)(NYLOK)IRON	14	86.GDEN7.001

# Main Unit Disassembly Process

## Main Unit Disassembly Flowchart



**Table 3-2. Main Unit Screw List**

Step	Size	Quantity	Acer Part No.
Base Cover Removal	M2.5 x 5.2	12	
WLAN Module Removal	M2.0 x 3.0	1	86.GDEN7.001
Fan Module Removal	M2.5 x 4.0	2	86.RYYN7.001
Heatsink Removal	M2.0 x 3.0	3	86.GDEN7.001
SSD Module Removal	M2.0 x 3.0	1	86.GDEN7.001

Step	Size	Quantity	Acer Part No.
HDD Module Removal	M2.5 x 4.0	4	86.RYYN7.001
	M3.0 x 3.5	4	86.TDY07.003
Touchpad Module Removal	M2.0 x 3.0	2	86.GDEN7.001
LCD Module Removal	M2.5 x 4.0	4	86.RYYN7.001
Mainboard Removal	M2.0 x 3.0	7	86.GDEN7.001
USB Board Removal	M2.5 x 4.0	2	86.RYYN7.001

⇒ **NOTE:**

The keyboard is included as part of the top assembly and can not be disassembled. In the event that the keyboard is damaged, replace the entire top assembly.

## Base Cover Removal

---

1. Remove twelve (12) screws from the base cover (Figure 1-3).



---

**Figure 1-3. Base Cover Removal**

2. Carefully pry up the base cover starting from the upper side near the LCD hinges to release the latches. Then continue releasing the remaining latches on the left and right sides (Figure 1-4).




---

**Figure 1-4. Base Cover Removal**

3. Grasp and remove the base cover from the system (Figure 1-5).



Figure 1-5. Base Cover Removal

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*5.2	3.0±15% kgf/cm	12	

# Battery Pack Removal

---

## Prerequisite:

### Base Cover Removal

1. Find the battery pack (A) in the system (Figure 1-6).
2. Detach the adhesive tape (B) from the battery cable connector (Figure 1-6).

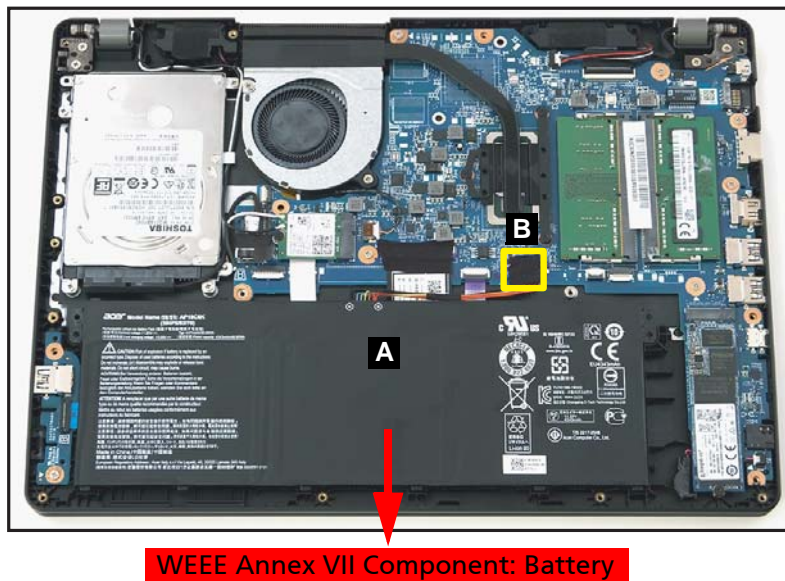


Figure 1-6. Battery Pack Removal

3. Disconnect the battery cable from the mainboard connector (C) (Figure 1-7).



Figure 1-7. Battery Pack Removal

4. Remove the battery pack from the system (Figure 1-8).



**Figure 1-8. Battery Pack Removal**

- + **IMPORTANT:**  
Follow local regulations for battery disposal.

# WLAN (Wireless Local Area Network) Module Removal

---

## Prerequisite:

### Battery Pack Removal

1. Find the WLAN module (A) on the top assembly (Figure 1-9).



---

**Figure 1-9. WLAN Module Location**

2. Disconnect the AUX antenna (white-color) from the WLAN AUX pin (Figure 1-10).
3. Disconnect the MAIN antenna (black-color) from the WLAN MAIN pin (Figure 1-10).
4. Unroute the WLAN antenna cables from the guides on the top assembly (Figure 1-10).



- Remove one (1) screw securing the WLAN module in place (Figure 1-10).

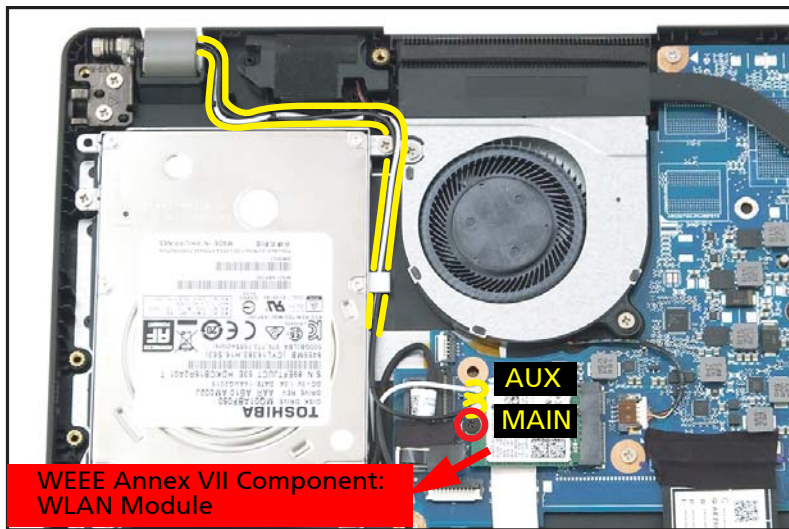


Figure 1-10. WLAN Module Removal

- Remove the WLAN module from the mainboard connector (B) (Figure 1-11).

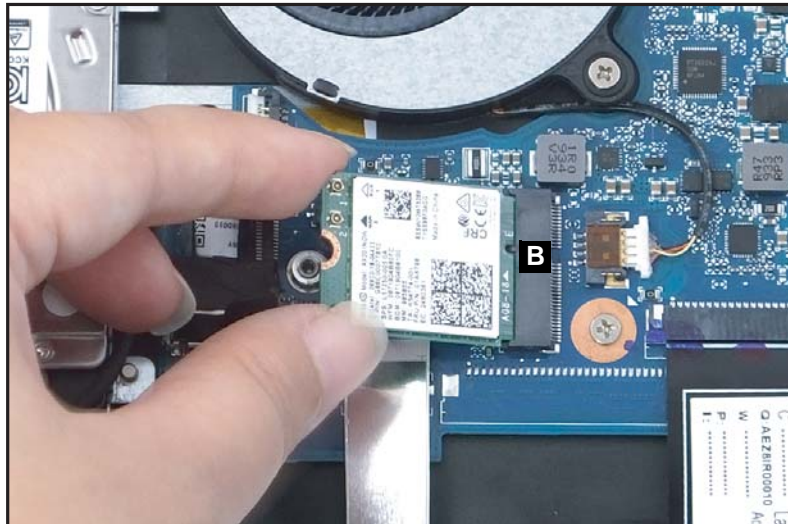



Figure 1-11. WLAN Module Removal

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.0*3.0	2.0±10% kgf/cm	1	

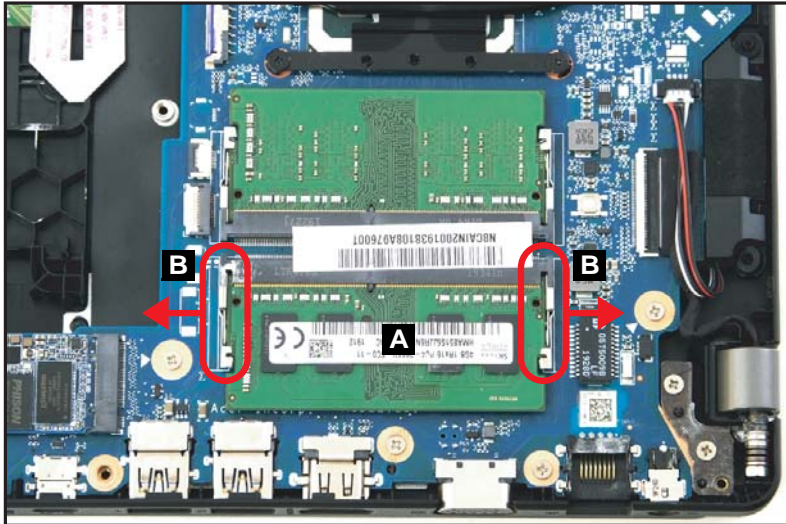
# DIMM (Dual In-line Memory Module) Removal

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## Prerequisite:

### Battery Pack Removal

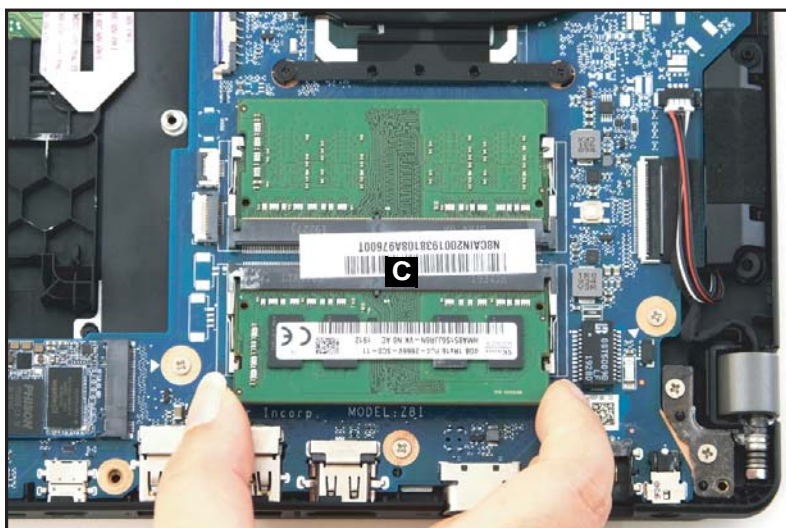
1. Find the DIMM module (A) in the system (Figure 1-12).
2. Push the DIMM module clips (B) outwards (Figure 1-12).



---

Figure 1-12. DIMM Module Removal

3. Remove the DIMM module from the mainboard connector (C) (Figure 1-13).



**Figure 1-13. DIMM Module Removal**

4. Repeat steps 2 and 3 for an additional DIMM module (if necessary).

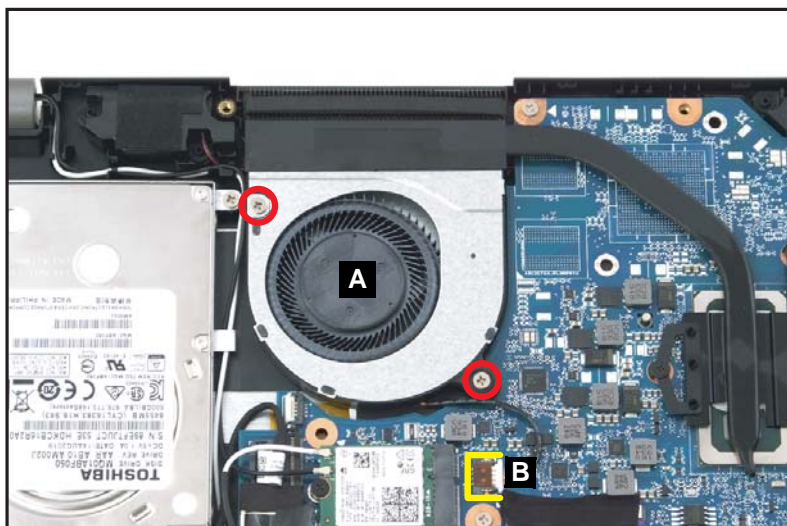
# Fan Module Removal

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## Prerequisite:

### Battery Pack Removal

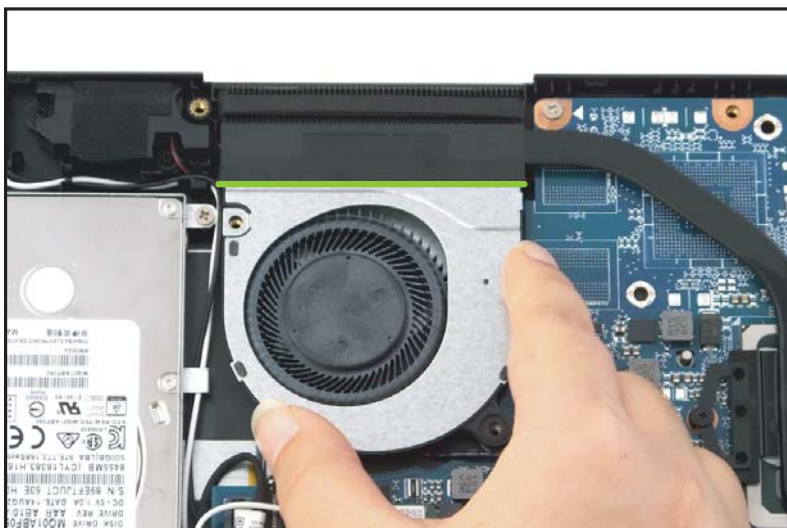
1. Find the fan module (A) on the top assembly (Figure 1-14).
2. Disconnect the fan cable from the mainboard connector (B) (Figure 1-14).
3. Remove two (2) screws securing the fan module in place (Figure 1-14).



---


**Figure 1-14. Fan Module Removal**

4. Remove the fan module from the top assembly (Figure 1-15).



---

**Figure 1-15. Fan Module Removal**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*4.0	3.0±15% kgf/cm	2	



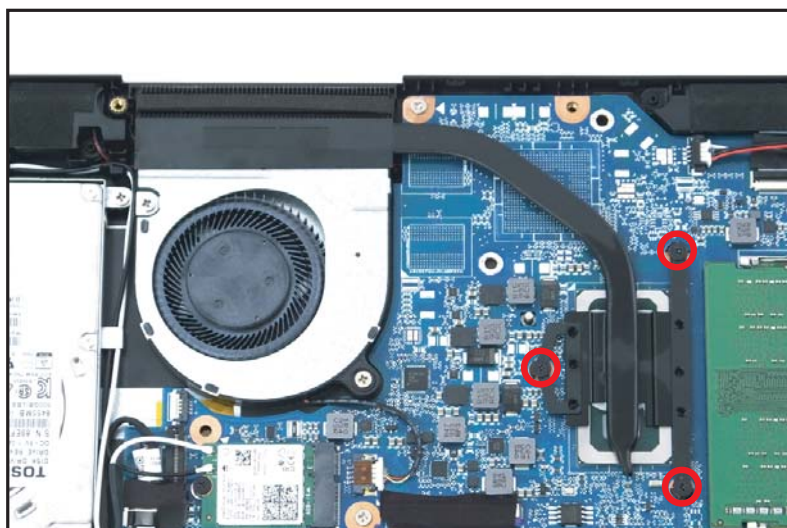
# Heatsink Removal

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## Prerequisite:

[Battery Pack Removal](#)

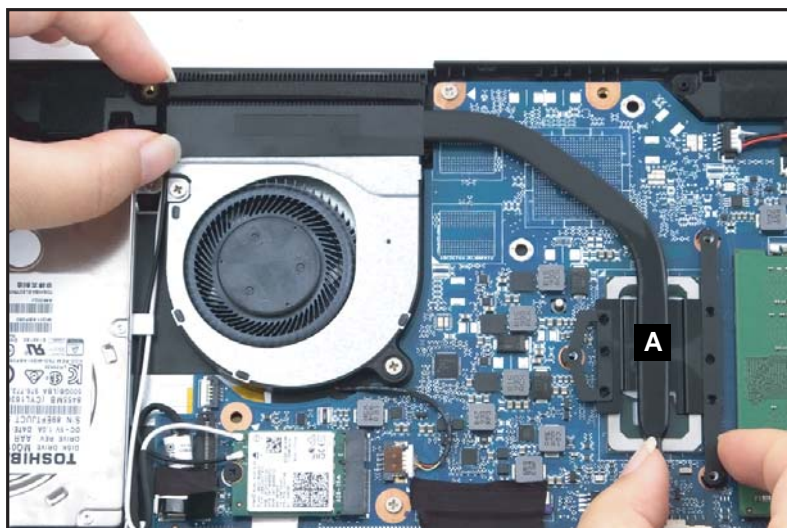
1. Remove three (3) screws securing the CPU heatsink in place ([Figure 1-16](#)).



---


**Figure 1-16. Heatsink Removal**

2. Remove the heatsink (A) from the mainboard ([Figure 1-17](#)).



---

**Figure 1-17. Heatsink Removal**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.0*3.0	2.0±10% kgf/cm	3	

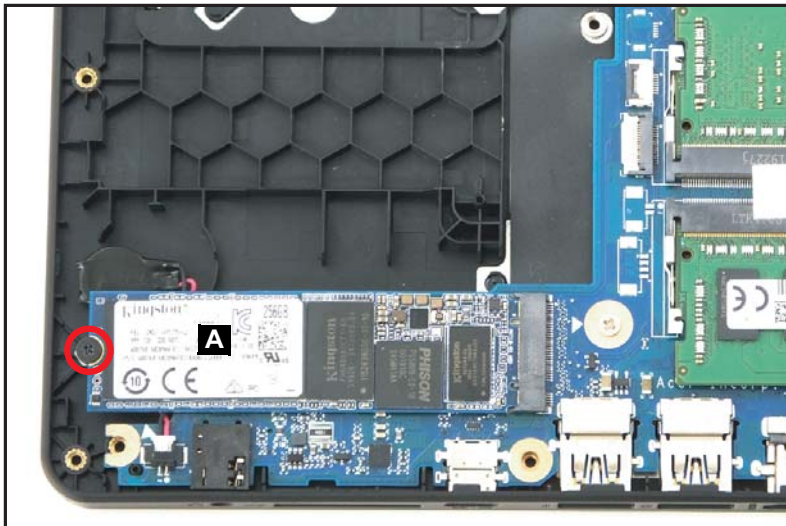
# SSD (Solid State Drive) Module Removal

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## Prerequisite:

### Battery Pack Removal

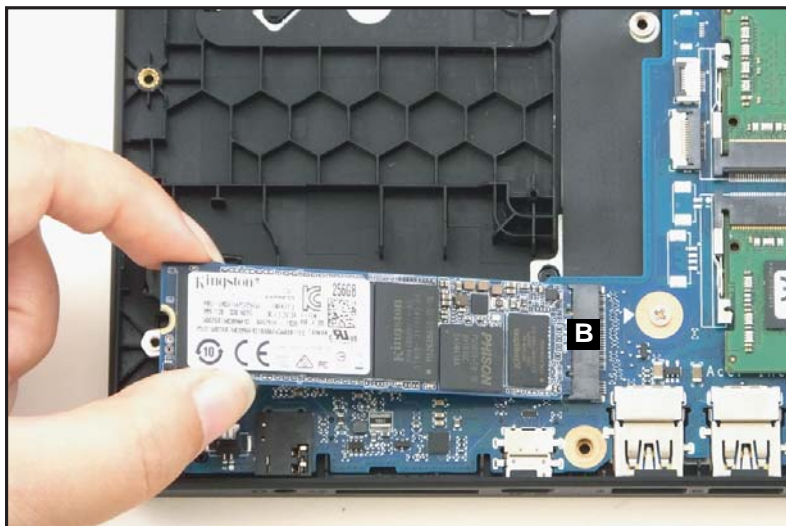
1. Remove one (1) screw securing the SSD module (A) in place (Figure 1-18).



