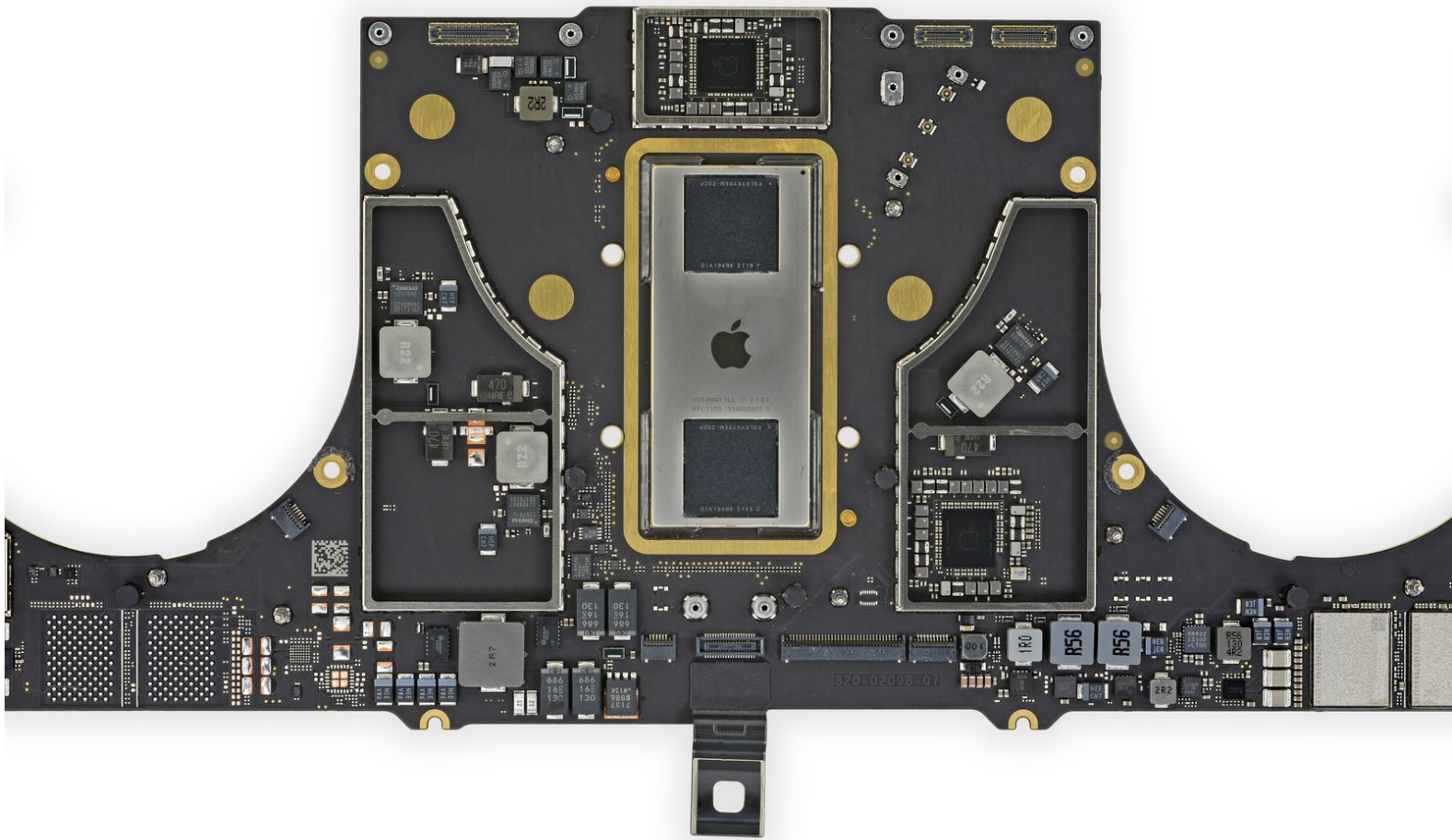




MacBook Pro 14" 2021 Chip ID

Full chip ID guide for the Apple MacBook Pro 14" 2021 laptop.

