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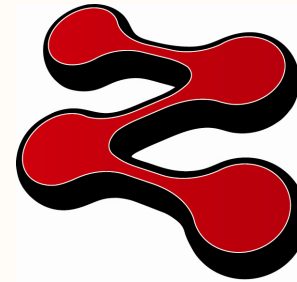
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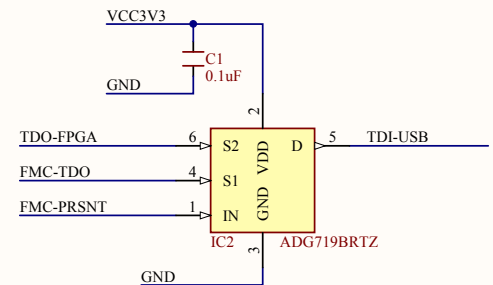
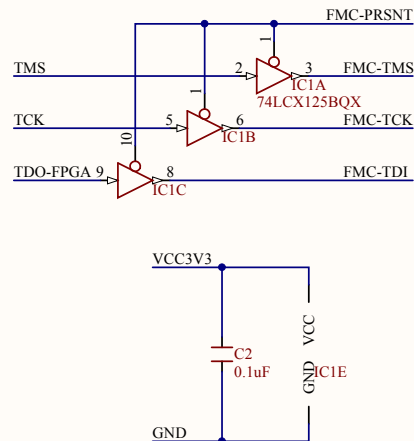
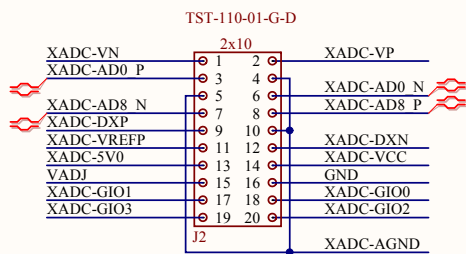
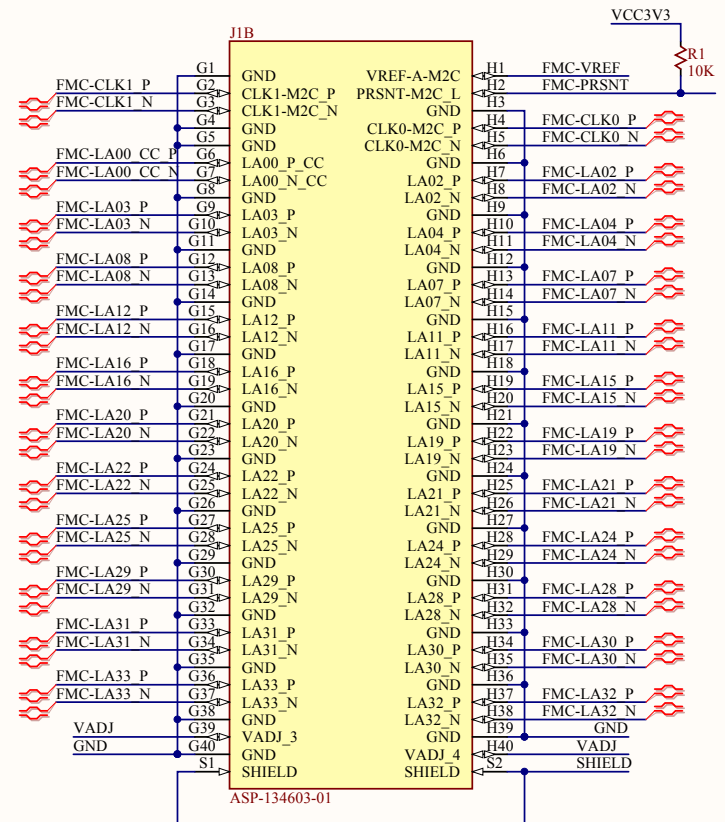
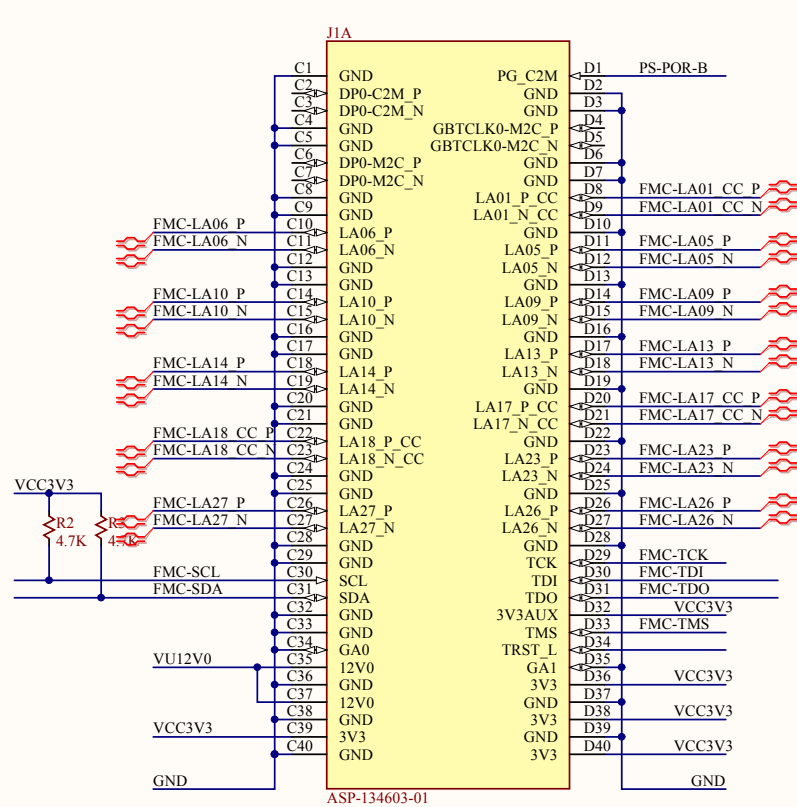
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Foot
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ROHS

Chinese ROHS

Avnet

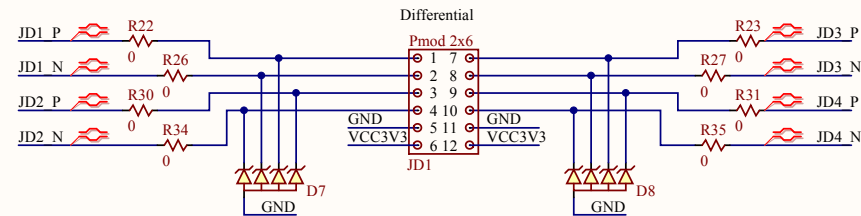
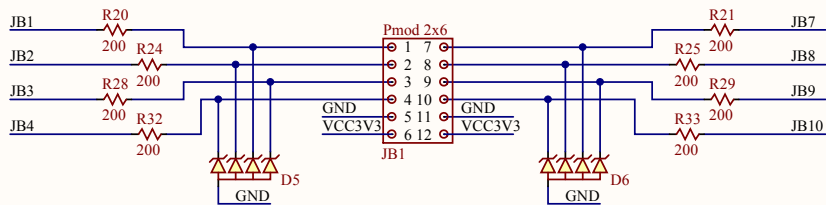
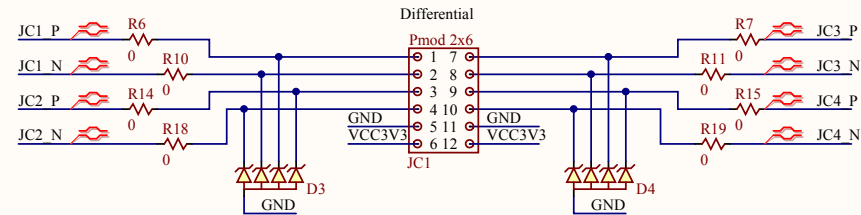
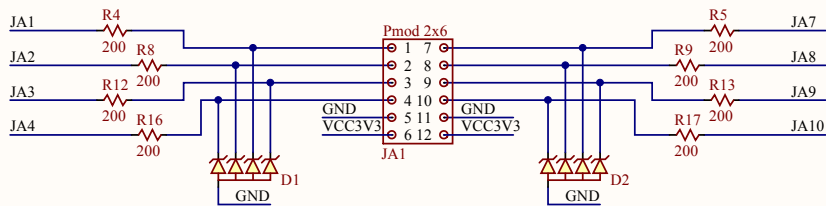
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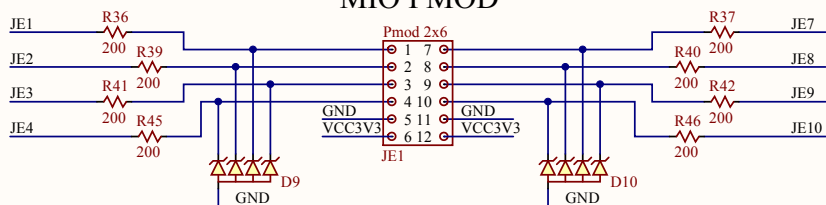
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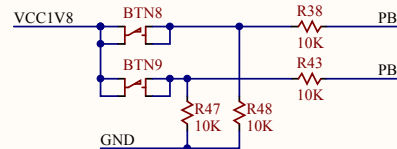




