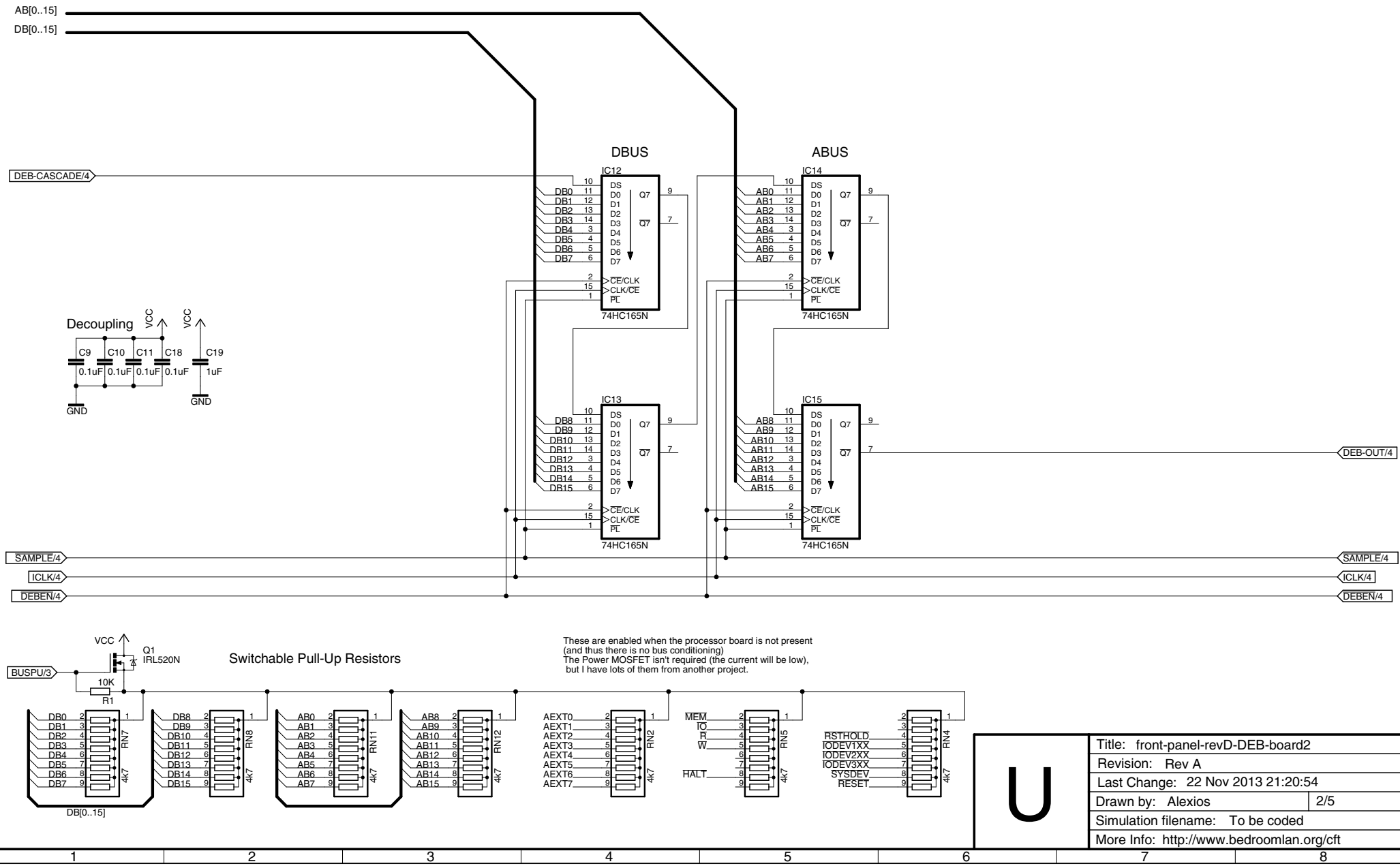
CFT Mini-Computer

Input Shift Registers, switches and computer buses

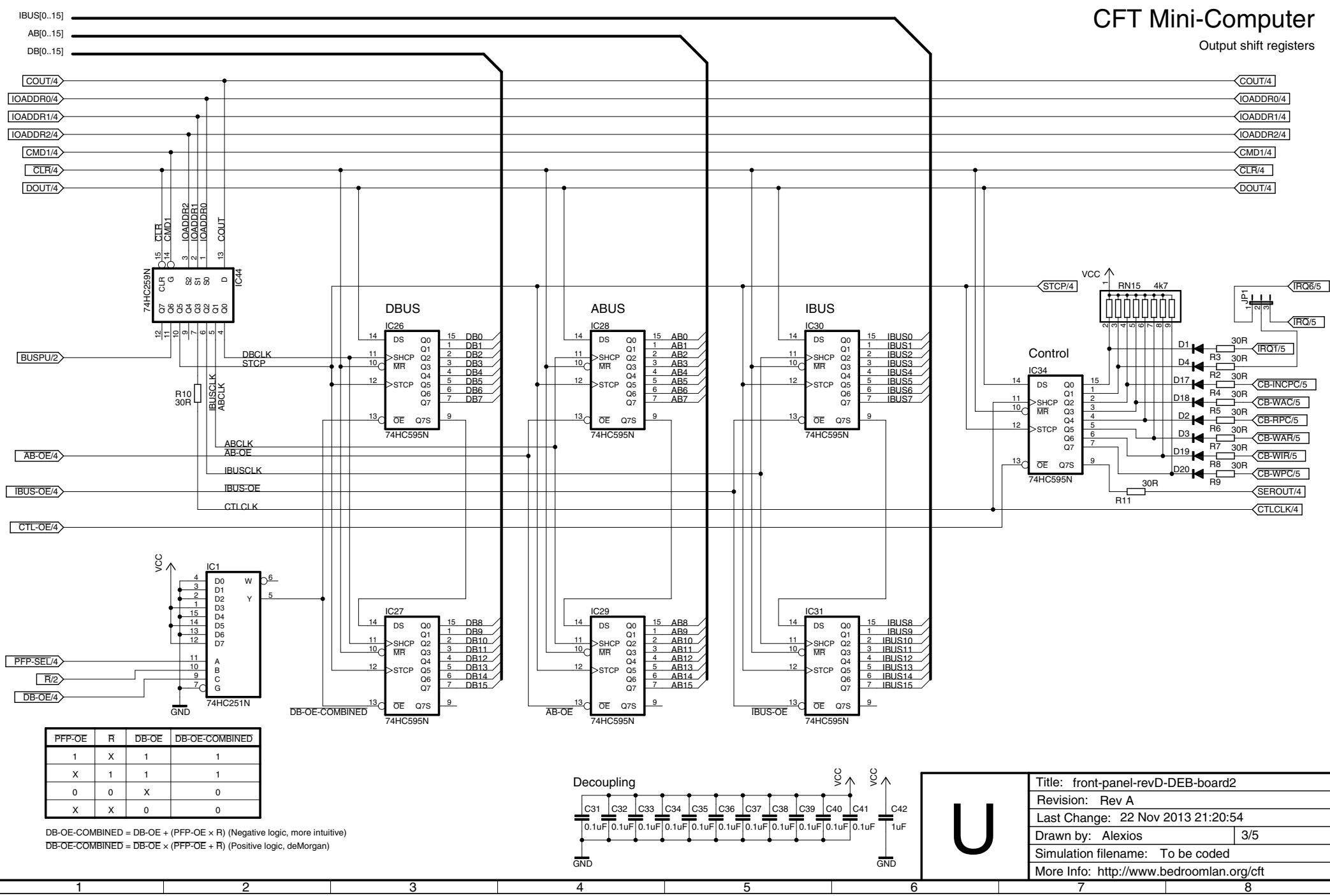


These are enabled when the processor board is not present
(and thus there is no bus conditioning)
The Power MOSFET isn't required (the current will be low),
but I have lots of them from another project.

U	Title: front-panel-revD-DEB-board2
	Revision: Rev A
	Last Change: 22 Nov 2013 21:20:54
	Drawn by: Alexios — 2/5
	Simulation filename: To be coded
