





CFT

16-bit Mini-Computer

Processor Board 1 with some TSSOP packages.

This is a work in progress.

Sheets being worked on are indicated by the 'TODO' frame

-  This input signal is open drain.
-  This input signal may be at TTL logic levels.
-  This input may be at High Impedance.
-  This input (local to this board) may be at High Impedance.

Notes

VCC is +5V unless otherwise indicated.
All decoupling capacitors are ceramic, 100nF.
All ICs are through-hole DIP packages.
All pull-ups and pull-downs are 4.7 kOhm.

Sheet status is indicated here IN RED.

D: Draft
U: Untested
T: Initial Testing
C: Constructed and Tested

Circuits in need of improvement
are marked like this.

Circuits known to be incorrect
are marked like this.

Obsolete sections or circuits
are marked like this.

TODO:

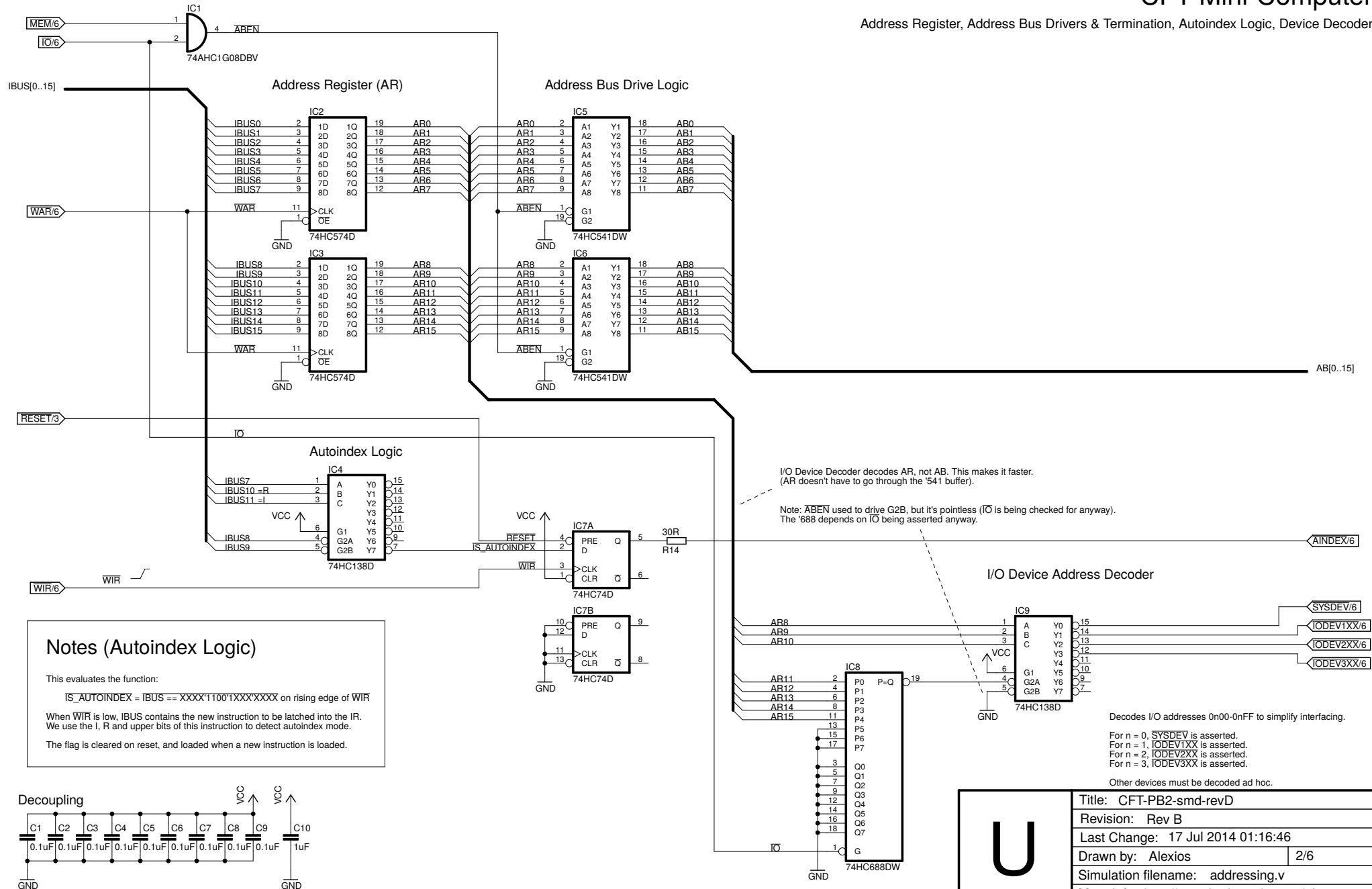
- * Check Signals
- * Check Decoupling Capacitors
- * Clean Up Layout
- * Write & Verify Verilog Model
- * Check Packages & IC Families
- * Bill of Materials
- * DRC

