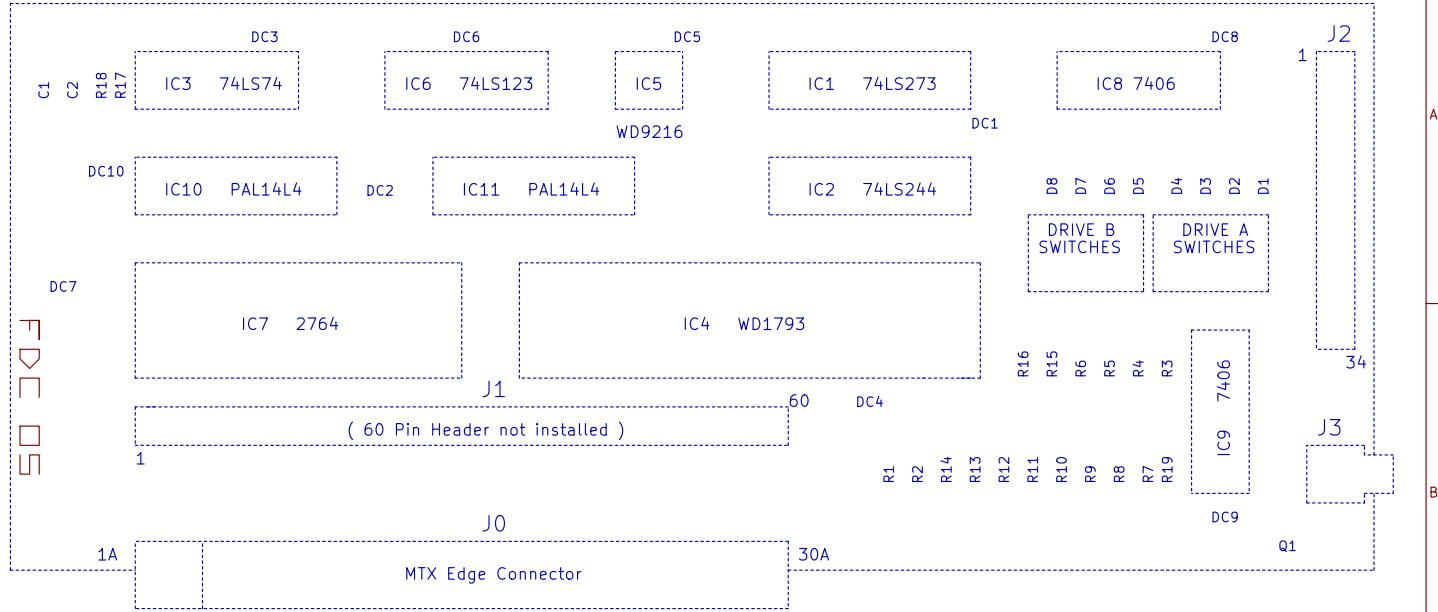
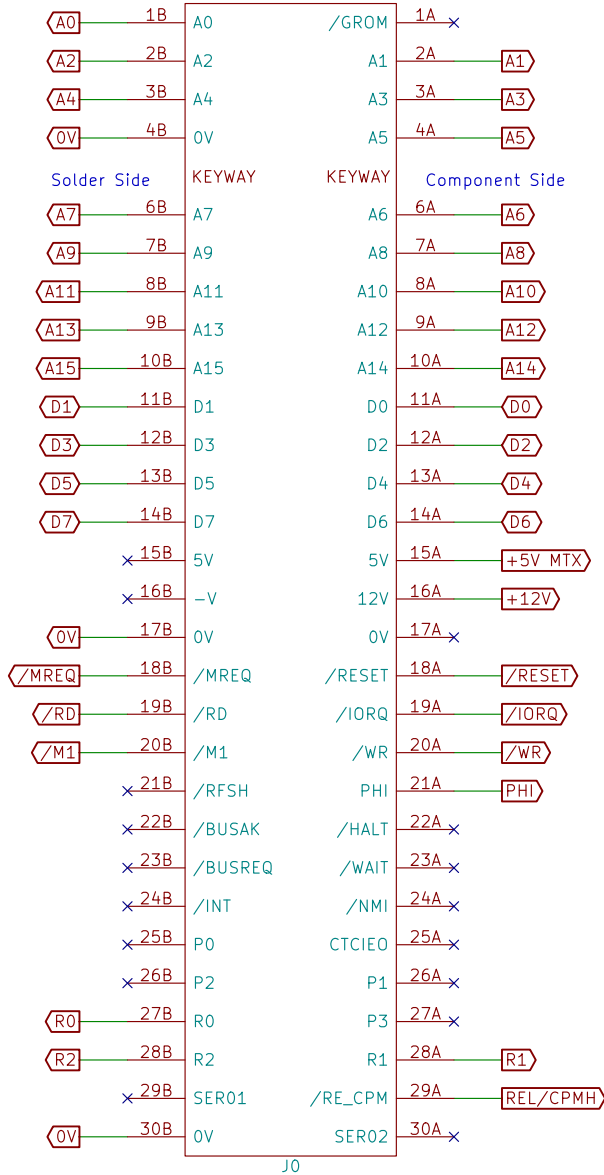


