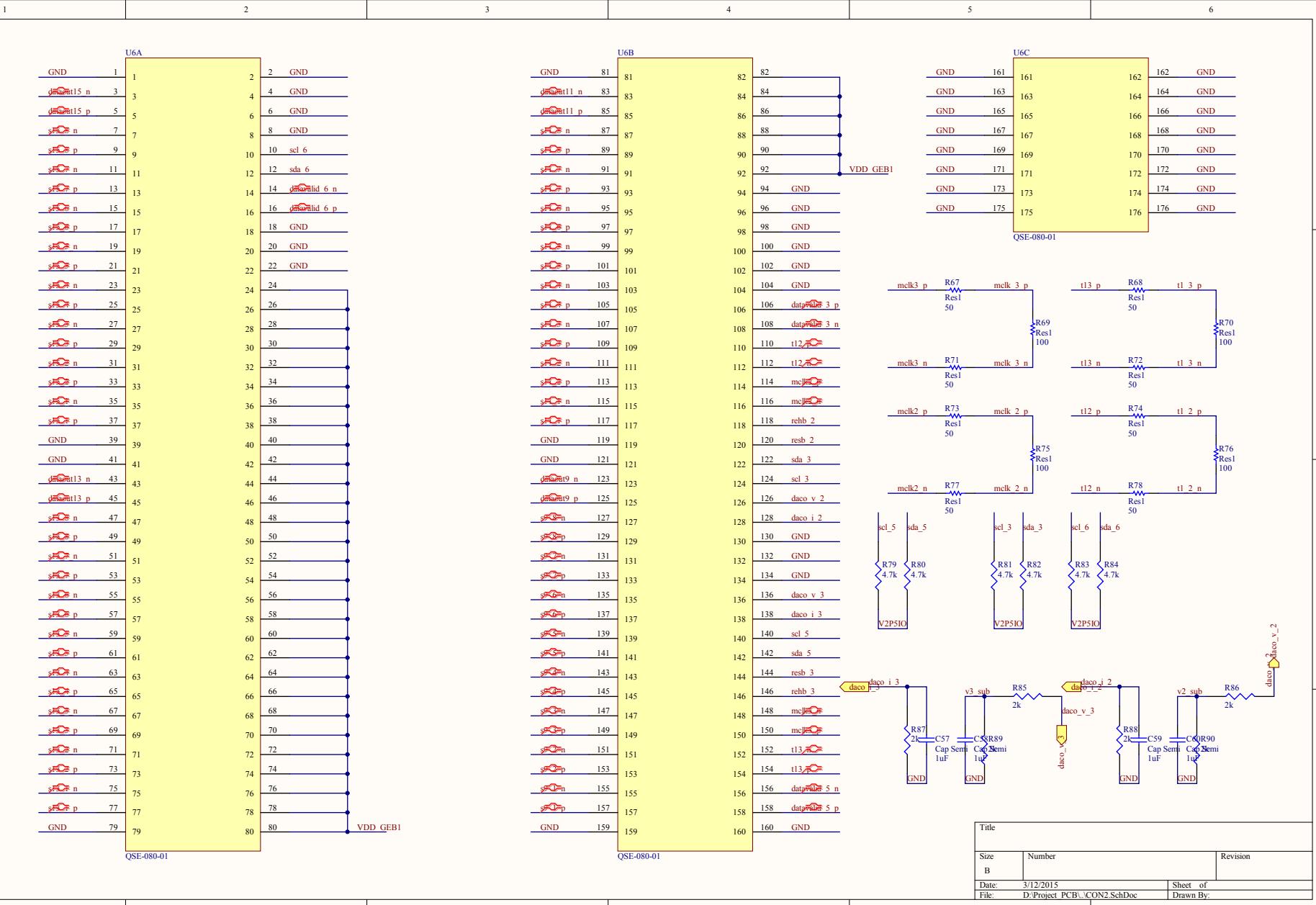
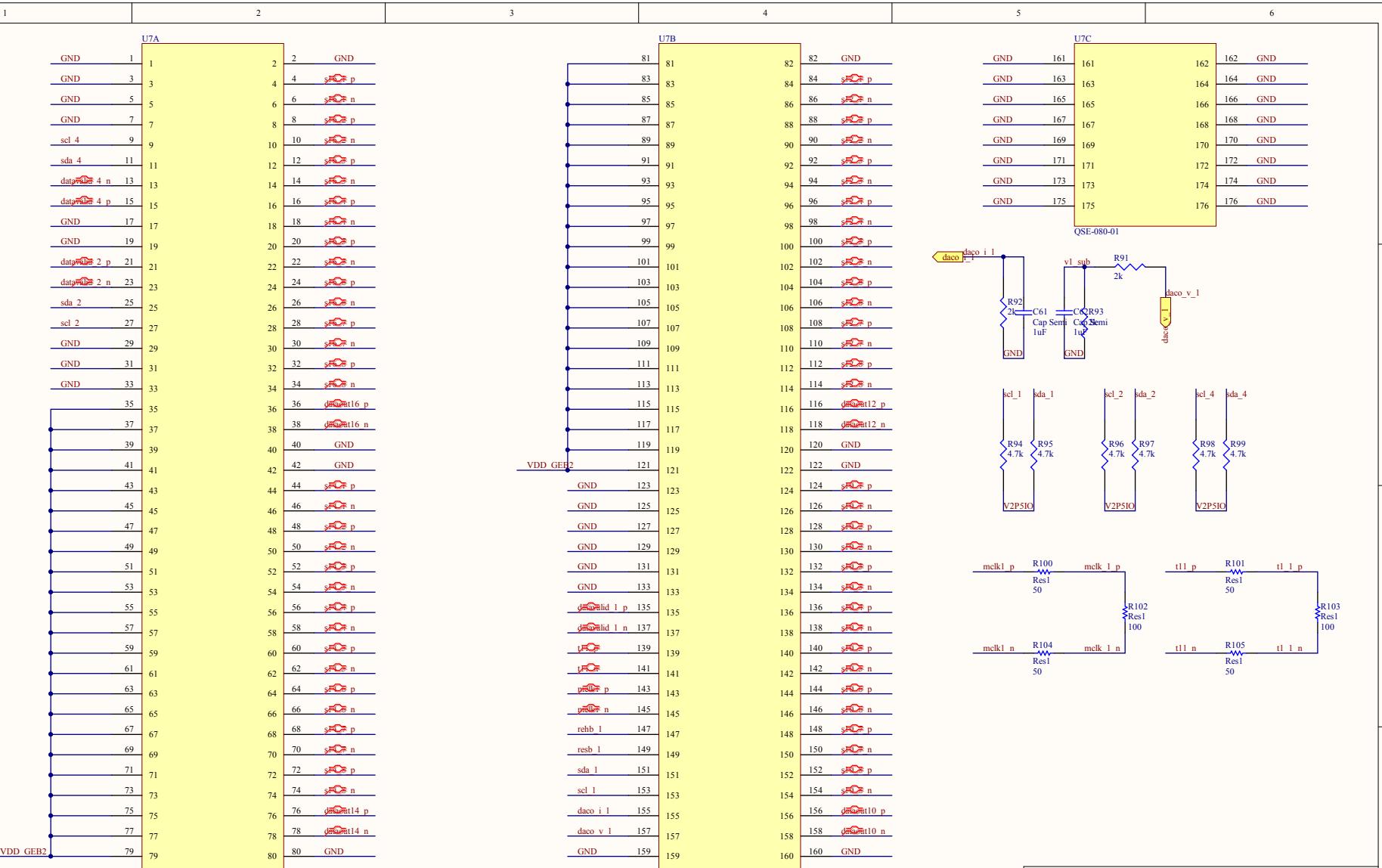


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U8A

GND	1	1	2	GND
data <del>out</del> n	3	3	4	s5 <del>out</del> p
data <del>out</del> p	5	5	6	s5 <del>out</del> n
s4 <del>out</del> n	7	7	8	s5 <del>out</del> p
s4 <del>out</del> p	9	9	10	s5 <del>out</del> n
s4 <del>out</del> n	11	11	12	s5 <del>out</del> p
s4 <del>out</del> p	13	13	14	s5 <del>out</del> n
s4 <del>out</del> n	15	15	16	s5 <del>out</del> p
s4 <del>out</del> p	17	17	18	s5 <del>out</del> n
s4 <del>out</del> n	19	19	20	s5 <del>out</del> p
s4 <del>out</del> p	21	21	22	s5 <del>out</del> n
s4 <del>out</del> n	23	23	24	s5 <del>out</del> p
s4 <del>out</del> p	25	25	26	s5 <del>out</del> n
s4 <del>out</del> n	27	27	28	s5 <del>out</del> p
s4 <del>out</del> p	29	29	30	s5 <del>out</del> n
s4 <del>out</del> n	31	31	32	s5 <del>out</del> p
s4 <del>out</del> p	33	33	34	s5 <del>out</del> n
s4 <del>out</del> n	35	35	36	data <del>out</del> p
s4 <del>out</del> p	37	37	38	data <del>out</del> n
GND	39	39	40	GND
GND	41	41	42	GND
data <del>out</del> n	43	43	44	s6 <del>out</del> p
data <del>out</del> p	45	45	46	s6 <del>out</del> n
s3 <del>out</del> n	47	47	48	s6 <del>out</del> p
s3 <del>out</del> p	49	49	50	s6 <del>out</del> n
s3 <del>out</del> n	51	51	52	s6 <del>out</del> p
s3 <del>out</del> p	53	53	54	s6 <del>out</del> n
s3 <del>out</del> n	55	55	56	s6 <del>out</del> p
s3 <del>out</del> p	57	57	58	s6 <del>out</del> n
s3 <del>out</del> n	59	59	60	s6 <del>out</del> p
s3 <del>out</del> p	61	61	62	s6 <del>out</del> n
s3 <del>out</del> n	63	63	64	s6 <del>out</del> p
s3 <del>out</del> p	65	65	66	s6 <del>out</del> n
s3 <del>out</del> n	67	67	68	s6 <del>out</del> p
s3 <del>out</del> p	69	69	70	s6 <del>out</del> n
s3 <del>out</del> n	71	71	72	s6 <del>out</del> p
s3 <del>out</del> p	73	73	74	s6 <del>out</del> n
s3 <del>out</del> n	75	75	76	data <del>out</del> p
s3 <del>out</del> p	77	77	78	data <del>out</del> n
GND	79	79	80	GND

