Dell Latitude 7200 2-in-1

Service Manual

Regulatory Model: T04J
Regulatory Type: T04J001
October 2020
Rev. A02

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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1

Working on your computer

Topics:

- Before Working Inside Your Tablet
- Safety instructions
- Turning off your computer — Windows 10
- After working inside your computer

Before Working Inside Your Tablet

Prerequisites

Use the following safety guidelines to help protect your tablet from potential damage and to help to ensure your personal safety. Unless otherwise noted, each procedure included in this document assumes that the following condition exists:

- You have read the safety information that shipped with your tablet.

About this task

NOTE: Before working inside your tablet, read the safety information that shipped with your tablet. For additional safety best practices information, see the Regulatory Compliance Homepage at **www.dell.com/regulatory_compliance**

CAUTION: Many repairs may only be done by a certified service technician. You should only perform troubleshooting and simple repairs as authorized in your product documentation, or as directed by the online or telephone service and support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty. Read and follow the safety instructions that came with the product.

CAUTION: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface, such as a connector on the back of the tablet.

CAUTION: Handle components and cards with care. Do not touch the components or contacts on a card. Hold a card by its edges or by its metal mounting bracket.

CAUTION: When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.

NOTE: The color of your tablet and certain components may appear differently than shown in this document.

To avoid damaging your tablet, perform the following steps before you begin working inside the tablet.

Steps

1. Ensure that your work surface is flat and clean to prevent the tablet cover from being scratched.
2. Turn off your tablet.
3. If the tablet is connected to a docking device (docked) such as the optional docking station or keyboard dock, un-dock it.
4. Disconnect the power adapter from the tablet.
5. Press and hold the power button for a few seconds to remove the flea power from the system board.

   CAUTION: To guard against electrical shock, always unplug your tablet from the electrical outlet.

CAUTION: Before touching anything inside your tablet, ground yourself by touching an unpainted metal surface, such as the metal at the back of the tablet. While you work, periodically touch an unpainted metal surface to dissipate static electricity, which could harm internal components.

6. Remove the storage SD card from the tablet.

Safety instructions

Prerequisites

Use the following safety guidelines to protect your computer from potential damage and to ensure your personal safety. Unless otherwise noted, each procedure included in this document assumes that the following conditions exist:

- You have read the safety information that shipped with your computer.
- A component can be replaced or, if purchased separately, installed by performing the removal procedure in reverse order.

About this task

NOTE: Disconnect all power sources before opening the computer cover or panels. After you finish working inside the computer, replace all covers, panels, and screws before connecting to the power source.

WARNING: Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage

CAUTION: Many repairs may only be done by a certified service technician. You should only perform troubleshooting and simple repairs as authorized in your product documentation, or as directed by the online or telephone service and support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty. Read and follow the safety instructions that came with the product.

CAUTION: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface at the same time as touching a connector on the back of the computer.

CAUTION: Handle components and cards with care. Do not touch the components or contacts on a card. Hold a card by its edges or by its metal mounting bracket. Hold a component such as a processor by its edges, not by its pins.

CAUTION: When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.

NOTE: The color of your computer and certain components may appear differently than shown in this document.

CAUTION: System will shut down if side covers are removed while the system is running. The system will not power on if the side cover is removed.

Turning off your computer — Windows 10

About this task

CAUTION: To avoid losing data, save and close all open files and exit all open programs before you turn off your computer or remove the side cover.

Steps

1. Click or tap .

2. Click or tap and then click or tap **Shut down**.

   NOTE: Ensure that the computer and all attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your operating system, press and hold the power button for about 6 seconds to turn them off.

After working inside your computer

About this task

NOTE: Leaving stray or loose screws inside your computer may severely damage your computer.

Steps

1. Replace all screws and ensure that no stray screws remain inside your computer.
2. Connect any external devices, peripherals, or cables you removed before working on your computer.
3. Replace any media cards, discs, or any other parts that you removed before working on your computer.
4. Connect your computer and all attached devices to their electrical outlets.
5. Turn on your computer.

2

Disassembly and reassembly

Topics:

- Disassembly and reassembly

Disassembly and reassembly

Remove SD memory card and SIM card tray

Steps

1. Follow the procedure in Before working inside your tablet.

   NOTE: disconnect the power and drain flea power before preforming the steps

2. Lay the tablet on a plane and flat surface, with the kickstand facing upward.
3. Press the SD memory card to release it.

   NOTE: Ensure to turn off or disconnect power, to drain flea power before removing or installing the memory card and/or SIM card.

4. Slide the SD memory card out from the system.
5. To remove the SIM card tray from the system, insert a pin into the release hole to release the SIM card.
6. Remove the SIM card tray from the system.

Kickstand

Latitude 7210 2-in-1 has the Kickstand power on feature. When the kickstand is deployed, the tablet will power on. If the tablet is powered on with the kickstand deployed, press and hold the power button to turn off the tablet, and then begin the tablet disassembly. There is no need to close the kickstand, proceed to remove the screws securing the display assembly.

Display Assembly

Display panel pry points

For the Latitude, on-site technicians must take care to remove the display panel carefully. The image below shows the proper location for prying the display panel from the system after removing the screws securing the display panel.

NOTE:

There are two different configurations of the Latitude 7210 2-in-1:

- Non-security config with non-captive screws.
- Security config with captive screws.

1. Remove the six screws (non-security config) / six captive screws (security config) securing the display assembly of Latitude 7210 2-in-1 to the system chassis.

2. Using a plastic scribe, push the two release holes next to the hinges to loosen the display assembly from the display back cover.

3. Flip the system over so the display assembly is facing upwards.

4. Insert the plastic scribe into the gap created in step #1 and with a suction cup (optional), pry open the display assembly from the bottom-left corner of the front side of the system. Work your way around the right side of the display assembly.

5. Continue working your way around the top side of the display assembly.

6. Work your way around the left side of the display assembly.

7. Carefully flip the display assembly over from the top edge and lay the display assembly face-down next to the display back cover. Do not pull away the display assembly from the base. The display assembly is still connected to the system board on the base via the display cable. Carefully flip the display assembly over and disconnect the display cable.

8. Slide the battery power switch on the system board to **OFF**.

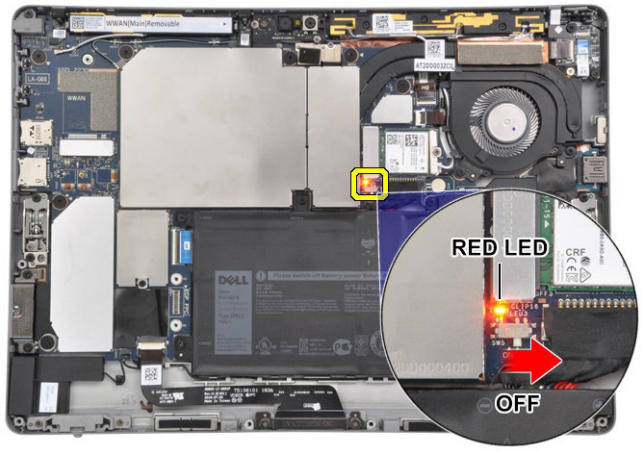


Figure 1. Battery OFF

9. Remove the two M2x2.5 screws securing the display cable bracket to the system board and remove the display cable bracket.

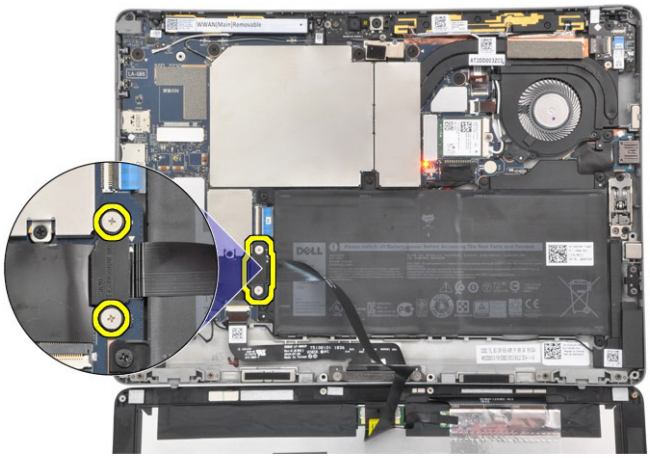


Figure 2. Remove Display cable Bracket

10. Disconnect the display cable from the system board and remove the display panel assembly from the system.

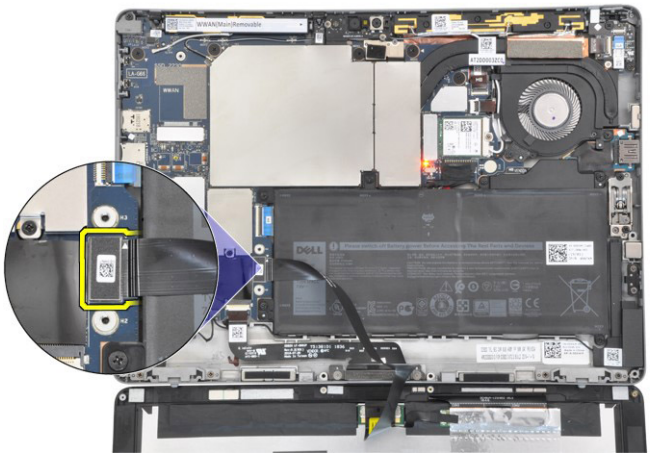


Figure 3. Remove display cable

Removing the display assembly

Steps

1. Follow the procedure described in Before working on your tablet.
2. Open the kickstand by holding the tablet vertically and pressing it down. Place the tablet with the display facing down.

   NOTE: You can also open the kickstand from the speaker recess area.

   NOTE: SIM card slot is available only on tablets shipping with WWAN module.

3. Place the tablet on a flat surface and lift the stand to reveal the base of the tablet.

   NOTE: Ensure to open the kickstand to 145 degrees.

4. To release the display panel assembly:
   a. Loosen the six captive screws securing the display back assembly in place.
   b. Close the kickstand [2] and flip the tablet to view the display.

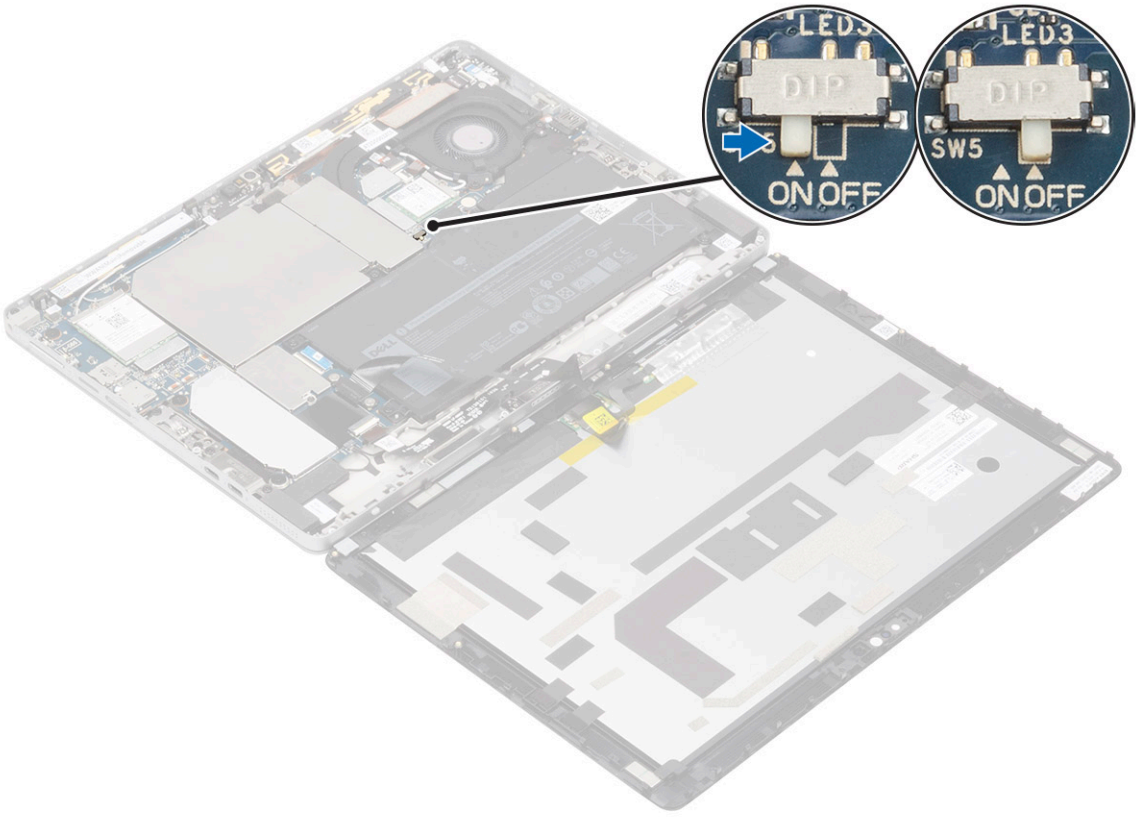
5. Use a plastic scribe [1] to pry the edges [2] of the display panel starting from the bottom side first (near the docking port).

NOTE: Flip the tablet so the LCD is upward.

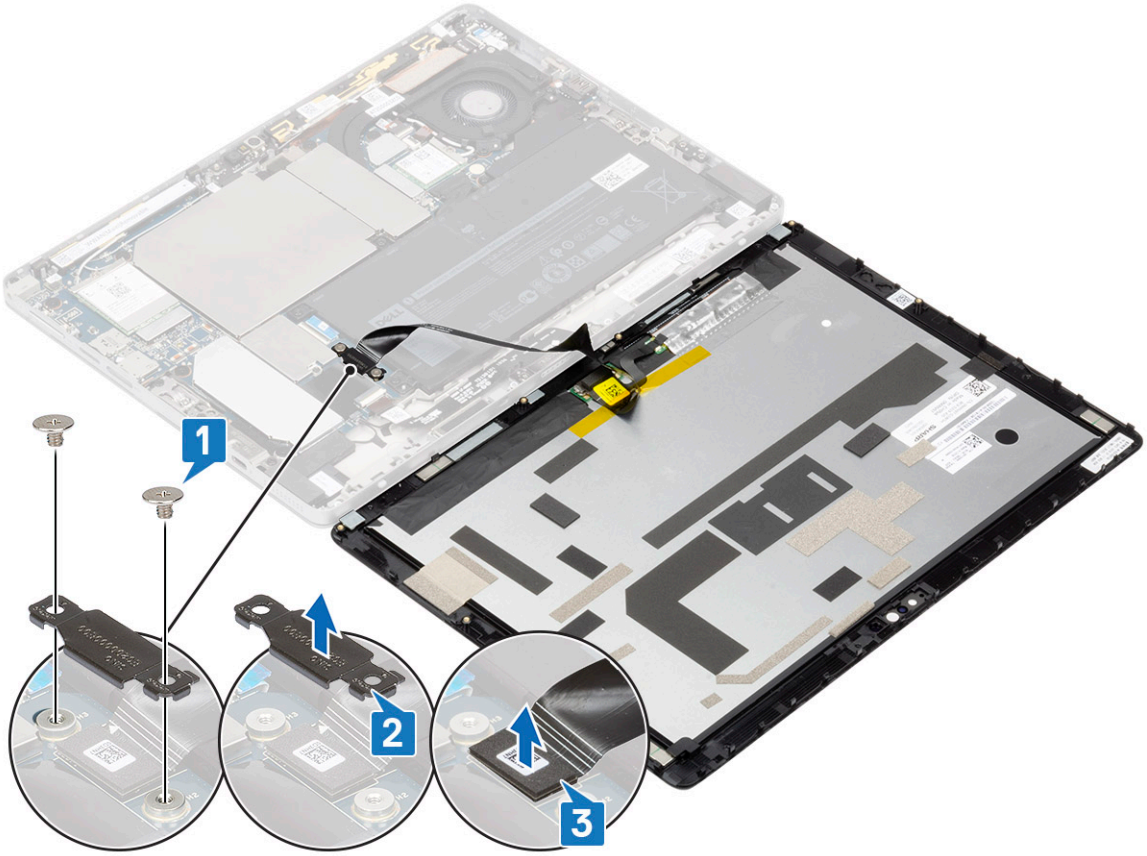
NOTE: Ensure to pry from the docking port and gently moving clockwise to avoid damage to the plastic clips. Use a plastic scribe.

6. Flip the display panel on a plane surface with the LCD panel upwards.

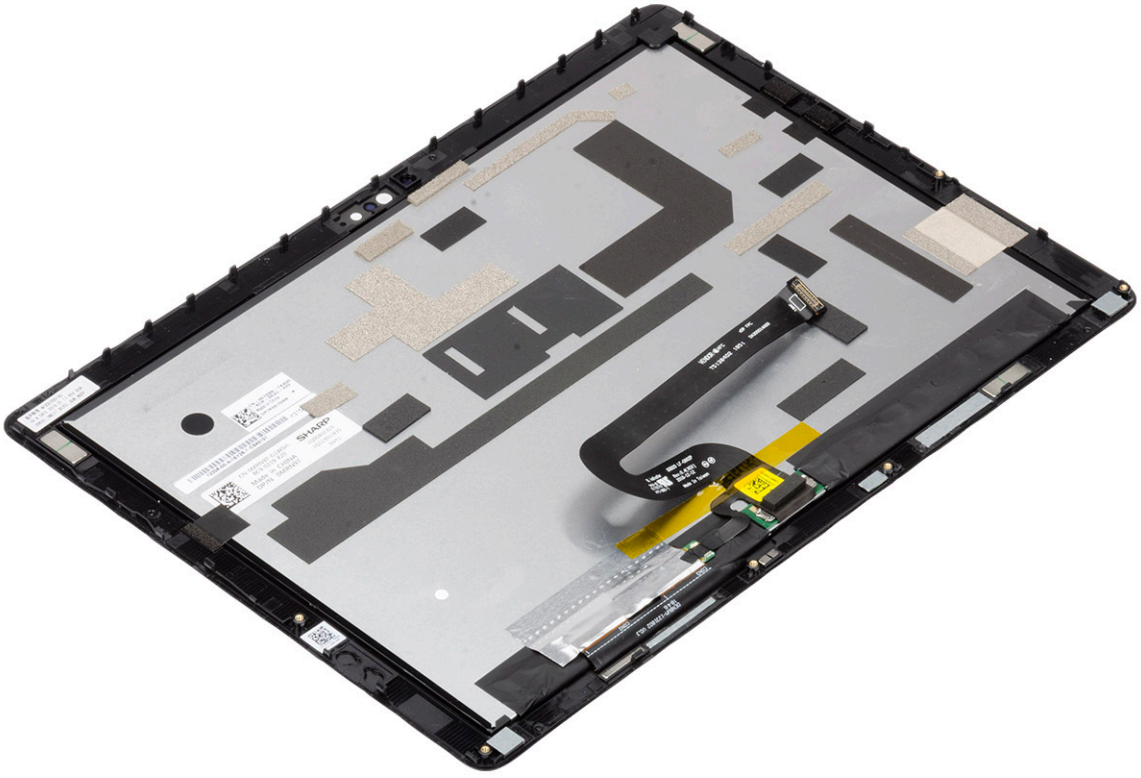
7. Slide the power switch on the system board to **OFF**.



8. Remove the two M2.5 X 3 screws securing the display cable bracket to the system board, and remove the display cable bracket.



9. Disconnect the display cable from the system board and remove the display panel assembly from the system.



Installing the display panel assembly

Steps

1. Place the display panel on a plane surface.
2. Connect the display cable to the connector on the system board

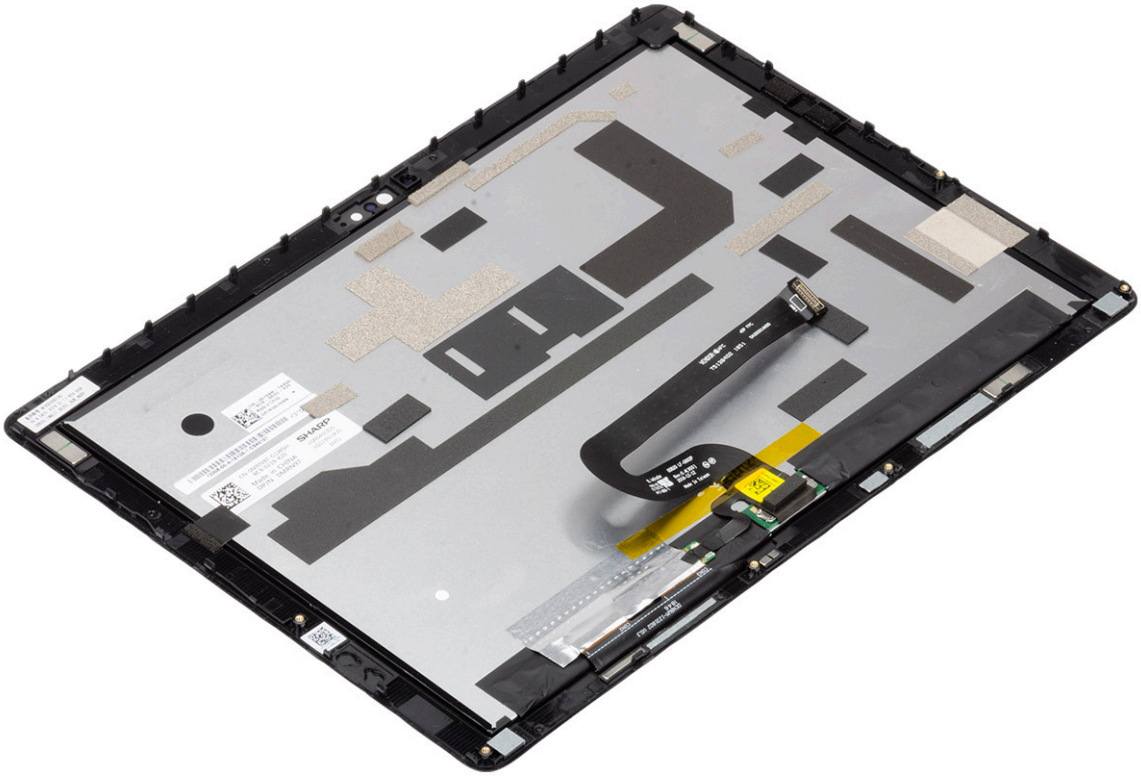


Figure 4. Connect the display cable

3. Connect the battery cable to the connector on the system board.

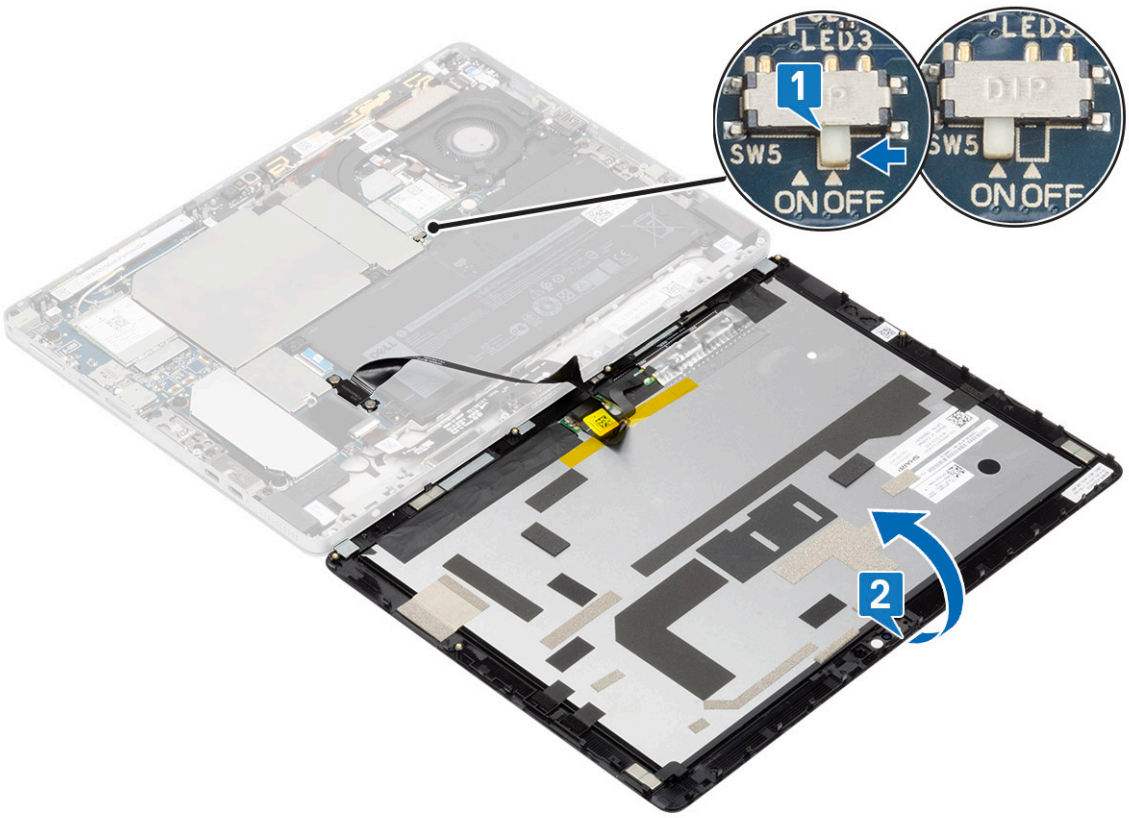


Figure 5. Connect the battery cable

4. Install the display panel on the tablet and press the edges until they snap in.

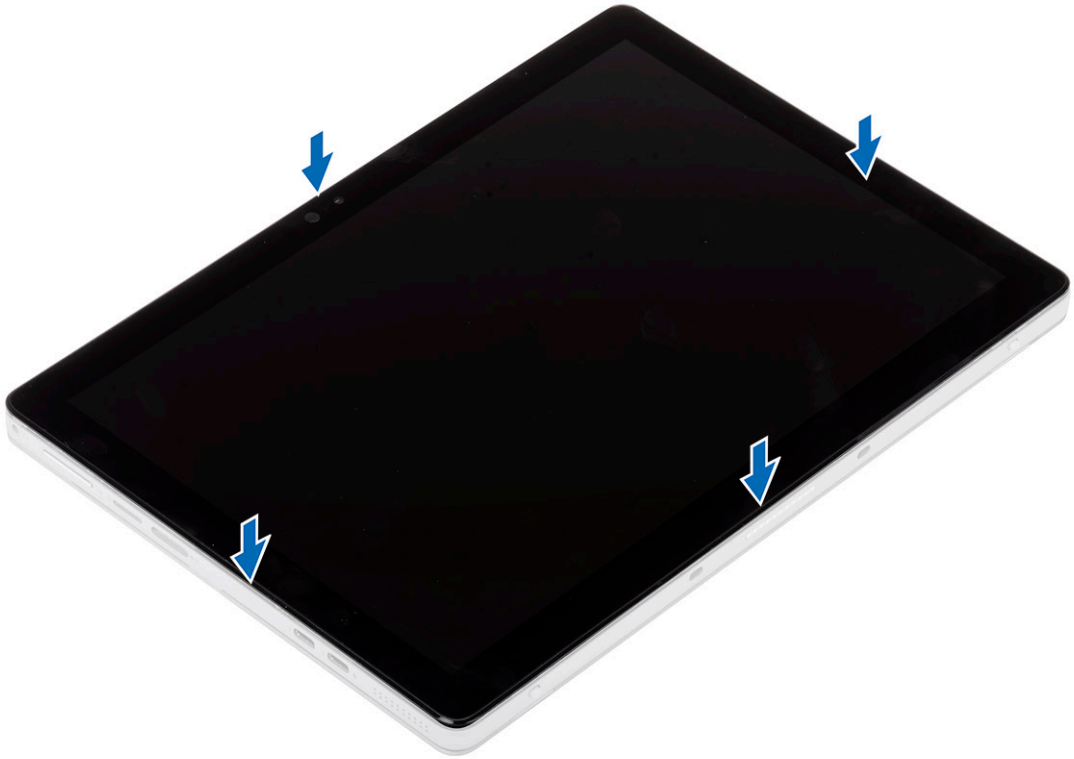


Figure 6. Install the display panel

5. Flip the tablet and open the kickstand.

Figure 7. Flip the tablet

6. Replace the M1.6 x 3 screws to secure the tablet to the display panel.

Solid-state drive

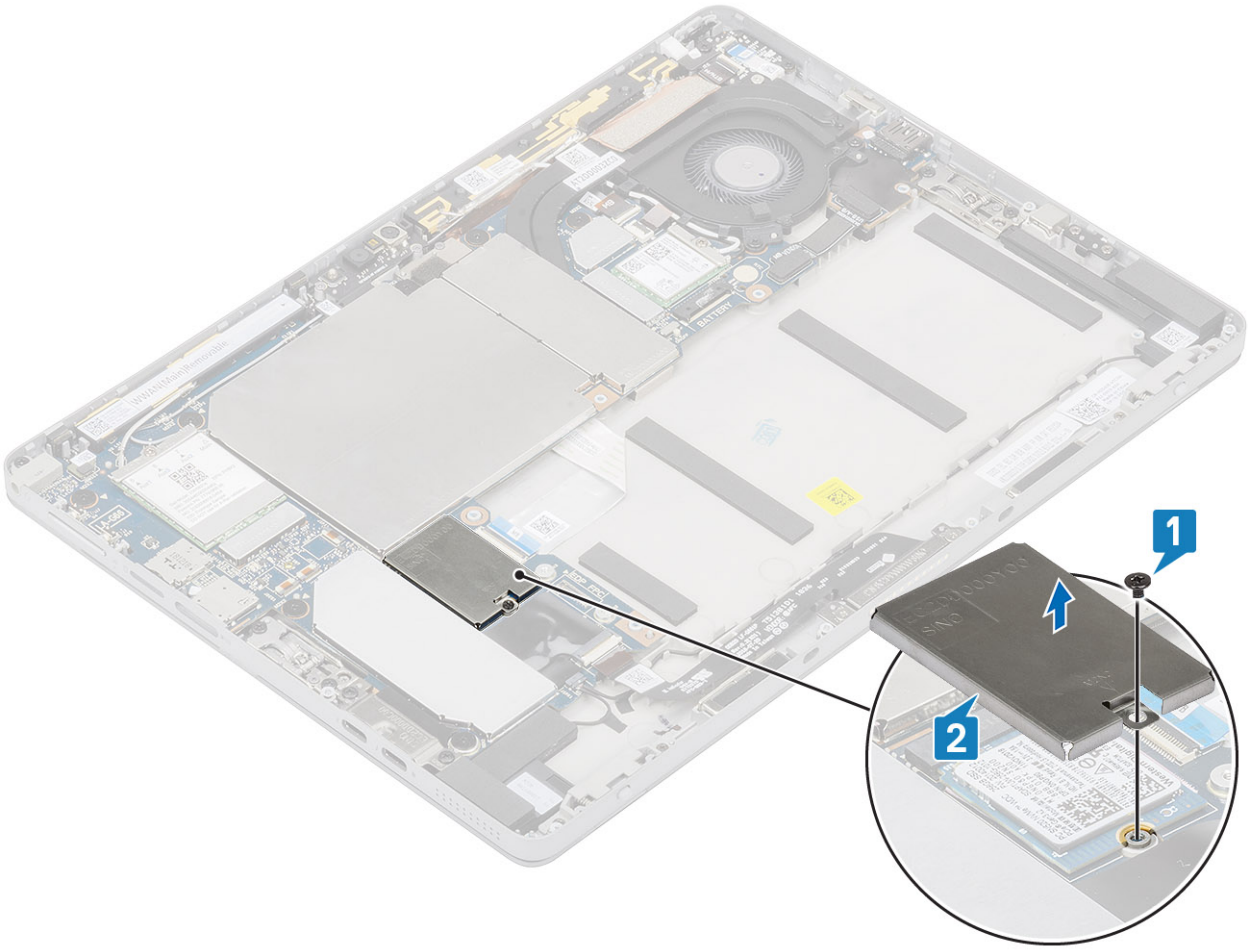
Removing the SSD module

Steps

1. Follow the procedure in before working inside your tablet.
2. Remove the:
   a. Remove the SIM card and display panel.

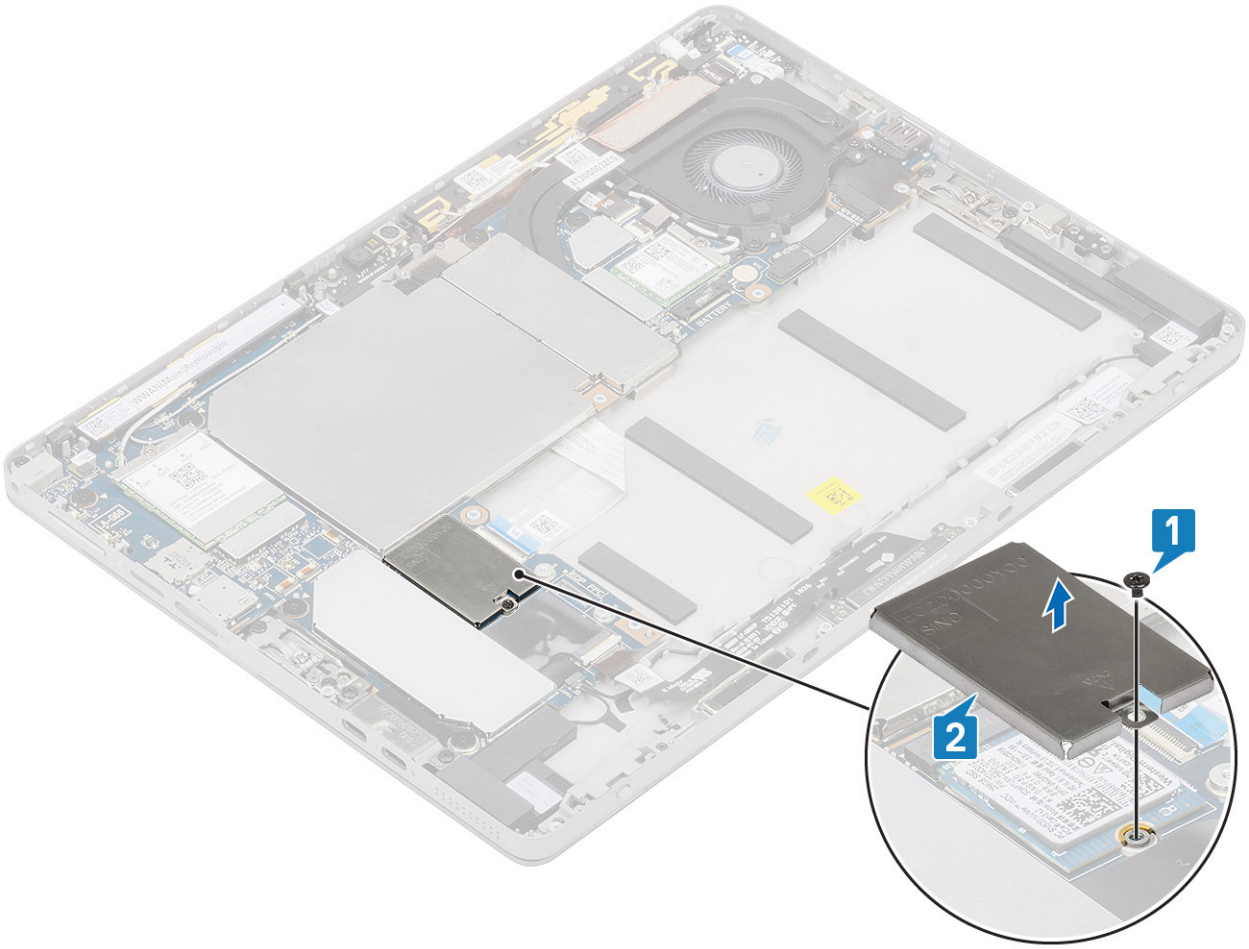
      NOTE: SIM card slot is available only on tablets shipping with WWAN module.

