



# Elite x2 G4 Repairability Assessment

Repairability assessment for the HP Elite x2 G4.

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## Step 1 — Elite x2 G4 Repairability Assessment



- External reference.
- The tablet isn't ingress-proofed, so the many gaps in the lower case (including ports, vents, speaker grilles etc.) may allow water damage or particle buildup.
- The hinge is also a point of mechanical failure.

## Step 2



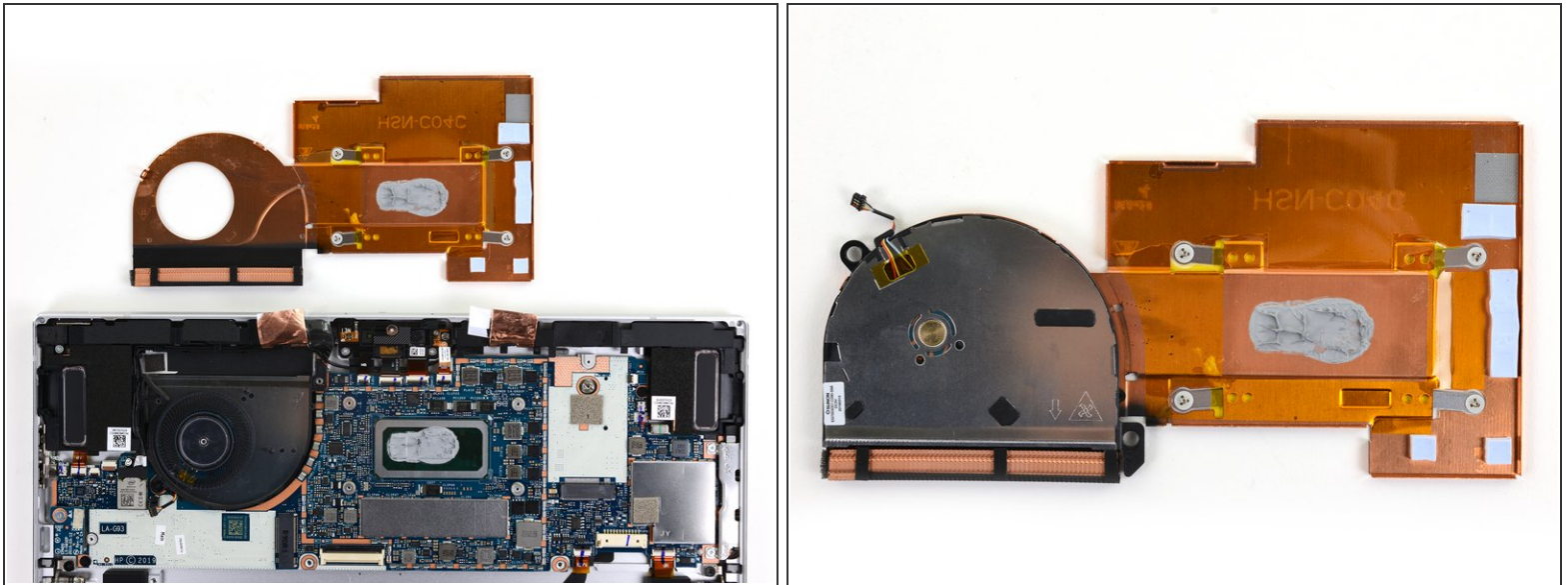
- Four standard Torx screws under the kickstand secure the display through the rear of the tablet.
- The display is connected by two taped-down ribbon cables. They're a bit short, but allow enough room for relatively safe disconnection.
- A display-first disassembly procedure is good news for any mobile device—the screen is a high-priority component and should be easily replaceable.
- The screen is a fused display/digitizer assembly, which makes opening easier, but makes the replacement part more expensive.
- That said, there are no other major components mounted to this assembly, so display swaps should be fairly painless.

