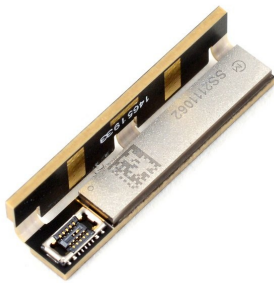




Google Pixel 6a 5G mmWave Antenna Replacement

This repair guide was authored by the iFixit...

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INTRODUCTION

This repair guide was authored by the iFixit staff and hasn't been endorsed by Google. Learn more about our repair guides [here](#).

Use this guide to replace the 5G mmWave antenna in your Google Pixel 6a.

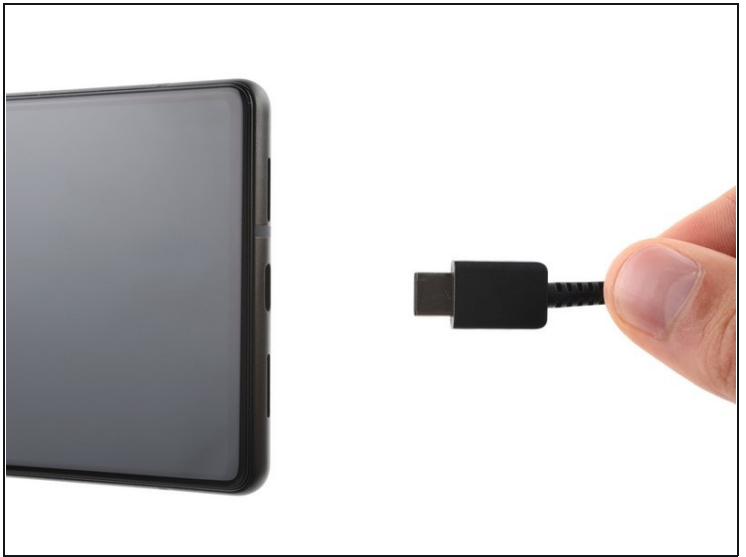
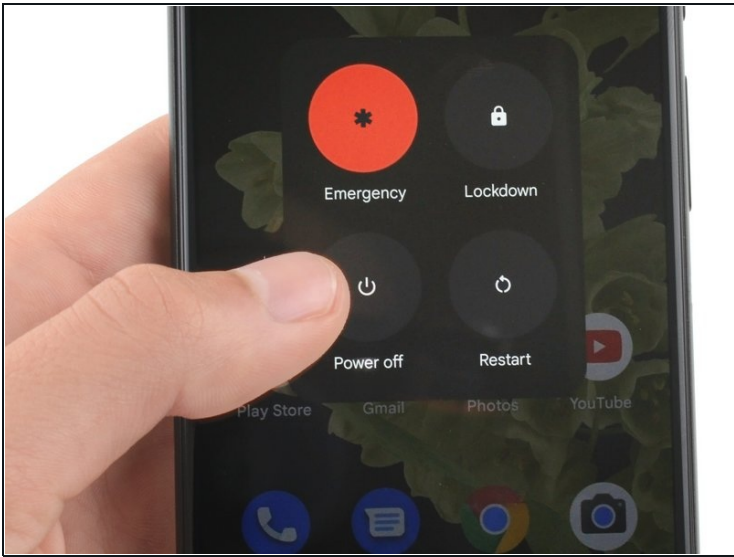
For your safety, discharge the battery below 25% before disassembling your phone. This reduces the risk of fire if the battery is accidentally damaged during the repair. If your battery is swollen, [take appropriate precautions](#).

You'll need replacement adhesive in order to complete this repair.

TOOLS:

[Clampy - Anti-Clamp](#) (1)
[Arctic Silver Thermal Paste](#) (1)
[iOpener](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[Suction Handle](#) (1)
[Spudger](#) (1)
[Tweezers](#) (1)
[Coffee Filters or a lint-free cloth](#) (1)
[Isopropyl Alcohol \(90% or Greater\)](#) (1)
[T3 Torx Screwdriver](#) (1)