Written By: Arthur Shi

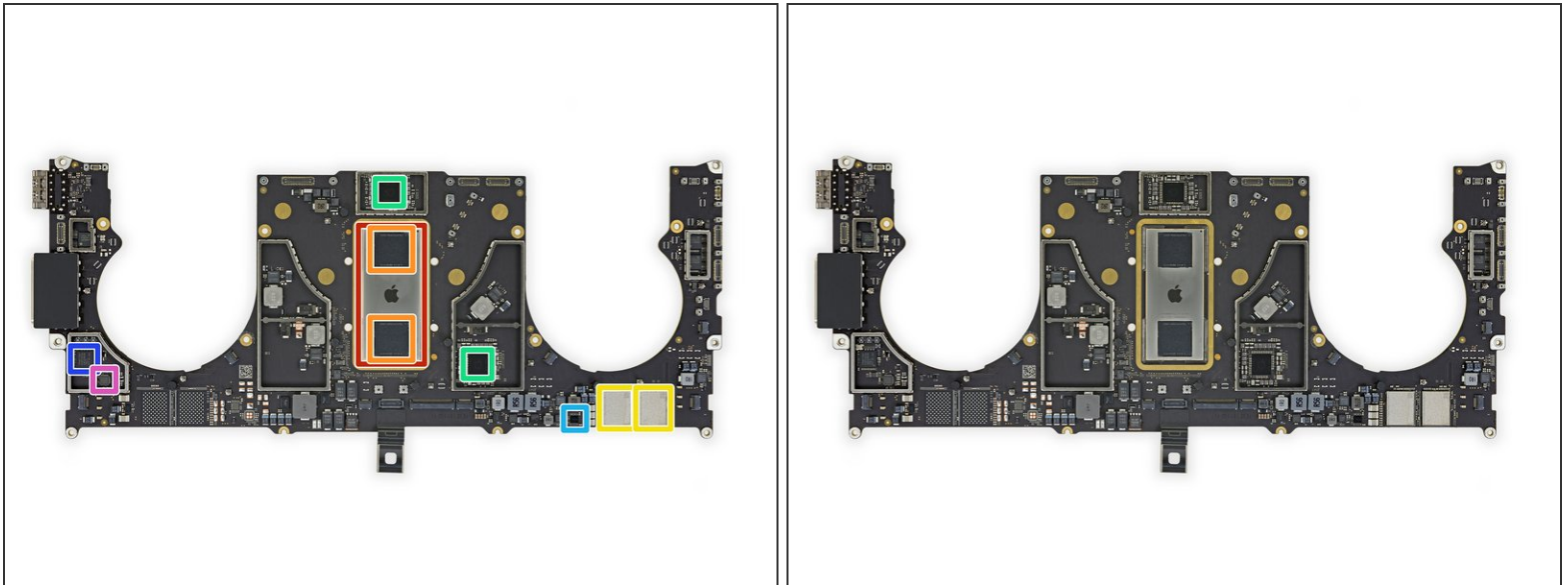


INTRODUCTION

Apple introduced its M1 Pro/Max processors in the [2021 MacBook Pros](#). How do these new in-house SoCs change the rest of the logic board's silicon? Check out this chip ID guide to find out!

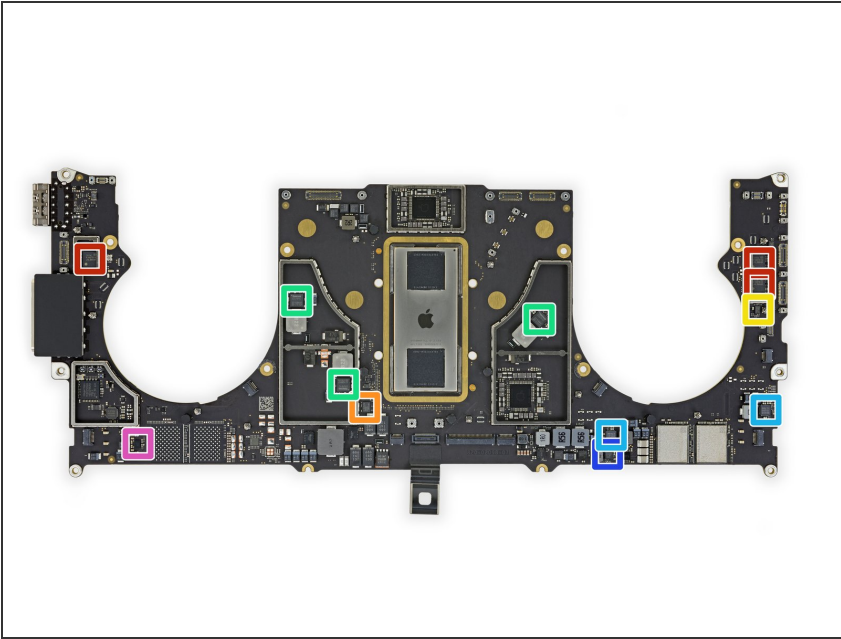
Hats off to our community member [C. Chin](#) for contributing to this!

