



HP Pro x2 612 G2 Repairability Assessment

Repairability assessment performed on HP Pro x2 612 G2 for HP.

Written By: Sam Goldheart



INTRODUCTION

Repairability assessment performed on HP Pro x2 612 G2 for HP.

TOOLS:

- [SIM Card Eject Tool](#) (1)
 - [Phillips #1 Screwdriver](#) (1)
 - [T5 Torx Screwdriver](#) (1)
 - [Phillips #0 Screwdriver](#) (1)
 - [Spudger](#) (1)
-

Step 1 — HP Pro x2 612 G2 Repairability Assessment



- Front and back of device.
- Plastic rear panel is rugged and should be able to take a beating without deforming or cracking.

Step 2



- SIM/SD tray removal.
- Removable/expandable storage is good news for upgradability.

Step 3



- The rear panel is immediately removable without any tools; the kickstand need only be flipped up to reveal the notch for prying.
- The cover is soft and secured with clips that are strong and flexible enough to endure many opening and closings.
- Nothing is mounted to the rear cover to the inside of the rear cover, so there are no cables to disconnect.
- ① Rather than mount the fingerprint reader to the rear cover, it has a pass-through hole to allow access.

Step 4



- The battery can be immediately disconnected, making for safer repairs, but cannot be immediately removed, which is unfortunate for a consumable component.
- Components that can be accessed and removed immediately after removing rear panel:
 - **Kickstand**—simply secured with some T5 screws
 - **SSD**—standard blade-style, secured with a single screw
 - **Wi-Fi module**—secured with a single screw
 - **Fingerprint reader and interconnect board**—adhered to the midframe and connected via ZIF, fairly easy to remove, modular component
 - **NFC antenna**—adhered to midframe, connected via ZIF, fairly simple to remove
 - **Rear-facing camera**—including flash assembly, adhered with metallic tape that should be transferred to a new unit.

Step 5



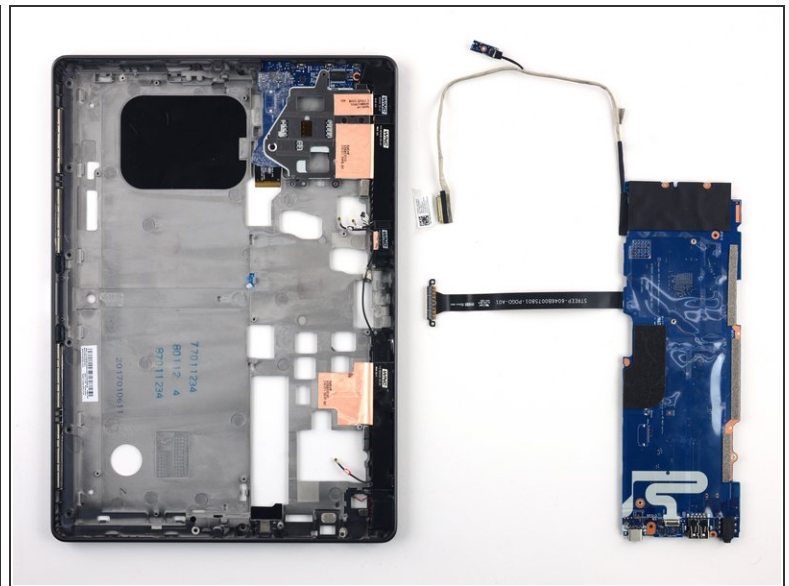
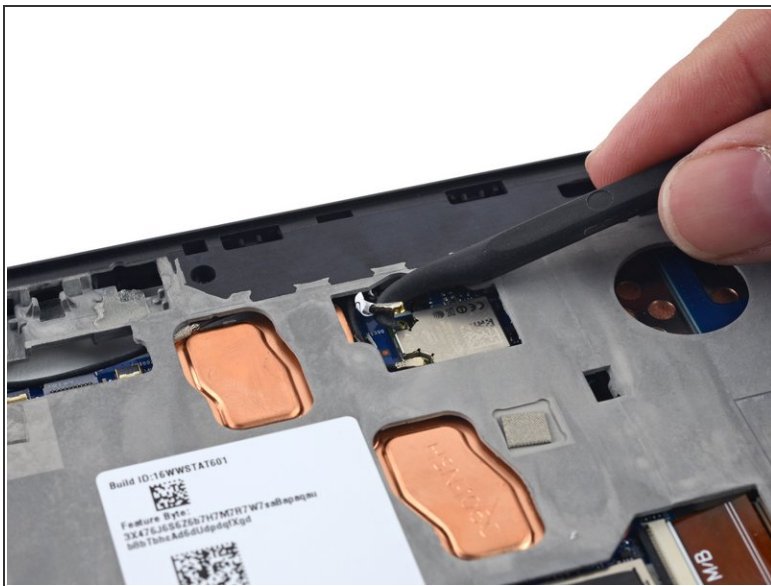
- The display is pushed off of the midframe with a thin tool through small slots. No adhesive is used to secure the display to the body—instead a combination of clips and screws does the job.
- The display and digitizer cables connect the display to the rest of the device, but are long enough to allow fully opening and folding the display over before disconnecting.
- The display carries no real components other than some magnets, USB port strengthening bracket, and some display boards. This makes for a faster, cheaper repair, with fewer extra components to buy or transfer to a new display.

