

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

PCB Antenna

VSP1HD	SDA	GPIO21	SDA	RGB LED (WS2812)	GPIO02	RGB_BUILTIN
VSP1WP	SCL	GPIO22	SCL	FREE	GPIO04	ADC Touch0
MTMS	Touch6	ADC2_CH6	GPIO14 04	TX	GPIO17	TX1
	Touch9	ADC1_CH4	GPIO32 06	RX	GPIO16	RX1
MTDO	Touch3		GPIO15 08	POCI	GPIO19	MISO VSPIQ
	Touch8	ADC1_CH5	GPIO33 10	PICO	GPIO23	MOSI VSPID
	Touch7	ADC2_CH7	GPIO27 11	SCK	GPIO18	SCK VSPICLK
MTDI	Touch5	ADC2_CH5	GPIO12 12	A5	GPIO35	ADC1_CH7 Touch
LED_BUILTIN	MTCK	Touch4	ADC2_CH4	A4	GPIO36	ADC1_CH0 Touch
			GPIO13	A3	GPIO39	ADC1_CH3 Touch
			VUSB	A2	GPIO34	ADC1_CH6 Touch
			3.3V Enable	A1	GPIO25	ADC2_CH8 DAC_1
			VBAT	A0	GPIO26	ADC2_CH9 DAC_2
				GND	GND	
				NC		
				3V3	3.3V	
				RESET	Reset	

JST Connector for LiPo Batt. (Single-Cell)

Qwiic Connector (Power enabled by GPIO0)

USB-C Connector

Boot Button: GPIO 0
Reset Button

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

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

GPIO 3.3V tolerant only

Power

ESP32 VCC Range: 3.0V-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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