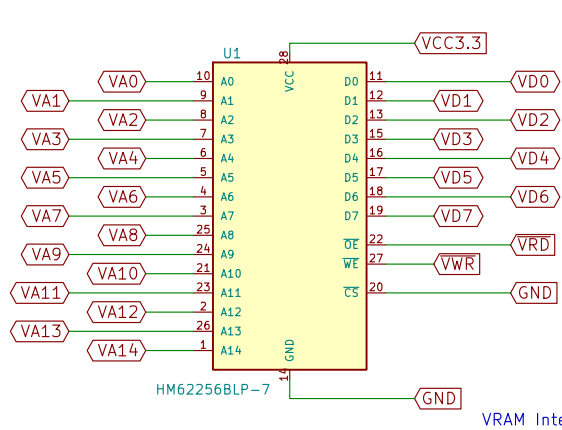
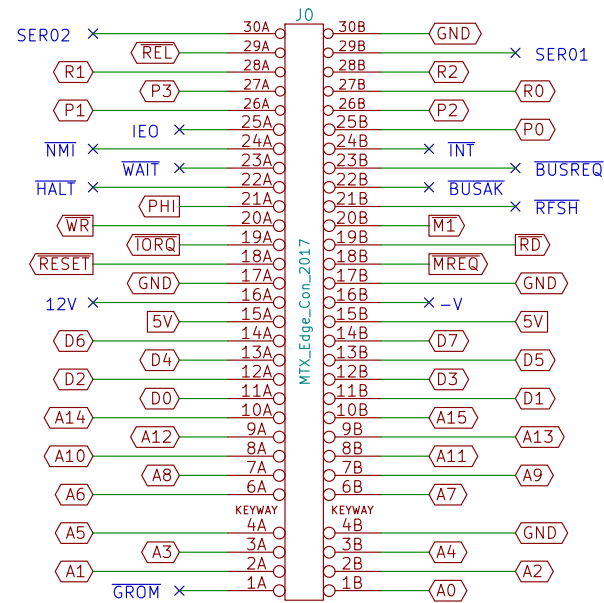
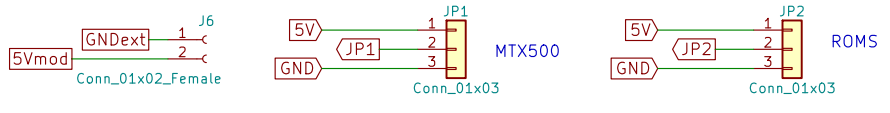
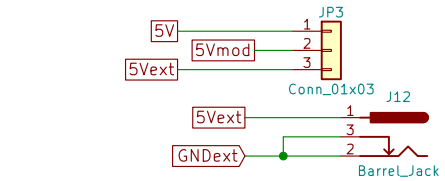
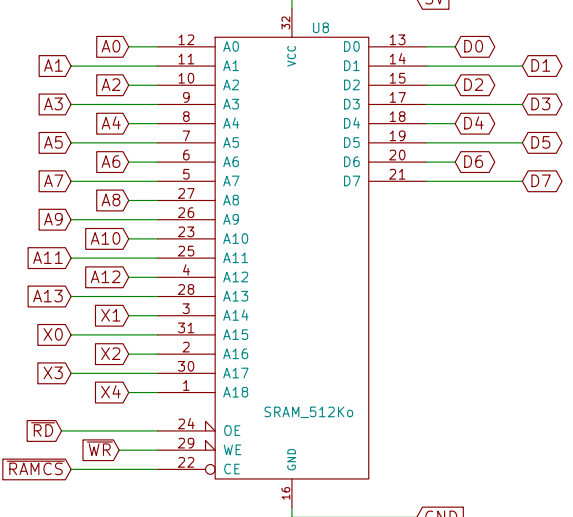
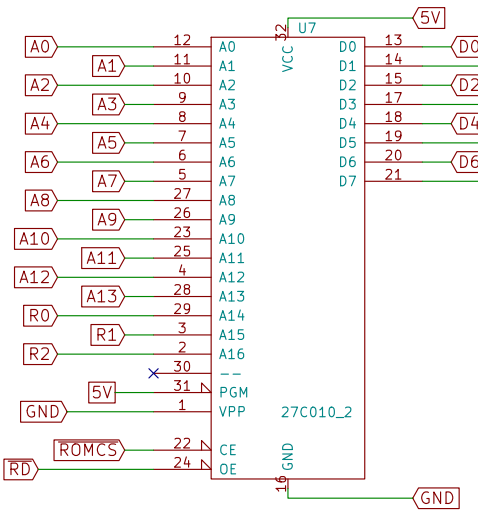
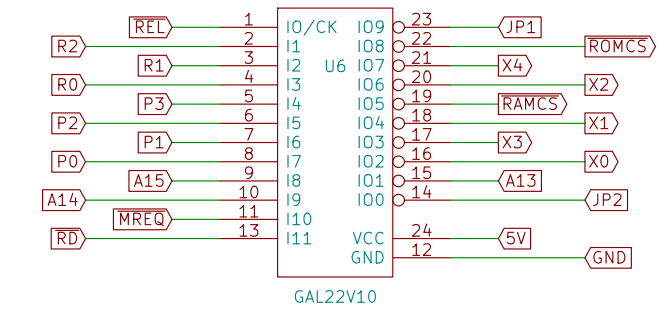