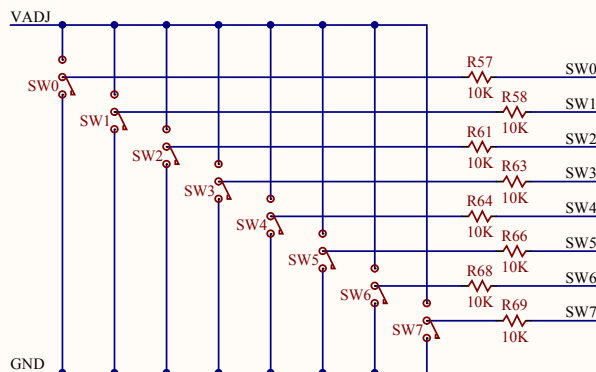
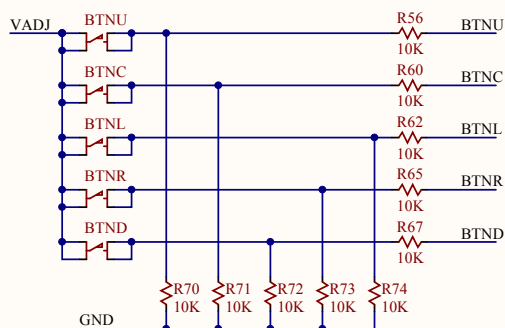
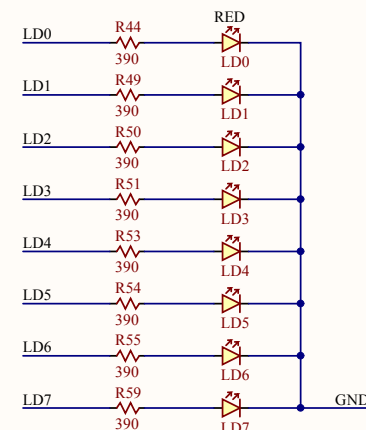
MIO PMOD



MIO BUTTON



MIO LED



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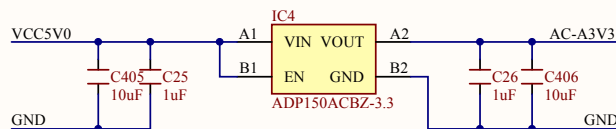
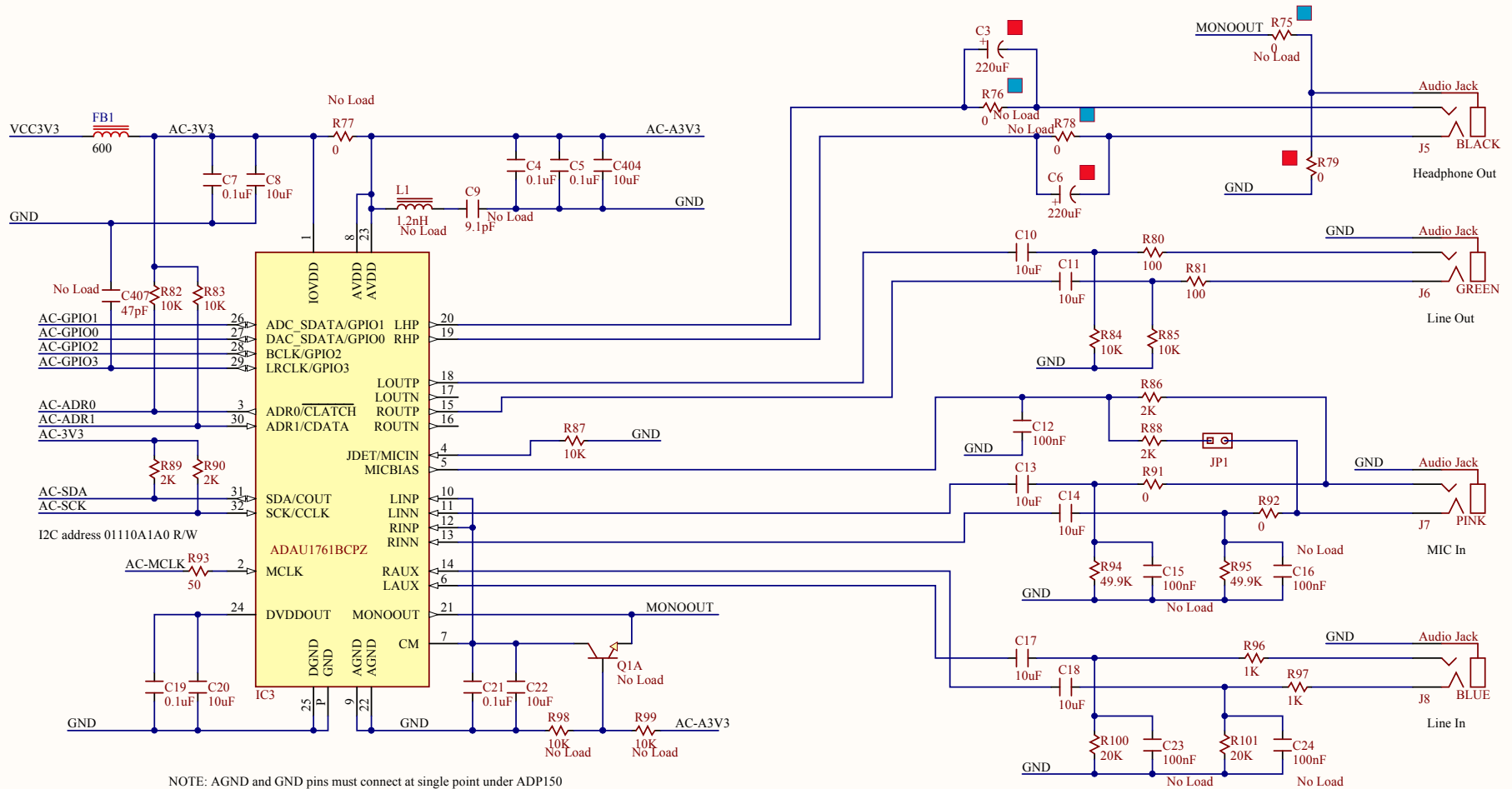
Load

