ProS3
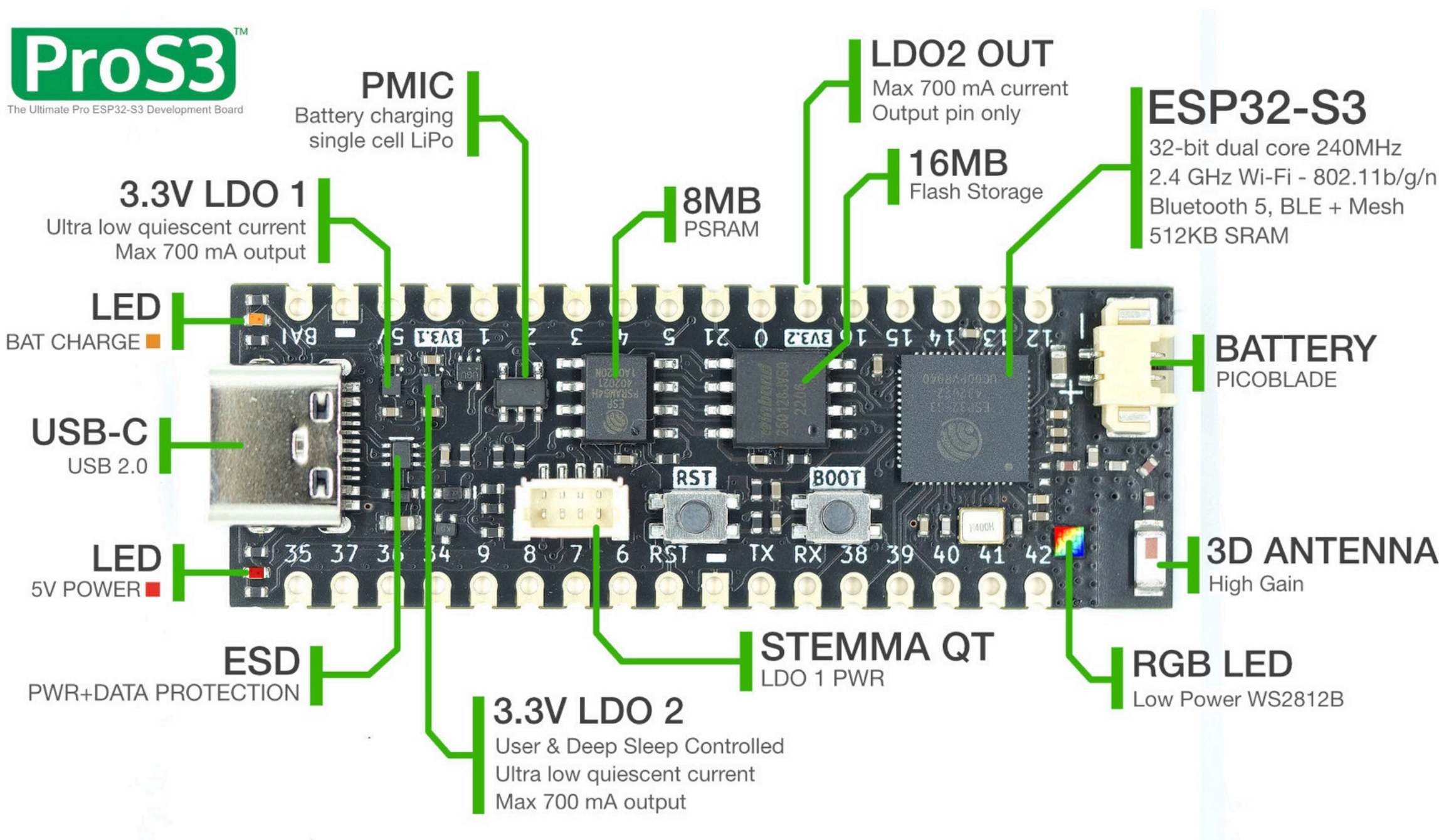
ProS3 is our top of the line _Extremely Pro_ ESP32-S3 board!