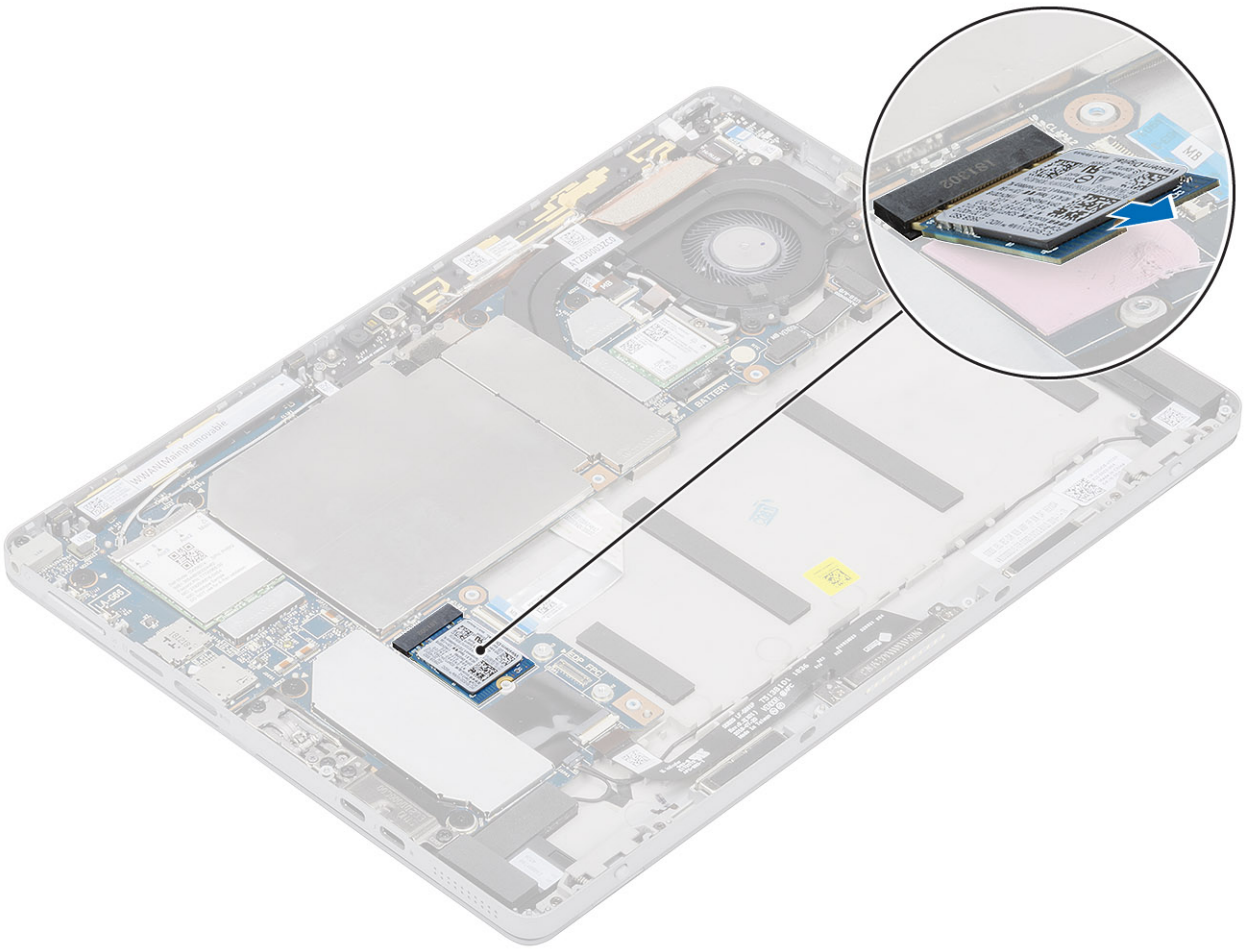
3. To remove the SSD module:
   a. Remove the single M2 x 2.5 screw securing the M.2 2230 SSD shielding cover.



   b. Lift the M.2 2230 SSD shielding cover from the tablet.
   c. Slide and lift the SSD module from the slot on the tablet.

      NOTE: Ensure NOT to lift the SSD card by an angle more than 15°.

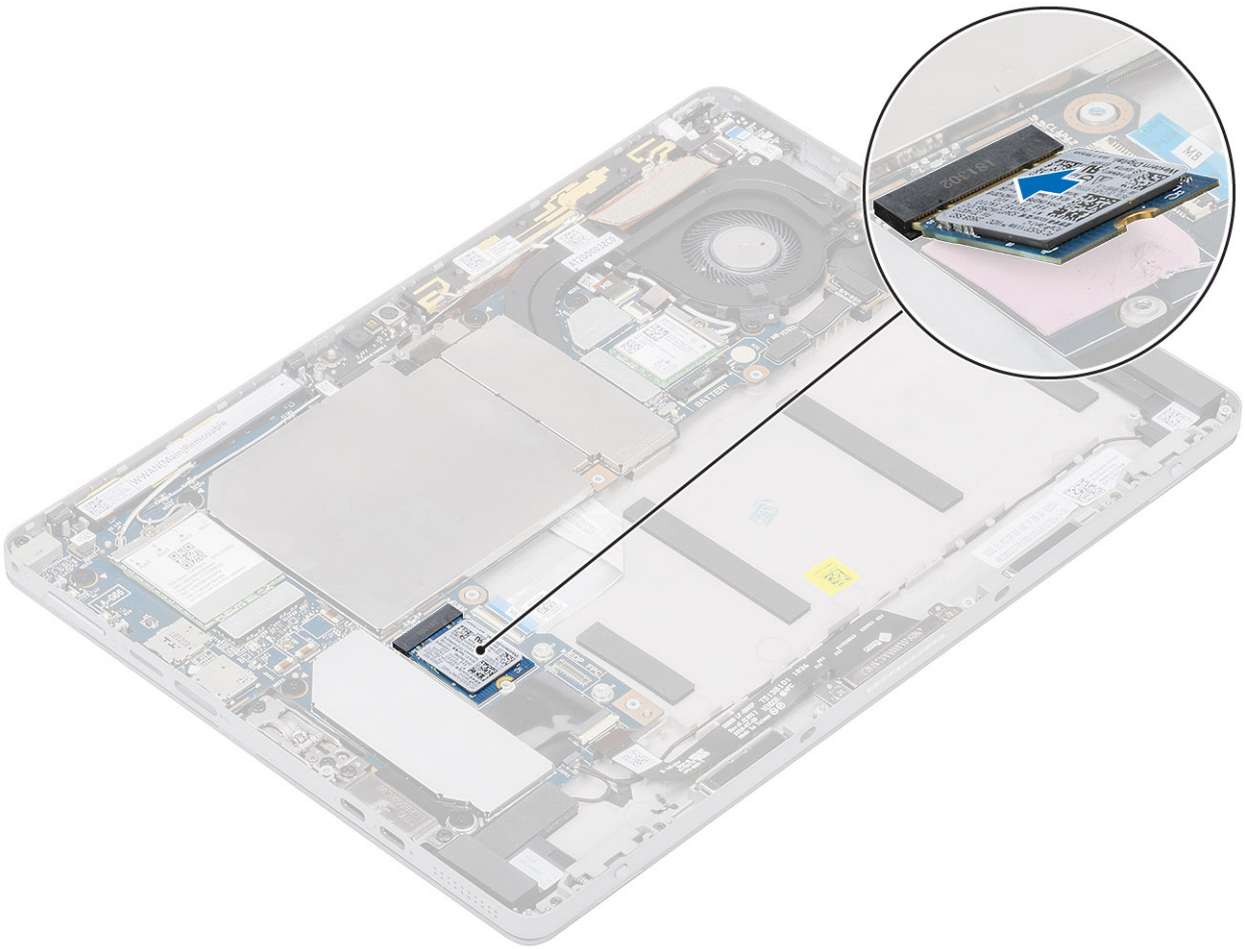

1
2



Installing SSD module

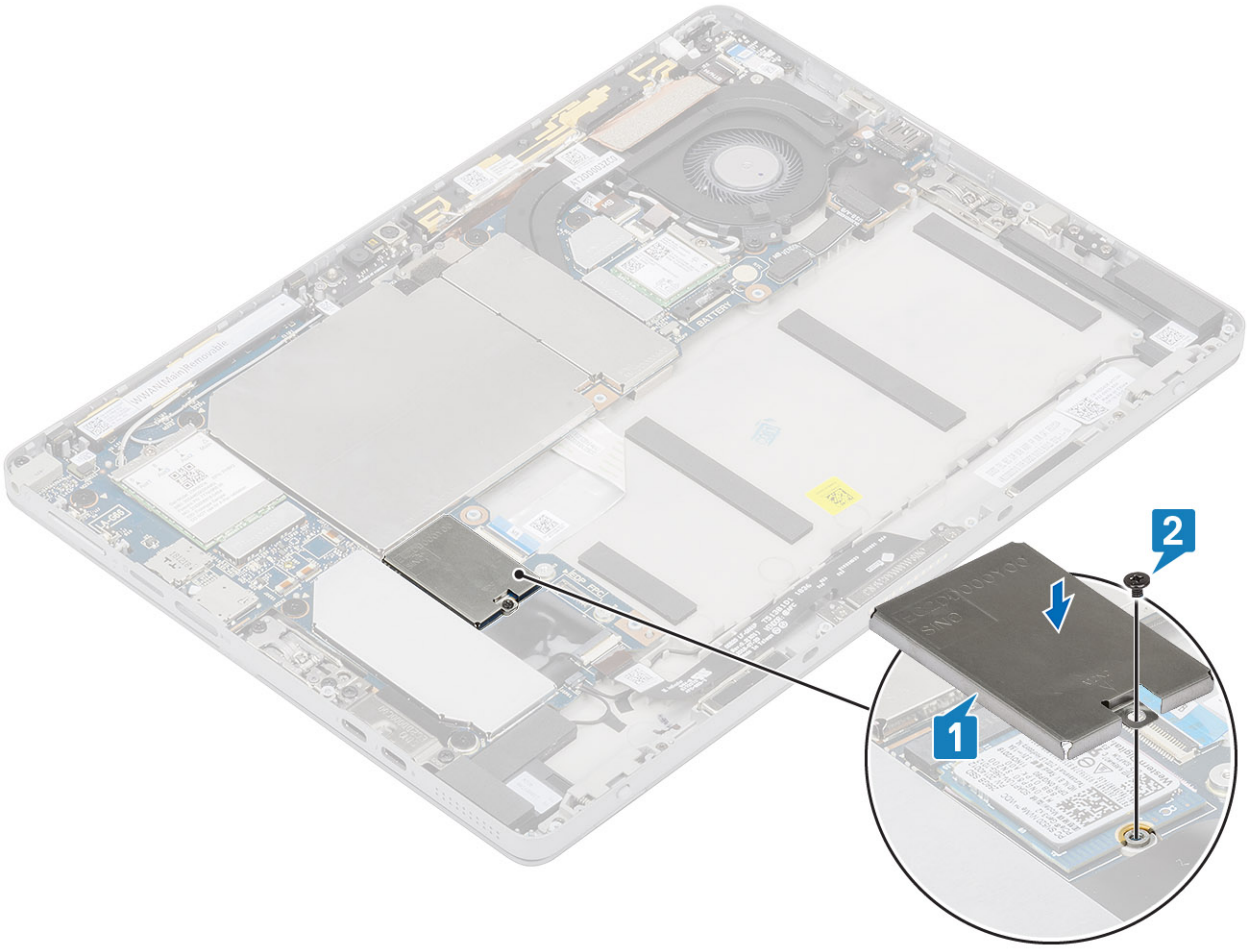
Steps

1. Insert the SSD module into the slot on the system board.



2. Replace the M2 x 2.5 screw to secure SSD shield.

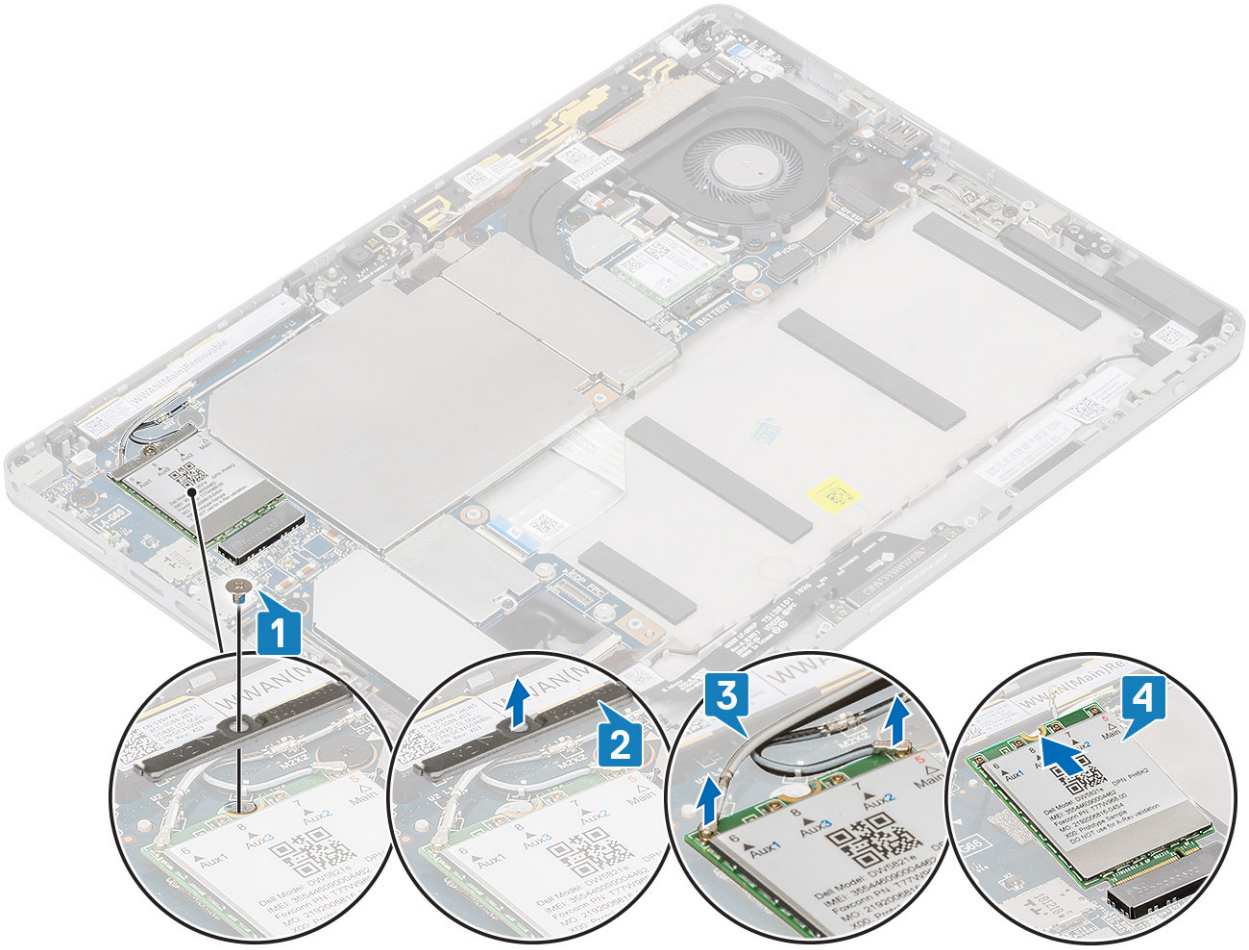
NOTE: Align the shield carefully to avoid damage to the clips heads.


2
1

WWAN card

Removing the WWAN card

About this task

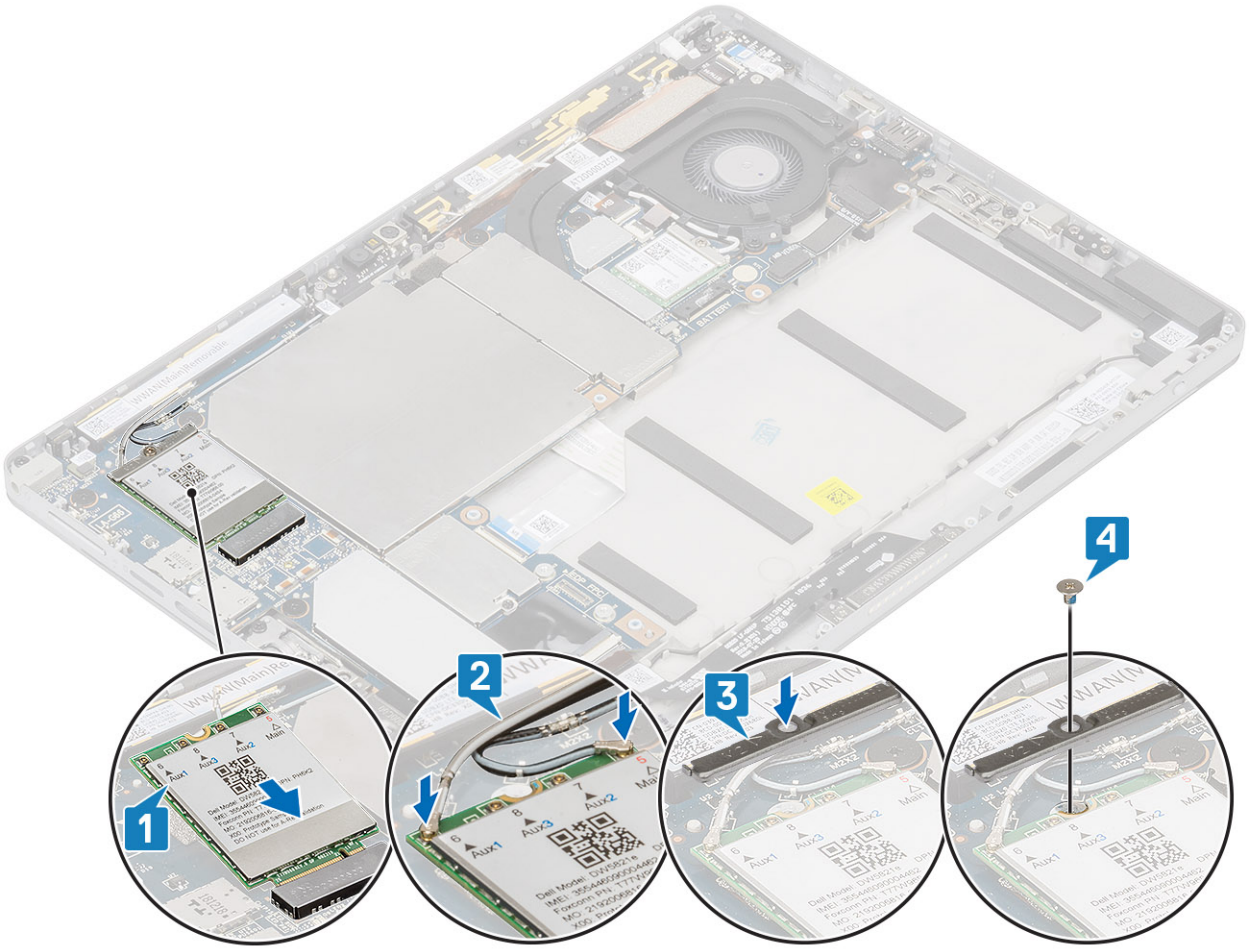


Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
3. Loosen the M2 x 2.5 screws that secures the WWAN bracket to the WWAN card [1].
4. Remove the WWAN bracket [2].
5. Disconnect the antenna cables from the WWAN card [3].
6. Slide and remove the WLAN card from the WWAN card slot [4].

Installing the WWAN card

About this task



Steps

1. Align the notch on the WWAN card with the tab on the WWAN-card slot and insert the WWAN card at an angle into the WWAN-card slot [1].
2. Connect the antenna cables to the WWAN card. [2]
3. Place the WWAN bracket to the WWAN card [3]
4. M2x3.0 that secures the WWAN bracket to the WWAN card.
5. Install the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
6. Follow the procedure in After working inside your tablet.

Battery

Lithium-ion battery precautions

CAUTION:

- **Exercise caution when handling Lithium-ion batteries.**

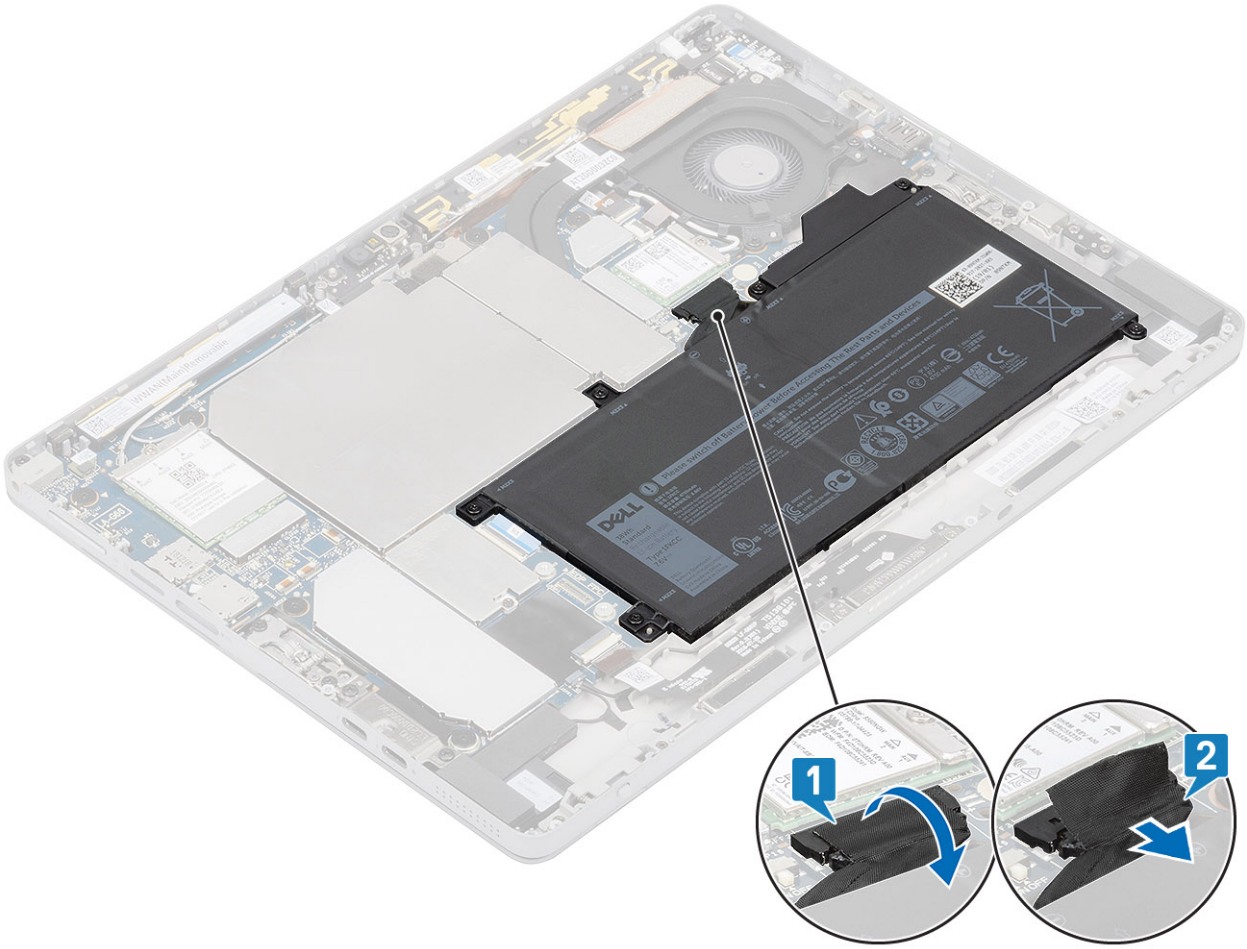
- **Discharge the battery completely before removing it. Disconnect the AC power adapter from the system and operate the computer solely on battery power—the battery is fully discharged when the computer no longer turns on when the power button is pressed.**
- **Do not crush, drop, mutilate, or penetrate the battery with foreign objects.**
- **Do not expose the battery to high temperatures, or disassemble battery packs and cells.**
- **Do not apply pressure to the surface of the battery.**
- **Do not bend the battery.**
- **Do not use tools of any kind to pry on or against the battery.**
- **Ensure any screws during the servicing of this product are not lost or misplaced, to prevent accidental puncture or damage to the battery and other system components.**
- **If the battery gets stuck inside your computer as a result of swelling, do not try to release it as puncturing, bending, or crushing a lithium-ion battery can be dangerous. In such an instance, contact Dell technical support for assistance. See www.dell.com/contactdell.**
- **Always purchase genuine batteries from www.dell.com or authorized Dell partners and resellers.**

Removing the battery

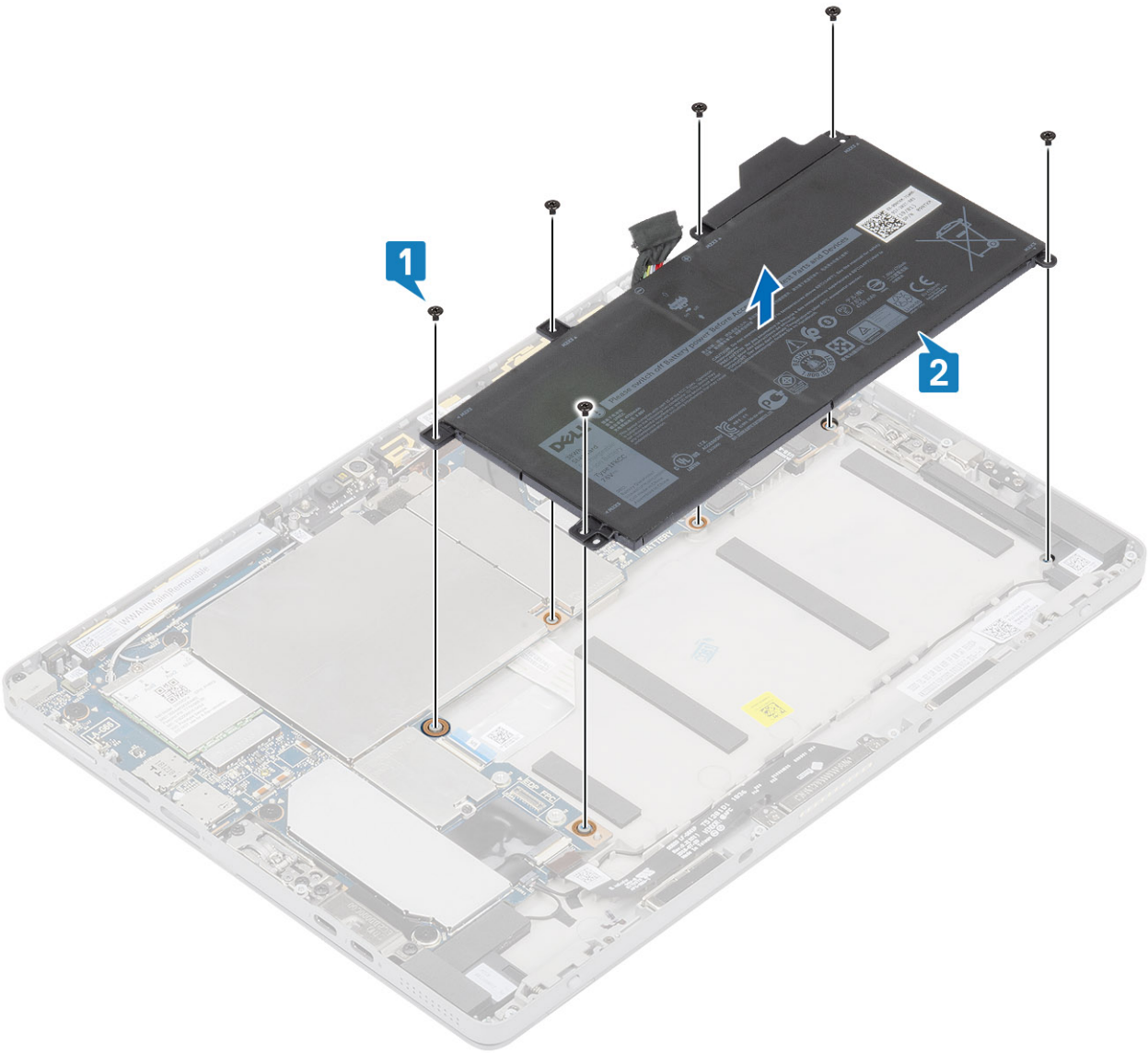
Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
3. To remove the battery:
   a. Peel off the adhesive tape covering the battery connector [1].

b. Disconnect the battery cable from the system board [2]



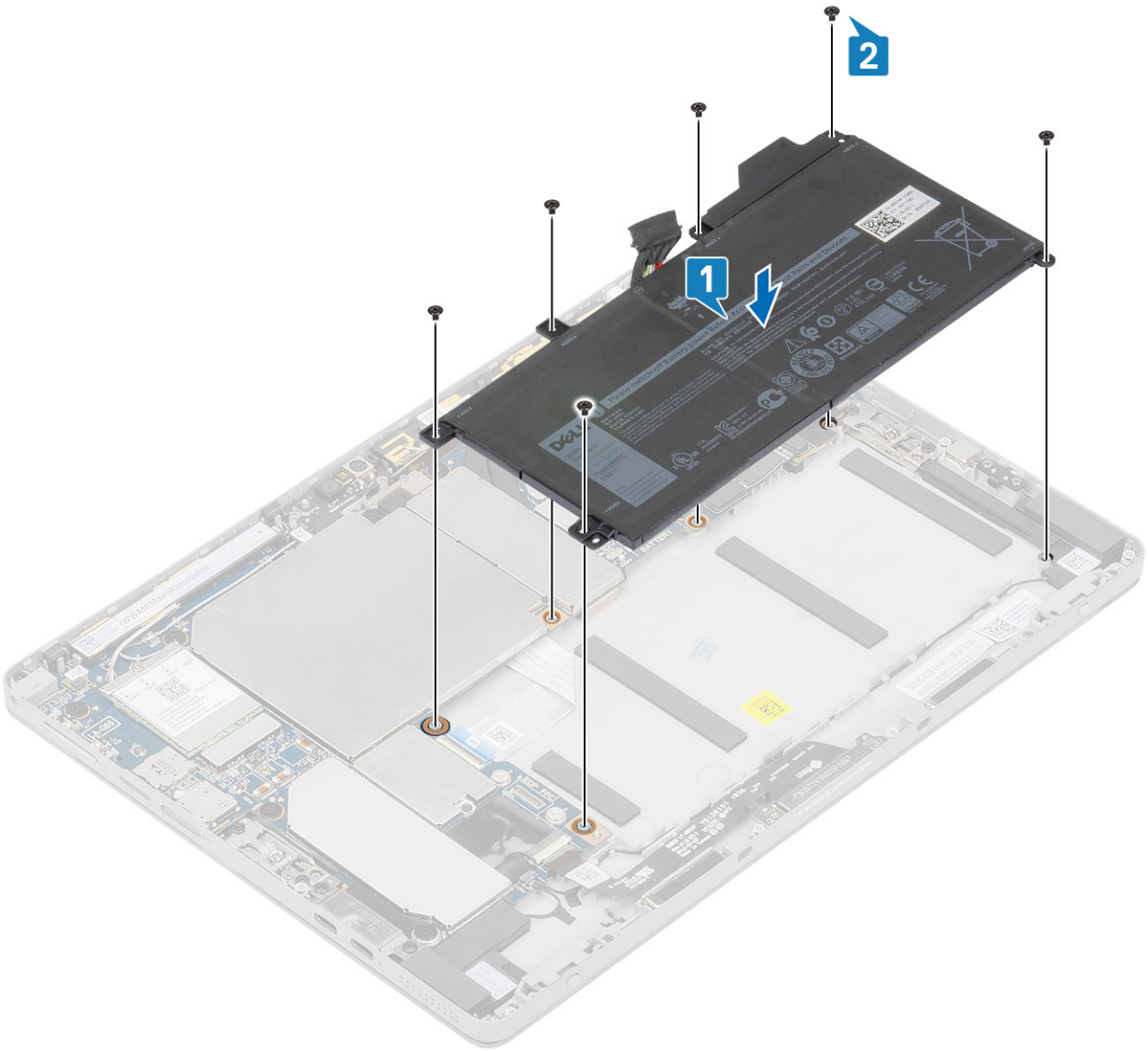
c. Remove the M2 x 4 screws that secure the battery to the chassis [1].
d. Lift the battery off the chassis [2[.



