

NOTES:

REV	DATE	PAGES	DESCRIPTION
A	2019/JULY		Initial
B	2019/SEP		Add one more MOSFET Q21 for input 12V power
C	2020/FEB		Change the debug interface Header
C	2020/MAR		Isolate the 1.8V/3.3V for every single FPGA IC

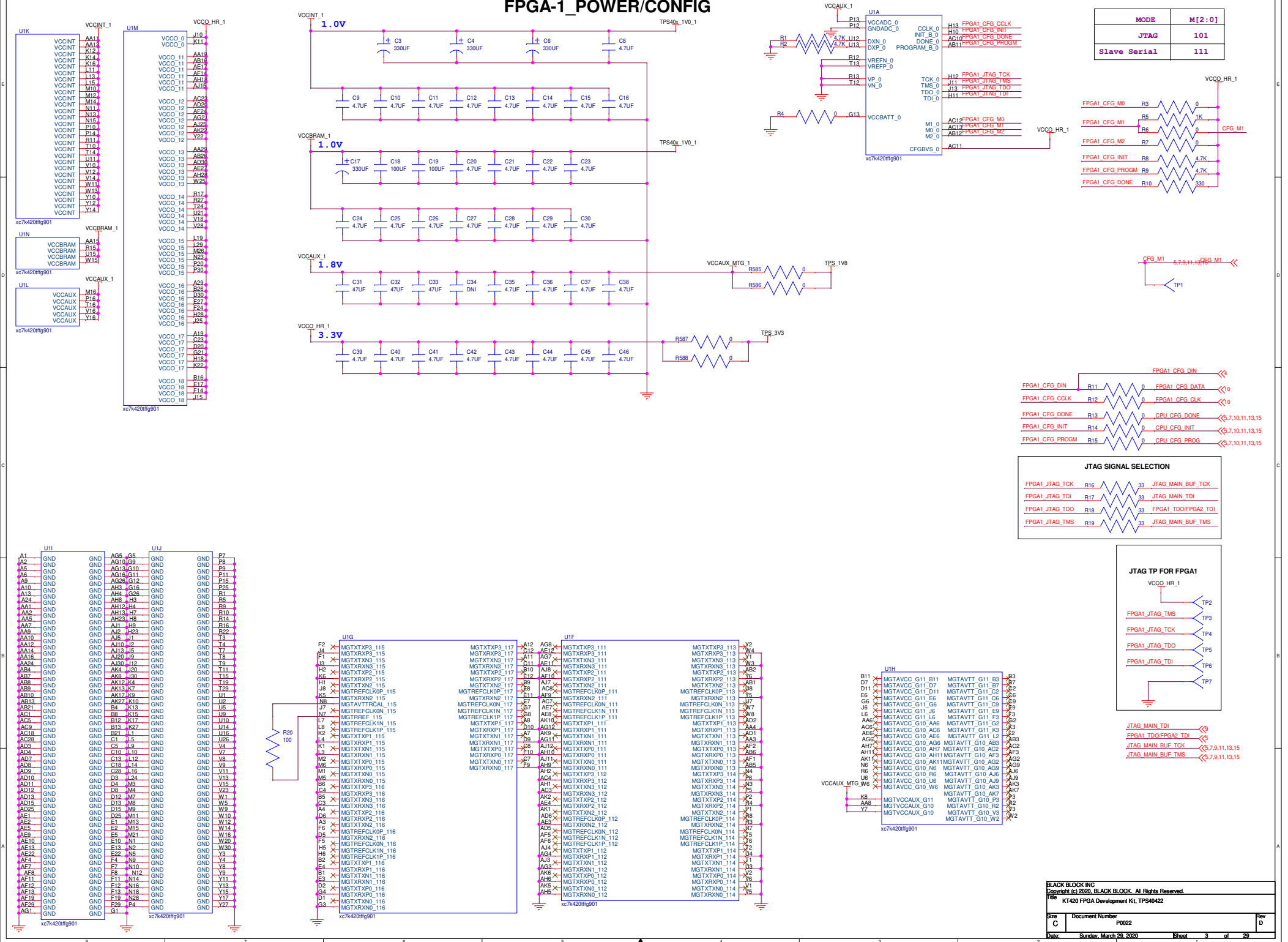
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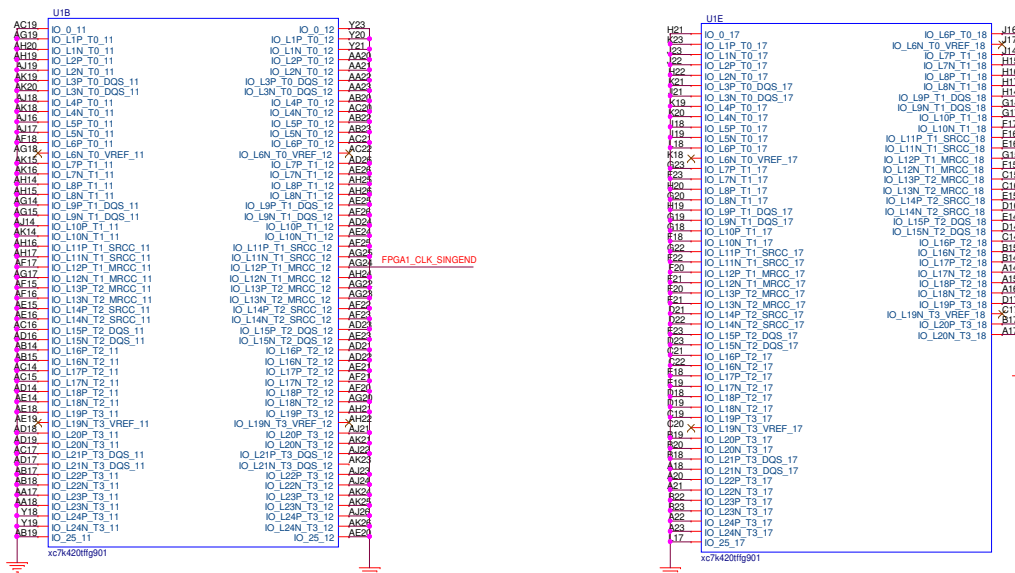
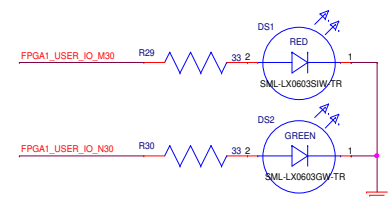
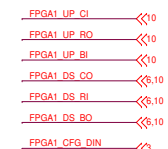
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Clock Diagram