---

Figure 1-18. SSD Module Removal


2. Remove the SSD module from the mainboard connector (B) (Figure 1-19).



---

Figure 1-19. SSD Module Removal



ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.0*3.0	2.0±10% kgf/cm	1	

# HDD (Hard Disk Drive) Module Removal

---

## Prerequisite:

### Battery Pack Removal

1. Disconnect the WLAN antenna cables (B) from the WLAN module connectors (Figure 1-20).
2. Detach the adhesive tape (A) from the mainboard (Figure 1-20).
3. Remove four (4) screws (C) securing the HDD bracket (Figure 1-20).

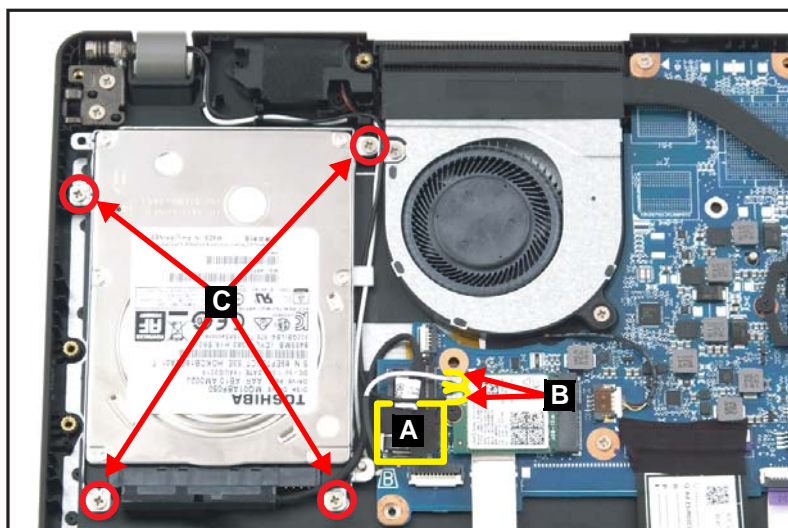


Figure 1-20. HDD Module Removal

4. Remove the HDD module assembly (D) from its compartment (Figure 1-21).

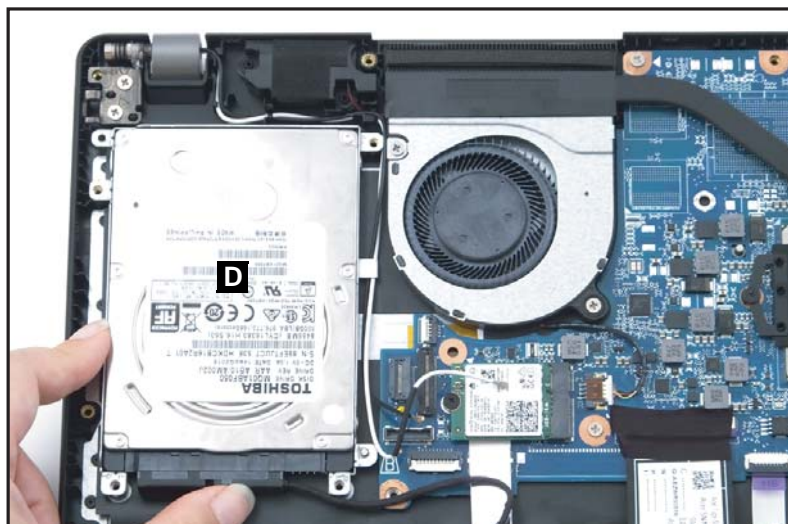
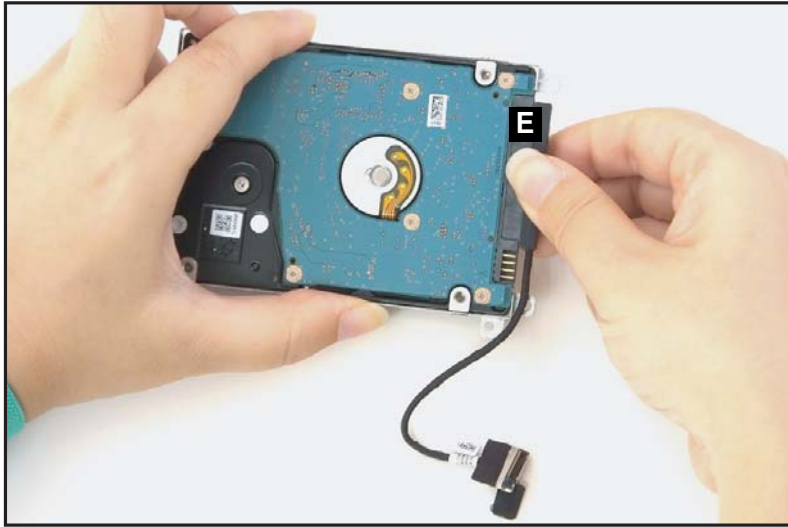


Figure 1-21. HDD Module Removal

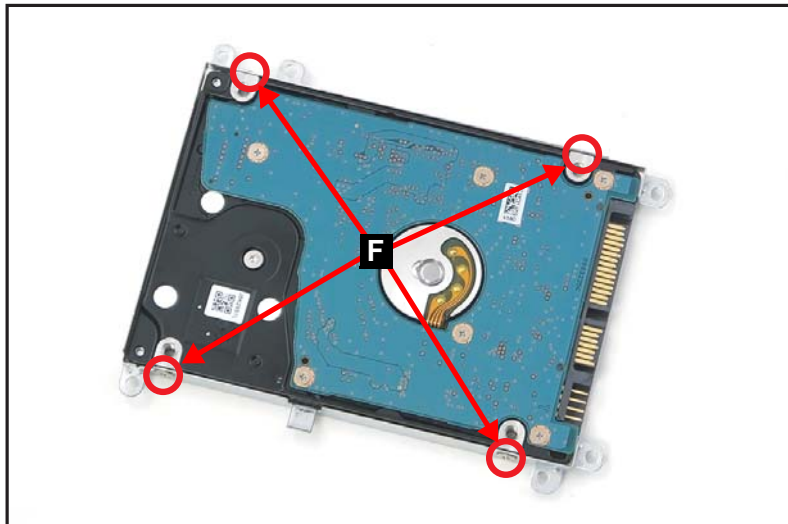
5. Disconnect the HDD cable from the HDD module connector (E) (Figure 1-22).



---

**Figure 1-22. HDD Module Removal**



6. Remove four (4) screws (F) from the HDD bracket (Figure 1-23).



---

**Figure 1-23. HDD Module Removal**

7. Remove the HDD module from its bracket.

ID	Size	Torque	Quantity	Screw Type
C	M2.5*4.0	3.0±15% kgf/cm	4	
F	M3.0*3.5	3.0+15%/-0 kgf/cm	4	

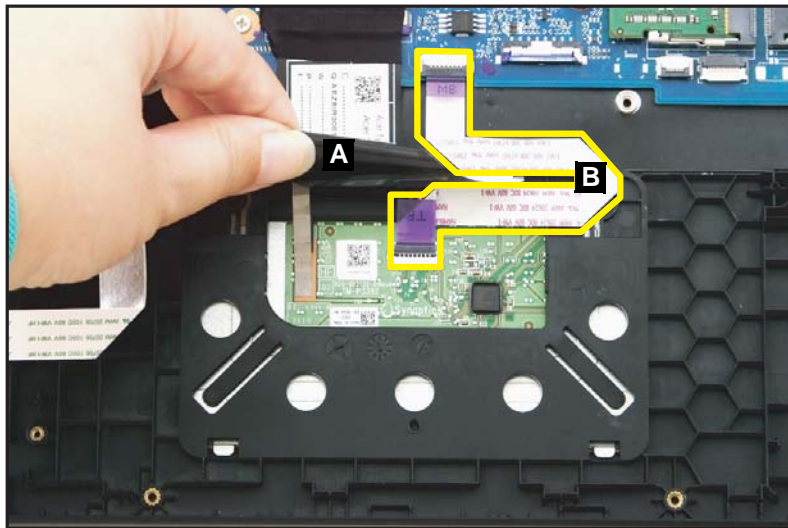
# Touchpad Module Removal

---

## Prerequisite:

### Battery Pack Removal

1. Lift the keyboard FPC (A) for easy access to the touchpad module connector (Figure 1-24).
2. Disconnect the touchpad FFC (B) from the mainboard connector and from the touchpad board connector (Figure 1-24).



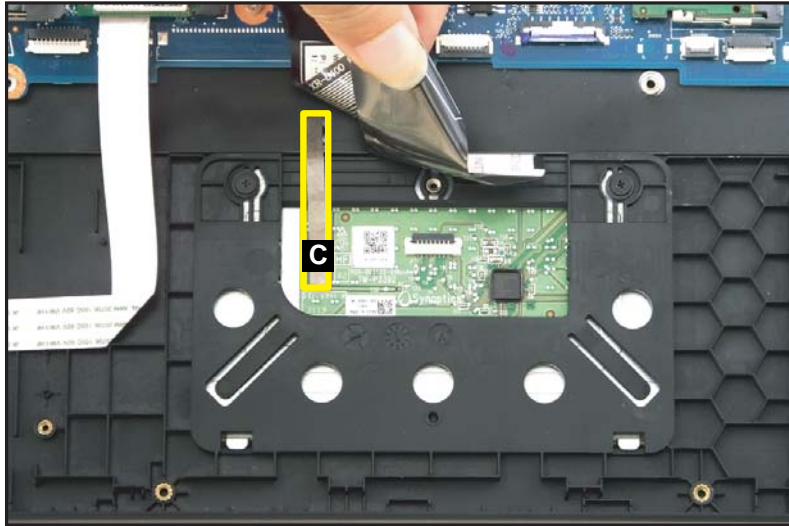
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Figure 1-24. Touchpad Module Removal

### ⚠ CAUTION:

Touchpad FFC (Flexible Flat Circuit) can be damaged if removed while the mainboard connector is locked.

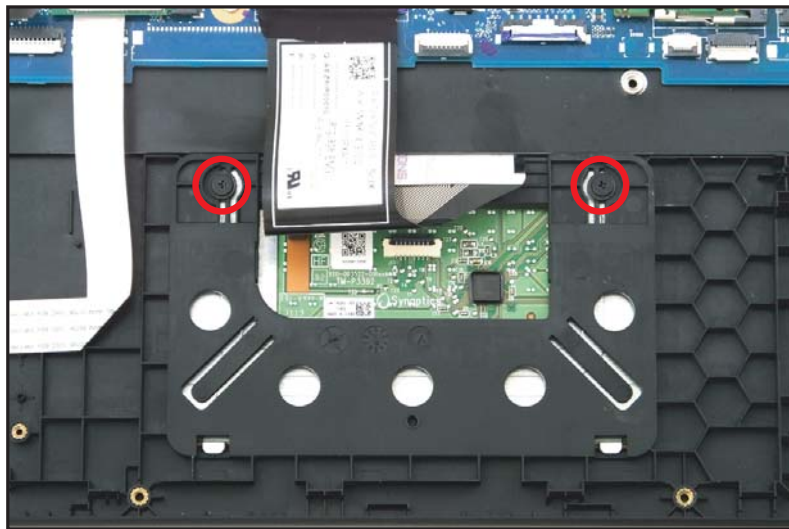
3. Peel off and remove the touchpad conductive tape (C) from the touchpad module and top assembly (Figure 1-25).



---

**Figure 1-25. Touchpad Module Removal**

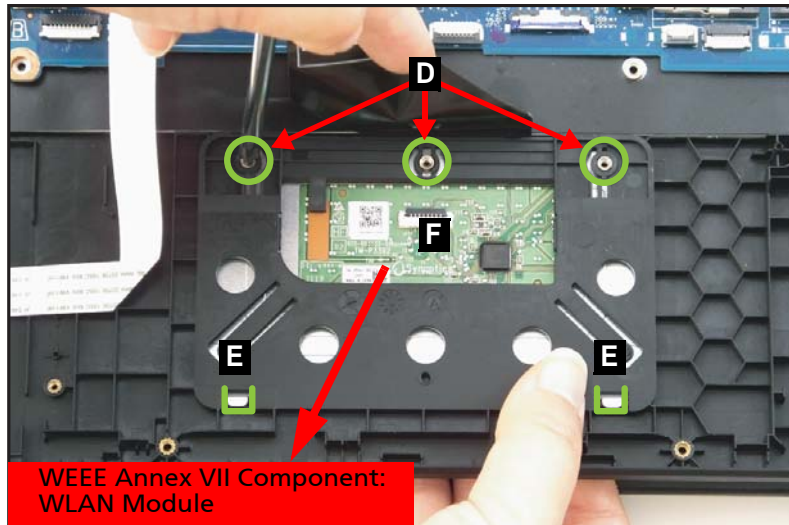
4. Remove two screws securing the touchpad module in place (Figure 1-26).




---

**Figure 1-26. Touchpad Board Removal**

5. Using the screwdriver, push the guide pins (D) firmly to release them from the top assembly (Figure 1-27).
6. With one hand is placed underneath the touchpad module, push the touchpad module slightly to disengage it from the bottom latches (E), and then remove the touchpad module (F) from the top assembly (Figure 1-27).



**Figure 1-27. Touchpad Board Removal**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.0*3.0	2.0±10% kgf/cm	2	



# LCD Module Removal

---

## Prerequisite:

### Battery Pack Removal

1. Disconnect the WLAN antenna cables (A) from the WLAN module connectors (Figure 1-28).
2. Unroute the WLAN antenna cables from the guides on the top assembly (Figure 1-28).
3. Disconnect the eDP cable from the mainboard connector (B) (Figure 1-28).

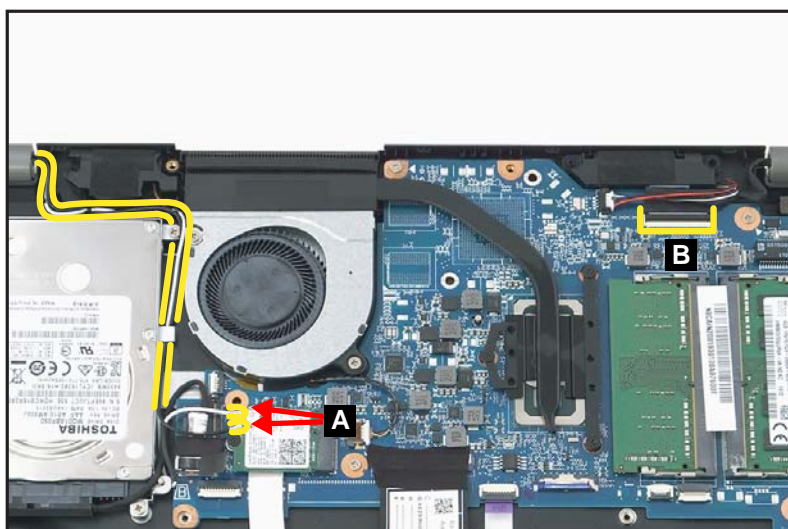


Figure 1-28. LCD Module Removal

4. Remove four (4) screws securing the LCD module in place (Figure 1-29).

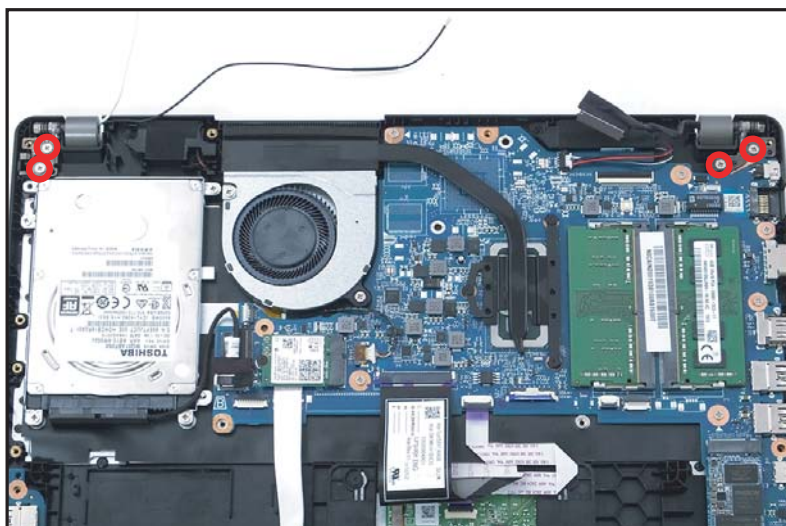


Figure 1-29. LCD Module Removal



5. Place the device on a flat surface, top assembly facing up (Figure 1-30).
6. Lift the top assembly until it is fully open (Figure 1-30).



**Figure 1-30. LCD Module Removal**

7. Close the top assembly and lift both LCD hinges until they are fully extended (Figure 1-31).



**Figure 1-31. LCD Module Removal**


- Open the top assembly again, and then pull it backwards to remove the top assembly away from the LCD module (Figure 1-32).

**⚠ CAUTION:**

Make sure all cables and antennas are moved away from the device to avoid damage during removal.