Step 6



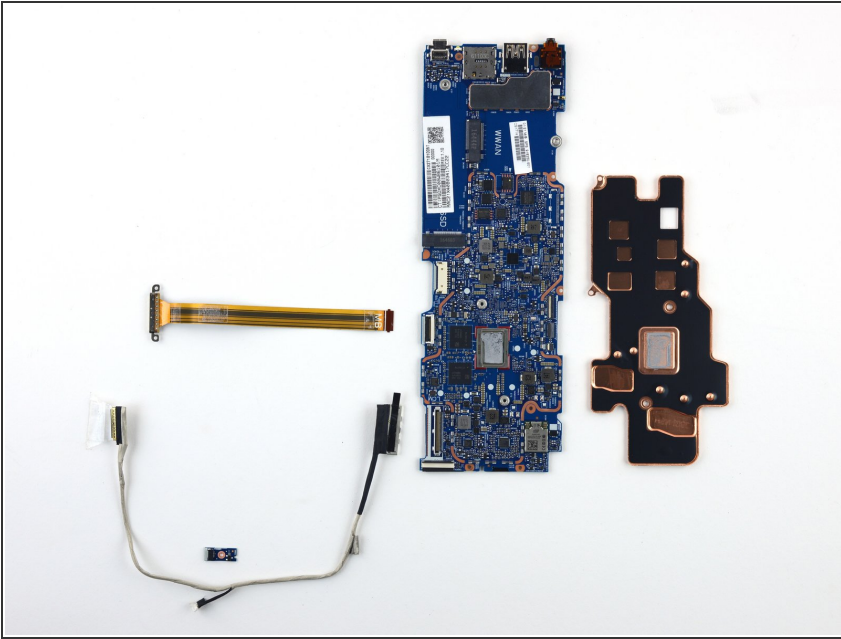
- Battery can now be safely removed; it is only secured with a few screws. Also removable at this point:
 - **Front-facing camera**—lightly adhered with metallic tape
 - **Microphone board**—wedged into the top of the midframe, fairly simple to wiggle out.
 - **Digitizer cable**
 - **USB-C strengthening bracket**—secured with screws, good reinforcement for a common point of failure.

