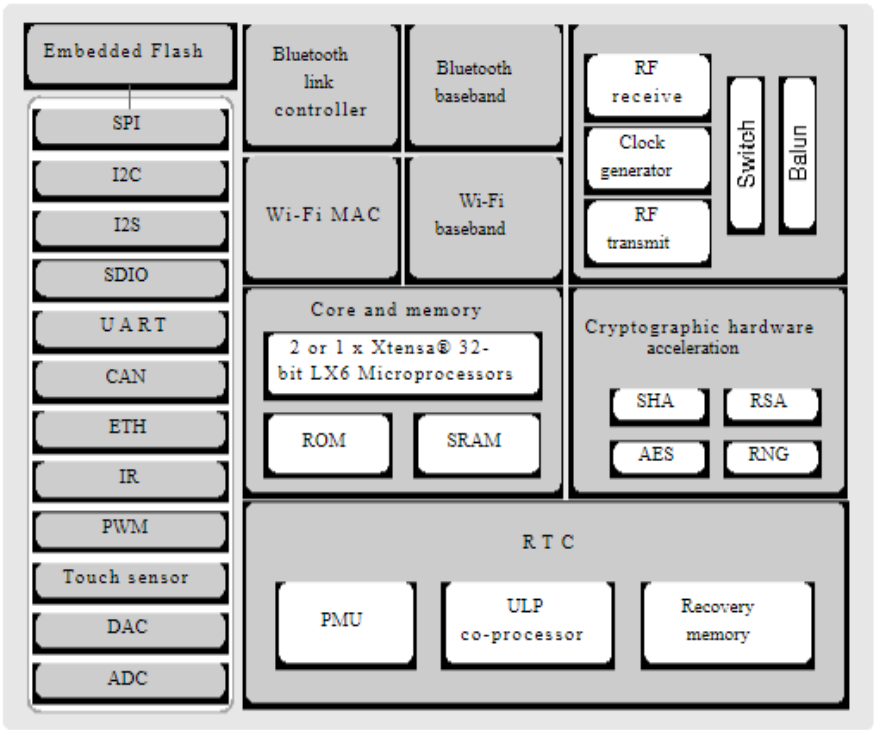
ESP32-D0WDQ6

Diagrama de Blocos



Pinos do ESP

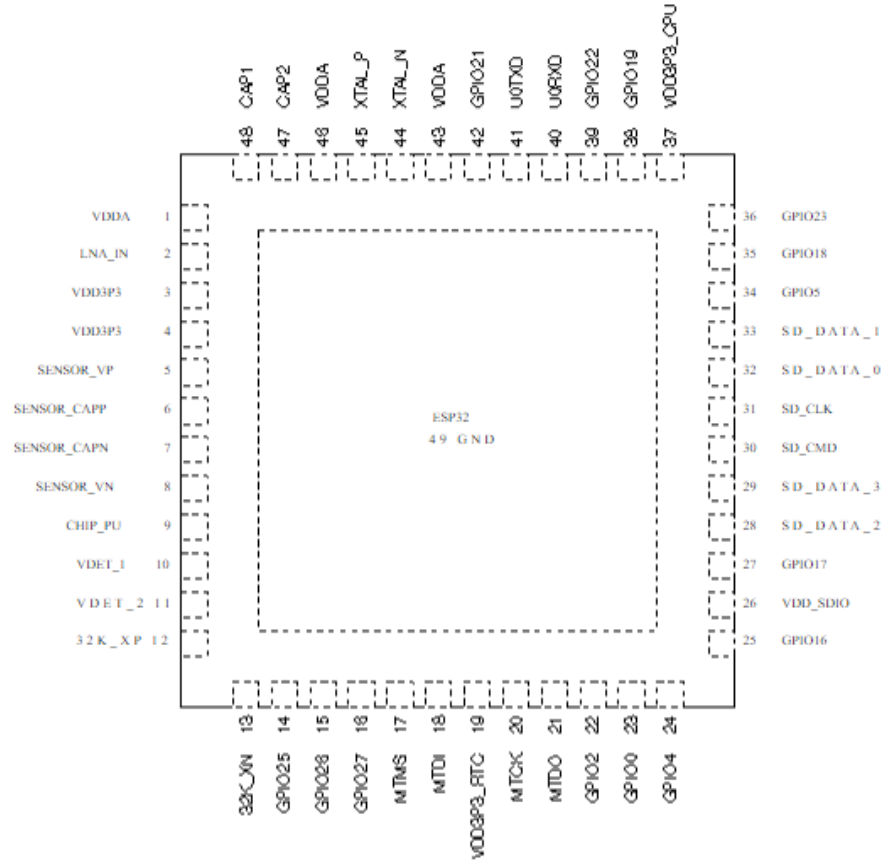


Figure 2: ESP32 Pin Layout (QFN 6*6, Top View)