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U8B

GND	81	81	82	GND
data <del>out</del> n	83	83	84	s6 <del>out</del> p
data <del>out</del> p	85	85	86	s6 <del>out</del> n
s2 <del>out</del> n	87	87	88	s6 <del>out</del> p
s2 <del>out</del> p	89	89	90	s6 <del>out</del> n
s2 <del>out</del> n	91	91	92	s6 <del>out</del> p
s2 <del>out</del> p	93	93	94	s6 <del>out</del> n
s2 <del>out</del> n	95	95	96	s6 <del>out</del> p
s2 <del>out</del> p	97	97	98	s6 <del>out</del> n
s2 <del>out</del> n	99	99	100	s6 <del>out</del> p
s2 <del>out</del> p	101	101	102	s6 <del>out</del> n
s2 <del>out</del> n	103	103	104	s6 <del>out</del> p
s2 <del>out</del> p	105	105	106	s6 <del>out</del> n
s2 <del>out</del> n	107	107	108	s6 <del>out</del> p
s2 <del>out</del> p	109	109	110	s6 <del>out</del> n
s2 <del>out</del> n	111	111	112	s6 <del>out</del> p
s2 <del>out</del> p	113	113	114	s6 <del>out</del> n
s2 <del>out</del> n	115	115	116	data <del>out</del> 7 p
s2 <del>out</del> p	117	117	118	data <del>out</del> 7 n
GND	119	119	120	GND
GND	121	121	122	GND
data <del>out</del> n	123	123	124	s6 <del>out</del> p
data <del>out</del> p	125	125	126	s6 <del>out</del> n
s1 <del>out</del> n	127	127	128	s6 <del>out</del> p
s1 <del>out</del> p	129	129	130	s6 <del>out</del> n
s1 <del>out</del> n	131	131	132	s6 <del>out</del> p
s1 <del>out</del> p	133	133	134	s6 <del>out</del> n
s1 <del>out</del> n	135	135	136	s6 <del>out</del> p
s1 <del>out</del> p	137	137	138	s6 <del>out</del> n
s1 <del>out</del> n	139	139	140	s6 <del>out</del> p
s1 <del>out</del> p	141	141	142	s6 <del>out</del> n
s1 <del>out</del> n	143	143	144	s6 <del>out</del> p
s1 <del>out</del> p	145	145	146	s6 <del>out</del> n
s1 <del>out</del> n	147	147	148	s6 <del>out</del> p
s1 <del>out</del> p	149	149	150	s6 <del>out</del> n
s1 <del>out</del> n	151	151	152	s6 <del>out</del> p
s1 <del>out</del> p	153	153	154	s6 <del>out</del> n
s1 <del>out</del> n	155	155	156	data <del>out</del> 8 p
s1 <del>out</del> p	157	157	158	data <del>out</del> 8 n
GND	159	159	160	GND

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U8C

GND	161	161	162	GND
GND	163	163	164	GND
GND	165	165	166	GND
GND	167	167	168	GND
GND	169	169	170	GND
GND	171	171	172	GND
GND	173	173	174	GND
GND	175	175	176	GND

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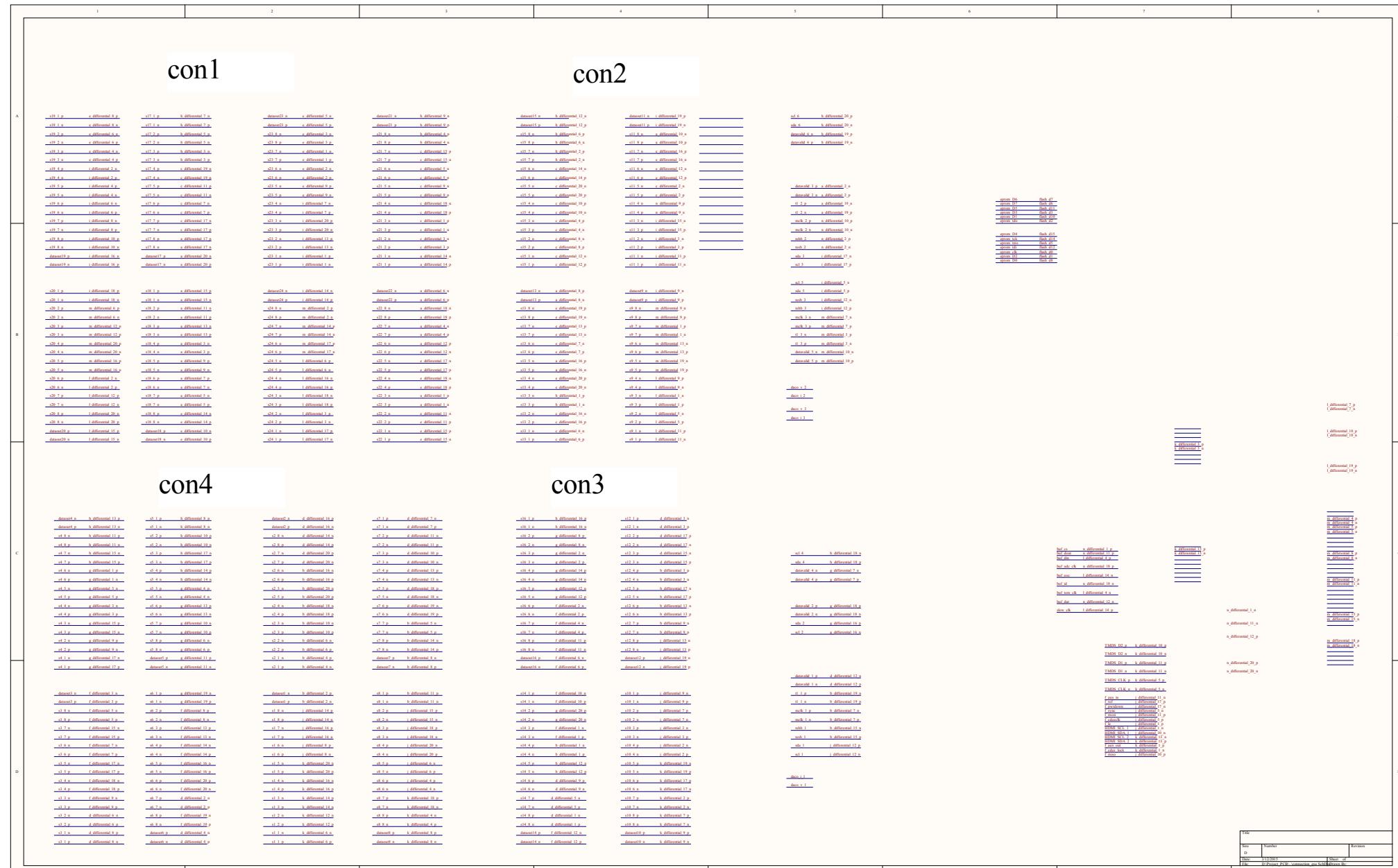
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1 2 3 4 5 6

A  
Q\_B\_Fn GTX\_N\_T1\_p  
Q\_B\_Fp GTX\_N\_T1\_n  
Q\_B\_Fn GTX\_N\_T4\_p  
Q\_B\_Fp GTX\_N\_T4\_n

gsfp1\_reset  
 gsfp1\_vctrx  
 gsfp1\_scl  
 gsfp1\_sda  
Q\_B\_Fp GTX\_N\_R7\_p  
Q\_B\_Fn GTX\_N\_R7\_n  
Q\_B\_Fp GTX\_N\_R8\_p  
Q\_B\_Fn GTX\_N\_R8\_n

Q\_B\_F GTX\_N\_T2\_p  
 Q\_B\_F GTX\_N\_T2\_n

Q\_B\_F GTX\_N\_T3\_p  
 Q\_B\_F GTX\_N\_T3\_n

T1 n GTX\_S\_T12\_n  
 T1 p GTX\_S\_T12\_p

R1 p GTX\_S\_R12\_p  
 R1 n GTX\_S\_R12\_n

T6 n GTX\_S\_T11\_n  
 T6 p GTX\_S\_T11\_p

R6 p GTX\_S\_R11\_p  
 R6 n GTX\_S\_R11\_n

T2 n GTX\_S\_T10\_n  
 T2 p GTX\_S\_T10\_p

R2 p GTX\_S\_R10\_p  
 R2 n GTX\_S\_R10\_n

T5 n GTX\_S\_T9\_n  
 T5 p GTX\_S\_T9\_p

R5 p GTX\_S\_R9\_p  
 R5 n GTX\_S\_R9\_n

B  
Q\_T\_Fn GTX\_N\_T6\_n  
Q\_T\_Fp GTX\_N\_T6\_p  
Q\_T\_Fn GTX\_N\_T5\_p  
Q\_T\_Fp GTX\_N\_T5\_n

gsfp2\_reset  
 gsfp2\_vctrx  
 gsfp2\_scl  
 gsfp2\_sda  
Q\_T\_Fp GTX\_N\_R3\_n  
Q\_T\_Fn GTX\_N\_R3\_p  
Q\_T\_Fp GTX\_N\_R1\_n  
Q\_T\_Fn GTX\_N\_R1\_p