Step 7



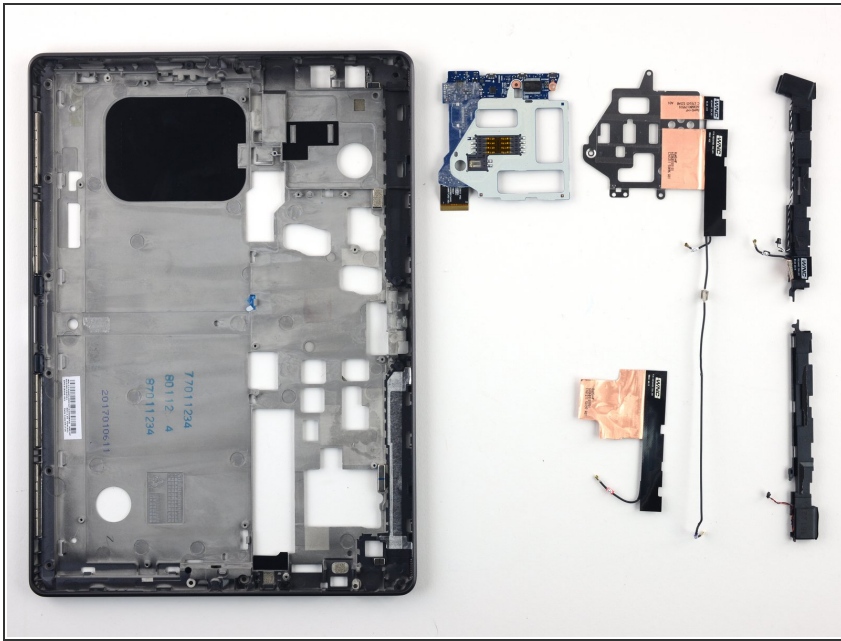
- System board can then be removed, but only after disconnecting several cables that are accessible through cutouts in the other side of the midframe, and removing screws.

Step 8



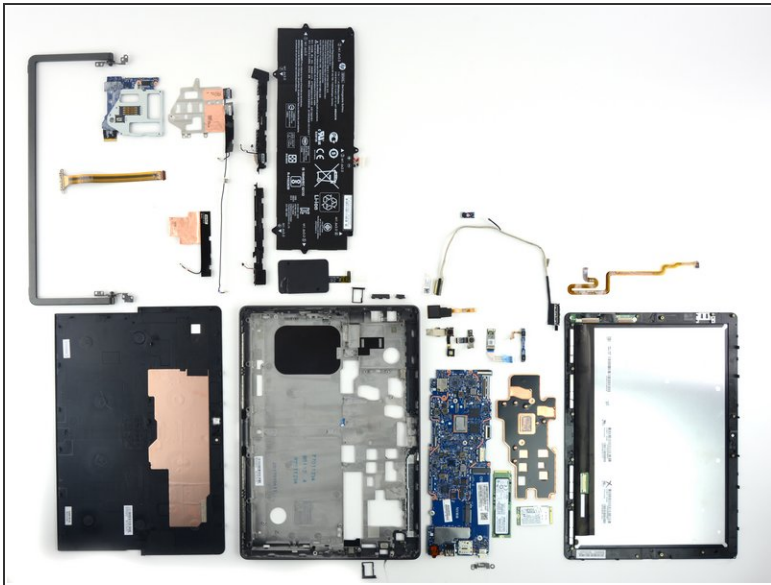
- From the system board the following are removable:
 - **Heatsink/EMI shield** is attached with two screws and some clips and can be removed to reapply thermal paste.
 - **POGO connector cable**
 - **Display cable**, and attached **Hall effect sensor cable**.
- The headphone jack, USB-C and USB-A ports, and SD card slot are soldered to the system board. Replacing these high-wear components is made more expensive by their permanent home on the system board.

Step 9



- Remaining components can be removed from midframe:
- **Speakers**—the adhered antennas make removal a little annoying and may require replacement adhesive
- **Antennas**—the adhesive securing them to speakers and midframe/card reader bracket is an annoyance, particularly because the copper tape should be replaced exactly, lest the shielding be compromised.
- **Smart card reader bracket**—simple to remove from the board, but harder to remove the antenna adhesive from it.
- **Smart cardreader board**—simply secured with screws, bare modular component.

Step 10



- HP Pro x2 612 G2 Repairability Score: **9 out of 10** (10 is the easiest to repair):
 - All screws are standard T5 Torx, Phillips #1, or Phillips #0.
 - Manufacturer provided [repair documentation](#) takes the guesswork out of repair.
 - The device is fairly modular, but complex construction makes common repairs more difficult than they should be.
 - The flash storage is a standard M.2 card and can be easily upgraded or replaced, but the RAM is soldered to the motherboard, not uncommon for mobile devices.
 - The display and digitizer are fused, simplifying repair but increasing the cost of an LCD or front glass replacement.

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