Figure 1-32. LCD Module Removal

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*4.0	3.0±15% kgf/cm	4	

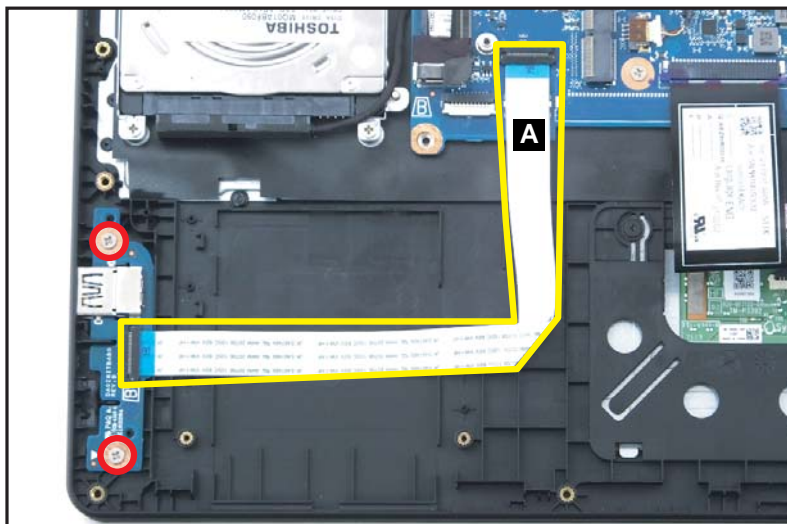
## USB Board Removal

---

### Prerequisite:

#### WLAN (Wireless Local Area Network) Module Removal

1. Disconnect the USB board FFC (A) from the mainboard and USB board connectors (Figure 1-33).
2. Remove two (2) screws securing the USB board in place (Figure 1-33).



---

Figure 1-33. USB Board Removal

### ⚠ CAUTION:

USB board FFC (Flexible Flat Circuit) can be damaged if removed while the mainboard connector and the USB board connector are locked.

3. Remove the USB board (B) from the top assembly (Figure 1-34).

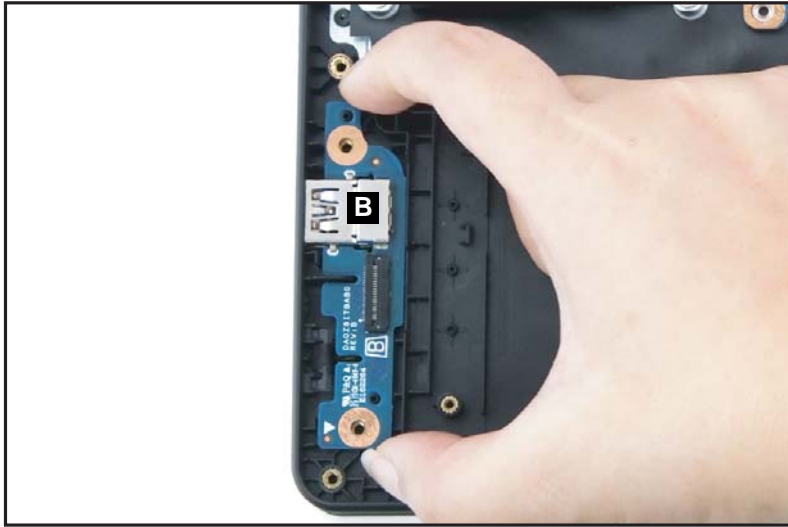



Figure 1-34. USB Board Removal

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*4.0	2.0±10% kgf/cm	2	

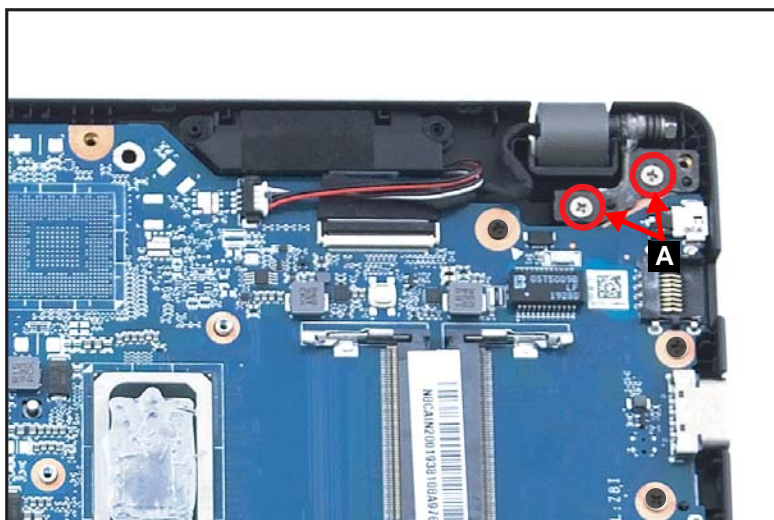
# Mainboard Removal

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## Prerequisite:

WLAN (Wireless Local Area Network) Module Removal,  
DIMM (Dual In-line Memory Module) Removal,  
Fan Module Removal,  
Heatsink Removal,  
and SSD (Solid State Drive) Module Removal

1. Remove two (2) screws (A) securing the right side LCD hinge in place (Figure 1-35).



---

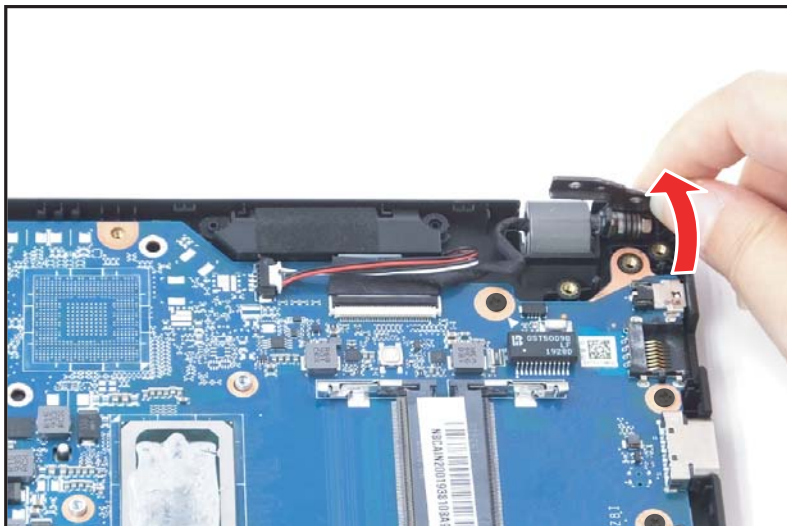
Figure 1-35. Mainboard Removal

2. Lift the top assembly until it is fully open ([Figure 1-36](#)).



**Figure 1-36. Mainboard Removal**

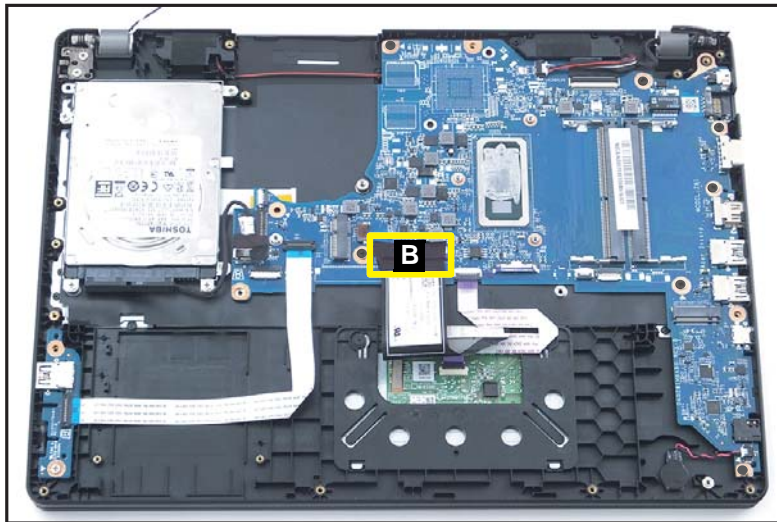
3. Close the top assembly and lift the right side of LCD hinge until it is fully extended ([Figure 1-37](#)).



**Figure 1-37. Mainboard Removal**

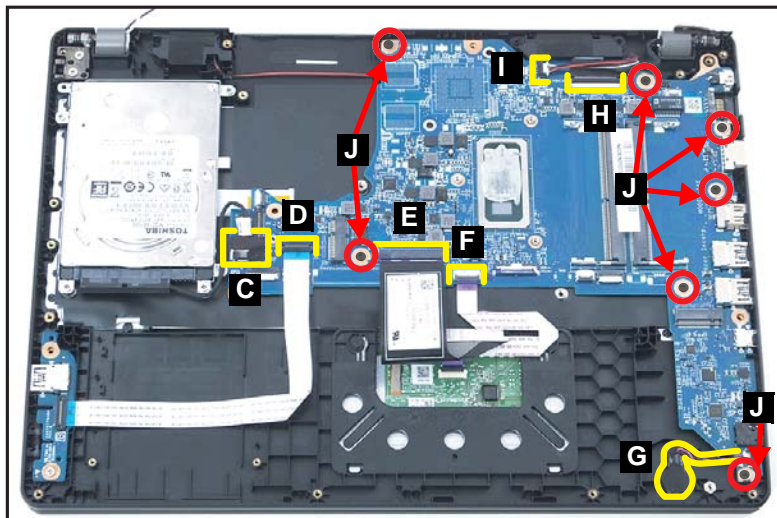


4. Remove the adhesive tape on the keyboard FPC connector (B) (Figure 1-38).



**Figure 1-38. Mainboard Removal**

5. Disconnect the HDD cable from the mainboard connector (C) (Figure 1-39).
6. Disconnect the USB board FFC from the mainboard connector (D) (Figure 1-39).
7. Disconnect the keyboard FPC from the mainboard connector (E) (Figure 1-39).
8. Disconnect the touchpad FFC from the mainboard connector (F) (Figure 1-39).
9. Pry to detach the adhesive tape underneath the RTC battery. Then remove the RTC battery (G) (Figure 1-39).
10. Disconnect the eDP cable from the mainboard connector (H) (Figure 1-39).
11. Disconnect the speakers cable from the mainboard connector (I) (Figure 1-39).
12. Remove seven (7) screws (J) securing the mainboard in place (Figure 1-39).



**Figure 1-39. Mainboard Removal**

13. Release the mainboard from the top assembly and then remove (Figure 1-40).

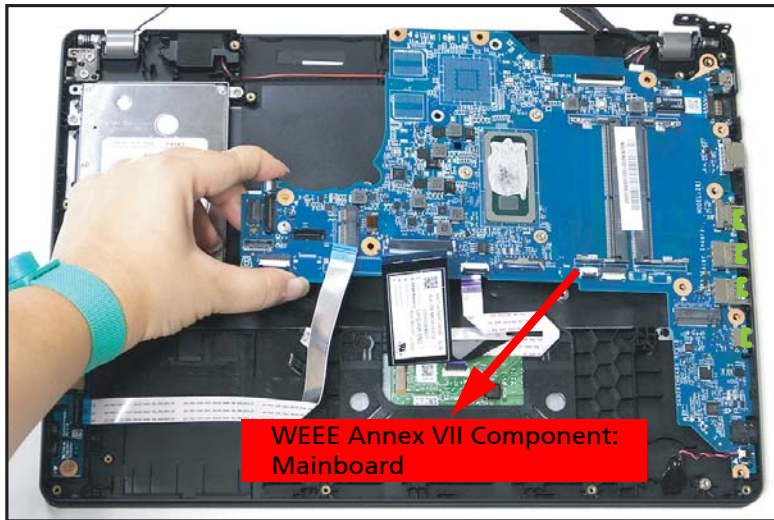


Figure 1-40. Mainboard Removal

**⚠ CAUTION:**

USB board FFC (Flexible Flat Circuit), touchpad FFC, and keyboard FPC (Flexible Printed Circuit) can be damaged if removed while the mainboard connectors are locked.

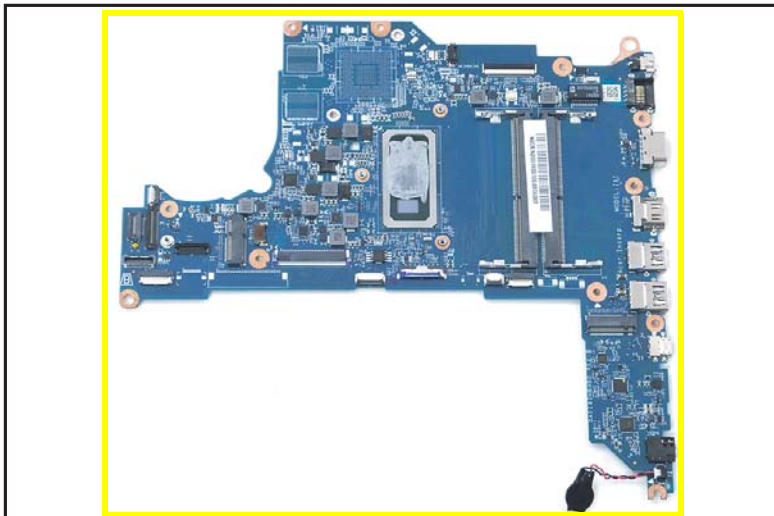




Figure 1-41. Mainboard

**+ IMPORTANT:**

Circuit board >10 cm<sup>2</sup> has been highlighted with a yellow rectangle as shown in Figure 1-41. Remove the circuit board and follow local regulations for disposal.



ID	Size	Torque	Quantity	Screw Type
A	M2.5*4.0	3.0±15% kgf/cm	2	
J	M2.0*3.0	2.0±10% kgf/cm	7	

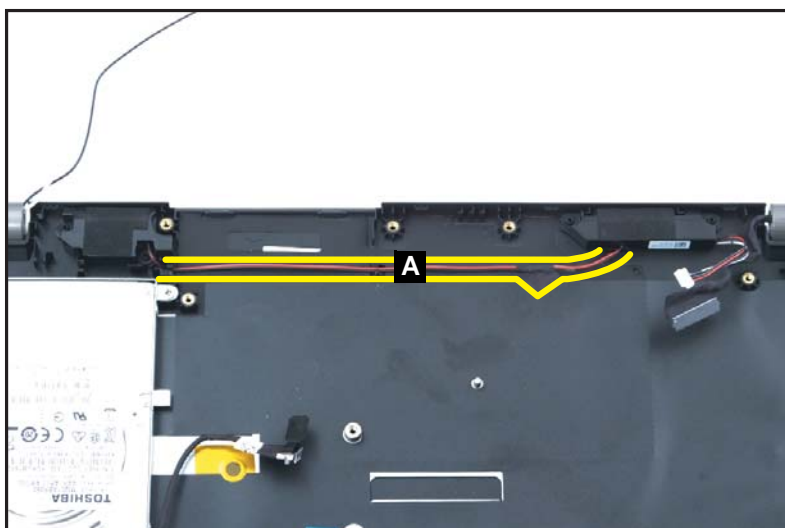
# Speaker Module Removal

---

## Prerequisite:

[Mainboard Removal](#)

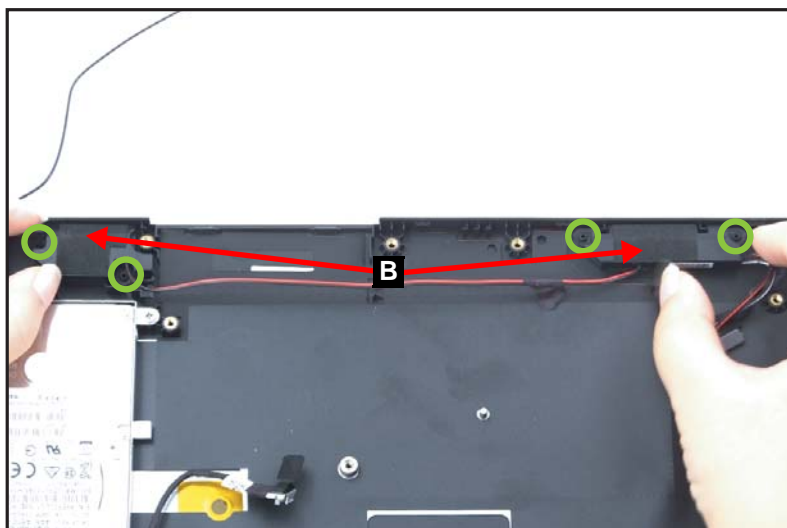
1. Unroute the speaker cable (A) from the guides on the top assembly ([Figure 1-42](#)).



---

**Figure 1-42. Speaker Module Removal**

2. Carefully remove the speaker modules (B) from the top assembly ([Figure 1-43](#)).



---

**Figure 1-43. Speaker Module Removal**

# Top Assembly Removal

---

## Prerequisite:

USB Board Removal,  
Speaker Module Removal,  
HDD (Hard Disk Drive) Module Removal,  
Touchpad Module Removal,  
and LCD Module Removal

### ⇒ NOTE:

The keyboard is included as part of the top assembly and can not be disassembled. In the event that the keyboard can no longer be used, replace the entire top assembly.