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FPGA-1_POWER/CONFIG

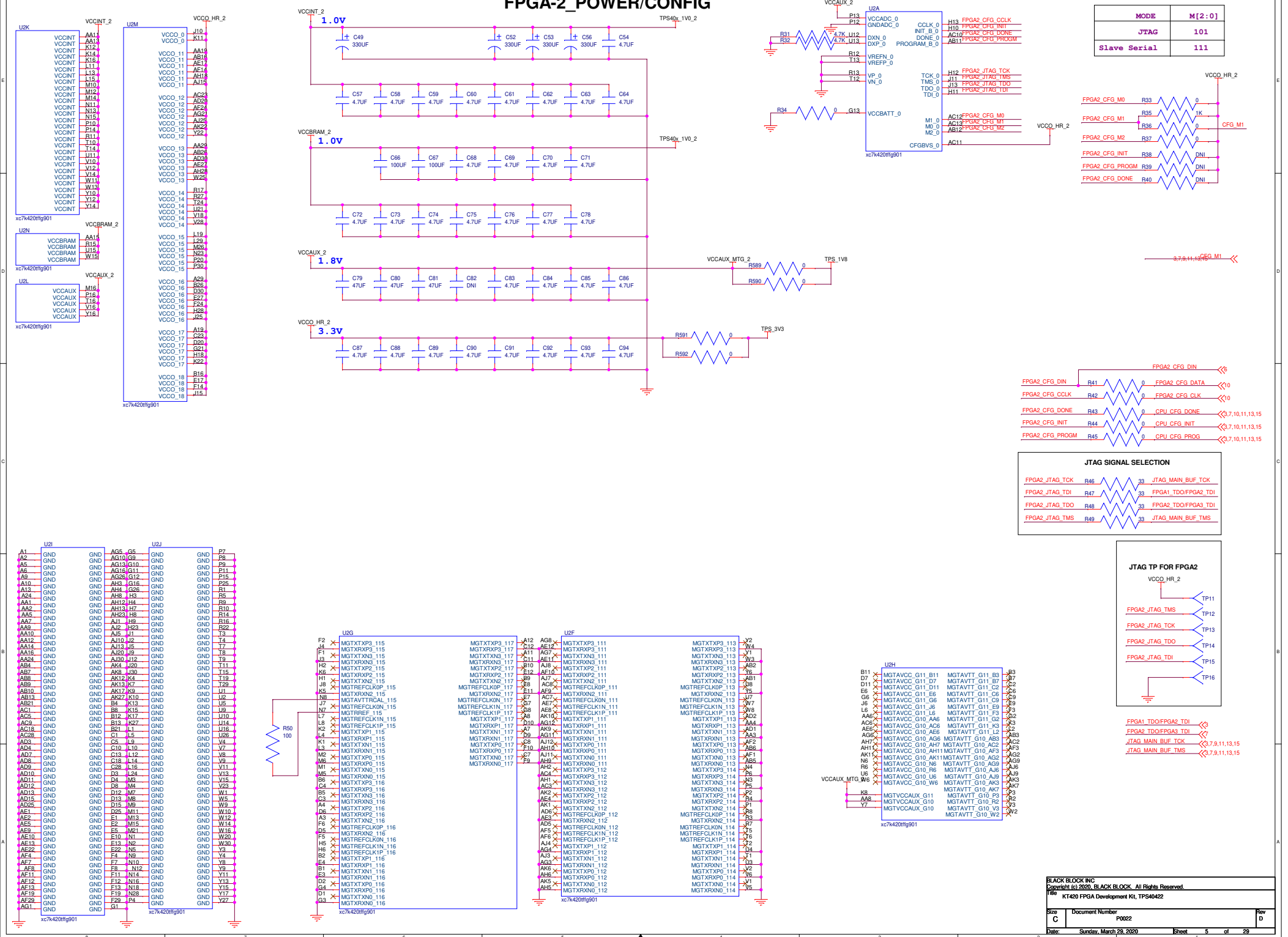




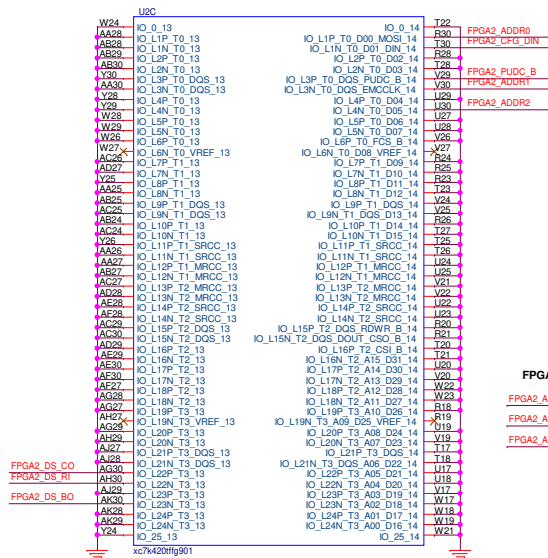
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FPGA-2_POWER/CONFIG



FPGA-2_IO_BANK



FPGA2_DS_DO
FPGA2_DS_RI
FPGA2_DS_BO

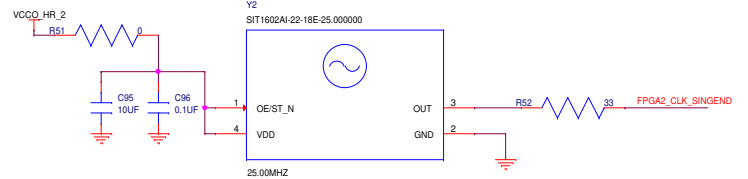
FPGA2_RESET_N
FPGA2_USER_IO_N30
FPGA2_USER_IO_M30

FPGA2_ADDR[2:0]:001

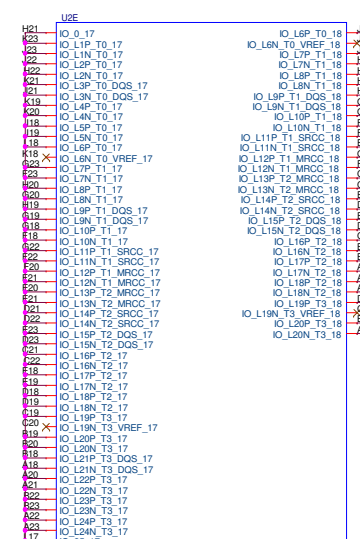
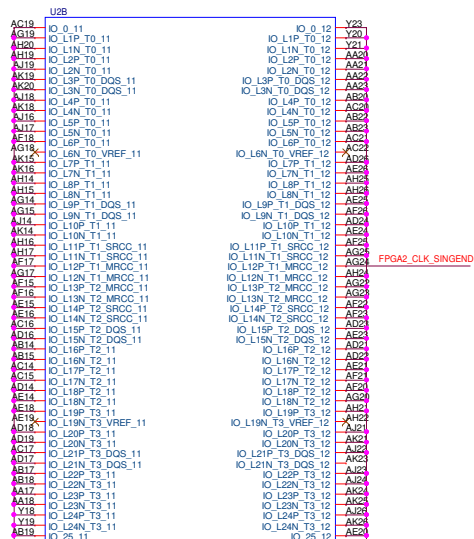
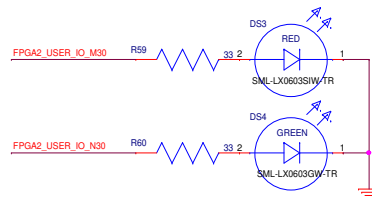
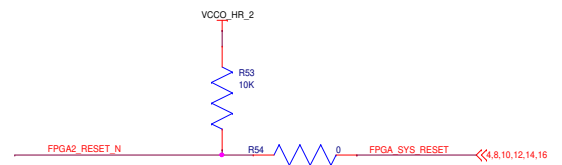
FPGA2_ADDR0: R55
FPGA2_ADDR1: R56
FPGA2_ADDR2: R57