Step 1 — Main Board Side 1



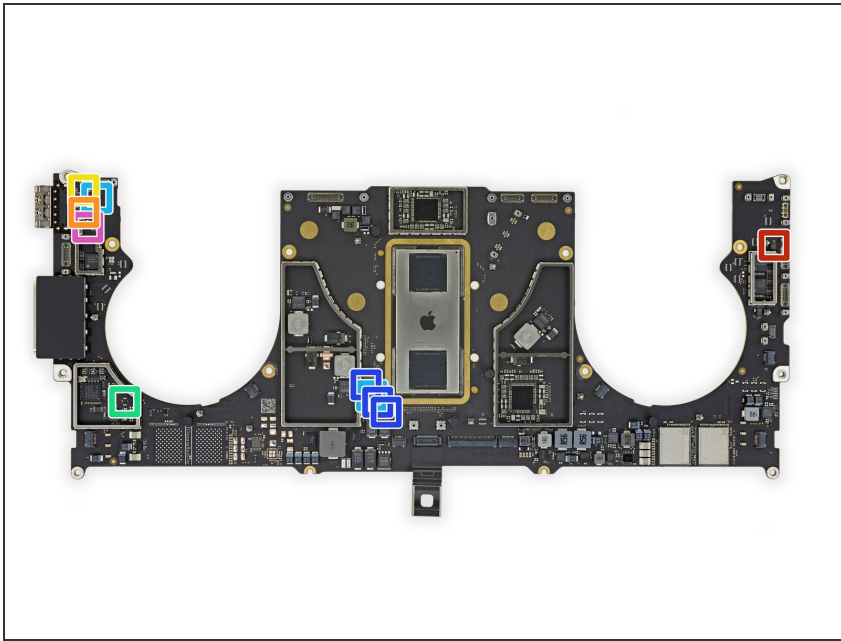
- IC Identification, pt. 1:
 - Apple [APL1103](#) M1 Pro system-on-a-chip (SoC)
 - Samsung K3LKYKY0EM-ZGCP 8 GB LPDDR5 SDRAM Memory (16 GB total)
 - Kioxia K1CM225UZ0460 128 GB NAND Flash Memory
 - Apple APL1098/343S00515 Power Management
 - Apple 338S00600 Power Management
 - Kinetic Technologies MCDP2920 DisplayPort-to-HDMI Converter
 - Genesys Logic [GL9755A](#) Card Reader Controller

Step 2



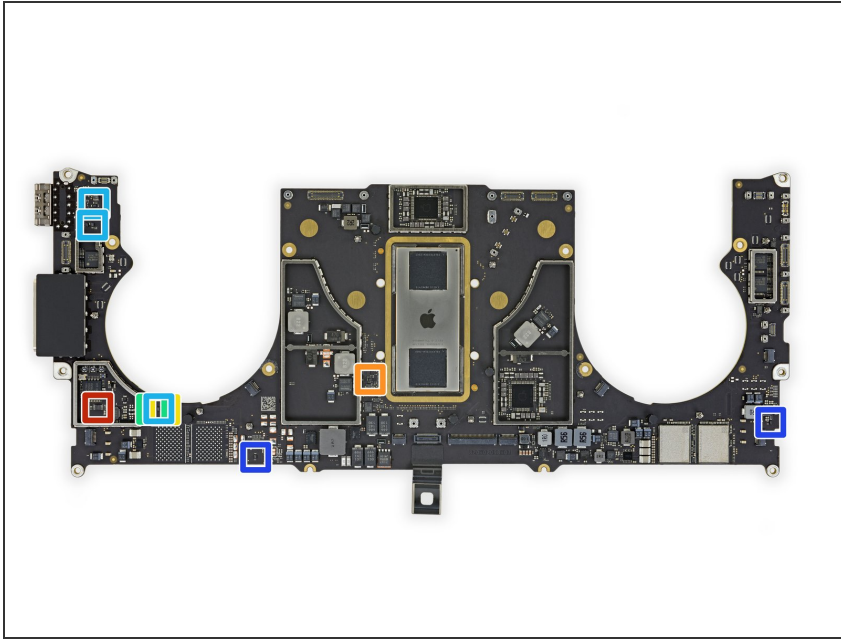
- IC Identification, pt. 2:
 - Intel [JHL8040R](#) Thunderbolt 4 Retimer
 - Macronix [MX25U6472F](#) 64 Mb Serial NOR Flash Memory
 - Winbond [W25Q80DVUXIE](#) 8 Mb Serial NOR Flash Memory
 - Renesas RAA225701C ? Synchronous Step-Down Converter
 - Analog Devices LT86422 Synchronous Step-Down Converter
 - Texas Instruments TPS62130B Step-Down Converter
 - Texas Instruments [TPS62180](#) 6 A Synchronous Buck Converter

