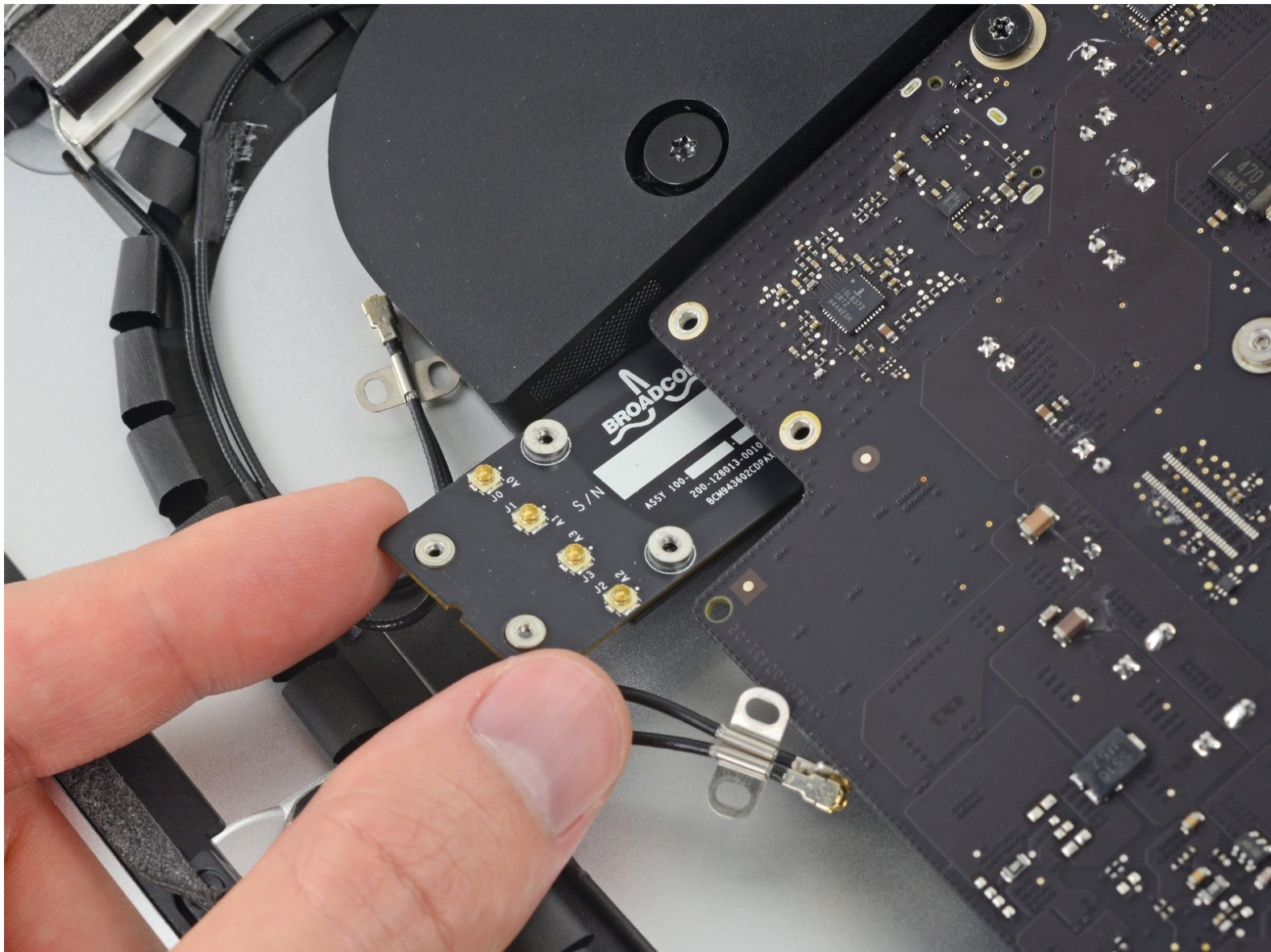




iMac Intel 21.5" Retina 4K Display (2017) AirPort/Bluetooth Card Replacement

Replace the AirPort/Bluetooth card in a 21.5" Retina 4K 2017 iMac EMC 3069.

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INTRODUCTION

Use this guide to replace the AirPort/Bluetooth card in a 21.5" Retina 4K 2017 iMac.

Some images in this guide use a 2015 iMac, which has minor visual differences. These differences do not affect the repair procedure.



TOOLS:

- [Plastic Cards](#) (1)
- [iMac Opening Tool](#) (1)
- [Tweezers](#) (1)
- [Spudger](#) (1)
- [iMac Service Wedge](#) (1)
- [T5 Torx Screwdriver](#) (1)



PARTS:

- [iMac Intel 21.5" \(2012-2017\) Adhesive Strips](#) (1)

