

# DSP Pro Development Board Stratix II 2S180 Edition

## Rev 01

Revision History		
Date	Change Description	Rev
8/18/05	Created schematic and changed the component from the 2S60 on the DSP board to the 2S180 on this Pro version of the board	01

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Title

DSP Pro Stratix II 2S180 (Maine Pro)

Size

A

Document Number

P06-10217-01

Rev

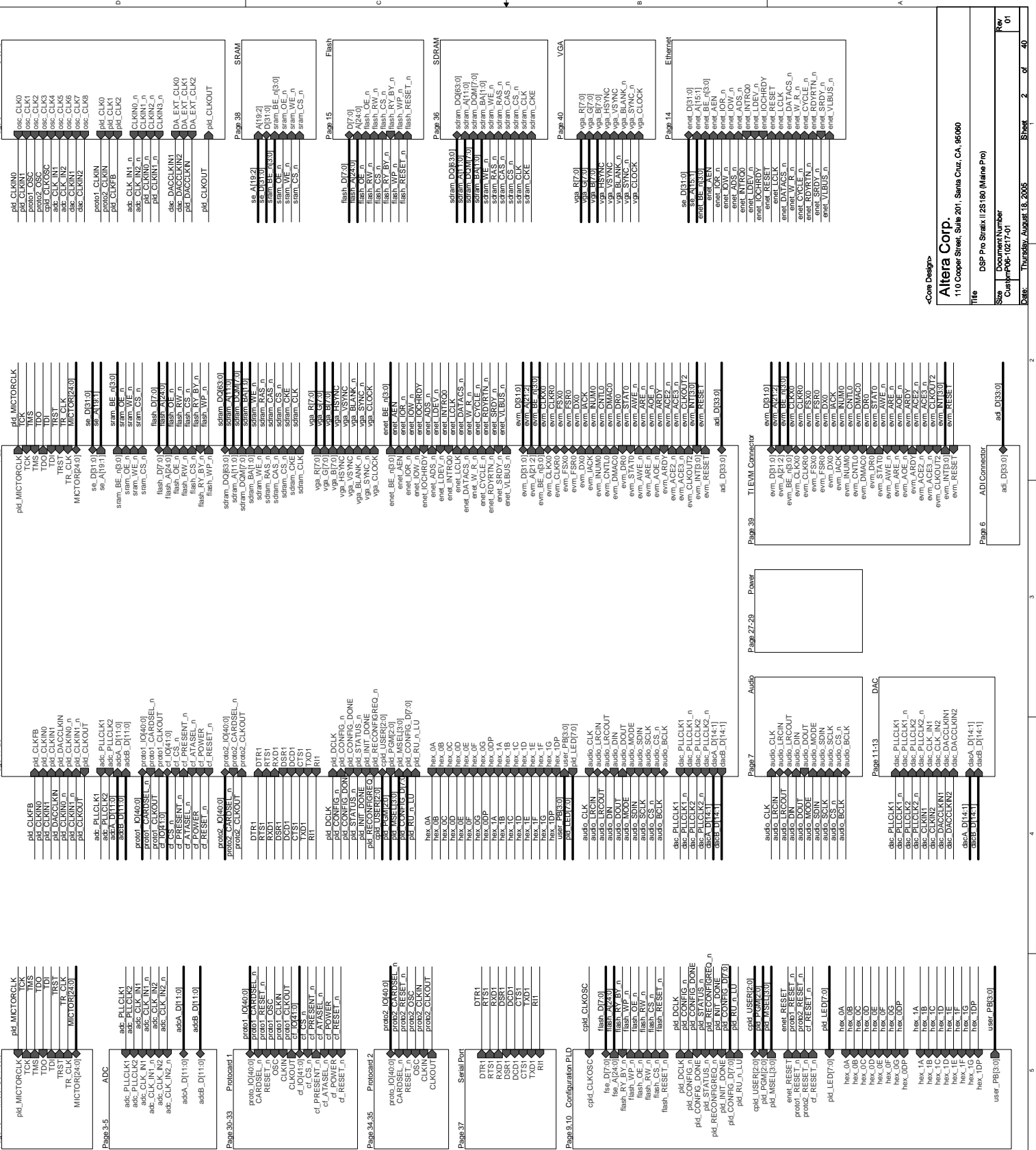
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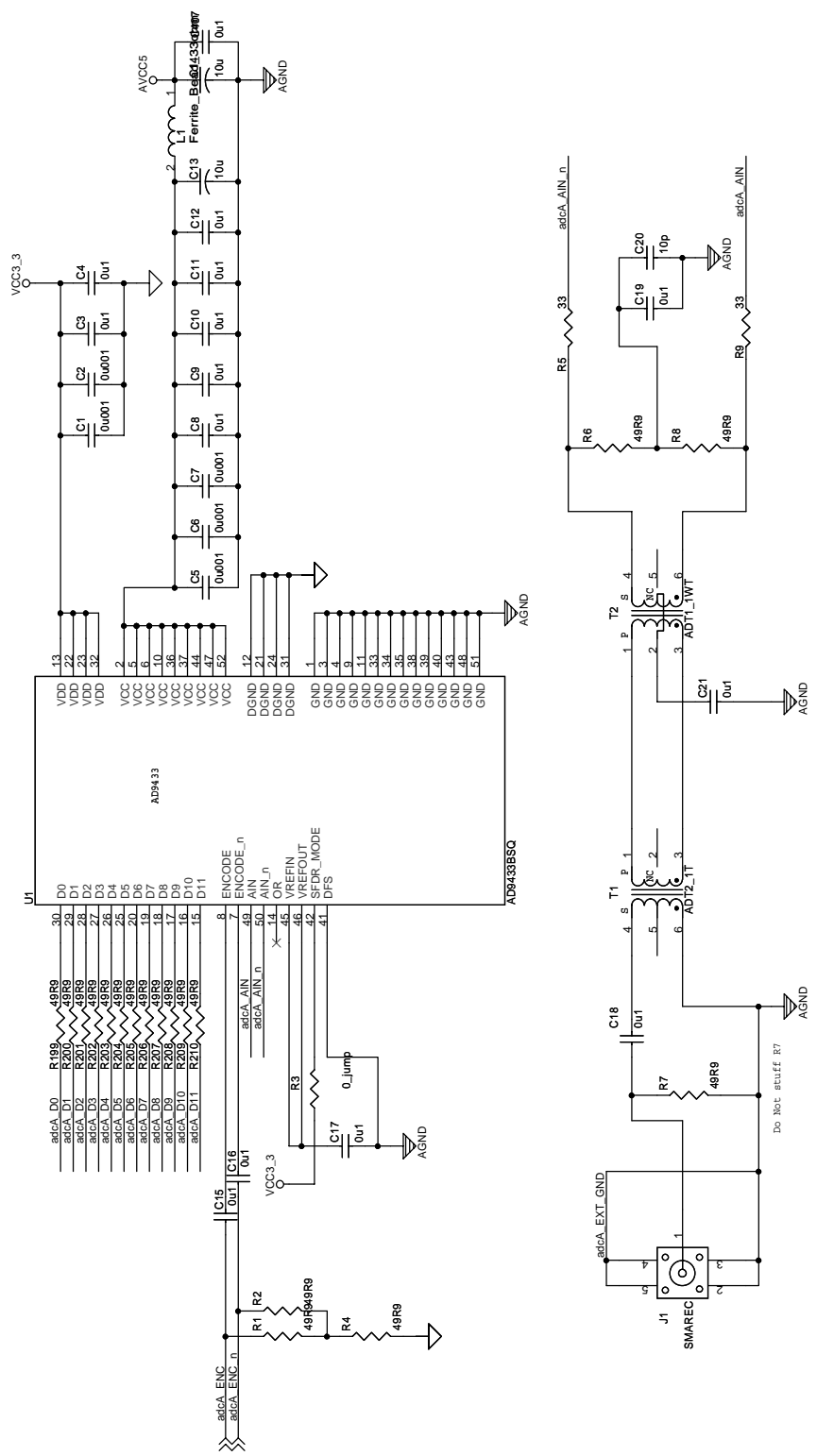
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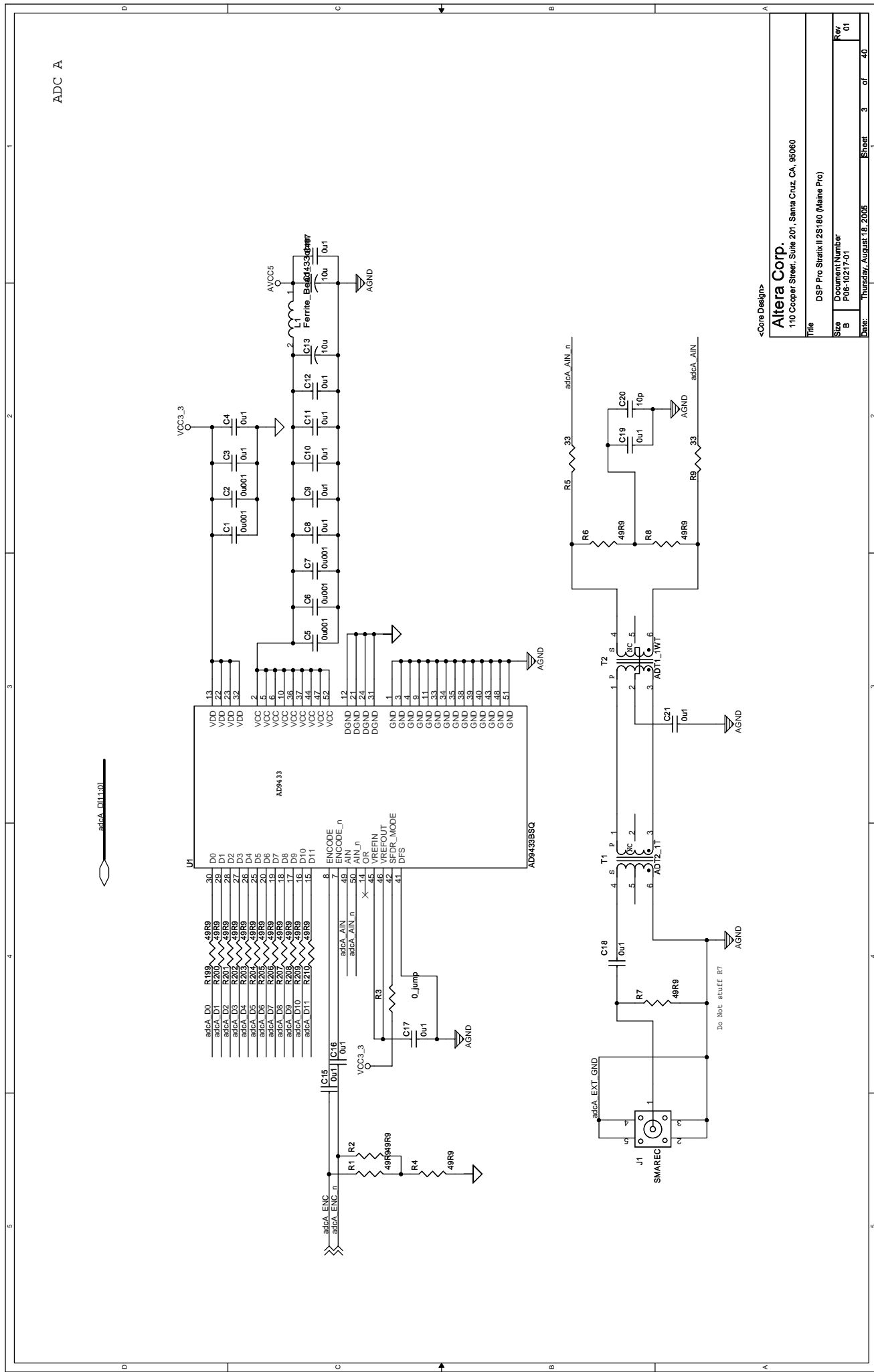
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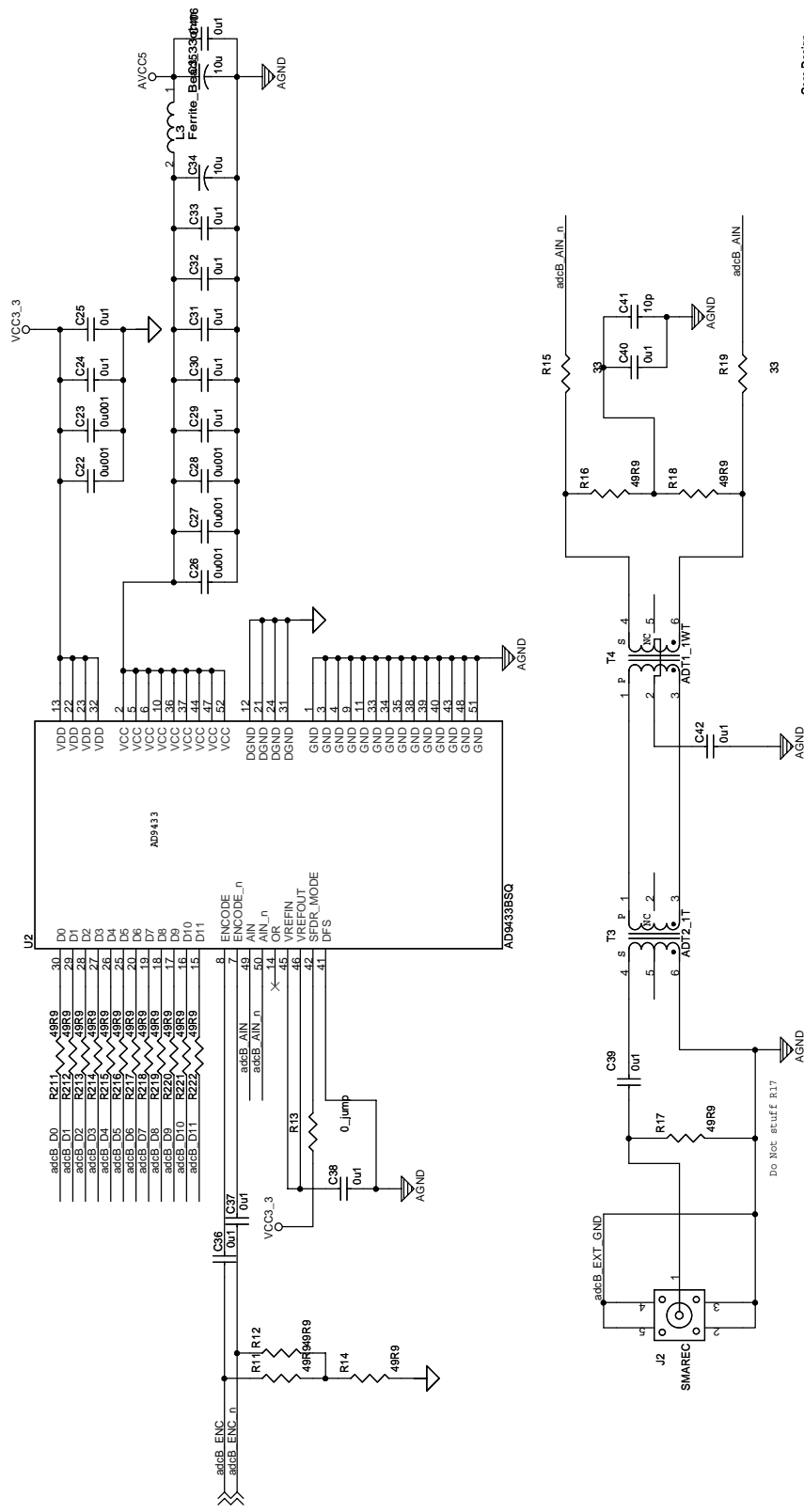
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adcB\_D11101



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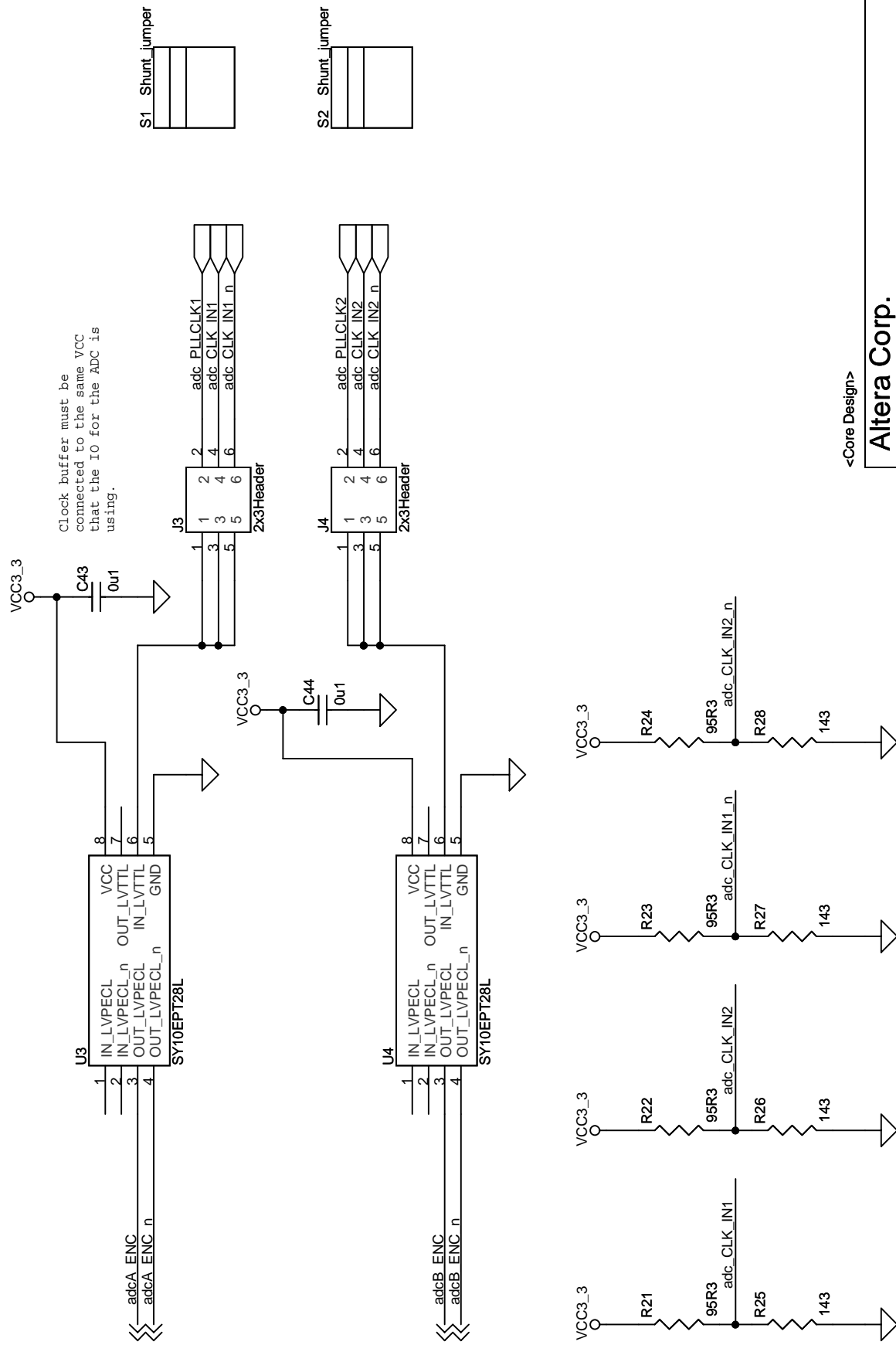
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# ADC Clock Selection



