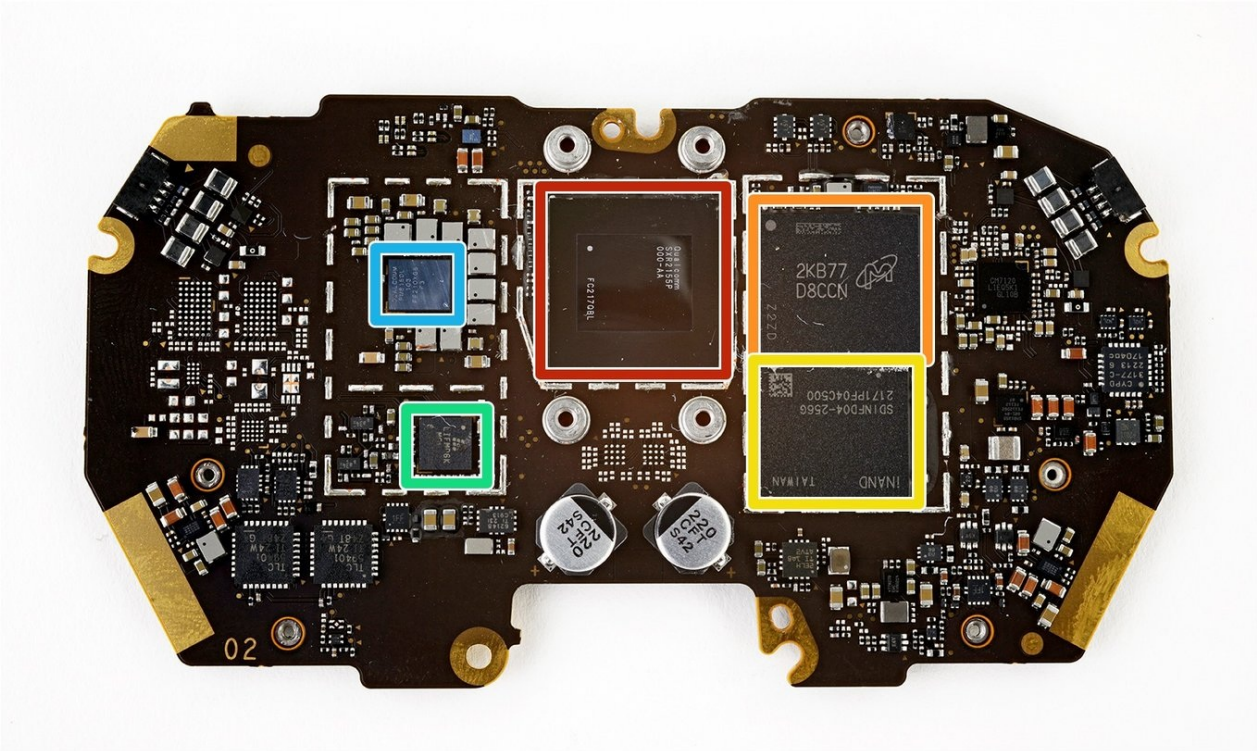
Meta Quest Pro Chip ID

Here's a chip identification summary for the...

Written By: Shahram Mokhtari



INTRODUCTION

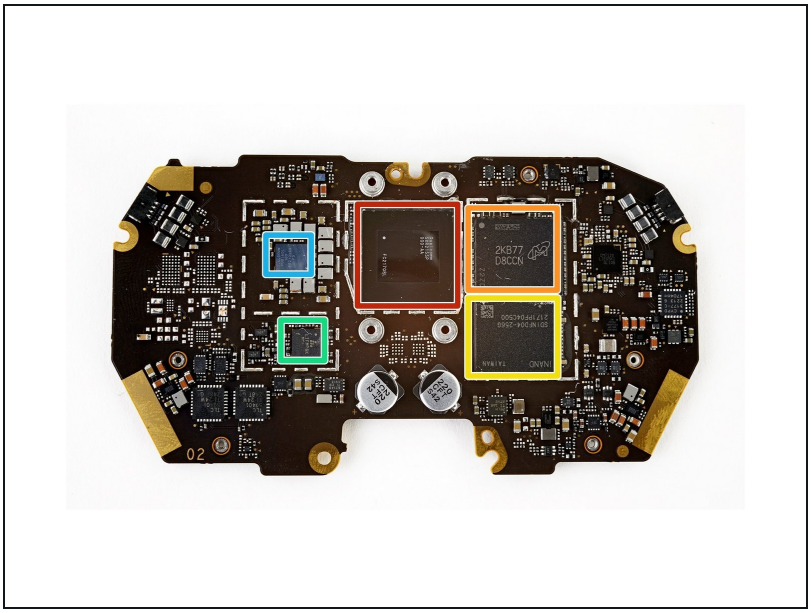
Here's a chip identification summary for the Meta Quest Pro headset and controller.

