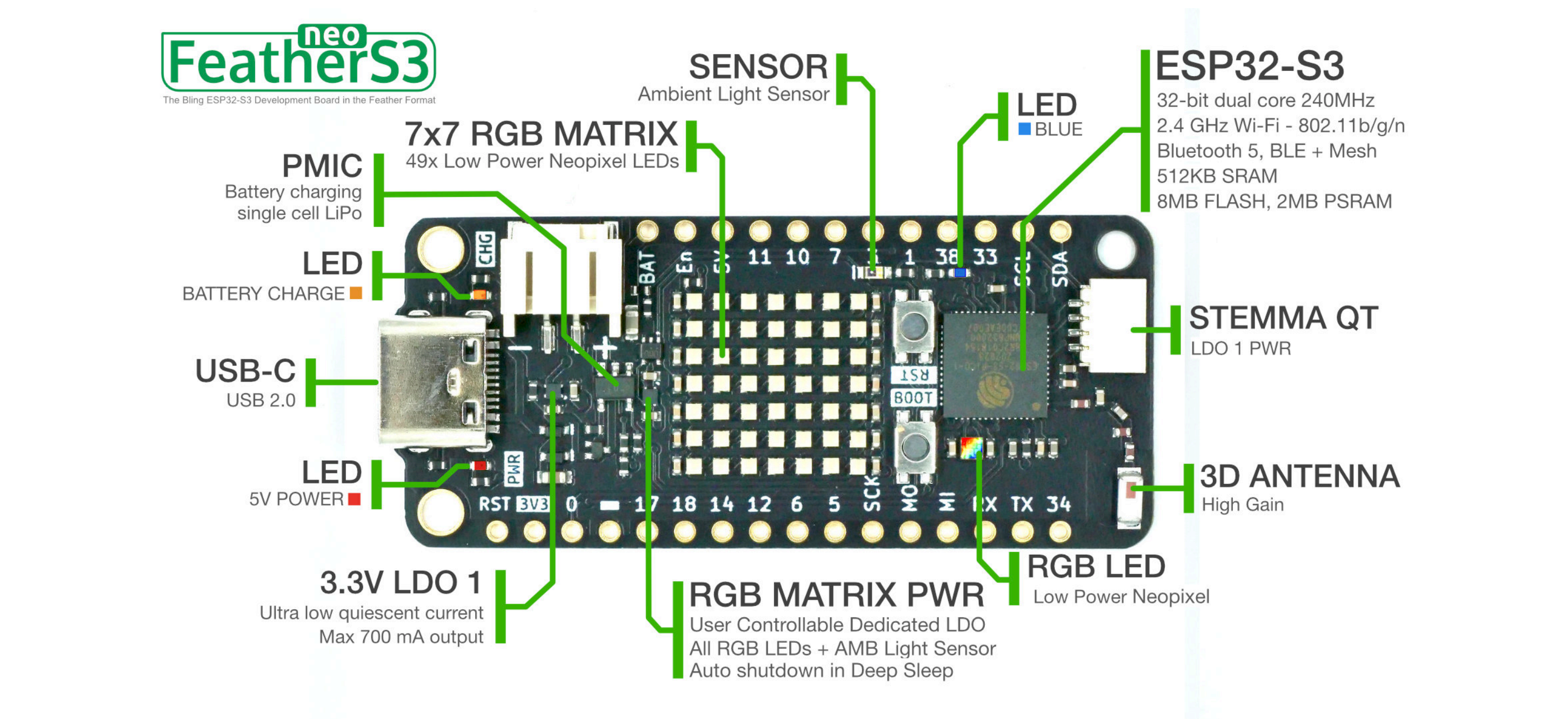


FeatherS3 Neo from Unexpected Maker



FeatherS3 Neo is the latest in our super popular ESP32 based Feather boards.