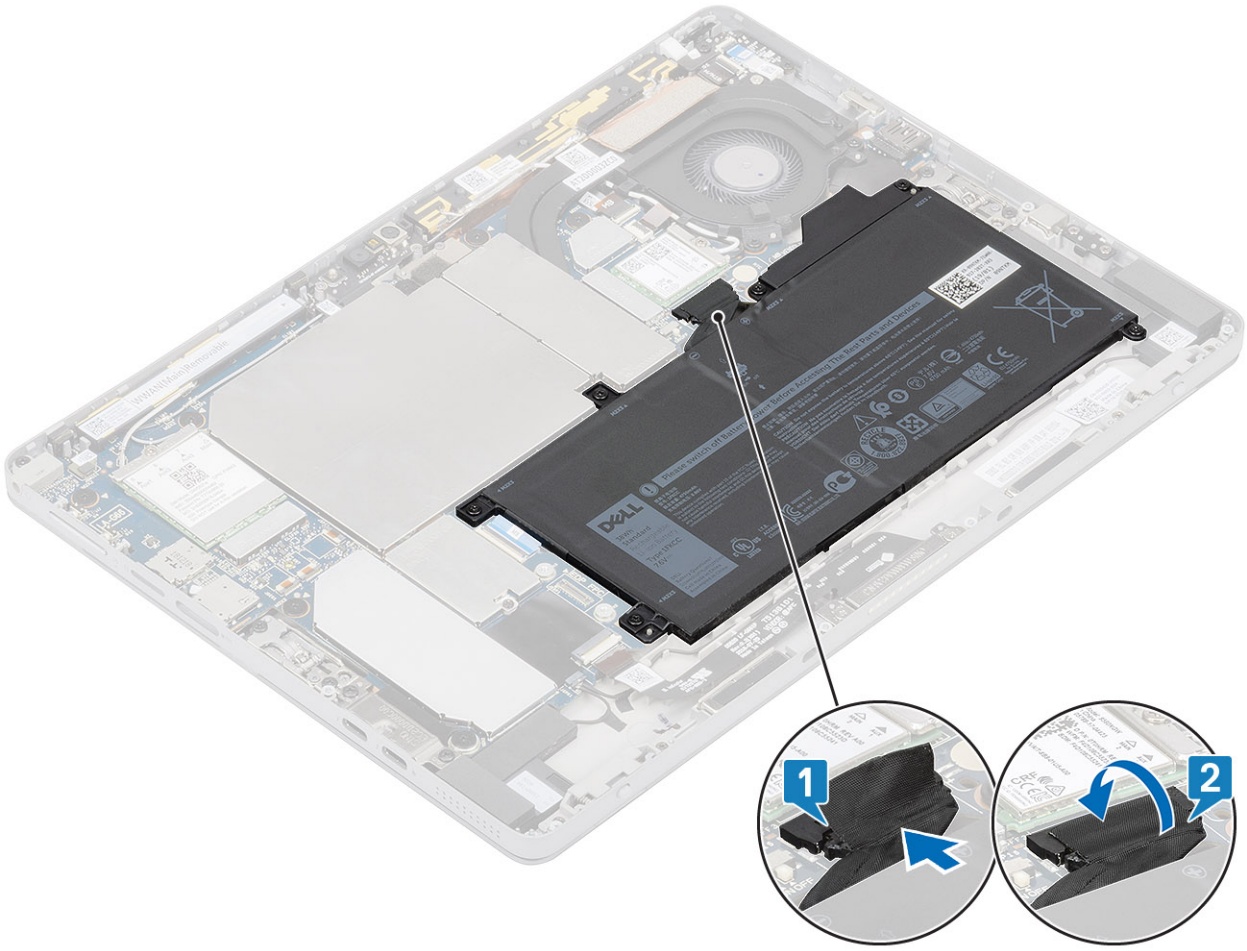
Installing the battery

Steps

1. Align the screw holes on the battery with the screw holes on the chassis [1]
2. Replace the M2 x 4 screws that secure the battery to the chassis [2]



3. Connect the battery cable to connector on the system board [1]



4. Adhere the tape on the battery connector[2].
5. Install the:
   a. SD card
   b. SIM
6. Follow the procedure in After working inside your tablet.

Heat sink

Removing the heat sink assembly

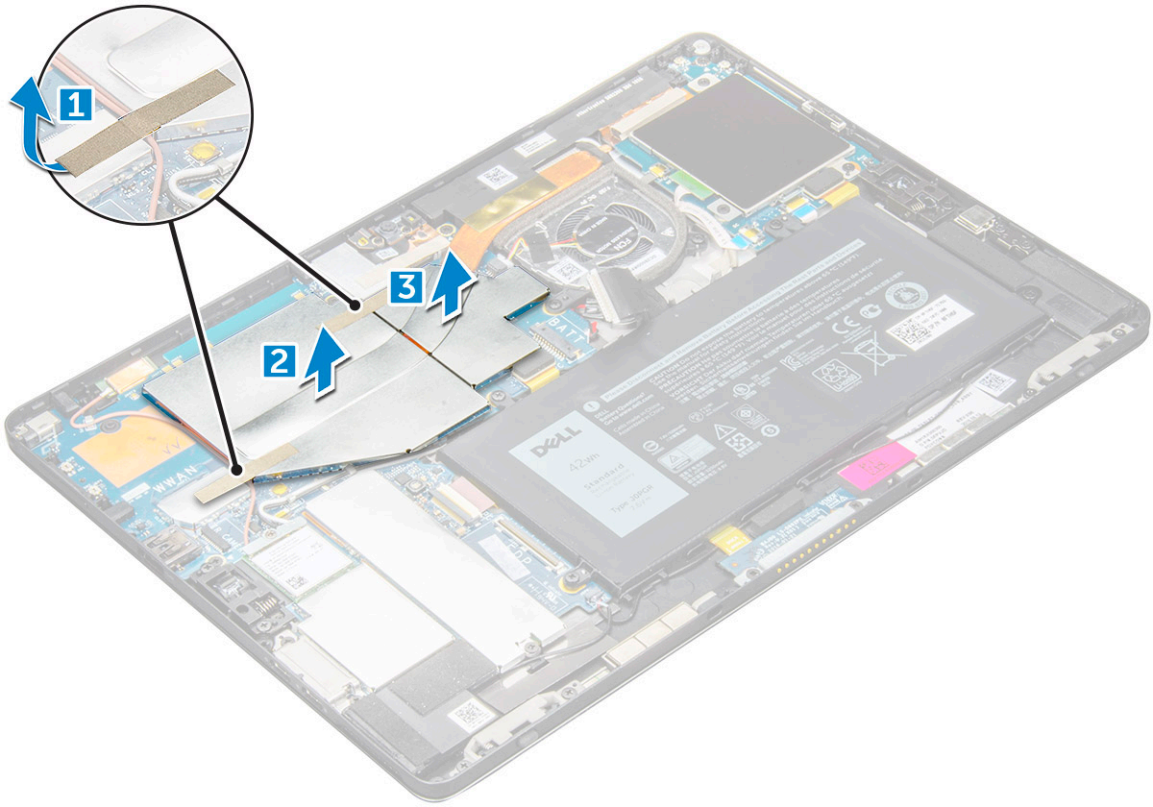
Steps

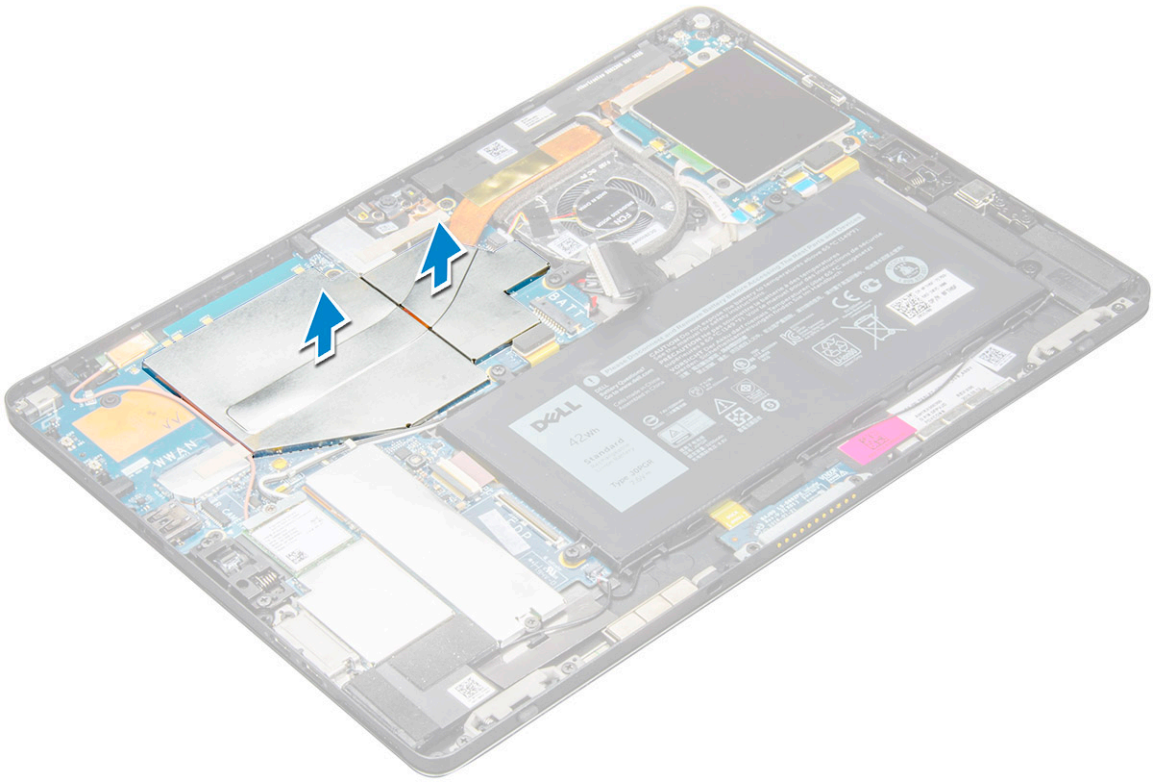
1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
3. To remove the heat-sink shield
   a. Lift the left heat-sink shield [1] and right heat-sink shield [2] away from the heat-sink.
   b. Unroute the WLAN card cables from the routing guides [2]..

      Open the latch and disconnect the heat-sink fan cable from the connector on the system board [3]

NOTE: Peel the black tape / copper tape that secure the IR camera cable for model shipped with IR camera (optional).

c. In sequential order (as indicated on the heat sink), loosen the captive screws that secure the heat sink to the system board

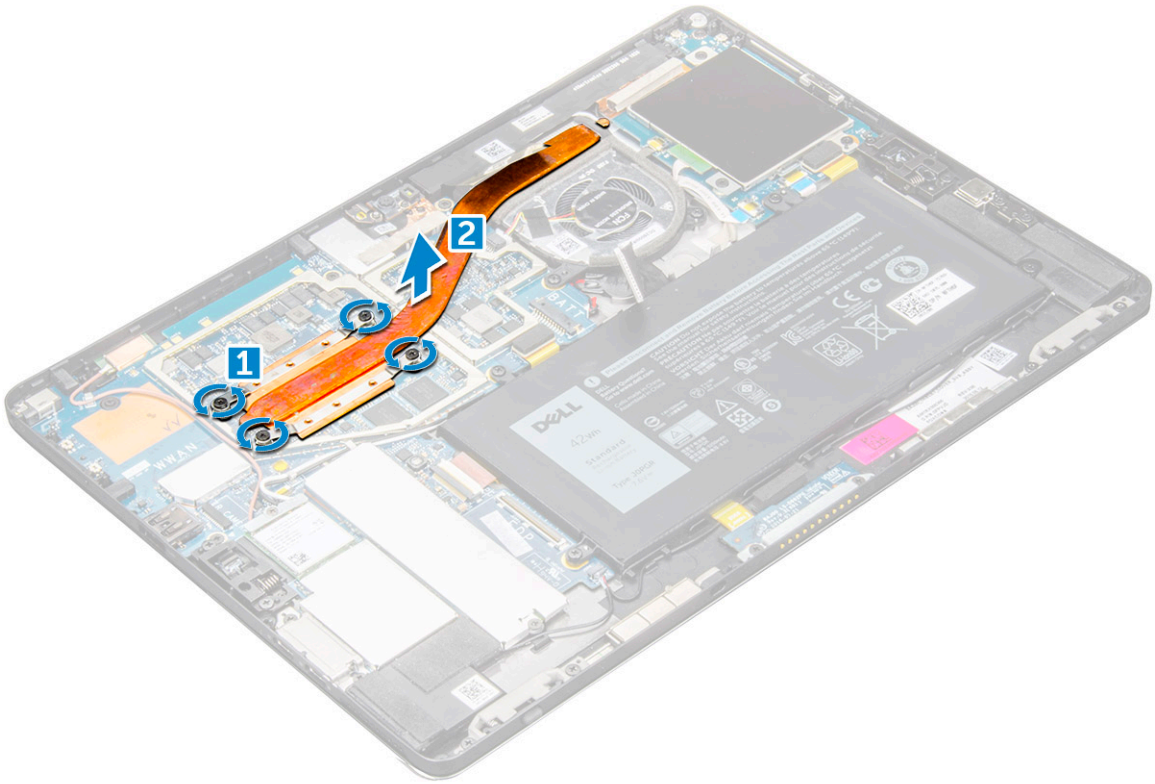




4. To remove the heat sink assembly:
   a. Loosen the M2 x 2.5 captive screws (4) that secure the heat sink assembly to the tablet [1].

NOTE: Remove the screws in the order of the callout numbers [1, 2, 3, 4] as graphically printed on the heat sink.

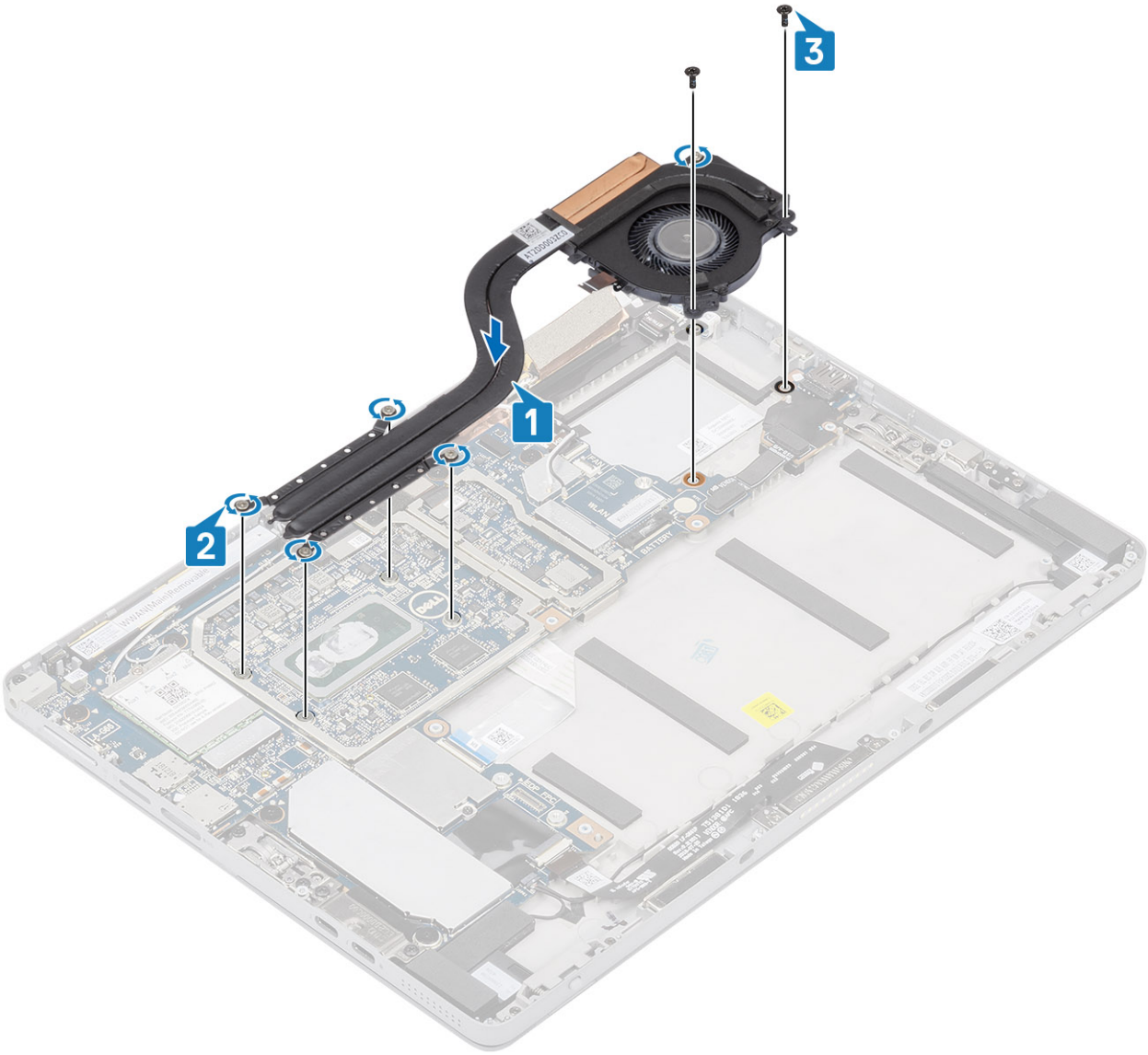
b. Lift the heat sink assembly from the tablet [2].



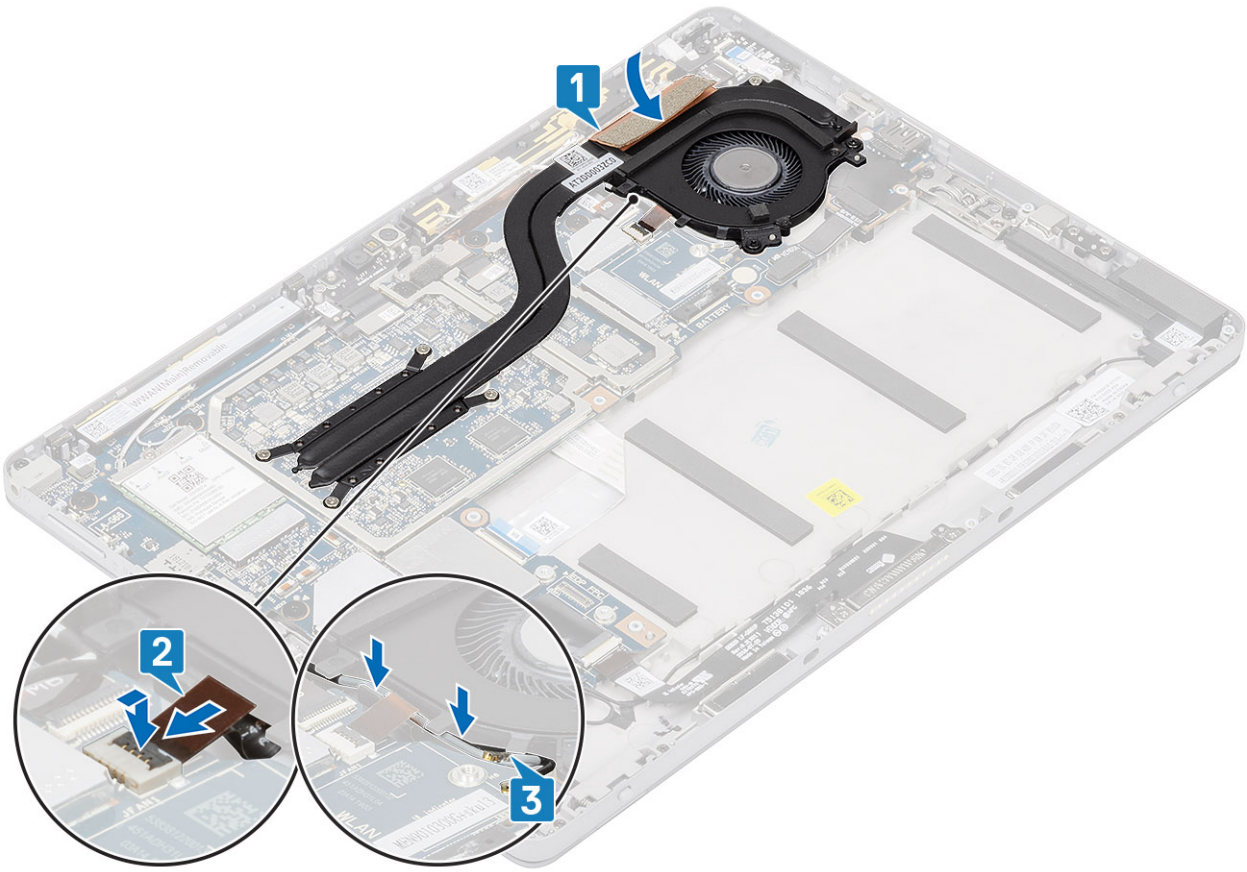
Installing the heat sink

Steps

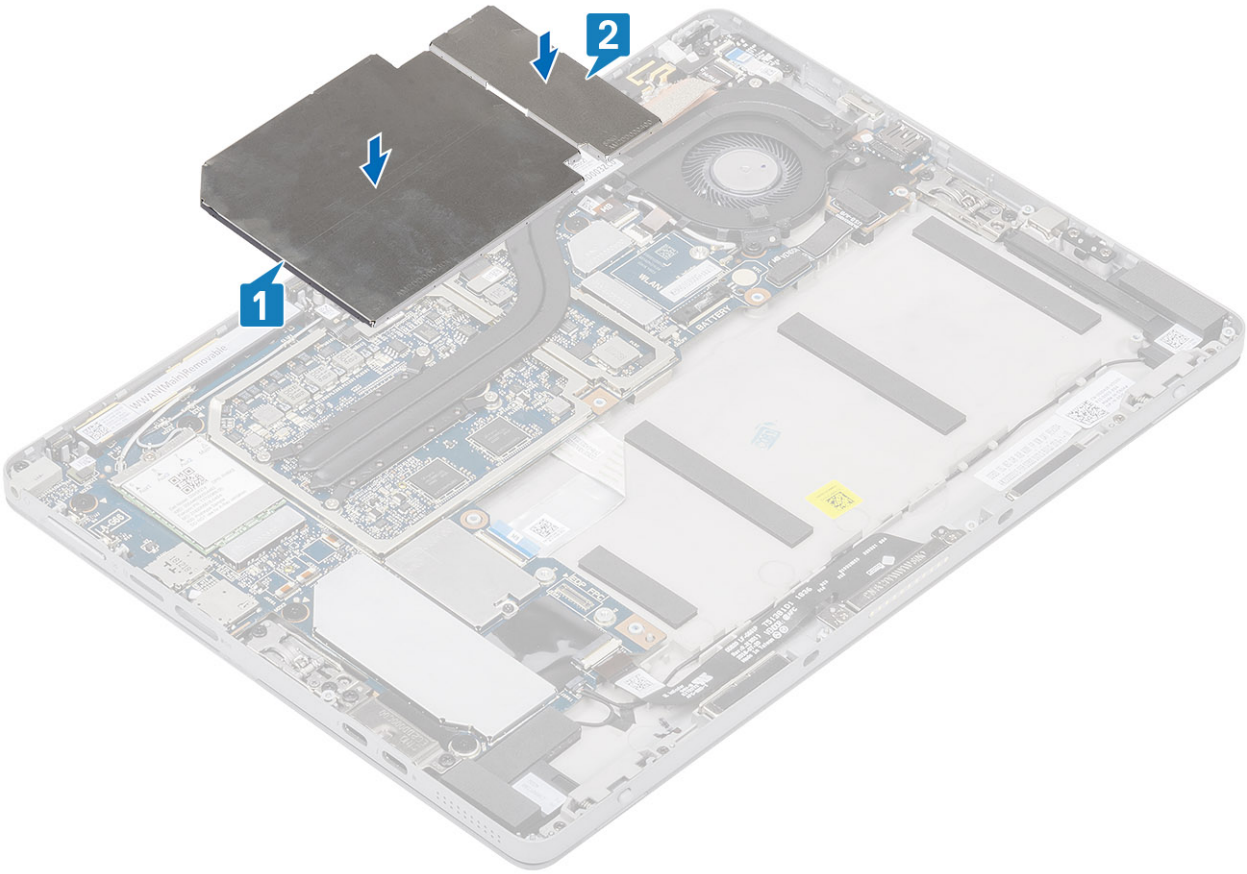
1. To install the heat sink assembly:
   a. Place the heat sink on the system board[1]



   b. Align the screw holes on the heat sink with the screw holes on the system board
   c. In sequential order (indicated on the heat sink), tighten the captive screws that secure the heat sink to the system board [2]



d. Align the screw holes on the heat-sin fan with the screw holes on the system board
e. Replace the M2 x 2.5 captive screws that secures the heat-sink fan on the system board [3]
f. Slide the heat-sink fan cable into the connector on the system board and close the latch to secure the cable [2]
g. Route the WLAN antenna cables through the routing guides on the system board [3]



h. Place the heat-sink shield on the heat sink

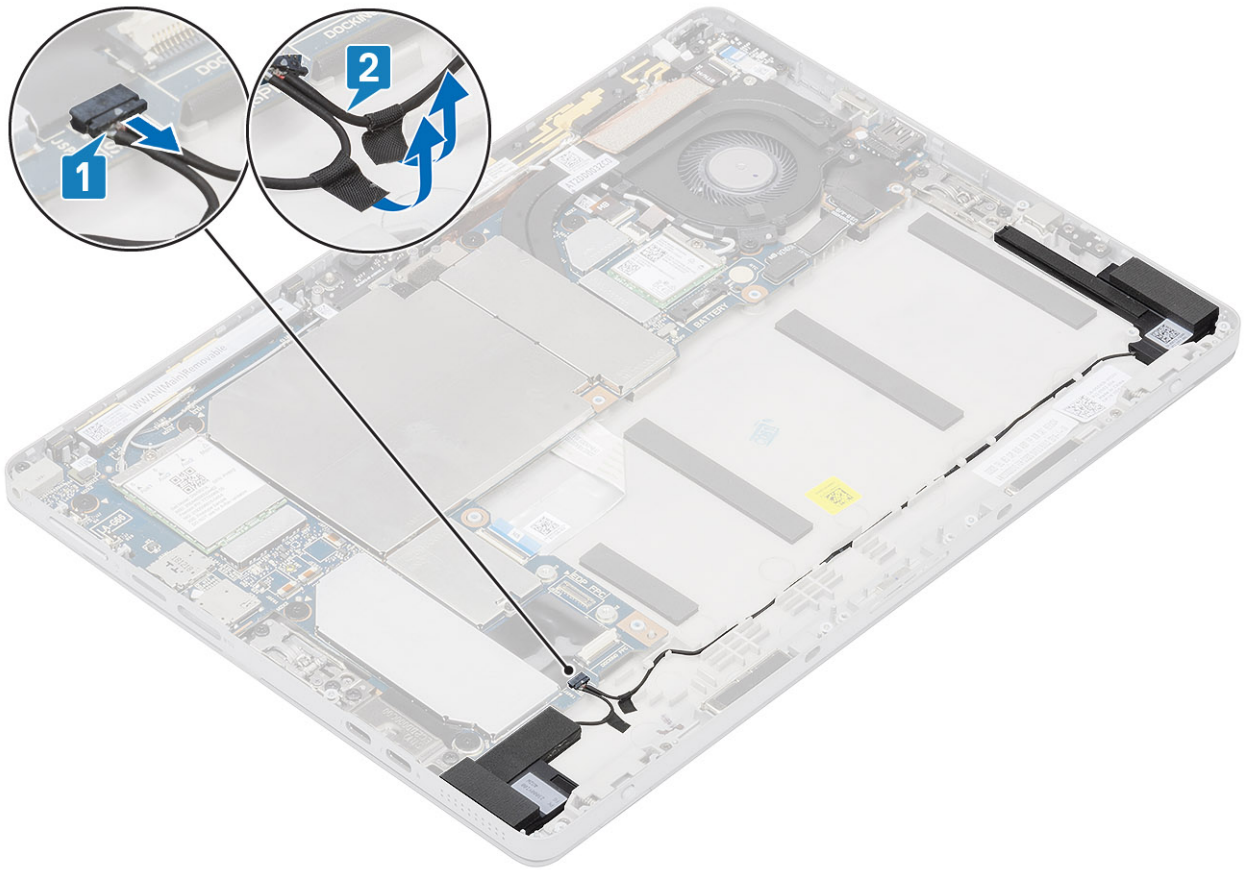
2. Install the:
   a. display panel
   b. SD card
   c. SIM
   d. battery

Speakers

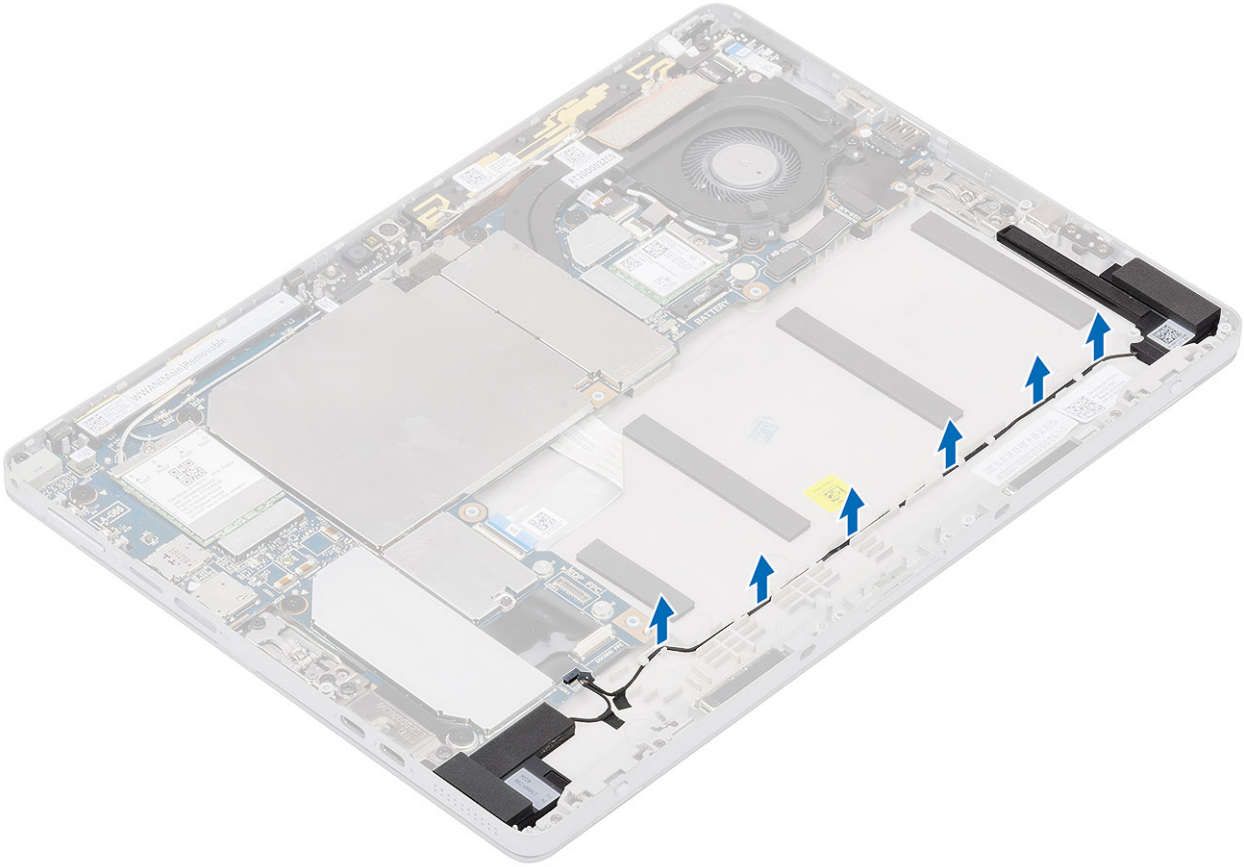
Removing the speakers

Steps

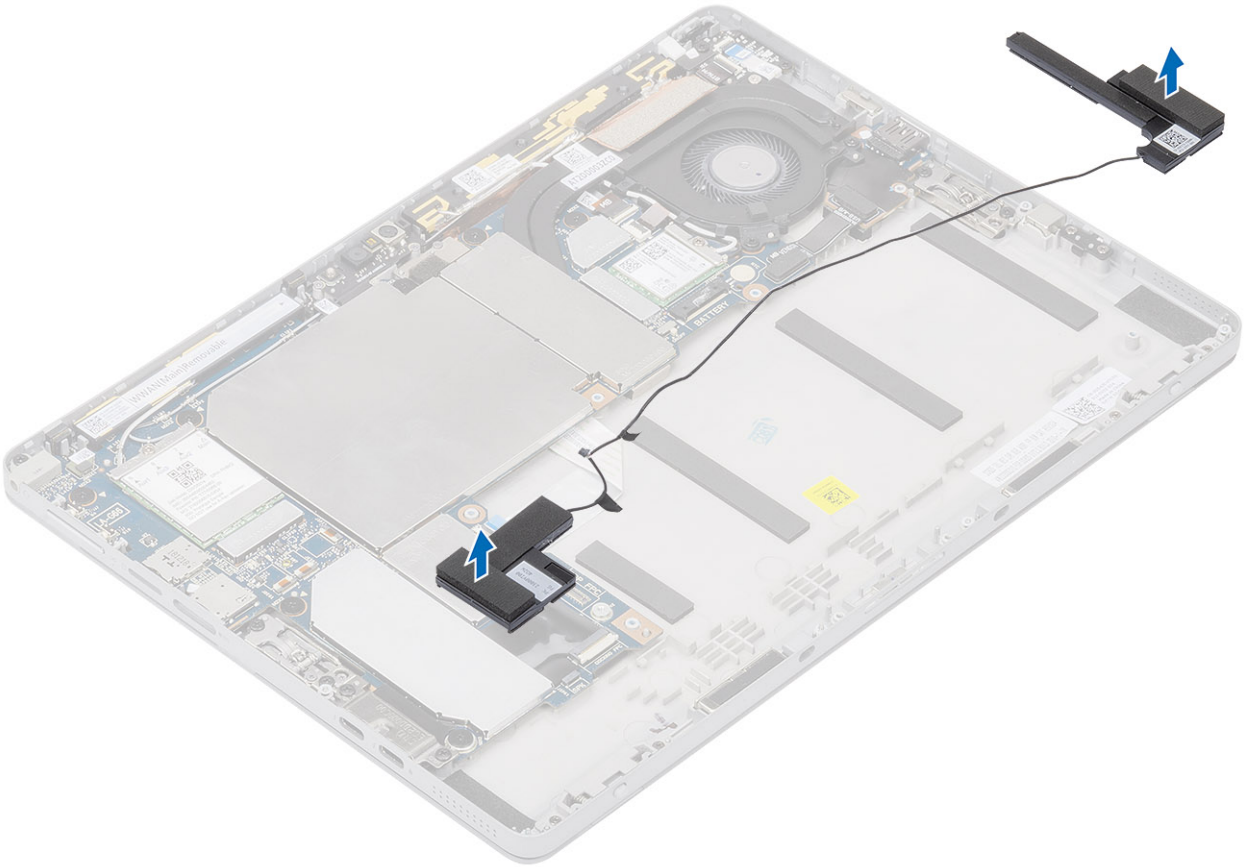
1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
3. To remove the speakers:
   a. Disconnect the speaker cable from the connector on the system board [1].



b. Peel off the pieces of tape that secure the speaker cable to the chassis [2]



c. Remove the speaker cable from the routing guides on the chassis.

