

Z80 Retro! – ESP32 Interface and Programmer Board with WiFi

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Z80 Retro Interface

File: Z80Interface_sch.kicad_sch

SPI<-->Z80 Bus

File: SPItoZ80Bus.kicad_sch

RS232

File: RS232.kicad_sch

ESP32

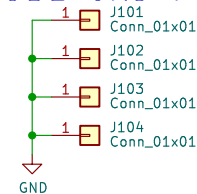
File: ESP32.kicad_sch

MOUNTING HOLES

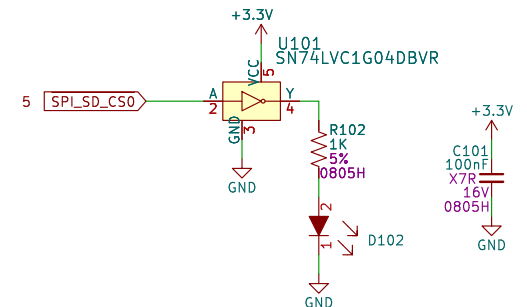
- 4 required for tooling
- 4 required for mechanical
- 1 extra if board connects directly above Z80-Retro main

H1 MountingHole H2 MountingHole H3 MountingHole H4 MountingHole H5 MountingHole

PROBE GND PINS



MICRO SD CARD ACTIVITY



PCB STACKUP NOTE

Use JLC04161H-3313 stackup to give :
* Lower trace impedance (~50ohms).
* GND plane closer to signal layer routing for improved signal integrity.

LOG011

LOG010



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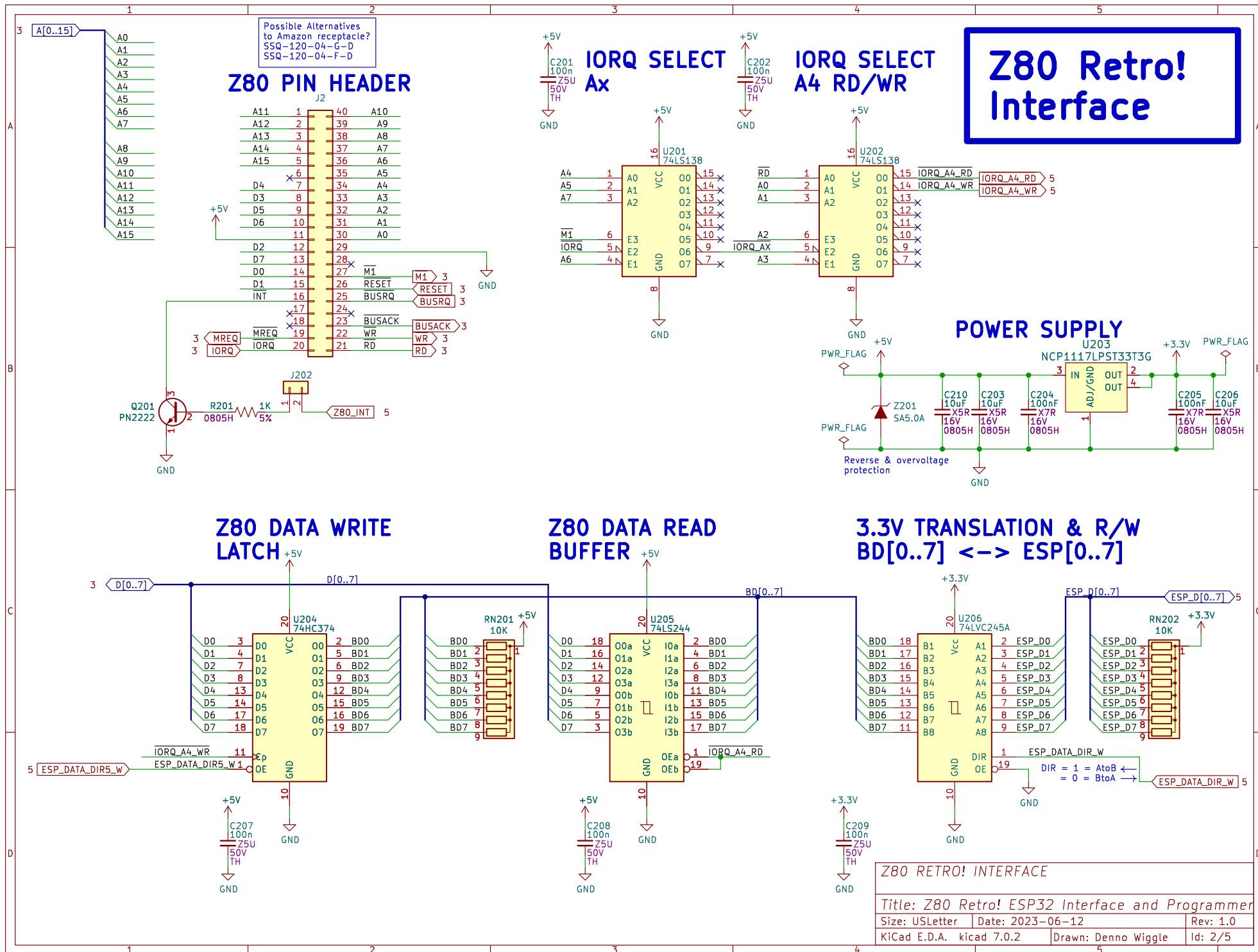
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Z80 Retro! – ESP32-S3 Interface and Programmer With WiFi