It's packed with amazing features and peripherals, ESD protection, castellated headers, wireless connectivity and stacks of Flash and PSRAM, and it's TinyPICO/ProS3 compatible!
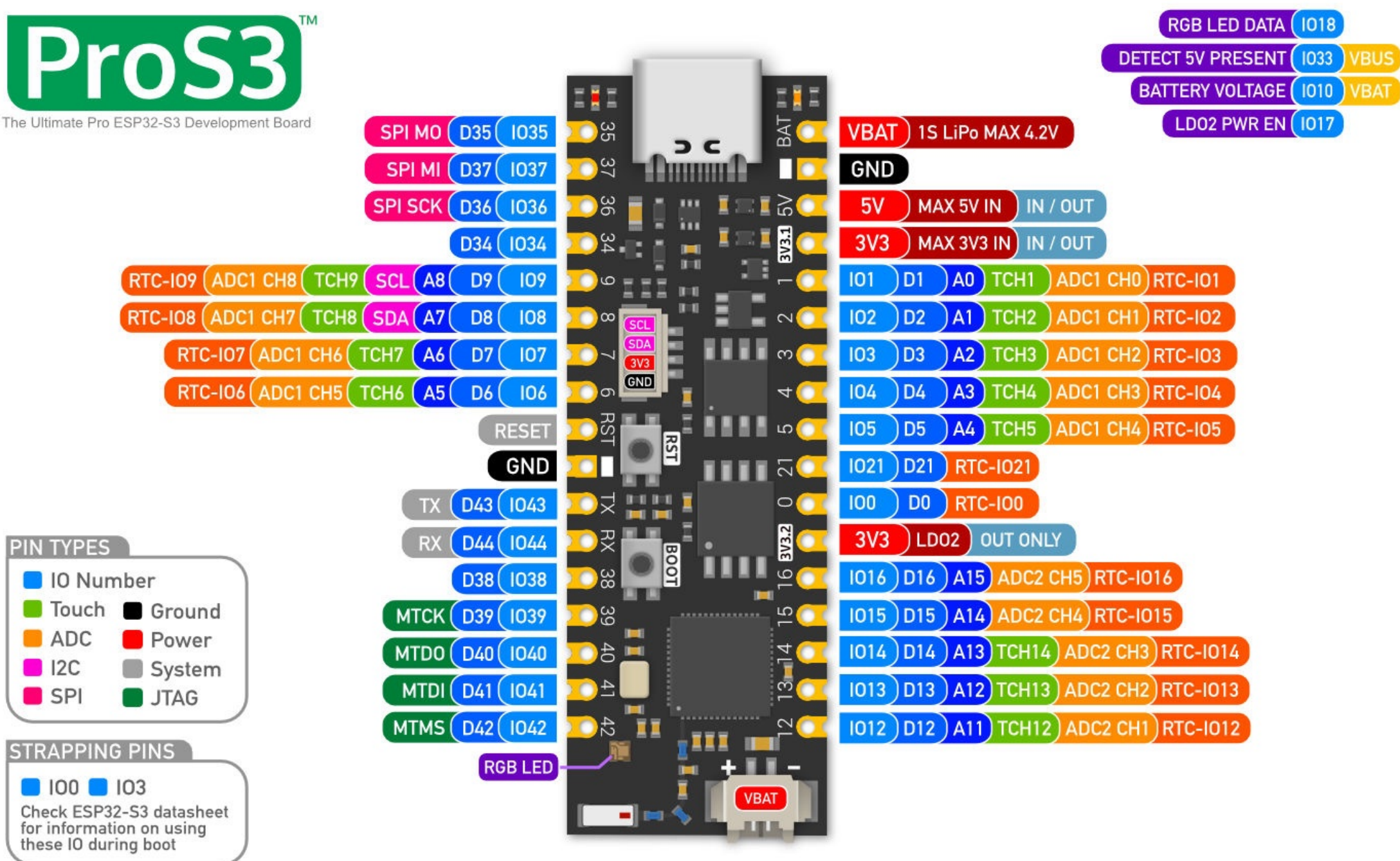

Features

The ProS3 includes the following features:

- Dual 32bit Xtensa LX7 cores @ up to 240Mhz
- RISC-V Ultra Low Power Co-processor
- 2.4GHz Wifi - 802.11b/g/n
- Bluetooth 5, BLE + Mesh
- 16MB QSPI Flash
- 8MB of extra QSPI PSRAM
- 2x 700mA 3.3V LDO Regulators
- LDO2 is user controlled & auto-shuts down in deep-sleep
- Low power RGB LED
- **ULTRA LOW Deep Sleep Current**

- USB-C Connector with back-feed protection
- USB ESD protection
- Native USB + USB Serial JTAG
- LiPo Battery Charging + PicoBlade connector
- VBAT and 5V Sense Pins
- 3D High Gain Antenna or u.FL connector‹
- STEMMA QT connector powered by LDO1
- 27x GPIO including castellated headers
- JTAG pins on the header
- TinyPICO/ProS3 compatibility

Two antenna options

ProS3 ships in 2 versions. One with an onboard antenna and one with a u.FL connector, so you can connect an external antenna.

Board Dimensions	53mm x 17.8mm	
Max Thickness	5.4mm at the vertical STEMMA QT connector	

2x 3.3V Regulators? Really?

Yup! The first one is for the general operation of the board and the ESP32-S3, PSRAM and Flash.

The second LDO is for you to use to connect external 3V3 modules, sensors and peripherals, and it has programmable EN control tied to IO17 + it's connected to the deep sleep capabilities of the ESP32-S3, so if the ESP32-S3 goes into deep sleep, the 2nd LDO is automatically shut down for you! LDO2 also powers the onboard RGB LED.