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Capless Headphone



AC-Coupled Headphone



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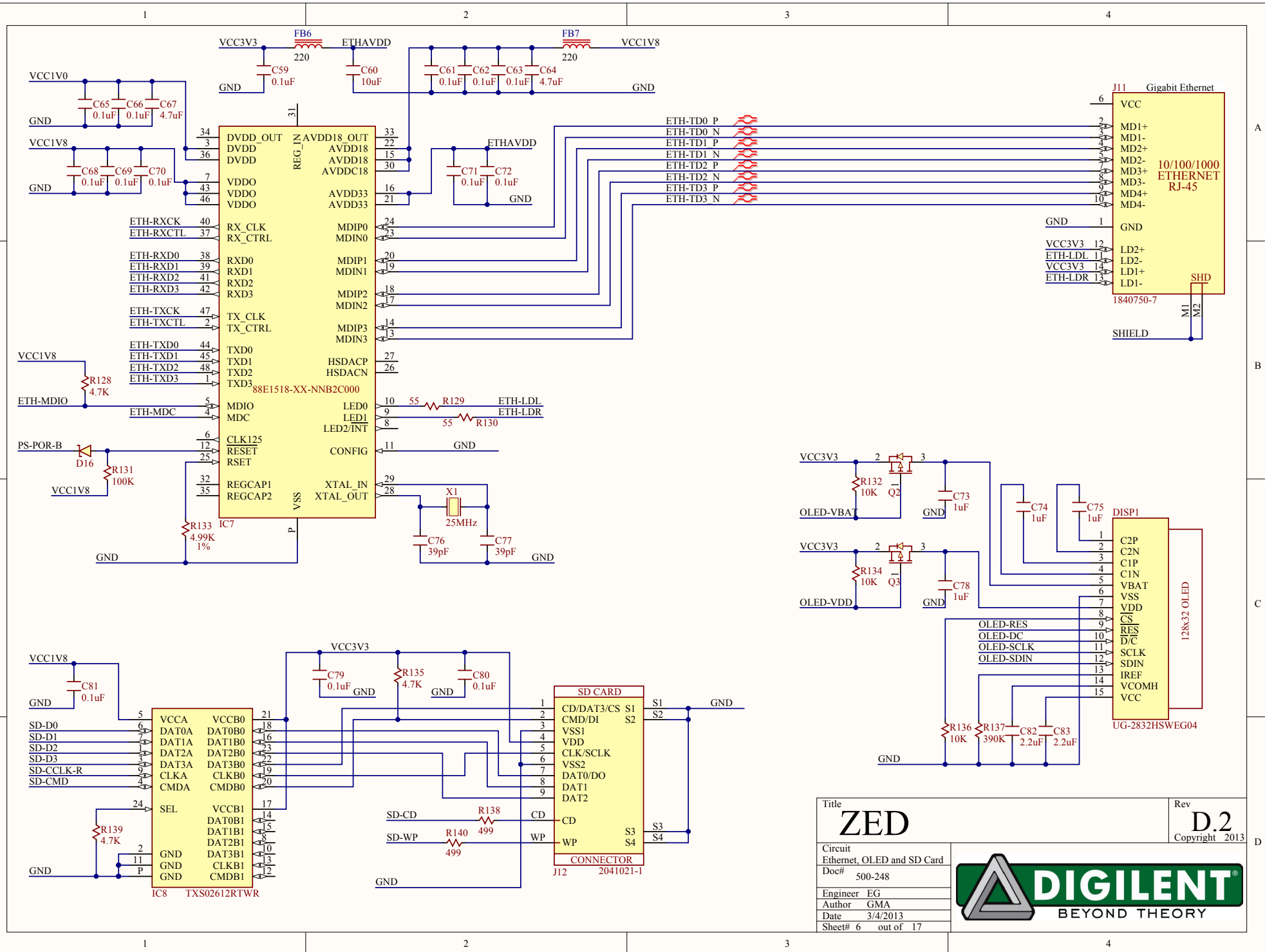
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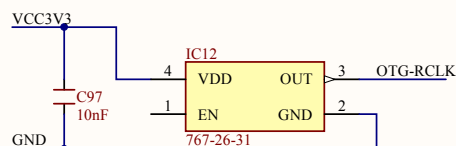
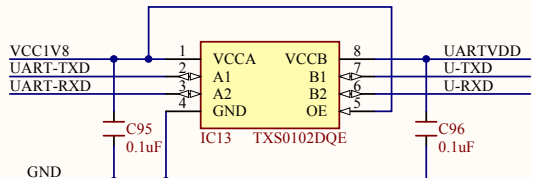
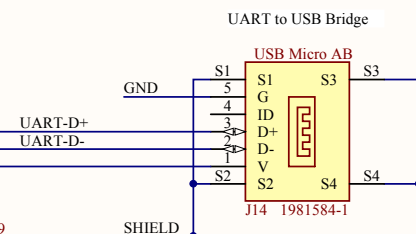
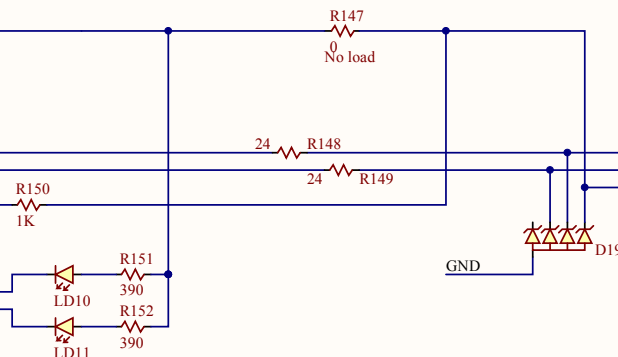
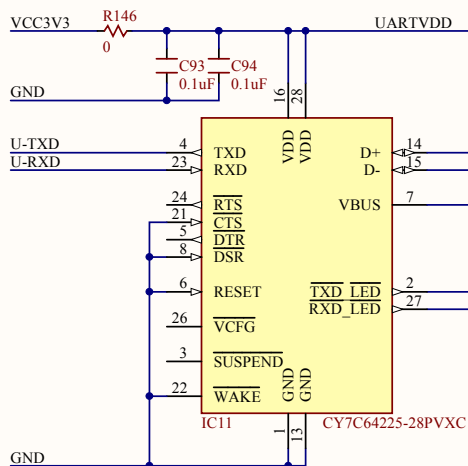
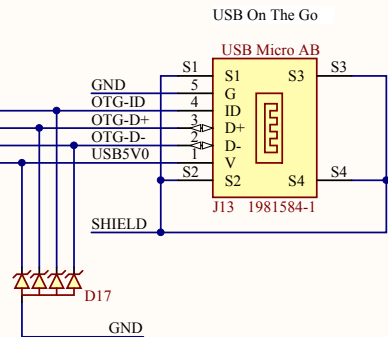
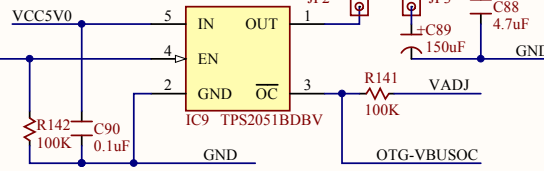
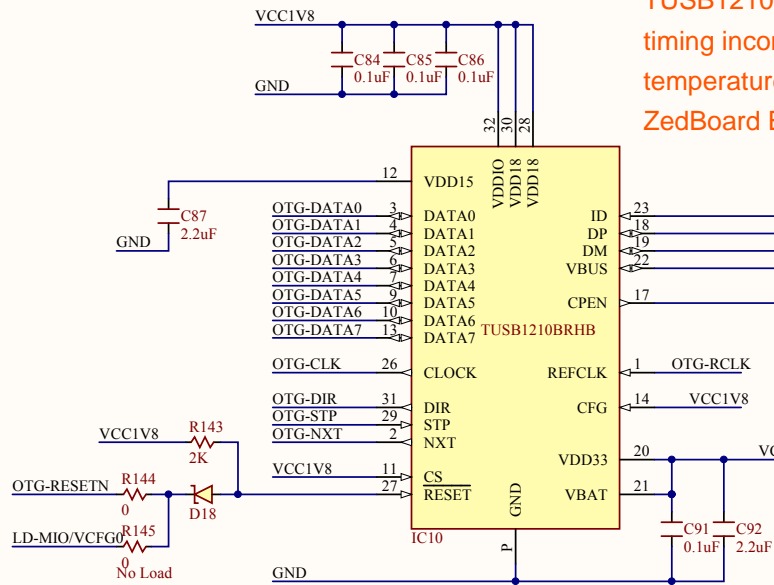
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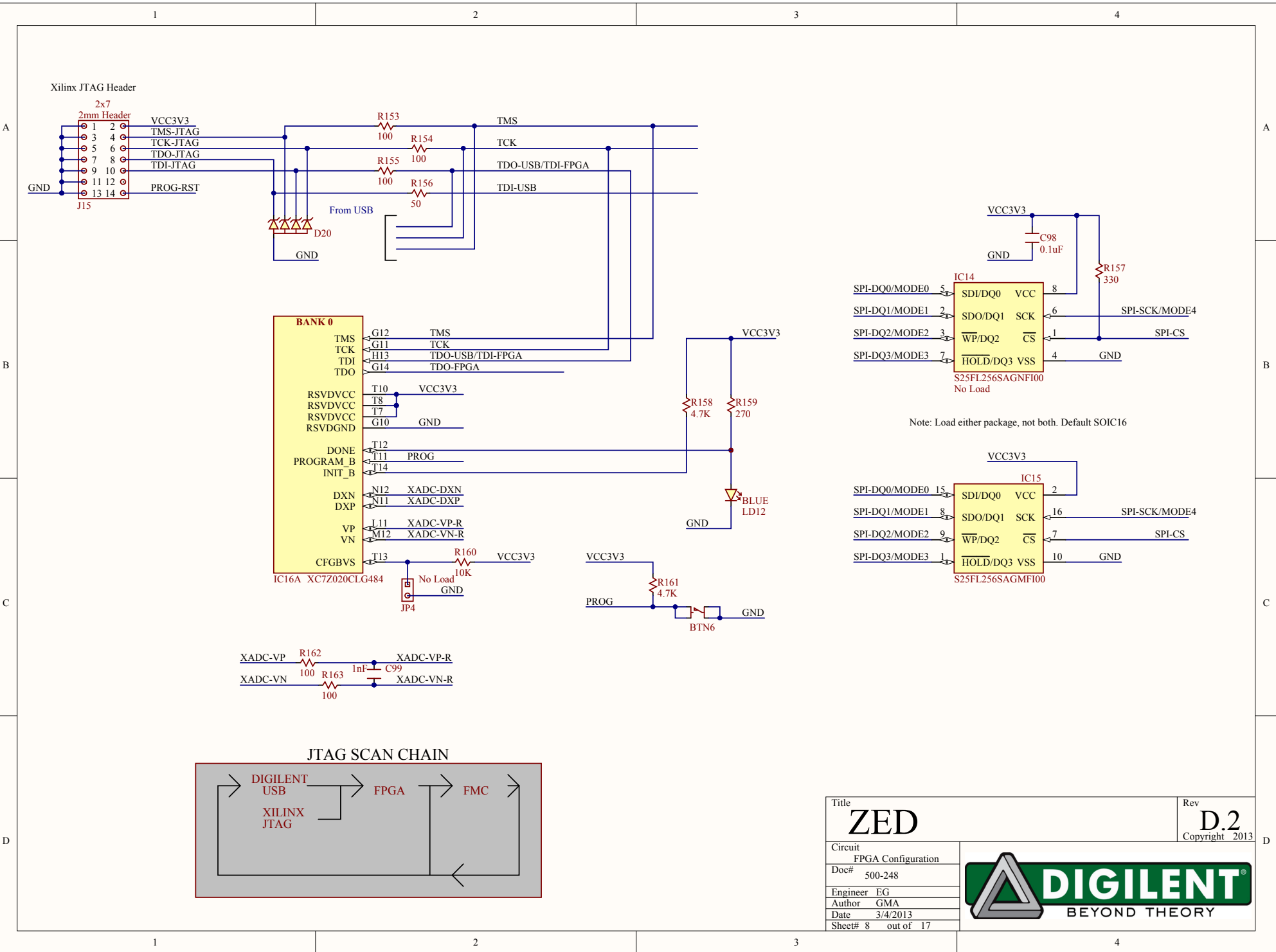


