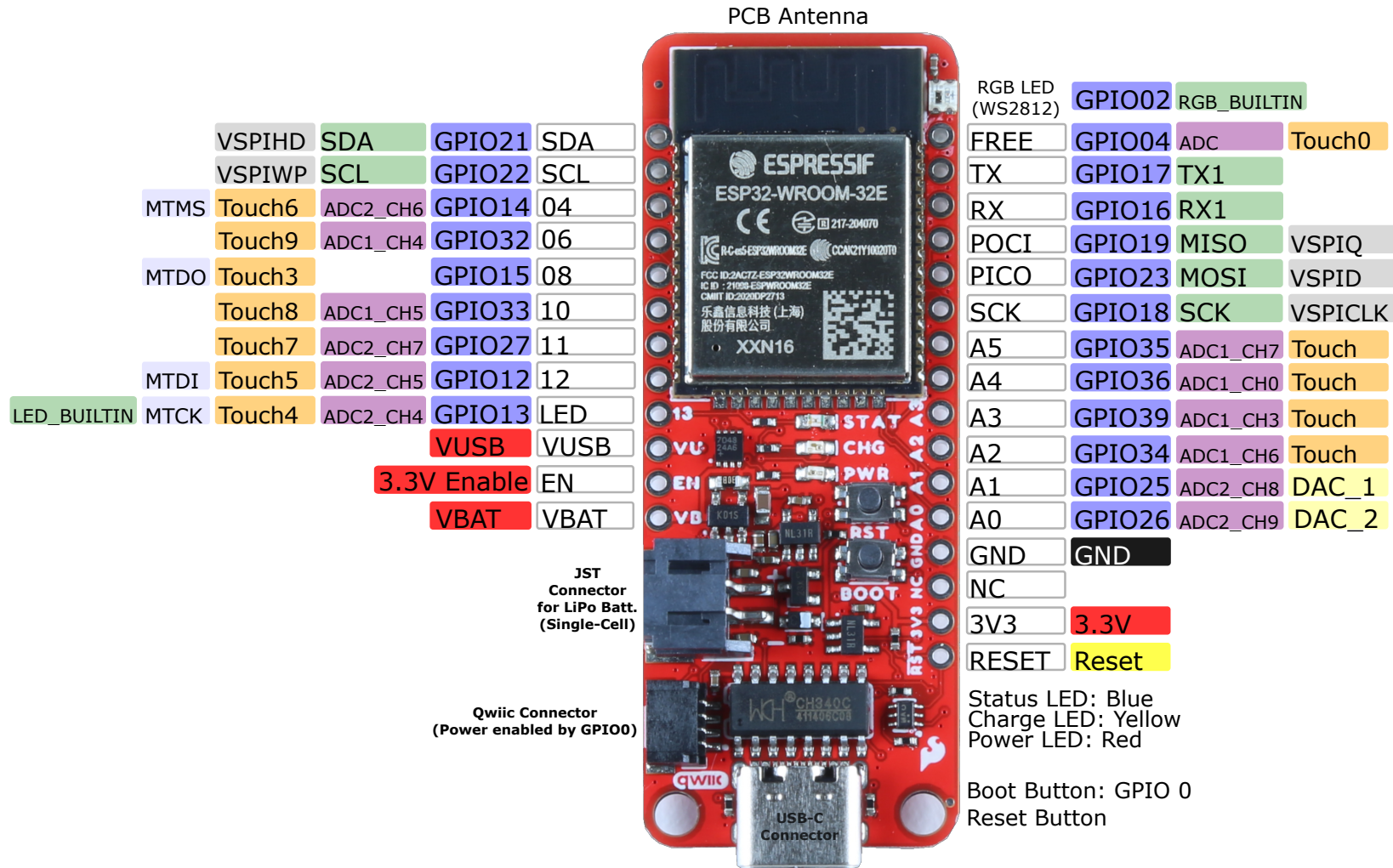


SparkFun ESP32 Thing Plus (USB-C) (WRL-20168)



Name	ADC
Power	DAC
GND	SPI
Control	UART
Arduino	Touch
GPIO	Misc

GPIO 3.3V tolerant only

	VSPHID	SDA	GPIO21	SDA
	VSPHWP	SCL	GPIO22	SCL
MTMS	Touch6	ADC2_CH6	GPIO14	04
	Touch9	ADC1_CH4	GPIO32	06
MTDO	Touch3		GPIO15	08
	Touch8	ADC1_CH5	GPIO33	10
	Touch7	ADC2_CH7	GPIO27	11
MTDI	Touch5	ADC2_CH5	GPIO12	12
LED_BUILTIN	MTCK	Touch4	GPIO13	LED
			VUSB	VUSB
			3.3V Enable	EN
			VBAT	VBAT

JST
Connector
for LiPo Batt.
(Single-Cell)

Qwiic Connector
(Power enabled by GPIO0)

RGB LED (WS2812)	GPIO02	RGB_BUILTIN	
FREE	GPIO04	ADC	Touch0
TX	GPIO17	TX1	
RX	GPIO16	RX1	
POCI	GPIO19	MISO	VSPIQ
PICO	GPIO23	MOSI	VSPID
SCK	GPIO18	SCK	VSPICLK
A5	GPIO35	ADC1_CH7	Touch
A4	GPIO36	ADC1_CH0	Touch
A3	GPIO39	ADC1_CH3	Touch
A2	GPIO34	ADC1_CH6	Touch
A1	GPIO25	ADC2_CH8	DAC_1
A0	GPIO26	ADC2_CH9	DAC_2
GND	GND		
NC			
3V3	3.3V		
RESET	Reset		

Status LED: Blue
Charge LED: Yellow
Power LED: Red

Boot Button: GPIO 0
Reset Button

Power

ESP32 VCC Range: 2.2V-3.6V
VBAT: Direct to battery (and charger)
VUSB: Direct to USB (5V)
3V3: Direct to 3.3V regulator (700mA)
ESP32-S2 Current Consumption:
· WiFi: 380mA (peak)
· Light-Sleep: 800µA
· Deep-Sleep: 10-150µA

Power Control

EN pin - Power for board
GPIO0 - Power to Qwiic Connector

ESP32-WROOM

Dual-Core Xtensa 32-bit LX7
Up to 240MHz
520KB SRAM
16MB SPI Flash

Multiplexed I/Os allow up to

13x 12-bit ADC Channels
3x SPI Interfaces
3x UART Interfaces
2x I2C Interfaces
2x I2S Interface
16x 20-bit PWM Channels
2x 8-bit DACs
8x Capacitive Touch Inputs

Wireless

WiFi: 802.11 b/g/n (up to 150Mbps)
WPA/WPA2/WPA2-Enterprise/SPS
Bluetooth: Bluetooth 4.2/BLE
Other*
Temp sensor (-40°C to 125°C)
Hall Sensor
SD/SDIO/MMC Host Controller
· µSD card slot CS: GPIO05 SS
CAN Bus

*On datasheet, but may not be supported yet


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