Step 3



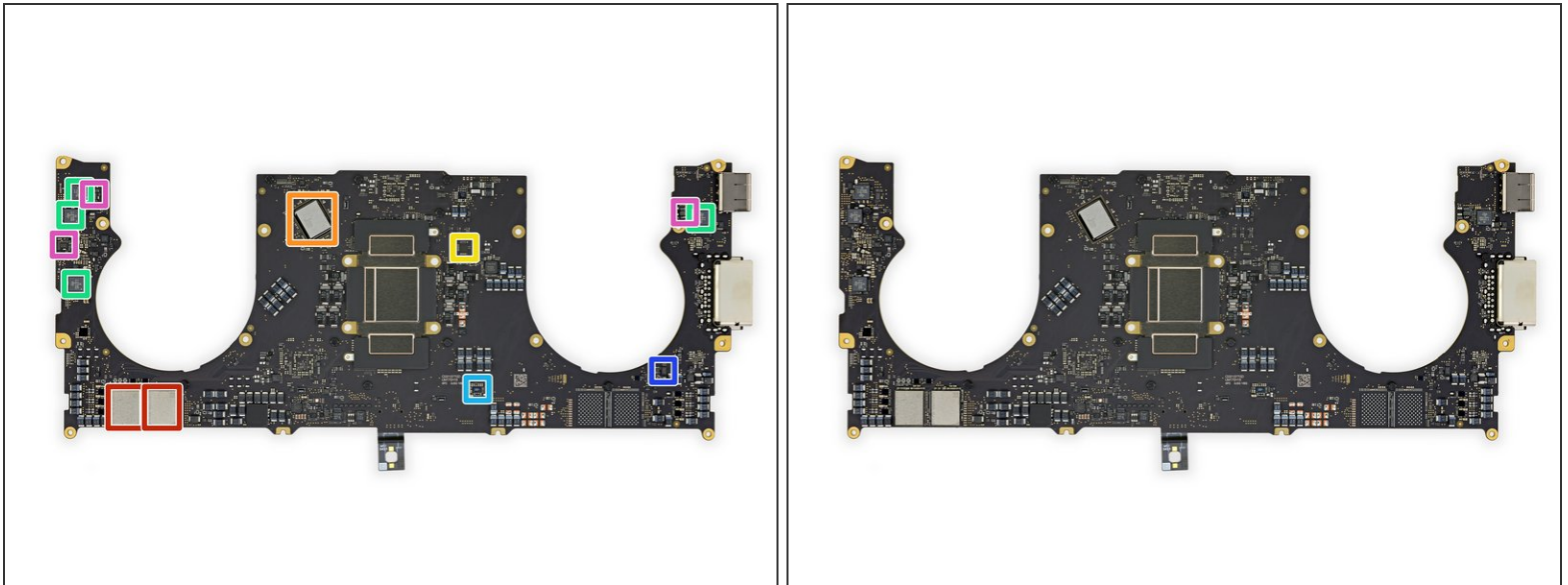
- IC Identification, pt. 3:
 - Texas Instruments [TVS2200](#) Surge Protection
 - ON Semiconductor [FPF2495CUCX](#) Load Switch
 - Texas Instruments Load Switch (likely)
 - ON Semiconductor [NCV8160AMX500TBG](#) 250 mA / 5.0 V LDO Regulator
 - Nexperia [74AVC2T45](#) Dual-Bit Voltage Level Translator/Transceiver
 - Texas Instruments [SN74AXC1T45](#) Single-Bit Bus Transceiver
 - Nexperia [74AUP1G07](#) Single Buffer

