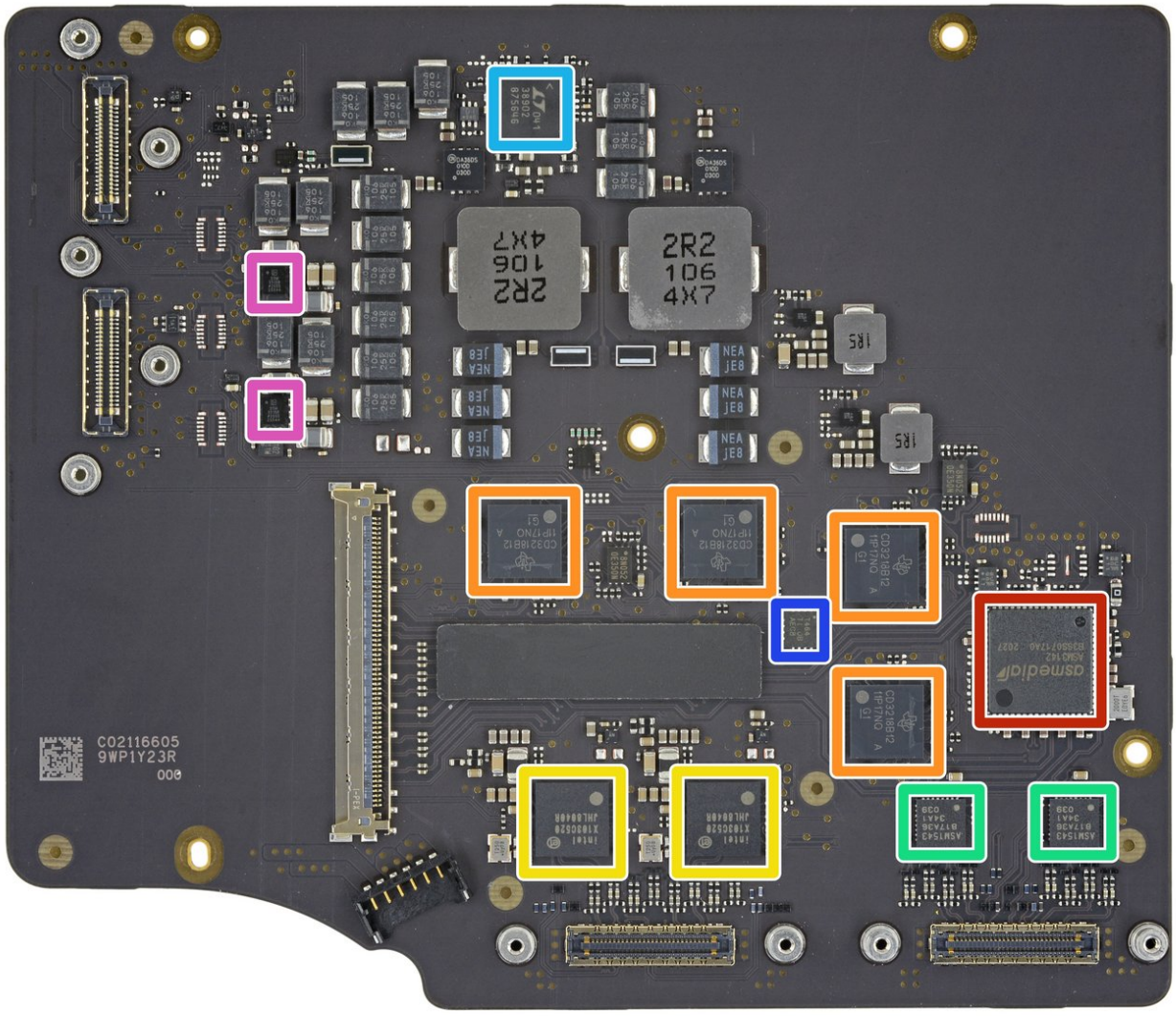
iMac M1 24" Full Chip ID

Full reference guide for iMac M1 24" board chips, including logic board, interconnect board, and display board.

