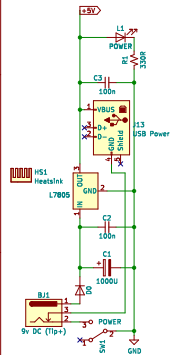


TEC-1G

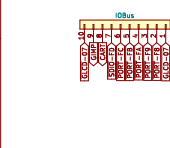
Power Delivery



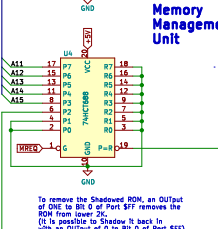
General Input/Output



The TEC Deck



With the Shadow ROM switch ON (on Reset or OUT FF.501), the lower 2K of the 16K ROM is mapped to the lowest 2K of the memory map. This is to provide backward compatibility to older TEC-1 machines and their monitors.



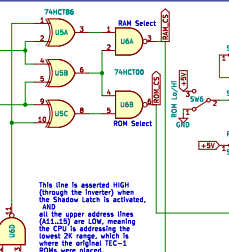
Memory Management Unit

To remove the Shadowed ROM, an Output of ONE to Bit 0 of Port FFF removes the ROM from lower 2K. (It is possible to Shadow it back in with an Output of 0 to Bit 0 of Port FFF)

The ROM is selected (asserted LOW) if:

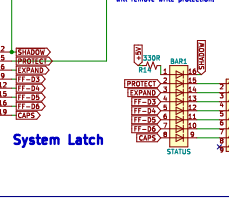
Any address in the lower 2K is requested (with Shadow ON) OR an address is within the top 16K of 64K. (with Shadow OFF)

This ROM socket can also be used to hold a 2K/4K ROM (the original TEC-1, by moving all 3 jumpers). The RAM is selected if the address falls within the user half (32K) of the memory map.

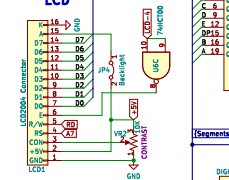


Memory Protection

On Reset, all RAM is writable. Under software control sending Bit 2 high of Port FFF turns ON write protect of the RAM in the second 16K memory space. Sending to Port FFF a value with Bit 2 clear will remove write protection.



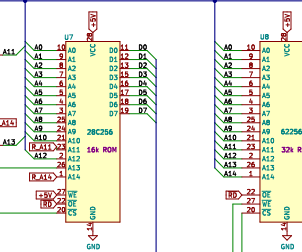
System Latch



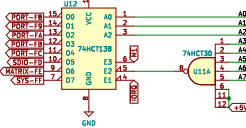
LCD

64K Memory

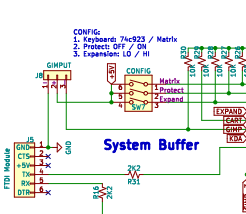
The lower 32K of all RAM is a single chip. The upper 16K of the memory map is reserved for the system ROM, although it is made up of a 32K EPROM to allow one of two monitors to be selected by the user with a switch.



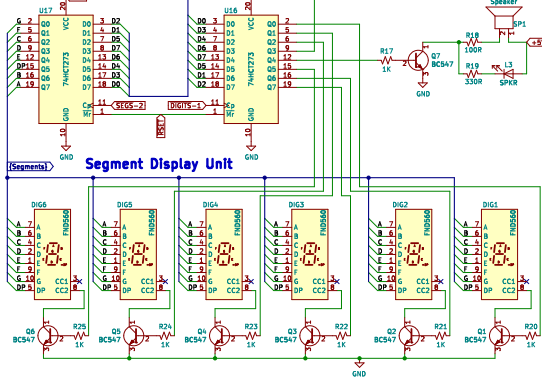
I/O Decoders



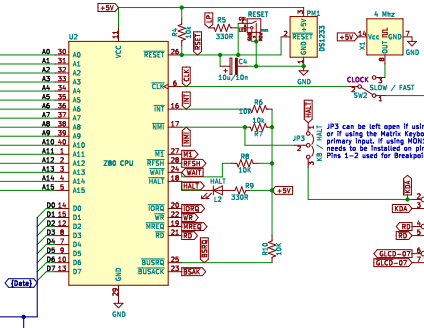
System Buffer



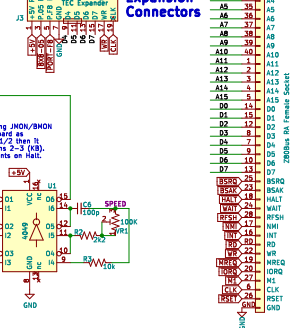
Segment Display Unit



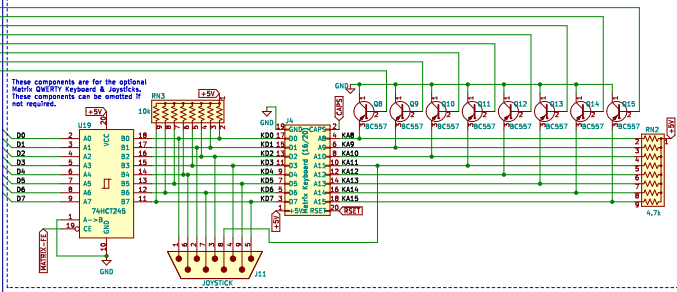
CPU & Clock



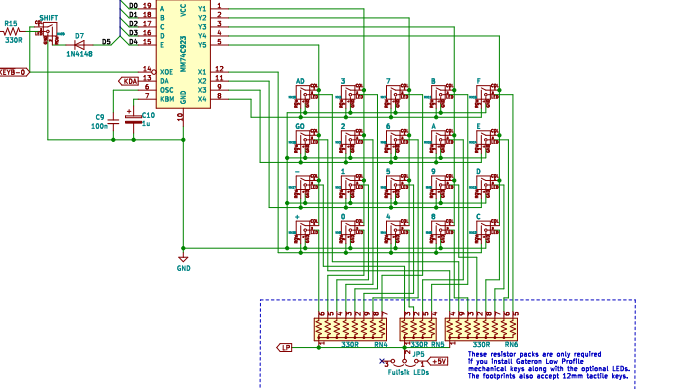
Expansion Connectors



Matrix Keyboard & Joystick



HexPad Encoder



Modelled on the TEC-1 rev.D with DAT add-on
Originally designed by John Hardy, Ken Stone & Jim Robertson
published in Talking Electronics Magazine, 1983 - 1985
Thanks for assistance from: Craig Hart, Brian Chien, Ian McLean
© Mark Jelle - 2025
Sheet: /
File: TEC-1G.kicad.sch
Title: TEC-1G
Size: 12 / 1 Date: 2023-08-14 Rev: 1.4
KiCad E.D.A. kicad (6.0.10) 16: 1/1