FPGA2_USER_IO_F30
FPGA2_USER_IO_E30
FPGA2_USER_IO_G30

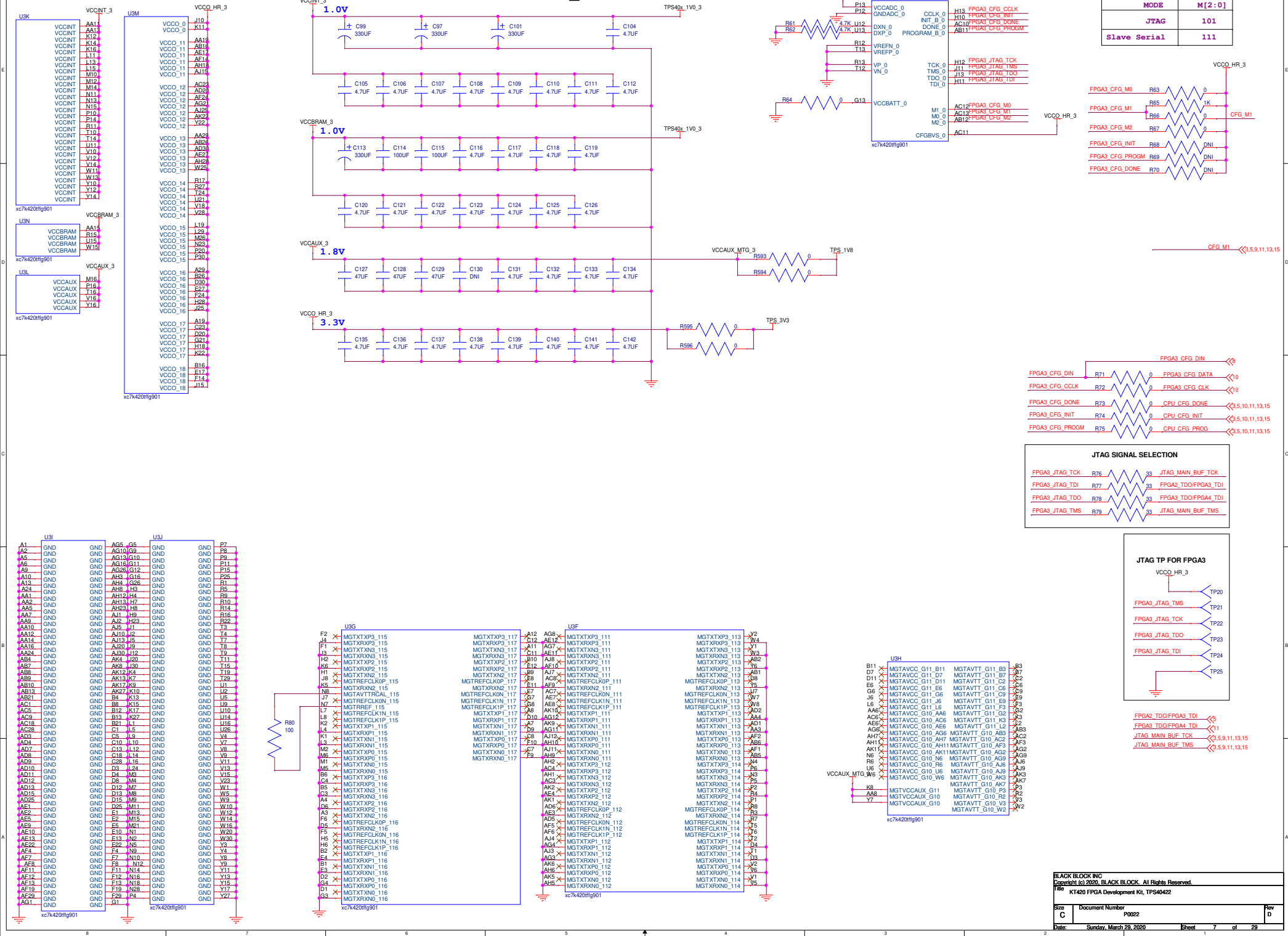
FPGA2_UP_CI
FPGA2_UP_RO
FPGA2_UP_BI



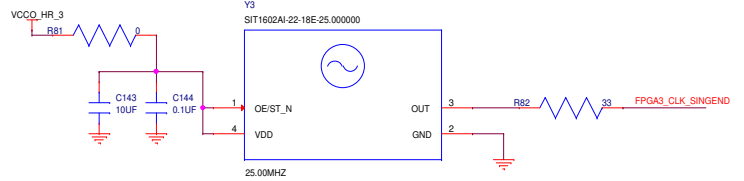
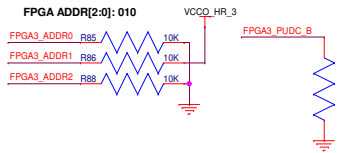
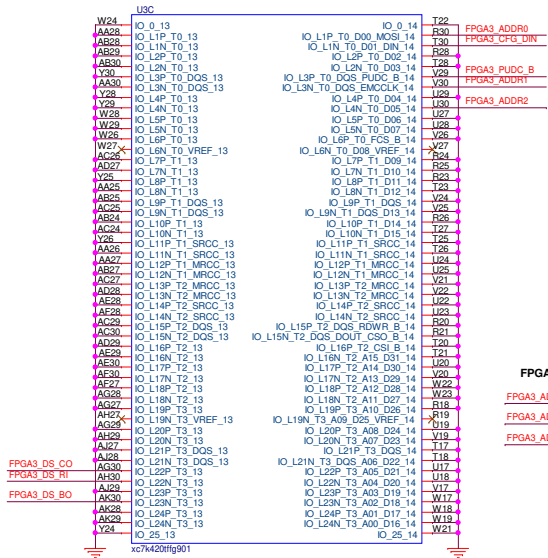
Need to update 3.3V compatible component.



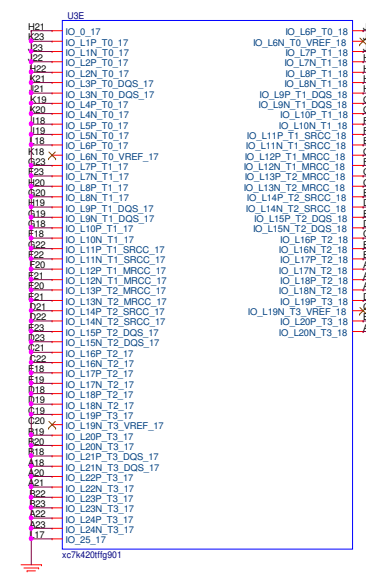
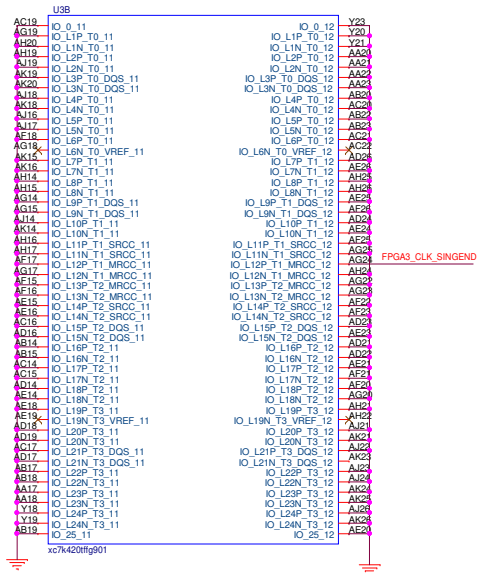
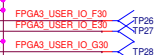
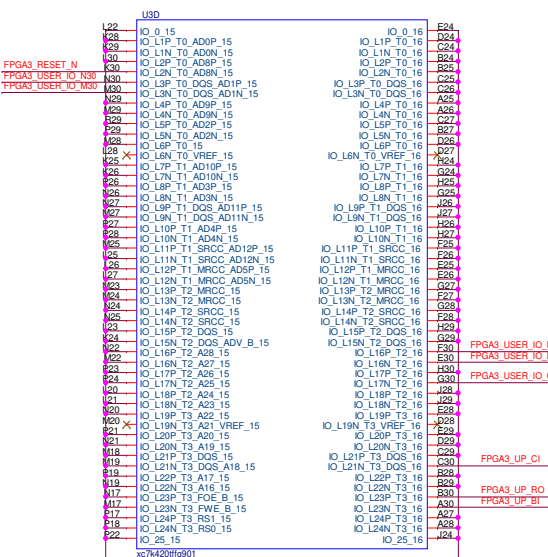
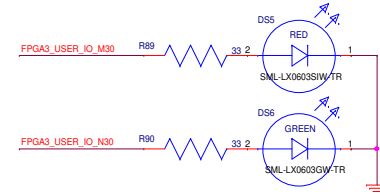
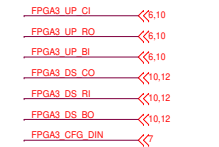
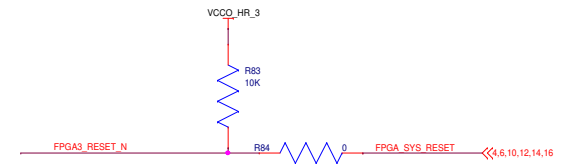
FPGA-3_POWER/CONFIG