Written By: Craig Lloyd



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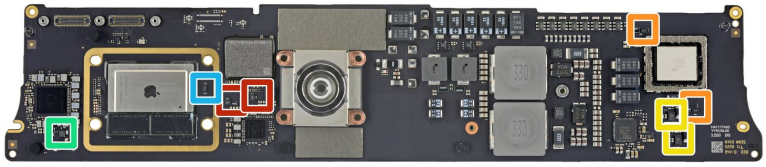
INTRODUCTION

We couldn’t squeeze every last ounce of chip ID into our iMac M1 24” teardown. So if you couldn’t get enough of that sweet silicon, here is a much more thorough look into the chips found on the logic board, interconnect board, and display board.

Step 1 — iMac M1 24" Full Chip ID

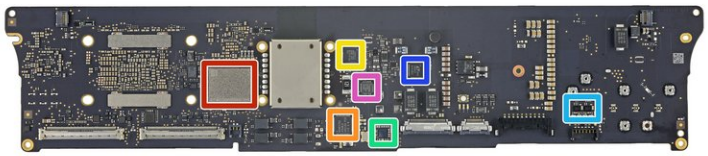
- Back side of the logic board:
  - Apple APL1102/339S00817 64-bit M1 8-core SoC (system on a chip).
  - SK hynix H9HCNNNCRMMVGR-NEH 8 GB (2 x 4 GB) LPDDR4 SDRAM memory
  - Kioxia KICM225VE4779 128 GB NAND Flash
  - Murata 339S00763 Wi-Fi/Bluetooth module
  - Apple APL1096/343S00474 power management IC
  - Apple APL1097/343S00475 power management IC
  - Richtek RT4541GQV power management IC

Step 2



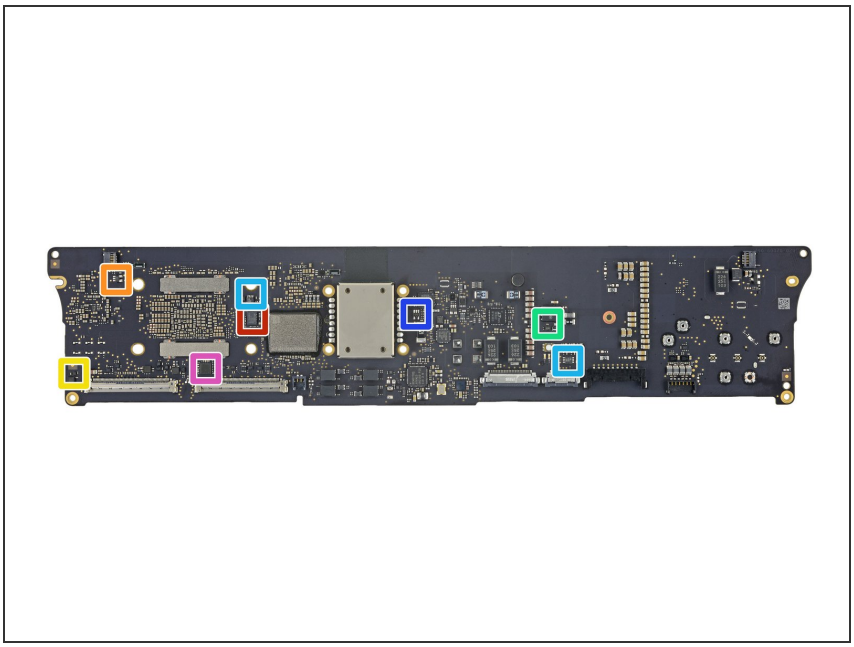
- Back side of the logic board, continued:
  - Texas Instruments INA210 bi-directional current sense amplifier
  - Texas Instruments INA214 bi-directional current sense amplifier
  - Texas Instruments TPS62137 DC-DC converter
  - Dialog Semiconductor (formerly Silego) SLG59M301V 4-amp load switch
  - Texas Instruments SN74AVC4T234 4-bit bus transceiver