	More Info: http://www.bedroomlan.org/cft

CFT Mini-Computer

Output shift registers



PFP-OE	R	DB-OE	DB-OE-COMBINED
1	X	1	1
X	1	1	1
0	0	X	0
X	X	0	0

DB-OE-COMBINED = DB-OE + (PFP-OE × R) (Negative logic, more intuitive)

$\overline{\text{DB-OE-COMBINED}} = \overline{\text{DB-OE}} \times (\overline{\text{PFP-OE}} + \overline{\text{R}})$ (Positive logic, deMorgan)

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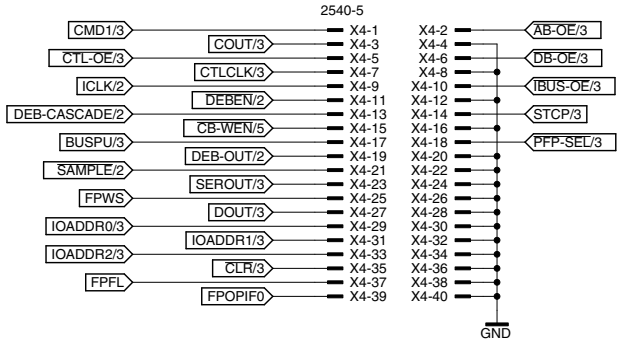
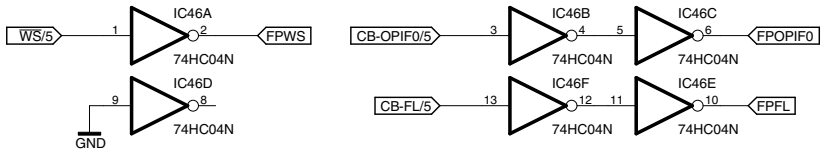
U