Title: Z80 Retro! ESP32 Interface and Programmer

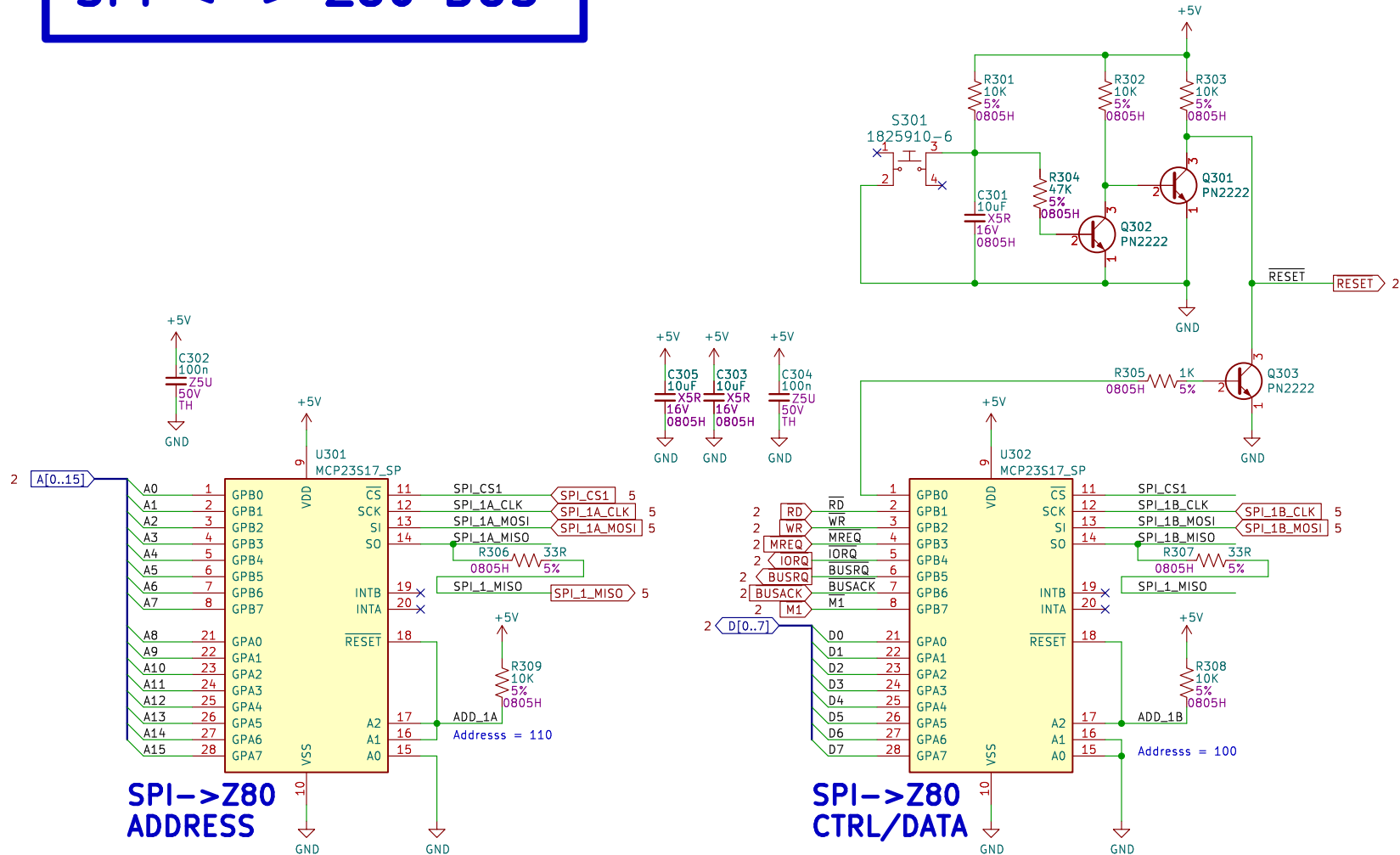
Size: USLetter Date: 2023-06-12 Rev: 1.0