Step 3



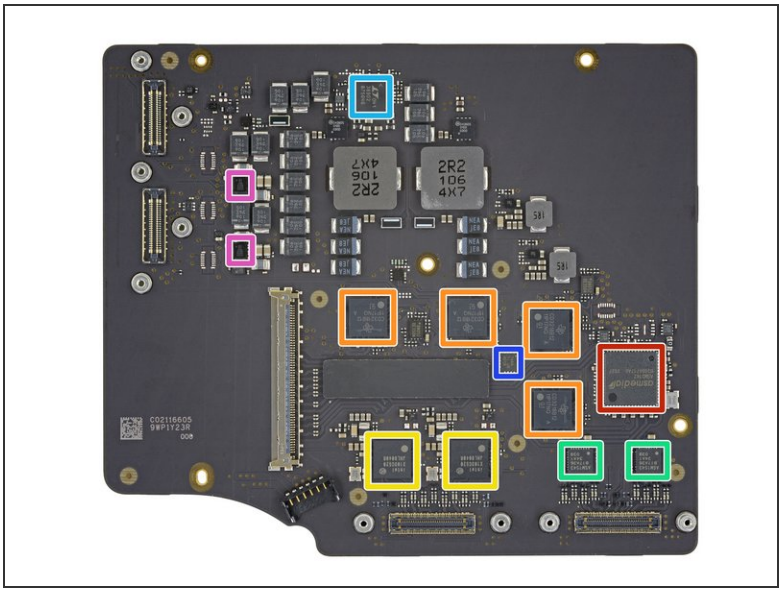
- Front side of the logic board:
  - Kioxia KICM225VE4779 128 GB NAND Flash
  - Broadcom BCM57762 ethernet controller
  - Infineon (formerly Cypress Semiconductor) CYPDC1185B2-32LQXQ USB-C cable controller
  - Cirrus Logic CS42L83A audio codec
  - Analog Devices SSM3515B 31-watt class-D audio amplifier
  - Analog Devices (formerly Linear Technology) LTC3890-2 two-phase synchronous step-down converter
  - Texas Instruments TPS259827ON 15-amp eFuse with load current monitoring and transient fault management

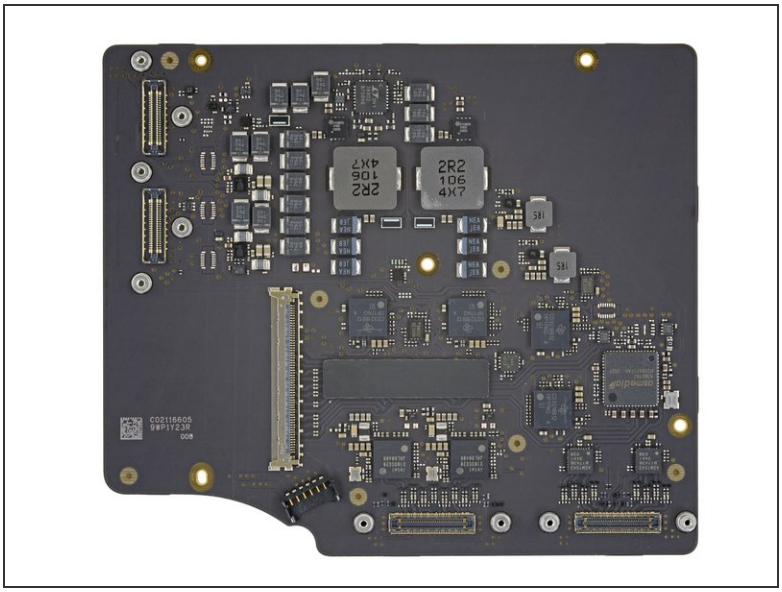
Step 4



- Front side of logic board, continued:
  - Macronix MX25U6472F 64 MB serial NOR flash memory
  - Texas Instruments OPA333 single zero-drift CMOS operational amplifier
  - Temperature sensor (likely)
  - Texas Instruments INA210 bi-directional current sense amplifier
  - Nexperia (formerly NXP Semiconductor) 74AVC2T45 2-bit dual-supply voltage level translator/transceiver
  - Texas Instruments SN74AHC1G32 single 2-input OR gate
  - NXP Semiconductor SN210V NFC controller with secure element

