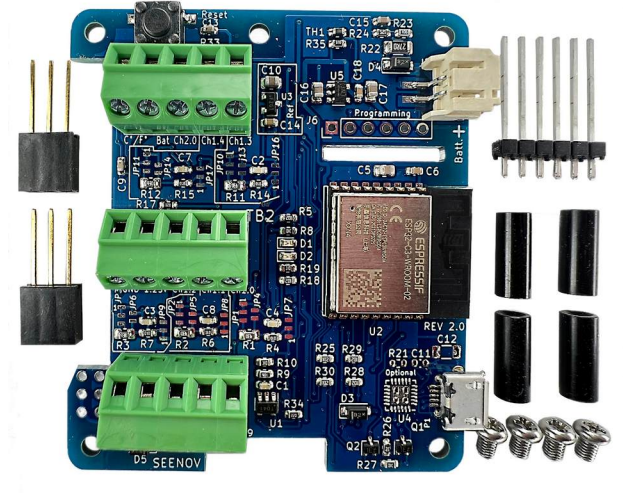


ESP32C3 6 channel ADC for the Raspberry Pi Specifications



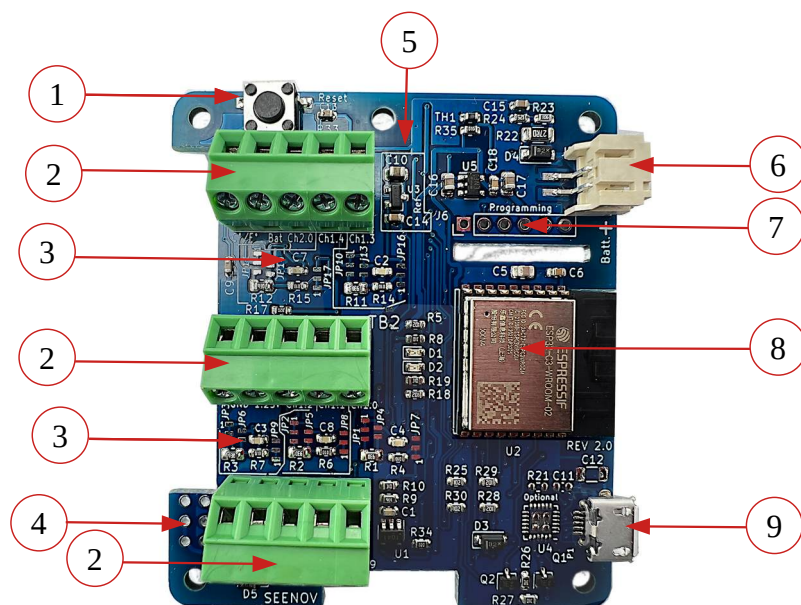
Features

- 6 channel 12 bit ADC with factory calibration (1-2%).
- 5 ADC inputs configurable for 0-0.750 to 2.5V, $\pm 12V$ or +24V.
- Onboard single channel DAC with buffered output (8-12 bits).
- Onboard 0.4% precision, 1.25V Max6101 reference.
- Battery connector for battery operation.
- ADC2 channel-0 can be configured to measure battery voltage or local temperature.
- Programming connector.
- Over-the-air (OTA) programming.
- 3 user controlled outputs.
- Wireless UDP communications with Raspberry Pi.
- No use of any Raspberry Pi IOs.
- Compatible with all versions of Raspberry Pi including the Pi Zero W and Pi 400.
- Can communicate with any WiFi enabled device on a 2.4Ghz frequency.
- Auto Access-Point Web page to input network SSID and Password

Specifications

Resolution	12 bits	Input channels	6
Maximum Sampling Rate	100 KSPS	Reference Voltage	Internal, external 1.25V
Input Type	Single ended	Average Current	35mA
Maximum Input Voltage Range	±12VDC or +24VDC	Minimum Input Voltage Range	750mV

What's On The Board

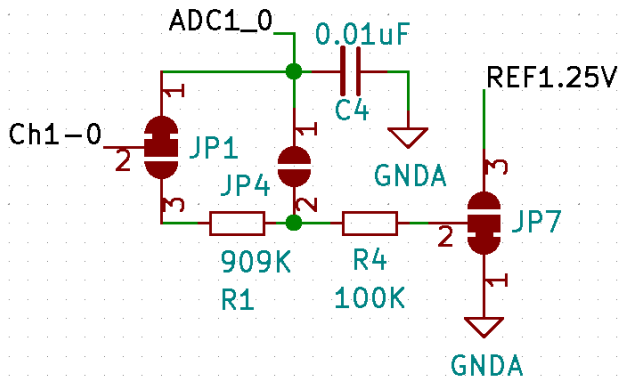


- 1. Reset Button
- 2. I/O Terminal Blocks
- 3. Input configuration jumpers
- 4. Raspberry Pi Pass Through Power
- 5. MAX6101 Reference
- 6. Battery Connector
- 7. Programming Connector
- 8. ESP32C3
- 9. USB Power Input

Input Output Screw Terminals

TB3 Thermistor Battery Voltage ADC2-ch0 ADC1_ch4 ADC1_ch3
 TB2 GND 1.25V-Ref ADC1-ch2 ADC1_ch1 ADC1_ch0
 TB1 GND DAC GPIO_7 GPIO_18 GPIO_19

Input Configuration Jumpers



Jumper pads JP1, JP4 and JP7 provide means to configure the input attenuation as follows:

(see <https://seenov.com/2021/12/15/raspberry-pi-adc-esp32-hat-incredibly-measures-%c2%b112v-with-great-accuracy/> for more details)

Direct input to ADC 0-2.5V	JP1-1-2 shorted	JP7-1-2 shorted
0-24V input	0	JP7-1-2 shorted
±12V input	0	JP7-2-3 shorted

Dimensions

Visit <http://seenov.com/>
For more details