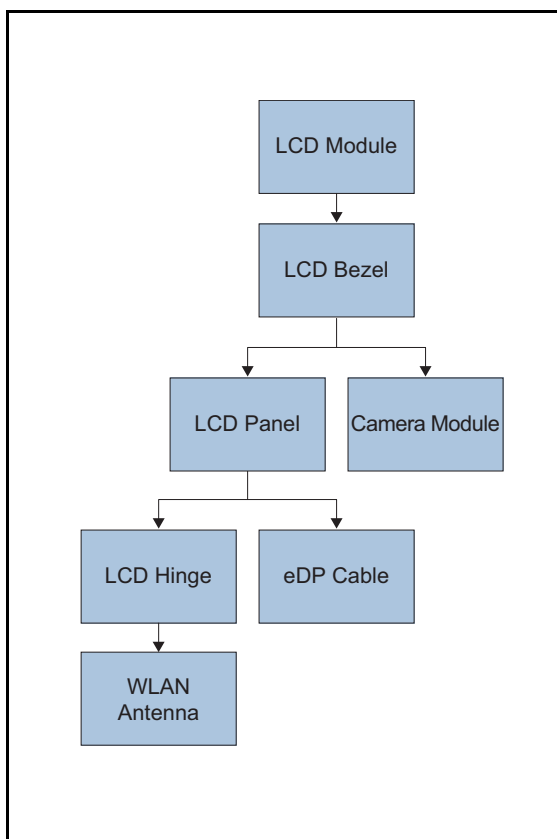


---

Figure 1-44. Top Assembly

# LCD Module Disassembly Process

## LCD Module Disassembly Flowchart



**Table 3-3. LCD Module Screw List**

Step	Size	Quantity	Acer Part No.
LCD Hinge Removal	M2.5 x 2.5	8	86.SHXN7.003

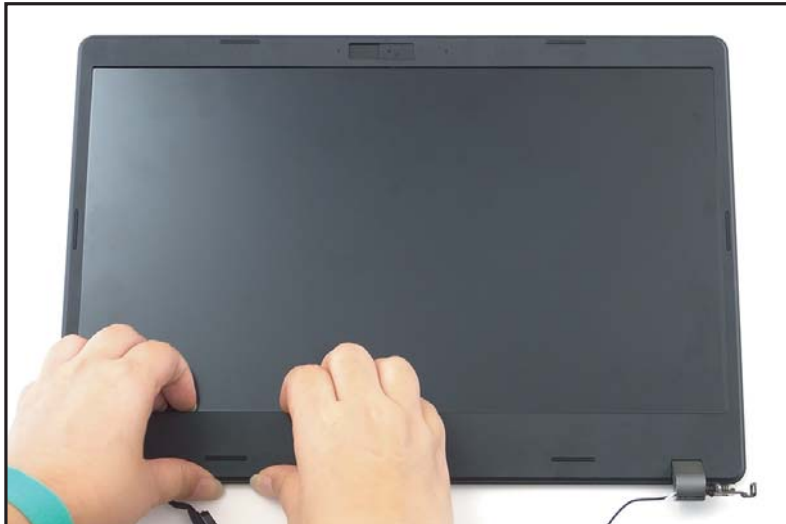
## LCD Bezel Removal

---

### Prerequisite:

[LCD Module Removal](#)

1. Pry the LCD bezel from the bottom side to release latches ([Figure 1-45](#)).



---

**Figure 1-45. LCD Bezel Removal**

2. Continue along the left side of the bezel ([Figure 1-46](#)).



---

**Figure 1-46. LCD Bezel Removal**

3. Pry the LCD bezel from the upper side to release latches (Figure 1-47).



---

**Figure 1-47. LCD Bezel Removal**

4. Continue along the right side of the bezel until all the latches have been released (Figure 1-48). Then lift and remove the bezel from LCD module.



---

**Figure 1-48. LCD Bezel Removal**

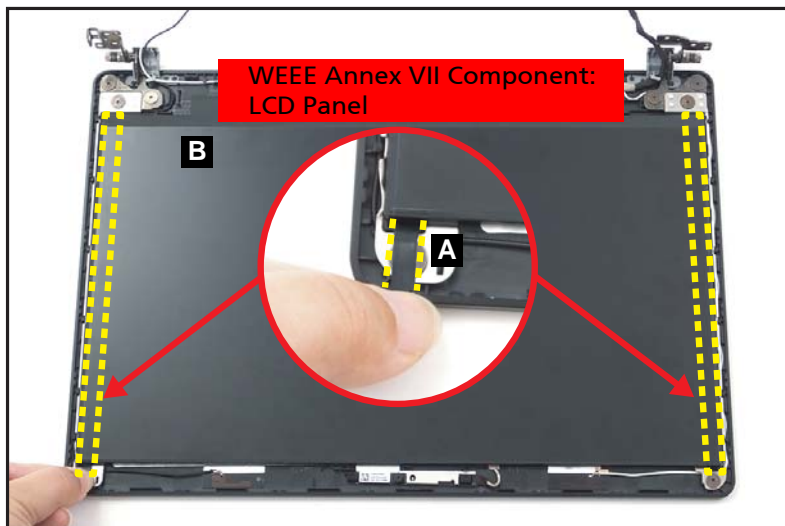
# LCD Panel Removal

---

## Prerequisite:

### LCD Bezel Removal

1. Pry slightly to access the double-sided mounting tape (A) underneath the LCD panel (B). 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 1-49).



---

Figure 1-49. LCD Panel Removal

2. Carefully turn the LCD panel over so that the display panel is facing down on a flat surface (Figure 1-50).

3. Detach the mylar tape (C) securing the eDP cable to the LCD panel (Figure 1-50).



Figure 1-50. LCD Panel Removal

4. Release the eDP cable latch (Figure 1-51).



Figure 1-51. LCD Panel Removal



5. Disconnect the eDP cable from the LCD panel connector (D) (Figure 1-52).

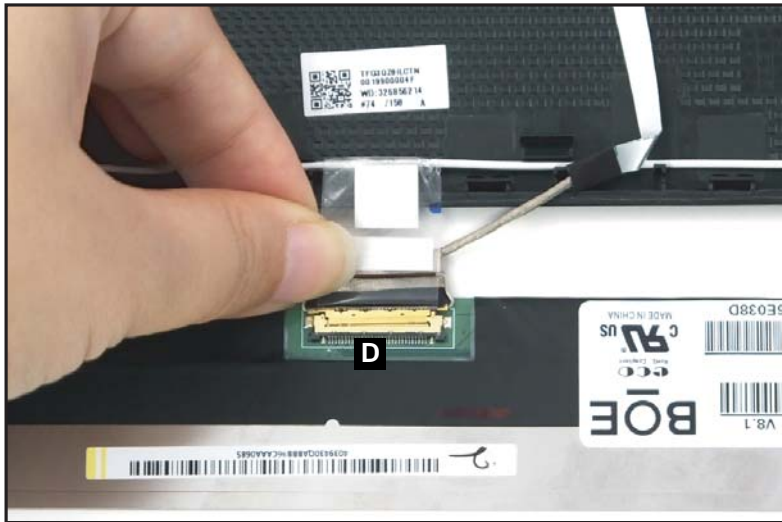


Figure 1-52. LCD Panel Removal

6. Remove the LCD panel.

**⚠ CAUTION:**

Make sure the eDP cable is moved away from the device to avoid damage during LCD Panel removal.

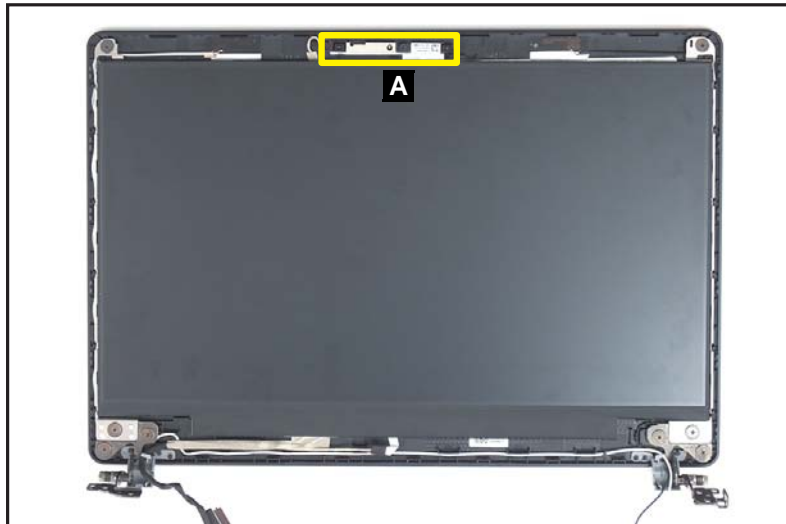
# Camera Module Removal

---

## Prerequisite:

[LCD Bezel Removal](#)

1. Find the camera module (A) on the LCD cover ([Figure 1-53](#)).



---

**Figure 1-53. Camera Connector Location**

2. Disconnect the eDP cable (B) from the camera module connector (C) ([Figure 1-54](#)).
3. Unroute the eDP cable (B) from the guides on the LCD cover ([Figure 1-54](#)).

### ⇒ NOTE:

Use care not to damage the cable. Please take note that the eDP cable includes the camera cable and the LCD panel cable.



---

**Figure 1-54. Camera Module Removal**

- Carefully remove the camera module from the LCD cover ([Figure 1-55](#)).



---

**Figure 1-55. Camera Module Removal**

# LCD Hinge Removal

---

## Prerequisite:

[LCD Panel Removal](#)

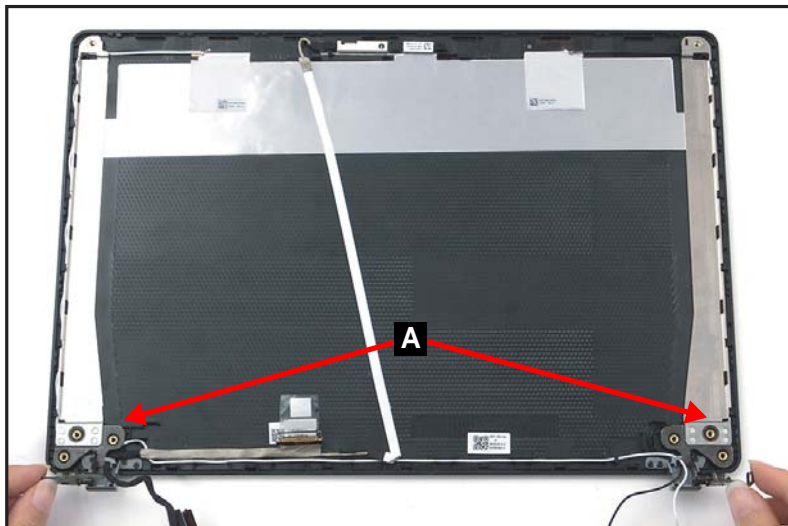
1. Remove eight (8) screws securing the LCD hinges in place ([Figure 1-56](#)).



---


**Figure 1-56. LCD Hinge Removal**

2. Remove the LCD hinges (A) from the LCD cover ([Figure 1-57](#)).



---

**Figure 1-57. LCD Hinge Removal**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*2.5	3.0±15% kgf/cm	8	

## eDP Cable Removal

---

### Prerequisite:

[LCD Panel Removal](#)

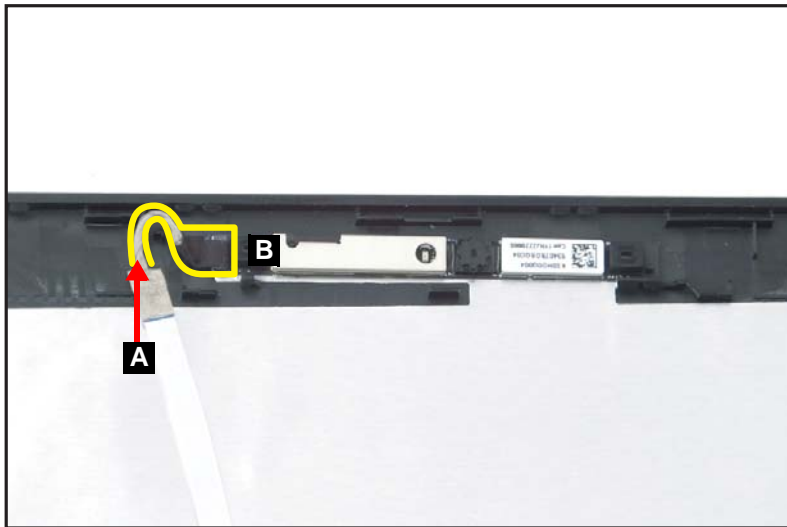
⇒ **NOTE:**

The eDP cable includes the LCD panel cable and the camera cable.

1. Disconnect the eDP cable (A) from the camera module connector (B) ([Figure 1-58](#)).

⇒ **NOTE:**

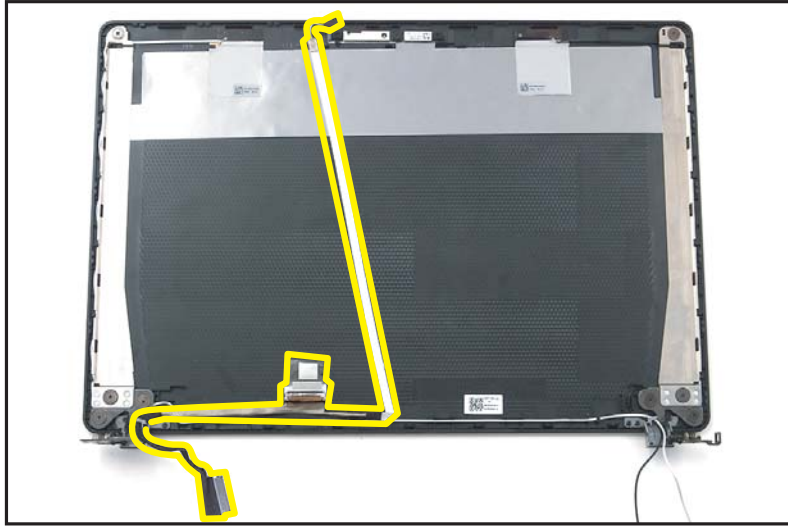
Use care not to damage the cable.



---

Figure 1-58. Camera Connector Location

2. Unroute the eDP cable from the cable guides and detach from the LCD cover (Figure 1-59).



**Figure 1-59. eDP Cable Removal**

# WLAN Antenna Removal

---

## Prerequisite:

[LCD Hinge Removal](#)

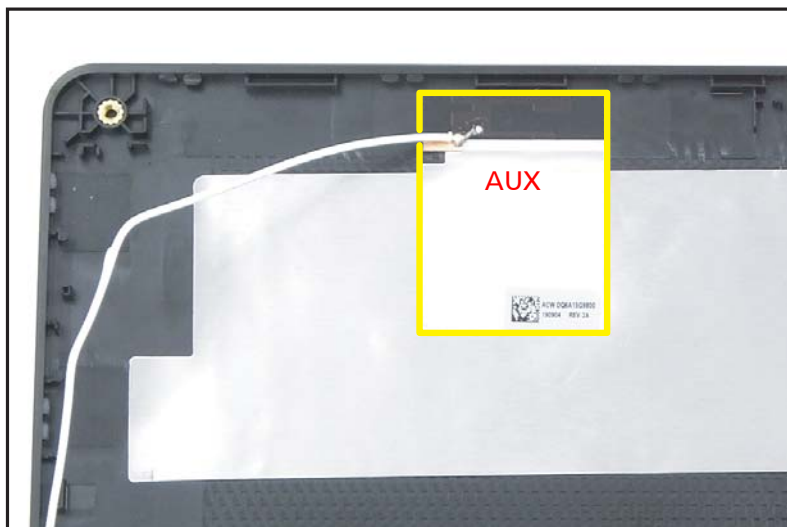
1. Unroute the AUX antenna cable from the cable guides on the LCD cover ([Figure 1-60](#)).



---

**Figure 1-60. WLAN Antenna Removal**

2. Gently peel off the AUX antenna and its grounding foil ([Figure 1-61](#)).
3. Remove the AUX antenna from the LCD cover ([Figure 1-61](#)).



---

**Figure 1-61. WLAN Antenna Removal**



4. Unroute the MAIN antenna cable from the cable guides on the LCD cover (Figure 1-62).



Figure 1-62. WLAN Antenna Removal

5. Gently peel off the MAIN antenna and its grounding foil (Figure 1-63).
6. Remove the MAIN antenna from the LCD cover (Figure 1-63).

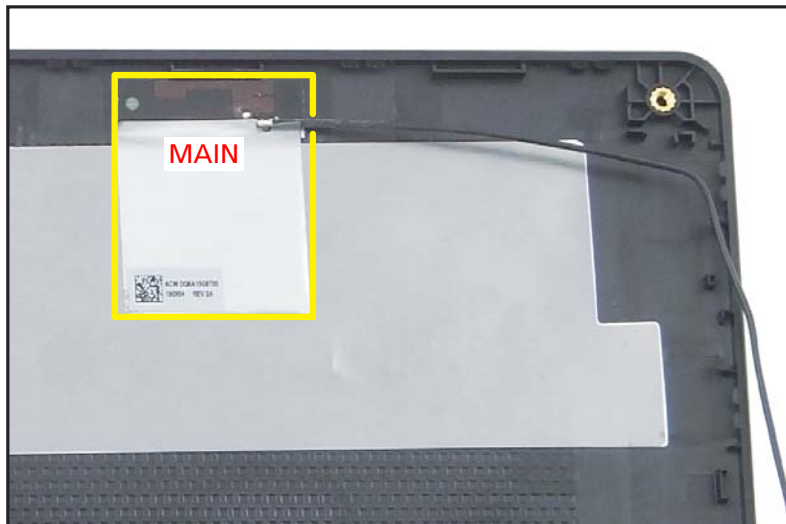


Figure 1-63. WLAN Antenna Removal

**⚠ CAUTION:**

Use care not to damage the antenna PCB circuit area when the grounding foil is removed.

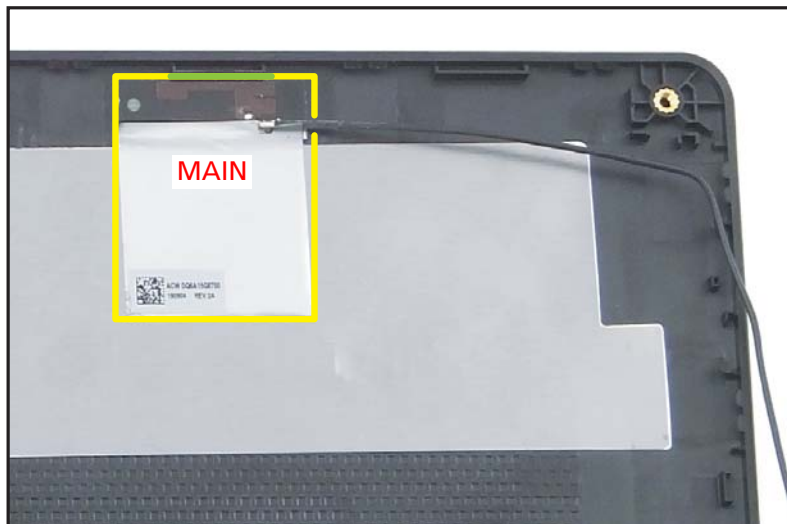
# LCD Module Reassembly Process

---

## Replacing the WLAN Antenna

---

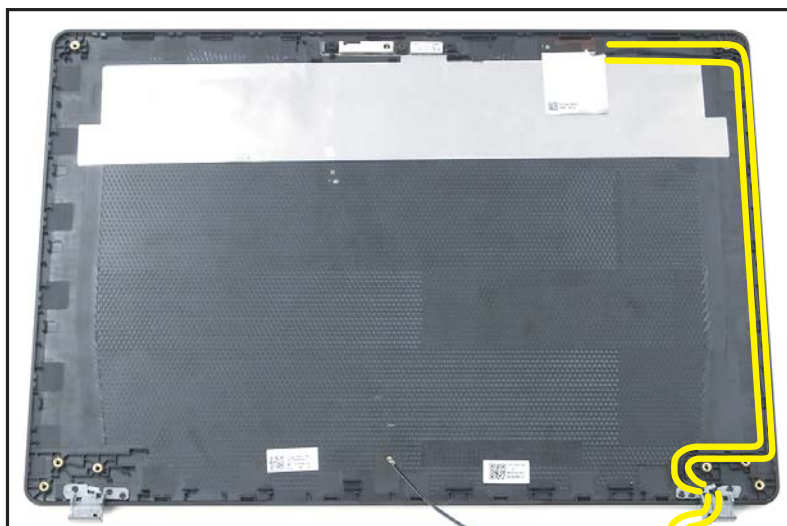
1. Place the MAIN antenna to the right side of the LCD cover. Make sure the antenna PCB circuit area is properly seated and placed onto its compartment highlighted by a green line as shown in [Figure 1-64](#).
2. Adhere the grounding foil of the MAIN antenna as marked in yellow ([Figure 1-64](#)).



