

1 2 3 4 5 6

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SOM based LX2160XE72232B CPU

Liron Avraham

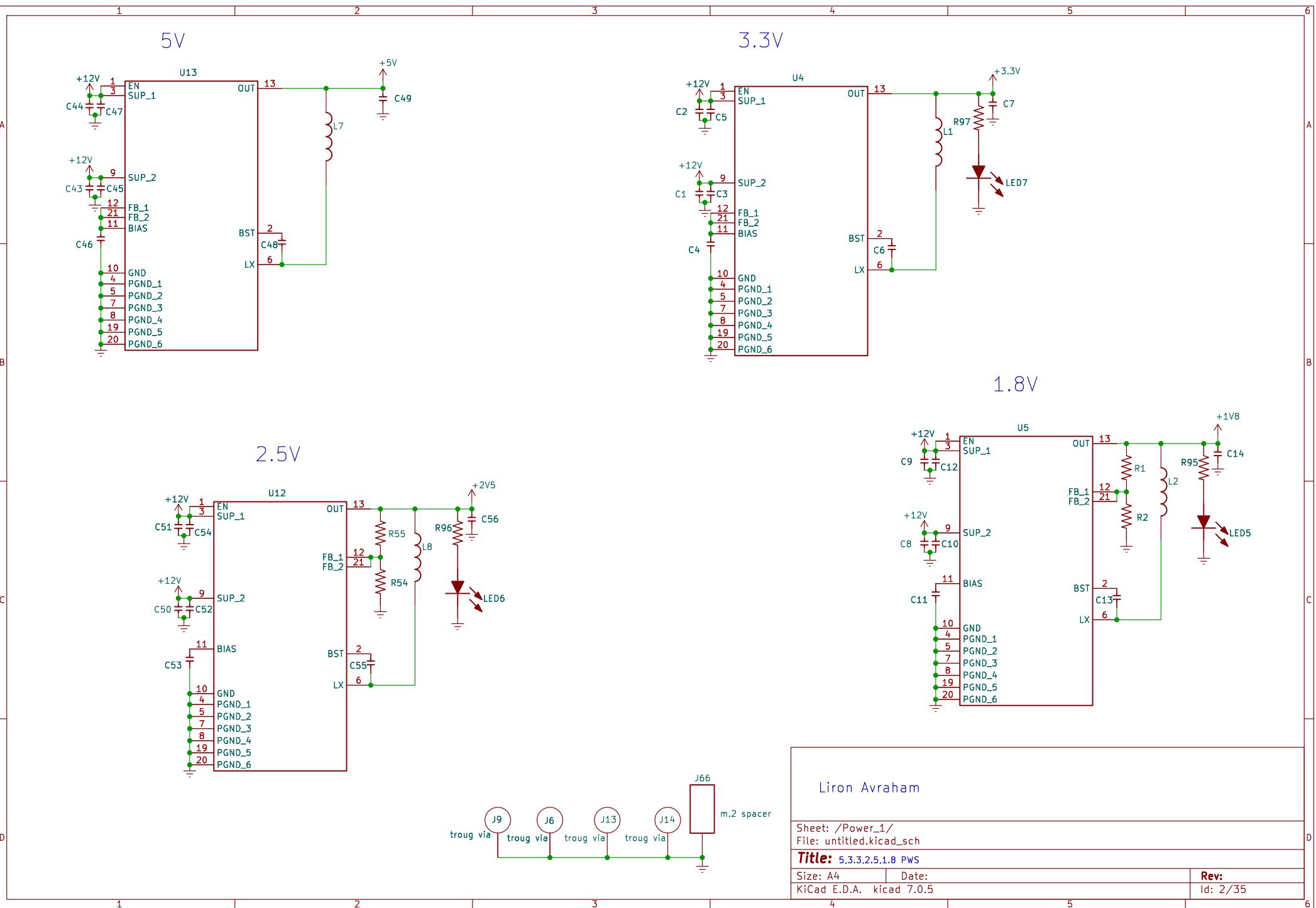
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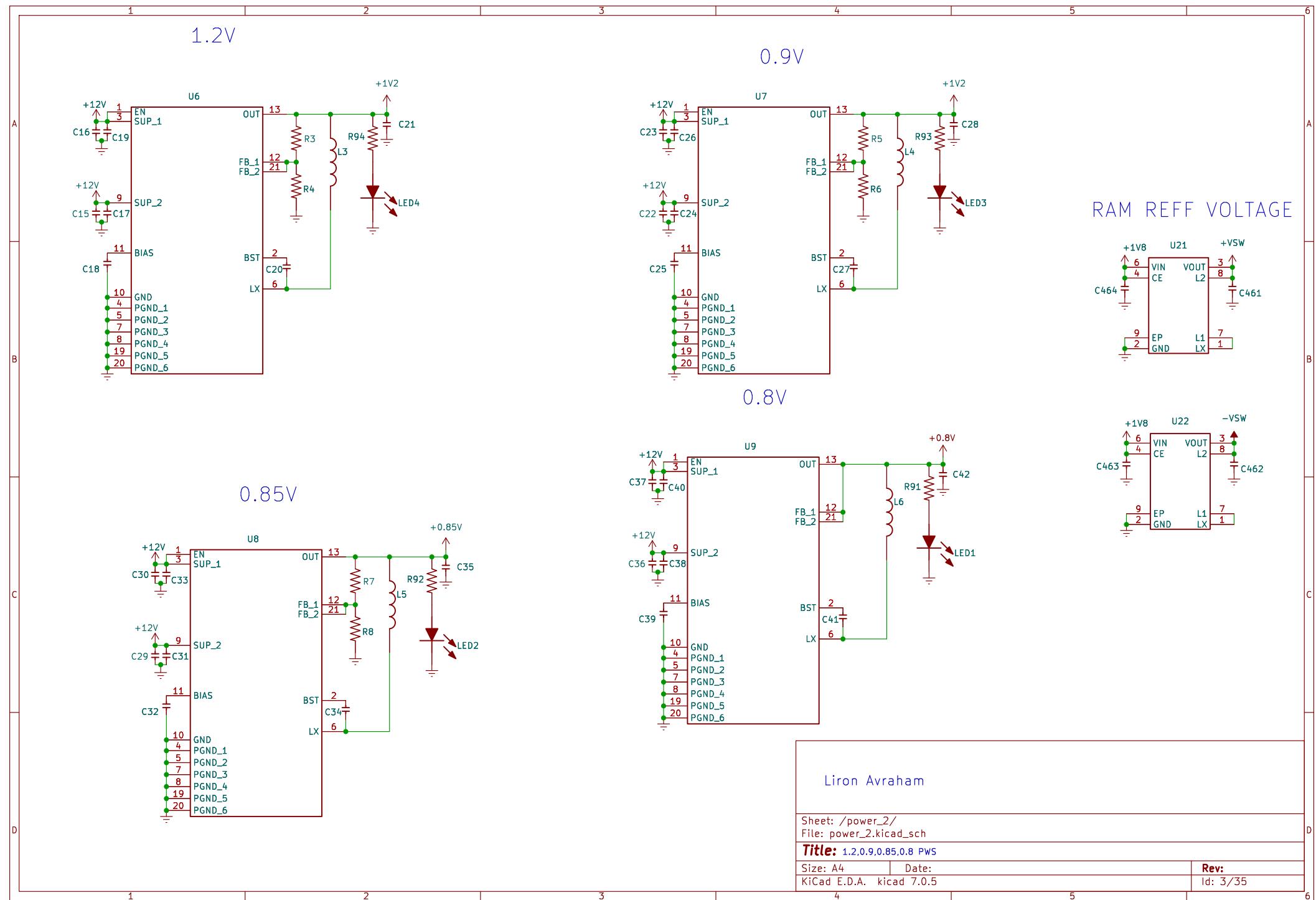
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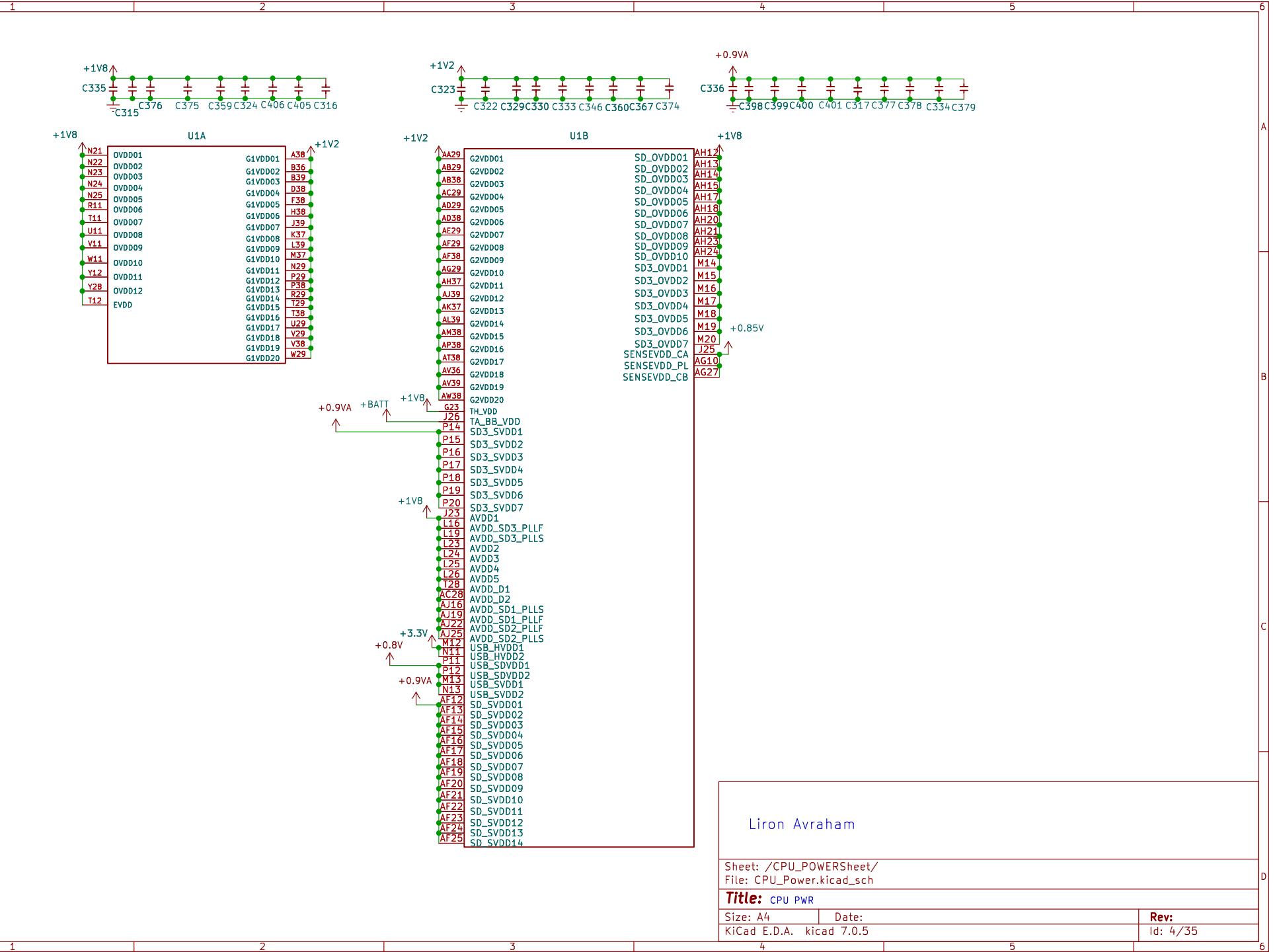
Size: A4 | Date:
KiCad E.D.A. kicad 7.0.5

