



MacBook Pro 13" Touch Bar 2017 Teardown

Teardown of the MacBook Pro 13-inch 2017, with Kaby Lake Intel processor and Touch Bar.

Written By: Blake Klein



INTRODUCTION

Love is in the MacBook Air and we have a brand new MacBook Pro 13" Touch Bar 2017 to fall for. What's new, borrowed, and blue in this MacBook Air killer successor? We'll have to teardown to find out.

Tie the knot with us, or just hang out on our [Instagram](#), [Twitter](#), or [Facebook](#).



TOOLS:

- [64 Bit Driver Kit](#) (1)
 - [iFixit Opening Picks set of 6](#) (1)
 - [Spudger](#) (1)
 - [Nylon Tipped Tweezers](#) (1)
-

Step 1 — MacBook Pro 13" Touch Bar 2017 Teardown

MacBook Pro 13" with Touch Bar

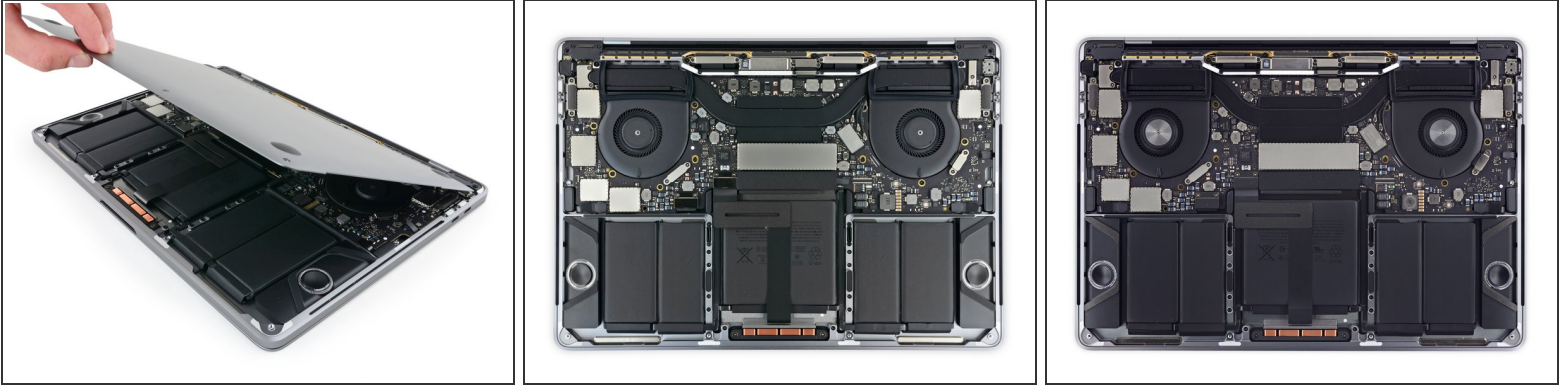


TEARDOWN



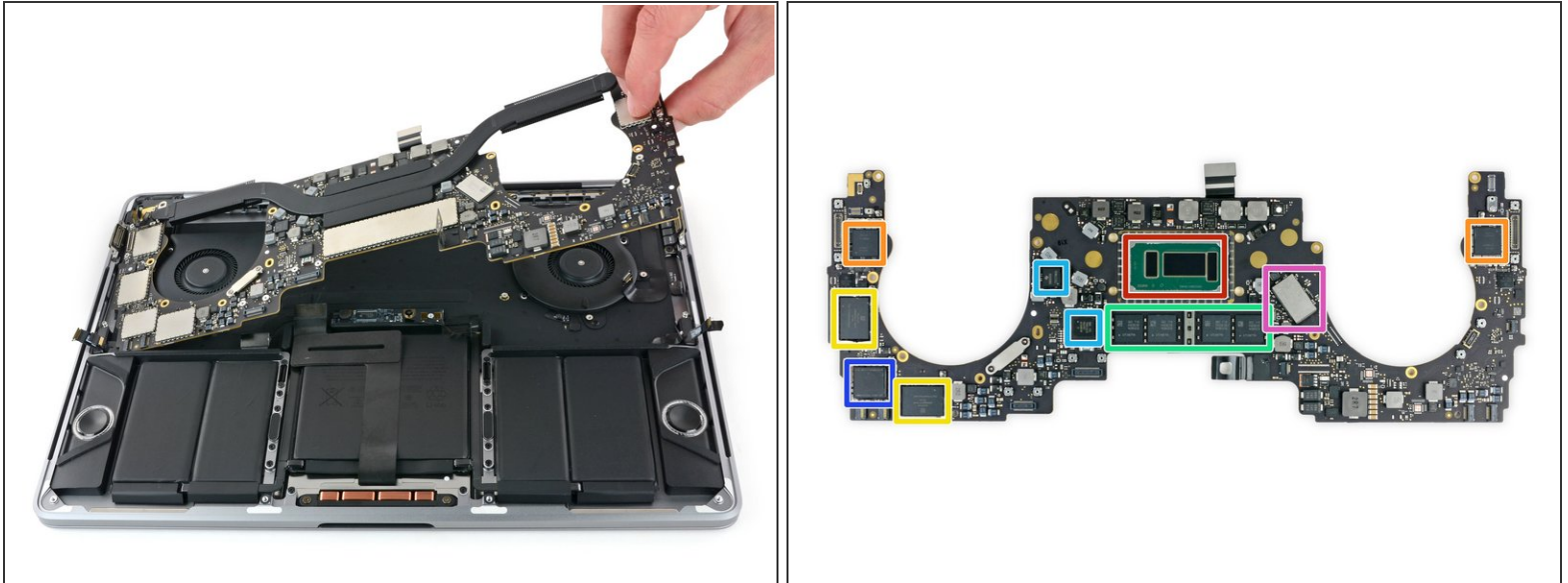
- Gotta love that new Mac smell, but just how new is this Pro? Get a whiff of these specs:
 - 13.3" LED-backlit IPS Retina display with 2560 × 1600 resolution (227 dpi), P3 wide color gamut
 - 3.1 GHz Kaby Lake dual-core Intel Core i5 (Turbo Boost up to 3.5 GHz)
 - 8 GB of 2133 MHz LPDDR3 SDRAM
 - 256 GB PCIe-based SSD
 - Integrated Intel Iris Plus Graphics 650
 - Four Thunderbolt 3 (USB-C) ports and 3.5 mm headphone port
 - 802.11ac Wi-Fi and Bluetooth 4.2

