GPIO2, GPIO8 and GPIO9 are bootstrapping pins which are used to boot ESP32-C3 in different modes:

| GPIO2 | GPIO8 | GPIO9 | Mode |
|---|---|---|---|
| 1 | X | 1 | SPI Boot mode to boot the firmware from flash (default mode) |
| 1 | 1 | 0 | Download Boot mode for flashing the firmware |

## ADC Channels

ESP32-C3 integrates two 12-bit ADCs (ADC1 and ADC2) with 6 channels in total:

- ADC1 supports 5 channels: GPIO0, GPIO1, GPIO2, GPIO3 and GPIO4
- ADC2 supports 1 channel: GPIO5 or internal signals such as vdd33

The maximum number of ADC channels **ADC_NUMOF_MAX** is 6.

**Note**

- ADC2 is also used by the WiFi module. The GPIOs connected to ADC2 are therefore not available as ADC channels if the modules `esp_wifi` or `esp_now` are used.
- Vref can be read with function **adc_line_vref_to_gpio** at GPIO5.

## I2C Interfaces

ESP32-C3 has one built-in I2C interfaces.

The following table shows the default configuration of I2C interfaces used for ESP32-C3 boards. It can be overridden by application-specific configurations.

| Device | Signal | Pin | Symbol | Remarks |
|---|---|---|---|---|
| I2C_DEV(0) | | | #I2C0_SPEED | default is I2C_SPEED_FAST |