FPGA-3_IO_BANK

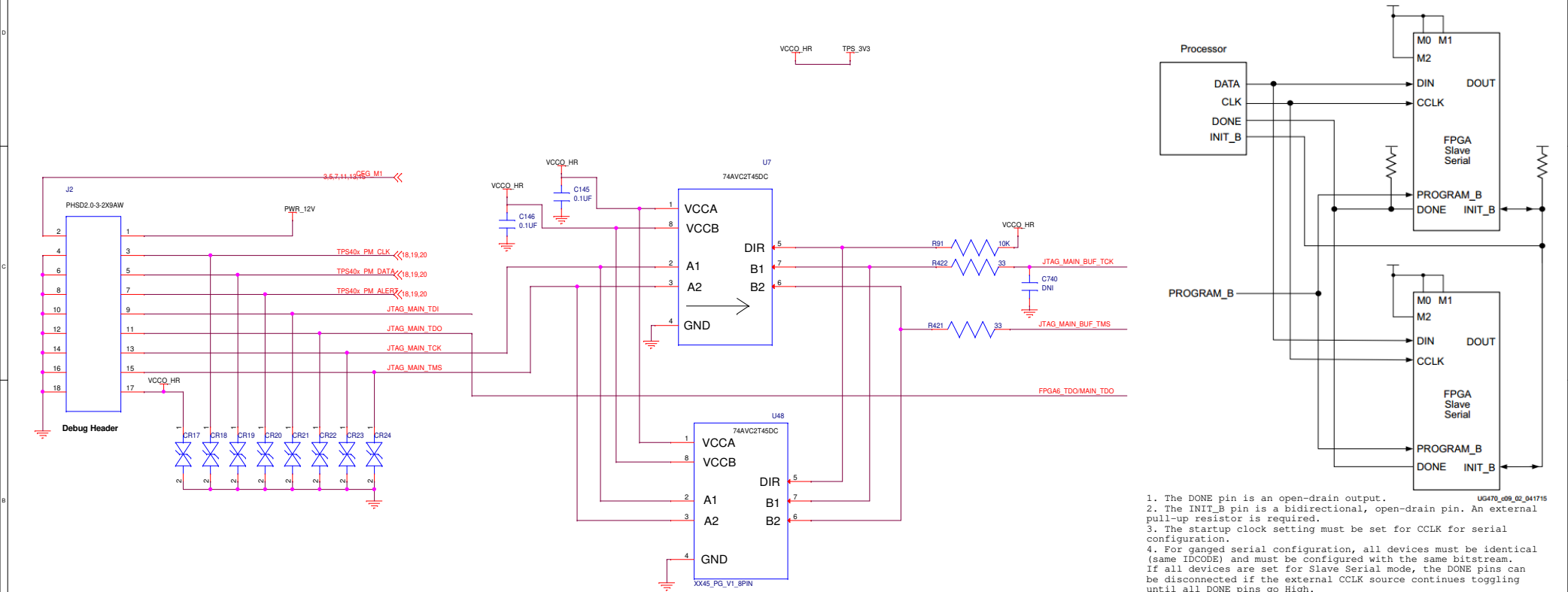
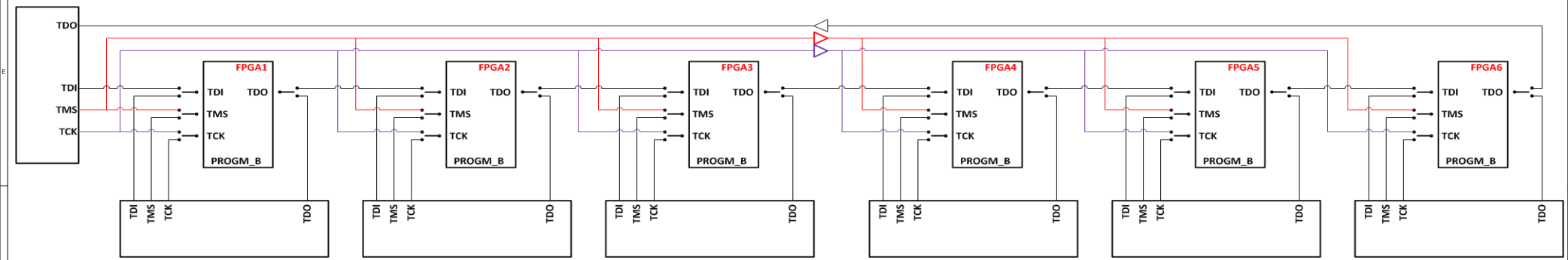


Need to update 3.3V compatible component.



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FPGA_CFG_JTAG_LINK

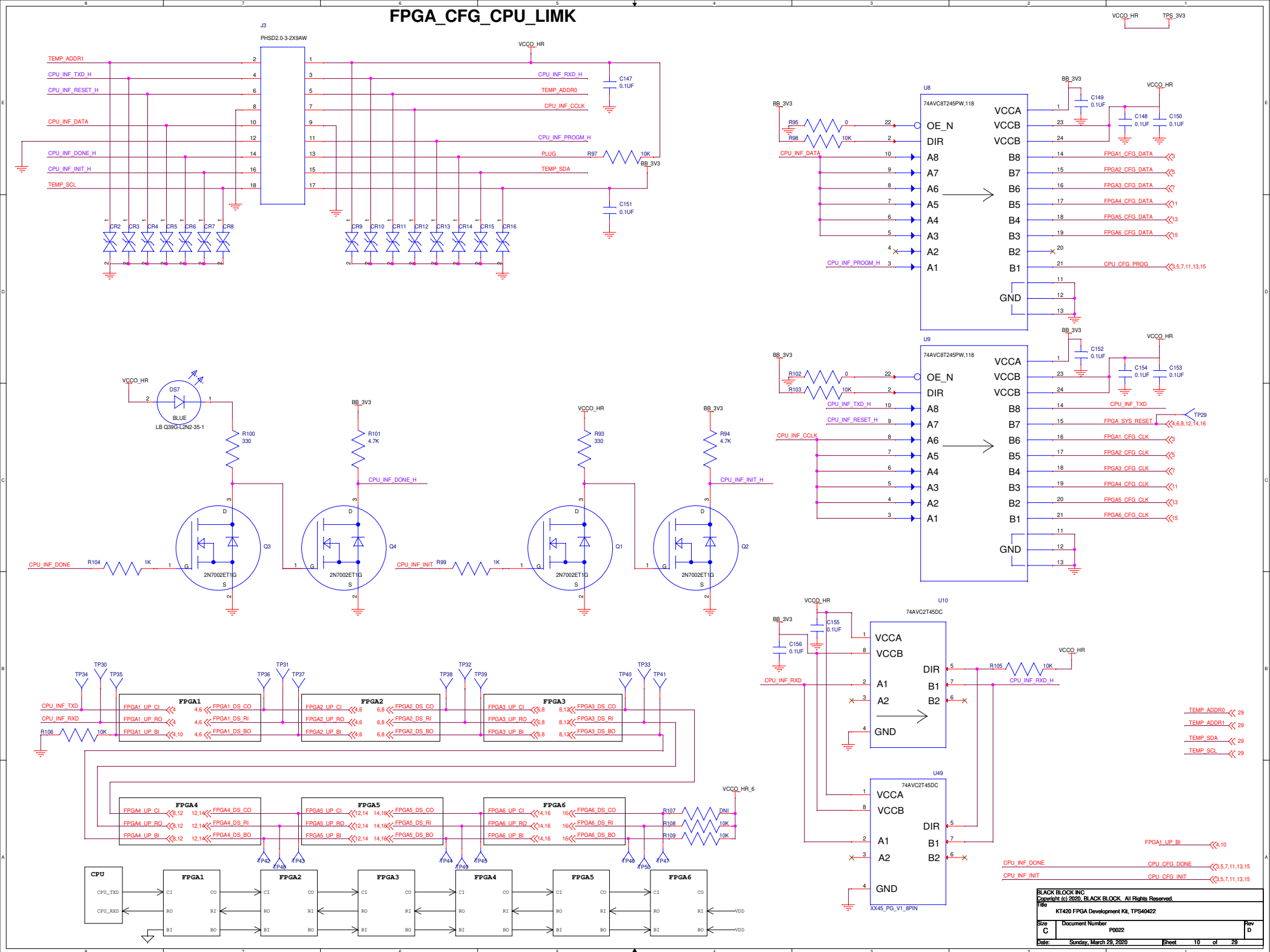


1. The DONE pin is an open-drain output.
2. The INIT_B pin is a bidirectional, open-drain pin. An external pull-up resistor is required.
3. The startup clock setting must be set for CCLK for serial configuration.
4. For ganged serial configuration, all devices must be identical (same IDCODE) and must be configured with the same bitstream. If all devices are set for Slave Serial mode, the DONE pins can be disconnected if the external CCLK source continues toggling until all DONE pins go High.