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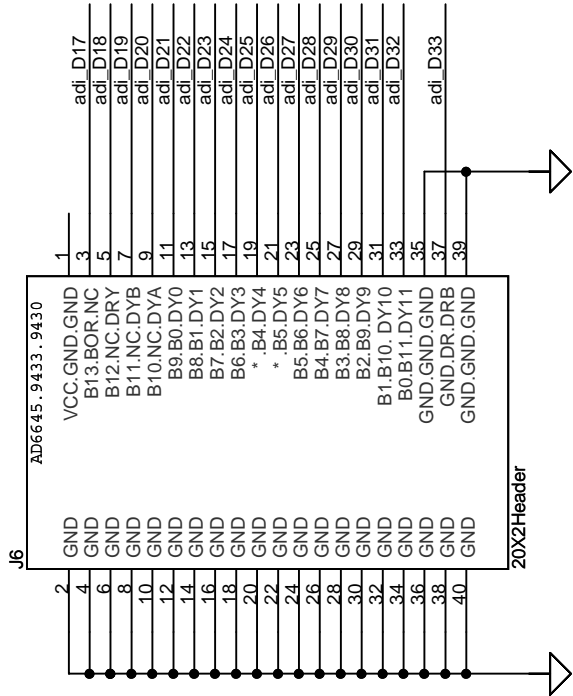
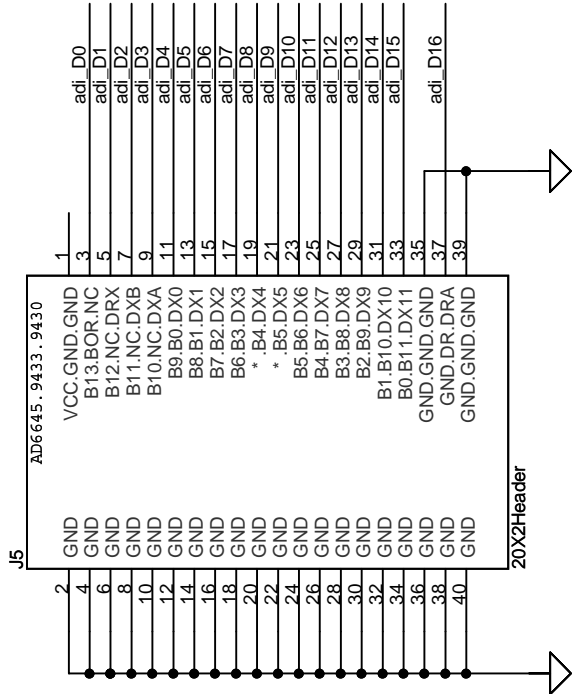
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# ADI Connector

adi\_D133:01



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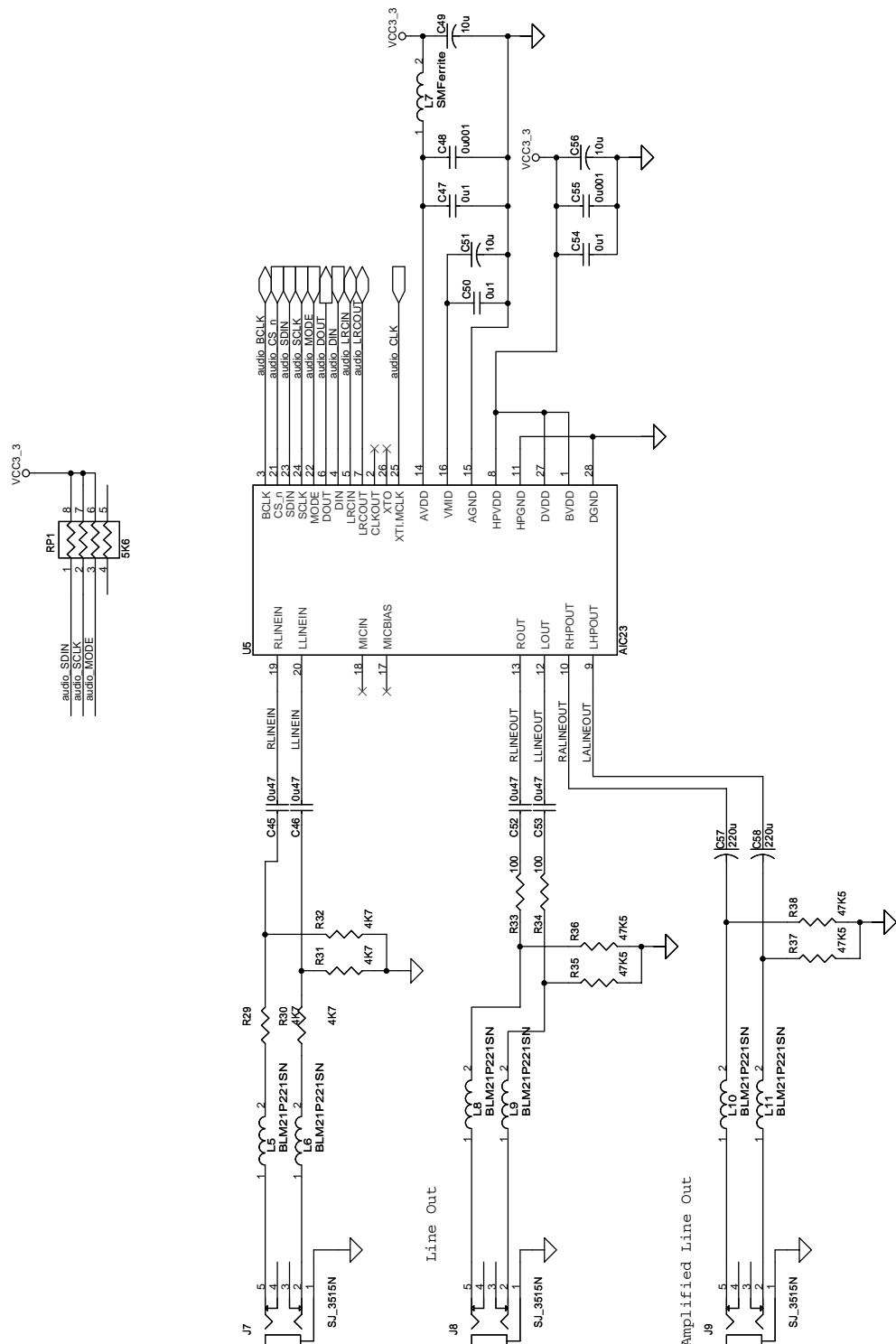
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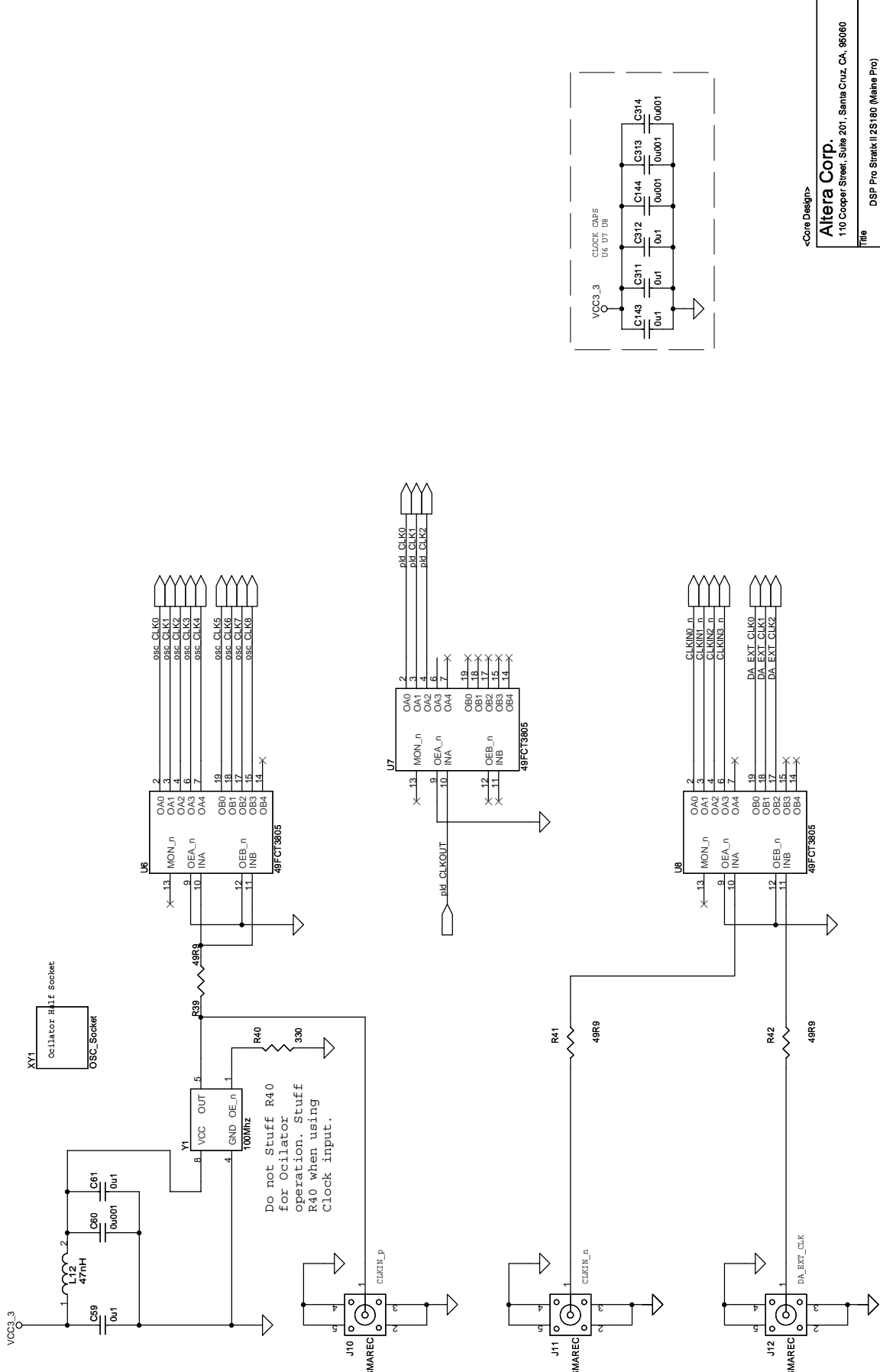
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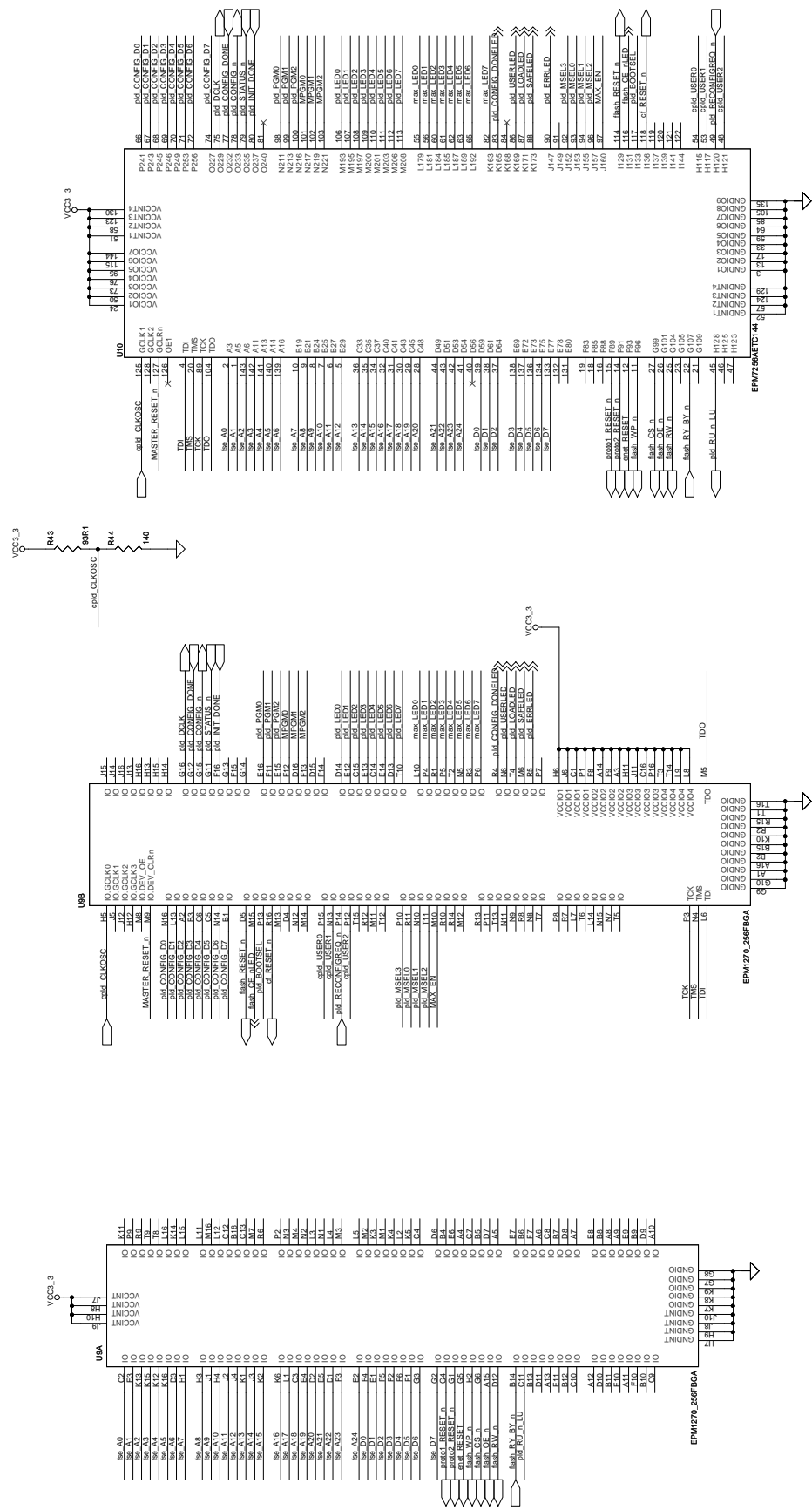
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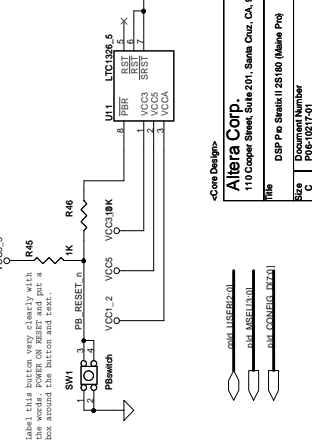
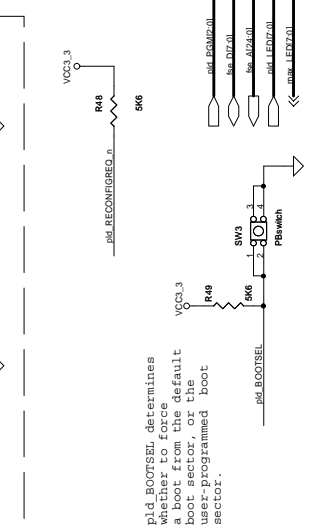
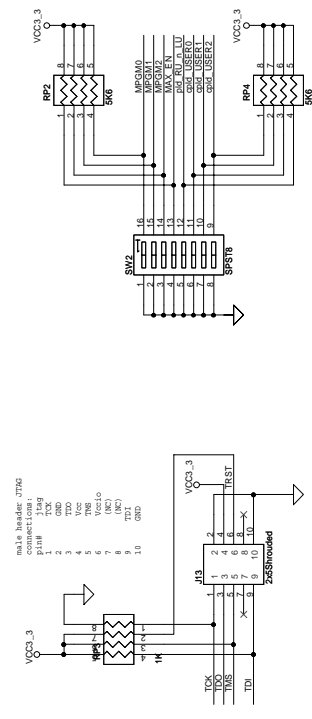
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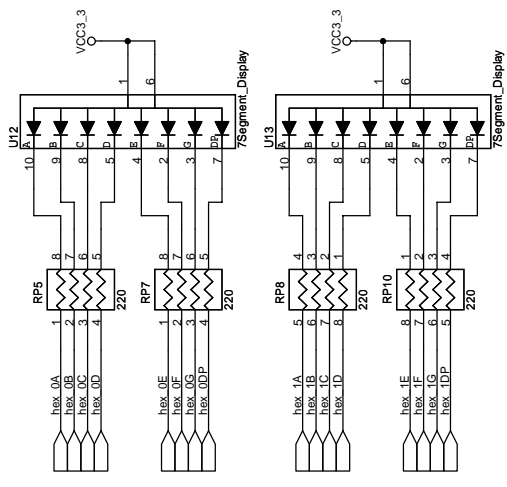
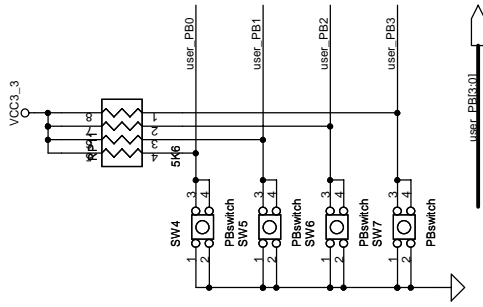
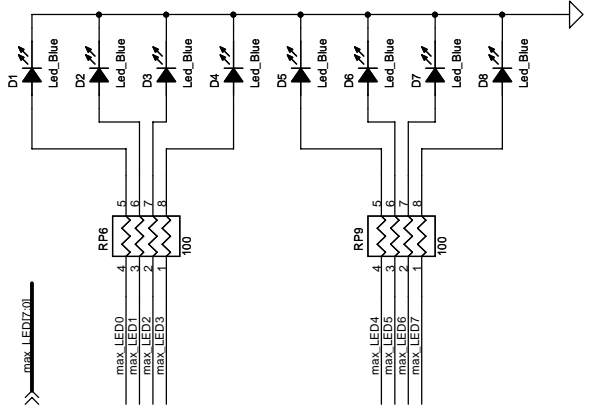
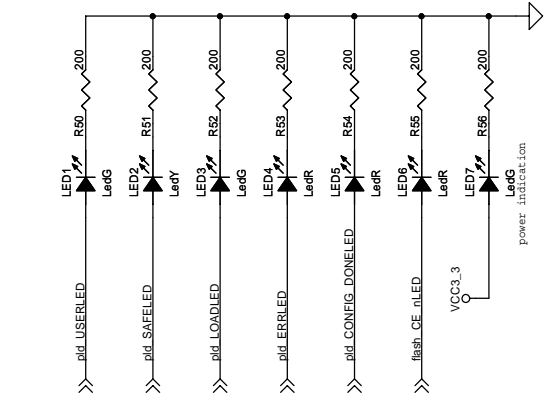
Configuration PLD



