

PIN DESCRIPTION

| NO. | Pin Name | I/O | Description |
|-----|-----------|-----|--|
| 1 | VBAT | P | Battery Voltage 3.8V TYP. (2.9-4.5V) |
| 2 | VCC | P | Power supply for display driver IC analog system. |
| 3 | IOVCC | P | Power supply for display driver IC interface and logic system |
| 4 | PWR_EN | I | Power IC enable control pin. Unused, please open this pin. |
| 5 | SPI_CS | I | Chip select input pin ("Low" enable) |
| 6 | SPI_CLK | I | SCL: A synchronous clock signal in SPI I/F. |
| 7 | SIO0 | I/O | Serial Data input & output in QSPI data Lane 0 |
| 8 | DCX /Q-S1 | I | Serial Data Input in QSPI data Lane 1; Display data / command selection in 4-wire SPI I/F. D/Cx = "0": Command D/Cx = "1": Display data or Parameter if not used, please connect to VSS. |
| 9 | Q-S2 | I | Serial Data Input in QSPI data Lane 2 |
| 10 | Q-S3 | I | Serial Data Input in QSPI data Lane 3 |
| 11 | SPI_RESET | I | Display driver reset, must be applied to properly initialize the chip. Signal is active low. |
| 12 | TP_RESET | I | TP driver reset. Signal is active low. |
| 13 | TP-SCL | I | Touch Panel Clock Input. Communication Voltage follow IOVCC. If not used, please open this pin. |
| 14 | TP_SDA | I/O | Touch Panel Data Input and output. Communication Voltage follow IOVCC. If not used, please open this pin. |
| 15 | TP-INT | O | Touch Panel Interrupt Output. If not used, please open this pin. |
| 16 | IM1 | I | Display Interface type selection; |
| 17 | TE | O | Tearing Effect |
| 18 | GND | P | Ground |



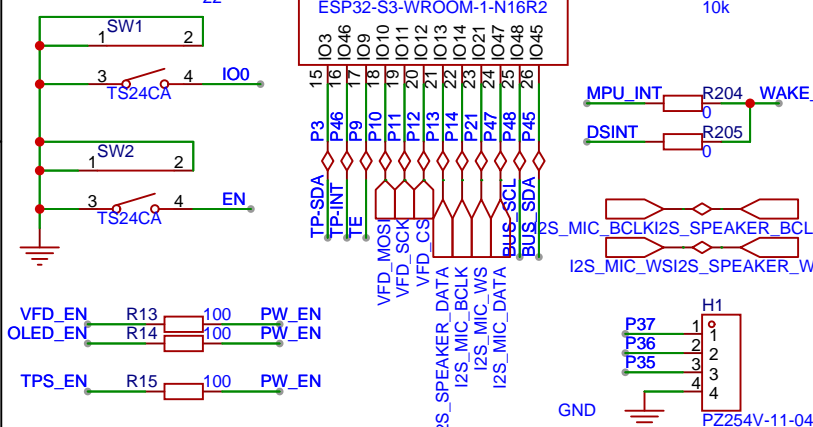
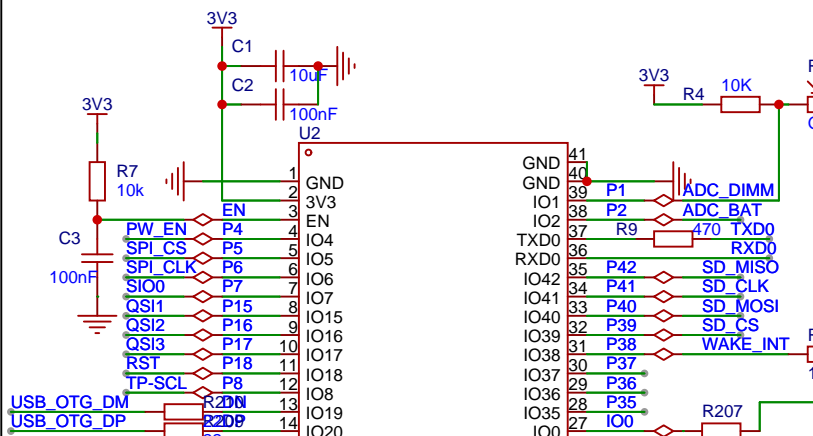
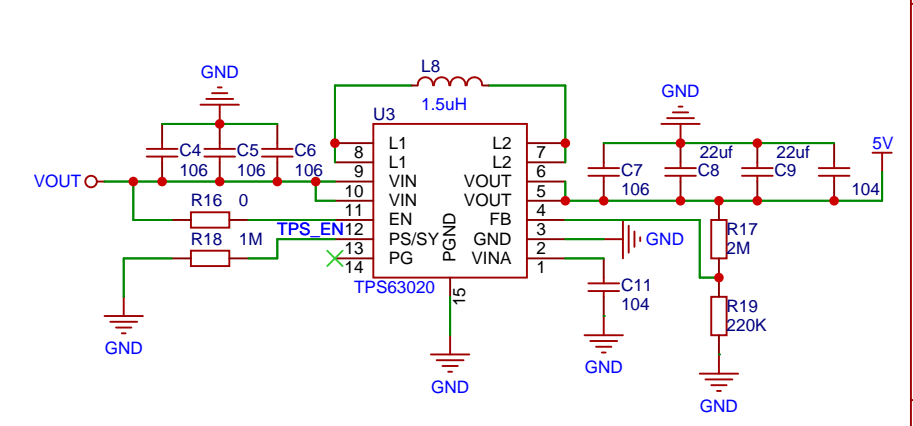
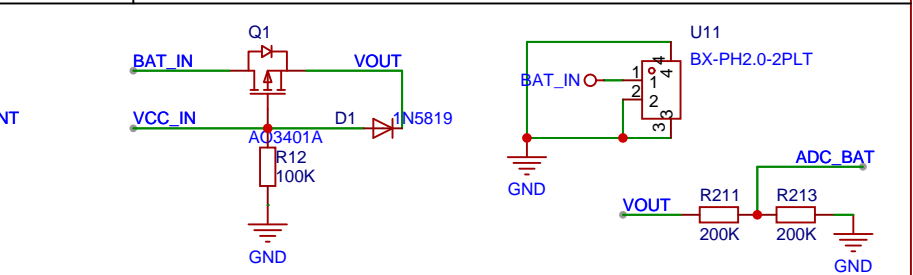
ESP32-S3 集成了两个 12 位 SAR（逐次逼近寄存器）ADC，ADC1 和 ADC2，支持20个模拟通道输入。这 20个模拟通道输入对应着具体