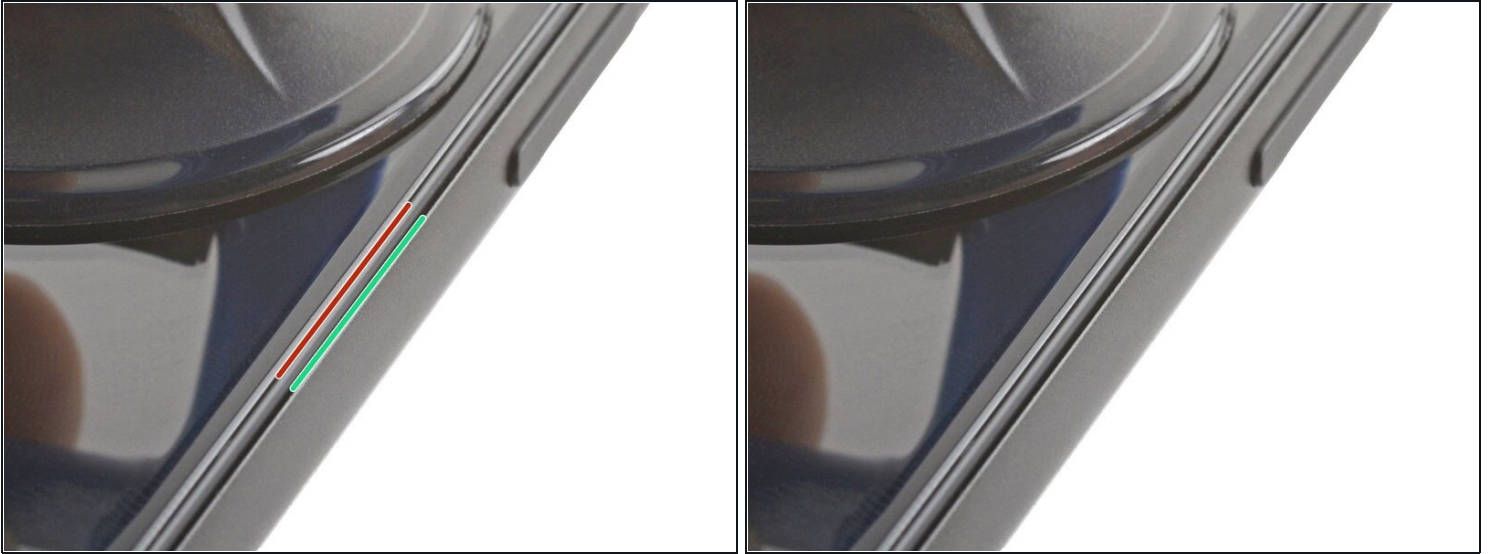
Step 1 — Safety Precautions



⚠️ Allow your battery to drain below 25% before starting this repair. A charged battery may catch fire if damaged.

- Fully power off your phone and unplug any cables.

Step 2 — Screen removal information



ⓘ Before starting your repair, take note of the following:

- *Screen seam*: This seam separates the screen from the rest of the phone. **Do not pry at this seam.**
- *Bezel seam*: This is where the plastic bezel designed to protect the screen meets the frame. It's held in place by [plastic clips](#). **This is where you should pry.**

Step 3 — Anti-Clamp instructions



- ① The next three steps demonstrate the [Anti-Clamp](#), 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.**
- ① For complete instructions on how to use the Anti-Clamp, [check out this guide](#).
- ① If your screen is cracked, cover it with a layer of clear packing tape to help the suction cup adhere.
- Pull the blue handle backwards to unlock the Anti-Clamp's arms.
- Slide the arms over the right edge of your phone.
- Position the suction cups near the middle of the right edge of the phone—one on the front, and one on the back.
- Squeeze the cups together to apply suction.
- ① If you find that the surface of your phone is too slippery for the Anti-Clamp to hold onto, you can [use tape](#) to create a grippier surface.

Step 4



- 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.

Step 5



- [Heat an iOpener](#) and thread it through the arms of the Anti-Clamp so it lays on the right edge of the phone.
 - ⓘ You can also use a [hair dryer](#) or [heat gun](#)—but extreme heat can damage the display and/or internal battery, so proceed with care.
- Wait one minute to give the adhesive a chance to release and present an opening gap.
- Insert an opening pick under the screen frame when the Anti-Clamp creates a large enough gap.
 - ⓘ 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 two steps.**

Step 6 — Heat the right edge



- [Heat an iOpener](#) and apply it to the right edge of the screen for two minutes.
- ⓘ A hair dryer, [heat gun](#), or hot plate may also be used, but be careful not to overheat the phone—the display and internal battery are both susceptible to heat damage.

Step 7 — Insert an opening pick



- Apply a suction cup to the screen, as close to the center of the right edge as possible.
- Pull up on the suction cup with strong, steady force to create a gap between the bezel and the frame.
- Insert an opening pick into the gap.
 - ⓘ Depending on the age of your phone, this may be difficult. If you're having trouble, apply more heat to the edge and try again.
- ⓘ If your display is badly cracked, [covering it with a layer of clear packing tape](#) 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.

Step 8 — Reposition the opening pick



- While still applying suction, pivot the pick upwards to a steep angle.
- Carefully push the pick in while prying to reposition the opening pick into the bezel seam.

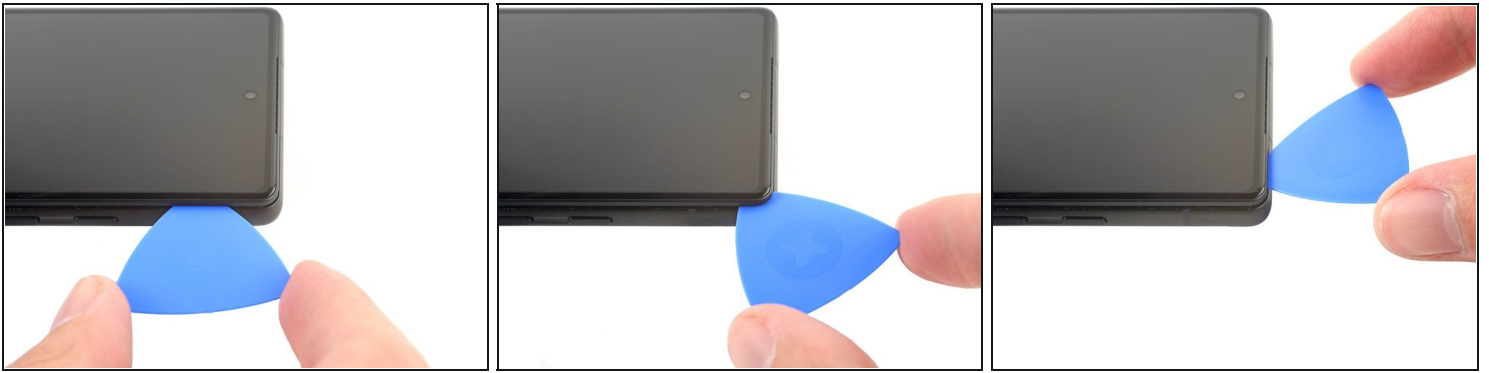
⚠ Only insert the pick up to 3.5 mm to avoid damaging the internals.

Step 9 — Release the right clips



- Slide the pick along the right edge to release the plastic clips securing the bezel to the frame.
- Position the pick at the top-right edge before moving to the next step.

Step 10 — Release the top right clips



- Rotate the opening pick around the top-right corner of the phone to release the clips.
- Leave the opening pick in the top-right corner to prevent the clips from re-locking.

⚠ Only insert the pick up to 4 mm to avoid damaging the internals.