Configuration PLD

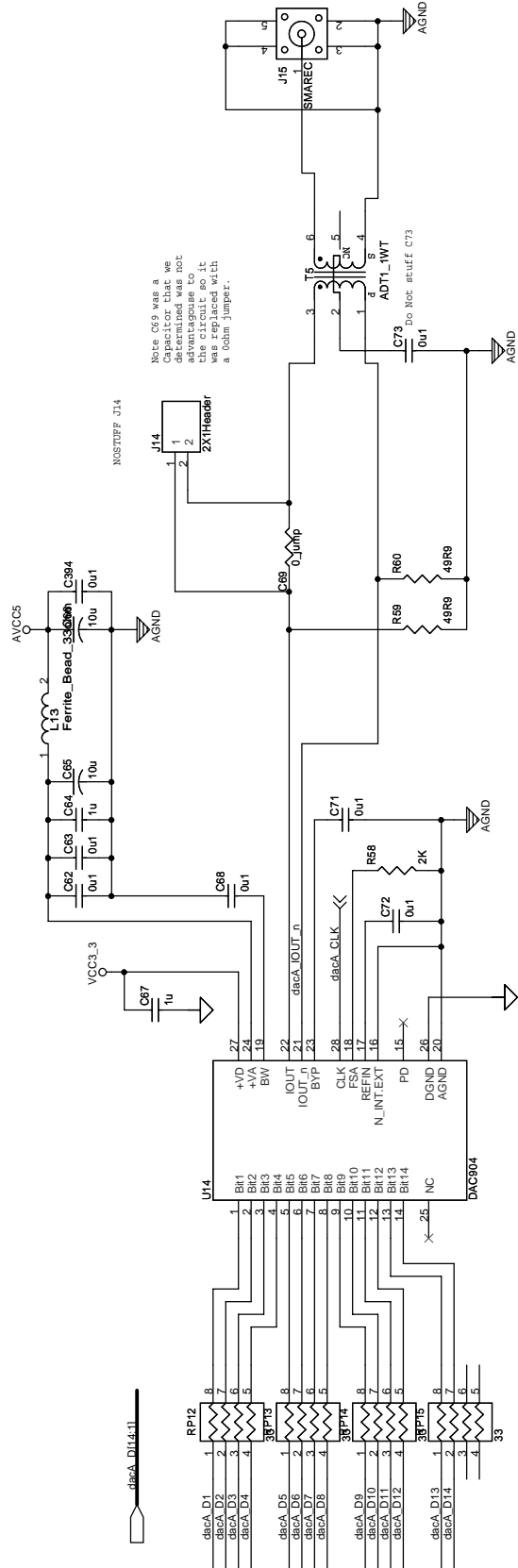


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 Part # DSP Pro Starter Kit (25180) (Master Pkg)  
 Rev. C  
 Document Number  
 P06-10271-01  
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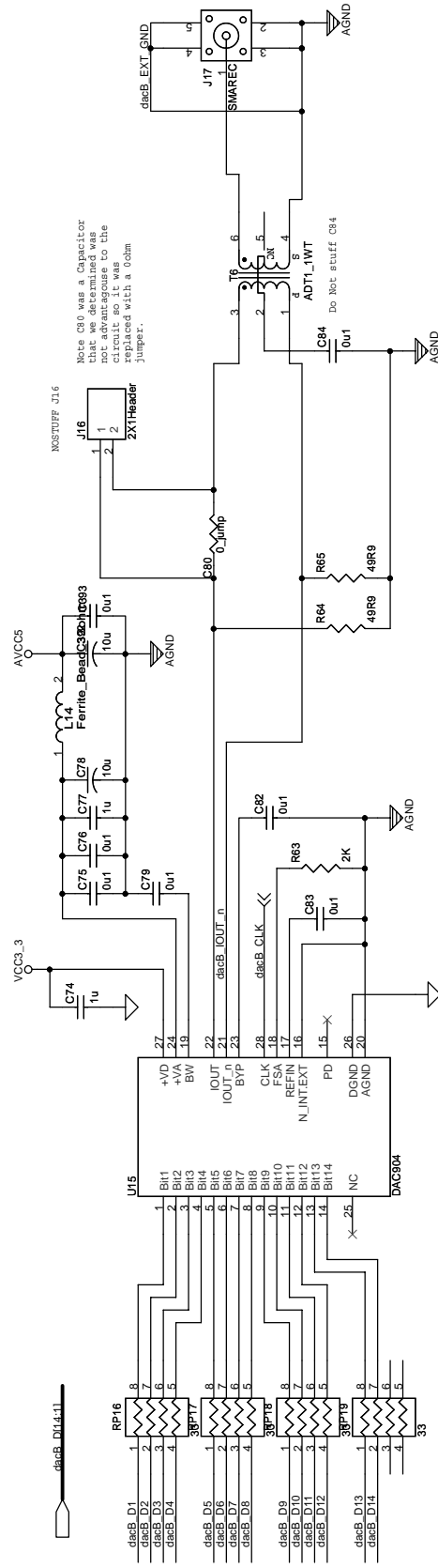
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TP1 Should be labeled IOUT\_n in silk screen  
 Test\_Header

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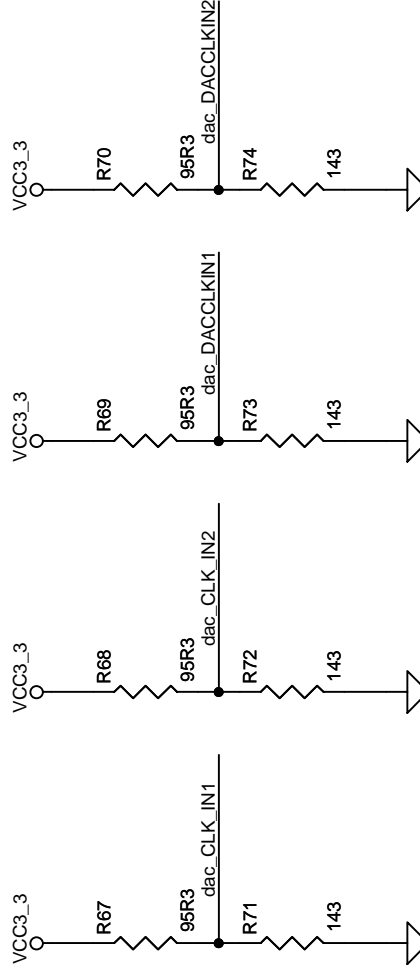
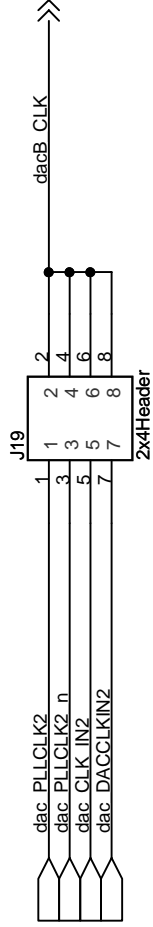
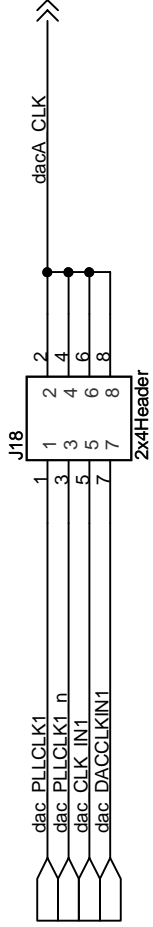
Rev 01

# DAC Clock Jumper

S3 Shunt jumper



S4 Shunt jumper



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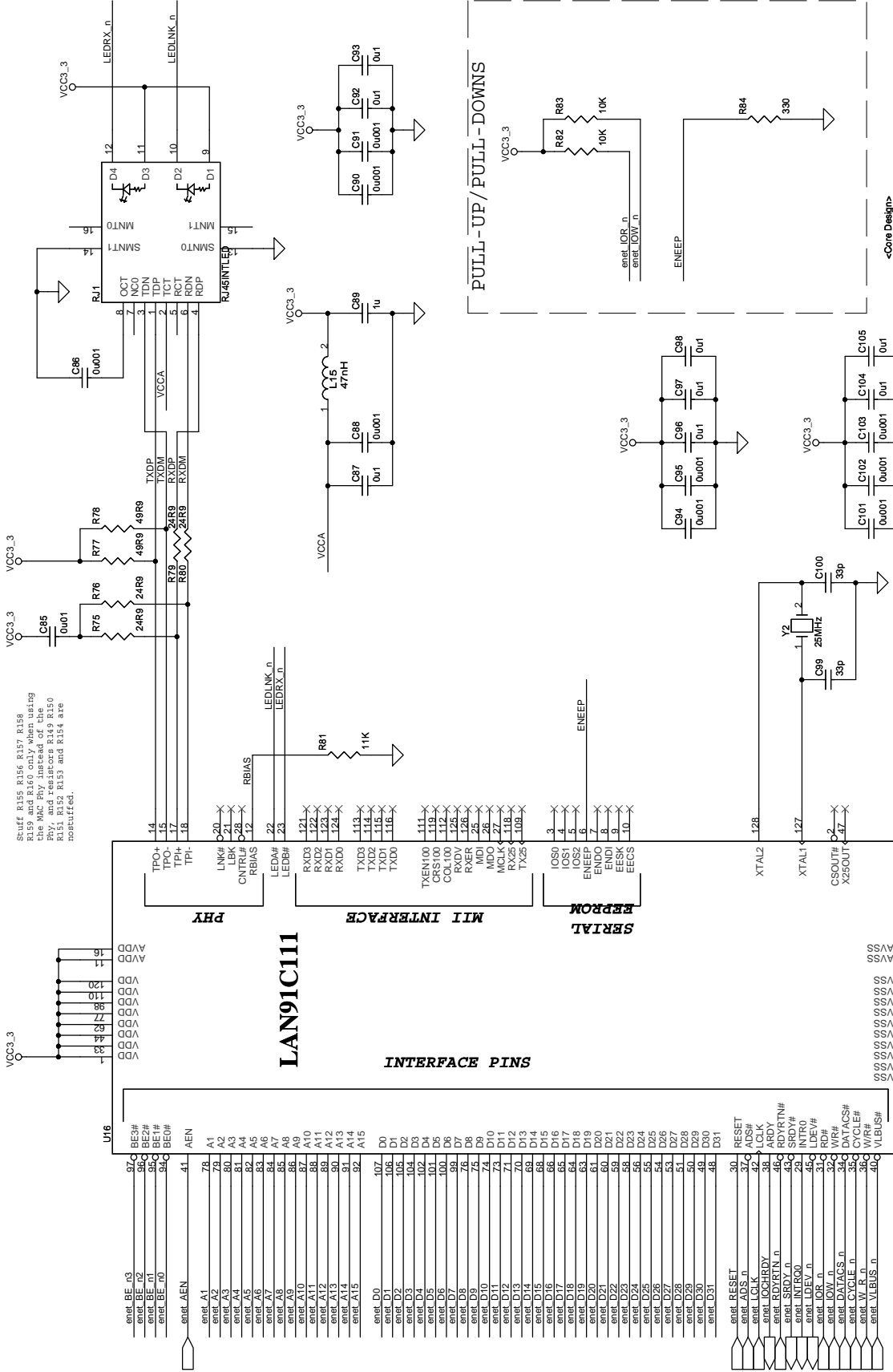
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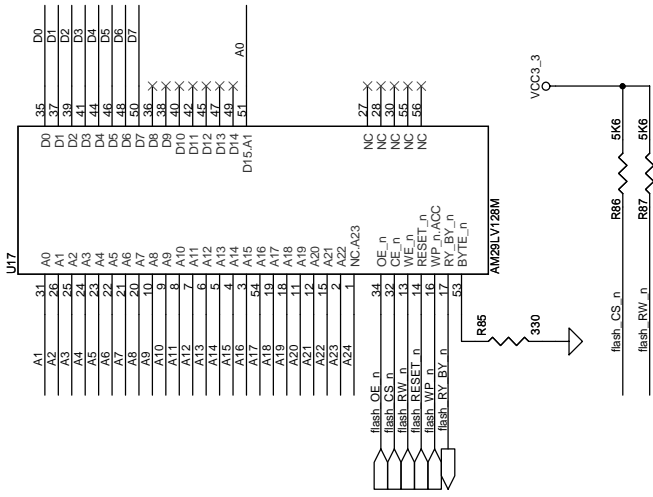
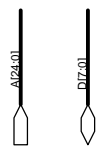
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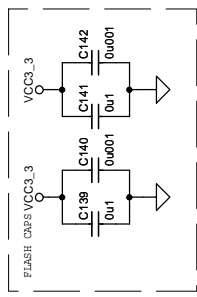
Shift R155, R156, R157, R158, R159 and R160 only when using the MAC Phy instead of the PHY, and resistors R149, R150, R151, R152, R153 and R154 are unpopulated.