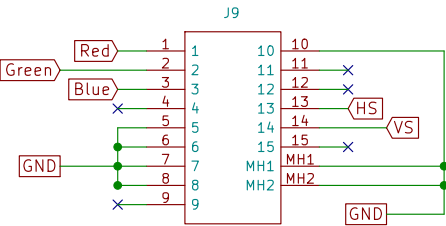
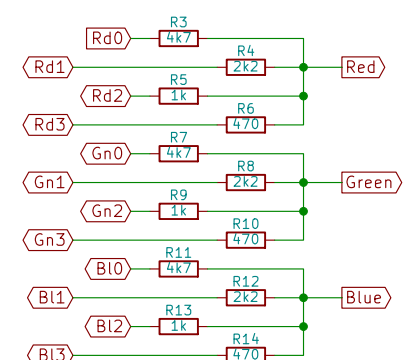
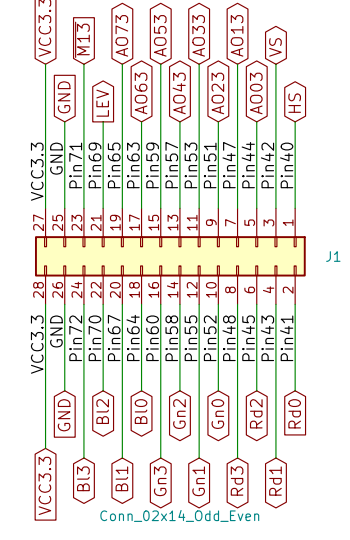
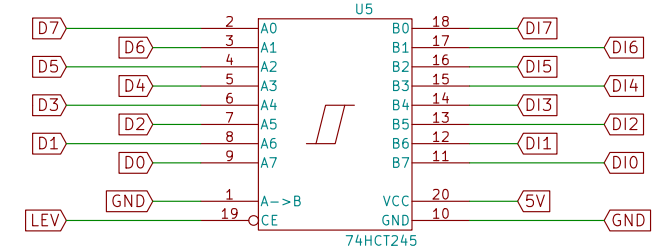
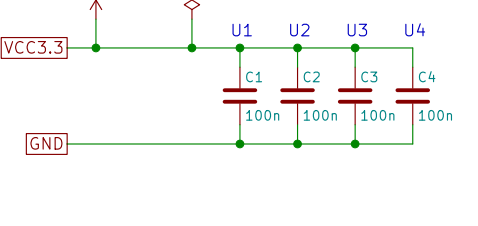
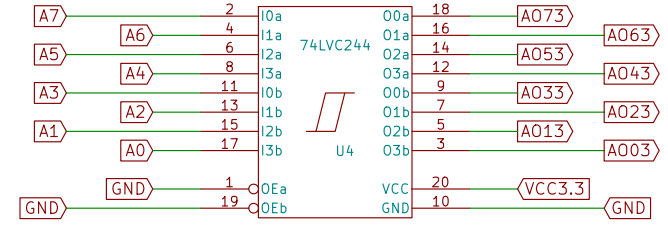
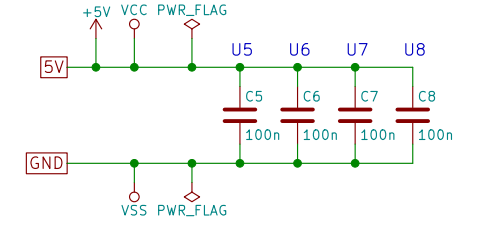
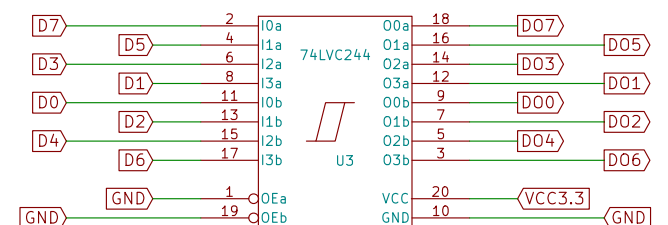