Step 2



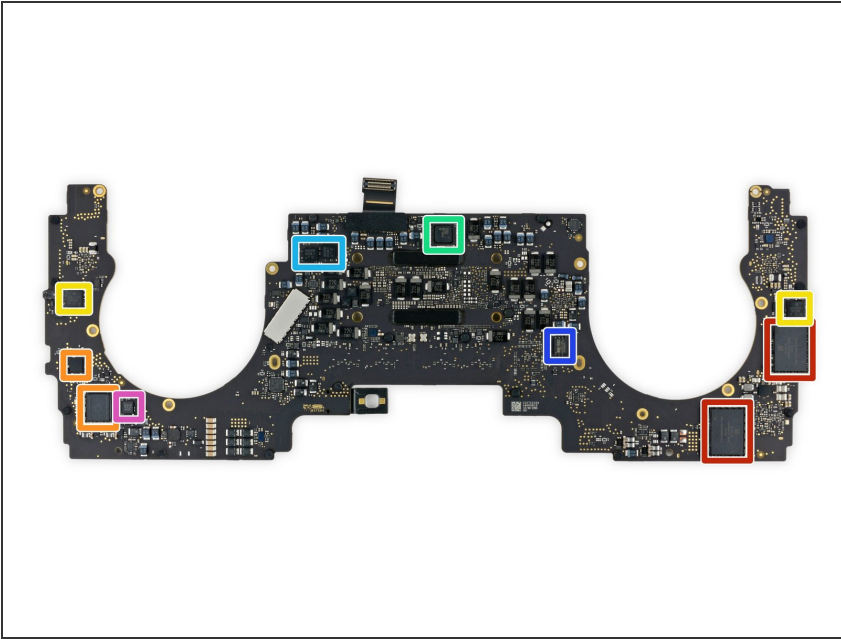
- Thanks to [prior experience](#), we've got the obnoxious suction-prying-sliding maneuver down, and we pop this little guy open in no time.
- Once the oyster is cracked, and the pearl revealed, we get some serious deja vu.
- Compare the MacBook Pro 13" Touch Bar 2017 (second)...
- ... to the [MacBook Pro 13" Touch Bar 2016](#) (third).
- Everything looks pretty much the same to us, right down to the [49.2 Wh battery](#).
- The only difference we spot is the finish on the fans. Looks like the [4K iMac](#) got the real refresh juice this year.

