

## COLOR DIAGRAM

- Chip Pin Number
- GPIO Number
- Touch Channel
- ADC Channel
- SCL
- SDA
- SPI
- DAC
- Ground
- Power
- ⚡ PWM Enabled Pin

# GroundStudio Carbon V3

Features ESP32 based **Pico V3-02** with 2.4 GHz WiFi, V4.2 Bluetooth, 8MB SPI Flash, 2MB SPI PSRAM, 520kB internal SRAM, 448kB ROM, 18 GPIO, 12 ADC and 6 touch sensitive pins, SPI port (HSPI), I<sup>2</sup>C 3V3 adapter, RGB smart LED, 1 cell LiPo/LiIon battery charger with optional battery connector



## RGB LED

ADC2 CH2 GPIO2 22 Data  
ADC2 CH0 GPIO4 24 Power

## ESP32 PICO V3-02

System-in-Package (SiP) based on ESP32

## I<sup>2</sup>C 3V3

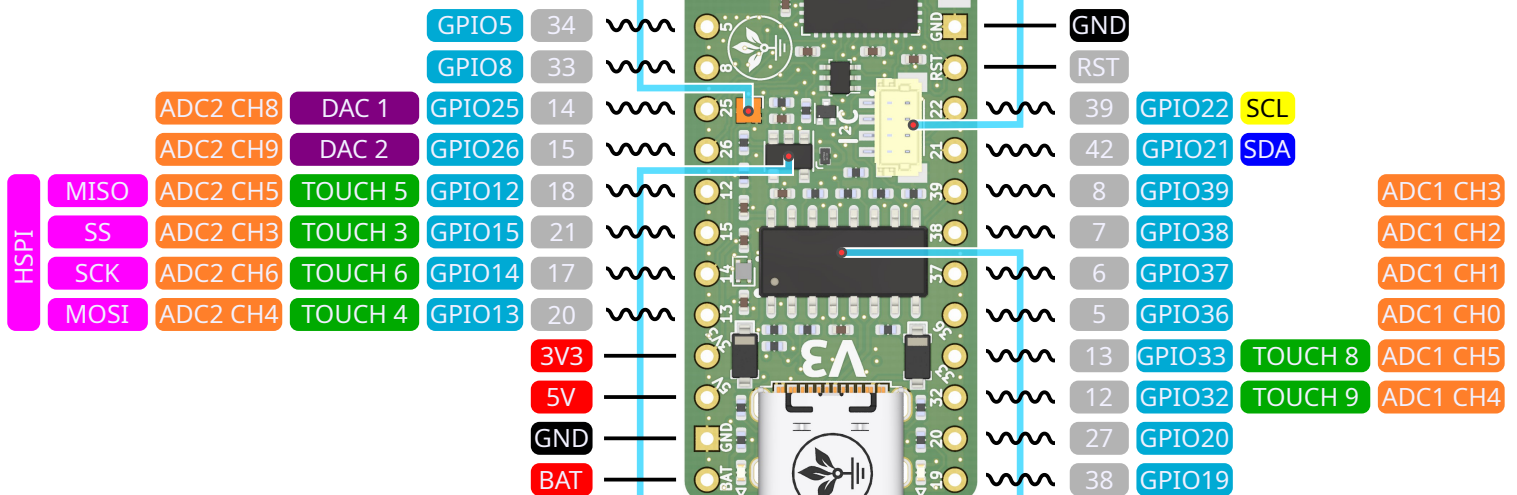
I<sup>2</sup>C SH adapter with 1.0mm pitch, Qwiic and StemmaQT compatible

GND

3V3

42 GPIO21 SDA

39 GPIO22 SCL



## BATTERY CHARGER

BRCL4054CME is a complete constant-current/constant voltage linear charger for single cell 4.2V LiPo/LiIon batteries

## USB C

USB 2.0 type C for double-sided connection

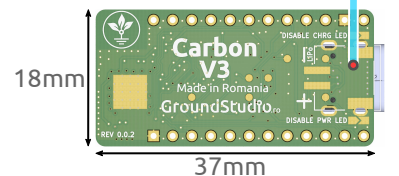
## USB DRIVER

CH340C with built-in 12MHz clock generator

## BATTERY PADS

Optional PH 2.00mm connector pads for one cell 4.2V LiPo/LiIon battery connection

## BACK SIDE



GroundStudio.ro

Board:

"GroundStudio Carbon V3" CYQGWW\_GS REV0.0.3

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Pinout REV: 2