Q\_T\_F GTX\_N\_T8\_n  
 Q\_T\_F GTX\_N\_T8\_p

Q\_T\_F GTX\_N\_T7\_n  
 Q\_T\_F GTX\_N\_T7\_p

T3 n GTX\_S\_T8\_n  
 T3 p GTX\_S\_T8\_p

R3 p GTX\_S\_R8\_p  
 R3 n GTX\_S\_R8\_n

T4 n GTX\_S\_T7\_n  
 T4 p GTX\_S\_T7\_p

R4 p GTX\_S\_R7\_p  
 R4 n GTX\_S\_R7\_n

T4 n GTX\_S\_T6\_n  
 T4 p GTX\_S\_T6\_p

R4 p GTX\_S\_R6\_p  
 R4 n GTX\_S\_R6\_n

T3 n GTX\_S\_T5\_n  
 T3 p GTX\_S\_T5\_p

R3 p GTX\_S\_R5\_p  
 R3 n GTX\_S\_R5\_n

T5 n GTX\_S\_T4\_n  
 T5 p GTX\_S\_T4\_p

R5 p GTX\_S\_R4\_p  
 R5 n GTX\_S\_R4\_n

T2 n GTX\_S\_T3\_n  
 T2 p GTX\_S\_T3\_p

R2 p GTX\_S\_R3\_p  
 R2 n GTX\_S\_R3\_n

T6 n GTX\_S\_T2\_n  
 T6 p GTX\_S\_T2\_p

R6 p GTX\_S\_R2\_p  
 R6 n GTX\_S\_R2\_n

T1 n GTX\_S\_T1\_n  
 T1 p GTX\_S\_T1\_p

R1 p GTX\_S\_R1\_p  
 R1 n GTX\_S\_R1\_n

cdce\_1\_p  
 cdce\_1\_n

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U9A

BANK 12

IO\_L0P\_12 AD25 f differential 1\_p  
 IO\_L0N\_12 AD26 f differential 1\_n  
 IO\_L1P\_12 AE27 f differential 2\_p  
 IO\_L1N\_12 AD27 f differential 2\_n  
 IO\_L2P\_12 AH33 f differential 3\_p  
 IO\_L2N\_12 AH32 f differential 3\_n  
 IO\_L3P\_12 AE28 f differential 4\_p  
 IO\_L3N\_12 AE29 f differential 4\_n  
 IO\_L4P\_12 AJ34 f differential 5\_p  
 IO\_L4N\_VREF\_12 AH34 f differential 5\_n  
 IO\_L5P\_12 AF28 f differential 6\_p  
 IO\_L5N\_12 AF29 f differential 6\_n  
 IO\_L6P\_12 AK34 f differential 7\_p  
 IO\_L6N\_12 KG7 f differential 7\_n  
 IO\_L7P\_12 KH29 f differential 8\_p  
 IO\_L7N\_12 AH30 f differential 8\_n  
 IO\_L8P\_SRCC\_12 AN33 f differential 9\_p  
 IO\_L8N\_SRCC\_12 AG33 f differential 9\_n  
 IO\_L9P\_MRCC\_12 KG27 f differential 10\_p  
 IO\_L9N\_MRCC\_12 KG28 f differential 10\_n  
 IO\_L10P\_MRCC\_12 AF30 f differential 11\_p  
 IO\_L10N\_MRCC\_12 KG30 f differential 11\_n  
 IO\_L11P\_SRCC\_12 AF26 f differential 12\_p  
 IO\_L11N\_SRCC\_12 AE26 f differential 12\_n  
 IO\_L12P\_VRN\_12 AJ31 f differential 13\_p  
 IO\_L12N\_VRP\_12 AJ32 f differential 13\_n  
 IO\_L13P\_VRN\_12 AJ29 f differential 14\_p  
 IO\_L13N\_VRP\_12 AJ30 f differential 14\_n  
 IO\_L14P\_VREF\_12 AK33 f differential 15\_p  
 IO\_L14N\_VREF\_12 AK32 f differential 15\_n  
 IO\_L15P\_12 AL31 f differential 16\_p  
 IO\_L15N\_12 AK31 f differential 16\_n  
 IO\_L16P\_12 AM33 f differential 17\_p  
 IO\_L16N\_12 AL33 f differential 17\_n  
 IO\_L17P\_12 AN32 f differential 18\_p  
 IO\_L17N\_12 AM32 f differential 18\_n  
 IO\_L18P\_12 AP32 f differential 19\_p  
 IO\_L18N\_12 AP33 f differential 19\_n  
 IO\_L19P\_12 AL30 f differential 20\_p  
 IO\_L19P\_12 AM31 f differential 20\_n  
 IO\_L19N\_12

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U9B  
BANK 13

IO\_L0P\_12 AA34 g differential 1\_p  
 IO\_L0N\_12 AA33 g differential 1\_n  
 IO\_L1P\_12 AA30 g differential 2\_p  
 IO\_L1N\_12 AA31 g differential 2\_n  
 IO\_L2N\_12 AD34g differential 3\_p  
 IO\_L2P\_12 AC34g differential 3\_n  
 IO\_L3N\_12 AB30g differential 4\_p  
 IO\_L3P\_12 AB31g differential 4\_n  
 IO\_L4N\_VREF\_12 AC33g differential 5\_p  
 IO\_L5P\_12 AB33g differential 5\_n  
 IO\_L5N\_12 AE31g differential 6\_p  
 IO\_L6P\_12 AD31g differential 6\_n  
 IO\_L6N\_12 AC23g differential 7\_p  
 IO\_L7P\_12 AB26 g differential 7\_n  
 IO\_L7N\_12 AC28s differential 8\_p  
 IO\_L8P\_SRCC\_12 AF34 g differential 9\_p  
 IO\_L8N\_SRCC\_12 AF34 g differential 9\_n  
 IO\_L9P\_MRCC\_12 AD30g differential 10\_p  
 IO\_L9N\_MRCC\_12 AC30g differential 10\_n  
 IO\_L10P\_MRCC\_12 AJ33 g differential 11\_p  
 IO\_L10N\_MRCC\_12 AJ33 g differential 11\_n  
 IO\_L11P\_SRCC\_12 AD29s differential 12\_p  
 IO\_L11N\_SRCC\_12 AC29g differential 12\_n  
 IO\_L12P\_VRN\_12 AB32s differential 13\_p  
 IO\_L12N\_VRP\_12 AC32g differential 13\_n  
 IO\_L13P\_VRN\_12 AB28s differential 14\_p  
 IO\_L13N\_VRP\_12 AC28s differential 14\_n  
 IO\_L14P\_VREF\_12 AD32s differential 15\_p  
 IO\_L14N\_VREF\_12 AE32 g differential 15\_n  
 IO\_L15P\_12 AB27g differential 16\_p  
 IO\_L15N\_12 AC27s differential 16\_n  
 IO\_L16P\_12 AG33g differential 17\_p  
 IO\_L16N\_12 AG32g differential 17\_n  
 IO\_L17P\_12 AA26s differential 18\_p  
 IO\_L17N\_12 AB26s differential 18\_n  
 IO\_L18P\_12 AG33g differential 19\_p  
 IO\_L18N\_12 AF31 g differential 19\_n  
 IO\_L19P\_12 AB25s differential 20\_p  
 IO\_L19P\_12 AC25s differential 20\_n  
 IO\_L19N\_12

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U9C  
BANK 14

IO\_L0P\_14 U25 h differential 1\_p  
 IO\_L0N\_14 U25 h differential 1\_n  
 IO\_L1P\_14 U28 h differential 2\_p  
 IO\_L1N\_14 U29 h differential 2\_n  
 IO\_L2N\_14 U33 h differential 3\_p  
 IO\_L2P\_14 U34 h differential 3\_n  
 IO\_L3N\_14 U30 h differential 4\_p  
 IO\_L3P\_14 U31 h differential 4\_n  
 IO\_L4N\_VREF\_14 U33 h differential 5\_p  
 IO\_L5P\_14 U34 h differential 5\_n  
 IO\_L5N\_14 U26 h differential 6\_p  
 IO\_L6P\_14 U27 h differential 6\_n  
 IO\_L6N\_14 U33 h differential 7\_p  
 IO\_L7P\_14 U32 h differential 7\_n  
 IO\_L7N\_14 U28 h differential 8\_p  
 IO\_L8P\_SRCC\_14 U30 h differential 9\_p  
 IO\_L8N\_SRCC\_14 U30 h differential 9\_n  
 IO\_L9P\_MRCC\_14 U30 h differential 10\_p  
 IO\_L9N\_MRCC\_14 U30 h differential 10\_n  
 IO\_L10P\_MRCC\_14 U34 h differential 11\_p  
 IO\_L10N\_MRCC\_14 U34 h differential 11\_n  
 IO\_L11P\_SRCC\_14 U28 h differential 12\_p  
 IO\_L11N\_SRCC\_14 U27 h differential 12\_n  
 IO\_L12P\_VRN\_14 U32 h differential 13\_p  
 IO\_L12N\_VRP\_14 U33 h differential 13\_n  
 IO\_L13P\_VRN\_14 U32 h differential 14\_p  
 IO\_L13N\_VRP\_14 U31 h differential 14\_n  
 IO\_L14P\_VREF\_14 U34 h differential 15\_p  
 IO\_L14N\_VREF\_14 U29 h differential 16\_p  
 IO\_L15P\_14 U29 h differential 16\_n  
 IO\_L15N\_14 U31 h differential 17\_p  
 IO\_L16P\_14 U32 h differential 17\_n  
 IO\_L16N\_14 U28 h differential 18\_p  
 IO\_L17P\_14 U27 h differential 18\_n  
 IO\_L17N\_14 U25 h differential 19\_p  
 IO\_L18P\_14 U25 h differential 19\_n  
 IO\_L18N\_14 U27 h differential 20\_p  
 IO\_L19P\_14 U26 h differential 20\_n  
 IO\_L19N\_14

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**BANK 15**

	M31	c differential 1_p
IO_L0P_15	J31	c differential 1_n
IO_L0N_15	N25	c differential 2_p
IO_L1P_15	M25	c differential 2_n
IO_L1N_15	J32	c differential 3_p
IO_L2P_15	J31	c differential 3_n
IO_L2N_15	M26	c differential 4_p
IO_L3P_15	M27	c differential 4_n
IO_L3N_15	J31	c differential 5_p
IO_L4P_15	J30	c differential 5_n
IO_L4N_VREF_15	J29	c differential 6_p
IO_L5P_SM10P_15	J27	c differential 6_n
IO_L5N_SM10N_15	J27	c differential 7_p
IO_L6P_SM11P_15	J33	c differential 7_n
IO_L6N_SM11N_15	M32	c differential 8_p
IO_L7P_SM12P_15	J28	c differential 8_n
IO_L7N_SM12N_15	M38	c differential 9_p
IO_L8P_SRCC_15	J32	c differential 9_n
IO_L8N_SRCC_15	J32	c differential 10_p
IO_L9P_MRCC_15	N28	c differential 10_n
IO_L9N_MRCC_15	N29	c differential 11_p
IO_L10P_MRCC_15	N33	c differential 11_n
IO_L10N_MRCC_15	M33	c differential 12_p
IO_L11P_SRCC_15	J29	c differential 12_n
IO_L11N_SRCC_15	J30	c differential 13_p
IO_L12P_SRCC_15	J25	c differential 13_n
IO_L12N_SRCC_15	J26	c differential 14_p
IO_L12N_SM13N_15	J28	c differential 14_n
IO_L13P_SM14P_15	R27	c differential 14_n
IO_L13N_SM14N_15	R31	c differential 15_p
IO_L14P_15	R32	c differential 15_n
IO_L14N_VREF_15	R32	c differential 16_p
IO_L15P_SM15P_15	R26	c differential 16_n
IO_L15N_SM15N_15	R26	c differential 17_p
IO_L16P_VRN_15	R34	c differential 17_n
IO_L16N_VRP_15	R34	c differential 18_p
IO_L17P_15	M30	c differential 18_n
IO_L17N_15	N30	c differential 19_p
IO_L18P_15	N34	c differential 19_n
IO_L18N_15	N34	c differential 20_p
IO_L19P_15	R29	c differential 20_n
IO_L19N_15	R29	c differential 20_p