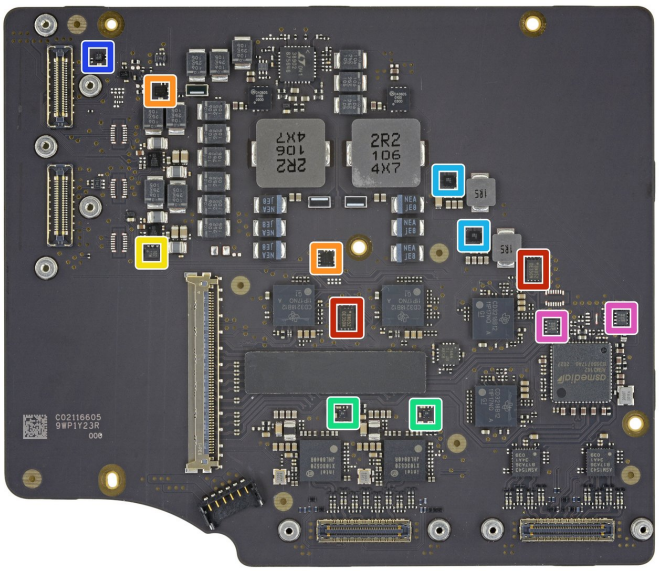
Step 5





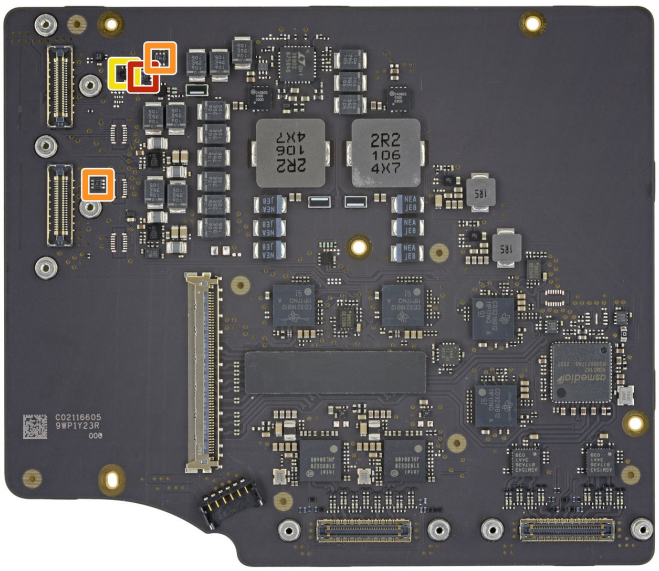
- Interconnect board:
  - ASMedia ASM3142 PCIe-to-USB 3.1 Gen 2 controller
  - Texas Instruments CD3218B12 USB-C port/power delivery controller
  - Intel JHL8040R Thunderbolt 4 retimer
  - ASMedia ASM1543 10 Gbps 4:2 mux switch with USB 3.1 type-C compatibility
  - Analog Devices (formerly Linear Technology) LTC3890-2 two-phase synchronous step-down converter
  - Texas Instruments TMP464 five-channel temperature sensor
  - Analog Devices SSM3515B 31-watt class-D audio amplifier

Step 6



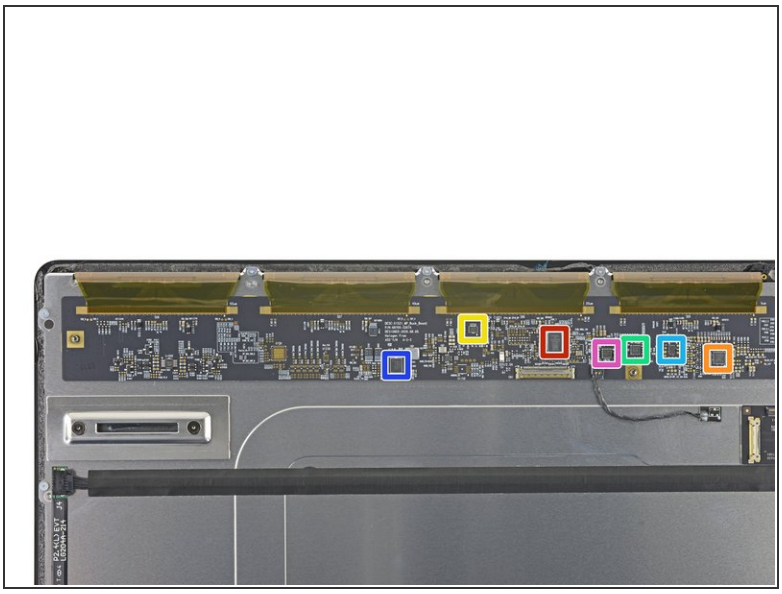
- Interconnect board, continued:
  - Winbond W25Q80DVUXIE 8 MB serial NOR flash memory
  - Texas Instruments INA231BIYFD 16-bit current/voltage/power monitor
  - Texas Instruments TMUX1108 1-channel analog multiplexer (likely)
  - Texas Instruments TLV75533P 500 mA LDO regulator
  - Maxim Integrated DC-DC converter
  - Nexperia (formerly NXP Semiconductor) 74AUP1G09 single AND gate
  - Dialog Semiconductor (formerly Silego) SLG59M301V 4-amp load switch

