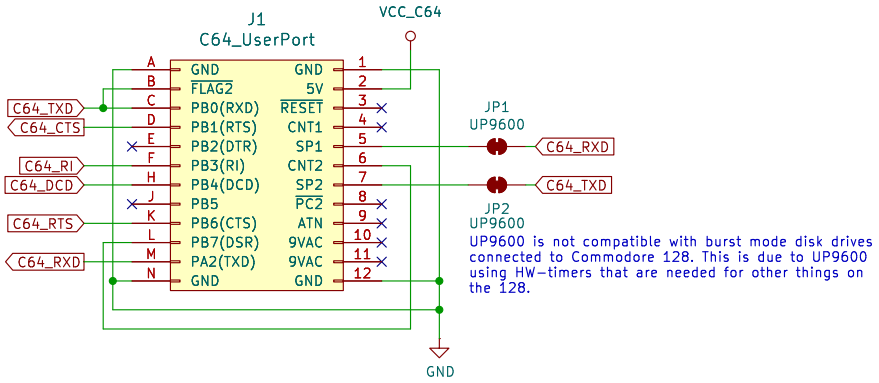

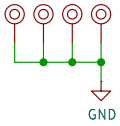

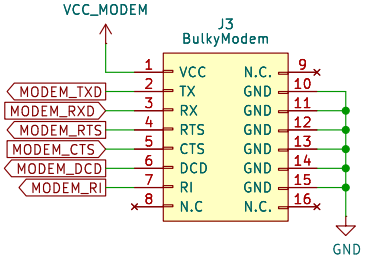

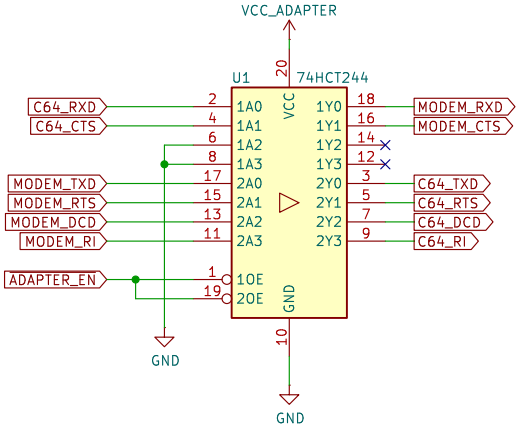

Power & Control

File: Power.kicad_sch

UserPort adapter for connecting to the BulkyModem via a 2x8-pin IDC cable.

Sheet: /
File: BulkyModem UserPort Adapter.kicad_sch

Title: BulkyModem (C64 UserPort Adapter)

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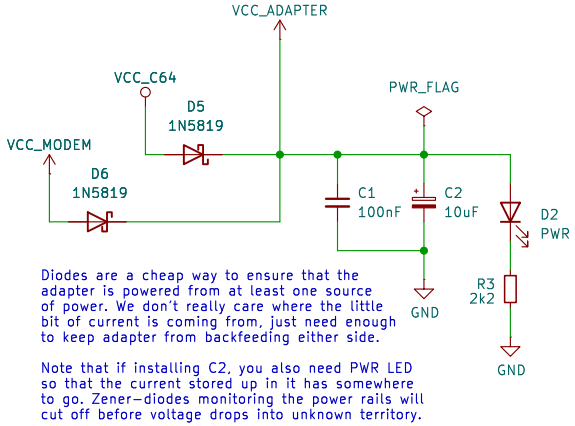
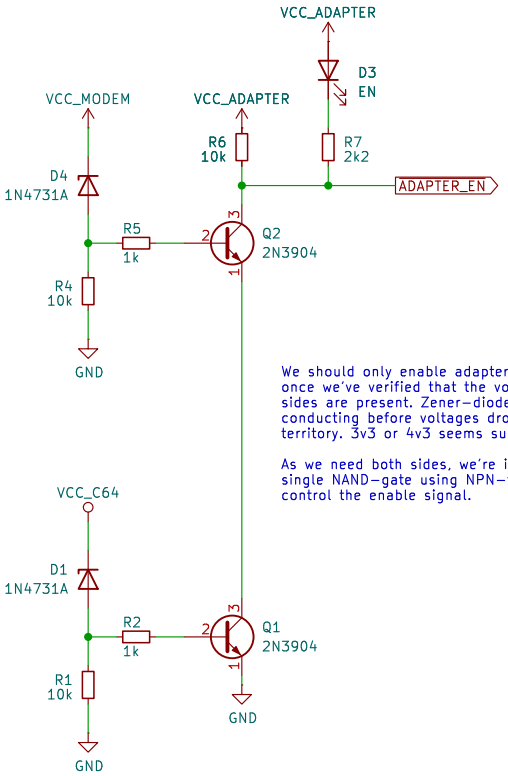


Diodes are a cheap way to ensure that the adapter is powered from at least one source of power. We don't really care where the little bit of current is coming from, just need enough to keep adapter from backfeeding either side.

Note that if installing C2, you also need PWR LED so that the current stored up in it has somewhere to go. Zener-diodes monitoring the power rails will cut off before voltage drops into unknown territory.



We should only enable adapter transmitters once we've verified that the voltage on both sides are present. Zener-diodes should stop conducting before voltages drop into unknown territory. 3v3 or 4v3 seems suitable.

As we need both sides, we're implementing a single NAND-gate using NPN-transistors to control the enable signal.

The C64 and BulkyModem will need to be independently powered, this is in order to avoid backfeeding – one side being partially powered up through digital signal lines. This will cause something to eventually burn out, so we will need to monitor each side and only enable communication once both are powered up.

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File: Power.kicad_sch

Title: Power and control

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