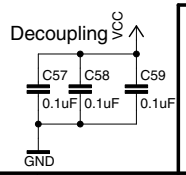
CFT Mini-Computer

Connectors



Signal Inversion





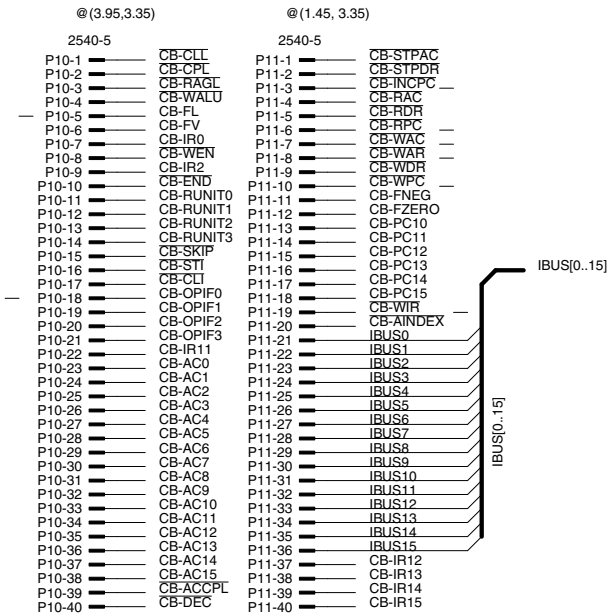
T

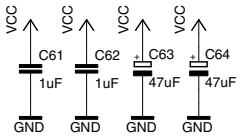
Title: front-panel-revD-DEB-board2	
Revision: Rev C	
Last Change: 22 Nov 2013 21:20:54	
Drawn by: Alexios	4/5
Simulation filename: N/A	
More Info: http://www.bedroomlan.org/cft	

CFT Mini-Computer

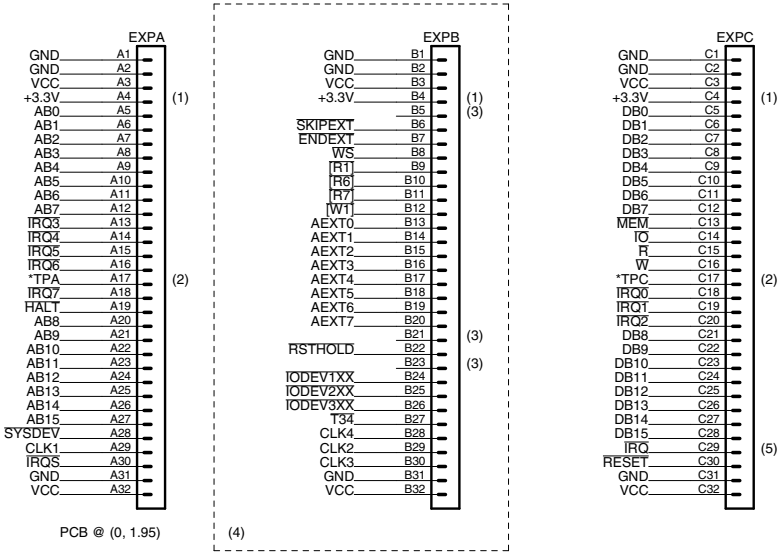
Bus Connectors

Control Bus (processor bus)





Expansion Bus (computer bus)



Notes

(1) This pin is connected to a bus bar for power distribution, but the CFT does not (yet) require it. It's likely to be connected to another voltage level like +3.3V for easier interfacing. Reserved for now.

(2) Pins *TPA and *TPC are not bussed. They are locally connected to each card's corresponding test pins (A17 & C17) to serve as test points.

(3) Reserved for future expansion

(4) Cheaper, 64-pin A+C row DIN41662 Type C plugs may be used for most expansion cards.

(5) $\overline{\text{IRQ}}$ is provided for systems which lack an interrupt controller ($\overline{\text{IRQ0-7}}$)

U1 HOLE @(0.15, 3.675)
U3 HOLE @(5.775, 3.675)
U2 HOLE @(0.15, 0.25)
U4 HOLE @(5.775, 0.25)

[PCB Logo]

[QR Code http://www.bedroomlan.org/cft (shortened)]

open hardware

J

Title: front-panel-revD-DEB-board2	
Revision: Rev J	
Last Change: 22 Nov 2013 21:20:54	
Drawn by: Alexios	5/5
Simulation filename: N/A	
More Info: http://www.bedroomlan.org/cft	