D

Title: CFT-PB2-smd-revD	
Revision: Rev B	
Last Change: 17 Jul 2014 01:16:46	
Drawn by: Alexios	1/6
Simulation filename: register.v#reg_L	
More Info: http://www.bedroomlan.org/cft	

CFT Mini-Computer

Address Register, Address Bus Drivers & Termination, Autoindex Logic, Device Decoder

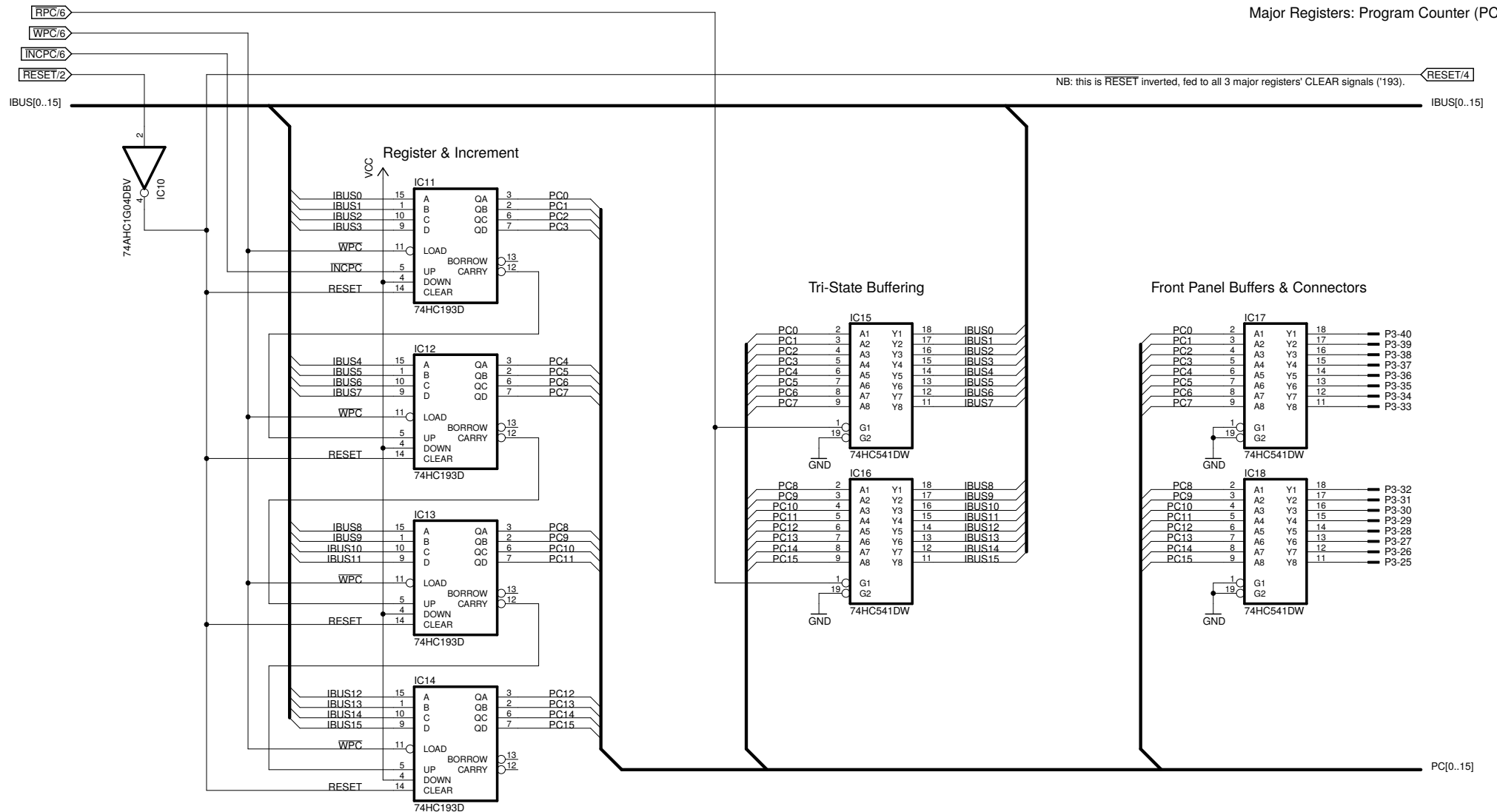


U

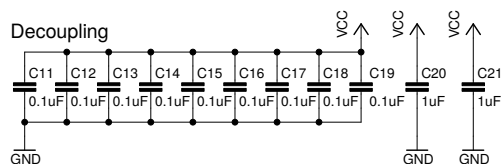
Title: CFT-PB2-smd-revD
Revision: Rev B
Last Change: 17 Jul 2014 01:16:46
Drawn by: Alexios
Simulation filename: addressing.v
More Info: http://www.bedroomlan.org/cft

