

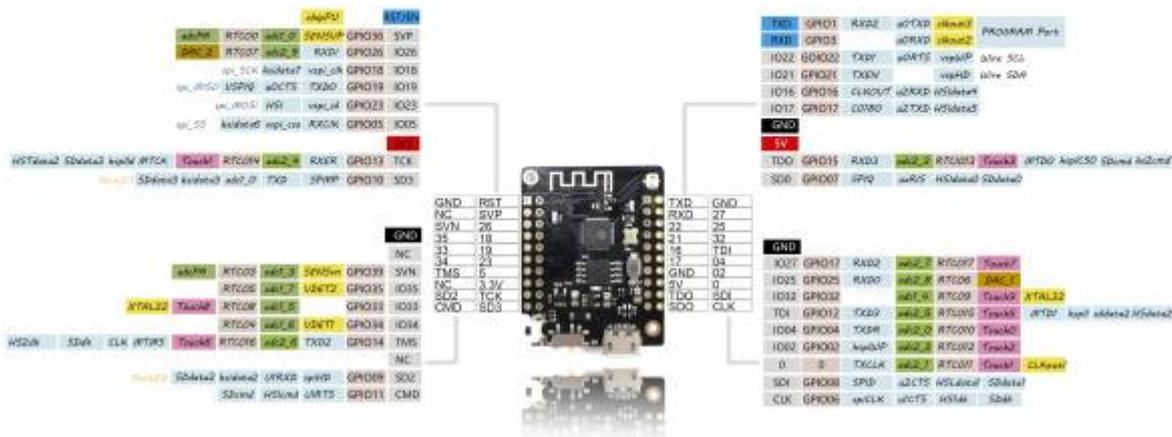
# ESP32

## TTGO ESP32

ESP32 devkit v1 [TTGO mini32 ESP32 bangood amazon](#)

Chip is ESP32D0WDQ6 (revision 1)

Features: WiFi, BT, Dual Core, 240MHz, VRef calibration in efuse



WiFi + Bluetooth Board  
4MB Flash MINI 32 v2.0

**Power**  
 ESP32 VCC range: 2.2V-3.6V  
 VBAT: direct to battery (and charger)  
 VUSB: direct to USB (5V)  
 VCC: Output of regulator 3.3V/600mA  
 Up to 250mA during RF transmissions

**Wireless**  
 Wifi: 802.11 b/g/n/e/i  
 WPA/WPA2/WPA2-Enterprise/SPS  
 Bluetooth: Bluetooth 4.2/BLE

**ESP32**  
 Dual-core Xtensa 32-bit LX6  
 Up to 240MHz  
 520KB internal SRAM  
 4MB external flash

**Multiplexed I/Os allow up to**  
 18 ADC channels  
 3 GPI interfaces  
 3 UART interfaces  
 2 I2C interfaces  
 2 I2S interfaces  
 16 LED PWM outputs  
 2 DACs  
 10 Capacitive Touch Inputs

**ADC Preamp**  
 GPIO pins 36, 37, 38, and 39 are able to be used as a low noise analog pre-amplifier

**Other\***  
 Hall Sensor  
 Temp sensor (-40C to 125C)  
 SD/SDIO/MMC Host Controller  
 CAN Bus

\*On database, but may not be supported yet

Name:   ADC  
  DAC  
  GND  
  Control  
  Arduino  
  Touch  
  GPIO  
  Misc

\*GPIO: Port Input Only  
 \*ADC: Pre-amplifier ADC  
 GPIO 3.3V tolerant only

## DOIT ESP32

## DOIT ESP32 DEVKIT V1 PINOUT

Chip-enable signal, Active High.		EN	pin15	pin15	GPIO23	SPI_MOSI	HS1_STROBE											
ADC_PA	RTC_GPIO0	ADC1_CH0	SENSOR_VP	GPIO30	pin14	GPIO22	EMAC_TXD1	UBRTS	I2C_SCL									
ADC_PA	RTC_GPIO3	ADC1_CH3	SENSOR_VN	GPIO39	pin13	GPIO1	EMAC_RXD2	UBRXD	CLK_OUT3									
	RTC_GPIO4	ADC1_CH6	VDET1	GPIO34	pin12	GPIO3		UBRXD	CLK_OUT2									
	RTC_GPIO5	ADC1_CH7	VDET2	GPIO35	pin11	GPIO21	EMAC_TX_EN		I2C_SDA									
XTAL_32KHZ	Touch9	RTC_GPIO9	ADC1_CH4	GPIO32	pin10	GPIO19	EMAC_TXD0	UBCTS	SPI_MISO									
XTAL_32KHZ	Touch8	RTC_GPIO8	ADC1_CH5	GPIO33	pin9	GPIO18		SPI_CLK	HS1_DATA7									
	DAC_1	RTC_GPIO6	ADC2_CH8	EMAC_RXD0	pin8	GPIO5	EMAC_RX_CLK	SPI_CS0	HS1_DATA6									
	DAC_2	RTC_GPIO7	ADC2_CH9	EMAC_RXD1	pin7	GPIO17	EMAC_CLKOUT180	U2_TXD	HS1_DATA5									
	Touch7	RTC_GPIO17	ADC2_CH7	EMAC_RX_DV	pin6	GPIO16	EMAC_CLKOUT	U2_RXD	HS1_DATA4									
HS2_CLK	SD_CLK	HSPI_CLK	MTHS	Touch6	RTC_GPIO16	ADC2_CH6	EMAC_TXD2	GPIO14	EMAC_TX_ER	ADC2_CH0	RTCI010	Touch0	HSPIHD	SD_DATA1	HS2_DATA1			
HS2_DATA2	SD_DATA2	HSPI_MISO	MTD1	Touch5	RTC_GPIO15	ADC2_CH5	EMAC_TXD3	GPIO12	pin4	GPIO2	ADC2_CH2	RTCI012	Touch2	HSPIWP				
HS2_DATA3	SD_DATA3	HSPI_MOSI	MTCK	Touch4	RTC_GPIO14	ADC2_CH4	EMAC_RX_ER	GPIO13	pin3	GPIO15	EMAC_RXD3	ADC2_CH3	RTCI013	Touch3	MTDO	HSPI_CS0	SD_CHD	HS2_CHD
					GND	pin2												
					VIN	pin1					VDD	3V3						

**POWER**

**GND**

Serial Pin

Header Pin

Control

Physical Pin

Port Pin

Touch Pin

IO Pin





playelek.com  
22-aug-2016  
ver 1

### physical pinout

From: <https://wiki.csgalileo.org/> - Galileo Labs

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