Step 4



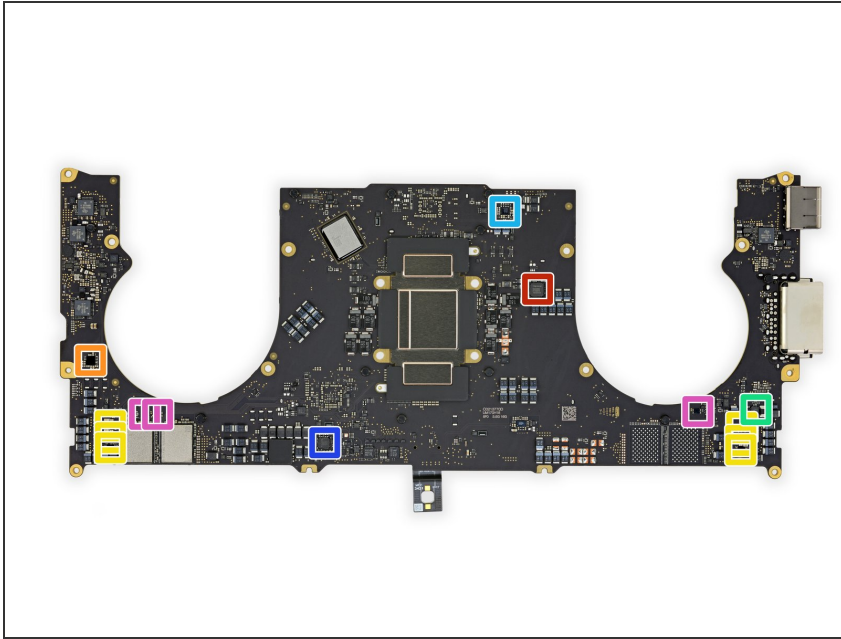
- IC Identification, pt. 4:
 - Texas Instruments [LSF0102](#) 2-Ch. Multi-Voltage Level Translator
 - Nexperia [LSF0101](#) 1-Bit Multi-Voltage Level Translator
 - Texas Instruments [SN74AUP2G07](#) Dual Buffer
 - Texas Instruments [SN74LVC1G07](#) Single Buffer
 - Nexperia [74AUP1G17](#) Schmitt Trigger
 - Nexperia [74AUP1G08](#) Single AND Gate

Step 5 — Main Board Side 2



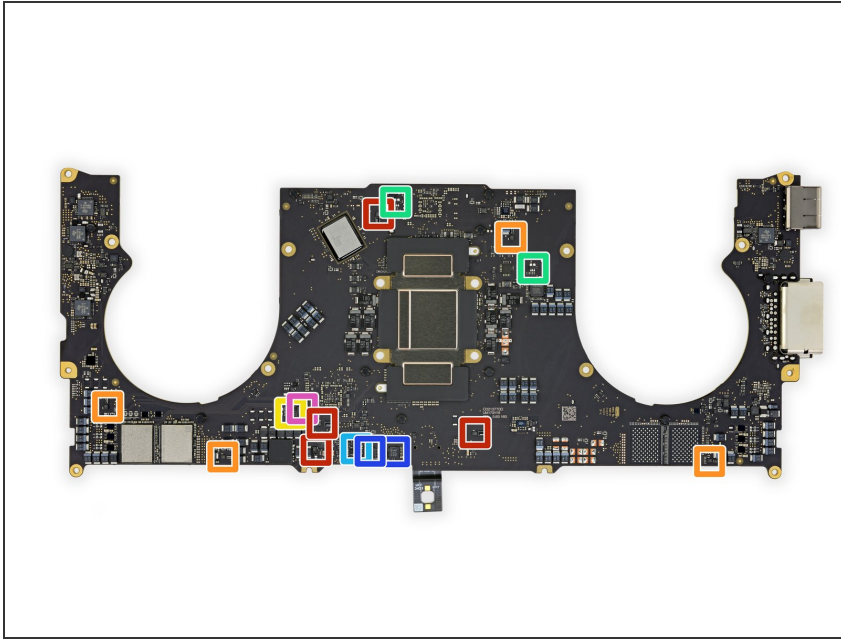
- IC Identification, pt. 1:
 - Kioxia K1CM225VF9081 128 GB NAND Flash Memory
 - USI 339S00912 Bluetooth/WiFi Module
 - NXP Semiconductor SN210V NFC Controller w/ Secure Element
 - Texas Instruments CD3217B12 USB Type-C Port/Power Delivery Controller
 - Renesas ISL9240 Li-Ion Battery Charger
 - Winbond [W25Q80EWUXIE](#) 8 Mb Serial NOR Flash Memory
 - Winbond [W25Q80DVUXIE](#) 8 Mb Serial NOR Flash Memory