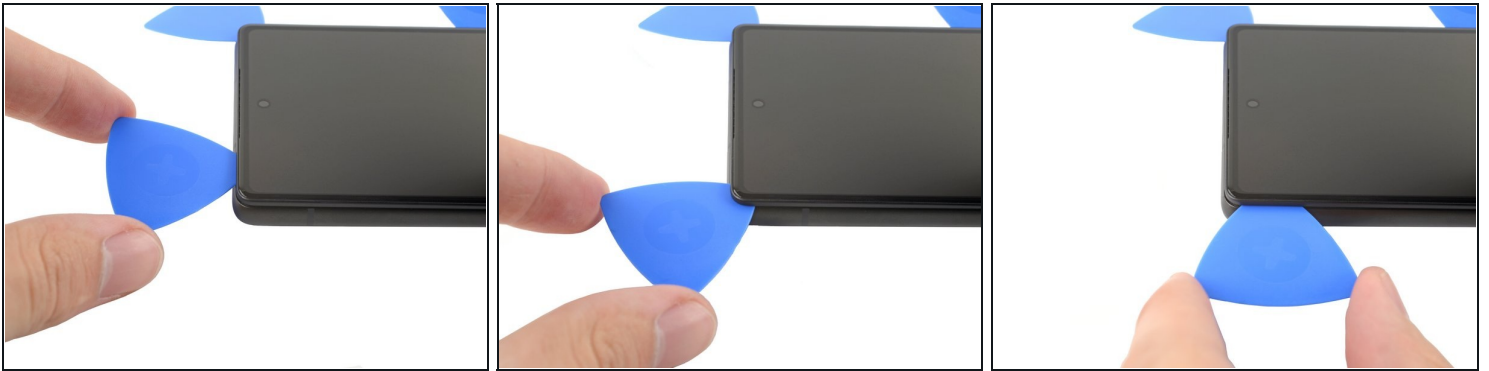
Step 11 — Release the top clips



- Insert a new opening pick into the gap you just created.
- Slide the pick along the top edge to release the clips.

⚠ When slicing around the front camera, only insert the pick up to 3 mm to avoid damaging the lens.

Step 12 — Release the top left clips



- Rotate the opening pick around the top-left corner of the phone to release the clips.
- Leave the opening pick in the top-left corner to prevent the clips from re-locking.

Step 13 — Release the left clips



- Insert a new opening pick into the gap you just created.
 - Slide the pick along the left edge to release the clips.
⚠ Only insert the pick up to 3 mm to avoid damaging the internals.
 - Repeat the rotating and sliding procedure for the remaining edge.
- ❗ At this point, the screen should be separated from the frame. If there's still resistance around the edges of the screen, use an opening pick to release any remaining clips.

Step 14 — Reposition the screen



⚠ Don't try to remove the screen all the way yet. It's still connected to the frame by a flex cable.

- Lift the right edge of the screen up and towards the left side of the device, like opening a book.
- Rest the screen upside down and parallel to the frame before continuing.

⚠ Don't twist the screen or move it too far away from the frame to avoid damaging the flex cable.

Step 15 — Remove the display cable bracket

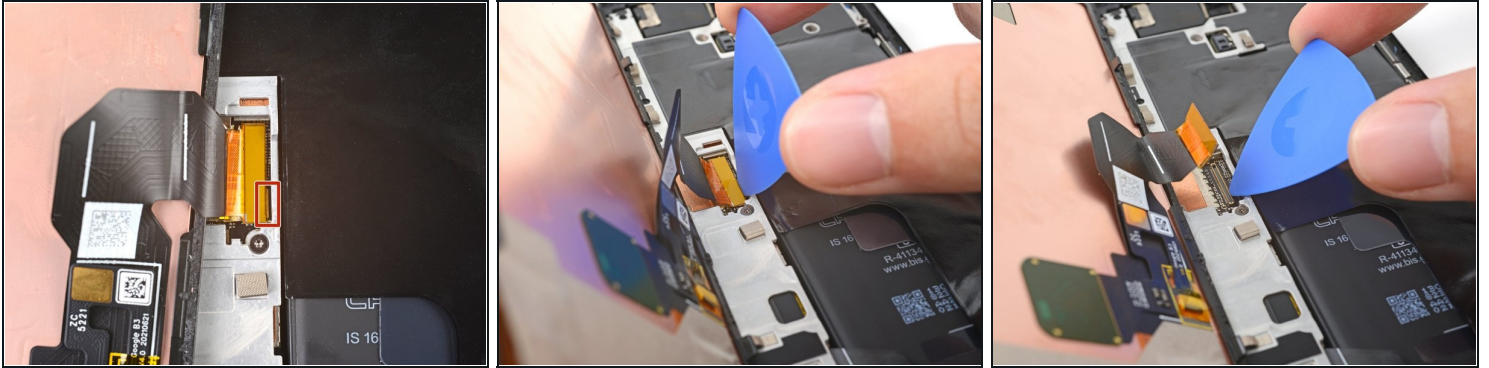


ⓘ The display cable bracket is secured with metal clips.

- Use [tweezers](#) to bend the bottom side of the bracket upwards, releasing the metal clip.
- Remove the display cable bracket.

★ During reassembly, **insert the top side of the bracket first** before pressing down the other side. Failure to do so could result in sparks and logic board damage.