TUSB1210 and Zynq-7000 have a timing incompatibility at hot temperature. Please see the ZedBoard Errata.



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 BEYOND THEORY



VCC3V3

BANK 13

IO_0	R7	FMC-SCL
IO_25	U7	FMC-SDA
IO_L1N_T0	V9	JB9
IO_L1P_T0	V10	JB3
IO_L2N_T0	W8	JB4
IO_L2P_T0	V8	JB10
IO_L3N_T0_DQS	W10	JB8
IO_L3P_T0_DQS	W11	JB2
IO_L4N_T0	W12	JB1
IO_L4P_T0	V12	JB7
IO_L5N_T0	U11	OLED-VBAT
IO_L5P_T0	U12	OLED-VDD
IO_L6N_T0_VREF	U9	OLED-RES
IO_L6P_T0	U10	OLED-DC
IO_L7N_T1	AB12	OLED-SCLK
IO_L7P_T1	AA12	OLED-SDIN
IO_L8N_T1	AB11	JA7
IO_L8P_T1	AA11	JA2
IO_L9N_T1_DQS	AB9	JA9
IO_L9P_T1_DQS	AB10	JA8
IO_L10N_T1	Y10	JA3
IO_L10P_T1	Y11	JA1
IO_L11N_T1_SRCC	AA8	JA10
IO_L11P_T1_SRCC	AA9	JA4
IO_L12N_T1_MRCC	Y8	AC-GPIO0
IO_L12P_T1_MRCC	Y9	GCLK
IO_L13N_T2_MRCC	Y5	AC-ADR1
IO_L13P_T2_MRCC	Y6	AC-GPIO3
IO_L14N_T2_SRCC	AA6	AC-GPIO2
IO_L14P_T2_SRCC	AA7	AC-GPIO1
IO_L15N_T2_DQS	AB1	AC-ADR0
IO_L15P_T2_DQS	AB2	AC-MCLK
IO_L16N_T2	AB4	AC-SCK
IO_L16P_T2	AB5	AC-SDA
IO_L17N_T2	AB6	JC1 N
IO_L17P_T2	AB7	JC1 P
IO_L18N_T2	AA4	JC2 N
IO_L18P_T2	Y4	JC2 P
IO_L19N_T3_VREF	Y6	JC3 N
IO_L19P_T3	R6	JC3 P
IO_L20N_T3	U4	JC4 N
IO_L20P_T3	T4	JC4 P
IO_L21N_T3_DQS	V4	JD2 N
IO_L21P_T3_DQS	V5	JD2 P
IO_L22N_T3	U5	JD4 N
IO_L22P_T3	U6	JD4 P
IO_L23N_T3	W7	JD1 N
IO_L23P_T3	V7	JD1 P
IO_L24N_T3	W5	JD3 N
IO_L24P_T3	W6	JD3 P

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VCC3V3

BANK 33

IO_0	U19	LD6
IO_25	U14	LD7
IO_L1N_T0	U21	LD3
IO_L1P_T0	T21	LD1
IO_L2N_T0	U22	LD2
IO_L2P_T0	T22	LD0
IO_L3N_T0_DQS	W22	LD5
IO_L3P_T0_DQS	V22	LD4
IO_L4N_T0	W21	
IO_L4P_T0	W20	VGA-R1
IO_L5N_T0	V20	VGA-R2
IO_L5P_T0	V19	VGA-R3
IO_L6N_T0_VREF	V18	VGA-R4
IO_L6P_T0	AB22	VGA-G1
IO_L7N_T1	AA22	VGA-G2
IO_L7P_T1	AB21	VGA-G3
IO_L8N_T1	AA21	VGA-G4
IO_L8P_T1	Y21	VGA-B1
IO_L9N_T1_DQS	Y20	VGA-B2
IO_L9P_T1_DQS	AB20	VGA-B3
IO_L10N_T1	AB19	VGA-B4
IO_L10P_T1	AA19	VGA-HS
IO_L11N_T1_SRCC	Y19	VGA-VS
IO_L11P_T1_SRCC	AA18	HD-SCL
IO_L12N_T1_MRCC	Y18	HD-SPDIF0
IO_L12P_T1_MRCC	W18	HD-CLK
IO_L13N_T2_MRCC	W17	HD-VSYNC
IO_L13P_T2_MRCC	Y16	HD-SDA
IO_L14N_T2_SRCC	W16	HD-INT
IO_L14P_T2_SRCC	U16	HD-DE
IO_L15N_T2_DQS	U15	HD-SPDIF
IO_L15P_T2_DQS	V17	HD-HSYNC
IO_L16N_T2	U17	HD-D13
IO_L16P_T2	AB17	HD-D7
IO_L17N_T2	AA17	HD-D8
IO_L17P_T2	AB16	HD-D5
IO_L18N_T2	AA16	HD-D6
IO_L18P_T2	V15	HD-D12
IO_L19N_T3_VREF	V14	HD-D14
IO_L19P_T3	W13	HD-D10
IO_L20N_T3	V13	HD-D15
IO_L20P_T3	Y15	HD-D9
IO_L21N_T3_DQS	W15	HD-D11
IO_L21P_T3_DQS	AA14	HD-D2
IO_L22N_T3	Y14	HD-D3
IO_L22P_T3	AA13	HD-D1
IO_L23N_T3	Y13	HD-D0
IO_L23P_T3	AB15	HD-D4
IO_L24N_T3	AB14	FMC-PRSNT