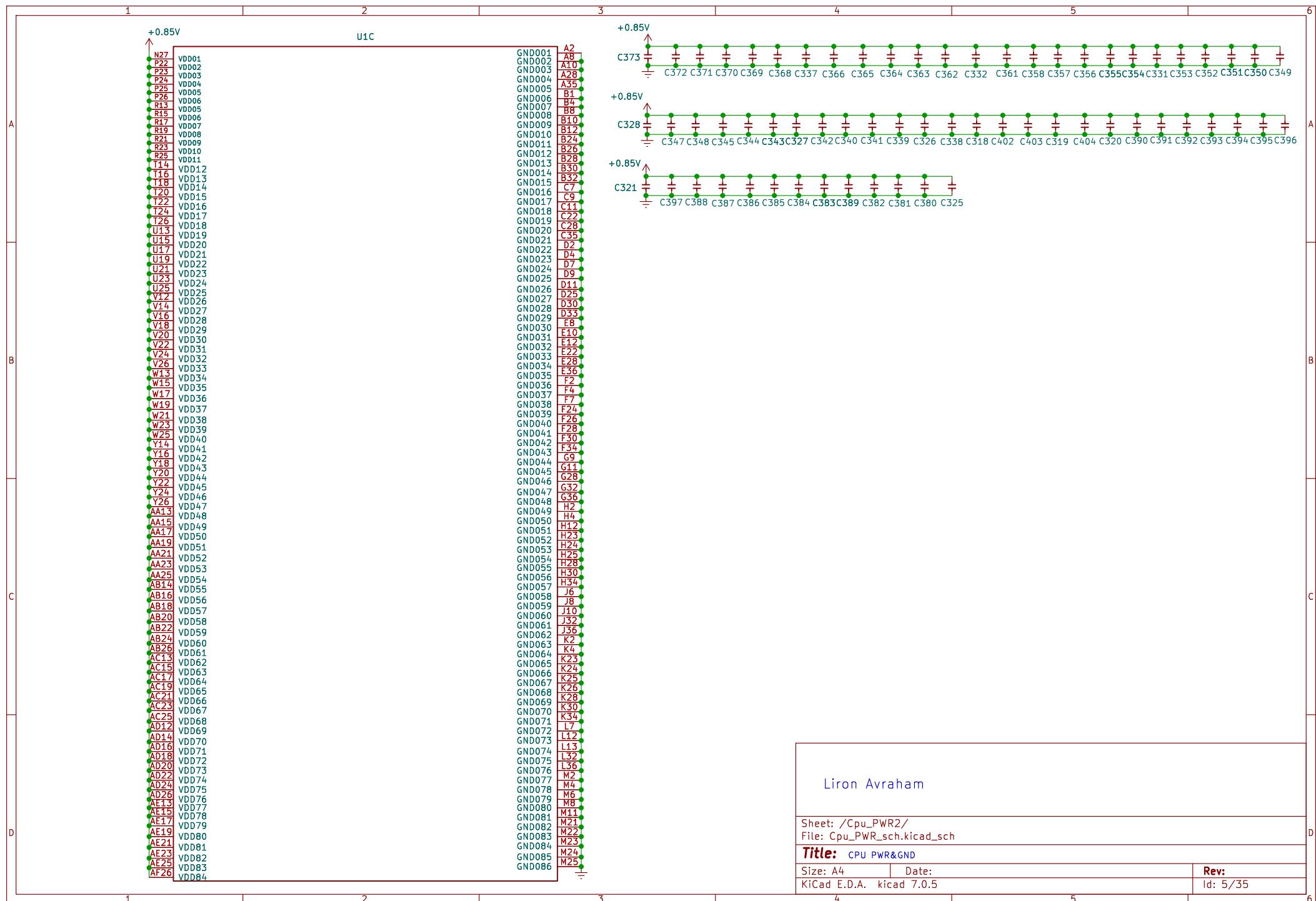
Rev:
Id: 1/35

1 2 3 4 5 6









U1D

M28	GND087	GND174	W22
M34	GND088	GND175	W24
N5	GND089	GND176	W26
N7	GND090	GND177	W28
N10	GND091	GND178	Y30
N12	GND092	GND179	Y6
N26	GND093	GND180	Y10
N28	GND094	GND181	Y15
N30	GND095	GND182	Y15
N32	GND096	GND183	Y17
N36	GND097	GND184	Y19
P2	GND098	GND185	Y21
P5	GND099	GND186	Y23
P6	GND100	GND187	Y25
P7	GND101	GND188	Y27
P8	GND102	GND189	Y30
P9	GND103	GND190	Y32
P10	GND104	GND191	Y35
P13	GND105	GND192	Y37
P21	GND106	GND193	AA4
P23	GND107	GND194	AA8
P25	GND108	GND195	AA10
P27	GND109	GND196	AA12
P30	GND110	GND197	AA14
P34	GND111	GND198	AA16
R4	GND112	GND199	AA18
R10	GND113	GND200	AA20
R12	GND114	GND201	AA22
R14	GND115	GND202	AA24
R16	GND116	GND203	AA26
R18	GND117	GND204	AA28
R22	GND119	GND205	AA30
R24	GND120	GND206	AB6
R26	GND121	GND207	AB10
R28	GND122	GND208	AB13
R30	GND123	GND209	AB15
R32	GND124	GND210	AB17
R36	GND125	GND211	AB19
T1	GND126	GND212	AB21
T3	GND127	GND213	AB23
T6	GND128	GND214	AB25
T10	GND129	GND215	AB27
T13	GND130	GND216	AB30
T15	GND131	GND217	AC4
T17	GND132	GND218	AC4
T19	GND133	GND219	AC8
T21	GND134	GND220	AC10
T23	GND135	GND221	AC14
T25	GND136	GND222	AC16
T27	GND137	GND223	AC18
T30	GND138	GND224	AC20
T34	GND139	GND225	AC22
U4	GND140	GND226	AC24
U8	GND141	GND227	AC26
U10	GND142	GND228	AC30
U12	GND143	GND229	AC32
U14	GND144	GND230	AC36
U16	GND145	GND231	AD6
U18	GND146	GND232	AD10
U20	GND147	GND233	AD13
U22	GND148	GND234	AD15
U24	GND149	GND235	AD17
U26	GND150	GND236	AD19
U30	GND151	GND237	AD21
U32	GND152	GND238	AD23
U36	GND153	GND239	AD25
V6	GND154	GND240	AD27
V10	GND155	GND241	AD30
V13	GND156	GND242	AD34
V15	GND157	GND243	AE4
V17	GND158	GND244	AE8
V19	GND159	GND245	AE10
V21	GND160	GND246	AE12
V23	GND161	GND247	AE14
V25	GND162	GND248	AE16
V27	GND163	GND249	AE18
V30	GND164	GND250	AE20
V34	GND165	GND251	AE22
W4	GND166	GND252	AE24
W8	GND167	GND253	AE26
W10	GND168	GND254	AE28
W14	GND169	GND255	AE30
W16	GND170	GND256	AE32
W18	GND171	GND257	AE36
W20	GND172	GND258	AF6
	GND173	GND259	AF10

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Sheet: /CPU_PWR3/
 File: CPU_PWR3.kicad_sch

Title: CPU GND

Size: A4 Date:
 KiCad E.D.A. kicad 7.0.5

Rev:
 Id: 6/35

A

AF27	GND260	SD_GND30	AK19
AF30	GND261	SD_GND31	AK20
AF34	GND262	SD_GND32	AK21
AG4	GND263	SD_GND33	AK22
AG9	GND264	SD_GND34	AK23
AG11	GND265	SD_GND35	AK24
AG30	GND266	SD_GND36	AK25
AG32	GND267	SD_GND37	AK26
AG36	GND268	SD_GND38	AK27
AH7	GND269	SD_GND39	A19
AH11	GND270	SD_GND40	A11
AH28	GND271	SD_GND41	A13
AH34	GND272	SD_GND42	A15
AJ5	GND273	SD_GND43	A17
AJ10	GND274	SD_GND44	A19
AJ32	GND275	SD_GND45	AL21
AJ36	GND276	SD_GND46	AL23
AK4	GND277	SD_GND47	AL25
AK7	GND278	SD_GND48	AL27
AK9	GND279	SD_GND49	AM9
AK28	GND280	SD_GND50	AM11
AK30	GND281	SD_GND51	AM13
AK34	GND282	SD_GND52	AM15
AL5	GND283	SD_GND53	AM17
AL32	GND284	SD_GND54	AM18
AL36	GND285	SD_GND55	AM19
AM3	GND286	SD_GND56	AM21
AM8	GND287	SD_GND57	AM23
AM28	GND288	SD_GND58	AM25
AM30	GND289	SD_GND59	AN8
AM34	GND290	SD_GND60	AN10
AN6	GND291	SD_GND61	AN12
AN32	GND292	SD_GND62	AN14
AN36	GND293	SD_GND63	AN15
AP3	GND294	SD_GND64	AN14
AP5	GND295	SD_GND65	AN16
AP30	GND296	SD_GND66	AN18
AP34	GND297	SD_GND67	AN20
AR8	GND298	SD_GND68	AN22
AR28	GND299	SD_GND69	AN23
AR36	GND300	SD_GND70	AN24
AT4	GND301	SD_GND71	AN29
AT6	GND302	SD_GND72	AN29
AT30	GND303	SD_GND73	AP8
AT33	GND304	SD_GND74	AP10
AU3	GND305	SD_GND75	AP12
AU8	GND306	SD_GND76	AP14
AU28	GND307	SD_GND77	AP16
AU35	GND308	SD_GND78	AP18
AV4	GND309	SD_GND79	AP20
AV6	GND310	SD_GND80	AP22
AV30	GND311	SD_GND81	AP26
AV32	GND312	SD_GND82	AP28
AW2	GND313	SD_GND83	AR9
AW35	GND314	SD_GND84	AR10
J24	SENSEGND_CA	SD_GND85	AR11
AG26	SENSEGND_CB	SD_GND86	AR12
AJ11	SENSEGND_PL	SD_GND87	AR14
AG12	SD_GND01	SD_GND88	AR15
AG13	SD_GND02	SD_GND89	AR16
AG14	SD_GND03	SD_GND90	AR19
AG15	SD_GND04	SD_GND91	AR17
AG16	SD_GND05	SD_GND92	AR18
AG17	SD_GND06	SD_GND93	AR19
AG18	SD_GND07	SD_GND94	AR20
AG19	SD_GND08	SD_GND95	AR21
AG20	SD_GND09	SD_GND96	AR22
AG21	SD_GND10	SD_GND97	AR24
AG22	SD_GND11	SD_GND98	AR25
AG23	SD_GND12	SD_GND99	AR26
AG24	SD_GND13	SD_GND100	AR27
AG25	SD_GND14	SD_GND101	A19
AH16	SD_GND15	SD_GND102	A11
AH19	SD_GND16	SD_GND103	A13
AH22	SD_GND17	SD_GND104	A15
AH25	SD_GND18	SD_GND105	A17
AH27	SD_GND19	SD_GND106	A19
AJ12	SD_GND19	SD_GND107	A23
AK10	SD_GND20	SD_GND108	A23
K11	SD_GND21	SD_GND109	A25
K12	SD_GND22	SD_GND110	A27
AK13	SD_GND23	SD_GND111	AU9
AK14	SD_GND24	SD_GND112	AU11
AK15	SD_GND25	SD_GND113	AU13
AK16	SD_GND26	SD_GND114	AU15
AK17	SD_GND27	SD_GND115	AU17
AK18	SD_GND28		
	SD_GND29		

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Sheet: /CPU_PWR4/
 File: CPU_PWR4.kicad_sch

Title: CPU GND

Size: A4 Date:
 KiCad E.D.A. kicad 7.0.5

Rev:
 Id: 7/35

U1F

AU19	SD_GND116	K19
AU23	SD_GND117	K20
AU25	SD_GND118	K21
AU27	SD_GND119	L14
AV8	SD_GND120	L21
AV10	SD_GND121	N14
AV12	SD_GND122	N15
AV14	SD_GND123	N16
AV16	SD_GND124	N17
AV18	SD_GND125	N18
AV20	SD_GND126	N19
AV22	SD_GND127	N20
AV24	SD_GND128	K11
AV26	SD_GND129	K22
AV28	SD_GND130	L8
AW8	SD_GND131	N19
AW10	SD_GND132	M5
AW12	SD_GND133	P28
AW14	SD_GND134	R5
AW16	SD_GND135	R6
AW18	SD_GND136	R7
AW20	SD_GND137	R8
AW22	SD_GND138	R9
AW24	SD_GND139	R27
AW26	SD_GND140	T2
AW28	SD_GND141	T4
A12	SD3_GND01	T5
A14	SD3_GND02	T7
A16	SD3_GND03	T8
A18	SD3_GND04	T9
A20	SD3_GND05	U1
A22	SD3_GND06	U2
B14	SD3_GND07	U3
B16	SD3_GND08	U5
B18	SD3_GND09	U6
B20	SD3_GND10	U7
B22	SD3_GND11	U9
C13	SD3_GND12	U27
C15	SD3_GND13	V1
C17	SD3_GND14	V2
C19	SD3_GND15	V3
C21	SD3_GND16	V4
D13	SD3_GND17	V5
D15	SD3_GND18	V7
D17	SD3_GND19	V8
D19	SD3_GND20	V9
D21	SD3_GND21	V28
E13	SD3_GND22	W1
E14	SD3_GND23	W2
E15	SD3_GND24	W3
E16	SD3_GND25	W5
E18	SD3_GND26	W6
E19	SD3_GND27	W7
E20	SD3_GND28	W9
E21	SD3_GND29	W27
F12	SD3_GND30	Y1
F14	SD3_GND31	Y2
F16	SD3_GND32	Y3
F18	SD3_GND33	Y4
F20	SD3_GND34	Y5
F22	SD3_GND35	Y7
G12	SD3_GND36	Y8
G14	SD3_GND37	Y9
G16	SD3_GND38	Y11
G17	SD3_GND39	AA1
G18	SD3_GND40	AA2
G20	SD3_GND41	AA3
G22	SD3_GND42	AA5
H13	SD3_GND43	AA6
H15	SD3_GND44	AA7
H17	SD3_GND45	AA9
H19	SD3_GND46	AA9
H21	SD3_GND47	AA11
H22	SD3_GND48	AA27
J13	SD3_GND49	AB1
J15	SD3_GND49	AB2
J17	SD3_GND50	AB3
J19	SD3_GND51	AB4
J21	SD3_GND52	AB5
K13	SD3_GND53	AB7
K14	SD3_GND54	AB8
K15	SD3_GND55	AB9
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K17	SD3_GND57	AB12
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	SD3_GND59	

