

ESP32 Microcontroller									WildFi Tag			Additional Information		
Name	Pin Number	Type	GPIO	RTC	SPI	I2S	I2C	UART	WildFIREv6	20-Pin Extension	16-Pin Extension	Comment 1	Comment 2	ESP32 Functions
VDDA	1	Power							3.3V	12	15			Analog power supply (2.3 V ~ 3.6 V)
LNA_IN	2	I/O							Antenna					RF input and output
VDDA3P3	3	Power							3.3V 0.1uF + 10uF	12	15			Analog power supply (2.3 V ~ 3.6 V)
VDDA3P3	4	Power							3.3V 0.1uF + 10uF	12	15			Analog power supply (2.3 V ~ 3.6 V)
SENSOR_VP	5	I	GPIO36	RTC_GPIO0					[FREE-> INTERNAL HALL]			no internal pullup/-down	Used by Hall Sensor	GPIO36, ADC1_CH0, RTC_GPIO0
SENSOR_CAPP	6	I	GPIO37	RTC_GPIO1					ACC INT1			no internal pullup/-down		GPIO37, ADC1_CH1, RTC_GPIO1
SENSOR_CAPN	7	I	GPIO38	RTC_GPIO2					WAKE-UP INPUT	17		no internal pullup/-down		GPIO38, ADC1_CH2, RTC_GPIO2
SENSOR_VN	8	I	GPIO39	RTC_GPIO3					[FREE-> INTERNAL HALL]			no internal pullup/-down	Used by Hall Sensor	GPIO39, ADC1_CH3, RTC_GPIO3
EN = CHIP_PU	9	I							RESET (with pull-up)		14	no internal pullup/-down		High: On; enables the module, Low: Off; the module powers off, Note: Do not leave this pin floating
IO34	10	I	GPIO34	RTC_GPIO4					FREE			no internal pullup/-down		ADC1_CH6, RTC_GPIO4
IO35	11	I	GPIO35	RTC_GPIO5					ADC Voltage Measurement			no internal pullup/-down		ADC1_CH7, RTC_GPIO5
IO32	12	I/O	GPIO32	RTC_GPIO9		I2S_WS			I2S_WS	8				32K_XP (32.768 kHz crystal oscillator input), ADC1_CH4, TOUCH9, RTC_GPIO9
IO33	13	I/O	GPIO33	RTC_GPIO8		I2S_SDO			I2S_SDO	6				32K_XN (32.768 kHz crystal oscillator output), ADC1_CH5, TOUCH8, RTC_GPIO8
IO25	14	I/O	GPIO25	RTC_GPIO6					RTC INT2 (PULL-UP)					GPIO25, DAC_1, ADC2_CH8, RTC_GPIO6, EMAC_RXD0
IO26	15	I/O	GPIO26	RTC_GPIO7		I2S_SCK			I2S_SCK	10				GPIO26, DAC_2, ADC2_CH9, RTC_GPIO7, EMAC_RXD1
IO27	16	I/O	GPIO27	RTC_GPIO17					GPIO_A	20				GPIO27, ADC2_CH7, TOUCH7, RTC_GPIO17, EMAC_RX_DV
IO14	17	I/O	GPIO14	RTC_GPIO16	(HSPI) SCLK		SCL (Alt.)		SCLK	9		During boot/reset = high/PWM		ADC2_CH6, TOUCH6, RTC_GPIO16, MTMS, HSPICK, HS2_CLK, SD_CLK, EMAC_TXD2
IO12	18	I/O	GPIO12	RTC_GPIO15	(HSPI) MISO				MISO	7		Strapping pin (boot-up) MTDI		ADC2_CH5, TOUCH5, RTC_GPIO15, MTDI, HSPIQ, HS2_DATA2, SD_DATA2, EMAC_TXD3
VDD3P3_RTC	19	Power							3.3V					Input power supply for RTC IO (3.0 V ~ 3.6 V)
IO13	20	I/O	GPIO13	RTC_GPIO14	(HSPI) MOSI		SDA (Alt.)		MOSI	5				ADC2_CH4, TOUCH4, RTC_GPIO14, MTCK, HSPID, HS2_DATA3, SD_DATA3, EMAC_RX_ER
IO15	21	I/O	GPIO15	RTC_GPIO13	(HSPI) CS				CS	3		Strapping pin (boot-up) MTDO		ADC2_CH3, TOUCH3, RTC_GPIO13, MTDO, HSPICS0, HS2_CMD, SD_CMD, EMAC_RXD3
IO2	22	I/O	GPIO2	RTC_GPIO12					LED Green			Strapping pin (boot-up)		ADC2_CH2, TOUCH2, RTC_GPIO12, HSPIWP, HS2_DATA0, SD_DATA0
IO0	23	I/O	GPIO0	RTC_GPIO11					BOOT0		16	Strapping pin (boot-up)		ADC2_CH1, TOUCH1, RTC_GPIO11, CLK_OUT1, EMAC_TX_CLK
IO4	24	I/O	GPIO4	RTC_GPIO10					GPIO_B	1				ADC2_CH0, TOUCH0, RTC_GPIO10, HSPIHD, HS2_DATA1, SD_DATA1, EMAC_TX_ER
IO16	25	I/O	GPIO16						DO NOT USE				Embedded flash, not recommended	GPIO16, HS1_DATA4, U2RXD, EMAC_CLK_OUT
VDD_SDIO	26	Power							NC					Output power supply. See note 1 under the table.