CFT Mini-Computer

Major Registers: Program Counter (PC)

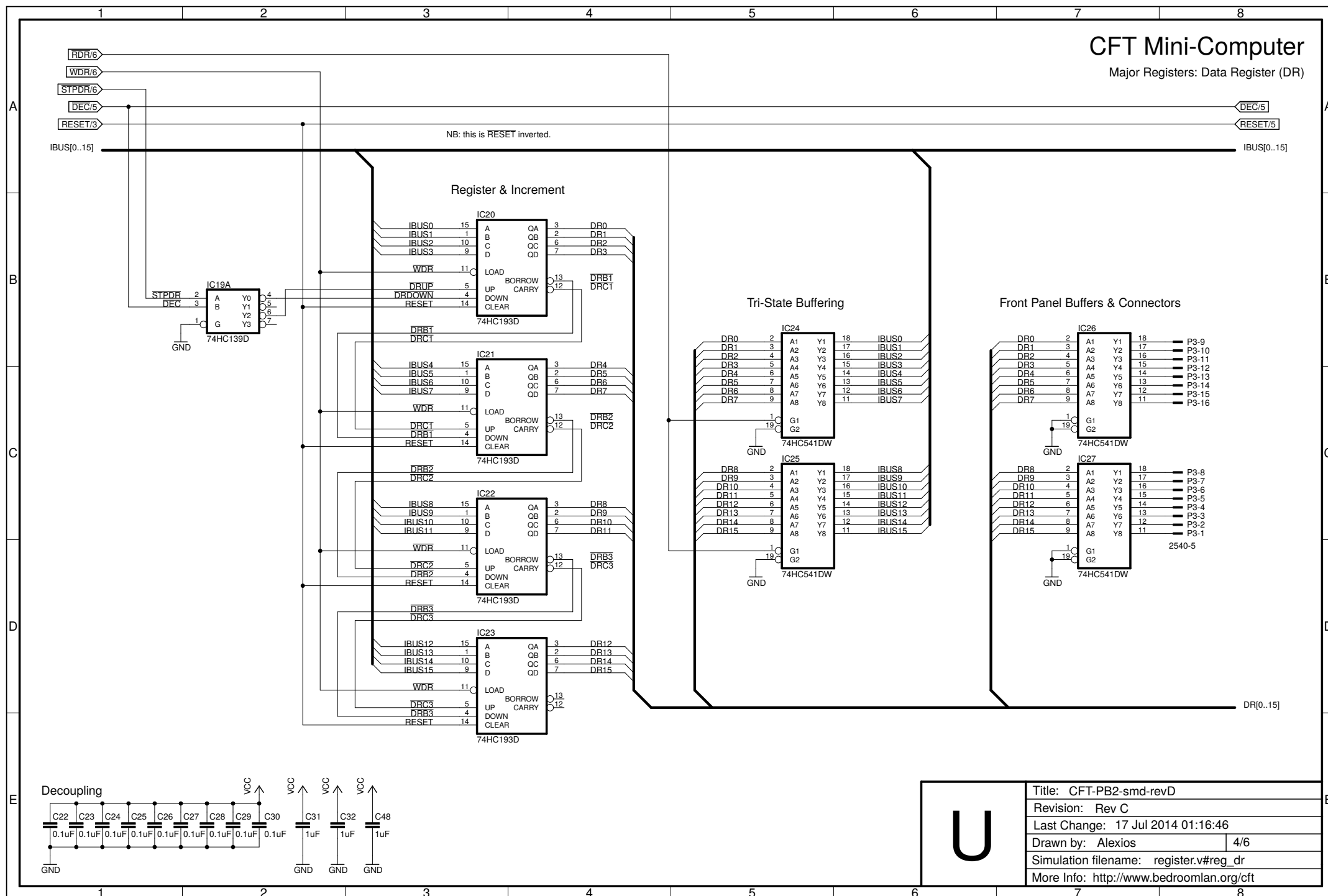


Decoupling



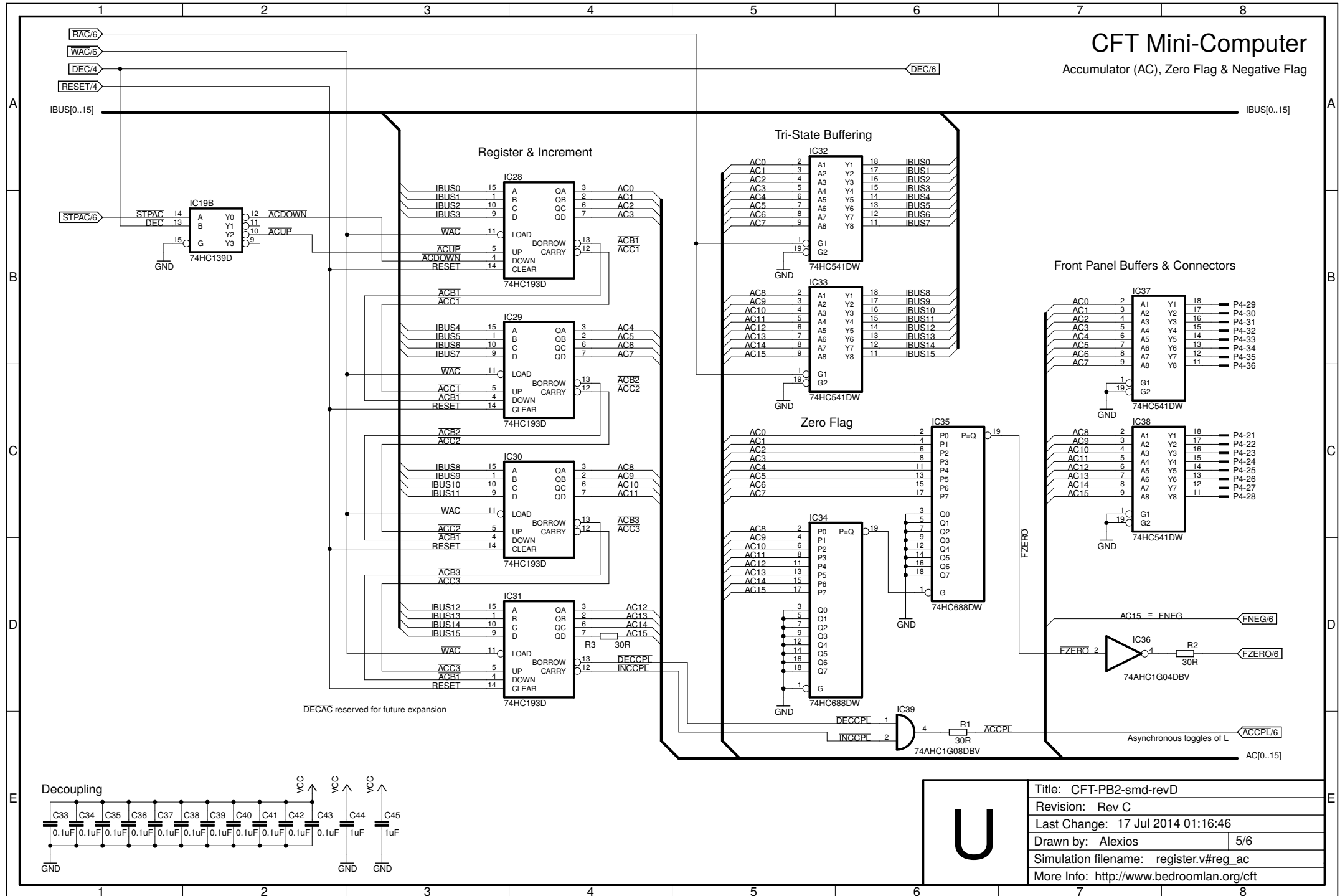
U

Title: CFT-PB2-smd-revD
Revision: Rev B
Last Change: 17 Jul 2014 01:16:46
Drawn by: Alexios 3/6
Simulation filename: register.v#reg_pc
More Info: <http://www.bedroomlan.org/cft>



CFT Mini-Computer

Accumulator (AC), Zero Flag & Negative Flag

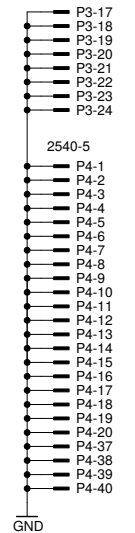


U

Title: CFT-PB2-smd-revD
Revision: Rev C
Last Change: 17 Jul 2014 01:16:46
Drawn by: Alexios
Simulation filename: register.v#reg_ac
More Info: http://www.bedroomlan.org/cft

Bus Connectors

Spare Front Panel Connectors (Some pins on other sheets)



- (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 DIN14662 Type C plugs may be used for most expansion cards.
- (5) IRQ is provided for systems which lack an interrupt controller (IRQ0-7)



U

Title: CFT-PB2-smd-revD	
Revision: Rev K	
Last Change: 17 Jul 2014 01:16:46	
Drawn by: Alexios	6/6
Simulation filename: N/A	
More Info: http://www.bedroomlan.org/cft	