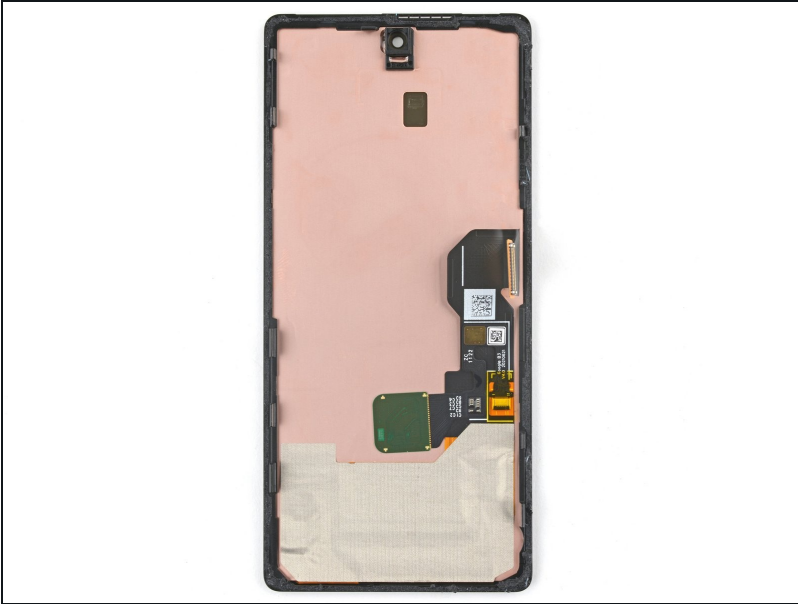
Step 16 — Disconnect the display cable



⚠ Be very careful performing this step, as you risk damaging tiny components around the press connector.

- Insert the tip of an opening pick under the bottom right edge of the display cable press connector, right above the nearby screw hole.
 - Pry up and disconnect the display cable press connector.
- ☑ To re-attach [press connectors](#) like this one, carefully align and press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is misaligned, the pins can bend, causing permanent damage.

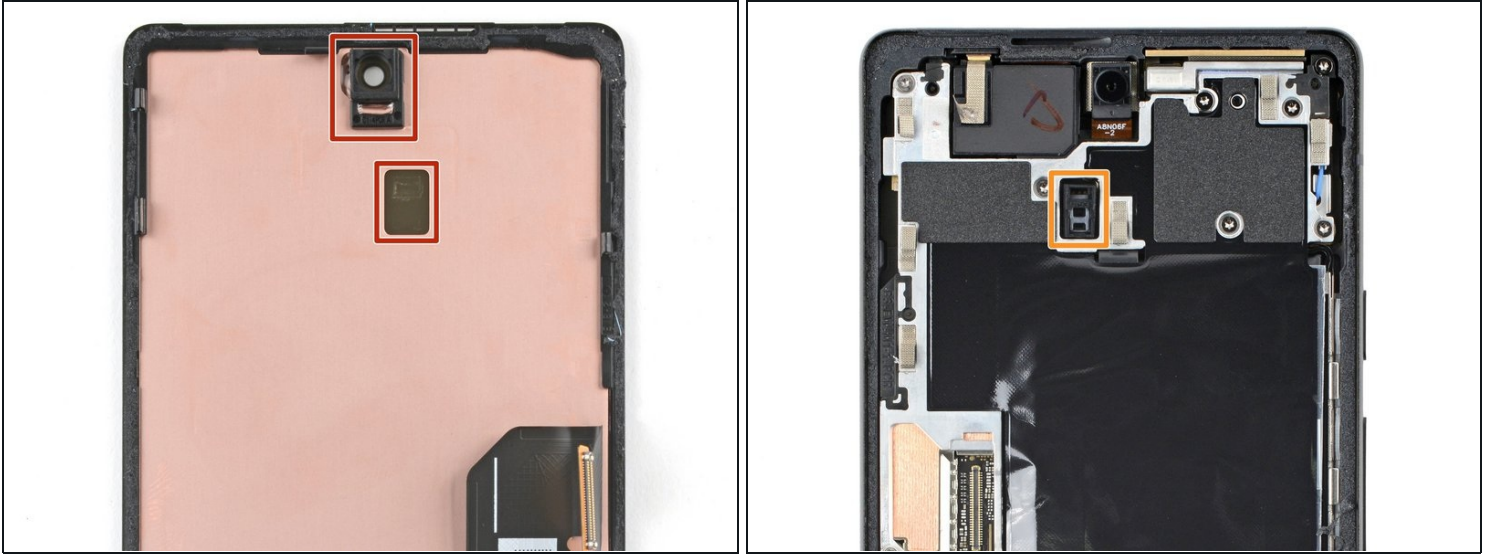
Step 17 — Screen information



⚠ The back of the Pixel's screen is very fragile. Even a small scratch or dent can damage the screen.

- i** To prevent damaging your screen or replacement screen:
- When handling your screen, grip it by its edges.
 - When placing the screen on your work area, make sure nothing is touching the bottom of the screen. Consider placing it on a soft, lint-free cloth.

Step 18 — Reassembly information



- Remove the screen.

During reassembly:

- If you replaced your screen, check the front-facing camera hole and the sensor cutout on your replacement screen, and remove any remaining liners.
- Check your phone if the proximity sensor's rubber gasket is missing—it might be stuck to the back of your old screen. Replace it if necessary.
- This is a good point to test your phone before sealing it up. Temporarily connect your screen, power on your phone, and make sure it works as expected. Before continuing with reassembly, **power off your phone**.

Remember to reinstall the display cable bracket.

- Follow [this guide](#) to replace the screen adhesive.
- If you're installing a new screen, follow [this guide](#) to calibrate the fingerprint sensor.