Name	No.	Type	Function
VDET_1	10	I	GPIO34, ADC1_CH6, RTC_GPIO4
VDET_2	11	I	GPIO35, ADC1_CH7, RTC_GPIO5
32K_XP	12	I/O	GPIO32, ADC1_CH4, RTC_GPIO9, TOUCH9, 32K_XP (32.768 kHz crystal oscillator input)
32K_XN	13	I/O	GPIO33, ADC1_CH5, RTC_GPIO8, TOUCH8, 32K_XN (32.768 kHz crystal oscillator output)
GPIO25	14	I/O	GPIO25, ADC2_CH8, RTC_GPIO6, DAC_1, EMAC_RXD0
GPIO26	15	I/O	GPIO26, ADC2_CH9, RTC_GPIO7, DAC_2, EMAC_RXD1
GPIO27	16	I/O	GPIO27, ADC2_CH7, RTC_GPIO17, TOUCH7, EMAC_RX_DV
MTMS	17	I/O	GPIO14, ADC2_CH6, RTC_GPIO16, TOUCH6, EMAC_TXD2, HSPICLK, HS2_CLK, SD_CLK, MTMS
MTDI	18	I/O	GPIO12, ADC2_CH5, RTC_GPIO15, TOUCH5, EMAC_TXD3, HSPIQ, HS2_DATA2, SD_DATA2, MTDI
VDD3P3_RTC	19	P	Input power supply for RTC IO (2.3 V – 3.6 V)
MTCK	20	I/O	GPIO13, ADC2_CH4, RTC_GPIO14, TOUCH4, EMAC_RX_ER, HSPID, HS2_DATA3, SD_DATA3, MTCK
MTDO	21	I/O	GPIO15, ADC2_CH3, RTC_GPIO13, TOUCH3, EMAC_RXD3, HSPICS0, HS2_CMD, SD_CMD, MTDO
GPIO2	22	I/O	GPIO2, ADC2_CH2, RTC_GPIO12, TOUCH2, HSPIWP, HS2_DATA0, SD_DATA0
GPIO0	23	I/O	GPIO0, ADC2_CH1, RTC_GPIO11, TOUCH1, EMAC_TX_CLK, CLK_OUT1,
GPIO4	24	I/O	GPIO4, ADC2_CH0, RTC_GPIO10, TOUCH0, EMAC_TX_ER, HSPIHD, HS2_DATA1, SD_DATA1
VDD_SDIO			
GPIO16	25	I/O	GPIO16, HS1_DATA4, U2RXD, EMAC_CLK_OUT
VDD_SDIO	26	P	Output power supply: 1.8 V or the same voltage as VDD3P3_RTC
GPIO17	27	I/O	GPIO17, HS1_DATA5, U2TXD, EMAC_CLK_OUT_180
SD_DATA_2	28	I/O	GPIO9, HS1_DATA2, U1RXD, SD_DATA2, SPIHD
SD_DATA_3	29	I/O	GPIO10, HS1_DATA3, U1TXD, SD_DATA3, SPIWP
SD_CMD	30	I/O	GPIO11, HS1_CMD, U1RTS, SD_CMD, SPICS0
SD_CLK	31	I/O	GPIO6, HS1_CLK, U1CTS, SD_CLK, SPICLK
SD_DATA_0	32	I/O	GPIO7, HS1_DATA0, U2RTS, SD_DATA0, SPIQ
SD_DATA_1	33	I/O	GPIO8, HS1_DATA1, U2CTS, SD_DATA1, SPID
VDD3P3_CPU			
GPIO5	34	I/O	GPIO5, HS1_DATA6, VSPICS0, EMAC_RX_CLK
GPIO18	35	I/O	GPIO18, HS1_DATA7, VSPICLK
GPIO23	36	I/O	GPIO23, HS1_STROBE, VSPID
VDD3P3_CPU	37	P	Input power supply for CPU IO (1.8 V – 3.6 V)
GPIO19	38	I/O	GPIO19, U0CTS, VSPIQ, EMAC_TXD0
GPIO22	39	I/O	GPIO22, U0RTS, VSPIWP, EMAC_TXD1
U0RXD	40	I/O	GPIO3, U0RXD, CLK_OUT2
U0TXD	41	I/O	GPIO1, U0TXD, CLK_OUT3, EMAC_RXD2
GPIO21	42	I/O	GPIO21, VSPIHD, EMAC_TX_EN
Analog			
VDDA	43	P	Analog power supply (2.3 V – 3.6 V)
XTAL_N	44	O	External crystal output
XTAL_P	45	I	External crystal input
VDDA	46	P	Analog power supply (2.3 V – 3.6 V)
CAP2	47	I	Connects to a 3 nF capacitor and 20 kΩ resistor in parallel to CAP1
CAP1	48	I	Connects to a 10 nF series capacitor to ground
GND	49	P	Ground

O Módulo ESP32 com Wifi e ESP-WROOM-32 é um compacto e poderoso eletrônico baseado no chip Chip ESP32-D0WDQ6, que mostra-se uma evolução do conhecido módulo ESP8266 da Espressif Systems, incorporando conectividade WiFi e conexão Bluetooth.