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**U9E**  
**BANK 16**

IO_L0P_16	C32 a differential 1_p
IO_L0N_16	C32 a differential 1_n
IO_L1P_16	C26 a differential 2_p
IO_L1N_16	C27 a differential 2_n
IO_L2P_16	C32 a differential 3_p
IO_L2N_16	C33 a differential 3_n
IO_L3P_16	C30 a differential 4_p
IO_L3N_16	C30 a differential 4_n
IO_L4P_16	C33 a differential 5_p
IO_L4N_VREF_16	C33 a differential 5_n
IO_L5P_16	C31 a differential 6_p
IO_L5N_16	C30 a differential 6_n
IO_L6P_16	C33 a differential 7_p
IO_L6N_16	C29 a differential 7_n
IO_L7P_16	C29 a differential 8_p
IO_L7N_16	C34 a differential 8_n
IO_L8P_SRCC_16	C34 a differential 9_p
IO_L8N_SRCC_16	C26 a differential 10_p
IO_L9P_MRCC_16	C27 a differential 10_n
IO_L9N_MRCC_16	C33 a differential 11_p
IO_L10P_MRCC_16	C33 a differential 11_n
IO_L10N_MRCC_16	C31 a differential 12_p
IO_L11P_SRCC_16	C31 a differential 12_n
IO_L11N_SRCC_16	C34 a differential 13_p
IO_L12P_VRN_16	C34 a differential 13_n
IO_L12N_VRP_16	C30 a differential 14_p
IO_L13P_16	C29 a differential 14_n
IO_L13N_16	C34 a differential 15_p
IO_L14P_16	C33 a differential 15_n
IO_L14N_VREF_16	C31 a differential 16_p
IO_L15P_16	C32 a differential 16_n
IO_L15N_16	C33 a differential 17_p
IO_L16P_16	C34 a differential 17_n
IO_L16N_16	C32 a differential 18_p
IO_L17P_16	C32 a differential 18_n
IO_L17N_16	C25 a differential 19_p
IO_L18P_16	C26 a differential 19_n
IO_L18N_16	C31 a differential 20_p
IO_L19P_16	C32 a differential 20_n

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**U9F**  
**BANK 22**

IO_L0P_22	AE21 b differential 1_p
IO_L0N_22	AD21b differential 1_n
IO_L1P_22	AM18b differential 2_p
IO_L1N_22	AL18b differential 2_n
IO_L2P_22	AG22b differential 3_p
IO_L2N_22	AH22b differential 3_n
IO_L3P_22	AP19b differential 4_p
IO_L3N_22	AN18b differential 4_n
IO_L4P_22	AK22b differential 5_p
IO_L4N_VREF_22	AL22b differential 5_n
IO_L5P_22	AN19b differential 6_p
IO_L5N_22	AN20b differential 6_n
IO_L6P_22	AO20b differential 7_p
IO_L6N_22	AM20b differential 7_n
IO_L7P_22	AO20b differential 8_p
IO_L7N_22	AO20b differential 8_n
IO_L8P_SRCC_22	AE19b differential 9_p
IO_L8N_SRCC_22	AD20b differential 10_p
IO_L9P_MRCC_22	AI21b differential 10_n
IO_L9N_MRCC_22	AK19b differential 11_p
IO_L10P_MRCC_22	AI19b differential 11_n
IO_L10N_MRCC_22	AI20b differential 12_p
IO_L11P_SRCC_22	AI21b differential 12_n
IO_L11N_SRCC_22	AI20b differential 13_p
IO_L12P_VRN_22	AM12b differential 13_n
IO_L12N_VRP_22	AM21b differential 14_p
IO_L13P_22	AI21b differential 14_n
IO_L13N_22	AC19b differential 15_p
IO_L14P_22	AD19b differential 15_n
IO_L14N_VREF_22	AM23b differential 16_p
IO_L15P_22	AM23b differential 16_n
IO_L15N_22	AL23b differential 17_p
IO_L16P_22	AK21b differential 17_n
IO_L16N_22	AM22b differential 18_p
IO_L17P_22	AN22b differential 18_n
IO_L17N_22	AG20b differential 19_p
IO_L18P_22	AG21b differential 19_n
IO_L18N_22	AO22b differential 20_p
IO_L19P_22	AO23b differential 20_n
IO_L19N_22	UN23b differential 20_n

XC6VLX130T-1FF1156C

Title

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A

A

**BANK 23**

IO\_L0P\_23 AH27 d differential 1\_p  
 IO\_L0N\_23 AH28 d differential 1\_n  
 IO\_L1P\_23 AN30 d differential 2\_p  
 IO\_L1N\_23 AM30 d differential 2\_n  
 IO\_L2P\_23 AG25 d differential 3\_p  
 IO\_L2N\_23 AG26 d differential 3\_n  
 IO\_L3P\_23 AP30 d differential 4\_p  
 IO\_L3N\_23 AP31 d differential 4\_n  
 IO\_L4P\_23 AL29 d differential 5\_p  
 IO\_L4N\_VREF\_23 AK29 d differential 5\_n  
 IO\_L5P\_23 AN29 d differential 6\_p  
 IO\_L5N\_23 AP29 d differential 6\_n  
 IO\_L6P\_23 AL28 d differential 7\_p  
 IO\_L6N\_23 AL29 d differential 7\_n  
 IO\_L7P\_23 AM28 d differential 8\_p  
 IO\_L7N\_23 AH25 d differential 9\_p  
 IO\_L8P\_SRCC\_23 AJ25 d differential 9\_n  
 IO\_L8N\_SRCC\_23 AN27 d differential 10\_p  
 IO\_L9P\_MRCC\_23 AM27 d differential 10\_n  
 IO\_L9N\_MRCC\_23 AK27 d differential 11\_p  
 IO\_L10P\_MRCC\_23 AL27 d differential 11\_n  
 IO\_L10N\_MRCC\_23 AH23 d differential 12\_p  
 IO\_L11P\_SRCC\_23 AH24 d differential 12\_n  
 IO\_L11N\_SRCC\_23 AK26 d differential 13\_p  
 IO\_L12P\_VRN\_23 AJ26 d differential 13\_n  
 IO\_L12N\_VRP\_23 AL26 d differential 14\_p  
 IO\_L13P\_23 AM26 d differential 14\_n  
 IO\_L13N\_23 AJ24 d differential 15\_p  
 IO\_L14P\_23 AK24 d differential 15\_n  
 IO\_L14N\_VREF\_23 AP27 d differential 16\_p  
 IO\_L15P\_23 AP26 d differential 16\_n  
 IO\_L15N\_23 AM25 d differential 17\_p  
 IO\_L16P\_23 AL25 d differential 17\_n  
 IO\_L16N\_23 AN25 d differential 18\_p  
 IO\_L17P\_23 AN24 d differential 18\_n  
 IO\_L17N\_23 AK23 d differential 19\_p  
 IO\_L18P\_23 AL24 d differential 19\_n  
 IO\_L18N\_23 AP25 d differential 20\_p  
 IO\_L19P\_23 AP24 d differential 20\_n  
 IO\_L19N\_23

U9G

**BANK 24**

IO\_L0P\_GC\_24 L23 n differential 1\_p  
 IO\_L0N\_GC\_24 M22 n differential 1\_n  
 IO\_L1P\_GC\_24 K24 n differential 2\_p  
 IO\_L1N\_GC\_24 K23 n differential 2\_n  
 IO\_L2P\_D15\_24 M23 flash d15  
 IO\_L2N\_D14\_24 K24 flash d14  
 IO\_L3P\_D13\_24 K24 flash d13  
 IO\_L3N\_D12\_24 K23 flash d12  
 IO\_L4P\_D11\_24 N23 flash d11  
 IO\_L4N\_VREF\_D10\_24 N24 flash d10  
 IO\_L5P\_D9\_24 K23 flash d9  
 IO\_L5N\_D8\_24 K23 flash d8  
 IO\_L6P\_D7\_24 K24 flash d7  
 IO\_L6N\_D6\_24 K23 flash d6  
 IO\_L7P\_D5\_24 K25 flash d5  
 IO\_L7N\_D4\_24 K24 flash d4  
 IO\_L8P\_SRCC\_24 K24 n differential 9\_p  
 IO\_L8N\_SRCC\_24 K23 n differential 9\_n  
 IO\_L9P\_MRCC\_24 K25 n differential 10\_p  
 IO\_L9N\_MRCC\_24 K24 n differential 10\_n  
 IO\_L10P\_MRCC\_24 K23 n differential 11\_p  
 IO\_L10N\_MRCC\_24 K23 n differential 11\_n  
 IO\_L11P\_SRCC\_24 AD24 n differential 12\_p  
 IO\_L11N\_SRCC\_24 AE24 n differential 12\_n  
 IO\_L12P\_D3\_24 V24 flash d3  
 IO\_L12N\_D2\_F2\_24 W24 flash d2  
 IO\_L13P\_D1\_I2\_24 AF25 flash d1  
 IO\_L13N\_D0\_F3\_24 AF24 flash d0  
 IO\_L14P\_FCS\_B\_24 V24 flash e  
 IO\_L14N\_VREF\_FOE\_B\_MOSI\_24 AA24 flash g  
 IO\_L15P\_FWE\_B\_24 AF23 flash w  
 IO\_L15N\_RS1\_24 AG23 rs1  
 IO\_L16P\_RS0\_24 AA23 rs0  
 IO\_L16N\_CSO\_B\_24 AB23 n differential 18\_p  
 IO\_L17P\_VRN\_24 AE23 n differential 18\_n  
 IO\_L17N\_VRF\_24 AF22  
 IO\_L18P\_GC\_24 AC23 flash l  
 IO\_L18N\_GC\_24 AC24  
 IO\_L19P\_GC\_24 AC22 n differential 20\_p  
 IO\_L19N\_GC\_24 AD22 n differential 20\_n

