



We use 0201 resistors that fit on the bottom of the board and connect the vias under the FPGA for each LVDS input pair



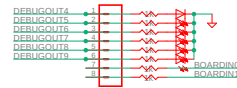
3.3V outputs from the FPGA for debugging, etc.  
These go to LEDs for monitoring



For controlling front panel LEDs



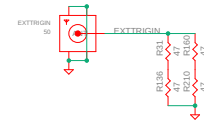
2.5V outputs from the FPGA for debugging, etc.  
These go to LEDs for monitoring



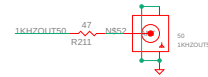
2.5V inputs and outputs to/from the FPGA for status monitoring and control of things, etc.



50 Ohm external trigger input (was BOARDIN4)



50 Ohm 1kHz / Aux output (was DEBUGOUT10)



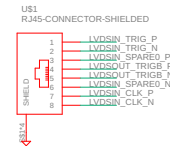
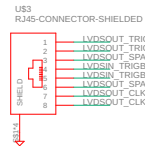
1kOhm 1kHz output for probe compensation



Extra clock input and output

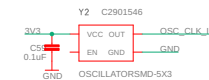


LVDS outputs and inputs for sync between boards



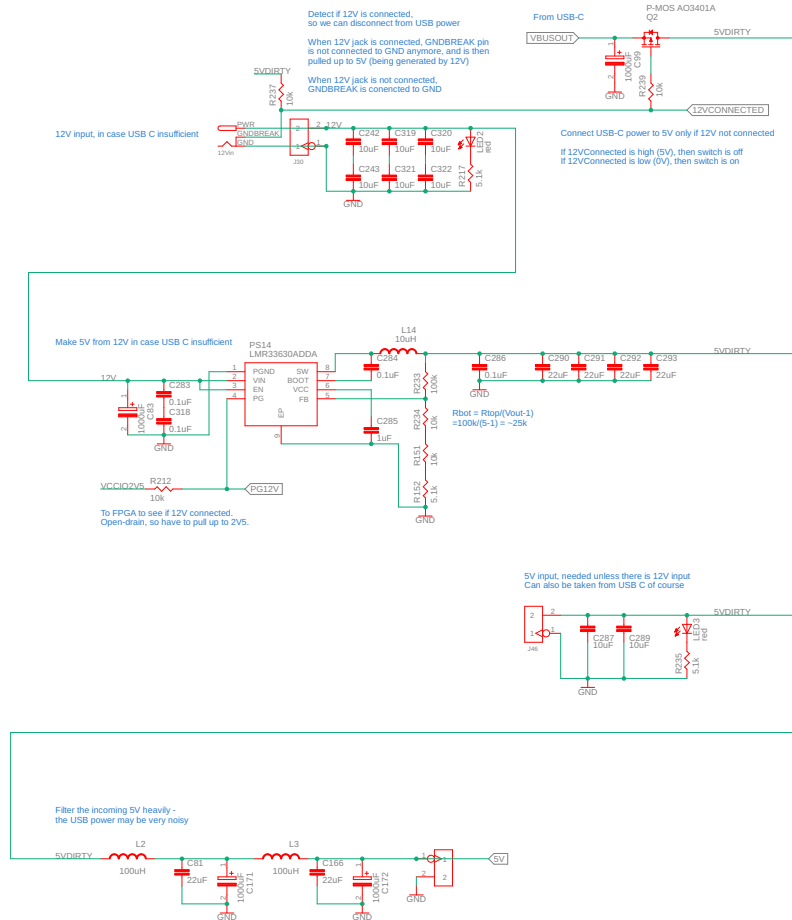
Cyclone IV-E left and right I/O banks support true LVDS transmitters, so use them for LVDS outputs

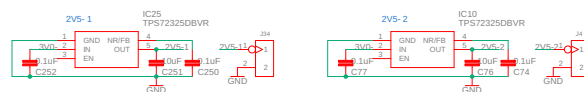
50 MHz clock for FPGA



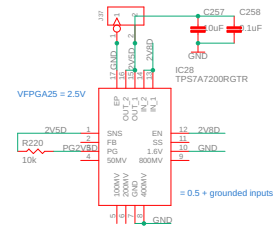
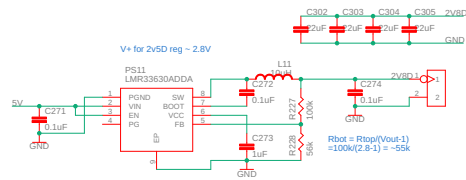
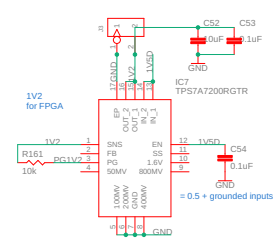