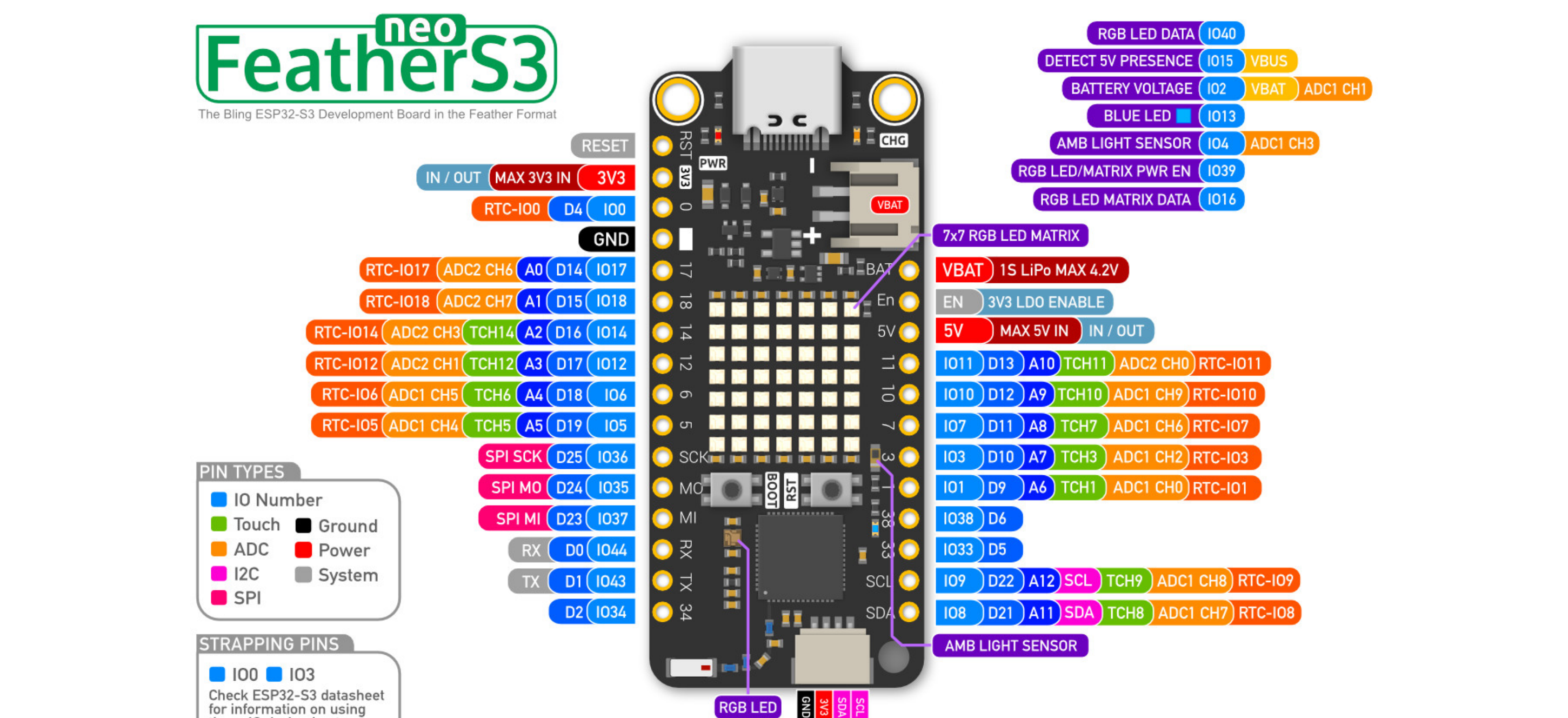
The FeatherS3 offers amazing features plus a crazy 7x7 RGB LED matrix, all in the super popular Feather format which offers a huge ecosystem of add-on boards, modules and FeatherWings!