MTX500/512 Edge Connector



BILL OF MATERIALS

| | | | | | |
|------|-----------------------------|--------------------|---------|-----|-------|
| C1 | 1uF | IC1 | 74LS273 | Q1 | BC107 |
| C2 | 22uF | IC2 | 74LS244 | R1 | 10K |
| DC1 | 47nF | IC3 | 74LS74 | R2 | 10K |
| DC2 | 47nF | IC4 | WD1793 | R3 | 4K7 |
| DC3 | 47nF | IC5 | WD9216 | R4 | 4K7 |
| DC4 | 47nF | IC6 | 74LS123 | R5 | 4K7 |
| DC5 | 47nF | IC7 | 2764 | R6 | 4K7 |
| DC6 | 47nF | IC8 | 74LS06 | R7 | 220 |
| DC7 | 47nF | IC9 | 74LS06 | R8 | 220 |
| DC8 | 47nF | IC10 | PAL14L4 | R9 | 220 |
| DC9 | 47nF | IC11 | PAL14L4 | R10 | 220 |
| DC10 | 47nF | | | R11 | 330 |
| D1 | 1N4148 | 4-Bit DIP Switches | | R12 | 330 |
| D2 | 1N4148 | SW1-1 | SW2-1 | R13 | 330 |
| D3 | 1N4148 | SW1-2 | SW2-2 | R14 | 330 |
| D4 | 1N4148 | SW1-3 | SW2-3 | R15 | 220 |
| D5 | 1N4148 | SW1-4 | SW2-4 | R16 | 220 |
| D6 | 1N4148 | | | R17 | 100K |
| D7 | 1N4148 | | | R18 | 50K |
| D8 | 1N4148 | | | R19 | 1K |
| J0 | MTX500/512 Edge Connector | | | | |
| J2 | Floppy Drive Data Connector | | | | |
| J3 | External +5V Input | | | | |

PAL LOGIC EQUATIONS

IC10

/MOTOR = /HLD * /MOTOR ON
 /CTLWR = /WR * /A7 * /A6 * /A5 * A4 * /A3 * A2 * /A1 * /A0 * M1 * /IORQ
 /CTLRD = /RD * /A7 * /A6 * /A5 * A4 * /A3 * A2 * /A1 * /A0 * M1 * /IORQ
 /FDCS = /A7 * /A6 * /A5 * A4 * /A3 * /A2 * M1 * /IORQ

DESCRIPTION

MOTOR = HLD OR MOTOR ON
 CTLWR low for OUT 14H
 CTLRD low for IN 14H
 FDCS low for IN/OUT 10-13H

IC11

/SELO = DSB + /MOTOR
 /SEL1 = /DSB + /MOTOR
 /READY = /INDISK + /MOTOR
 /CE = A13 * /A14 * /A15 * /MREQ * R0 * R1 * /R2 * /RELCMPH

DESCRIPTION

SELO = /DSB AND MOTOR = DSA AND MOTOR
 SEL1 = DSB AND MOTOR
 READY = INDISK AND MOTOR
 /CE low if RELCPMH low, MREQ low, ROM page 3, address 2000-3FFFH

Revision History

- 1 13/06/2013 Released based on the designer's original hand drawn schematic
- 2 07/11/2024 Corrected error on IC6B (pins 5&12 signals reversed on CAD copy)
Added decoupling capacitors
PCB tested and working as of this revision