Step 1 — Display Assembly

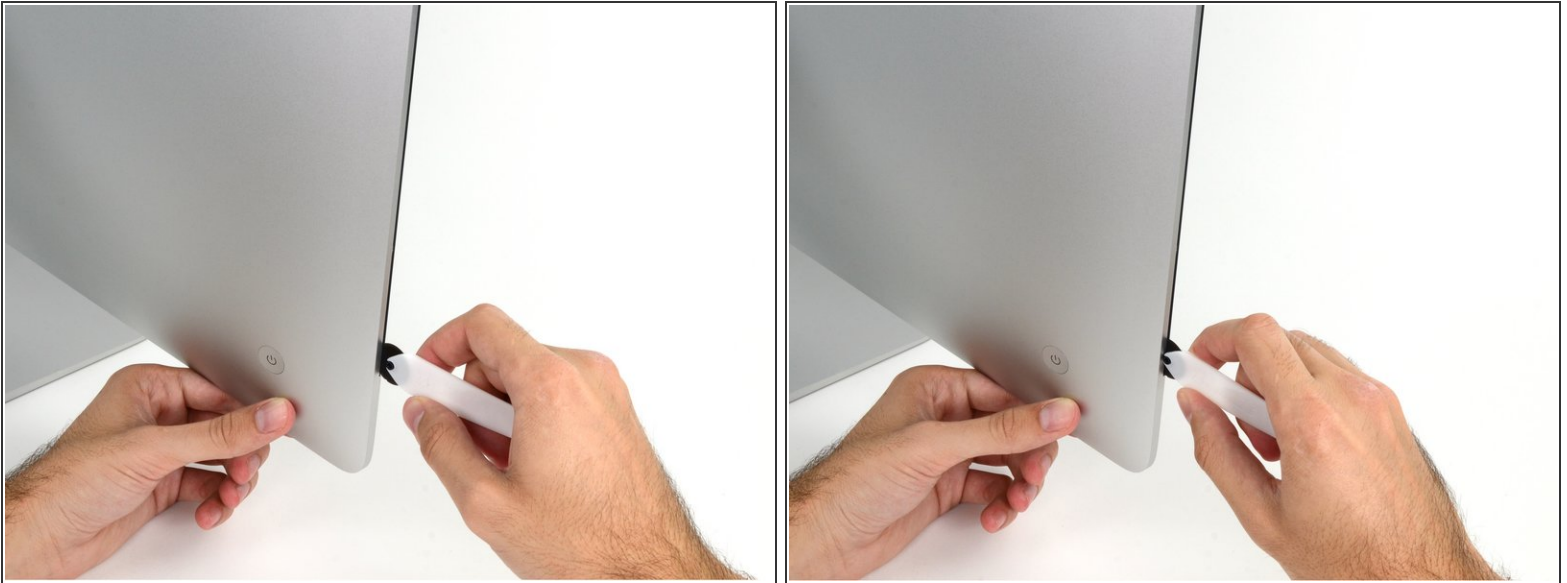


i With the hinge free to move, the iMac will be unbalanced and hard to work on. Repairs are fast and easy with an [iMac service wedge](#), but can be completed without one.

- **Before beginning any work on your iMac:** Unplug the computer and press and hold the power button for ten seconds to discharge the power supply's capacitors.

! **Be very careful** not to touch the capacitor leads or any exposed solder joints on the back of the power supply. Only handle the board by the edges.

Step 2



- Starting on the left of the display, near the power button, insert the iMac Opening Tool into the gap between the glass panel and the rear enclosure.

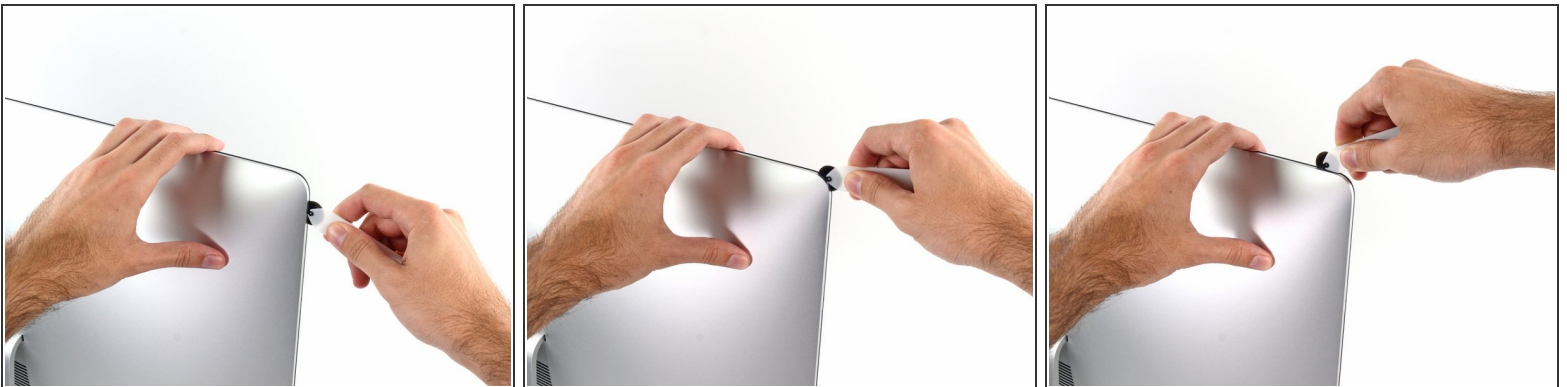
 The hub on the iMac Opening Tool will keep you from pushing the wheel in too far. If using a different tool, insert no more than 3/8" into the display. Otherwise, you risk severing antenna cables and causing serious damage.