Step 6



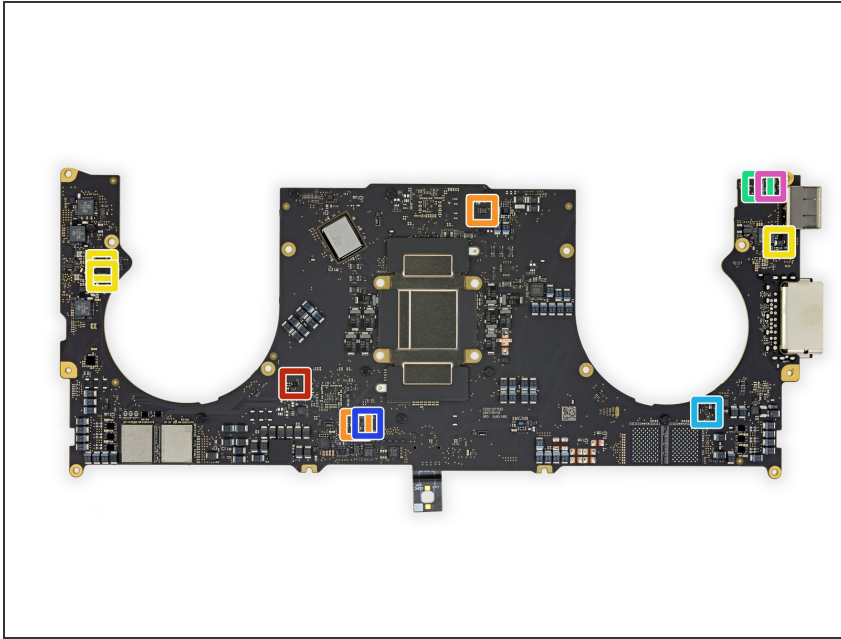
- IC Identification, pt. 2:
 - Renesas Power Phase PWM Controller
 - Cirrus Logic CS42L84A Audio Codec
 - Texas Instruments SN012776B0 Audio Amplifier
 - Texas Instruments TPS62130B Step-Down Converter
 - Renesas RAA209100 Boost Regulator (likely)
 - Texas Instruments LP8548B1 Backlight LED Driver
 - Texas Instruments [TUSB2E22](#) USB 2.0 Dual Repeater (likely)

Step 7



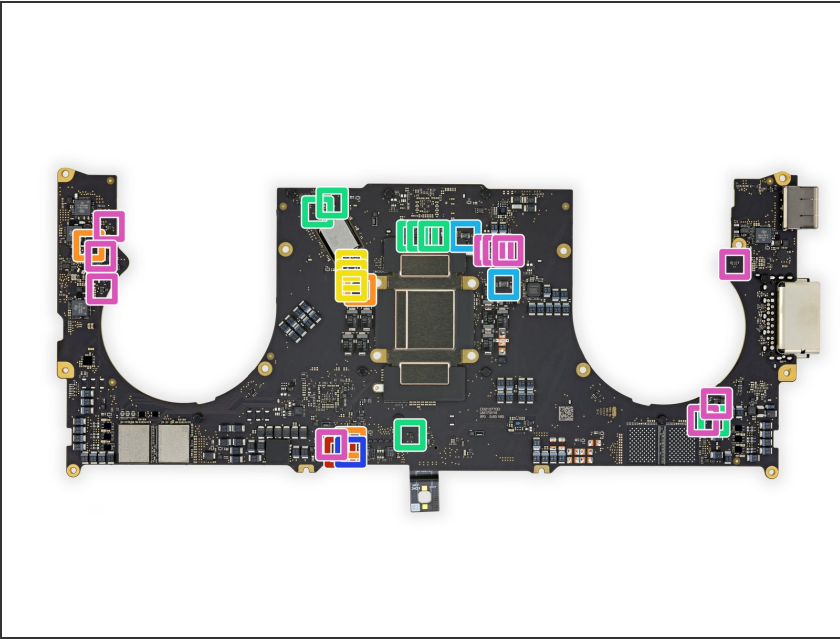
- IC Identification, pt. 3:
 - Texas Instruments [INA190A3](#) Current Sense Amplifier
 - Texas Instruments [INA190A4](#) Current Sense Amplifier
 - Maxim Integrated [MAX9620](#) 1.5 MHz Rail-to-Rail Input/Output Operational Amplifier
 - ON Semiconductor [NCS333ASQ3T2G](#) Single Operational Amplifier
 - Dialog Semiconductor Mixed Signal Array (likely)
 - NXP Semiconductor [PCAL6416A](#) 16-Bit I/O Expander
 - Analog Devices [ADG1422BCPZ](#) Dual SPST Analog Switch