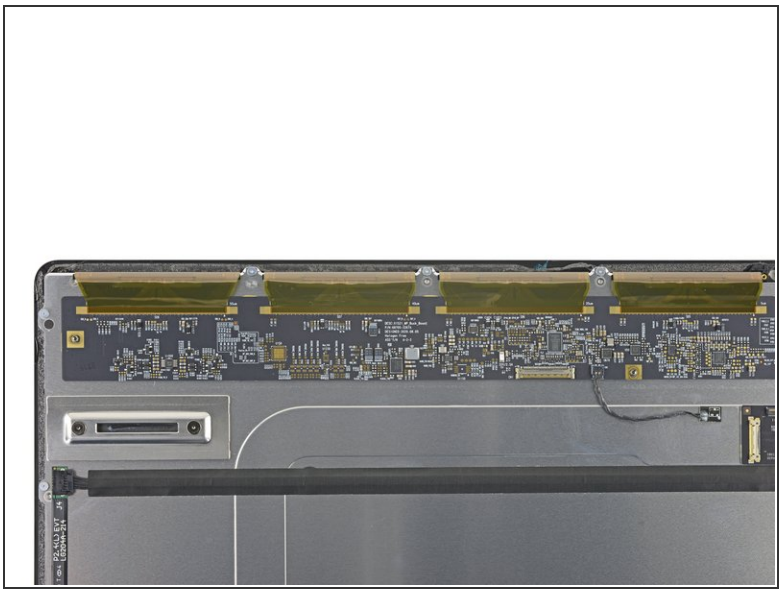
Step 7



- Interconnect board, continued:
  - Nexperia (formerly NXP Semiconductor) LSF0101 1-bit bidirectional multi-voltage level translator
  - Texas Instruments SN74AXC1T45 dual-supply bus transceiver
  - Texas Instruments SN74AUP1G17 Schmitt trigger (likely)