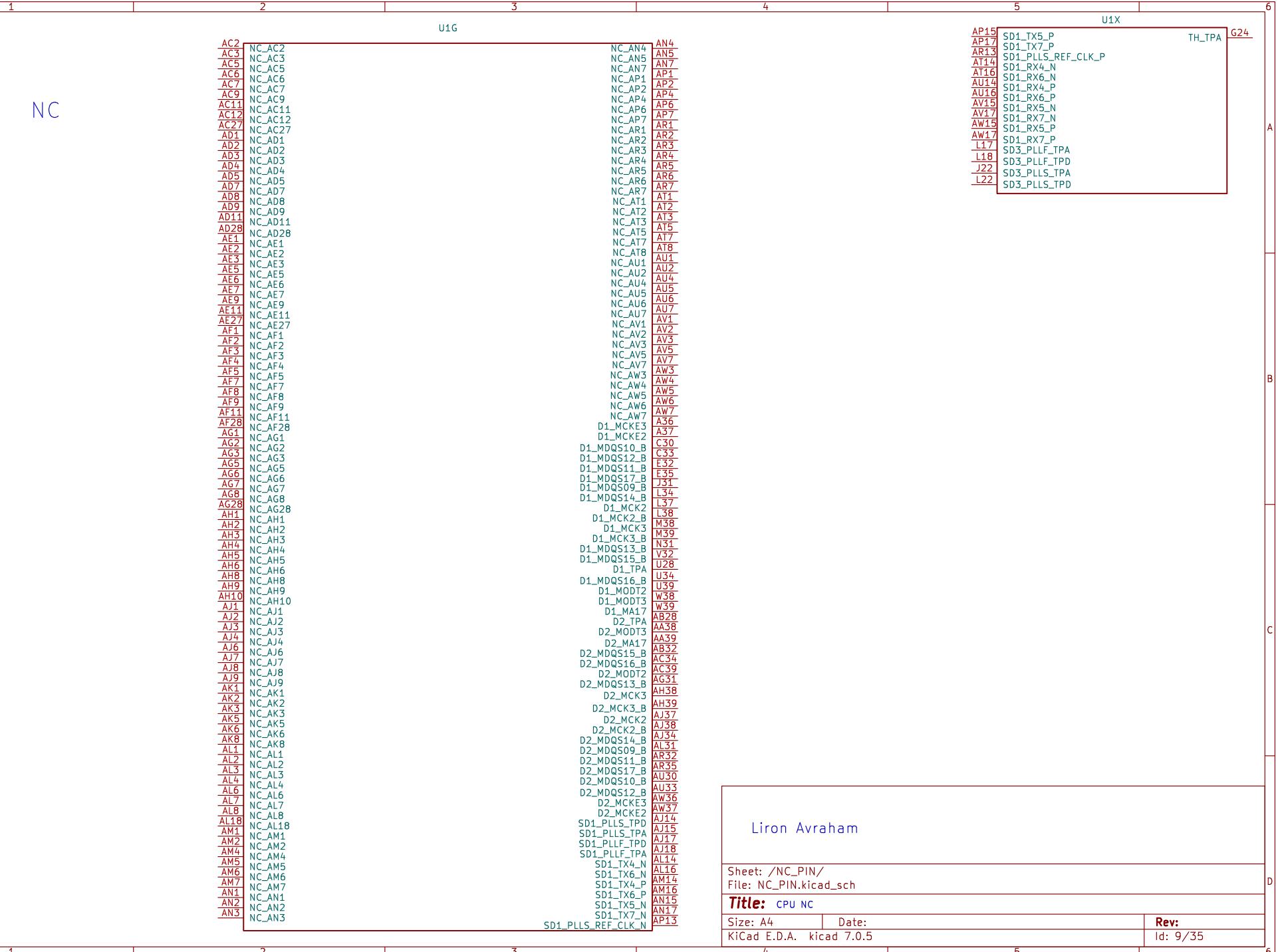
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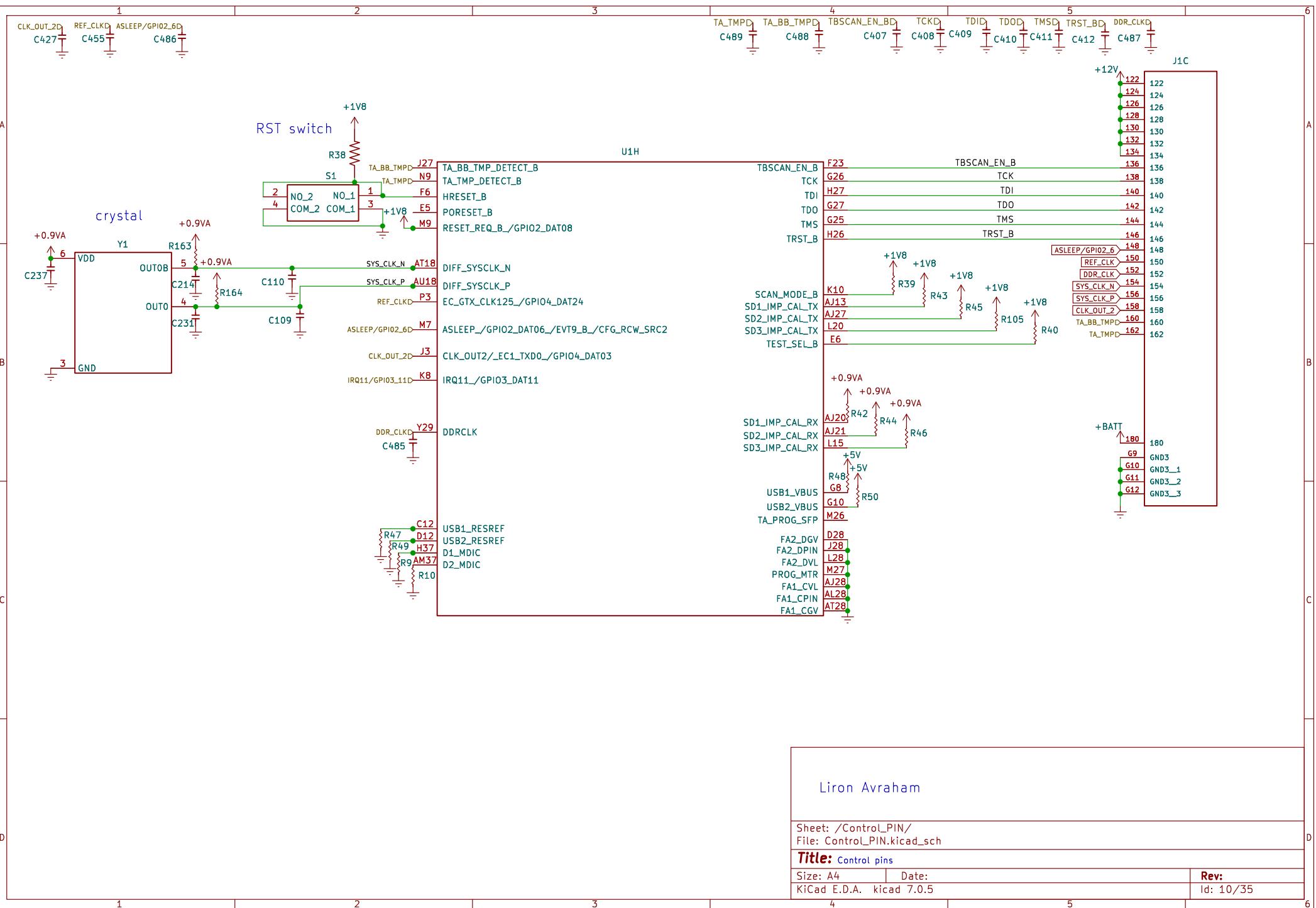
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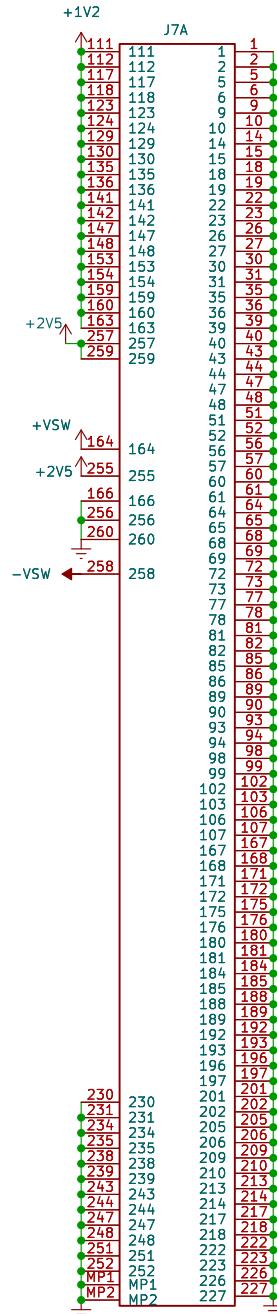
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Size: A4 Date:
KiCad E.D.A. kicad 7.0.5

Rev:
Id: 8/35







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Sheet: /Low_Ram_Con_PWR/
File: Low_Ram_Con_PWR_sch.kicad_sch

Title: Low Ram connector PWR pins

Size: A4 Date:

KiCad E.D.A. kicad 7.0.5

Rev:
Id: 11/35

J7B

3	H29
4	D1_MDQ05
7	J29
8	D1_MDQ04
11	L29
12	D1_MDQ01
13	K29
16	D1_MDQ00
17	K32
20	D1_MDQS00
21	J30
24	D1_MDBI00_B/D1_MDBI00_B/D1_MDQS09
25	K31
28	D1_MDQS00_B
29	L30
32	D1_MDQ06
33	L31
34	D1_MDQ07
37	M29
38	D1_MDQ02
41	21
42	M30
45	D1_MDQ03
46	D29
49	D1_MDQ12
50	A29
53	D1_MDQ13
54	B29
55	D1_MDQ08
58	A30
59	D1_MDQ09
62	E30
63	D1_MDQS01
66	C29
67	D1_MDBI01_B/D1_MDBI01_B/D1_MDQS10
70	E29
71	D1_MDQS01_B
74	D31
75	D1_MDQ14
76	F29
79	D1_MDQ15
80	G29
83	D1_MDQ10
84	G30
87	D1_MDQ11
88	E31
91	D1_MDQ21
92	F31
95	D1_MDQ20
96	H31
97	D1_MDQ17
100	G31
101	D1_MDQ16
104	F32
105	D1_MDQ02
108	D32
109	D1_MDM02_B/D1_MDBI02_B/D1_MDQS11
110	F32
113	D1_MDQ02_B
114	G33
115	D1_MDQ22
116	H32
119	D1_MDQ23
120	H33
121	D1_MDQ18
122	J33
125	D1_MDQ19
126	A31
127	D1_MDQ28
128	B31
131	D1_MDQ29
132	C31
133	D1_MDQ24
134	A32
135	D1_MDQ25
136	B33
137	D1_MDQS03
138	C32
139	D1_MDM03_B/D1_MDBI03_B/D1_MDQS12
140	A33
143	D1_MDQS03_B
144	B34
145	D1_MDQ30
146	A34
147	D1_MDQ31
148	B34
149	D1_MDQ26
152	B35
153	D1_MDQ27
156	D34
157	D1_MECC5
158	E33
161	D1_MECC4
162	D36
165	D1_MECC1
166	D35
169	D1_MECC0
170	P33
173	D1_MDQS04
174	M31
175	D1_MDM04_B/D1_MDBI04_B/D1_MDQS13
176	N33
177	D1_MDQS04_B
180	G34
181	D1_MECC6
184	H35
185	D1_MECC2
188	G35
189	D1_MECC7
192	H36
193	D1_MECC3
196	Y38
197	D1_MRRESET_B
198	B37
201	D1_MCKE0
204	C36
205	D1_MCKE1
208	C38
211	D1_MBG1
214	B38
215	D1_MACT_B
218	C37
219	D1_MBGO
222	C39
223	D1_MALERT_B
226	D37
229	D1_MA12
230	E37
233	D1_MA11
236	D39
239	D1_MA09
242	E38
245	D1_MA07
248	E39
251	D1_MA08
254	F39
257	D1_MA05
258	F37
261	D1_MA06
264	G37
267	D1_MA04
270	G38
273	D1_MA03
276	H39
279	D1_MA02
282	G39
285	D1_MA01
288	J37
291	D1_MCK0
294	K38
297	D1_MCK1
300	J38
303	D1_MCK0_B
306	K39
309	D1_MCK1_B
312	N39
315	D1_MPAB
318	N38
321	D1_MA00
324	N37
327	D1_MBA1
330	P39
333	D1_MA10

U11

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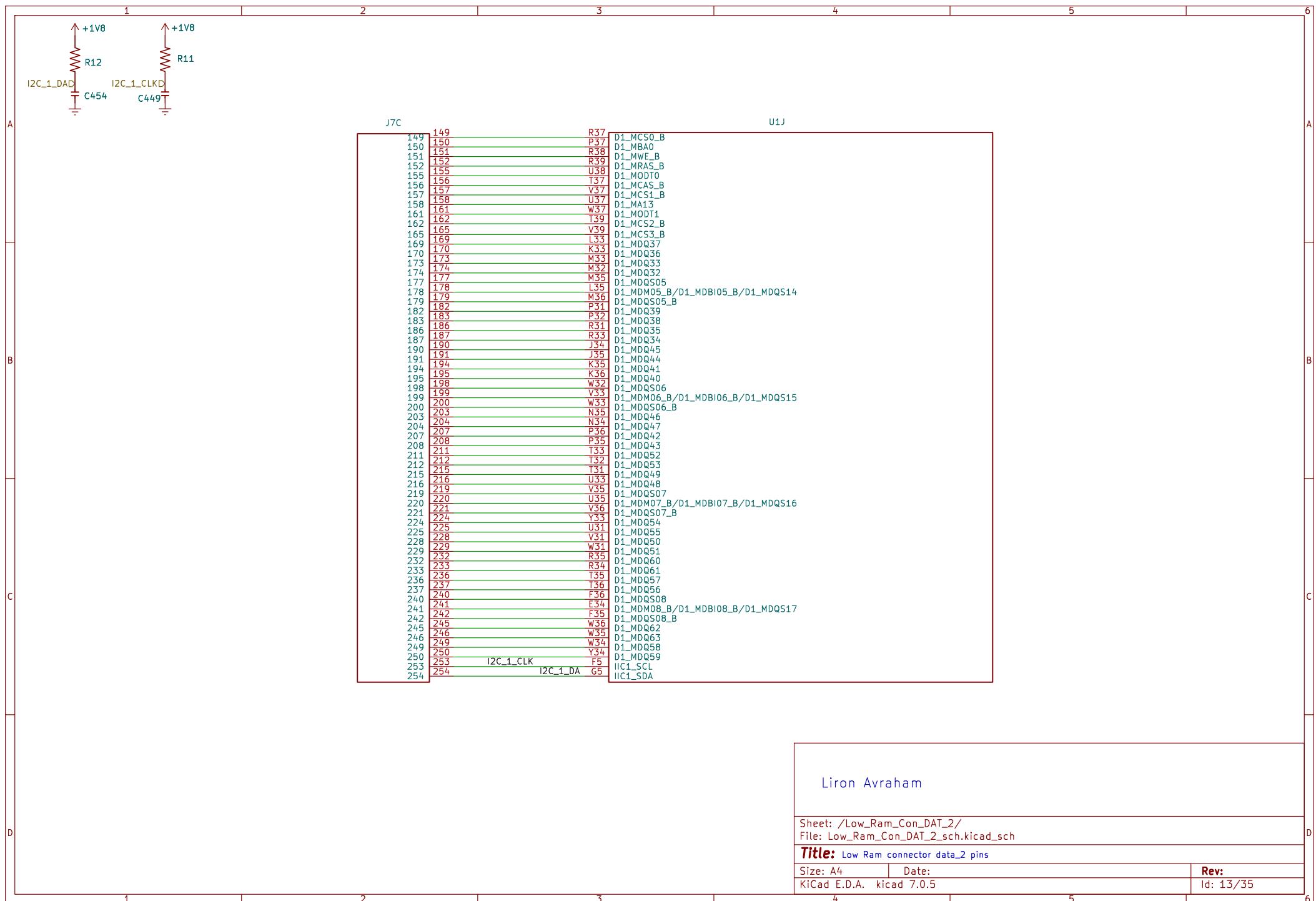
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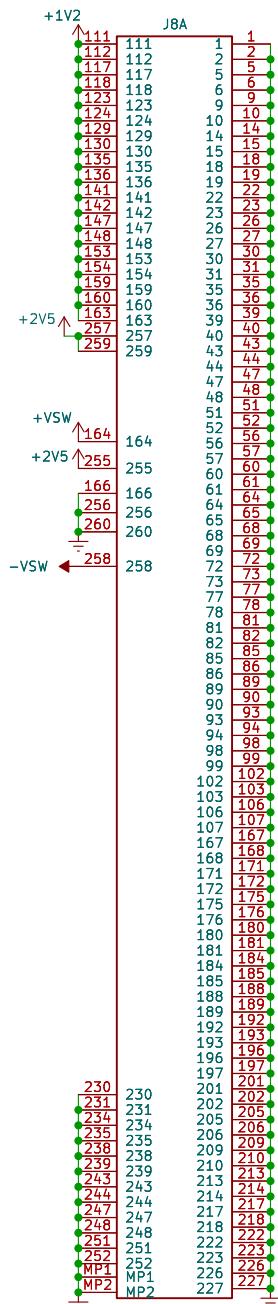
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Size: A4 Date:

KiCad E.D.A. kicad 7.0.5

Rev:
 Id: 12/35





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Sheet: /High_Ram_Con_PWR/
File: High_Ram_Con_PWR_sch.kicad_sch

Title: High Ram connector PWR pins

Size: A4 Date:

KiCad E.D.A. kicad 7.0.5

Rev:
Id: 14/35

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J8B		U1K	
3	3	AM29	D2_MDQ05
4	4		AL29
7	7		D2_MDQ04
8	8		AJ29
11	11		AK29
12	12		D2_MDQ01
13	13		AL30
16	16		D2_MDQ00
17	17		AK32
20	20		D2_MDQ500
21	21		AK31
24	24		D2_MDQ500_B
25	25		AJ30
28	28		D2_MDQ06
29	29		AH29
32	32		D2_MDQ07
33	33		AH30
34	34		D2_MDQ02
37	37		AJ29
38	38		D2_MDQ03
41	41		AT29
42	42		D2_MDQ12
45	45		AW29
46	46		D2_MDQ08
49	49		AW30
50	50		D2_MDQ09
53	53		AR30
54	54		D2_MDQ501
55	55		AU29
58	58		D2_MDM01_B
59	59		AR29
62	62		D2_MDBI01_B
63	63		D2_MDQ501_B
66	66		AP29
67	67		D2_MDQ15
70	70		AT31
71	71		D2_MDQ14
74	74		AN29
75	75		D2_MDQ10
76	76		AN30
79	79		D2_MDQ11
80	80		AR31
83	83		D2_MDQ21
84	84		AP31
87	87		D2_MDQ20
88	88		AM31
91	91		D2_MDQ17
92	92		AN31
95	95		D2_MDQ16
96	96		AP33
97	97		D2_MDQ302
100	100		AT32
101	101		D2_MDM02_B
104	104		D2_MDBI02_B
105	105		D2_MDQS11
108	108		AP32
109	109		D2_MDQ502_B
110	110		AN33
113	113		D2_MDQ22
114	114		AM32
115	115		D2_MDQ23
116	116		AM33
119	119		D2_MDQ18
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121	121		D2_MDQ19
122	122		AV31
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126	126		AU31
127	127		D2_MDQ29
128	128		AU32
131	131		D2_MDQ24
132	132		AV32
133	133		D2_MDQ25
134	134		AU33
137	137		D2_MDQ503
138	138		AU34
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148	148		D2_MDQ31
149	149		AU34
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161	161		AR33
164	164		D2_MECC4
165	165		AT36
168	168		D2_MECC1
169	169		AT35
172	172		D2_MECC0
175	175		AF33
176	176		D2_MDQ504
177	177		AH31
178	178		D2_MDM04_B
179	179		D2_MDBI04_B
180	180		D2_MDQS13
183	183		AG33
184	184		D2_MDQ504_B
187	187		AN34
188	188		D2_MECC6
191	191		AM35
192	192		D2_MECC2
195	195		AM35
196	196		D2_MECC7
197	197		AM36
200	200		D2_MECC3
203	203		Y39
204	204		D2_MRRESET_B
207	207		AV37
208	208		D2_MCKE0
210	210		AU36
213	213		D2_MKE1
214	214		AU38
215	215		D2_MBGB1
216	216		AV38
217	217		D2_MACT_B
219	219		AU37
220	220		D2_MBGO
221	221		AU39
222	222		D2_MALERT_B
225	225		AT37
226	226		D2_MA12
227	227		AR37
228	228		D2_MA11
231	231		AU39
232	232		D2_MA09
235	235		AR38
236	236		D2_MA07
237	237		AP39
238	238		D2_MA08
240	240		AP37
243	243		D2_MA05
244	244		AN37
245	245		D2_MA06
246	246		AN38
249	249		D2_MA04
251	251		D2_MA03
252	252		AM39
253	253		D2_MA02
254	254		AN39
257	257		D2_MA01
258	258		AL37
259	259		D2_MCK0
260	260		AK38
261	261		D2_MCK1
262	262		AL38
263	263		D2_MCK0_B
264	264		AK39
265	265		D2_MCK1_B
266	266		AC39
267	267		D2_MPAB
268	268		AG38
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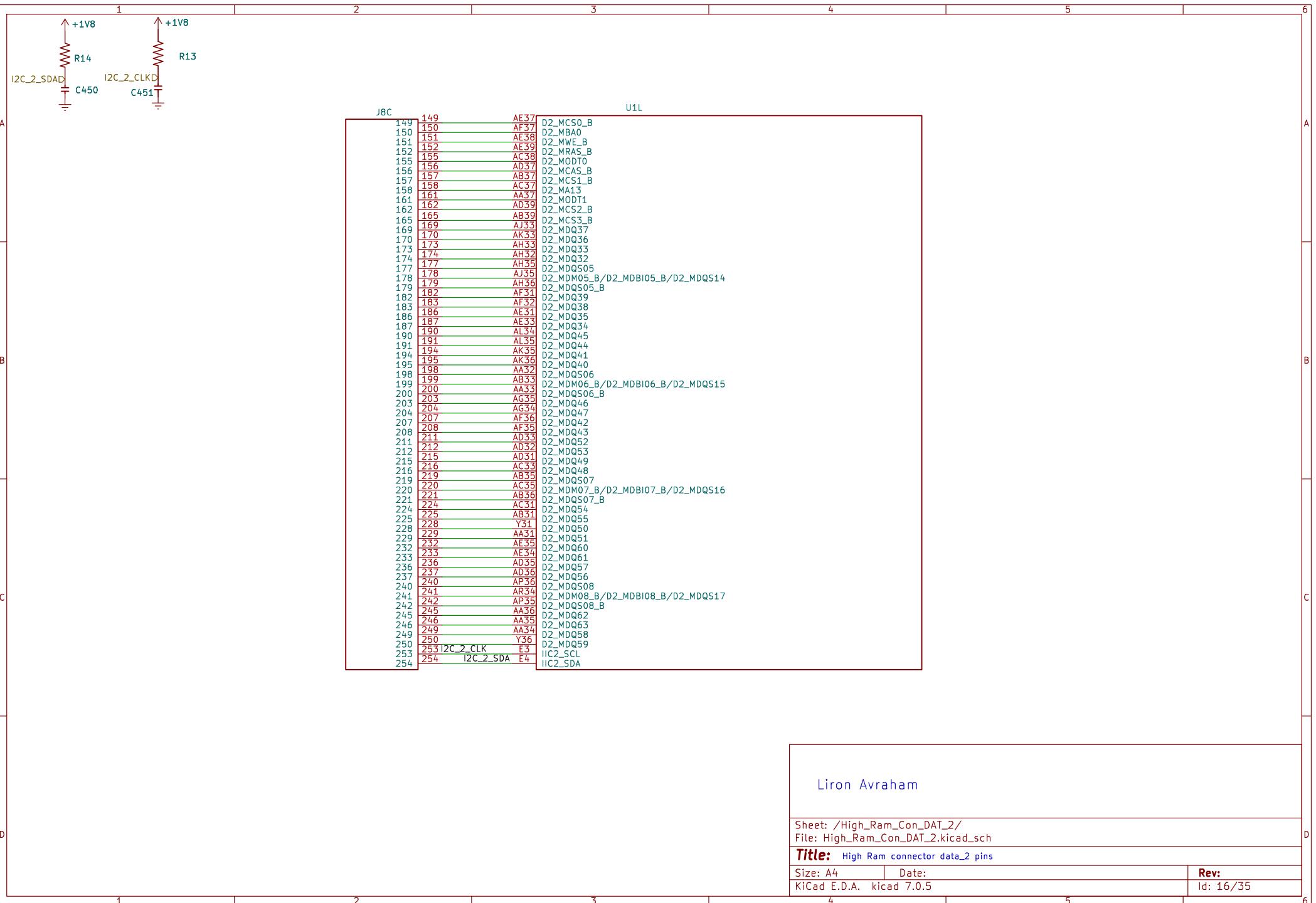
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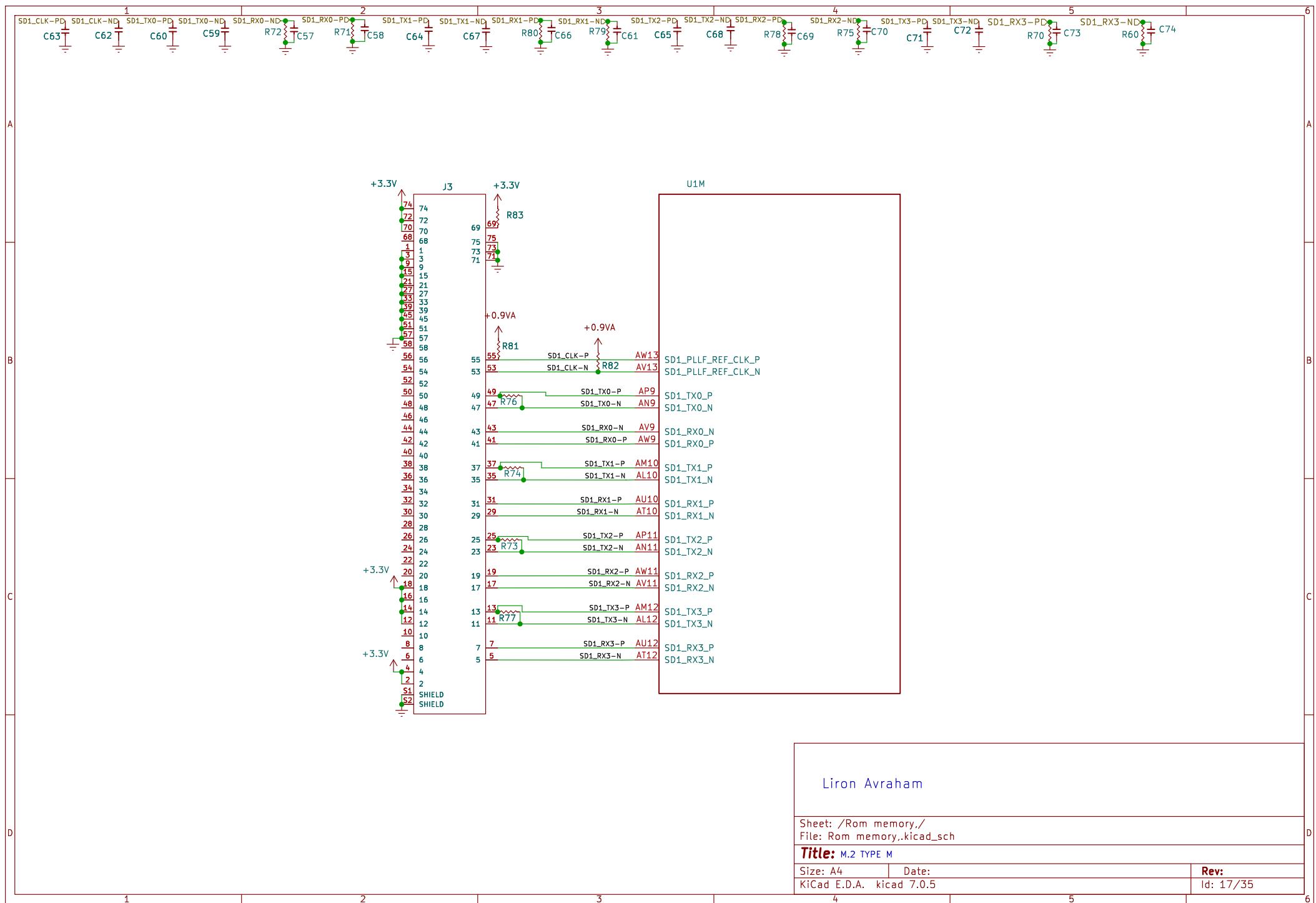
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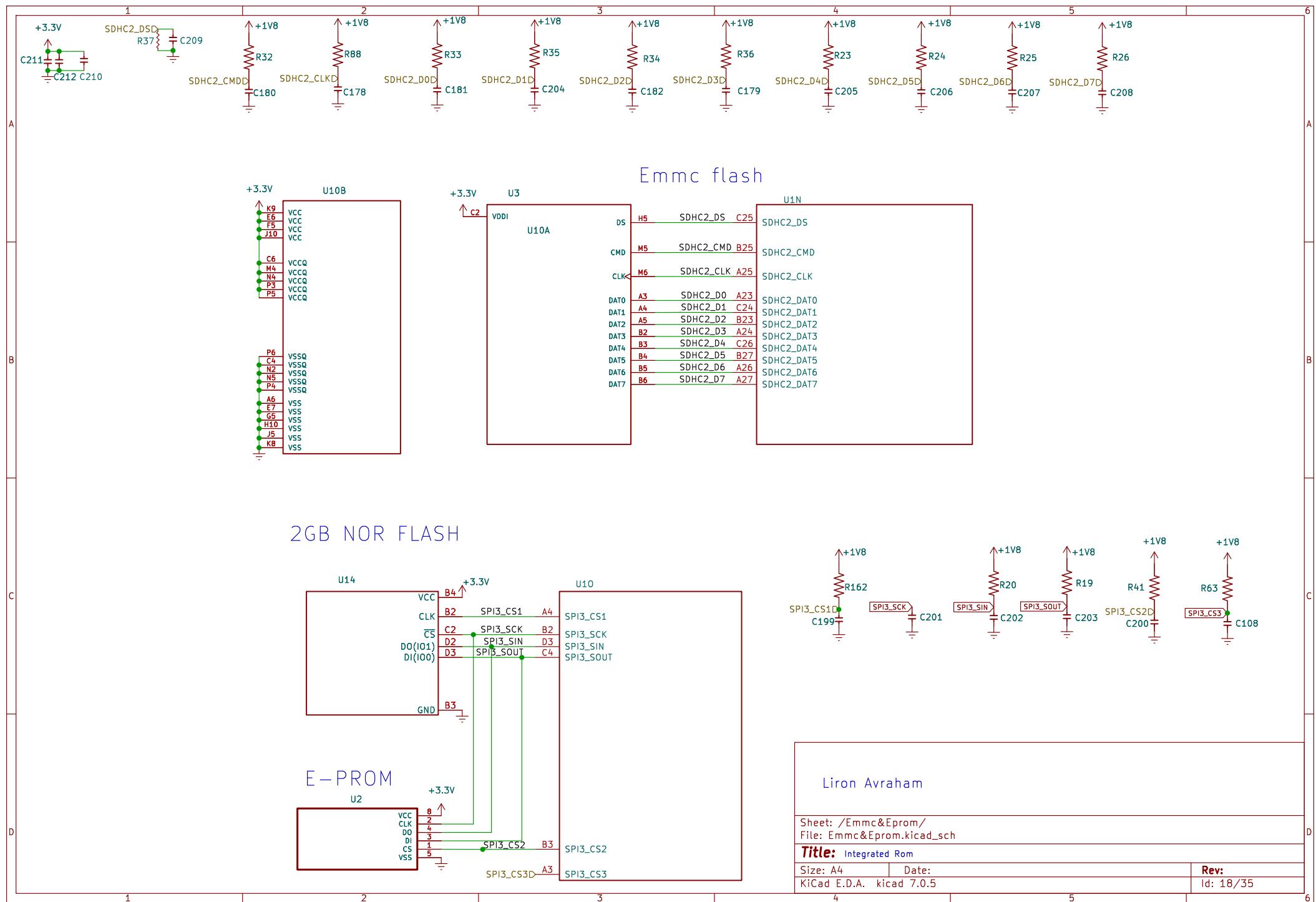
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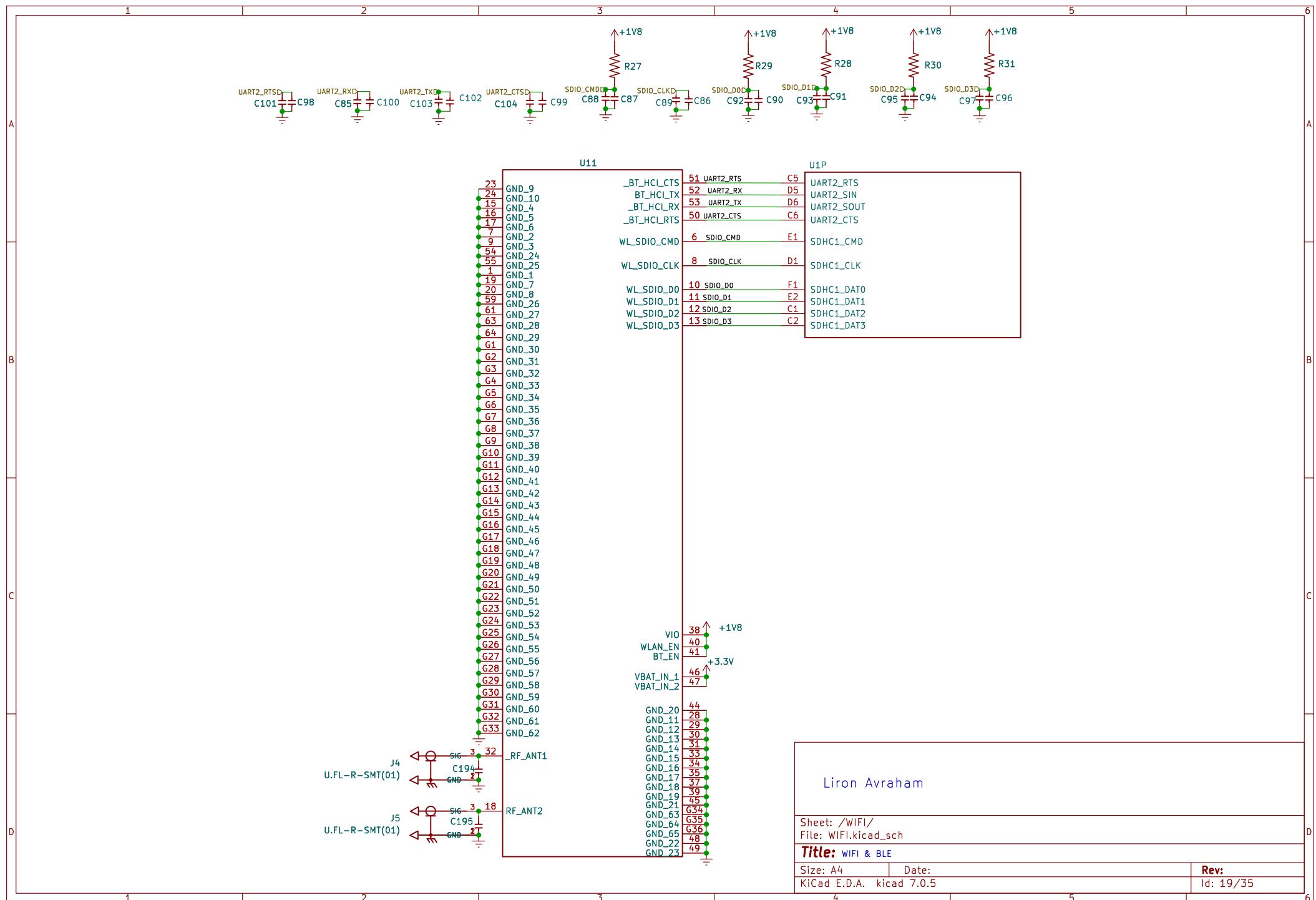
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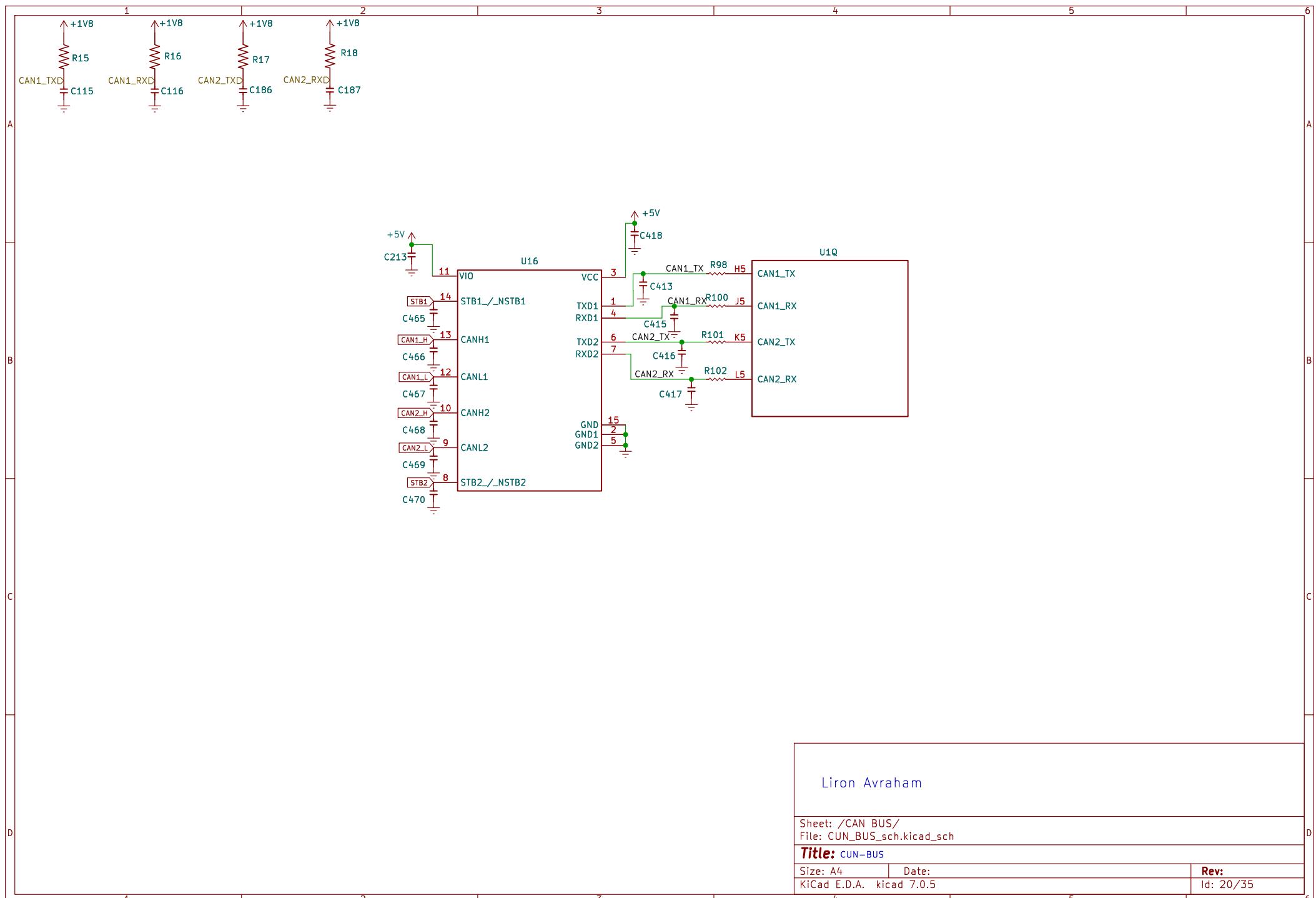
Rev: Id: 15/35











