

ESP32

AZ-Delivery D1 Mini ESP32

pinout

datasheet

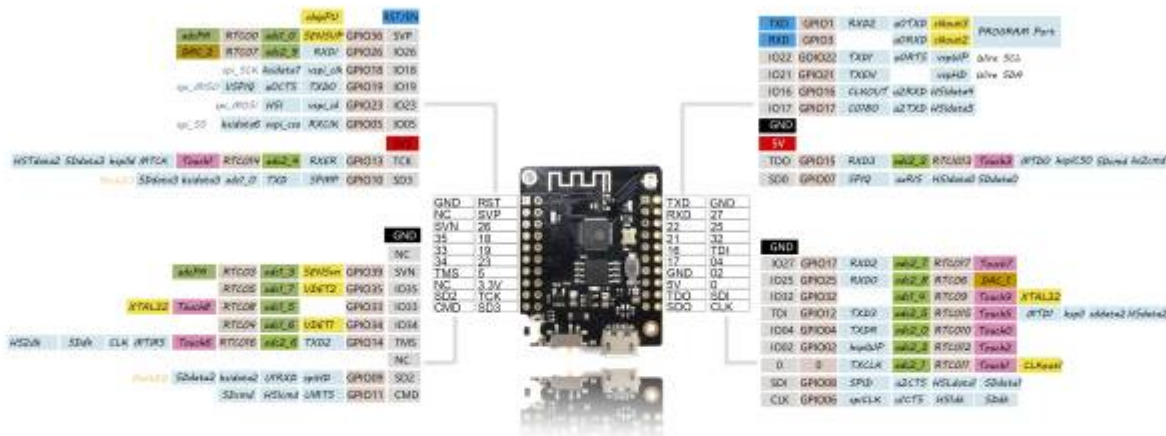
TTGO ESP32

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/j
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**
DAC
GND **SPI**
Control **UART**
Arduino **Touch**
GPIO **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

ADC_PA	RTC_GPI00	ADC1_CH0	SENSOR_VP	GPI036	pin14	pin15	GPI023	SPI_MOSI	HS1_STROBE										
ADC_PA	RTC_GPI03	ADC1_CH3	SENSOR_VN	GPI039	pin13	pin14	GPI022	EMAC_TXD1	UBRTS	I2C_SCL									
RTC_GPI04	ADC1_CH6	VDET1		GPI034	pin12	pin13	GPI01	EMAC_RXD2	UBTXD	CLK_OUT3									
RTC_GPI05	ADC1_CH7	VDET2		GPI035	pin11	pin12	GPI03		UBRXD	CLK_OUT2									
XTAL_32KHz	Touch9	RTC_GPI09	ADC1_CH4		pin10	pin11	GPI021	EMAC_TX_EN		I2C_SDA									
XTAL_32KHz	Touch8	RTC_GPI08	ADC1_CH5		pin9	pin10	GPI019	EMAC_TXD0	UBCTS	SPI_MISO									
DAC_1	RTC_GPI06	ADC2_CH8	EMAC_RXD0	GPI020	pin8	pin9	GPI018		SPI_CLK	HS1_DATA7									
DAC_2	RTC_GPI07	ADC2_CH9	EMAC_RXD1	GPI020	pin7	pin8	GPI05	EMAC_RX_CLK	SPI_CS0	HS1_DATA6									
Touch7	RTC_GPI017	ADC2_CH7	EMAC_RXD0	GPI027	pin6	pin7	GPI017	EMAC_CLKOUT180	U2_TXD	HS1_DATA5									
HS2_CLK	SD_CLK	HSP1_CLK	MINS		pin5	pin6	GPI016	EMAC_CLKOUT	U2_RXD	HS1_DATA4									
HS2_DATA2	SD_DATA2	HSP1_MISO	MTD1	Touch5	RTC_GPI015	ADC2_CH6	EMAC_TXD2	GPI014	pin5	GPI04	EMAC_TX_ER	ADC2_CH0	RTCIO10	Touch0	HSP1HD	SD_DATA1	HS2_DATA1		
HS2_DATA3	SD_DATA3	HSP1_MOSI	MTCK	Touch4	RTC_GPI014	ADC2_CH4	EMAC_RX_ER	GPI013	pin4	pin4	GPI02	ADC2_CH2	RTCIO12	Touch2	HSP1WP				
									pin3	pin3	GPI015	EMAC_RXD3	ADC2_CH3	RTCIO13	Touch3	MTD0	HSP1_CS0	SD_CHD	HS2_CHD
									pin2	pin2	GND								
									pin1	pin1	VDD_3V3								

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/offset
*GPIOs are 3.3V tolerant only

Power Detect/En

TPU04	ADC2_4	GPI013	13	GND	
TOUCH5	ADC2_5	GPI012	12	5V3	
TOUCH6	ADC2_6	GPI014	14	5V	
TOUCH7	ADC2_7	GPI027	27	5V	
DAC1	ADC2_9	GPI026	26	5V	
LED	DAC2	ADC2_8	GPI025	25	5V
Touch8	ADC1_5	GPI033*	XTAL_32	33	5V
Touch9	ADC1_4	GPI032*	XTAL_32	32	5V
	ADC1_7	GPI035*	35		
	ADC1_6	GPI034*	34		
	ADC1_3*	GPI039*	Senson	39	
	ADC1_2*	GPI038*	CapNP	38	
	ADC1_1*	GPI037*	CapNP	37	
	ADC1_0*	GPI036*	Sensexp	36	

Legend:

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

Pinout details (GPIOs):

- 18 CLK3 GPI01
- 19 CLK2 GPI03
- 25 GPI015 ADC2_3 HSP1_CS0 Touch3 OLED_SCL
- 2 CS GPI02 ADC2_2 HSP1_WP Touch2
- 0 CLK1 GPI00 ADC2_1 Touch1 Button
- 4 GPI04 ADC2_0 HSP1_M0 Touch0 OLED_SDA
- 16 GPI016 U2_RXD OLED_HSI
- 17 GPI017 U2_TXD
- 5 GPI05 V_SPT_CS0
- 14 SCE GPI018 V_SPT_CLK
- 23 MOSI GPI023 V_SPT_D
- 19 MISO GPI019 V_SPT_R U0_CTS
- 22 SCL GPI022 V_SPT_WP U0_RTS
- 21 SDA GPI021 V_SPT_ID Vext control

WIFI Kit 32

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