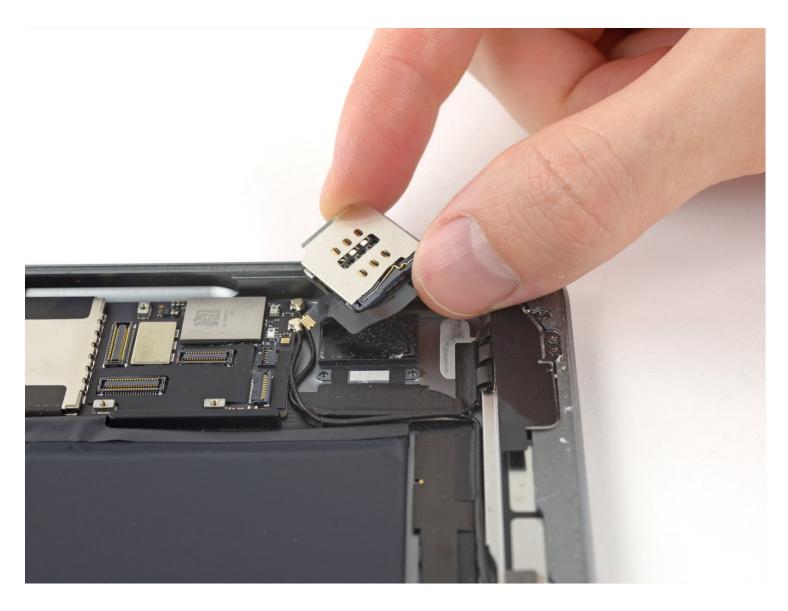


iPad 5 LTE SIM Board Replacement

Use this guide to remove or replace the SIM...

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INTRODUCTION

Use this guide to remove or replace the SIM board (a.k.a. SIM card bay) in an iPad 5 LTE.

Parts of this guide were shot with a Wi-Fi model and as such the internals may look slightly different from the LTE model. The procedure is the same for both models except where noted.

Warning: the battery isolation method in this guide is outdated, and may result in irreversible damage to the battery pins of the logic board, effectively destroying it. If you choose to isolate the battery this way, heed all warnings and work extremely carefully. If you choose to complete the guide without isolating the battery, avoid using metal tools except when completely necessary (like when removing screws) to prevent shorting the battery and damaging sensitive circuit components.

🖌 TOOLS:

Anti-Clamp (1) iOpener (1) iFixit Opening Picks (Set of 6) (1) Suction Handle (1) Tweezers (1) Phillips #00 Screwdriver (1) Spudger (1) SIM Card Eject Tool (1) 🌣 PARTS:

iPad Air, iPad 5, iPad 6 Adhesive Strips (1) iPad Air SIM Card Bay (1)

Step 1 — SIM Tray



- Use a SIM eject tool or an uncoiled paperclip to eject the SIM tray.
- Push the tool into the hole next to the SIM tray until it pushes the tray out enough to grab.
- Pull out and remove the tray.



Step 2 — Heat the left edge

 Heat an iOpener and apply it to the left edge of the device for two minutes.

Step 3 — Screen removal information



- While you're waiting for the adhesive to loosen, note the following areas that are sensitive to prying:
 - Front camera
 - Antennas
 - Display cables

Step 4 — Anti-Clamp instructions



(i) The next three steps demonstrate the <u>Anti-Clamp</u>, a tool we designed to make the opening procedure easier. **If you aren't using the Anti-Clamp, skip down three steps for an alternate method.**

(i) For complete instructions on how to use the Anti-Clamp, <u>check out this guide</u>.

- Pull the blue handle backwards to unlock the Anti-Clamp's arms.
- Place an object under your iPad so it rests level between the suction cups.
- Position the suction cups near the middle of the left edge—one on the top, and one on the bottom.
- Hold the bottom of the Anti-Clamp steady and firmly press down on the top cup to apply suction.
 - (i) If you find that the surface of your iPad is too slippery for the Anti-Clamp to hold onto, <u>use tape</u> to create a grippier surface.