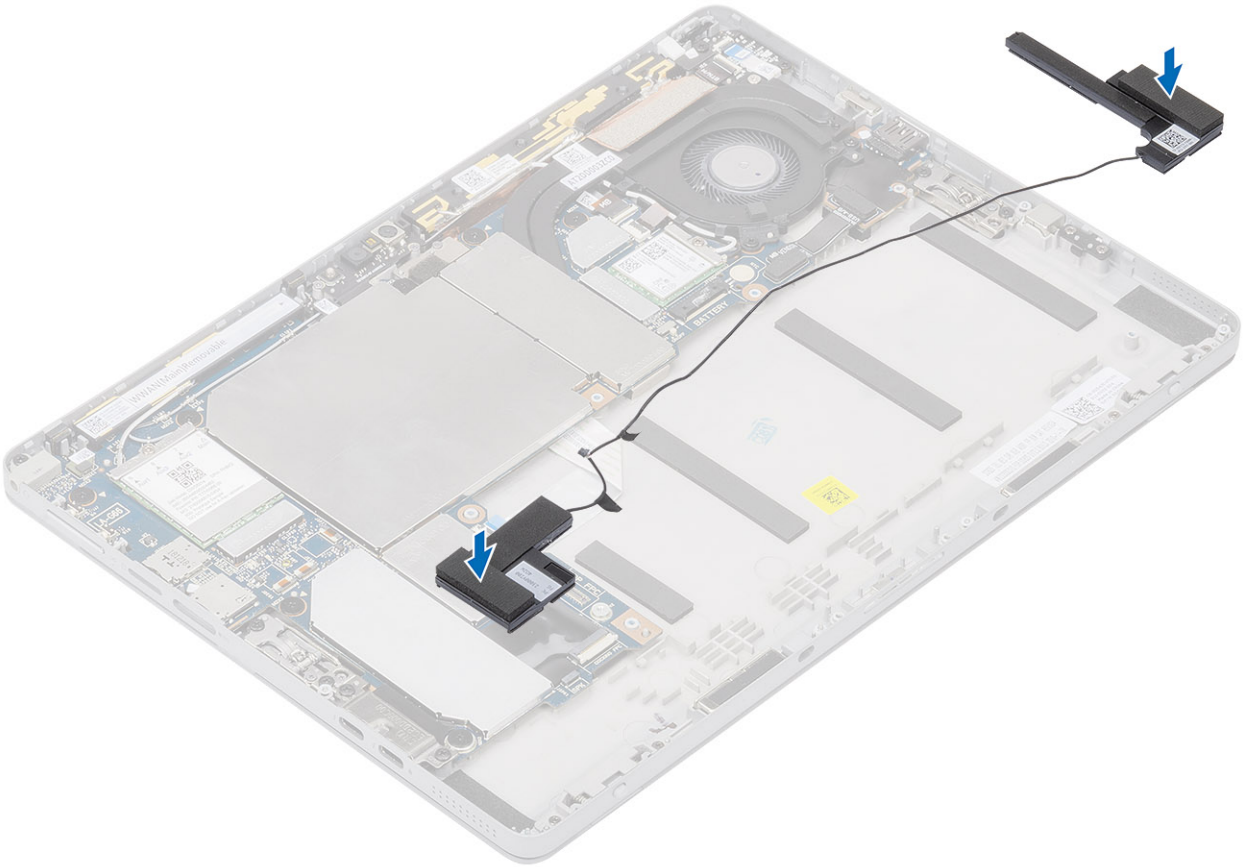


d. Lift the speakers off the chassis

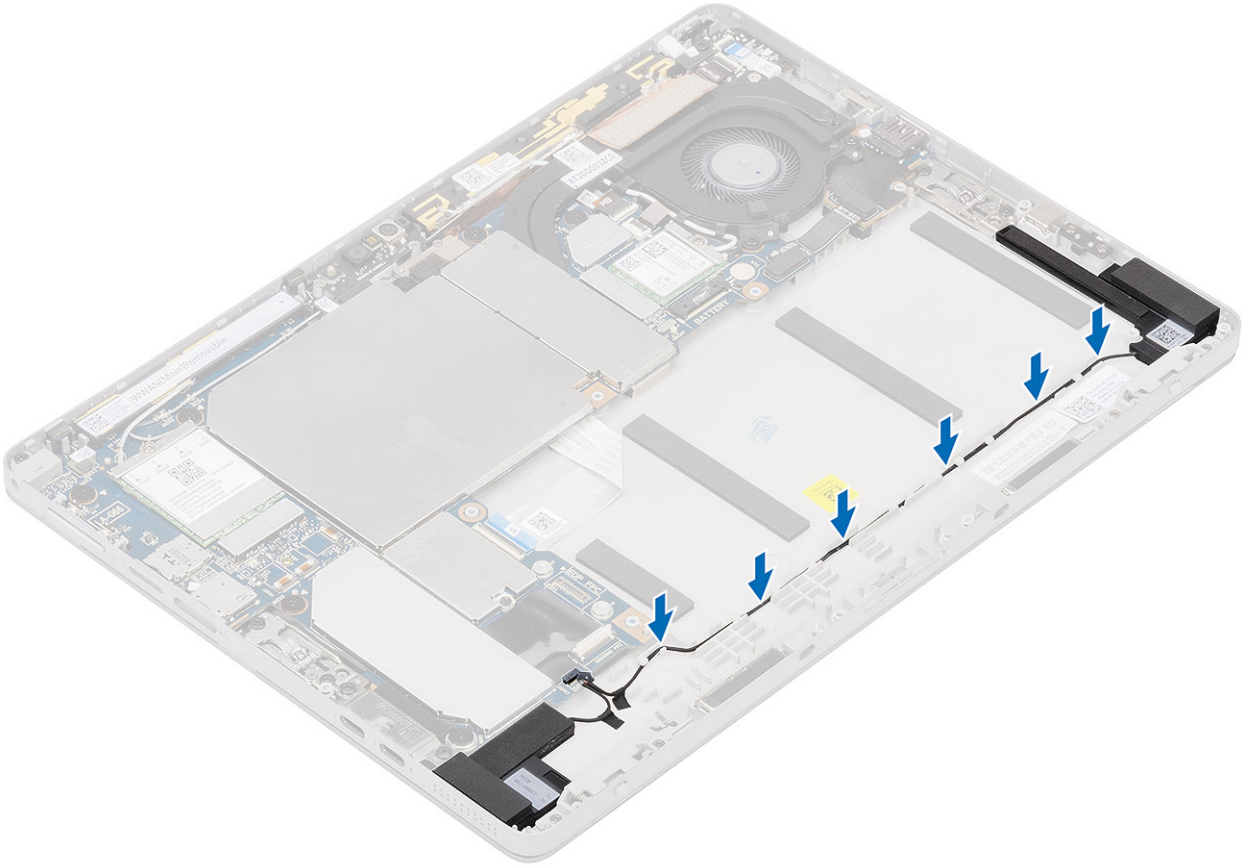
Installing speakers

Steps

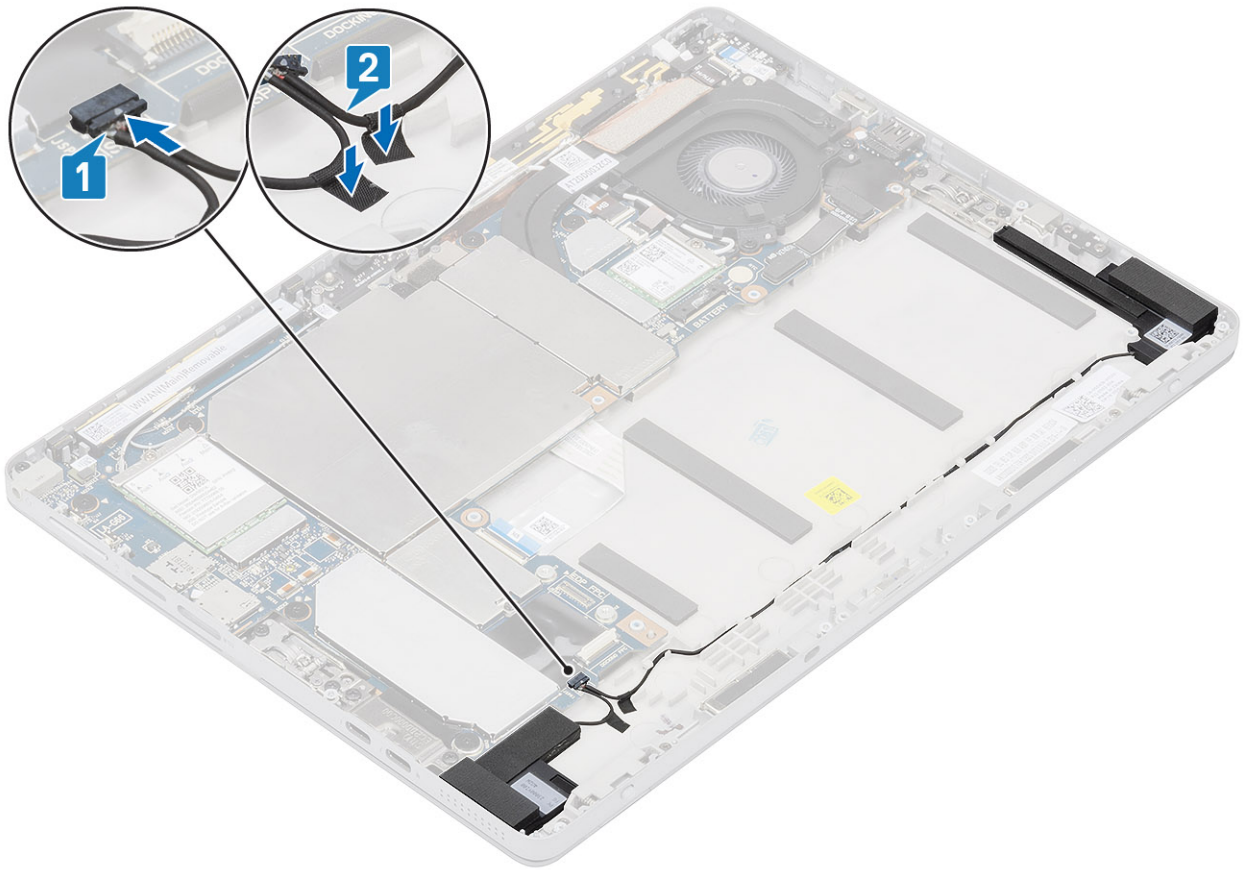
1. Using the alignment posts, align and place the speakers on the palm-rest assembly



2. Route the speaker cable through the routing guides on the palm-rest assembly



3. Adhere the pieces of tape that secure the speaker cable to the palm-rest assembly



4. Connect the speaker cable to connector on the system board
5. Install the:
   a. display panel
   b. SD card
   c. SIM
   d. battery
6. Follow the procedure in After working inside your tablet.

Front facing camera

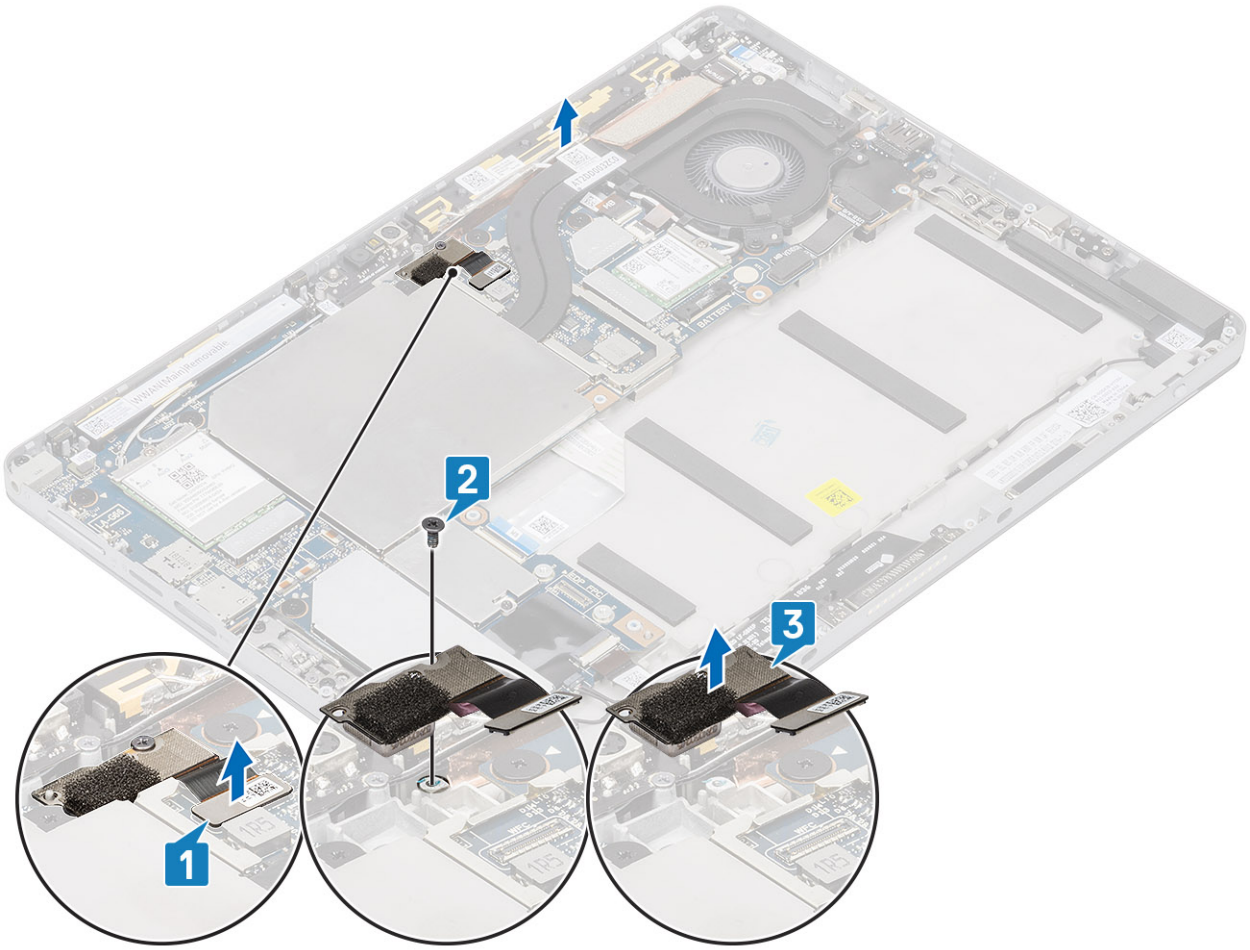
Removing the front facing camera

Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
3. To remove the front camera:
   a. Using a plastic scribe, gently pry open and remove the left shielding cover from the edge marked with an arrow.
   b. Disconnect the front-facing camera cable from the system board.
   c. Use a plastic scribe to pry and disconnect the front camera cable [3]

NOTE: Ensure to peel off the adhesive tape that secures the front camera to the rear camera. The front camera cable is glued to the rear camera, ensure to gently peel off, to remove the screw that secures the rear camera to the system board.

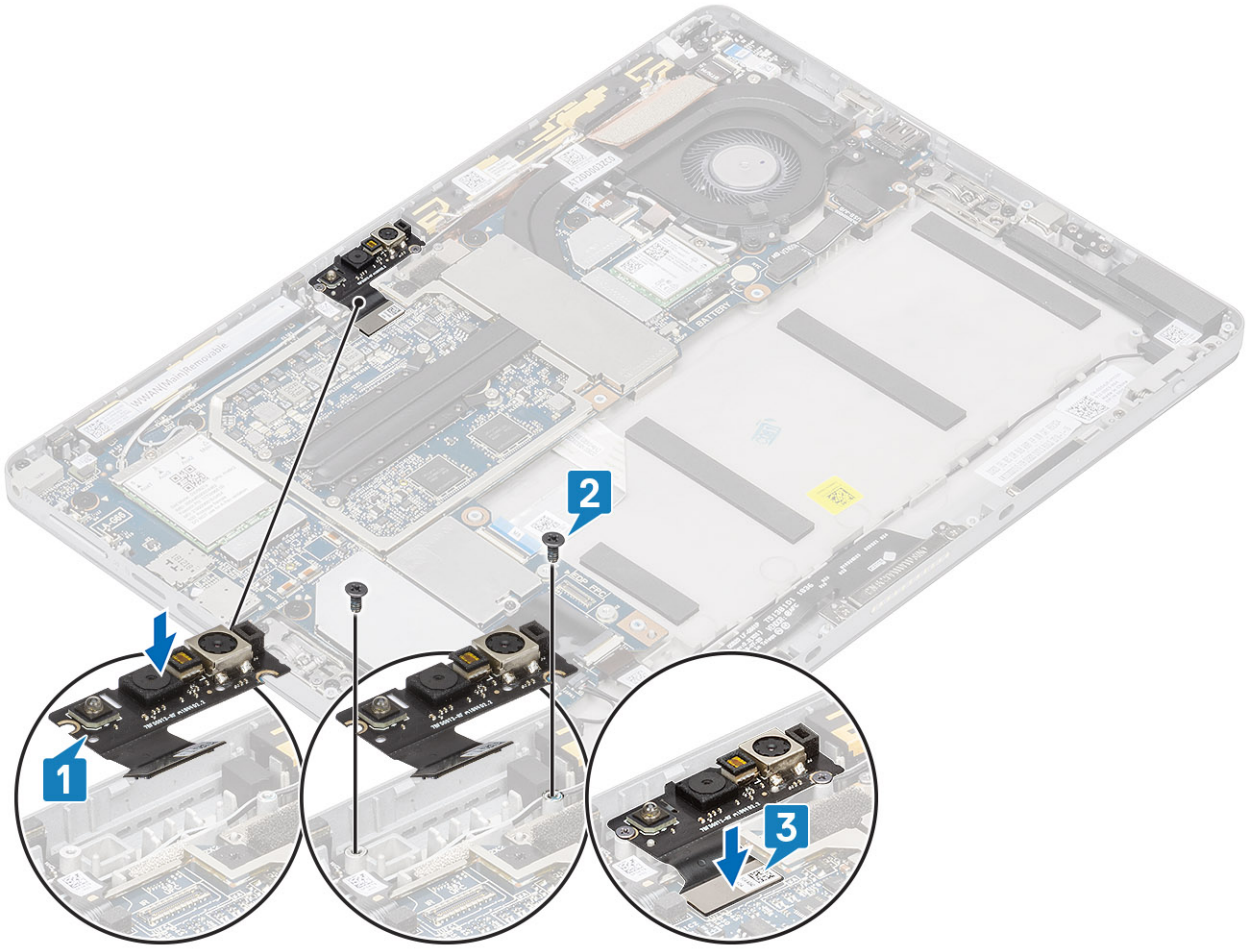
d. Remove the M1.6 x 3 screws securing the front camera module to the system chassis.
e. Peel off and lift the front camera module from the tablet.



Installing the front facing camera

Steps

1. Insert the camera module into the slot on the tablet.
2. Replace the M1.6 x 3 screws to secure the front camera module.



3. Connect the front camera cable to the system board.
4. Place the shielding cover to secure the front camera module.

   NOTE: Handle the covering shield with care else it may break.

5. Install the:
   a. display panel
   b. SD card
   c. SIM
   d. battery
6. Follow the procedure in After working inside your tablet.

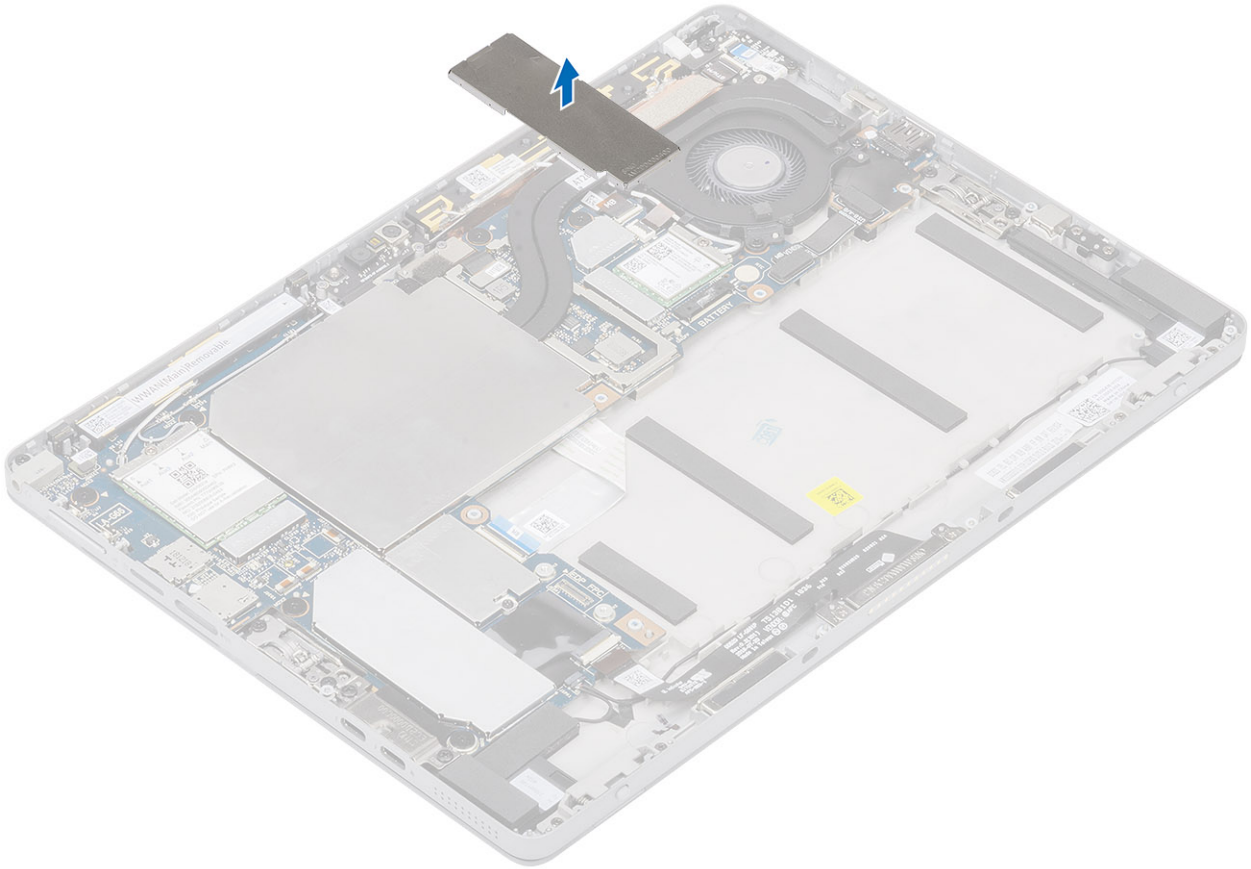
Rear facing camera

Removing the rear camera

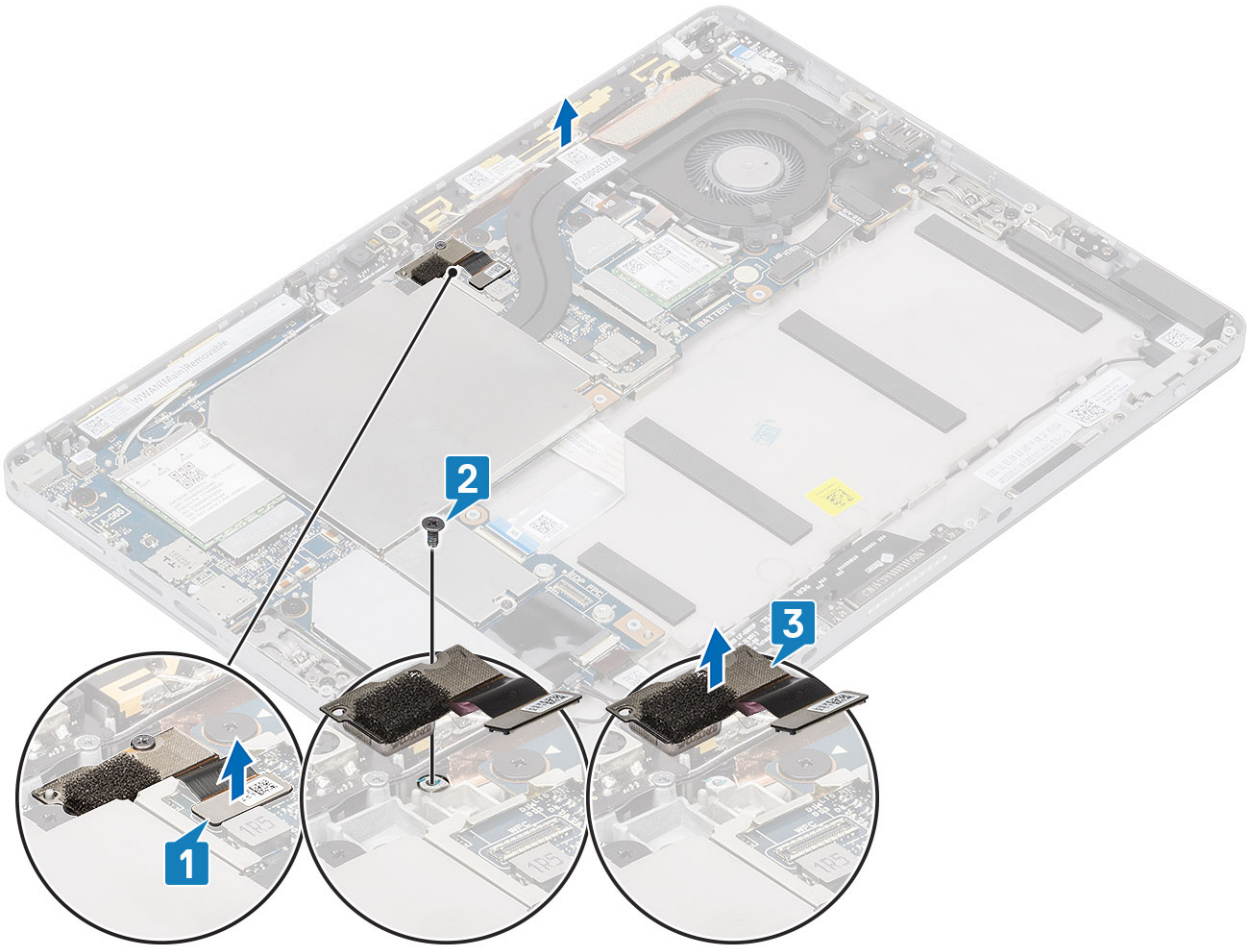
Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
3. To remove the rear camera:
   a. Disconnect the rear camera cable from the system board [1]

b. Remove the M1.6 x 3 screw (1) securing the rear camera module [2]
c. Remove the M1.6 x 3 screw securing the rear camera module.
d. Lift the camera module from the tablet [3].



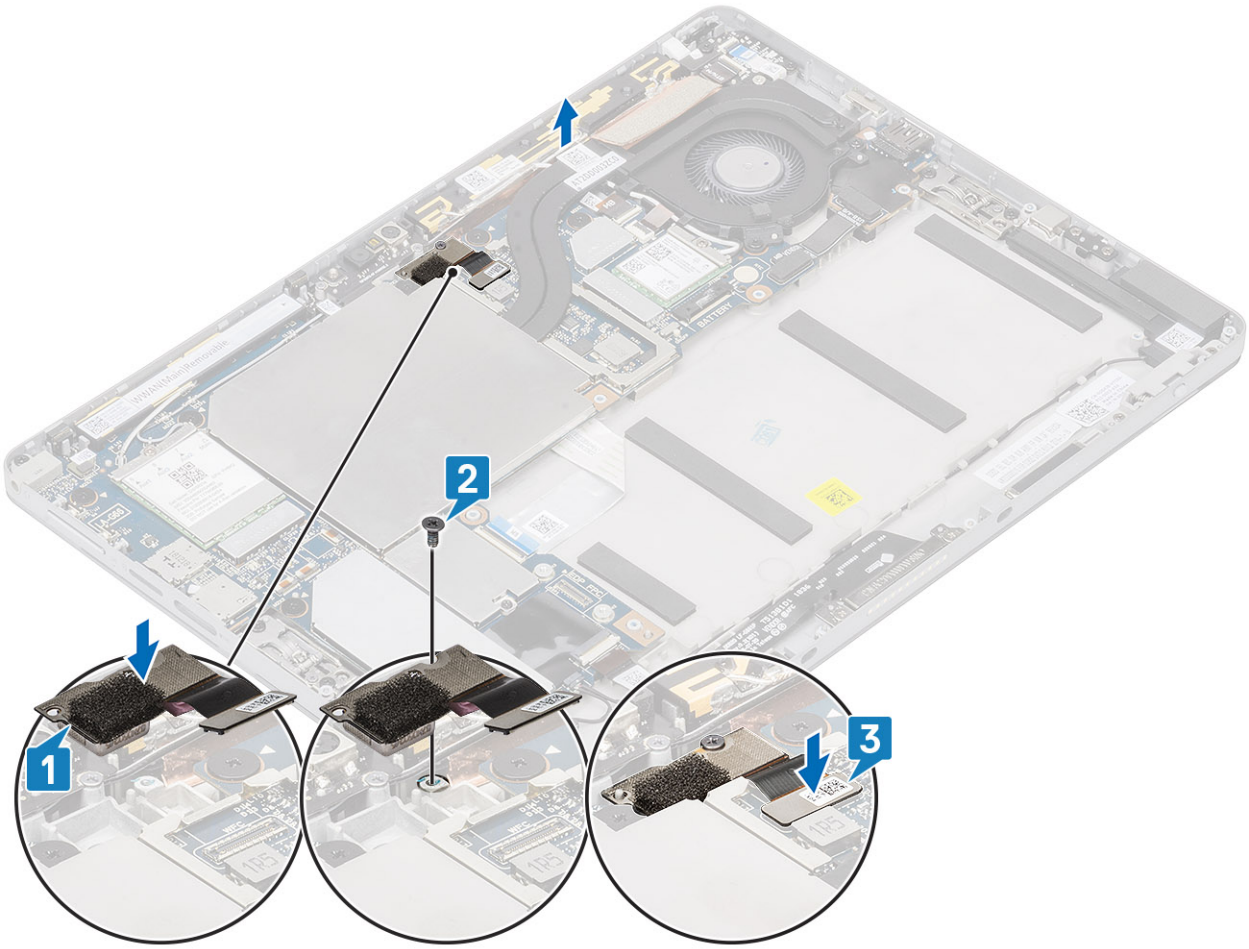
]

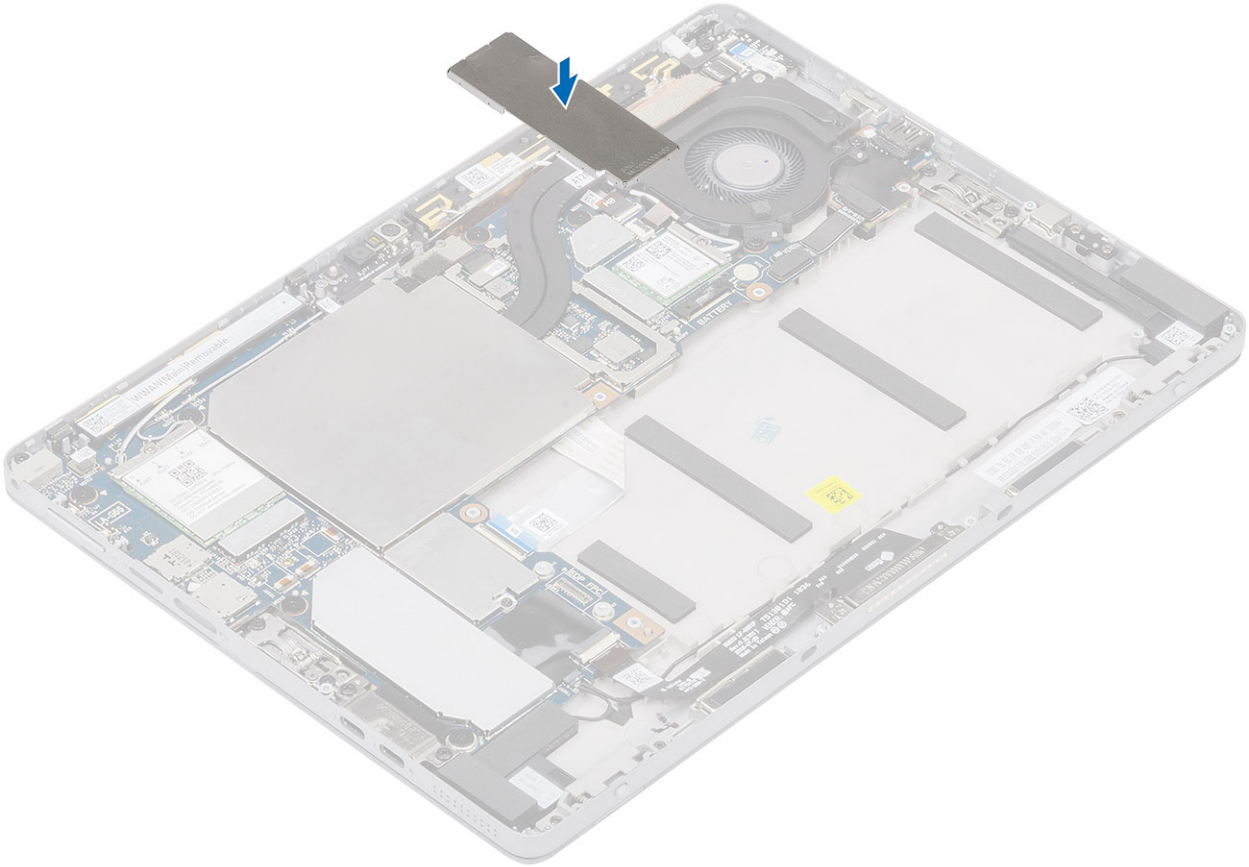


Installing rear camera

Steps

1. To install the rear camera:
   a. Insert the rear camera module into the slot on the table
   b. Replace the M1.6 x 3 screw to secure the rear camera module
   c. Connect the rear camera cable to the system board .


1
2
3



2. Install the:
   a. display panel
   b. SD card
   c. SIM
   d. battery
3. Follow the procedure in After working inside your tablet.

