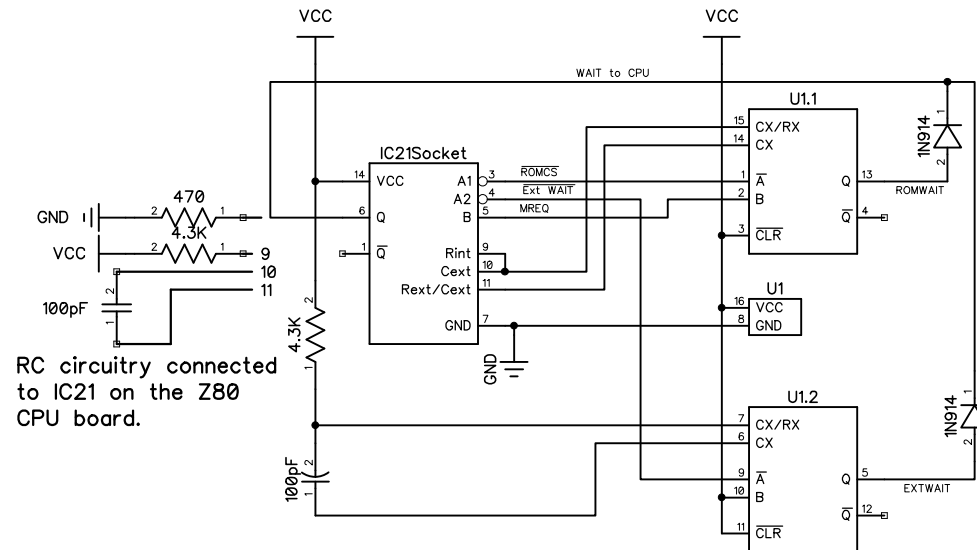


Digital Group Z80 CPU board - WAIT logic fix for expansion cards

The reason for this board is that the original circuit used a 74121 in IC21 - which is NOT re-triggerable. The expansion board logic needs to be able to extend the wait state indefinitely.

The 2x 1N914 diodes act as an OR gate here by driving the WAIT line high if EITHER ROMWAIT or EXTWAIT are high.

The timing RC components for the 74123 are the ones already installed on the Z80 boards, and are accessible to the circuit through pins 9, 10, and 11 of the IC21 socket. This produces a slightly shorter pulse than the previous logic (which was about 300ns) but it works fine in tests and saves adding the extra components on the adapter board.



Another issue with the original logic was that it would ONLY allow you to apply wait states to memory accesses. I/O port accesses could not use the wait logic unless you modified the board as follows:

- pull IC22 pin 12 (or 13) out of the socket
- wire the pulled pin to IORQ (Z80 chip pin 20)

This modification is NOT needed with this new logic.

Mechanically this is assembled on a small pad-per-hole prototype board cut to fit under the EPROM expansion board into the IC21 socket.