Both regulators are ultra low noise and have ultra low quiescent current, and both support a maximum of 700mA output.
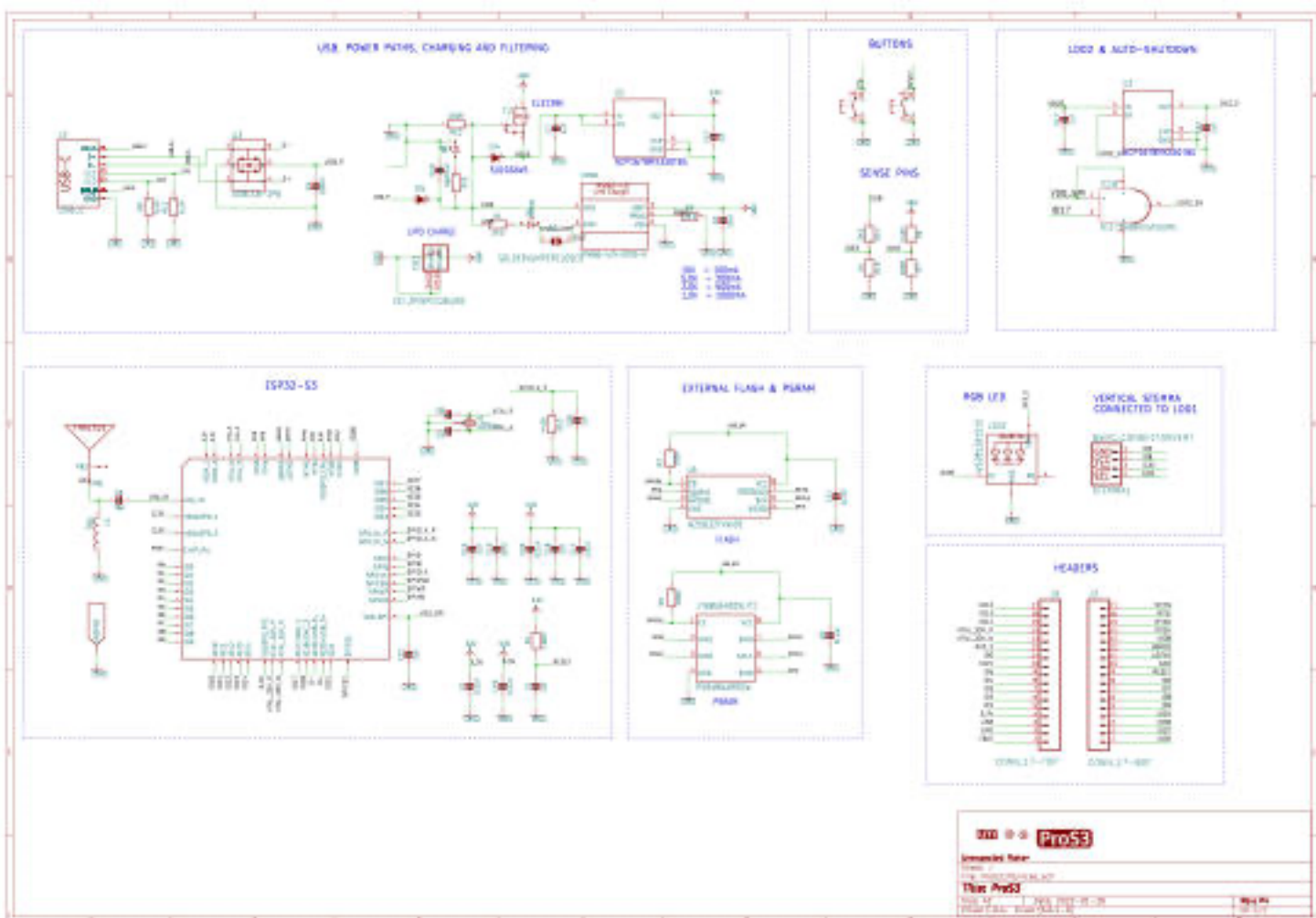
Platforms

Please check out the new PLATFORMS area of the Getting Started guide to find out all about developing for your new board in a range of different languages!

Downloads

This is where you can find download links for ProS3 specific things like the Schematic, 3D model, KiCAD footprint and more!

ProS3 Schematic

github

The Unexpected Maker ESP32-S3 github Repo includes the following items:

- 3D STEP file for the ProS3
- KiCAD 6 symbol file for the ProS3 that you can use when integrating one of them into one of your PCB design
- KiCAD 6 footprint files for the ProS3 including a TH and SMD variant
- PDF Schematic for the ProS3
- Hi-res pinout reference card for the ProS3
- Helper libraries for Arduino, CircuitPython and MicroPython

ESP32-S3 Datasheet

If you need more detailed information about the ESP32-S3, including full IO capabilities and other functionality, please refer to the ESP32-S3 Datasheet from Espressif.

Mouser Electronics

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[Unexpected Maker](#):

[PS3-01](#) [PS3-U-01](#)