



iPad Mini 3 Wi-Fi Teardown

iPad Mini 3 Teardown on October 23, 2014.

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INTRODUCTION

Bigger than an iPhone 6 Plus, but smaller than an iPad Air 2. What am I? If you answered iPad Mini 3, you are correct. It's the latest iteration of Apple's miniature iPad, newly refreshed and updated—and now primed for disassembly. Join us as we tear down the iPad Mini 3.

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TOOLS:

- [iFixit Opening Picks set of 6](#) (1)
- [iOpener](#) (1)
- [Phillips #00 Screwdriver](#) (1)
- [Spudger](#) (1)
- [Tweezers](#) (1)

Step 1 — iPad Mini 3 Wi-Fi Teardown



- Pint-sized tech means pint-sized specs! Inside the iPad Mini 3, we expect to find:
 - 7.9-inch (diagonal) LED-backlit Multi-Touch display with IPS technology
 - A7 chip with 64-bit architecture + M7 motion coprocessor
 - 5 MP iSight camera + 1.2 MP FaceTime HD camera
 - Wi-Fi (802.11a/b/g/n) with dual channel (2.4GHz and 5GHz) and MIMO support + Bluetooth 4.0
 - 23.8 Wh rechargeable lithium-polymer battery
 - Three-axis gyro + accelerometer + ambient light sensor

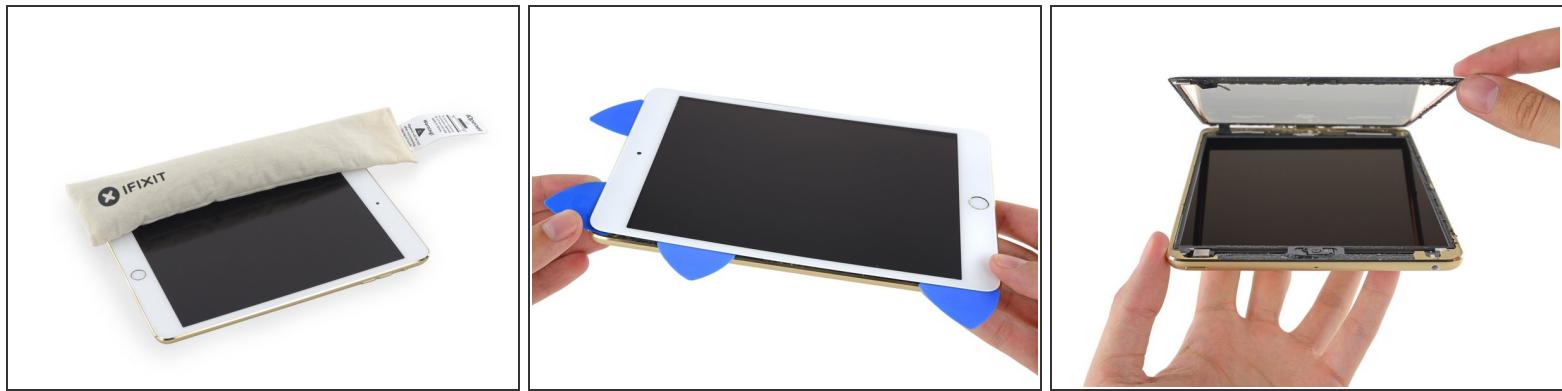
Step 2



(i) If you were wondering how to tell the iPad Mini Retina Display (aka iPad Mini 2) apart from the iPad Mini 3, we've got you covered:

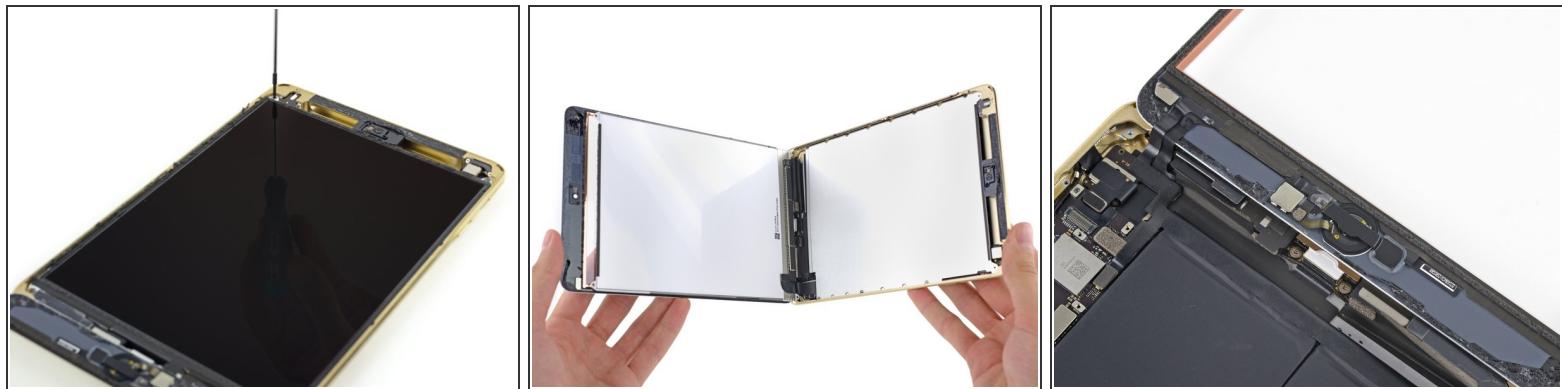
- The iPad Mini 3 now supports Touch ID, to be used in conjunction with **Apple Pay**.
- Gold. So much gold. Gold everywhere.
- Continuing the trend set by the iPad Air 2, the iPad Mini 3 sports the model number A1599.

Step 3



- The [iOpener](#) has revolutionized the way we open up iPads.
- A little heat is just the thing to soften up the adhesive securing the iPad's display.
- We place our iOpener around the perimeter of the iPad Mini 3 and begin using our opening picks to separate the front panel from the rear case.
- After a bit of work and patience, we achieve our goal.

Step 4

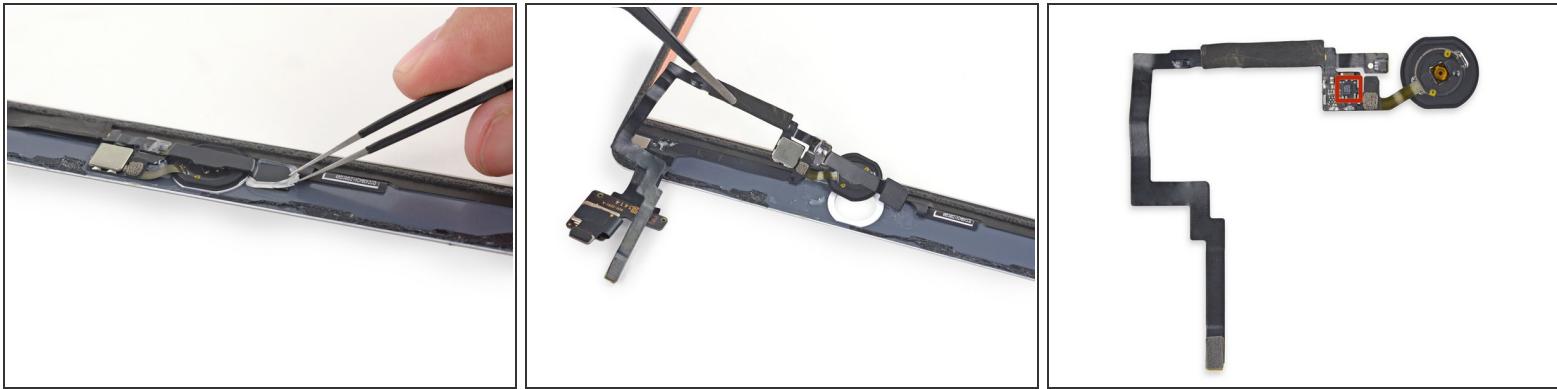


- As is often the case with updates that don't really change anything, nothing has really changed yet.
- Unlike in the new [iPad Air 2](#), the front panel glass and LCD are still separate components, individually replaceable.

i Take a look, it's in a book...