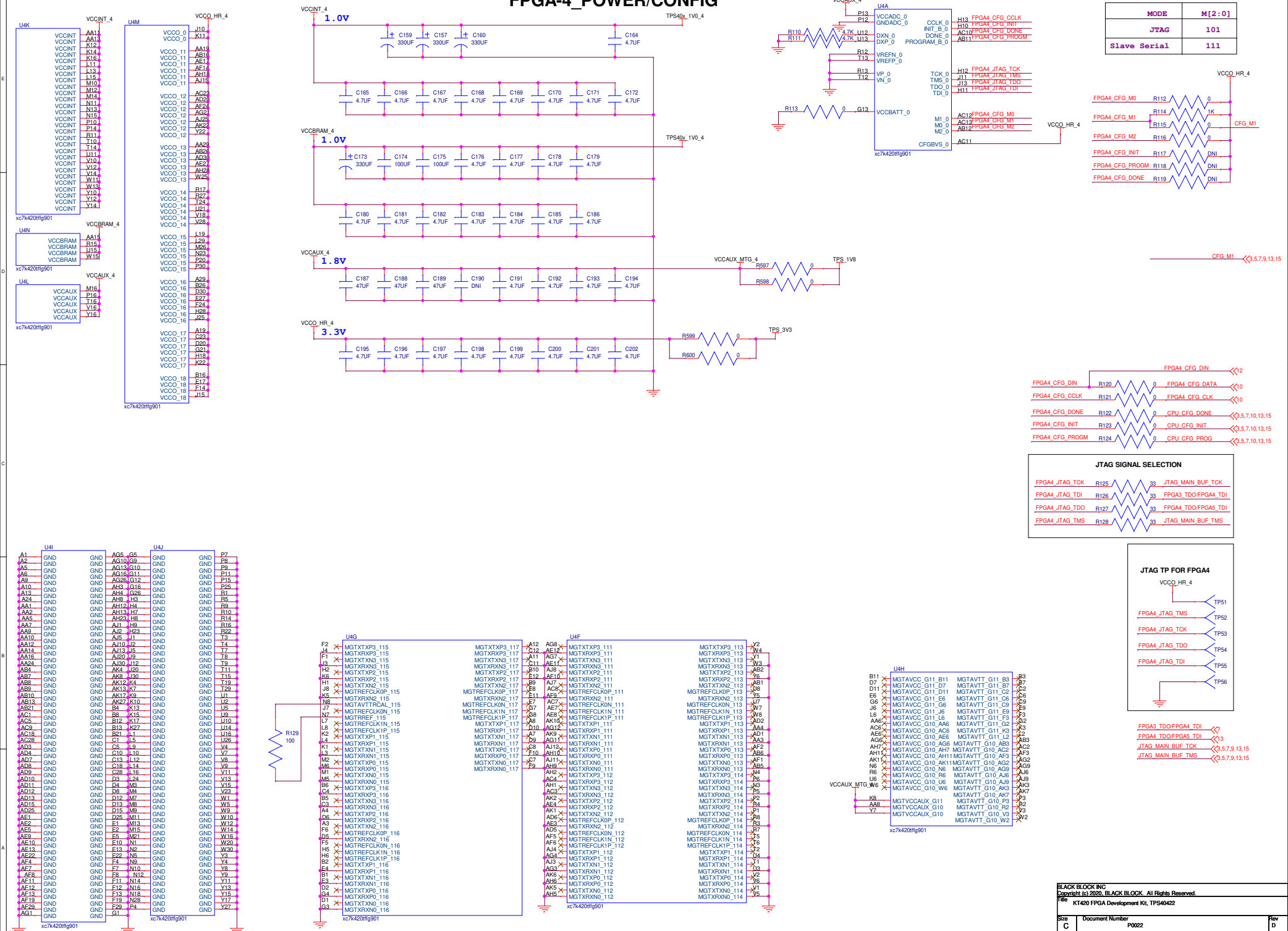
JTAG

JTAG MAIN TDI
FPGA6 TDOMAIN TDO
JTAG MAIN BUF TCK
JTAG MAIN BUF TMS

FPGA_CFG_CPU_LINK

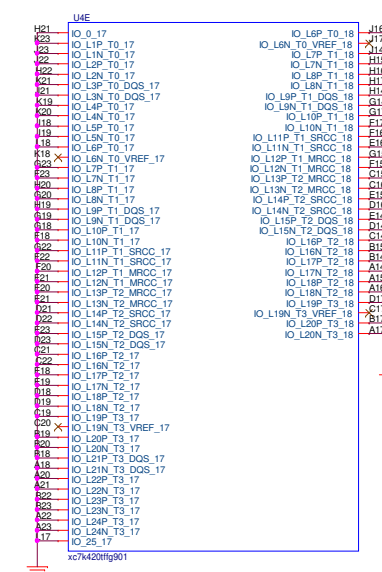
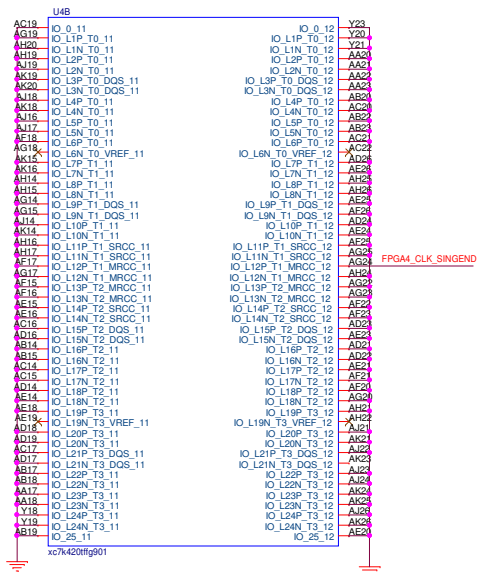
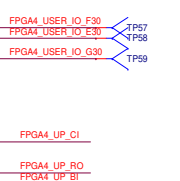
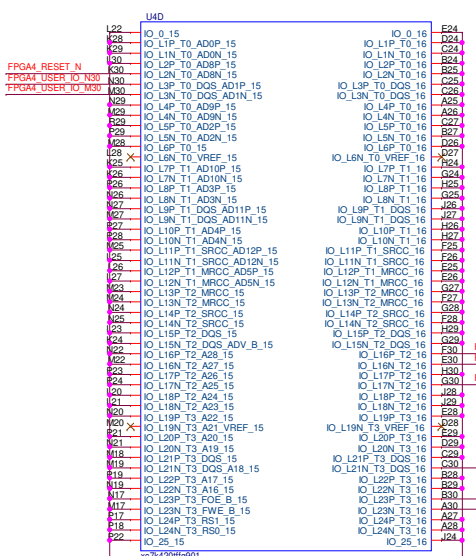
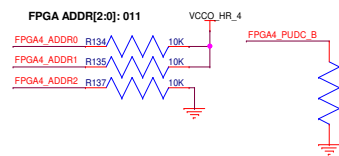
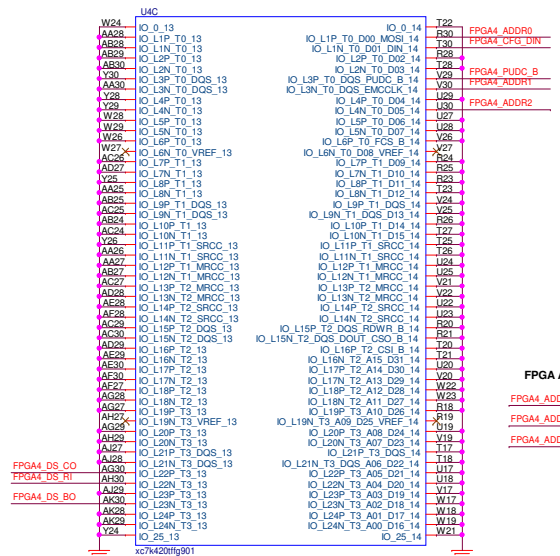
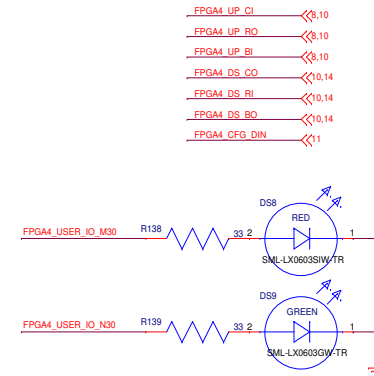


