

# ESP32-PICO-KIT - Pin Descriptions

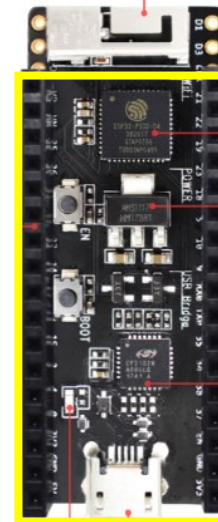
## J3 Header

No.	Name	Type	Function
1	FLASH_CS (FCS)	I/O	GPIO16, HS1_DATA4 (See 1) , U2RXD, EMAC_CLK_OUT
2	FLASH_SD0 (FSD0)	I/O	GPIO17, HS1_DATA5 (See 1) , U2TXD, EMAC_CLK_OUT_180
3	FLASH_SD2 (FSD2)	I/O	GPIO11, SD_CMD, SPICSO, HS1_CMD (See 1) , U1RTS
4	SENSOR_VP (FSVP)	I	GPIO36, ADC1_CH0, RTC_GPIO0
5	SENSOR_VN (FSVN)	I	GPIO39, ADC1_CH3, RTC_GPIO3
6	IO25	I/O	GPIO25, DAC_1, ADC2_CH8, RTC_GPIO6, EMAC_RXD0
7	IO26	I/O	GPIO26, DAC_2, ADC2_CH9, RTC_GPIO7, EMAC_RXD1
8	IO32	I/O	32K_XP (See 2a) , ADC1_CH4, TOUCH9, RTC_GPIO9
9	IO33	I/O	32K_XN (See 2b) , ADC1_CH5, TOUCH8, RTC_GPIO8
10	IO27	I/O	GPIO27, ADC2_CH7, TOUCH7, RTC_GPIO17 EMAC_RX_DV
11	IO14	I/O	ADC2_CH6, TOUCH6, RTC_GPIO16, MTMS, HSPICLK, HS2_CLK, SD_CLK, EMAC_TXD2
12	IO12	I/O	ADC2_CH5, TOUCH5, RTC_GPIO15, MTDI (See 4) , HSPIQ, HS2_DATA2, SD_DATA2, EMAC_TXD3
13	IO13	I/O	ADC2_CH4, TOUCH4, RTC_GPIO14, MTCK, HSPID, HS2_DATA3, SD_DATA3, EMAC_RX_ER
14	IO15	I/O	ADC2_CH3, TOUCH3, RTC_GPIO13, MTDO, HSPICSO HS2_CMD, SD_CMD, EMAC_RXD3
15	IO2	I/O	ADC2_CH2, TOUCH2, RTC_GPIO12, HSPiWP, HS2_DATA0, SD_DATA0
16	IO4	I/O	ADC2_CH0, TOUCH0, RTC_GPIO10, HSPiHD, HS2_DATA1, SD_DATA1, EMAC_TX_ER
17	IO0	I/O	ADC2_CH1, TOUCH1, RTC_GPIO11, CLK_OUT1 EMAC_TX_CLK
18	VDD33 (3V3)	P	3.3V power supply
19	GND	P	Ground
20	EXT_5V (5V)	P	5V power supply

3. This pin is connected to the pin of the USB bridge chip on the board.

4. The operating voltage of ESP32-PICO-KIT's embedded SPI flash is 3.3V. Therefore, the strapping pin MTDI should hold bit zero during the module power-on reset. If connected, please make sure that this pin is not held up on reset.

## ESP32-PICO-D4



J3 Header

USB

J2 Header

## J2 Header

No.	Name	Type	Function
1	FLASH_SD1 (FSD1)	I/O	GPIO8, SD_DATA1, SPID, HS1_DATA1 (See 1) , U2CTS
2	FLASH_SD3 (FSD3)	I/O	GPIO7, SD_DATA0, SPIQ, HS1_DATA0 (See 1) , U2RTS
3	FLASH_CLK (FCLK)	I/O	GPIO6, SD_CLK, SPICLK, HS1_CLK (See 1) , U1CTS
4	IO21	I/O	GPIO21, VSPiHD, EMAC_TX_EN
5	IO22	I/O	GPIO22, VSPiWP, U0RTS, EMAC_TXD1
6	IO19	I/O	GPIO19, VSPiQ, U0CTS, EMAC_TXD0
7	IO23	I/O	GPIO23, VSPID, HS1_STROBE
8	IO18	I/O	GPIO18, VSPICLK, HS1_DATA7
9	IO5	I/O	GPIO5, VSPICSO, HS1_DATA6, EMAC_RX_CLK
10	IO10	I/O	GPIO10, SD_DATA3, SPIWP, HS1_DATA3, U1TXD
11	IO9	I/O	GPIO9, SD_DATA2, SPiHD, HS1_DATA2, U1RXD
12	RXD0	I/O	GPIO3, U0RXD (See 3) , CLK_OUT2
13	TXD0	I/O	GPIO1, U0TXD (See 3) , CLK_OUT3, EMAC_RXD2
14	IO35	I	ADC1_CH7, RTC_GPIO5
15	IO34	I	ADC1_CH6, RTC_GPIO4
16	IO38	I	GPIO38, ADC1_CH2, RTC_GPIO2
17	IO37	I	GPIO37, ADC1_CH1, RTC_GPIO1
18	EN	I	CHIP_PU
19	GND	P	Ground
20	VDD33 (3V3)	P	3.3V power supply

1. This pin is connected to the flash pin of ESP32-PICO-D4.

2. 32.768 kHz crystal oscillator: a) input b) output