Check out our Meta Quest Pro teardown for more details.

Special thanks to community member CChin for his contribution!

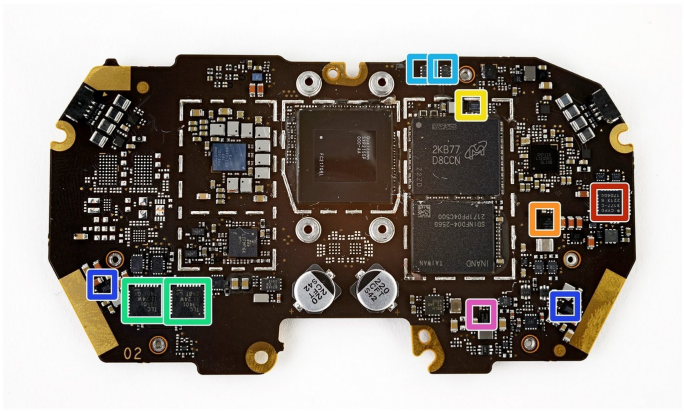
[video: https://www.youtube.com/watch?v=LDUJLnrCgow]

Step 1 — Headset Mainboard Side A



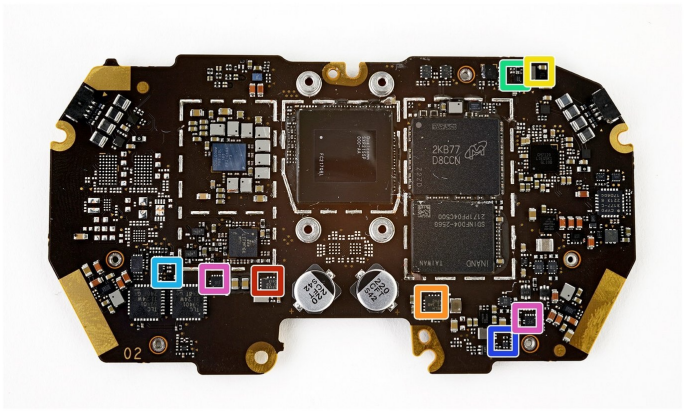
- Qualcomm SXR2155P Snapdragon XR2+ Applications Processor
- Micron MT62F1536M64D8CL-026 WT:B 12 GB LPDDR5 SDRAM Memory
- Western Digital SDINFDO4-256G 256 GB NAND Flash Memory (UFS)
- Lattice Semiconductor LIF-MD6000-6 CrossLink FPGA
- Qualcomm PM8150L Power Management
- Cmedia CM7120 Audio DSP & CODEC Hub
- Analog Devices MAX98360AENL 3.2 W Mono Class-D Audio Amplifier

Step 2



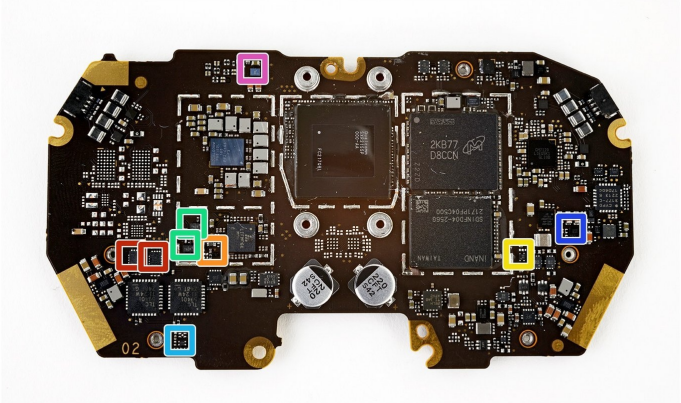
- Infineon CYPD3177 USB Type-C Port Controller
- Qualcomm SMB1355 Li-Ion Battery Charger w/ Quick Charge 2.0/3.0/5.0
- Qualcomm PM3003A Power Management
- Texas Instruments TLC59401 16-Ch. LED Driver
- Texas Instruments TS3USB221 USB 2.0 SPDT Analog Switch
- Awinic AW37504CSR ? Dual Output Power Supply
- Analog Devices MAX77827B 1.6 A Buck Boost Converter