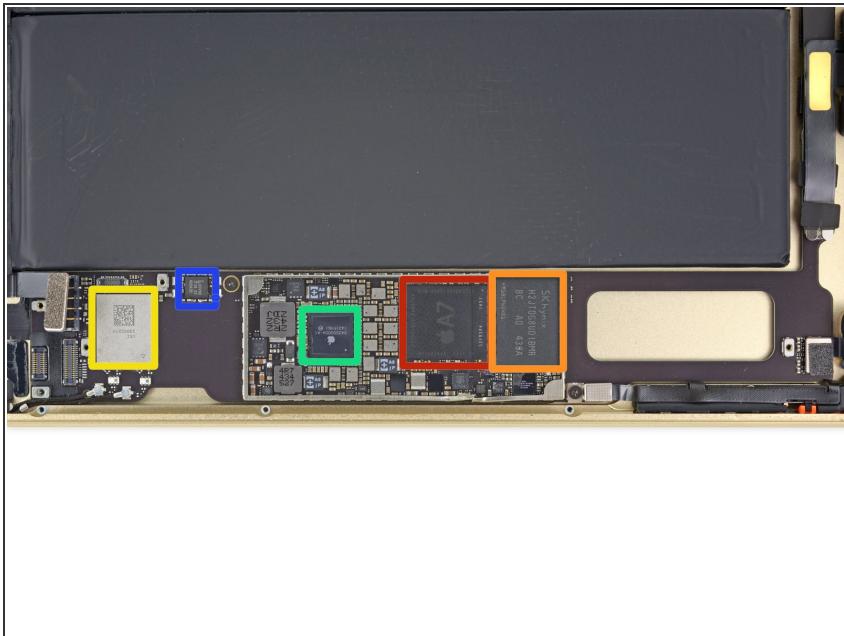
- With the LCD out, we find our first and only change in construction: Some absolutely terrific home button cabling. Wow. That wasn't last-minute at all.
- *Is that hot glue?*

Step 5



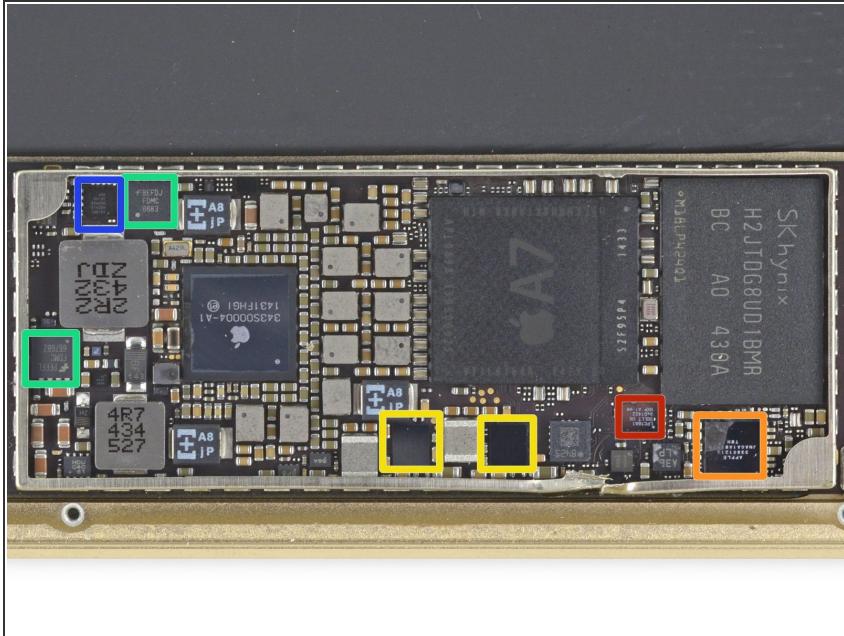
- Yes—that is hot glue, holding the home button bracket to the front panel. Good luck transferring that to your replacement glass. (Which you're going to *have* to do, to keep the Touch ID functionality after a cracked screen repair.)
- Looks like the cable is a bit of a nightmare all by itself.
- *i* Apple's system for implementing Touch ID seems to require launching about a year before it's ready. Remember the Touch ID cable in the [iPhone 5s](#)? And the much-improved placement in the [iPhone 6](#)?
- No surprises here: Touch ID in the Mini is powered by an NXP Semiconductors [8416A1](#) Touch ID Sensor.