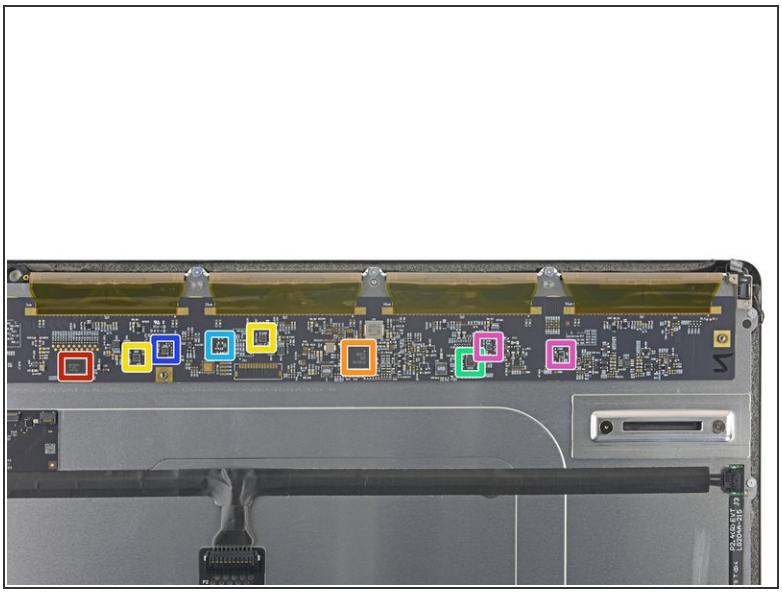
Step 8

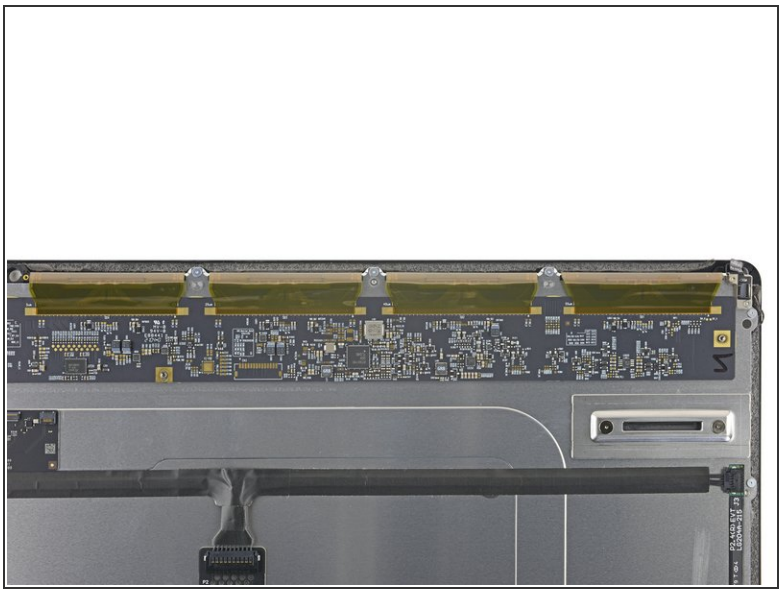




- Left side of the display board:
  - Parade Technologies DP855A DisplayPort timing controller
  - Silicon Works SW50024 LCD level shifter
  - Winbond W25Q40EWUXIE 4 MB serial NOR flash memory
  - Texas Instruments TMP468 9-channel temperature sensor
  - Dialog Semiconductor (formerly Silego) SLG46826 mixed signal array
  - Analog Devices (formerly Linear Technology) LTC3115-1 2-amp synchronous buck converter
  - Texas Instruments TPS62140 2-amp step-down converter