Step 3



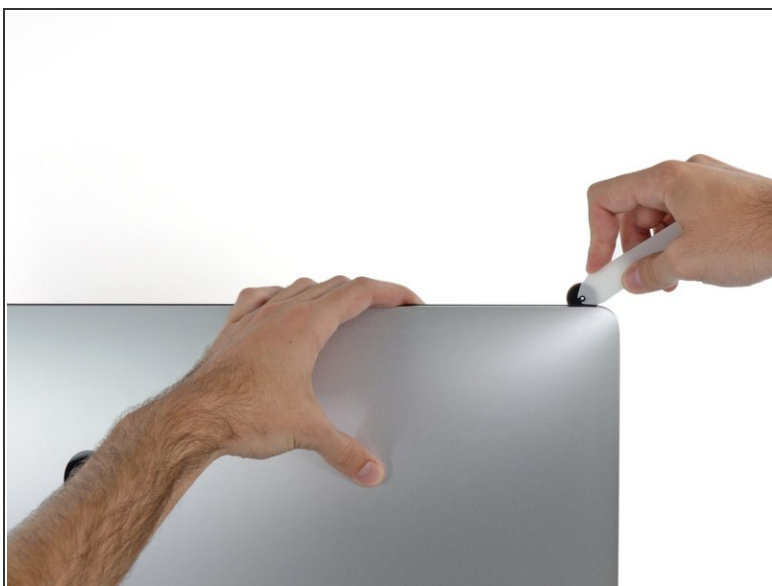
- Use the tool like a pizza cutter—roll it along through the gap, and it will cut the foam adhesive through the center.
- ⓘ Be sure to always push with the handle behind the cutting wheel. If you pull, the wheel might get pulled out of the handle.
- Run the tool up along the left side of the display.

Step 4



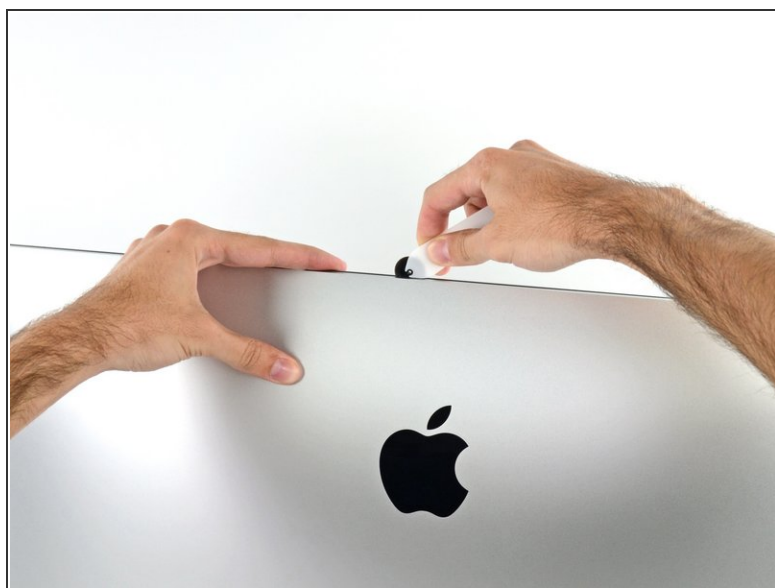
- Continue running the tool up around the top left corner.

Step 5



- Cut the adhesive along the top left of the display.

Step 6



- Continue along the top of the display.

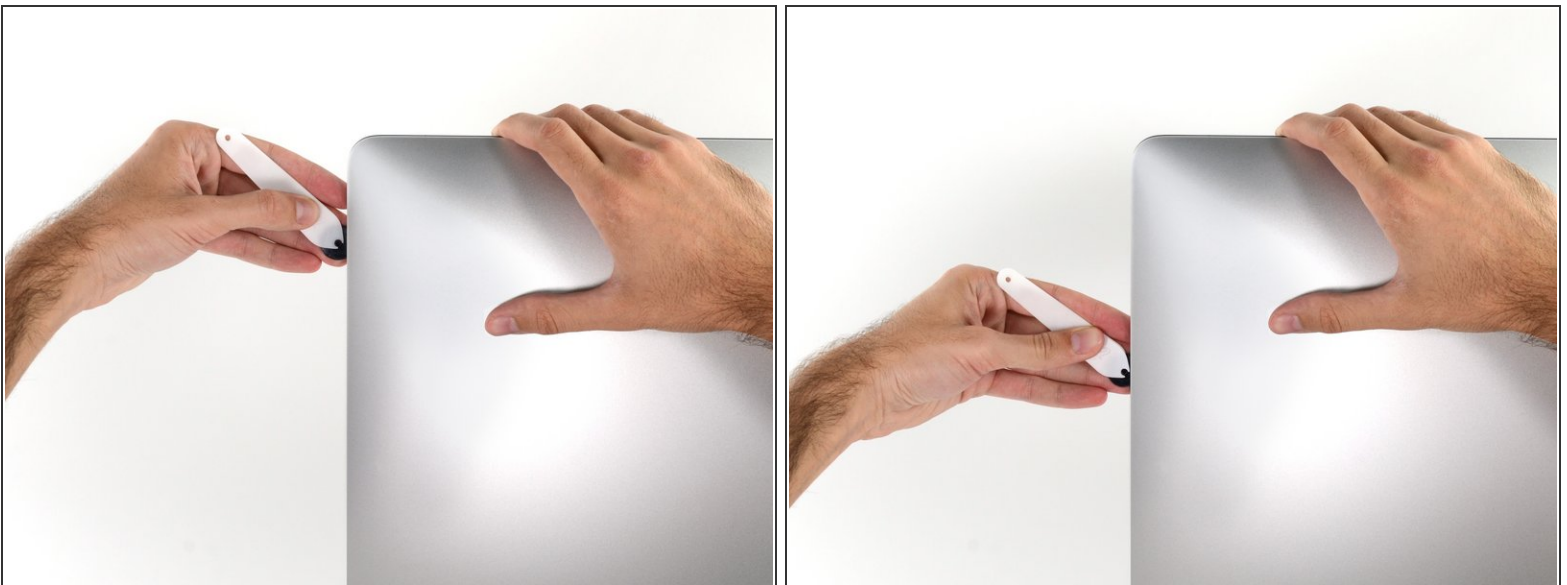
i You may want to run the tool back and forth through what you've already cut a few times, to ensure you get as much of the adhesive separated as possible.

