



Samsung Connect Home Teardown

Teardown of the Samsung Connect Home, and Connect Home Pro smart routers.

Written By: Arthur Shi



INTRODUCTION

Samsung's Connect Home is the one smart router to rule all your SmartThings. What sort of dark magic gives the Connect Home all this power? Let's tear it apart and take a look!

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TOOLS:

- [Phillips #00 Screwdriver](#) (1)
 - [iFixit Opening Tools](#) (1)
 - [iFixit Opening Picks set of 6](#) (1)
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Step 1 — Samsung Connect Home Teardown



- So what can this circuit-filled puck do?
 - Wi-Fi: 400 Mbps @ 2.4 GHz, 866 Mbps @ 5 GHz (AC1300).
 - Up to 1,500 square feet wireless coverage.
 - SmartThings connectivity via Bluetooth, Zigbee, and Z Wave.
 - ~~Play hockey.~~
- If you opted for the shinier Connect Home Pro, you get upgraded Wi-Fi capability:
 - Wi-Fi: 800 Mbps @ 2.4 GHz, 1,733 Mbps @ 5 GHz (AC2600).

Step 2



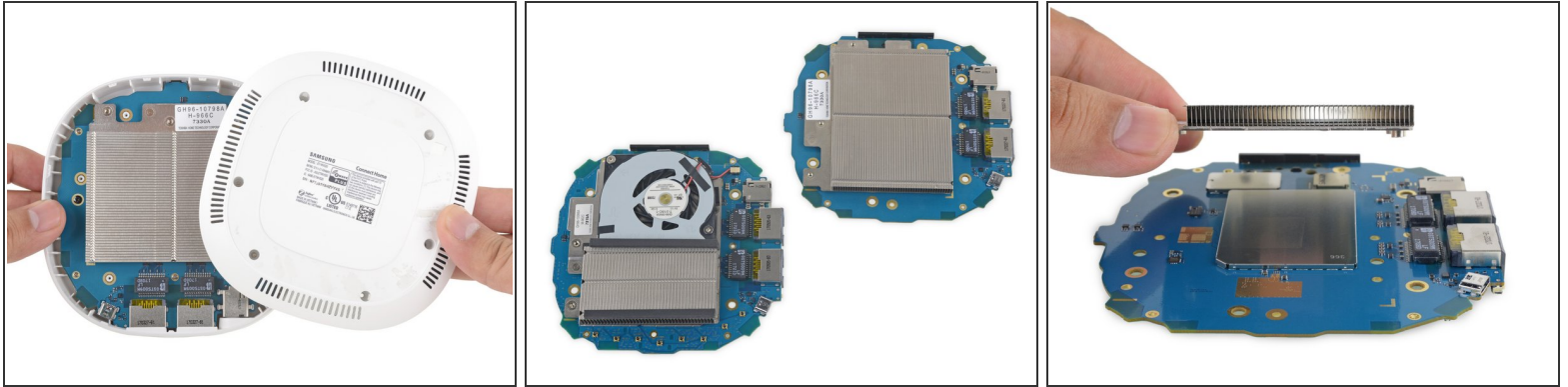
- No, it's not a new [probe droid](#)—just the backside of the Connect!
- Ever the minimalist, the Connect Home sports just three ports for power, WAN, and LAN, plus a reset pinhole.
- Grill vents line all four sides of the bottom panel to keep the Connect cool.
- ⓘ The bottom sticker *could* contain interesting secret information, but all we found are serials numbers and wireless certifications.