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end\_A145:1  
end\_BE\_163:0

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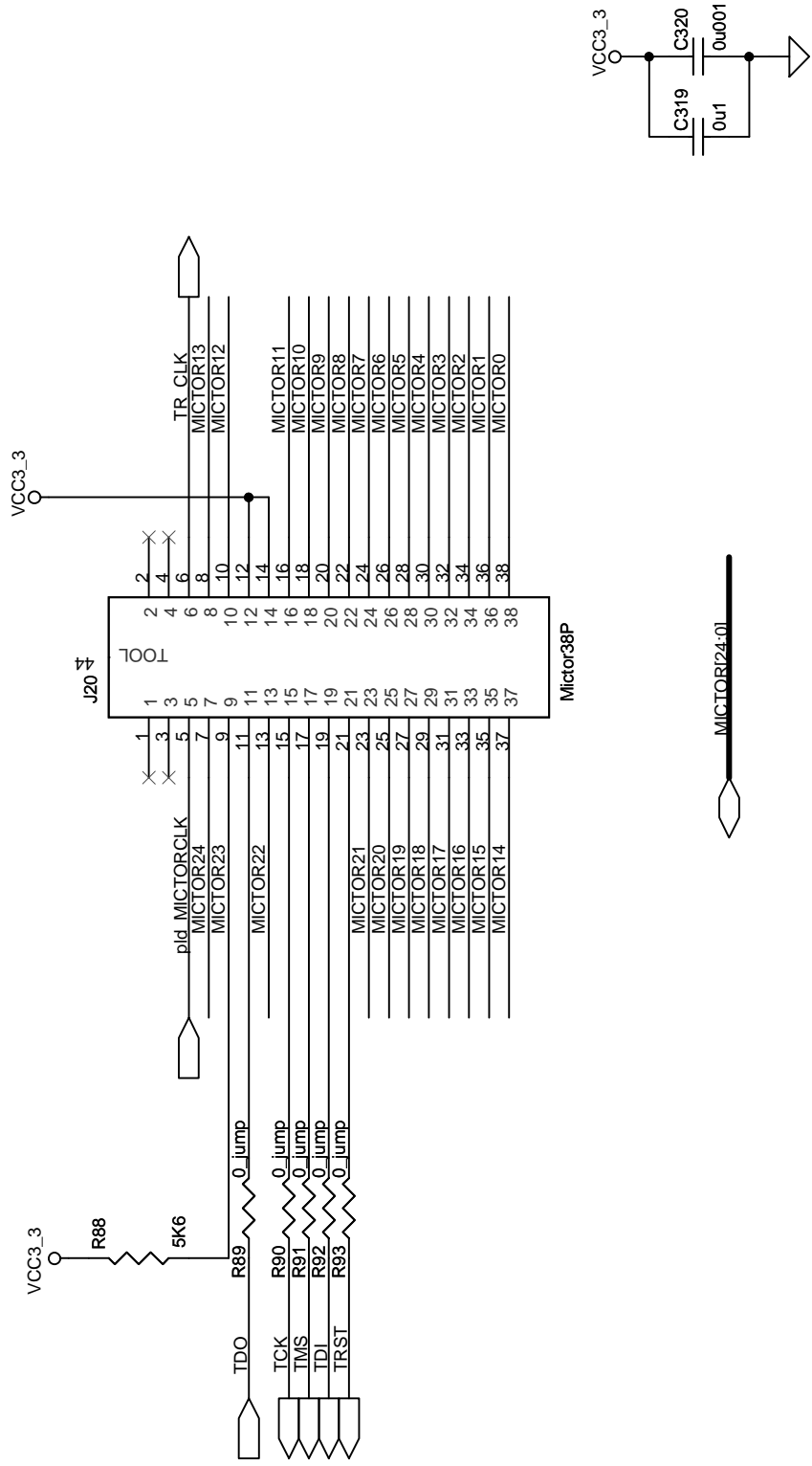


Flash chip is 16M x 8 for 16Mbytes of flash



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# Mictor Connector



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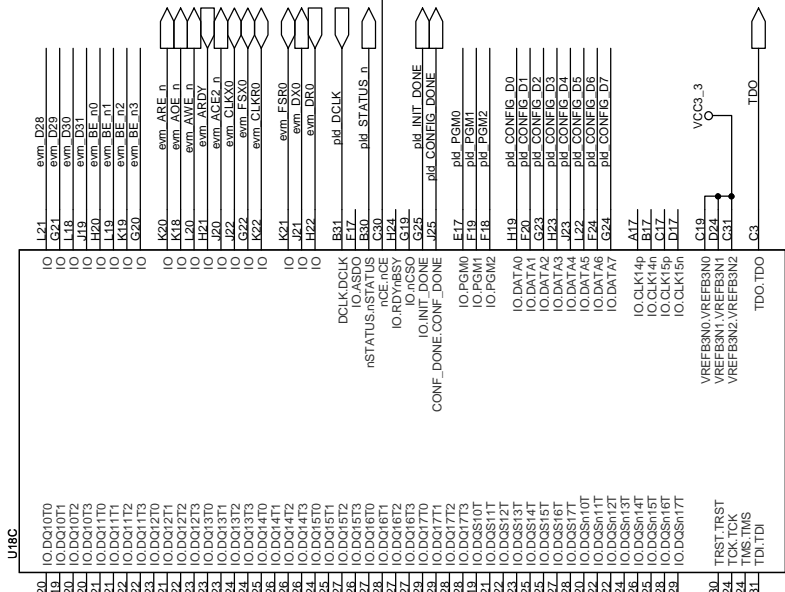
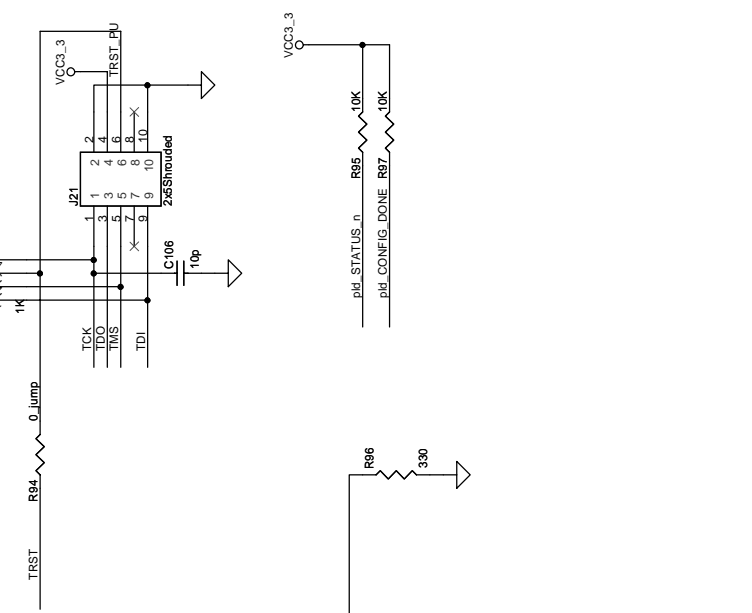
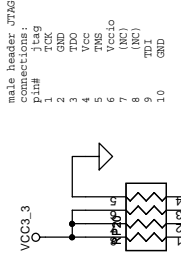
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PLD Bank 3





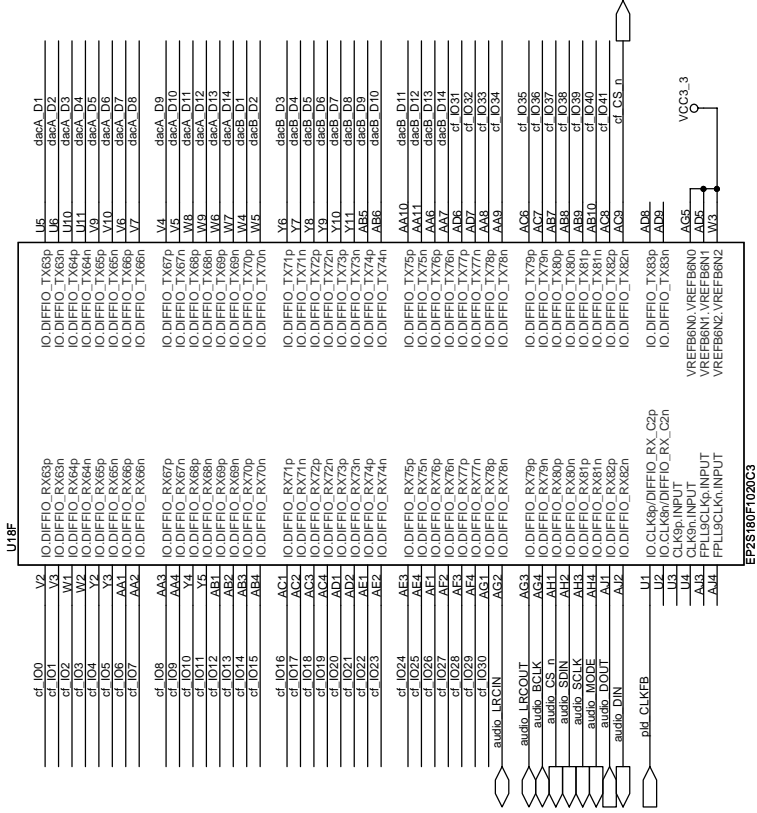
PLD Bank 5

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adca_D2	E3	IO.DIFFIO_TX443p	J9	adj_D18
adca_D3	E4	IO.DIFFIO_TX443n	K3	adj_D19
adca_D4	F1	IO.DIFFIO_TX444p	K7	adj_D20
adca_D5	F2	IO.DIFFIO_TX444n	K9	adj_D21
adca_D6	F3	IO.DIFFIO_TX445p	L3	adj_D22
adca_D7	F4	IO.DIFFIO_TX445n	L7	adj_D23
adca_D8	F1	IO.DIFFIO_TX46p	L8	adj_D24
adca_D9	F2	IO.DIFFIO_TX46n	K6	adj_D25
adca_D10	G3	IO.DIFFIO_TX47p	K7	adj_D26
adca_D11	G4	IO.DIFFIO_TX47n	L4	adj_D27
adca_D12	G1	IO.DIFFIO_TX48p	L8	adj_D28
adca_D13	G3	IO.DIFFIO_TX48n	M10	adj_D29
adca_D14	G4	IO.DIFFIO_TX49p	M11	adj_D30
adca_D15	G1	IO.DIFFIO_TX49n	M8	adj_D31
adca_D16	G2	IO.DIFFIO_TX50p	M9	adj_D32
adca_D17	G3	IO.DIFFIO_TX50n	M7	adj_D33
adca_D18	G4	IO.DIFFIO_TX51p	N6	
adca_D19	G1	IO.DIFFIO_TX51n	N7	
adca_D20	G2	IO.DIFFIO_TX52p	N8	
adca_D21	G3	IO.DIFFIO_TX52n	N9	
adca_D22	G4	IO.DIFFIO_TX53p	P8	
adca_D23	G1	IO.DIFFIO_TX53n	P9	
adca_D24	G2	IO.DIFFIO_TX54p	ER	
adca_D25	G3	IO.DIFFIO_TX54n	E7	
adca_D26	G4	IO.DIFFIO_TX55p	E8	
adca_D27	G1	IO.DIFFIO_TX55n	E9	
adca_D28	G2	IO.DIFFIO_TX56p	E4	
adca_D29	G3	IO.DIFFIO_TX56n	E10	
adca_D30	G4	IO.DIFFIO_TX57p	E11	
adca_D31	G1	IO.DIFFIO_TX57n	R8	
adca_D32	G2	IO.DIFFIO_TX58p	R7	
adca_D33	G3	IO.DIFFIO_TX58n	R9	
adca_D34	G4	IO.DIFFIO_TX59p	R6	
adca_D35	G1	IO.DIFFIO_TX59n	R10	
adca_D36	G2	IO.DIFFIO_TX60p	R11	
adca_D37	G3	IO.DIFFIO_TX60n	T5	
adca_D38	G4	IO.DIFFIO_TX61p	T6	
adca_D39	G1	IO.DIFFIO_TX61n	T10	
adca_D40	G2	IO.DIFFIO_TX62p	T11	
adca_D41	G3	IO.DIFFIO_TX62n	P3	
adca_D42	G4	IO.GLK10p/DIFFIO_RX_C3p	J5	
adca_D43	G1	IO.GLK10n/DIFFIO_RX_C3n	E5	
adca_D44	G2	CLK10n/INPUT		
adca_D45	G3	CLK11n/INPUT		
adca_D46	G4	FPLL10CLKn/INPUT		
adca_D47	G1	FPLL10CLKn/INPUT		



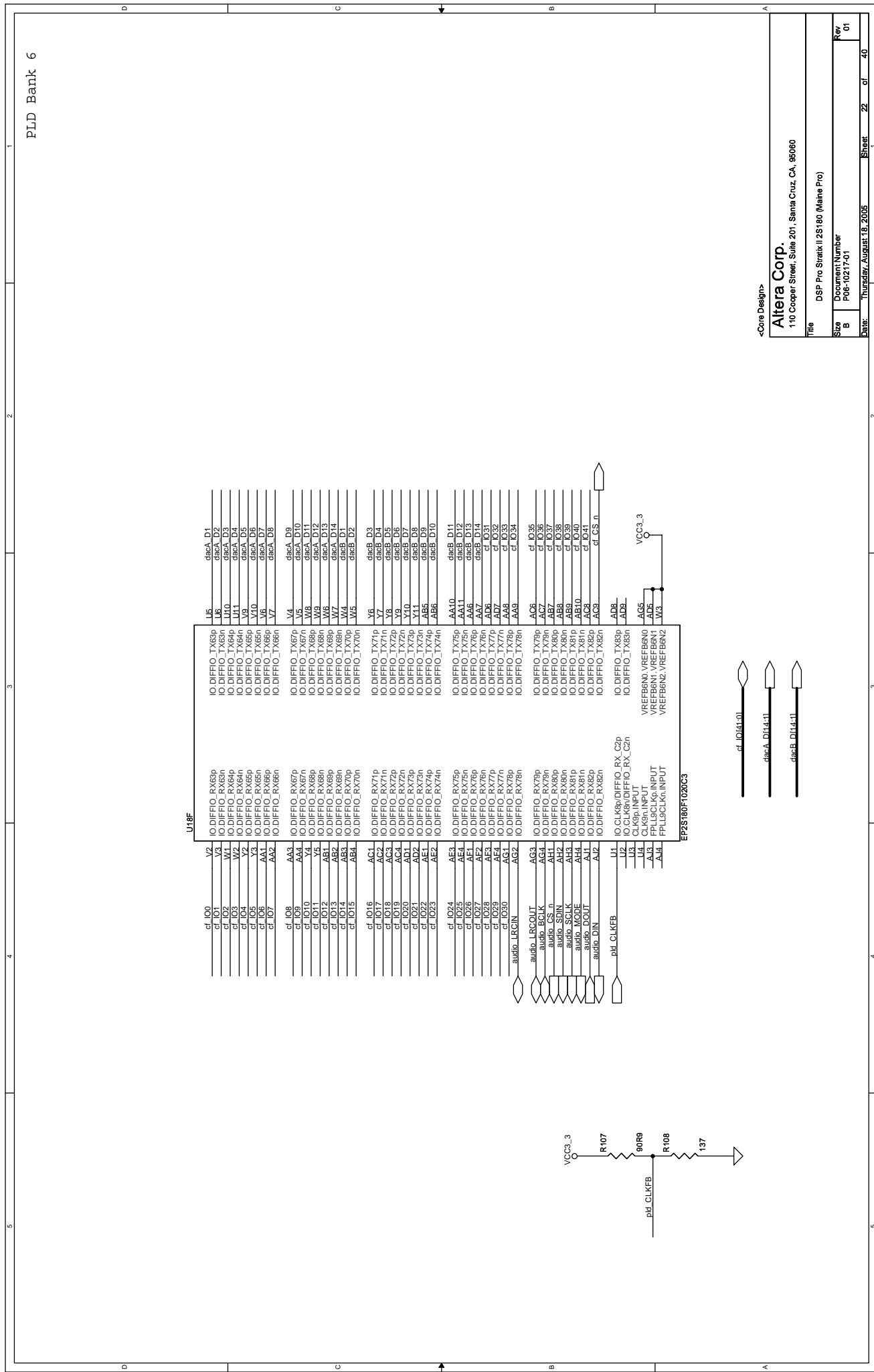
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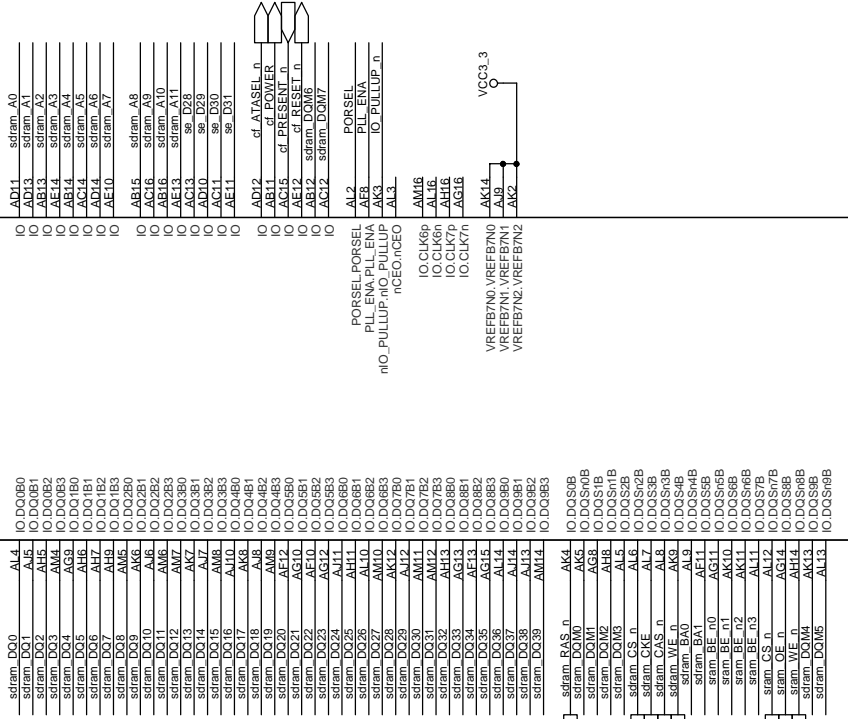