---

**Figure 1-64. Replacing the WLAN Antenna**

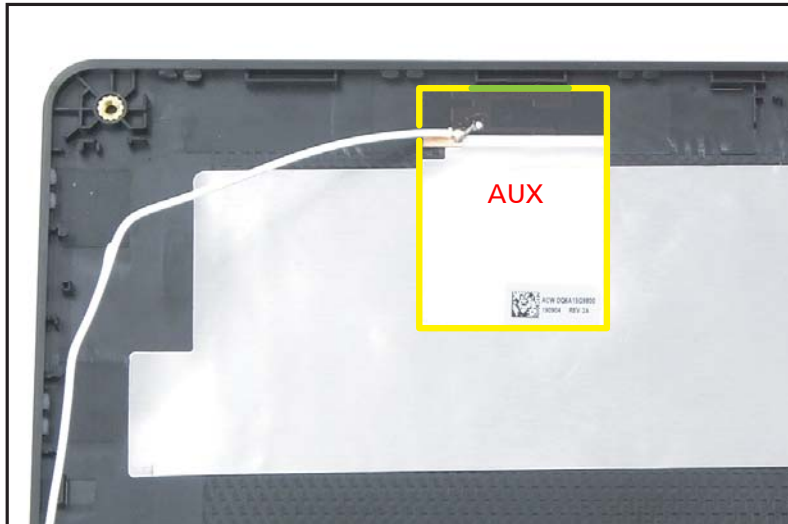
3. Route the MAIN antenna cable through the cable guides on the LCD cover ([Figure 1-65](#)).



---

**Figure 1-65. Replacing the WLAN Antenna**

4. Place the AUX antenna to the left side of the LCD cover. Make sure the antenna PCB circuit area is properly seated and placed onto its compartment highlighted by a green line as shown in [Figure 1-66](#).
5. Adhere the grounding foil of the AUX antenna as marked in yellow ([Figure 1-66](#)).



---

**Figure 1-66. Replacing the WLAN Antenna**

6. Route the AUX antenna cable through the cable guides on the LCD cover ([Figure 1-67](#)).



---

**Figure 1-67. Replacing the WLAN Antenna**

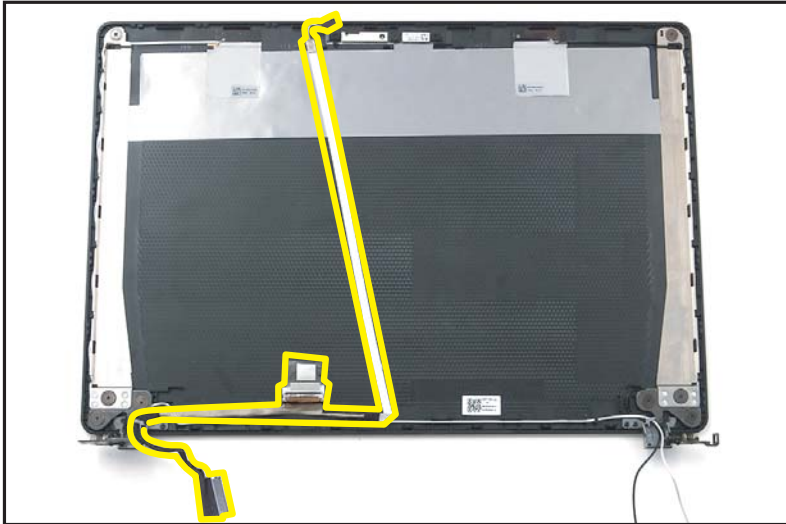
## Replacing the eDP Cable

---

⇒ **NOTE:**

The eDP cable includes the LCD panel cable and the camera cable.

1. Attach and route the eDP cable through the cable guides on the LCD cover. (Figure 1-68).



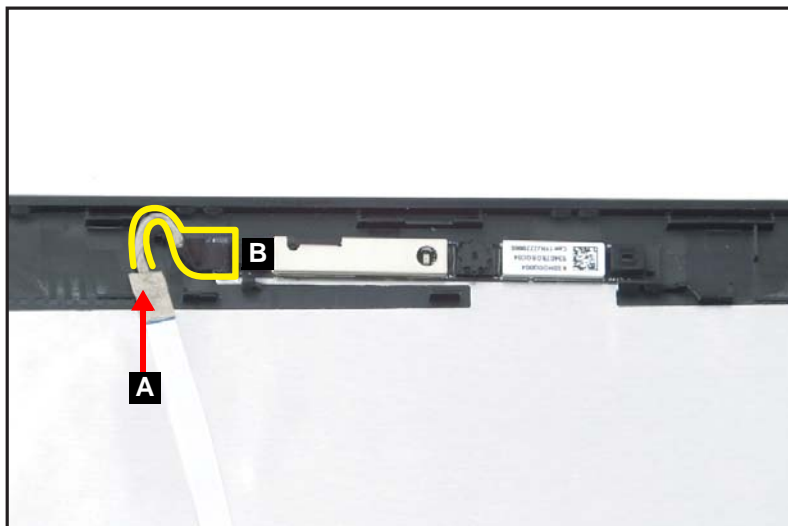
---

Figure 1-68. Replacing the eDP Cable

⚠ **CAUTION:**

Make sure the eDP cable is secured in the cable guides to avoid damage to the cable.

2. Route the eDP cable (A) through the cable guide on the LCD cover (Figure 1-69).
3. Connect the eDP cable (A) to the camera module connector (B) (Figure 1-69).



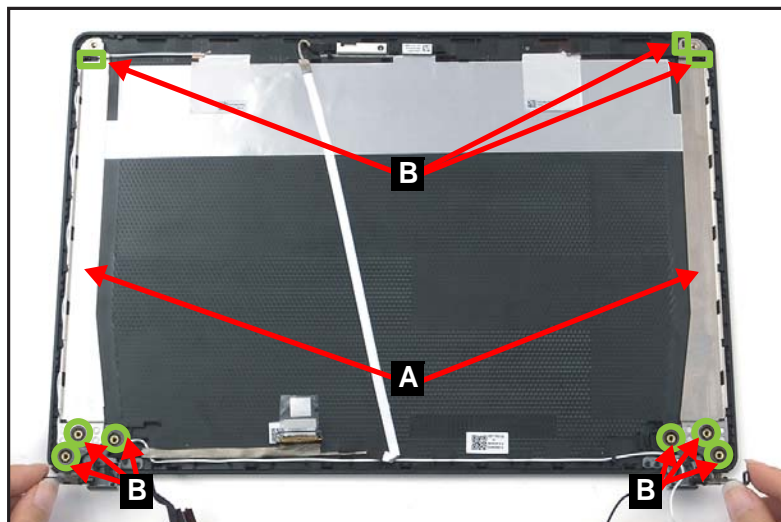
---

**Figure 1-69. Replacing the eDP Cable**

## Replacing the LCD Hinges

---

1. Align the LCD hinges by the guide pins and screw holes (B) on the LCD cover (Figure 1-70).
2. Place the left and right LCD hinges (A) on the LCD cover (Figure 1-70).



---


Figure 1-70. Replacing the LCD Hinges

3. Install and secure eight (8) screws to the LCD hinges (Figure 1-71).



---

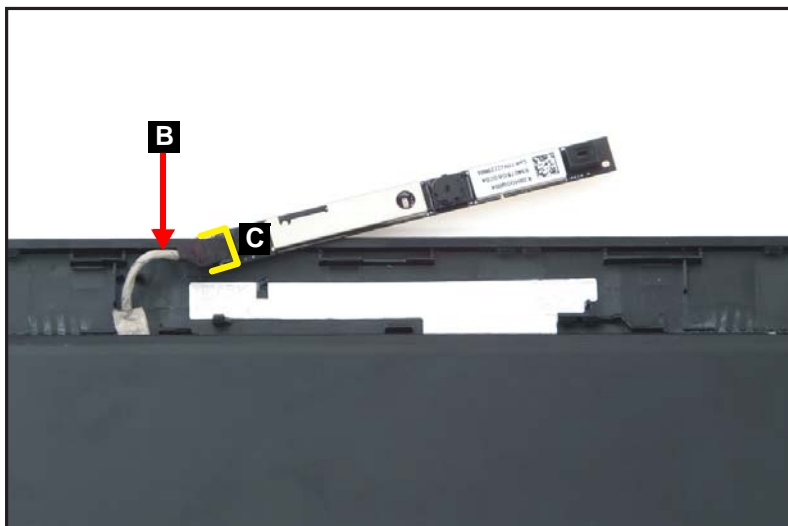
Figure 1-71. Replacing the LCD Hinges

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*2.5	3.0±15% kgf/cm	8	

## Replacing the Camera Module

---

1. Connect the eDP cable (B) to the camera module connector (C) (Figure 1-72).



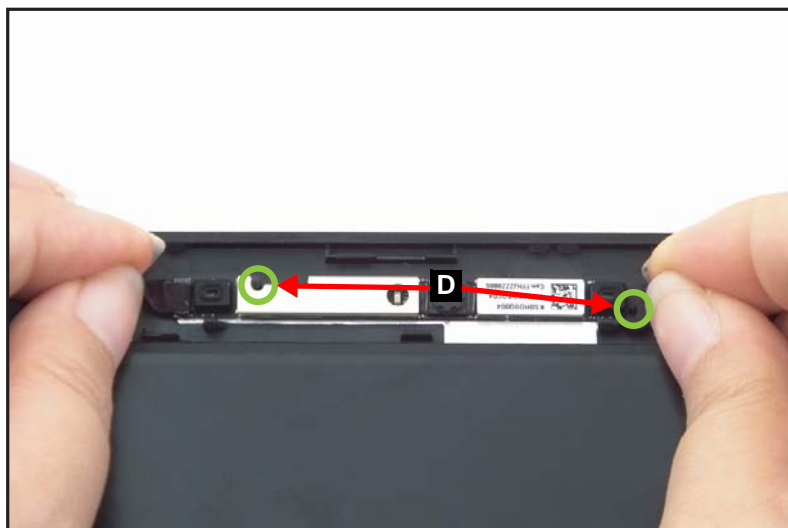
---

Figure 1-72. Replacing the Camera Module

⇒ **NOTE:**

Use care not to damage the cable. Please take note that the eDP cable includes the camera cable and the LCD panel cable.

2. Align the camera module with the guide pins (D) on the LCD cover (Figure 1-73).



---

Figure 1-73. Replacing the Camera Module



3. Place the camera module (A) to its compartment on the LCD cover and secure it in place with adhesives (Figure 1-74).
4. Route the eDP cable (B) through the cable guide on the LCD cover (Figure 1-74).



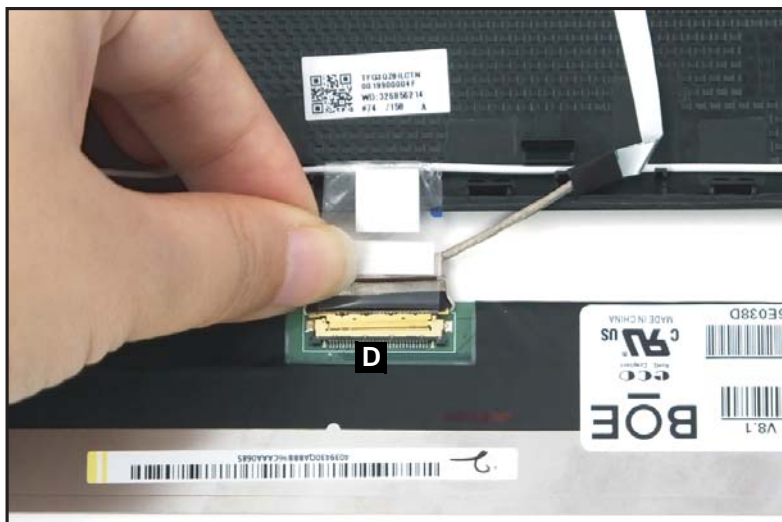
---

**Figure 1-74. Replacing the Camera Module**

## Replacing the LCD Panel

---

1. Place the LCD panel on a flat surface with the back side facing up and aligned properly to the bottom of the LCD cover as shown in [Figure 1-75](#).
2. Connect the eDP cable to the LCD panel connector (D) ([Figure 1-75](#)).



---

**Figure 1-75. Replacing the LCD Panel**

3. Secure the eDP cable latch ([Figure 1-76](#)).



---

**Figure 1-76. Replacing the LCD Panel**

4. Adhere the mylar tape (C) to secure the eDP cable to the LCD panel ([Figure 1-77](#)).

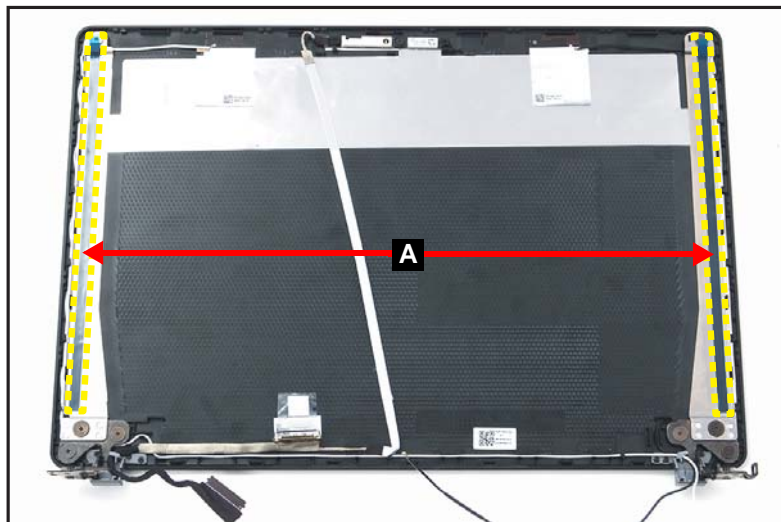


**Figure 1-77. Replacing the LCD Panel**

5. Adhere the double-sided adhesive mounting tapes (A) on both sides of the LCD hinges and press each tape for about 30 seconds. Then peel off the protective film from the double-sided adhesive mounting tapes ([Figure 1-78](#)).

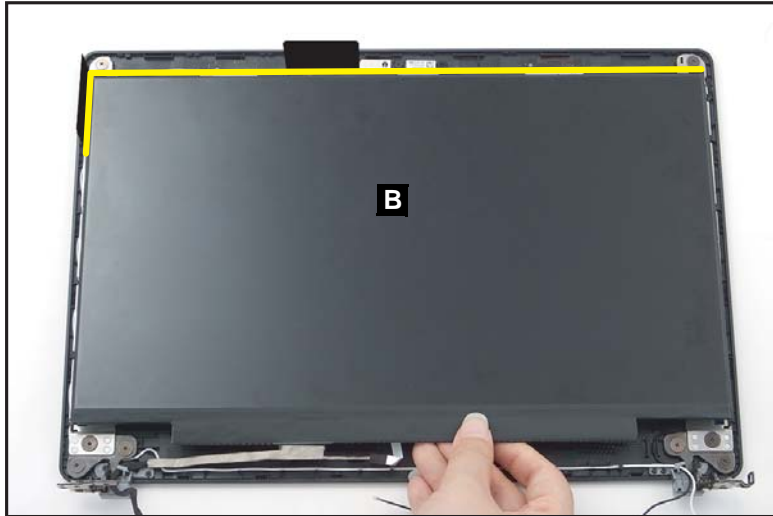
⇒ **NOTE:**

Before applying the new double-sided adhesive mounting tapes, make sure to clean the surface properly with the rubbing alcohol. Then attach the adhesive mounting tapes onto the designated slots as shown in the below illustration ([Figure 1-78](#)).



**Figure 1-78. Replacing the LCD Panel**

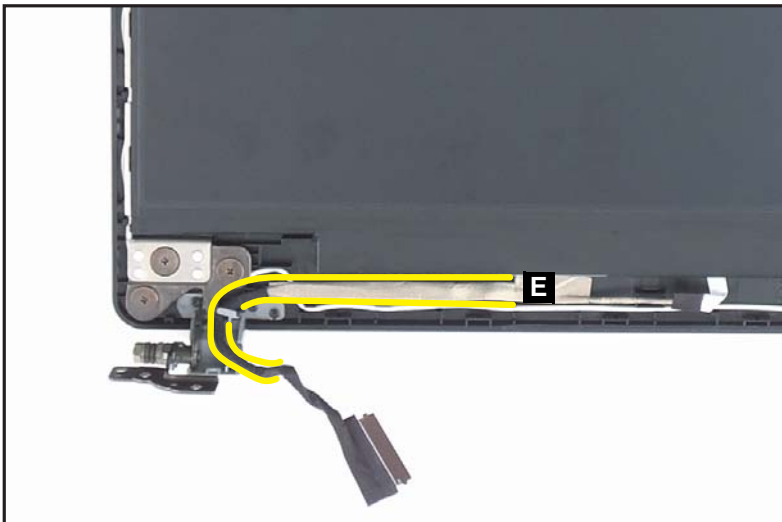
6. Place two (2) 0.5mm mylars on the upper part of the LCD cover as shown in [Figure 1-79](#).
7. Starting from the upper side, carefully place the LCD panel (B) on the LCD cover. Then press the LCD panel down until it is firmly seated on the LCD cover ([Figure 1-79](#)).



---

**Figure 1-79. Replacing the LCD Panel**

8. Route the eDP cable (E) along the bottom side of the LCD cover and then through the cable guide inside the left hinge ([Figure 1-80](#)).