Step 8



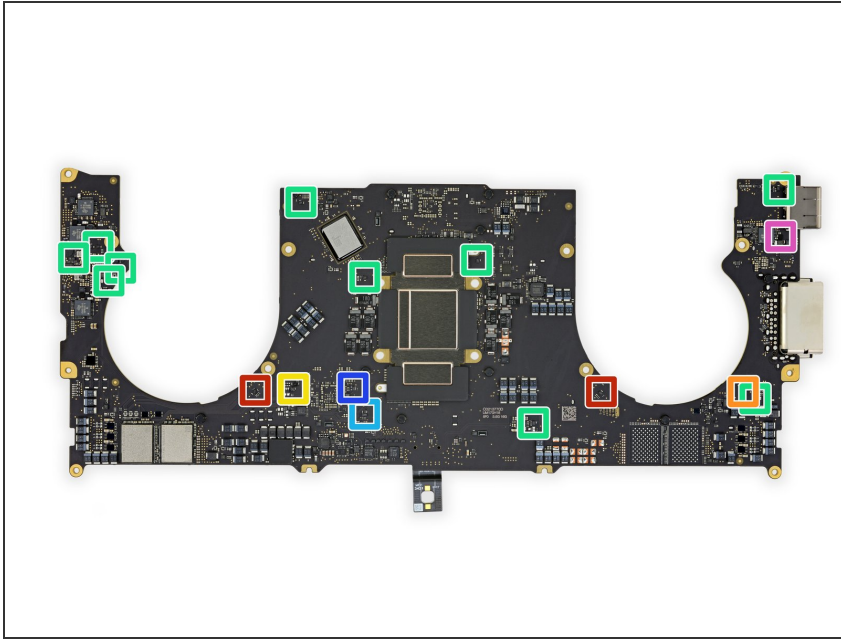
- IC Identification, pt. 4:
 - Texas Instruments [REF3325](#) 2.5 V Voltage Reference
 - Texas Instruments [TLV75801P](#) 500 mA / Adj. LDO Regulator
 - Texas Instruments [TLV75533P](#) 500 mA / 3.3 V LDO Regulator
 - Texas Instruments [LP5907SNX-3.0](#) 250 mA / 3.0 V LDO Regulator
 - ON Semiconductor [NCP163BMX180TBG](#) 250 mA / 1.8 V LDO Regulator (likely)
 - Texas Instruments [TLV70733P](#) 200 mA / 3.3 V LDO Regulator
 - Texas Instruments [TPS7A201825](#) 200 mA / 1.825 V LDO Regulator

Step 9



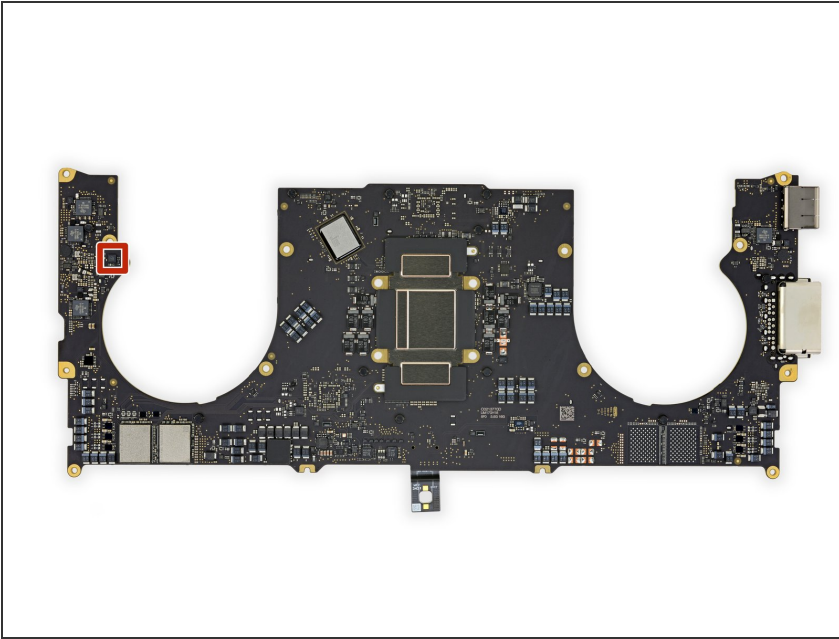
- IC Identification, pt. 5:
 - Nexperia [74AVC4T774](#) 4-Bit Translating Transceiver
 - Nexperia [74AUP1T45](#) Translating Transceiver
 - Texas Instruments [LSF0102](#) 2-Ch. Multi-Voltage Level Translator
 - Nexperia [LSF0101](#) Single-Bit Multi-Voltage Level Translator
 - Nexperia [74AVC2T45](#) Dual-Bit Voltage Level Translator/Transceiver
 - Texas Instruments [SN74AUP1T34](#) Single-Bit Voltage-Level Translator
 - Texas Instruments [SN74AXC1T45](#) Single-Bit Bus Transceiver