Step 3



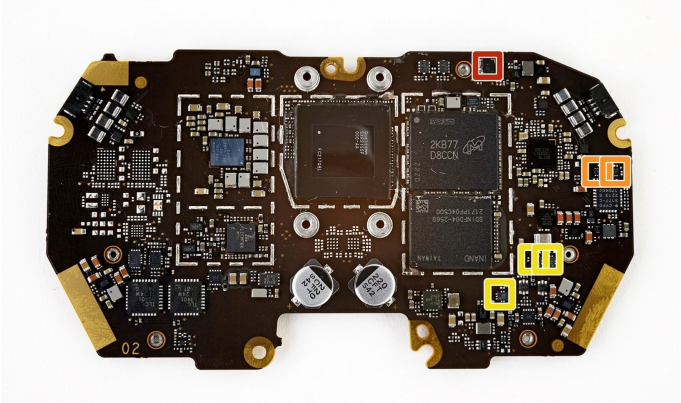
- Texas Instruments TPS62148 2.0 A step-down converter
- Texas Instruments TPS61378-Q1 4.8 A synchronous boost converter
- SG Micro SGM66056 2.2 MHz synchronous boost converter
- OmniVision WS4694C 28 V over-voltage & over-current protection load switch
- SG Micro SGM2578AAD 2 A load switch
- Texas Instruments TLV7031 single comparator
- Texas Instruments TLV9054 quad 5-MHz rail-to-rail operational amplifier

Step 4



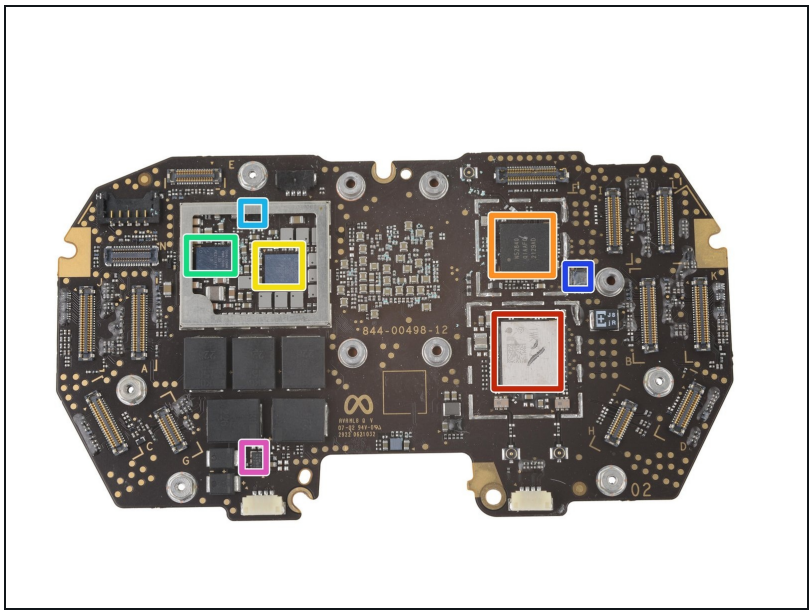
- SG Micro SGM4T245 4-Bit Bus Transceiver
- SG Micro SGM2045-1.20 300 mA / 1.2 V LDO regulator
- SG Micro SGM2045-3.00 300 mA / 3.00 V LDO regulator
- Nexperia 74AUP3G34 triple buffer
- Nexperia 74LVC1G07 single buffer
- NXP Semiconductor NX30P0121UK 3 A over-voltage protection
- Awinic AW32710CSR over-voltage protection load switch