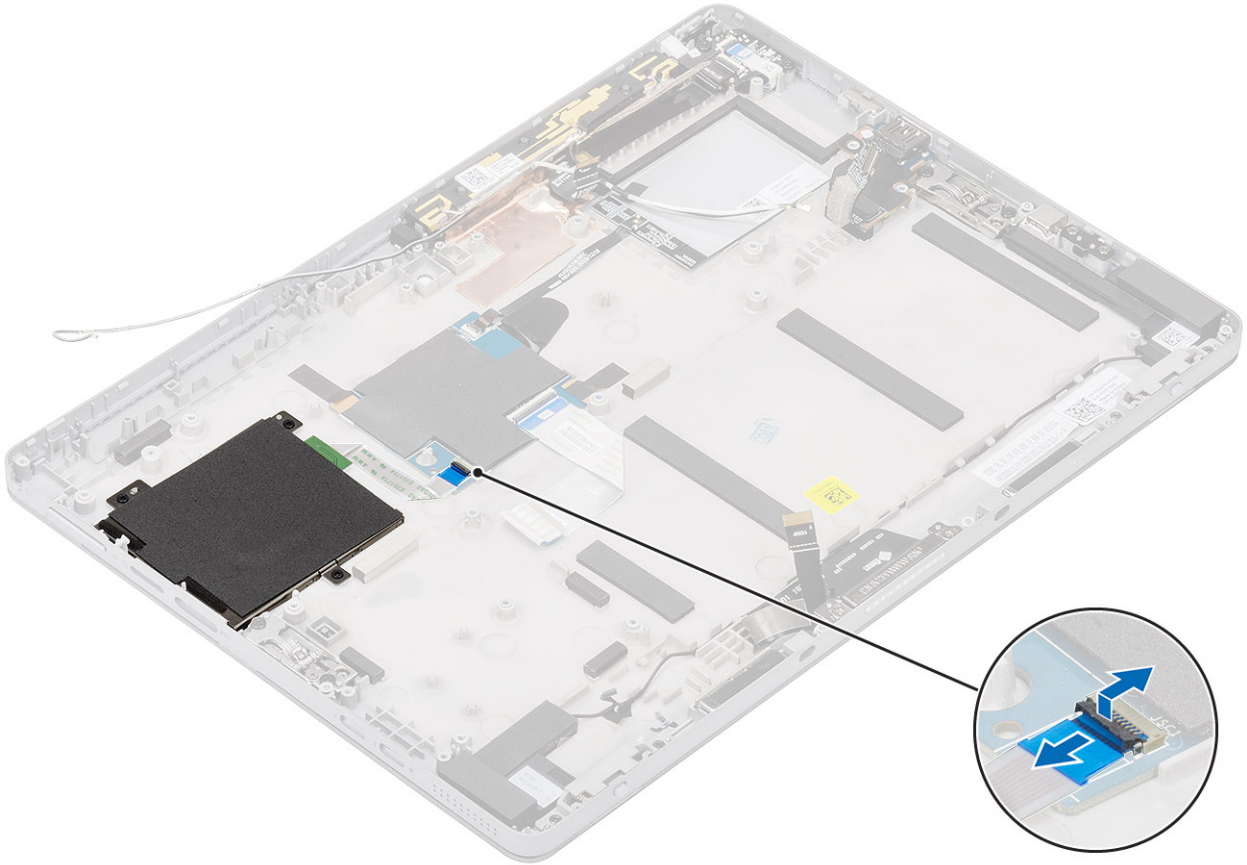
Smart Card Cage

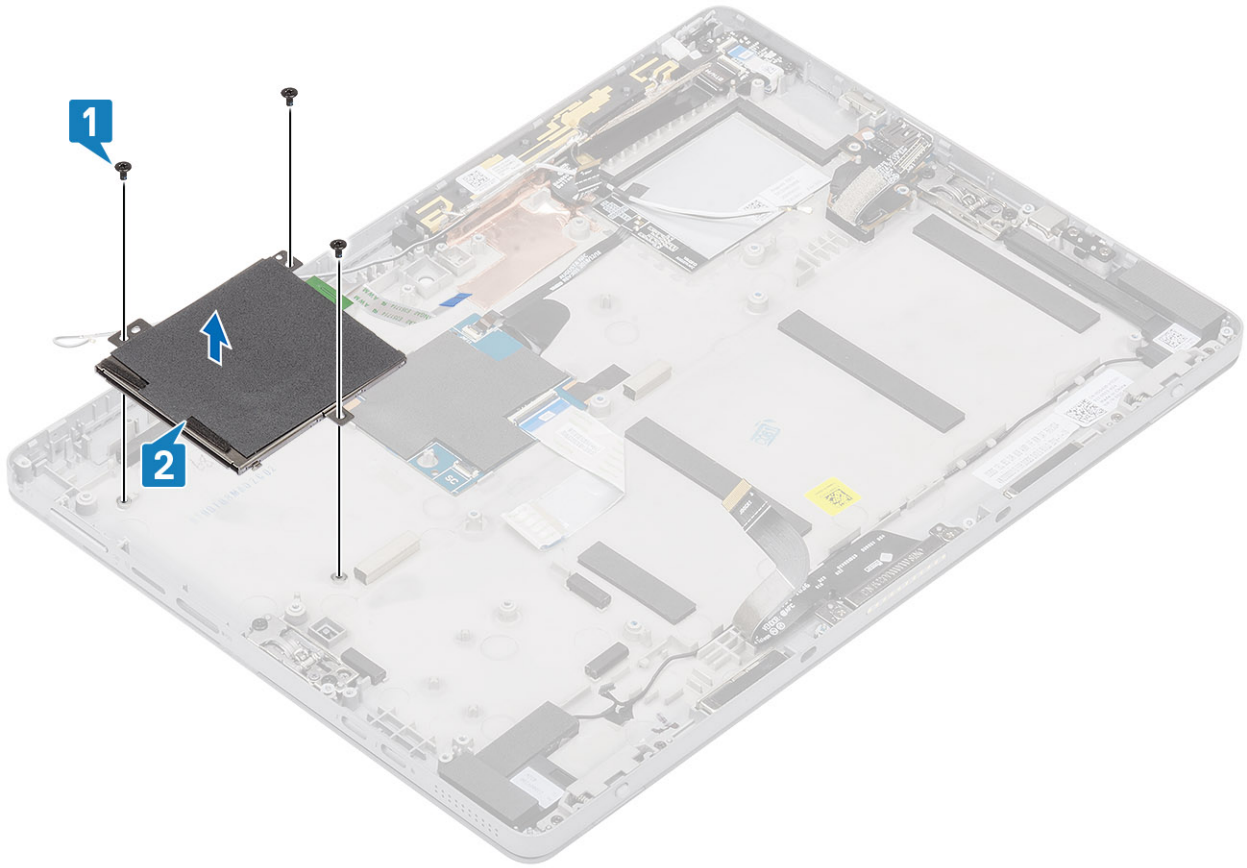
Removing the smart card cage

Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. battery
   d. M.2 2230 SSD
   e. WWAN card
   f. Rear-Facing Camera
   g. Heat sinkl Assembly
   h. WWAN Main Antenna Module
   i. System Board
   j. display panel
3. To remove the smart card cage:
   a. Disconnect and peel back the Smartcard cage FFC from the daughter board.

b. Remove the M2x2 screws from the smart card module [1].
c. Lift the smart card cage from the tablet [2].

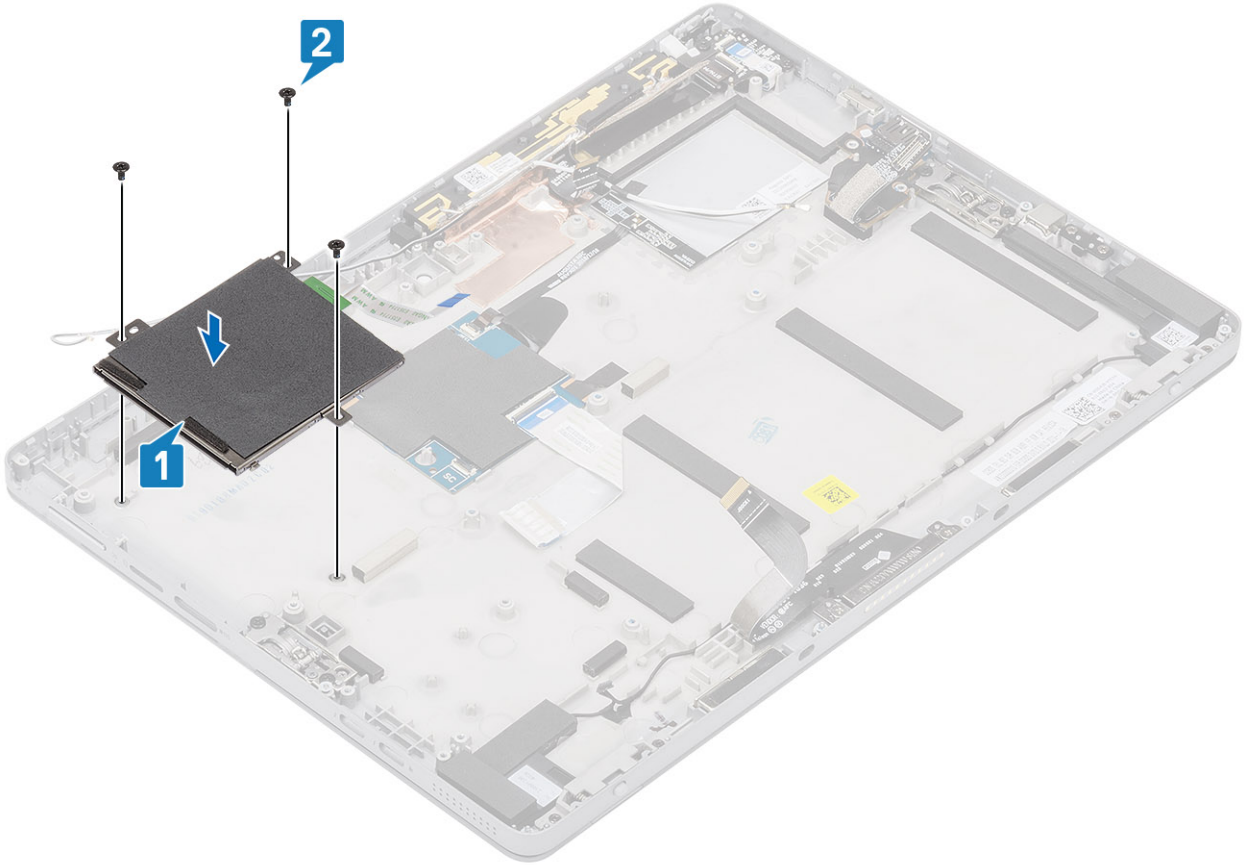


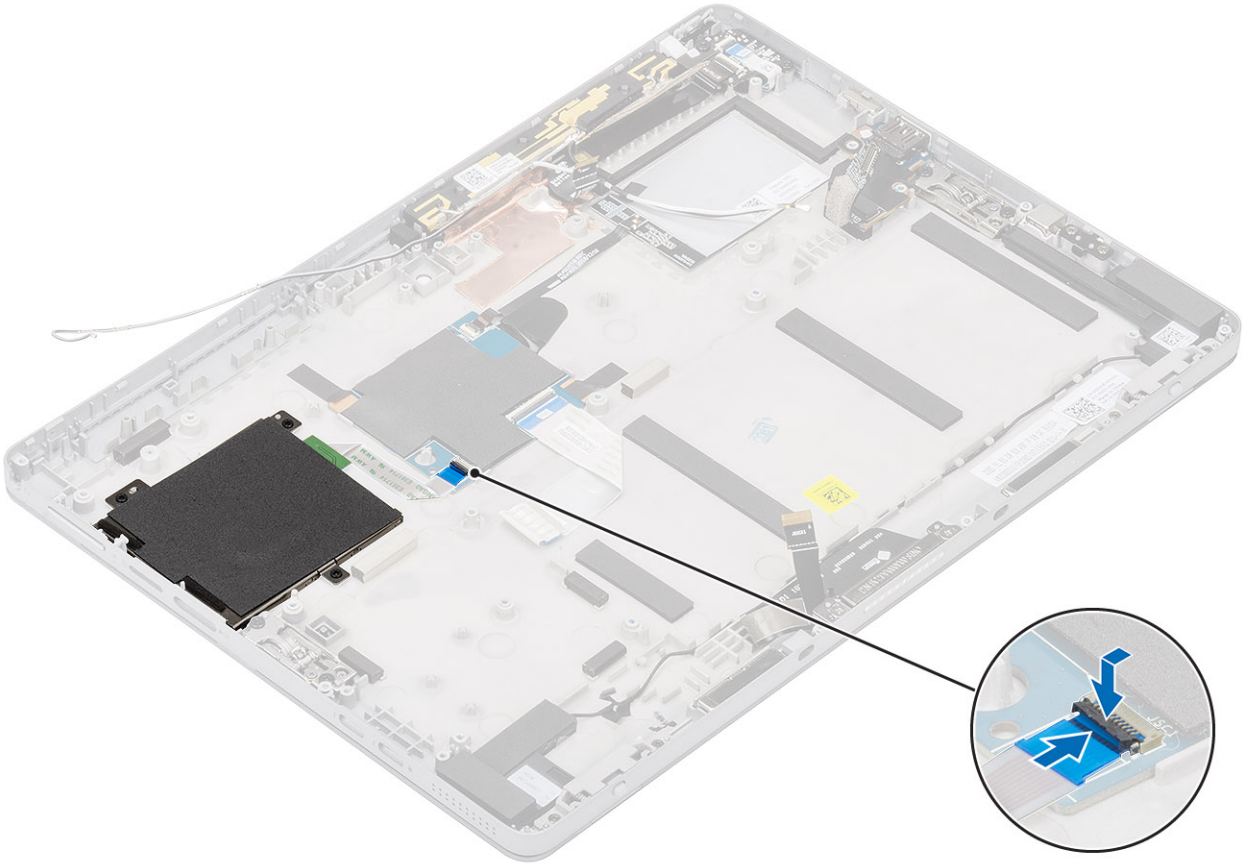


Installing the smart card cage

Steps

1. Insert the smart cage into the slot on the tablet.
2. Replace the M2 x 2.5 screws [2] to secure the smart card cage to the tablet [1].
3. Connect the smart cable to the smart card module.





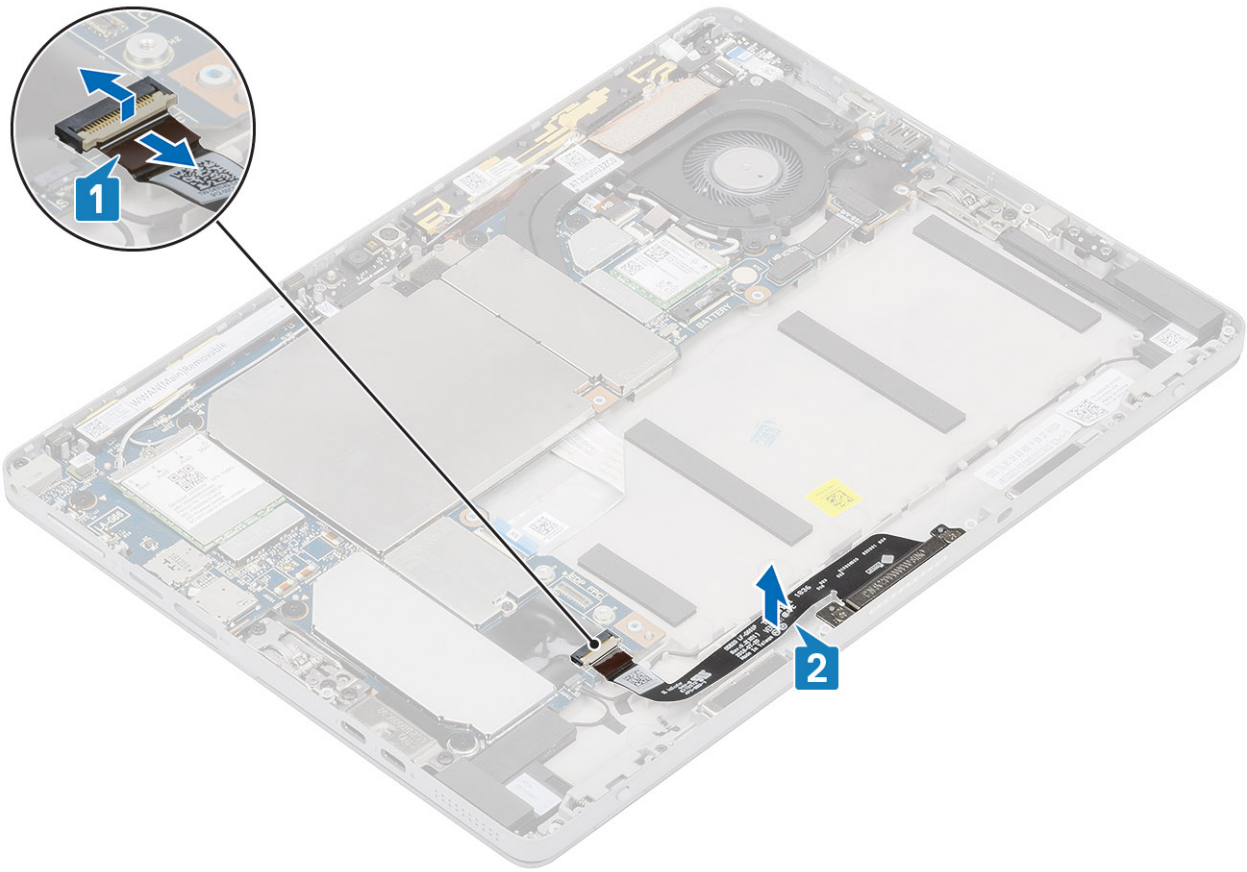
4. Replace the:
   a. System Board
   b. WWAN Main Antenna Module
   c. Heat sinkl Assembly
   d. Rear-Facing Camera
   e. display panel
   f. SD card
   g. SIM
   h. battery
5. Follow the procedure in After working inside your tablet.

Docking board connector

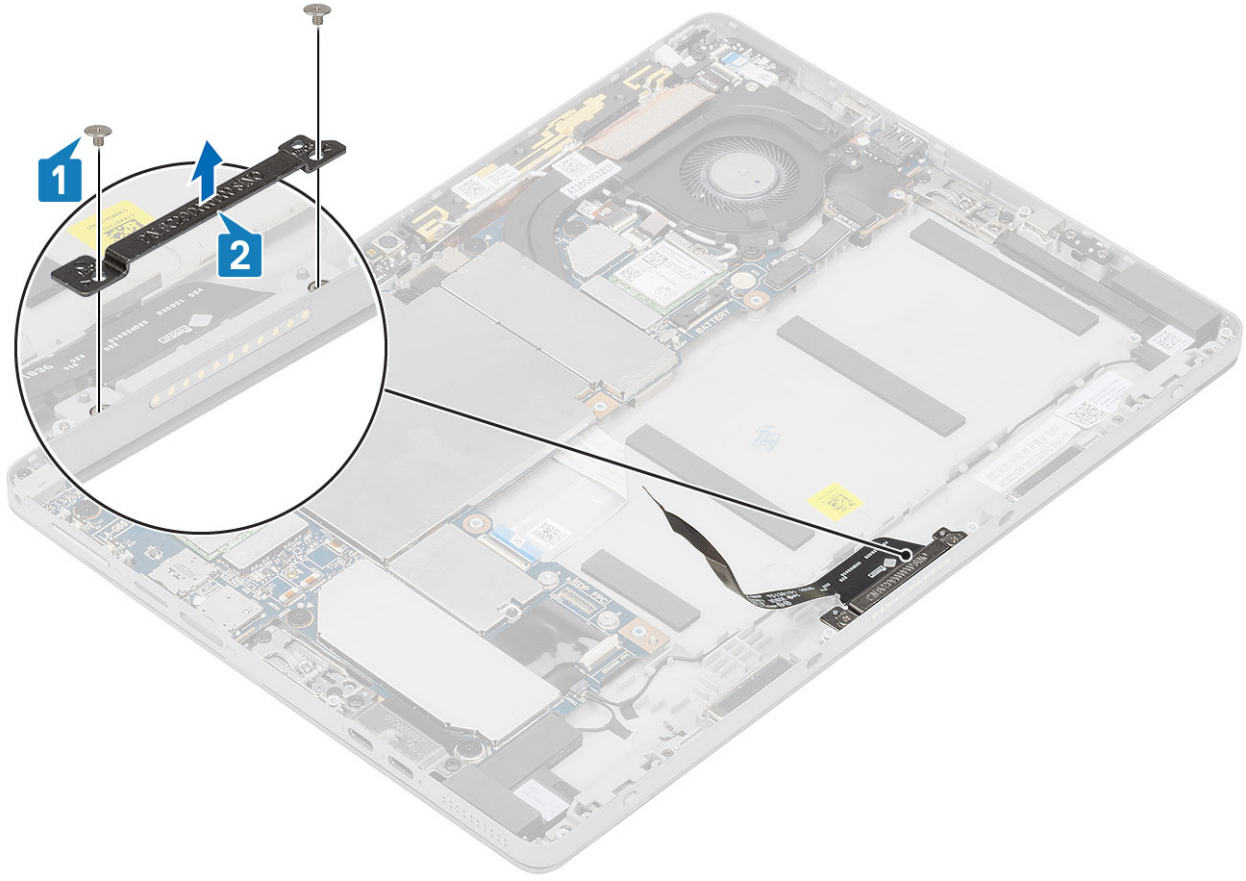
Removing the docking connector

Steps

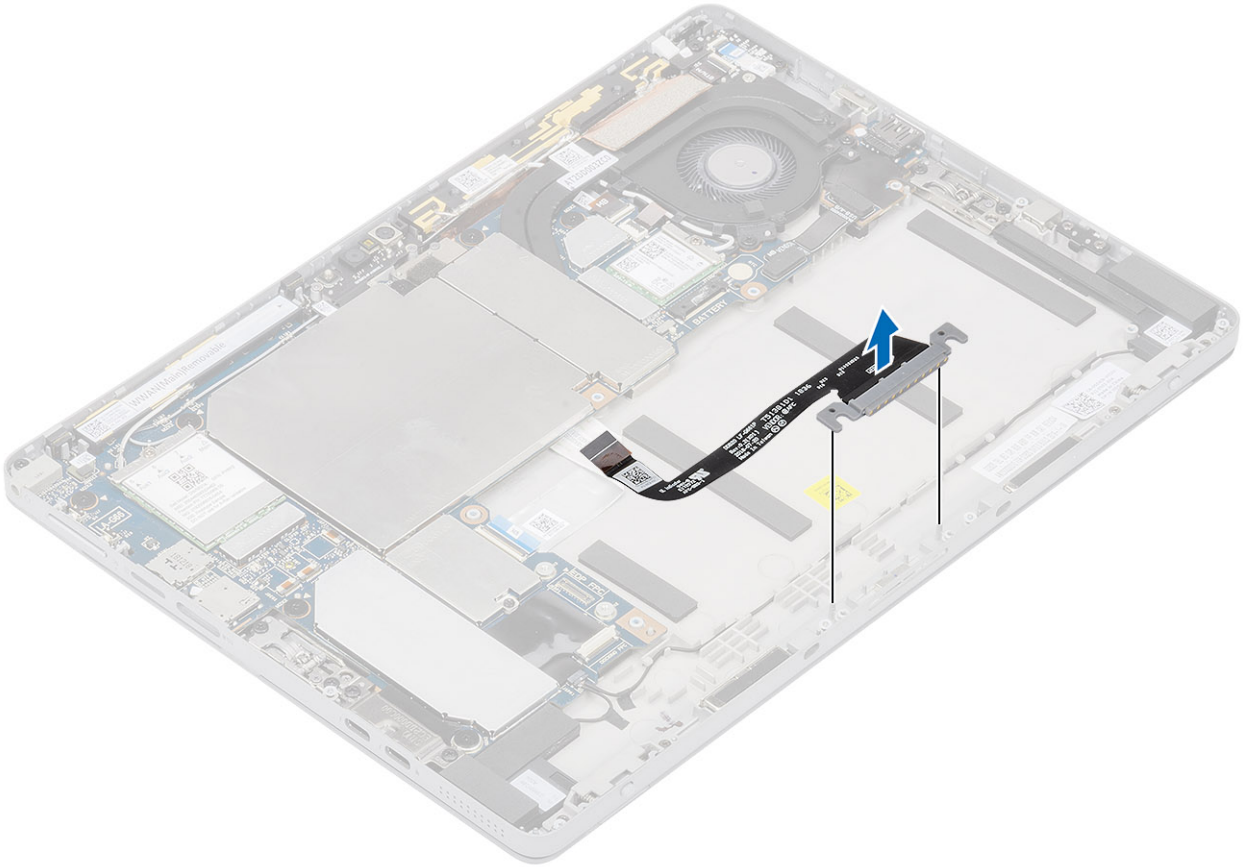
1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
3. To remove the docking connector:
   a. Disconnect and peel back the docking connector FPC from the system board.



b. Remove the M2 x 2.5 screws securing the docking board bracket to the docking board.



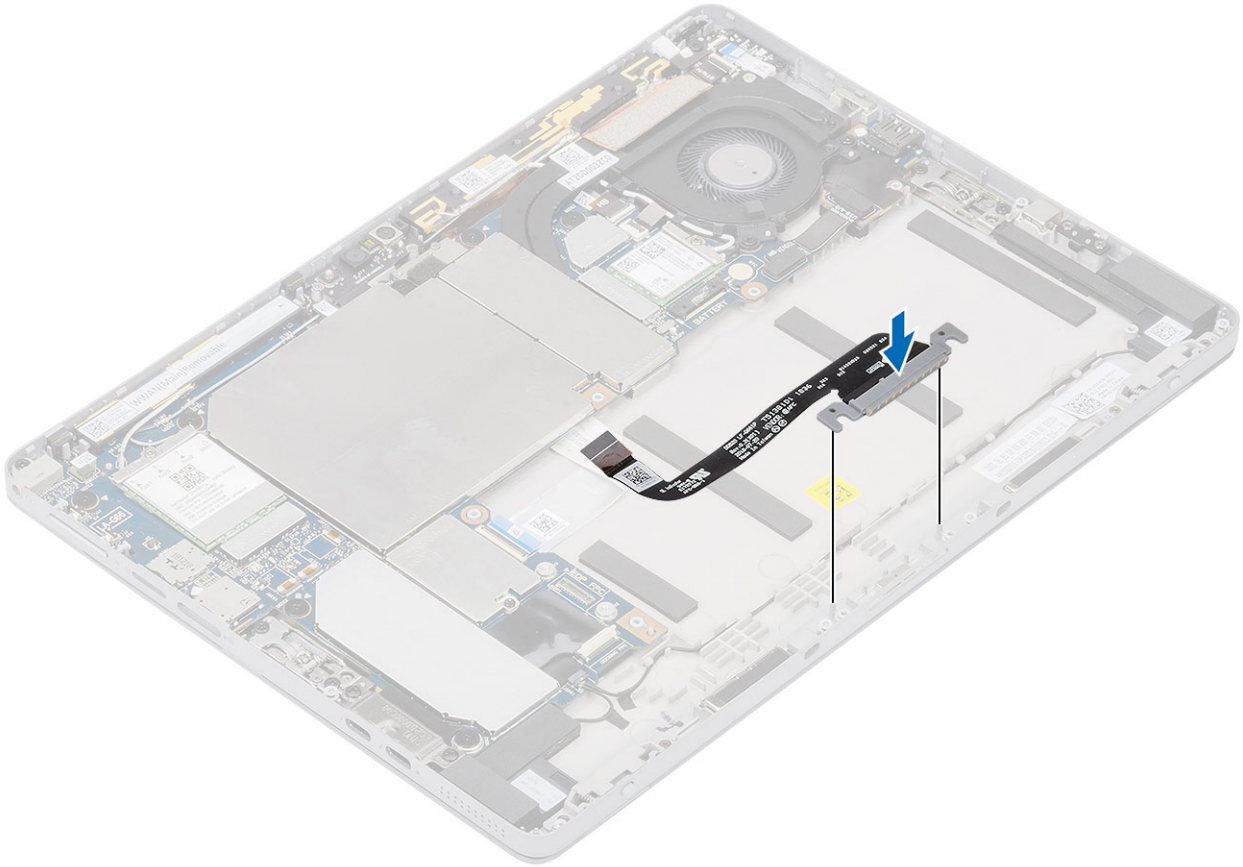
c. Remove the docking connector along with its FPC from the system.



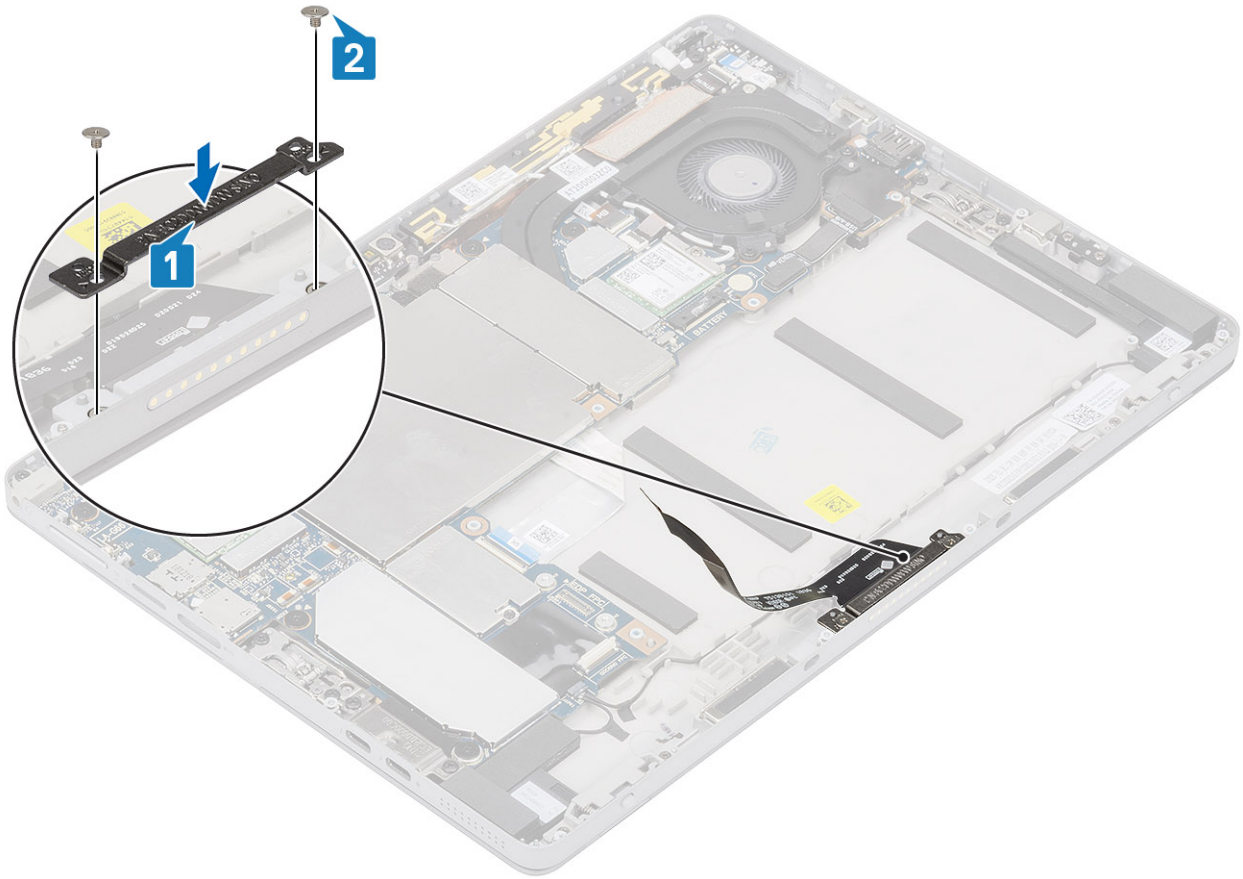
Installing the docking board

Steps

1. Insert the docking board and docking board bracket into the slot on the tablet.

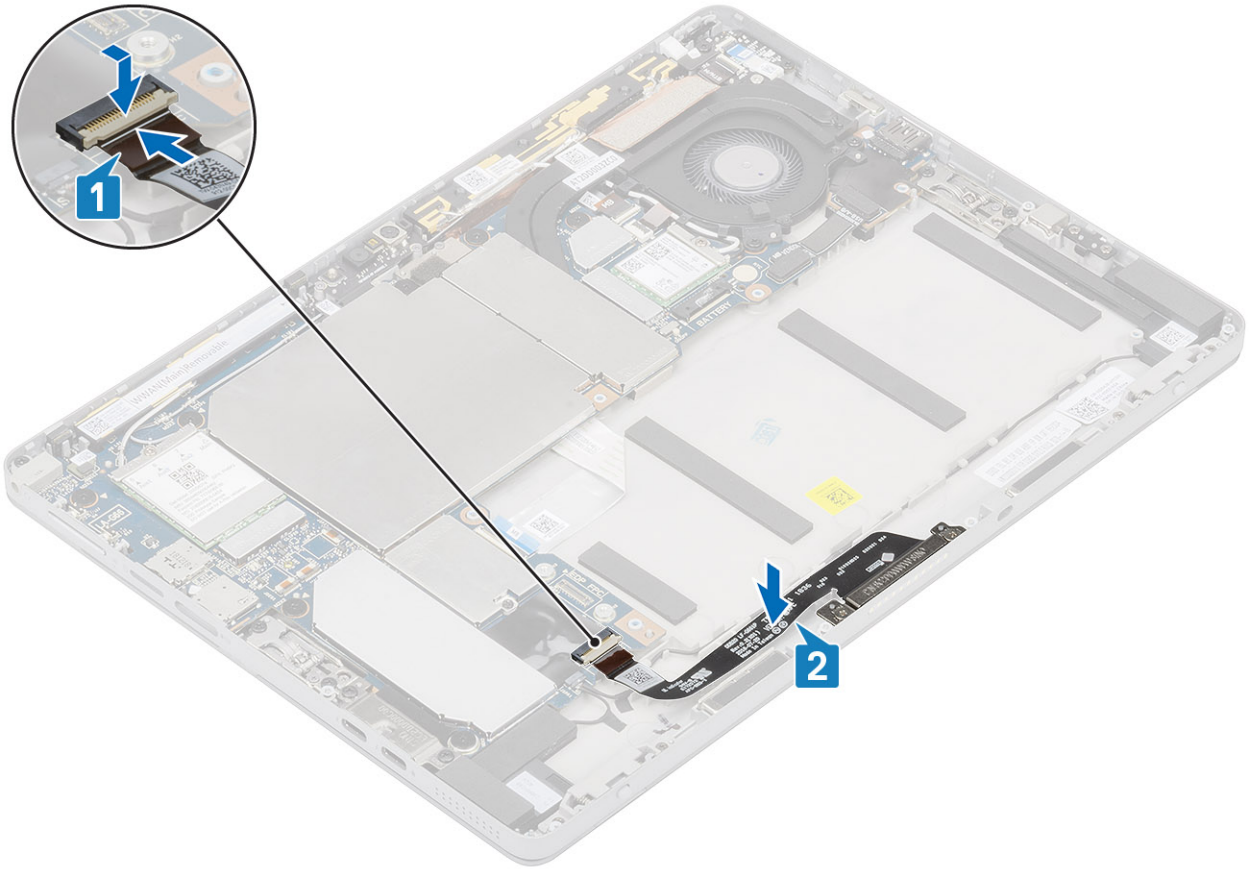


2. Replace the M2 x 2 screws to secure the docking board to the tablet.



3. Affix the docking board cable on the tablet,

4. Connect the docking board cable to the connector on the system board.



5. Replace the:
   a. display panel
   b. SD card
   c. SIM
   d. battery
6. Follow the procedure in After working inside your tablet.

Power Button Board

Removing the power button daughter board

Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
3. Unthread any wireless antennas covering the power button daughter board FPC.