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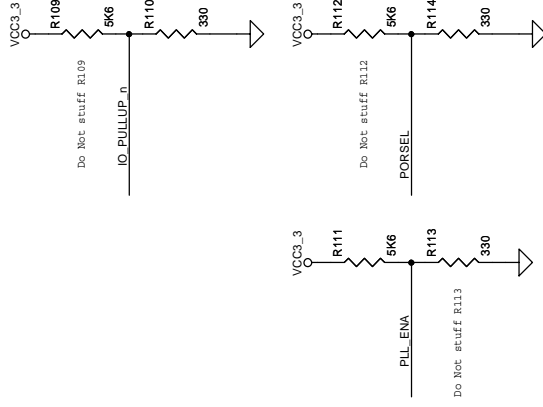
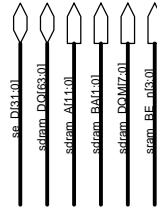
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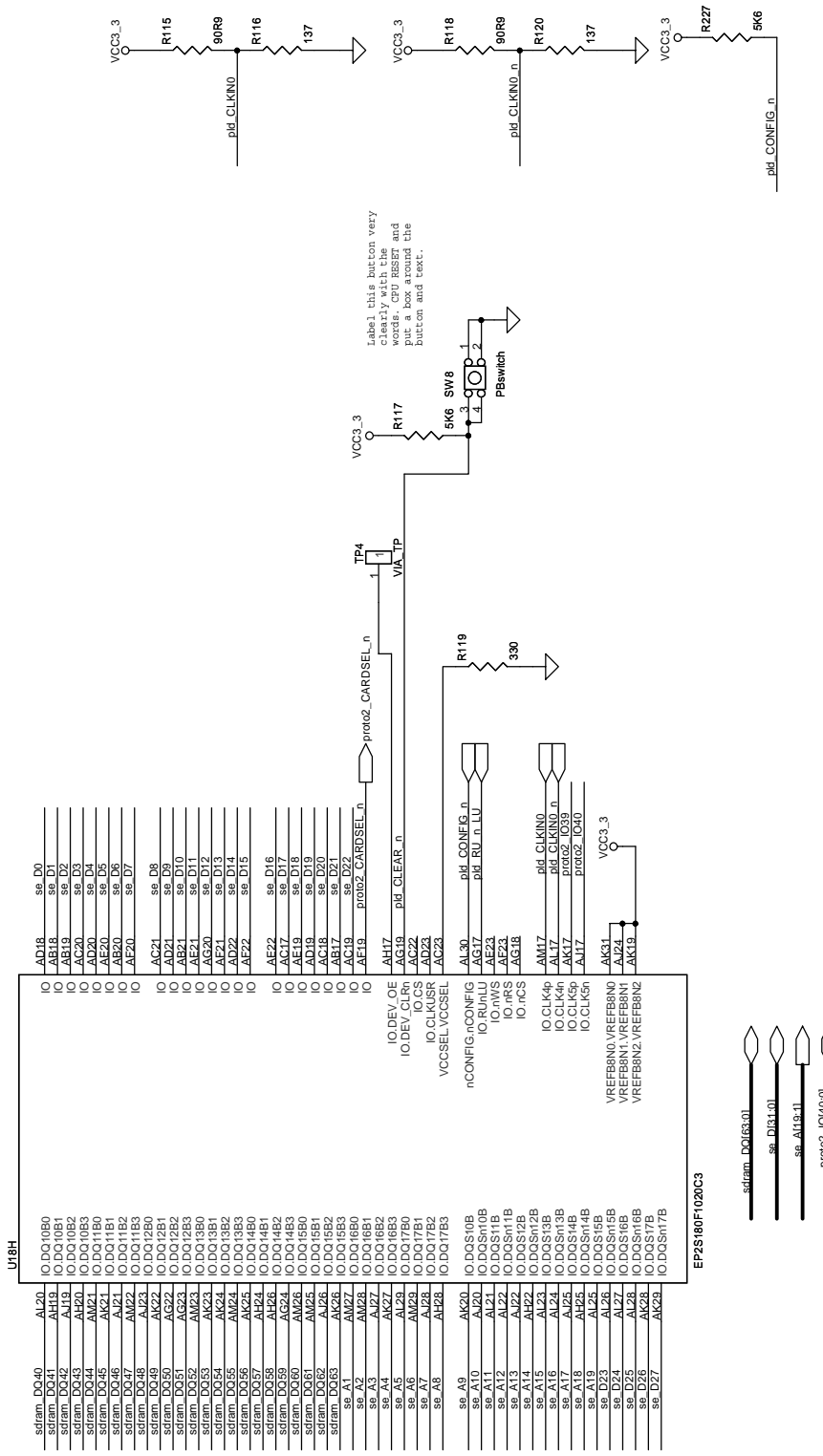
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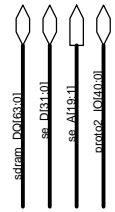
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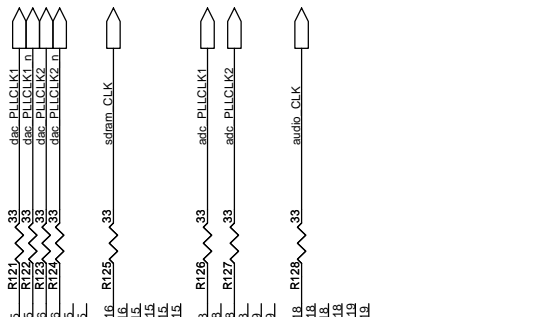
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U18J

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 G8 NC  
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 H8 NC

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 IO.PLL5\_OUT0n  
 IO.PLL5\_OUT1p  
 IO.PLL5\_OUT1n  
 IO.PLL5\_FBpOUT2p  
 IO.PLL5\_FBnOUT2n  
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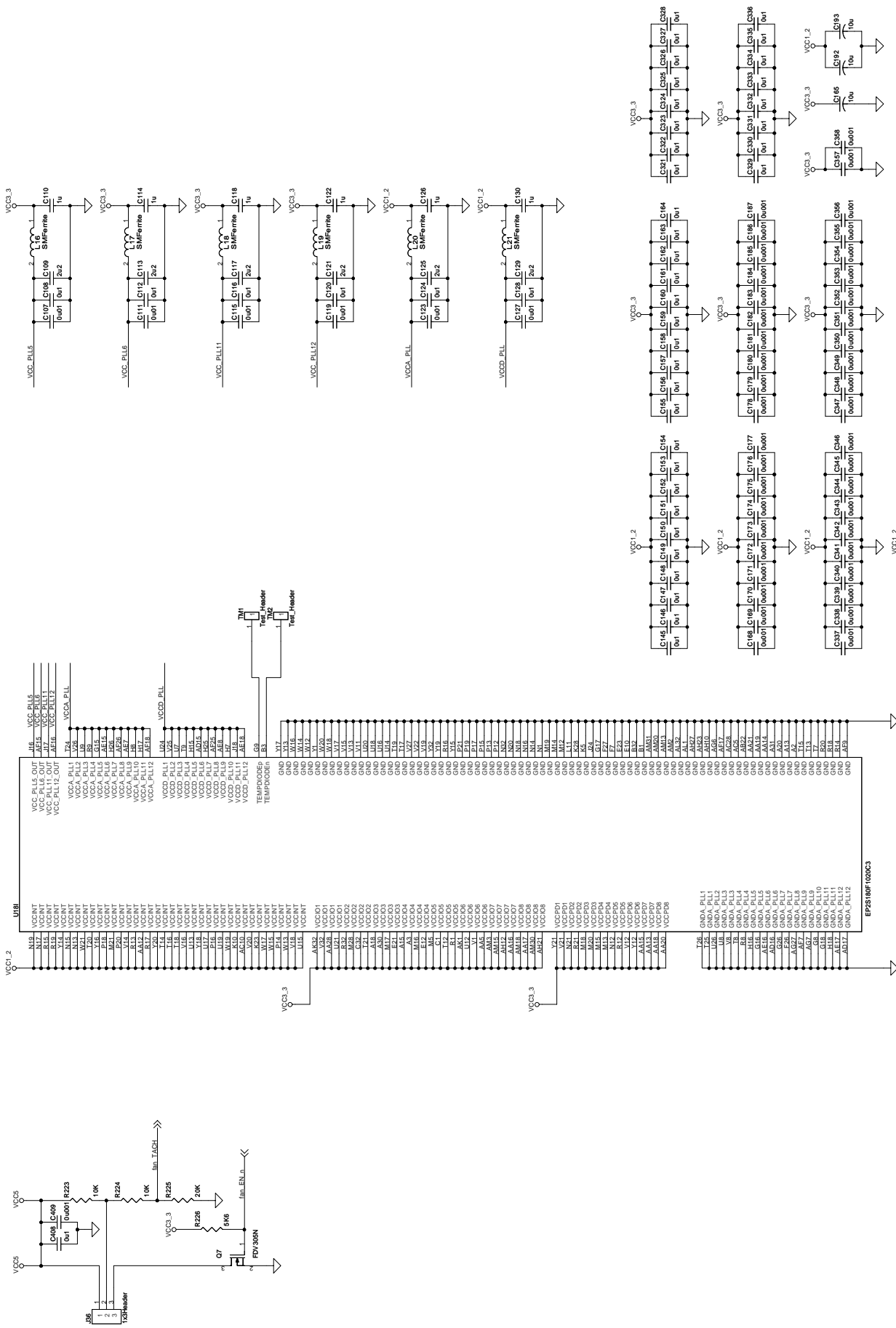
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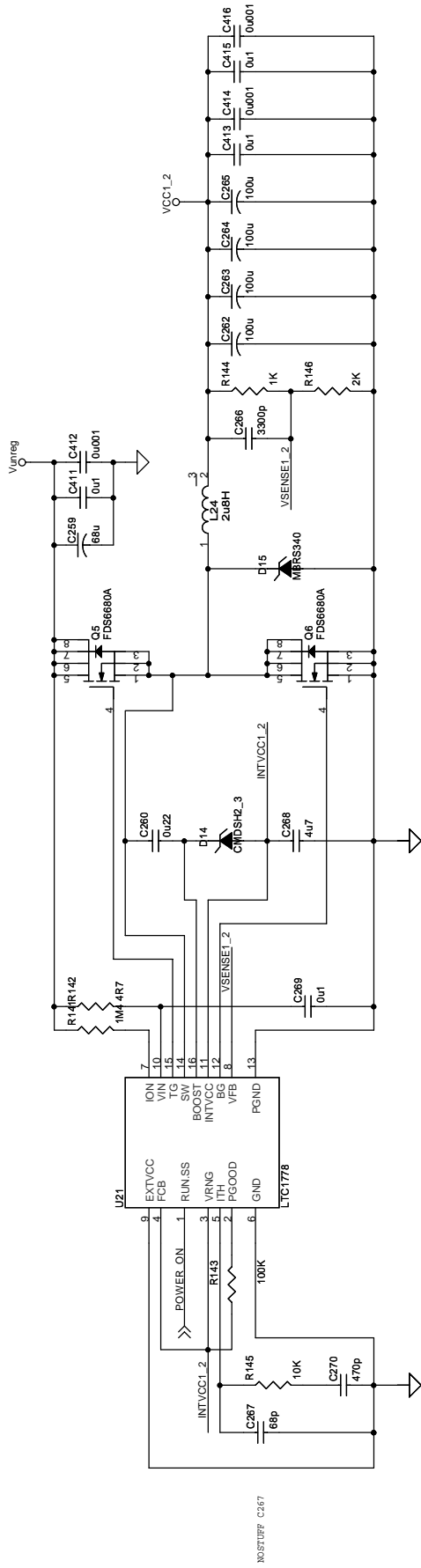
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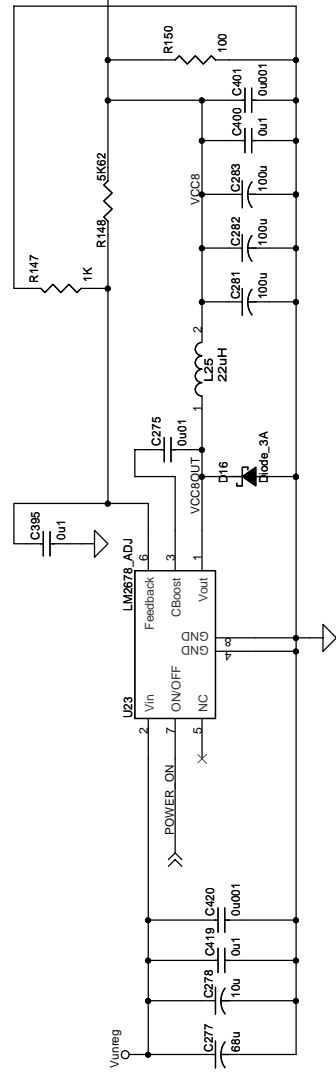
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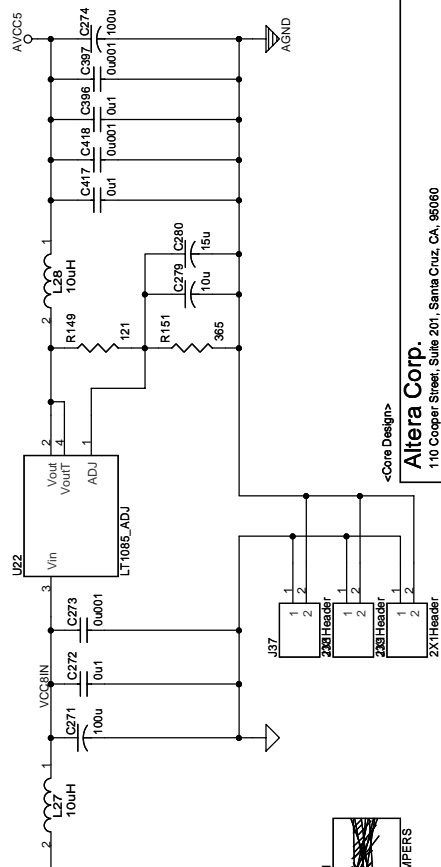
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2	Capacitor	100nF	VCC1.3
3	Capacitor	100nF	VCC1.4
4	Capacitor	100nF	VCC1.5
5	Capacitor	100nF	VCC1.6
6	Capacitor	100nF	VCC1.7
7	Capacitor	100nF	VCC1.8
8	Capacitor	100nF	VCC1.9
9	Capacitor	100nF	VCC1.10
10	Capacitor	100nF	VCC1.11
11	Capacitor	100nF	VCC1.12
12	Capacitor	100nF	VCCA.PLL
13	Capacitor	100nF	VCCD.PLL
14	Capacitor	100nF	VCCD.PLL
15	Capacitor	100nF	VCCD.PLL
16	Capacitor	100nF	VCCD.PLL
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54	Capacitor	100nF	VCCD.PLL
55	Capacitor	100nF	VCCD.PLL
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57	Capacitor	100nF	VCCD.PLL
58	Capacitor	100nF	VCCD.PLL
59	Capacitor	100nF	VCCD.PLL
60	Capacitor	100nF	VCCD.PLL
61	Capacitor	100nF	VCCD.PLL
62	Capacitor	100nF	VCCD.PLL
63	Capacitor	100nF	VCCD.PLL
64	Capacitor	100nF	VCCD.PLL
65	Capacitor	100nF	VCCD.PLL
66	Capacitor	100nF	VCCD.PLL
67	Capacitor	100nF	VCCD.PLL
68	Capacitor	100nF	VCCD.PLL
69	Capacitor	100nF	VCCD.PLL
70	Capacitor	100nF	VCCD.PLL
71	Capacitor	100nF	VCCD.PLL
72	Capacitor	100nF	VCCD.PLL
73	Capacitor	100nF	VCCD.PLL
74	Capacitor	100nF	VCCD.PLL
75	Capacitor	100nF	VCCD.PLL
76	Capacitor	100nF	VCCD.PLL
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78	Capacitor	100nF	VCCD.PLL
79	Capacitor	100nF	VCCD.PLL
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82	Capacitor	100nF	VCCD.PLL
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89	Capacitor	100nF	VCCD.PLL
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96	Capacitor	100nF	VCCD.PLL
97	Capacitor	100nF	VCCD.PLL
98	Capacitor	100nF	VCCD.PLL
99	Capacitor	100nF	VCCD.PLL
100	Capacitor	100nF	VCCD.PLL



MUSTUFF L28 and replace with a copper wire



Note: jumpers should always be installed to connect AGND to PGND unless and external GND source is being used.

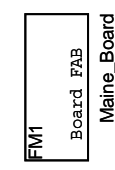
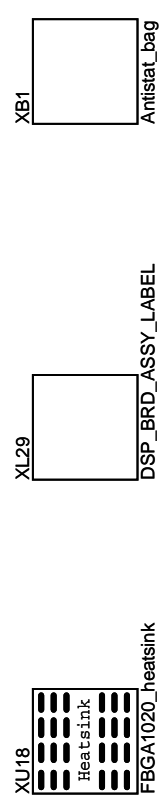
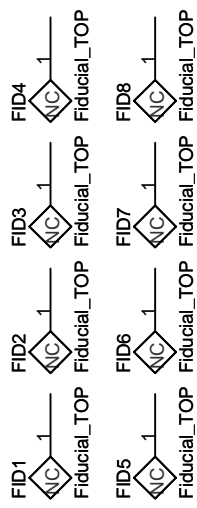
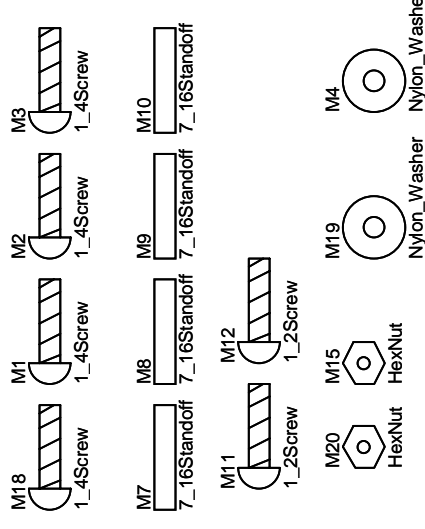
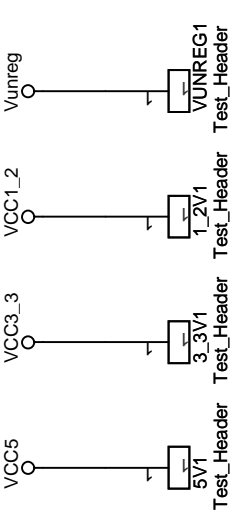
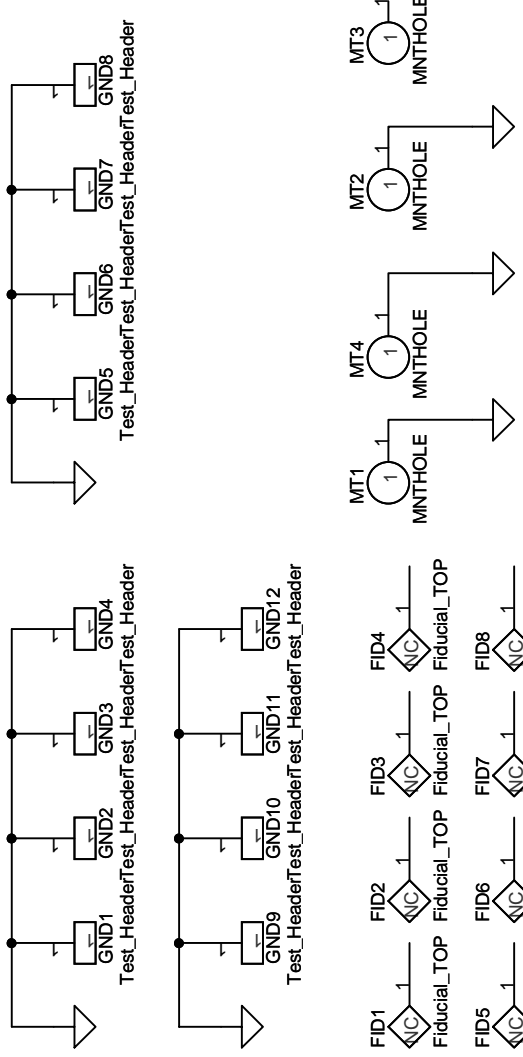


