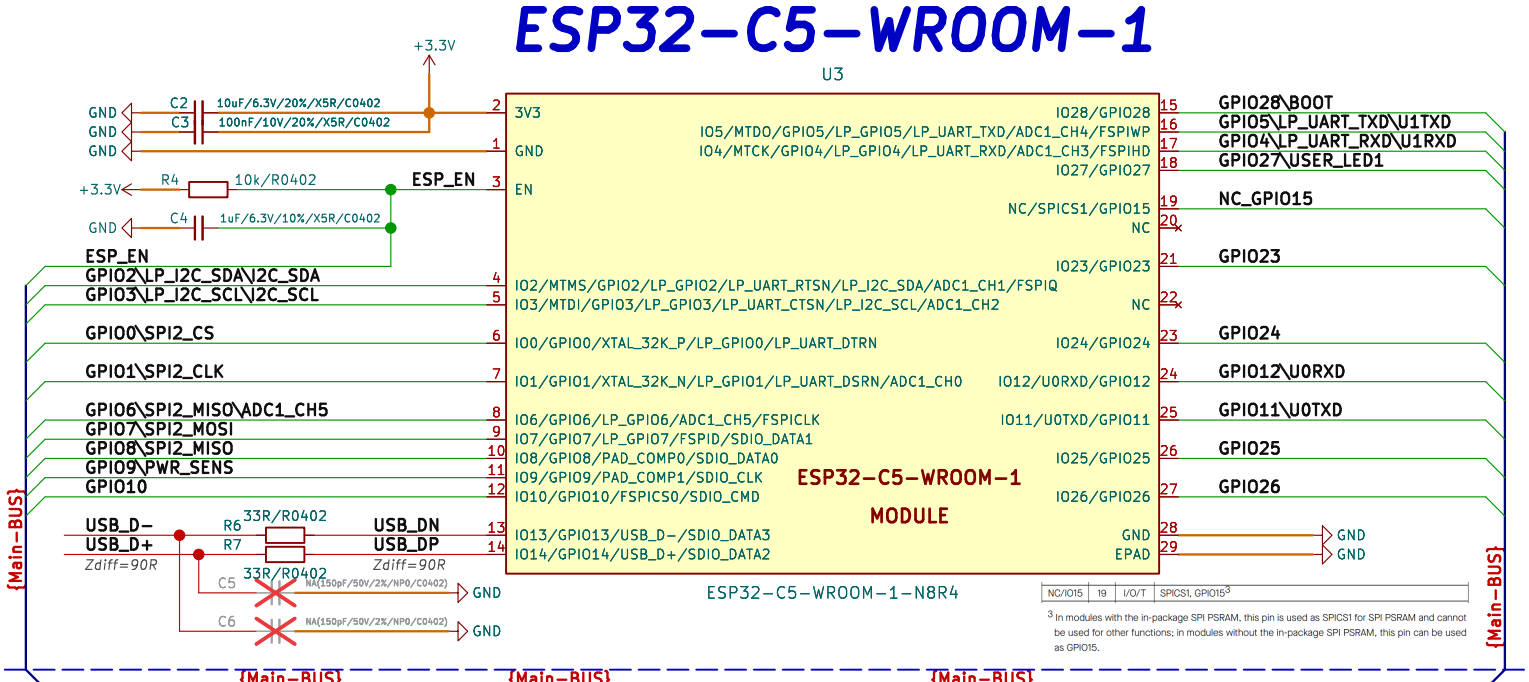
ESP32-C5-WROOM-1



NC/IO15 | 19 | I/O/T | SPICS1, GPIO15[3]

[3] In modules with the in-package SPI PSRAM, this pin is used as SPICS1 for SPI PSRAM and cannot be used for other functions; in modules without the in-package SPI PSRAM, this pin can be used as GPIO15.

Table 3-1. Default Configuration of Strapping Pins

Strapping Pin	Default Configuration	Bit Value
GPIO25	Floating	–
GPIO26	Floating	–
GPIO27	Pull-up	1
GPIO28	Pull-up	1
GPIO7	Floating	–
MTMS	Floating	–
MTDI	Floating	–

Table 3-3. Boot Mode Control

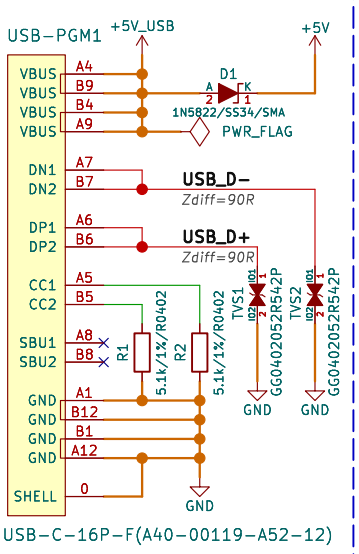
Boot Mode	GPIO26	GPIO27	GPIO28
SPI Boot[1]	Any value	Any value	**1**[1]
Joint Download Boot 0[2]	Any value	1	0
Joint Download Boot 1[3]	0	0	0

[1] **Bold** marks the default value and configuration.