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BANK 34

IO_0	H15	XADC-GIO0
IO_25	R15	XADC-GIO1
IO_L1N_T0	K15	XADC-GIO2
IO_L1P_T0	L15	XADC-GIO3
IO_L2N_T0	H17	FMC-LA15_N
IO_L2P_T0	K16	FMC-LA15_P
IO_L3N_T0_DQS	K16	OTG-VBUSOC
IO_L3P_T0_DQS	K16	PUDC B
IO_L4N_T0	M17	FMC-LA13_N
IO_L4P_T0	L17	FMC-LA13_P
IO_L5N_T0	N18	FMC-LA11_N
IO_L5P_T0	N17	FMC-LA11_P
IO_L6N_T0_VREF	M16	FMC-VREF
IO_L6P_T0	M15	SW7
IO_L7N_T1	K18	FMC-LA05_N
IO_L7P_T1	L18	FMC-LA05_P
IO_L8N_T1	K22	FMC-LA08_N
IO_L8P_T1	J21	FMC-LA08_P
IO_L9N_T1_DQS	K21	FMC-LA16_N
IO_L9P_T1_DQS	J20	FMC-LA16_P
IO_L10N_T1	K22	FMC-LA06_N
IO_L10P_T1	J21	FMC-LA06_P
IO_L11N_T1_SRCC	K20	FMC-LA14_N
IO_L11P_T1_SRCC	K19	FMC-LA14_P
IO_L12N_T1_MRCC	L19	FMC-CLK0_N
IO_L12P_T1_MRCC	L18	FMC-CLK0_P
IO_L13N_T2_MRCC	M20	FMC-LA00_CC_N
IO_L13P_T2_MRCC	M19	FMC-LA00_CC_P
IO_L14N_T2_SRCC	N20	FMC-LA01_CC_N
IO_L14P_T2_SRCC	N19	FMC-LA01_CC_P
IO_L15N_T2_DQS	M22	FMC-LA04_N
IO_L15P_T2_DQS	M21	FMC-LA04_P
IO_L16N_T2	K22	FMC-LA03_N
IO_L16P_T2	K22	FMC-LA03_P
IO_L17N_T2	R21	FMC-LA09_N
IO_L17P_T2	R20	FMC-LA09_P
IO_L18N_T2	R21	FMC-LA12_N
IO_L18P_T2	R20	FMC-LA12_P
IO_L19N_T3_VREF	P15	FMC-VREF
IO_L19P_T3	N15	BTNL
IO_L20N_T3	P18	FMC-LA02_N
IO_L20P_T3	P17	FMC-LA02_P
IO_L21N_T3_DQS	L17	FMC-LA07_N
IO_L21P_T3_DQS	T16	FMC-LA07_P
IO_L22N_T3	P19	FMC-LA10_N
IO_L22P_T3	R19	FMC-LA10_P
IO_L23N_T3	L18	BTNU
IO_L23P_T3	R18	BTNR
IO_L24N_T3	R16	BTND
IO_L24P_T3	P16	BTNC

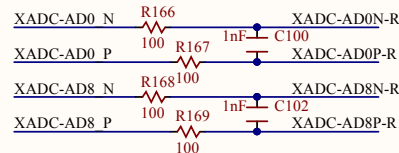
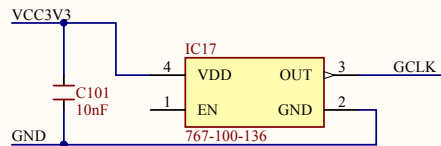
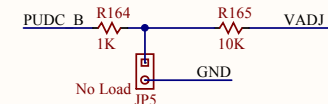
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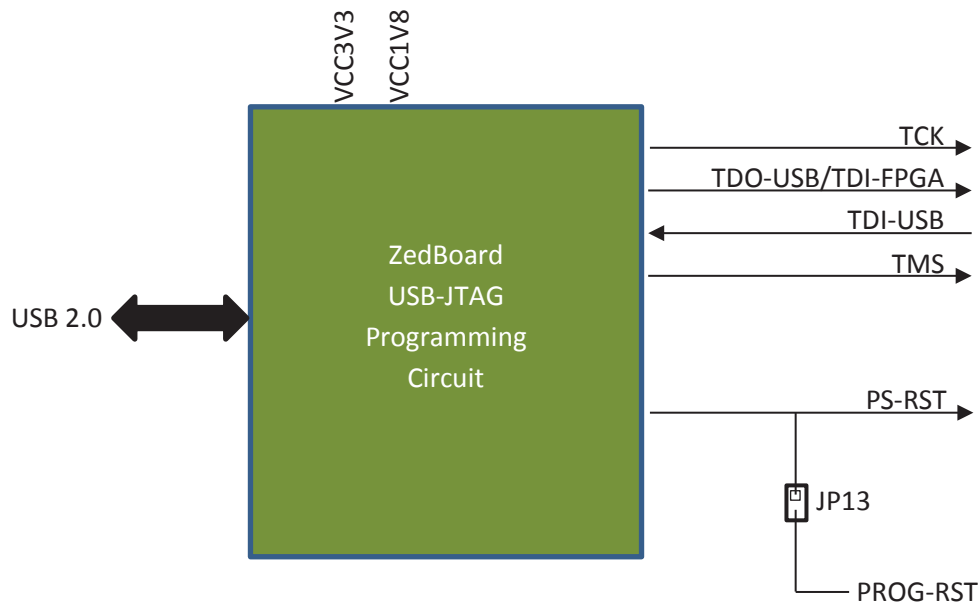
BANK 35

IO_0	H17	SW6
IO_25	H18	SW5
IO_L1N_T0_AD0N	E16	XADC-AD0N-R
IO_L1P_T0_AD0P	F16	XADC-AD0P-R
IO_L2N_T0_AD8N	D17	XADC-AD8N-R
IO_L2P_T0_AD8P	D16	XADC-AD8P-R
IO_L3N_T0_DQS_AD1N	D15	FMC-LA23_N
IO_L3P_T0_DQS_AD1P	E15	FMC-LA23_P
IO_L4N_T0	G16	FMC-LA19_N
IO_L4P_T0	G15	FMC-LA19_P
IO_L5N_T0_AD9N	E18	FMC-LA26_N
IO_L5P_T0_AD9P	F18	FMC-LA26_P
IO_L6N_T0_VREF	F17	FMC-VREF
IO_L6P_T0	G17	OTG-RESETN
IO_L7N_T1_AD2N	B15	FMC-LA30_N
IO_L7P_T1_AD2P	C15	FMC-LA30_P
IO_L8N_T1_AD10N	B17	FMC-LA31_N
IO_L8P_T1_AD10P	B16	FMC-LA31_P
IO_L9N_T1_DQS_AD3N	A17	FMC-LA28_N
IO_L9P_T1_DQS_AD3P	A16	FMC-LA28_P
IO_L10N_T1_AD11N	A19	FMC-LA24_N
IO_L10P_T1_AD11P	A18	FMC-LA24_P
IO_L11N_T1_SRCC	C18	FMC-LA29_N
IO_L11P_T1_SRCC	C17	FMC-LA29_P
IO_L12N_T1_MRCC	C19	FMC-CLK1_N
IO_L12P_T1_MRCC	D18	FMC-CLK1_P
IO_L13N_T2_MRCC	B20	FMC-LA17_CC_N
IO_L13P_T2_MRCC	B19	FMC-LA17_CC_P
IO_L14N_T2_AD4N_SRCC	C20	FMC-LA18_CC_N
IO_L14P_T2_AD4P_SRCC	D20	FMC-LA18_CC_P
IO_L15N_T2_DQS_AD12N	A22	FMC-LA32_N
IO_L15P_T2_DQS_AD12P	A21	FMC-LA32_P
IO_L16N_T2	C22	FMC-LA25_N
IO_L16P_T2	D22	FMC-LA25_P
IO_L17N_T2_AD5N	D21	FMC-LA27_N
IO_L17P_T2_AD5P	E21	FMC-LA27_P
IO_L18N_T2_AD13N	B22	FMC-LA33_N
IO_L18P_T2_AD13P	B21	FMC-LA33_P
IO_L19N_T3_VREF	H20	FMC-VREF
IO_L19P_T3	H19	SW4
IO_L20N_T3_AD6N	F19	FMC-LA22_N
IO_L20P_T3_AD6P	G19	FMC-LA22_P
IO_L21N_T3_DQS_AD14N	E20	FMC-LA21_N
IO_L21P_T3_DQS_AD14P	E19	FMC-LA21_P
IO_L22N_T3_AD7N	G21	FMC-LA20_N
IO_L22P_T3_AD7P	G20	FMC-LA20_P
IO_L23N_T3	F22	SW0
IO_L23P_T3	F21	SW3
IO_L24N_T3_AD15N	G22	SW1
IO_L24P_T3_AD15P	H22	SW2