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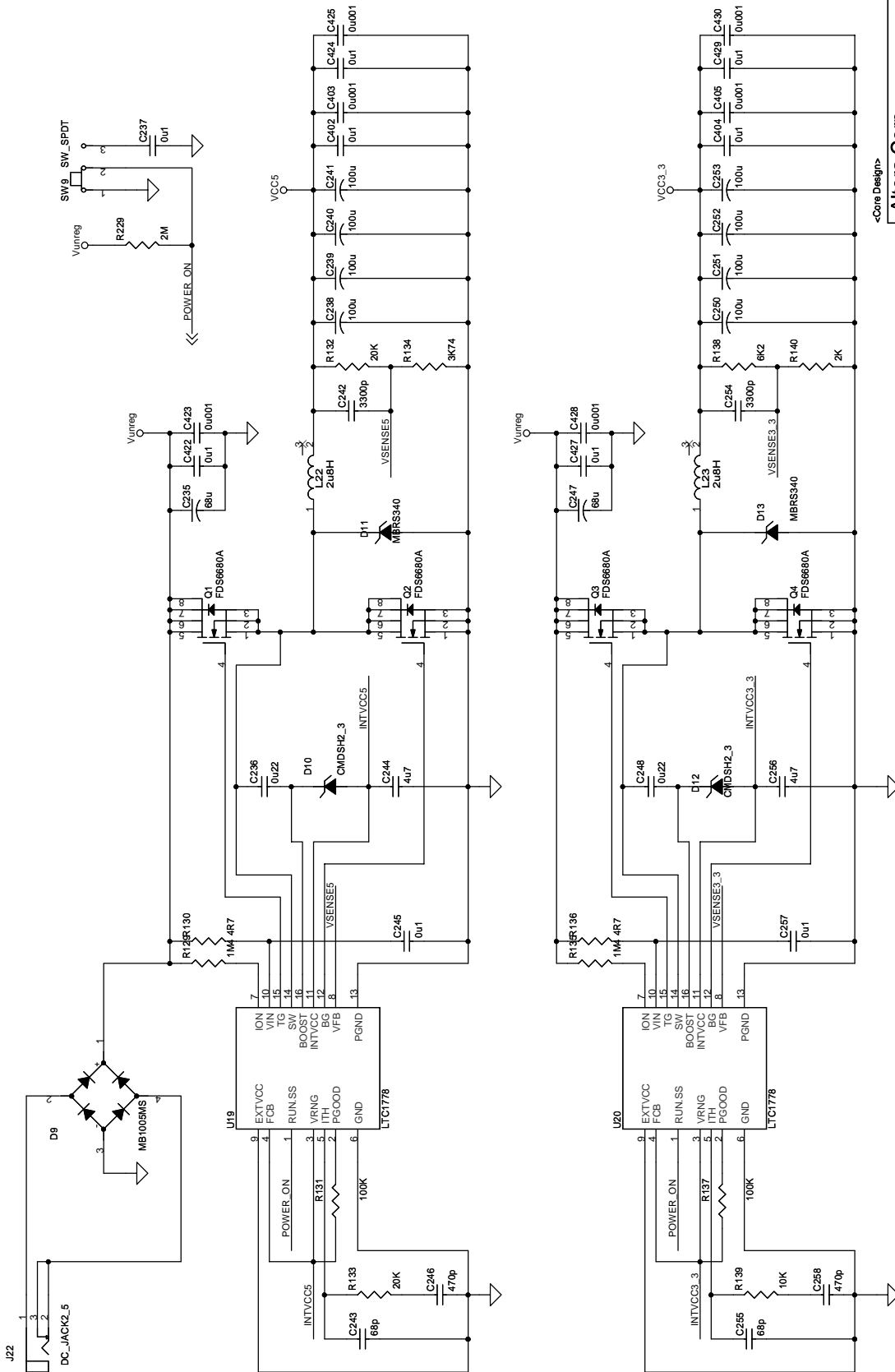
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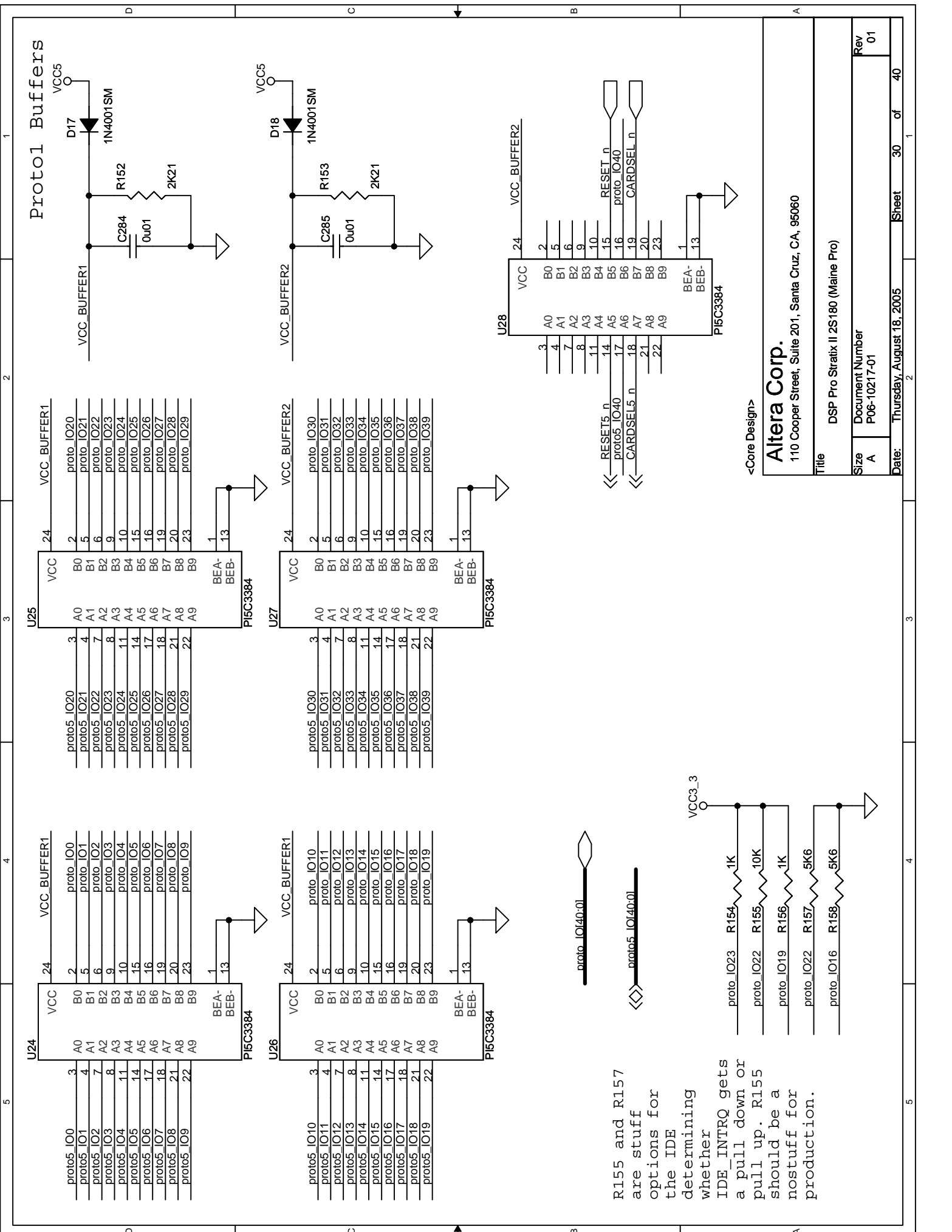
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INSTRIFF C243

INSTRIFF C255



R155 and R157 are stuff options for the IDE determining whether IDE\_INTRQ gets a pull down or pull up. R155 should be a nostuff for production.

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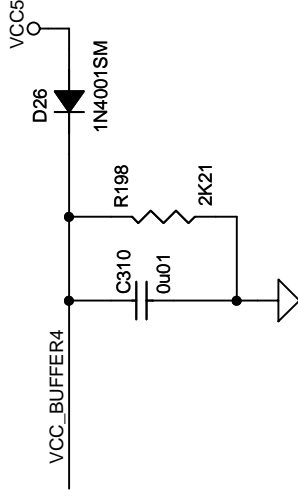
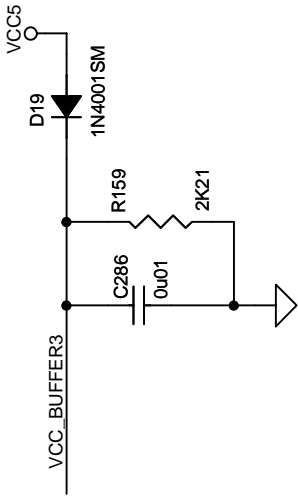
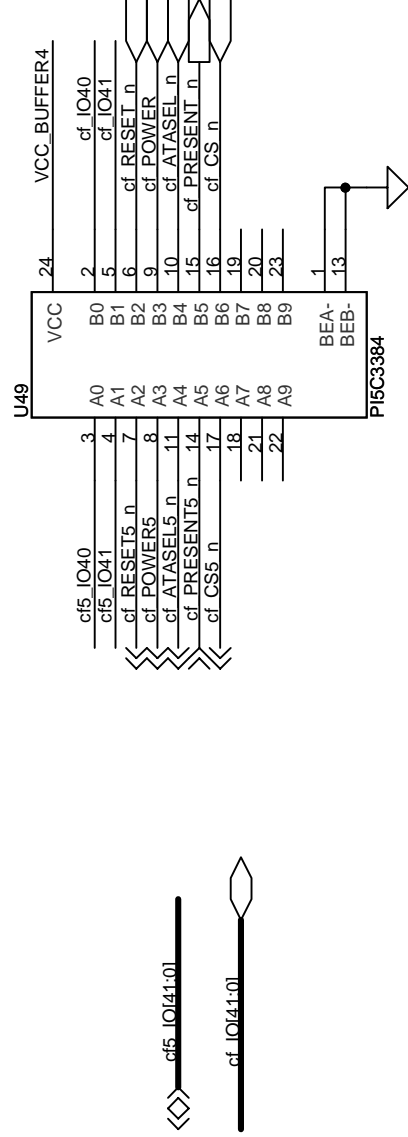
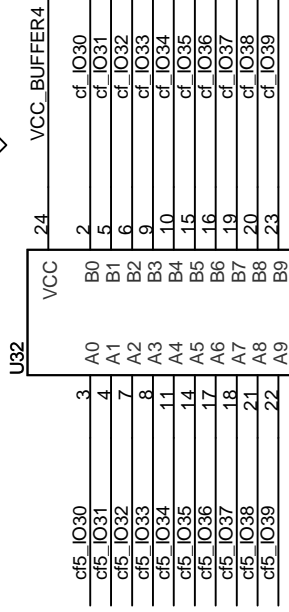
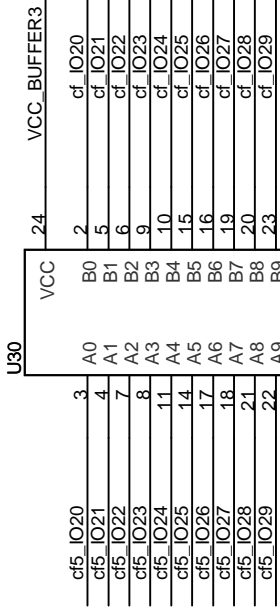
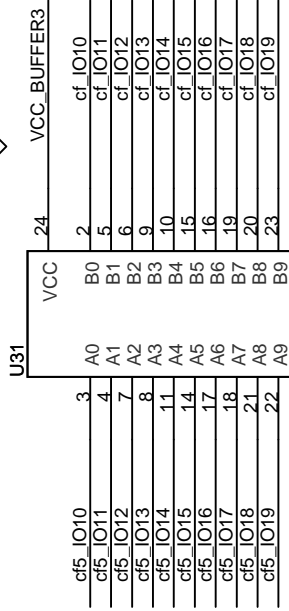
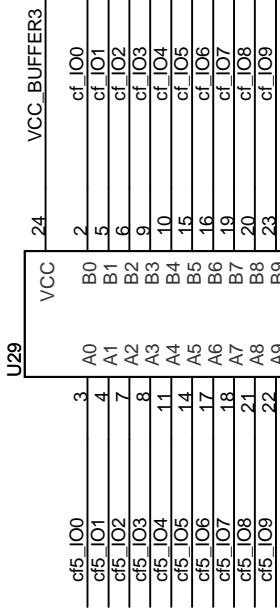
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# Proto1 Buffers



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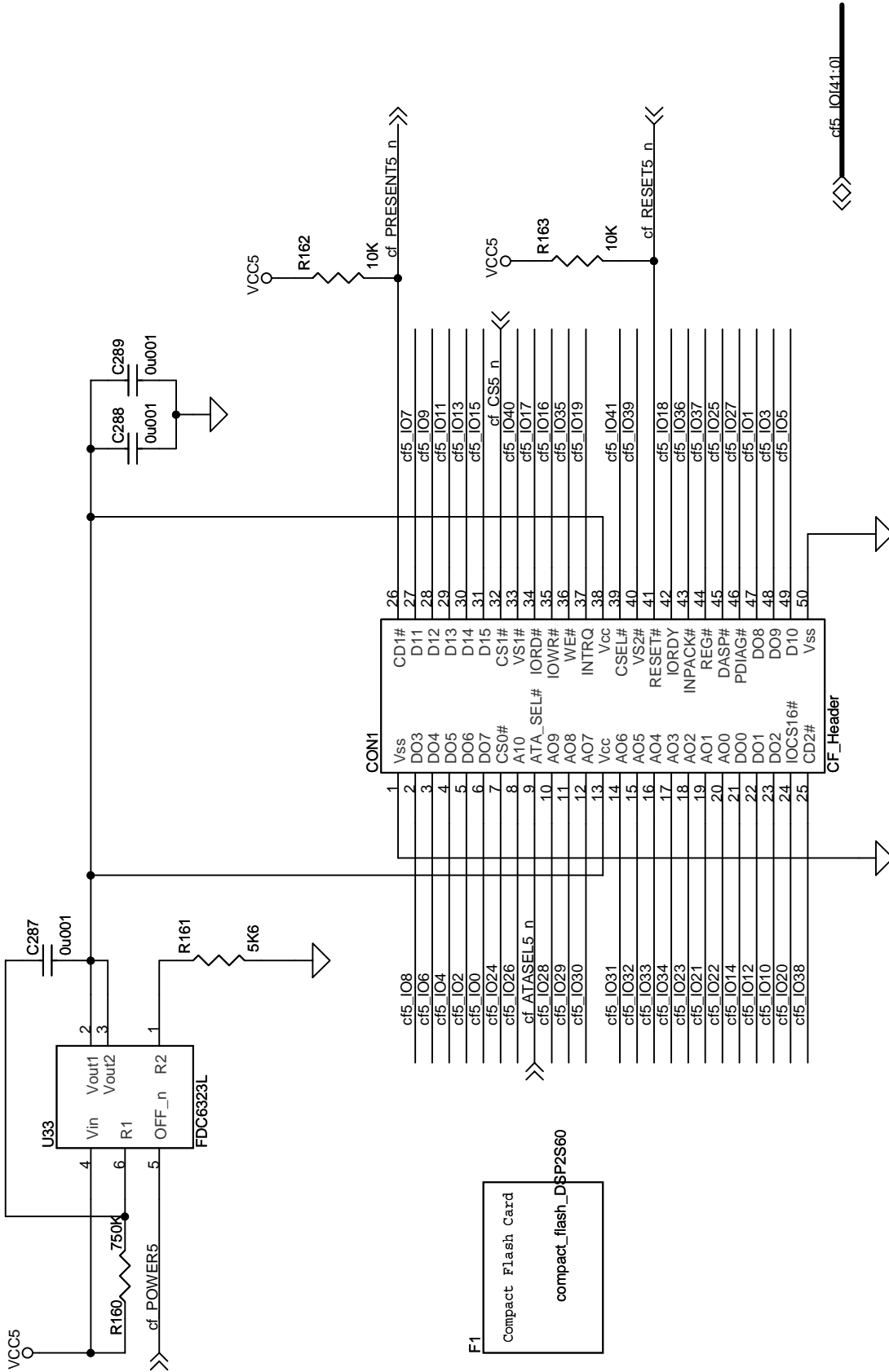
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# Compact Flash Socket