IO17	27	I/O	GPIO17						DO NOT USE				Embedded flash, not recommended	GPIO17, HS1_DATA5, U2TXD, EMAC_CLK_OUT_180
SD2	28	I/O	GPIO9					U1RXD	RXD2	4	9	During boot/reset = high/PWM, SPI flash WROOM		GPIO9, SD_DATA2, SPIHD, HS1_DATA2, U1RXD
SD3	29	I/O	GPIO10					U1TXD	TXD2	2	7	During boot/reset = high/PWM, SPI flash WROOM		GPIO10, SD_DATA3, SPIWP, HS1_DATA3, U1TXD
CMD	30	I/O	GPIO11						DO NOT USE			During boot/reset = high/PWM, SPI flash WROOM	Embedded flash, not recommended	GPIO11, SD_CMD, SPICS0, HS1_CMD, U1RTS
CLK	31	I/O	GPIO6						DO NOT USE			During boot/reset = high/PWM, SPI flash WROOM	Embedded flash, not recommended	GPIO6, SD_CLK, SPICK, HS1_CLK, U1CTS
SD0	32	I/O	GPIO7						DO NOT USE			During boot/reset = high/PWM, SPI flash WROOM	Embedded flash, not recommended	GPIO7, SD_DATA0, SPIQ, HS1_DATA0, U2RTS
SD1	33	I/O	GPIO8						DO NOT USE			During boot/reset = high/PWM, SPI flash WROOM	Embedded flash, not recommended	GPIO8, SD_DATA1, SPID, HS1_DATA1, U2CTS
IO5	34	I/O	GPIO5		(VSPi) CS				(DO NOT USE)			Strapping pin (boot-up)		GPIO5, VSPICS0, HS1_DATA6, EMAC_RX_CLK
IO18	35	I/O	GPIO18		(VSPi) SCLK				POWER2	13				GPIO18, VSPICK, HS1_DATA7
IO23	36	I/O	GPIO23		(VSPi) MOSI				LED Red					GPIO23, VSPID, HS1_STROBE
VDD3P3_CPU	37	Power							3.3V					Input power supply for CPU IO (1.8 V ~ 3.6 V)
IO19	38	I/O	GPIO19		(VSPi) MISO				POWER	14				GPIO19, VSPIQ, U0CTS, EMAC_TXD0
IO22	39	I/O	GPIO22				SCL		SCL	18				GPIO22, VSPIWP, U0RTS, EMAC_TXD1
U0RXD	40	I/O	GPIO3					U0RXD	USB RXD		1	During boot/reset = high/PWM		GPIO3, U0RXD, CLK_OUT2
U0TXD	41	I/O	GPIO1					U0TXD	USB TXD		3			GPIO1, U0TXD, CLK_OUT3, EMAC_RXD2
IO21	42	I/O	GPIO21				SDA		SDA	16				GPIO21, VSPIHD, EMAC_TX_EN
VDDA	43	Power							3.3V	12	15			Analog power supply (2.3 V ~ 3.6 V)
XTAL_N_NC	44	NC							NC					NC
XTAL_P_NC	45	NC							NC					NC
VDDA 46 P	46	Power							3.3V	12	15			Analog power supply (2.3 V ~ 3.6 V)
CAP2_NC	47	NC							NC					NC
CAP1_NC	48	NC							NC					NC
V_BATT	-	Power								15	2 + 4			
GND	-	Power								11 + 19	8 + 10 + 12			