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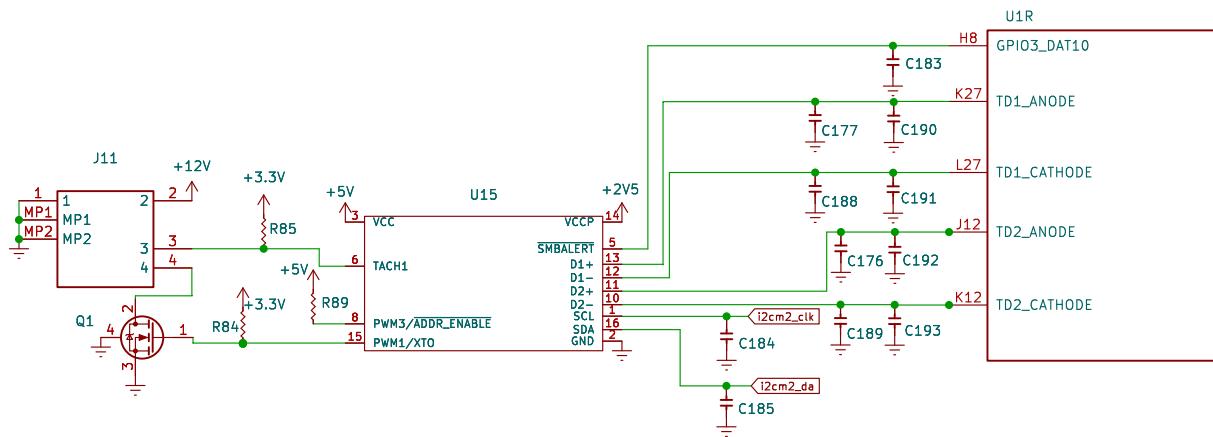
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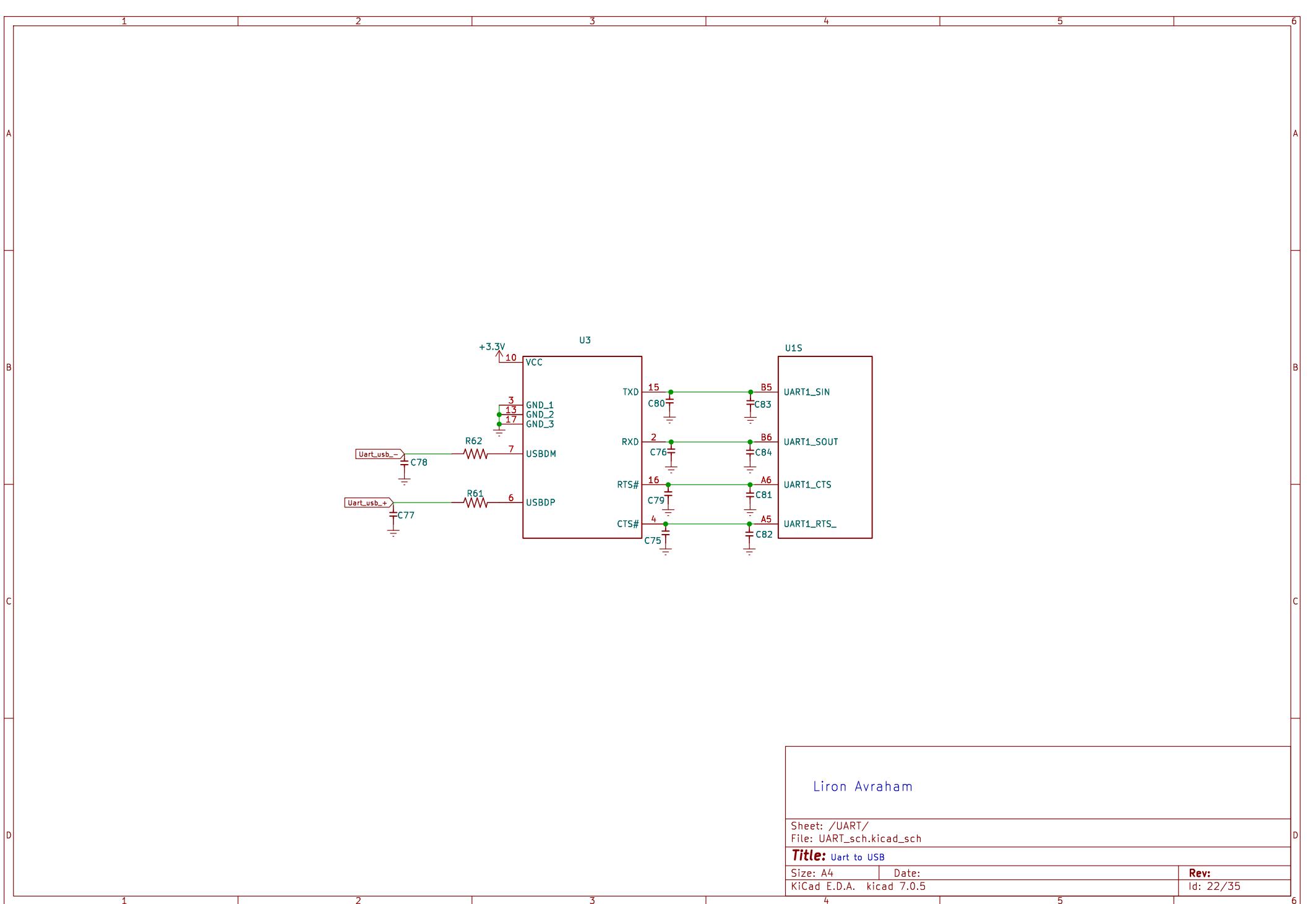
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Id: 21/35