U9H

**BANK 25**

IO\_L0P\_25 D25 e differential 1\_p  
 IO\_L0N\_25 D26 e differential 1\_n  
 IO\_L1P\_25 C24 e differential 2\_p  
 IO\_L1N\_25 C25 e differential 2\_n  
 IO\_L2P\_25 E26 e differential 3\_p  
 IO\_L2N\_25 E26 e differential 3\_n  
 IO\_L3P\_25 E25 e differential 4\_p  
 IO\_L3N\_25 E25 e differential 4\_n  
 IO\_L4P\_25 Q27 e differential 5\_p  
 IO\_L4N\_VREF\_25 Q27 e differential 5\_n  
 IO\_L5P\_25 K26 e differential 6\_p  
 IO\_L5N\_25 K26 e differential 6\_n  
 IO\_L6P\_25 K27 e differential 7\_p  
 IO\_L6N\_25 K27 e differential 7\_n  
 IO\_L7P\_25 K27 e differential 8\_p  
 IO\_L7N\_25 K27 e differential 8\_n  
 IO\_L8P\_SRCC\_25 K24 n differential 9\_p  
 IO\_L8N\_SRCC\_25 K24 n differential 9\_n  
 IO\_L9P\_MRCC\_25 K28 e differential 10\_p  
 IO\_L9N\_MRCC\_25 K28 e differential 10\_n  
 IO\_L10P\_MRCC\_25 K29 e differential 11\_p  
 IO\_L10N\_MRCC\_25 K29 e differential 11\_n  
 IO\_L11P\_SRCC\_25 K25 e differential 12\_p  
 IO\_L11N\_SRCC\_25 K25 e differential 12\_n  
 IO\_L12P\_25 K27 e differential 13\_p  
 IO\_L12N\_25 K28 e differential 13\_n  
 IO\_L13P\_25 K28 e differential 14\_p  
 IO\_L13N\_25 A29 e differential 14\_n  
 IO\_L14P\_25 K28 e differential 15\_p  
 IO\_L14N\_VREF\_25 K28 e differential 15\_n  
 IO\_L15P\_25 A30 e differential 16\_p  
 IO\_L15N\_25 B30 e differential 16\_n  
 IO\_L16P\_VRN\_25 K29 e differential 17\_p  
 IO\_L16N\_VRP\_25 K29 e differential 17\_n  
 IO\_L17P\_25 C30 e differential 18\_p  
 IO\_L17N\_25 Q30 e differential 18\_n  
 IO\_L18P\_GC\_25 K28 e differential 19\_p  
 IO\_L18N\_GC\_25 K29 e differential 19\_n  
 IO\_L19P\_GC\_25 Q31 e differential 20\_p  
 IO\_L19N\_GC\_25 Q31 e differential 20\_n

U9I

XC6VLX130T-1FF1156C  
 rs1 R106 flash a22  
 rs0 R107 flash a21  
 0

XC6VLX130T-1FF1156C

D

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**BANK 26**

U9J

IO_L0P_26	C20 i differential 1 p
IO_L0N_26	IO_L0N_32
IO_L1P_26	A23 i differential 2 p
IO_L1N_26	IO_L1N_32
IO_L2P_26	G21 i differential 3 p
IO_L2N_26	IO_L2N_32
IO_L3P_26	G22 i differential 3 n
IO_L3N_26	B23 i differential 4 p
IO_L4P_26	C23 i differential 4 n
IO_L4N_26	F20 i differential 5 p
IO_L5P_26	G21 i differential 5 n
IO_L5N_26	IO_L5N_32
IO_L6P_26	H21 i differential 6 p
IO_L6N_26	IO_L6N_32
IO_L7P_26	I22 i differential 6 n
IO_L7N_26	IO_L7N_32
IO_L8P_SRC2_26	J22 i differential 7 p
IO_L8N_SRC2_26	IO_L8N_SRC2_32
IO_L9P_MRCC_26	K20 i differential 7 n
IO_L9N_MRCC_26	IO_L9N_MRCC_32
IO_L10P_MRCC_26	L21 i differential 8 p
IO_L10N_MRCC_26	IO_L10N_MRCC_32
IO_L11P_SRC2_26	M20 i differential 8 n
IO_L11N_SRC2_26	IO_L11N_SRC2_32
IO_L12P_VRN_26	N21 i differential 9 p
IO_L12N_VRP_26	IO_L12N_VRP_32
IO_L13P_26	O21 i differential 9 n
IO_L13N_26	IO_L13N_32
IO_L14P_26	P22 i differential 10 p
IO_L14N_VREF_26	Q20 i differential 10 n
IO_L15P_26	R21 i differential 11 p
IO_L15N_26	IO_L15N_32
IO_L16P_26	S20 i differential 11 n
IO_L16N_26	IO_L16N_32
IO_L17P_26	T21 i differential 12 p
IO_L17N_26	IO_L17N_32
IO_L18P_26	U22 i differential 12 n
IO_L18N_26	IO_L18N_32
IO_L19P_26	V22 i differential 13 p
IO_L19N_26	IO_L19N_32

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**BANK 32**

U9K

IO_L0P_32	AG15 i differential 1 p
IO_L0N_32	AF15 i differential 1 n
IO_L1P_32	AK14 i differential 2 p
IO_L1N_32	AL14 i differential 2 n
IO_L2P_32	AI15 i differential 3 p
IO_L2N_32	AH15 i differential 3 n
IO_L3P_32	AL15 i differential 4 p
IO_L3N_32	AL14 i differential 4 n
IO_L4P_32	AG16 i differential 5 p
IO_L4N_32	AF16 i differential 5 n
IO_L5P_32	AN15 i differential 6 p
IO_L5N_32	AM15 i differential 6 n
IO_L6P_32	AF17 i differential 7 p
IO_L6N_32	AI16 i differential 7 n
IO_L7P_32	AP16 i differential 8 p
IO_L7N_32	AN17 i differential 8 n
IO_L8P_SRC2_32	AH17 i differential 9 p
IO_L8N_SRC2_32	AG17 i differential 9 n
IO_L9P_MRCC_32	AC15 i differential 10 p
IO_L9N_MRCC_32	AD15 i differential 10 n
IO_L10P_MRCC_32	AE16 i differential 11 p
IO_L10N_MRCC_32	AD16 i differential 11 n
IO_L11P_SRC2_32	AC18 i differential 12 p
IO_L11N_SRC2_32	AC17 i differential 12 n
IO_L12P_VRN_32	AH18 i differential 13 p
IO_L12N_VRP_32	AG18 i differential 13 n
IO_L13P_32	AN17 i differential 14 p
IO_L13N_32	AP17 i differential 14 n
IO_L14P_32	AO19 i differential 15 p
IO_L14N_VREF_32	AH19 i differential 15 n
IO_L15P_32	AM17 i differential 16 p
IO_L15N_32	AM16 i differential 16 n
IO_L16P_32	AD17 i differential 17 p
IO_L16N_32	AE17 i differential 17 n
IO_L17P_32	AK18 i differential 18 p
IO_L17N_32	AK17 i differential 18 n
IO_L18P_32	AE18 i differential 19 p
IO_L18N_32	AF18 i differential 19 n
IO_L19P_32	AL16 i differential 20 p
IO_L19N_32	AK16 i differential 20 n

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**BANK 33**

U9L

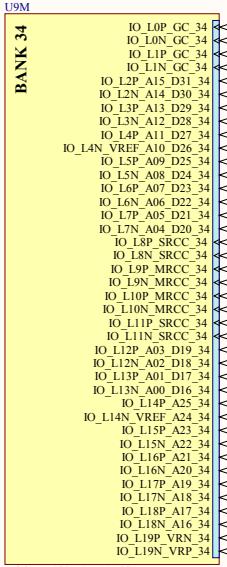
IO_L0P_33	AE13 k differential 1 p
IO_L0N_33	AE12 k differential 1 n
IO_L1P_33	AE11 k differential 2 p
IO_L1N_33	AK11 k differential 2 n
IO_L2P_33	AD14 k differential 3 p
IO_L2N_33	AC14 k differential 3 n
IO_L3P_33	AK12 k differential 4 p
IO_L3N_33	AJ12 k differential 4 n
IO_L4P_33	AF11 k differential 5 p
IO_L4N_33	AE11 k differential 5 n
IO_L5P_33	AM10 k differential 6 p
IO_L5N_33	AL10 k differential 6 n
IO_L6P_33	AG18 k differential 7 p
IO_L6N_33	AG10 k differential 7 n
IO_L7P_33	AM11 k differential 8 p
IO_L7N_33	AM10 k differential 8 n
IO_L8P_SRC3_33	AH10 k differential 9 p
IO_L8N_SRC3_33	AH10 k differential 9 n
IO_L9P_MRCC_33	AC13 k differential 10 p
IO_L9N_MRCC_33	AC12 k differential 10 n
IO_L10P_MRCC_33	AD12 k differential 11 p
IO_L10N_MRCC_33	AD11 k differential 11 n
IO_L11P_SRC3_33	AP11 k differential 12 p
IO_L11N_SRC3_33	AP12 k differential 12 n
IO_L12P_VRN_33	AF13 k differential 13 p
IO_L12N_VRP_33	AG13 k differential 13 n
IO_L13P_33	AM12 k differential 14 p
IO_L13N_33	AN12 k differential 14 n
IO_L14P_33	AE14 k differential 15 p
IO_L14N_VREF_33	AF14 k differential 15 n
IO_L15P_33	AN13 k differential 16 p
IO_L15N_33	AM13 k differential 16 n
IO_L16P_33	AG12 k differential 17 p
IO_L16N_33	AH12 k differential 17 n
IO_L17P_33	AK13 k differential 18 p
IO_L17N_33	AL13 k differential 18 n
IO_L18P_33	AH13 k differential 19 p
IO_L18N_33	AH14 k differential 19 n
IO_L19P_33	AP14 k differential 20 p
IO_L19N_33	AN14 k differential 20 n