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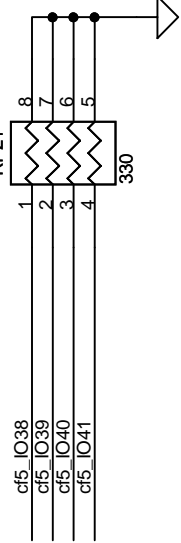
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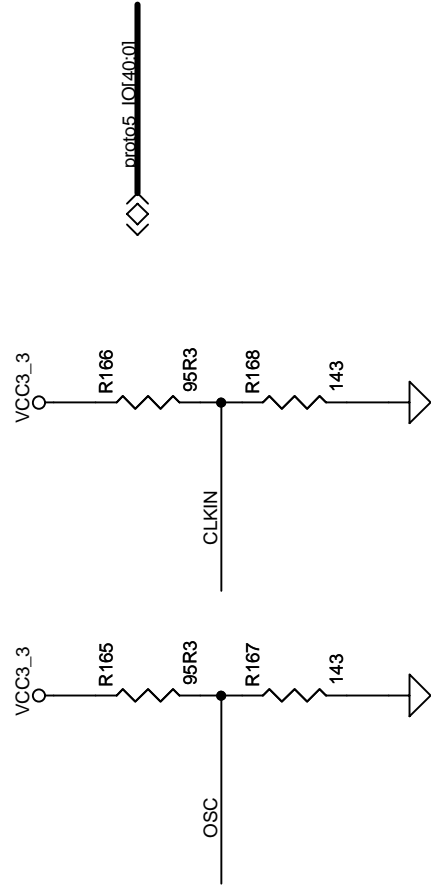
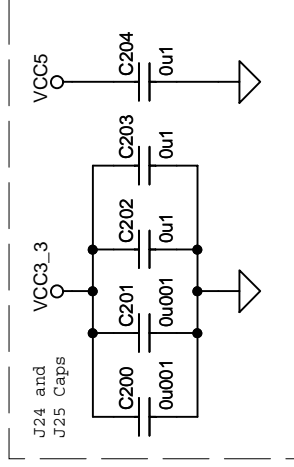
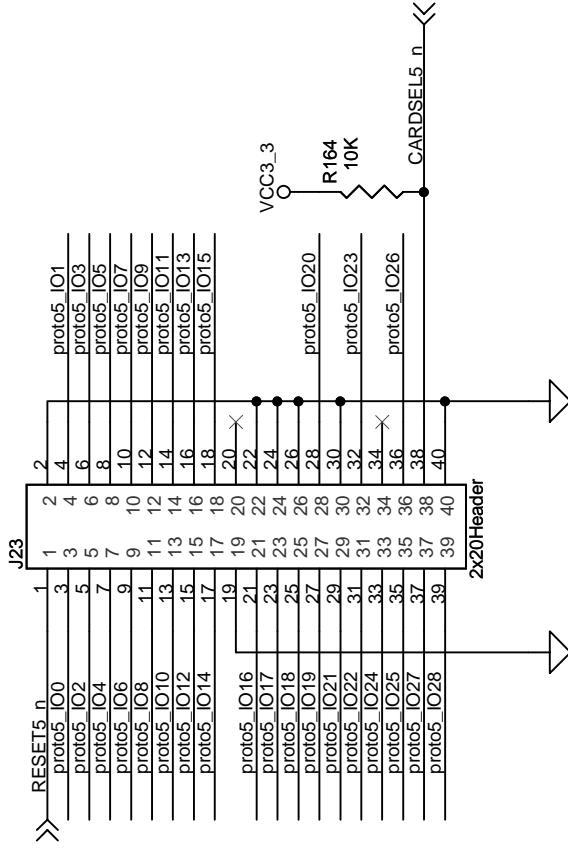
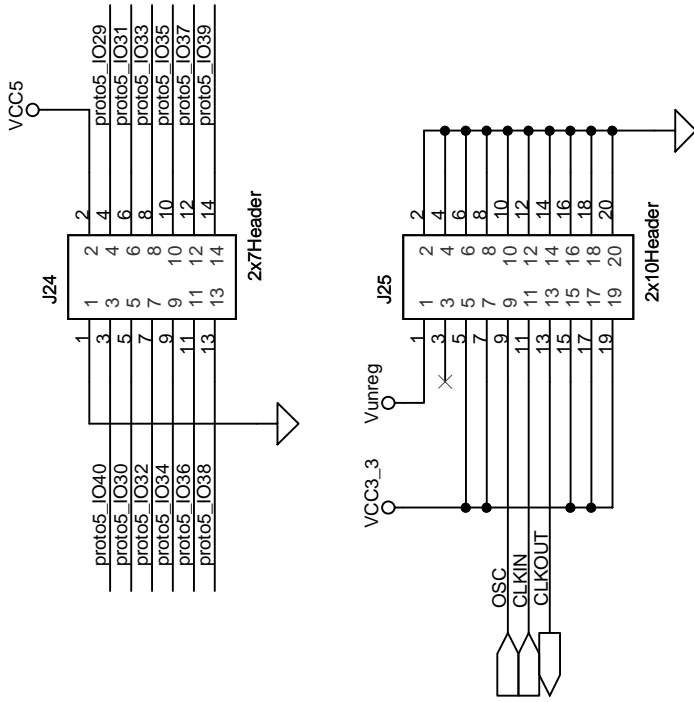
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# Protocard 1



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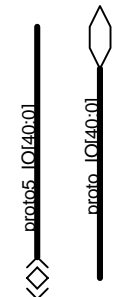
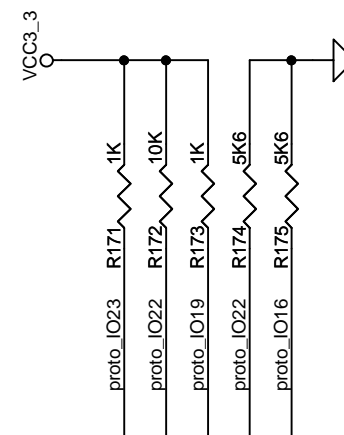
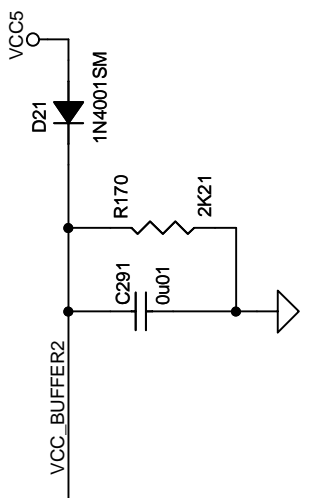
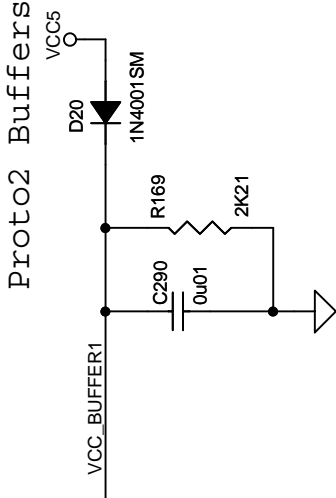
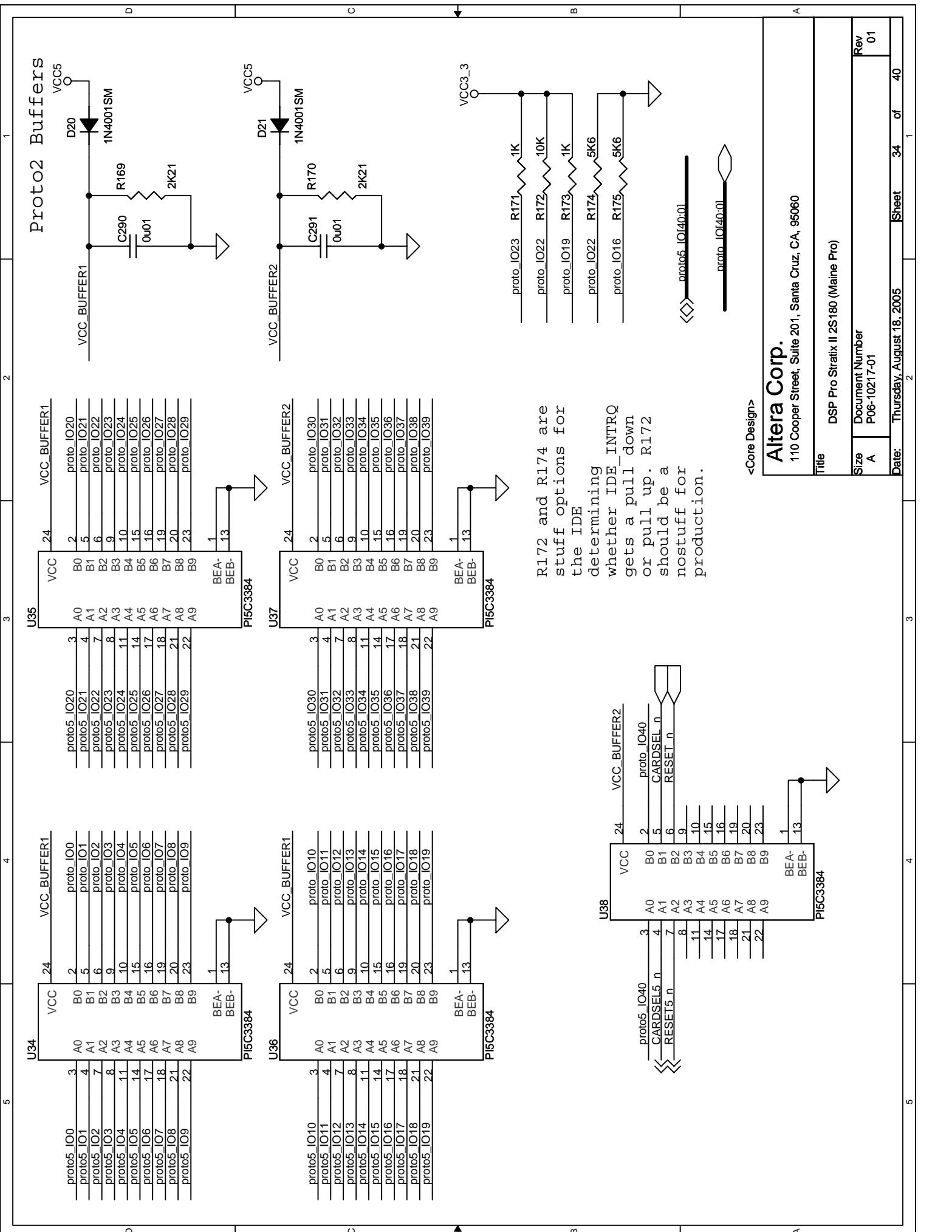
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R172 and R174 are stuff options for the IDE determining whether IDE\_INTRQ gets a pull down or pull up. R172 should be a nostuff for production.

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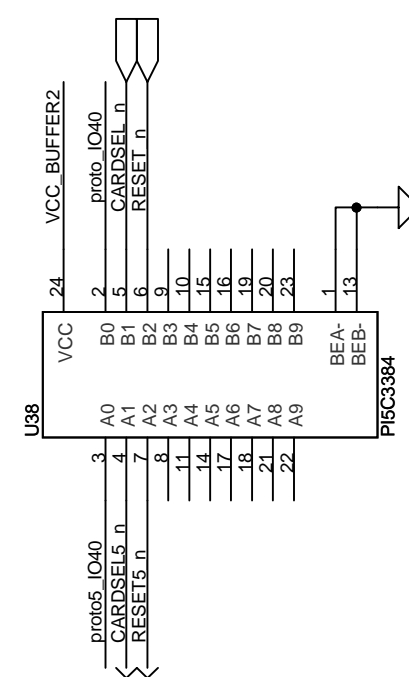
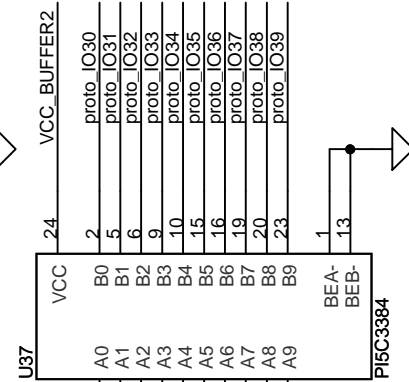
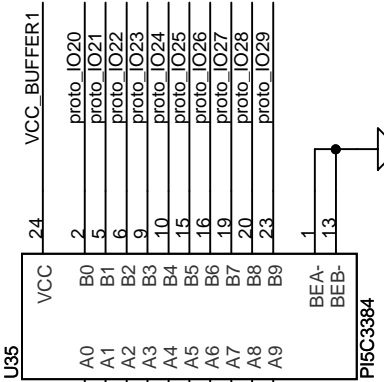
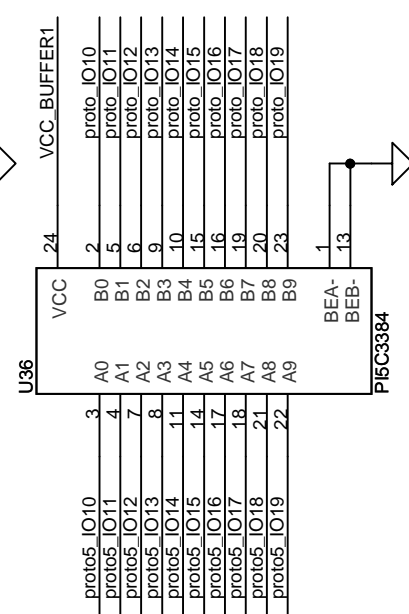
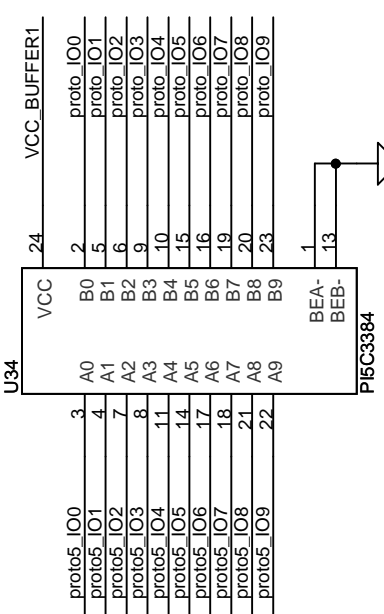
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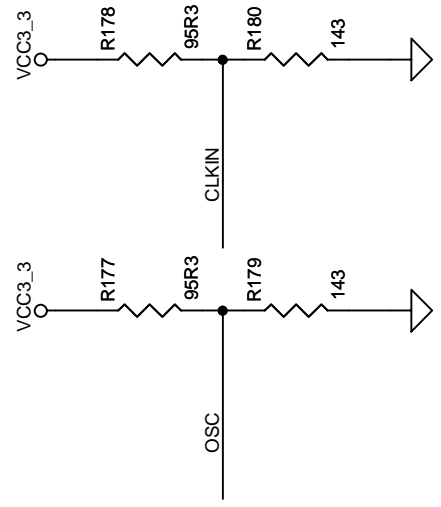
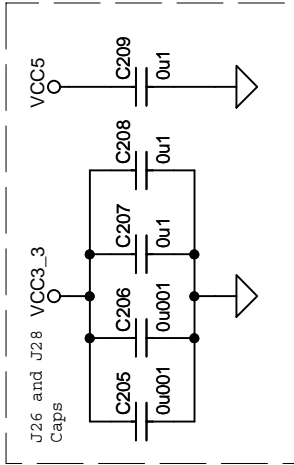
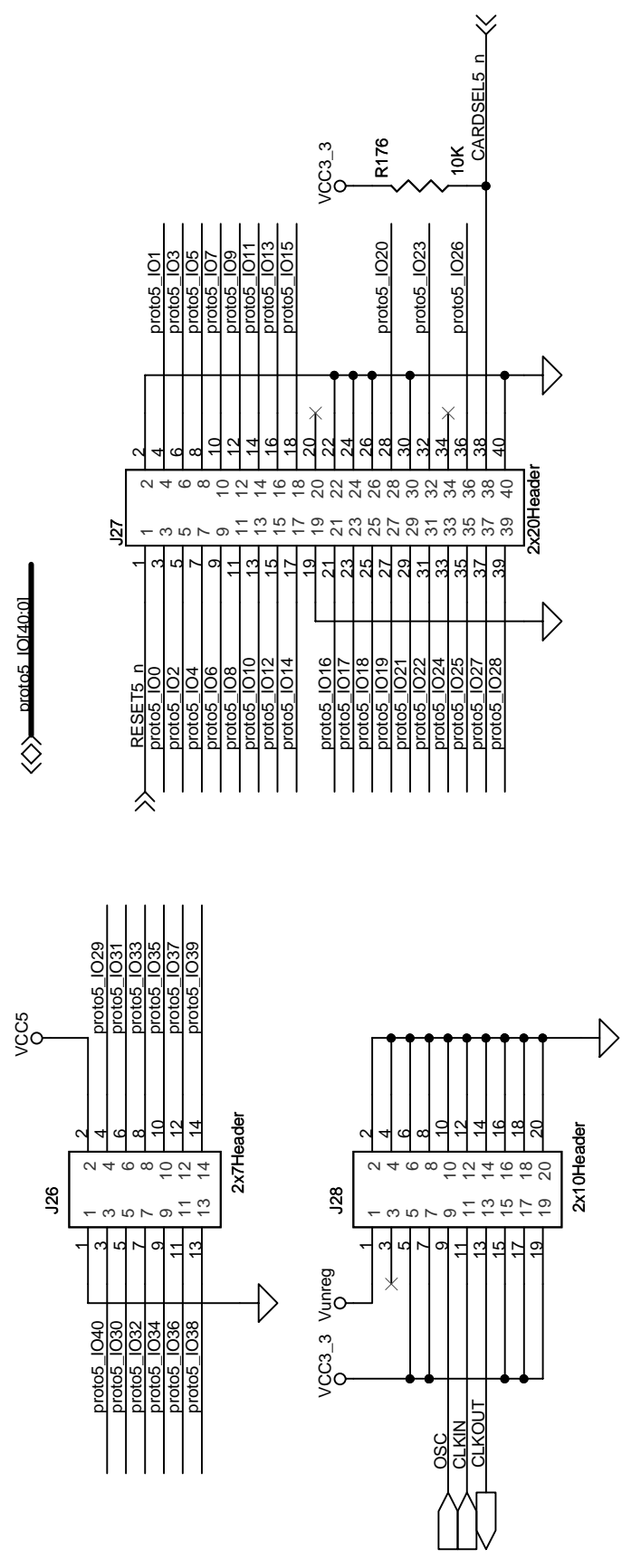
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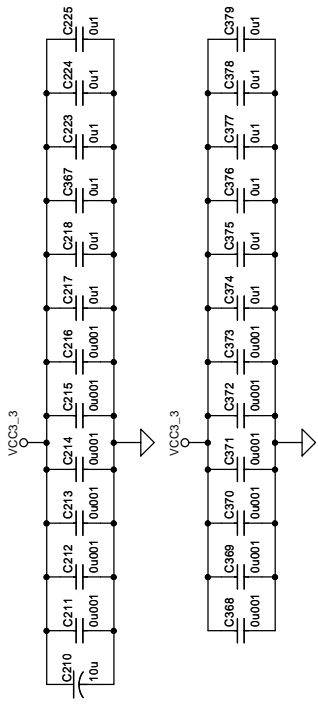
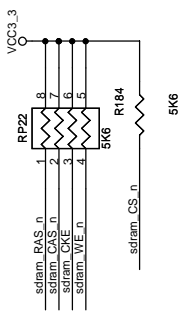
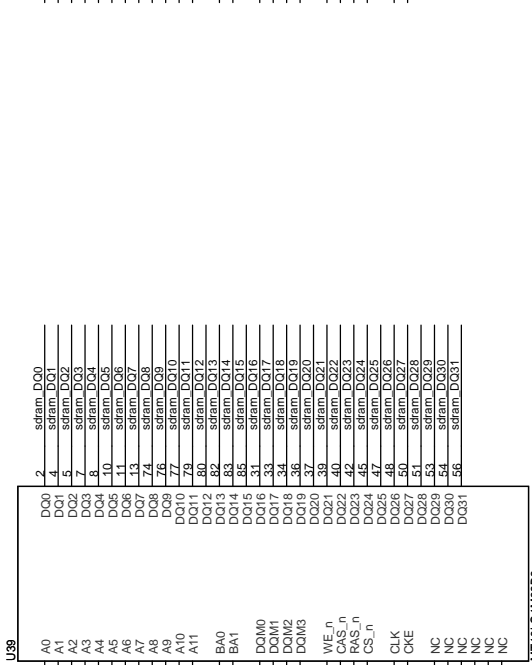
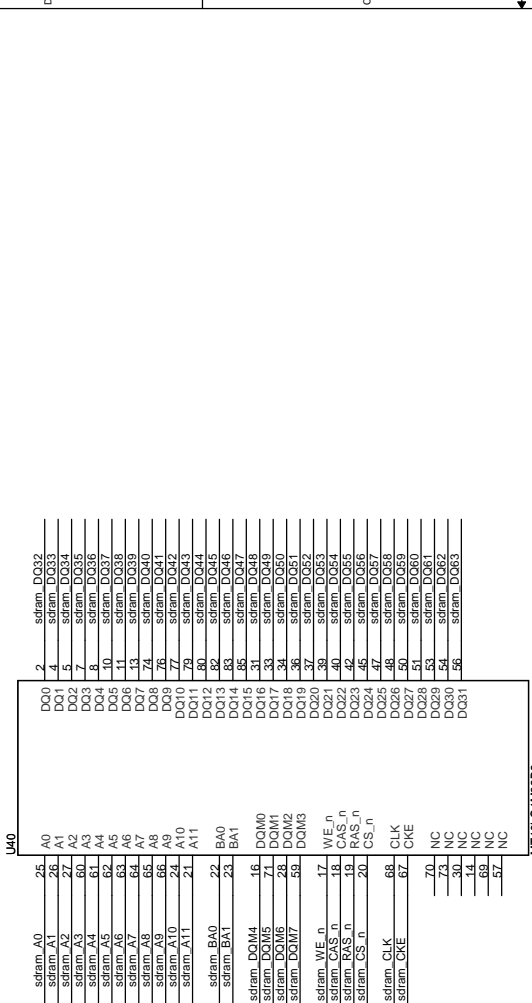