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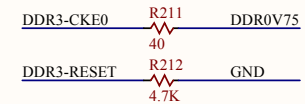
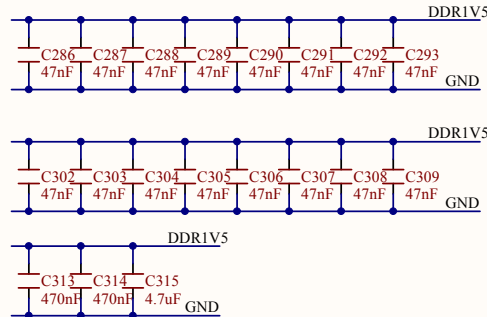
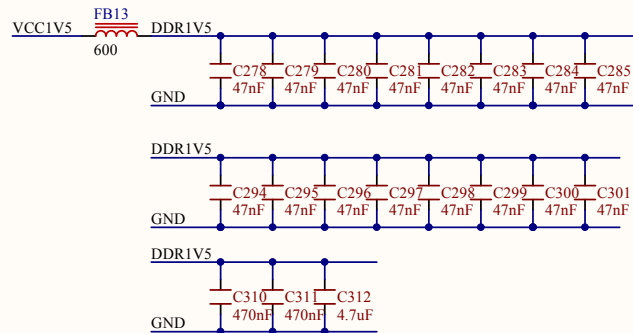
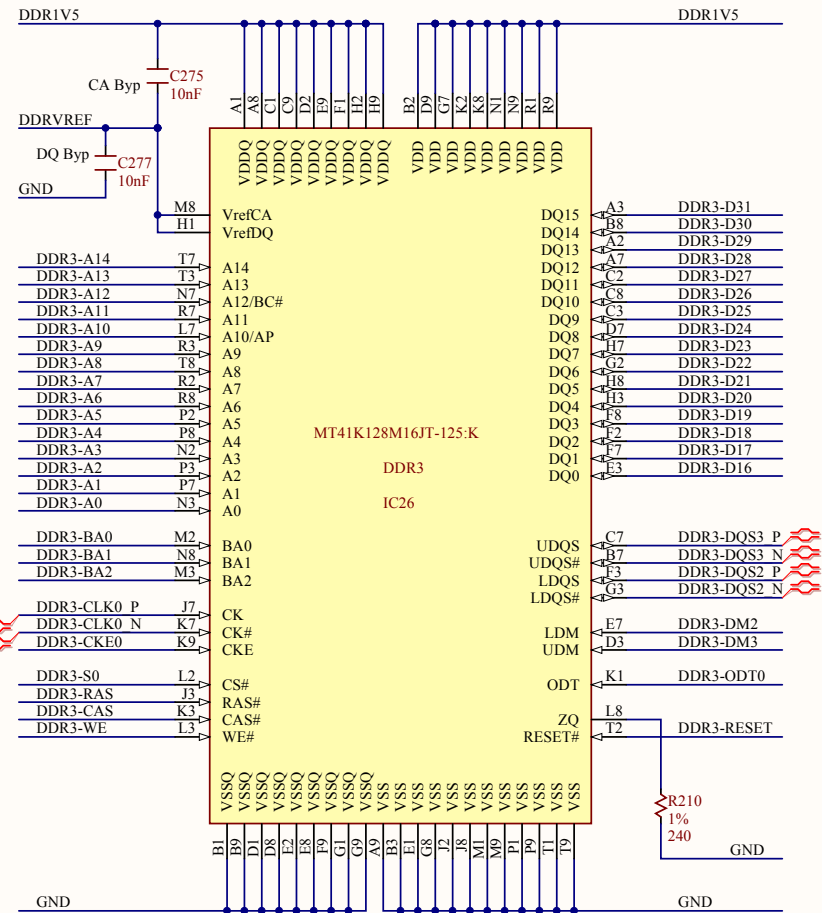
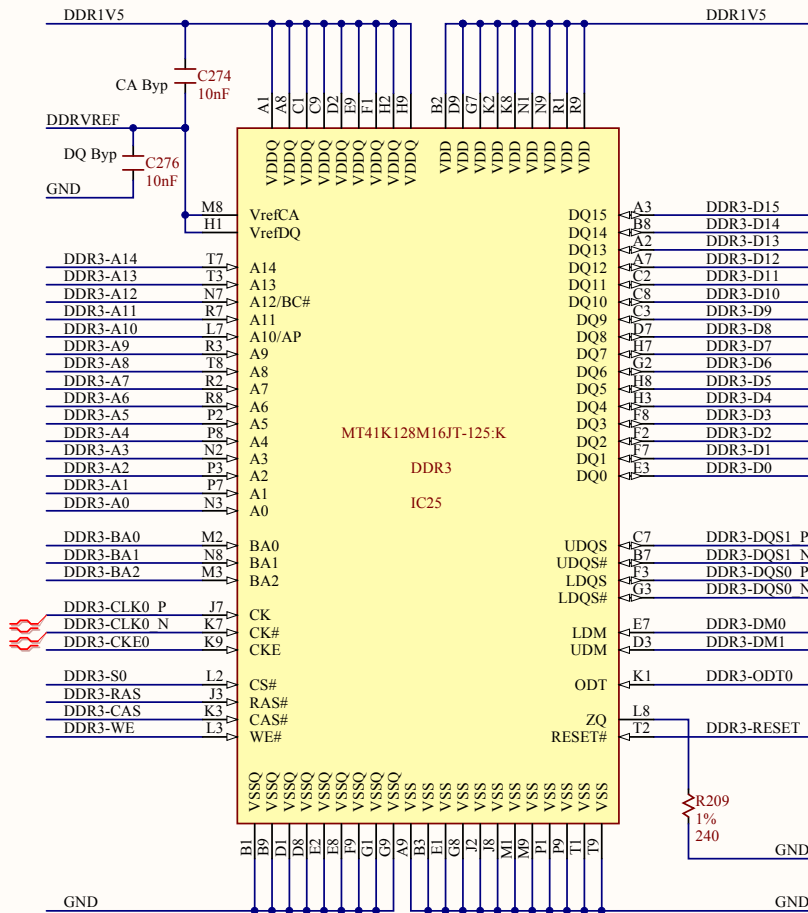


The ZedBoard contains a proprietary USB-JTAG circuit which is obscured on this sheet. This circuit contains IC19, IC20, IC21, IC22, IC23, IC24, JP13, and J17, along with a number of resistors and capacitors. The firmware for this circuit is not publicly available. However, the firmware does come pre-programmed in the SMT2 USB-JTAG module available from Digilent and Avnet. For more information, please see

www.em.avnet.com/jtagsmt2



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Title
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DDR3 Memory
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A