Step 19 — Remove the silver tape



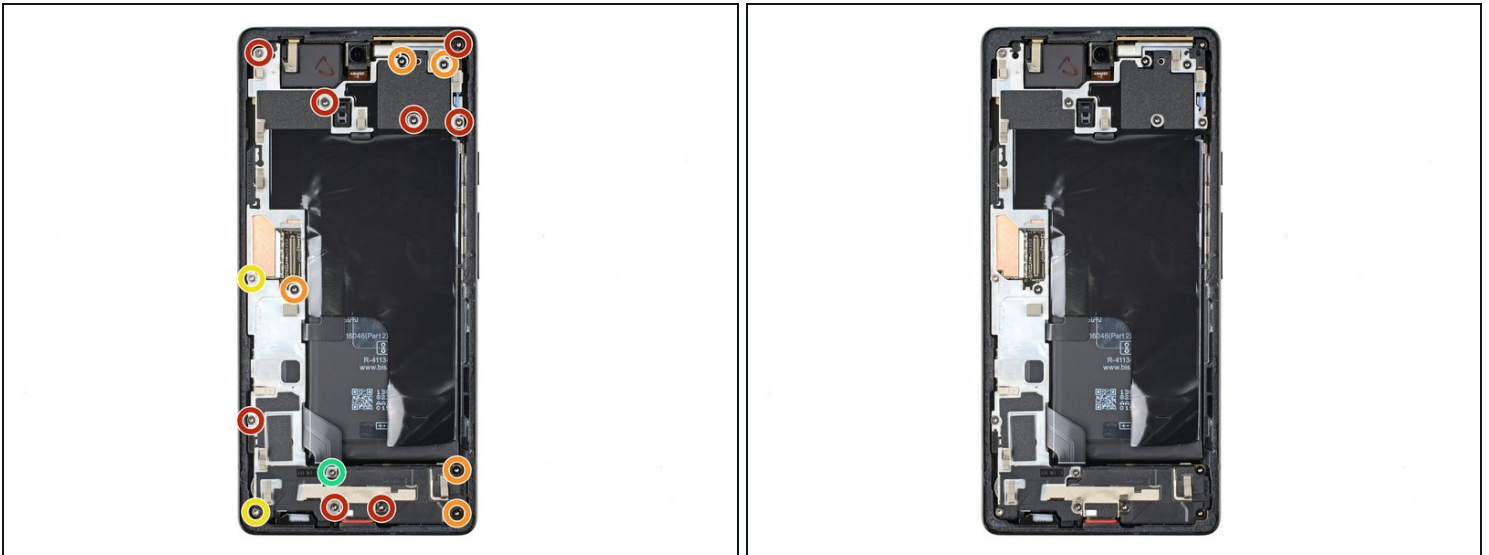
- Use [tweezers](#) to peel back the silver tape connecting the midframe and the top speaker.
- ⓘ Don't completely remove the tape. You only need to remove the bridge between the midframe and the top speaker.

Step 20



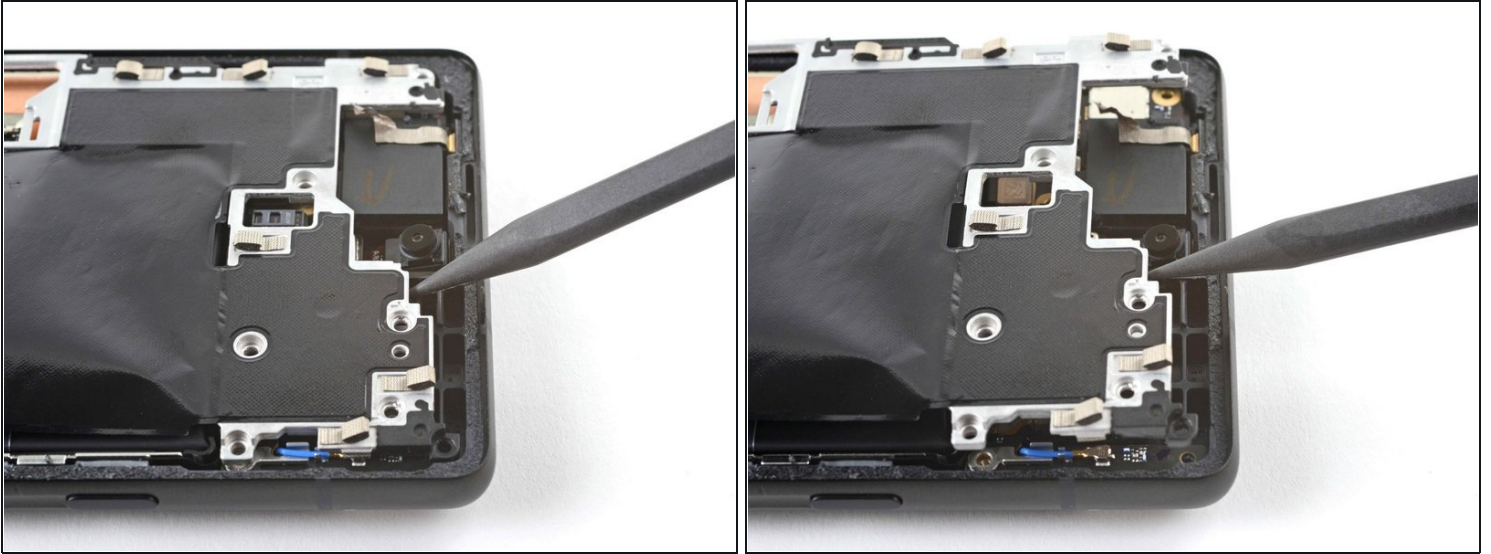
- Use tweezers to peel back the tape covering the two screws on both sides of the USB-C port.