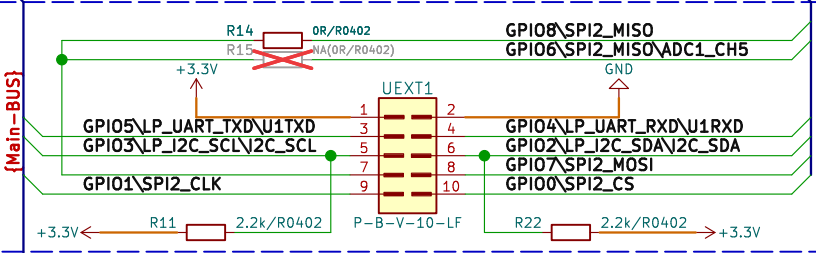
[2] Joint Download Boot 0 mode supports the following download methods:
- USB-Serial-JTAG Download Boot
- UART Download Boot
- SPI Slave Download Boot (chip revision v0.1 only)

[3] Joint Download Boot 1 mode supports the following download methods:
- UART Download Boot
- SDIO Download Boot

USB/JTAG



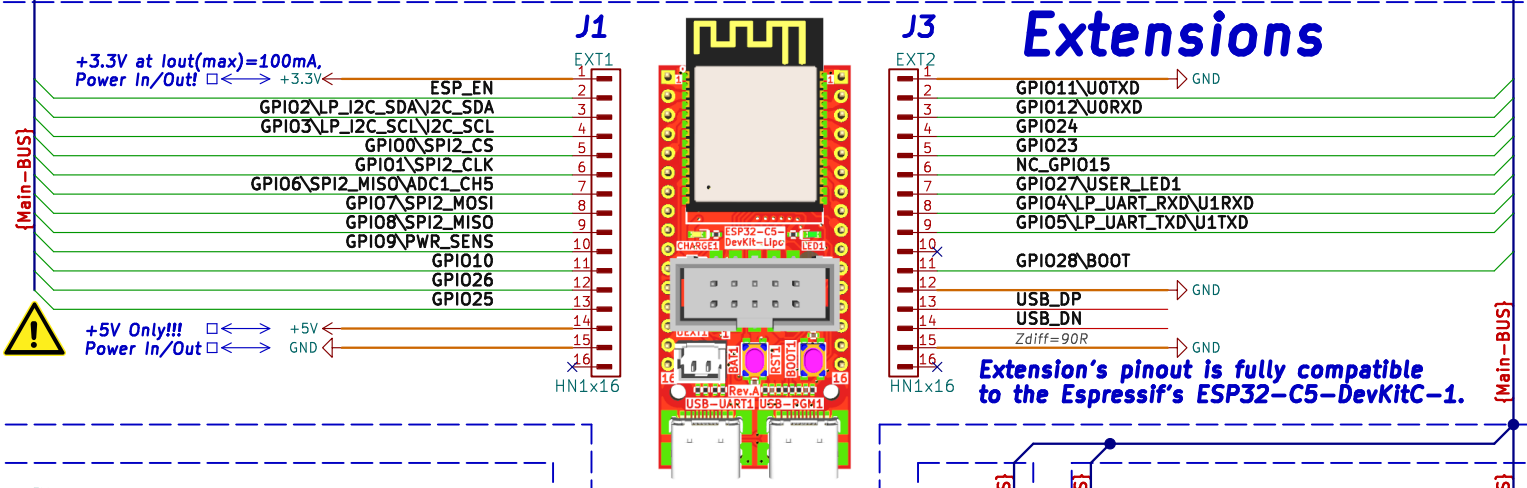
UEXT



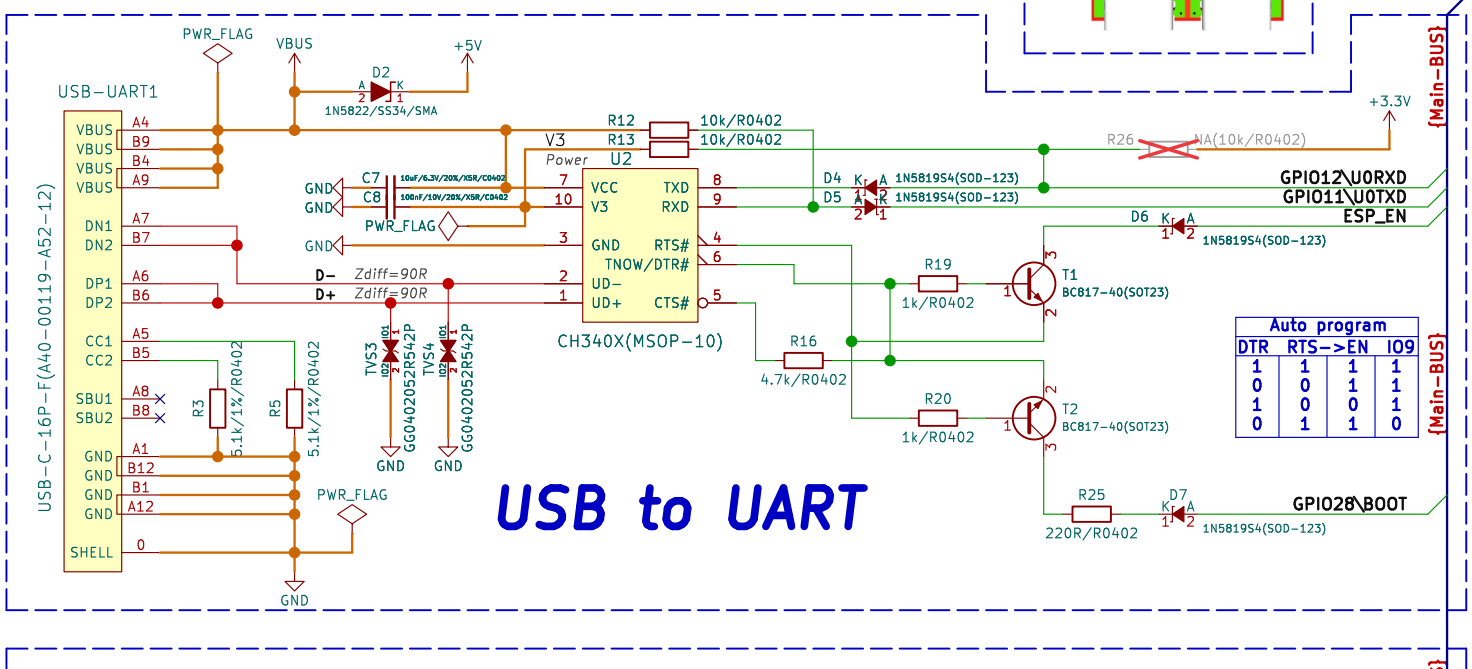
5.2.1.3 I2C Controller

ESP32-C5 has an I2C and an LP I2C bus interface. I2C is used for I2C master mode or slave mode, depending on your configuration, while LP I2C is always in master mode.