Step 3



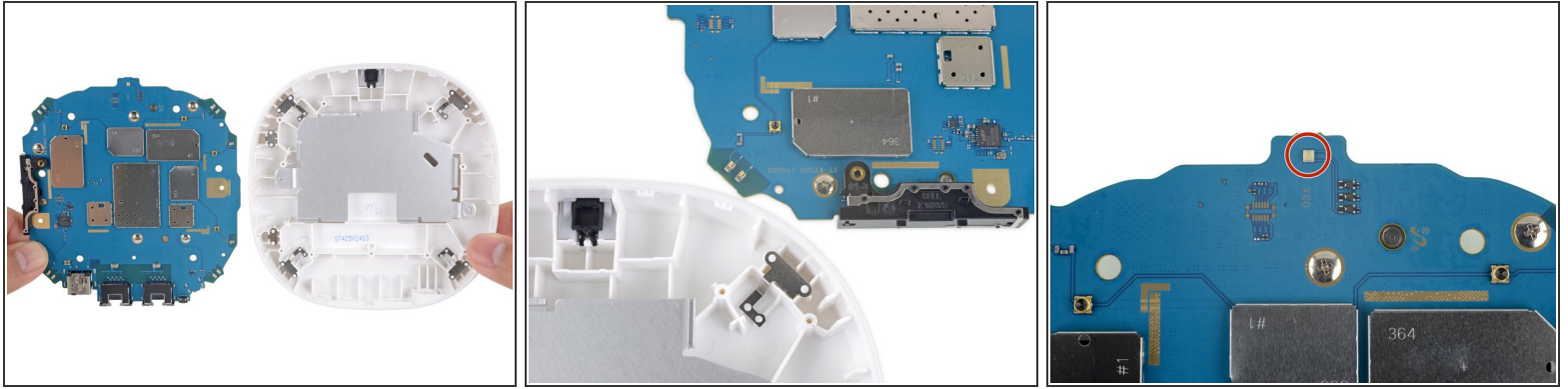
- We start our search for screws in one of their favorite hiding places—under a rubber foot.
 - *These are not the screw holes we're looking for* . Oh wait, yes they are! Standard Phillips #00 too—kudos to Samsung for using common screws.
 - Not only do these [opening picks](#) get us inside some stubborn cases, but they can also give any device some cute flippers.
- ✦ That said, it's probably not a good idea to let your Connect go swimming.

Step 4



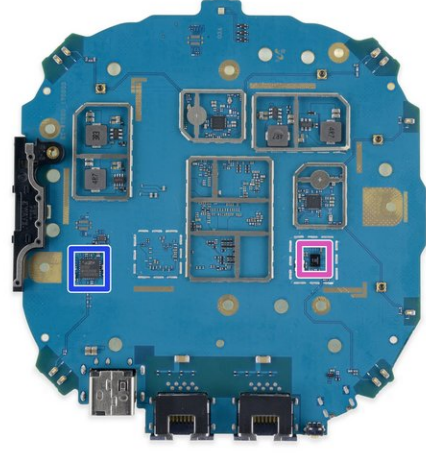
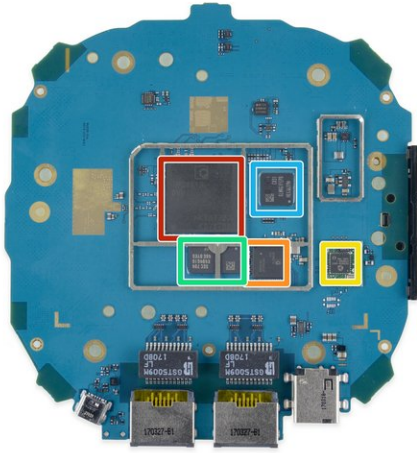
- It must get really hot in here—the first thing we spy is a *massive* ducted heatsink! What could this be cooling?
- And if we thought the Home had a big heatsink, the Connect Pro gets a fan too!
① That's some serious cooling for an otherwise inconspicuous router.
- We take a look under the Connect's heatsink to find a large shielded area—just another barrier to our chip curiosity.