- Pull the blue handle forward to lock the arms.
- Turn the handle clockwise 360 degrees or until the cups start to stretch.
- Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.



- Wait one minute to give the adhesive a chance to release and present an opening gap.
- If your screen isn't getting hot enough, you can use a hair dryer to heat along the left edge of the iPad.

(i) For complete instructions on how to use a hair dryer, <u>check out this guide</u>.

- Insert an opening pick under the digitizer when the Anti-Clamp creates a large enough gap.
 - (i) If the Anti-Clamp doesn't create a sufficient gap, apply more heat to the area and rotate the handle clockwise half a turn.

⚠ Don't crank more than a half a turn at a time, and wait one minute between turns. Let the Anti-Clamp and time do the work for you.

• Skip the next step.

Step 7 — Insert an opening pick



- (i) If your display is badly cracked, <u>covering it with a layer of clear packing tape</u> may allow the suction cup to adhere. Alternatively, very strong tape may be used instead of the suction cup. If all else fails, you can superglue the suction cup to the broken screen.
- Once the screen is warm to touch, apply a suction handle to the left edge of the screen and as close to the edge as possible.
- Lift the screen with the suction handle to create a small gap between the digitizer and the frame.
- Insert an opening pick into the gap between the digitizer and the frame.

Step 8 — Separate the left adhesive



- Insert a second opening pick into the gap you just created.
- Slide the pick toward the bottom-left corner of the device to separate the adhesive.
- Leave the pick in the bottom-left corner to prevent the adhesive from re-sealing.
- (i) Don't worry if you can see <u>the opening pick through the digitizer</u>—just pull the pick out. The LCD screen shouldn't be damaged, but you risk leaving behind hard-to-clean adhesive.

Step 9



• If the opening pick gets stuck in the adhesive, "roll" the pick along the side of the iPad to continue separating the adhesive.



- Slide the first opening pick towards the top-left corner of the device to separate the adhesive.
- Leave the pick in the top-left corner to prevent the adhesive from re-sealing.



Step 11 — Heat the top edge

• Heat an iOpener and apply it to the top edge of the device for two minutes.

Step 12 — Separate the top left adhesive



• Rotate the pick around the top-left corner of the device to separate the adhesive.

Step 13 — Separate the top adhesive



• Slide the opening pick along the top edge of the device, stopping just before you reach the front camera.

Avoid sliding the pick over the front camera, as you may damage the lens. The following steps will show how to prevent this.



- Pull the pick out until only the tip is between the digitizer and the frame.
- Slide the pick above the front camera to separate the adhesive.
- Leave the pick near the right side of the front camera before continuing.



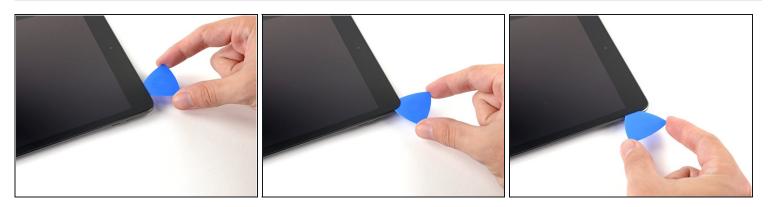
- Re-insert the pick and slide it towards the top-right corner of the device to completely separate the top adhesive.
- Leave the pick in the top-right corner to prevent the adhesive from re-sealing.

Step 16 — Heat the right edge



• Heat an iOpener and apply it to the right edge of the device for two minutes.

Step 17 — Separate the top right adhesive



• Rotate the pick around the top-right corner of the device to separate the adhesive.

Step 18 — Separate the right adhesive



- Insert a new opening pick and slide it to the middle of the iPad's right edge.
- The display cables are located approximately halfway from the bottom of the iPad. Stop sliding once you reach three inches from the bottom of the iPad.