Step 5



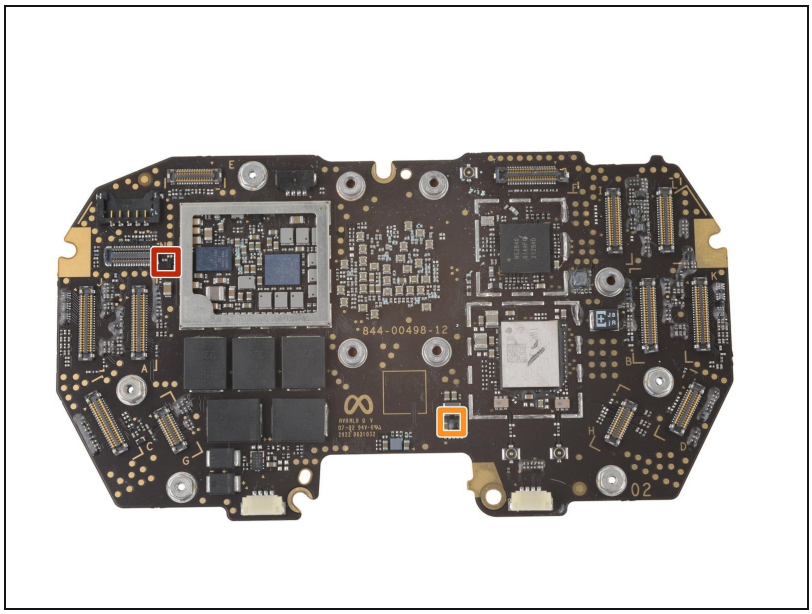
- onsemi FSA4480UCX USB Type-C analog switch
- SG Micro SGM4553 2-bit bidirectional voltage-level translator
- OmniVision DPDT analog switch (possibly)

Step 6 — Headset Mainboard Side B



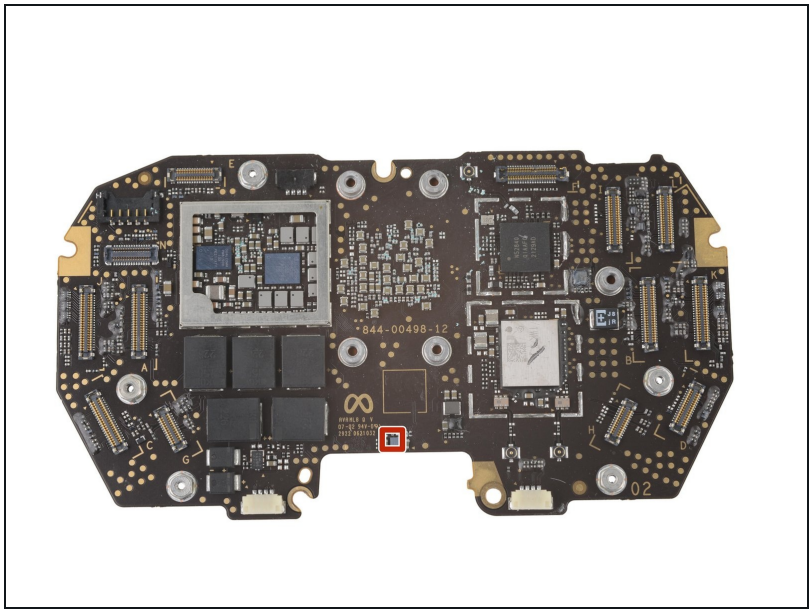
- Murata LBEE5xx1WK ? type 1WK Bluetooth/WiFi module
- Nordic Semiconductor nRF52840 Bluetooth 5.3 low-energy SoC
- Qualcomm PM8250 power management
- Qualcomm PM8150B power management
- Qualcomm PMK8002 ? clock generator
- Texas Instruments TCA6418E 18-bit I/O expander
- Renesas SLG59M1717V 5 A load switch

Step 7



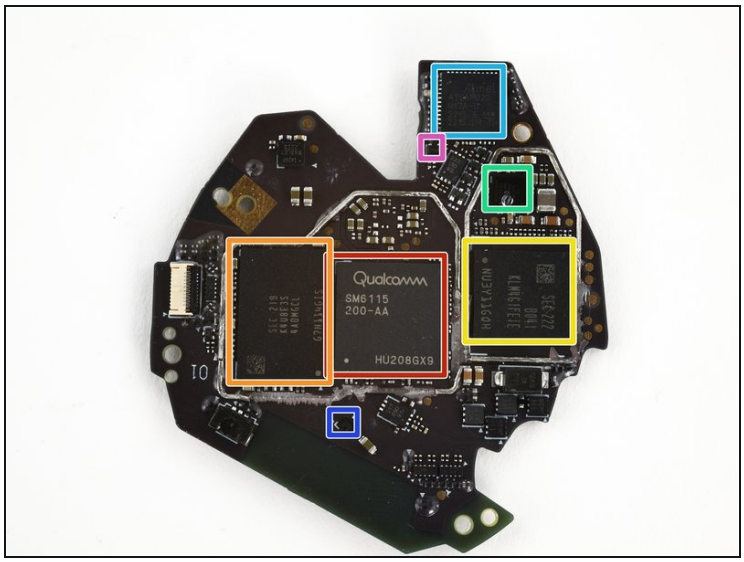
- Likely Texas Instruments LP5907UVE-1.2 250 mA / 1.2 V LDO regulator
- DC-DC converter