B

C

D

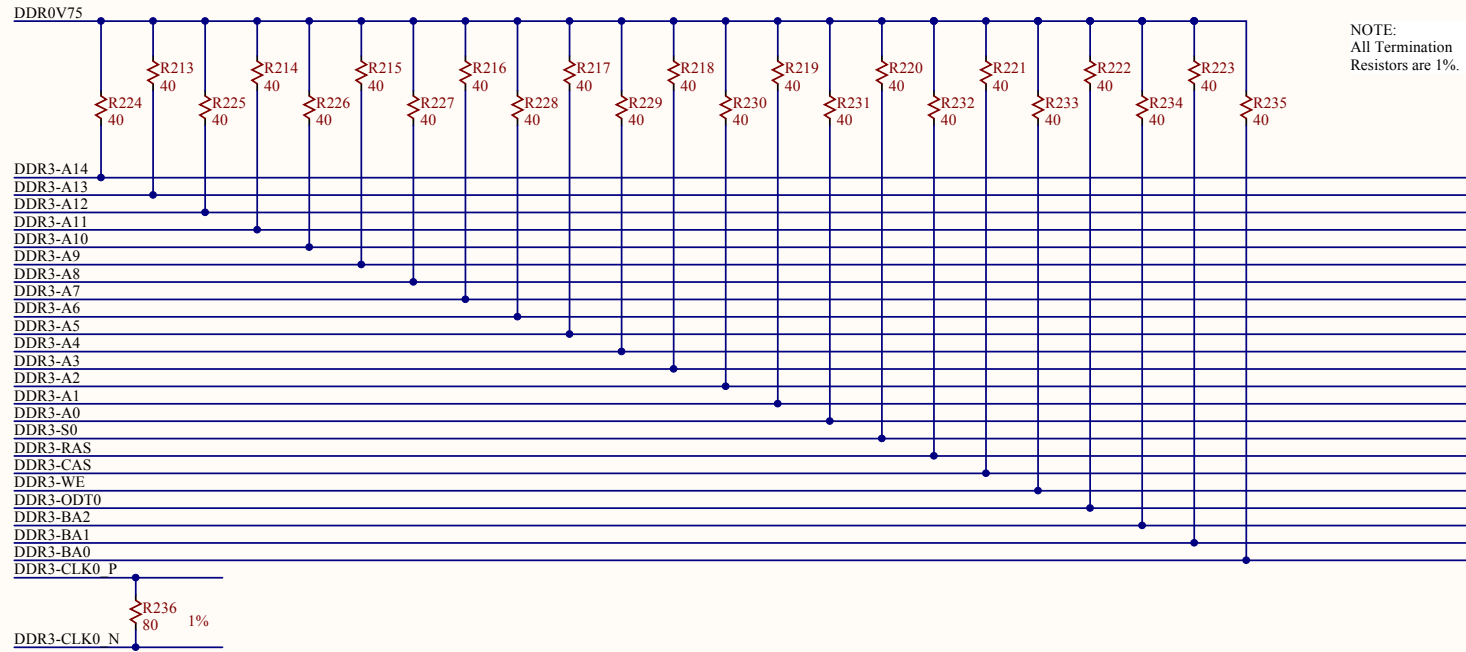
A

B

C

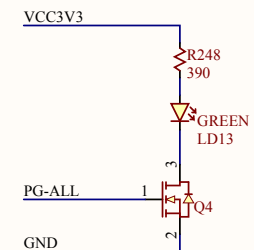
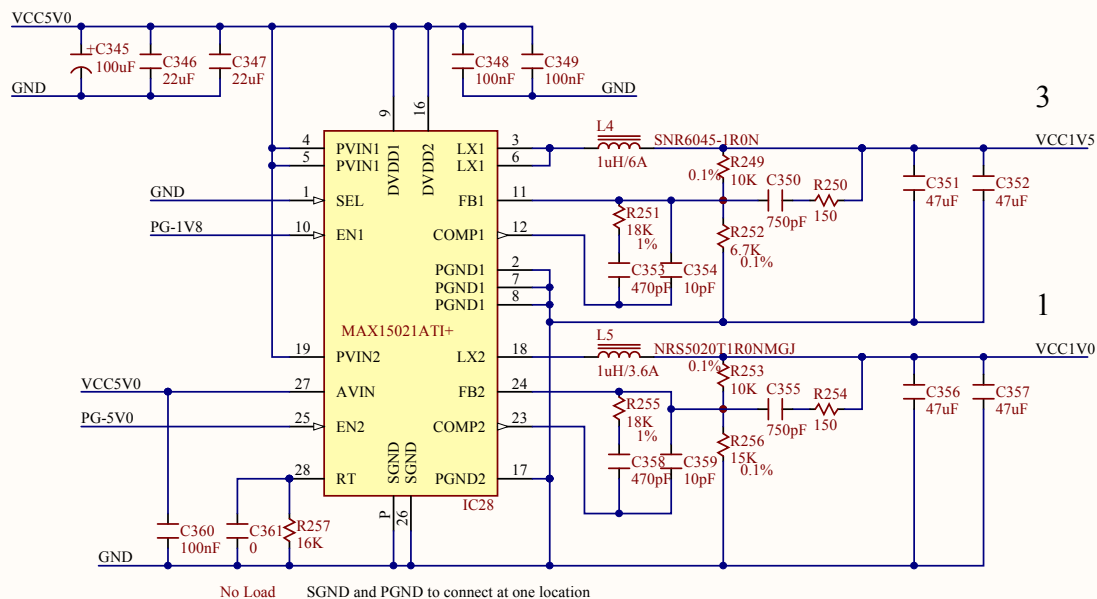
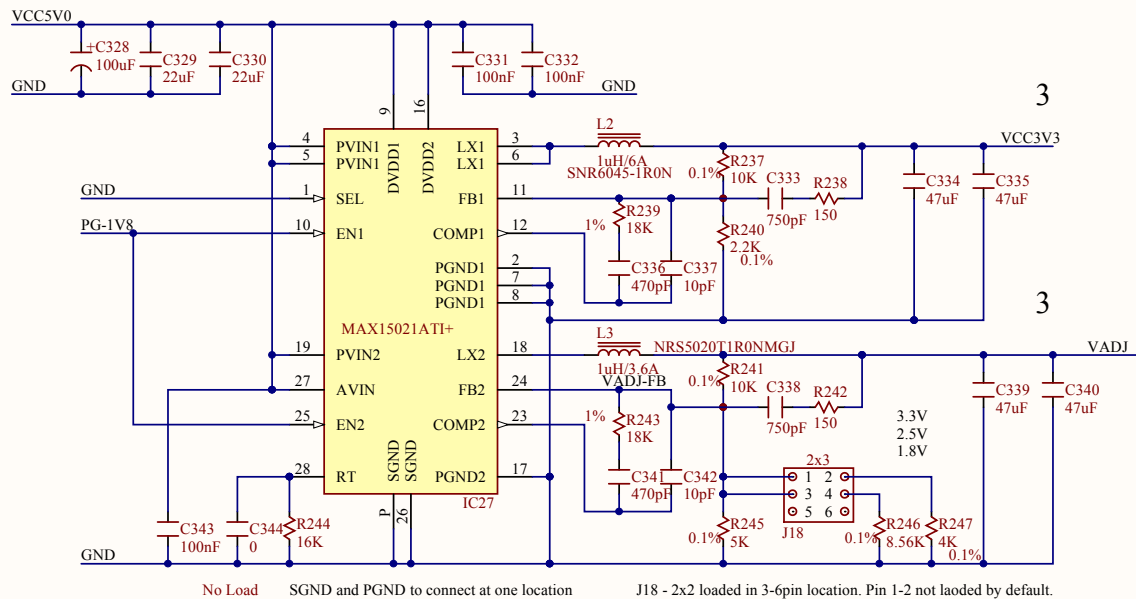
D