Step 7



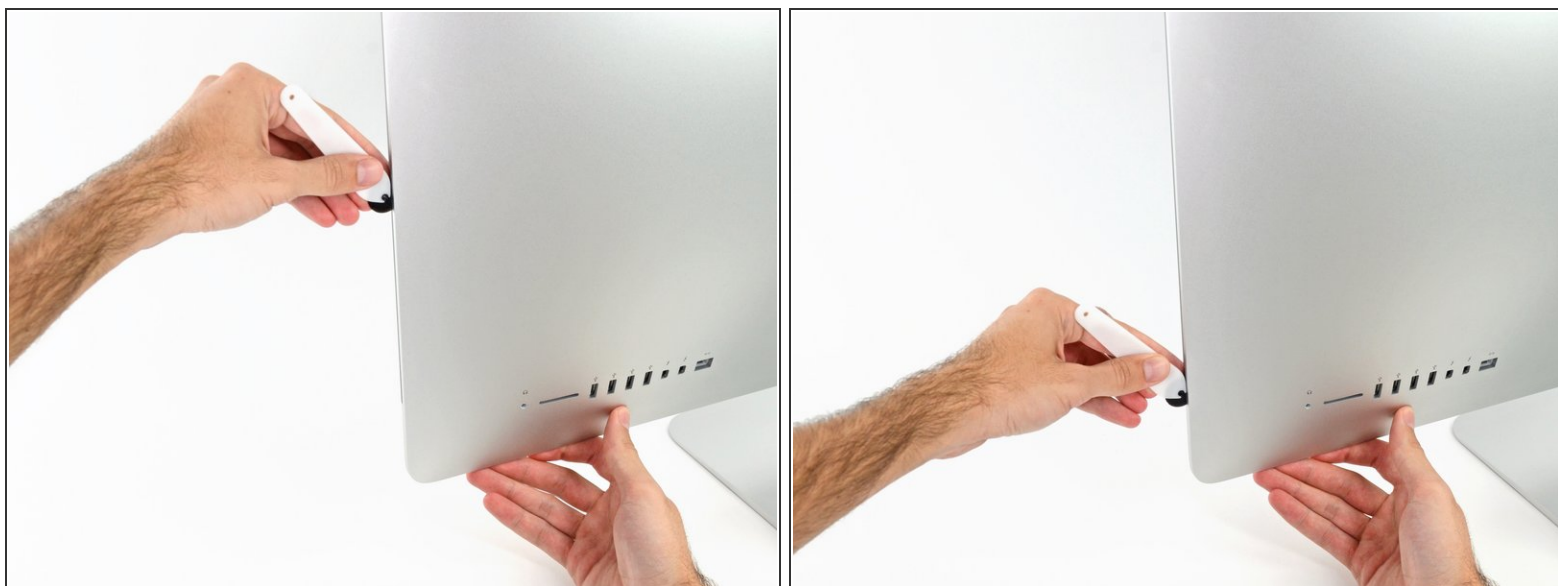
- Push the tool around the top right corner of the display.

Step 8



- Wheel the tool down along the right side of the display.

Step 9



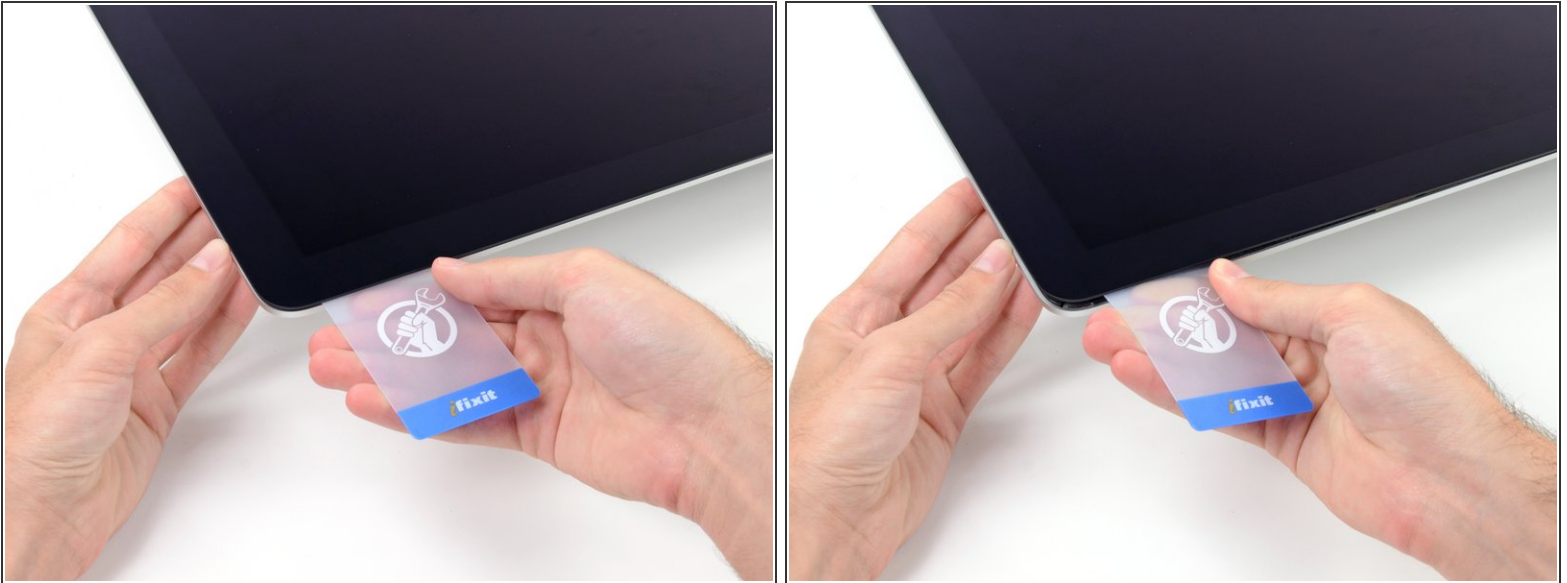
- Finish pushing the opening tool to the bottom of the right side of the display.
- ⓘ At this point, you'll want to run the tool back around the entire display, to ensure you cut as much adhesive as possible.