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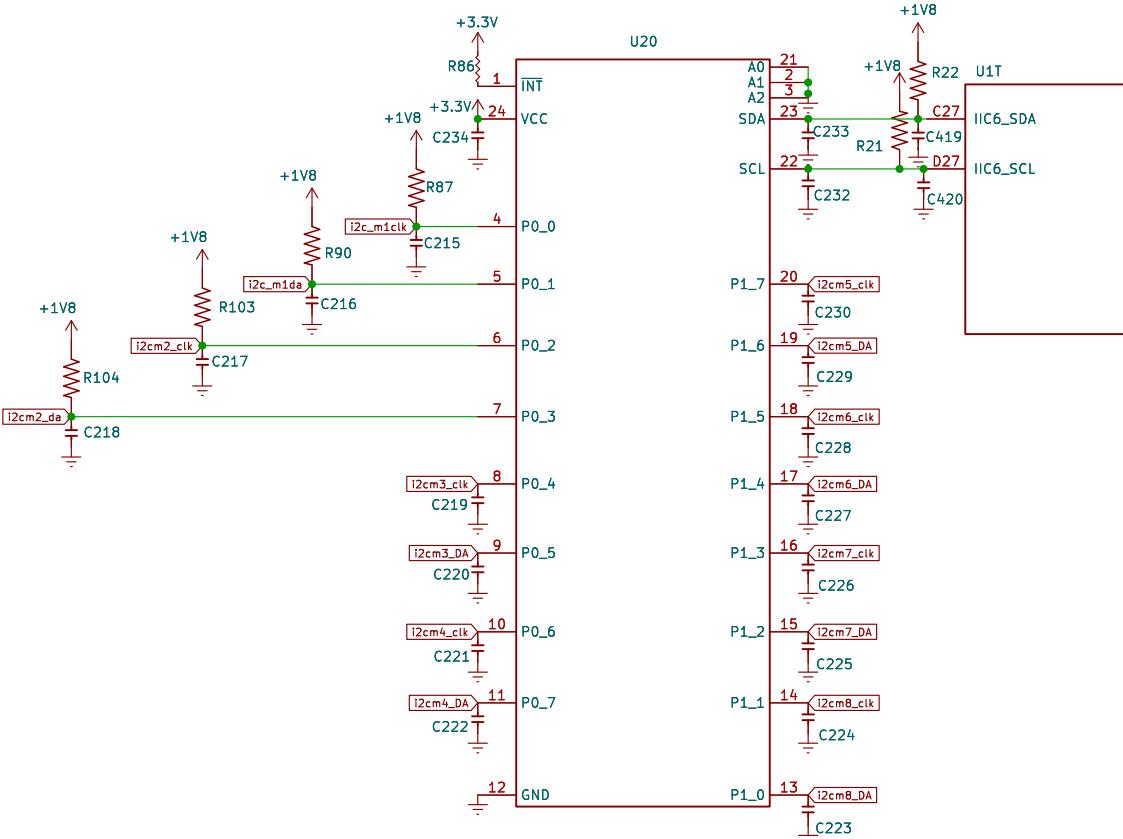
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Id: 22/35

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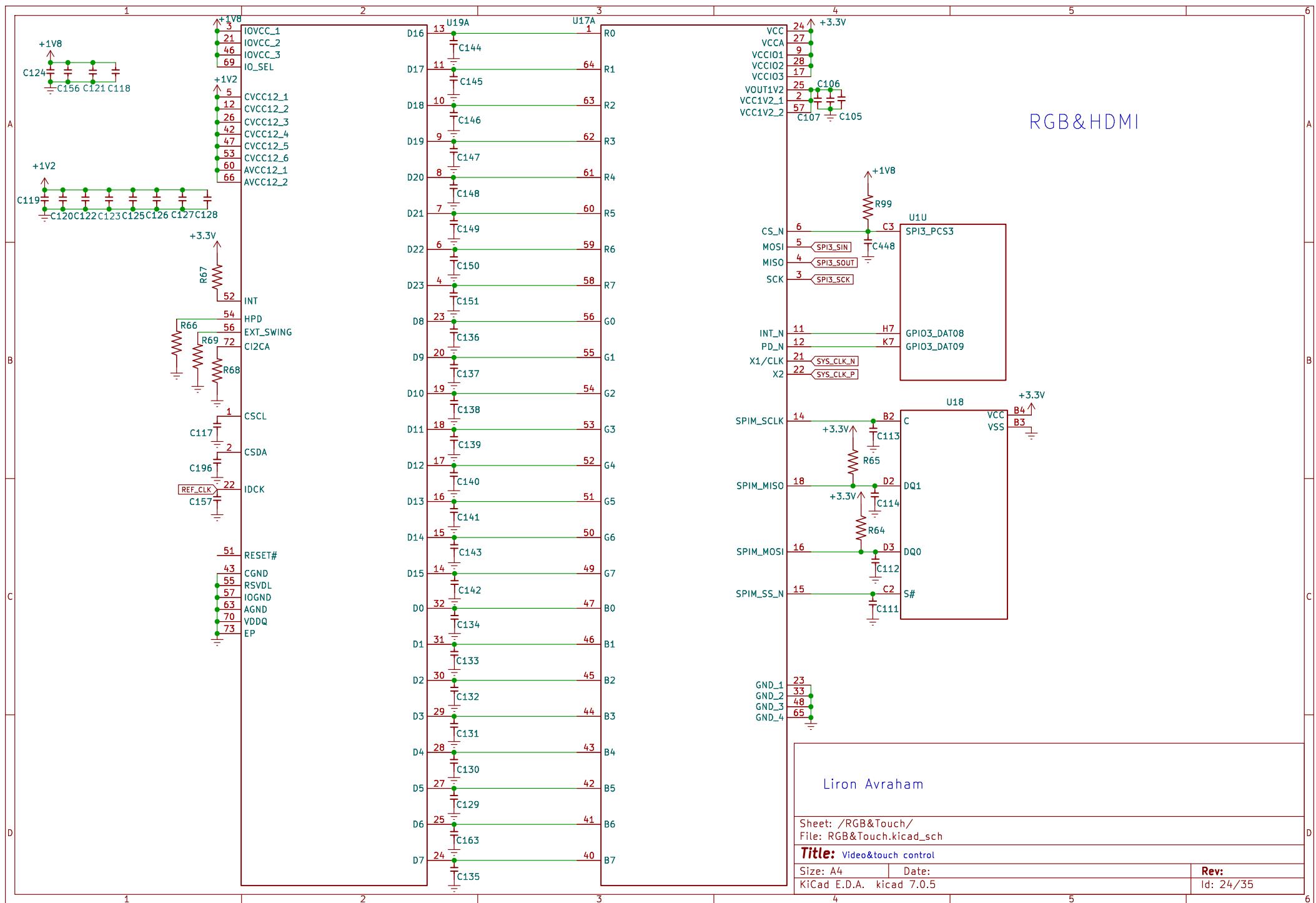
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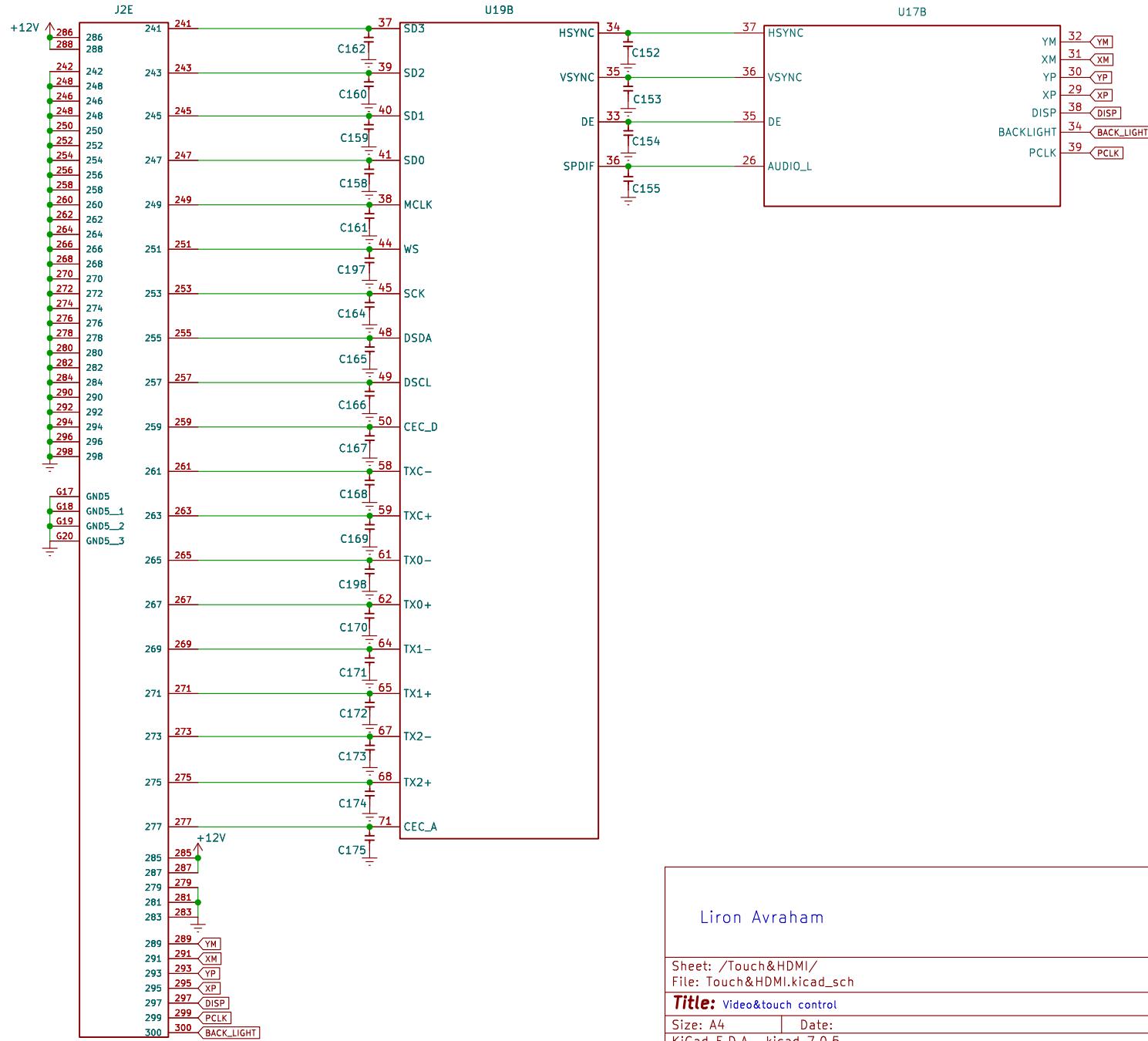
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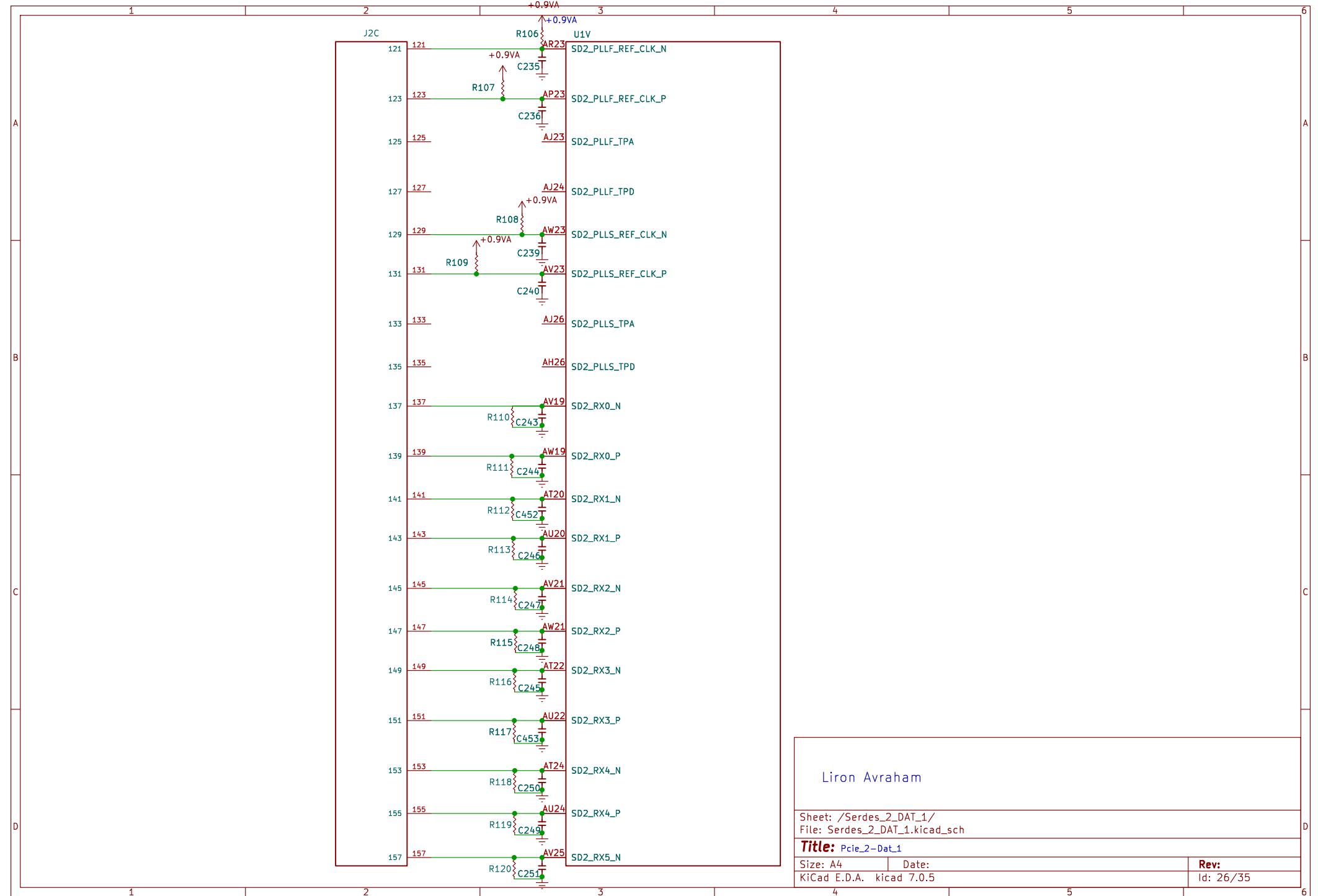
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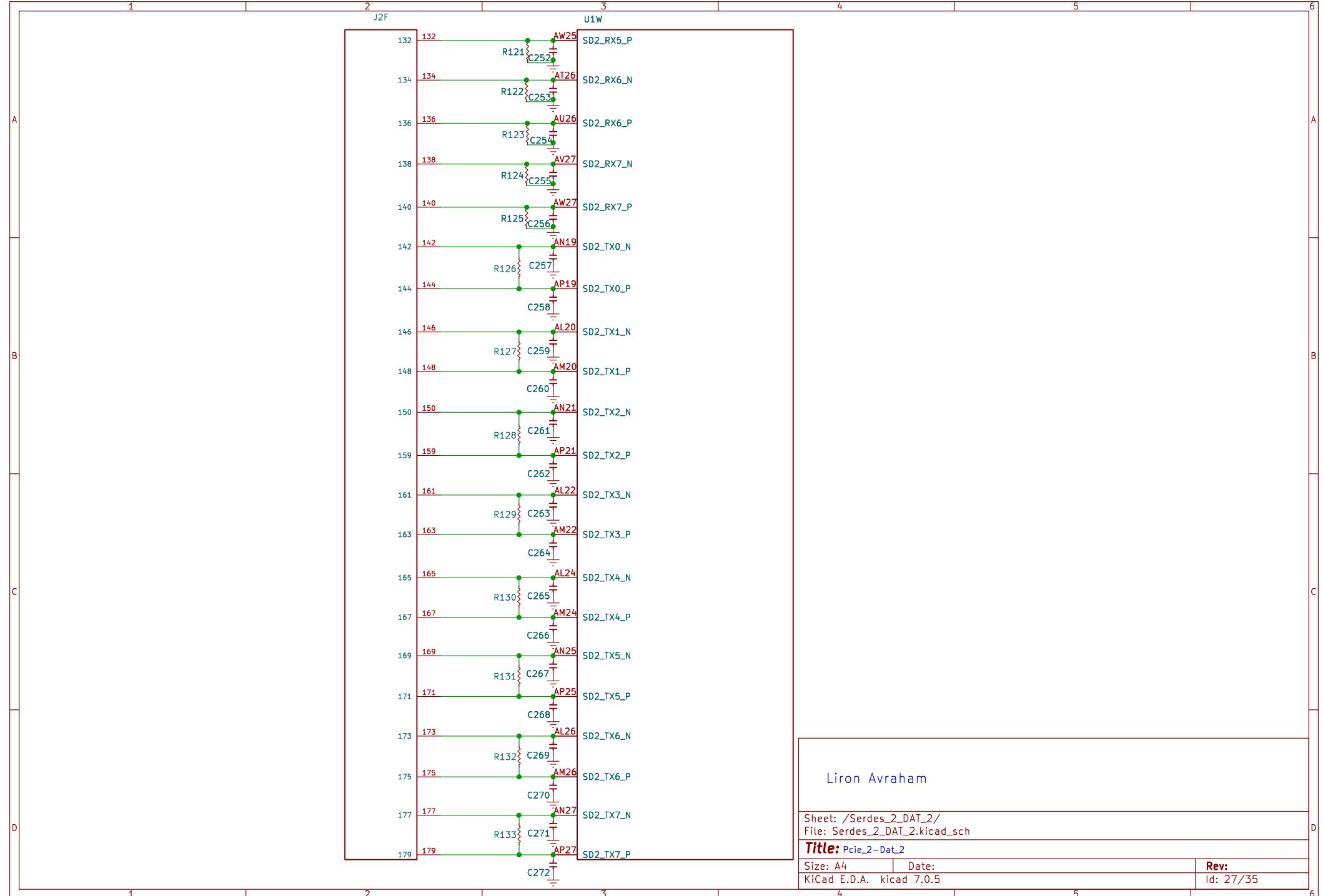
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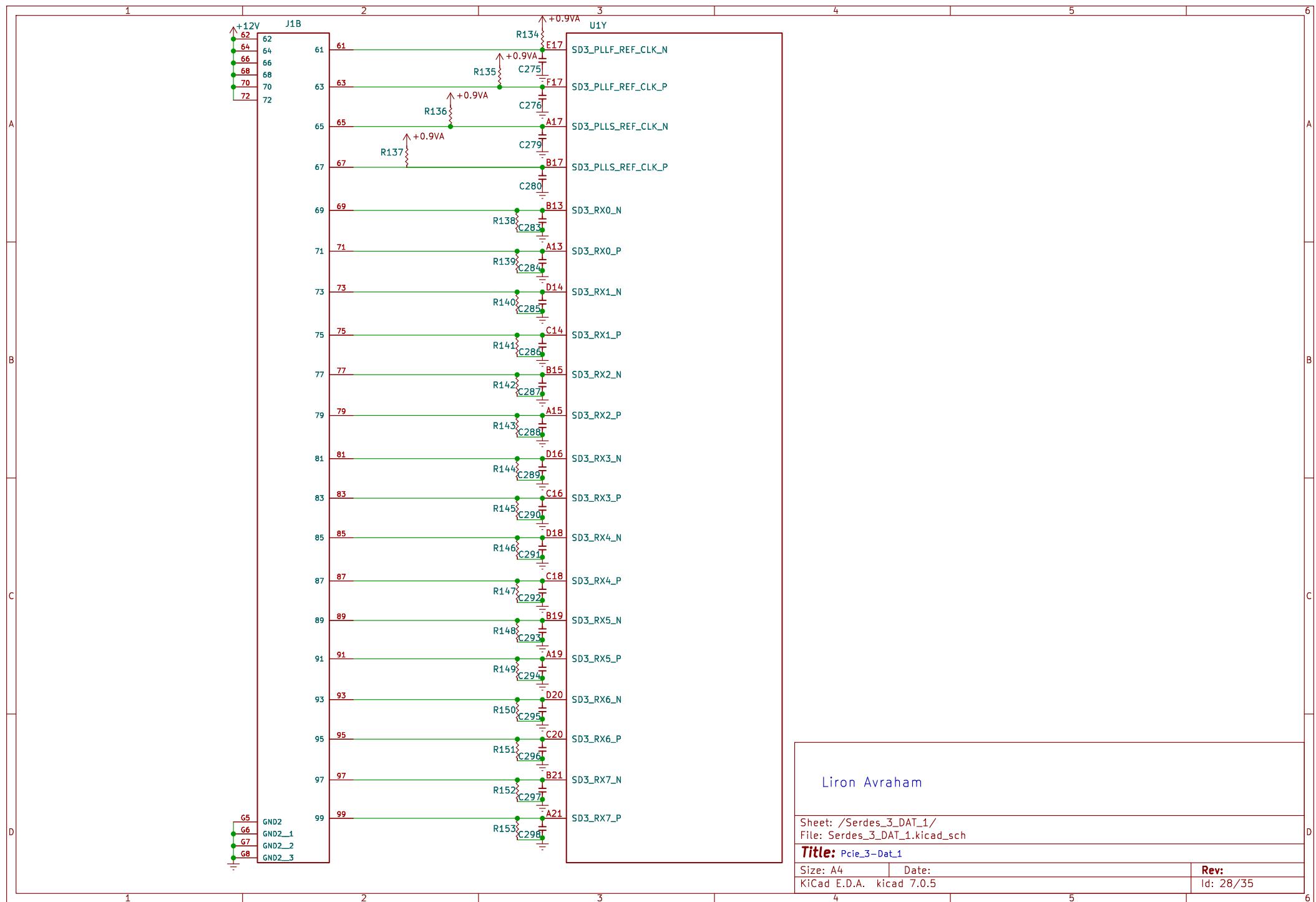
Rev:
Id: 25/35