DDR3 TERMINATION



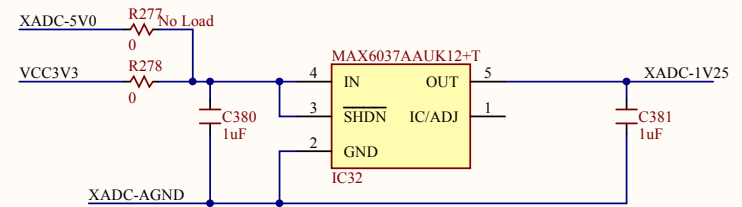
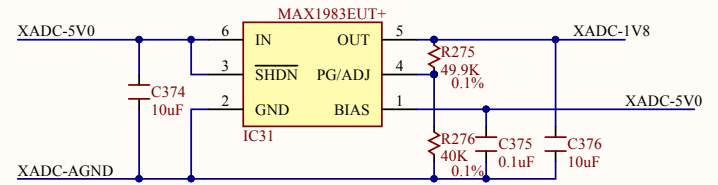
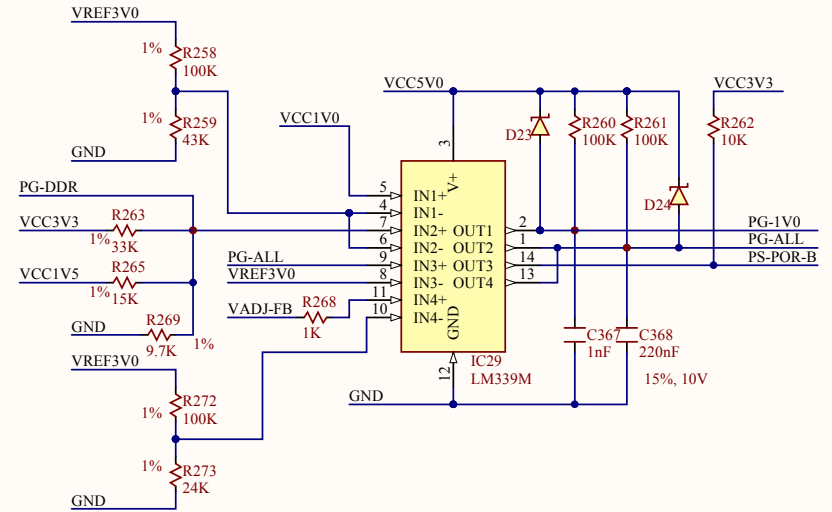
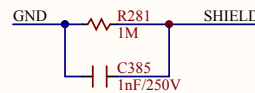
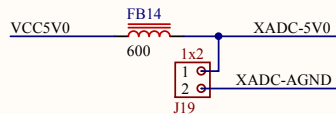
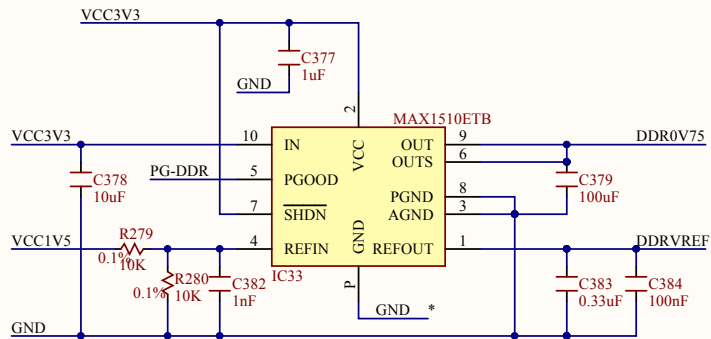
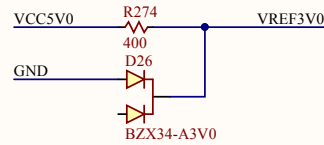
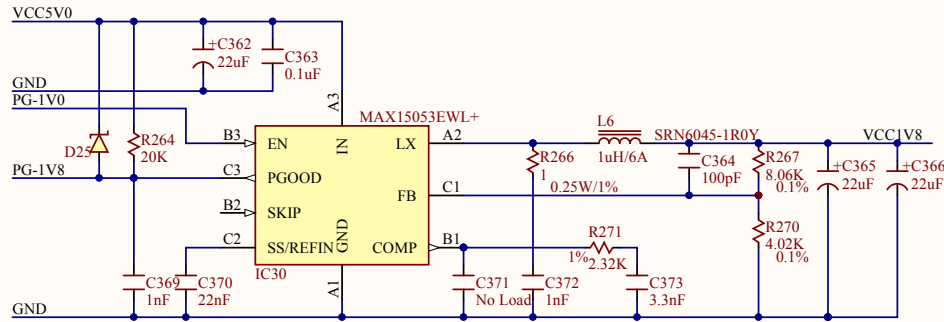
NOTE:
All Termination
Resistors are 1%.


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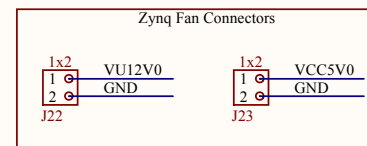
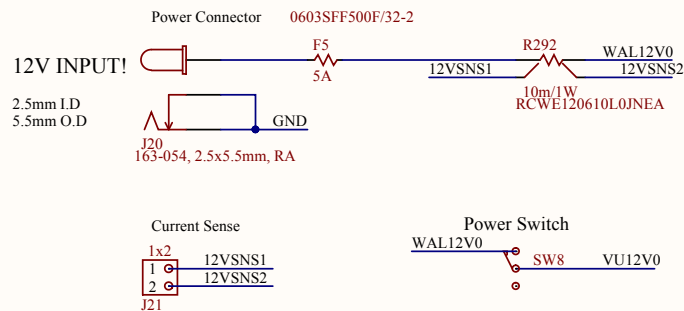
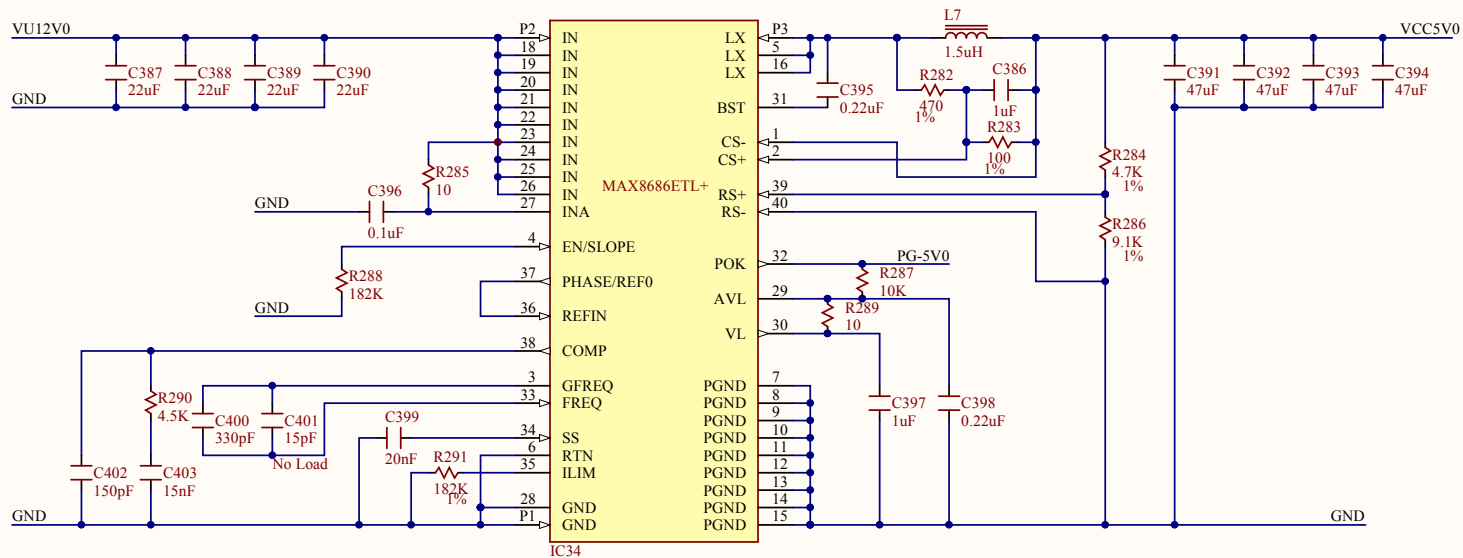


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Rev C.1 to D.2 Change History

Issue: Update Zynq to Production Silicon

PCB: no change.

Parts: load IC16 with XC7Z020-1CLG484C

Issue: Update DDR3 to newer device

PCB: no change.

Parts: load IC25 and IC26 with MT41K128M16JT-125:K

Issue: IC31 IN oscillates due to insufficient decoupling

PCB: change C374 pad size to 0603.

Parts: load C374 with 10uF 10V.

Issue: C89 incorrect value

PCB: no change

Parts: Load C89 with 150uF tantalum (already implemented)

Issue: Two DDR3 power/termination pins not in schematic part

PCB: fix DDR3 part to include two missing pins

Parts: no change

Issue: CKE signal pull-down revised

PCB: add 0402 resistor from CKE to VTT.

Parts: Load new resistor with 40ohm resistor.

Issue: SD Card clock requires termination resistor

PCB: add series termination resistor to SD Clock.

Parts: load new resistor with 50ohm resistor.

Issue: Heat issues

PCB: add two 1x2 pin headers (5V/GND and 12V/GND) to power a fan if needed

Parts: load headers; add heat sink

Issue: VBUS must connect to power pin on USB connector

PCB: move existing 0402 resistor between USB power pin and VBUS

Parts: no change

Issue: Parts not fitting pads (J12, L7)

PCB: Extended pads on L7 to accommodate larger parts

Parts: load only specified parts

Issue: HDMI signals radiate energy causing CE testing to fail

PCB: no change

Parts: add ferrite to HDMI cable

Issue: Replace RJ-45

PCB: no change.

Parts: load J11 with 1840750-7