Step 10



-  While the opening tool cut most of the adhesive, the display will still be slightly adhered to the case. A plastic card will be necessary to free up the last of this adhesive.
-  Set the iMac face-up on a table.
 - Starting from the top right corner of the iMac, wedge a plastic card between the display and frame.
-  Be careful **not** to insert the plastic card more than 3/8", or you may damage internal components.

Step 11



- Gently twist the plastic card sideways to create a gap between the display and frame.
- Move slowly and be careful not to stress the display glass too much—you only need to make a gap of about 1/4".

Step 12



- Slide the card toward the center of the display to cut any of the remaining adhesive along the top right corner of the iMac.

 Be sure to **stop** before the iSight camera, or you may damage it.

Step 13



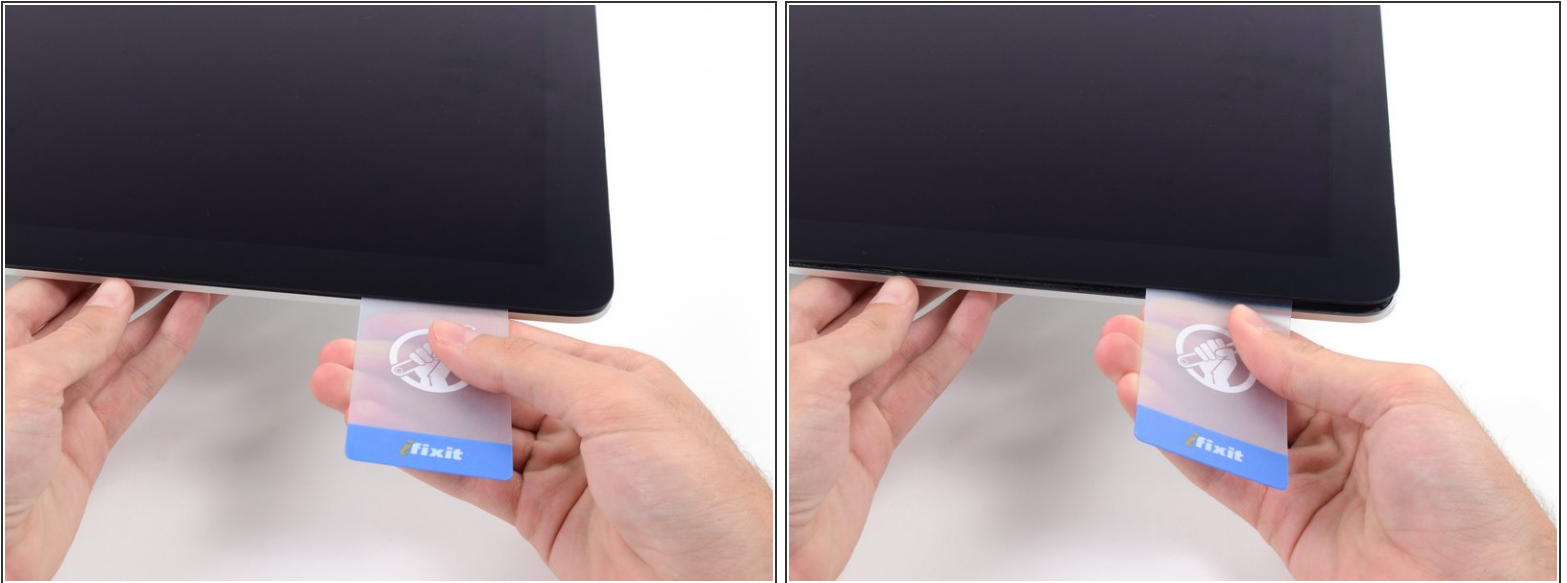
- Wedge the plastic card into the top right corner once again, and leave it there to prevent the adhesive from resticking.

Step 14



- Insert a second plastic card into the gap between the display and frame near the top left corner of the iMac.