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SPI <--> Z80 BUS

Z80 RESET CIRCUIT



SPI <--> Z80 ADDRESS, DATA, CONTROL
EXPANSION

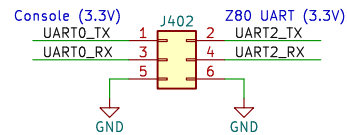
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RS232

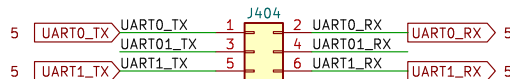
TTL RS232 HEADER



A place to add connection to external TTL level RS232 modules.

Do not connect UART0_RX to a TX source as the ESP32 USB-Serial IC is driving this signal.

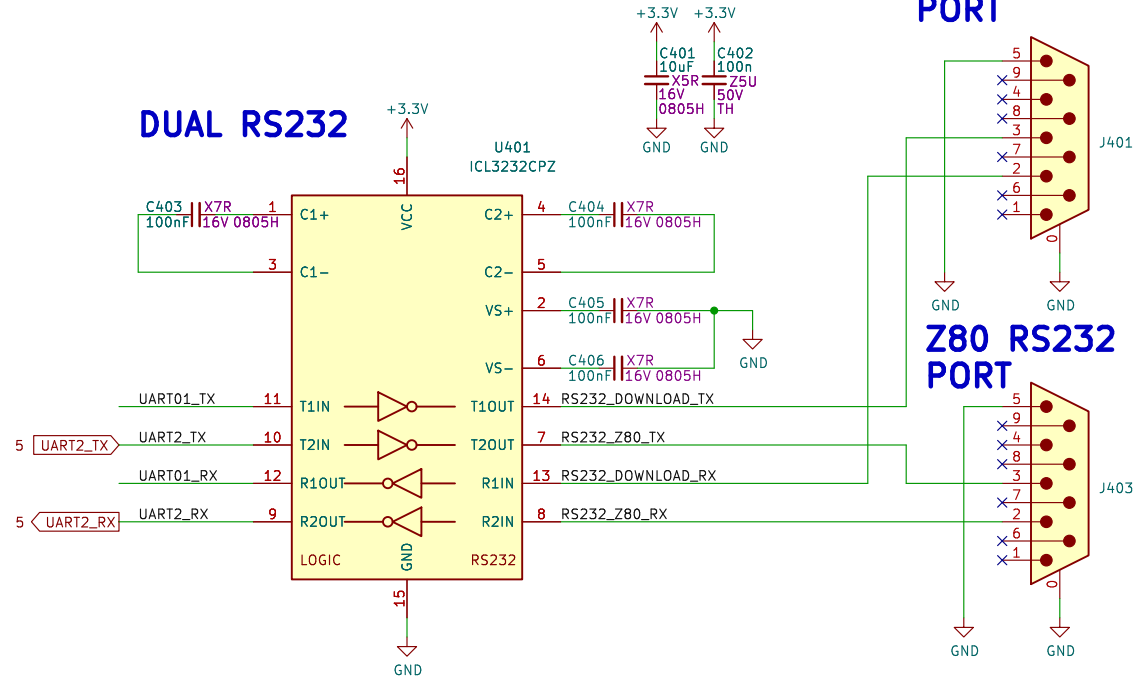
J401 TTL RS232 DB9 SELECTOR



J401 RS232 Output Options
To select ESP32 Console add jumpers 3-5, 4-6 (Uart 1 selected)
To select ESP32 Debug messages add jumper 1-3 (Uart 0 selected)
Default jumper settings = Console 3-5, 4-6 (Uart 1)

ESP32 Console / Download option on uart 1 set in SW.

DUAL RS232



RS232 EXTERNAL INTERFACES

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