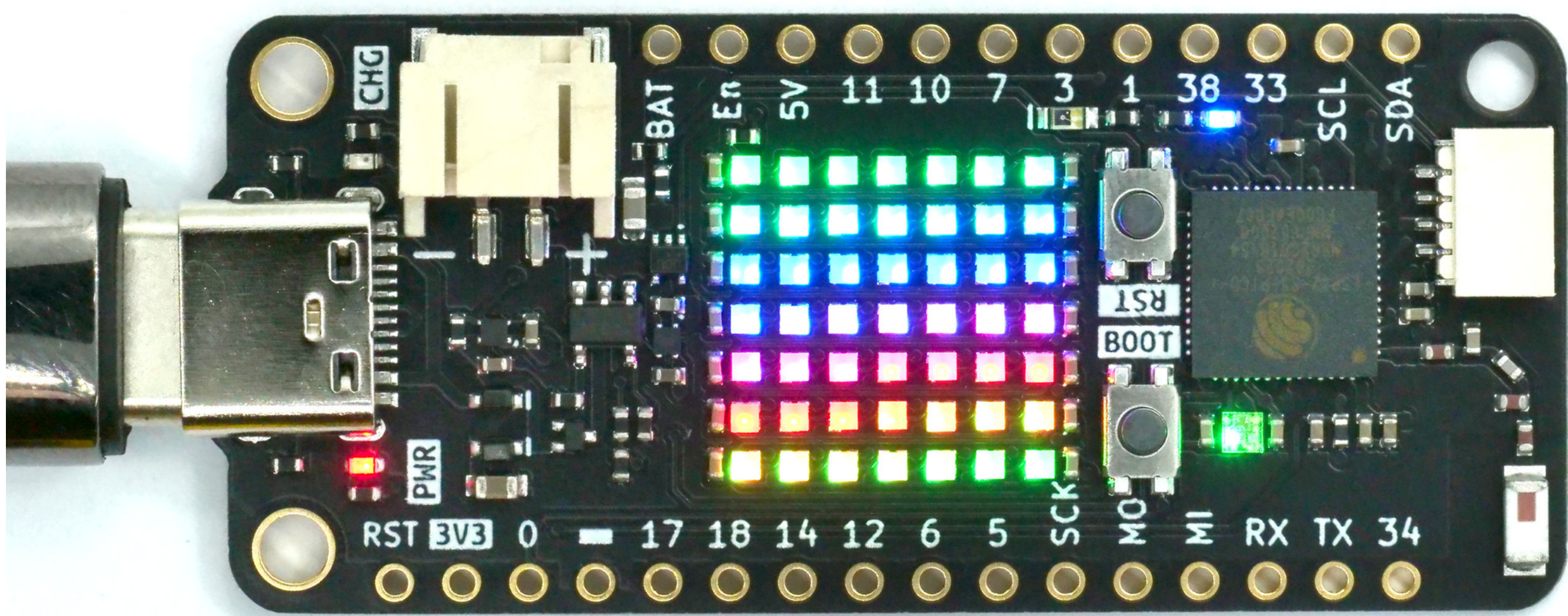
Features

The FeatherS3 Neo 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
- 8MB QSPI Flash
- 2MB of extra QSPI PSRAM
- 2x 700mA 3.3V LDO Regulators
- 7x7 Low Power RGB LED Matrix (LDO2)
- LDO2 is user controlled & auto-shuts down in deep-sleep
- USB-C Connector with back-feed protection
- Native USB + USB Serial JTAG
- LiPo Battery Charging
- Low power RGB LED
- VBAT and 5V Sense Pins
- 3D High Gain Antenna
- STEMMA QT connectors on LDO1
- 21x GPIO including castellated headers
- Feather Format compatibility



Board Dimensions 52.3mm x 22.9mm  
Max Thickness 6.6mm at JST PH battery 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 powers the RGB LED Matrix and RGB Status LED as well as the AMB light sensor, and it has programmable EN control tied to IO39 + 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!.