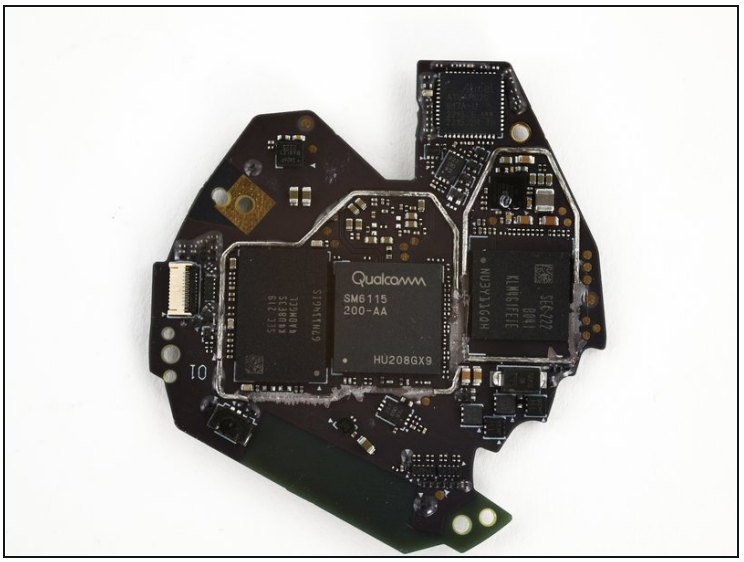
Step 8 — Headset Mainboard Side B - Sensors



- Bosch Sensortec BMM150 3-axis magnetometer

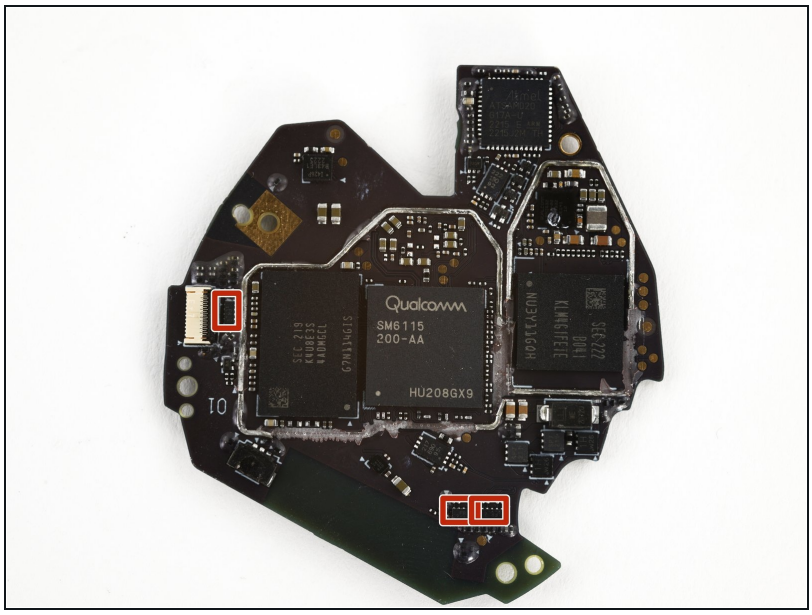
Step 9 — Controller Mainboard Side A





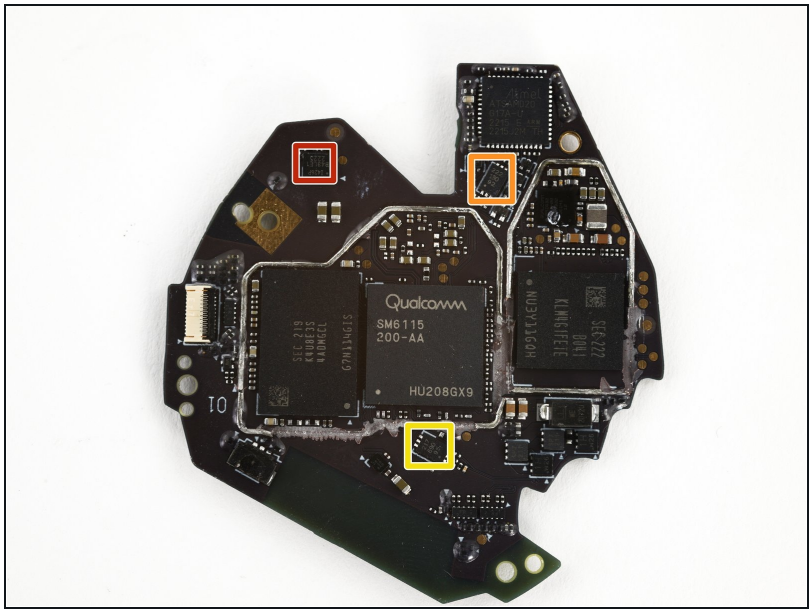
- Qualcomm SM6115 Snapdragon 662 Octa-Core applications/baseband processor
- Samsung K4U8E3S4AD-MGCL 1 GB LPDDR4X SDRAM memory
- Samsung KLM4G1FETE-B041 4 GB eMMC NAND flash memory
- Qualcomm PMI632 power management
- Microchip ATSAMD20G17 32-bit microcontroller
- Renesas DA7281 haptic driver
- Texas Instruments SN74AUC1G32 single 2-input OR gate