FPGA-4_POWER/CONFIG

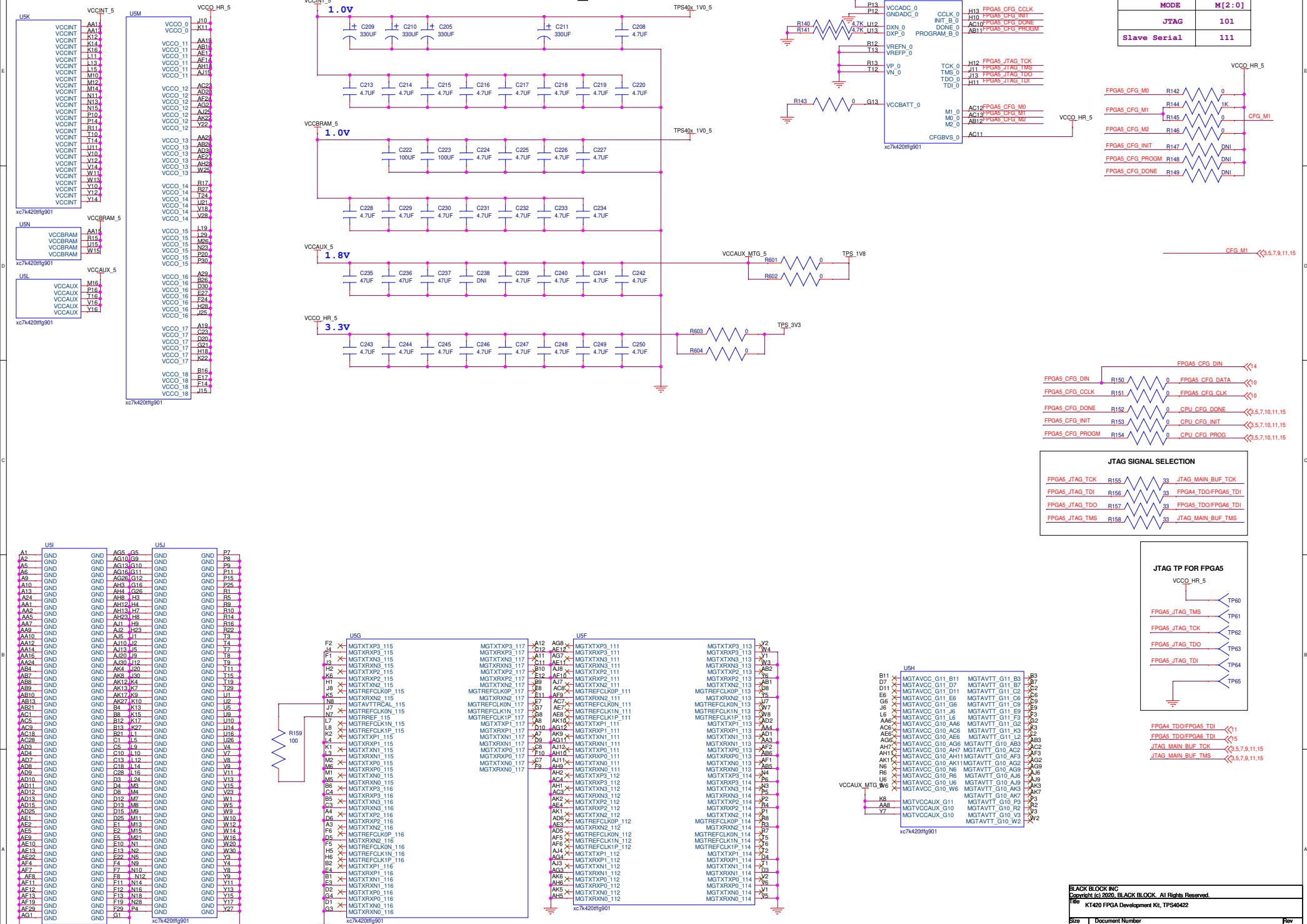


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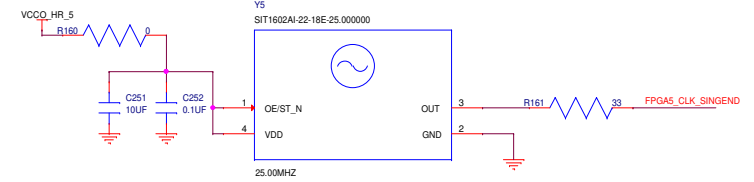
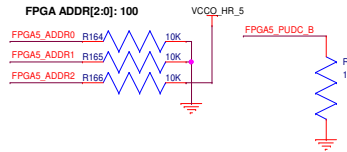
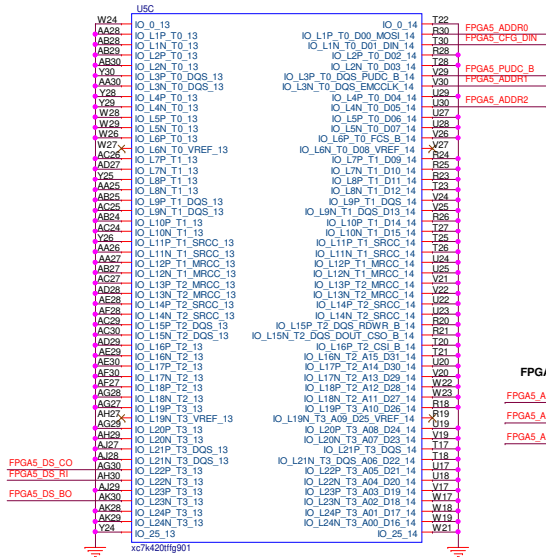
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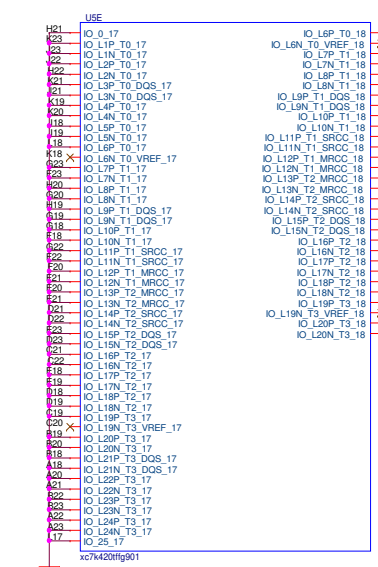