Step 21 — Unfasten the midframe



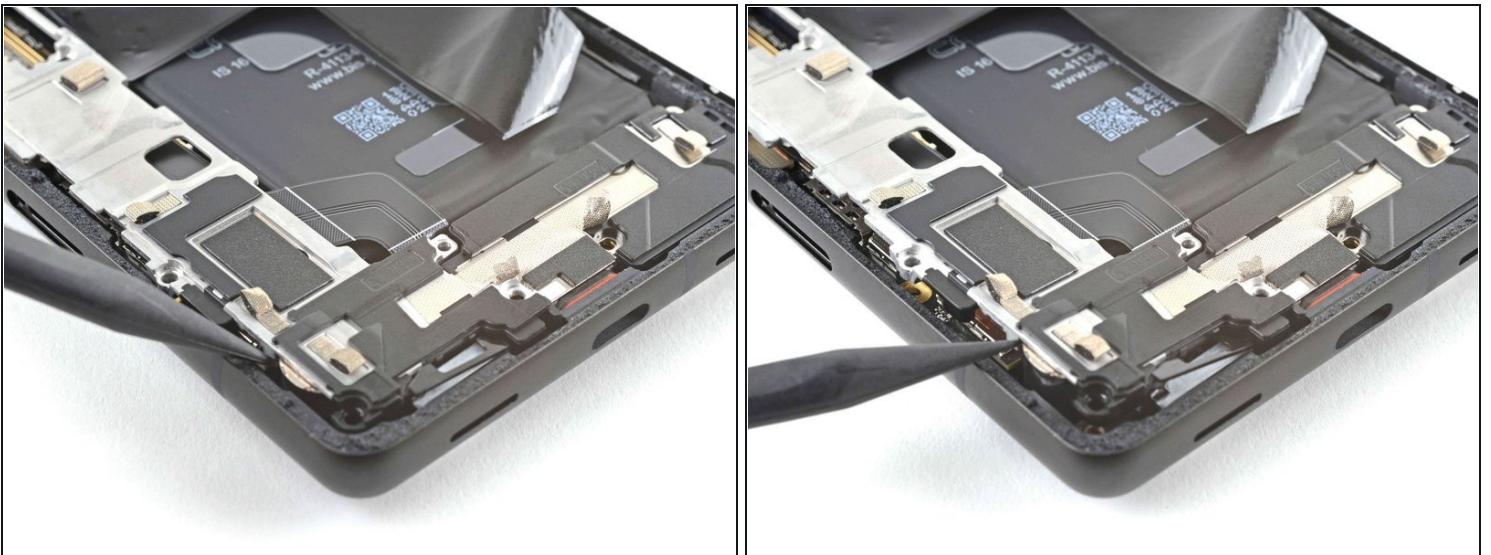
- Use a T3 Torx screwdriver to remove the 16 screws securing the midframe to the frame:
 - Eight 4.3 mm screws
 - Five 2.9 mm screws
 - Two 4.9 mm screws
 - One 4.6 mm screw

Step 22 — Release the midframe clips



- Insert a spudger between the top of the midframe and the frame, near the front camera.
- Pry up with the spudger to release the top of the midframe from its clips.

Step 23



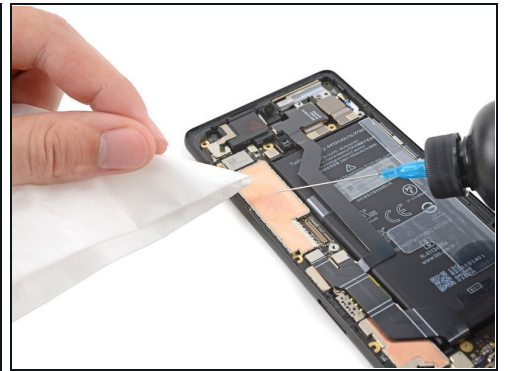
- Insert a spudger between the bottom left of the midframe and the frame.
- Pry up with the spudger to release the bottom of the midframe from its clips.

Step 24 — Remove the midframe



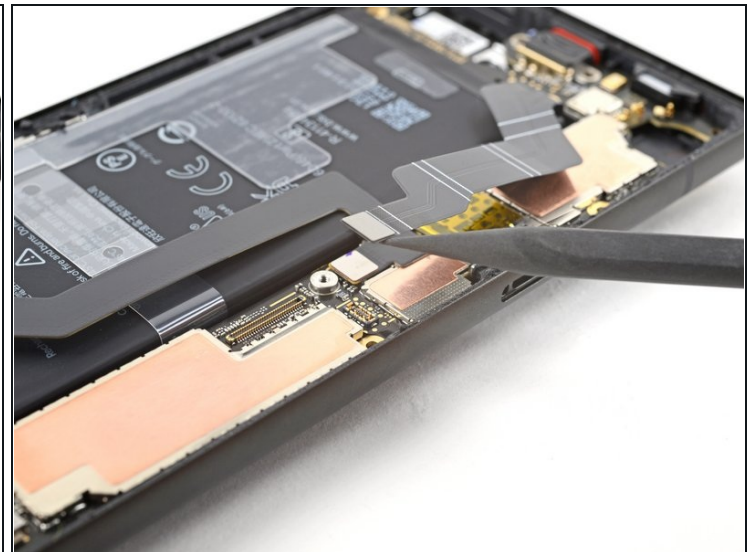
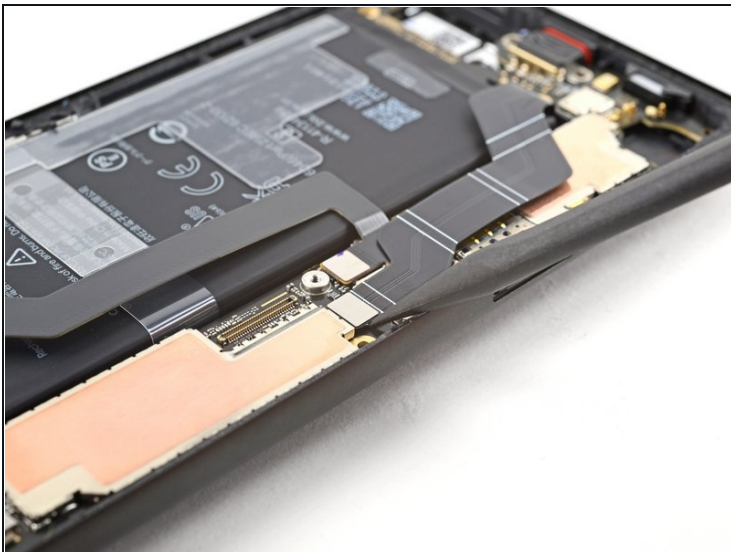
- Remove the midframe.
 - ⓘ You may feel a bit of resistance. This is normal since the midframe is slightly bonded to the heat sink with thermal paste.
- ★ During reassembly, this is a good point to power on your phone and test all functions before sealing it up. Be sure to power your phone back down completely before you continue working.