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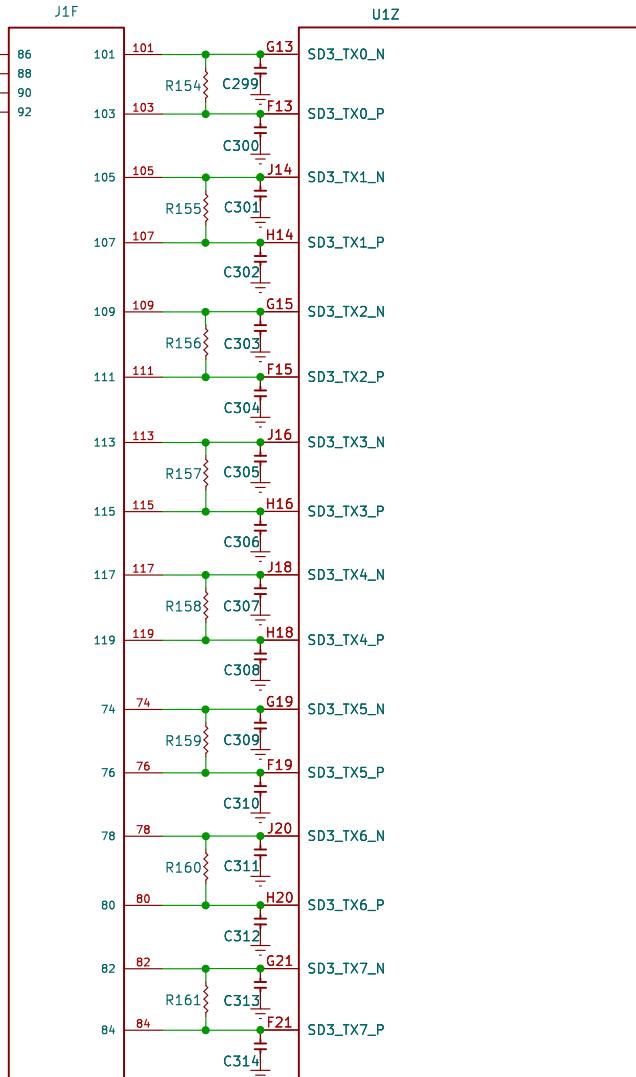
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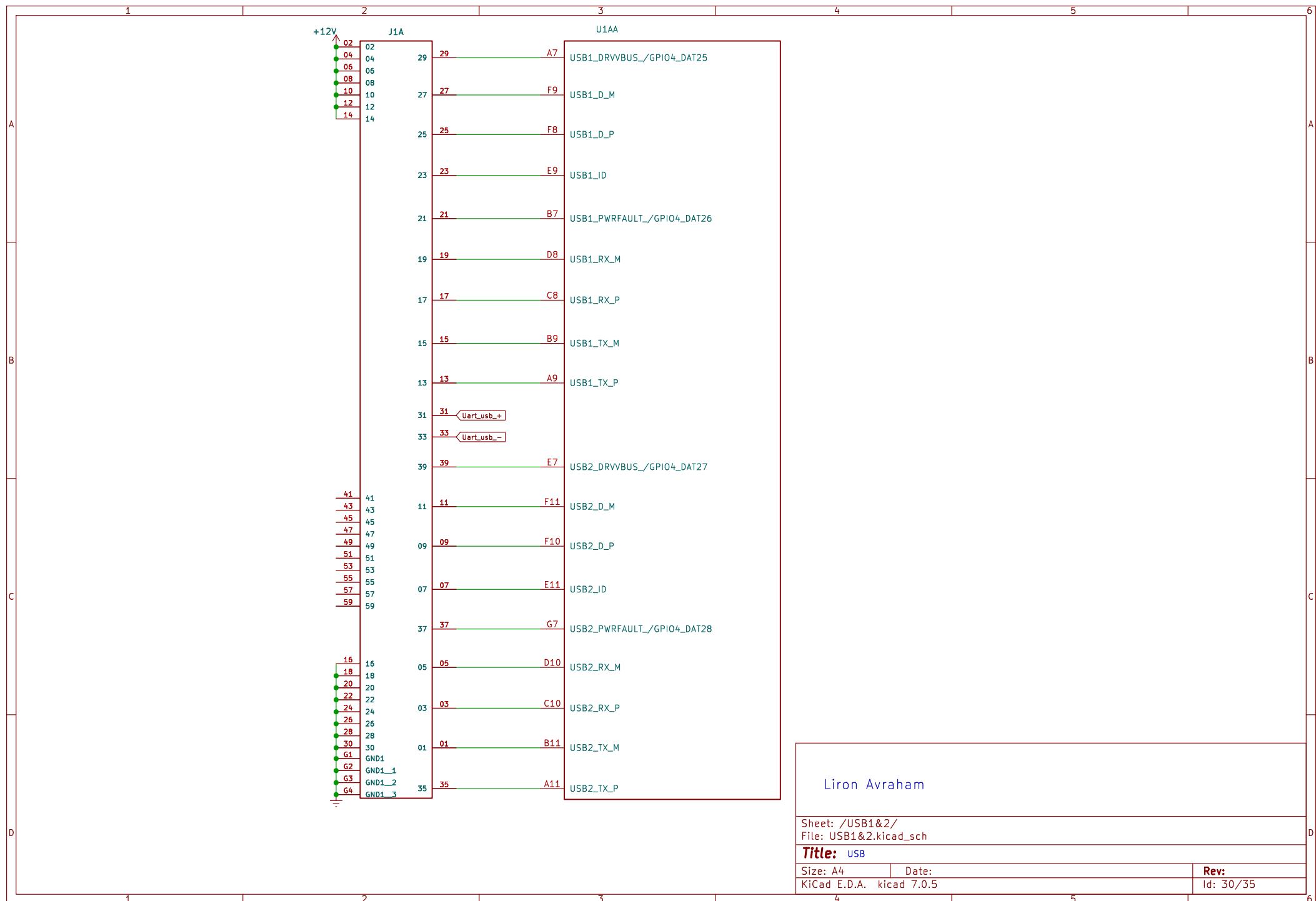
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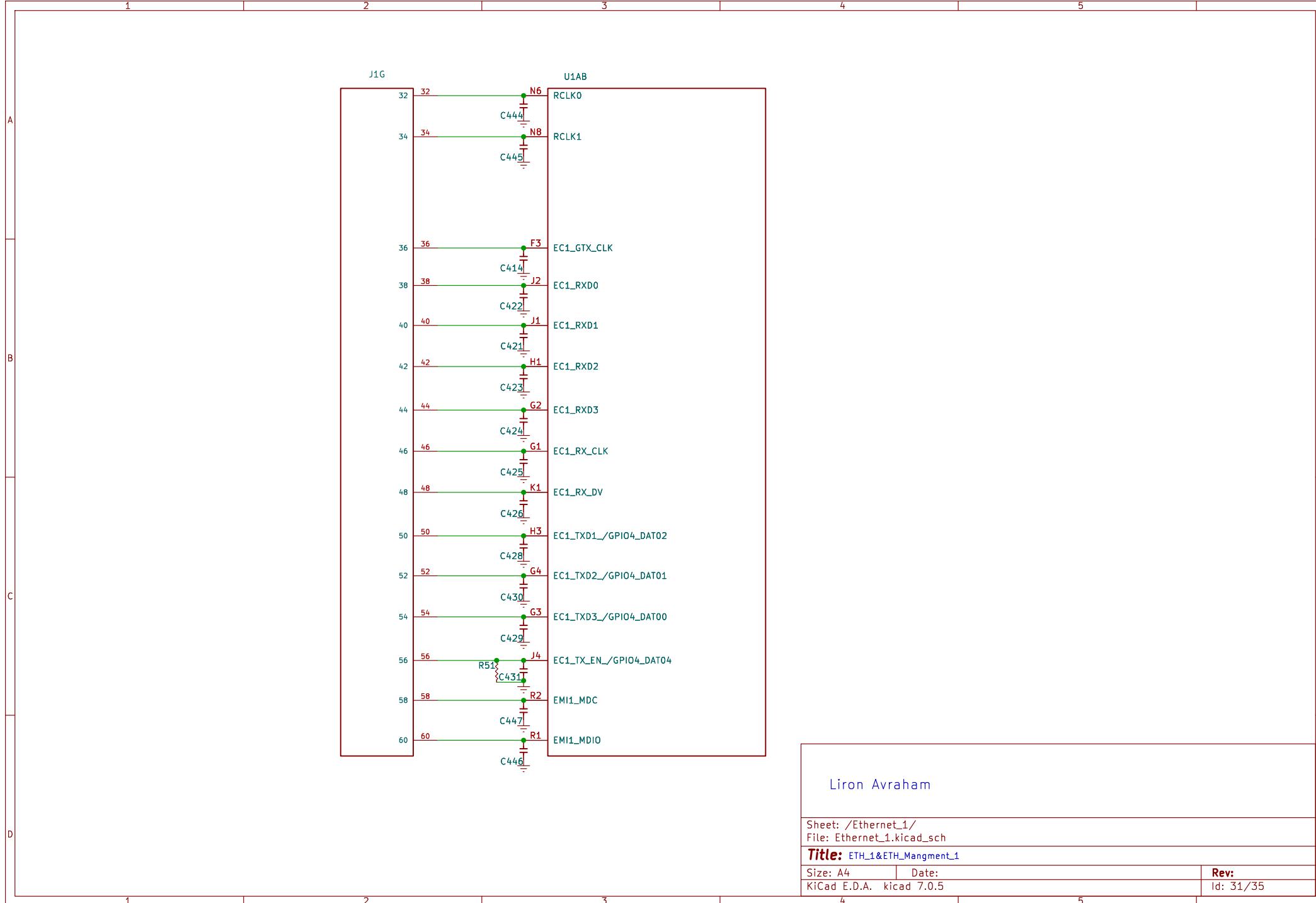
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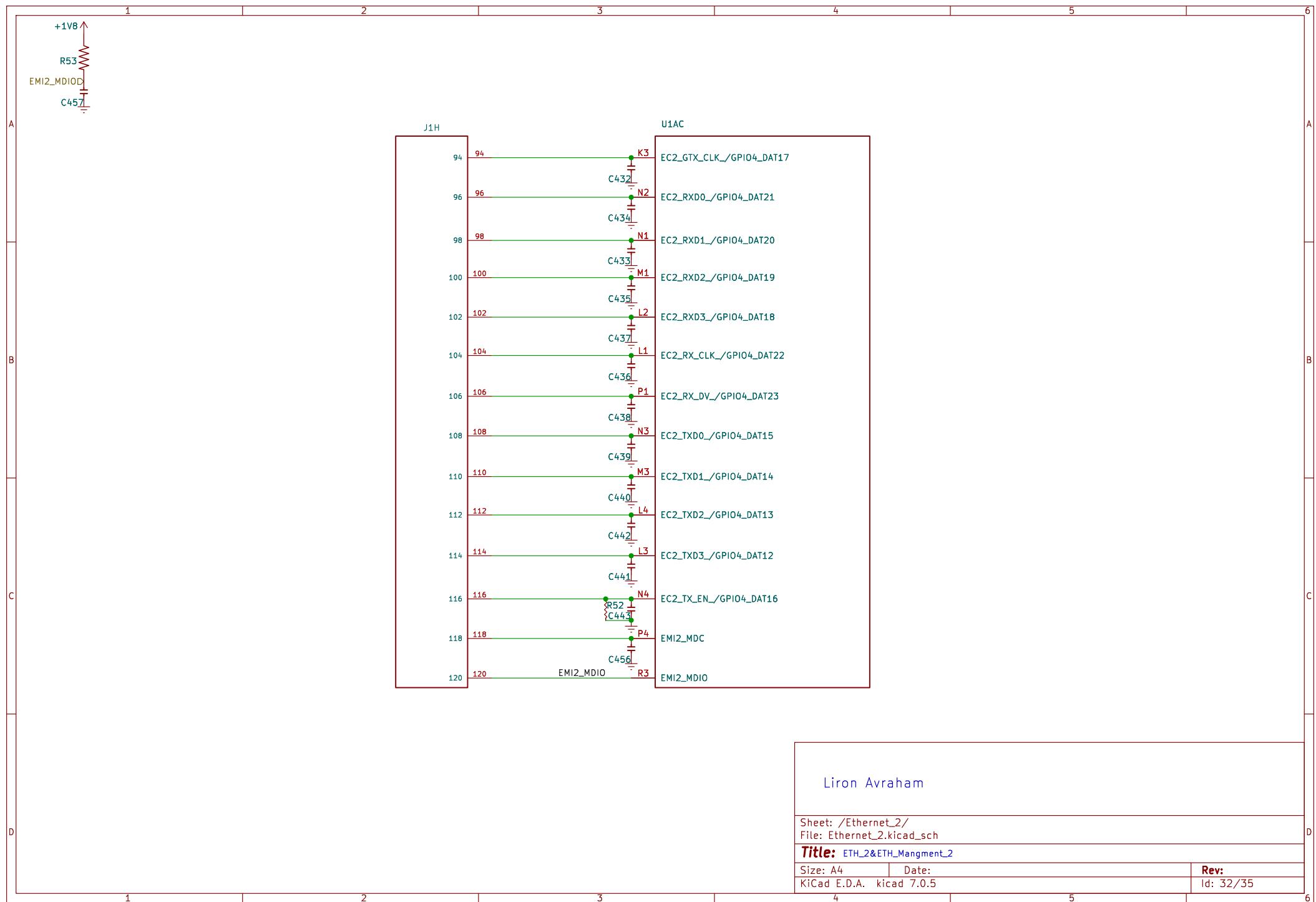
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Rev:
Id: 29/35