## Step 3



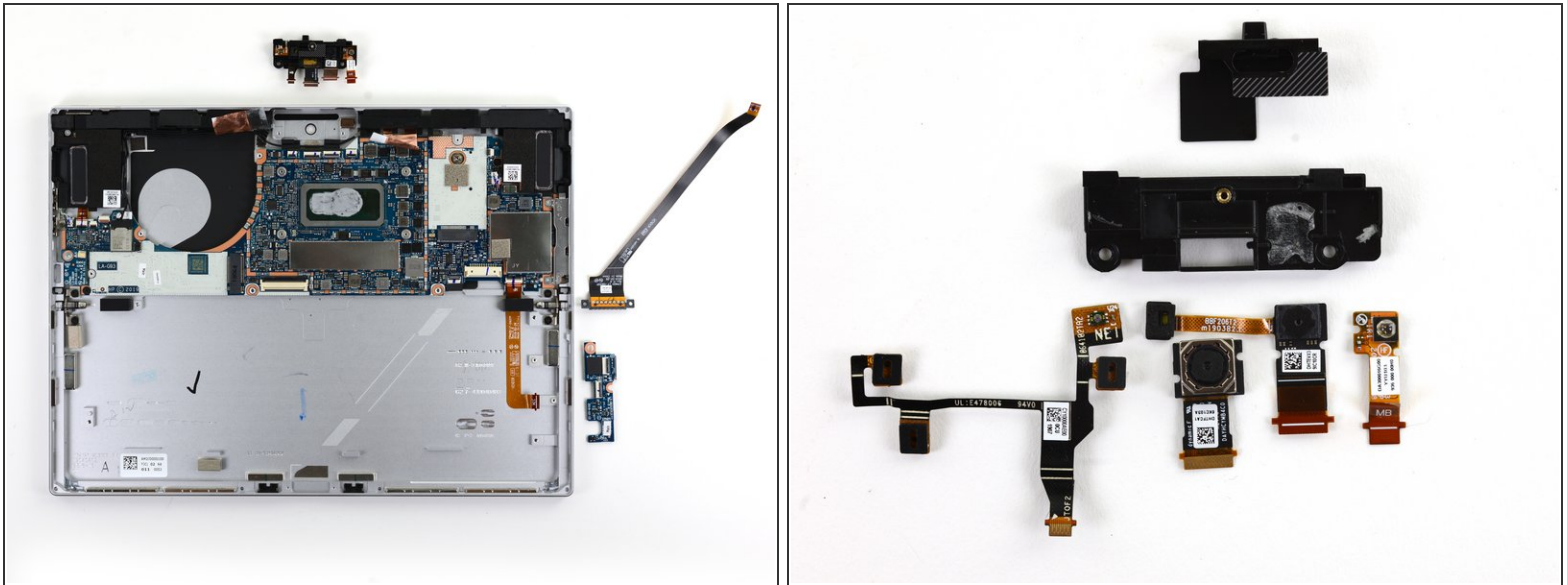
- The construction is fairly flat, with important components immediately accessible:
- The battery is held in place by a few Phillips screws, and no adhesive. Repairability win! You do need to disconnect and peel up a cable though, which seems silly.
- The modular SSD is secured by a single screw.
- The headphone jack is still not replaceable, despite that enticing screw—as seen last time.

## Step 4



- The heatsink assembly is accessible from the outset, after removing several screws.
  - In addition to the screws, clips secure the heatsink assembly onto the motherboard. Separating them isn't too difficult, but removal does endanger the board a bit.
  - In order to fully remove the heatsink, two pieces of copper tape need to be peeled back. However, they are reinforced with a clear tape, making them easier to remove without deforming the copper shielding.
- Interestingly, the heatsink can be separated from the fan, even though it actually makes up a portion of the fan's housing.
  - This means the fan can be exposed and cleaned fairly early. But the replacement part is likely to be the entire heatsink assembly, not half a fan, which could theoretically make repairs more expensive.

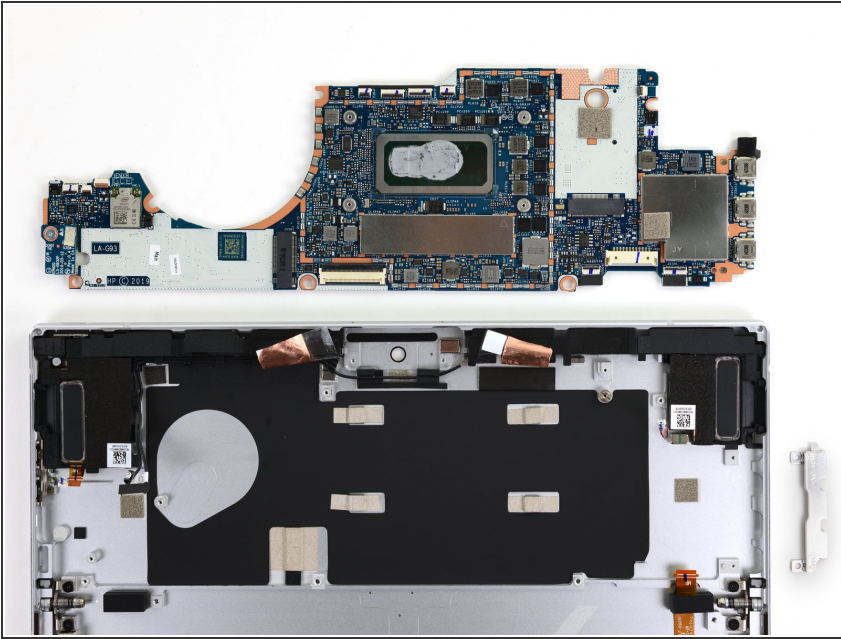
## Step 5



- The cameras and the IR blaster are in a single assembly that is immediately removable at the outset.
  - The cable routing is also improved, such that the cameras are removable, and if disconnected, the cables can be removed without removing the camera assembly.
- The cameras are adhered fairly strongly to the bracket, and one takes some work to remove, but they are modular. The microphone cables are similarly adhered and removable.
- The privacy cover/slider is also removable at this time.
- The dock connector cable is removable after the battery.
- The SIM tray is actually removable upon opening the device, and comes out easily without endangering any boards despite the SIM plug (for non cellular devices)—an improvement over past designs.