Step 5



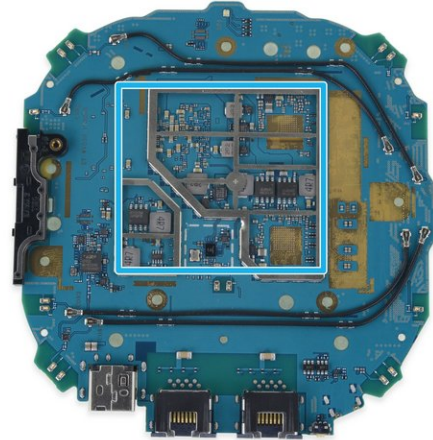
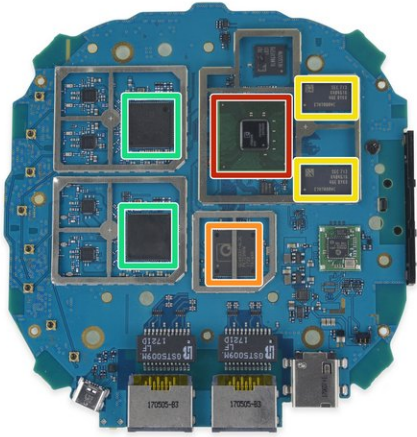
- On the back of the board we spy the Z-wave antenna (the black rectangle on the left), and some metal contact clips mounted in the case.
- The board has some coaxial connectors, but seems to be using spring contacts instead—a nice repair-friendly, low wear connection option.
- And finally, a lone LED handles the task of communicating the Connect's status to the world. Stay strong little guy!

Step 6



- With the EMI shields unsealed, let's see what treasures lie revealed:
 - Qualcomm [IPQ4019](#) SoC—the main brains of the device, and the reason for the giant heatsink
 - Qualcomm Atheros [QCA8072](#) ethernet switch on a chip
 - Sigma Designs [SD3503](#) serial interface modem SoC
 - Samsung [K4B4G1646E](#) 512MB DDR3L SDRAM
 - Samsung [KLM4G1FEPD](#) 4GB NAND Flash memory
 - Silicon Labs [EFR32](#) Zigbee radio controller
 - CSR [8811](#) Bluetooth 4.1 radio

Step 7



- How does the Pro version compare? Here are the major differences:
 - CPU upgrade: Qualcomm [IPQ8065](#) SoC quad-core network processor (vs. IPQ4019)
 - Ethernet switch upgrade: Qualcomm [QCA8337](#) (vs. QCA8072)
 - RAM upgrade: Two Samsung [K4B4G1646E](#) 512MB DDR3L SDRAM (instead of one)
 - Two Qualcomm [QCA9984](#) 802.11ac radio SoC's, which allows more devices to connect at faster speeds.
 - More power sources and converters to handle the added load.

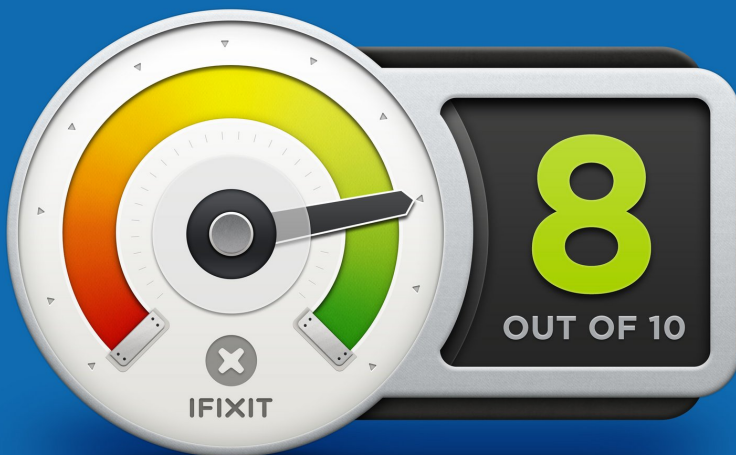
Step 8



- We have reached the end of the tour. Thank you for choosing iFixit as your site for repair manuals and cool teardowns.

Step 9 — Final Thoughts

REPAIRABILITY SCORE:



- Samsung Connect Home repairability: **8 out of 10** (10 is the easiest to repair):
 - The case is held together with standard screws and reusable plastic clips.
 - All antennas easily detach from the main board thanks to spring contacts.
 - While they're not likely to need replacement, the ports are soldered onto the main board, complicating repair.