Step 15



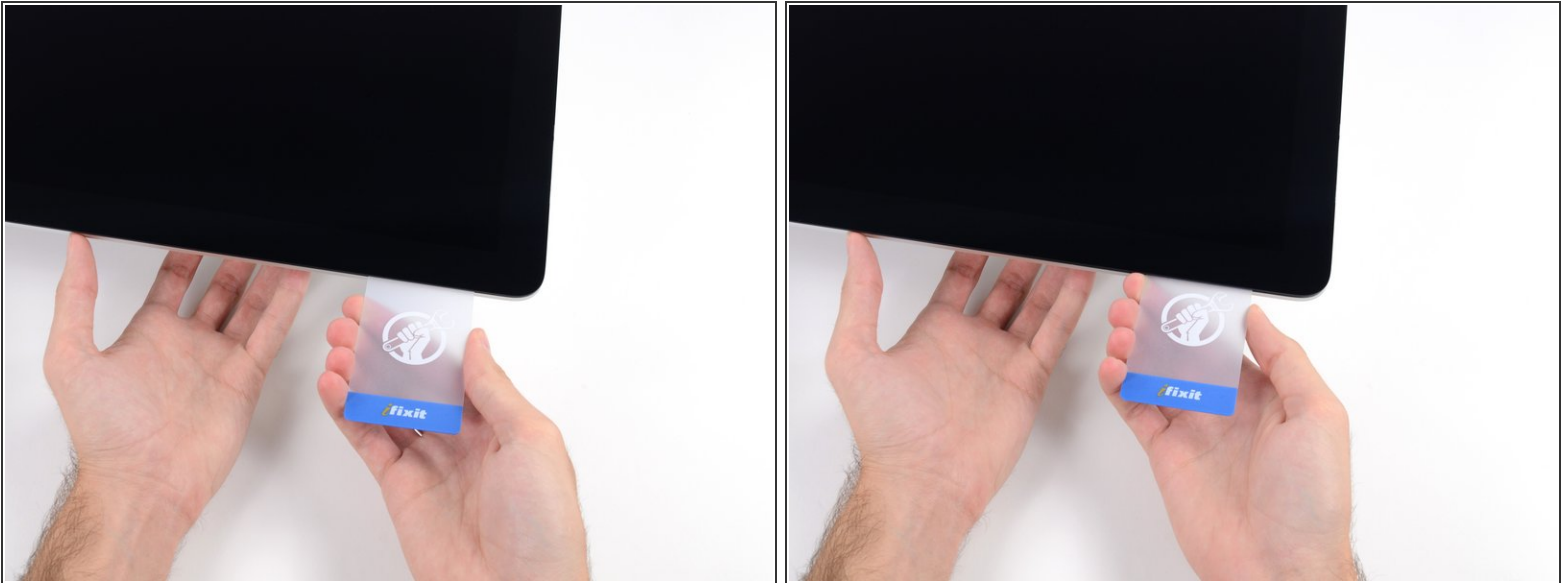
- Gently twist the card upward, slightly increasing the space between the display and frame.
- ⓘ As with the other side, twist slowly to allow the adhesive time to separate, and be careful not to over-stress the display glass.

Step 16



- Slide the plastic card toward the center, again stopping just before the iSight camera.

Step 17



- Wedge the plastic card back into the top left corner.

Step 18



- With both plastic cards inserted as shown near the corners, gently twist the cards sideways to increase the gap between display and case.
- ⓘ If there are any sections that seem to stick and won't separate, stop twisting and use one of the cards to cut the remaining adhesive.
- Begin to lift the top of the display up from the frame.
- ⚠ Only lift the display a few inches—the display data and power cables are still connected to the logic board.

Step 19 — Display Assembly Cables



- ① Lift the display up enough to have easy access to the connector, but not so much that you stretch the cables and stress their connections (about 8").
- Hold the display with one hand while using your other hand to unplug the display power cable.

Step 20



- Continuing to support the display with one hand, flip up the metal retaining bracket on the display data cable.
- Carefully pull the display data cable from its socket on the logic board.
- ⚠ Be sure to pull the display data cable connector straight out of its socket, keeping it parallel to the motherboard, to avoid damaging it.

Step 21 — Display Assembly Separation



- Lift the display up to a near-vertical position.

i At this point there is still a strip of adhesive along the bottom of the display that will hold the display to the frame like a hinge. You can loosen this adhesive by working the display up and down a few times.

Step 22



i If necessary, a plastic card can be used to cut any remaining sections of the bottom adhesive strip.

Step 23

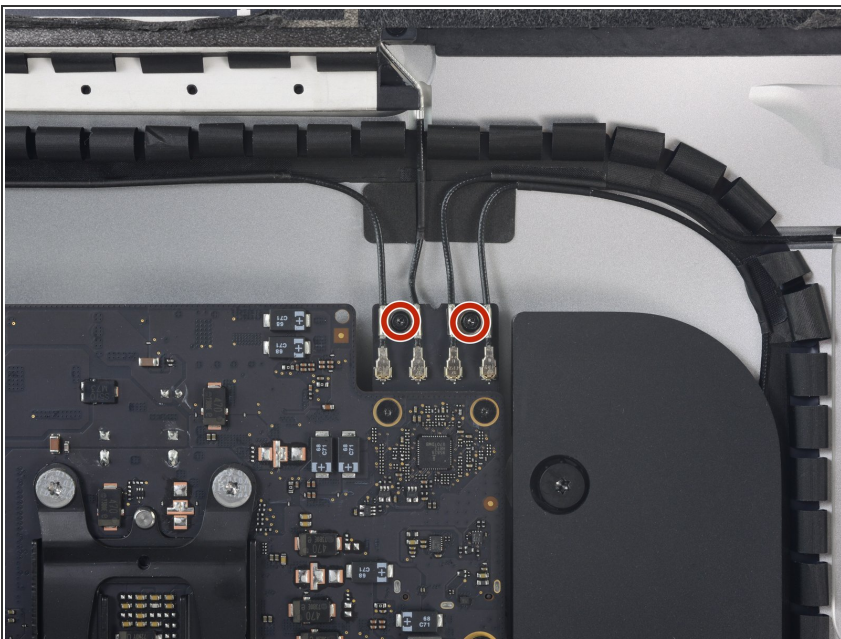


- Lift the display up from the frame and remove it from the iMac.
- It may be necessary to slowly lift from one side to peel against the remaining adhesive.

 Be very careful handling the display—it's big, heavy, and made of glass.