Step 10



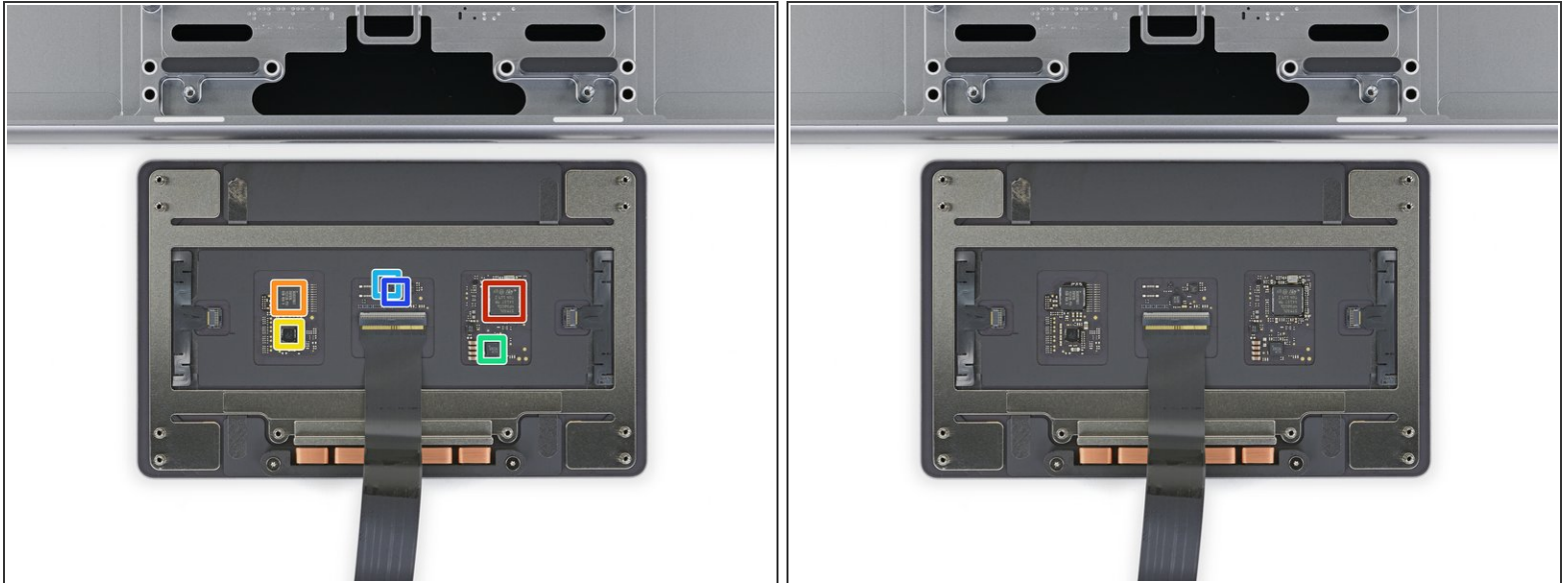
- IC Identification, pt. 6:
 - Nexperia [74AXP1T34](#) Buffer
 - Nexperia [74AUP2G07](#) Dual Buffer
 - Texas Instruments [SN74LVC1G07](#) Single Buffer
 - Nexperia [74AUP1G17](#) Schmitt Trigger
 - Nexperia [74LVC2G32](#) Dual OR Gate
 - Texas Instruments [SN74AUP1G32](#) Single OR Gate
 - Texas Instruments [TPD4S311A](#) USB Type-C Port Protector

Step 11



- IC Identification, Sensors:
 - Bosch Sensortec BMI282 6-Axis MEMS Accelerometer/Gyroscope

Step 12 — Touchpad



- IC Identification:
 - STMicroelectronics [STM32L4P5QG](#) 32-Bit ARM Cortex-M4 Microcontroller w/ 1 MB Flash
 - Broadcom BCM5976C1 Touchpad Controller
 - Maxim Integrated MAX11390A A/D Converter (likely)
 - Monolithic Power Systems [MP6519](#) 5A H-Bridge Current Regulator
 - Texas Instruments [TPS3831G18](#) 1.67V Voltage Supply Monitor
 - Texas Instruments [TPS22915](#) Load Switch

Step 13



- IC Identification, Sensors:
 - Bosch Sensortec BMA282 3-Axis Accelerometer
 - Texas Instruments [TMP461](#) Temperature Sensor

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