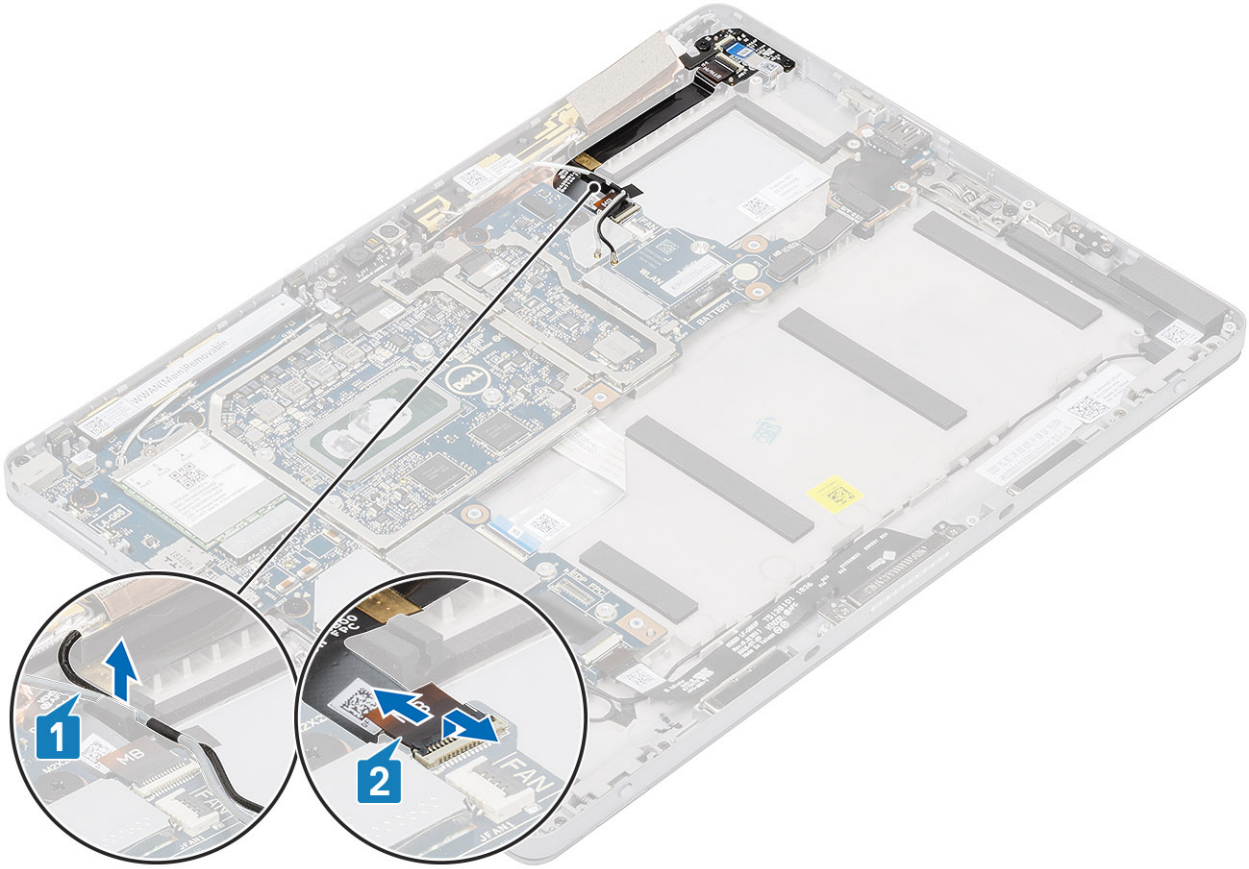


Figure 8. Unthread wireless antennas

4. Disconnect and peel back the power button daughter board FPC from the system board.
5. Disconnect and peel back the fingerprint reader FFC from the power button daughter board.
6. Remove the two M2 X 3 screws securing the power button daughter board in place.

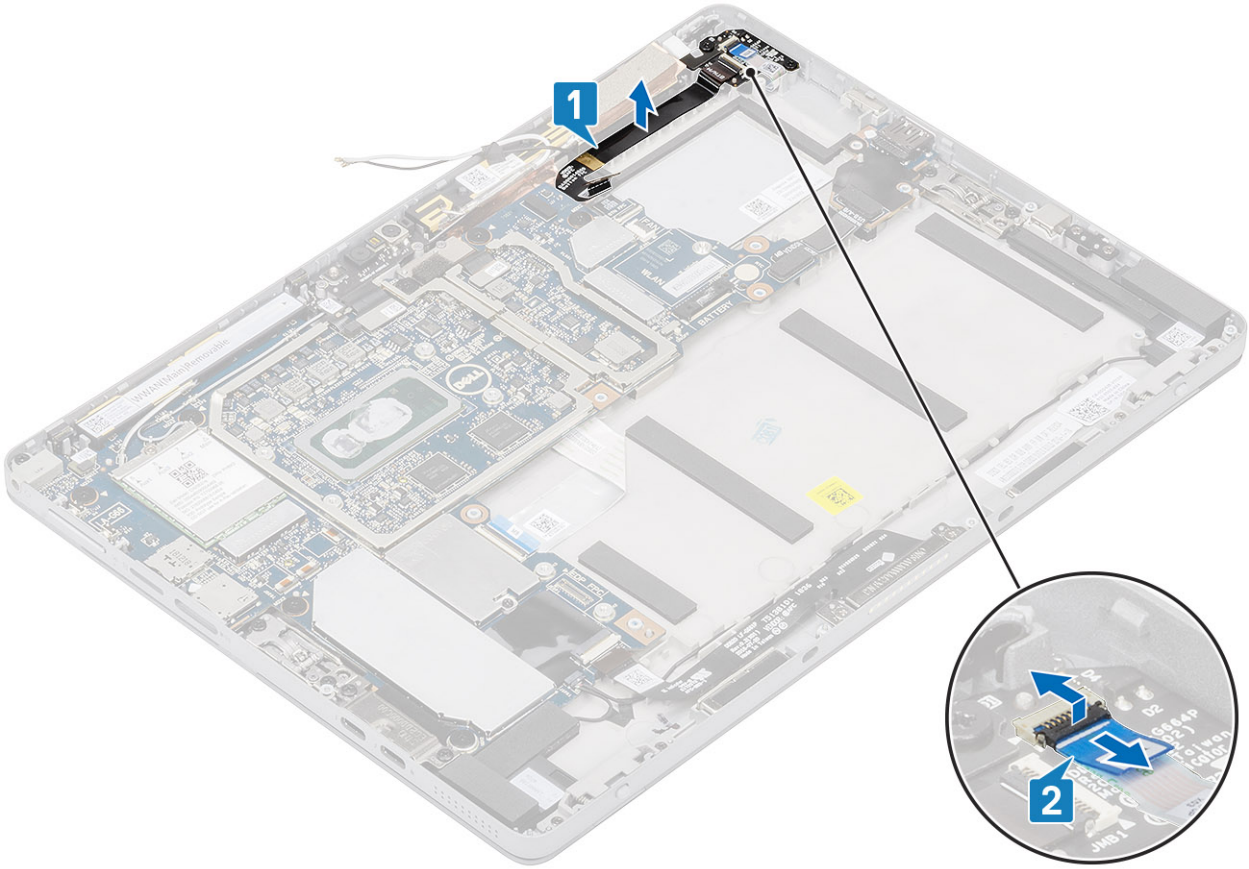


Figure 9. Remove the FFC

7. Using a plastic scribe, pry the power button sensor at the top edge of the power button daughter board out of its compartment.
8. Remove the power button daughter board along with its FPC from the display back cover.
9. Disconnect the power button daughter board FPC from the power button daughter board.

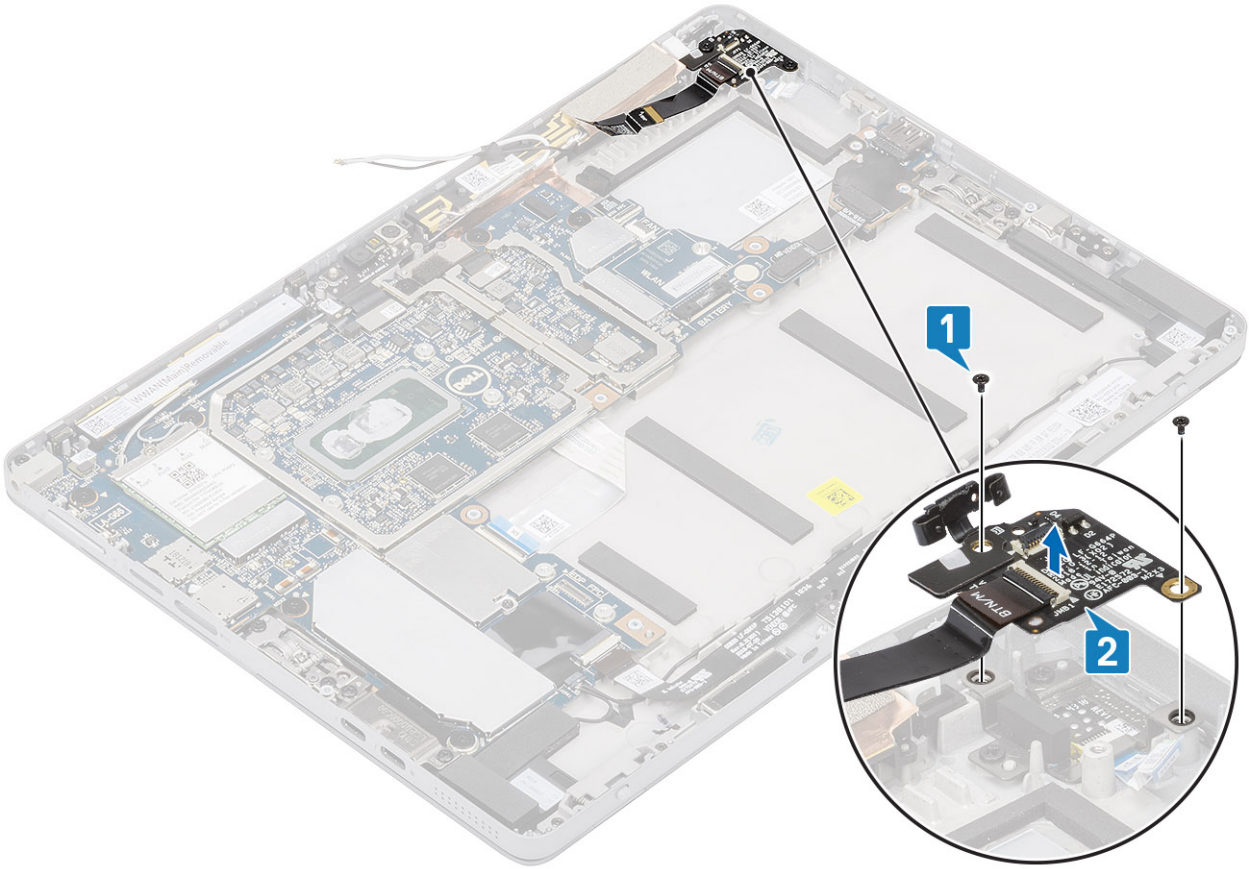


Figure 10. Disconnect and remove the power button board

Installing the power button board

Steps

1. Fix the daughter board along with its FPC from the display back cover.

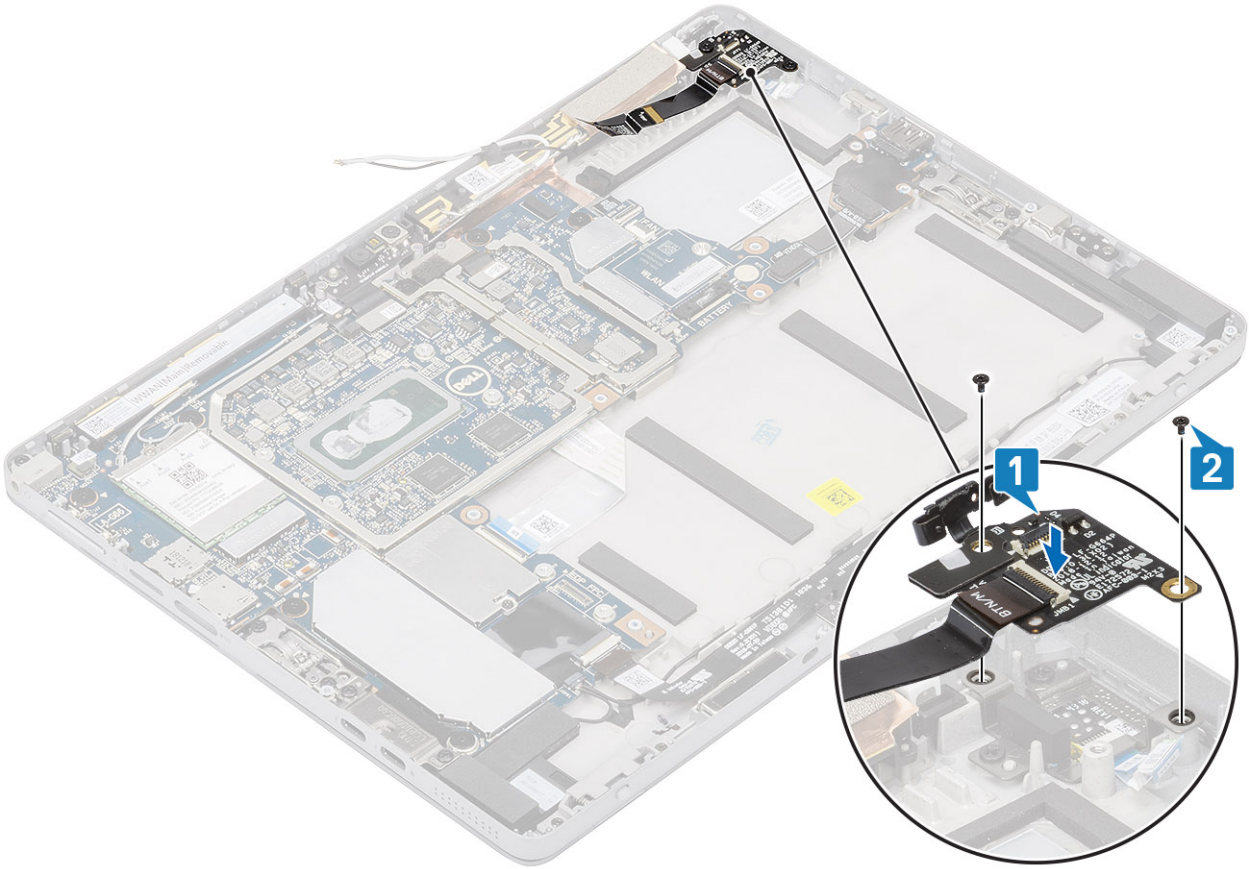


Figure 11. Fix the daughter board with the FPC

2. Fix the two M2 X 2.5 screws securing the power button daughter board in place.
3. Install the fingerprint reader FFC on the power button daughter board.

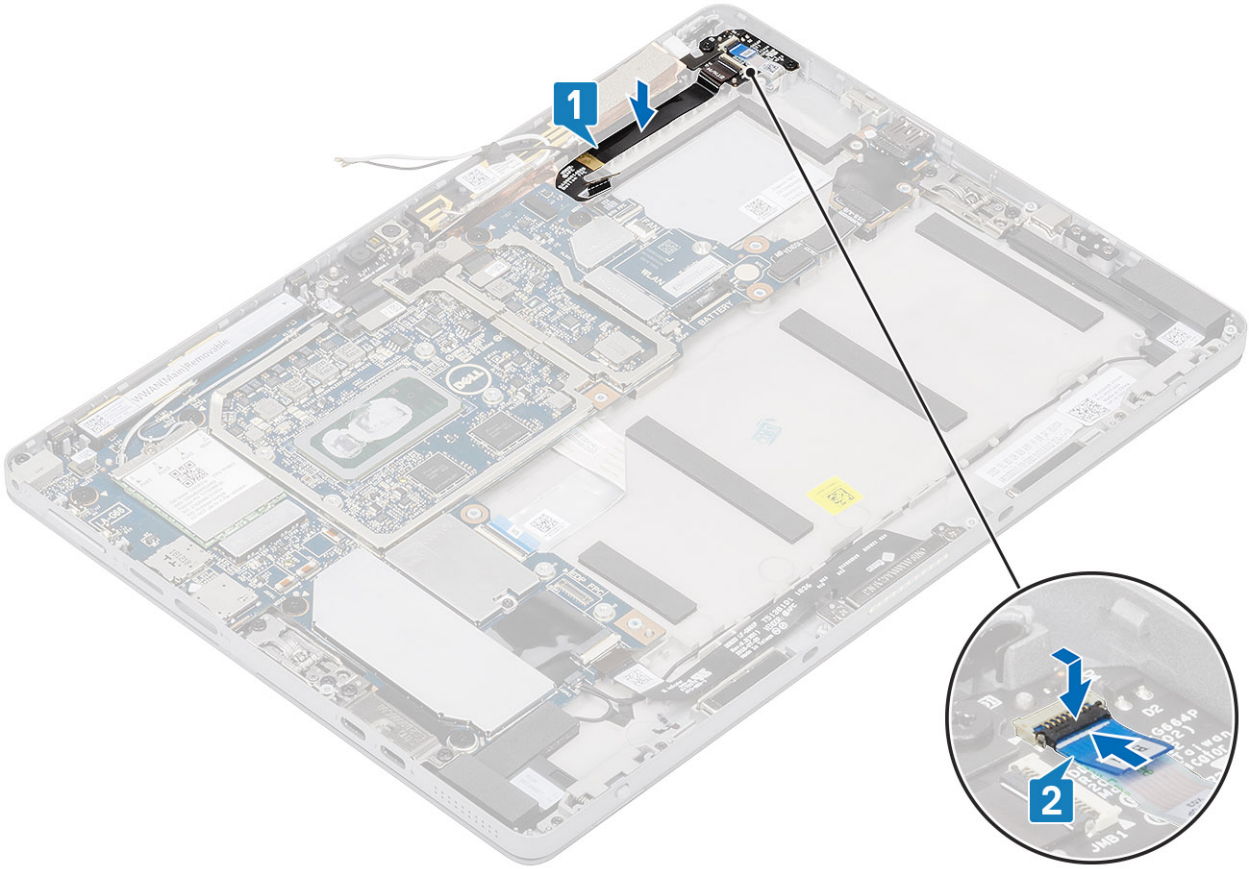


Figure 12. Install the FPC

4. Thread any wireless antennas covering the power button daughter board FPC.

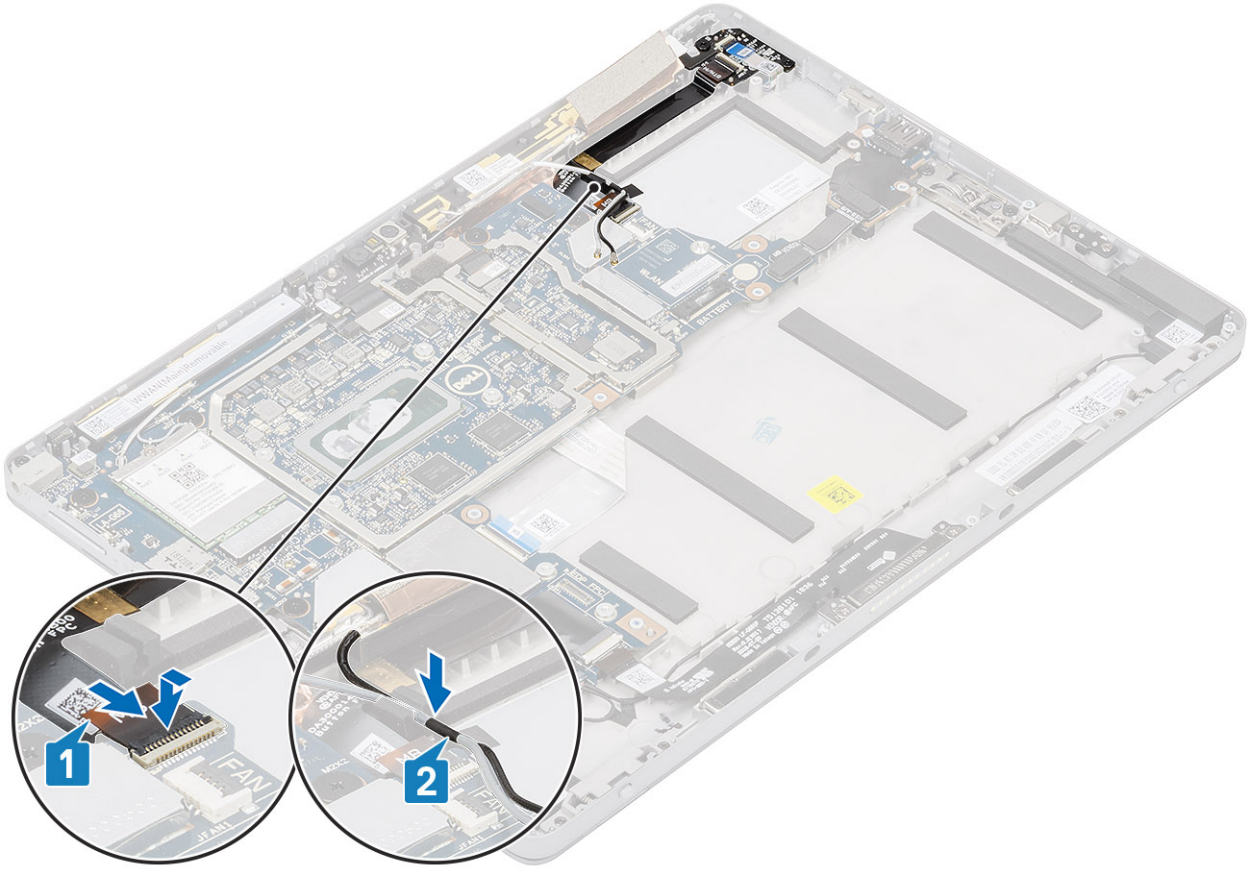


Figure 13. Thread the wireless antenna

5. Replace the:
   a. Heat sink Assembly
   b. display panel
   c. SD card
   d. SIM
   e. battery
6. Follow the procedure in After working inside your tablet.

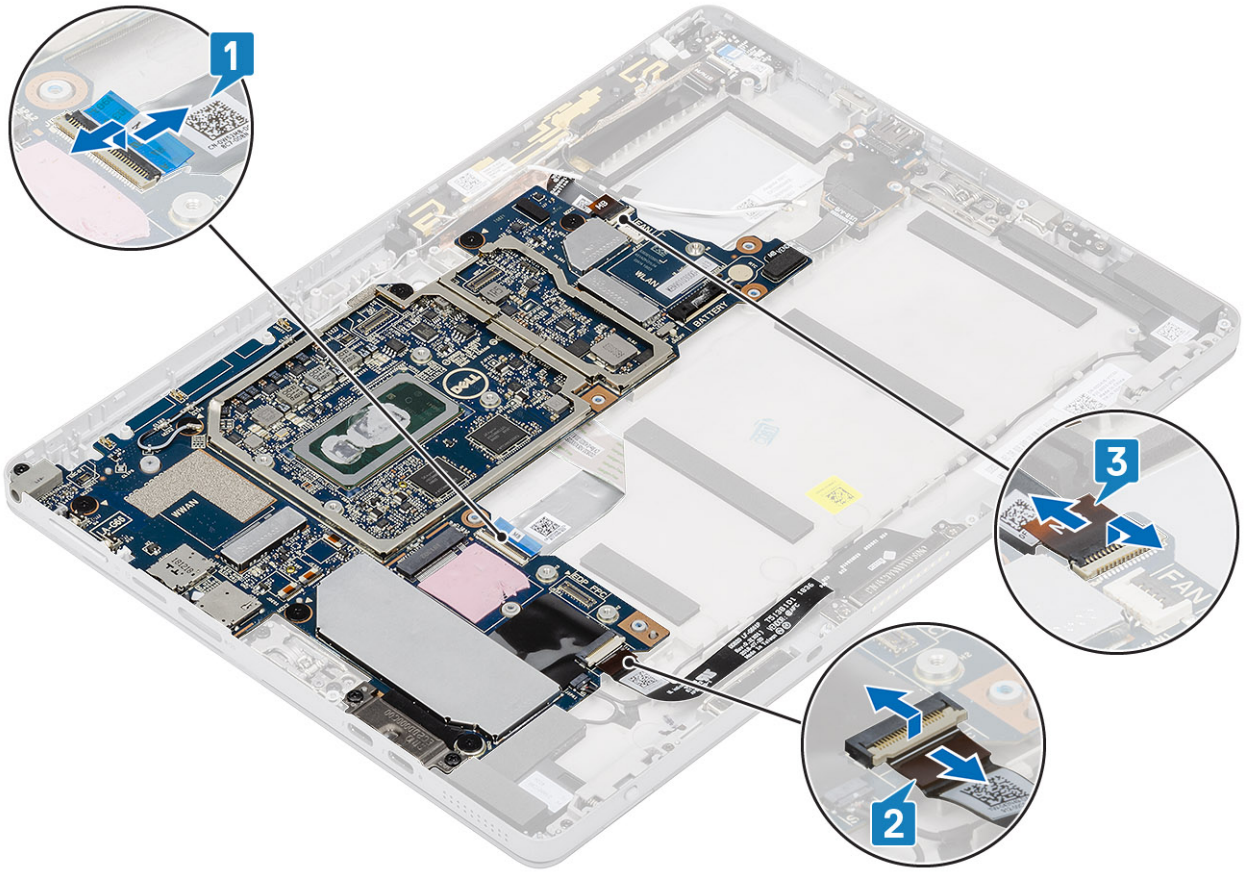
System Board

Removing system board

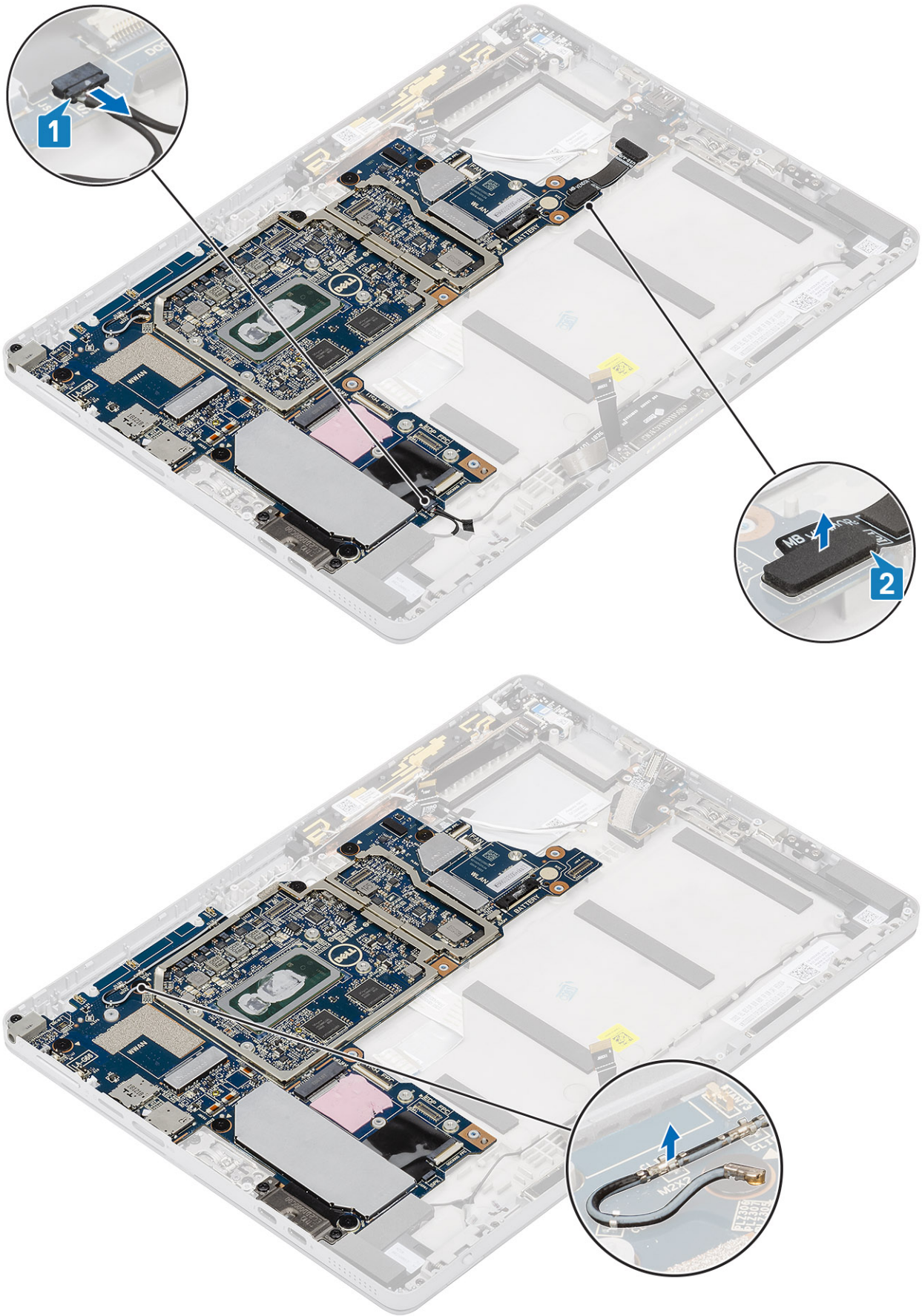
Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. battery
   d. display panel
   e. M.2 2230 SSD
   f. WWAN card
   g. Rear-Facing Camera
   h. Heat sinkl Assembly
   i. WWAN Main Antenna Module

3. Disconnect the following cables from the system board .
   a. Push the release latch of on the SIM card cage inward to release the

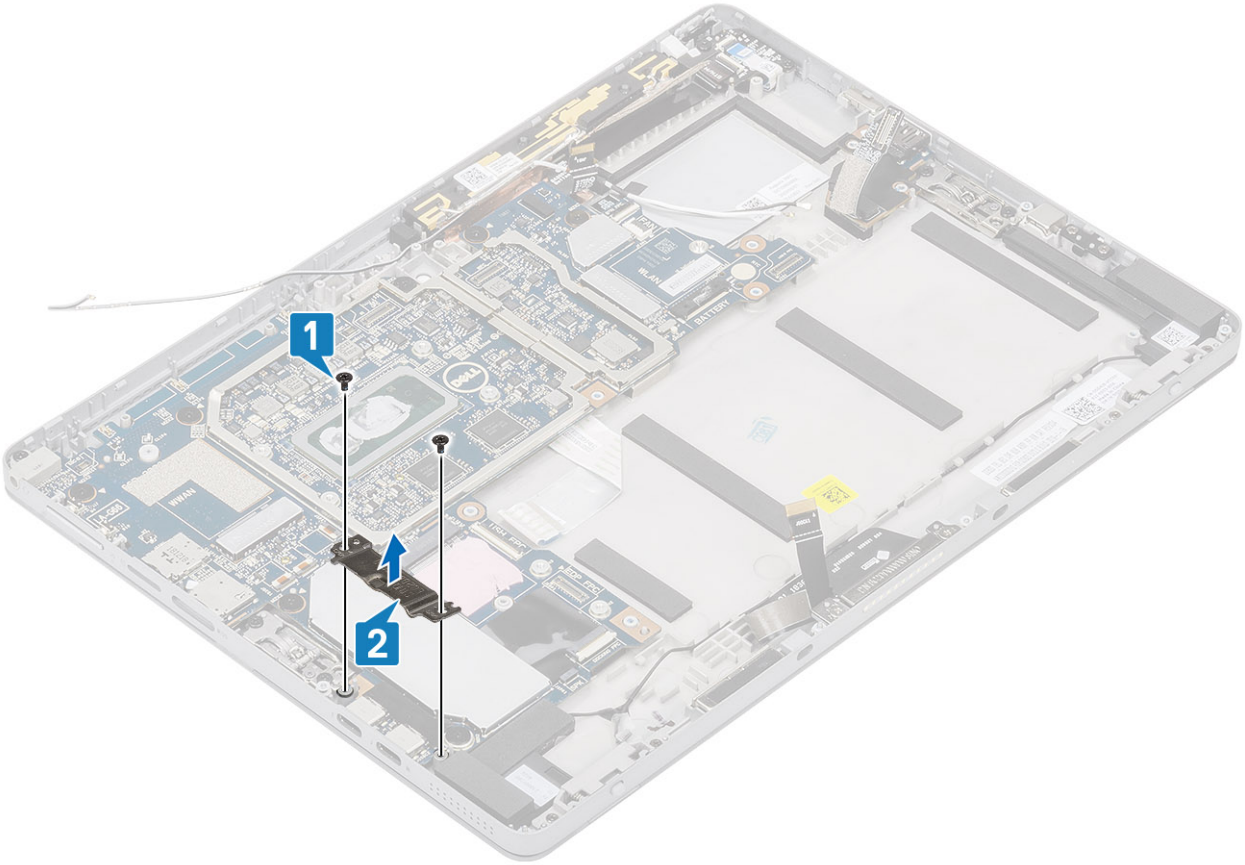


   dummy SIM card tray.
   b. Remove the dummy SIM card tray.
   c. Disconnect the power button daughter board FPC, USB daughter board FPC, USH FFC (that are shipped with a USH module), docking connector FPC, and a speaker cable.
4. Un-route the antenna cables from the routing clips .