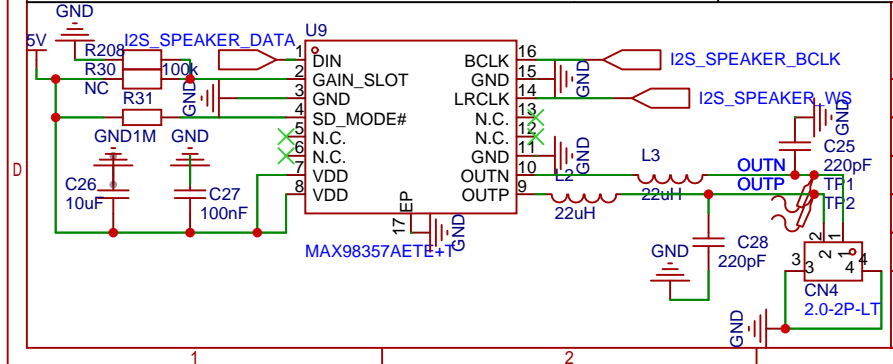
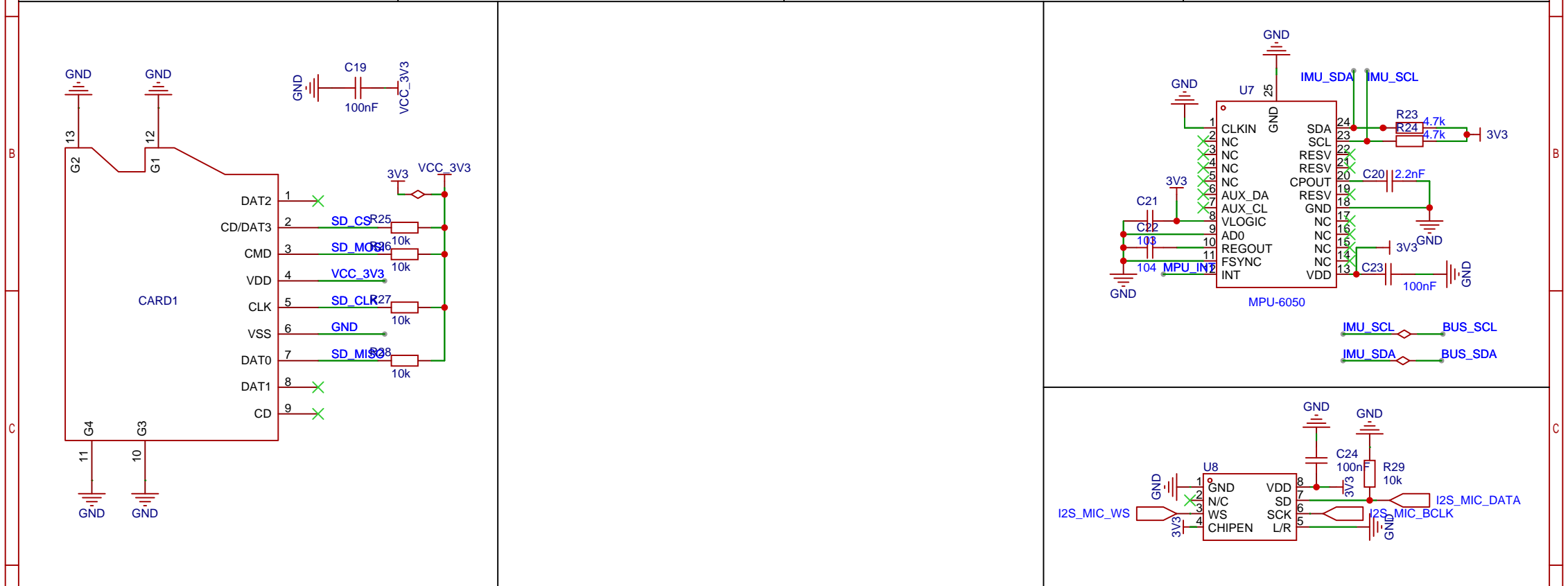
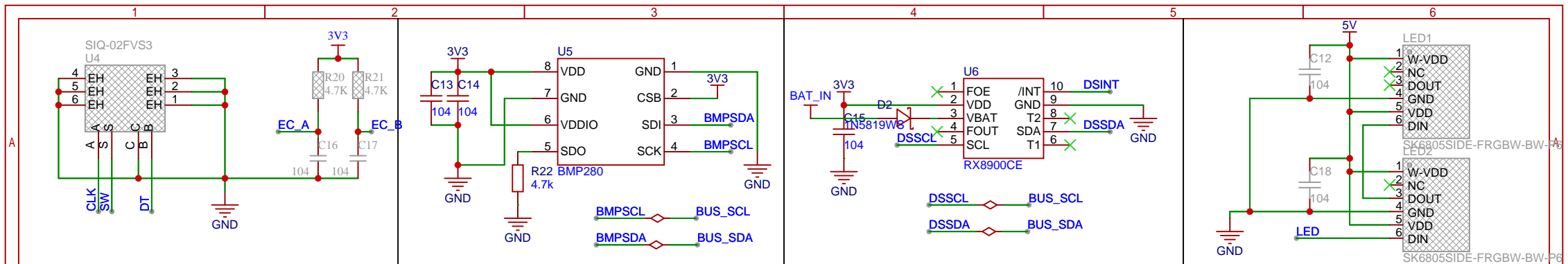
ADC1型：

10 通道：GPIO1 - GPIO10

ADC2型：

10 通道：GPIO11 - GPIO20





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|-----|----------------------|----|---------|------------|
| 原理图 | Schematic | | 创建日期 | 2025-02-24 |
| 板子 | FRS_MAIN_Module | | 更新日期 | 2025-02-24 |
| 绘制 | ESP32_S3_Main_Module | | 图页 | Peripheral |
| 审阅 | | | | |
| | 版本 | 尺寸 | 页 2 共 2 | |
| | V1.0 | A4 | 嘉立创EDA | |

| | | | | |
|---|------|----|------|----|
| GAIN_SLOT = GND through 100kΩ | 14.4 | 15 | 15.6 | dB |
| GAIN_SLOT = GND | 11.4 | 12 | 12.6 | |
| GAIN_SLOT = unconnected | 8.4 | 9 | 9.6 | |
| GAIN_SLOT = V _{DD} | 5.4 | 6 | 6.6 | |
| GAIN_SLOT = V _{DD} through 100kΩ | 2.4 | 3 | 3.6 | |