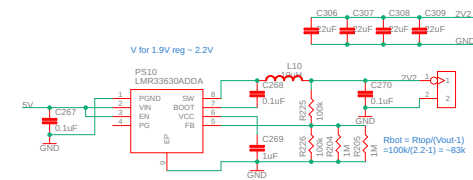
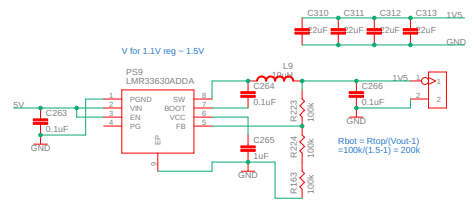
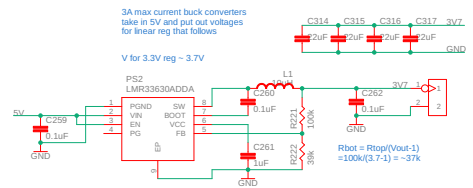


[illegible]

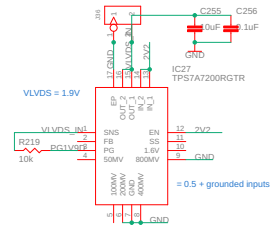
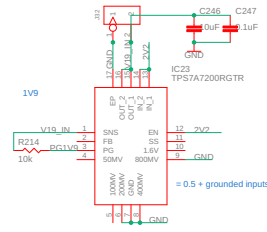
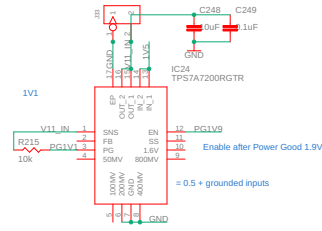
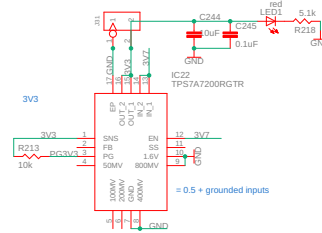
1/4/2025 9:40 AM f=0.47 C:\gitwork\master\HaasoscopePro\adc board\haasoscope\_pro\_adc\_fpga\_board.sch (Sheet: 11/16)

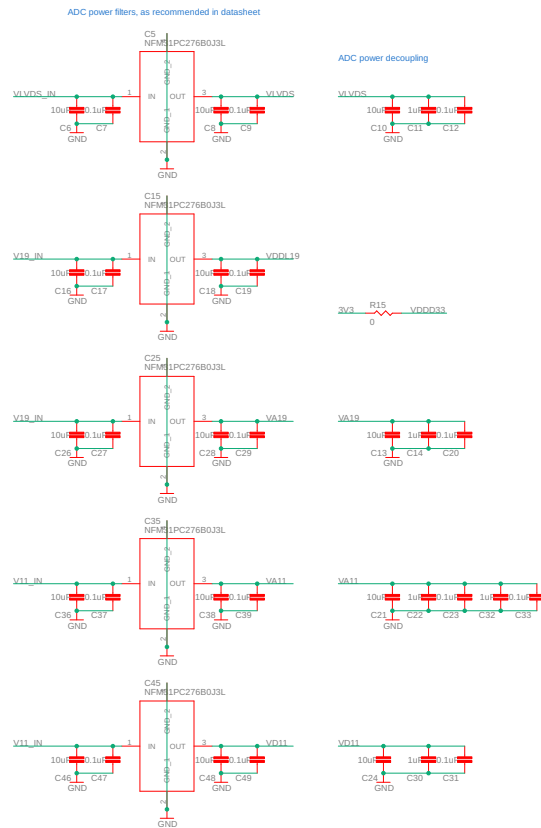
[illegible]

Need 3v3 plus 1v1 and 1v9 for the main ADC



2A max current linear regs with 180mV dropout at 2A

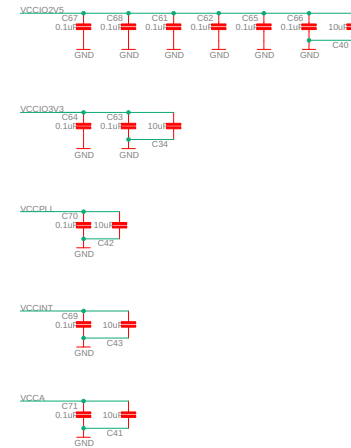


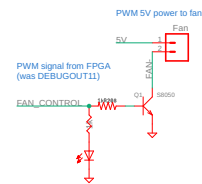
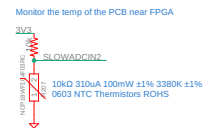
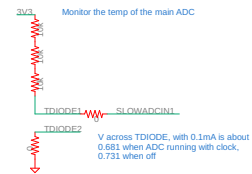
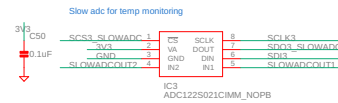
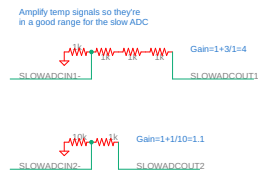


These transfer power to actual FPGA voltage inputs



FPGA power decoupling





Some extra things to put on  
the board for testing only  
Not connected to the rest of the system!