---

**Figure 1-80. Replacing the LCD Panel**

## Replacing the LCD Bezel

---

1. Install the bezel cap onto its slot on the bottom side of the LCD cover, and then press the cap firmly to secure the latches to the LCD cover (Figure 1-81).



---

**Figure 1-81. Replacing the LCD Bezel**

2. Start pressing along the bottom side (A) of the LCD bezel to secure the latches to the LCD cover (Figure 1-82).
3. Continue pressing upward along the left and right sides (B) of the LCD bezel to engage the latches (Figure 1-82).
4. Finally, press along the upper side (C) of the LCD bezel to fully secure the bezel to the LCD cover (Figure 1-82).

⇒ **NOTE:**

When pressing on the latches, make sure to follow the direction of the arrows (Figure 1-82).

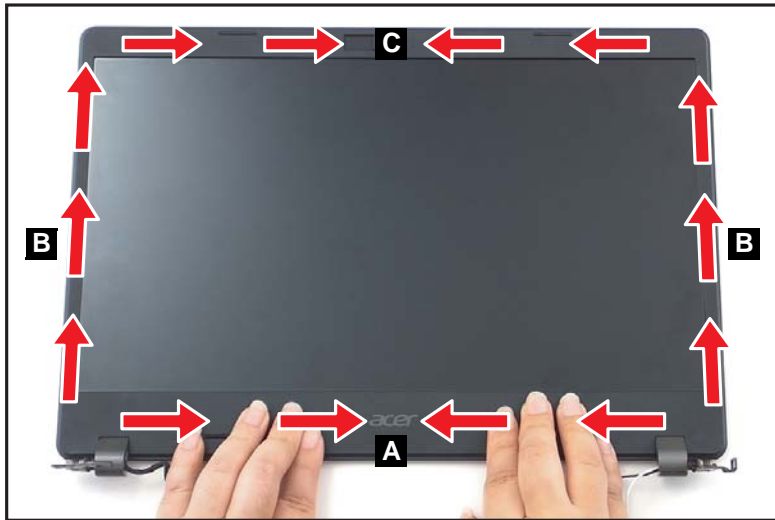


Figure 1-82. Replacing the LCD Bezel

⚠ **CAUTION:**

Use care not to damage all cables during LCD bezel installation.

# Main Unit Reassembly Process

---

## Replacing the Top Assembly

---

⇒ **NOTE:**

The keyboard is included as part of the top assembly and can not be disassembled. In the event that the keyboard can no longer be used, replace the entire top assembly.



---

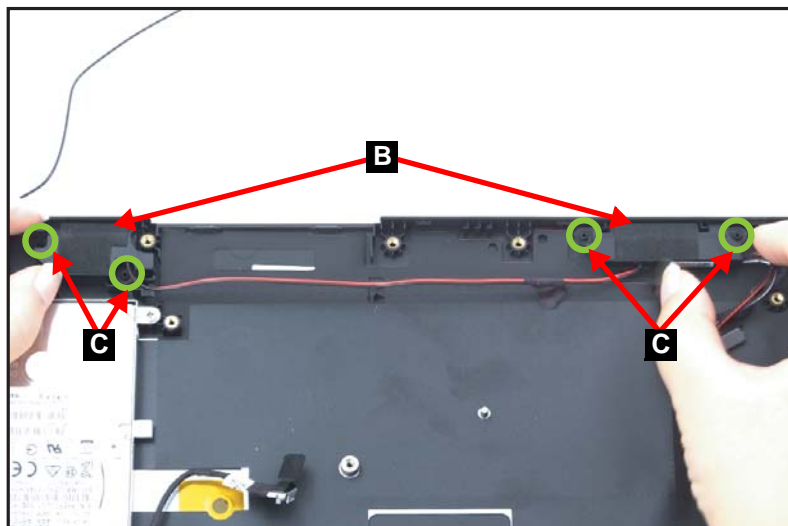
Figure 1-83. Top Assembly



## Replacing the Speaker Module

---

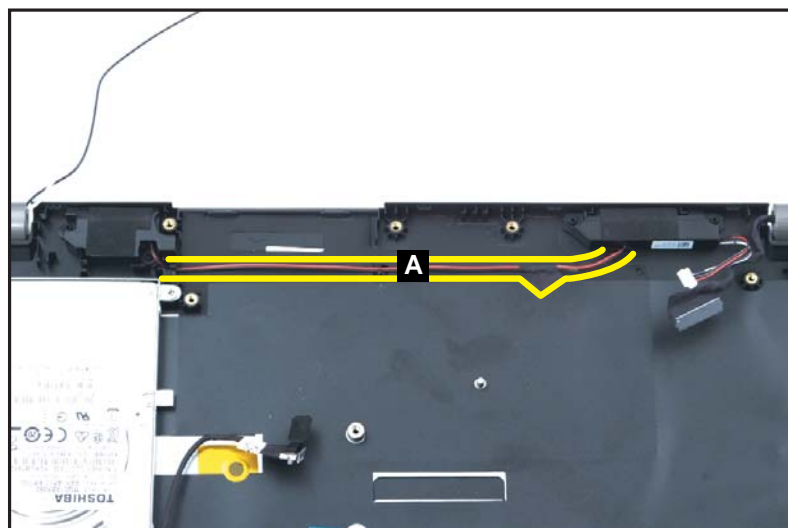
1. Align the speaker module (B) with the guide pins (C) (Figure 1-84).
2. Place the speaker module (B) to its respective compartment on the top assembly (Figure 1-84).



---

**Figure 1-84. Replacing the Speaker Module**

3. Route the speaker cable (A) along the cable guides on the upper part of the top assembly (Figure 1-85).



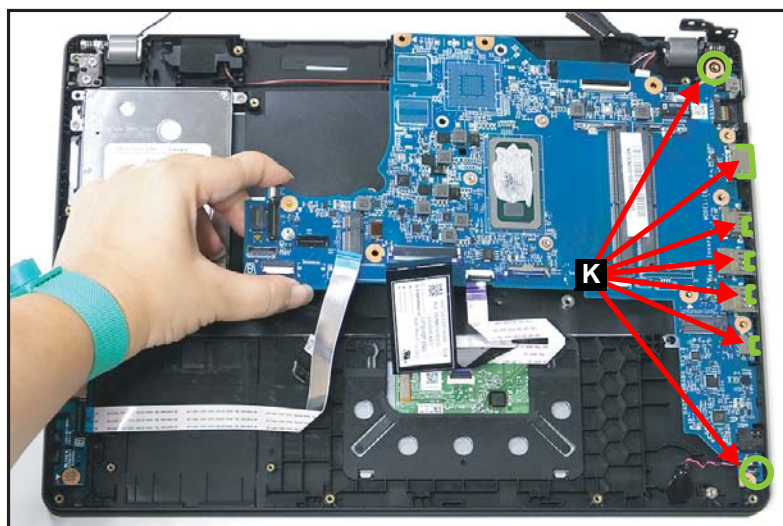
---

**Figure 1-85. Replacing the Speaker Module**

## Replacing the Mainboard

---

1. Align the mainboard with the guides (K) on the top assembly (Figure 1-86).
2. Place the mainboard onto the top assembly (Figure 1-86).



---

**Figure 1-86. Replacing the Mainboard**

**⚠ CAUTION:**

Make sure all FFCs and FPCs are moved away from the mainboard during installation.

3. Install and secure seven (7) screws (J) to the mainboard (Figure 1-87).
4. Connect the speakers cable to the mainboard connector (I) (Figure 1-87).
5. Connect the eDP cable to the mainboard connector (H) (Figure 1-87).
6. Install the RTC battery onto its slot on the top assembly (G) (Figure 1-87).
7. Connect the touchpad FFC to the mainboard connector (F) (Figure 1-87).
8. Connect the keyboard FPC to the mainboard connector (E) (Figure 1-87).
9. Connect the USB board FFC to the mainboard connector (D) (Figure 1-87).

10. Connect the HDD cable to the mainboard connector (C) (Figure 1-87).

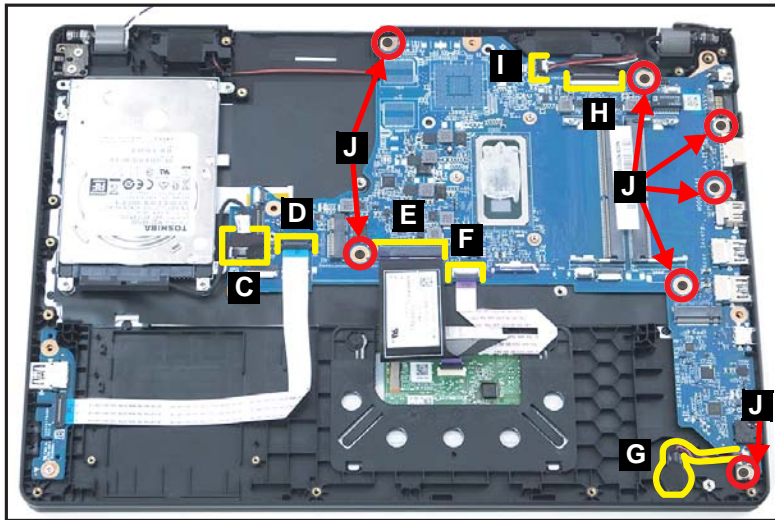


Figure 1-87. Replacing the Mainboard

**⚠ CAUTION:**

USB board FFC, touchpad FFC, and keyboard FPC, are firmly secured to the mainboard connectors.

11. Adhere the adhesive tape to the keyboard FPC connector (B) (Figure 1-88).

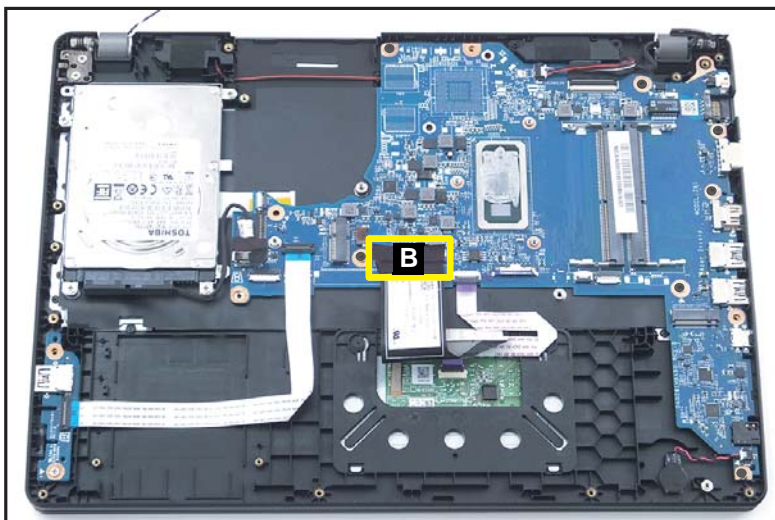


Figure 1-88. Replacing the Mainboard

12. Close the right side of LCD hinge until it is fully seated in place (Figure 1-89).

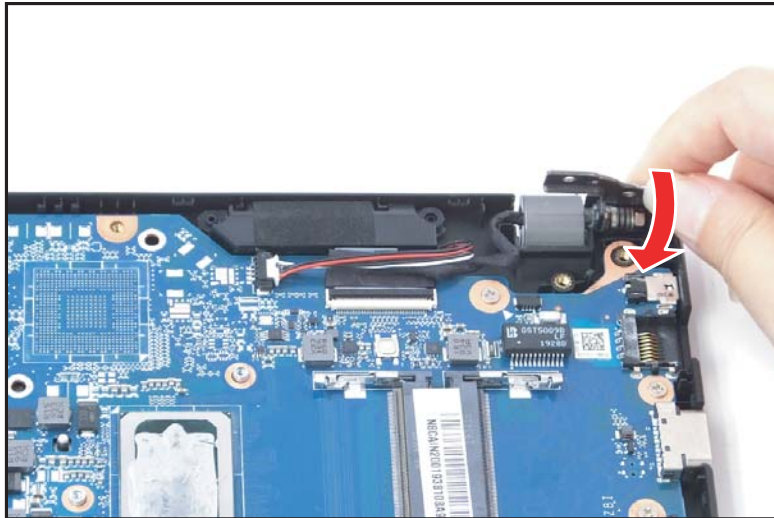


Figure 1-89. Replacing the Mainboard

13. Install and secure two (2) screws to the right LCD hinge (Figure 1-90).

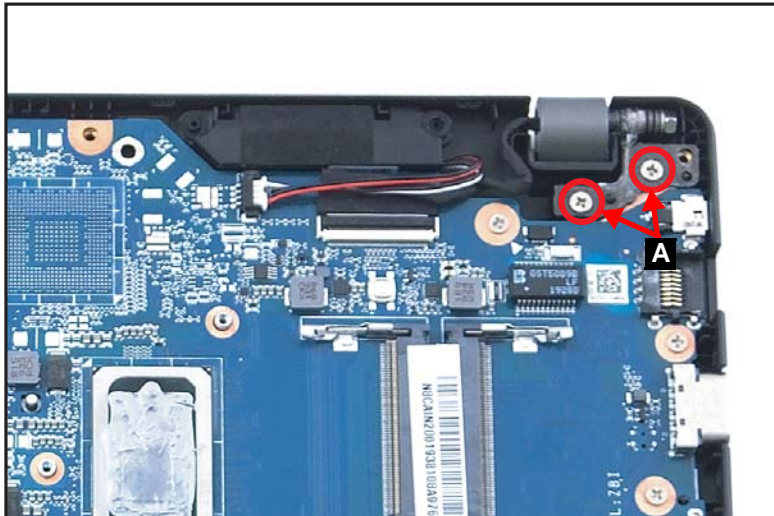




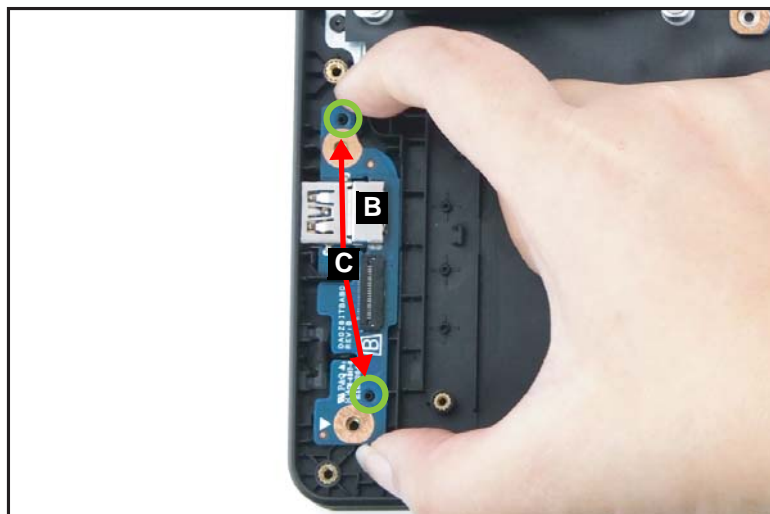
Figure 1-90. Replacing the Mainboard

ID	Size	Torque	Quantity	Screw Type
A	M2.5*4.0	3.0±15% kgf/cm	2	
J	M2.0*3.0	2.0±10% kgf/cm	7	

## Replacing the USB Board

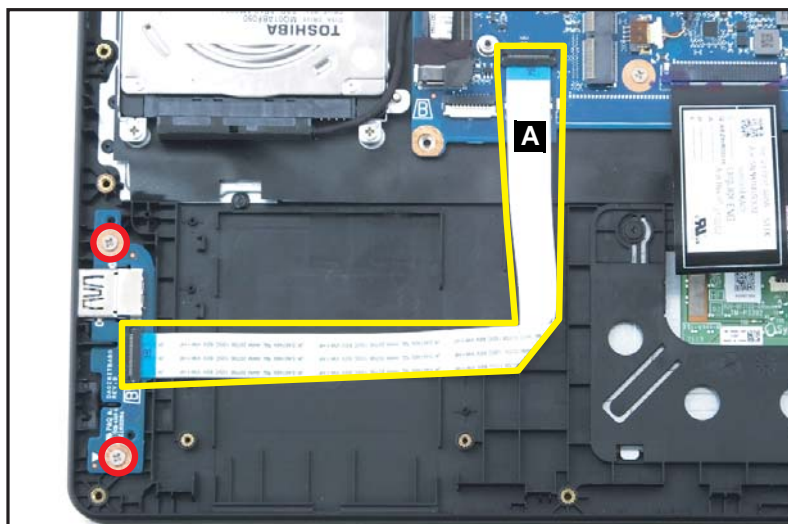
---

1. Align the USB board (B) with the guide pins (C) on the top assembly (Figure 1-91).
2. Place the USB board (B) to its compartment on the top assembly (Figure 1-91).



**Figure 1-91. Replacing the USB Board**


3. Install and secure two (2) screws to the USB board (Figure 1-92).
4. Connect the USB board FFC (A) to the mainboard and USB board connectors (Figure 1-92).



**Figure 1-92. Replacing the USB Board**

**⚠ CAUTION:**

USB board FFC is firmly secured to the mainboard connector and the USB board connector.

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*4.0	2.0±10% kgf/cm	2	



## Replacing the LCD Module

---

1. Place the LCD module on a flat surface screen facing up (Figure 1-93).
2. Align the top assembly hinge slots with the hinges on the LCD module and place the top assembly face down on the LCD module (Figure 1-93).

**⚠ CAUTION:**

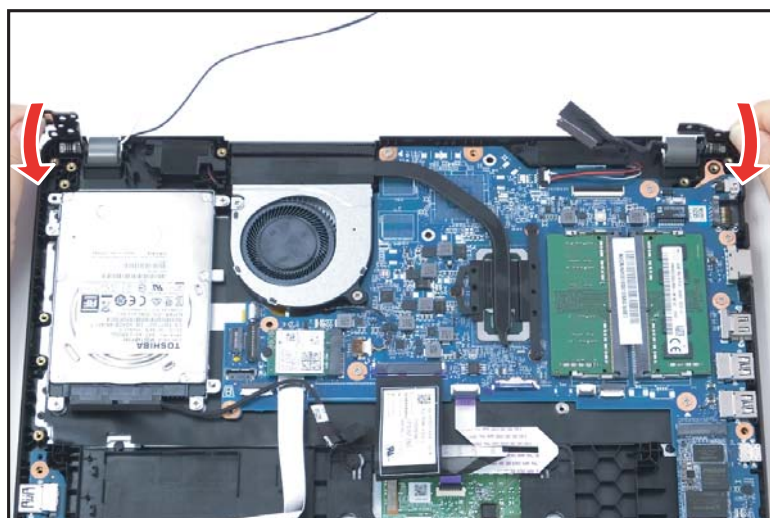
Make sure all cables and antennas are moved away from the device to avoid damage during installation.