Step 10



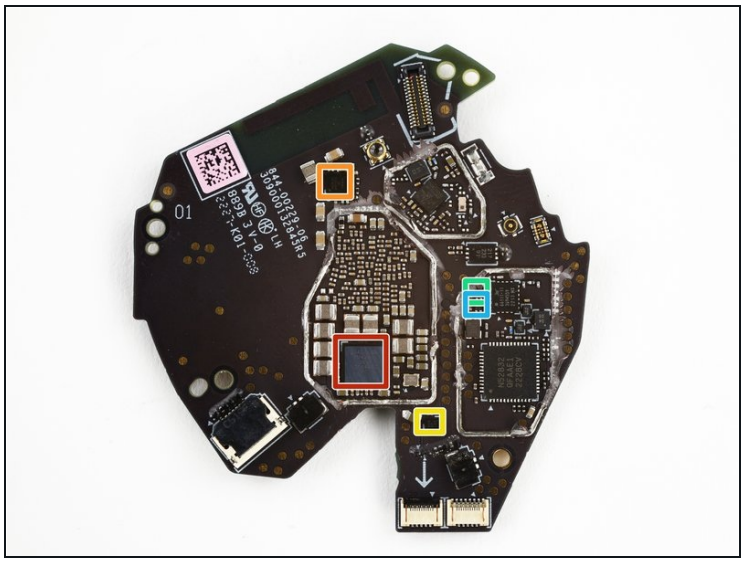
- Nexperia PUSB3FR4 4 ch. ESD protection

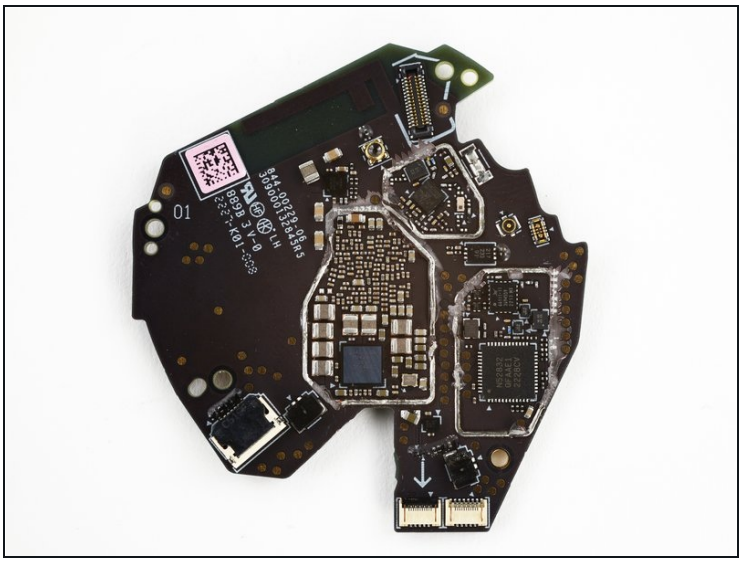
Step 11 — Controller Mainboard Side A - Sensors



- TDK-InvenSense ICM-42686-P 6-axis accelerometer & gyroscope
- Allegro MicroSystems A1392 hall effect sensor
- Allegro MicroSystems A1395 hall effect sensor