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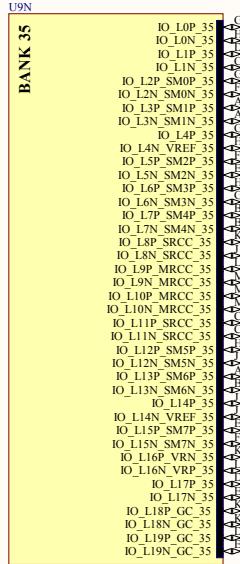
XC6VLX130T-1FF1156C



inven

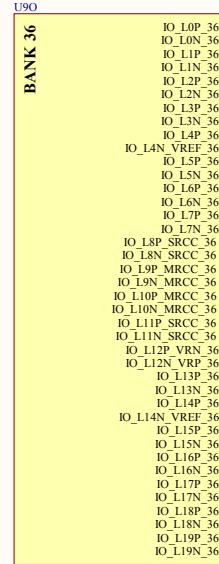
U9

XC6VLX130T-1FF1156



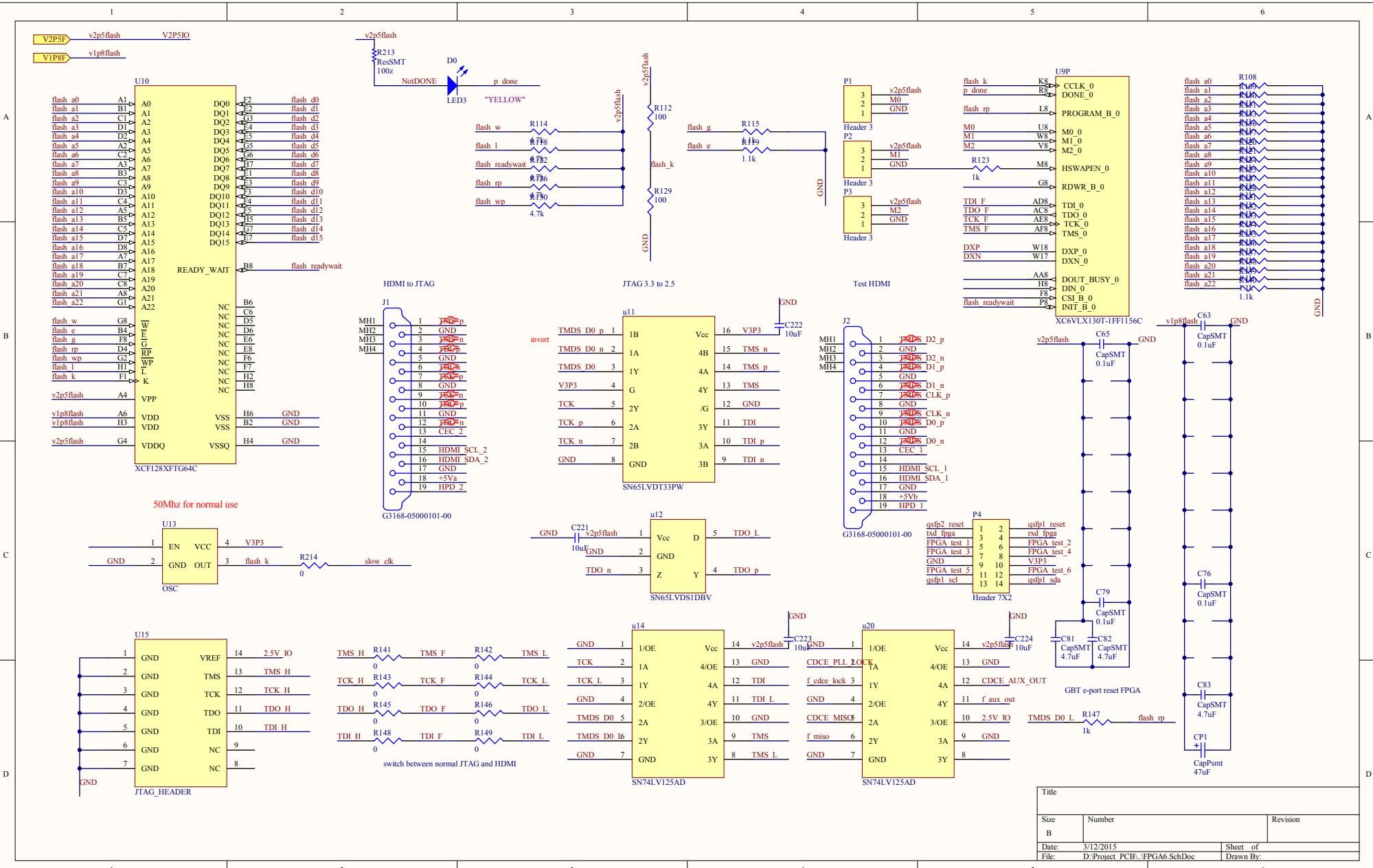
daco\_i  
GN

daco\_i  
GND



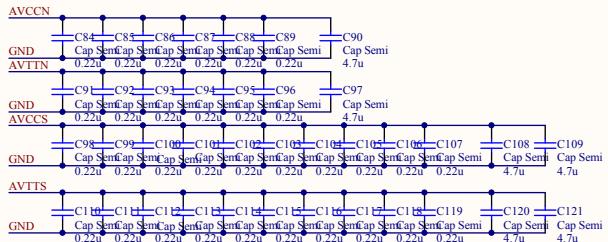
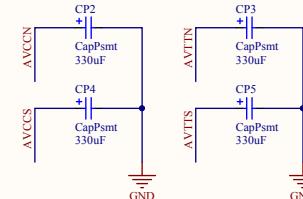
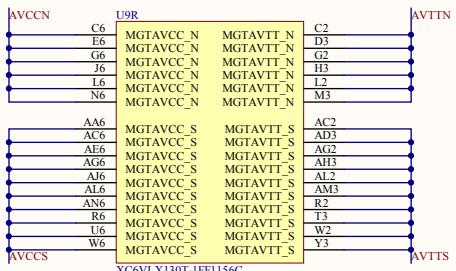
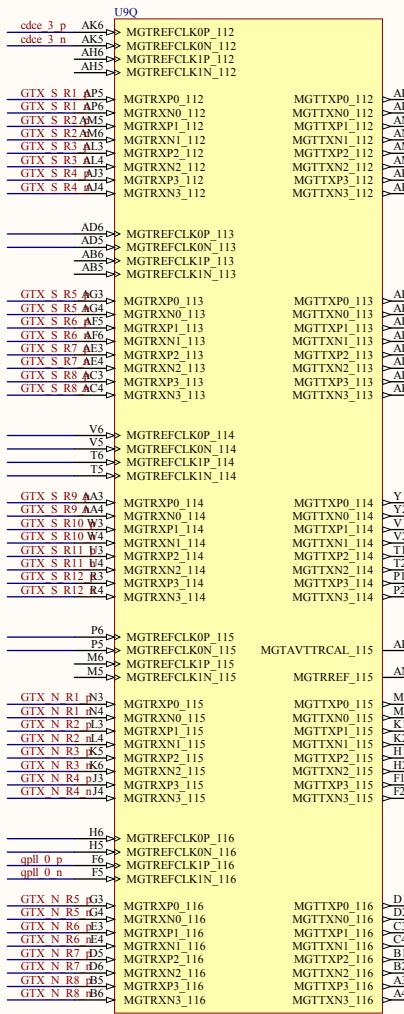
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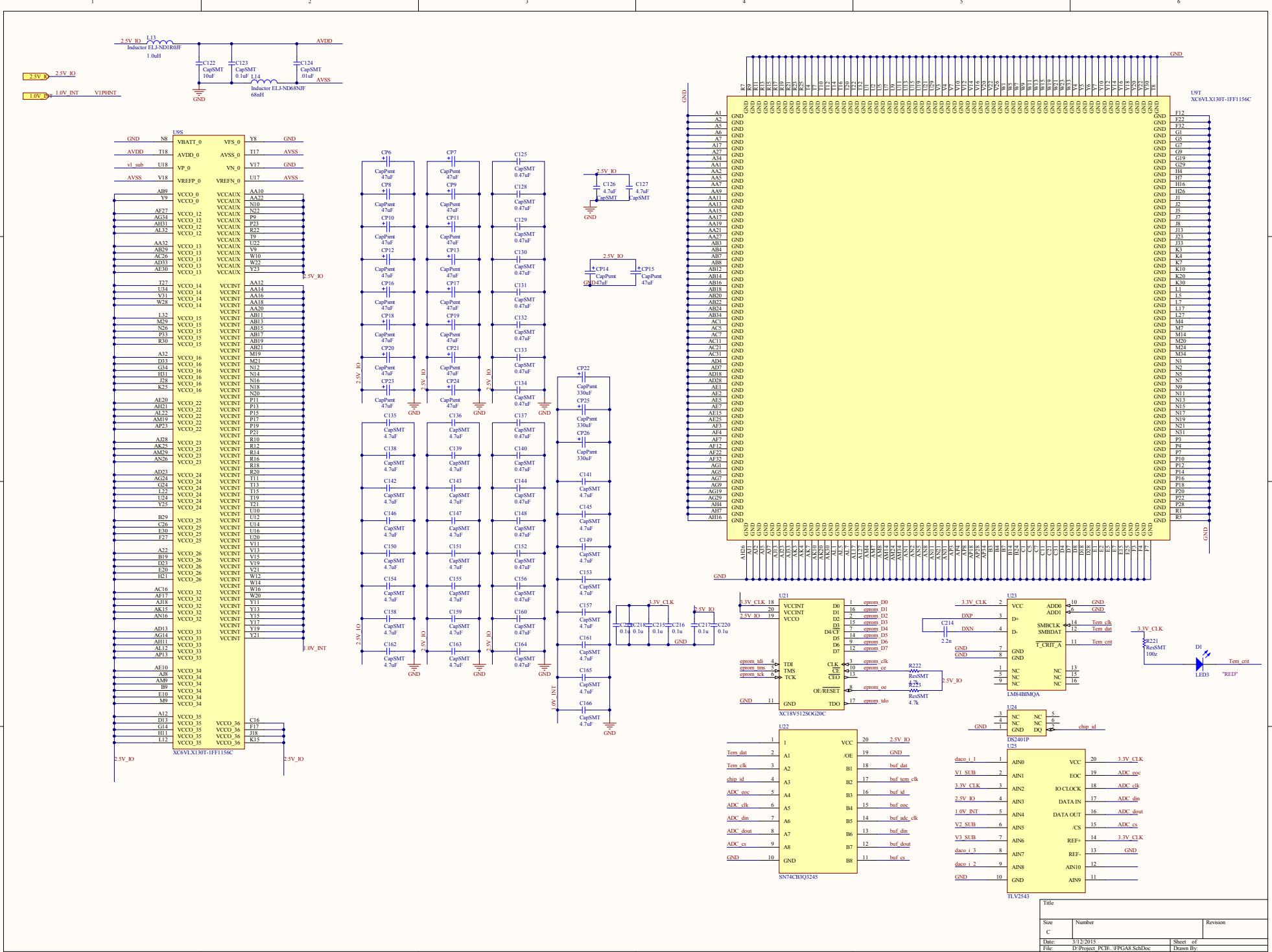


**VIP0** GTN AVCCN  
**VIP2M** GTN AVTTN  
**VIP0M** GTS AVCCS  
**VIP2M** GTS AVTTS

A

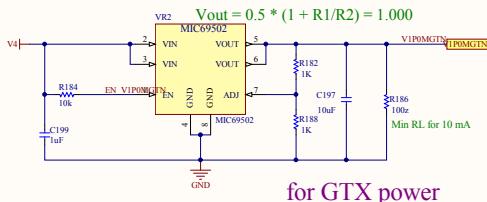
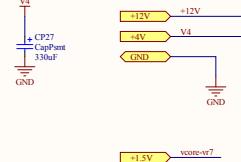


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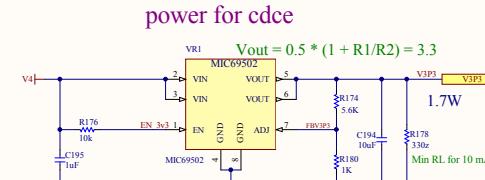


\*\* Each regulator needs 3cm x 3cm or larger bare copper cooling pad, on Top and Bottom, with 20 thermal vias.