---

Figure 1-93. Replacing the LCD Module

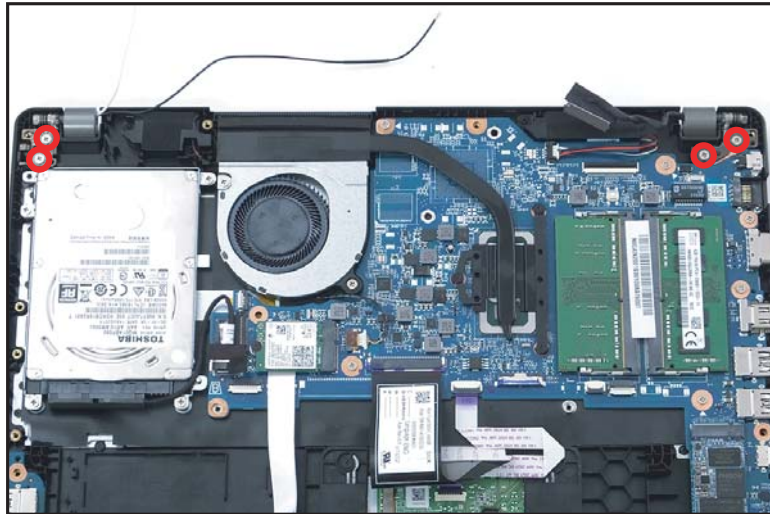
3. Close both LCD hinges until they are fully seated in place (Figure 1-94).



---

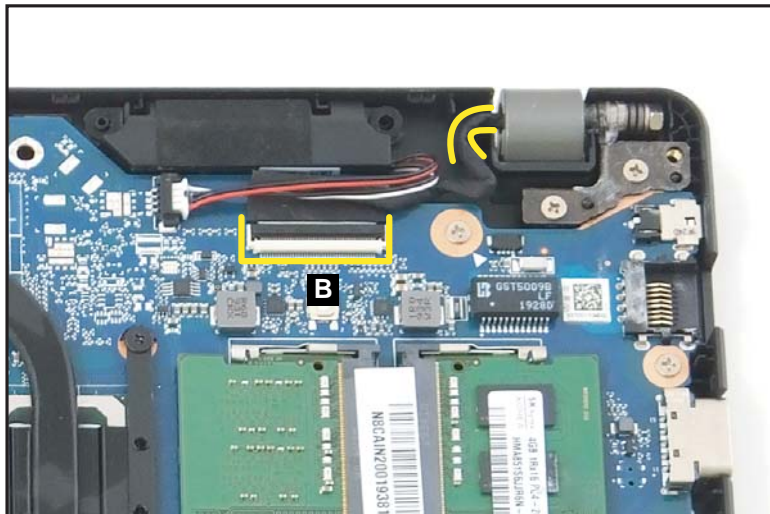
Figure 1-94. Replacing the LCD Module

4. Install and secure four (4) screws to the LCD hinges ([Figure 1-95](#)).



**Figure 1-95. Replacing the LCD Module**

5. Route the eDP cable along the top assembly and then connect to the mainboard connector (B) ([Figure 1-96](#)).

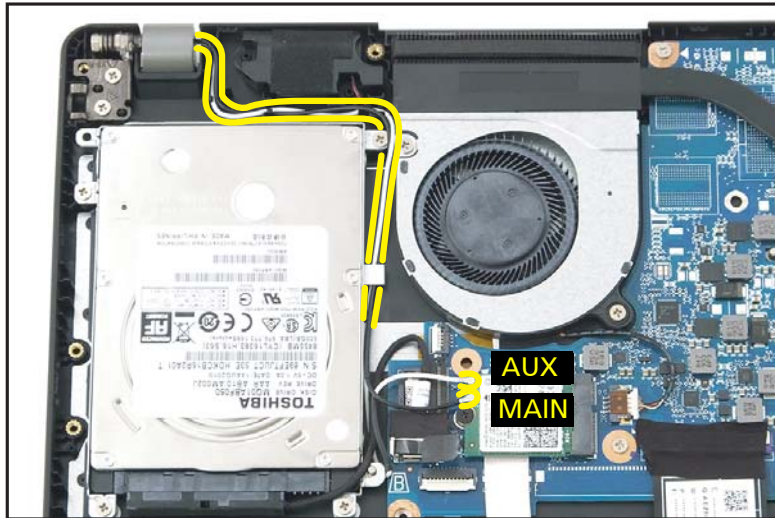


**Figure 1-96. Replacing the LCD Module**


6. Route the WLAN antenna cables through the guides on the top assembly ([Figure 1-97](#)).



7. Connect the AUX antenna (white-color) to the WLAN AUX pin as shown in [Figure 1-97](#).
8. Connect the MAIN antenna (black-color) to the WLAN MAIN pin as shown in [Figure 1-97](#).



**Figure 1-97. Replacing the LCD Module**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*4.0	3.0±15% kgf/cm	4	

## Replacing the Touchpad Module

---

1. Lift the keyboard FPC (A) for easy access to the touchpad module connector (Figure 1-98).
2. Slide the touchpad module (F) into the lower latches (E) until those are fully engaged. Then push the touchpad module firmly onto its slot until the upper latches (D) are fully engaged (Figure 1-98).

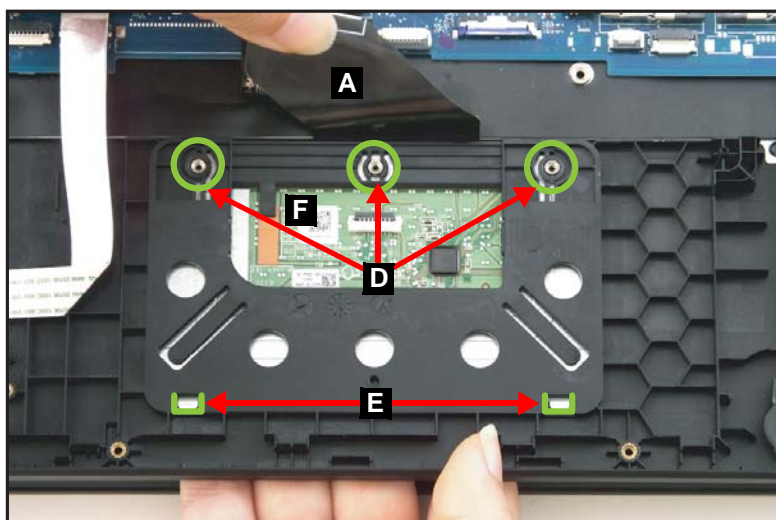


Figure 1-98. Replacing the Touchpad Board

3. Install and secure two screws to the touchpad module (Figure 1-99).

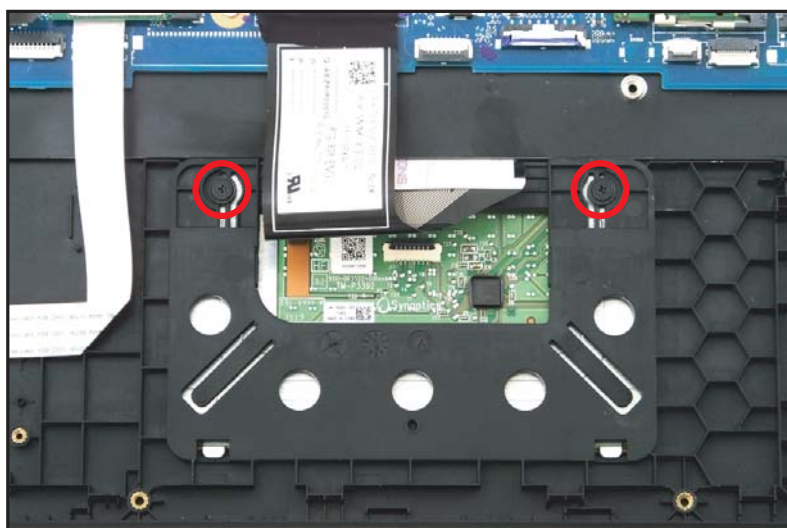
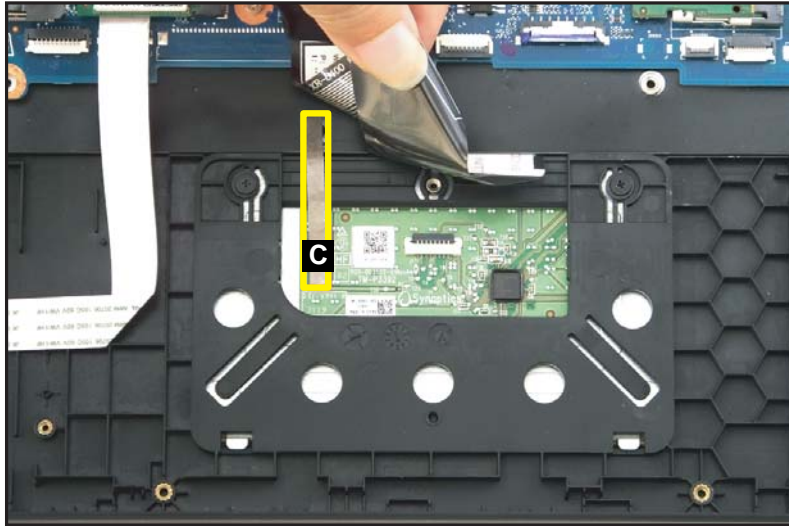


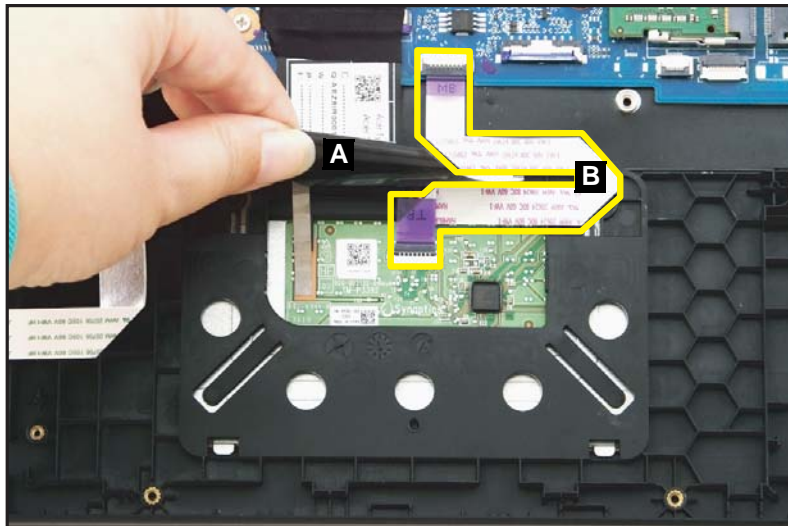
Figure 1-99. Replacing the Touchpad Board

4. Attach the conductive tape (C) to the touchpad module and top assembly (Figure 1-100).




**Figure 1-100. Replacing the Touchpad Board**

5. Lift the keyboard FPC (A) for easy access to the touchpad module connector (Figure 1-101).
6. Connect the touchpad FFC (B) to the touchpad module and mainboard connector (Figure 1-101).



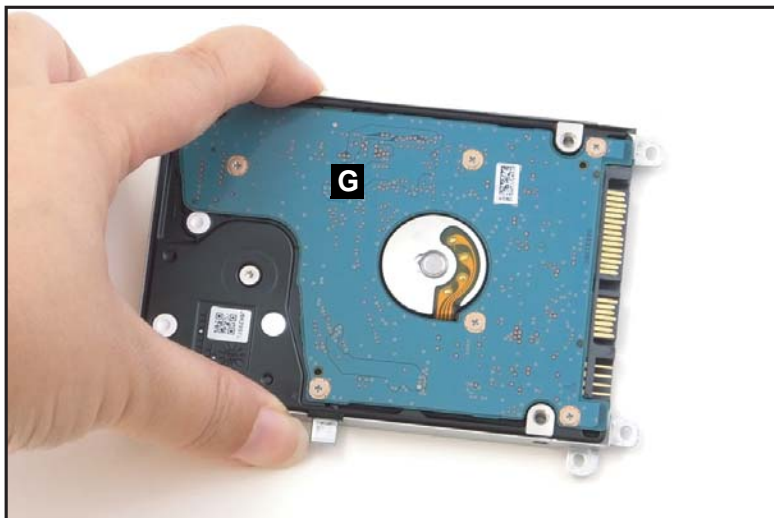
**Figure 1-101. Replacing the Touchpad Board**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.0*3.0	2.0±10% kgf/cm	2	

## Replacing the HDD (Hard Disk Drive) Module

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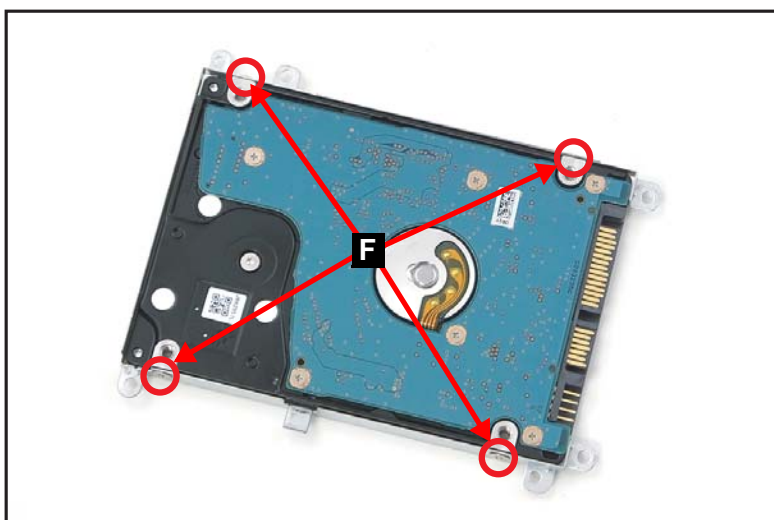
1. Install the HDD module (G) into its bracket (Figure 1-102).



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Figure 1-102. Replacing the HDD Module

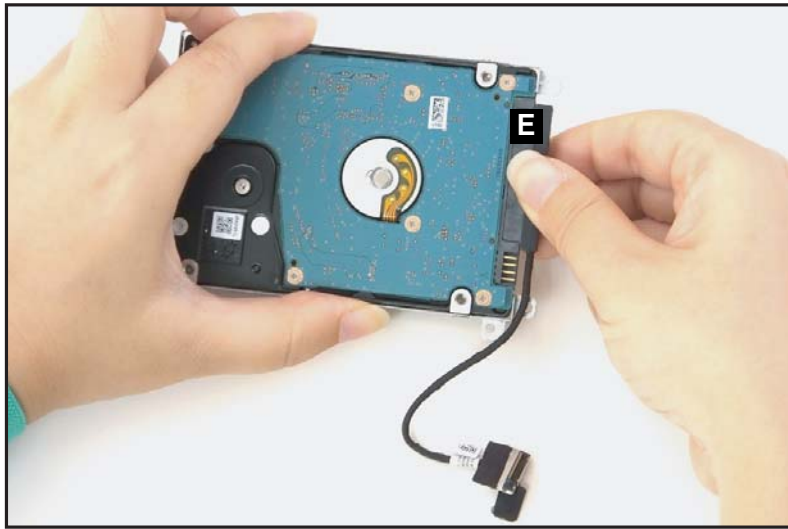
2. Install and secure four (4) screws (F) to the HDD bracket (Figure 1-103).



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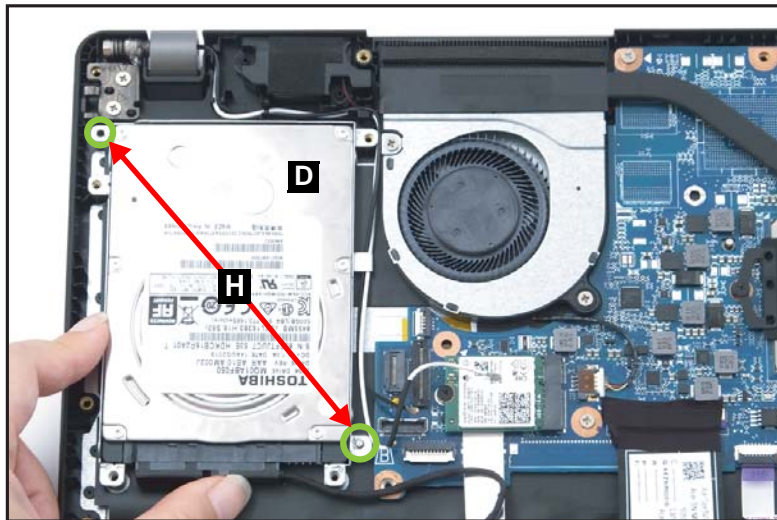
Figure 1-103. Replacing the HDD Module

3. Connect the HDD cable to the HDD module connector (E) (Figure 1-104).



**Figure 1-104. Replacing the HDD Module**

4. Align the HDD module assembly (D) by the guide pins (H) on the top assembly (Figure 1-105).
5. Install the HDD module assembly (D) onto its compartment (Figure 1-105).

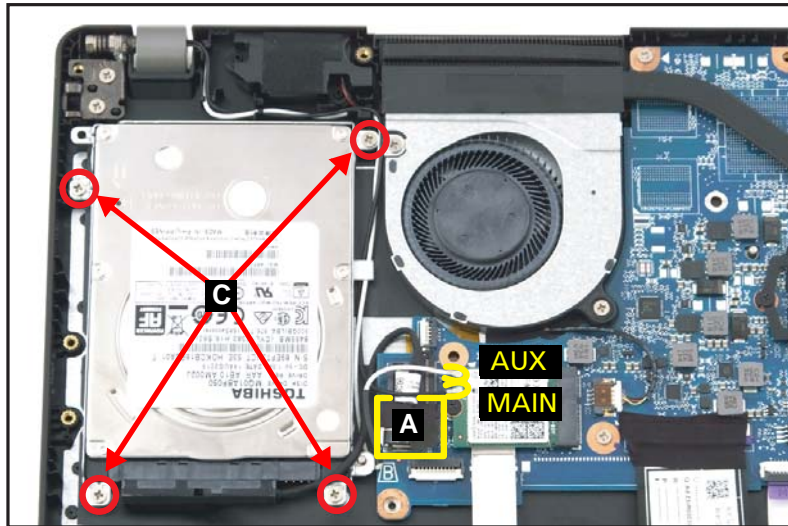


**Figure 1-105. Replacing the HDD Module**



6. Install and secure four (4) screws (C) to the HDD bracket (Figure 1-106).
7. Attach the adhesive tape (A) to the mainboard (Figure 1-106).