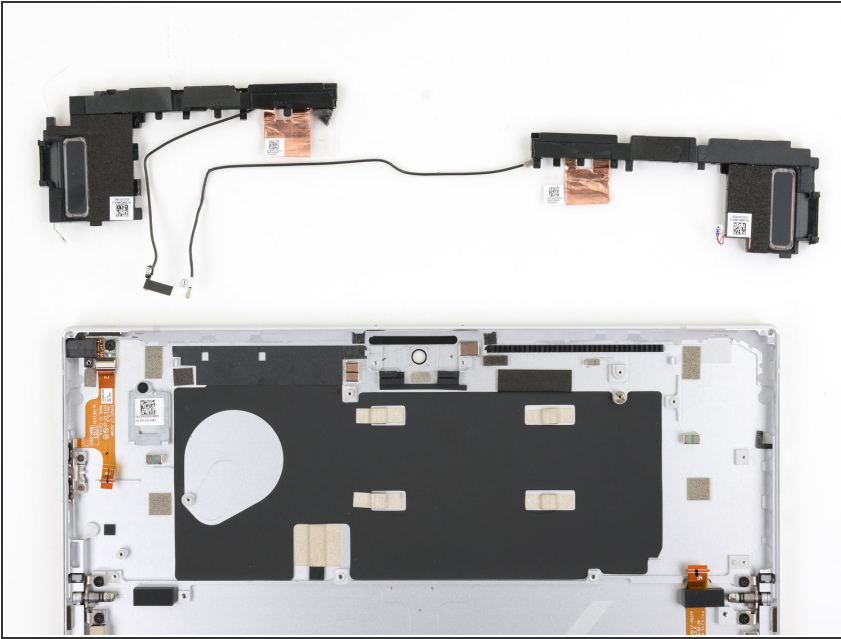


## Step 6



- The motherboard can be removed after the battery. It requires peeling up the antenna assembly copper tape, and disconnecting some connectors.
- Unfortunately for repairability, the three USB-C ports are soldered to the motherboard, making replacement of these high-wear components much more difficult.
- The motherboard also contains soldered RAM (under an EMI shield) and processor, eliminating the chance for future upgrades of those components.
- The small modular board near the fan would likely need to be transferred to a replacement board.

## Step 7



- The speakers are technically accessible from the outset, but the process is no fun:
  - Peel up the copper tape soldered to the antenna assembly—as mentioned above, the copper is nicely reinforced, improving this procedure.
  - Disconnect the connectors (the antenna interconnect cables are nicely labeled).
  - Carefully pry the speakers off the metal clips holding them to the rear case. This procedure requires more force than desired and risks damage to the speakers.
- The speakers are conveniently two separate units, reducing repair costs. The antennas can also be peeled up off the speakers with some effort.
- There are some unprotected portions of copper tape that may rip or deform during the swap, but the procedure is still an improvement over the last generation.



## Step 8



- After the motherboard is removed, the fingerprint sensor (or placeholder) and bracket can be removed.
- The headphone jack is accessible after the speakers are removed, which is best done after the motherboard.
  - An interconnect cable makes the headphone jack assembly removable independently. This assembly includes the port, power button, and removable bracket.
- The volume button switches are adhered to the case and a bracket, but are fairly easily removed after the motherboard.
- The button covers are replaceable after their respective switches are removed.
- The modularity of this area is generally good, however it takes some time to access these mechanically wearing components, increasing the cost of repair.
- The SIM tray interconnect cable is also removable after the battery—it's unlikely to fail, but will need to be transferred for some repairs.

## Step 9



- The bulk of the kickstand can be replaced without even opening the device, in the event of bending or damage. The Torx screws are the same T5 required to get the display off—slightly less common than Phillips, but still standard.
- The hinges themselves are replaceable once the rear case screws and those kickstand screws are removed. This can be done immediately upon opening the device.
- The hinges are a high-wear component and should be easily removable, and they are!

## Step 10 — Final Thoughts

### REPAIRABILITY SCORE:



- HP Elite x2 G4 Repairability Score: **9 out of 10** (10 is the easiest to repair):
  - All screws are standard Torx or Phillips—only three drivers are needed for complete disassembly.
  - Easy access to repair documentation and replacement parts by HP makes self-repair more feasible.
  - A modular and flat construction allows access to most components early on.
  - The flash storage can be easily upgraded or replaced, but the RAM is soldered to the motherboard—not unexpected in a tablet, but still a bummer.
  - The display is fused to the front panel, simplifying repair but increasing the cost of an LCD or front glass replacement.