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Id: 32/35

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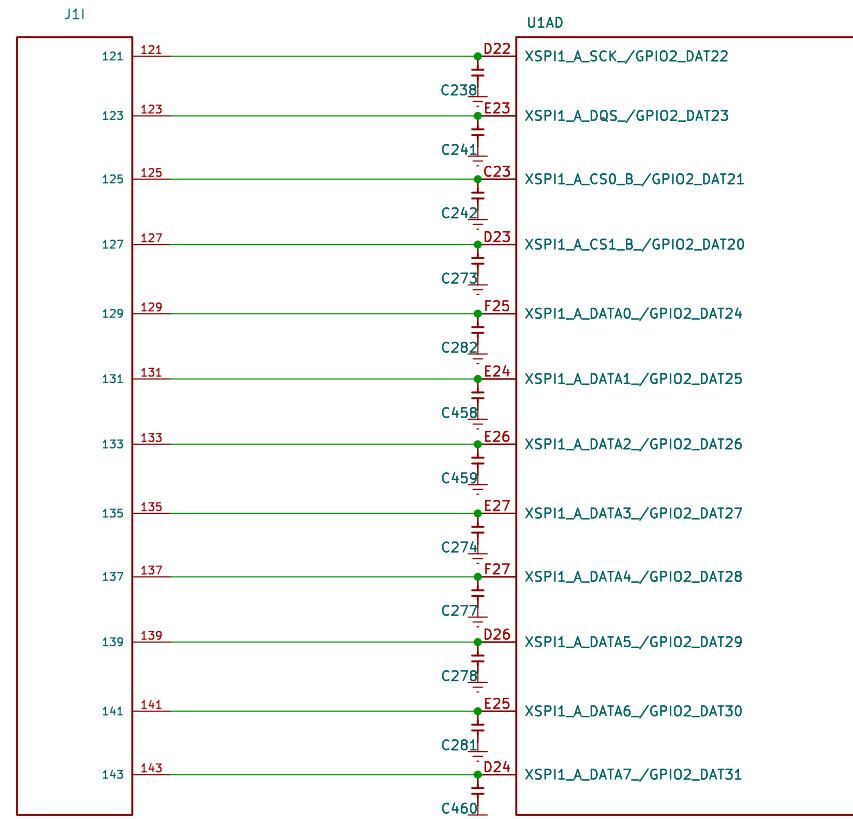
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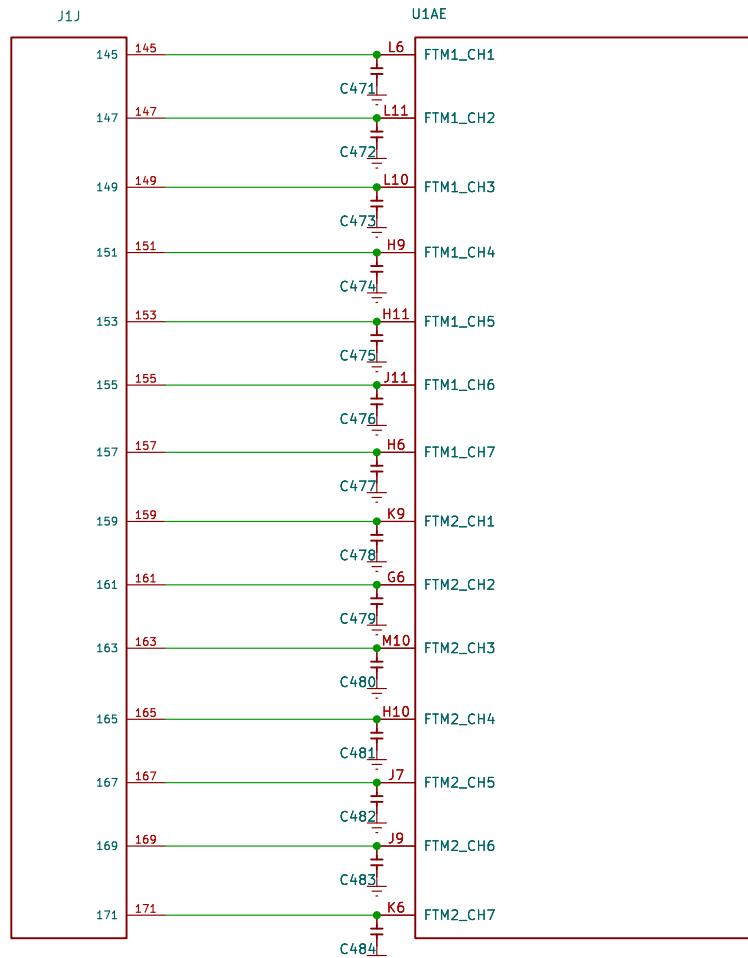
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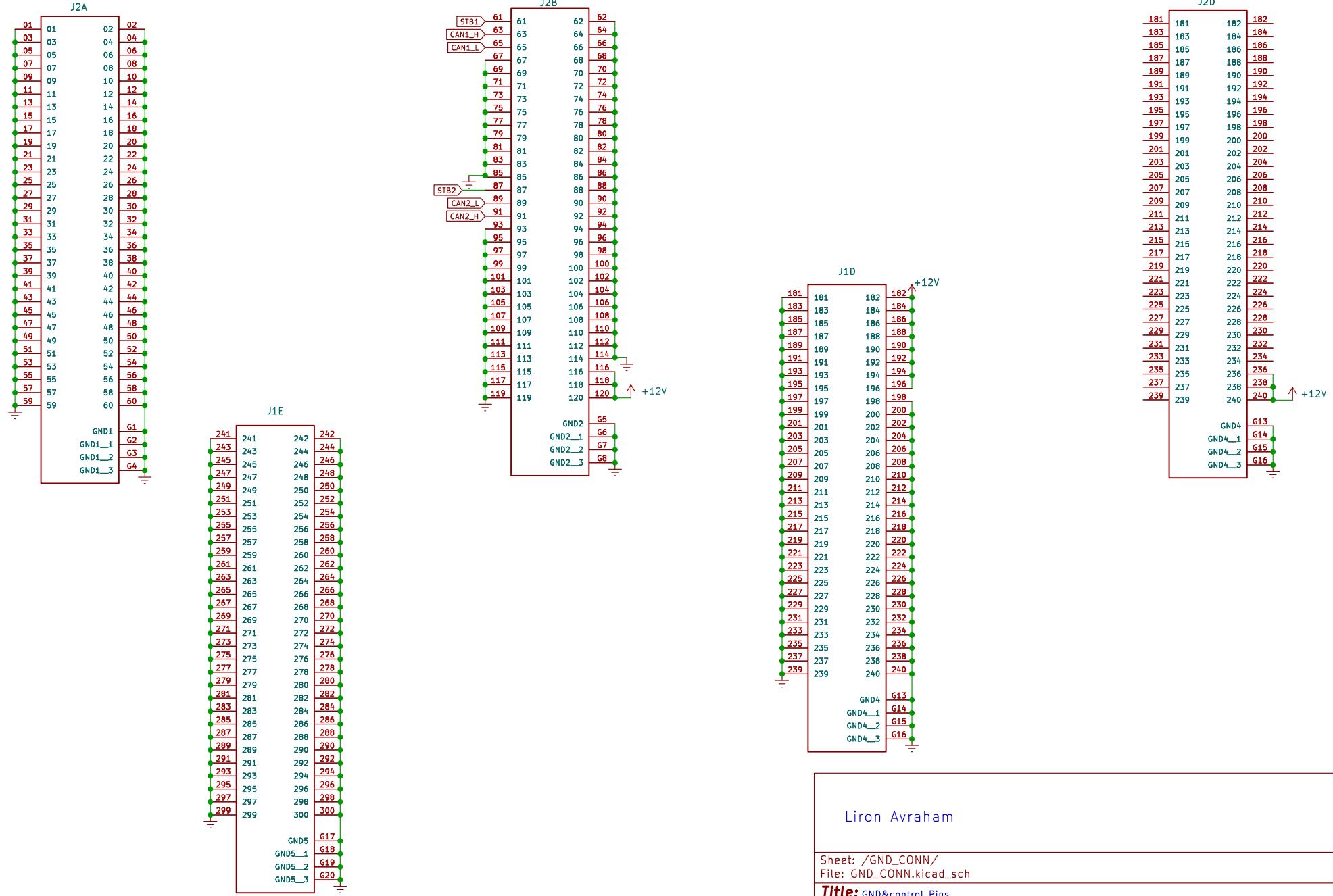
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Sheet: /GND_CONN/
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Title: GND&control Pins

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