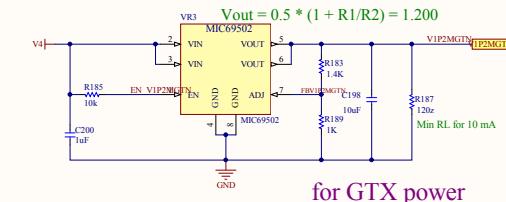
Best to place them near edges of



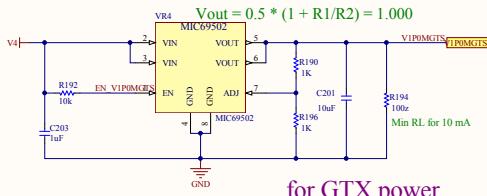
for GTX power



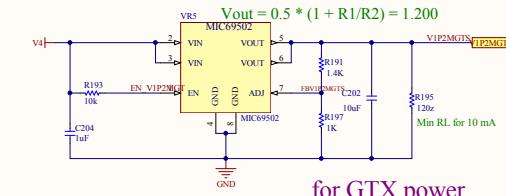
power for cdec



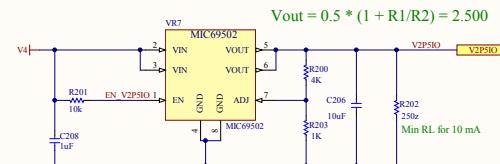
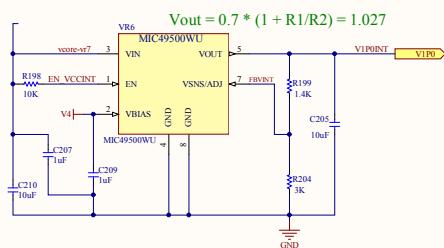
for GTX power



for GTX power

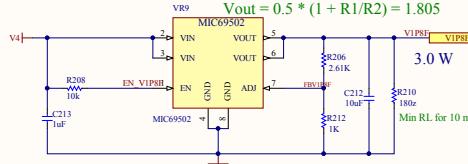


for GTX power



for FLASH and QPLL power

for VCCINT power



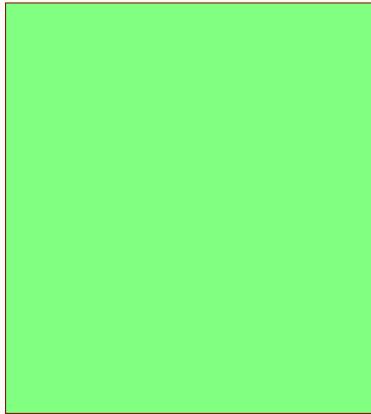
power for XCF128 Prom

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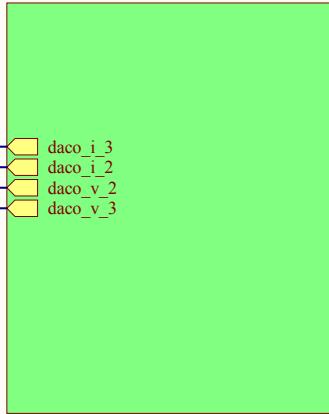
CON1  
CON1.SchDoc



B

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CON2  
CON2.SchDoc



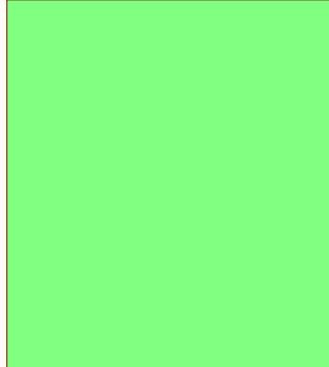
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CON3  
CON3.SchDoc