Designed by : Tony Brewer
 Drawn by : Dave Stevenson

FDC05 Sheet 2

FDC05 Sheet 3

FDC05 Sheet 2.sch

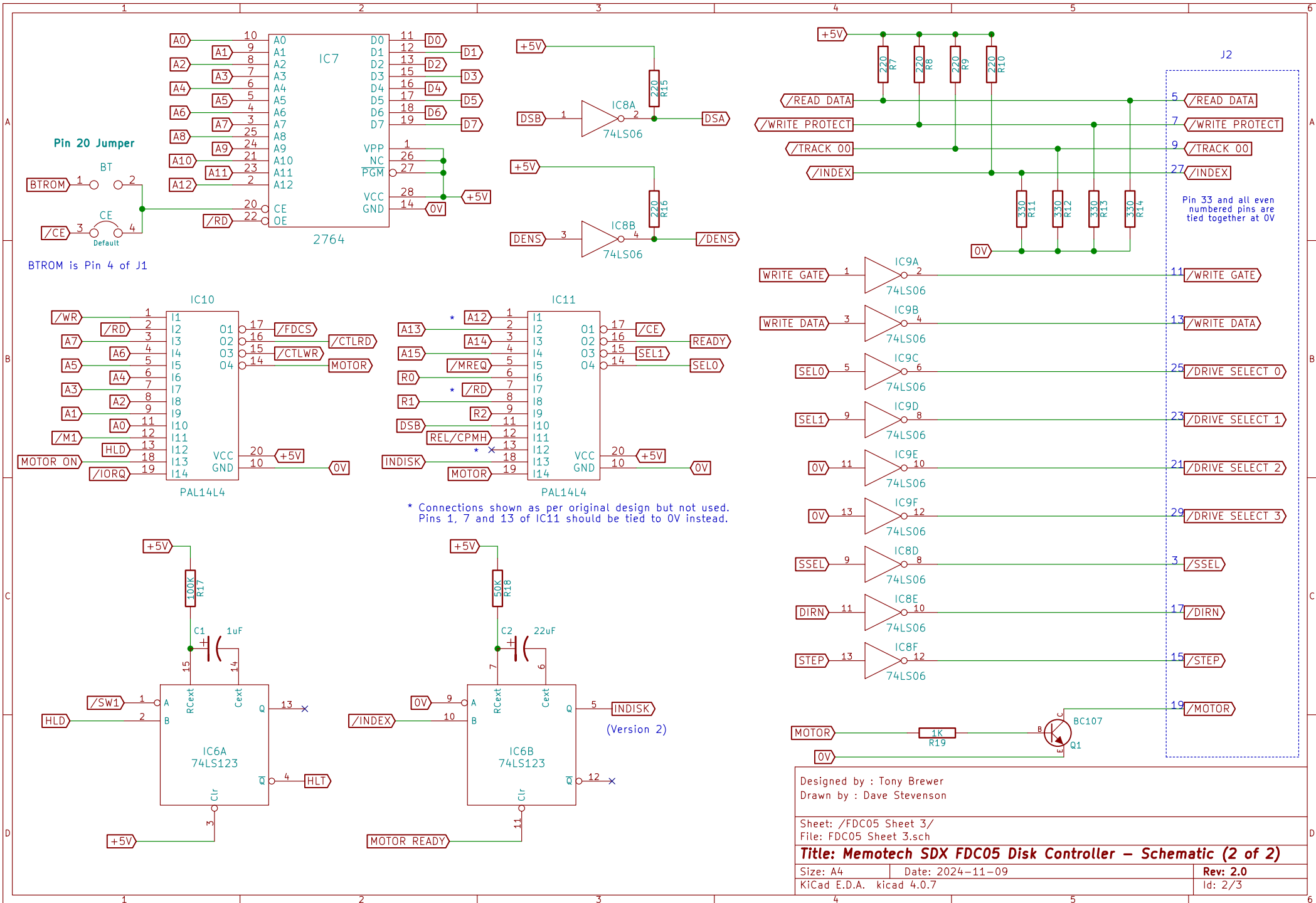
FDC05 Sheet 3.sch

Sheet: /
 File: FDC05.sch

Title: Memotech SDX FDC05 Disk Controller - Components

Size: A4 Date: 2024-11-09
 KiCad E.D.A. kicad 4.0.7

Rev: 2.0
 Id: 1/3



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 Drawn by : Dave Stevenson

Sheet: /FDC05 Sheet 3/
 File: FDC05 Sheet 3.sch

Title: Memotech SDX FDC05 Disk Controller – Schematic (2 of 2)

Size: A4 Date: 2024-11-09
 KiCad E.D.A. kicad 4.0.7

Rev: 2.0
 Id: 2/3