Step 25 — Remove the thermal paste



- Use the flat end of a spudger to scrape off the thermal paste.
 - Clean any remaining thermal paste with isopropyl alcohol and either a coffee filter or a lint-free cloth.
 - Repeat the cleaning process for the thermal paste on the midframe.
- ☒ During reassembly, follow [this guide](#) for reapplying thermal paste to your device.

Step 26 — Disconnect the battery



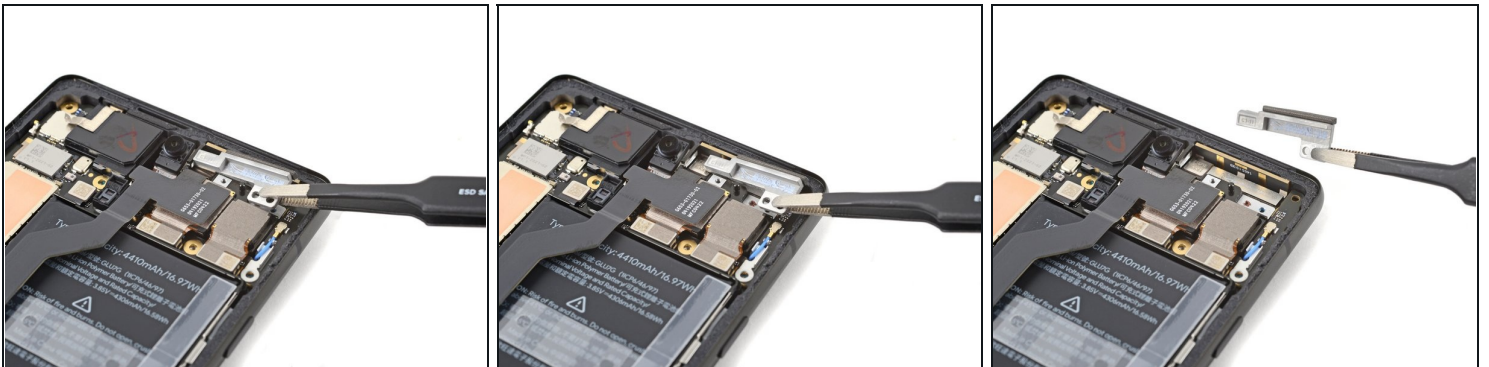
- Use a spudger to pry up and disconnect the battery's press connector.

Step 27 — Unfasten the 5G mmWave antenna bracket



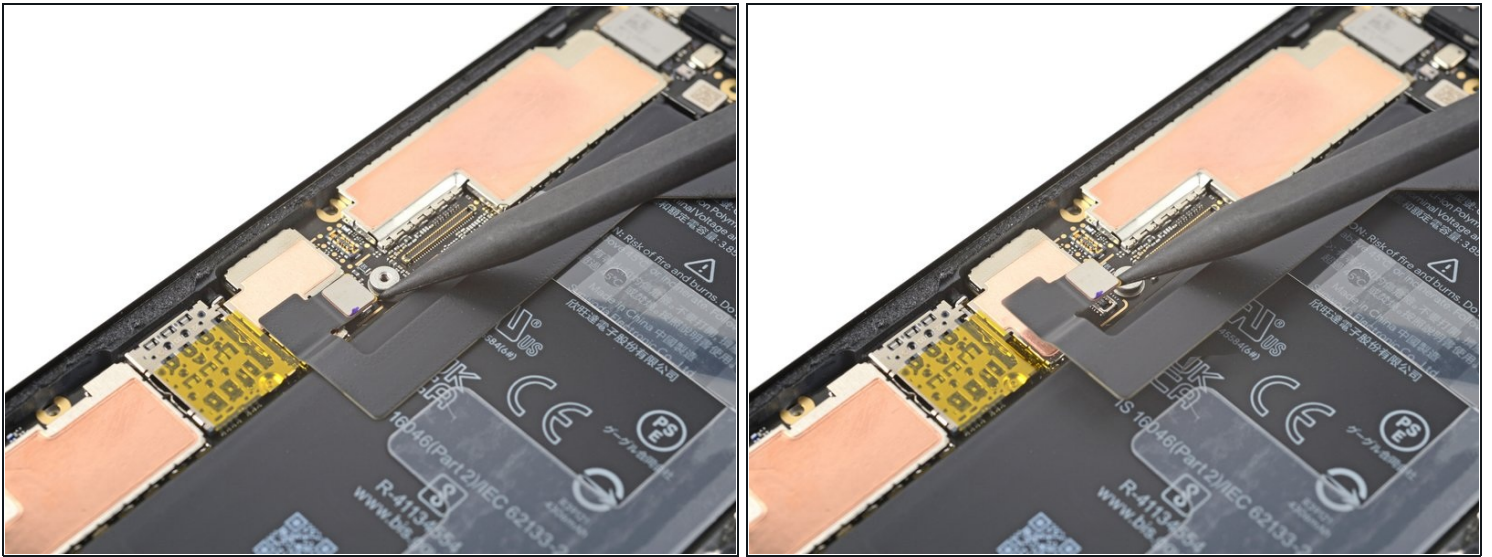
- Use a T3 Torx screwdriver to remove the 2.9 mm screw securing the 5G mmWave antenna bracket.