Step 19 — Heat the bottom edge



• Heat an iOpener and apply it to the bottom edge of the device for two minutes.

Step 20 — Separate the bottom left adhesive



- Slide the bottom-left pick to the bottom-left corner to separate the adhesive.
 Don't fully rotate the pick around the corner, as you may damage the antenna.
- Leave the pick in the bottom-left corner before moving to the next step.

Step 21 — Separate the bottom adhesive



- Insert a new opening pick into the gap you just created on the bottom edge of the iPad.
- Slide the pick over the antenna, stopping just before the home button.
 Only slide the pick towards the home button and not away from it, as you may damage the antenna.
 - (i) If you need to slide the pick over this section again, remove and re-insert it at the bottom-left corner.
- Leave the pick to the left of the home button before continuing.



- Insert an opening pick into the gap you just created.
- Slide the pick underneath the home button and towards the bottom-right corner, making sure **only the tip** is between the digitizer and the frame.

 \triangle Only insert the pick up to 1 mm to avoid damaging the right antenna.

Step 23



• Re-insert the pick and slide it towards the home button to completely separate the bottom adhesive.

A Only slide the pick towards the home button and not away from it, as you may damage the antenna.

If you need to slide the pick over this section again, remove and re-insert it at the bottom-right corner.

• Leave the pick to the right of the home button before continuing.

Step 24 — Heat the right edge



• Heat an iOpener and apply it to the right edge of the device for two minutes.



- A Be very careful with this step. Take your time, ensure the adhesive is hot and soft, and make sure you separated all of the adhesive with a pick. Don't be afraid to stop and reheat.
- Twist the two opening picks on the left corners of the iPad to lift the digitizer slightly, separating the the last of the adhesive in the process.
- (i) If there's a significant amount of resistance, reheat the edges and work along them with an opening pick.



• Lift the left edge of the digitizer upwards to further separate the adhesive along the right edge of the iPad.

Step 27 — Separate the right adhesive



• While supporting the digitizer, slide an opening pick between the two display cables to separate the last of the adhesive.



- Once all of the adhesive has been separated, open the digitizer like a book and rest it parallel to the iPad.
- During reassembly, clean the remaining adhesive from the frame—and the digitizer if you're re-using it—with isopropyl alcohol. Replace the adhesive with our <u>adhesive</u> <u>strips</u> or <u>pre-cut adhesive cards</u>.
- Be mindful of the display cables when reassembling the device. Make sure they are folded properly underneath the LCD screen to prevent any damage.

Step 29 — LCD



• Remove any tape obscuring the LCD screws.



- Remove the four Phillips screws securing the LCD:
 - Three 4.0 mm screws
 - One 4.8 mm screw

Step 31



🛆 Do not attempt to fully remove the LCD. It is still connected to the iPad by several cables at the home button end. Lift only from the front-facing camera end.

- Use the flat end of a spudger to pry the LCD out of its recess just enough to grab it with your fingers.
- Flip the iPad LCD like a page in a book, lifting near the camera and turning it over the home button end of the rear case.

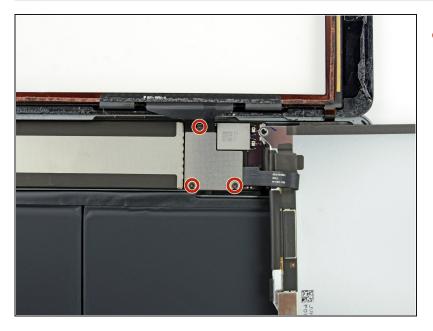
 \triangle Be gentle and keep an eye on the LCD cables as you flip the display over.

Lay the LCD on its face to allow access to the display cables. • (i) Set the LCD down on a soft, clean, lint-free surface.



