

# ESP32

## AZ-Delivery D1 Mini ESP32

pinout

datasheet

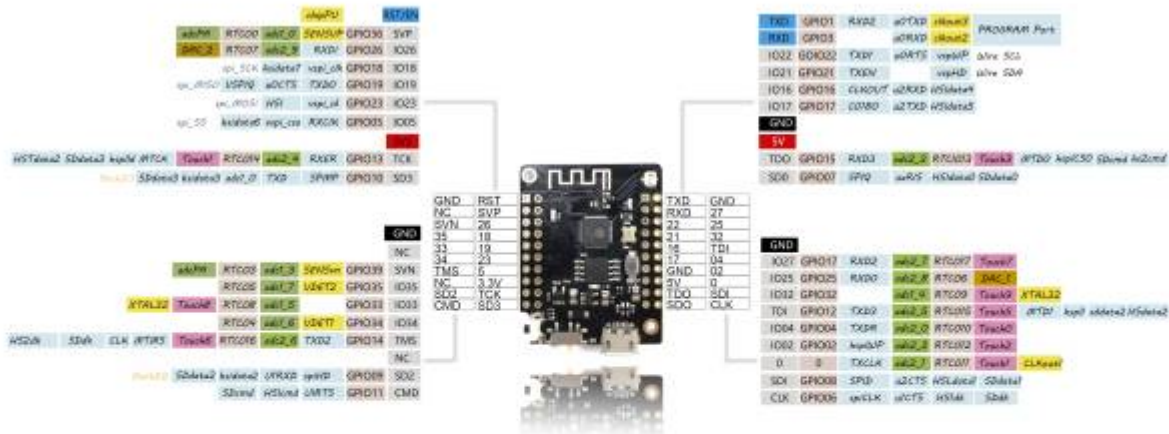
## TTGO ESP32

builtin led pin 22

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

Chip is ESP32D0WDQ6 (revision 1)  
Features: WiFi, BT, Dual Core, 240MHz, VRef calibration in efuse

- PIN 22 is connected to green LED



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/l  
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 SPI 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 datasheet, but may not be supported yet

**Name**

- ADC
- DIAC
- SPI
- UART
- Touch
- Misc

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

- [arduino example](#)

# DOIT ESP32

## DOIT ESP32 DEVKIT V1 PINOUT

Chip-enable signal, Active High. EN	pin15	pin15	GPIO23	SPI_MOSI	HS1_STROBE	
ADC_PA RTC_GPI00 ADC1_CH0 SENSOR_VP	GPIO36	pin14	GPIO22	EMAC_TXD1	UBRVS	I2C_SCL
ADC_PA RTC_GPI03 ADC1_CH3 SENSOR_VN	GPIO39	pin13	GPIO1	EMAC_RXD2	UBTXD	CLK_OUT3
RTC_GPI04 ADC1_CH6 VDET1	GPIO34	pin12	GPIO3		UBRXD	CLK_OUT2
RTC_GPI05 ADC1_CH7 VDET2	GPIO35	pin11	GPIO21	EMAC_TX_EN		I2C_SDA
XTAL_32KHz Touch9 RTC_GPI09 ADC1_CH4	GPIO32	pin10	GPIO19	EMAC_TXD0	UBCTS	SPI_MISO
XTAL_32KHz Touch8 RTC_GPI08 ADC1_CH5	GPIO33	pin9	GPIO18			SPI_CLK
DAC_1 RTC_GPI06 ADC2_CH8 EMAC_RXD0	GPIO29	pin8	GPIO15	EMAC_RX_CLK	SPI_CS0	HS1_DATA6
DAC_2 RTC_GPI07 ADC2_CH9 EMAC_RXD1	GPIO26	pin7	GPIO17	EMAC_CLKOUT180	U2_TXD	HS1_DATA5
Touch7 RTC_GPI017 ADC2_CH7 EMAC_RXD0	GPIO27	pin6	GPIO16	EMAC_CLKOUT	U2_RXD	HS1_DATA4
HS2_CLK SD_CLK HSPI_CLK MINS		pin5	GPIO4	EMAC_TX_ER	ADC2_CH0	RTCIO10
HS2_DATA2 SD_DATA2 HSPI_MISO MTD1		pin5	GPIO4	EMAC_TX_ER	ADC2_CH6	EMAC_TXD2
HS2_DATA3 SD_DATA3 HSPI_MOSI MTK		pin4	GPIO2		ADC2_CH2	RTCIO12
		pin3	GPIO15	EMAC_RXD3	ADC2_CH3	RTCIO13
		pin2				
		pin1				

Legend:

- POWER
- GND
- Serial Pin
- Analog Pin
- Control
- Physical Pin
- Not Pin
- Touch Pin
- DAC Pin

### physical pinout

## MakerHawk ESP32 OLED Display

- resources
- github lib

→ Pins with this arrow are used by on-board OLED, they must not be used for other purpose unless you know what you are doing!

### NEW WIFI Kit 32 Pinout Diagram

Notes:

- \*GPIO input only
- \*ADC prescaler
- GPIOs are 3.3V tolerant only

Legend:

- GND
- Power
- Control
- Touch Pin
- GPIO Port pin
- Analog Pin
- DAC
- Serial SPI I2C
- Physical Pin
- On-board hardware Pin

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

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