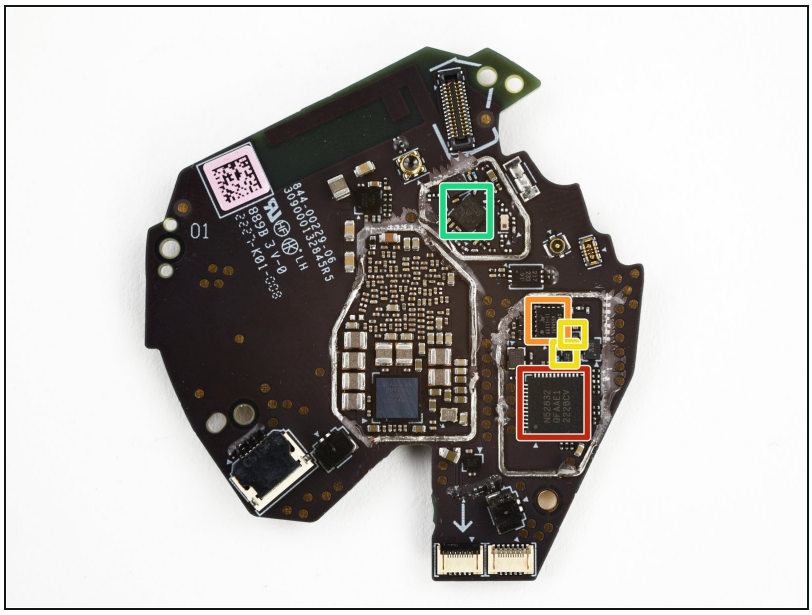
Step 12 — Controller Mainboard Side B





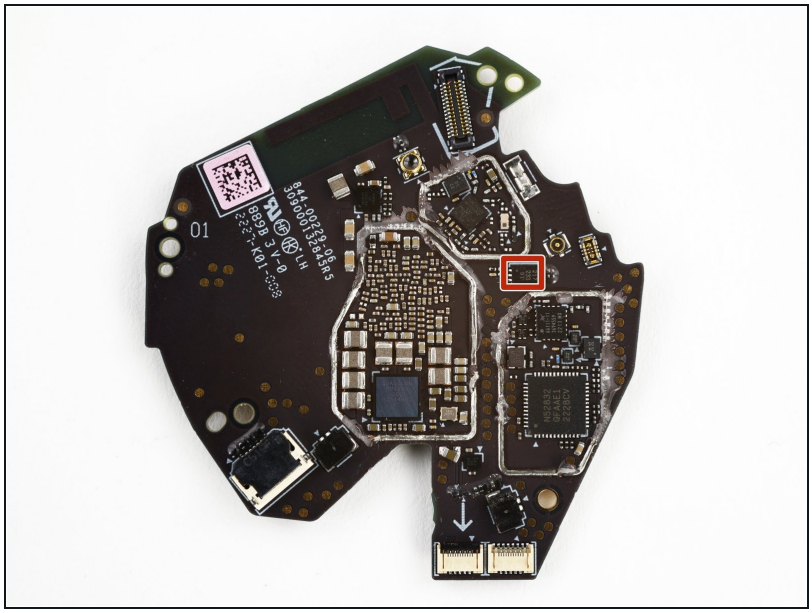
- Qualcomm PM4250 power management
- Cirrus Logic CS40L25 haptic driver
- Renesas DA7281 haptic driver
- Nexperia 74LV1T34 single translating buffer
- Nexperia 74LV1T04 single translating inverter

Step 13 — Controller Mainboard Side B - Radio



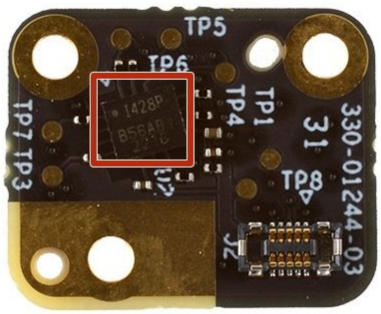
- Nordic Semiconductor nRF52832 Bluetooth Low-Energy 5.3 SoC
- Skyworks SKY66111-11 Bluetooth Low Energy front-end module
- Probably Qorvo QPC8019Q DPDT RF switch
- Qualcomm WCN3950 WLAN 802.11a/b/g/n/ac, Bluetooth 5.0, & FM radio

Step 14 — Controller Mainboard Side B - Sensors



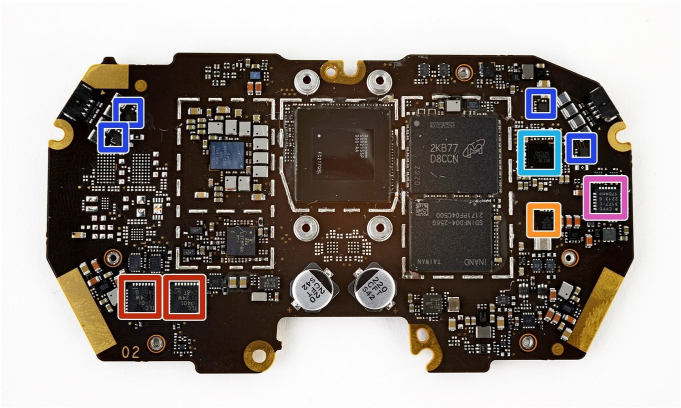
- Allegro MicroSystems A1391 hall effect sensor