Step 28 — Remove the 5G mmWave antenna bracket



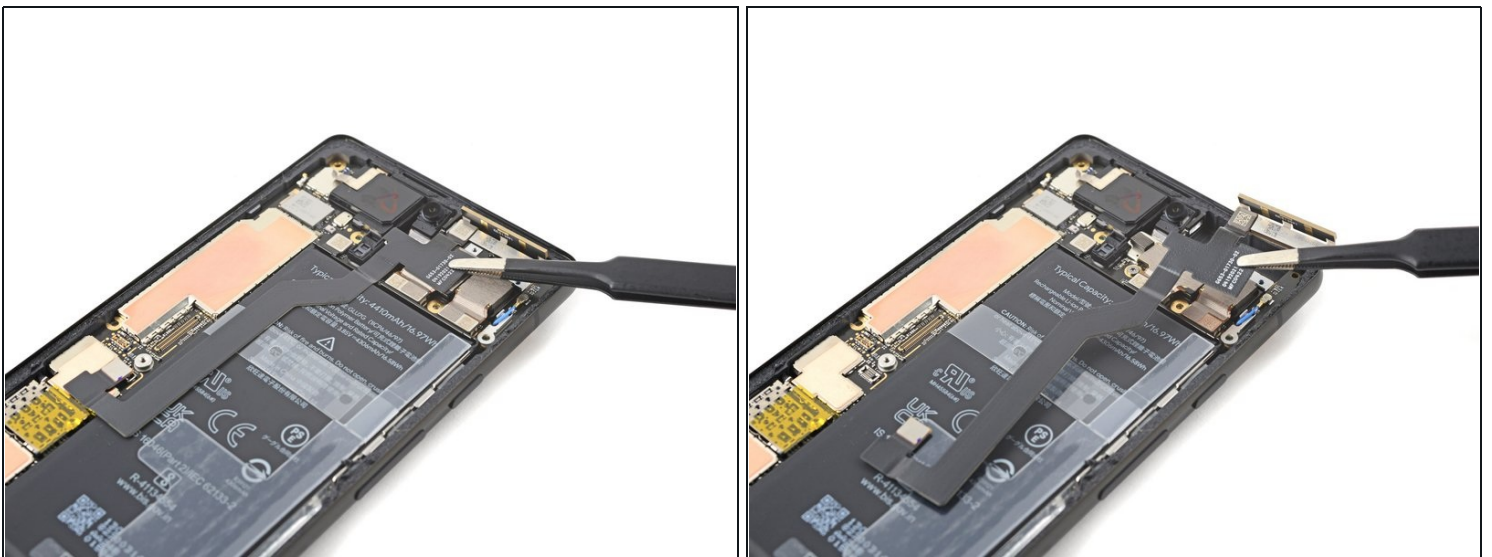
- Use [tweezers](#), or your fingers, to pull the bracket towards the right edge of the phone and disconnect its clip.
- Remove the 5G mmWave antenna bracket.

Step 29 — Disconnect the 5G mmWave antenna



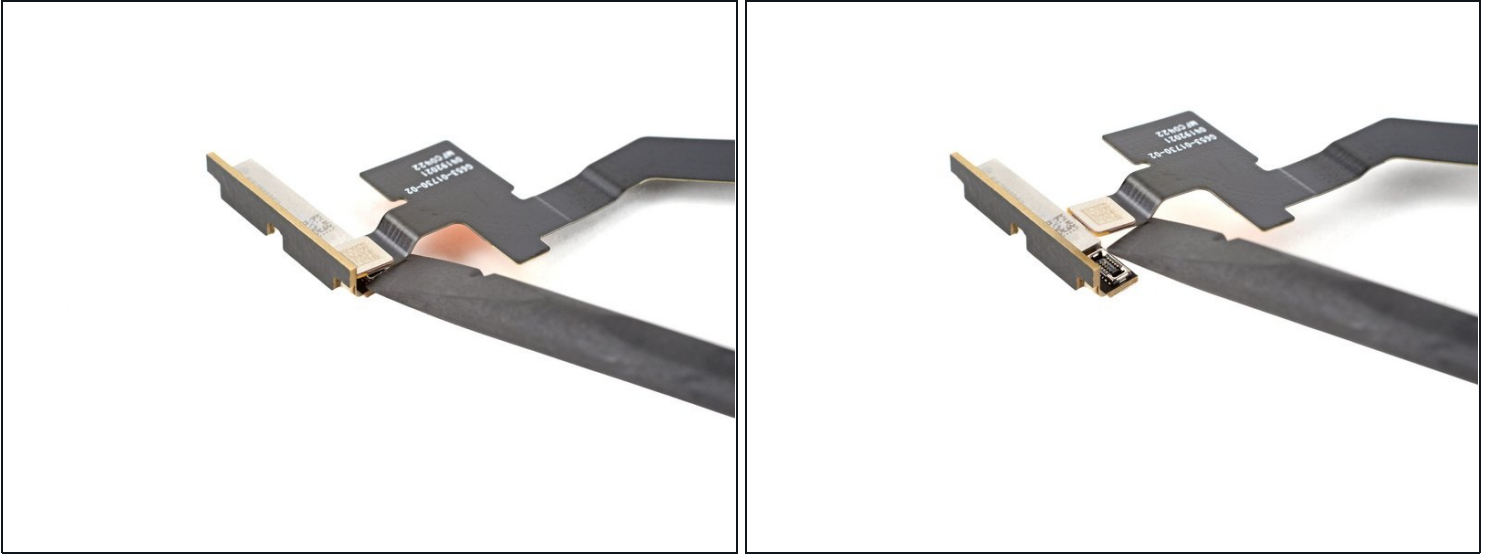
- Use a spudger to pry up and disconnect the 5G mmWave antenna's press connector.

Step 30



- Use tweezers, or your fingers, to remove the 5G mmWave antenna.

Step 31 — Disconnect the 5G mmWave antenna cable



- Use a spudger to pry up and disconnect the 5G mmWave antenna cable's press connector.

Step 32 — Only the antenna remains



- You're now left with the 5G mmWave antenna.

Compare your new replacement part to the original part—you may need to transfer remaining components or remove adhesive backings from the new part before you install it.

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

To run a diagnostics test with the built-in Pixel Diagnostic tool, [click here](#).

Repair didn't go as planned? Try some [basic troubleshooting](#), or ask our [Google Pixel 6a Answers community](#) for help.