- Remove the single 2.3 mm Phillips screw securing the battery connector to the logic board.
- (i) <u>Make a battery blocker using a playing card</u> and slide it underneath the logic board connector to disconnect the battery.
 - A You can also use an iFixit battery blocker. Be very careful and don't push the battery blocker underneath the connector with excessive force.
- Leave the blocker there to prevent the battery connector leads from making contact until you have completed your repairs.

Step 33

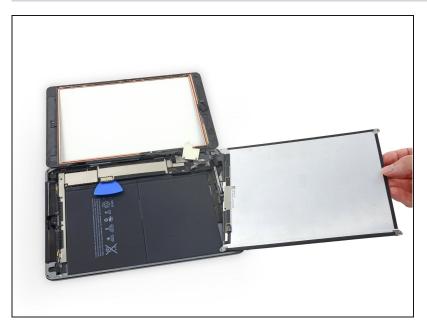


• Remove the three 1.4 mm Phillips screws securing the display cable bracket.



- Use the flat end of a spudger to gently pry the display cable bracket straight up from the logic board.
- The display cable connector is adhered to the underside of the bracket, so don't push the spudger too far under the bracket, or you may damage the connector.

Step 35



• Remove the LCD.

Step 36 — Front Panel Assembly



• Remove any tape covering the home button ribbon cable connector.



- Use the flat end of a spudger to flip the tab on the home button ribbon cable ZIF connector upward.
- Carefully pull the home button ribbon cable straight out of the ZIF connector.



• Use the flat end of a spudger or a fingernail to carefully pop the two digitizer cable connectors straight up from their sockets.

To avoid damaging your iPad, pry only on the connectors themselves, **not** on the socket on the logic board.



- Remove the front panel assembly.
 If the home button ribbon cable sticks to the iPad's rear case, don't try to force it. Gently peel it off the case using a pair of tweezers, and then you can fully remove the front panel assembly.
- If you experience "ghost" or "phantom" touch input issues with your new display, this can be resolved by adding a layer of very thin insulating tape, such as <u>Kapton</u> (<u>polyimide</u>) tape, to the highlighted areas on the back of the panel. **iFixit panels come** with the proper insulation, and should not require the addition of any tape.
- Without the proper insulation, these areas of the digitizer can ground out against other components, causing touch input malfunction.
- Interinsulation is not visible to the naked eye, and is different from the foam dust barrier strips found on many iPads.

Step 40 — SIM Board Cable



• Use tweezers to peel and remove the piece of tape covering the SIM board cable connector on the logic board.

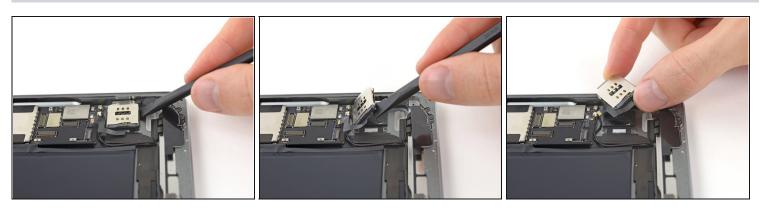


- Use the pointed end of a spudger to flip up the retaining flap on the SIM board cable connector.
- Slide the SIM board cable straight out of its ZIF connector.

Step 42 — SIM Board



Place a heated iOpener over the SIM tray side of the iPad, and let it sit for at least a minute to soften the adhesive through the rear case.



- Use the flat end of a spudger to carefully pry the SIM board up from the rear case of the iPad.
 - ⑦ This make require a significant amount of force. Work slowly and take care not to damage the SIM board.
 - If necessary, reheat your iOpener and apply it again to further soften the adhesive.
- Remove the SIM board.



i The SIM board is held to the rear case with a thick adhesive pad.

• If the pad doesn't come up with the SIM board, you can use an opening pick to pry it up from the rear case.

To reassemble your device, follow these instructions in reverse order.