Step 15 — Console Accelerometer Board



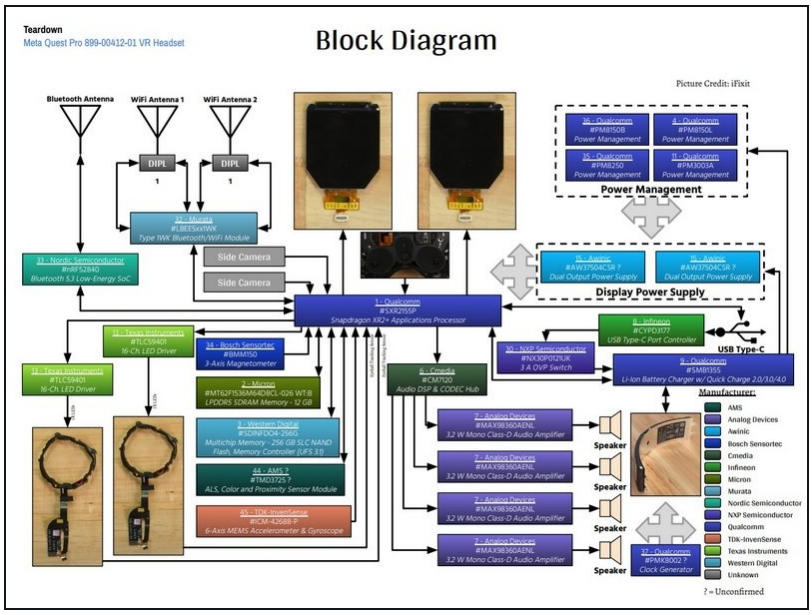
- TDK-InvenSense ICM-42688-P 6-axis MEMS accelerometer & gyroscope

Step 16 — Headset Mainboard Side B



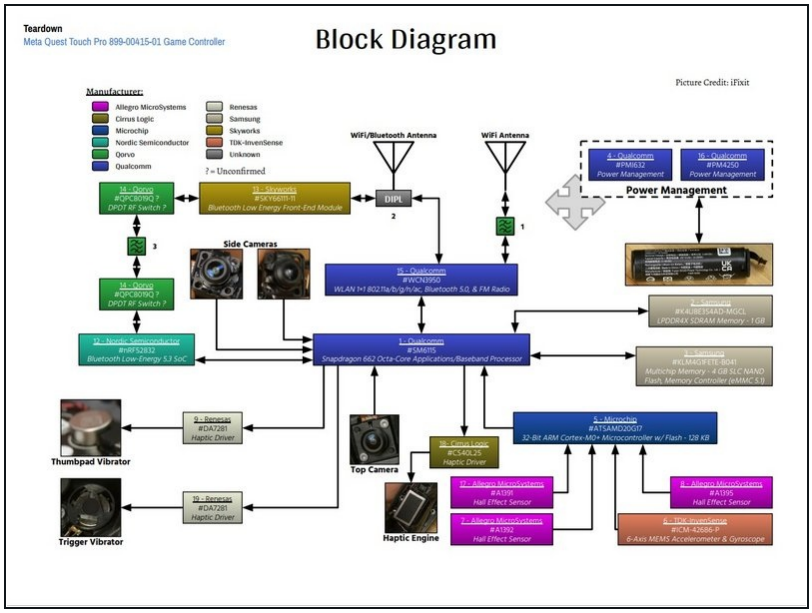
- Cmedia CM7120 Audio DSP & CODEC Hub
- Analog Devices MAX98360A Class-D Audio Amplifier
- Qualcomm SMB1355 Battery Charger
- Infineon CYPD3177 USB Type-C Port Controller
- Texas Instruments TLC59401 16-Ch. LED Driver

Step 17 — Headset Block Diagram



ⓘ Predicted block diagram primarily based on available datasheets and observed implementation in product.

Step 18 — Controller Block Diagram



ⓘ Predicted block diagram primarily based on available datasheets and observed implementation in product.

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