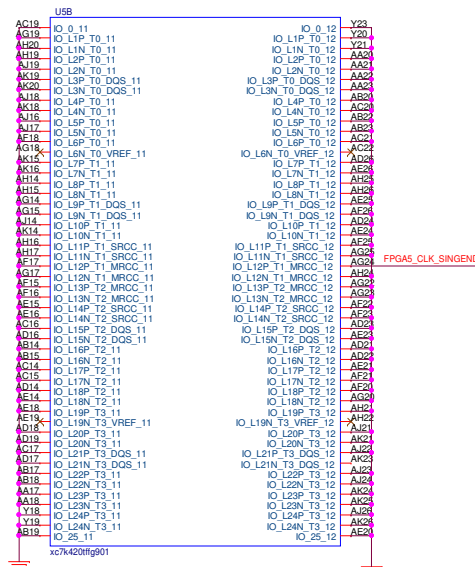
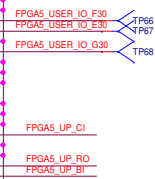
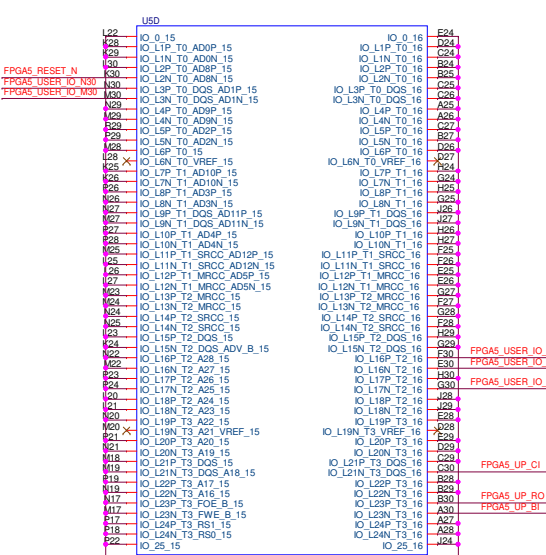
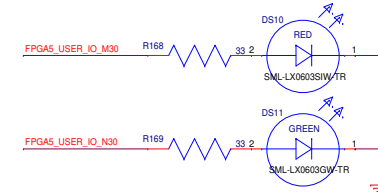
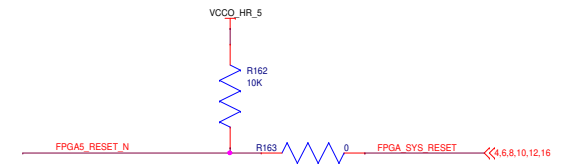
FPGA-5_POWER/CONFIG



FPGA-5_IO_BANK



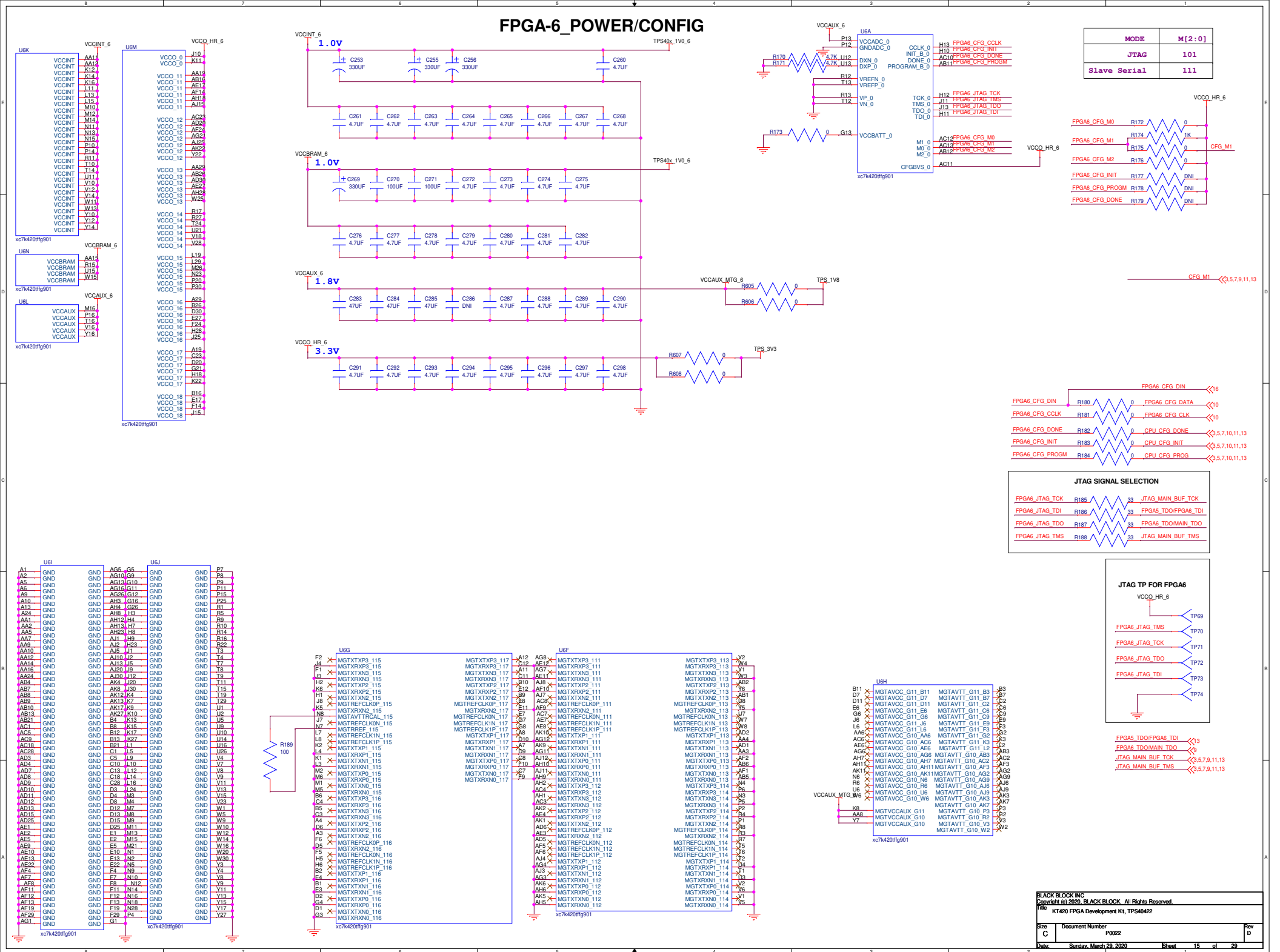
Need to update 3.3V compatible component.