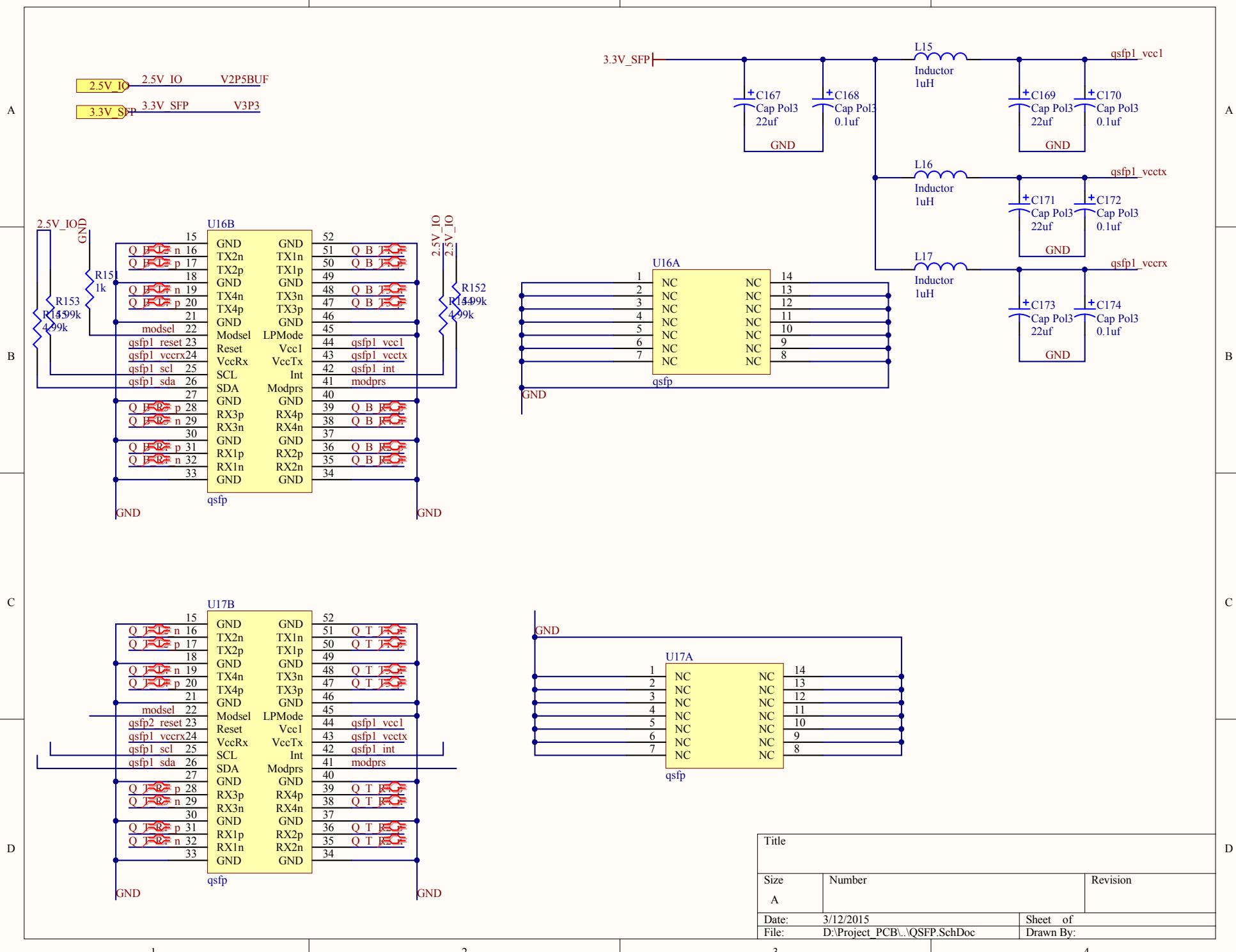
CON4  
CON4.SchDoc

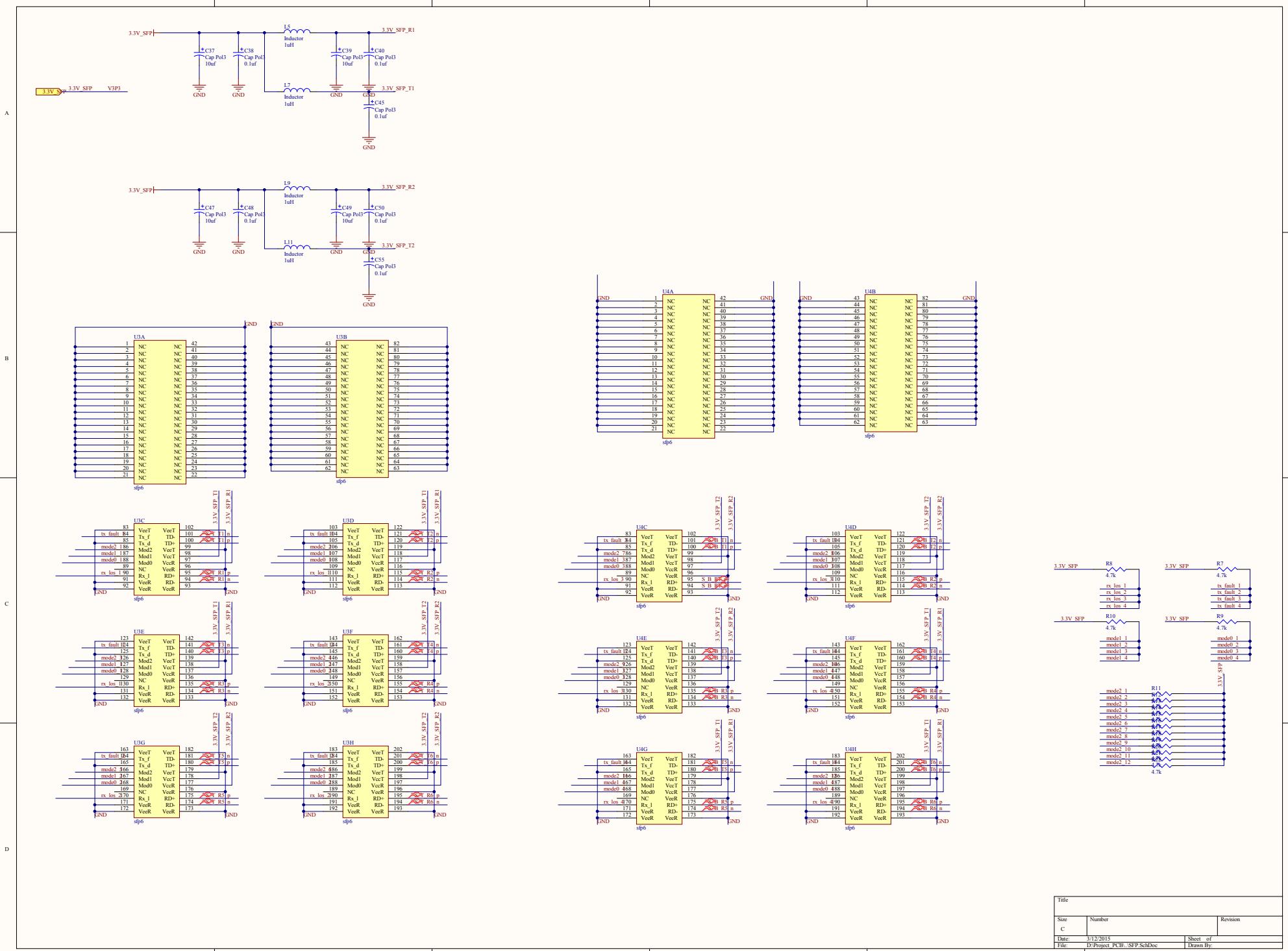


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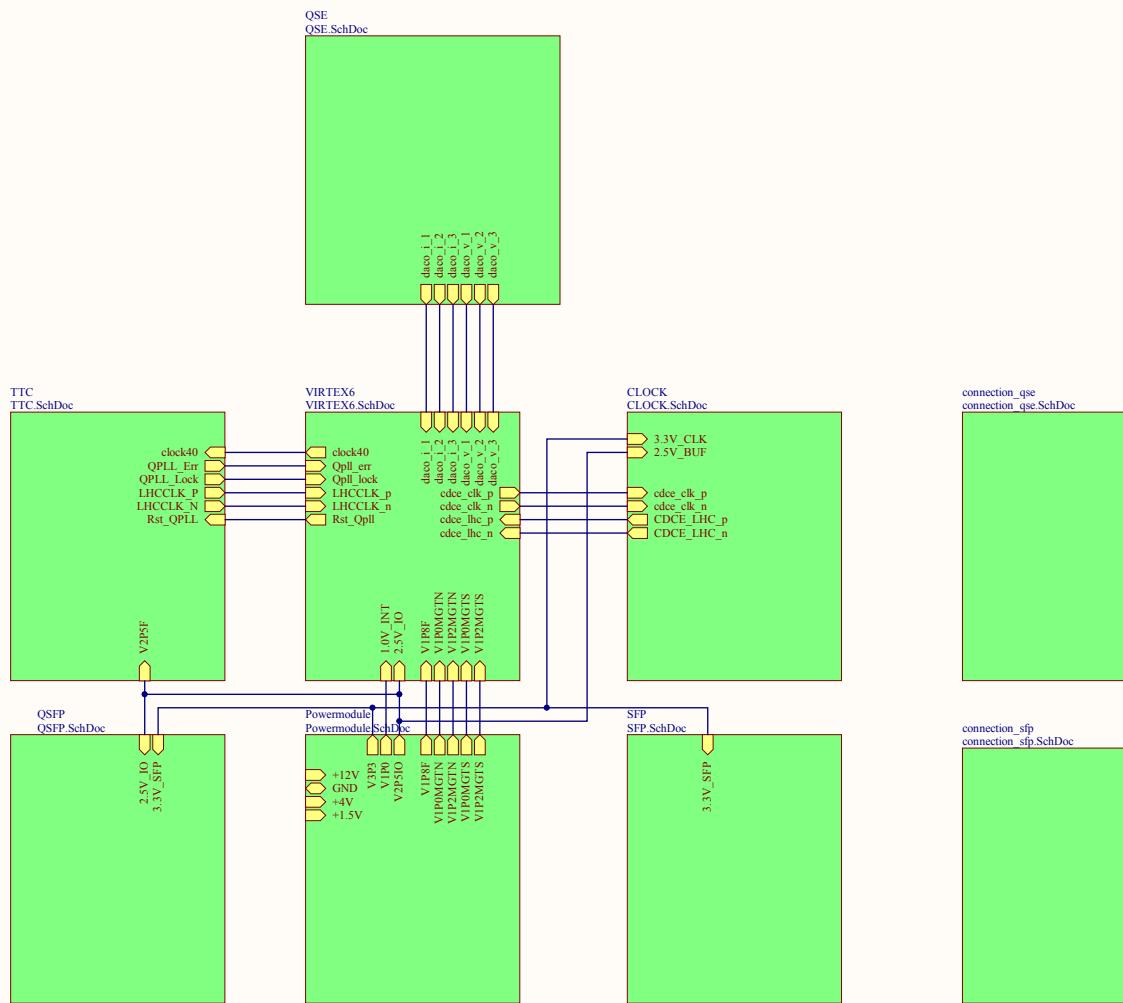
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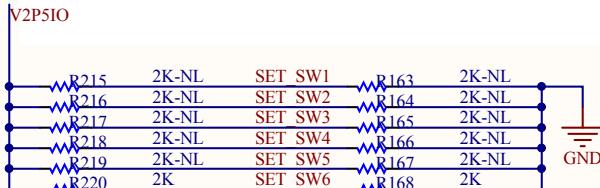


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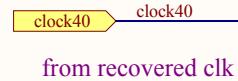
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# Note: "NL" means Do Not Load

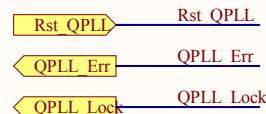
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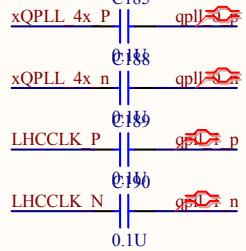
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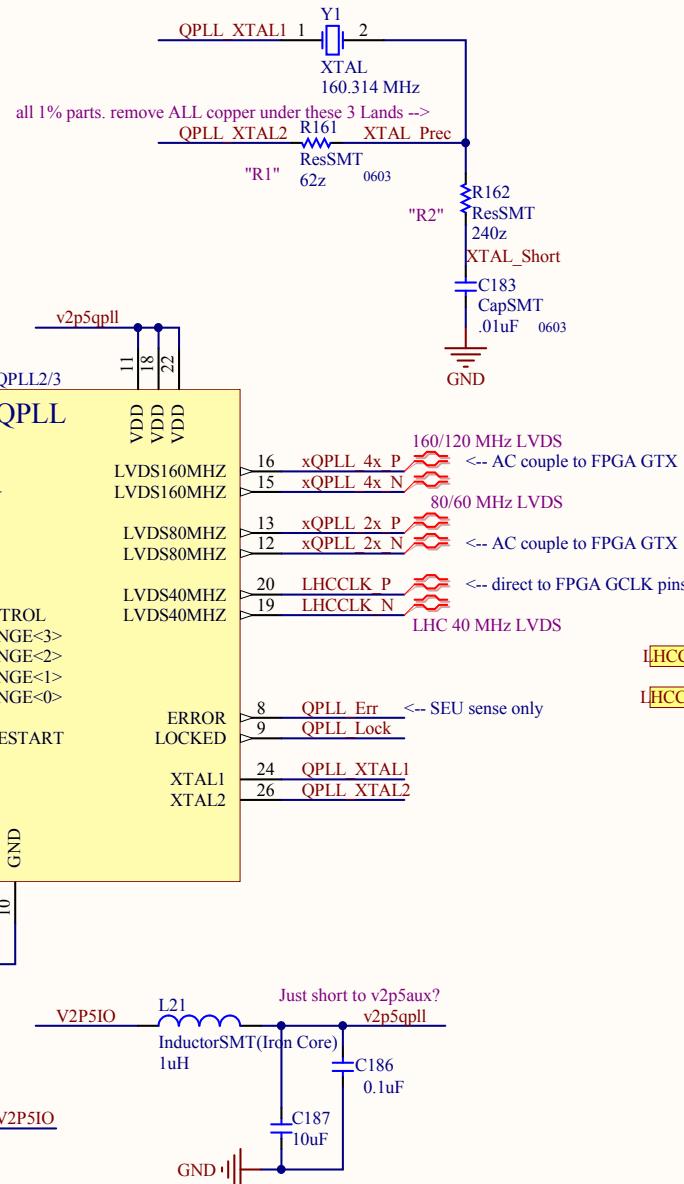
C



D



AC  
coupling to  
FPGA GTX  
clock inputs



Title

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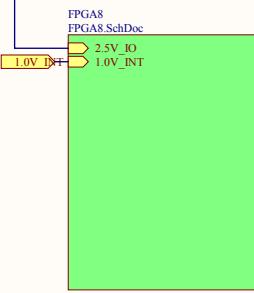
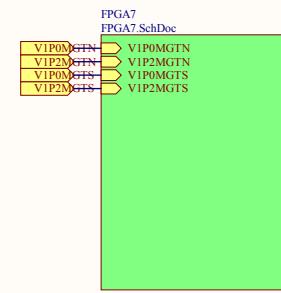
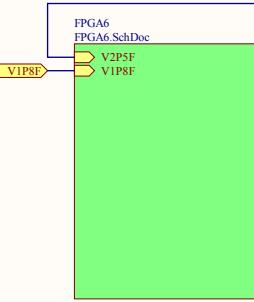
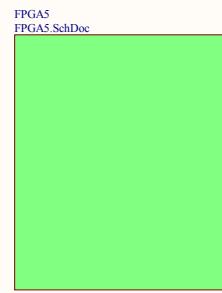
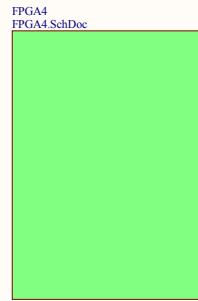
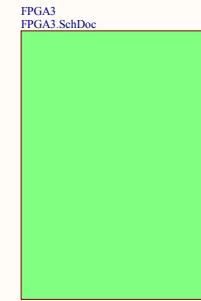
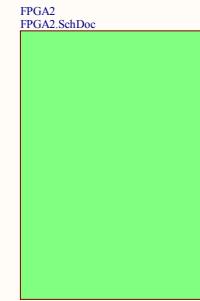
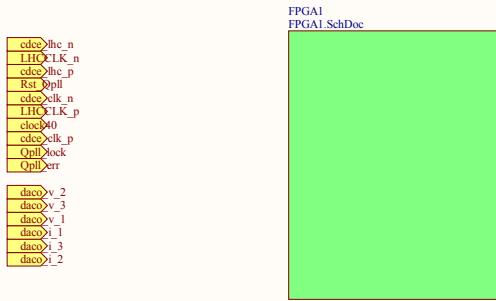
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