# Proto2 Headers



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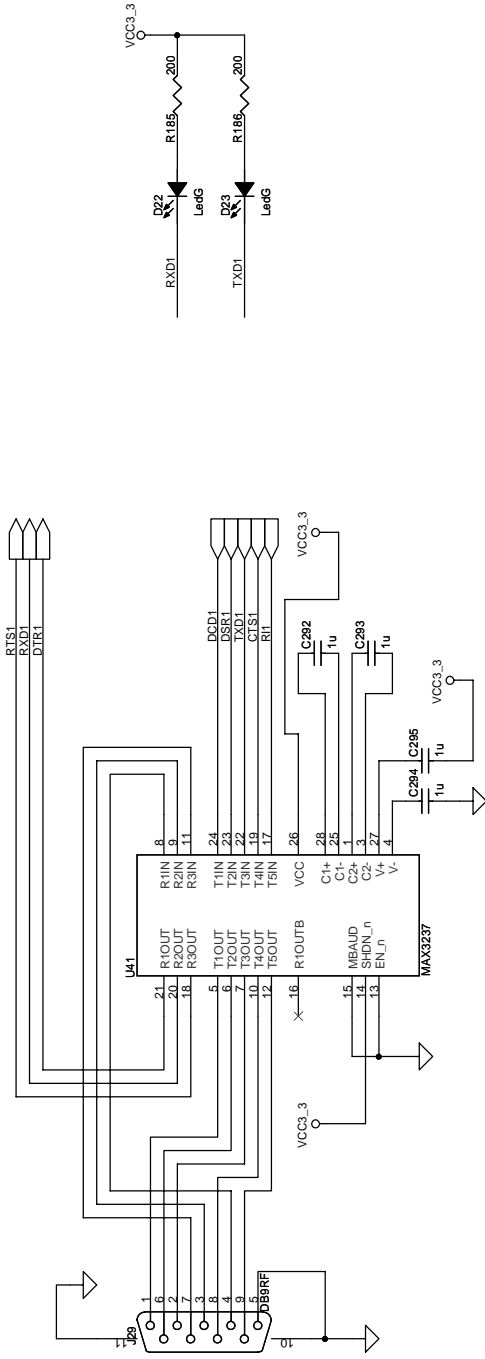
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Serial Ports



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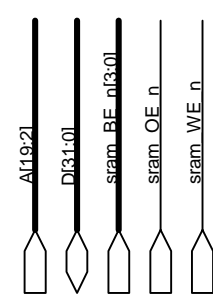
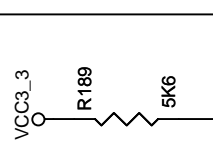
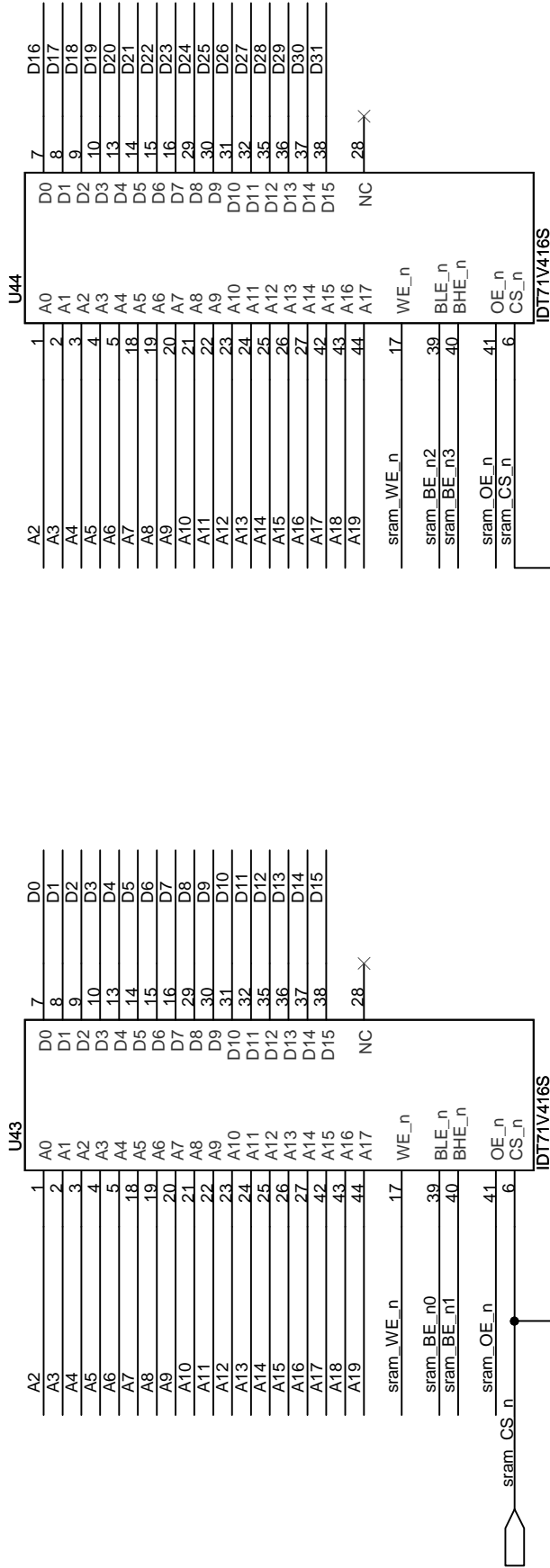
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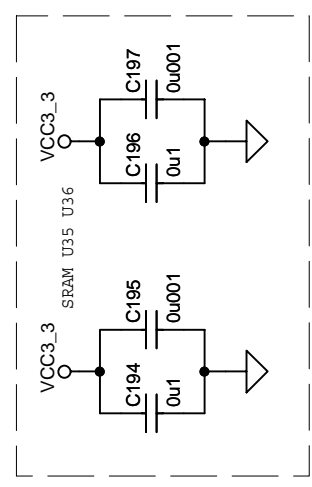
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5

SRAM



One bank of 256K x 32 SRAM (two 256K x 16 parts in parallel) = 1Mbyte of SRAM  
<Core Design>



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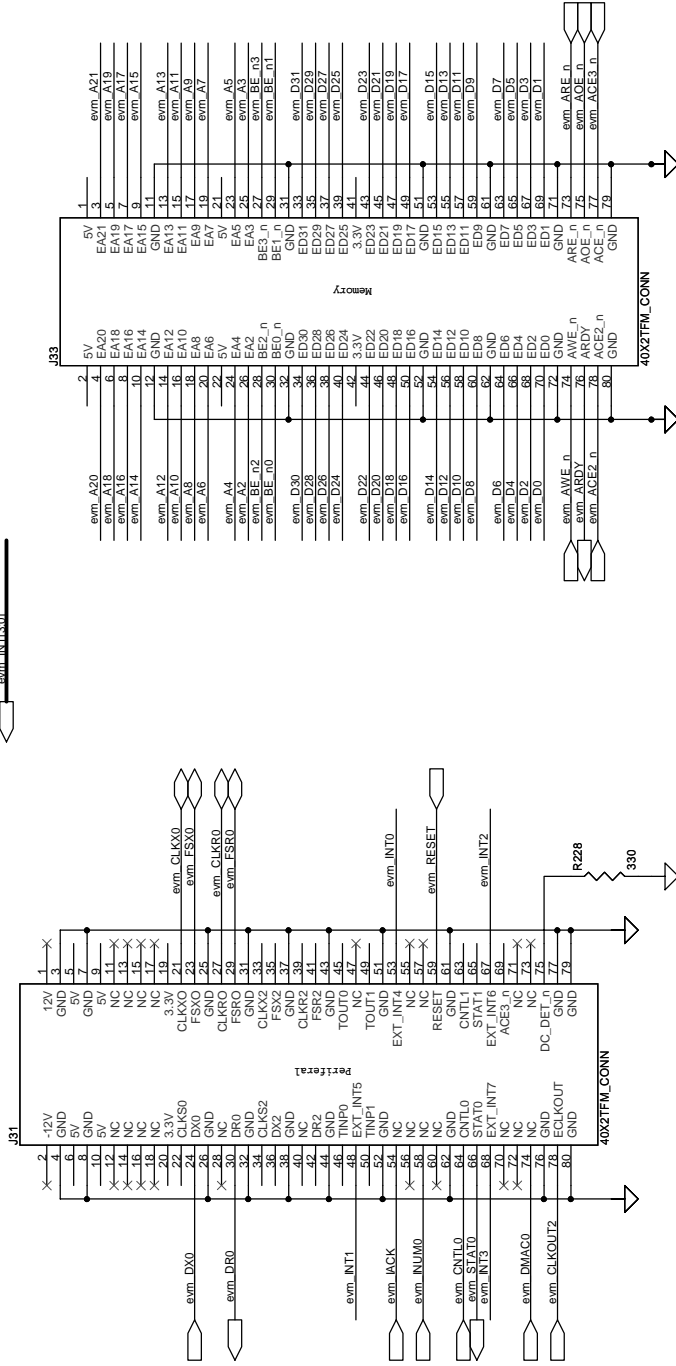
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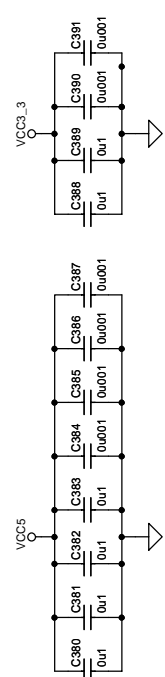
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3.00" apart



These connectors reference the TI 6416 board

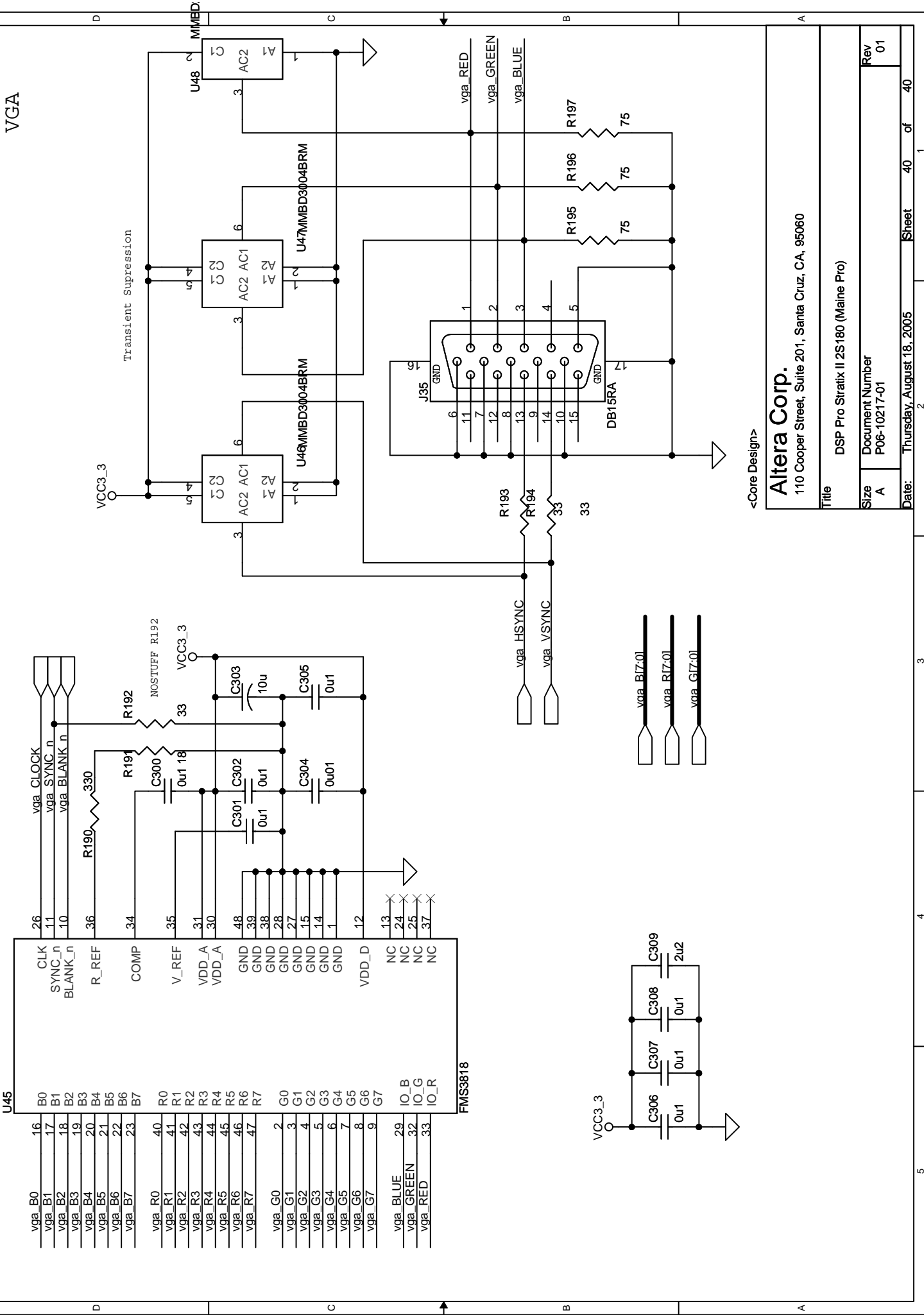


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VGA



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vga_B1	17	SYNC_n	11
vga_B2	18	BLANK_n	10
vga_B3	19		
vga_B4	20	R_REF	36
vga_B5	21	COMP	34
vga_B6	22	V_REF	35
vga_B7	23	VDD_A	31
vga_R0	40	VDD_A	30
vga_R1	41	GND	48
vga_R2	42	GND	39
vga_R3	43	GND	38
vga_R4	44	GND	28
vga_R5	45	GND	27
vga_R6	46	GND	15
vga_R7	47	GND	14
vga_G0	2	GND	1
vga_G1	3	VDD_D	12
vga_G2	4	NC	13
vga_G3	5	NC	24
vga_G4	6	NC	25
vga_G5	7	NC	37
vga_G6	8	NC	
vga_G7	9	NC	
vga_BLUE	29		
vga_GREEN	32		
vga_RED	33		

FMS3818

