

UART Configuration Jumpers

ESPPROG RX JUMP JP1A J2 ESP_RXD0_RX0 Conn ESP-Prog UART ESP_EN 1 VDD_U ESPPROG_TX 3 ESPPROG_RX RX→TX ESPPROG_RX 5 6 ESP_BOOT $\stackrel{\perp}{-}$ ESPPROG TX JUMP JP1B ESP_TXD0 ESP_RXD0 TX→RX ESPPROG_TX JP5

In case you mix up the UART directions on your board, these allow you to fix it. Use the jumpers to configure as desired; the bolded connection $\frac{1}{2}$ is the default.

J8 SOICBite connector numbering order

SOICBite IDC UART VDD_U 1 2 ESP_EN 4 CH_PD 1 JP2 vDD_U ESP_BOOT3 6 ESP_TXD0 CH_PD EN 8 ESP_RXD0

The numbering order of the SOICBite connector is counterclockwise (above), but the IDC connector uses Odd/Even.

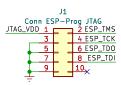
The red circle on the symbol shows the position of the red wire (pin 1) on the clip relative to the pinout.

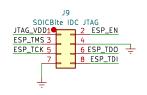
CH_PD and GPI02 were used for programming the original ESP8266, but aren't used on modern models. For an example on how to connect your ESP32, see the bottom

J5 SOICBite connector UART Loopback

GPI02 GND

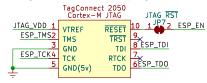
ESP-PROG JTAG





There is no nRST on the ESP-PROG's JTAG header but instead of just pulling it high, it's connected to the EN pin on the ESP prog, which is the ESP's RST pin.

J3 DebugHeader_Cortex-M_JTAG_10p_TagConnect



ESP_EN is connected to the RESET pin here just like in J9.

However, if you want the UART and JTAG interfaces to be completely separate this can be disabled by cutting the jumper.

Connection Examples

Links & Info

Check out the ESP-EZ-Debug-KicadLib/ directory in the repo for symbols and footprints! (Link)

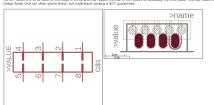
ESP-PROG HW-Reference from Espressif (Link)

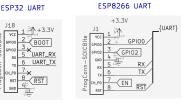
SOICbite connector Github (Link)

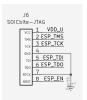
Original symbols for integrating SOICBite and TC2050 connector footprints into your ESP-based designs (jmux-kicad-things Link)

SOICbite Eagle.lbr SOICbite footprint
Allows for direct cloping of a SOIC-8 Testclp onto a PC8 edge for Programming/Debugging purposes without extra comp

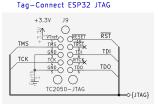
Original footprint created by: Simon Merrit Adapted to Eagle by: Chiel Voswijk (Foxhood)







SOICBite JTAG



Project Github:

https://github.com/0xjmux/ESP-PROG-Adapter ESP-PROG-Adapter Github (Link)

jacobbokor.com

Sheet: /

ESP32 UART

GPIOO 2 BOOT

RST 8 RST

File: ESPPROG-Adapter.kicad sch

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Rev: v1.5 KiCad E.D.A. 8.0.1 ld: 1/1