Step 3



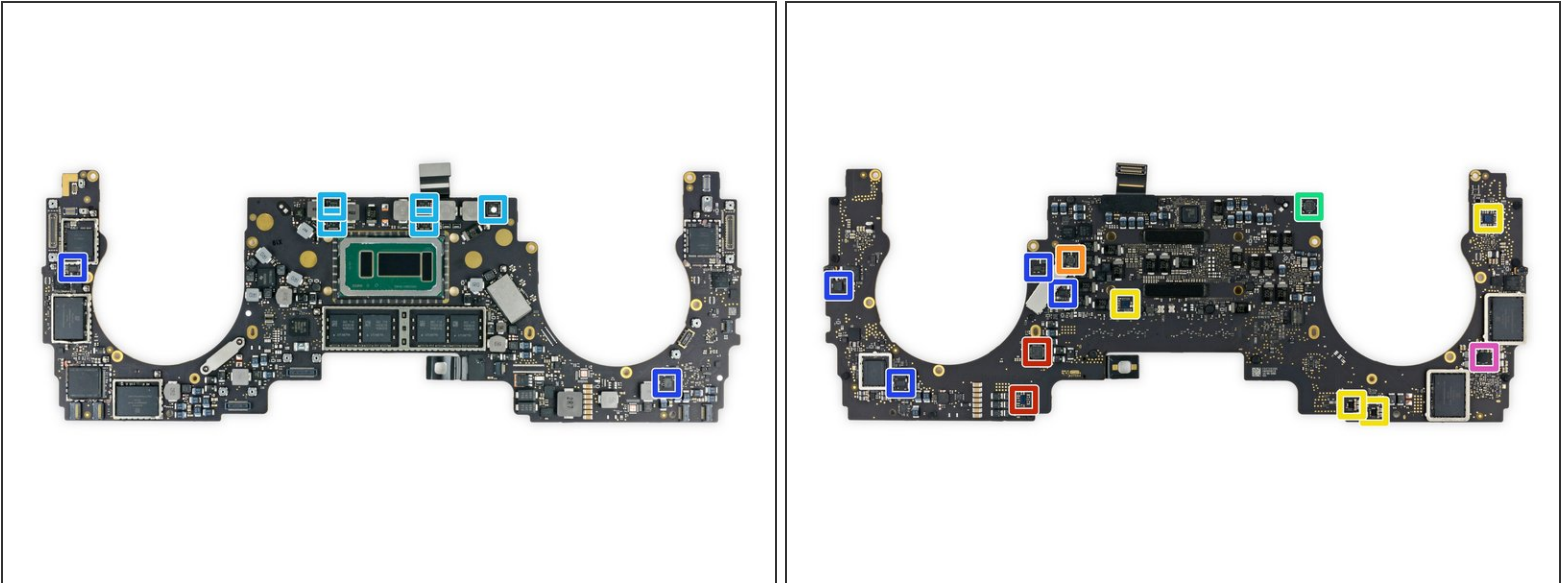
- We pick some cuffs out of this notebook and turn them into some mustaches. Here are the secrets within:
 - Intel [Core i5-7267U](#) processor with Intel Iris Plus Graphics 650
 - Intel® [JHL6540](#) Thunderbolt™ 3 Controller
 - SanDisk SDRQKBD4 064G 64 GB NAND flash memory (x2 for a total of 128 GB on this side of the board)
 - Samsung K4E6E304EB-EGCG LPDDR3 DRAM (4 x 2 GB for 8 GB total)
 - Texas Instruments SN650839 power management, and TI/Stellaris [LM4FS1EH SMC Controller](#) (replacement codename for TM4EA231)
 - SK Hynix H9CKNNN4GTATMR-NTH memory with custom SSD controller layered underneath (likely)
 - Murata/Apple 339S00056 Wi-Fi Module

Step 4



- On the opposite side we find:
 - 2x SanDisk SDRQKBDC4 064G 64 GB NAND flash storage (as seen in the 2016 Escape Edition's [removable SSD](#))—bringing the total to 256 GB
 - APL1023/343S00736 (likely the custom Apple T1 chip that pairs with the Touch Bar) and (Apple?) 338S00193-A1 (probably both power management)
 - 2x Texas Instruments TI CD3215C00 USB-C controller (+2 on the other side)
 - Intersil ISL95828 PWM controller for Intel CPUs (likely)
 - Texas Instruments [HD3SS215](#) 6.0 Gbps HDMI DisplayPort 2:1/1:2 Differential Switch
 - Macronix [MX25L6473EZNI-10G](#) Serial Flash Memory
 - NXP [66V10](#) (PN66V ?) NFC controller, containing Secure Element 008 and NXP PN549 (as seen in the [iPhone 6s](#))

Step 5



- IC Identification, continued:
 - Texas Instruments TPS51980A power management and likely Renesas battery charger
 - Texas Instruments [TPS51916](#) DDR memory power supply
 - Cirrus Logic/Analog Devices audio codec and amplifier (likely)
 - Texas Instruments TMPxxx temperature sensor (assumption)
 - Vishay SiC635 power stage
 - Serial Flash and EEPROM Memory (likely)
 - Apple SSD power management (assumption)

Step 6



- Here's the layout, such as it is, replete with mustaches!
- For more detailed teardowns of the hardware in this device, consult the [previous generation's teardown](#) or even the [past-gen one with more keys](#), if you fancy.
- And to round out your Mac refresh knowledge, check out our [MacBook](#) and [iMac 4K](#) teardowns.

Step 7 — Final Thoughts

REPAIRABILITY SCORE:



- The MacBook Pro 13" with Touch Bar earns a **1 out of 10** on our repairability scale (10 is the easiest to repair):
 - The trackpad can be removed without first removing the battery.
 - Proprietary pentalobe screws continue to make working on the device unnecessarily difficult.
 - The battery assembly is entirely, and very solidly, glued into the case, thus complicating replacement.
 - The processor, RAM, *and* flash memory are soldered to the logic board.
 - The Touch Bar adds a second, difficult to replace, screen to damage.
 - The Touch ID sensor doubles as the power switch, and is paired with the T1 chip on the logic board. Fixing a broken power switch may require help from Apple, or a new logic board.