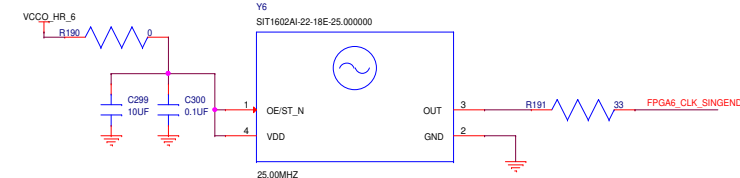
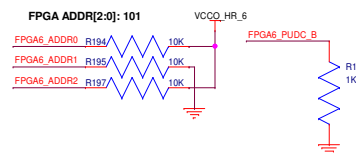
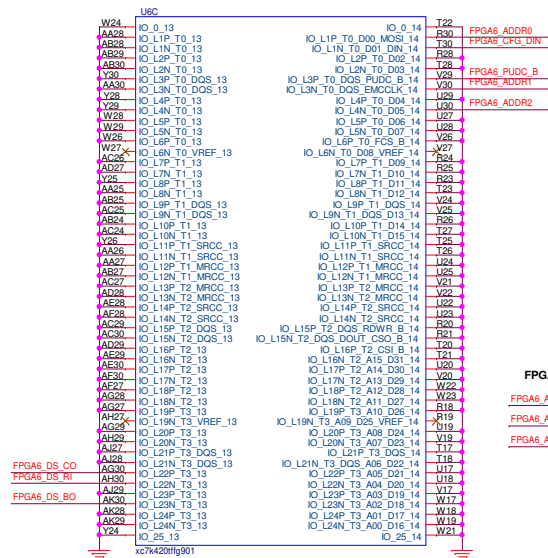
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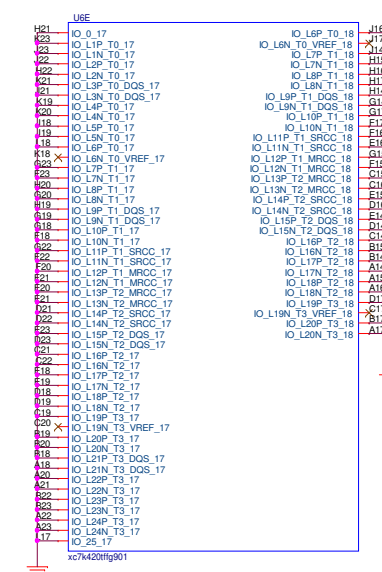
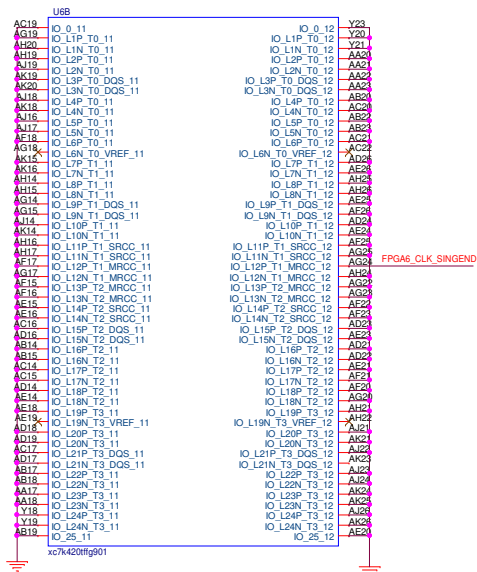
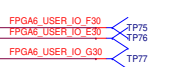
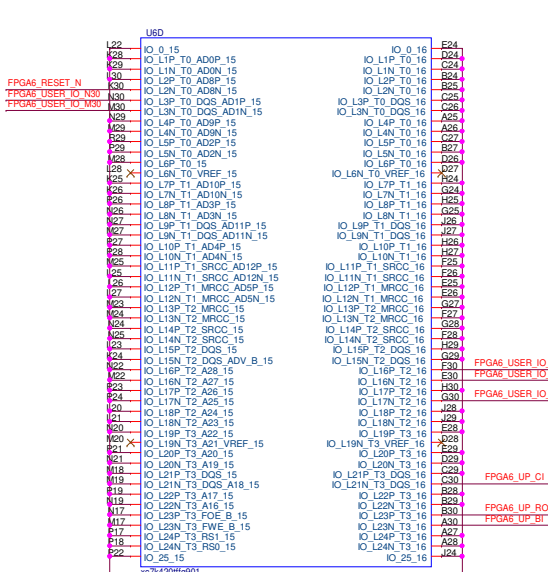
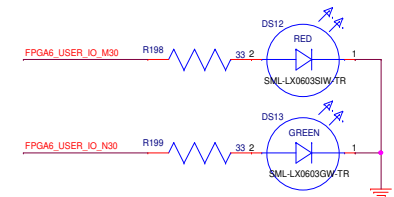
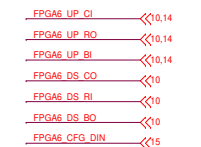
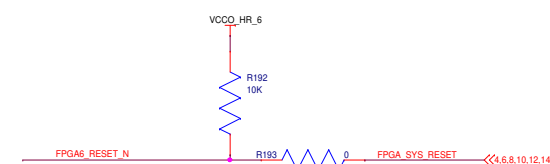
FPGA-6_POWER/CONFIG



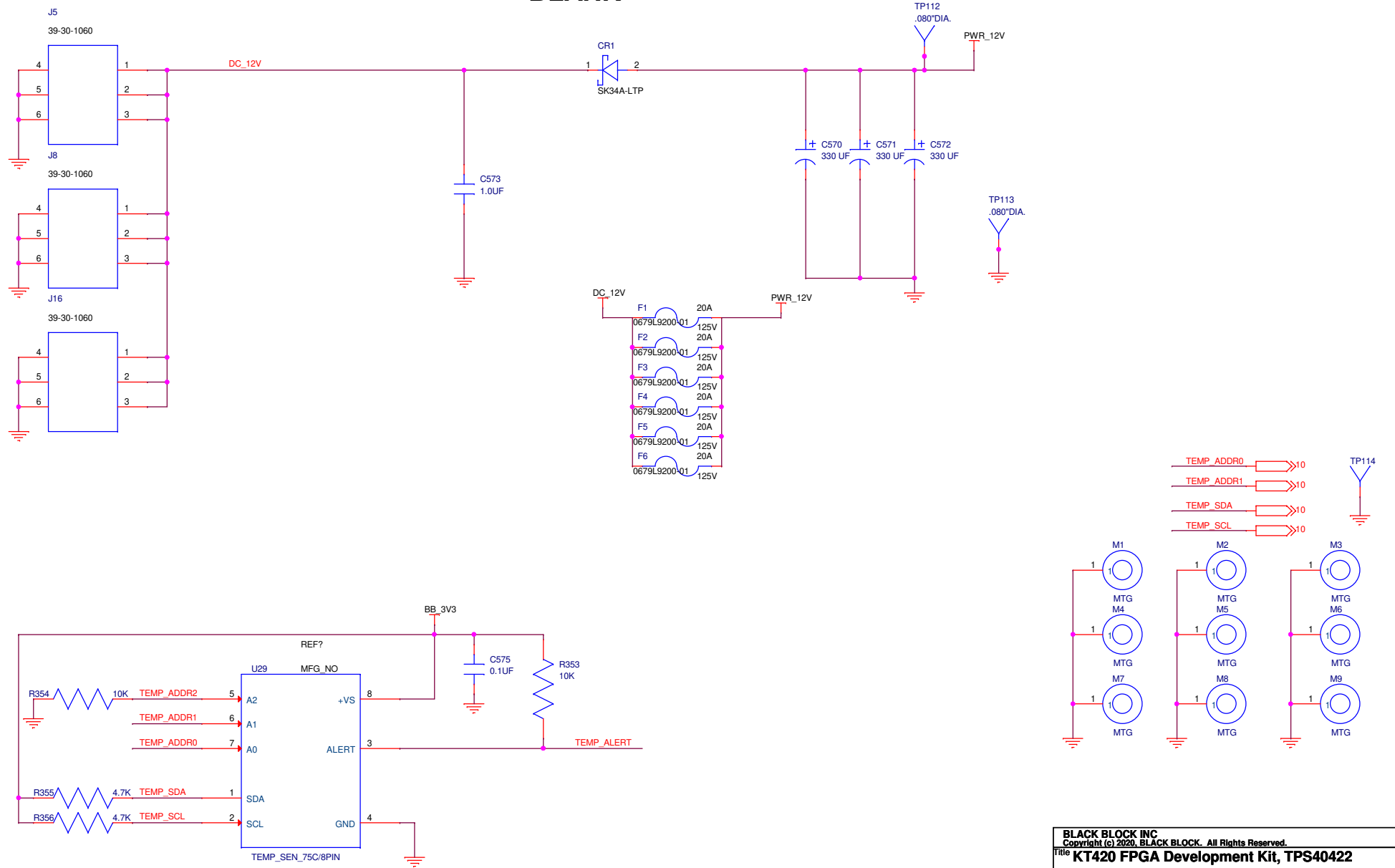
6	
FPGA-6 IO BANK	



Need to update 3.3V compatible component.



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