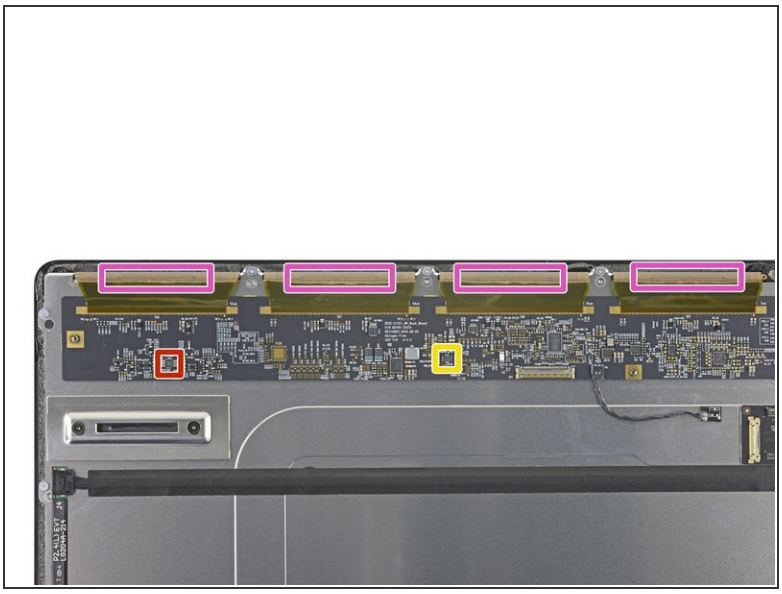
Step 9

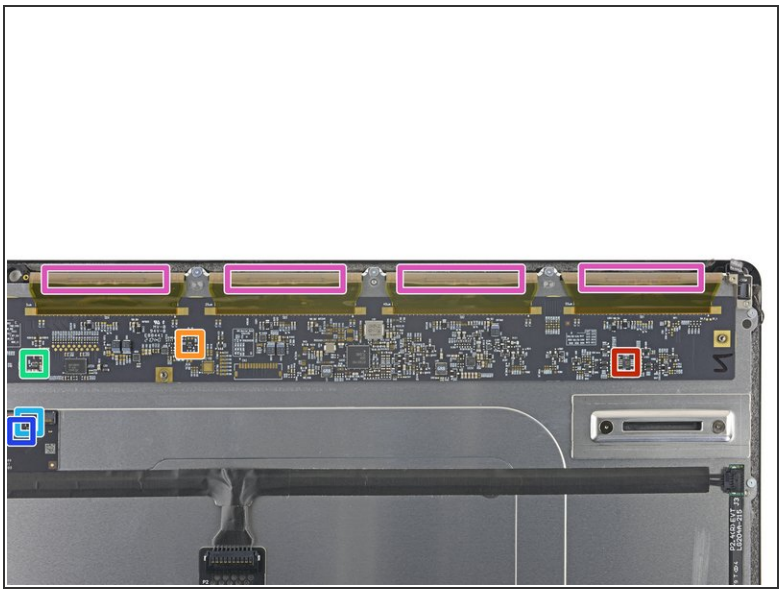




- Right side of the display board:
  - Texas Instruments BUF18830 18-channel gamma-voltage generator
  - Richtek RT6811HGQV display power management
  - Texas Instruments TPS259571 eFuse with over-voltage protection
  - Texas Instruments TPS26621 800 mA eFuse with I/O reverse polarity protection
  - Texas Instruments 2N7001T 1-bit dual-supply buffered voltage signal converter
  - Texas Instruments TLV76701 1-amp LDO Regulator
  - Texas Instruments SN74LVC1G04 single inverter

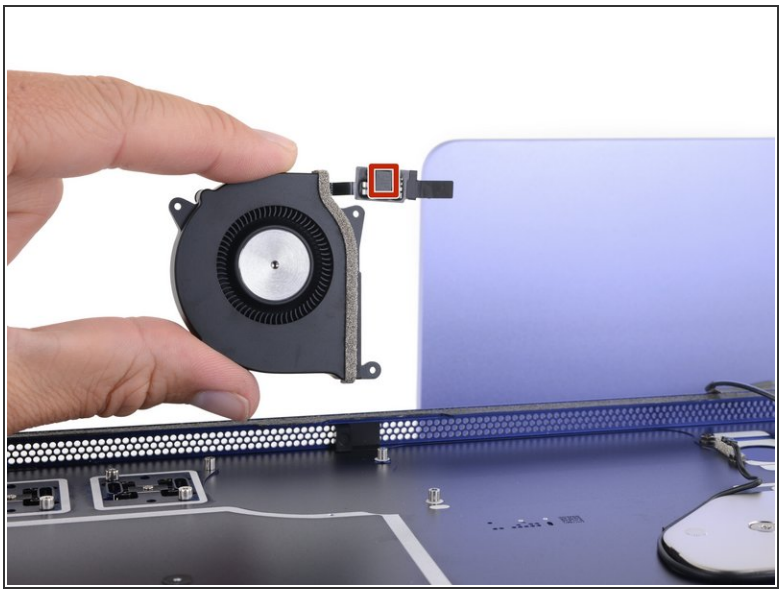
Step 10





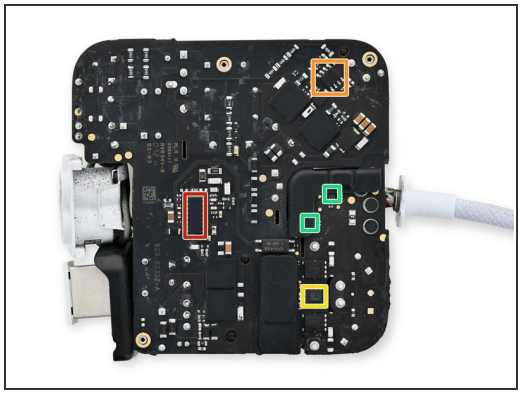
- Left and right side of the display board, continued:
  - Texas Instruments OPA2810 dual rail-to-rail I/O operational amplifier
  - ON Semiconductor analog switch
  - Texas Instruments TPS62137 DC-DC converter
  - Dialog Semiconductor load switch (likely)
  - Texas Instruments microcontroller (likely)
  - Texas Instruments regulator (likely)
  - Display drivers

Step 11



- Texas Instruments DRV10975 BLDC motor driver

Step 12



- A partial list of chips on the power supply board:
  - NXP Semiconductor TEA19161T digital power supply controller
  - NXP Semiconductor TEA19162T power factor correction controller
  - NXP Semiconductor TEA2095TE dual synchronous rectifier switching controller
  - Texas Instruments OPA333 single zero-drift CMOS operational amplifier