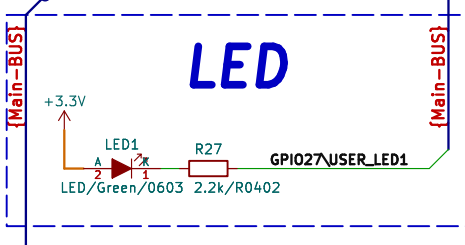
Extensions



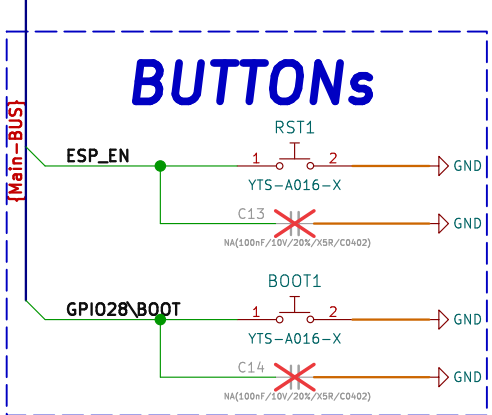
USB to UART



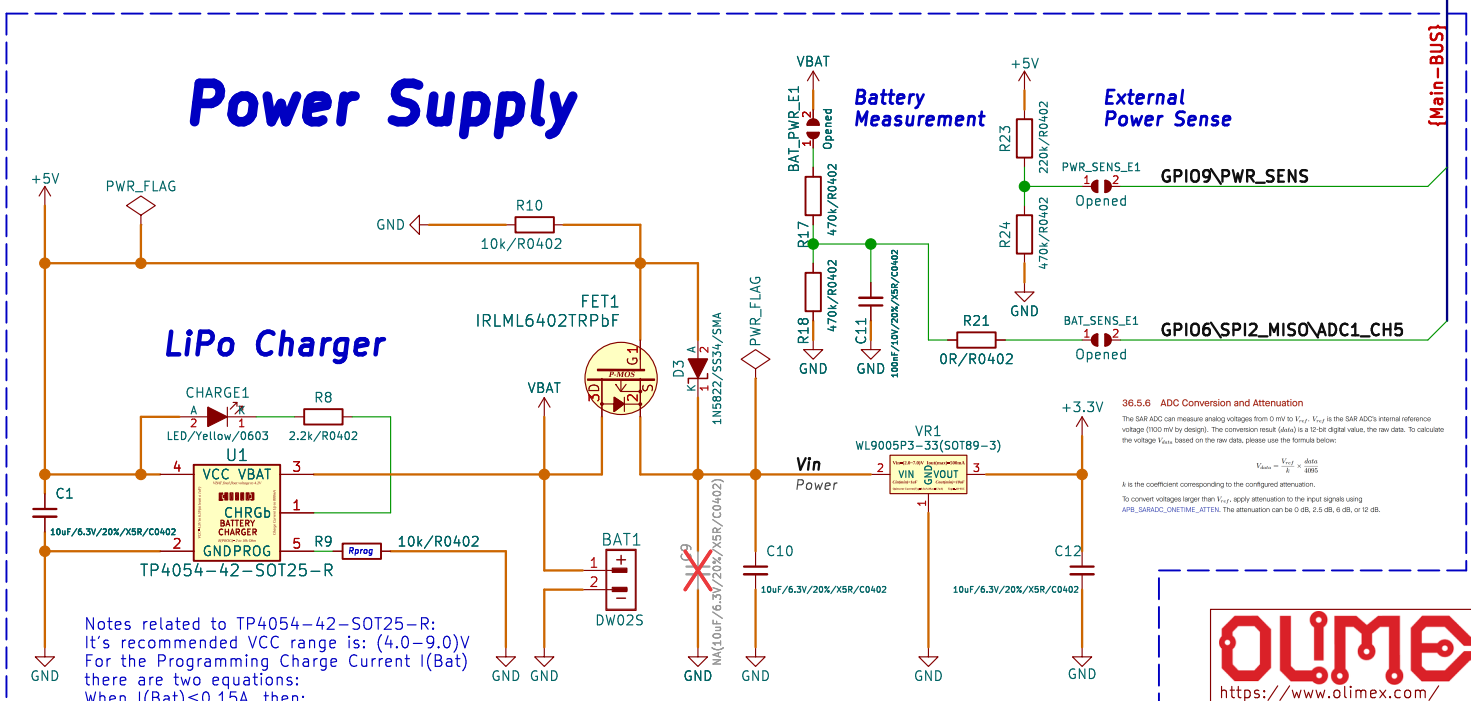
LED



BUTTONs



Power Supply



36.5.6 ADC Conversion and Attenuation

The SAR ADC can measure analog voltages from 0 mV to V_{ref}. V_{ref} is the SAR ADC's internal reference voltage (1100 mV by design). The conversion result ($data$) is a 12-bit digital value, the raw data. To calculate the voltage V_{data} based on the raw data, please use the formula below:

$$V_{data} = \frac{V_{ref}}{k} \times \frac{data}{4095}$$

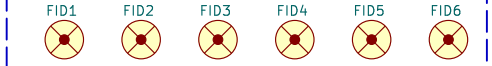
k is the coefficient corresponding to the configured attenuation.

To convert voltages larger than V_{ref}, apply attenuation to the input signals using APB_SARADC_ONETIME_ATTEN. The attenuation can be 0 dB, 2.5 dB, 6 dB, or 12 dB.

Notes related to TP4054-42-SOT25-R:
It's recommended VCC range is: (4.0-9.0)V
For the Programming Charge Current I(Bat)
there are two equations:
When I(Bat)≤0.15A, then:
I(Bat) = 1000/Rprog = 100mA
When I(Bat)>0.15A, then:
Rprog = 1000/I(Bat)*(1.2-4/3*I(Bat))

Mounting Holes

Fiducials



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https://www.olimex.com/
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open source hardware
Sheet: /
File: ESP32-C5-DevKit-Lipo_Rev_A.kicad_sch
Title: ESP32-C5-DevKit-Lipo
Size: A3 | Date: 2025-09-12 | Rev: A
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