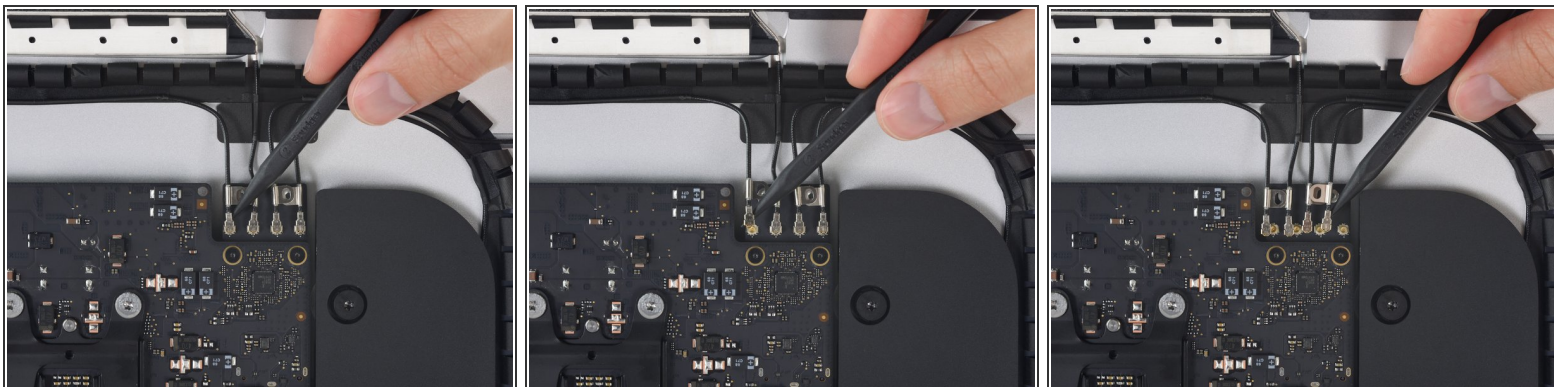
 After the adhesive is cut, it cannot be used to re-seal the display in place. Follow [this guide](#) to replace the adhesive strips that secure the display to the rear enclosure.

Step 24 — AirPort/Bluetooth Card



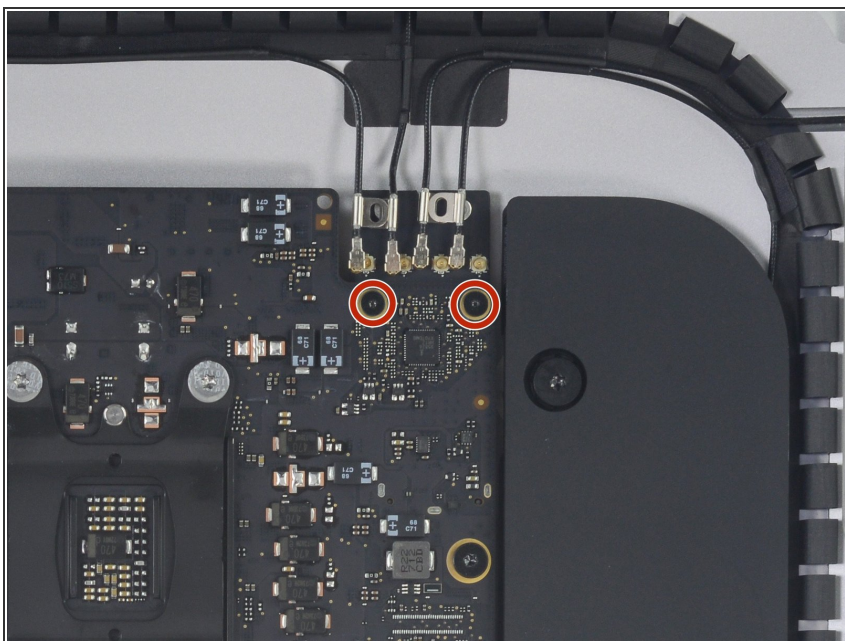
- Remove the two 4.0 mm T5 Torx screws securing the four antenna connectors to the AirPort/Bluetooth card.
- ⓘ There's a small washer on each screw; be careful not to misplace them.

Step 25



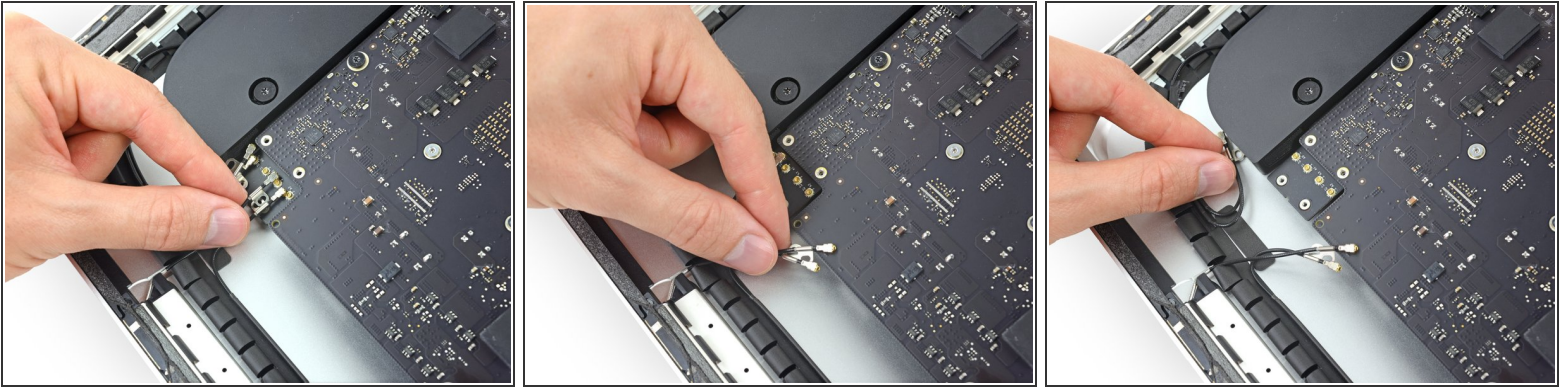
- Use a spudger to disconnect all four antenna connectors by prying them up from their sockets on the AirPort/Bluetooth Card.