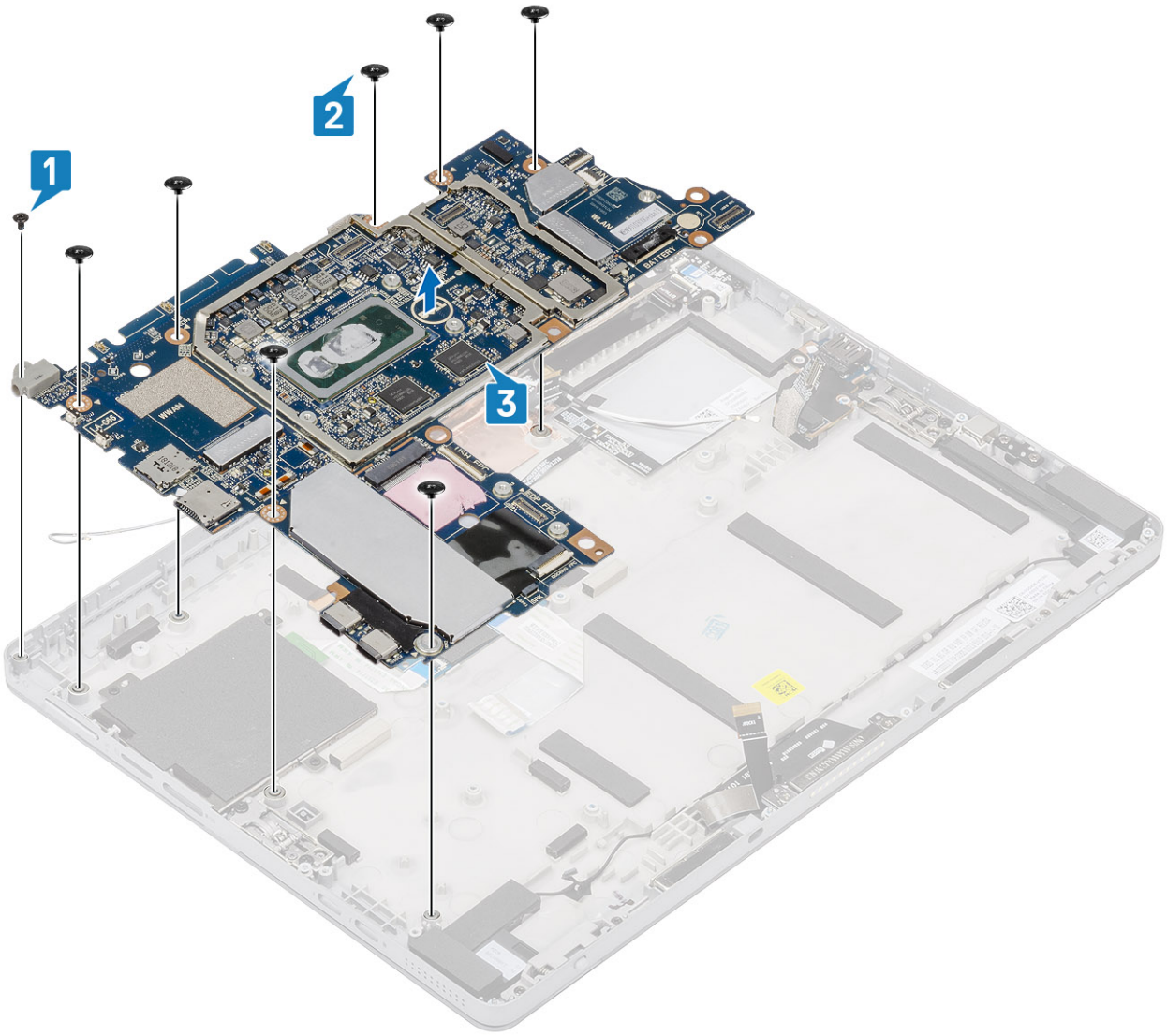


5. To remove the system board
   a. Remove the two bracket M2 x3 screws securing the Type-C USB bracket in place.

b. Remove the Type-C USB bracket.
c. Remove the single M2 x 3 screw securing the audio jack in place.



d. Remove the seven M2 x 2 screws securing the system board in place



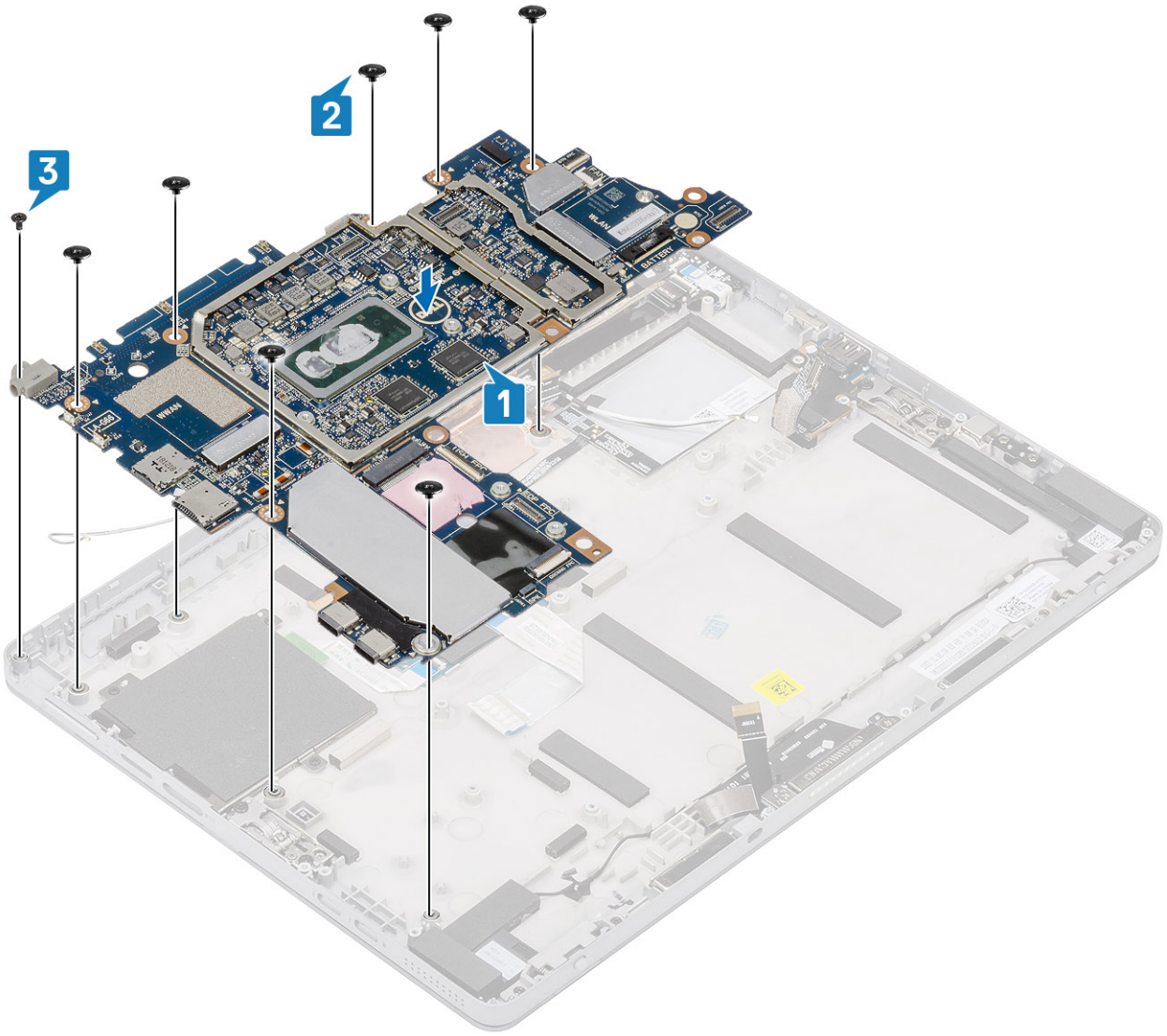
e. Lift the system board from the tablet [2].

Installing system board

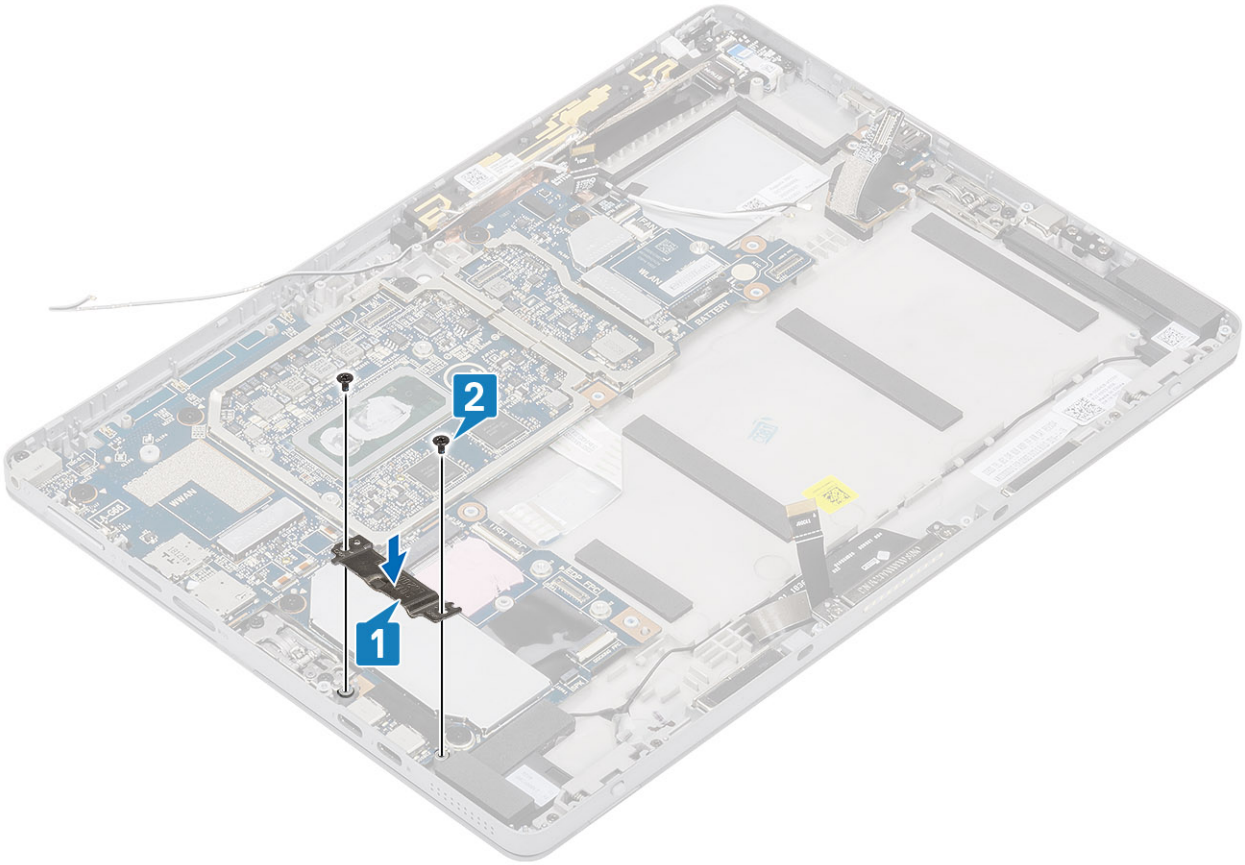
Steps

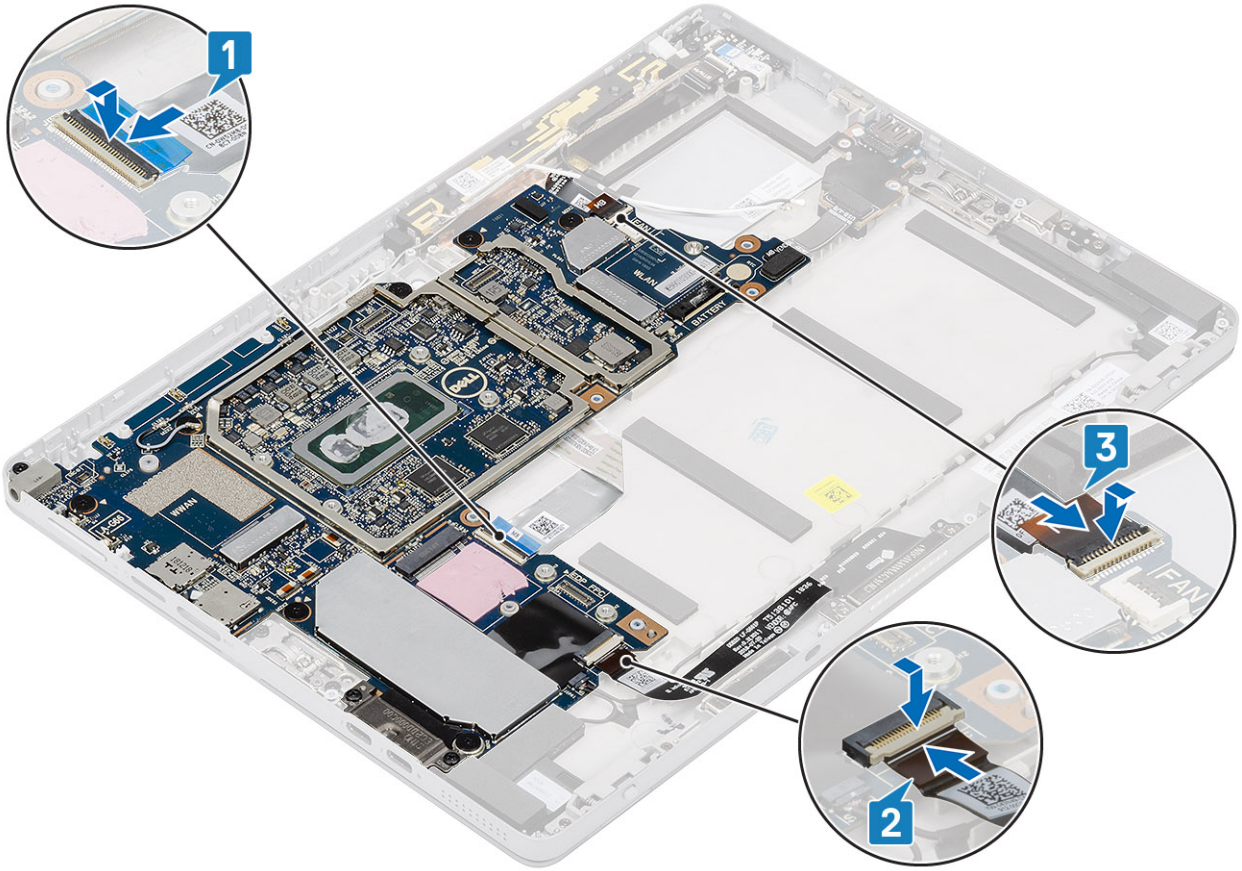
1. Align the system board with the screw holders on the tablet.
2. Tighten the seven M2 x2 screws to secure the system board to the tablet.

NOTE: Remember to align the Type-C port and tighten the two screws to secure the port to the system chassis.



3. Tighten the single M2 x 3 screw securing the audio jack in place and place the USB Type-C bracket.
4. Tighten the two bracket M2 x3 screws securing the Type-C USB bracket in place.





5. Replace the:
   a. WWAN Main Antenna Module

b. Heat sink Assembly
c. Rear-Facing Camera
d. display panel
e. SD card
f. SIM
g. battery

6. Follow the procedure in After working inside your tablet.

I/O Board

Removing I/O board

Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the SD Memory Card and display panel.
3. Remove the cable from the system board, and peel off the adhesive tape to remove the I/O board

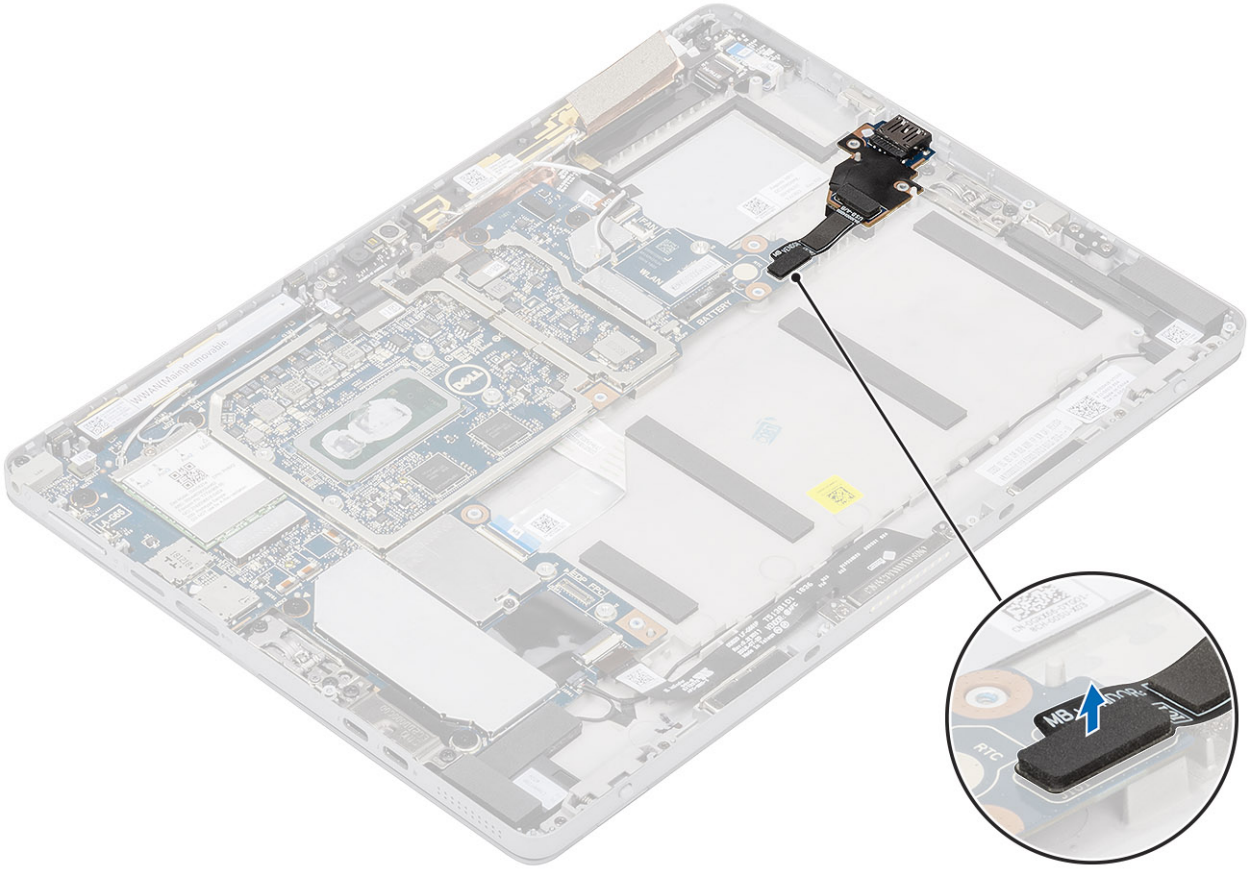


Figure 14. Removing the cable

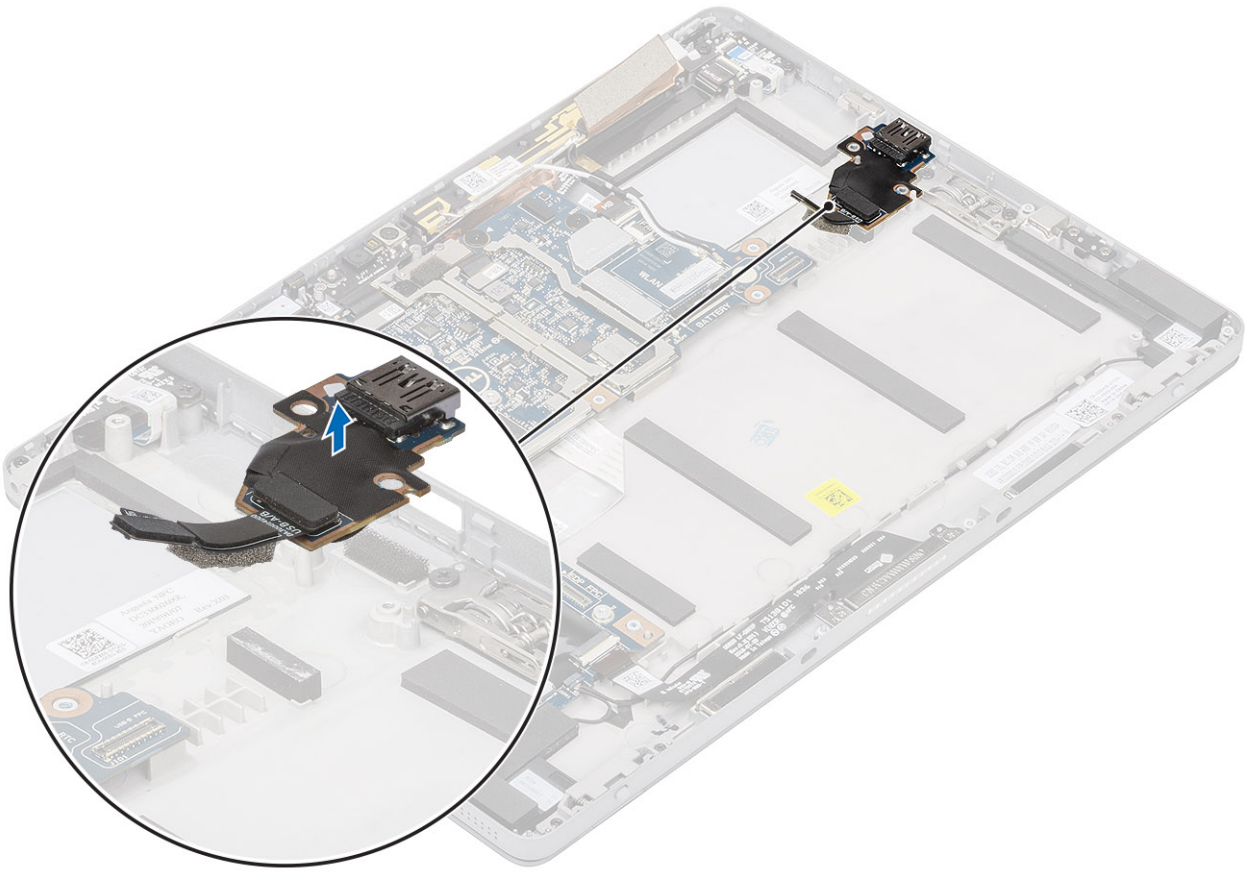


Figure 15. Peel off the adhesive tape

Installing I/O board

Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the SD Memory Card and display panel.
3. Fix the adhesive tape and Install the cable with the I/O board to the system board.

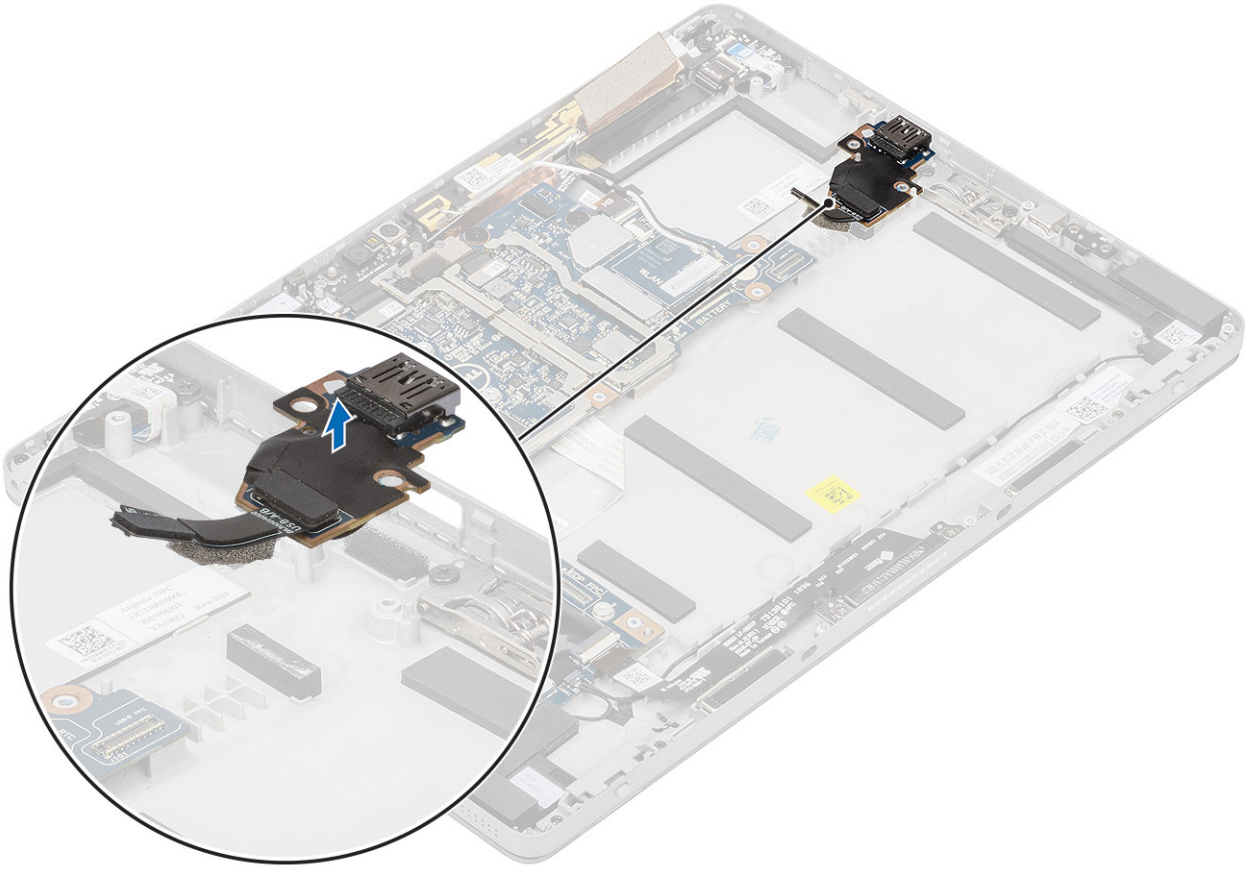


Figure 16. Fix the adhesive tape

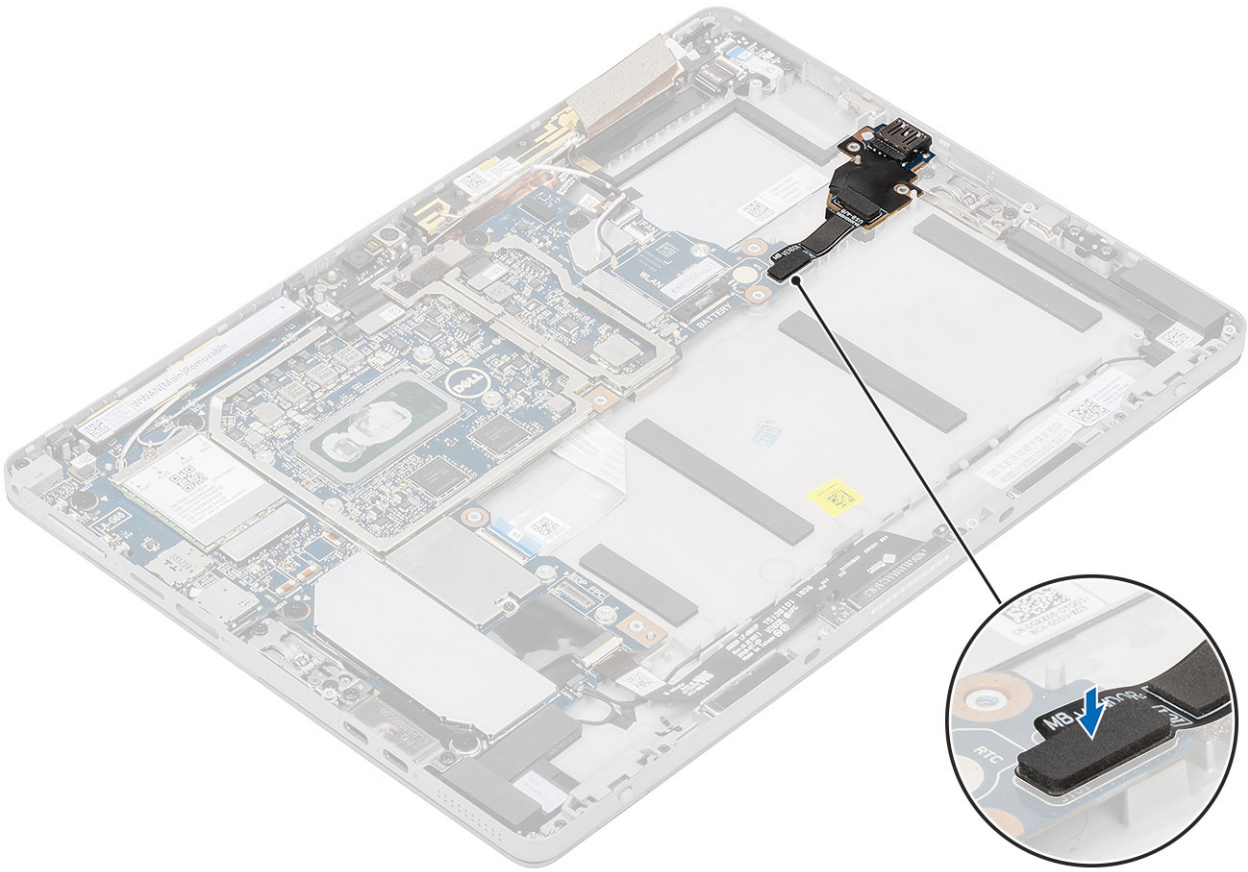


Figure 17. Fix the I/O module

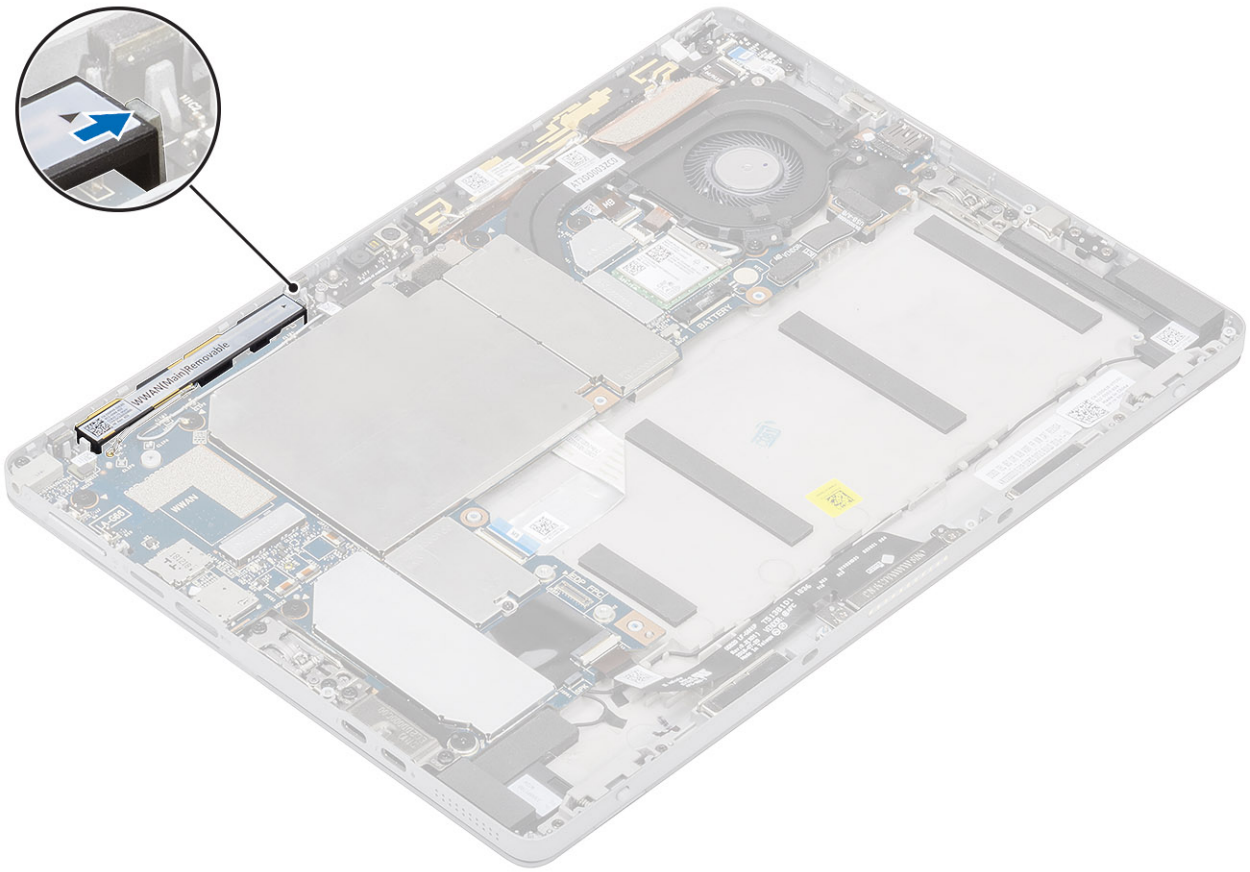
WWAN Antenna

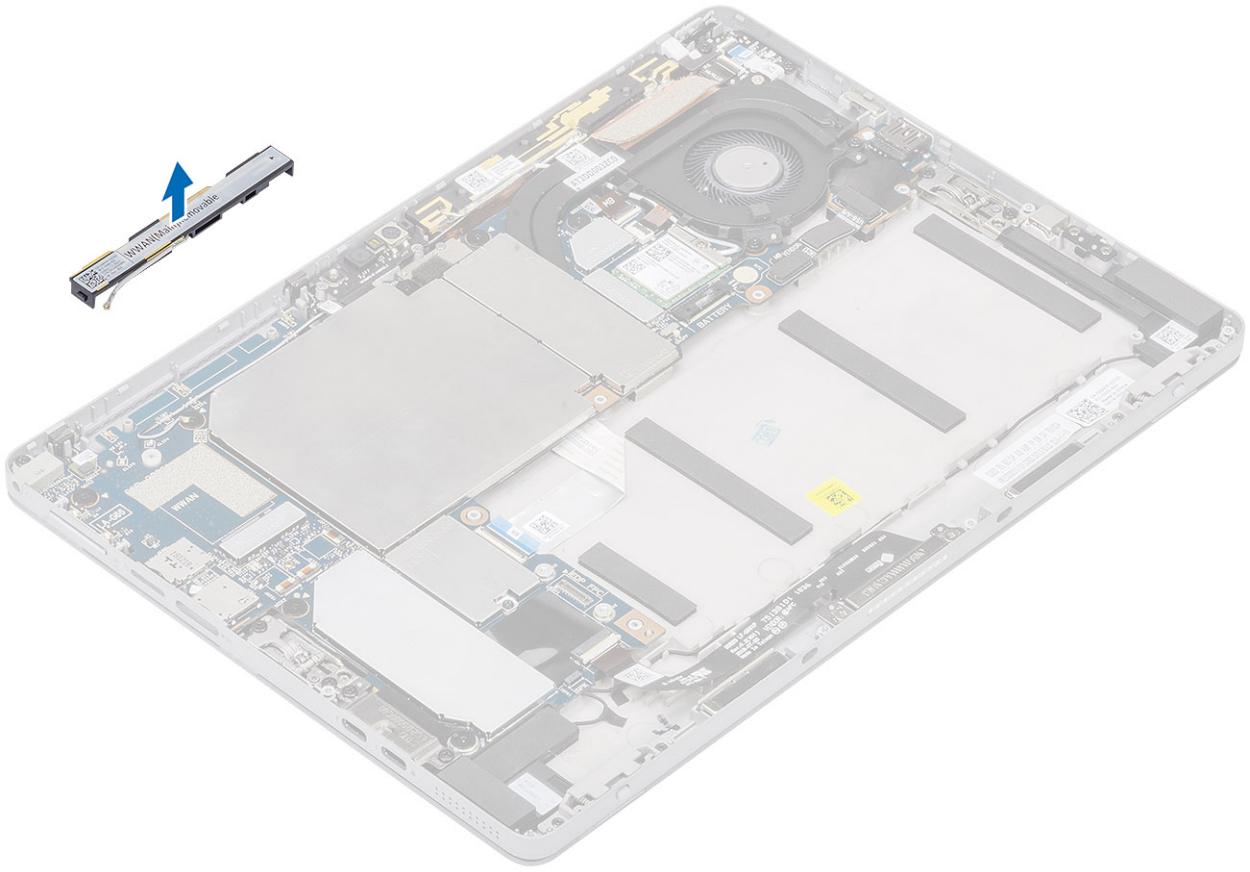
Removing the WWAN antenna module

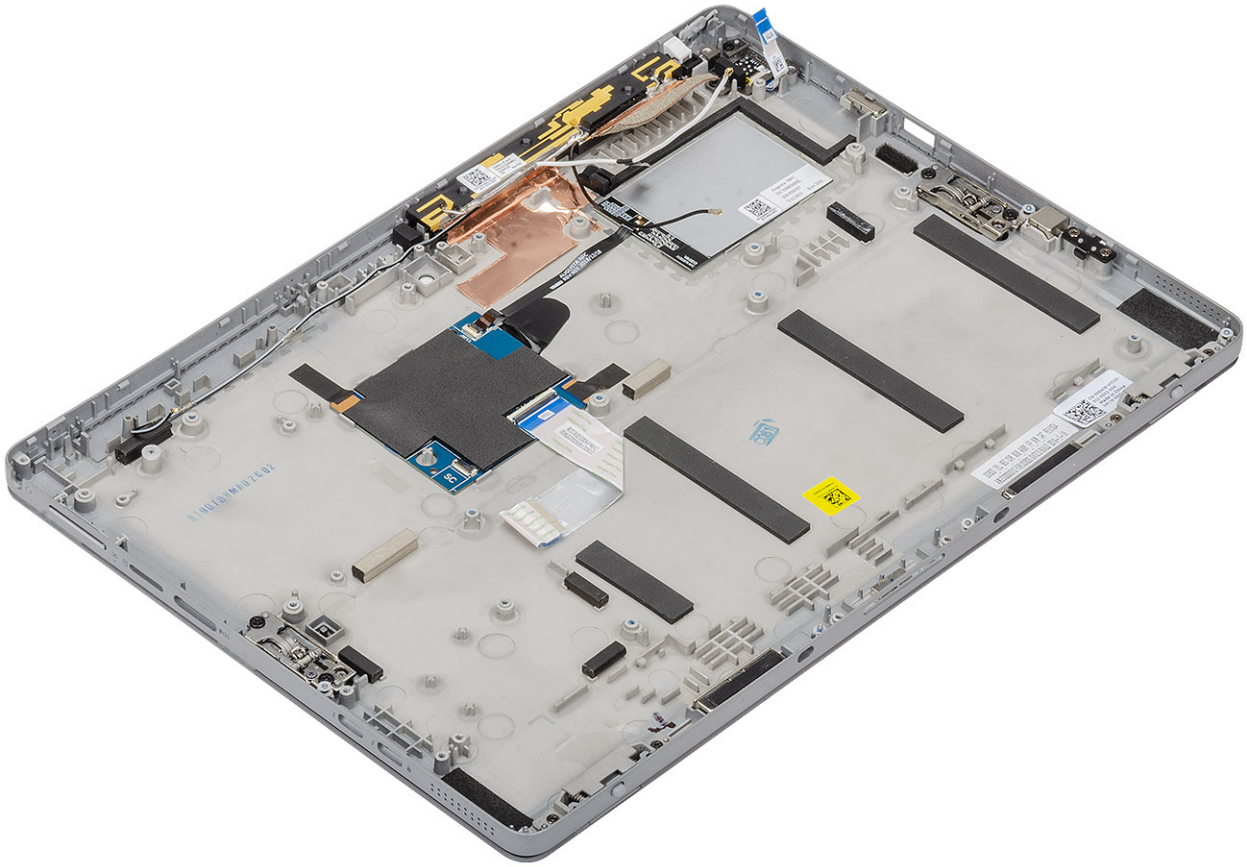
Steps

1. Follow the procedure in Before working inside your tablet.
2. Remove the:
   a. SD card
   b. SIM
   c. display panel
   d. battery
3. To remove the antenna module:
   a. Unthread the WWAN main antenna from the system board.
   b. Release the clips on the left and right side of the WWAN main antenna module securing it to the system
   c. Flip over the WWAN main antenna module to release it from the system board.
   d. Remove the WWAN main antenna module from the system.