8. Connect the AUX antenna (white-color) to the WLAN AUX pin as shown in [Figure 1-106](#).
9. Connect the MAIN antenna (black-color) to the WLAN MAIN pin as shown in [Figure 1-106](#).



**Figure 1-106. Replacing the HDD Module**

ID	Size	Torque	Quantity	Screw Type
C	M2.5*4.0	3.0±15% kgf/cm	4	
F	M3.0*3.5	3.0+15%/ -0 kgf/cm	4	

## Replacing the SSD (Solid State Drive) Module

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1. Insert the SSD module to the mainboard connector (B) (Figure 1-107).

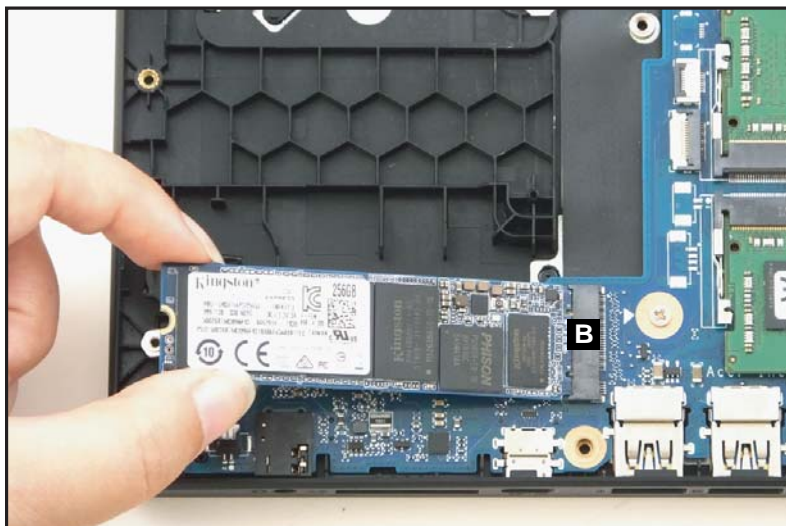


Figure 1-107. Replacing the SDD Module

2. Install and secure one (1) screw to the SSD module (A) (Figure 1-108).

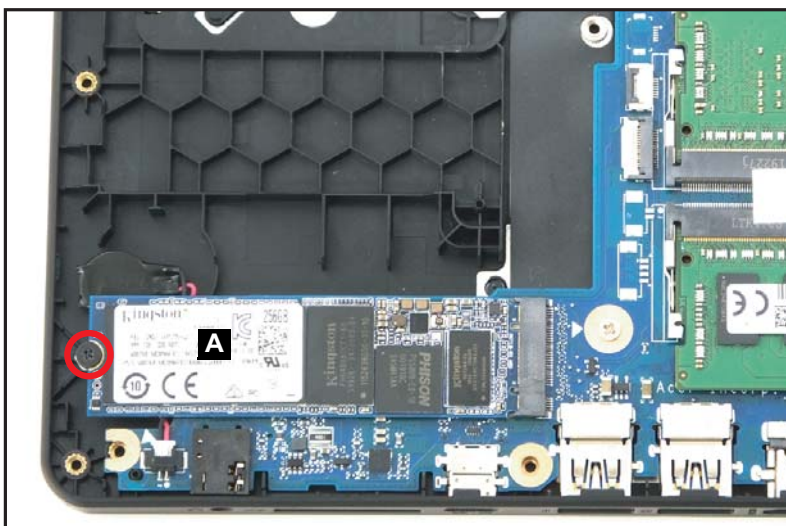



Figure 1-108. Replacing the SDD Module



ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.0*3.0	2.0±10% kgf/cm	1	

## Replacing the Heatsink

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+ **IMPORTANT:**

Apply approved thermal grease and ensure all heat pads are in position before replacing the module.

⚠ **CAUTION:**

Use caution when applying thermal grease. Thermal grease may cause damage to the mainboard.

The following thermal grease types are approved for use:

- Silmore GP50
- Honeywell
- Jet Motor 7762

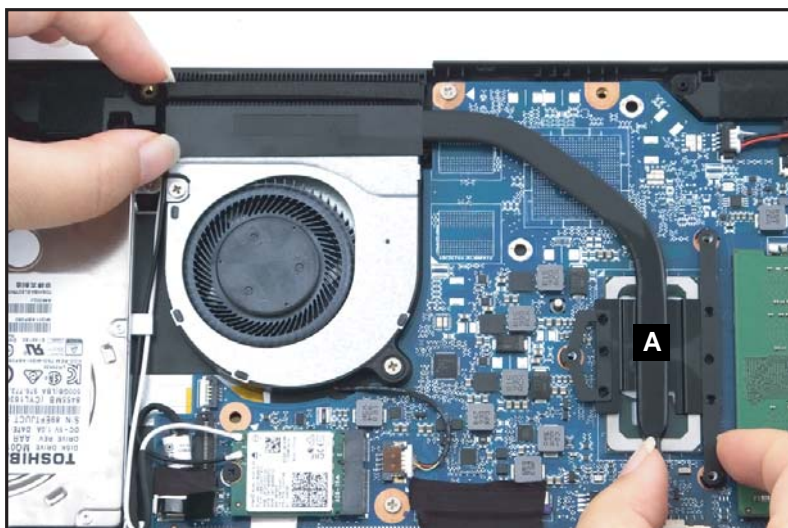
The following thermal pads are approved for use:

- Eapus XR-PE
1. Remove all traces of thermal grease from CPU (or GPU) using a lint-free cloth or cotton swab and Isopropyl Alcohol, Acetone, or other approved cleaning agent.
  2. Apply small amount of thermal grease to center of CPU.

⇒ **NOTE:**

Force used during installation of heatsink is sufficient to spread grease evenly over CPU top.

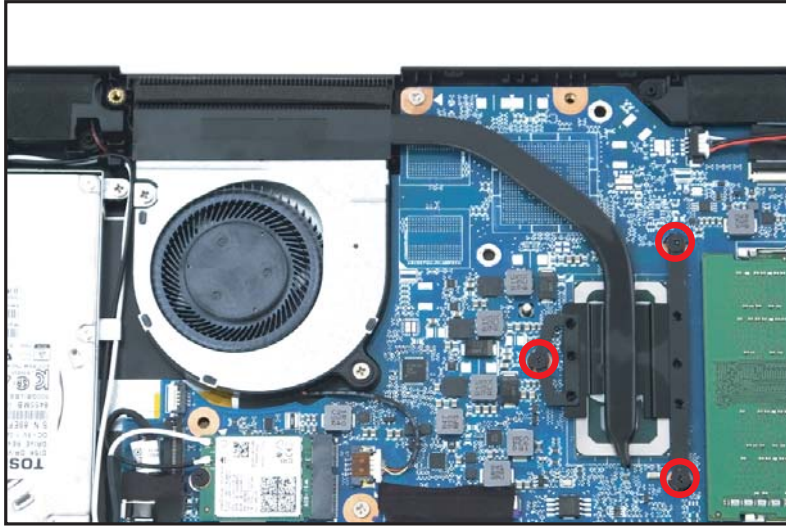
3. Place the heatsink (A) on the mainboard ([Figure 1-109](#)).




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**Figure 1-109.** Replacing the Heatsink

4. Install and secure three (3) screws to the heatsink ([Figure 1-110](#)). Ensure the heatsink is properly aligned and seated.



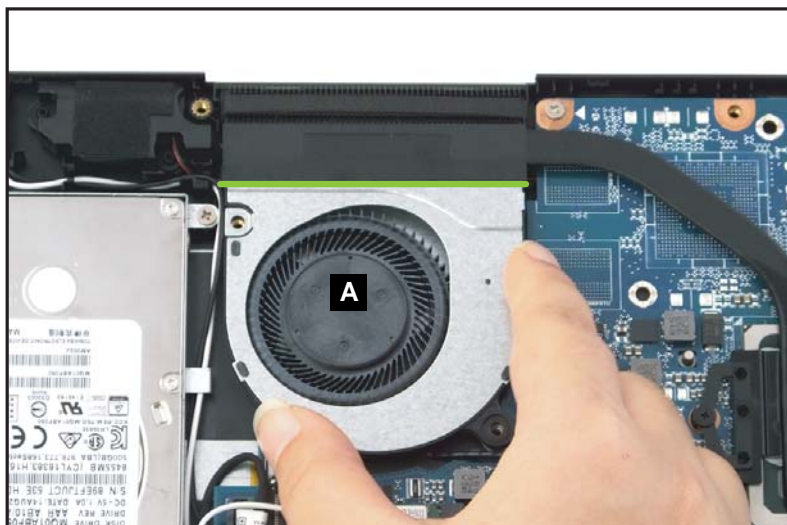
**Figure 1-110. Replacing the Heatsink**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.0*3.0	2.0±10% kgf/cm	3	

## Replacing the Fan Module

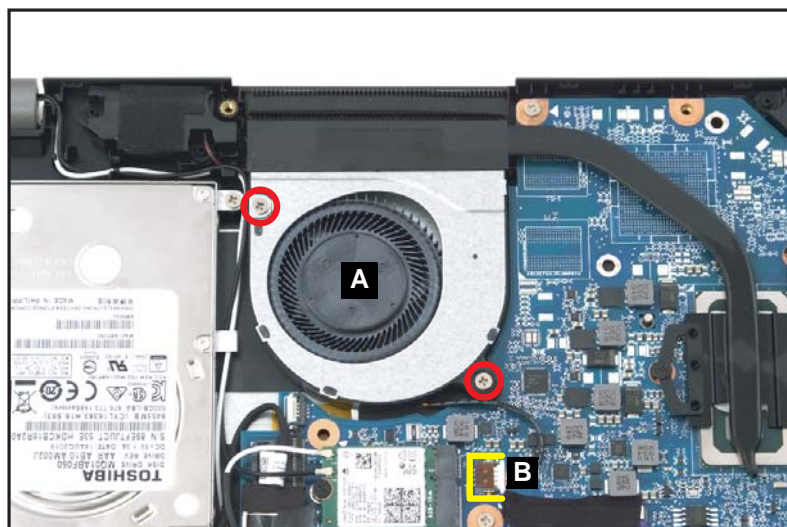
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1. Align the fan module (A) with the heatsink and place it onto its slot on the top assembly (Figure 1-111).




**Figure 1-111. Replacing the Fan Module**

2. Install and secure two (2) screws to the fan module (A) (Figure 1-112).
3. Connect the fan cable to the mainboard connector (B) (Figure 1-112).



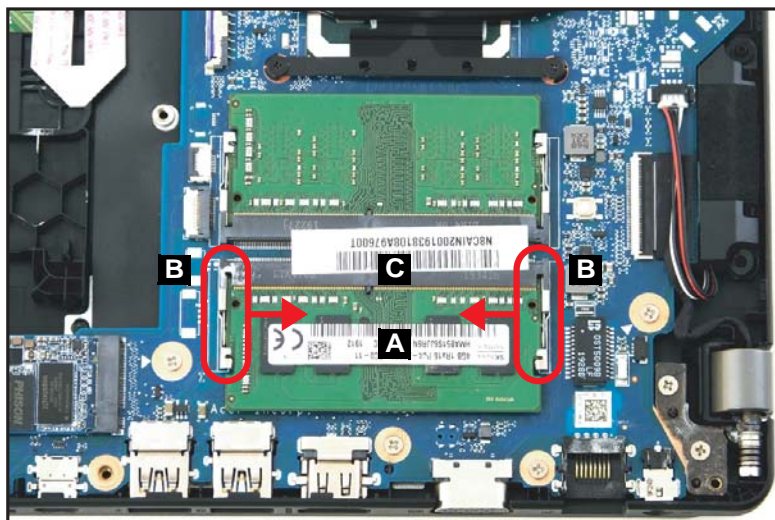
**Figure 1-112. Replacing the Fan Module**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*4.0	3.0±15% kgf/cm	2	

## Replacing the DIMM (Dual In-line Memory) Module

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1. Insert the DIMM module (A) to the mainboard connector (C) (Figure 1-113).
2. Press down on the DIMM module until the module clips (B) lock into position as shown in Figure 1-113.



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**Figure 1-113. Replacing the DIMM Module**

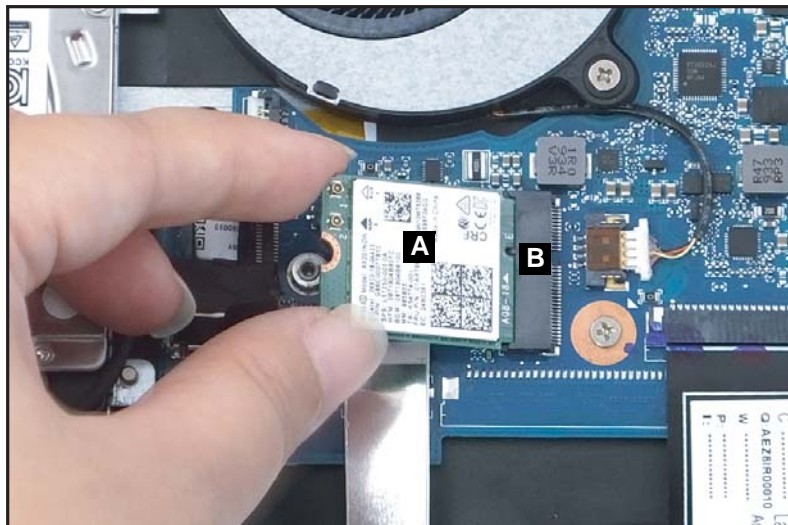
3. Repeat steps 1 and 2 for an additional DIMM module (if necessary).



## Replacing the WLAN (Wireless Local Area Network) Module

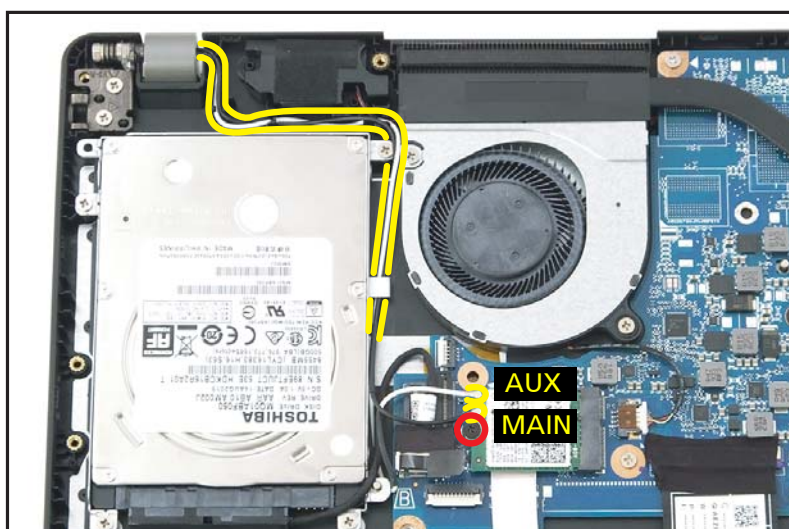
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1. Place and insert the WLAN module (A) into the mainboard connector (B) (Figure 1-114).




**Figure 1-114. Replacing the WLAN Module**

2. Install and secure one (1) screw to the WLAN module (Figure 1-115).
3. Route the WLAN antenna cables through the cable guides on the top assembly (Figure 1-115).
4. Connect the MAIN antenna (black-color) to the WLAN MAIN pin (Figure 1-115).
5. Connect the AUX antenna (white-color) to the WLAN AUX pin (Figure 1-115).



**Figure 1-115. Replacing the WLAN Module**

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.0*3.0	2.0±10% kgf/cm	1	



## Replacing the Battery Pack

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1. Align the battery pack (A) with the guide pins (D) (Figure 1-116).
2. Place the battery pack (A) to its compartment on the top assembly (Figure 1-116).

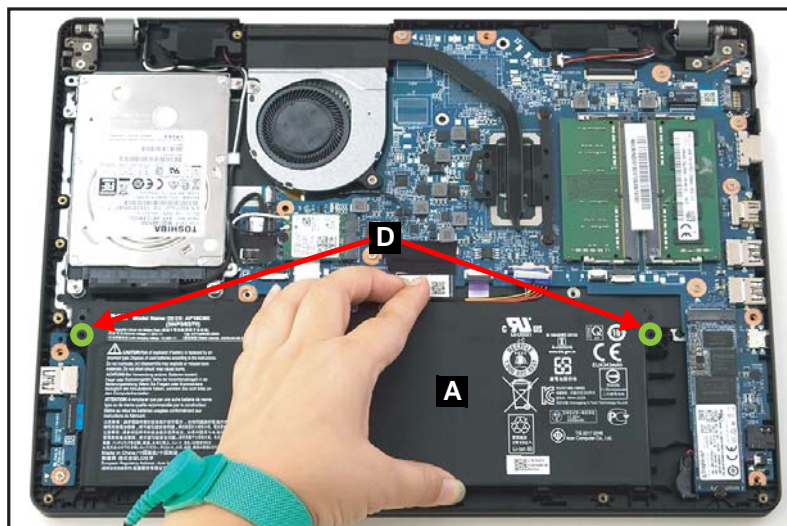


Figure 1-116. Replacing the Battery Pack

3. Connect the battery cable to the mainboard connector (C) (Figure 1-117).



Figure 1-117. Replacing the Battery Pack

4. Attach the adhesive tape (B) to the battery cable connector ([Figure 1-118](#)).



**Figure 1-118. Replacing the Battery Pack**

## Replacing the Base Cover

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1. Carefully place the base cover onto the top assembly. Make sure that the edges of the base cover are aligned properly to those of the top assembly ([Figure 1-119](#)).



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**Figure 1-119. Replacing the Base Cover**

2. Press downward on the system to engage the tabs. Make sure all the tabs are fully engaged ([Figure 1-120](#)).



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**Figure 1-120. Replacing the Base Cover**

3. Install and secure twelve (12) screws to the base cover (Figure 1-121).



Figure 1-121. Replacing the Base Cover

ID	Size	Torque	Quantity	Screw Type
Red Call out	M2.5*5.2	3.0±15% kgf/cm	12	