Step 6



- Logic board! Let's just get to it, shall we? Anything new?
 - Apple A7 APL0698 SoC
 - Within the A7 package we find SK Hynix H9CKNNN8KTARKR 1 GB LPDDR3 DRAM
 - SK Hynix H2JTDG8UD1BMR 16 GB NAND Flash
 - Universal Scientific Industrial [339S0213](#) Wi-Fi Module
 - Apple 343S00004-A1
 - NXP Semiconductors [65V10](#) NFC Controller

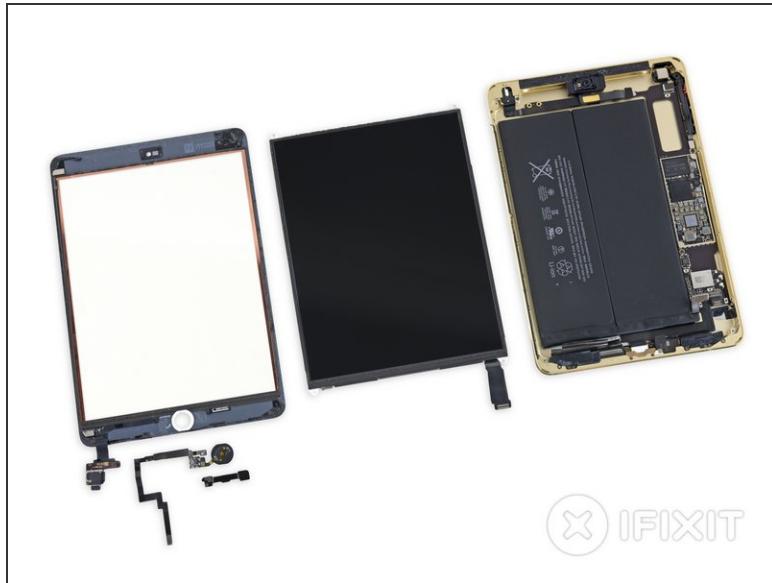
Step 7



- NXP Semiconductors [LPC18A1](#) (Apple M7 Motion Co-Processor)
- Apple (Cirrus Logic) [338S1213](#) Audio Codec
- Apple 338S1199—likely a pair of audio amplifiers, similar to the Apple [338S1077](#) found in the previous iPad mini
- Fairchild Semiconductor FDMC6676BZ and FDCM6683 MOSFETs

● NXP [1610A1](#) Display Interface IC

Step 8



- iPad Mini 3 Repairability: **2 out of 10** (10 is easiest to repair).
 - The LCD and glass are not fused together and can be replaced independently.
 - The battery is not soldered to the logic board or other components.
 - Copious amounts of adhesive hold many components in place—front glass, battery, front camera, back camera, ribbon cables—making repair extremely difficult.
 - The Lightning connector is soldered to the logic board, so don't bend its pins.
 - Removing the home button is now a much more difficult job. If you want to keep Touch ID functionality after a screen replacement, you'll have to transfer the home button to the new front panel.