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

Platforms

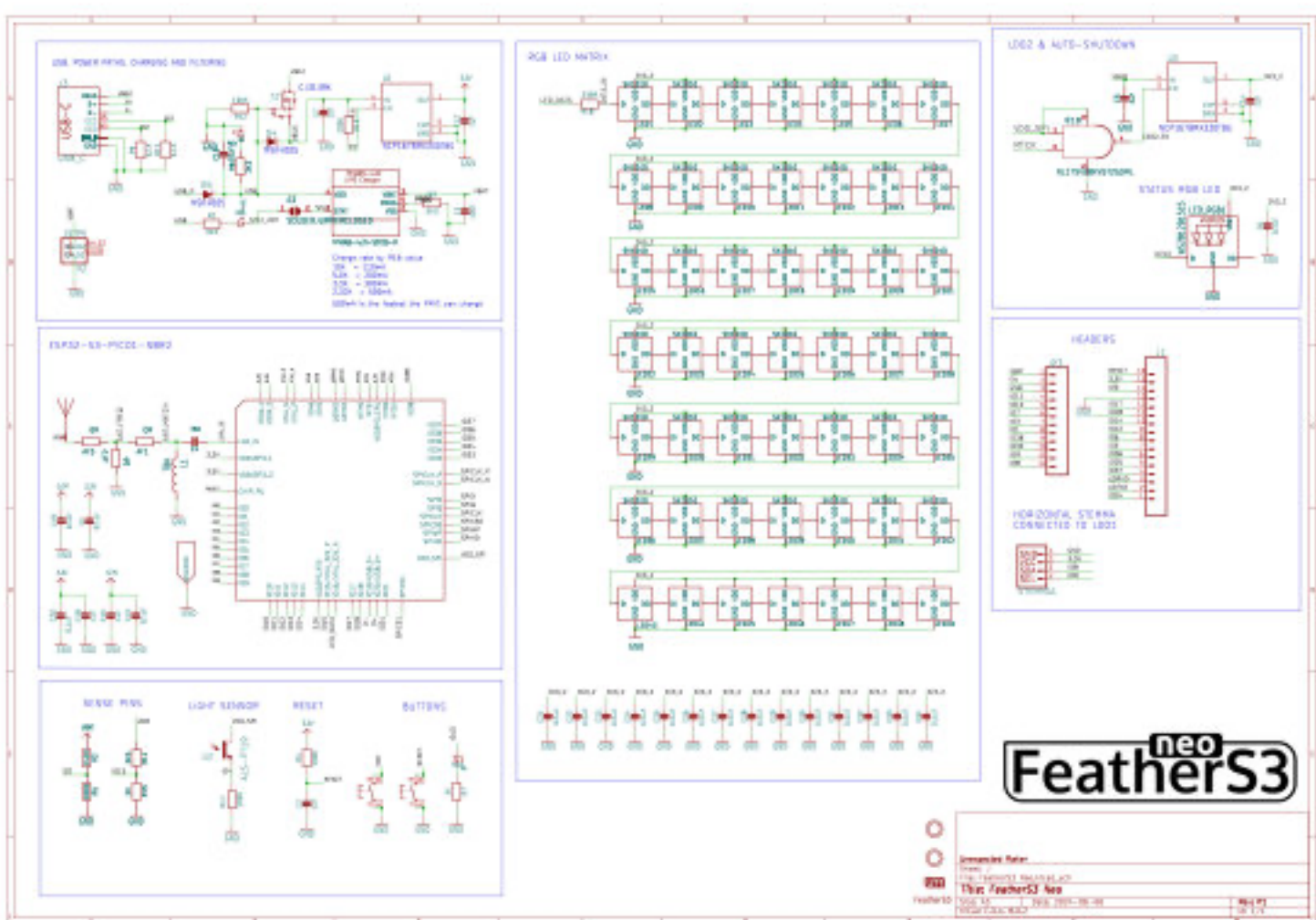


Please check out the new PLATFORMS area of the [Getting Started](#) guide to find out all about developing for your new board in a range of different languages!

Downloads

This is where you can find download links for FeatherS3 Neo specific things like the Schematic, 3D model, KiCAD footprint and more!

FeatherS3 Neo Schematic



github

The [Unexpected Maker ESP32-S3 github Repo](#) includes the following items:

- 3D STEP file for the FeatherS3 Neo
- KiCAD 6 symbol file for the FeatherS3 that you can use when integrating one of them into one of your PCB designs
- KiCAD 6 footprint file for the FeatherS3
- PDF Schematic for the FeatherS3 Neo
- Hi-res pinout reference card for the FeatherS3
- 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

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Unexpected Maker:](#)

[FS3-N-01](#)