Step 26



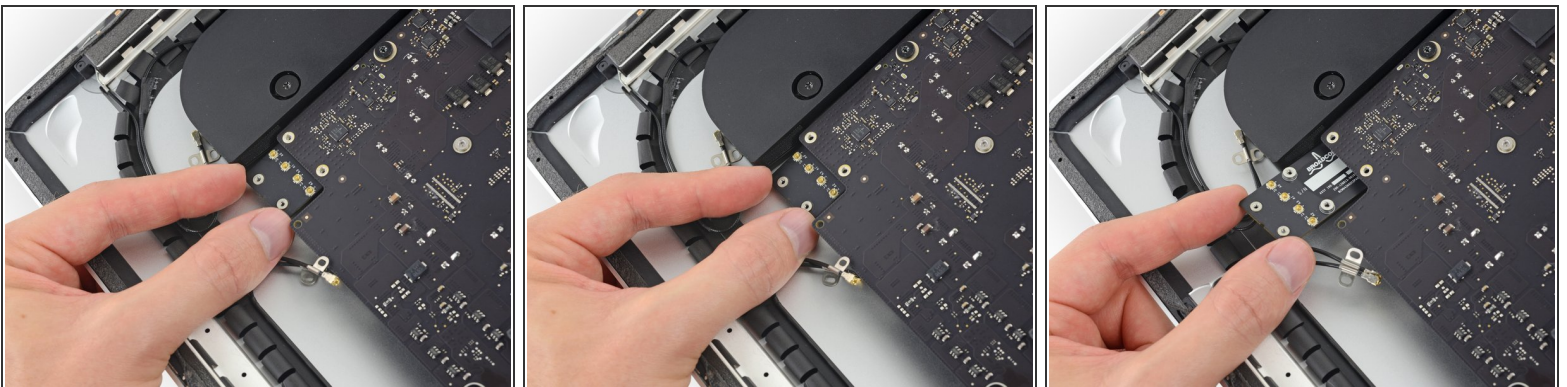
- Remove the two 3.3 mm T5 Torx screws securing the AirPort/Bluetooth card to the logic board.

Step 27



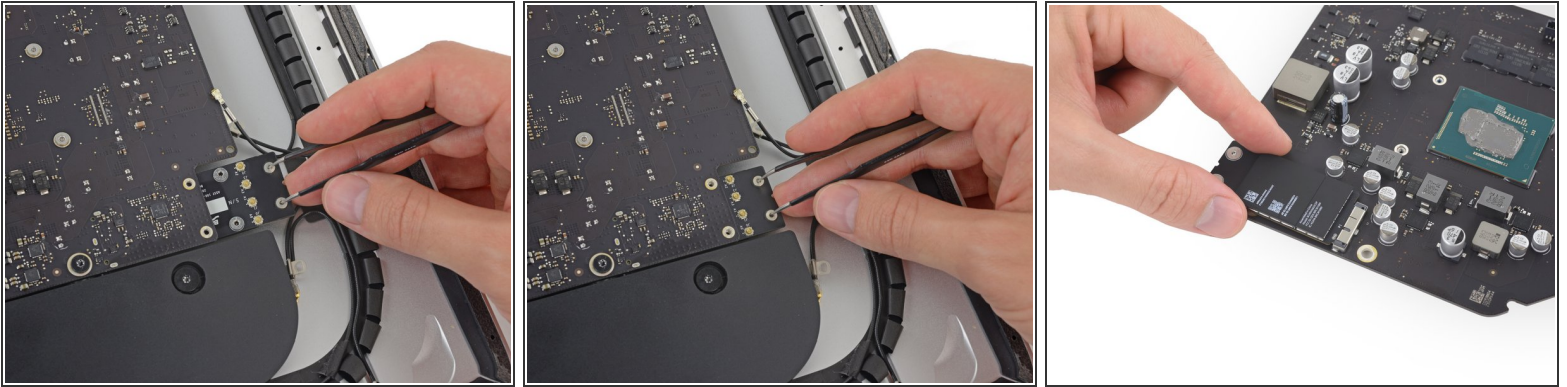
- Gently push the antenna cables aside to clear access to the AirPort/Bluetooth card.

Step 28



- ⚠ Do not push the AirPort/Bluetooth card away from the logic board more than 1-2 mm. Doing so may cause severe damage.
- With a firm grip on the edges of the AirPort/Bluetooth card, pull it straight out of its socket on the underside of the logic board.
- ⓘ Try not to touch the antenna connector sockets with your fingers, as the oils can corrode the metal and prevent good contact.

Step 29



- ✎ During reassembly, if installing the AirPort card proves challenging, you can use curved tweezers to help orient the card and insert it into its slot on the back of the logic board.
- With the tweezers pointed downwards, insert the points of the tweezers through the screw holes in the AirPort card, next to its antenna connector sockets.
 - Using your finger, press down on the edge of the AirPort card to angle it until it is roughly parallel to the logic board.
 - Align the AirPort card with its slot on the logic board, and press the card into the slot until the screw holes nearest the connector align with those in the logic board.
- i For reference, the third photo shows the logic board removed and flipped over for a clear view of how the AirPort card is installed.

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