   NOTE: WLAN antenna is part of the system base and cannot be replaced separately.


WWAN(Main)Removable

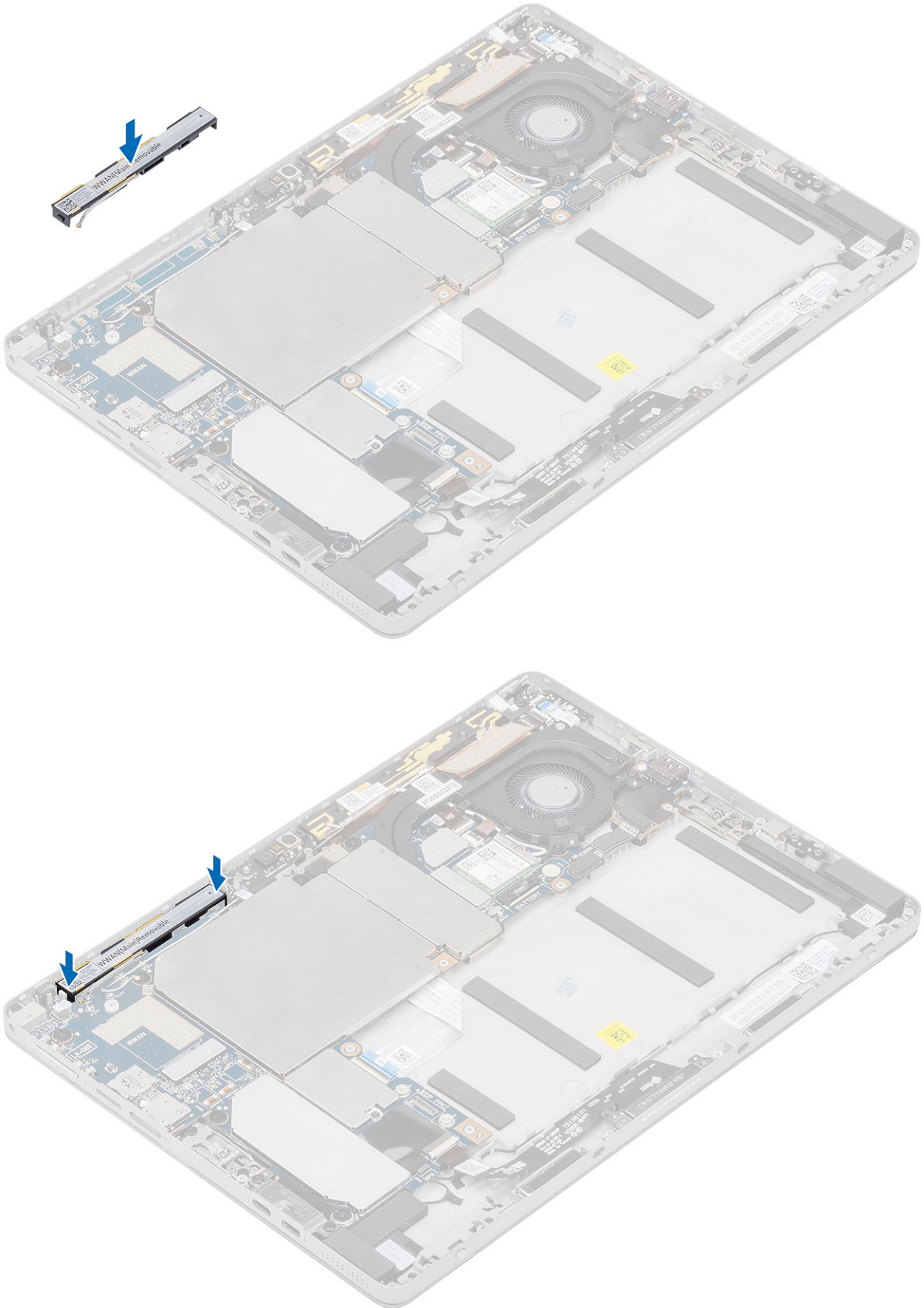

WWAN(Main)Removable



Installing the WWAN antenna module

Steps

1. Insert the antenna module into the slot on the back cover of the tablet.
2. Flip over the WWAN main antenna module to fix it to the system board..



3. Tighten the clips on the left and right side of the WWAN main antenna module securing it to the system.
4. Thread the WWAN main antenna to the system board.

5. Replace the:
   a. display panel
   b. SD card
   c. SIM
   d. battery
6. Follow the procedure in After working inside your tablet.

3

Software

This chapter details the supported operating systems along with instructions on how to install the drivers.

Topics:

- Downloading Windows drivers

Downloading Windows drivers

Steps

1. Turn on the notebook.
2. Go to **Dell.com/support**.
3. Click **Product Support**, enter the Service Tag of your notebook, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto detect feature or manually browse for your notebook model.

4. Click **Drivers and Downloads**.
5. Select the operating system installed on your notebook.
6. Scroll down the page and select the driver to install.
7. Click **Download File** to download the driver for your notebook.
8. After the download is complete, navigate to the folder where you saved the driver file.
9. Double-click the driver file icon and follow the instructions on the screen.

4

System setup

System setup enables you to manage your tabletdesktopnotebook hardware and specify BIOS level options. From the System setup, you can:

- Change the NVRAM settings after you add or remove hardware
- View the system hardware configuration
- Enable or disable integrated devices
- Set performance and power management thresholds
- Manage your computer security

Topics:

- Entering BIOS without keyboard
- System setup options
- System Log
- Updating the BIOS
- Updating your system BIOS using a USB flash drive
- System and setup password

Entering BIOS without keyboard

Steps

1. Press the power button to turn on your tablet.
2. Press and hold the **Volume Up** button when the Dell logo appears on the screen.
3. When the **F12** boot selection menu appears, select **BIOS Setup** using the **Volume Up** button.
4. Press the **Volume Down** button to enter BIOS setup program.

System setup options

NOTE: Depending on the tabletcomputerlaptop and its installed devices, the items listed in this section may or may not appear.

General options

Table 1. General options

Option	Description
System Information	This section lists the primary hardware features of your computer. The options are: • **System Information** • **Memory Configuration** • **Processor Information** • **Device Information**
Battery Information	Displays the battery status and the type of AC adapter connected to the computer.

Table 1. General options (continued)

Option	Description
Boot Sequence	Allows you to change the order in which the computer attempts to find an operating system. The options are: • **Windows Boot Manager**—Enable or disable the Windows Boot Manager option. • **Boot List Option**—You can add, delete, and view the boot options.
Advanced Boot Options	Enable or disable the UEFI Network Stack option.
UEFI Boot Path Security	Allows you to control whether the system prompts the user to enter the Admin password when booting to a UEFI boot path. Click one of the following options: • **Always, Except Internal HDD**—Default • **Always** • **Never**
Date/Time	Allows you to set the date and time. The change to the system date and time takes effect immediately.

System configuration

Table 2. System Configuration options

Option	Description
SATA Operation	Allows you to configure the operating mode of the integrated SATA hard-drive controller. The options are: • **Disabled** • **AHCI** • **RAID On**—By default, the RAID On option is enabled. **NOTE:** SATA is configured to support RAID mode.
Drives	Allows you to enable or disable various drives on board. The options are: • **SATA-0** • **SATA–1** • **M.2 PCIe SSD-0** • **M.2 PCIe SSD-1** By default, all the options are enabled.
SMART Reporting	This field controls whether hard drive errors for integrated drives are reported during system startup. This technology is part of the SMART (Self Monitoring Analysis and Reporting Technology) specification. By default, the **Enable SMART Reporting** option is disabled .
USB Configuration	Allows you to enable or disable the internal/integrated USB configuration. The options are:

Table 2. System Configuration options (continued)

Option	Description
	• **Enable USB Boot Support** • **Enable External USB Port** By default, all the options are enabled. **NOTE:** USB keyboard and mouse always work in the BIOS setup irrespective of these settings.
Thunderbolt Adapter Configuration	Allows you to configure the Thunderbolt adapter security settings within the operating system. The options are: • **Thunderbolt**—This option is enabled by default. • **Enable Thunderbolt Support** • **Enable Thunderbolt (and PCIe behind TBT) Pre-boot Modules** • **No Security** • **User Authorization**—This option is enabled by default. • **Secure Connect** • **Display Port and USB Only**
Thunderbolt Auto Switch	Allows you to configure the method used by the Thunderbolt controller to perform the PCIe device enumeration. By default, the **Auto switch** option is enabled. The options are: • **Native Enumeration** • **BIOS Assist Enumeration**
Audio	Allows you to enable or disable the integrated audio controller. By default, the **Enable Audio** option is selected. The options are: • **Enable Microphone** • **Enable Internal Speaker** By default, all the options are enabled.
Fingerprint Reader	Enables or disables the fingerprint reader device. The options are: • Enable Fingerprint Reader Device • Enable Finger Reader Single Sign On By default, both the options are enabled.
Miscellaneous devices	Allows you to enable or disable the following devices: • **Enable Camera** • **Enable Hard Drive Free Fall Protection** • **WiFi Radio** • **Enable Secure Digital (SD) Card** By default, all the options are enabled.

Video screen options

Table 3. Video

Option	Description
LCD Brightness	Allows you to set the display brightness depending upon the power source. By default, Brightness On Battery is 50% and Brightness On AC is 100%.

Security

Table 4. Security

Option	Description
Admin Password	Allows you to set, change, or delete the administrator (admin) password. The entries to set password are: • **Enter the old password:** • **Enter the new password:** • **Confirm new password:** Click **OK** once you set the password. **NOTE:** By default, the **Enter the old password** field is marked as **Not set**. Hence, password has to be set for the first time you login and then you can change or delete the password.
System Password	Allows you to set, change, or delete the system password. The entries to set password are: • **Enter the old password:** • **Enter the new password:** • **Confirm new password:** Click **OK** once you set the password. **NOTE:** By default, the **Enter the old password** field is marked as **Not set**. Hence, password has to be set for the first time you login and then you can change or delete the password.
Strong Password	Allows you to enforce the option to always set strong password. • **Enable Strong Password** By default, this option is disabled.
Password Configuration	You can define the length of your password. Min = 4, Max = 32
Password Bypass	Allows you to bypass the System password and the Internal HDD password, when it is set, during a system restart. The options are: • **Disabled**—This option is enabled by default. • **Reboot bypass**
Password Change	Allows you to change the system password when the administrator password is set. • **Allow Non-Admin Password Changes** By default, this option is enabled.
Non-Admin Setup Changes	Allows you to determine whether changes to the setup options are allowed when an administrator password is set. If disabled the setup options are locked by the admin password.

Table 4. Security (continued)

Option	Description
	• **Allow Wireless Switch Changes** By default, this option is disabled.
UEFI Capsule Firmware Updates	Allows you to update the system BIOS through UEFI capsule update packages. • **Enable UEFI Capsule Firmware Updates** By default, this option is enabled.
TPM 2.0 Security	Allows you to enable or disable the Trusted Platform Module (TPM) during POST. The options are: • **TPM On**—This option is enabled by default. • **Clear** • **PPI Bypass for Enable Commands** • **PPI Bypass for Disbale Commands** • **PPI Bypass for Clear Command** • **Attestation Enable**—This option is enabled by default. • **Key Storage Enable**—This option is enabled by default. • **SHA-256**—This option is enabled by default.
Absolute®	This field lets you Enable, Disable, or Permanently Disable the BIOS module interface of the optional Absolute Persistence Module service from Absolute® Software.
Admin Setup Lockout	Allows you to prevent users from entering Setup when an administrator password is set. • **Enable Admin Setup Lockout** By default, this option is disabled.
Master Password Lockout	Allows you to disable master password support. • **Enable Master Password Lockout** By default, this option is disabled. **NOTE:** Hard Disk password should be cleared before the settings can be changed.
SMM Security Mitigation	Allows you to enable or disable additional UEFI SMM Security Mitigation protection. • **SMM Security Mitigation** By default, this option is enabled.

Secure boot

Table 5. Secure Boot

Option	Description
Secure Boot Enable	Allows you to enable or disable the Secure Boot Feature. • **Secure Boot Enable**—By default, this option is disabled.
Secure Boot Mode	Changes to the Secure Boot operation mode modifies the behavior of Secure Boot to allow evaluation of UEFI driver signatures. This options are: • **Deployed Mode**—By default, this option is enabled. • **Audit Mode**

Table 5. Secure Boot (continued)

Option	Description
Expert Key Management	Allows you to enable or disable Expert Key Management. • **Enable Custom Mode**—By default, this option is disabled. The Custom Mode Key Management options are: • **PK**—By default, this option is disabled. • **KEK** • **db** • **dbx**

Intel Software Guard Extensions options

Table 6. Intel Software Guard Extensions

Option	Description
Intel SGX Enable	This field allows you to provide a secured environment for running code/storing sensitive information in the context of the main operating systems. Click one of the following options: • **Disabled** • **Enabled** • **Software controlled**—Default
Enclave Memory Size	This option sets **SGX Enclave Reserve Memory Size** Click one of the following options: • **32 MB** • **64 MB** • **128 MB**—Default

Performance

Table 7. Performance

Option	Description
Multi Core Support	This field specifies whether the processor has one or all cores enabled. The performance of some applications improves with the additional cores. • **All**—Default • **1** • **2** • **3**
Intel SpeedStep	Allows you to enable or disable the Intel SpeedStep mode of processor. • **Enable Intel SpeedStep** This option is set by default.
C-States Control	Allows you to enable or disable the additional processor sleep states.

Table 7. Performance (continued)

Option	Description
	• **C states** This option is set by default.
Intel® TurboBoost™	This option enables or disables the Intel® TurboBoost™ mode of the processor
Hyper-Thread Control	Allows you to enable or disable the HyperThreading in the processor. • **Disabled** • **Enabled**—Default

Power management

Table 8. Power Management

Option	Description
Lid Switch	Allows you to disable the lid switch. The options are: • **Enable Lid Switch**—enabled by default • **Power On Lid Open**—enabled by default
AC Behavior	Allows you to enable or disable the computer from turning on automatically when an AC adapter is connected. • **Wake on AC** By default, this option is disabled.
Enable Intel Speed Shift technology	Allows you to enable or disable the Intel Speed Shift Technology option. By default, this option is enabled.
Auto On Time	Allows you to set the time at which the computer must turn on automatically. The options are: • **Disabled**—enabled by default • **Every Day** • **Weekdays** • **Select Days**
USB Wake Support	Allows you to enable USB devices to wake the system from standby. By default, the option **Enable USB Wake Support** is disabled.
Advanced Battery Charge Configuration	This option enables you to maximize the battery health. When you enable this option, your system uses the standard charging algorithm and other techniques, during the nonwork hours to improve the battery health. By default, the **Enable Advanced Battery Charge Mode** option is disabled.
Primary Battery Charge Configuration	Allows you to select the charging mode for the battery. The options are: • **Adaptive**—enabled by default • **Standard** • **ExpressCharge** • **Primarily AC use** • **Custom**

Table 8. Power Management (continued)

Option	Description
	If Custom Charge is selected, you can also configure Custom Charge Start and Custom Charge Stop. **NOTE:** All charging mode may not be available for all the batteries.
Type-C Connector Power	Allows you to set the maximum power that can be drawn from the type-c connector. The options are: • 7.5 Watts—enabled by default • 15 Watts

Post behavior

Table 9. POST Behavior

Option	Description
Adapter Warnings	Allows you to enable or disable the system setup (BIOS) warning messages when you use certain power adapters. • **Enable Adapter Warnings**—enabled by default
Keypad (embedded)	Allows you to choose one of two methods to enable the keyboard that is embedded in the internal keyboard. The options are: • **Fn Key Only**—enabled by default • **By Numlock**
Numlock Enable	Allows you to enable or disable the Numlock function when the system boots. • **Enable Numlock**—enabled by default
Fn Lock Options	Allows you to let hot key combinations Fn + Esc toggle the primary behavior of F1–F12, between their standard and secondary functions. If you disable this option, you cannot toggle dynamically the primary behavior of these keys. By default, the **Fn Lock** option is enabled. Select one of the following options: • **Lock Mode Disable/Standard** • **Lock Mode Enable/Secondary**—enabled by default
Fastboot	Allows you to speed up the boot process by bypassing some of the compatibility steps. Select one of the following options: • **Minimal**—enabled by default • **Thorough** • **Auto**
Extended BIOS POST Time	Allows you to create an additional preboot delay. Select one of the following options: • **0 seconds**—enabled by default • **5 seconds** • **10 seconds**
Full Screen Logo	Allows you to display full screen logo, when your image matches screen resolution. By default, the **Enable Full Screen Logo** option is disabled.
Warnings and Errors	Allows you to select different options to either stop, prompt and wait for user input, continue when warnings are detected but pause on errors, or continue when either warnings or errors are detected during the POST process.

Table 9. POST Behavior (continued)

Option	Description
	Select one of the following options: • **Prompt on Warnings and Errors**—enabled by default • **Continue on Warnings** • **Continue on Warnings and Errors**

Virtualization support

Table 10. Virtualization Support

Option	Description
Virtualization	This option specifies whether a Virtual Machine Monitor (VMM) can use the additional hardware capabilities that are provided by the Intel Virtualization technology. By default, the **Enable Intel Virtualization Technology** option is enabled.
VT for Direct I/O	Enables or disables the Virtual Machine Monitor (VMM) from using the additional hardware capabilities that are provided by the Intel Virtualization technology for direct I/O. By default, the **Enable VT for Direct I/O** option is enabled.

Wireless options

Table 11. Wireless

Option	Description
Wireless Switch	Allows to set the wireless devices that can be controlled by the wireless switch. The options are: • **WLAN** • **Bluetooth®** All the options are enabled by default.
Wireless Device Enable	Allows you to enable or disable the internal wireless devices. The options are: • **WLAN** • **Bluetooth®** All the options are enabled by default.

Maintenance

Table 12. Maintenance

Option	Description
Service Tag	Displays the service tag of your computer.
Asset Tag	Allows you to create a system asset tag if an asset tag is not already set. This option is not set by default.
BIOS Downgrade	Allows you to flash previous revisions of the system firmware.

Table 12. Maintenance (continued)

Option	Description
	• **Allow BIOS Downgrade** This option is set by default.
Data Wipe	Allows you to securely erase data from all internal storage devices. • **Wipe on Next Boot** This option is not set by default.
Bios Recovery	**BIOS Recovery from Hard Drive**—By default, this option is enabled. Allows you to recover the corrupted BIOS from a recovery file on the HDD or an external USB key. **BIOS Auto-Recovery**— Allows you to recover the BIOS automatically.

System logs

Table 13. System Logs

Option	Description
BIOS events	Allows you to view and clear the System Setup (BIOS) POST events.
Thermal Events	Allows you to view and clear the System Setup (Thermal) events.
Power Events	Allows you to view and clear the System Setup (Power) events.

SupportAssist system resolution

Table 14. SupportAssit System Resolution

Option	Description
Auto OS Recovery Threshold	The **Auto OS Recovery Threshold** setup option controls the automatic boot flow for Support Assist System Resolution Console and Dell OS Recovery tool. Click one of the following options: • **OFF** • **1** • **2**—enabled by default • **3**
SupportAssist OS Recovery	Allows you to recover the SupportAssist OS Recovery (Disabled by default). By default, this option is enabled.

System Log

Option	Description
BIOS Events	Allows you to view and clear the System Setup (BIOS) POST events.
Thermal Events	Allows you to view and clear the System Setup (Thermal) events.
Power Events	Allows you to view and clear the System Setup (Power) events.

Updating the BIOS

Prerequisites

It is recommended to update your BIOS (System setup) on replacing the system board or if an update is available. Ensure that your tabletnotebookdesktop battery is fully charged and connected to a power outlet.

Steps

1. Restart the tabletnotebookdesktop.
2. Go to **Dell.com/support**.
3. Enter the **Service Tag** or **Express Service Code** and click **Submit**.

   NOTE: To locate the Service Tag, click **Where is my Service Tag?**

   NOTE: If you cannot find your Service Tag, click **Detect My Product**. Proceed with the instructions on screen.

4. If you are unable to locate or find the Service Tag, click the Product Category of your tabletnotebookdesktop.
5. Choose the **Product Type** from the list.
6. Select your tabletnotebookdesktop model and the **Product Support** page of your tabletnotebookdesktop appears.
7. Click **Get drivers** and click **View All Drivers**.
   The Drivers and Downloads page opens.
8. On the Drivers and Downloads screen, under the **Operating System** drop-down list, select **BIOS**.
9. Identify the latest BIOS file and click **Download File**.

   You can also analyze which drivers need an update. To do this for your product, click **Analyze System for Updates** and follow the instructions on the screen.
10. Select your preferred download method in the **Please select your download method below** window, click **Download File**.
    The **File Download** window appears.
11. Click **Save** to save the file on your tabletnotebookdesktop.
12. Click **Run** to install the updated BIOS settings on your tabletnotebookdesktop.

    Follow the instructions on the screen.

Next steps

NOTE: It is recommended not to update the BIOS version for more than 3 revisions. For example: If you want to update the BIOS from 1.0 to 7.0, then install version 4.0 first and then install version 7.0.

Updating your system BIOS using a USB flash drive

About this task

If the system cannot load into Windows, but there is still a need to update the BIOS, download the BIOS file using another system and save it to a bootable USB Flash Drive.

NOTE: You will need to use a bootable USB flash drive. Please refer to the following article for further details How to Create a Bootable USB Flash Drive using Dell Diagnostic Deployment Package (DDDP)

Steps

1. Download the BIOS update .EXE file to another system.
2. Copy the file e.g. O9010A12.EXE onto the bootable USB flash drive.
3. Insert the USB flash drive into the system that requires the BIOS update.
4. Restart the system and press F12 when the Dell splash logo appears to display the One Time Boot Menu.
5. Using arrow keys, select **USB Storage Device** and click **Enter**.
6. The system will boot to a Diag C:\> prompt.
7. Run the file by typing the full filename, for example, O9010A12.exe and press **Enter**.
8. The BIOS Update Utility will load. Follow the instructions on screen.

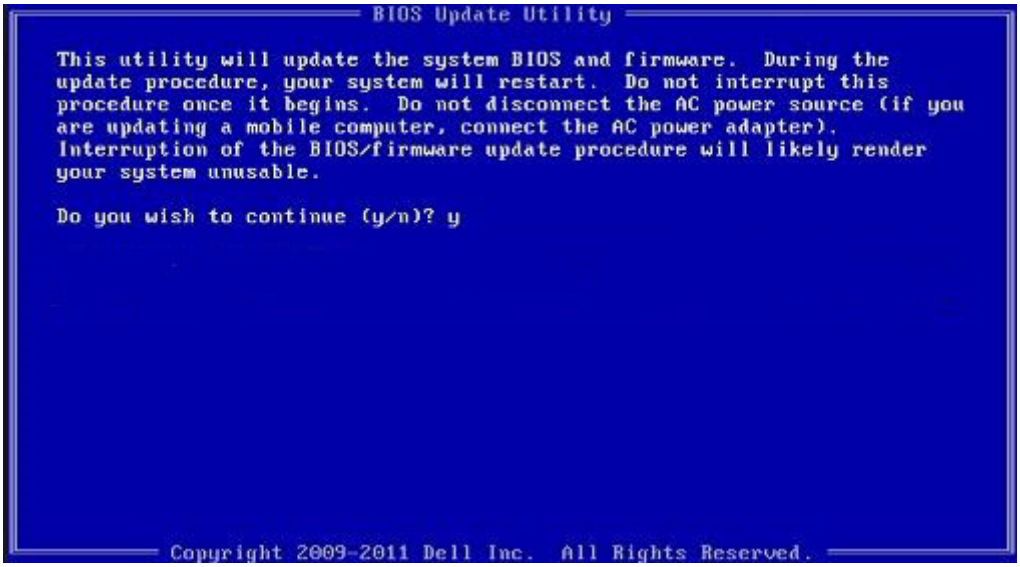


Figure 18. DOS BIOS Update Screen

System and setup password

Table 15. System and setup password

Password type	Description
System password	Password that you must enter to log on to your system.
Setup password	Password that you must enter to access and make changes to the BIOS settings of your computer.

You can create a system password and a setup password to secure your computer.

CAUTION: The password features provide a basic level of security for the data on your computer.

CAUTION: Anyone can access the data stored on your computer if it is not locked and left unattended.

NOTE: System and setup password feature is disabled.

Assigning a system setup password

Prerequisites

You can assign a new **System or Admin Password** only when the status is in **Not Set**.

About this task

To enter the system setup, press F2 immediately after a power-on or reboot.

Steps

1. In the **System BIOS** or **System Setup** screen, select **Security** and press **Enter**.
   The **Security** screen is displayed.
2. Select **System/Admin Password** and create a password in the **Enter the new password** field.
   Use the following guidelines to assign the system password:
   - A password can have up to 32 characters.

- The password can contain the numbers 0 through 9.
- Only lower case letters are valid, upper case letters are not allowed.
- Only the following special characters are allowed: space, (”), (+), (,), (-), (.), (/), (;), ([), (\), (]), (`).

3. Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.
4. Press **Esc** and a message prompts you to save the changes.
5. Press **Y** to save the changes.
   The computer reboots.

Deleting or changing an existing system setup password

Prerequisites

Ensure that the **Password Status** is Unlocked (in the System Setup) before attempting to delete or change the existing System and Setup password. You cannot delete or change an existing System or Setup password, if the **Password Status** is Locked.

About this task

To enter the System Setup, press **F2** immediately after a power-on or reboot.

Steps

1. In the **System BIOS** or **System Setup** screen, select **System Security** and press **Enter**.
   The **System Security** screen is displayed.
2. In the **System Security** screen, verify that **Password Status** is **Unlocked**.
3. Select **System Password**, alter or delete the existing system password and press **Enter** or **Tab**.
4. Select **Setup Password**, alter or delete the existing setup password and press **Enter** or **Tab**.

   NOTE: If you change the System and/or Setup password, re enter the new password when prompted. If you delete the System and Setup password, confirm the deletion when prompted.

5. Press **Esc** and a message prompts you to save the changes.
6. Press **Y** to save the changes and exit from System Setup.
   The computer restarts.

5

Troubleshooting

Topics:

- Dell SupportAssist Pre-boot System Performance Check diagnostics
- System diagnostic lights
- Kickstand open status behavior
- Flashing BIOS (USB key)
- Flashing the BIOS
- Backup media and recovery options
- WiFi power cycle
- Flea power release

Dell SupportAssist Pre-boot System Performance Check diagnostics

About this task

The SupportAssist diagnostics (also known as system diagnostics) performs a complete check of your hardware. The Dell SupportAssist Pre-boot System Performance Check diagnostics is embedded with the BIOS and is launched by the BIOS internally. The embedded system diagnostics provides a set of options for particular devices or device groups allowing you to:

- Run tests automatically or in an interactive mode
- Repeat tests
- Display or save test results
- Run thorough tests to introduce additional test options to provide extra information about the failed device(s)
- View status messages that inform you if tests are completed successfully
- View error messages that inform you of problems encountered during testing

NOTE: Some tests for specific devices require user interaction. Always ensure that you are present at the computer terminal when the diagnostic tests are performed.

For more information, see Resolve Hardware Issues With Built-in and Online Diagnostics (SupportAssist ePSA, ePSA or PSA Error Codes) .

Running the SupportAssist Pre-Boot System Performance Check

Steps

1. Turn on your computer.
2. As the computer boots, press the F12 key as the Dell logo appears.
3. On the boot menu screen, select the **Diagnostics** option.
4. Click the arrow at the bottom left corner.
   Diagnostics front page is displayed.
5. Click the arrow in the lower-right corner to go to the page listing.
   The items detected are listed.
6. To run a diagnostic test on a specific device, press Esc and click **Yes** to stop the diagnostic test.
7. Select the device from the left pane and click **Run Tests**.
8. If there are any issues, error codes are displayed.
   Note the error code and validation number and contact Dell.

System diagnostic lights

Battery-status light

Indicates the power and battery-charge status.

Solid white — Power adapter is connected and the battery has more than 5 percent charge.

Amber — Computer is running on battery and the battery has less than 5 percent charge.

Off

- Power adapter is connected and the battery is fully charged.
- Computer is running on battery and the battery has more than 5 percent charge.
- Computer is in sleep state, hibernation, or turned off.

The power and battery-status light blinks amber along with beep codes indicating failures.

For example, the power and battery-status light blinks amber two times followed by a pause, and then blinks white three times followed by a pause. This 2,3 pattern continues until the computer is turned off indicating no memory or RAM is detected.

The following table shows different power and battery-status light patterns and associated problems.

Table 16. LED codes

Diagnostic light codes	Problem description
2,1	Processor failure
2,2	System board: BIOS or ROM (Read-Only Memory) failure
2,3	No memory or RAM (Random-Access Memory) detected
2,4	Memory or RAM (Random-Access Memory) failure
2,5	Invalid memory installed
2,6	System-board or chipset error
2,7	Display failure
2,8	LCD power rail failure. Replace system board and LCD
3,1	Coin-cell battery failure
3,2	PCI, video card/chip failure
3,3	Recovery image not found
3,4	Recovery image found but invalid
3,5	Power-rail failure
3,6	System BIOS Flash incomplete
3,7	Management Engine (ME) error

Camera status light: Indicates whether the camera is in use.

- Solid white — Camera is in use.
- Off — Camera is not in use.

Caps Lock status light: Indicates whether Caps Lock is enabled or disabled.

- Solid white — Caps Lock enabled.
- Off — Caps Lock disabled.

Kickstand open status behavior

Table 17. Kickstand open status behavior

	Operation Sequence	Power status changes				
	1- Kickstand	2 - Folio KB	S0	MS	S4	**G3/S5
1	Closed to Open	W/O Folio KB	System keeps opened	System resume	System resume	System resume
2	Open to Closed		System keeps opened	System resume	System off	System off
3	Closed	Folio KB closed -> opened (Action)	System keeps opened	System resume	System off	System off
4	Open		System keeps opened	System resume	System resume	System resume***
5	Closed to Open	Folio KB closed always	System keeps opened	System off	System off	System off
NOTE: *** If Folio is opened within 5sec of opening kickstand, it will transition to system open status. Otherwise, it will return back to system Suspend/off mode.						

Flashing BIOS (USB key)

Steps

1. Follow the procedure from step 1 to step 7 in "Flashing the BIOS" to download the latest BIOS setup program file.
2. Create a bootable USB drive. For more information see the knowledge base article SLN143196 at www.dell.com/support.
3. Copy the BIOS setup program file to the bootable USB drive.
4. Connect the bootable USB drive to the computer that needs the BIOS update.
5. Restart the computer and press **F12** when the Dell logo is displayed on the screen.
6. Boot to the USB drive from the **One Time Boot Menu**.
7. Type the BIOS setup program filename and press **Enter**.
8. The **BIOS Update Utility** appears. Follow the instructions on the screen to complete the BIOS update.

Flashing the BIOS

About this task

You may need to flash (update) the BIOS when an update is available or when you replace the system board.

Follow these steps to flash the BIOS:

Steps

1. Turn on your computer.
2. Go to www.dell.com/support.
3. Click **Product support**, enter the Service Tag of your computer, and then click **Submit**.

NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

4. Click **Drivers & downloads** > **Find it myself**.
5. Select the operating system installed on your computer.
6. Scroll down the page and expand **BIOS**.
7. Click **Download** to download the latest version of the BIOS for your computer.
8. After the download is complete, navigate to the folder where you saved the BIOS update file.
9. Double-click the BIOS update file icon and follow the instructions on the screen.

Backup media and recovery options

It is recommended to create a recovery drive to troubleshoot and fix problems that may occur with Windows. Dell proposes multiple options for recovering Windows operating system on your Dell PC. For more information. see Dell Windows Backup Media and Recovery Options.

WiFi power cycle

About this task

If your computer is unable to access the internet due to WiFi connectivity issues a WiFi power cycle procedure may be performed. The following procedure provides the instructions on how to conduct a WiFi power cycle:

NOTE: Some ISPs (Internet Service Providers) provide a modem/router combo device.

Steps

1. Turn off your computer.
2. Turn off the modem.
3. Turn off the wireless router.
4. Wait for 30 seconds.
5. Turn on the wireless router.
6. Turn on the modem.
7. Turn on your computer.

Flea power release

About this task

Flea power is the residual static electricity that remains on the computer even after it has been powered off and the battery has been removed. The following procedure provides the instructions on how to conduct flea power release:

Steps

1. Turn off your computer.
2. Disconnect the power adapter from your computer.
3. Press and hold the power button for 15 seconds to drain the flea power.
4. Connect the power adapter to your computer.
5. Turn on your computer.

6

Getting help

Topics:

- Contacting Dell

Contacting Dell

Prerequisites

NOTE: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

About this task

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

Steps

1. Go to **Dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
4. Select the appropriate service or support link based on your need.