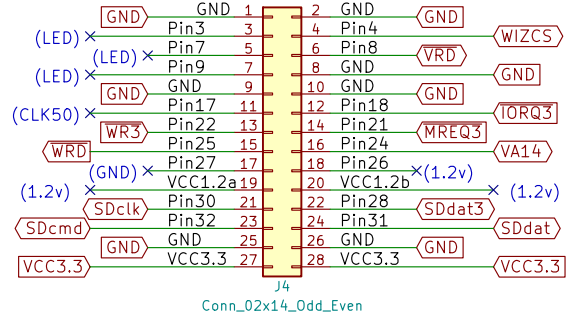
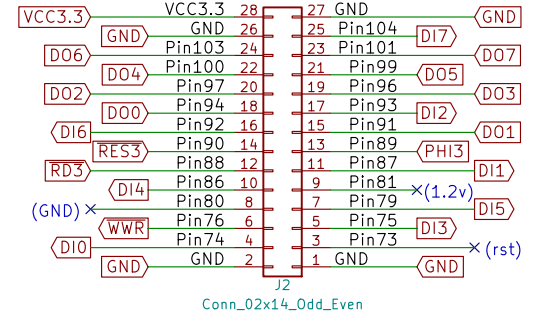
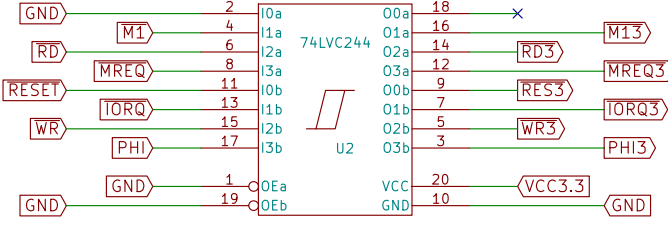
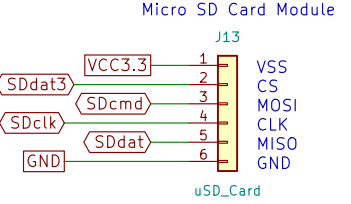
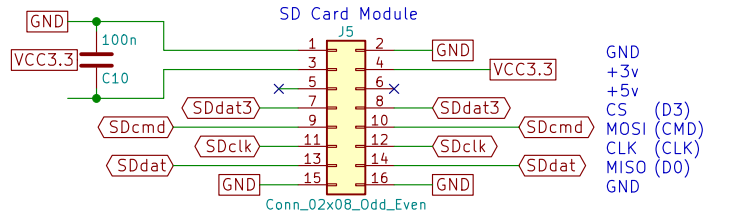
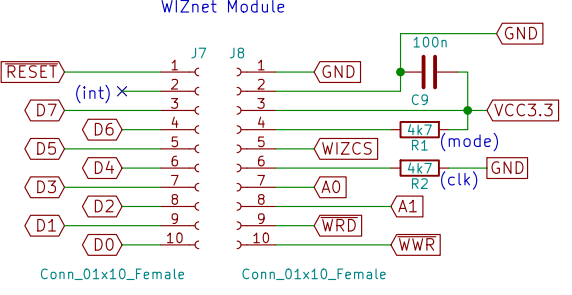
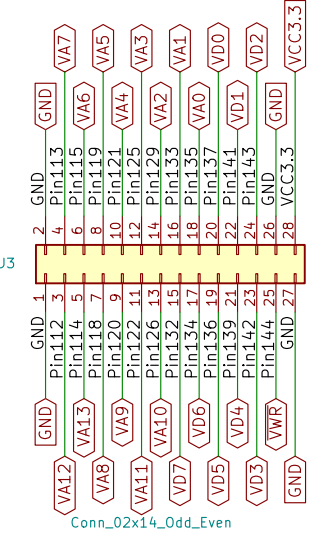


Using Board Edge Connector Footprint



Dix are Inputs TO the MTX FROM the FPGA (3v to 5v)
DOx are Outputs FROM the MTX TO the FPGA (5v to 3v)



Design : Martin Allcorn
Engineering : Dave Stevenson

Sheet: MFX_notes
File: MFX_notes.sch

Sheet: /
File: MFX.sch

Title: Memotech Multi Function eXpansion Card (MFX)

Size: A3 Date: Rev: 0.6
KiCad E.D.A. kicad 4.0.7 Id: 1/2

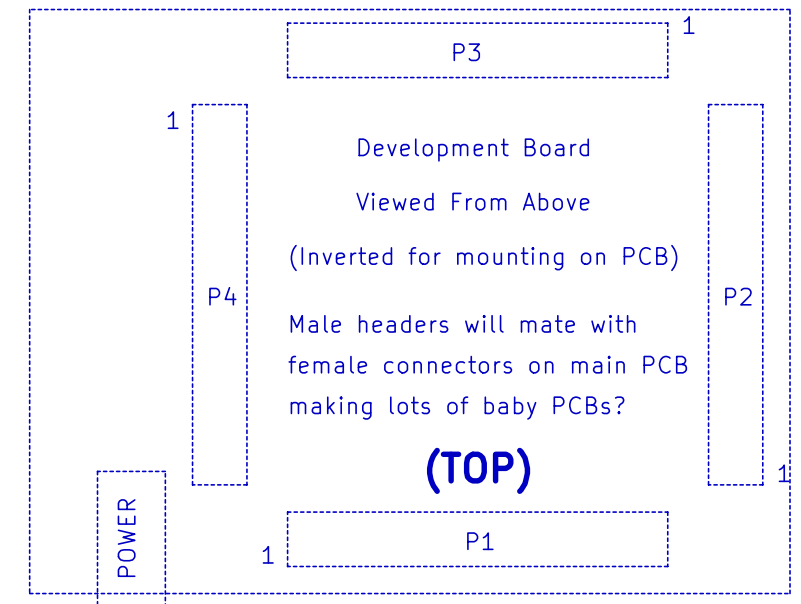
NOTES

Change Log

- Ver 0.1 : Initial schematic based on prototype development
- Ver 0.2 : Changes for possible Speculator addition
 MREQ on J0/J10 to one of the spare LVC244 input (pin 8)
 3v downshifted MREQ LVC244 (pin 12) to pin 21 on the P4 FPGA header
 Pin 24 on the P4 FPGA header to A14 on the VRAM
 Also removed HD15 VGA connector
 Deleted 1.2v connections from FPGA board (J4 Pins 19 & 20)
 Sheet 2 created to move notes off main schematic
- Ver 0.3 : PCB Size to be changed to full width of the available space in case
 Restored HD15 VGA connector as will now mount on PCB
 External power connection for FPGA will now mate with PCB
 Added external power source barrel jack connector to PCB
 Deleted PCB mounting holes – not needed for internal only PCB
 Added dual SD & uSD Card Modules
- Ver 0.4 : Modified to use SD Card modules with on board passives (R & Cs)
- Ver 0.5 : Layout and dimension changes
- Ver 0.6 : Removed ground on VGA connector pin 9
 Corrected MTX connector footprint
 Minor position changes to WIZnet, SD Card and Power footprints
 Reduced PCB Width by 1mm
 Buffer WIZNet RD and WR signals in FPGA using pins 25 and 76

Erratta – PCB

- Ver 0.5 : PCB reference for MTX connector should be J0 (not J10)
 VGA Connector pin should be No Connect (not ground)
 Solder Mask missing from MTX connector underside



Pin assignment changes during routing

P	Signal	Blocking	PCB
1	/MI33	Pin 2 (41)	Pin 23 (71)
1	/LEV	Pin 4 (43)	Pin 21 (69)
1	A003	Pin 6 (45)	Pin 5 (44)
1	A013	Pin 8 (48)	Pin 7 (47)
1	A023	Pin 10 (52)	Pin 9 (51)
1	A033	Pin 12 (55)	Pin 11 (53)
1	A043	Pin 14 (58)	Pin 13 (57)
1	A053	Pin 16 (60)	Pin 15 (59)
1	A063	Pin 18 (63)	Pin 17 (63)
1	A073	Pin 20 (67)	Pin 19 (65)
1	RD0	Pin 1 (40)	Pin 2 (41)
1	RD1	Pin 3 (42)	Pin 4 (43)
1	RD2	Pin 5 (44)	Pin 6 (45)
1	RD3	Pin 7 (47)	Pin 8 (48)
1	GN0	Pin 9 (51)	Pin 10 (52)
1	GN1	Pin 11 (53)	Pin 12 (55)
1	GN2	Pin 13 (57)	Pin 14 (58)
1	GN3	Pin15 (59)	Pin 16 (60)
1	BLO	Pin 17 (63)	Pin 18 (64)
1	BL1	Pin 19 (65)	Pin 20 (67)
1	BL2	Pin 21 (69)	Pin 22 (70)
1	BL3	Pin23 (71)	Pin 24 (72)

PCB Edge connector optimised for EDAC 345-060-560-201 connectors with 0.64mm x 9.91 mm tails

Sheet: /MFX_notes/
 File: MFX_notes.sch

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. kicad 4.0.7

Id: 2/2